

DAVID Y. IGE
GOVERNOR OF HAWAII



STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES

STATE HISTORIC PRESERVATION DIVISION
KAKUHIHEWA BUILDING
601 KAMOKILA BLVD, STE 555
KAPOLEI, HAWAII 96707

CARTY S. CHANG
INTERIM CHAIRPERSON
BOARD OF LAND AND NATURAL RESOURCES
COMMISSION ON WATER RESOURCE MANAGEMENT

DANIEL S. QUINN
INTERIM FIRST DEPUTY

W. ROY HARDY
ACTING DEPUTY DIRECTOR - WATER

AQUATIC RESOURCES
BOATING AND OCEAN RECREATION
BUREAU OF CONVEYANCES
COMMISSION ON WATER RESOURCE MANAGEMENT
CONSERVATION AND COASTAL LANDS
CONSERVATION AND RESOURCES ENFORCEMENT
ENGINEERING
FORESTRY AND WILDLIFE
HISTORIC PRESERVATION
KAHOOLAWE ISLAND RESERVE COMMISSION
LAND
STATE PARKS

February 27, 2015

Bert Ratte, Civil Engineer
County of Maui, Department of Public Works - DSA
Via email to: Bert.Ratte@co.maui.hi.us

LOG NO: 2015.00779
DOC NO: 1502MD44
Archaeology

Aloha Mr. Ratte,

**SUBJECT: Chapter 6E-42 Historic Preservation Review
Building and Grading & Grubbing Permits for a Residence and Driveway for
Evans Holdings, LLC (B T2014/1691, G T2015/0017)
Mo'omuku Ahupua'a, Makawao District, Island of Maui
TMK (2) 2-1-005:135 (por.)**

Thank you for the opportunity to comment on the aforementioned permit applications, which were received on February 24, 2015. We are in the process of determining mitigation for archaeological sites identified on this parcel, as detailed below. We have previously provided two review letters to DSA which included this parcel (*Log No. 20144.05637, Doc No. 1502MD37* and *Log No. 2014.05598, Doc No. 1502MD42*).

Parcel 135 was subject to two archaeological inventory surveys, each covering a portion of the property (Perzinski and Dega December 2014, a and b). Fifty new historic properties were identified during these two surveys, one of which (2014a) also included parcels 134 and 136. That archaeological inventory survey remains under review, and archaeological preservation plans and data recovery plans are pending submission for SHPD review and approval.

Archaeological mitigation, including preservation and/or data recovery or no further work, have been agreed upon for the majority of these sites, but mitigation for five of the sites – State Inventory of Historic Places (SHIP) numbers 50-50-14-7894, 7899, 7906 and 7918 have yet to be determined. Those five sites are located in either parcel 135, or 134/136. For the sites that can be positively identified as located within parcel 135, there is one which will be subject to data recovery (SIHP 7923) and that will be subject to permanent preservation (SIHP 7932). All SIHP sites need to be documented on the plan map(s) in order to determine the potential historic property effects of the proposed construction work.


Regarding the permit for the driveway, the County cover sheet identifies the subject area as parcel 135. The archaeological inventory survey for the driveway, which is currently under review, identifies the driveway as parcel 026. The plan maps submitted by the County for our review appear to show the easement for the driveway crossing parcels 2-1-005:008, 024, 079, 129, 131, 132 and 137 and show impacts to various walls for the driveway and a related water retention basin.

Because the online TMK maps available on the County website (<http://www.maui-county.gov/DocumentCenter/Index/135>) have not been updated to show recent TMK changes numbered over parcel 079 in the area of potential effect, we are unable to determine which ones are correct. The subject parcel(s) TMK will need to be clarified for our review of the building and grading & grubbing permits.

At this time we can say that historic properties are present within the project area, and mitigation commitments are not yet finalized. We will copy you on future correspondence regarding the historic preservation status of the subject parcel(s).

Please contact me at (808) 243-4641 or Morgan.E.Davis@hawaii.gov if you have any questions or concerns regarding this letter.

Mahalo,


Morgan E. Davis
Lead Archaeologist, Maui Section

cc: County of Maui
Department of Planning
(Planning@co.maui.hi.us)

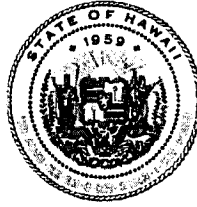
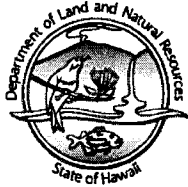
Mr. Stacy Otomo
Otomo Engineering, Inc.
(stacy@otomoengineering.com)

County of Maui
Department of Public Works – DSA
(Renee.Segundo@co.maui.hi.us)

Mr. Dave Ward
Frampton & Ward, LLC
(dave@fwmaui.com)

County of Maui
Cultural Resources Commission
(Annalise.Kehler@co.maui.hi.us)

DAVID Y. IGE
GOVERNOR OF HAWAII



STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES

STATE HISTORIC PRESERVATION DIVISION
KAKUHIHEWA BUILDING
601 KAMOKILA BLVD, STE 555
KAPOLEI, HAWAII 96707

CARTY S. CHANG
INTERIM CHAIRPERSON
BOARD OF LAND AND NATURAL RESOURCES
COMMISSION ON WATER RESOURCES MANAGEMENT

DANIEL S. QUINN
INTERIM FIRST DEPUTY

W. ROY HARDY
ACTING DEPUTY DIRECTOR - WATER

AQUATIC RESOURCES
BOATING AND OCEAN RECREATION
BUREAU OF CONVEYANCES
COMMISSION ON WATER RESOURCE MANAGEMENT
CONSERVATION AND COASTAL LANDS
CONSERVATION AND RESOURCES ENFORCEMENT
ENGINEERING
FORESTRY AND WILDLIFE
HISTORIC PRESERVATION
KAHOOLAWE ISLAND RESERVE COMMISSION
LAND
STATE PARKS

February 27, 2015

Bert Ratte, Civil Engineer
County of Maui, Department of Public Works - DSA
Via email to: Bert.Ratte@co.maui.hi.us

LOG NO: 2015.00779
DOC NO: 1502MD44
Archaeology

Aloha Mr. Ratte,

**SUBJECT: Chapter 6E-42 Historic Preservation Review
Building and Grading & Grubbing Permits for a Residence and Driveway for
Evans Holdings, LLC (B T2014/1691, G T2015/0017)
Mo'omuku Ahupua'a, Makawao District, Island of Maui
TMK (2) 2-1-005:135 (por.)**

Thank you for the opportunity to comment on the aforementioned permit applications, which were received on February 24, 2015. We are in the process of determining mitigation for archaeological sites identified on this parcel, as detailed below. We have previously provided two review letters to DSA which included this parcel (*Log No. 20144.05637, Doc No. 1502MD37* and *Log No. 2014.05598, Doc No. 1502MD42*).

Parcel 135 was subject to two archaeological inventory surveys, each covering a portion of the property (Perzinski and Dega December 2014, a and b). Fifty new historic properties were identified during these two surveys, one of which (2014a) also included parcels 134 and 136. That archaeological inventory survey remains under review, and archaeological preservation plans and data recovery plans are pending submission for SHPD review and approval.

Archaeological mitigation, including preservation and/or data recovery or no further work, have been agreed upon for the majority of these sites, but mitigation for five of the sites – State Inventory of Historic Places (SHIP) numbers 50-50-14-7894, 7899, 7906 and 7918 have yet to be determined. Those five sites are located in either parcel 135, or 134/136. For the sites that can be positively identified as located within parcel 135, there is one which will be subject to data recovery (SIHP 7923) and that will be subject to permanent preservation (SIHP 7932). All SIHP sites need to be documented on the plan map(s) in order to determine the potential historic property effects of the proposed construction work.

Regarding the permit for the driveway, the County cover sheet identifies the subject area as parcel 135. The archaeological inventory survey for the driveway, which is currently under review, identifies the driveway as parcel 026. The plan maps submitted by the County for our review appear to show the easement for the driveway crossing parcels 2-1-005:008, 024, 079, 129, 131, 132 and 137 and show impacts to various walls for the driveway and a related water retention basin.


Because the online TMK maps available on the County website (<http://www.maui-county.gov/DocumentCenter/Index/135>) have not been updated to show recent TMK changes numbered over parcel 079 in the area of potential effect, we are unable to determine which ones are correct. The subject parcel(s) TMK will need to be clarified for our review of the building and grading & grubbing permits.

County of Maui, Department of Public Works - DSA
February 27, 2015
Page 2

At this time we can say that historic properties are present within the project area, and mitigation commitments are not yet finalized. We will copy you on future correspondence regarding the historic preservation status of the subject parcel(s).

Please contact me at (808) 243-4641 or Morgan.E.Davis@hawaii.gov if you have any questions or concerns regarding this letter.

Mahalo,


Morgan E. Davis
Lead Archaeologist, Maui Section

cc: County of Maui
Department of Planning
(Planning@co.maui.hi.us)

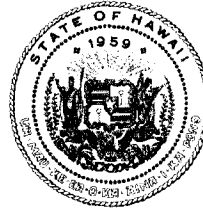
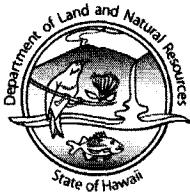
Mr. Stacy Otomo
Otomo Engineering, Inc.
(stacy@otomoengineering.com)

County of Maui
Department of Public Works – DSA
(Renee.Segundo@co.maui.hi.us)

Mr. Dave Ward
Frampton & Ward, LLC
(dave@fwmaui.com)

County of Maui
Cultural Resources Commission
(Annalise.Kehler@co.maui.hi.us)

DAVID Y. IGE
GOVERNOR OF
HAWAII



**STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES**

STATE HISTORIC PRESERVATION DIVISION
KAKUHIHEWA BUILDING
601 KAMOKILA BLVD, STE 555
KAPOLEI, HAWAII 96707

SUZANNE D. CASE
CHAIRPERSON
BOARD OF LAND AND NATURAL RESOURCES
COMMISSION ON WATER RESOURCE MANAGEMENT

ROBERT K. MASUDA
FIRST DEPUTY

JEFFREY T. PEARSON, P.E.
DEPUTY DIRECTOR - WATER

AQUATIC RESOURCES
BOATING AND OCEAN RECREATION
BUREAU OF CONVEYANCES
COMMISSION ON WATER RESOURCE MANAGEMENT
CONSERVATION AND COASTAL LANDS
CONSERVATION AND RESOURCES ENFORCEMENT
ENGINEERING
FORESTRY AND WILDLIFE
HISTORIC PRESERVATION
KAIHŪLAWE ISLAND RESERVE COMMISSION
LAND
STATE PARKS

May 4, 2018

Kamana'opono M. Crabbe, Ph.D.
Ka Pouhana, Chief Executive Officer
Office of Hawaiian Affairs
560 N. Nimitz Hwy., Suite 200
Honolulu, Hawai'i 96817

IN REPLY REFER TO:
Log No. 2018.00964
Doc. No. 1804MBF08
Archaeology

Dear Dr. Crabbe,

**SUBJECT: Chapter 6E-42 Historic Preservation Review –
Request to Re-open the Historic Preservation Review Process for an Archaeological
Inventory Survey Report for Approximately 27 acres in Mākena, and a Data Recovery
Plan for Sites 50-50-14-7891, -7908, -7911, -7914 and Preservation Plan for Sites 50-50-14-
7892, -7917 on Approximately 27-Acres in Mākena
Mo'omoku Ahupua'a, Makawao District, Maui
TMK: (2) 2-1-005:134, 135, 136 (formerly part of TMK: (2) 2-1-005:026)**

Thank you for contacting the State Historic Preservation Division (SHPD) regarding the subject Evans Holdings project and the required Hawaii Revised Statutes (HRS) 6E historic preservation review process. The SHPD received this request on April 2, 2018. The Office of Hawaiian Affairs (OHA) recently contacted the SHPD regarding the subject construction project (Evans Holdings) in Makena and its potential to impact historic and cultural properties of significance to Native Hawaiians.

OHA Requests:

- (1) **Request 1.** The OHA requests that the SHPD re-open the historic preservation review process for the subject archaeological inventory surveys (AIS) and the two agreed-upon project mitigation commitments, archaeological data recovery and archaeological preservation, due to non-compliance with HRS 6E-42 and with Hawai'i Administrative Rules (HAR) §13-284 and HAR §13-276.

OHA's letter indicates that on March 6, 2016, OHA staff participated in a phone meeting with Dr. Fariss. This must be a typographical error, as Dr. Fariss was not employed by the SHPD at that time. Regardless, your letter clarifies issues discussed during a meeting with SHPD and formalizes your request to re-open the historic preservation review process and to facilitate additional consultation with OHA-identified stakeholders.

Additionally, OHA's letter correctly identifies that pursuant to HAR §13-276-5(g), the "[AIS] report shall contain information on the consultation process with individuals knowledgeable about the project area's history, if discussions with the SHPD, background research or public input indicate a need to consult with knowledgeable individuals." In two SHPD reviews of early draft reports of the AIS conducted for the 27 acres of concern in Makena, SHPD requested revisions including discussion of consultation with OHA (August 4, 2014, Log No. 2014.01667, Doc No. 1408MD05; and December 8, 2014, Log No. 2014.05598, Doc No. 1502MD42).

OHA's letter indicates that although SHPD's third review letter (February 26, 2015; Log No. 2014.05598, Doc No. 1502MD42), which is the basis for the current request, does not explicitly include a request for revision to address consultation with OHA. As Site 50-50-14-7892 and Site 50-50-14-7917 are identified as significant under "e;" **consultation with OHA is obligatory**, as stated in the other two SHPD letters. This is true even though they are slated for preservation. In the subject report, the archaeological contractor indicates (see, Significance and Recommendations, p. 113) that a copy of the report was submitted to the OHA in September, 2014, and no response was received. However, no date for submittal to the OHA is provided, and the OHA contends consultation never took place.

A review of SHPD records indicates:

- (1) Two archaeological inventory surveys were conducted within the current subject properties: a 27-acre survey (Perzinski and Dega 2015) within TMK: (2) 2-1-005:134, 135, and 136, and a 7.2-acre survey (Perzinski and Dega, 2014) within TMK: (2) 2-1-005:135.
- (2) **Survey 1.** The Perzinski and Dega (2015) 27-acre AIS documented 36 archaeological historic properties (Sites 50-50-14-7885 through 50-50-14-7920). Four sites (Sites 7891, 7908, 7911 and 7914) were recommended for data recovery, two (Sites 7892 and 7917) were recommended for preservation, and the remaining 30 for no further work. All sites were assessed as significant under criterion "d" for their information content, with two sites (Sites 7892 and 7917) were also considered significant under criterion "e" for their possible ceremonial function. SHPD concurred with these recommendations and that data recovery and preservation plans would be submitted to the SHPD for review and approval pursuant to HAR §13-278 and HAR §13-277, respectively.

The SHPD accepted these recommendations and the final AIS on March 2, 2015 (Log No. 2015.00802, Doc. No. 1503MD02). The SHPD reviewed a combined plan titled *Data Recovery Plan for Sites 50-50-14-7891, -7908, -7911, -7914 and Preservation Plan for Sites 50-50-14-7892, -7917 on Approximately 27-acres in Mākena, Mo'omuku Ahupua'a, Makawao District, Island of Maui, Hawai'i [TMK: (2) 2-1-005:134, 135 por., and 136] (Perzinski and Dega, May 2015)* which was accepted on June 16, 2015 (Log No. 2015.02343, Doc. No. 1506MD19).

Outstanding mitigation required to be completed prior to construction consists of:

- (a) Data recovery of Sites 7891, 7908, 7911, and 7914, and
 - (b) SHPD's acceptance of a data recovery report meeting the requirements of HAR §13-278-4
- (3) **Survey 2.** The Perzinski and Dega (2014) 7.2-acre archaeological inventory survey identified 14 archaeological historic properties. The AIS pertained to permits B T2014/1691, SMX 2015/0030, and/or G 2014/0187. The AIS was accepted by the SHPD in a letter dated February 23, 2015 (Log No. 2014.05637, Doc No. 1502MD37). Of the 14 sites, 12 were recommended for no further work and mitigation commitments were agreed to for two sites, Site 50-50-14-7923 [artifact/midden scatter] would be subject to data recovery and Site 50-50-14-7932 [pre-contact habitation terrace] would be preserved in accordance with an existing approved preservation plan. The data recovery/preservation plan (Perzinski and Dega, May 2015) was accepted by the SHPD in a letter dated June 5, 2015 (Log No. 2015.02187, Doc. No. 1506MD06).

Outstanding mitigation required to be completed prior to construction consists of:

- (c) Data recovery of Site 7923, and
 - (d) SHPD's acceptance of a data recovery report meeting the requirements of HAR §13-278-4
- (2) **Request 2.** On March 27, 2018, the OHA sent a letter to the County of Maui Department of Planning requesting a stop-work order be placed on Building Permit B T2014/1691 and Grading Permit G T2015/0017 due to non-compliance with HRS §6E-42, HAR §13-284, and HAR §13-276 regarding consultation, as described above. The letter was copied to the SHPD.

A review of SHPD records indicates:

- (1) No permit application for D 2015/0072 was submitted by the County to the SHPD for review. Nonetheless, the County of Maui granted the permit prior to receiving a letter from the SHPD indicating that the agreed-upon mitigation had been completed, i.e. SHPD acceptance of a data recovery report for Site 50-50-14-7923. As stated in HAR §13-284-1, this chapter is to promote the use and conservation of historic properties...by articulating a historic preservation review process for projects requiring the approval of a state or county agency for a permit, license, certificate, land use change, subdivision, or other entitlement to use.

Section 6E-42(a), Hawaii Revised Statutes (HRS) states that:

Before any agency or officer of the State or its political subdivisions approves any project involving a permit, license, certificate, land use change, subdivision, or other entitlement for use, which may affect historic property, aviation artifacts, or a burial site, the agency or office shall advise the department and prior to any approval allow the department an opportunity for review and comment on the effect of the proposed project on historic properties, aviation artifacts, or burial sites, consistent with section 6E-43, including those listed in the Hawaii register of historic places.

The D 2015/0072 permit for construction of a “driveway” was closed on April 11, 2018. It is no longer possible for the County to satisfy the statutory requirement that the activity subject to permit requirements be reviewed and commented upon by the SHPD prior to issuance of the permit by the County. Consequently, the applicant has foreclosed the State’s opportunity to comment on the permitted activity. It is impossible for the SHPD to provide meaningful comments regarding this permit under these circumstances.

- (2) A search of Maui County’s *KiviNet* system on April 12, 2018 indicated that several permits are open for the project located at TMK: (2) 2-1-005:135, including G 2015/0117, G 2016/0205, and G 2017/0149.

SHPD will request the following of the County of Maui:

- (1) The County issue stop-work order(s) for all project-related construction on the subject parcels until the required consultation with OHA is conducted and the agreed-upon mitigation requirements are met:
 - a) The project proponent, and the contracted archaeology firm, engage OHA in consultation regarding the two sites slated for preservation (Site 50-50-14-7892 and Site 50-50-14-7917), and
 - b) SHPD receives an addendum to the AIS that details the consultation effort and outcome.
 - c) Data recovery of Sites 7891, 7908, 7911, and 7914, is completed, including SHPD’s acceptance of a data recovery report meeting the requirements of HAR §13-278-4
 - d) Data recovery of Site 7923 is completed, including SHPD’s acceptance of a data recovery report meeting the requirements of HAR §13-278-4
- (2) The County not issue permits or, if already issued, to issue stop-work orders on each of the open permits (including G 2015/0117, G 2016/0205, and G 2017/0149) until the historic preservation review process is properly concluded for the outstanding AIS requirement of consultation with OHA and until the outstanding mitigation data recovery requirements are met.

You may contact Dr. Matthew Barker Fariss at matthew.b.fariss@hawaii.gov, or at (808) 243-4626, for any questions regarding this letter.

Aloha,
Alan Downer

Alan S. Downer, PhD
Administrator, State Historic Preservation Division
Deputy State Historic Preservation Officer

Mr. Crabbe
May 4, 2018
Page 2

cc: William Spence, Director
County of Maui
Department of Planning
planning@mauicounty.gov

Lauren Morawski, Compliance Archaeologist
Office of Hawaiian Affairs
laurenm@oha.org

Michael Dega, Senior Archaeologist
Scientific Consultant Services, Inc. (SCS)
mike@scshawaii.com

Suzanne D. Case, Chair
Department of Land and Natural Resources
Suzanne.case@hawaii.gov

NEIL ABERCROMBIE
GOVERNOR OF HAWAII



WILLIAM J. AHL, JR.
CHAIRPERSON
BOARD OF LAND AND NATURAL RESOURCES
COMMISSION ON WATER RESOURCE MANAGEMENT

JESSE K. SOUKI
FIRST DEPUTY

WILLIAM M. TAM
DEPUTY DIRECTOR - WATER

AQUATIC RESOURCES
BOATING AND OCEAN RECREATION
BUREAU OF CONVEYANCES
COMMISSION ON WATER RESOURCE MANAGEMENT
CONSERVATION AND COASTAL LANDS
CONSERVATION AND RESOURCES ENFORCEMENT
ENGINEERING
FORESTRY AND WILDLIFE
HISTORIC PRESERVATION
KAHOOLAWE ISLAND RESERVE COMMISSION
LAND
STATE PARKS

**HISTORIC PRESERVATION DIVISION
DEPARTMENT OF LAND AND NATURAL RESOURCES**

STATE HISTORIC PRESERVATION DIVISION
601 KAMOKILA BOULEVARD, ROOM 555
KAPOLEI, HAWAII 96707

August 4, 2014

Michael Dega, Ph.D.
Scientific Consultant Services, Inc.
Via email to: mike@scs.com

LOG NO: 2014.01667
DOC NO: 1408MD05
Archaeology

Aloha Dr. Dega:

**SUBJECT: Chapter 6E-42 Historic Preservation Review -
Draft Archaeological Inventory Survey for 27 Acres in Makena
Mo'omuku Ahupua'a, Makawao District, Island of Maui
TMK (2) 2-1-005:134, 135 (por.) & 136**

Thank you for the opportunity to review the draft report titled *An Archaeological Inventory Survey Report for Approximately 27-Acres in Makena, Mo'omuku Ahupua'a, Honua'ula District, Island of Maui, Hawai'i [TMK (2) 2-1-005:134, 135 por., and 136]* (Perzinski and Dega April 2014, SCS Project Number 1501a-2), which we received on April 14, 2014. We apologize for the delay in our reply.

This archaeological inventory survey (AIS) was prepared for Evans Holdings, Inc. Fieldwork was conducted from November 15 through December 15, 2013 by four archaeologists including yourself, with you as the Principal Investigator.

Thirty-six new sites, containing a total of 61 features, were documented during fieldwork. A feature of one site, State Inventory of Historic Places 50-50-14-7905, was excavated with a 1x1 meter test unit. The sites were given SIHP numbers 7885-7920. Four sites have been recommended for data recovery, two for preservation, and the remaining 30 for no further work.

At this time, we do not find that the report contains enough of the required information to determine concurrence of either site significance or adequate study; we are requesting revisions in the attachment to this letter. We look forward to reviewing the revised report. Please contact me at (808) 243-4641 or Morgan.E.Davis@hawaii.gov for any concerns about this letter.

Mahalo,

A handwritten signature in cursive script that reads "Morgan E. Davis".

Morgan E. Davis
Lead Archaeologist, Maui Section

ATTACHMENT

*An Archaeological Inventory Survey Report for Approximately 27-Acres in Mākena,
Mo'omuku Ahupua`a, Honua`ula District, Island of Maui, Hawai`i [TMK (2) 2-1-005:134, 135 por., and 136]
Perzinski and Dega April 2014, SCS Project Number 1501a-2*

1. Title page: Here and throughout the document, please revise the District from Honua`ula to Makawao.
2. Abstract: please indicate why this archaeological inventory survey was done – development, another reason?
3. Previous Archaeology, page 21, last paragraph: the text indicates that SCS discovered a burial in 1994 but has not yet requested a site number. Please do so ASAP.
4. Settlement Pattern and Predictive Model, page 26, first sentence: please change the “district of Honua`ula” to “moku.”
 - a. This section is out of date. Please update to include more recent research, including Kirch 2009.
 - b. Page 27: the citation for Perzinski, et al. is incorrect – it is 2014, not 2013 in prep. This also appears incorrectly elsewhere, although it is not included with either date in the References.
 - c. Final paragraph, page 27: in discussing the expectations, what is the basis for inferring that you would expect “more permanent than temporary [habitation]” for this area?
5. Results of Fieldwork: All sites need a plan map, pursuant to HAR § 13-276-5(d)(4)(F). Currently, only three of the 36 sites contain plan maps in this report.
 - a. Please include recommended significance criteria for each site.
 - b. For those sites with multiple features, please identify them on the plan map(s).
6. Significance Recommendations: please include a chart of the sites with their significance pursuant to HAR § 13-276-7.
7. Please note that there is no indication in this report that OHA was consulted regarding the two sites recommended significant under criterion “e”; please include the results of that consultation.
8. References: as stated above, not all references cited in the text appear in the References section; please revise as necessary.

DAVID Y. IGE
GOVERNOR OF HAWAII



**STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES**

STATE HISTORIC PRESERVATION DIVISION
KAKUHIHEWA BUILDING
601 KAMOKILA BLVD, STE 555
KAPOLEI, HAWAII 96707

WILLIAM J. AILA, JR.
CHAIRPERSON
BOARD OF LAND AND NATURAL RESOURCES
COMMISSION ON WATER RESOURCE MANAGEMENT

JESSE K. SOUKI
FIRST DEPUTY

WILLIAM M. TAM
DEPUTY DIRECTOR WATER

AQUATIC RESOURCES
BOATING AND OCEAN RECREATION
BUREAU OF CONVEYANCES
COMMISSION ON WATER RESOURCE MANAGEMENT
CONSERVATION AND COASTAL LANDS
CONSERVATION AND RESOURCES ENFORCEMENT
ENGINEERING
FORESTRY AND WILDLIFE
HISTORIC PRESERVATION
KAHOOLAWE ISLAND RESERVE COMMISSION
LAND
STATE PARKS

December 8, 2014

Michael Dega, Ph.D.
Scientific Consultant Services, Inc.
Via email to: mike@scshawaii.com

LOG NO: 2014.04428
DOC NO: 1412MD27
Archaeology

Aloha Dr. Dega:

**SUBJECT: Chapter 6E-42 Historic Preservation Review -
Draft Archaeological Inventory Survey for 27 Acres in Makena
Mo'omuku Ahupua'a, Makawao District, Island of Maui
TMKs (2) 2-1-005:134, 135 (por.) & 136**

Thank you for the opportunity to review the draft report titled *An Archaeological Inventory Survey Report for Approximately 27-Acres in Mākena, Mo'omuku Ahupua'a, Makawao District, Island of Maui, Hawai'i [TMK (2) 2-1-005:134, 135 por., and 136]* (Perzinski and Dega September 2014, SCS Project Number 1501a-3), which we received on September 30, 2014. We apologize for the delay in our reply. We previously reviewed an earlier version of this draft report and requested revisions (*Log No. 2014.01667, Doc No. 1408MD05*).

This archaeological inventory survey was prepared for Evans Holdings, Inc. Fieldwork was conducted from November 15 through December 15, 2013 by three archaeologists, with you as the Principal Investigator. Pedestrian survey was conducted in three- to five-meter transects in high visibility.

Thirty-six new sites, containing a total of 61 features, were documented during fieldwork. A feature of one site, State Inventory of Historic Places (SIHP) 50-50-14-7905, was excavated with a 1x1 meter test unit. The sites were given SIHP numbers 7885-7920. Four sites (SIHP 7891, 7908, 7911 and 7914) have been recommended for data recovery, two (SIHP 7892 and 7917) for preservation, and the remaining 30 for no further work. All sites are recommended significant under criterion "d" for their information content, with two sites (SIHP 7892 and 7917) also considered significant under criterion "e."

At this time, we do not find that the revised report contains enough of the required information to determine concurrence with the recommendations contained therein; we are requesting revisions in the attachment to this letter. We look forward to reviewing the revised report. Please contact me at (808) 243-4641 or Morgan.E.Davis@hawaii.gov if you have any concerns about this letter.

Mahalo,

A handwritten signature in black ink that reads "Morgan E. Davis".

Morgan E. Davis
Lead Archaeologist, Maui Section

ATTACHMENT

*An Archaeological Inventory Survey Report for Approximately 27-Acres in Mākena,
Mo`omuku Ahupua`a, Makawao District, Island of Maui, Hawai`i [TMK (2) 2-1-005:134, 135 por., and 136]
Perzinski and Dega September 2014, SCS Project Number 1501a-3*

1. Abstract and/or Introduction: please indicate what the upcoming development plans are for these parcels.
2. Previous Archaeology, page 21, last paragraph: a burial was previously noted in the text for Chaffee and Spear 1994 but no longer appears in the text; it should be included here.
3. Results of Fieldwork, beginning page 30:
 - a. Map for SIHP 7887: there are squiggly lines appearing on the plan map which are not described in the Key; please include a Key explanation for these
4. Results of Fieldwork, beginning page 30: All sites need a plan map, pursuant to HAR § 13-276-5(d)(4)(F). Currently, six are still missing from the report:
 - a. SIHP 7894
 - b. SIHP 7899
 - c. SIHP 7900
 - d. SIHP 7906
 - e. SIHP 7908
 - f. SIHP 7918
5. Please note that there is no indication in this report that OHA was consulted regarding the two sites recommended significant under criterion "e" as required by Hawai'i Administrative Rule §13-275-6(c); please include the results of that consultation.
6. References: as stated previously, not all references cited in the text appear in the References section; please revise as necessary.
 - a. Please be sure to include your associated AIS for the adjacent 7.2 acres in parcel 135, both here and in the Previous Archaeology section.

DAVID Y. IGE
GOVERNOR OF HAWAII



STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES

STATE HISTORIC PRESERVATION DIVISION
KAKUHIHEWA BUILDING
601 KAMOKILA BLVD, STE 555
KAPOLEI, HAWAII 96707

February 26, 2015

Michael Dega, Ph.D.
Scientific Consultant Services, Inc.
Via email to: mike@scshawaii.com

LOG NO: 2014.05598
DOC NO: 1502MD42
Archaeology

Aloha Dr. Dega:

**SUBJECT: Chapter 6E-42 Historic Preservation Review -
Draft Archaeological Inventory Survey for 27 Acres in Makena
Mo'omuku Ahupua'a, Makawao District, Island of Maui
TMKs (2) 2-1-005:134, 135 (por.) & 136**

Thank you for the opportunity to review the draft report titled *An Archaeological Inventory Survey Report for Approximately 27-Acres in Mākena, Mo'omuku Ahupua'a, Makawao District, Island of Maui, Hawai'i [TMK (2) 2-1-005:134, 135 por., and 136]* (Perzinski and Dega December 2014, SCS Project Number 1501a-4), which we received on December 15, 2014. We previously reviewed earlier versions of this draft report and requested revisions (*Log No. 2014.01667, Doc No. 1408MD05 and Log No. 2014.04428, Doc No. 1412MD27*).

This archaeological inventory survey was prepared for Evans Holdings, Inc. in advance of residential and accompanying utility line construction. Fieldwork was conducted from November 15 through December 15, 2013 by three archaeologists, with you as the Principal Investigator. Pedestrian survey was conducted in three- to five-meter transects in high visibility.

Thirty-six new sites, containing a total of 61 features, were documented during fieldwork. A feature of one site, State Inventory of Historic Places (SIHP) 50-50-14-7905, was excavated with a 1x1 meter test unit. The sites were given SIHP numbers 7885-7920. Four sites (SIHP 7891, 7908, 7911 and 7914) have been recommended for data recovery, two (SIHP 7892 and 7917) for preservation, and the remaining 30 for no further work. All sites are recommended significant under criterion "d" for their information content, with two sites (SIHP 7892 and 7917) also considered significant under criterion "e." We previously requested plan maps for six sites; five sites still do not have plan maps as required by Hawai'i Administrative Rule 13-276-5(d)(4)(F). We continue to request plan maps for SIHPs 7894, 7899, 7900, 7906 and 7918. We concur with the recommendations for the other sites, but not for SIHPs 7894, 7899, 7906 or 7918.

At this time, we do not find that the revised report contains enough of the required information to determine concurrence with the recommendations for SIHPs 7894, 7899, 7906 and 7918. Please contact me at (808) 243-4641 or Morgan.E.Davis@hawaii.gov if you have any concerns about this letter.

Mahalo,

A handwritten signature in black ink that reads "Morgan E. Davis".

Morgan E. Davis
Lead Archaeologist, Maui Section

cc: Dave Ward
Frampton & Ward, LLC
(dave@fvmaui.com)

DAVID Y. IGE
GOVERNOR OF HAWAII



STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES

STATE HISTORIC PRESERVATION DIVISION
KAKUHIHewa BUILDING
601 KAMOKILA BLVD, STE 555
KAPOLEI, HAWAII 96707

CARTY S. CHANG
INTERIM CHAIRPERSON
BOARD OF LAND AND NATURAL RESOURCES
COMMISSION ON WATER RESOURCE MANAGEMENT

DANIEL S. QUINN
INTERIM FIRST DEPUTY

W. ROY HARDY
ACTING DEPUTY DIRECTOR - WATER

AQUATIC RESOURCES
BOATING AND OCEAN RECREATION
BUREAU OF CONVEYANCES
COMMISSION ON WATER RESOURCE MANAGEMENT
CONSERVATION AND COASTAL LANDS
CONSERVATION AND RESOURCES ENFORCEMENT
ENGINEERING
FORESTRY AND WILDLIFE
HISTORIC PRESERVATION
KAHOOLAWE ISLAND RESERVE COMMISSION
LAND
STATE PARKS

March 2, 2015

Michael Dega, Ph.D.
Scientific Consultant Services, Inc.
Via email to: mike@scshawaii.com

LOG NO: 2015.00802
DOC NO: 1503MD02
Archaeology

Aloha Dr. Dega:

**SUBJECT: Chapter 6E-42 Historic Preservation Review -
Draft Archaeological Inventory Survey for 27 Acres in Makena
Mo'omuku Ahupua'a, Makawao District, Island of Maui
TMKs (2) 2-1-005:134, 135 (por.) & 136**

Thank you for the opportunity to review the draft report titled *An Archaeological Inventory Survey Report for Approximately 27-Acres in Makena, Mo'omuku Ahupua'a, Makawao District, Island of Maui, Hawai'i [TMK (2) 2-1-005:134, 135 por., and 136]* (Perzinski and Dega February 2015, SCS Project Number 1501a-4), which we received on December 15, 2014. We previously reviewed earlier versions of this draft report and requested revisions (*Log No. 2014.01667, Doc No. 1408MD05, Log No. 2014.04428, Doc No. 1412MD27 and Log No. 2014.05598, Doc No. 1502MD42*).

This archaeological inventory survey was prepared for Evans Holdings, Inc. in advance of residential and accompanying utility line construction. Fieldwork was conducted from November 15 through December 15, 2013 by three archaeologists, with you as the Principal Investigator. Pedestrian survey was conducted in three- to five-meter transects in high visibility.

Thirty-six new sites, containing a total of 61 features, were documented during fieldwork. A feature of one site, State Inventory of Historic Places (SIHP) 50-50-14-7905, was excavated with a 1x1 meter test unit. The sites were given SIHP numbers 7885-7920.

Four sites (SIHP 7891, 7908, 7911 and 7914) have been recommended for data recovery, two (SIHP 7892 and 7917) for preservation, and the remaining 30 for no further work. All sites are recommended significant under criterion "d" for their information content, with two sites (SIHP 7892 and 7917) also considered significant under criterion "e" for their possible ceremonial function. We concur with these recommendations, and anticipate receiving data recovery and preservation plans for review and approval pursuant to Hawai'i Administrative Rules (HAR) §13-278 and 277, respectively.

This AIS meets the requirements of HAR §13-276 and is accepted. For the final version, please add the information about the two sites recommended significant under criterion "e" in the Abstract on page i. Please send one hardcopy of the final document, clearly marked FINAL, along with a copy of this review letter and a text-searchable PDF version on CD to the Kapolei SHPD office, attention SHPD Library.

Scientific Consultant Services, Inc.
March 2, 2015
Page 2

Please contact me at (808) 243-4641 or Morgan.E.Davis@hawaii.gov if you have any concerns about this letter.

Mahalo,



Morgan E. Davis
Lead Archaeologist, Maui Section

cc: County of Maui
Department of Planning
(Planning@co.maui.hi.us)

Mr. Stacy Otomo
Otomo Engineering, Inc.
(stacy@otomoengineering.com)

County of Maui
Department of Public Works – DSA
(Renee.Segundo@co.maui.hi.us)

Mr. Dave Ward
Frampton & Ward, LLC
(dave@fwmaui.com)

County of Maui
Cultural Resources Commission
(Annalise.Kehler@co.maui.hi.us)

Mr. Bert Ratte
County of Maui, Department of Public Works
(Bert.Ratte@co.maui.hi.us)

DAVID V. IGE
GOVERNOR OF HAWAII



STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES

STATE HISTORIC PRESERVATION DIVISION
KAKUHIHEWA BUILDING
601 KAMOKILA BLVD, STE 555
KAPOLEI, HAWAII 96707

SUZANNE D. CASE
CHAIRPERSON
BOARD OF LAND AND NATURAL RESOURCES
COMMISSION ON WATER RESOURCE MANAGEMENT

KEKOA KALUHIWA
FIRST DEPUTY

W. ROY HARDY
ACTING DEPUTY DIRECTOR - WATER

AQUATIC RESOURCES
BOATING AND OCEAN RECREATION
BUREAU OF CONVEYANCES
COMMISSION ON WATER RESOURCE MANAGEMENT
CONSERVATION AND COASTAL LANDS
CONSERVATION AND RESOURCES ENFORCEMENT
ENGINEERING
FORESTRY AND WILDLIFE
HISTORIC PRESERVATION
KAHOOLAWE ISLAND RESERVE COMMISSION
LAND
STATE PARKS

May 28, 2015

Michael F. Dega, Ph.D.
Scientific Consultant Services, Inc.
1347 Kapiolani Blvd., Ste 408
Honolulu, Hawaii 96814
Via email to: mike@scshawaii.com

Log No: 2015.00983
Doc No: 1505MD49
Archaeology

Aloha Dr. Dega:

**SUBJECT: Chapter 6E-42 Historic Preservation Review – Maui County
Draft Archaeological Data Recovery and Preservation Plan for
SIHPs 7891, 7892, 7908, 7911, 7914 and 7917
Mo'omuku Ahupua'a, Makawao District, Island of Maui
TMK (2) 2-1-005:134, 135 (por.) and 136**

Thank you for the opportunity to review the submittal titled *Data Recovery Plan for Sites 50-50-14-7891, -7908, -7911, -7914 and Preservation Plan for Sites 50-50-14-7892, -7917 on Approximately 27-acres in Mākena, Mo'omuku Ahupua'a, Makawao District, Island of Maui, Hawai'i* by Perzinski and Dega (March 2015; SCS Project Number 1501a-PP/DR-1). We received the draft plan submittal on March 12, 2015 and apologize for the delayed review.

The subject area consists of all of parcels 134 and 136 and a portion of a larger parcel 135, and has been divided this way to accommodate a planned utility corridor for parcel 135. Parcel 135 (in whole or in part) has been subject to an archaeological inventory survey (AIS) as documented in two approved reports; the report reflecting work done on this subject portion (Perzinski and Dega February 2015) was approved by SHPD in March 2015 (*Log No. 2015.00802, Doc No. 1503MD02*). Because the County of Maui updated tax map key is not yet available it is unclear to SHPD at this time what the total acreage is for these three parcels.

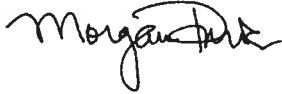
The AIS report documented 36 archaeological sites. Of those, 30 were considered sufficiently documented and require no further archaeological work. Six, the subjects of this submitted data recovery and preservation plan, require additional work. Four sites – a terrace/planter (SIHP 7891), an animal pen (7908), and two enclosures (7911 and 7914) are slated for data recovery. Two other sites that have been interpreted as ceremonial, a terrace platform (7892) and a modified outcrop platform (7917), and will be permanently preserved.

We are requesting revisions to the treatment plan for each site as detailed in the attachment to this letter pursuant to Hawai'i Administrative Rules §13-277 and 278. To aid in rapid review of the revised draft please include a cover letter that specifies the changes made to this document and their new page numbers.

Scientific Consultant Services, Inc.
May 28, 2015
Page 2

We request that you send one hardcopy of the corrected document, along with a review response letter to our Maui office. Please contact me at (808) 243-4641 or Morgan.E.Davis@hawaii.gov if you have any questions or concerns.

Mahalo,



Morgan E. Davis
Lead Archaeologist, Maui Section

cc: County of Maui
Department of Planning
Planning@co.maui.hi.us

County of Maui
Department of Public Works – DSA
Renee.Segundo@co.maui.hi.us

County of Maui
Cultural Resources Commission
Annalise.Kehler@co.maui.hi.us

Evans Holdings, Inc.
1100 Alakea Street, Suite 2200
Honolulu, Hawaii 96813

David Ward
Frampton & Ward, LLC
dave@fwmaui.com

ATTACHMENT

Data Recovery Plan for Sites 50-50-14-7891, -7908, -7911, -7914 and Preservation Plan for Sites 50-50-14-7892, -7917 on Approximately 27-acres in Mākena, Mo'omuku Ahupua'a, Makawao District, Island of Maui, Hawai'i
by Perzinski and Dega (March 2015; SCS Project Number 1501a-PP/DR-1)

1. Table of Contents and List of Figures, pages i and ii: Please correct the eight “ERROR!...” comments, correct the page numbers, remove the underlining and correct the blue text.
2. Introduction, page 1, first paragraph: There is a “...during fieldwork (Figure)” reference missing a number; please add the number or remove if there is no Figure.
 - a. Please correct the site type reference “heating/consumption” as appropriate.
 - b. Regarding the use of the phrase “parcel” for the project area – please revise as appropriate. If this is one parcel, what is the new TMK? Or if it is two parcels and a portion of a third, use another term.
3. Figures 4 and 5, pages 17 and 19, please revise. These maps need to be larger/more detailed in order to permit use for project plans associated with planned work for this project area. Only the location of the six subject sites are required for this plan and their locations relative to the overall parcel.
4. Data Recovery: Site 50-50-14-7623, page 38: please revise the title of this section as this SIHP is not included in this plan.
 - a. Excavation, page 39: For the four sites: additional information on data recovery methods is required. For example, only general locations for five excavation units of the proposed total 12 are discussed, and those are not specific enough in detail. Include, at a minimum, proposed excavation details for each SIHP; including a map showing the location of proposed excavation units, overlaid on the plan map for each SIHP.
 - i. We assume that the 1x1 meter excavations will be manual; please specify.
 - a. Page 40: please include “and analyzed” after “cultural material will be recovered.”
5. Site Preservation, page 42: Note a figure(s) is needed showing both interim and permanent buffer zone locations around a figure of the preservation sites for both 7892 and 7917.
6. Permanent preservation, page 42: What is the recommended future treatment for the sites aside from the buffer zones – any/no landscaping, etc.

DAVID V. IGE
GOVERNOR OF HAWAII



**STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES**

STATE HISTORIC PRESERVATION DIVISION
KAKUHIHEWA BUILDING
601 KAMOKILA BLVD, STE 555
KAPOLEI, HAWAII 96707

SUZANNE D. CASE
CHAIRPERSON
BOARD OF LAND AND NATURAL RESOURCES
COMMISSION ON WATER RESOURCE MANAGEMENT

KEKOA KALUHIWA
FIRST DEPUTY

W. ROY HARDY
ACTING DEPUTY DIRECTOR - WATER

AQUATIC RESOURCES
BOATING AND OCEAN RECREATION
BUREAU OF CONVEYANCES
COMMISSION ON WATER RESOURCE MANAGEMENT
CONSERVATION AND COASTAL LANDS
CONSERVATION AND RESOURCES ENFORCEMENT
ENGINEERING
FORESTRY AND WILDLIFE
HISTORIC PRESERVATION
KAHOOLAWE ISLAND RESERVE COMMISSION
LAND
STATE PARKS

June 16, 2015

Michael F. Dega, Ph.D.
Scientific Consultant Services, Inc.
1347 Kapiolani Blvd., Ste 408
Honolulu, Hawaii 96814
Via email to: mike@scshawaii.com

Log No: 2015.02343
Doc No: 1506MD19
Archaeology

Aloha Dr. Dega:

**SUBJECT: Chapter 6E-42 Historic Preservation Review – Maui County
Draft Archaeological Data Recovery and Preservation Plan for Six SIHPs
Mo'omuku Ahupua'a, Makawao District, Island of Maui
TMK (2) 2-1-005:135 (por.)**

Thank you for the opportunity to review the submittal titled *Data Recovery Plan for Sites 50-50-14-7891, -7908, -7911, -7914 and Preservation Plan for Sites 50-50-14-7892, -7917 on Approximately 27-acres in Mākena, Mo'omuku Ahupua'a, Makawao District, Island of Maui, Hawai'i [TMK: (2) 2-1-005:134, 135 por., and 136]* by Perzinski and Dega (Revised May 2015; SCS Project Number 1501a-PP/DR-2). We received the draft plan submittal on June 5, 2015. We previously reviewed an earlier draft of this plan and requested revisions (*Log No. 2015.00983, Doc No. 1505MD49*).

The subject area consists of 27 acres, with parcel 135 being documented in two reports. Parcel 135 has also been subject to an archaeological inventory survey (AIS) as documented in two approved reports; the report reflecting work done on this subject portion (Perzinski and Dega December 2014) was approved by SHPD in March 2015 (*Log No. 2015.00802, Doc No. 1503MD02*). Because the County of Maui updated tax map key is not yet available it is unclear to SHPD at this time what the total acreage is for parcel 135.

The AIS report documented 36 archaeological sites. Of those, 30 were considered sufficiently documented and require no further archaeological work. Six, the subjects of this submitted data recovery and preservation plan, require additional work: SIHPs 7891, 7908, 7911 and 7914, all require additional study in the form of data recovery; while SIHPs 7892 and 7917 will be permanently preserved. SIHPs subject to data recovery will have a minimum of 12 1 x 1 meter excavation units with a resulting data recovery report; SIHPs 7892 and 7917 will be permanently preserved with a five-foot buffer, extended to ten feet and surrounded with orange construction fencing during construction activities per the plan.


The Preservation Plan and Data Recovery Plan meets the requirements of Hawai'i Administrative Rules §13-277 and 278 and is accepted. Please send one hardcopy of the document, clearly marked **FINAL**, along with a copy of this review letter and a text-searchable PDF version on CD to the Kapolei SHPD office, attention SHPD Library.

Scientific Consultant Services, Inc.
June 16, 2015
Page 2

Contact SHPD upon completion of data recovery at SIHP number 7891, 7908, 7911 and 7914, before closing the excavation units to arrange a site visit.

Please contact me at (808) 243-4641 or Morgan.E.Davis@hawaii.gov if you have any questions or concerns about this letter.

Mahalo,



Morgan E. Davis
Lead Archaeologist, Maui Section

cc: County of Maui
Department of Planning
Planning@co.maui.hi.us

County of Maui
Department of Public Works – DSA
Renee.Segundo@co.maui.hi.us

County of Maui
Cultural Resources Commission
Annalise.Kehler@co.maui.hi.us

Evans Holdings, Inc.
1100 Alakea Street, Suite 2200
Honolulu, Hawaii 96813

David Ward
Frampton & Ward, LLC
dave@fwmaui.com

DAVID Y. IGE
GOVERNOR OF HAWAII



STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES

STATE HISTORIC PRESERVATION DIVISION
KAKUHIHEWA BUILDING
601 KAMOKILA BLVD, STE 555
KAPOLEI, HAWAII 96707

SUZANNE D. CASE
CHAIRPERSON
BOARD OF LAND AND NATURAL RESOURCES
COMMISSION ON WATER RESOURCE MANAGEMENT

KEKOA KALUHIWA
FIRST DEPUTY

W. ROY HARDY
ACTING DEPUTY DIRECTOR - WATER

AQUATIC RESOURCES
BOATING AND OCEAN RECREATION
BUREAU OF CONVEYANCES
COMMISSION ON WATER RESOURCE MANAGEMENT
CONSERVATION AND COASTAL LANDS
CONSERVATION AND RESOURCES ENFORCEMENT
ENGINEERING
FORESTRY AND WILDLIFE
HISTORIC PRESERVATION
KAIHOLOAWA ISLAND RESERVE COMMISSION
LAND
STATE PARKS

June 12, 2015

TO: W. Roy Hardy, Acting Deputy Director
DLNR Commission on Water Resource Management
via email to: Roy.Hardy@hawaii.gov

Log No: 2015.02196
Doc No: 1506MD11
Archaeology

A handwritten signature in cursive script, appearing to read "Morgan E. Davis".

FROM: Morgan E. Davis, Lead Archaeologist, Maui Section

SUBJECT: Chapter 6E-42 Historic Preservation Review – Maui County
Well Permit Application for the Polena Wells 1 & 2 (Well Nos. 6-3725-002 & 003)
Mo'omuku Ahupua'a, Makawao District, Island of Maui
TMK (2) 2-1-005:135 (por.)

Thank you for the opportunity to comment on the subject application that we received on June 3, 2015. Submitted plans include proposed locations for the two wells on portions of the parcel.

A search of our records indicates that portions of this parcel were subject to two separate archaeological inventory surveys. The survey covering 7.2 acres, including the area for the two wells along with the access driveway, was conducted in 2014 and approved by SHPD (Perzinski and Dega 2014; *Log No. 2014.05637, Doc No. 1502MD37*). Fourteen archaeological sites were documented by that survey; two that are subject to mitigation measures are within this project's area: State Inventory of Historic Places (SIHP) 7923, an artifact/midden scatter; and SIHP 7932, a pre-Contact era habitation terrace. SIHP 7923 is subject to archaeological data recovery, which has not yet occurred. SIHP 7932 is covered by an approved preservation plan which includes establishing a 10-foot buffer, protected by orange construction fencing, around the perimeter of the site during any and all construction activities (Perzinski and Dega May 2015; *Log No. 2015.02187, Doc No. 1506MD06*).

For the purposes of our review, both SIHPs need to be documented on the plan maps in order to determine if they will be impacted by the proposed development. As neither is included we are currently unable to determine if there will be an adverse effect, or what mitigation is required. We are requesting a resubmission of this permit with appropriate maps including these two historic properties (identified by SIHP number), including the buffer zone for SIHP 7932.

Please contact me at (808) 243-4641 or Morgan.E.Davis@hawaii.gov if you have any questions or concerns regarding this letter.

Mahalo,

A handwritten signature in cursive script, appearing to read "Morgan E. Davis".

Morgan E. Davis
Lead Archaeologist, Maui Section

cc: County of Maui
Department of Planning
(Planning@co.maui.hi.us)

County of Maui
Department of Public Works – DSA
(Renee.Segundo@co.maui.hi.us)

County of Maui
Cultural Resources Commission
(Annalise.Kehler@co.maui.hi.us)

NEIL ABERCROMBIE
GOVERNOR OF HAWAII



**HISTORIC PRESERVATION DIVISION
DEPARTMENT OF LAND AND NATURAL RESOURCES**

STATE HISTORIC PRESERVATION DIVISION
601 KAMOKILA BOULEVARD, ROOM 555
KAPOLEI, HAWAII 96707

WILLIAM J. AILA, JR.
CHAIRPERSON
BOARD OF LAND AND NATURAL RESOURCES
COMMISSIONER OF WATER RESOURCE MANAGEMENT

JESSE K. SOUKI
FIRST DEPUTY

WILLIAM M. TAM
DEPUTY DIRECTOR - WATER

AQUATIC RESOURCES
BOATING AND OCEAN RECREATION
BUREAU OF CONVEYANCES
COMMISSION ON WATER RESOURCE MANAGEMENT
CONSERVATION AND COASTAL LANDS
CONSERVATION AND RESOURCES ENFORCEMENT
ENGINEERING
FORESTRY AND WILDLIFE
HISTORIC PRESERVATION
KAHOOLAWE ISLAND RESERVE COMMISSION
LAND
STATE PARKS

August 21, 2014

Michael Dega, Ph.D.
Scientific Consultant Services, Inc.
Via email to: mike@scs.com

LOG NO: 2014.00887
DOC NO: 1408MD26
Archaeology

Aloha Dr. Dega:

**SUBJECT: Chapter 6E-42 Historic Preservation Review-
Draft Archaeological Inventory Survey of 7.2 Acres
Mo'omuku Ahupua'a, Makawao District, Maui Island
TMK (2) 2-1-005:135 (por.)**

Thank you for the opportunity to review the draft report titled *An Archaeological Inventory Survey Report for a 7.2-acre Utility Corridor in Makena, Mo'omuku Ahupua'a, Honua'ula District, Island of Maui, Hawai'i [TMK: (2) 2-1-005:135 por.]* (Perzinski and Dega April 2014, SCS Number 1501b-3) which we received on April 14, 2014. We apologize for the delay in our reply.

Inventory survey was conducted at the request of Evans Holdings, Inc. in advance of installation of utilities within a portion of the parcel. Fieldwork was conducted by four archaeologists intermittently between November 15 through December 15, 2013, including yourself as the Principal Investigator. Fourteen new sites with 21 component features were documented; no subsurface testing occurred. One site, State Inventory of Historic Places 50-50-14-7932, is recommended for preservation; the remaining 13 sites are recommended for no further work. All sites are recommended as significant under criterion "d."

At this time we do not have sufficient information needed to concur with any recommendations contained in this report. We are requesting revisions as detailed in the attachment to this letter. Please contact me at (808) 243-4641 or Morgan.E.Davis@hawaii.gov if you have any concerns about this letter.

Mahalo,

A handwritten signature in cursive script that reads "Morgan E. Davis".

Morgan E. Davis
Lead Archaeologist, Maui Section

ATTACHMENT

*An Archaeological Inventory Survey Report for a 7.2-acre Utility Corridor in Makena, Mo`omuku Ahupua`a,
Honua`ula District, Island of Maui, Hawai`i [TMK: (2) 2-1-005:135 por.]
Perzinski and Dega April 2014, SCS Number 1501b-3*

1. Title page, Abstract and Introduction: please change the District from Honua`ula to Makawao.
2. Abstract: please correct the SIHP number recommended for Preservation; it is 7932, not 7931.
3. List of Figures: this will need to be updated, see SIHP comments below.
4. Introduction, page 1, final paragraph: the information regarding the types of sites documented should be included in the Abstract.
5. Traditional and Historic Setting, page 5: please change "Mythological Accounts" to "Oral History" and "District" to "Moku."
6. Historical Era, page 9, second paragraph: please revise the spelling of "Māui" and add a page number to this page.
7. Mahele, page 13, third paragraph: please revise the spelling of "Māui."
8. Previous Archaeology, page 15, second to last sentence: please insert "what was then" before "Honua`ula District."
 - a. Page 19, second paragraph, first sentence: please replace "District" with "Moku."
 - b. Page 22, first paragraph: you need to get a site number for the burial you identified in 1994.
 - c. Page 25, second paragraph: should this be "or" before no further work, instead of "and"?
9. Table 1, page 18: please update the reference year for the two 'in prep' reports. and add a page number to the page.
10. Recent Large Surveys, Page 25, fourth and fifth paragraphs: please update the citations for the SCS reports. These also needs to be included in the References.
11. Settlement Patterns, page 26: this section needs to be updated with more recent references; please see earlier review letters for your Makena reports.
 - a. Page 27, second paragraph: please update the citation for the SCS report here and throughout the report.
12. Results of Fieldwork, Page 28: Please indicate why no subsurface testing occurred at a location which is going to be excavated for utility lines. Consider returning to test features recommended for no further work.
13. SIHP 7921, Page 29: this site needs a plan map.
14. SIHP 7922, page 32: this site needs a plan map.
15. Figure 8, SIHP 7923 plan map, page 34: this appears to be incorrect – either the text for SIHP 7923 is incorrect or this plan map is not of SIHP 7923.
16. SIHP 7924, page 35: this site needs a plan map.
17. SIHP 7925, page 35: this site needs a plan map.
18. SIHP 7926, page 38: this site needs a plan map.

19. SIHP 7927, page 38: this site needs a plan map.
20. SIHP 7928, page 38: this site needs a plan map.
21. SIHP 7929, page 39: this site needs a plan map.
22. SIHP 7932, page 43: this recommendation (for Data Recover/Preservation) does not match either the Abstract or the Recommendation section, which call for Preservation and not DR; please revise as necessary.
23. Figure 14, page 45: the text states that this is a plan map of 7931, while the graphic states it is 7923; please revise as necessary.
24. SIHP 7933, page 46: this site needs a plan map.
25. SIHP 7934, page 46: this site needs a plan map.
26. Discussion and Conclusions: this section, like the Introduction and Abstract indicate that 14 sites were documented; the Significance Recommendations indicate 16 sites. Please revise as appropriate.
27. Historic Features, page 51: site 7934 is referenced as both an enclosure and a boundary wall; please revise as appropriate.
28. Discussion, page 52, second paragraph: please change "District" to "moku."
29. Significance Recommendations, page 53: please include a chart/table with the significance recommendations and recommended site treatments.
30. References: There are citations in the text that do not appear in the References section or else appear incorrectly in the text; please update as appropriate.

DAVID Y. IGE
GOVERNOR OF HAWAII



STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES

STATE HISTORIC PRESERVATION DIVISION
KAKUHIHEWA BUILDING
601 KAMOKILA BLVD, STE 555
KAPOLEI, HAWAII 96707

WILLIAM J. AILA, JR.
CHAIRPERSON
BOARD OF LAND AND NATURAL RESOURCES
COMMISSION ON WATER RESOURCE MANAGEMENT

JESSE K. SOUKI
FIRST DEPUTY

WILLIAM M. TAM
DEPUTY DIRECTOR - WATER

AQUATIC RESOURCES
BOATING AND OCEAN RECREATION
BUREAU OF CONVEYANCES
COMMISSION ON WATER RESOURCE MANAGEMENT
CONSERVATION AND COASTAL LANDS
CONSERVATION AND RESOURCES ENFORCEMENT
ENGINEERING
FORESTRY AND WILDLIFE
HISTORIC PRESERVATION
KAHOOLAWE ISLAND RESERVE COMMISSION
LAND
STATE PARKS

December 8, 2014

Michael Dega, Ph.D.
Scientific Consultant Services, Inc.
Via email to: mike@scshawaii.com

LOG NO: 2014.04429
DOC NO: 1412MD26
Archaeology

Aloha Dr. Dega:

**SUBJECT: Chapter 6E-42 Historic Preservation Review--
Draft Archaeological Inventory Survey of 7.2 Acres for Evans Holdings
Mo'omuku Ahupua'a, Makawao District, Maui Island
TMK (2) 2-1-005:135 (por.)**

Thank you for the opportunity to review the draft report titled *An Archaeological Inventory Survey Report for a 7.2-acre Utility Corridor in Makena, Mo'omuku Ahupua'a, Makawao District, Island of Maui, Hawai'i [TMK: (2) 2-1-005:135 por.]* (Perzinski and Dega September 2014, SCS Number 1501b-4) which we received on September 30, 2014. We apologize for the delay in our reply. We previously reviewed an earlier draft of this report and requested revisions (*Log No. 2014.00887, Doc No. 1408MD26*).

Inventory survey was conducted at the request of Evans Holdings, Inc. in advance of installation of utilities within a portion of the parcel. Fieldwork was conducted by four archaeologists intermittently between November 15 through December 15, 2013, including yourself as the Principal Investigator. Fourteen new sites with 21 component features were documented; no subsurface testing occurred. One site, State Inventory of Historic Places 50-50-14-7932, is recommended for preservation; the remaining 13 sites are recommended for no further work. All sites are recommended as significant under criterion "d." Archaeological data recovery and monitoring have not been recommended.

At this time we do not have sufficient information needed to concur with many of the recommendations contained in this report; not all of the requests for revisions were completed in this draft. We are requesting revisions as detailed in the attachment to this letter. Please contact me at (808) 243-4641 or Morgan.E.Davis@hawaii.gov if you have any concerns about this letter.

Mahalo,

A handwritten signature in black ink that reads "Morgan E. Davis".

Morgan E. Davis
Lead Archaeologist, Maui Section

ATTACHMENT

*An Archaeological Inventory Survey Report for a 7.2-acre Utility Corridor in Makena, Mo`omuku Ahupua`a,
Honua`ula District, Island of Maui, Hawai`i [TMK: (2) 2-1-005:135 por.]
Perzinski and Dega September 2014, SCS Number 1501b-4*

1. Previous Archaeology, Page 19: please replace Honua`ula "District" with "Moku."
2. Pages 16-18 are missing page numbers; please correct.
3. SIHP 7921, Page 29: this site needs a plan map.
4. Figure 8, SIHP 7923, page 34: this site needs a plan map.
 - a. We also recommend data recovery at this site.
5. SIHP 7924, page 36: this site needs a plan map.
6. SIHP 7927, page 38: this site needs a plan map.
7. Historic Features, page 51: site 7934 is referenced as both an enclosure and a boundary wall; please revise as appropriate.

NEIL ABERCROMBIE
GOVERNOR OF HAWAII



**HISTORIC PRESERVATION DIVISION
DEPARTMENT OF LAND AND NATURAL RESOURCES**

STATE HISTORIC PRESERVATION DIVISION
601 KAMOKILA BOULEVARD, ROOM 555
KAPOLEI, HAWAII 96707

WILLIAM J. AILA, JR.
CHAIRPERSON
BOARD OF LAND AND NATURAL RESOURCES
COMMISSION ON WATER RESOURCE MANAGEMENT

JESSE K. SOUKI
FIRST DEPUTY

WILLIAM M. TAM
DEPUTY DIRECTOR WATER

AQUATIC RESOURCES
BOATING AND OCEAN RECREATION
BUREAU OF CONVEYANCES
COMMISSION ON WATER RESOURCE MANAGEMENT
CONSERVATION AND COASTAL LANDS
CONSERVATION AND RESOURCES ENFORCEMENT
ENGINEERING
FORESTRY AND WILDLIFE
HISTORIC PRESERVATION
KAHOOLAWE ISLAND RESERVE COMMISSION
LAND
STATE PARKS

February 23, 2015

Evans Holdings, Inc.
1100 Alakea Street, Suite 2200
Honolulu, Hawaii 96813

LOG NO: 2014.05637
DOC NO: 1502MD37
Archaeology

To Whom it May Concern:

**SUBJECT: Chapter 6E-42 Historic Preservation Review–
Draft Archaeological Inventory Survey of 7.2 Acres
Mo'omuku Ahupua'a, Makawao District, Maui Island
TMK (2) 2-1-005:135 (por.)**

Thank you for the opportunity to review the draft report titled *An Archaeological Inventory Survey Report for a 7.2-acre Utility Corridor in Makena, Mo'omuku Ahupua'a, Makawao District, Island of Maui, Hawai'i [TMK: (2) 2-1-005:135 por.]* (Perzinski and Dega December 2014, SCS Number 1501b-5) which we received on December 15, 2014. We apologize for the delay in our reply. We previously reviewed earlier versions of this report and requested revisions (*Log No. 2014.00887, Doc No. 1408MD26 and Log No. 2014.00887, Doc No. 1408MD26*). This report relates to County of Maui permits **B T2014/1691, SMX 2015/0030 and/or G 2014/0187**.

Inventory survey was conducted at the request of Evans Holdings, Inc. in advance of installation of utilities within a portion of the parcel. Fieldwork was conducted by four archaeologists intermittently between November 15 through December 15, 2013. Dr. Michael F. Dega, Ph.D. was the Principal Investigator. Fourteen new sites with 21 component features were documented; no subsurface testing occurred. One site, State Inventory of Historic Places (SIHP) 50-50-14-7923 (a midden scatter) is recommended for data recovery, and SIHP 7932 (a terrace associated with permanent habitation), is recommended for preservation; the remaining 12 sites are recommended for no further work. All sites are recommended as significant under criterion "d." We concur with those recommendations and anticipate receiving a data recovery plan and preservation plan for SIHPs 7923 and 7932, respectively.

The AIS meets the requirements of Hawai'i Administrative Rule § 13-276 and is accepted. **In the final version**, please update the abstract, page ii to include the information that SIHP 7923 will be subject to data recovery, and update the Table of Contents replacing "Historic" for "Mythological" Accounts. Please send one hardcopy of the final document, clearly marked FINAL, along with a copy of this review letter and a text-searchable PDF version on CD to the Kapolei SHPD office, attention SHPD Library. Please contact me at (808) 243-4641 or Morgan.E.Davis@hawaii.gov if you have any questions or concerns regarding this letter.

Mahalo,

Morgan E. Davis
Lead Archaeologist, Maui Section

cc: County of Maui
Department of Planning
(Planning@co.maui.hi.us)

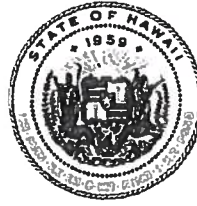
Michael F. Dega, Ph.D.
Scientific Consultant Services, Inc.
(mike@scshawaii.com)

County of Maui
Department of Public Works – DSA
(Renec.Segundo@co.maui.hi.us)

David Ward
Frampton & Ward, LLC
(dave@fwmaui.com)

County of Maui
Cultural Resources Commission
(Annalise.Kehler@co.maui.hi.us)

DAVID Y. IGE
GOVERNOR OF HAWAII



**STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES**

STATE HISTORIC PRESERVATION DIVISION
KAKUHIHEWA BUILDING
601 KAMOKILA BLVD, STE 555
KAPOLEI, HAWAII 96707

CARTY S. CHANG
INTERIM CHAIRPERSON
BOARD OF LAND AND NATURAL RESOURCES
COMMISSION ON WATER RESOURCE MANAGEMENT

DANIEL S. QUINN
INTERIM FIRST DEPUTY

W. ROY HARDY
ACTING DEPUTY DIRECTOR WATER

AQUATIC RESOURCES
BOATING AND OCEAN RECREATION
BUREAU OF CONVEYANCES
COMMISSION ON WATER RESOURCE MANAGEMENT
CONSERVATION AND COASTAL LANDS
CONSERVATION AND RESOURCES ENGINEERING
ENGINEERING
FORESTRY AND WILDLIFE
HISTORIC PRESERVATION
KAHOOLAWE ISLAND RESERVE COMMISSION
LAND
STATE PARKS

February 27, 2015

Bert Ratte, Civil Engineer
County of Maui, Department of Public Works - DSA
Via email to: Bert.Ratte@co.maui.hi.us

LOG NO: 2015.00779
DOC NO: 1502MD44
Archaeology

Aloha Mr. Ratte,

**SUBJECT: Chapter 6E-42 Historic Preservation Review
Building and Grading & Grubbing Permits for a Residence and Driveway for
Evans Holdings, LLC (B T2014/1691, G T2015/0017)
Mo'omuku Ahupua'a, Makawao District, Island of Maui
TMK (2) 2-1-005:135 (por.)**

Thank you for the opportunity to comment on the aforementioned permit applications, which were received on February 24, 2015. We are in the process of determining mitigation for archaeological sites identified on this parcel, as detailed below. We have previously provided two review letters to DSA which included this parcel (*Log No. 20144.05637, Doc No. 1502MD37* and *Log No. 2014.05598, Doc No. 1502MD42*).

Parcel 135 was subject to two archaeological inventory surveys, each covering a portion of the property (Perzinski and Dega December 2014, a and b). Fifty new historic properties were identified during these two surveys, one of which (2014a) also included parcels 134 and 136. That archaeological inventory survey remains under review, and archaeological preservation plans and data recovery plans are pending submission for SHPD review and approval.

Archaeological mitigation, including preservation and/or data recovery or no further work, have been agreed upon for the majority of these sites, but mitigation for five of the sites – State Inventory of Historic Places (SHIP) numbers 50-50-14-7894, 7899, 7906 and 7918 have yet to be determined. Those five sites are located in either parcel 135, or 134/136. For the sites that can be positively identified as located within parcel 135, there is one which will be subject to data recovery (SIHP 7923) and that will be subject to permanent preservation (SIHP 7932). All SIHP sites need to be documented on the plan map(s) in order to determine the potential historic property effects of the proposed construction work.


Regarding the permit for the driveway, the County cover sheet identifies the subject area as parcel 135. The archaeological inventory survey for the driveway, which is currently under review, identifies the driveway as parcel 026. The plan maps submitted by the County for our review appear to show the easement for the driveway crossing parcels 2-1-005:008, 024, 079, 129, 131, 132 and 137 and show impacts to various walls for the driveway and a related water retention basin.

Because the online TMK maps available on the County website (<http://www.mauicounty.gov/DocumentCenter/Index/135>) have not been updated to show recent TMK changes numbered over parcel 079 in the area of potential effect, we are unable to determine which ones are correct. The subject parcel(s) TMK will need to be clarified for our review of the building and grading & grubbing permits.

At this time we can say that historic properties are present within the project area, and mitigation commitments are not yet finalized. We will copy you on future correspondence regarding the historic preservation status of the subject parcel(s).

Please contact me at (808) 243-4641 or Morgan.E.Davis@hawaii.gov if you have any questions or concerns regarding this letter.

Mahalo,


Morgan E. Davis
Lead Archaeologist, Maui Section

cc: County of Maui
Department of Planning
(Planning@co.maui.hi.us)

Mr. Stacy Otomo
Otomo Engineering, Inc.
(stacy@otomoengineering.com)

County of Maui
Department of Public Works - DSA
(Renee.Segundo@co.maui.hi.us)

Mr. Dave Ward
Frampton & Ward, LLC
(dave@fwmaui.com)

County of Maui
Cultural Resources Commission
(Annalise.Kehler@co.maui.hi.us)

DAVID Y. IGE
GOVERNOR OF HAWAII



STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES

STATE HISTORIC PRESERVATION DIVISION
KAKUHIHEWA BUILDING
601 KAMOKILA BLVD, STE 555
KAPOLEI, HAWAII 96707

May 26, 2015

Michael F. Dega, Ph.D.
Scientific Consultant Services, Inc.
1347 Kapiolani Blvd., Ste 408
Honolulu, Hawaii 96814
Via email to: mike@scshawaii.com

Log No: 2015.00931
Doc No: 1505MD45
Archaeology

Aloha Dr. Dega:

**SUBJECT: Chapter 6E-42 Historic Preservation Review – Maui County
Draft Archaeological Data Recovery and Preservation Plan for SIHPs 7923 and 7932
Mo'omuku Ahupua'a, Makawao District, Island of Maui
TMK (2) 2-1-005:135 (por.)**

Thank you for the opportunity to review the submittal titled *Data Recovery Plan for Site 50-50-14-7923 and Preservation Plan for Site 50-50-14-7932, a 7.2-Acre Utility Corridor in Mākena, Mo'omuku Ahupua'a, Makawao District, Island of Maui, Hawai'i* by Perzinski and Dega (March 2015; SCS Project Number 1501b-PP/DR-1). We received the draft plan submittal on March 9, 2015 and apologize for the delayed review.

The subject area consists of 7.2 acres of a larger parcel, and has been divided this way to accommodate a planned utility corridor for parcel 135. Parcel 135 has been subject to an archaeological inventory survey (AIS) as documented in two approved reports; the report reflecting work done on this subject portion (Perzinski and Dega December 2014) was approved by SHPD in February 2015 (*Log No. 2014.05637, Doc No. 1502MD37*). Because the County of Maui updated tax map key is not yet available it is unclear to SHPD at this time what the total acreage is for parcel 135.

The AIS report documented 14 archaeological sites. Of those, 12 were considered sufficiently documented and require no further archaeological work. Two, the subjects of this submitted data recovery and preservation plan, require additional work: SIHP 7923, an artifact/midden scatter, requires additional study in the form of data recovery; while SIHP 7932, a pre-Contact era habitation terrace, will be permanently preserved.

We are requesting revisions to the treatment plan for each site as detailed in the attachment to this letter pursuant to Hawai'i Administrative Rules §13-277 and 278. To aid in rapid review of the revised draft please include a cover letter that specifies the changes made to this document and their new page numbers. We request that you send one hardcopy of the corrected document, along with a copy of this review letter to our Maui office. Please contact me at (808) 243-4641 or Morgan.E.Davis@hawaii.gov if you have any questions or concerns about this letter.

Mahalo,

Morgan E. Davis
Lead Archaeologist, Maui Section

cc: County of Maui
Department of Planning
Planning@co.maui.hi.us

County of Maui
Department of Public Works – DSA
Renee.Segundo@co.maui.hi.us

County of Maui
Cultural Resources Commission
Annalise.Kehler@co.maui.hi.us

Evans Holdings, Inc.
1100 Alakea Street, Suite 2200
Honolulu, Hawaii 96813

David Ward
Frampton & Ward, LLC
dave@fvmaui.com

ATTACHMENT

*Data Recovery Plan for Site 50-50-14-7923 and Preservation Plan for Site 50-50-14-7932,
a 7.2-Acre Utility Corridor in Mākena, Mo'omuku Ahupua'a, Makawao District, Island of Maui, Hawai'i*
by Perzinski and Dega (March 2015; SCS Project Number 1501b-PP/DR-1)

1. Figures 4 and 5, pages 17 and 18: please revise, these maps need to be larger/more detailed in order to permit use for project plans associated with planned work for this project area. Only the location of the two subject sites, SIHPs 7923 and 7932 are required for this plan.
2. Figure 6, page 21: please review, this is identified as SIHP 7932 but with the description of 7923. Please note that a plan map for 7923 is required for this plan but is not included in this version.
3. Figure 7, page 22: should this be labeled as artifacts from SIHP 7923, instead of 7932?
4. Data Recovery for SIHP 7623, page 25: please retitle 7923.
 - a. Excavation: are planned excavations going to be manual or mechanical?
 - i. Page 26, second paragraph: please be more specific regarding the proposed size of excavation areas.
 - ii. Please include a map showing the location of proposed excavation units, overlaid on the plan map for the SIHP.
 - iii. Please include the number of proposed excavations in the text.
 - iv. Page 27, third paragraph: please include "and analyzed" after "cultural material will be recovered."
5. Preservation for SIHP 7939, page 29, first paragraph: please clarify/revise, construction fencing will be placed outside a buffer zone 10m around the perimeter of the site, instead of a 10m fence.
 - a. Note a figure is needed showing both interim and permanent buffer zone locations around a figure of the preservation site 7932.
6. Interim preservation measures, page 29, number 1: please revise as detailed in number 5, above.
 - a. Please revise reference to SIHP 2494 and/or provide the referenced Figure 11, which is not included in this plan.
 - b. Number 2: please remove "by SCS."
 - c. Include a new number, interim preservation site with buffer is to be shown on all construction plans.
7. Permanent preservation measures, number 1, page 29: please revise, specify specific permanent preservation measures for the 5m buffer zone.
 - a. Reference the figure requested in number 5(a) above showing the interim and permanent preservation buffers.
 - b. What is the recommended future treatment for the site itself – any/no landscaping, etc.

DAVID Y. IGE
GOVERNOR OF HAWAII



STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES

STATE HISTORIC PRESERVATION DIVISION
KAKUHIHEWA BUILDING
601 KAMOKILA BLVD, STE 555
KAPOLEI, HAWAII 96707

SUZANNE D. CASE
CHAIRPERSON
BOARD OF LAND AND NATURAL RESOURCES
COMMISSION ON WATER RESOURCE MANAGEMENT

KEKO KALUHIWA
FIRST DEPUTY

W. ROY HARDY
ACTING DEPUTY DIRECTOR - WATER

AQUATIC RESOURCES
BOATING AND OCEAN RECREATION
BUREAU OF CONVEYANCES
COMMISSION ON WATER RESOURCE MANAGEMENT
CONSERVATION AND COASTAL LANDS
CONSERVATION AND RESOURCES ENFORCEMENT
ENGINEERING
FORESTRY AND WILDLIFE
HISTORIC PRESERVATION
KAHOOLAWE ISLAND RESERVE COMMISSION
LAND
STATE PARKS

June 5, 2015

Michael F. Dega, Ph.D.
Scientific Consultant Services, Inc.
1347 Kapiolani Blvd., Ste 408
Honolulu, Hawaii 96814
Via email to: mike@scshawaii.com

Log No: 2015.02187
Doc No: 1506MD06
Archaeology

Aloha Dr. Dega:

**SUBJECT: Chapter 6E-42 Historic Preservation Review – Maui County
Draft Archaeological Data Recovery and Preservation Plan for SIHPs 7923 and 7932
Mo'omuku Ahupua'a, Makawao District, Island of Maui
TMK (2) 2-1-005:135 (por.)**

Thank you for the opportunity to review the submittal titled *Data Recovery Plan for Site 50-50-14-7923 and Preservation Plan for Site 50-50-14-7932, a 7.2-Acre Utility Corridor in Mākena, Mo'omuku Ahupua'a, Makawao District, Island of Maui, Hawai'i* by Perzinski and Dega (Revised May 2015; SCS Project Number 1501b-PP/DR-2). We received the draft plan submittal on June 3, 2015. We previously reviewed an earlier draft of this plan and requested revisions (*Log No. 2015.00931, Doc No. 1505MD45*).

The subject area consists of 7.2 acres of a larger parcel, and has been divided this way to accommodate a planned utility corridor for parcel 135. Parcel 135 has been subject to an archaeological inventory survey (AIS) as documented in two approved reports; the report reflecting work done on this subject portion (Perzinski and Dega December 2014) was approved by SHPD in February 2015 (*Log No. 2014.05637, Doc No. 1502MD37*). Because the County of Maui updated tax map key is not yet available it is unclear to SHPD at this time what the total acreage is for parcel 135.

The AIS report documented 14 archaeological sites. Of those, 12 were considered sufficiently documented and require no further archaeological work. Two, the subjects of this submitted data recovery and preservation plan, require additional work: SIHP 7923, an artifact/midden scatter, requires additional study in the form of data recovery; while SIHP 7932, a pre-Contact era habitation terrace, will be permanently preserved. SIHP 7923 will be subject to a minimum of 12 excavation units with a resulting data recovery report; SIHP 7932 will be permanently preserved with a five-foot buffer, extended to ten feet surrounded with orange construction fencing during construction activities per the plan.

The Preservation Plan and Data Recovery Plan meets the requirements of Hawai'i Administrative Rules §13-277 and 278 and is accepted. Please send one hardcopy of the document, clearly marked **FINAL**, along with a copy of this review letter and a text-searchable PDF version on CD to the Kapolei SHPD office, attention SHPD Library.

Please contact SHPD upon completion of data recovery at SIHP 7923, before closing the excavation units to arrange a site visit.

Scientific Consultant Services, Inc.
June 5, 2015
Page 2

Please contact me at (808) 243-4641 or Morgan.E.Davis@hawaii.gov if you have any questions or concerns about this letter.

Mahalo,



Morgan E. Davis
Lead Archaeologist, Maui Section

cc: County of Maui Department of Planning Planning@co.maui.hi.us
County of Maui Department of Public Works – DSA Renee.Segundo@co.maui.hi.us
County of Maui Cultural Resources Commission Annalise.Kehler@co.maui.hi.us
Evans Holdings, Inc. 1100 Alakea Street, Suite 2200 Honolulu, Hawaii 96813
David Ward Frampton & Ward, LLC dave@fwmaui.com



**STATE OF HAWAII
OFFICE OF HAWAIIAN AFFAIRS**
560 N. NIMITZ HWY., SUITE 200
HONOLULU, HAWAII 96817

HRD18-8484

March 27, 2018

Mr. William Spence, Director
County of Maui Planning Department
2200 Main St., One Main Plaza, Suite # 315
Wailuku, HI 96793

Re: Request for Maui County Planning Department to Issue a Stop Work Order for Building Permit B T2014/1691 and Grading Permit G T2015/0017
Mo'omoku Ahupua' a, Makawao District, Maui
Tax Map Keys (TMKs): (2) 2-1-005: 134, 135, 136 (formerly part of 2-1-005:026)

Aloha e Mr. Spence:

The Office of Hawaiian Affairs (OHA) has recently been apprised of a construction project in Mo'omoku Ahupua' a that may impact historic and cultural properties of significance to Native Hawaiians. OHA is concerned that the Maui County Planning Department (Maui County) approved the subject building and grading permits without completing the historic preservation review process pursuant to Hawai'i Revised Statutes (HRS) Chapter 6E and Hawai'i Administrative Rules (HAR) § 13-284. OHA is requesting that Maui County issue a Stop Work Order for all work conducted on the subject parcels until consultation regarding site significance and mitigation is conducted and site mitigation is implemented.

Project Background

According to SHPD correspondence regarding Building Permit B T2014/1691 and Grading and Grubbing Permit G T2015/0017,¹

archaeological inventory survey remains under review, and archaeological preservation plans and data recovery plans are pending submission for SHPD review and approval . . . All SIHP sites need to be documented on the plan map(s) in order to determine the potential historic properties effects of the proposed

¹ Letter dated February 27, 2015 from the State Historic Preservation Division (SHPD) to Bert Ratte, County of Maui, Department of Public Works-DSA, SHPD LOG NO:2015.00779 DOC NO:1502MD44.

Mr. William Spence

March 27, 2018

Page 2

construction work...The subject parcel(s) TMK will need to be clarified for our review of the building and grubbing and grading permits. At this time we can say that historic properties are present within the project area, and mitigation commitments are not yet finalized.

OHA relies on the Maui County Planning Department to comply with the historic preservation process to ensure the protection of our cultural resources. To our knowledge, Maui County approved the subject permits without addressing SHPD's concerns.

OHA is also requesting that the Stop Work Order be implemented until OHA's and the community's concerns regarding the archaeological inventory survey (AIS) are addressed by SHPD. Under a separate letter, OHA will be requesting SHPD to reopen the SHPD AIS review based on lack of compliance with HRS § 6E-42 and HAR § 13-276 and 13-284 regarding consultation.

We look forward to working with the Maui County Planning Department to resolve these issues and to ensure that compliance with HRS Chapter 6E has been completed, that the community's concerns about consultation have been addressed, and that mitigation commitments are approved by the SHPD and implemented prior to commencing work. Should you have any questions, please contact Lauren Morawski, Compliance Archaeologist, of our Kia'i Kānāwai (Compliance Enforcement) division at 808-594-1997 or laurenm@oha.org.

'O wau iho nō me ka 'oia 'i 'o,



Kamana'opono M. Crabbe, Ph.D.
Ka Pouhana, Chief Executive Officer

KC:lm

CC: Susan Lebo, SHPD Archaeology Branch Chief (*via email*)
Matthew Barker Farris, SHPD Maui Archaeologist (*via email*)
Ho' opono pono O Makena (*via email*)
Justin Kekiwi, 'Ohana Kekiwi (*via email*)
Carol-Marie Lee, Aha Moku O Maui Honua' ula District (*via email*)



STATE OF HAWAII
OFFICE OF HAWAIIAN AFFAIRS
560 N. NIMITZ HWY., SUITE 200
HONOLULU, HAWAII 96817

HRD18-8484(2)

April 2, 2018

Dr. Matthew B. Fariss, Maui Archaeologist
State Historic Preservation Division- Maui Annex
101 Mā'alaea Boat Harbor Road
Wailuku, HI 96793

Dr. Susan Lebo, Branch Chief Archaeology
State Historic Preservation Division
601 Kamokila Blvd., Suite 555
Kapolei, HI 96707

Re: Request to Re-Open the Historic Preservation Review Process for An Archaeological Inventory Survey Report for Approximately 27 acres in Mākena, and a Data Recovery Plan for Sites 50-50-14-7891, -7908, -7911, -7914 and Preservation Plan for Sites 50-50-14-7892, -7917 on Approximately 27-Acres in Mākena
Mo'omoku Ahupua'a, Makawao District, Maui
Tax Map Keys: (2) 2-1-005: 134, 135, 136 (formerly part of 2-1-005:026)

Aloha e Dr. Fariss and Dr. Lebo:

The Office of Hawaiian Affairs (OHA) has recently been apprised of a construction project in Mo'omoku Ahupua'a that may impact historic and cultural properties of significance to Native Hawaiians. OHA is requesting that the State Historic Preservation Division (SHPD) re-open the historic preservation review process for the subject Archaeological Inventory Surveys (AIS) and Data Recovery and Preservation Plan conducted for the subject parcels based on lack of compliance with Hawai'i Revised Statutes (HAR) § 6E-42 and Hawai'i Administrative Rules (HAR) § 13-276 and § 13-284.

On March 6, 2016, OHA staff participated in a phone meeting with Dr. Fariss. This letter clarifies issues discussed during our meeting and formalizes our request to re-open the historic preservation process and facilitate consultation with Mākena area 'Ohana.

The subject AIS report does not meet the requirements of HAR § 13-276 and § 13-284. Pursuant to HAR § 13-276-5(g), an AIS report “shall contain information on the consultation process with individuals knowledgeable about the project area’s history, if discussions with SHPD, background research or public input indicate a need to consult with knowledgeable individuals.” A series of review letters from SHPD dated August 4, 2014¹, December 8, 2014², and February 26, 2015³ requested that archaeological consultant Scientific Consultant Services (SCS) conduct appropriate consultation with OHA in accordance with HAR § 13-275-6(c). OHA believes that this consultation was not conducted. SCS states in the AIS report that the report was submitted to OHA on two occasions⁴. OHA has no record in our intake system that the AIS was submitted to OHA. This AIS report does not comply with HAR § 13-276 because of the omission of consultations with Native Hawaiians. We are requesting SHPD that the AIS process be reopened based on this violation of the process and that all mitigation commitments be revised to include important mana‘o from Hawaiian ‘ohana representing the Mo‘omoku area. Multiple ‘ohana have formally requested to OHA and SHPD that they be a part of this consultation process as they have input on but not limited to; the survey, sites identified, significance evaluations applied, and proposed mitigation measures.

Pursuant to HAR § 13-284-6(b)(5), sites that “have an important value to the native Hawaiian people . . . due to associations with cultural practices once carried out . . . or due to associations with traditional beliefs, events or oral accounts -- these associations being important to the group’s history and cultural identity” are significant under Criterion E.

HAR § 13-284-6(c) states,

Prior to the submission of significance evaluations for properties other than architectural properties, the agency shall consult with ethnic organizations or members of the ethnic group for who some of the historic properties may have significance under criterion ‘e’, to seek their views on the significance evaluations. For native Hawaiian properties which may have significance under criterion “e”, the Office of Hawaiian Affairs also shall be consulted (emphasis added).

Native Hawaiian organizations and OHA should have been consulted to seek our views on the significance evaluations prior to SHPD accepting the report. Although OHA argues that these sites are significant under Criterion E, OHA emphasizes that a site does not have to be determined significant under Criterion E before an agency is required to consult with OHA and other Native Hawaiian organizations on the significance evaluations. The regulations state that an agency shall consult with Native Hawaiian organizations and OHA if a property may have significance under Criterion E.

¹ Letter dated August 4, 2014 from SHPD to Michael Dega, Scientific Consultant Services; SHPD LOG NO: 2014.01667, DOC NO:1408MD05.

² Letter dated December 8, 2014 from SHPD to Michael Dega, Scientific Consultant Services; SHPD LOG NO: 2014.04428, DOC NO:1412MD27.

³ Letter dated February 26, 2015 from SHPD to Michael Dega, Scientific Consultant Services; SHPD LOG NO: 2014.05598, DOC NO:1502MD42.

⁴ Perszinski, D and Dega, M, 2014: An Archaeological Inventory Survey Report for Approximately 27-Acres in Makena, Mo‘omoku Ahupua‘a, Makawao District, Island of Maui, Hawai‘i [TMK (2)2-1-005:134, 135 por.], 113 (2014) Prepared for Evans Holding Inc 1100 Alakea St., Honolulu HI 96813

In addition to consulting with OHA and Native Hawaiian organizations about the significance evaluations, we should have been consulted with regarding proposed forms of mitigation. According to HAR § 13-284-8(a)(2),

If properties with significance, so evaluated under criterion “e” . . . are involved, the agency shall initiate a consultation process with ethnic organization or members of the ethnic group for whom the historic properties have significance under criterion “e” to see their views on the proposed forms of mitigation. For native Hawaiian properties which may be significant under criterion “e”, the Office of Hawaiian Affairs also shall be consulted.

For the sake of clarification and as we discussed this in our March 6th phone meeting, I am providing previous SHPD clarification on defining “agency” per HAR 13-284⁵.

Agency refers to the permitting agency, which is in this case Maui County. “The agencies never get involved, instead they opt for the clause in 13-284-1(c) Participants in the hp review process: (1) participants are SHPD, agency with jurisdiction and the person who is proposing the project... The Agency may have others prepare review process items. And that is exactly what they all do. So the applicant is assigned the responsibility to prepare the review process items; this is allowable under the rule.”

If the SHPD’s position on this has changed please clarify. This is OHA’s interpretation of the rule and that it is the responsibility of the applicant and any contractors hired to prepare materials for Historic Preservation review.

We look forward to working with the SHPD to resolve these issues and to ensure that compliance with HRS Chapter 6E has been completed; that the community’s concerns about consultation related, but not limited, to survey methodology, site evaluations, significance determinations, proposed mitigation measures including data recovery and preservation measures have been addressed. Should you have any questions, please contact Lauren Morawski, Compliance Archaeologist, of our Kia’i Kānāwai (Compliance Enforcement) division at 808-594-1997 or laurenm@oha.org.

‘O wau iho nō me ka ‘oia ‘i ‘o,



Kamana’opono M. Crabbe, Ph.D.
Ka Pouhana, Chief Executive Officer

KC:lm

CC: William Spence-Maui County Planning Director (*via email*)
Ho’ oponopono O Makena (*via email*)

⁵ 2014 Email from Theresa Donham SHPD Branch Chief of Archaeology to Kai Markell clarifying term “agency” in HAR 13-284.

Drs. Fariss and Lebo
April 2, 2018
Page 4

Justin Kekiwi, 'Ohana Kekiwi (*via email*)
Carol-Marie Lee, Aha Moku O Maui Honua' ula District (*via email*)

Mr. William Spence
Director
County of Maui Planning Department
2200 One Main Plaza, Suite #315
Wailuku, HI 96793

March 9, 2018

Re: Evans Holdings, LLC Project [TMK's (2) 2-1-005:134, 135, 136]

Aloha e Mr. Spence,

We are Ho'oponopono O Makena, and are writing on behalf of the community regarding the Evans Holdings, LLC project on TMK's (2) 2-1-005:134, 135 and 136. Based on our research, the Evans Holdings project is in violation of Hawai'i Administrative Rules 13-276, 13-284 and 11-200. (See Table 1.) To address this problem, we are requesting:

- A) An immediate stop work order from County of Maui to Evans Holdings, LLC for all project activities on TMK's (2) 2-1-005:134, 135, 136
- B) Preparation of an Environmental Impact Statement
- C) Consultation with Lineal and Cultural Descendants, cultural practitioners, and cultural organizations, including but not limited to: Justin Kekiwi (Lineal Descendant), Ashford Delima (Lineal Descendant), Carol-Marie Lee (Aha Moku O Maui, Honua'ula District)
- D) To be placed on the agenda for the following meetings. The agenda topic will address archaeological monitoring on County grading permits:
 - Maui Planning Commission
 - Maui County Cultural Resource Commission
 - Maui County Council Planning Committee

Hawai'i Administrative Rules (HAR) clearly outline penalties for such infractions, as well as the authority vested in government officials to stop non-compliant activities. We are asking our State and County officials to carry out their statutory duties as expressed in the following administrative rules:

HAR 13-276-9 Penalty: "Non-compliance with the provisions and procedures established by this chapter shall result in a directive to the person not to proceed with project ground alterations, a denial or revocation of SHPD written concurrence or agreement, and shall also be penalized as provided in section 6E-11, HRS, applicable laws."

HAR 13-284-13 Penalty: “Failure to obtain written comments of the SHPD in accordance with this chapter shall result in a SHPD comment to the agency not to proceed with the project.”

Table 1. *List of Hawai'i Administrative Rules (HAR) violations pertinent to Evans Holding, LLC project:*

HAR provision	Violation
13-276-5(g)	No record of community consultation in Scientific Consulting Services' (SCS) Archaeological Inventory Survey Reports (AISR)
13-284-6(c)	SCS did not seek community consultation during their significance assessments of sites. SCS claims to have sent the AISR to OHA, but OHA has no record of this
13-284-6(d)(1)(C)	SCS did not submit evidence of community consultation with their significance assessments
13-284-7	SCS' AISR's do not include effect determinations or discussion of the Evan's Holdings project scope of work so the nature of possible effects to cultural properties can be understood
13-284-8(a)(2)	SCS did not seek community input on what forms of mitigation were proposed
13-284-8(a)(3)(c)	SCS did not provide a description of community consultation sought for their proposed mitigation of the Criterion "E" sites
13-284-8 (e)(5)	SCS did not seek community consultation when drafting preservation plans for Criterion "E" sites
13-284-9	SCS did not notify SHPD to verify completion of mitigation as requested in SHPD letter [SHPD Log No. 2015.02343, Doc No. 1506MD19]
13-284	SHPD accepted SCS reports that did not satisfy HAR provisions requiring community consultation

11-200-8	The presence of SIHP sites 50-50-14-7885 through 50-50-14-7934 in the project area initiate the Hawai'i Environmental Policy Act, however there is no indication that the Evans Holdings project has cleared the Ch. 343 process. A Request for Access to Government records for all documents relating to EA/EIS exemption to Chapter 343 on TMK's (2) 2-1-005:129 through 138 has submitted to the attention of Mr. William Spence, Director of Maui County Department of Planning.
----------	---

In addition to the above HAR violations, the community finds the County negligent in their approval of the grading permits for this project. In permit review letters directed to the County, SHPD indicated that completion of archaeological mitigation commitments had not yet been verified. Until doing so, grading and grubbing permits should not have moved forward. Regarding, the Polena 1 & 2 well permits, SHPD stated that it would not be able to comment until the County of Maui provided an updated TMK for the parcels in question and corresponding map that included the location of the historic sites. In the same fashion as the grading permits above, work went forward despite receiving due historic review. Of extreme concern to the community is the County of Maui's repeated failure to require archaeological monitoring on grading permits when it is recommended by SHPD as a necessary mitigation measure.

This failure on the part of the State, County, cultural resource management firms and private contractors to adhere to State laws creates the perfect pathway for the destruction of Hawai'i's cultural and natural resources. A clear example of this comes from the Evans Holdings project: three rock crushers were used in the project area without an archaeological monitor on site. This occurred an area with over 50 sites identified in the archaeological inventory survey alone, with great likelihood of disturbance to unidentified surface and subsurface cultural material during grading and grubbing activities. No one can account for what was destroyed in the rock crushers because the County did not require archaeological monitoring on the grading permits. Additionally, had SCS consulted with the community as required by law, and had SHPD held SCS accountable for this as the State agency that reviews and comments on archaeological reports, the sites on this parcel would have received better-informed significance evaluations and appropriate mitigation measures to prevent the destruction of cultural heritage that occurs now as we speak. Further complicating the issue are the illegal actions of the private contractor, Goodfellow Bros. Inc., who graded land exceeding one acre outside the project area without a permit - even more problematic because this was on land belonging to the State, whom Goodfellow Bros. failed to contact for permission prior to grading.

To reiterate, Ho'oponopono O Makena and the community request the following until the above issues have been resolved:

- A) An immediate stop work order from County of Maui an SHPD to Evans Holdings, LLC for all project activities on TMK's (2) 2-1-005:134, 135, 136
- B) Preparation of an Environmental Impact Statement
- C) Reopening the historic preservation review process to include consultation with Lineal and Cultural Descendants, cultural practitioners, and cultural groups such as such as Aha Moku O Maui and The Office of Hawaiian Affairs regarding the sites identified in the archaeological inventory surveys.
- D) To be placed on the agenda for the following meetings. Agenda topic addresses archaeological monitoring on County grading permits:
 - Maui Planning Commission
 - Maui County Cultural Resource Commission
 - Maui County Council Planning Committee

We hope to receive timely acknowledgement and action on the requests above, and look forward to your response.

Mahalo,



Ashford Delima, Lineal Descendant
Ho'oponopono O Makena



Justin Kekiwi, Lineal Descendant

CC:

Matthew Fariss, Ph.D, Maui Archaeologist
State Historic Preservation Division

Lauren Morawski, Archaeologist
Compliance Enforcement
The Office of Hawaiian Affairs

Michael Dega, Ph.D., Principle Investigator

Scientific Consulting Services, Inc.

Evans Holdings LLC
1100 Alakea Street, Suite 2200
Honolulu, HI 96813

Carol-Marie Lee
Aha Moku o Maui, Honua'ula Moku

Tyson Au
Lineal Descendant

Cody Nemet
Cultural Advocate

Suzanne Case, Chairperson
State of Hawai'i Department of Land and Natural Resources

Alan Downer, Administrator
State Historic Preservation Division

Kelly King,
Maui County Councilmember, South Maui
Chair, County of Maui Planning Committee

Alika Atay
Maui County Councilmember, Wailuku-Waihe'e-Waikapu
Chair, Water Resources Committee

Elle Cochran
Maui County Councilmember, West Maui
Chair, Infrastructure and Environmental Management Committee

Cleyton Morell, Project Manager
Goodfellow Bro's. Inc.

References:

Perszinski and Dega, 2014: *An Archaeological Inventory Survey Report For Approximately 27-Acres in Makena, Mo'omuku Ahupua'a, Makawao District, Island of Maui, hawai'i [TMK: (2) 2-1-005:134, 135 por., and 135] Prepared for Evans Holdings, Inc. 1100 Alakea Street, Suite 2200, Honolulu, HI 96813.* (SCS Project # 1501a-4)

Perszinski and Dega, 2014: *An Archaeological Inventory Survey Report for a 7.2-Acre Utility Corridor in Makena, Island of Maui, Hawai'i [TMK (2) 2-1-005:135 por.]* (SCS Project # 1501b-5)

Perszinski and Dega, 2015: *Data Recovery Plan for Sites 50-50-14-7891,-7908,-7911,-7914 and Preservation Plan for Sites -50-50-14-7892, -7917 on Approximately 27-Acres in Makena, Mo'omuku Ahupua'a, Makawao District, Island of Maui, Hawai'i [TMK: (2) 2-1-005:134, 135 Por. and 136]. Prepared for Evans Holdings Inc. 1100 Alakea Street, Suite 2200, Honolulu, HI 96813 (SCS Project # 1501a-PP/DR-3)*

rec'd 12/15/14

2014.05637

accepted

M-02942

SCS Project Number. 1501b-5

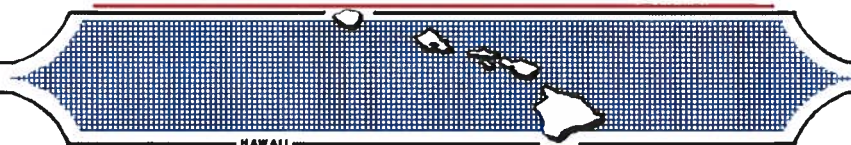
**AN ARCHAEOLOGICAL INVENTORY SURVEY REPORT FOR
A 7.2-ACRE UTILITY CORRIDOR IN MĀKENA,
MO'OMUKU AHUPUA'A, MAKAWAO DISTRICT,
ISLAND OF MAUI, HAWAII
[TMK: (2) 2-1-005:135 por.]**

Prepared by:
David Perzinski, B.A.
and
Michael Dega, Ph.D.
Revised December 2014
DRAFT

*Revised
see P. list for*

Prepared for:
Evans Holdings, Inc.
1100 Alakea Street, Suite 2200
Honolulu, HI 96813

SCIENTIFIC CONSULTANT SERVICES Inc.



1347 Kapiolani Blvd., Suite 408 Honolulu, Hawaii'i 96814

ABSTRACT

Scientific Consultant Services, Inc., conducted Archaeological Inventory Survey of a 7.2 acre parcel in Mo'omuku Ahupua'a, Makawao District, Island of Maui, Hawai'i [TMK: (2) 2-1-005:135 por.]. A total of 14 new sites with 21 component features were documented during fieldwork. The sites have been designated as State Site Nos. 50-50-14-7921 through 50-50-14-7934. The sites represent both pre-Contact and Contact period use of the landscape. Site types include rock enclosures, modified outcrops, mounds terraces, and work sites.

State Sites 50-50-14-7921 through 50-50-14-7932 are found to be significant under Criterion D. The sites have been documented herein and most occur in poor preservation states. State Site - 7932, however, has been recommended for Preservation. No further work is recommended for the remaining sites or for the project area in general.

Updated
in Final
Version -
Site 7923
will have
data recovery
for 7923
Ltr - DR

TABLE OF CONTENTS

ABSTRACT..... ii

LIST OF FIGURES iv

INTRODUCTION 1

ENVIRONMENTAL SETTING 4

 PROJECT AREA LOCATION 4

 RAINFALL 4

 SOILS..... 4

 VEGETATION 4

TRADITIONAL AND HISTORIC SETTING..... **HISTORIC** 6

 PRE-CONTACT ERA AND ~~MYTHOLOGICAL~~ ACCOUNTS (HONUA'ULA DISTRICT) 6

 HISTORICAL ERA 9

MAHELE..... 10

 MODERN ERA 14

PREVIOUS ARCHAEOLOGY..... 15

 RECENT LARGE SURVEYS 25

SETTLEMENT PATTERNS..... 27

METHODS 28

RESULTS OF FIELDWORK..... 29

DISCUSSION AND CONCLUSIONS 50

 AGRICULTURAL FEATURES 50

 HABITATION FEATURES..... 50

 HISTORIC FEATURES 52

 DISCUSSION 52

SIGNIFICANCE AND RECOMMENDATIONS 54

REFERENCES CITED..... 56

LIST OF FIGURES

Figure 1: Portion of USGS Topographic Map Showing the Location of the Project Area 2

Figure 2: TMK Showing Location of Project Area 3

Figure 3: Map Showing Location of Sites Documented by Cleghorn (1991). Note: Current
Project Area is Center of Map (no sites), above Site -2783 and -2789. 16

Figure 4: Portion of USGS Map Showing Location of Previous Archaeological Studies in the
Vicinity of the Project Area. 17

Figure 5: USGS Map Showing Location of Sites 50-50-14-7921 through -7934. 31

Figure 6: View Southeast of Site -7921 Showing Ranch Wall. 32

Figure 7: View West of State Site -7922. 34

Figure 8: Plan View of State Site -7923. 35

Figure 9: View North of State Site -7924. 37

Figure 10: View Southwest of State Site -7925. 38

Figure 11: View Southeast of State Site -7929 (TS010). 41

Figure 12: Plan View of State Site -7930. 43

Figure 13: View Southeast of State Site -7932. 45

Figure 14: Plan View of State Site -7931. 46

Figure 15: View Northwest of State Site -7933. 48

Figure 16: View Southwest of State Site -7934. 49

Figure 17: USGS Map Showing Location of Sites by Function. 51

LIST OF TABLES

Table 1: Previous Archaeological Studies in the Vicinity of the Project Area. 18

Table 2. Site Significance and Recommendations. 55

INTRODUCTION

At the request of Evans Holdings, Inc. (landowner), Scientific Consultant Services, Inc. (SCS) conducted Archaeological Inventory Survey (AIS) of an approximate 7.2 acre utility corridor of undeveloped land in Mo`omuku Ahupua`a, Makawao District, Island of Maui, Hawai'i [TMK: (2) 2-1-005:135 por.] (Figures 1 and 2). The AIS consisted of historical background and archival research; systematic pedestrian survey of the project area; mapping and recording of site features; and, analysis, interpretation, and reporting of all relevant data. Fieldwork was conducted on an intermittent basis between November 15-December 15, 2013 by Ian Bassford, B.A., Joe Farrugia, M.A. and Andrew Bastier, B.A. and Michael Dega, Ph.D., Principle Investigator.

Archaeological work in the project area was conducted to determine the presence/absence of historic properties in surface and subsurface contexts through survey and representative subsurface testing. The ultimate goals of the project were to determine if significant cultural or historic resources occurred on the parcel; and, to provide significance assessments and recommendations to the State Historic Preservation Division (SHPD) on any historic properties.

Prior to the current AIS research, previous archaeological work was conducted within portions of the project area by Cleghorn (1991), who recorded a total of 26 sites with 60 component features in various TMK's (see below). The most common features recorded were stone walls associated with historic cattle ranching activities. Modified outcrops were the second most common feature; their function related to agriculture and small activity areas. Several platforms, terraces and enclosures also present, likely dating to the prehistoric era (pre-1778) and associated with habitation activities. One lava tube was identified and contained a human skeleton. None of these sites occur in the present project area.

During the current study, and discussed more below, a total of 14 new sites composed of 21 component features were documented during fieldwork. The sites have been designated as State Site Nos. 50-50-14-7921 through -7934. The sites represent both pre-Contact and Contact period use of the landscape. Site types include enclosures, rock mounds, modified outcrops, terraces, and midden and artifact scatters.

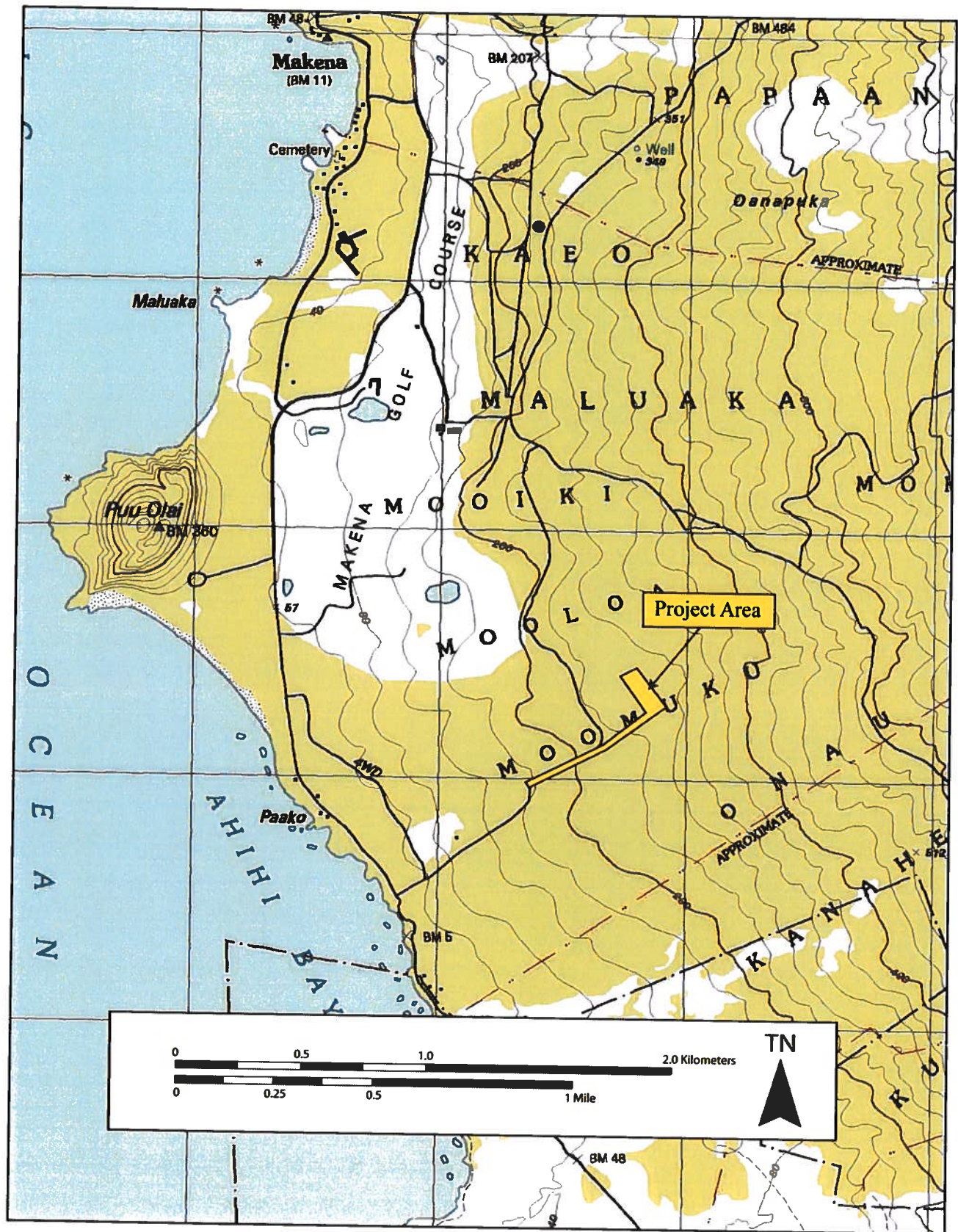


Figure 1: Portion of USGS Topographic Map Showing the Location of the Project Area

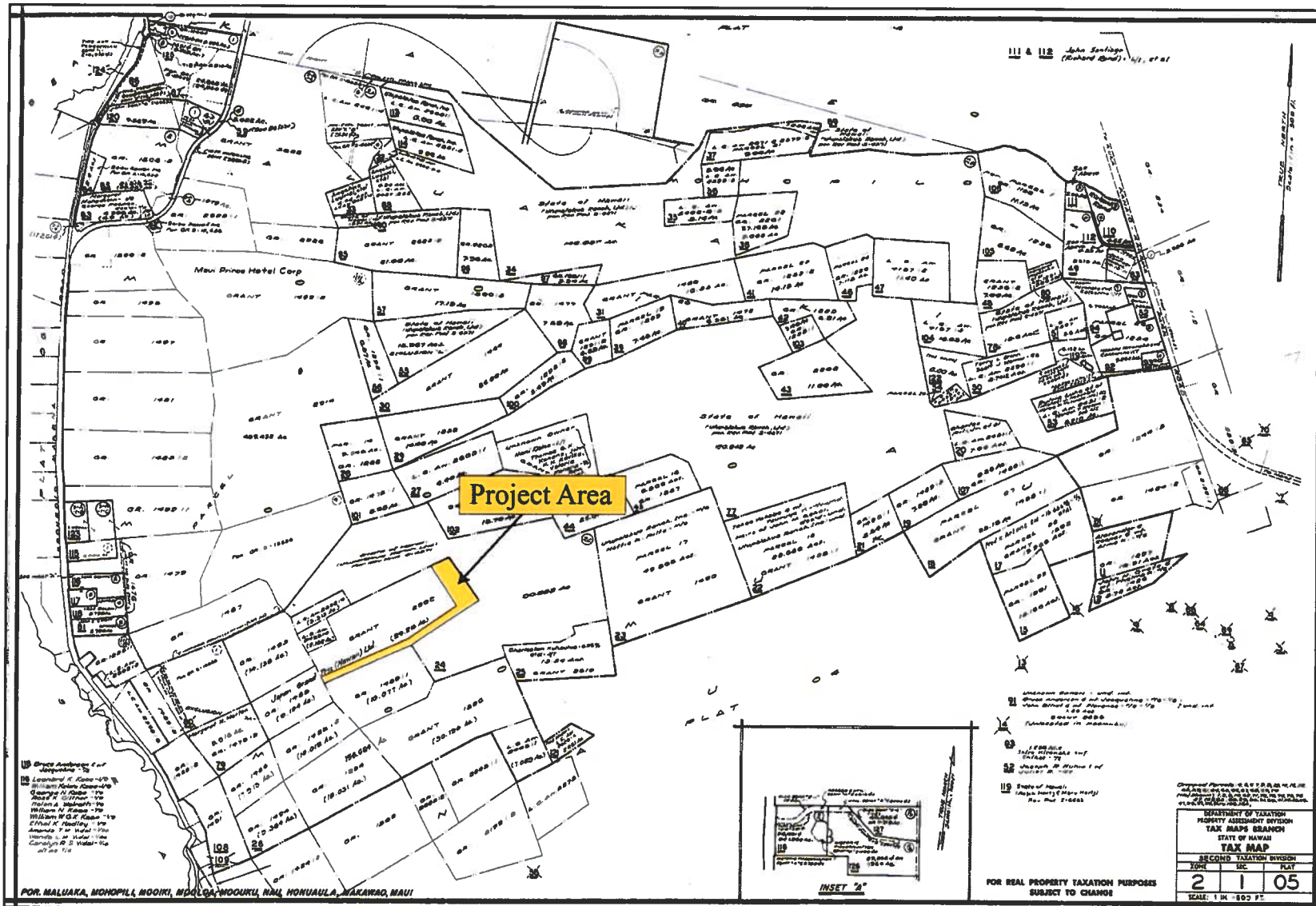


Figure 2: TMK Showing Location of Project Area.

ENVIRONMENTAL SETTING

PROJECT AREA LOCATION

The project area is located within Mo'omuku Ahupua'a, Honua'ula District, Maui Island at an elevation ranging from approximately 140 feet to 250 feet above mean sea level (amsl) and extending approximately 0.7-1.3 km inland from the coastline (see Figures 1 and 2). The project area parcel is surrounded by undeveloped former ranch lands and is accessed by an existing private road above Makena Keoneoio Road that is downslope (west) of the project area.

RAINFALL

Annual rainfall in the project area is less than 15 inches annually, making this region one of the driest on Maui and across the entire Hawaiian Islands archipelago (Juvik and Juvik 1998; Giambelluca 1986). Winter months account for the majority of the rainfall and during these months the drainage gulches in the vicinity of the project area will intermittently flow into Ahihi Bay (see Figure 1).

SOILS

Project area soils are primarily classified as "Makena loam, stony complex" (MXC) on 3%-15% slopes (Foote *et al.* 1972:101), with portions containing Oanapuka Very Stone Silt Loams on 7%-25% slopes (OED). These soils are derived from volcanic ash occurring on gentle to moderate slopes at elevations ranging from 0-500 feet. The stony land is concentrated on the bedrock ridges that generally run in an east/west (*makai/mauka*) direction. Permeability is "moderately rapid...runoff is slow to medium, and the erosion hazard is slight to moderate" (Foote *et al.* 1972:91). The soils typically extend to c. 40-50 cm below the ground surface creating a fairly shallow profile. The soils in the project area were historically associated with pasture and wildlife habitat (Foote *et al.*, *ibid.*), though in pre-contact times they were also associated with habitation and agriculture. Dryland forest once thrived on these soils. In the forests just above the settled coastal areas of Mākena, Hawaiians gathered valuable resources such as *kou* wood for canoe building and medicine; grazing and deforestation have since denuded these soils (Handy 1940).

VEGETATION

Vegetation in the project area appears to fluctuate depending on available water. In drier months the dominant species are trees such as *kiawe* (*Prosopis pallida*), a few *wili`wili* (*Erythrina sandwicensis*), *klu* (*Acacia farnesiana*), and *koa haole* (*Leucaena leucocephala*) and dried grasses including *pili* (*Heteropodon contortus*) and shrubs (*ilima*; *Sida fallax*). Following heavy rains, the ground cover changed drastically with numerous flowers including rabbits paw

(*Wedelia trilobata*), spiderlings (*Boerhavia sp.*), Flora's paintbrush (*Emilia coccinea*), Lion's ear (*Leonotis leonurus*), hairy abutilon (*Abutilon grandifolium*), false mallow (*Malvastrum coromandelianum*), castor bean (*Ricinus communis*) and indigo (*Indigofera sp.*). Small areas containing *wiliwili*, 'a'ali'i, 'ilima (*Sida fallax*), and 'ūhaloa (*Waltheria indica*) are also present.

The project area and environs would have once sustained a lowland dry and mesic forest, woodland, and shrub land native ecosystem (Pratt and Gon 1998:122; see Lee-Greig *et al.* 2012). Lee-Greig *et al.* (2012) note that prior to human modification of the landscape, the lower slopes would have supported *pili* (*Heteropogon contortus*) and *kāwelu* (*Eragrostis variabilis*) grasslands with the shrublands of 'a'ali'i (*Dodonaea variabilis*), *ko'oko'lau* (*Bidens spp.*), 'ūlei (*Osteomeles anthyllidifolia*), and other shrubs. The dry and mesic forests would have included 'ōhi'a, *koa*, *lama* (*Diospyros sandwicensis*), *wiliwili* (*Erythrina sandwicensis*), *olopua* (*Nestegis sandwicensis*), along with rarer tree species including *halapepe* and *olopua* in the gulches and areas that are less disturbed (*Ibid.*). Prior to Contact, *pili* would have been a source of thatch material with the grasslands maintained by fire, the burning of landscape also creating a swidden system to re-invigorate the soils. Hardwoods and medicinal plants were also gathered with some mesic areas converted from forest to 'uala (sweet potato) and dryland *kalo* (taro) production (Pratt and Gon 1998:127). Lee-Greig *et al.* (2012) also note that during the mid-19th century, much of the inland areas had been in use for commercial sugar and potato ventures and by the late 19th century, most of the lands above the Makena Keone'o'io Road had been given over to cattle ranching, which is still evident through the presence of many ranching walls.

TRADITIONAL AND HISTORIC SETTING

PRE-CONTACT ERA

The traditional district of Honua`ula translates literally to “red land” (Pukui *et al.* 1974) and is accurately described in the following phrases (C.M. Hyde in Sterling 1998:215):

Honua`ula, whose shoulders are pummeled by the Moa`e wind.
The cloudless rain of Honua`ula.
The noisy rain of Ulupalakua.

The project area is located in Mo`omuku Ahupua`a, “Mo`omuku” which translates to “cut-off land section” (Pukui *et al.* 1974:158). Note that on contemporary maps and in modern references, the *ahupua`a* is designated as “Mo`omoku.” We have adopted the Traditional-period “Mo`omuku” for this report.

Documented oral accounts of prehistoric activities and events occurring in the Mākena area are limited in terms of area usage (although see Lee-Greig *et al.* 2012 for a fine summary). One oral tradition repeatedly used in historical and archaeological contexts concerns the use of Mākena as a canoe landing in 1776 for the Hawaii Island chief Kalani`opu`u:

In the year 1776 Kalani`opu`u and the chiefs returned to war on Maui, and in the battle with Kahekili’s forces at Wailuku were completely overthrown. The army landed at Keone`o`io, their double canoes extending to Makena at Honua`ula. There they ravaged the countryside, and many of the people of Honua`ula fled to the bush” [Kamakau 1992:85].

Kalani`opu`u, the son of Ka`u ruling chief Kalaninuiiamamao, intended to defeat Maui’s paramount chief Kahekili and his military forces, thereby claiming Maui. However, the forces of Kalani`opu`u were no match for Kahekili’s powerful warriors and the conquest was averted (Day 1984:65).

In traditional times, the Mākena area was recognized for its politics and subsistence base, the latter including “good fishing” and “noteworthy” subsistence agriculture [sweet potato] (Handy and Handy 1972:272). As is explained in some detail below, traditional habitation and use of the Mākena lands prior to Western Contact has some time depth and carried an important role in the overall functioning of the *ahupua`a* in terms of habitation and subsistence resources.

Although not documented to a specific time frame, Handy and Handy (1972) state that during traditional times, utilization of upland areas within the Mākena environs consisted of

cultivating crops such as potatoes. This practice was done along the dry coastline as well. As Handy and Handy (1972:130) state,

The ancient Hawaiians planted potatoes in mounds (pu'e). Where soil is powdery and dry, as at Ulupalakua and Makena on Maui, the earth is heaped up carelessly into low mounds spaced with no particular precision or care.

Handy and Handy (1972:272) also note that fishing was an important component of the *ahupua'a* subsistence strategy: "On the south coast of East Maui, from Kula to Ulupalakua, a consistently dry and lava-strewn country, Mākena and Ke'oneo'io were notable for good fishing; this brought many people to live by the shore and inland." Sterling (1998) compiled a list depicting a total of ten offshore fishing grounds that were supposedly utilized in the Honua'ula District during pre-Contact times. Of these ten offshore fishing grounds, four were located within the Waipao portion of Papa'anui Ahupua'a, three were located within the general Mākena area, and the three remaining fishing grounds were located south of Honua'ula (see Figure 1).

Prior to the introduction of historic ranching of cattle, the area of Honua'ula was a much more agriculturally productive area with the forest zone stretching nearer to the coast. The lands were known for their relative productivity (compared to areas such as Kīhei). Agricultural development on the leeward side of Maui was likely to have begun early in what is known as the Expansion Period (A.D. 1200–1400 [Kirch 1985]). Handy writes,

In Honuaula, as in Kaupo and Kahikinui, the forest zone was much lower and rain more abundant before the introduction of cattle. The usual forest-zone plants were cultivated in the lower upland above the inhabited area. Despite two recent (geologically speaking) lava flows which erupted from fissures below the crater and only a few miles inland and which covered many square miles of land, the eastern and coastal portion of Honuaula was thickly populated by Hawaiian planters until recent years...Formerly there was much dry taro in the forest zone [1940: 113].

At the time of Handy's studies, very few Hawaiians still lived in the upland areas of Honua'ula (Kanaio and Ulupalakua), while "a small community of native fishermen who from time to time cultivate small patches of potatoes when rain favors them" lived in Mākena in the 1940s. This contrasted greatly with Handy's picture of Honua'ula before the advent of ranching;

For fishing, this coast is the most favorable on Maui...I think it is reasonable to suppose that the large fishing population which presumably inhabited this leeward coast ate more sweet potatoes than taro with their fish... Formerly, before deforestation of the uplands, it is said that there was ample rain in favorable

seasons for planting the sweet potato, which was the staple here. A large population must have lived at Makena in ancient times for it is an excellent fishing locality, flanked by an extensive area along shore and inland that was formerly very good for sweet potato planting and even now is fairly good, despite frequent droughts... [1940:159].

In ancient times, the religious importance of Mākena was intimately tied to the importance of fishing to its inhabitants. There was said to be a *heiau* at the base of P'u ōlā'i (the "Hill of Earthquakes"), which was a temple of the Shark God to which "*kahunas* prayed and offered sacrifices in old times" and "fishermen made offerings before putting out to sea" (Tempski 1940:57 in Sterling 1998: 229). Another *heiau*, of unknown function, was said to sit atop P'u ōlā'i (Stokes 1916).

Lee-Greig *et al.* (2012) provide much additional information on Honua'ula District, including Traditional period agricultural practices. The ethnographic information is important in identifying archaeological site function within these dry, agricultural landscapes. The authors cite Matsuoka *et al.* (1996:73) in implying that the people of this area followed a seasonal settlement pattern dependent upon the presence/absence of rainfall. Based on oral testimony, it was inferred that the native tenants of this area lived at upland habitations, where planting could be done year round, during the dry period, and migrated to the lowland coastal region during the rainy season. They state that in the lowland areas, planting was done in conjunction with the rainy season where each family cultivated plants at habitation sites along the coast (Matsuoka *et al.* 1996:73). Matsuoka and Lee-Greig *et al.* (2012) write:

The entire area of Honua'ula was highly cultivated ... It is important to note that later, when lava flows covered the land, people did not move away. Instead, they dug deep holes in the lava and transported soil from the uplands to fill them up. The earth was dug up and the soil passed in baskets from hand to hand along a row of people to fill the "garden holes" in the lava. (Matsuoka *et al.* 1996:74). The use of "garden holes" in the lava as an effective agricultural practice in an otherwise marginal environment is underscored by claims for such areas in testimony to the Land Commission during the Great Māhele. In Keauhou Ahupua'a, three awards were made for "*he wahi aa a me 'uala maoli*" (*a'a* lands and native potato) (L.C.A. 4155 to Kekaulu, 5262 to Kekualike, and 5429 to Kaumana).

For a very thorough study of additional Traditional practices in the area, from fishing to other landscape use strategies, please refer to Lee-Grieg *et al.* (2012) who have detailed and summarized oral histories, mythologies, and archival information for the district, which includes the current project area.

HISTORICAL ERA

Immense changes began to occur in traditional Hawaiian society with the discovery of the islands by Captain James Cook in 1778, and the subsequent arrival of the island's first westerners. Much of the knowledge of traditional land use patterns is based on what was recorded at the time of, and shortly after, western Contact. Early records, such as journals kept by travelers and missionaries, and surviving Hawaiian traditions, as well as archaeological investigations, have assisted in understanding the past (Kirch 1985).

The early historic accounts of European explorers in Honua`ula suggest an area that was not as abundant or populated as those in east Maui. In La Perouse's account of this portion of Maui he states:

The soil of this land is entirely formed of decomposed lava and other volcanic substances. The inhabitants have no other drink but a brackish water, obtained from shallow wells, which afford scarcely more than half a barrel a day.

During our excursion we observed four small villages of about ten or twelve housed each, built and covered with straw in the same manner as those of our poorest peasants... (M. Dondo 1807 in Sterling 1998:222)

Another account by a member of the same expedition, Dr. Rollins, recounted his impression of Honua`ula:

The vegetation of this part of Mowee is by no means so luxuriant, nor the population so numerous, as in the eastern part where we had just before touched. Scarcely had we anchored when we were surrounded by the inhabitants who brought us in their canoes hogs, fruit and fresh vegetables...

Though the island of Mowee furnishes in sufficient abundance animals and every species of food necessary to subsistence, the inhabitants neither enjoy an equal degree of health, nor possess the same elegance of form and beauty of body, as the natives of Easter Island... They appeared however to have some resemblance to them in their conformation, and in general even a more robust make, if their health had not been impaired by disease... M. Dondo 1807 in Sterling 1998:222).

The apparent lack of available resources and poor health may have been the result of a long period of war in the Hawaiian Islands, culminating in the 1810 unification of the Hawaiian Islands by Kamehameha I (Daws 1968), and notable in Honua`ula. As Cordy (1985) states:

Hawaii's armies raided (plundering crops, killing, and destroying property), and Honuaula was the site of such a landing and raid in 1776 (Fornander, 1969 in Cordy, 1985:11). Both Maui's and Hawaii's armies were constantly being

provisioned with the islands' produce, and at least in 1793, there was little food in the Lahaina area (Vancouver 1798 in Cordy *et al.* 1977: 11).

Traditional activities continued into the early post-Contact period, but western culture was drastically changing Hawaiian society (Daws 1968). While trade and western agriculture were altering the foundation of the economy, missionaries were spreading Christianity throughout Mākena (Maly and Maly 2005). In 1825, Christian missionaries organized the construction of a *pili* grass church at Keawakapu in Kā'eo Ahupua'a, known variously in historic texts as the Honua'ula Church, the Keawakapu Church, and finally Keawala'i Church (Lee-Greig *et al.* 2012). In 1854, the congregation of Keawala'i Church decided to build a stone structure in Kā'eo, Honua'ula. From 1855 to 1862, Keawala'i Congregational Church (State Site No. 50-50-14-1584) was constructed; it was built of stone and coral heated into plaster over wood fires, and a bell was brought from America (Keawala'i Congregational Church 1907-1936 in Lee-Greig *et al.* 2012).

During the early 1830s, local missionaries conducted a census of the Mākena population and discovered that the population had declined. Between the 1840s and the 1850s, the Mākena population experienced further population decreases due to introduced diseases (see Chaffee and Spear 1994:4).

MAHELE

In 1848, commissioners of the Great Māhele instigated an extreme modification to traditional land tenure on all islands that resulted in a division of lands and a system of private ownership. The Māhele was based upon the principles of Western law. While a complex issue, many scholars believe that in order to protect Hawaiian sovereignty from foreign powers, Kamehameha III was forced to establish laws changing the traditional Hawaiian society into that of a market economy (Kuykendall Vol. I 1938:145, footnote 47, *et passim*; Daws 1968:111; Kame'eleihiwa 1992:169–170, 176). The dramatic shift from a subsistence economy to a market economy resulted in drastic changes to land tenure, among other practices. As a result, foreigners demanded private ownership of land to ensure their investments (Kuykendall Vol. I, 1938:145, *et passim*; Kame'eleihiwa 1992:178).

The Māhele of 1848 divided Hawaiian lands between the king, the chiefs, the government, and began the process of private ownership of lands. Once lands were made available and private ownership was instituted, native Hawaiians, including the *maka'ainana* (commoners), were able to claim land plots upon which they had been cultivating and living. Often, foreigners were simply just given lands by the *ali'i*. However, commoners would

generally only make claims if they had first been made aware of the foreign procedures (which defined their *kuleana* lands, or Land Commission Awards). These claims could not include any previously cultivated or currently fallow land, *okipu*, stream fisheries, or many other natural resources necessary for traditional survival (Kame`eleihiwa 1992:295; Kirch and Sahlins 1992). Awarded parcels were labeled as Land Commission Awards (LCAs). If occupation could be established through the testimony of witnesses, the petitioners were issued a Royal Patent number and could then take possession of the property.

In retrospect, it appears that some of the only people who profited from the Great *Māhele* were those who were informed of the process and understood the requirements imposed by the new statute. The rest of the claimants failed to support their claims and lost lands that had been utilized by their lineal ancestors for generations.

In Mo`omuku Ahupua`a, a total of six *kuleana* claims were brought before the Land Commission, all of which were awarded (Lee-Greig *et al.* 2012:89). A majority of these awards occurred near the coastline and included residential lots and *kula`ili*, with resources being dry land taro, *hala*, and native potato. The project area lies within Land Grant 2902 awarded to Polena and consisted of 28 acres. In addition, Polena was awarded LCA 5455:4 located just north of the project area. LCA 2398:4 (just north of Polena) was awarded to Kinolua who also claimed 4 additional *Apana* within Mo`omuku *ahupua`a*.

According to the research they compiled, many of the claims made by Hawaiian families during the *Māhele* were not awarded; many of these un-awarded claims were small agricultural plots (taro, sweet potato and irish potato), or small plots of grassland (Lee-Greig *et al.* 2012).

Lee-Greig *et al.* (2012:89) note the presence of other LCA's in neighboring *ahupua`a* and the land uses:

At Mo`oiki Ahupua`a, only eight *kuleana* claims were presented to the Land Commission (see also Table 12) three of which were awarded. All three awards were for native potatoe cultivated in a`a lands. Claims for *mokumau`i* (grass land) went unawarded, as well as one claim for dry land taro. Like Mo`oiki, the number of claims at Mo`oloa Ahupua`a (n=8) were low in number when compared to *ahupua`a* to the north. The land uses noted were primarily for *kula`ili* and associated house lots with one specifying dryland taro (Helu 4157). Of the eight claims, five were awarded, most of which were awards for entire *ili* (see also Table 13) ranging in area from 1.5 acres to 10.05 acres.

Additional information on land grants surrounding the current parcel will be presented in another report in the future (Dega *et al.* 2013-in preparation).

Given the modest amount of LCAs awarded within coastal Mo`omuku Ahupua`a and in the neighboring coastal *ahupua`a* of Mo`oiki, Mo`oloa, Kā`eo and Papa`anui, the overall LCA pattern for the Mākena area suggests that permanent residence was one land use strategy in the area during historic times (see Lee-Greig *et al.* 2012 and McGerty and Yeomans 2001 for a more detailed discussion of area LCAs). Accompanying plots for the cultivation of sweet potato and use of the coastline for fishing likely accompanied such occupation. A prime example of historic era cultivation in Mākena occurred during the California gold rush of 1848 when the Irish potato was cheaper to import from Hawai`i as opposed to localities within the continental United States (Fredericksen and Fredericksen 1998b:9). Hawaiians and company-owned plantations quickly filled roles as producers of the crop. As discussed below, permanent and temporary occupation of the Mākena has some time depth, with the earliest permanent habitation sites having been constructed and occupied from A.D. 1200 (Cordero and Dega 2001).

According to Lee-Greig *et al.* (2012:90), Irish Potatoes, sugar and sugar byproducts, as well as pineapple constituted the primary cash crops of Honua`ula during the Nineteenth Century. Along with commercial agriculture, the vast grass lands of Honua`ula District provided excellent pasture for domestic cattle grazing and the development of ranching enterprises.

In 1845, 50 acres of Mākena sugar-cane and ranch lands, including a portion of Ka`eo Ahupua`a, were rented by Lonton Torbert from James Nowlein and Solomon Burrow who had received it from the government (Gosser *et al.* 1993: 27-35). There were two landings at either end of Mākena Bay. A road for oxen extended from a landing on the northern end of the bay (known as Tobert Landing) to Torbert's *mauka* plantation. By 1848, Tobert had acquired a license to open a retail store. The Government Landing was located at the southern end of the bay. Tobert finally purchased land that had been previously leased from the government in 1849 (Grant 223). However, Tobert was forced to sell everything in 1856, including 800 cattle and 475 sheep, to pay his debts. Tolbert Plantation estate became the property of James Makee in 1858 and was afterward known as the Rose Ranch.

In 1852, a man named Mahoe purchased a 514 acre land grant in Kā`eo, the boundaries of which followed the southern boundary of Tobert's land and included the fishpond at Apuakehau Point, as well as the government landing, road *mauka*, and storehouse. The boundary description of the Grant (835) mentions a *kukui* tree (*Aleurites moluccana*), an *`auwai*,

an old road, five *wiliwili* (*Erythrina sandwicensis*) trees, a sand dune, “the house of a full blooded Hawaiian,” and 24 rock piles. In 1868, Mahoe and his wife partitioned a 0.59-acre portion of their grant and conveyed it to the American Board of Commissioners for Foreign Missions (ABCFM Trustees Minute Book 1912:104). This parcel was the Keawala’i Church Lot.

In 1865, residents of Honua`ula were either employed by the Makee Plantation at Ulupalakua or were fishermen living along the coast. The coastal population was described by Fornander as “...a thrifty, handy set of people, to judge from the general appearance of their houses, not a few of which were of wood, and many of the others, especially along the seaboard, being neatly built and looking tidy and clean within. The children seem to be numerous and those that I observed were decently clad and looked bright and healthy” (Fornander in Barrère 1975:58).

The harbor at Mākena had become one of the busiest on Maui and was a regular stop on the Honolulu to Hilo run. An interesting anecdote from Makee, the owner of Rose Ranch, described the results of a summer hurricane in August of 1871. Makee wrote:

It was fearful to see the havoc during its duration. Trees were prostrate in every direction; the mill and engine house, the bowling alley, sugar house, cook house, two of the Chinese and one native house were down. One store house at the beach, and all the native houses there had been blown into the sea (Hawaiian Gazette, August 16, 1871:2.2).

Thrum also reported information concerning the storm:

... A tropical storm or hurricane caused extensive damage to the Ulupalakua Ranch, took the roof off the storehouse at Makena, which was near the church, and swept all the native houses into the sea – all within six hours [1926:36].

The harbor served as a loading port for the ranch and, after a breakwater and landing were constructed in 1877, sugarcane could be transported from the location. By 1885, structures along the bay included a church, cemetery, school, corral, the “old sugar house”, a stone wall, and a total of nine houses, one being fashioned from grass (Jackson Map, Reg. No. 1337). The development of Kahului Harbor (1920s), which contained cold storage facilities, marked the end of commercial shipping for Mākena Harbor.

MODERN ERA

From the 1940s through present times, much development has occurred to the north/west of the current project area. Military activities, such as amphibious beach landings, were conducted in Honua`ula district along coastal areas during World War II. In addition, concrete bunkers were constructed on beaches and other locations near the shoreline. Most recently, activities along the western coast have focused upon the development of large vacation resorts and golf courses. Massive infrastructure projects (water, wastewater, roadways and power) took place in the mid-1970s through the mid 1990s to provide for the development of South Maui, including Mākena (Lee-Greig *et al.* 2012). The development of today's Makena Beach and Golf Resort began when Seibu Group's Makena Resort Corporation developed a luxury golf course in 1981. Following construction of the golf course and its associated infrastructure, the Seibu Group developed the 40 million dollar Maui Prince Hotel on 38-acres of coastal land in Kā'eo Ahupua'a. The hotel opened in 1986 (Lee-Greig *et al.* 2012). Seibu Group no longer owns the hotel and it has been re-named; renovation of the golf course is underway.

Cattle ranching continues on the upper slopes of the Honua`ula District on the extensive Ulupalakua Ranch lands. From the mid-1800s through the early 1900s, ranching activities employed many Mākena residents and as a result, lessened time for traditional activities. The previously mentioned Mākena Landing, a preserved example of ranching associated structures, was utilized as a staging from where cattle were transported to ships awaiting offshore. The many cattle walls and enclosures visible in the area today attest to the importance of ranching to the local economy, which continues today in areas such as Ulupalakua. Following the ranching period (c.1925 to current), the major foci of Mākena became oriented toward the construction of residential homes and tourist destinations (Chaffee and Spear 1994:5). These undertakings still dominate present-day coastal land use in the area, with areas more inland/upland either remaining fallow or eventually being converted into large lot properties.

PREVIOUS ARCHAEOLOGY

Prior to the current archaeological investigations, a large-scale survey project was conducted in the Mo'omuku Ahupua'a area, which included a portion of the current project area (Figure 3). The survey was conducted in 1991 Cleghorn (1991) and multiple sites were recorded around the current project area parcel, although none were identified directly within the parcel. To summarize, the Cleghorn (1991) study was composed of 150-acres of land, on which 26 sites with 60 component features were recorded (Figure 4). The most common features recorded were stone walls associated with historic cattle ranching activities. Modified outcrops were the second most common feature; their function related to agriculture and small activity areas. Several platforms, terraces, and enclosures also present, likely dating to the prehistoric era (pre-1778) and associated with habitation activities. One lava tube was identified and revealed a human skeleton. No religious sites, such as *heiau* or *ko'a*, were present in the project area. Recovered artifacts included glass bottles and very modest amounts of shell midden. Cleghorn (1991) suggests that many of the non-wall sites date to A.D. 1500-1800, with the walls representing 20th century ranching. Again, none of these sites occur in the current project area.

In addition to the above noted survey, multiple studies have been conducted in Honua'ula District over time, and include large-scale surveys very recently (Figure 4; Table 1). Prior to assessing the results of these recent projects, we commence the discussion with the foundation laid by Stokes and Walker in the early twentieth century.

John F. Stokes of the B.P. Bishop Museum conducted the first "modern" archaeological study of the Makena/Honua'ula area in 1916. The goal was to systematically recorded *heiau* around the island and keep mostly to coastal reaches. Stokes (1916:4) identified multiple sites in the district, including a fishing shrine and seven *heiau* between Keone'o'io and Makena. Next, W. M. Walker (1931), between 1929 and 1930, conducted systematic archaeological survey of the Mākena area and inventoried both coastal and upland sites, including fishponds, *heiau*, and house sites. Although some of the sites Walker documented were destroyed, he nonetheless assigned site numbers. In what was then the Honua'ula District, Walker recorded a total of 21 sites, including 14 *heiau* (both coastal and upland), two fishponds, a coastal village, and four *ko'a*. One of the *ko'a* was identified in Mo'omuku Ahupua'a and is referred to as an un-named structure in Pa'ako near the coast, to the south of the current project area (Walker 1931:102-103). The site consisted of a

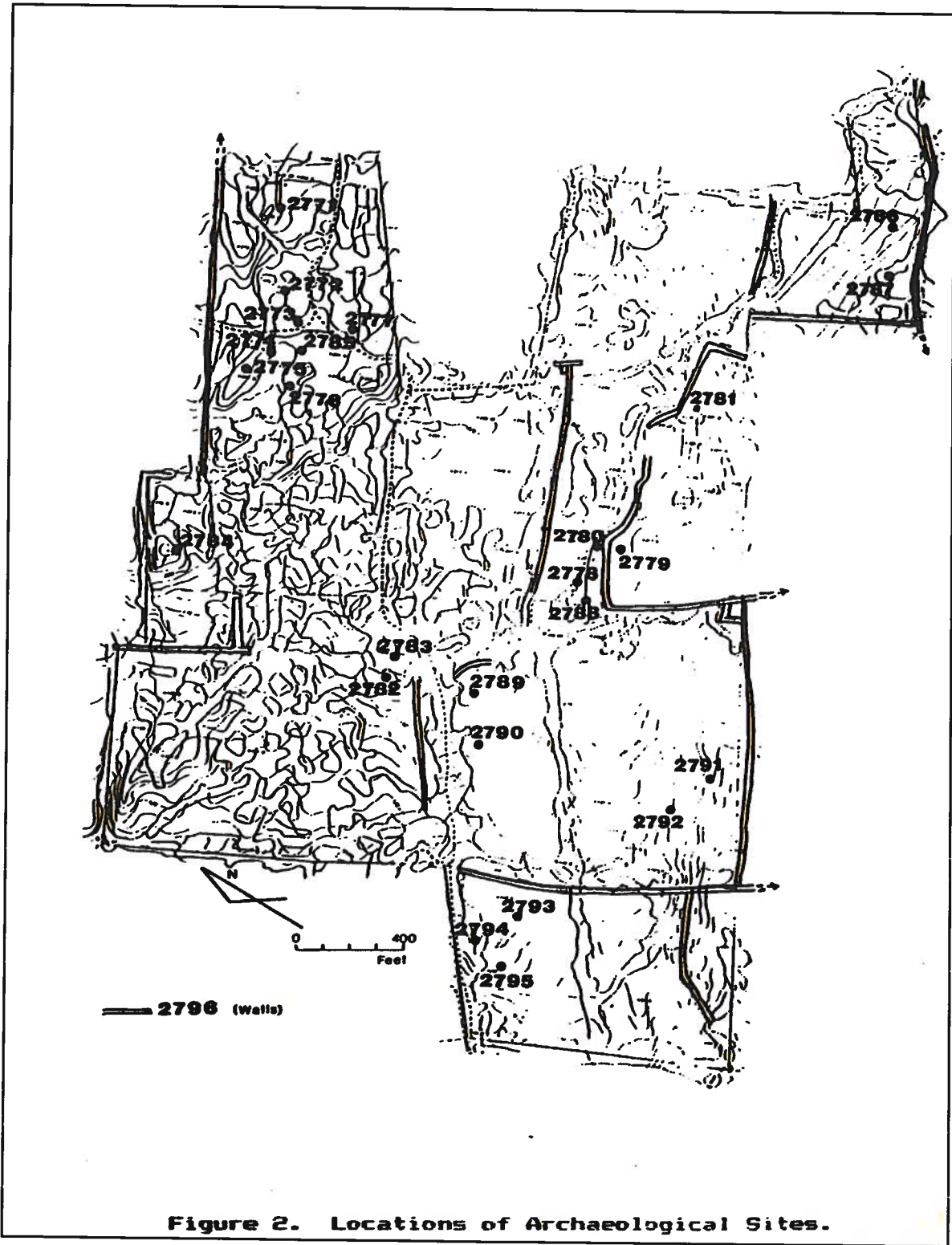


Figure 2. Locations of Archaeological Sites.

Figure 3: Map Showing Location of Sites Documented by Cleghorn (1991). Note: Current Project Area is Center of Map (no sites), above Site -2783 and -2789.

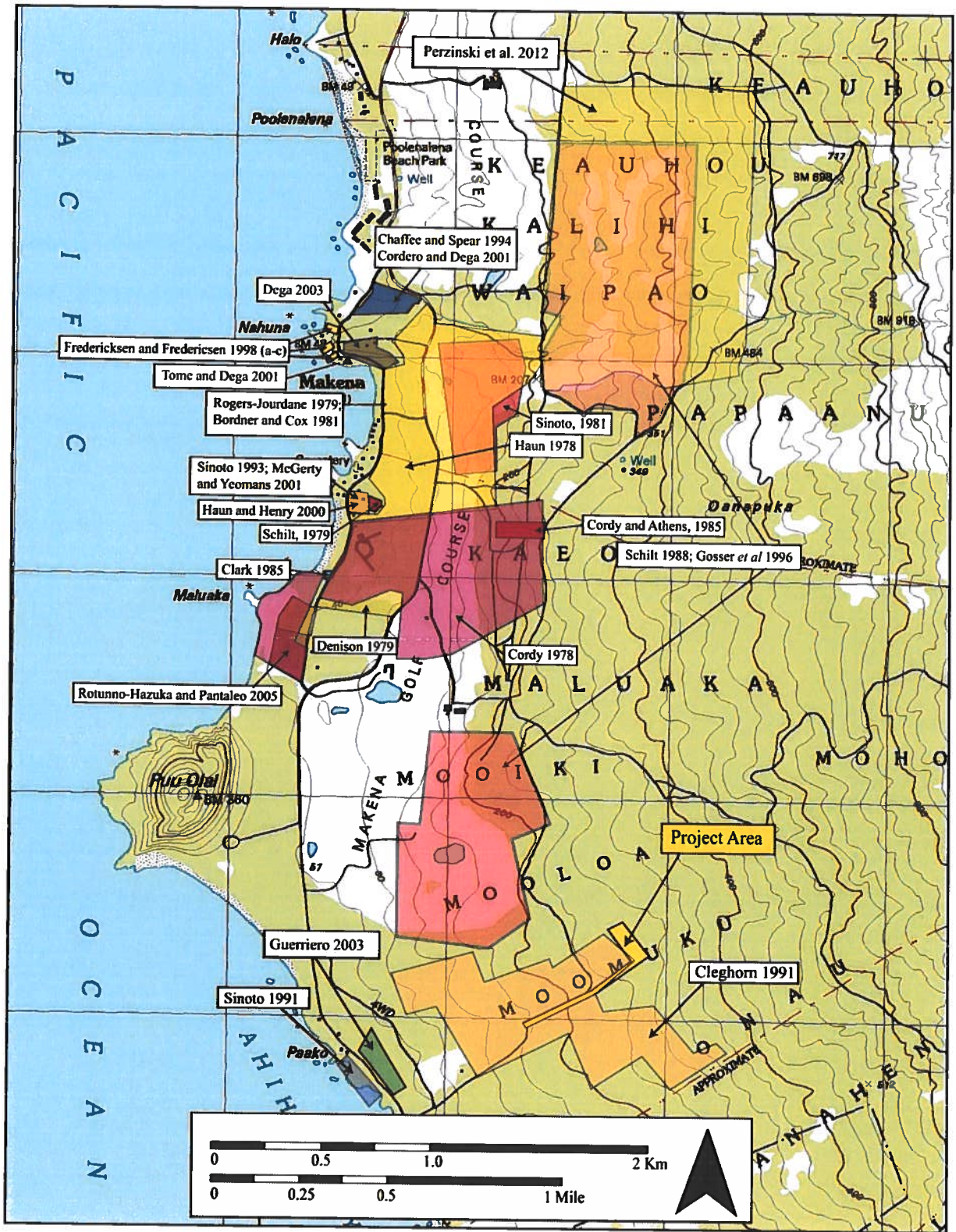


Figure 4: Portion of USGS Map Showing Location of Previous Archaeological Studies in the Vicinity of the Project Area.

Table 1: Previous Archaeological Studies in the Vicinity of the Project Area.

Author	Year	Ahupua`a	Results
Clark	1974	Multiple in Mākena	261 sites during a reconnaissance survey of 1000-acres
Sinoto	1978	Papa`anui	
Haun	1978	Maluaka	88- Including Walls, Terraces, Enclosures, C-Shapes, Mounds, Pavings, Pits
Cordy	1978	Ka`eo and Maluaka	79- Including Pre-Contact and Historic Sites; modified outcrops, terraces, enclosures, platforms, pits, midden scatters
Schilt	1979	Ka`eo	8- Including Kalani Heiau, enclosures, possible burial, modified outcrop, rockshelter
Rogers-Jourdane	1979	Papa`anui and Ka`eo	21 Sites.
Denison	1979	Papa`anui, Ka`eo and Maluaka	Data Recovery of Rogers-Jourdane sites
Sinoto	1981	Multiple in Mākena	14- Including midden scatters, modified outcrops, terraces, enclosure, platform, feature complex (agricultural and temporary habitation)
Bordner and Cox	1982	Multiple in Mākena	82- Sites and site complexes including agricultural complexes and at least 5 heiau that were recommended for further study
Cordy and Athens	1985	Ka`eo	Data Recovery of Sites -1916 and -2101; agricultural complexes with temporary habitation and workshop components
Clark <i>et al.</i>	1985	Ka`eo	Coastal reconnaissance and subsurface testing in sand dune; traditional coastal trail not found
Sinoto	1993	Ka`eo	Six sites including historic trash pit, enclosure, agricultural mounds and an historic well
Chaffee and Spear	1994	Waipao	Pohakunahaha Heiau
Fredericksen and Fredericksen	1998	Waipao	Enclosure, overhang shelter, a pre-Contact habitation area
Fredericksen and Fredericksen	1998 (multiple)	Papa`anui	WWII gun placements, overhang shelter, modified outcrop, fishing shrine, historic wall
McGerty and Yeomans	2000	Ka`eo	Site 4986 (intermingled historic and pre-Contact features), Kalani Heiau
Tome and Dega	2001	Papa`anui	Site 5123, numerous pre-Contact artifacts from a temporary habitation
Cordero and Dega	2001	Waipao	13 th century temporary habitation previously documented by Chaffee and Spear (1994)
Rotunno-Hazuka and Pantaleo	2005	Ka`eo	Nine sites including ranching enclosures, habitations, agricultural sites and a possible religious structure
Cleghorn	1991	Mo`omuku	26 Sites, 60 Features
Macintosh and Pantaleo	1998	Multiple in Makena	Eighteen, Pre-Contact Agricultural Sites
Perzinski et al.-in prep	2014	Multiple In Makena	130 sites, 549 Features
Perzinski et al.-in prep	2014	Multiple In Makena	100 Sites, 556 Features

free-standing stone platform constructed of basalt blocks measuring 32 feet long x 42 feet wide x 4 to 7 feet high. The surface of the site was level and paved with coral and pebbles, with a cleared space (no paving) in the center.

During the late 20th and continuing into the 21st century, Honua`ula District was subject to more drastic land alterations caused by the influx of construction in which residential homes and tourist hotel destinations were quickly built. Supplemental to the major construction boom was the concomitant increase in associated archaeological work in the area. By 2000, a summary of sites was presented for the district and included 77 permanent habitation sites, 192 temporary habitation sites, 282 agricultural sites, eight burials, 23 ritual sites, and 11 trail segments from Keauhou Ahupua`a to Onau Ahupua`a (Haun 2001). Since that time period, many more sites have been found across the district, including those near the current project area. Lee-Greig *et al.* (2012) and other have provided current, overarching results of studies done across Honua`ula District in the past 20 years. As such, the following presents the results of studies geographically nearer the current project area.

Bishop Museum conducted a reconnaissance of approximately 1000-acres of land in Mākena that was comprised of 5 parcels. Parcel II included the project area and a rough count of archaeological features included “23 enclosures, seven platforms, three *ahu*, three isolated walls, three possible burials, seven cave shelters, three terraces and one possible house site—for a total of 50 (Clark 1974:4).” He then noted that, “The sites are not concentrated in any particular area but are scattered through the parcel. They are generally in fair condition. No artifacts or midden were seen (*Ibid.*:5)

Sinoto (1978) conducted pedestrian survey of the Papa`anui Ahupua`a uplands that led to the identification of agricultural features. These features were assessed as pre-Contact in origin. In a model posed by Cordy and Athens (1988), these features, and possibly associated habitation areas, could have been constructed from the A.D. 1600s.

In Ka`eo Ahupua`a, Haun (1978) conducted Inventory Survey that led to the identification of multiple agricultural features. Utilizing volcanic glass hydration dating, the features were dated to A.D. 1606–1705 and A.D. 1600 (Haun 1978; see also McGerty and Yeomans 2001:12). Additionally, Bordner and Cox (1982) surveyed the uplands of Ka`eo Ahupua`a. The survey led to the identification of habitation structures and associated agricultural features. Upland of Mākena-Keoneoio Road and the present project area, a survey

by Schilt (1979) yielded several traditional features, including habitation enclosures and modified natural outcrops, with scatters of marine midden and historic artifacts. Excavation of a habitation site on the parcel produced a radiocarbon date of A.D. 1410 to 1660, intimating pre-Contact occupation of the area (see McGerty and Yeomans 2001:18).

Bishop Museum conducted an archaeological reconnaissance survey of the Garcia family property in Ka`eo Ahupua`a (Schilt 1979). In total, one previously identified site (Kalani Heiau, Ma-B8-1) and seven areas of archaeological significance were documented. These included a small enclosure, a possible burial, modified outcrop and a "lava-bubble" shelter. This site was later subjected to an archaeological inventory survey by Haun and Henry (2000) and a total of six sites, including Kalani Heiau, were identified.

An archaeological reconnaissance by Rogers-Jourdane (1979) was conducted in Ka`eo Ahupua`a, during which eight sites (and several others outside the present project area) were documented. The sites included a terrace (-7058), enclosures (-7064 and -7071), historic walls (-7063 and -7068), platform (-7086), modified outcrop (-7070), and large cattle enclosures (-7081). The sites were not all mapped, but locations and photos were taken.

Bishop Museum conducted Phase I and Phase II surveys at six sites in Papa`anui and Maluaka Ahupua`a for Seibu Hawai`i (Denison 1979). The sites were previously recorded by Rogers-Jourdane (1979) and included a wall, enclosure remnant, enclosure and platform complex, and a platform complex and terrace. The sites were typical for the area, and were interpreted as habitations and agricultural features.

Sinoto (1981) conducted a reconnaissance survey for Fairways 2-6 and a road alignment in areas north of the current project area. The survey included approximately 100-acres and a total of 14 sites (six site types) were located. The sites included a surface midden scatters, modified outcrops, terraces, an enclosure, platforms and a feature complex along a small ridge. Sinoto concluded that extensive historic disturbance to the project area had affected the site distribution and density (if compared to surrounding areas) and that there was a low variability in site types (suggesting limited utilization of the area).

An archaeological reconnaissance survey for Seibu Hawai`i located 82 sites and site complexes in lands *mauka* of the project area (Bordner and Cox 1982). Sites were noted but not mapped and included shelter caves, platforms, terraces, enclosures, historic walls and *heiau*. The study concluded that more sites were encountered than expected in the *mauka* portion of the

project area (above 300-foot contour). At least five *heiau* were encountered, though these structures need to be studied further. Agricultural sites seemed to follow the pattern suggested by Handy's descriptions, with sites in the lower portion of the study area distributed similarly to those in the north (Bordner and Cox 1982).

Cordy and Athens (1988) conducted data recovery on two sites (-1916 and -2101) in Mākena. The sites were both agricultural complexes that were recorded by Cordy in 1978. In sum, the study found that although there were some organization similarities in both field systems, there was also considerable variation. "In each site, there was a primary field shelter, a low, rectangular enclosure open to the sea. Remains indicate that these were probably sleeping, resting, eating, cooking and manufacturing- working areas that were used recurrently for short periods of time... However, there are marked variations in the nature, density and location of these basic activity areas in each site (Cordy and Athens 1988:11)."

Clark *et al.* (1985) were contracted by Seibu Hawai'i to conduct an archaeological reconnaissance for a segment of Mākena Road. The survey area was located along the coast and cut into a sand dune that was at elevations of 1-15 feet a.m.s.l. The 1,150 foot long by 60 foot wide corridor was investigated to locate a traditional coastal Hawaiian trail. Despite the limited subsurface testing and surface survey, no evidence of a trail or other cultural materials were found.

In 1993, Inventory Survey was conducted on another coastal Mākena property (TMK: 2-1-7:66; Sinoto 1993). Altogether, the survey identified six archaeological features. Feature 1 was a trash deposit containing traditional and historic cultural materials; Features 2 and 3 were both walls of which one (Feature 2) was core-filled. Feature 4 was a sweet potato mound identified by oral accounts. Feature 5 was a small enclosure utilized for animal husbandry, which may have had an alternate, unknown primary function due to its well-stacked walls and general appearance. Feature 6 was a historic well constructed of mortar and brick. Subsurface testing of selected feature and non-feature areas revealed traditional midden—sometimes intermingled with archaeologically historic debris.

Chaffee and Spear (1994:6) noted the presence of Pohakunahaha Heiau occurring some 15 m to the south of State Site -3516, on an adjacent parcel (primarily TMK:2-1-7:012). The *heiau* and a platform adjacent to the *heiau* were previously documented by Kolb (1991). Only the *heiau* was later mentioned in the Chaffee and Spear (1994) report, the latter not having re-documented the platform.

In Waipao Ahupua`a (north of the project area along the coast), Fredericksen and Fredericksen (1998a) conducted Inventory Survey of a c. 1-acre land parcel occurring near the coast (TMK: 2-1-07:71). Survey led to the identification of an enclosure (State Site No. 50-50-14-4504), an overhang shelter (50-50-14-4505), and a pre-Contact habitation area (50-50-14-4506). Based on construction methods, the Fredericksens (1998a:29) placed construction of the rock enclosure to early post-Contact times. The function of the rock shelter was determined to be a low use activity area, due to the limited amount of recovered cultural material; due to the absence of historic artifacts, use of the shelter was placed during pre-Contact times, (Ibid. 31). Based upon the recovery of traditional artifacts and midden, as well as the absence of historic artifacts, Site 4506 was also designated as a pre-Contact site (Ibid. 34).

Cordero and Dega (2001) provide additional evidence in which to evaluate the temporal placement and nature of Site 3513 Feature 2A (enclosure), Site 3514 Features 1–3 (modified outcrops-agricultural), and Site 3516 Feature 4 (surface lithic scatter) documented by Chaffee and Spear (1994). Briefly, block excavations within the Site 3513 enclosure yielded 64 subsurface features related to food preparation and habitation (postmolds) with various concentrations of lithic, faunal, and midden remains. Initial construction and occupation of the enclosure (house site) was dated to c. A.D. 1280–1460, a time period somewhat earlier than posed by Cordy and Athens (1988), yet, supported by the work of Gosser *et al.* (1996). Formalization of the structure (*ili`ili* pavement), occurred in late traditional/early historic times. Overall, the *hale* was utilized for habitation, food preparation and consumption, and lithic manufacturing on a continuous basis from the A.D. 13th - 17th century. Intra-feature patterns regarding secular areas of domestic activity were identified.

The agricultural site (Site 3514) yielded a date range of A.D. 1420–1700, a time period contemporaneous with occupation of the house site. No dates were acquired from Site 3516 (lithic scatter) but the nature and manufacture of the tools implied a traditional time frame. The pattern of these six sites shows long-term use of the Mākena landscape for various purposes.

A few years later, in the ahupua`a of Papa`anui, multiple surveys (reconnaissance and inventory-types) were reported by Fredericksen and Fredericksen (1998b and c). The results of an Inventory Survey on TMK: 2-1-07:99 (1998b) identified multiple archaeological sites that included a World War Two shoreline gun footing (50-50-14-4673), a rock overhang shelter (50-50-14-4674), a modified rock structure remnant (50-50-14-4675), and a rockshelter (50-50-14-4676). Of the four sites, excavations yielded modern debris and beach-type materials (marine shellfish, coral, etc.). On TMK: 2-1-07:7 and 98 (1998c) an Inventory Survey located four more

sites that included a fishing shrine (-4524), small rock overhang shelters (-4525 and -4526) and a portion of the Old Government Road retaining wall (-4527). The fishing shrine was thought to have been previously identified by Walker (1931) and subsurface testing revealed a subsurface pit feature, an *ʻili ʻili* pavement and traditional cultural material. Subsurface testing at Site -4525 revealed only historic cultural materials such as bottle glass sherds while the same type of testing at Site -4526 yielded modest amounts of marine invertebrates, charcoal and waterworn pebbles. No radiocarbon samples were submitted for this survey.

In July 2000, Archaeological Inventory Survey-level investigations were conducted on a small land parcel also located near the Mākena coastline in Kaʻeo Ahupuaʻa (McGerty and Yeomans 2001). Thirteen features composing State Site No. 50-50-14-4986 were recorded and tested. Representative shovel probes placed within the features yielded marine shell midden intermingled with historic artifacts. Carbon samples were not obtained due to the almost complete absence of charcoal and other organic matter. This situation inhibited absolute dating and thus, relative dating was utilized for this particular survey. A manufacturer's stamp dated "1901" on a bullet casing was recovered from one shovel probe and provided the only solid date. The existence of historic artifacts at all the features did not preclude them from solely relating to historic times; the features occurred in a close proximity to Kalani Heiau, a traditional site (McGerty and Yeomans 2001:40-41). Overall, Site -4986 consisted mainly of historic features, yet, sampling methods may have precluded the identification of traditional components.

In 2001, Inventory Survey was conducted on yet another coastal Mākena property that identified a temporary habitation site (50-50-14-5123) comprised of two features (see Tome and Dega 2001). Based on site location, feature architecture, and recovered traditional cultural materials (marine shell beads, volcanic glass and basalt flakes, cut bone, basalt flakes with polish), Feature 1 was identified as an alignment or truncated terrace and interpreted as a remnant temporary habitation terrace or agricultural terrace-retaining wall. Feature 2 was identified as a rock-filled terrace fronted by a soil-terrace interpreted as a temporary habitation locus. A radiocarbon sample obtained from Feature 2 produced a radiocarbon date of A.D. 1410-1530 thus reinforcing that both features were utilized during traditional times.

A few months later, the same parcel was subject to Archaeological Monitoring and resulted in the addition of a historic component being that excavation revealed artifacts—mainly glass bottles—associated with Mākena's military occupation (see Tome and Dega 2002). A few traditional type artifacts were also collected during the Monitoring that included traditional

artifacts such as coral abraders, marine shell beads, lithic debitage (volcanic glass and basalt), a basalt hammerstone, and a basalt *ulu`maika*.

In 2003, SCS (Tome and Dega 2005) conducted Archaeological Inventory Survey on several undeveloped land parcels totaling 4.76-acres in Papa`anui (TMK: 2-1-07:09; 2-1-08:por. 100; 2-1-7:por. 94; 2-1-7:60). Four sites, (50-50-14-5542, -5543, -5544, and -5545) were documented and all but one site (ranch wall) was subject to testing. Several time periods of land use are evident across the subject parcel in the form of built environment and landscape modifications. Constructed architecture spanned a time range of pre-contact (Site -5543, Feature C alignment; A.D. 1000-1230) to historic times (Site -5545). This study provided additional evidence for earlier than expected occupation of the Mākena area.

In 2005, Archaeological Services Hawai`i, LLC (ASH) conducted an inventory survey in Ka`eo Ahupua`a (TMK 2-1-06:37, 56 and 2-1-05:84). Nine sites (six newly recorded) were identified and consisted of ranching enclosures, habitations, agricultural sites and a square enclosure classified as a religious structure.

More recently, SCS conducted Archaeological Inventory Survey for ATC Makena Holdings, LLC at three properties; a 22.1-acre property in Papa`anui Ahupua`a, a 16.4-acre parcel spanning both Papa`anui and Kā`eo Ahupua`a and a 9.5-acre parcel in Kā`eo Ahupua`a (Perzinski and Dega 2011a, b, and c). At the 22.1-acre parcel, 14 sites were documented, composed of 20 features. Of these sites, three had already been documented by Rogers-Jourdane (1979) and were re-documented during this study. The sites were a mix of pre-Contact and Historic period, and had various functions, including temporary and permanent habitations, ceremonial, agricultural, ranching and a historic road. Of the 14 sites, the two ceremonial sites (terrace platform and enclosure) were recommended for preservation; the remaining sites were either recommended for data recovery or no further work (Perzinski and Dega 2011a).

At the 16.4-acre parcel in Papa`anui and Kā`eo, five sites were documented, composed of six archaeological features; one of the sites had already been documented by Rogers-Jourdane (1979). Besides a historic ranching wall, the remaining four sites were pre-Contact, and represented a mix of functions including ceremonial, temporary habitation/workshop and agriculture. The authors write, "At elevations from near sea level to the 120-foot contour, the project area was likely under intensive or at the margins of an intensively cultivated area of Mākena" (Perzinski and Dega 2011b: 39). Again, only the ceremonial feature was

recommended for preservation at this parcel; no further work was recommended at the remaining sites (Perzinski and Dega 2011b).

At the 9.5-acre parcel in Kā'eo, 17 sites composing 23 features were documented, including five sites previously documented by Rogers-Jourdane (1979). Again, the sites spanned the pre-Contact through Historic period and had various functions, including temporary habitation, historic ranching, agricultural, permanent habitation transportation, and sites of indeterminate function. Of these sites, only the permanent habitation site (adjacent to the Makena Beach and Golf Resort entrance driveway) and a well-preserved temporary habitation are recommended for preservation. All other sites are recommended for data recovery (Perzinski and Dega 2011c).

McIntosh and Pantaleo (1998) conducted survey of six petition areas in Makena at TMK 2-1-5:83-85, por 108; TMK 2-1-7:4; and TMK 2-1-8: por 90). They noted 18 sites in the area related mostly to pre-Contact agriculture.

RECENT LARGE SURVEYS

Scientific Consultant Services, Inc. conducted Archaeological Inventory Survey on approximately 385 acres of land owned by ATC Makena Holdings, LLC. in the ahupua`a of Kealahou 1 and 2, Kalihi, Waipao and Papa`anui, Honua`ula District, Maui Island [TMK: (2) 2-1-008:090] (Perzinski et al. 2014a, in preparation). In total, 130 newly identified archaeological sites, composed of 545 features, and seven previously identified sites (with 15 features) were documented during the research. In total, 419 of the 545 newly recorded features (76.9%) were related to agriculture, 67 (12.3%) were temporary habitation features, 21 (3.8 %) were boundary walls, 14 (2.5%) were permanent habitation areas, 7 (1.3%) were ceremonial, 6 (1.0%) were markers, and the remaining 13 features functioned as trail segments (5; 1.0%), storage (5; 1.0%), and water diversion (1; 0.2%). Site construction and use is primarily within late pre-Contact and early Historic Period.

Scientific Consultant Services, Inc. also conducted Archaeological Inventory Survey on approximately 670 acres of undeveloped land for Honua`ula Partners, LLC, in the ahupua`a of Palaua, and Keauhou, Honua`ula District, Maui Island [TMK: (2) 2-1-008:71 and 56 por.] Perzinski et al. 2014b, in preparation). In total, 103 newly identified archaeological sites, composed of 614 features, were documented during the research. In total, 498 features were related to agriculture, 50 were habitation features, 10 were boundary walls, 9 were ceremonial, 4

were markers and 17 were storage features. Site construction and use is primarily within late pre-Contact and early Historic Period.

Previous archaeological research near the present project area and within the Honua`ula region has revealed a long history of habitation and agricultural endeavors in the coastal Mākena area. A range of site types and associated midden and artifacts have been recovered at both traditional and historic sites. As is discussed below, the settlement pattern of coastal Mākena has some time depth. The present data set can be utilized to refine the settlement pattern model of the area.

SETTLEMENT PATTERNS

The settlement pattern for the district of Makawao, encompassing Honua`ula, is varied, with several competing chronologies and models being proposed (see Cordy 1981; Kolb et al. 1997; Cordy and Athens 1988; Gosser et al 1996 and Cordero and Dega 2001).

Cordy (1981) suggests that pre-Contact Period permanent housing in the Mākena area dates to ca. A.D. 1600 or “no farther back than the mid-AD 1500s” (Cordy and Athens 1988:10). Conversely, Gosser et al. (1996) and Cordero and Dega (2001) provide evidence that permanent habitation initially appeared in the coastal Mākena area from approximately A.D. 1200s, with increased (read: more intensive) settlement in the form of a more heavily built landscape by A.D. 1650. More recent studies (Perzinski and Dega, 2012, Lee-Grieg and Hammatt 2012) in adjacent parcels have tended towards the later dates with occupation occurring ca. late 1600s A.D. to the early 1800s.

Gosser et al. (1996) established a clearer picture of settlement on the leeward side of Maui. Based on 63 radiocarbon dates from Parcel III and IV in Makena, initial occupation occurred as early as A.D. 1100-1400 (Early Expansion). Following initial settlement of inland areas, a second period of occupation appeared to occur ca. A.D. 1650-1795. “During this period, populations expanded into the inland portions of Mākena to intensify agricultural production (Gosser, et al., 1996:436). As a majority of the sites recorded in the inland Mākena area have been temporary habitation and agricultural sites, there is a slight gap in knowledge concerning permanent habitation sites. Given the evidence that permanent habitations were established along the coast by A.D. 1200 (Cordero and Dega 2001), one would expect permanent habitation sites to have been established more inland following coastal settlement.

The elevation model proposed by Cordy and Athens (1988) suggests that certain site types may be associated with specific elevation zones and time periods. They proposed that permanent house sites in Mākena were situated within .25 miles of the coastline and agricultural lands and temporary house sites were located over .25 miles inland from the coast. Permanent housing settlements scarcely occurred beyond .25 miles from the coast (ibid.). Recent research has shown, however, that permanent habitation was indeed practiced over a mile and more from the coastline, albeit the sites were general suggested to have been occupied later, in the 1700-1800s, and agriculture flourished in the area. Over a kilometer from the coastline, SCS (Perzinski et al. 2014-in preparation) documented several types of enclosures (C-shape, L-shape, U-shape, J-shape, circular, oval and rectangular), rock shelters (modified overhangs), and large terraces. In total 46 sites (32.6%) and 81 features (14.9%) were classified as habitation. Sixty-seven (67) of the habitations were believed to be temporary habitations and fourteen (14) were believed to be permanent habitations. This recent work has shown expansion into these non-coastal lands, particularly in the 1700-1800s, and also shown that permanent habitation sites occur further from the coastline, in the intermediate area between coast and uplands.

Agricultural features are generally concentrated along the slopes of rocky outcrop ridges, utilizing natural outcrops in the architecture of the features. The density of the agricultural features that were identified along the ridges suggests that a formal “field system” was developed and adapted to the dissected topography of the project area (Perzinski et al. 2014-in preparation).

The agricultural features included modified outcrops, terraces, mounds and planters. Recent radiocarbon dates show intensification, particularly through the construction of many agricultural sites, occurring in the late 18th to 19th centuries for these more upland areas, over a kilometer from the coastline.

In all, cumulative settlement pattern models in the region suggest that as the population increased in the earlier settled areas of windward Maui, inhabitants began emigrating to leeward sides. This pattern is consistent with time periods suggesting early occupation of Windward Maui by A.D. 900 or A.D. 1000 and population spreading to more marginal areas by c. A.D. 1200 (see Kirch and McCoy 2007). Within comparatively environmentally marginal zones such as Mākena, even these zones could be subject to micro-divisions. As such, directly coastal and more upland areas would have been more amenable to habitation and/or cultivation than the drier areas in between, the so-called "Intermediate Zone." These "marginal" areas, such as Honua'ula and Kahikinui (Kirch 2014), required specialized farming practices due to the ubiquity of rocks, lack of water, and arid conditions.

In brief, the settlement pattern of Mākena shows the presence of both temporary and permanent habitation sites beginning from about A.D. 1200, and agricultural features, —mainly sweet potato mounds and terraces —beginning from the early 14th century. Occupation and land utilization of the area continued, with a spike in occupation and use in the 1700-1800s with permanent and temporary habitation and creation of "field systems" away from the Mākena coastline. These sites were occupied into the Historic Period. The area was also active through the Post-Contact Period, as evidenced by the area's LCAs denoting house sites and agricultural areas. Ranching activities in the late 1800s dominated much of Mākena's marginal areas while coastal habitation and fishing remained constant. While the influx of residences and hotels in the area during modern times covered much of the former traditional lands, evidence to refine existing settlement pattern models for the area is still amenable to evaluation. The present project aims to contribute to this growing database.

METHODS

Archaeological Inventory Survey Fieldwork was conducted by SCS Archaeologists Ian Bassford, Joe Farrugia, M.A. and Andrew Bastier, B.A from November 15-December 15, 2013, under the overall direction of Michael Dega, Ph.D., Principle Investigator. Inventory Survey consisted of a surface survey and manual excavation (testing) of select features within several sites. A 100% pedestrian survey utilizing 3-5 meter (m) transects was carried out, oriented roughly north/south, depending on ground cover and visual range. The maximum 5 m survey distance was adequate as surface visibility was high.

When sites were encountered, the site location was flagged, noted on a project area map and later recorded. The sites were plotted using a Garmin GPS while site topography and visual indicators were documented with written descriptions, photographs, and scale plan view maps. Site boundaries were primarily determined by the horizontal extent of their surface components.

Archival research entailed investigating the historic and archaeological background of the general project area. This examination included a documentary search of previous archaeological research conducted in this region of Maui, as well as a review of archival literature relating to Land Commission Awards and local mythology. The review of historical documents was mainly accomplished in order to understand the impact of post-Contact events on the cultural and archaeological landscape of the region.

Laboratory work was undertaken at the SCS laboratory on O`ahu and consisted of cleaning, sorting, and analyzing all artifacts and collected soil samples. Additional laboratory work involved cataloging all project photographs, drafting of sites and stratigraphic profiles, and writing. All original project area records (*i.e.* notes, profiles, photographs, etc.) are currently being curated in the SCS Maui office. All collected cultural material (*i.e.* artifacts, midden, and charcoal) are currently being curated in the SCS Honolulu office. These artifacts will be sent back to the SCS Maui office for long-term curation.

RESULTS OF FIELDWORK

Archaeological Inventory Survey was conducted on an approximate 7.3 acre utility corridor parcel of undeveloped land in Mo`omuku Ahupua`a, Honua`ula District, Island of Maui, Hawai`i [TMK: (2) 2-1-005:135 por.]. A total of 14 new sites composed of 21 component features were documented during fieldwork (Figure 6). The sites have been designated as State Site Nos. 50-50-14-7921 through -7934. The sites represent both pre-Contact and Contact period use of the landscape. Site types include enclosures, rock mounds, modified outcrops, terraces, and two small sections of collapsed, but filled, lava tubes. These sites represent habitation, agriculture, and ranching functions.

STATE SITE 50-50-14-7921 (TS001)
GPS Coordinates: 767319 e; 2282991 n
Site Type: Wall
Function: Boundary
Feature (#): 1
Age: Historic
Recommendation: No Further Work

Condition: Good

Description: State Site 50-50-14-7921 consists of a rock wall that extends from the west end of the parcel and extends *mauka* through adjacent parcels. The wall measures approximately 700 m in length with roughly half in the current project area and the other portion extending into the adjacent northern parcel. The wall has an additional 100 m long "T" on the western end that extends into the northern adjacent parcel as well. The wall is constructed of angular and

subangular basalt cobbles and boulders stacked up to 10 courses and 2 m in height. The wall is faced and core filled in the western end and is lower and less well built in the eastern end. Portions of the wall have been destroyed by bulldozer activity. Based on the location and architectural features, it is believed the wall dates to historic ranching times.

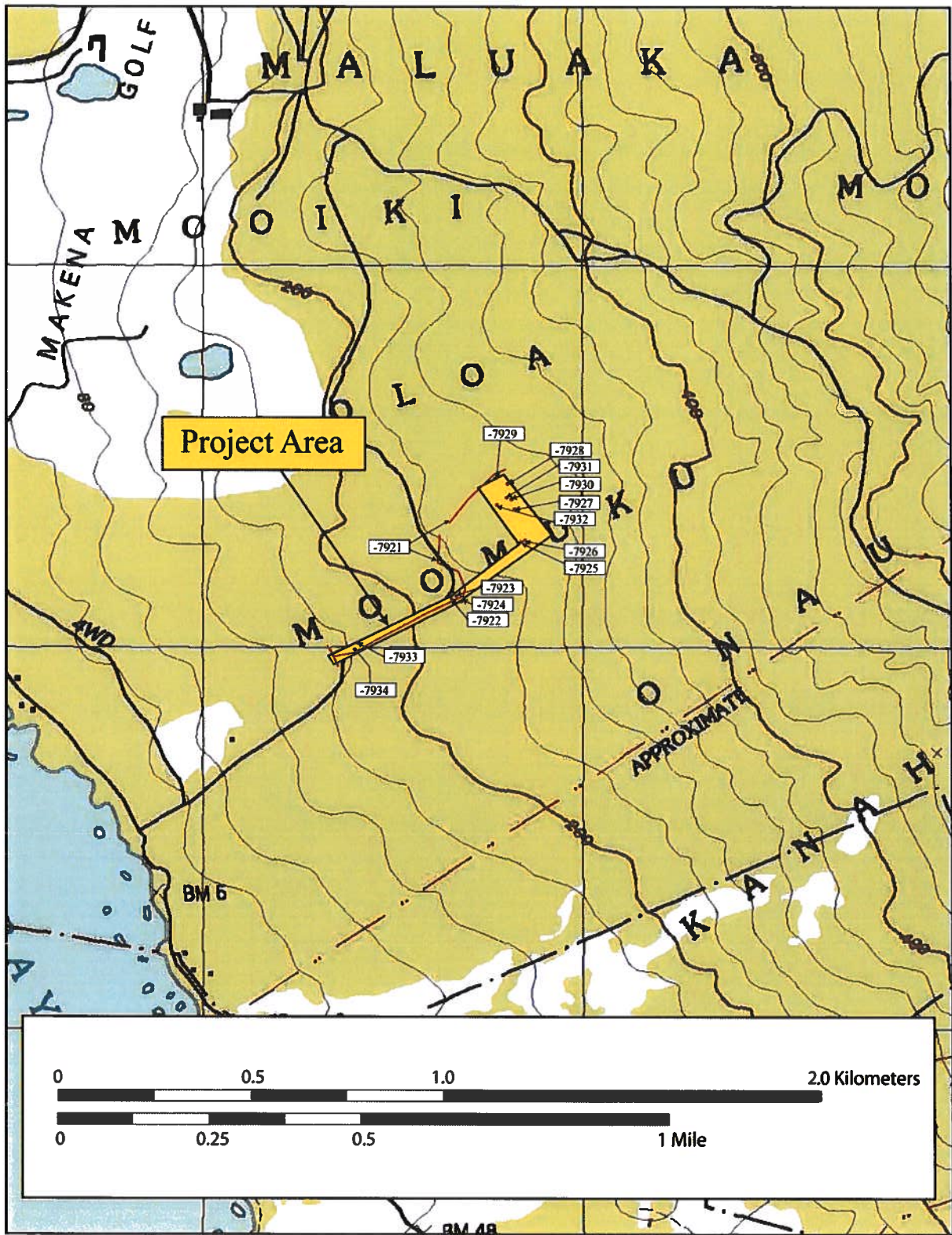


Figure 5: USGS Map Showing Location of Sites 50-50-14-7921 through -7934.

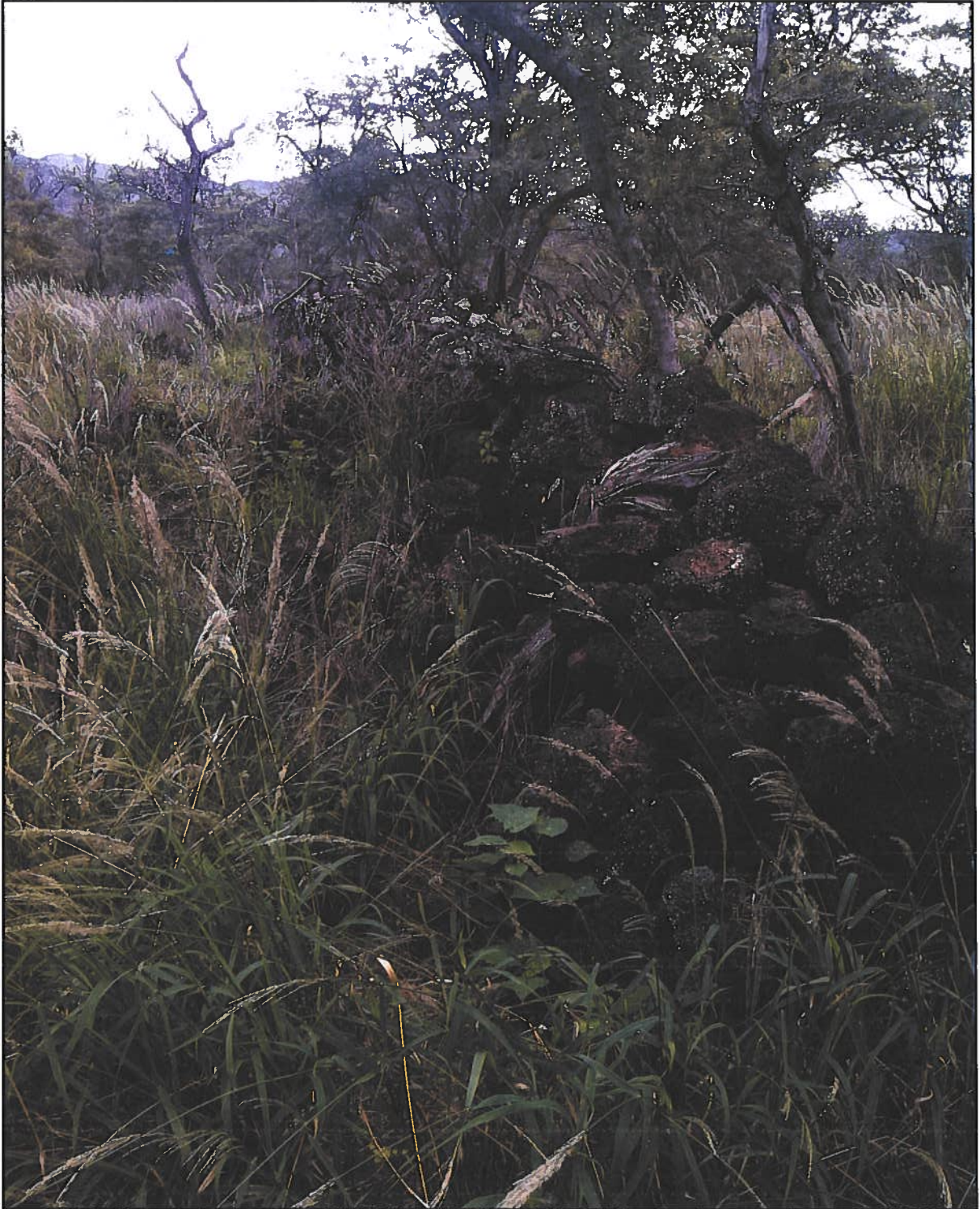


Figure 6: View Southeast of a Portion of State Site -7921 Showing Ranch Wall.

STATE SITE 50-50-14-7922 (TS003)

Condition: Fair

GPS Coordinates: 767612 e; 2283134 n

Site Type: Platform

Function: Temporary Habitation

Feature (#): 1

Age: pre-Contact and/or early Historic

Recommendation: No Further Work

Description: State Site 50-50-14-7922 consists of a basalt platform abutting a bedrock outcrop. The platform measures 2.4 m by 3.0 m with a maximum height of 1.2 m on the SE side. The platform has been built up on three sides with basalt cobbles and boulders <50 cm in diameter, with the fourth side encompassing a portion of the bedrock outcrop. The walls are not faced and are more roughly stacked. The surface is filled with cobbles and pebbles < 20 cm in diameter. The site is located on the SE side of TS001 wall. The site is in fair condition due to collapse of a portion of the platform wall and was likely the result of trampling by cattle and deer.

STATE SITE 50-50-14-7923 (TS004)

Condition: Fair

GPS Coordinates: 767625 e; 2283143 n

Site Type: Midden/Artifact Scatter

Function: Work Site/Consumption Area

Feature (#): 1

Age: pre-Contact and/or early Historic

Recommendation: Data Recovery

Description: State Site 50-50-14-7923 consists of a midden and artifact scatter. The entire area is undefined by any surface architecture, but measures approximately 26 m by 16 m (416 sq. meters). The midden scatter is bisected by a wall which most likely post-dates the scatter. The scatter is located immediately south of TS001 (wall) and was noted by a scattering of coral, volcanic glass, basalt flakes, a basalt adze preform, cowrie shell and water worn cobbles. In total, approximately 35 artifacts were observed and it is believed that the site functioned as a work space/consumption area.

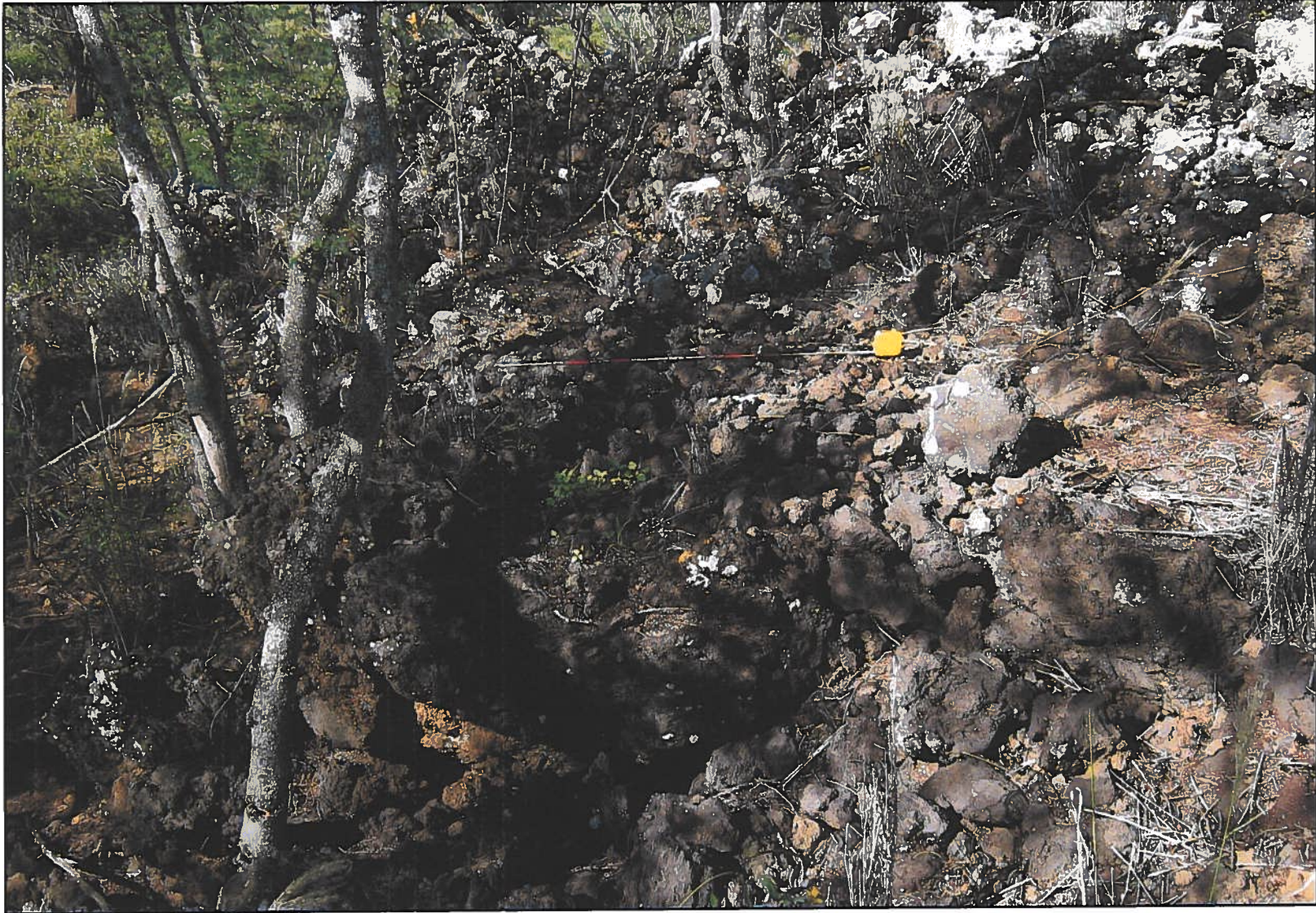


Figure 7: View West of State Site -7922.

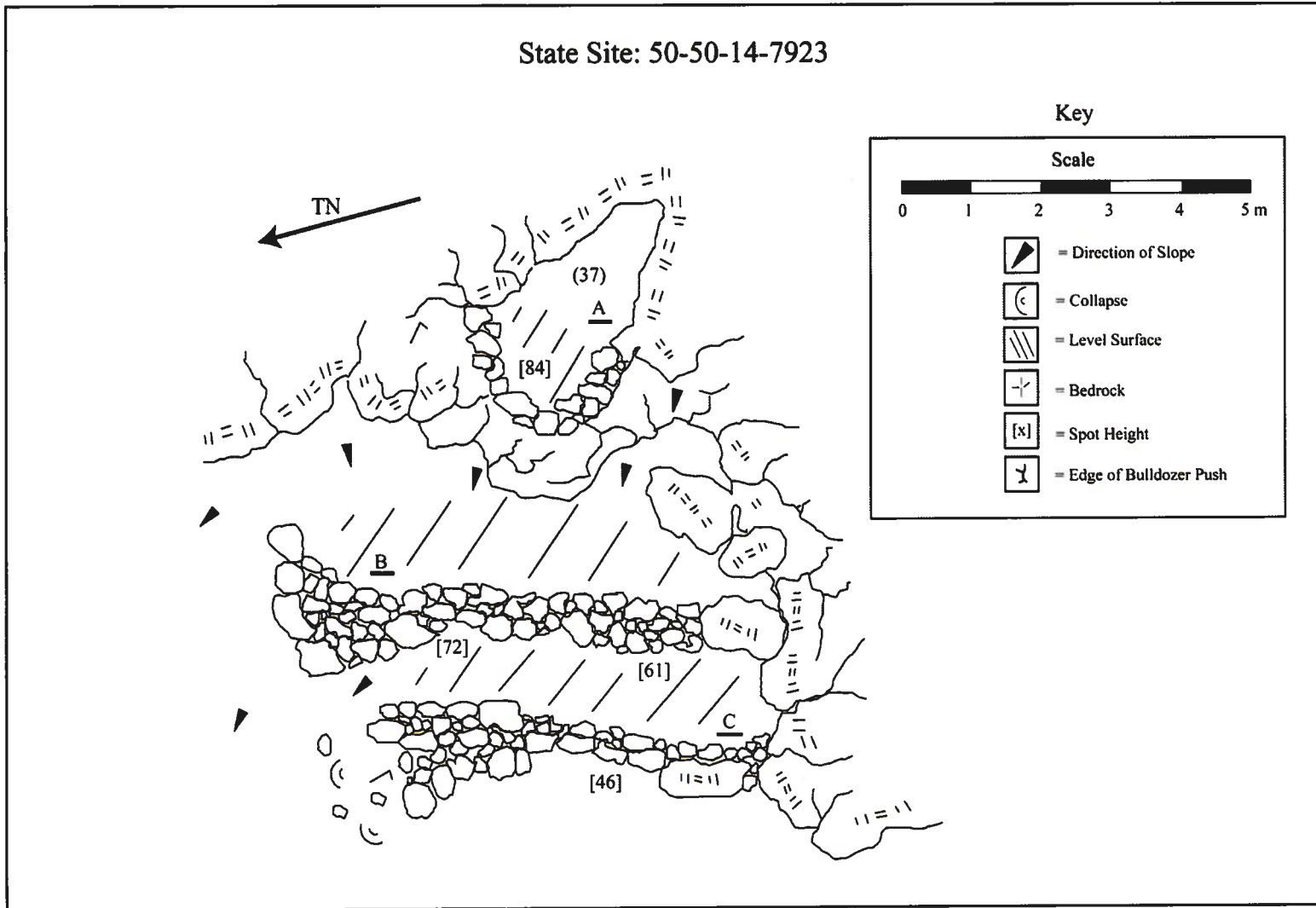


Figure 8: Plan View of State Site -7923.

STATE SITE 50-50-14-7924 (TS005)
GPS Coordinates: 767636 e; 2283134 n
Site Type: Enclosure
Function: Animal Pen/Cattle Pen
Feature (#): 1
Age: Historic
Recommendation: No Further Work

Condition: Good

Description: State Site 50-50-14-7924 consists of a large enclosure located on the south side of Site -7921 wall in the central portion of the utility corridor. The site measures 60 m long (NE/SW) by 25 m wide. The walls of the enclosure were constructed of roughly stacked, unfaced basalt cobbles and boulders up to 40 cm in diameter with the walls up to 80 cm in height with a maximum width of 2.1 m. Overall the site is in fair condition and has suffered collapse along several portions of the enclosure walls. Based on the location and architectural features, as well as the overall size, it is believed that the enclosure functioned as a cattle pen.

STATE SITE 50-50-14-7925 (TS006)
GPS Coordinates: 767784 e; 2283270 n
Site Type: Modified Outcrop
Function: Agriculture
Feature (#): 1
Age: Pre-Contact to Historic
Recommendation: No Further Work

Condition: Poor

Description: State Site 50-50-14-7925 consists of a modified outcrop that consists of piled `a`ā atop and abutting a low basalt outcrop. The site measures 5.3 m by 4.2 m with a maximum height of 55 cm. The modified outcrop is constructed of `a`ā cobbles and boulders up to 70 cm in diameter and one course high. The interior of the site is leveled soil and at one time may have been a small mound or terrace though has since collapsed into a rough pile of `a`ā basalt. Based on the location and architecture of the site it is believed to have functioned as an agricultural feature.



Figure 9: View North of State Site -7924.



Figure 10: View Southwest of State Site -7925.

STATE SITE 50-50-14-7926 (TS007)
GPS Coordinates: 767794 e; 2283271 n
Site Type: Planter
Function: Agriculture
Feature (#): 1
Age: Pre-Contact to Early Historic
Recommendation: No Further Work

Condition: Poor

Description: State Site 50-50-14-7926 consists of a planter. The site measures 5.3 m long by 3 m wide with a maximum height of 40 cm. The planter is constructed of basalt cobbles and boulders piled around the perimeter to create an enclosed planting area with a soil surface. It is believed that this site functioned as an agricultural feature.

STATE SITE 50-50-14-7927 (TS008)
GPS Coordinates: 767770 e; 2283346 n
Site Type: Wall Remnant
Function: Agriculture/Ranching
Feature (#): 1
Age: pre-Contact to Early Historic
Recommendation: No Further Work

Condition: Poor

Description: State Site 50-50-14-7927 consists of a wall remnant. The site measures 4.3 m long by 80 cm wide by 40 cm high. The low wall is constructed of basalt cobbles and boulders up to 40 cm in diameter that are stacked 3-5 courses. The wall has been severely collapsed and is truncated by a wiliwili tree on the eastern end. No cultural materials were observed near the site and it is believed it functioned as an agricultural feature or an historic ranch wall remnant.

STATE SITE 50-50-14-7928 (TS009)
GPS Coordinates: 767752 e; 2283408 n
Site Type: C-Shape, Terrace, Rock Shelter, Midden Scatter
Function: Temporary Habitation/Agriculture
Feature (#): 3
Age: pre-Historic and/or early Historic
Recommendation: No Further Work

Condition: Fair to Poor

Description: State Site 50-50-14-7928 consists of three features: a C-Shape enclosing a rock shelter (Feature A) and two terraces (Features B and C). The site is located on a bedrock outcrop slope and is oriented on an east/west axis. Overall, the site measures 8 m east/west by 7 m north south (56 sq. meters). Based on the location and architecture, it is believed that the site functioned as a pre-Contact to early historic temporary habitation and agricultural site.

Feature A consists of a C-Shape that encloses a low overhang. The feature is located on the top of a bedrock outcrop and measures 3.8 m by 2.3 m. The C-Shape abuts the surrounding bedrock and fully encloses a shallow overhang. The C-Shape walls have a maximum height of 84 cm and are constructed of medium to large boulders stacked 5-7 courses. The interior of the feature contains level soil. The overhang rock shelter measures 1.5 m wide by 2 m deep with a maximum height of 37 cm from the ceiling to the floor and extends into the bedrock outcrop.

Feature B consists of a terrace located immediately downslope from Feature A. The terrace was constructed mid-slope with walls constructed of medium to large cobbles stacked 3-5 courses high. Overall the terrace measures 6 m in length with a maximum height of 72 cm. The pad component of the feature is level and soil filled and extends back approximately 2 meters. The southern end of the terrace wall abuts the bedrock outcrop.

Feature C consists of a second terrace located immediately downslope from Feature B. The terrace is located at the base of the slope and was constructed of small to large cobbles tightly stacked up to 4 courses. Overall, the terrace measures 5.5 m long by 1.5 m wide with a maximum height of 46 cm along the terrace face. The pad of the terrace is level and tightly packed with soil. Like feature B, the south end of the terrace is anchored by the surrounding bedrock.

STATE SITE 50-50-14-7929 (TS010)

Condition: Poor

GPS Coordinates: 767724 e; 2283421 n

Site Type: Terrace

Function: Agriculture

Feature (#): 1

Age: pre-Contact to Early Historic

Recommendation: No Further Work

Description: State Site 50-50-14-7929 consists of a basalt terrace. The terrace measures 4.1 m long by 2.3 m wide with a maximum height of 55 cm along the downslope leading edge. The terrace is constructed of small boulders up to 30 cm in diameter that are piled to create a rock surface. It appears the site has undergone severe collapse that was likely the result of cattle ranching in the area. Based on the location and architecture, it is believed the site functioned as an agricultural terrace.



Figure 11: View Southeast of State Site -7929 (TS010).

STATE SITE 50-50-14-7930 (TS011)
GPS Coordinates: 767762 e; 2283369 n
Site Type: Rectangular Enclosure
Function: Temporary Habitation
Feature (#): 1
Age: pre-Contact and/or early Historic
Recommendation: No Further Work

Condition: Fair

Description: State Site 50-50-14-7930 consists of small, partially collapsed rectangular enclosure. The site measures 5.5 m long by 4 m wide (exterior dimensions) and 2.8 m by 2.2 m in the interior. The enclosure is constructed of medium to large cobbles and is severely collapsed on the south side. Though there is collapse along the outside of the enclosure, the interior wall faces are relatively intact and have a maximum height of 46 cm. The north and east walls are stacked 3-4 courses and the west wall is stacked 4-6 courses. The interior surface of the site is level and soil filled. Based on the location and architecture of the enclosure it is believed it functioned as a temporary habitation or small storage area.

STATE SITE 50-50-14-7931 (TS012)
GPS Coordinates: 767744 e; 2283365 n
Site Type: Planters/Terraces
Function: Agriculture
Feature (#): 6
Age: pre-Contact to early Historic
Recommendation: No Further Work

Condition: Poor

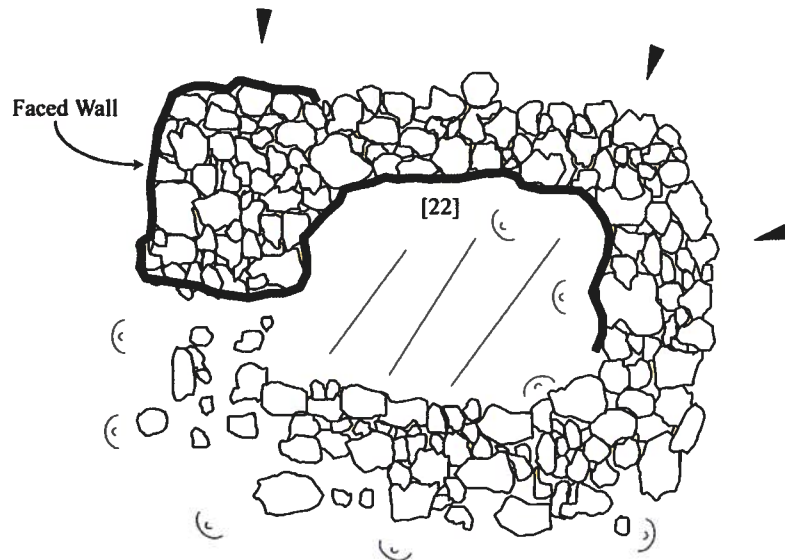
Description: State Site 50-50-14-7931 consists of complex of four terraces, a planter and a modified outcrop that comprises a small agricultural complex.

Feature A is a planter that measures 3.4 m long by 2.3 m wide with a maximum height of 28 cm. The planter is constructed of cobbles stacked and piled 2-3 courses and enclose a level soil interior.

Feature B is a terrace that measures 2.7 m long by 2.5 m wide. The terrace wall is constructed of basalt cobbles and boulders stacked 3-4 courses that fronts a level pad that would have been suitable for agricultural activities.

Feature C is a terrace that measures 3.8 m long by 2.8 m wide. The terrace utilizes a bedrock outcrop for the riser and creates a level soil pad suitable for agricultural activities.

State Site: 50-50-14-7930



TN



Key

Scale

0 1 2 3 4 5 m






-  = Direction of Slope
-  = Collapse
-  = Level Surface
-  = Bedrock
-  = Spot Height

Figure 12: Plan View of State Site -7930.

Feature D is a modified outcrop that measures 1.6 m long by 1.3 m wide with a maximum height of 52 cm. The outcrop is augmented by stacking of basalt cobbles and boulders. No cultural material was observed near the feature and it is believed the modifications were made to create an agricultural feature.

Feature E is a terrace that measures 4.2 m long by 3.3 m wide. The terrace is constructed of basalt cobbles and boulders stacked 4-6 courses and abuts a bedrock outcrop. No cultural material was observed near the feature and it is believed the terrace functioned as an agricultural feature.

Feature F is a terrace that measures 4.6 m long by 3.4 m wide. The leading wall of the terrace is constructed of basalt cobbles and boulders stacked 4-6 courses and incorporates a bedrock outcrop into its architecture. The terrace has a level soil pad and is believed to have functioned as an agricultural feature.

STATE SITE 50-50-14-7932 (TS013)
GPS Coordinates: 767724 e; 2283359 n

Condition: Fair

Site Type: Terrace
Function: Permanent Habitation
Feature (#): 1
Age: pre-Contact
Recommendation: Preservation

Description: State Site 50-50-14-7932 consists of single terrace constructed perpendicular to a ridge. The terrace is located on top of a ridge and utilizes the bedrock to create "walls" on the north and south side of the site. The terrace wall is constructed of medium to large cobbles and small boulders stacked up to 6 courses (46 cm). Overall the terrace wall measures 5 m long. The terrace habitation measures 5.8 m north/south by 8.0 m east/west for an overall surface area of 46.6 square meters. The interior of the site is level and soiled fill with scattered shell midden observed on the surface. Based on the location, architecture and presence of midden it is believed that the site functioned as a permanent (possibly seasonal) habitation.



Figure 13: View Southeast of State Site -7932.

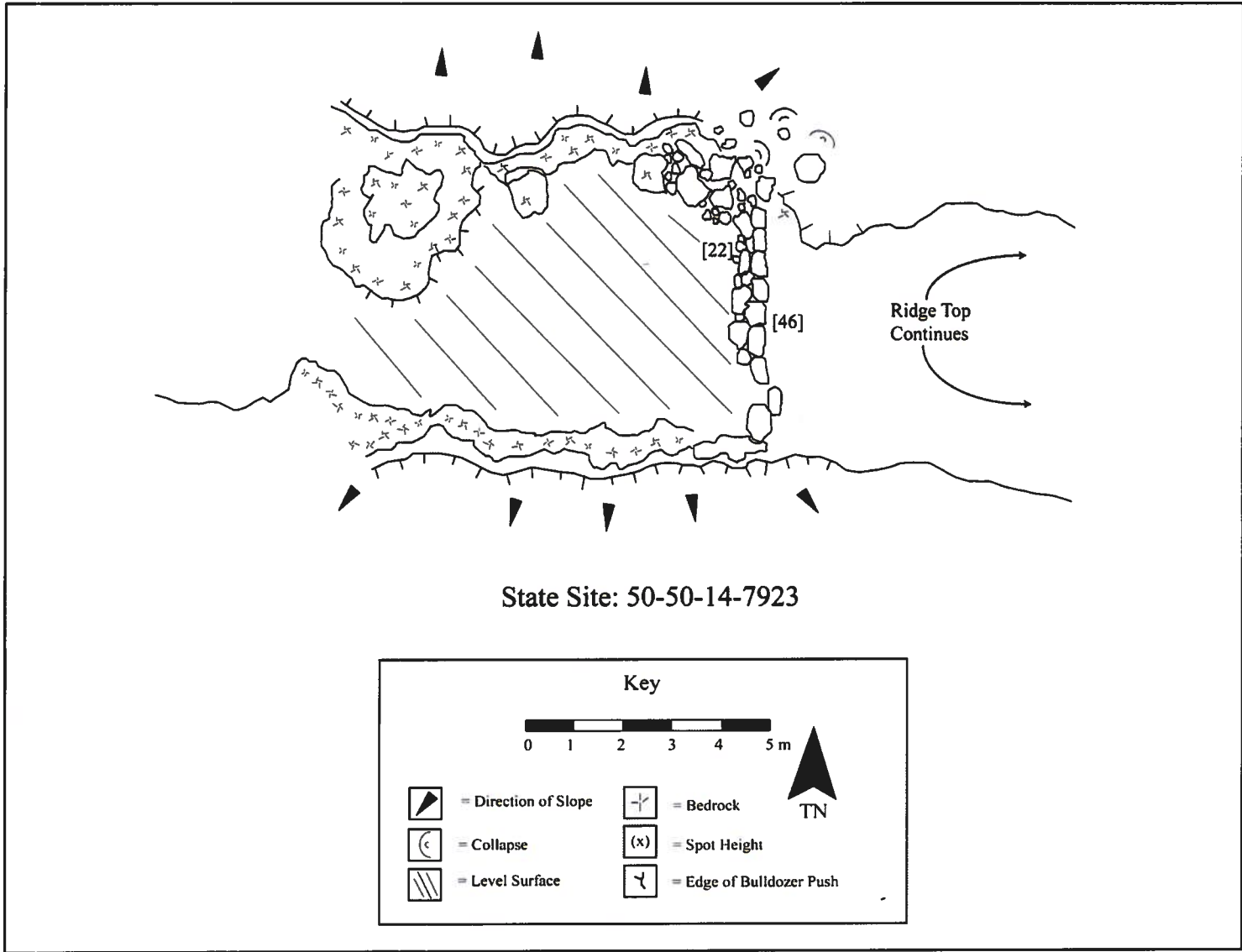


Figure 14: Plan View of State Site -7931.

STATE SITE 50-50-14-7933 (TS037)

Condition: Fair

GPS Coordinates: 767379 e; 2283031 n

Site Type: Wall

Function: Boundary

Feature (#): 1

Age: Historic

Recommendation: No Further Work

Description: State Site 50-50-14-7933 consists of a wall that extends in a North/South bearing (cross slope). The wall is believed to be a remnant of a once longer segment. The remnant measures 15 m in length by 70 cm wide with a height of 90 cm. The wall is constructed of basalt cobbles and boulders that were well stacked 5-6 courses. This wall is located approximately 10 m north of TS001 and is believed to have functioned for historic ranching activities.

STATE SITE 50-50-14-7934 (TS044)

Condition: Fair

GPS Coordinates: 767373 e; 2283013 n

Site Type: Enclosure

Function: Animal Pen

Feature (#): 1

Age: Historic

Recommendation: No Further Work

Description: State Site 50-50-14-7934 consists of a roughly triangular enclosure that measures 12.5 m long by 6 m wide with a maximum height of 97 cm. The enclosure shares its south wall with TS001. The enclosure wall is constructed of basalt cobbles and boulders up to 70 cm in diameter. Tree fall has significantly collapsed portions of the walls. Based on the location along the ranching wall and architecture, it is believed the enclosure functioned as an animal/cattle pen.



Figure 15: View Northwest of State Site -7933.



Figure 16: View Southwest of State Site -7934.

DISCUSSION AND CONCLUSIONS

Archaeological Inventory Survey of a 7.2 acre utility corridor led to the documentation of fourteen sites composed of 21 archaeological features, these designated as State Sites 50-50-14-7921 through 7934. The sites represent both pre-Contact and Historic Period activities on the parcel. Of the fourteen sites documented during the project, nine are considered as sites that spanned from pre-Contact into early Historic times (State Sites -7922, -7923, -7925, -7926, -7927, -7928, -7929, -7930, -7931), four sites are of the historic period (State Sites -7921, -7924, -7933, -7934), and one site (State Site -7932) may be associated with the pre-Contact era. Functional interpretation of the fourteen sites documented during the Inventory Survey included 5 agricultural sites (36%), 3 temporary habitation sites (22%), and 2 boundary/ranch wall sites (14%), two animal/cattle pens (14%), one work site/midden scatter (7%), and one permanent habitation (7%).

AGRICULTURAL FEATURES

The agricultural features documented during this project appear to concur with the land use model suggested by Cordy (1977), Cordy and Athens (1988), and Perzinski et al. (2014-in preparation). At elevations from near sea level to the 120-foot contour, the project area was likely under intensive, or at the margins of, an intensively cultivated area of Mākena. The types of agricultural sites encountered within the current project area include modified outcrops, rock mounds and terraces. These feature types are fairly common throughout this elevation across the breadth of Honua`ula/Makena, as has been identified through numerous projects (see above). Cordy (1985:22) states: "information indicates that the area of Mākena from about 0.25 miles inland (the 80 foot contour) up to the old forest line at the 1,200 foot elevation, 2.1 miles inland, was the cultivation zone" and "Fields (in Mākena) are scattered clusters of small irregular features adapted to the intricacies of the dry, rocky terrain (*ibid*:23)." Not only were agricultural sites present in this dry, Leeward zone, but likely were constructed in more intensive fashion from the A.D. 1700s.

HABITATION FEATURES

Four habitation features were documented in the project area, Sites -7922, -7928, -7930 and -7932, representing 19% of the total number of features. The habitation site "types" include 2 enclosures, a terrace and a platform. Based on the size and formality of the architecture, it is believed that three were temporary habitations and one (Site -7932) was a permanent habitation. In addition, one work site/area (-7923) that contained a scatter of midden and lithic debitage was documented that further shows that the area was utilized for activities related to habitation.

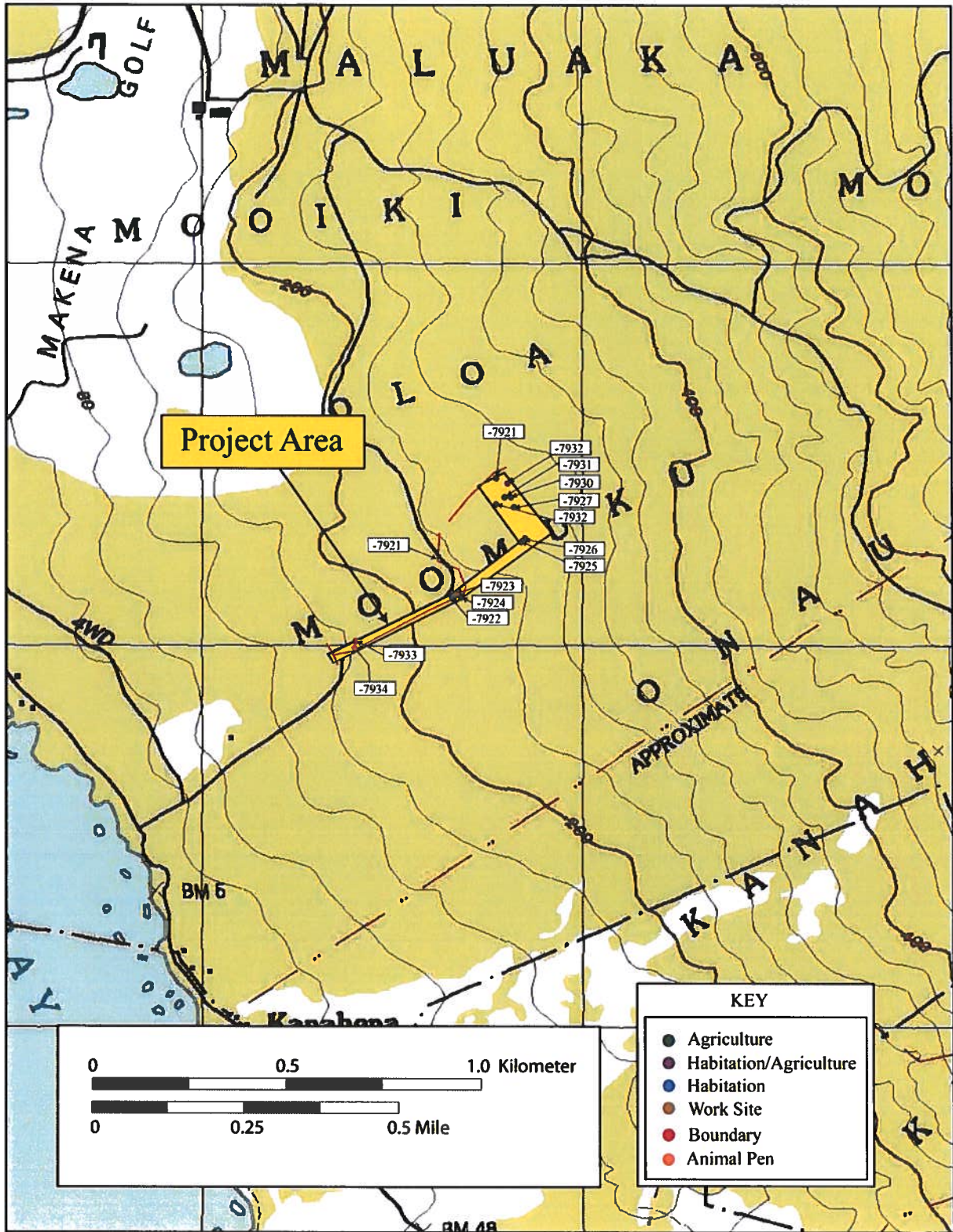


Figure 17: USGS Map Showing Location of Sites by Function.

It is likely that the temporary habitations were likely field *hale*, or temporary, isolated habitation locales. This is supported by a) the size of the features; b) proximity of agricultural features; c) lack of associated habitation features or activity areas (no larger site complexes), and d) virtual absence of cultural deposits/materials. The fact that the current enclosures were in poor-fair condition may also be a reason for difficulty in interpretation. The presence of one permanent habitation (-7932) is consistent with findings from similar locales in Honua`ula (Lee-Greig *et al.*, 2012 in preparation; Perzinski *et al.* 2014-in preparation) that suggested that permanent habitation did occur in these intermediary locations removed from the shoreline and at lower elevations than the uplands. An upcoming survey of lands surrounding the current project area will again test this thesis.

HISTORIC FEATURES

Two large enclosures (Sites -7924 and -7934) and a boundary wall (-7921) represent historic ranching use of the parcel in architectural terms. Both enclosures were interpreted as animal/cattle pens and were adjacent to a ranch wall that runs the length of the parcel and into an adjoining parcel. Given the extensive ranching use of lands from the late 1800s on the parcel and environs, and the nature of these enclosures themselves, animal husbandry appears the primary function. Such features have been documented elsewhere in Makena, at similar locations and elevations (see Perzinski *et al.* 2014-in preparation). The numerous rock walls traversing the landscape outside the current parcel further attest to the landscape modifications occurring during ranching times.

DISCUSSION

Previous archaeological studies in the Mākena area have fairly well established general settlement patterns and land use. Early studies such as those conducted by Stokes and Walker concentrated on large scale, monumental architecture sites (*i.e. heiau*). Studies in the 1970's and early 1980's consisted of large scale reconnaissance surveys and inventory level surveys for future development of Mākena and Wailea resorts and golf courses. It was during these studies that the lands were found to contain rich and varied types of archaeological sites, ranging from small scale agricultural plots to large scale *heiau* to historic ranching and habitation sites. More recent work in these areas of Honua`ula has led to the documentation of thousands of sites and features occurring not only along the coastline but inland, to over a mile or two from the shoreline, where a vast, but not necessarily old, archaeological record is present.

When comparing the site-elevation model proposed by Cordy and Athens (1988; see above) which suggests that certain site types may be associated with specific elevation zones and

time periods, the data gleaned from the current project area also show that pre-Contact sites do occur beyond 0.25 miles of the coastline. These findings support the model primarily because the project area landscape is more conducive to temporary habitation and agricultural sites rather than permanent occupation. Permanent occupation is present, however, as identified during work just to the north of the current study (Perzinski et al. 2014-in preparation). The lack of local water resources also makes permanent occupation more tenuous as well, though it is likely that the gulches would at times have provided a local water source. There are no swales or gulches in the current project area. Permanent housing settlements of the *ahupua`a* are found to be more common at higher elevations, specifically in the uplands. At these higher elevations, staple crops such as banana, dryland taro, and sweet potato were readily cultivated. These plants would be more adept to survive for extended periods of time, in contrast to crops (*i.e.* sweet potato) located at lower elevations and in such places as the arid Mākena region. However, the use of garden holes and rock mounds, which are ubiquitous across the current landscape and constructed intensively from the 1700s, does show some leaning towards permanent habitation of the area. Both temporary and permanent habitation, albeit in low intensity, are now considered hallmarks of this more inland landscape that transcends the shoreline and upland areas. Furthermore, activities such as fishing, supplemented by small scale agricultural plots located on the ridges would more likely be dominant types of subsistence strategies along coastal Mākena. This is also supported by the oral and historic literature (see Handy and Handy 1972 and Sterling 1988).

Previous and current archaeological investigations and historic documentation in the project area and vicinity indicate that the area was traditionally utilized for temporary habitation, agricultural activities, and ranching endeavors. Further afoot the landscape, in northern *ahupua`a* of Honua`ula District, permanent habitation sites are interspersed with a large agricultural field system composed of mounds, terraces, modified outcrops, and even garden enclosures. The temporal span of recorded sites extends from pre-Contact times to the historic era. With an upcoming survey of c. 150 acres surround the current parcel, it will be interesting to see if the same pattern holds.

The current site population shows a dominance of agricultural sites over habitation locales, with animal husbandry from ranching times also occurring post-occupation. The paucity of cultural materials in the shallow soils, as well as radiocarbon dates from nearby projects, further suggests a late, brief occupation and use of the area. Prior to the 1700s, the area was most certainly utilized for bird hunting and collecting, small scale agriculture, and temporary habitation; however the empirical record of these times is thin indeed. Additional survey of the

surrounding parcels, to be conducted in the near future, will refine this settlement model and expand the regional settlement model.

SIGNIFICANCE AND RECOMMENDATIONS

Fourteen sites composed of sixteen features were documented in the project area during Archaeological Inventory Survey at [TMK: (2) 2-1-05:135 por.]. The sites have been evaluated for significance according to the criteria established for the State and National Register of Historic Places. The five criteria are listed below:

- Criterion A:** Site is associated with events that have made a significant contribution to the broad patterns of our history;
- Criterion B:** Site is associated with the lives of persons significant to our past;
- Criterion C:** Site is an excellent site type; embodies distinctive characteristics of a type, period, or method of construction, or represents the work of a master, or possesses high artistic values, or represents a significant and distinguishable entity whose components may lack individual construction;
- Criterion D:** Site has yielded or has the potential to yield information important in prehistory or history;
- Criterion E:** Site has cultural significance; probable religious structures or burials present (State of Hawai'i criteria only).

State Sites 50-50-14-7921 through 50-50-14-7934 have been assessed as significant under Criterion D, as sites that have yielded or have the potential to yield information important in prehistory or history (Table 2). Site -7932 consists of the only example of permanent habitation within the project area. For this site, Preservation is recommended. Site -7923, the midden scatter, has been recommended for Data Recovery.

It is believed that the remaining sites have been adequately documented and additional research focused on the site would not contribute to the interpretation of the area, region, or Hawaiian prehistory and/or history. In addition, many of the sites discussed herein occur in poor preservation states. Thus, no further work is recommended for these sites. In addition, Archaeological Monitoring is not recommended during utility work on the parcel, given the current documentation of sites, the poor preservation of the sites, and the presence of thin soil layers over bedrock across the project area.

Table 2. Site Significance and Recommendations.

SIHP #50-50- 14-	Ahupua`a	Formal Site Type	Site Function	Number of Features	Significance	Recommendations
7921	Mo`omuku	Wall	Boundary	1	D	No Further Work
7922	Mo`omuku	Platform	Temporary Habitation	1	D	No Further Work
7923	Mo`omuku	Midden/Artifact Scatter	Work Site	1	D	Data Recovery
7924	Mo`omuku	Enclosure	Agriculture	1	D	No Further Work
7925	Mo`omuku	Modified outcrop	Agriculture	1	D	No Further Work
7926	Mo`omuku	Planter	Agriculture	1	D	No Further Work
7927	Mo`omuku	Wall	Agriculture	1	D	No Further Work
7928	Mo`omuku	C- Shape/Terraces	Temporary Habitation/Agriculture	3	D	No Further Work
7929	Mo`omuku	Terrace	Agriculture	1	D	No Further Work
7930	Mo`omuku	Enclosure	Temporary Habitation	1	D	No Further Work
7931	Mo`omuku	Terraces/Planter	Agriculture	6	D	No Further Work
7932	Mo`omuku	Terrace	Permanent Habitation	1	D	Preservation
7933	Mo`omuku	Wall	Boundary	1	D	No Further Work
7934	Mo`omuku	Enclosures	Habitation/Animal Pen	1	D	No Further Work

REFERENCES CITED

- ABCFM Trustees Minute Book
1912 *American Board of Commissioners for Foreign Missions*. Houghton Library, Harvard University, Cambridge.
- Barrère, D.B.
1975 *Kamehameha in Kona: Two Documentary Studies*. Pacific Anthropological Records No 23. Bernice Pauahi Bishop Museum, Honolulu.
- Bordner, R., and D. Cox
1982 *Makena Golf Course Extension: Archaeological Reconnaissance*. MS. Environmental Impact Study Corp., Honolulu.
- Chaffee, D., and R.L. Spear
1994 *An Archaeological Inventory Survey of 6-Acres in the Ahupua`a of Papa`anui, Makawao District, Makena, Island of Maui, Hawai`i [TMK: 2-1-07:12, Lot B]*. Prepared for Malia Aina Ltd. Ms. on file, State Historic Preservation Division, Kapolei.
- Clark, Stephen D.
1974 *A Reconnaissance Survey of Makena Properties for Seibu Corp*. Bernice Pauahi Bishop Museum, Honolulu.
- Clark, Stephan D. and Marion Kelly
1985 *Supplemental Archaeological and Historical Studies at Makena, Makawao, Maui*. Prepared for Seibu Hawai`i. Department of Anthropology, Bernice Pauahi Bishop Museum, Honolulu.
- Cleghorn, P.L.
1991 *Inventory Level Survey Report of Specified Lands in Mo`oloa and Mo`omuku, Honua`ula, Makawao, Maui*. On file, State Historic Preservation Division, Wailuku.
- Cordero, A.B., and M. Dega
2001 *Archaeological Data Recovery Within Makena, Waipao Portion of Papa`anui Ahupua`a, Honua`ula District, Maui Island, Hawai`i (TMK: 2-1-07:12 Lot B)*. Prepared for CMI Development, Inc. MS. on file, State Historic Preservation Division, Kapolei.
- Cordy, R.
1978 *Archaeological Survey and Excavations at Makena, Maui: Third Increment Seibu Golf Course: Fairways 1, 7 through 18*. For Seibu Hawaii, Inc. Bernice Pauahi Bishop Museum. Honolulu.
1981 *A Study of Prehistoric Social Change: The Development of Complex Societies in the Hawaiian Islands*. Academic Press, San Francisco.

- Cordy, R., and J.S. Athens
 1988 *Archaeological Survey and Excavation, Seibu Sites 1916 and 2101, Makena, Honuaula, Maui (TMK: 2-1-05:108)*. International Archaeological Research Institute Incorporated, Honolulu.
- Cordy, R., J. Tainter, R. Renger, and R. Hitchcock
 1977 *Archaeology of Kaloko: a Generalized Model of a Hawaiian Community's Social Organization and Adaptation*. Harpers Ferry Center.
- Daws, G.
 1968 *The Shoal of Time: A History of the Hawaiian Islands*. University of Hawaii Press, Honolulu.
- Day, A.G.
 1984 *History Makers of Hawaii*. Mutual Publishing, Honolulu.
- Dega, M.
 2003 *Archaeological Reconnaissance on a 3.51-Acre of Land in Makena, Waipao Portion of Papa`anui Ahupua`a, Honua`ula District, Maui Island, Hawai`i (TMK:2-1-07:09)*. Prepared for Bill Frampton of Frampton and Ward, LLC. Scientific Consultant Services, Inc., Honolulu.
- Denison, David O.
 1979 *Archaeological Phase I Testing and Phase II Salvage of Area Designated for Hotel Construction on Seibu Land, Makena, Makawao, Maui*. Department of Anthropology, Bernice Pauahi Bishop Museum, Honolulu.
- Department of Land and Natural Resources/State Historic Preservation Division
 2002a *Hawaii Administrative Rules: Rules Governing Procedures for Historic Preservation Review for Government Projects Covered Under Sections 6E-7 and 6E-8*.
- 2002b *Hawaii Administrative Rules: Rules Governing Standards for Archaeological Inventory Surveys and Reports. (HRS 13-276)*.
- Foote, D.E., E. Hill, S. Nakamura, and F. Stephens
 1972 *Soil Survey of the Islands of Oahu, Maui, Molokai, and Lanai, State of Hawaii*. U.S. Department of Agriculture Soil Conservation Service, Washington, D.C.
- Fredericksen, E.M., and D.L. Fredericksen
 1998a *Archaeological Inventory Survey Report on a 1-Acre Parcel Located in Waipao Ahupua`a, Honua`ula, Makawao District, Maui Island (TMK: 2-1-07:71)*. Prepared for Mr. Robert Cella. MS. on file, State Historic Preservation Division, Kapolei.

- 1998b *An Archaeological Inventory Survey of a 0.5-Acre Coastal Property (Lot 5C) in Makena, Maui, Papa`anui Ahupua`a, Honua`ula Moku, Makawao District, Maui Island TMK: 2-1-07:99.* Prepared for Mr. Fred Loesberg, AIA. MS. on file, State Historic Preservation Division, Kapolei.
- 1998c *Archaeological Inventory Survey of the Kukahiko Property, a 1-Acre Parcel Located in Makena (TMK: 2-1-07: 7 & 98), Papa`anui Ahupua`a, Honua`ula Moku, Makawao District, Maui Island.* Prepared for Mr. Tim Farrington, AIA. MS. on file, State Historic Preservation Division, Kapolei.
- 1998d *An Archaeological Inventory Survey of a 0.81 Acre Coastal Parcel in Papa`anui Ahupua`a, Honua`ula Moku, Makawao District, Maui Island (TMK: 2-1-07:79).* Prepared for The John and Kamaka Kukahiko of Makena Corporation, Makena, Maui. MS. on file, State Historic Preservation Division, Kapolei.
- Giambelluca, T.W., M.A. Nuller, and T.A. Schroeder
 1986 *Rainfall Atlas of Hawai`i. Report R76.* Water Resources Research Center, University of Hawai`i, Manoa, for the Department of Land and Natural Resources, State of Hawai`i, Honolulu.
- Gosser, Dennis, Stephan D. Clark and Boyd Dixon
 1993 *Na Lawai`a O `Ao `Ao Kona O Ka Moku: Excavations at the Southern Acreage and Lot 15, Wailea, Maui.* Department of Anthropology, Bernice Pauahi Bishop Museum, Honolulu.
- Gosser, D., S.D. Clark, B. Dixon, and J. Pantaleo
 1996 *Data Recovery Procedures in Parcels III and IV, Makena Resort Corp., Makena, Maui (Draft).* Department of Anthropology, Bernice Pauahi Bishop Museum, Honolulu.
- Handy, E.S. Craighill
 1940 *The Hawaiian Planter.* Bishop Museum Press. Honolulu.
- Handy, E.S., and E.G. Handy
 1972 *Native Planters in Old Hawaii: Their Life, Lore, and Environment.* Bernice Pauahi Bishop Museum, Bulletin 233. Honolulu.
- Haun, Alan
 1978 *Archaeological Survey and Salvage Excavation in Mooiki and Maluaka, Makawao District, Maui.* Prepared for Seibu Hawaii, Inc. Department of Anthropology Bernice P. Bishop Museum, Honolulu. On file at State of Hawai`i Department of Land and Natural Resources, State Historic Preservation Division, Kapolei.
- 2001 *Archaeological Assessment TMK: (2) 2-1-6:08, Land of Moomuku, Makawao District, Island of Maui.* Prepared for Maui Architectural Group, Wailuku. Haun

& Associates, Keaau. On file at State Historic Preservation Division, Kapolei.

Juvik, S.P. and J.O. Juvik.

1998 *Atlas of Hawai'i*, Third edition. University of Hawai'i Press: Honolulu.

Kamakau, S.M.

1992 *Ruling Chiefs of Hawaii: Revised Edition*. Kamehameha Schools Press, Honolulu.

Kame'elehiwa, Lilikala

1992 *Native Land and Foreign Desires: Pehea Lā E Pono Ai? How Shall We Live in Harmony?* Bishop Museum Press, Honolulu.

Kay, E.A.

1979 *Hawaiian Marine Shells, Reef and Shore Fauna of Hawaii, Section 4: Mollusca*. Bernice Pauahi Bishop Museum Special Publication 64(4). Honolulu.

Kirch, P.V.

1985 *Feathered Gods and Fishhooks: An Introduction to Hawaiian Archaeology and Pre-History*. University of Hawaii Press, Honolulu.

2014 *Kua'aina Kahiko: Life and Land in Ancient Kahikinui, Maui*. University of Hawaii Press, Honolulu.

Kirch, Patrick Vinton and Marshall Sahlins

1992 *Anahulu. Vol. I and II*. University of Chicago Press, Chicago.

Kirch, P.V. and M. McCoy

2007 Reconfiguring the Hawaiian Cultural Sequence: Results of Re-Dating the Halawa Dine Site (Mo-A1-3) Molokai Island. *The Journal of the Polynesian Society*, Volume 116, No. 4, pp. 385-406.

Kepler, A.K.

1997 *Hawai'i's Floral Splendor*. Mutual Publishing, Honolulu.

Kolb, M.J.

1991 *Social Power, Chiefly Authority, and Ceremonial Architecture in an Island Polity, Maui Hawai'i*. Ph.D. Dissertation, Department of Anthropology, University of California, Los Angeles.

Kolb, M.J., P.J. Conte, and R. Cordy

1997 *Kula: The Archaeology of Upcountry Maui in Waiohuli and Keokea: An Archaeological and Historical Settlement Survey in the Kingdom of Maui*. Prepared for The Department of Hawaiian Home Lands. MS. on file, State of Hawai'i, Honolulu.

Kuykendall, R.S.

1938 *The Hawaiian Kingdom*, Volume 1. University of Hawaii Press, Honolulu.

Lee-Greig, T.L., R.R. Hill, and H.H. Hammatt

2012 *Cultural Historical Background for Keauhou, Kalihi, Waipao, Papa'anui, Kā'eo, Maluaka, Mo'oiki, Mo'oloa, and Mo'omuku Ahupua'a, Honua'ula Moku, Maui Island, Makawao District, Island of Maui, TMK: [2] 2-1-05, 08: multiple parcels.* Prepared for ATC Makena Holdings, LLC. Cultural Surveys Hawai'i, Inc. Wailuku.

Maly, K., and O. Maly

2005 *He Mo'olelo 'Āina no Ka'eo me Kāhi 'Āina e a'e ma Honua'ula o Maui A Cultural-Historical Study of Ka'eo and Other Lands in Honua'ula, Island of Maui, TMK: (2) 2-1-07:67.* Prepared for Sam Garcia, Jr. & Jon Garcia. Makena. Kumu Pono Associates LLC. Hilo.

Matsuoka, Jon K., Davianna Pomaika'i McGregor, Luciano Minerbi, Cultural Advocacy Network for Developing Options (CANDO), Pualani Kanahele, Marion Kelly, Noenoe Barney-Campbell, L.D. Trettin, J.W. Saulsbury, Energy Division and ORNL Subcontract Managers

1996 *Native Hawaiian Ethnographic Study for the Hawai'i Geothermal Project Proposed for Puna and Southeast Maui.* Prepared for U.S. Department of Energy, Oak Ridge Operations Office, DC-AC05-96OR22464. Lockheed Martin Energy Research Corp., Oak Ridge, TN.

McGerty, L., and S. Yeomans

2001 *Archaeological Inventory Survey of 1.552-Acres in Kaeo Ahupua'a Makena, Makawao District, Island of Maui, Hawai'i [TMK 2-1-07:66].* Prepared for Pacific Rim Incorporated. On file at Scientific Consultant Services, Inc., Honolulu.

McIntosh, J. and J. Pantaleo

1998 *Archaeological Procedures in Six Petition Areas Proposed for State Land-Use District Boundary Amendment by the Makena Resort Corp. Mākena, Makawao, Maui Island [TMK 2-1-5:83-85, por 108; TMK 2-1-7:4; and TMK 2-1-8: por 90].* On file, State Historic Preservation Division, Wailuku.

Perzinski, D. and M. Dega

2011a *Archaeological Inventory Survey Report for 22.1 Acres in Mākena, Papa'anui Ahupua'a, Honua'ula District, Island of Maui, Hawai'i [TMK: (2) 2-1-08:98, 100 and 106].* Prepared for Stanford Carr Development. Scientific Consultant Services, Inc., Honolulu.

2011b *Archaeological Inventory Survey Report for 16.4 Acres in Mākena, Papa'anui and Kā'eo Ahupua'a, Honua'ula District, Island of Maui, Hawai'i [TMK: (2) 2-1-008:080].* Prepared for ATC Makena Holdings, LLC. Scientific Consultant Services, Inc., Honolulu.

- 2011c *Archaeological Inventory Survey Report for 9.5 Acres in Mākena, Kā`eo Ahupua`a, Honua`ula District, Island of Maui, Hawai`i [TMK: (2) 2-1-008:080 (por.)]*. Prepared for ATC Makena Holdings, LLC. Scientific Consultant Services, Inc., Honolulu.
- Perzinski, D. , E. Potter, and M. Dega
 2014 *Archaeological Inventory Survey on approximately 385 acres of land in the ahupua`a of Kealahou 1 and 2, Kalihi, Waipao and Papa`anui, Honua`ula District, Maui Island, Hawaii [TMK: (2) 2-1-008:090]*. Prepared for ATC Makena Holdings. Scientific Consultant Services, Inc., Honolulu.
- Perzinski, D. , K. Lyman, C. Medieros, R. Hodara, and M. Dega
 2014 *Archaeological Inventory Survey of a 670 acre parcel in Honua`ula, in Palauea and Keauhou Ahupua`a, Makawao District, Maui Island, Hawaii [TMK: (2) 2-1-008:071 and 56 por.]*. Prepared for Honua`ula Partners LLC. Scientific Consultant Services, Inc., Honolulu.
- Pratt, Linda W. and Samuel M. III Gon
 1998 *Terrestrial Ecosystems*. In *Atlas of Hawai`i Third Edition.*, edited by S. P. Juvik and J. O. Juvik, pp. 121-129. University of Hawaii Press., Honolulu.
- Pukui, M.K., S.H. Elbert, and E.T. Mookini
 1976 *Place Names of Hawaii*. Revised and expanded edition. University of Hawaii Press, Honolulu.
- Rogers-Jourdane, Elaine
 1979 *Archaeological Reconnaissance and Partial Phase I Surveys, Proposed Hotel and Residential Areas, Makena, Makawao, Maui*. Prepared for Seibu Hawai`i, Inc. Bernice Pauahi Bishop Museum, Honolulu.
- Rotunno-Hazuka, Lisa J, and Jeffrey Pantaleo
 2005 *Archaeological Inventory Survey Report for the Development of a Condominium and Associated Retention Basin Located at Parcel H-1, Ka`eo Ahupua`a; Makena, Makawao District, Island of Maui (TMK 2-1-06:37 & 56 and TMK 2-1-5:84)*. Prepared for Keaka Company, LLC.
- Schilt, R.
 1979 *Archaeological Reconnaissance Survey of the Garcia Family Property at Makena, Maui*. MS. Department of Anthropology, Bernice Pauahi Bishop Museum, Honolulu.
- Sinoto, A.
 1978 *Archaeological Reconnaissance Survey of Makena Shores Property, Makawao, Maui*. Department of Anthropology, Bernice Pauahi Bishop Museum, Honolulu.
- 1981 *Report on The Phase I Archaeological Survey of a Proposed Golf Course at*

Makawao, Maui, Second Increment: Fairways 2-6 and `Ulupalakua Road Realignment. Prepared for Seibu Hawai`i, Inc. Department of Anthropology, Bernice Pauahi Bishop Museum, Honolulu.

1993 *Post-Field Summary for Archaeological Inventory Procedures at the Houselot, Makena, Makawao, Maui (TMK: 2-1-07:66).* Prepared for Seibu Resort Corporation, Kihei, HI. Aki Sinoto Consulting, Honolulu. On file at State Historic Preservation Division, Kapolei.

Sterling, E.P.

1998 *Sites of Maui.* Bishop Museum Press, Honolulu.

Stokes, John F. G.

1916 *Maui Heiau.* December 1916. (typeset notes). Unpublished Bernice Pauahi Bishop Museum, Honolulu.

Thrum, T.G.

1926 1925 Early Ulupalakua Data. In *The Hawaiian Annual For 1926.* Thomas G. Thrum, Honolulu, Hawaii.

Tome, G., and M. Dega

2001 *Archaeological Inventory Survey of a Coastal Parcel in Makena, Waipao Portion of Papa`anui Ahupua`a, Honua`ula District, Maui Island, Hawai`i [TMK: 2-1-07:87].* Prepared for Eric Taniguchi, AIA. Scientific Consultant Services, Inc., Honolulu.

Tome, G., and M. Dega

2002 *Archaeological Monitoring Report for a Coastal Parcel in Makena, Waipao Portion of Papa`anui Ahupua`a, Honua`ula District, Maui Island, Hawai`i [TMK:2-1-07:87].* Prepared for Eric Taniguchi, AIA. Scientific Consultant Services, Inc., Honolulu.

2005 *Archaeological Inventory Survey Report for 4.76-acres of Land in Makena, Papa`anui Ahupua`a, Honua`ula District, Island of Maui, Hawai`i [TMK 2-1-07:09; 2-1-08:por. 100; 2-1-7:por. 94; 2-1-7:60].* Scientific Consultant Services, Inc., Honolulu.

Waihona `Aina Corporation

2014 Māhele Database, www.waihona.com. Kaneohe. Accessed March 2014

Walker, W. M.

1931 *Archaeology of Maui.* Department of Anthropology, Bernice Pauahi Bishop Museum, Honolulu.

2015.00802
accepted

M-03053

REC'D FEB 27 2015

SCS Project Number 1501a-4

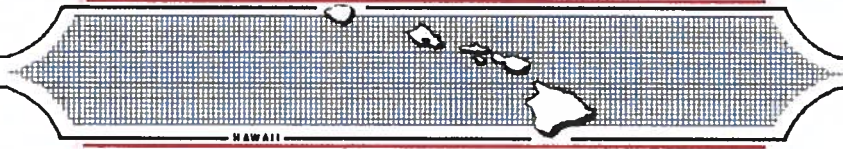
**AN ARCHAEOLOGICAL INVENTORY SURVEY REPORT FOR
APPROXIMATELY 27-ACRES IN MĀKENA,
MO'OMUKU AHUPUA`A, MAKAWAO DISTRICT,
ISLAND OF MAUI, HAWAI'I
[TMK: (2) 2-1-005:134, 135 por., and 136]**

Prepared by:
David Perzinski, B.A.
and
Michael Dega, Ph.D.
February 2015

~~Revised~~
FINAL

Prepared for:
Evans Holdings, Inc.
1100 Alakea Street, Suite 2200
Honolulu, HI 96813

SCIENTIFIC CONSULTANT SERVICES Inc.



1347 Kapiolani Blvd., Suite 408 Honolulu, Hawai'i 96814

ABSTRACT

At the request of Evans Holdings, Inc. (landowner), Scientific Consultant Services, Inc., conducted Archaeological Inventory Survey of a 27-acre parcel in Mo'omuku Ahupua'a, Makawao District, Island of Maui, Hawai'i [TMK: (2) 2-1-005:134, 135 por. and 136]. This work is being done in advance of residential and accompanying utility line construction on the lots (large lot, single residence). A total of 36 new sites with 61 component features were identified and documented during fieldwork. The sites have been designated as State Site No. 50-50-14-7885 through 50-50-14-7920. The sites represent both pre-Contact and Contact Period use of the landscape. Site types include rock enclosures, modified outcrops, mounds terraces, and work sites.

State Sites 50-50-14-7885 through 50-50-14-7920 were evaluated according to the criteria established for the State and National Register of Historic Places and found to be significant under Criterion D, for information content only. The features have been adequately documented and many of the sites discussed herein occur in poor preservation states. State Sites 50-50-14-7891, -7908, -7911 and -7914 have been recommended for Data Recovery. State Sites 50-50-14-7892 and -7917 have been recommended for preservation. No further work is recommended for the remaining sites. However, if the landowner chooses to preserve any of the sites documented during this study, the contracting archaeologist will work with them on interim and long-term preservation planning.

SIHPs 7892 + 7917
also significant under criterion "e."

TABLE OF CONTENTS

LIST OF FIGURES	iv
LIST OF TABLES.....	vi
INTRODUCTION	1
ENVIRONMENTAL SETTING.....	4
PROJECT AREA LOCATION	4
RAINFALL.....	4
SOILS	4
VEGETATION.....	4
TRADITIONAL AND HISTORIC SETTING.....	5
HISTORIC PERIOD.....	8
MĀHELE.....	10
MODERN ERA	13
PREVIOUS ARCHAEOLOGY.....	15
RECENT LARGE SURVEYS	25
SETTLEMENT PATTERN AND PREDICTIVE MODEL.....	27
METHODOLOGY	29
RESULTS OF FIELDWORK.....	30
DISCUSSION AND CONCLUSIONS	108
AGRICULTURAL FEATURES	108
HABITATION FEATURES.....	110
CEREMONIAL FEATURES	110
HISTORIC FEATURES.....	111
DISCUSSION	111
SIGNIFICANCE AND RECOMMENDATIONS	113
REFERENCES CITED.....	117

LIST OF FIGURES

Figure 1: Portion of USGS Topographic Map Showing the Location of the Project Area.	2
Figure 2: TMK Showing Location of Project Area.	3
Figure 3: Map Showing Location of Sites Documented by Cleghorn (1991).	16
Figure 4: Portion of USGS Map Showing Location of Previous Archaeological.	17
Figure 5: Portion of USGS Map Showing Location of Sites in Project Area.....	31
Figure 6: Plan View of State Site 50-50-14-7885 Showing Collapsed Terrace.	33
Figure 7: Plan View of State Site 50-50-14-7886 Showing Terraced Platform.	34
Figure 8: View Southeast of State Site 50-50-14-7886.	35
Figure 9: Plan View of State Site 50-50-14-7887 Showing L-Shape and Terrace.	37
Figure 10: View North of State Site 50-50-14-7887 Feature B.....	38
Figure 11: View East of State Site 50-50-14-7887 Feature A.....	39
Figure 12: Plan View of State Site 50-50-14-7888 Showing Wall Segment.....	40
Figure 13: Plan View of State Site 50-50-14-7889.....	42
Figure 14: View Southwest of State Site 50-50-14-7889.	43
Figure 15: Plan View of State Site 50-50-14-7890.....	44
Figure 16: View West of State Site 50-50-14-7890.....	45
Figure 17: Plan View of State Site 50-50-14-7891.....	47
Figure 18: Plan View of State Site 50-50-14-7892.....	49
Figure 19: View East of State Site 50-50-14-7892.....	50
Figure 20: Plan View of State Site 50-50-14-7893.....	51
Figure 21: View North of State Site 50-50-14-7893.	52
Figure 22: View West of State Site 50-50-14-7894.....	54
Figure 23: Plan View of State Site 50-50-14-7984 Hearth.....	55
Figure 24: View South of State Site 50-50-14-7895 Showing Wall.	56
Figure 25: Plan View of State Site 50-50-14-7896.....	58
Figure 26: View West of State Site 50-50-14-7896 Showing Planter.	59
Figure 27: Plan View of State Site 50-50-14-7897 Feature A.....	60
Figure 28: Plan View of State Site 50-50-14-7898.....	62
Figure 29: View Southwest of State Site 50-50-14-7898 Showing Terrace.....	63

Figure 30: View West of Midden Scatter Area State Site 50-50-14-7899.....	64
Figure 31: Plan View of State Site 50-50-14-7899.....	65
Figure 32: View North of State Site 50-50-14-7900 Showing Wood Trough.....	66
Figure 33: Plan View of State Site 50-50-14-7900.....	67
Figure 34: Plan View of State Site 50-50-14-7901.....	69
Figure 35: View Northeast of State Site 50-50-14-7901.....	70
Figure 36: Plan View and Profile of State Site 50-50-14-7903.....	72
Figure 37: View West of State Site 50-50-14-7903 Showing Wall.....	73
Figure 38: Plan View of State Site 50-50-14-7905.....	75
Figure 39: View North of State Site 50-50-14-7906 Feature A.....	77
Figure 40: Plan View of State Site 50-50-14-7906 Features A and B.....	78
Figure 41: Plan View of State Site 50-50-14-7907.....	80
Figure 42: View East of State Site 50-50-14-7907 Showing Small Enclosure.....	81
Figure 43: Plan View of State Site 50-50-14-7908.....	82
Figure 44: Plan View of State Site 50-50-14-7909.....	84
Figure 45: View West of State Site 50-50-14-7909 Showing Enclosure.....	85
Figure 46: Plan View of State Site 50-50-14-7910.....	86
Figure 47: Plan View of State Site 50-50-14-7911.....	88
Figure 48: View Southeast of State Site 50-50-14-7911 Showing Rockshelter and Enclosure... ..	89
Figure 49: Plan View of State Site 50-50-14-7913.....	91
Figure 50: View West of State Site 50-50-14-7913 Showing Planter.....	92
Figure 51: Plan View of State Site 50-50-14-7914.....	93
Figure 52: Plan View of State Site 50-50-14-7915.....	96
Figure 53: View Southwest of State Site 50-50-14-7915 Showing Water Diversion Wall.....	97
Figure 54: Plan View of State Site 50-50-14-7916.....	98
Figure 55: Plan View of State Site 50-50-14-7917.....	99
Figure 56: View North of State Site 50-50-14-7917 Showing Platform on Bedrock Outcrop... ..	100
Figure 57: View West of State Site 50-50-14-7918 Showing Midden Scatter.....	102
Figure 58: Plan View of State Site 50-50-14-7918.....	103
Figure 59: Plan View of State Site 50-50-14-7919.....	104

Figure 60: Plan View of State Site 50-50-14-7920..... 106

Figure 61: View North of State Site 50-50-14-7920 Showing C-Shaped Planter. 107

Figure 62: USGS Map Showing the Location of Sites by Function..... 109

LIST OF TABLES

Table 1. Previous Archaeological Studies in the Vicinity of the Project Area..... 18

Table 2. Table Showing Agriculture Features Associated with Site -7891..... 48

Table 3. Site -7905 Agricultural Features..... 76

Table 4. Site Significance and Recommendations..... 115

INTRODUCTION

At the request of Evans Holdings, Inc. (landowner), Scientific Consultant Services, Inc. (SCS) conducted Archaeological Inventory Survey (AIS) of approximately 27-acres of undeveloped land in Mo`omuku Ahupua`a, Honua`ula District, Island of Maui, Hawai`i [TMK: (2) 2-1-005:134, 135 por. and 136] (Figures 1 and 2). The AIS consisted of historical background and archival research; systematic pedestrian survey of the project area; mapping and recording of site features; and, analysis, interpretation, and reporting of all relevant data. Fieldwork was conducted from November 15-December 15, 2013, by Ian Bassford, B.A., Joe Farrugia, M.A. and Andrew Bastier, B.A. and Michael Dega, Ph.D., Principle Investigator.

Archaeological work in the project area was conducted to determine the presence/absence of archaeological sites, features, and deposits in surface and subsurface contexts through survey and representative subsurface testing. The ultimate goals of the project were to determine if significant cultural or historic resources occurred on the parcel; and, to provide significance assessments and recommendations to the State Historic Preservation Division (SHPD).

Prior to the current AIS research, previous archaeological work was conducted within portions of the project area by Cleghorn (1991), who recorded 26 sites with 60 component features (see below). The most common features recorded were stone walls associated with historic cattle ranching activities. Modified outcrops were the second most common feature; their function related to agriculture and small activity areas. Several platforms, terraces and enclosures also present, likely dating to the pre-Contact Period (pre-1778) and associated with habitation activities. One lava tube was identified and contained a human skeleton. None of these sites occur in the present project area.

During the current study, and discussed more below, a total of 36 new sites composed of 61 component features were documented during fieldwork. The sites have been designated as State Site Nos. 50-50-14-7885 through -7920. The sites represent both pre-Contact and Contact Period use of the landscape. Site types include enclosures, rock mounds, modified outcrops, terraces, and midden and artifact scatters.

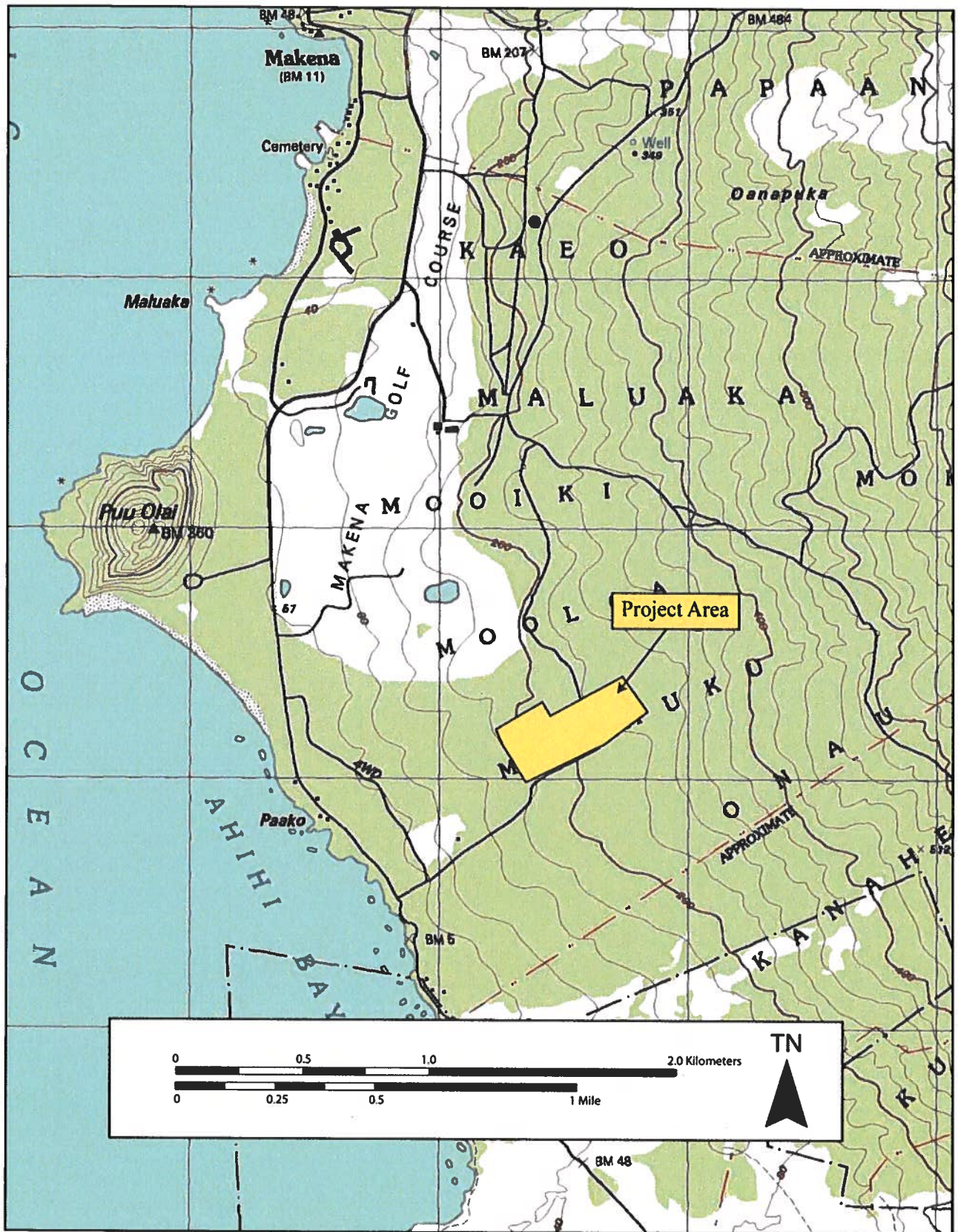


Figure 1: Portion of USGS Topographic Map Showing the Location of the Project Area.

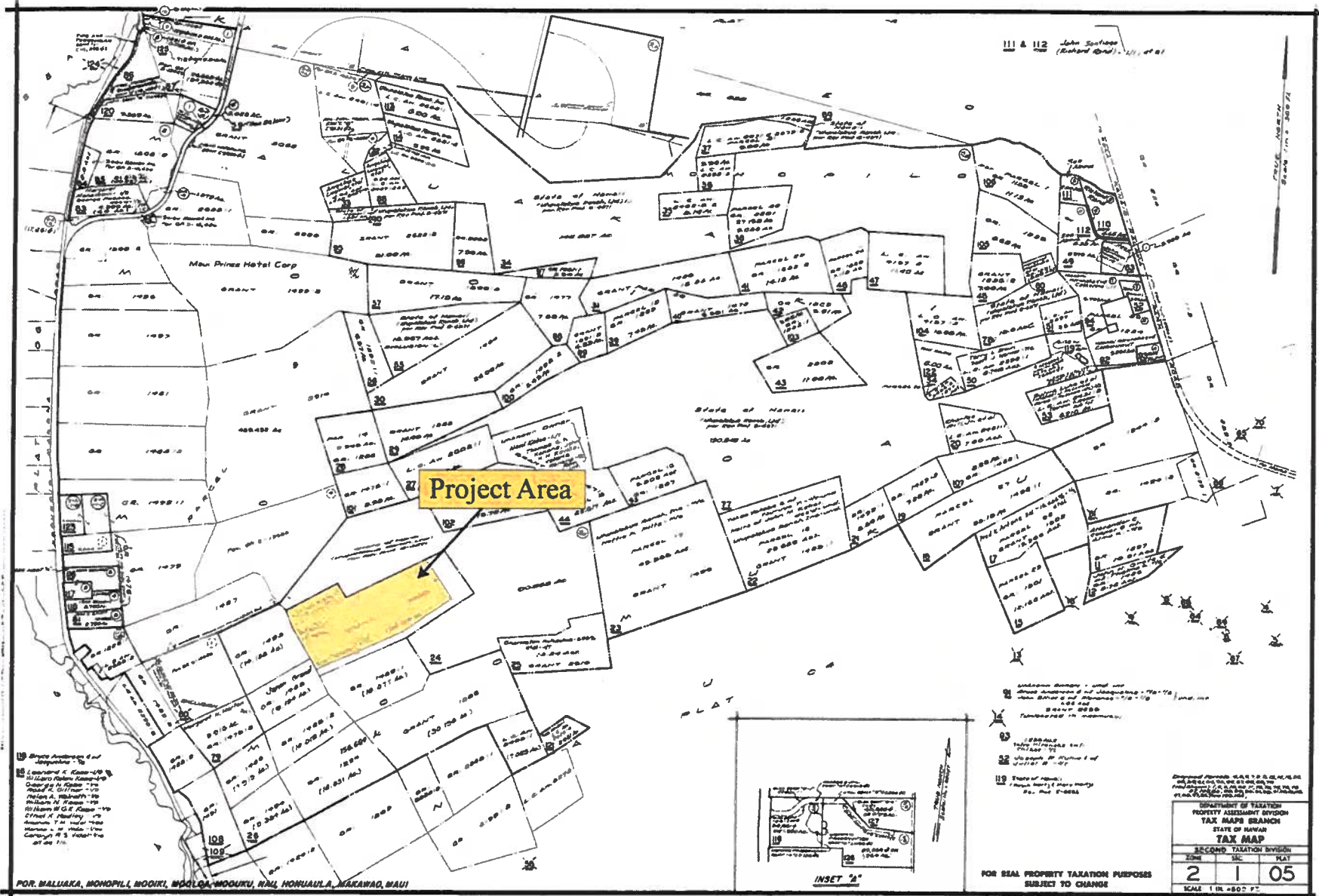


Figure 2: TMK Showing Location of Project Area.

ENVIRONMENTAL SETTING

PROJECT AREA LOCATION

The project area is located within Mo`omuku Ahupua`a, Honua`ula District, Maui Island at an elevation ranging from approximately 140 feet to 250 feet above mean sea level (amsl) and extending approximately 0.7-1.3 km inland from the coastline (see Figures 1 and 2). The project area parcel is surrounded by undeveloped former ranch lands and is accessed by an existing private road above Mākena Keone`ō`io Road that is downslope (west) of the project area.

RAINFALL

Annual rainfall in the project area is less than 15 inches annually, making this region one of the driest on Maui and across the entire Hawaiian Islands archipelago (Juvik and Juvik 1998; Giambelluca 1986). Winter months account for the majority of the rainfall and during these months the drainage gulches in the vicinity of the project area will intermittently flow into Ahihi Bay (see Figure 1).

SOILS

Project area soils are primarily classified as —Mākena loam, stony complex” (MXC) on 3%-15% slopes (Foote *et al.* 1972:101), with portions containing Oanapuka Very Stone Silt Loams on 7%-25% slopes (OED). These soils are derived from volcanic ash occurring on gentle to moderate slopes at elevations ranging from 0-500 feet. The stony land is concentrated on the bedrock ridges that generally run in an east/west (*makai/mauka*) direction. Permeability is —moderately rapid...runoff is slow to medium, and the erosion hazard is slight to moderate” (Foote *et al.* 1972:91). The soils typically extend to c. 40-50 cm below the ground surface creating a fairly shallow profile. The soils in the project area were historically associated with pasture and wildlife habitat (*ibid.*), though the pre-Contact Period they were also associated with habitation and agriculture. Dryland forest once thrived on these soils. In the forests just above the settled coastal areas of Mākena, Hawaiians gathered valuable resources such as *kou* wood for canoe building and medicine; grazing and deforestation have since denuded these soils (Handy 1940).

VEGETATION

Vegetation in the project area appears to fluctuate depending on available water. In drier months the dominant species are trees such as *kiawe* (*Prosopis pallida*), a few *wili`wili* (*Erythrina sandwicensis*), *klu* (*Acacia farnesiana*), and *koa haole* (*Leucaena leucocephala*) and dried grasses including *pili* (*Heteropodon contortus*) and shrubs (*`ilima*; *Sida fallax*). Following heavy rains, the ground cover changed drastically with numerous flowers including rabbits paw

(*Wedelia trilobata*), spiderlings (*Boerhavia sp.*), Flora's paintbrush (*Emilia coccinea*), Lion's ear (*Leonotis leonurus*), hairy abutilon (*Abutilon grandifolium*), false mallow (*Malvastrum coromandelianum*), castor bean (*Ricinus communis*) and indigo (*Indigofera sp.*). Small areas containing wiliwili, 'a'ali'i, 'ilima (*Sida fallax*), and 'ūhaloa (*Waltheria indica*) are also present.

The project area and environs would have once sustained a lowland dry and mesic forest, woodland, and shrub land native ecosystem (Pratt and Gon 1998:122; see Lee-Greig *et al.* 2012). Lee-Greig *et al.* (2012) note that prior to human modification of the landscape, the lower slopes would have supported *pili* (*Heteropogon contortus*) and *kāwelu* (*Eragrostis variabilis*) grasslands with the shrublands of 'a'ali'i (*Dodonaea variabilis*), *ko'oko' lau* (*Bidens spp.*), 'ūlei (*Osteomeles anthyllidifolia*), and other shrubs. The dry and mesic forests would have included 'ōhi'a, *koa*, *lama* (*Diospyros sandwicensis*), *wiliwili* (*Erythrina sandwicensis*), *olopua* (*Nestegis sandwicensis*), along with rarer tree species including *halapepe* and *olopua* in the gulches and areas that are less disturbed (*ibid.*). Prior to Contact, *pili* would have been a source of thatch material with the grasslands maintained by fire, the burning of landscape also creating a swidden system to re-invigorate the soils. Hardwoods and medicinal plants were also gathered with some mesic areas converted from forest to 'uala (sweet potato) and dryland *kalo* (taro) production (Pratt and Gon 1998:127). Lee-Greig *et al.* (2012) also note that during the mid-19th century, much of the inland areas had been in use for commercial sugar and potato ventures and by the late 19th century, most of the lands above the Mākena Keone`ō'io Road had been given over to cattle ranching, which is still evident through the presence of many ranching walls.

TRADITIONAL AND HISTORIC SETTING

The traditional district of Honua`ula translates literally to "the land" (Pukui *et al.* 1974) and is accurately described in the following phrases (C.M. Hyde in Sterling 1998:215):

Honua`ula, whose shoulders are pummeled by the Moa`e wind.
The cloudless rain of Honua`ula.
The noisy rain of Ulupalakua.

The project area is located in Mo`omuku Ahupua`a, —Mo`muku" which translates to "cut-off land section" (Pukui *et al.* 1974:158). Note that on contemporary maps and in modern references, the *ahupua`a* is designated as "Mo`omoku." We have adopted the Traditional-period "Mo`omuku" for this report.

Documented oral accounts of pre-Contact activities and events occurring in the Mākena area are limited in terms of area usage (although see Lee-Greig *et al.* 2012 for a fine summary).

One oral tradition repeatedly used in historical and archaeological contexts concerns the use of Mākena as a canoe landing in 1776 for the Hawaii Island chief Kalani`opu`u:

In the year 1776 Kalani`opu`u and the chiefs returned to war on Maui, and in the battle with Kahekili's forces at Wailuku were completely overthrown. The army landed at Keone`o`io, their double canoes extending to Makena at Honua`ula. There they ravaged the countryside, and many of the people of Honua`ula fled to the bush" [Kamakau 1992:85].

Kalani`opu`u, the son of Ka`u ruling chief Kalaninuiiamamao, intended to defeat Maui's paramount chief Kahekili and his military forces, thereby claiming Maui. However, the forces of Kalani`opu`u were no match for Kahekili's powerful warriors and the conquest was averted (Day 1984:65).

During the pre-Contact Period, the Mākena area was recognized for its politics and subsistence base, the latter including —good fishing" and "noteworthy" subsistence agriculture [sweet potato] (Handy and Handy 1972:272). As is explained in some detail below, traditional habitation and use of the Mākena lands prior to Western Contact has some time depth and carried an important role in the overall functioning of the *ahupua`a* in terms of habitation and subsistence resources.

Although not documented to a specific time frame, Handy and Handy (1972) state that during the pre-Contact Period, utilization of upland areas within Mākena consisted of cultivating crops such as potatoes. This practice was done along the dry coastline as well. As Handy and Handy (1972:130) state,

The ancient Hawaiians planted potatoes in mounds (pu`e). Where soil is powdery and dry, as at Ulupalakua and Makena on Maui, the earth is heaped up carelessly into low mounds spaced with no particular precision or care.

Handy and Handy (1972:272) also note that fishing was an important component of the *ahupua`a* subsistence strategy: —On the south coast of East Maui, from Kula to Ulupalakua, a consistently dry and lava-strewn country, Mākena and Ke`oneo`io were notable for good fishing; this brought many people to live by the shore and inland." Sterling (1998) compiled a list depicting a total of ten offshore fishing grounds that were supposedly utilized in the Honua`ula District during the pre-Contact Period. Of these ten offshore fishing grounds, four were located

within the Waipao portion of Papa`anui Ahupua`a, three were located within the general Mākena area, and the three remaining fishing grounds were located south of Honua`ula (see Figure 1).

Prior to the introduction of historic ranching of cattle, the area of Honua`ula was a much more agriculturally productive area with the forest zone stretching nearer to the coast. The lands were known for their relative productivity (compared to areas such as Kīhei). Agricultural development on the leeward side of Maui was likely to have begun early in what is known as the Expansion Period (A.D. 1200–1400 [Kirch 1985]). Handy writes,

In Honuaula, as in Kaupo and Kahikinui, the forest zone was much lower and rain more abundant before the introduction of cattle. The usual forest-zone plants were cultivated in the lower upland above the inhabited area. Despite two recent (geologically speaking) lava flows which erupted from fissures below the crater and only a few miles inland and which covered many square miles of land, the eastern and coastal portion of Honuaula was thickly populated by Hawaiian planters until recent years...Formerly there was much dry taro in the forest zone [1940: 113].

At the time of Handy's studies, very few Hawaiians still lived in the upland areas of Honua`ula (Kanaio and Ulupalakua), while —a small community of native fishermen who from time to time cultivate small patches of potatoes when rain favors them” lived in Mākena in the 1940s. This contrasted greatly with Handy's picture of Honua`ula before the advent of ranching;

For fishing, this coast is the most favorable on Maui...I think it is reasonable to suppose that the large fishing population which presumably inhabited this leeward coast ate more sweet potatoes than taro with their fish... Formerly, before deforestation of the uplands, it is said that there was ample rain in favorable seasons for planting the sweet potato, which was the staple here. A large population must have lived at Makena in ancient times for it is an excellent fishing locality, flanked by an extensive area along shore and inland that was formerly very good for sweet potato planting and even now is fairly good, despite frequent droughts... [1940:159].

During the pre-Contact Period, the religious importance of Mākena was intimately tied to the importance of fishing to its inhabitants. There was said to be a *heiau* at the base of Pu`ōla`i (the —Hill oEarthquakes”), which was a temple of the Shark God to which —*kahunas* prayed and offered sacrifices in old times” and —ifishermen made offerings before putting out to sea”

(Tempski 1940:57 in Sterling 1998: 229). Another *heiau*, of unknown function, was said to sit atop Pu`ōla`i (Stokes 1916).

Lee-Greig *et al.* (2012) provide much additional information on Honua`ula District, including Traditional period agricultural practices. The ethnographic information is important in identifying archaeological site function within these dry, agricultural landscapes. The authors cite Matsuoka *et al.* (1996:73) in implying that the people of this area followed a seasonal settlement pattern dependent upon the presence/absence of rainfall. Based on oral testimony, it was inferred that the native tenants of this area lived at upland habitations, where planting could be done year round, during the dry period, and migrated to the lowland coastal region during the rainy season. They state that in the lowland areas, planting was done in conjunction with the rainy season where each family cultivated plants at habitation sites along the coast (Matsuoka *et al.* 1996:73). Matsuoka and Lee-Greig *et al.* (2012) write:

The entire area of Honua`ula was highly cultivated ... It is important to note that later, when lava flows covered the land, people did not move away. Instead, they dug deep holes in the lava and transported soil from the uplands to fill them up. The earth was dug up and the soil passed in baskets from hand to hand along a row of people to fill the —*gaten holes*” in the lava. (Matsuoka *et al.* 1996:74). The use of —*gaten holes*” in the lava as an effective agricultural practice in an otherwise marginal environment is underscored by claims for such areas in testimony to the Land Commission during the Great Māhele. In Keauhou Ahupua`a, three awards were made for —*he wahi aa a me`uala maoli*” (*a`a* lands and native potato) (L.C.A. 4155 to Kekaulu, 5262 to Kekualike, and 5429 to Kaumana).

For a very thorough study of additional traditional practices in the area, from fishing to other landscape use strategies, please refer to Lee-Grieg *et al.* (2012) who have detailed and summarized oral histories, mythologies, and archival information for the district, which includes the current project area.

HISTORIC PERIOD

Immense changes began to occur in traditional Hawaiian society with the discovery of the islands by Captain James Cook in 1778, and the subsequent arrival of the island's first westerners. Much of the knowledge of traditional land use patterns is based on what was recorded at the time of, and shortly after, western Contact. Early records, such as journals kept by travelers and missionaries, and surviving Hawaiian traditions, as well as archaeological investigations, have assisted in understanding the past (Kirch 1985).

The early historic accounts of European explorers in Honua`ula suggest an area that was not as abundant or populated as those in east Maui. In La Perouse's account of this portion of Maui he states:

The soil of this land is entirely formed of decomposed lava and other volcanic substances. The inhabitants have no other drink but a brackish water, obtained from shallow wells, which afford scarcely more than half a barrel a day.

During our excursion we observed four small villages of about ten or twelve housed each, built and covered with straw in the same manner as those of our poorest peasants... (M. Dondo 1807 in Sterling 1998:222)

Another account by a member of the same expedition, Dr. Rollins, recounted his impression of Honua`ula:

The vegetation of this part of Mowee is by no means so luxuriant, nor the population so numerous, as in the eastern part where we had just before touched. Scarcely had we anchored when we were surrounded by the inhabitants who brought us in their canoes hogs, fruit and fresh vegetables...

Though the island of Mowee furnishes in sufficient abundance animals and every species of food necessary to subsistence, the inhabitants neither enjoy an equal degree of health, nor possess the same elegance of form and beauty of body, as the natives of Easter Island... They appeared however to have some resemblance to them in their conformation, and in general even a more robust make, if their health had not been impaired by disease... M. Dondo 1807 in Sterling 1998:222).

The apparent lack of available resources and poor health may have been the result of a long period of war in the Hawaiian Islands, culminating in the 1810 unification of the Hawaiian Islands by Kamehameha I (Daws 1968), and notable in Honua`ula. As Cordy (1981) states:

Hawai`i's armies raided (plundering crops, killing, and destroying property), and Honuaula was the site of such a landing and raid in 1776 (Fornander, 1969 in Cordy, 1981:11). Both Maui's and Hawaii's armies were constantly being provisioned with the islands' produce, and at least in 1793, there was little food in the Lahaina area (Vancouver 1798 in Cordy *et al.* 1977: 11).

Traditional activities continued into the early post-Contact Period, but western culture was drastically changing Hawaiian society (Daws 1968). While trade and western agriculture

were altering the foundation of the economy, missionaries were spreading Christianity throughout Mākena (Maly and Maly 2005). In 1825, Christian missionaries organized the construction of a *pili* grass church at Keawakapu in Kā`eo Ahupua`a, known variously in historic texts as the Honua`ula Church, the Keawakapu Church, and finally Keawala`i Church (Lee-Greig *et al.* 2012). In 1854, the congregation of Keawala`i Church decided to build a stone structure in Kā`eo, Honua`ula. From 1855 to 1862, Keawala`i Congregational Church (State Site No. 50-50-14-1584) was constructed; it was built of stone and coral heated into plaster over wood fires, and a bell was brought from America (Keawalai Congregational Church 1907-1936 in Lee-Greig *et al.* 2012).

During the early 1830s, local missionaries conducted a census of the Mākena population and discovered that the population had declined. Between the 1840s and the 1850s, the Mākena population experienced further population decreases due to introduced diseases (see Chaffee and Spear 1994:4).

MĀHELE

In 1848, commissioners of the Māhele instigated an extreme modification to traditional land tenure on all islands that resulted in a division of lands and a system of private ownership. The Māhele was based upon the principles of Western law. While a complex issue, many scholars believe that in order to protect Hawaiian sovereignty from foreign powers, Kamehameha III was forced to establish laws changing the traditional Hawaiian society into that of a market economy (Kuykendall Vol. I 1938:145, footnote 47, *et passim*; Daws 1968:111; Kame`eleihiwa 1992:169–170, 176). The dramatic shift from a subsistence economy to a market economy resulted in drastic changes to land tenure, among other practices. As a result, foreigners demanded private ownership of land to ensure their investments (Kuykendall Vol. I, 1938:145, *et passim*; Kame`eleihiwa 1992:178).

The Māhele of 1848 divided Hawaiian lands between the king, the chiefs, the government, and began the process of private ownership of lands. Once lands were made available and private ownership was instituted, native Hawaiians, including the *maka`ainana* (commoners), were able to claim land plots upon which they had been cultivating and living. Often, foreigners were simply just given lands by the *ali`i*. However, commoners would generally only make claims if they had first been made aware of the foreign procedures (which defined their *kuleana* lands or Land Commission Awards). These claims could not include any previously cultivated or currently fallow land, *okipu*, stream fisheries, or many other natural resources necessary for traditional survival (Kame`eleihiwa 1992:295; Kirch and Sahlins 1992).

Awarded parcels were labeled as Land Commission Awards (LCAs). If occupation could be established through the testimony of witnesses, the petitioners were issued a Royal Patent number and could then take possession of the property.

In Mo`omuku Ahupua`a, a total of six *kuleana* claims were brought before the Land Commission, all of which were awarded (Lee-Greig *et al.* 2012:89). A majority of these awards occurred near the coastline and included residential lots and *kula`ili*, with resources being dry land taro, *hala*, and native potato. The project area lies within Land Grant 2902 awarded to Polena and consisted of 28 acres. In addition, Polena was awarded LCA 5455:4 located just north of the project area. LCA 2398:4 (just north of Polena) was awarded to Kinolua who also claimed 4 additional *`āpana* within Mo`omuku Ahupua`a.

According to the research they compiled, many of the claims made by Hawaiian families during the Māhele were not awarded; many of these un-awarded claims were small agricultural plots (taro, sweet potato and irish potato), or small plots of grassland (Lee-Greig *et al.* 2012).

Lee-Greig *et al.* (2012:89) note the presence of other LCA's in neighboring *ahupua`a* and the land uses:

At Mo`oiki Ahupua`a, only eight *kuleana* claims were presented to the Land Commission (see also Table 12) three of which were awarded. All three awards were for native potatoe cultivated in a`a lands. Claims for *moku mau`i* (grass land) went unawarded, as well as one claim for dry land taro. Like Mo`oiki, the number of claims at Mo`oloa Ahupua`a (n=8) were low in number when compared to ahupua`a to the north. The land uses noted were primarily for *kula`ili* and associated house lots with one specifying dryland taro (Helu 4157). Of the eight claims, five were awarded, most of which were awards for entire *`ili* (see also Table 13) ranging in area from 1.5 acres to 10.05 acres.

Given the modest amount of LCAs awarded within coastal Mo`omuku Ahupua`a and in the neighboring coastal *ahupua`a* of Mo`oiki, Mo`oloa, Kā`eo and Papa`anui, the overall LCA pattern for the Mākena area suggests that permanent residence was one land use strategy in the area during the Historic Period (see Lee-Greig *et al.* 2012 and McGerty and Yeomans 2001 for a more detailed discussion of area LCAs). Accompanying plots for the cultivation of sweet potato and use of the coastline for fishing likely accompanied such occupation. A prime example of Historic Period cultivation in Mākena occurred during the California gold rush of 1848 when the Irish potato was cheaper to import from Hawai`i than from within the continental United States

(Fredericksen and Fredericksen 1998b:9). Hawaiians and agricultural adventurers quickly filled roles as producers of the crop. As discussed below, permanent and temporary occupation of the Mākena has some time depth, with the earliest permanent habitation sites having been constructed and occupied from A.D. 1200 (Cordero and Dega 2001).

According to Lee-Greig *et al.* (2012:90), Irish Potatoes, sugar and sugar byproducts, as well as pineapple constituted the primary cash crops of Honua`ula during the Nineteenth Century. Along with commercial agriculture, the vast grass lands of Honua`ula District provided excellent pasture for domestic cattle grazing and the development of ranching enterprises.

In 1845, 50 acres of Mākena sugar-cane and ranch lands, including a portion of Ka`eo Ahupua`a, were rented by Lonton Torbert from James Nowlein and Solomon Burrow who had received it from the government (Gosser *et al.* 1993: 27-35). There were two landings at either end of Mākena Bay. A road for oxen extended from a landing on the northern end of the bay (known as Torbert Landing) to Torbert's *mauka* plantation. By 1848, Torbert had acquired a license to open a retail store. The Government Landing was located at the southern end of the bay. Torbert finally purchased land that had been previously leased from the government in 1849 (Grant 223). However, Torbert was forced to sell everything in 1856, including 800 cattle and 475 sheep, to pay his debts. Tolbert Plantation estate became the property of James Makee in 1858 and was afterward known as the Rose Ranch.

In 1852, a man named Mahoe purchased a 514 acre land grant in Kā`eo, the boundaries of which followed the southern boundary of Torbert's land and included the fishpond at Apuakehau Point, as well as the government landing, road *mauka*, and storehouse. The boundary description of the Grant (835) mentions a *kukui* tree (*Aleurites moluccana*), an *'auwai*, an old road, five *wiliwili* (*Erythrina sandwicensis*) trees, a sand dune, —the house of a full blooded Hawaiian,” and 24 rock piles. In 1868, Mahoe and his wife partitioned a 0.59-acre portion of their grant and conveyed it to the American Board of Commissioners for Foreign Missions (ABCFM Trustees Minute Book 1912:104). This parcel was the Keawala`i Church Lot.

In 1865, residents of Honua`ula were either employed by the Makee Plantation at Ulupalakua or were fishermen living along the coast. The coastal population was described by Fornander as —...altrifty, handy set of people, to judge from the general appearance of their houses, not a few of which were of wood, and many of the others, especially along the seaboard, being neatly built and looking tidy and clean within. The children seem to be numerous and

those that I observed were decently clad and looked bright and healthy” (Fornander in Barrère 1975:58).

The harbor at Mākena had become one of the busiest on Maui and was a regular stop on the Honolulu to Hilo run. An interesting anecdote from Makee, the owner of Rose Ranch, described the results of a summer hurricane in August of 1871. Makee wrote:

It was fearful to see the havoc during its duration. Trees were prostrate in every direction; the mill and engine house, the bowling alley, sugar house, cook house, two of the Chinese and one native house were down. One store house at the beach, and all the native houses there had been blown into the sea (Hawaiian Gazette, August 16, 1871:2.2).

Thrum also reported information concerning the storm:

...A tropical storm or hurricane caused extensive damage to the Ulupalakua Ranch, took the roof off the storehouse at Makena, which was near the church, and swept all the native houses into the sea – all within six hours [1926:36].

The harbor served as a loading port for the ranch and, after a breakwater and landing were constructed in 1877, sugarcane could be transported from the location. By 1885, structures along the bay included a church, cemetery, school, corral, the “a sugar house”, a stone wall, and a total of nine houses, one being fashioned from grass (Jackson Map, Reg. No. 1337). The development of Kahului Harbor (1920s), which contained cold storage facilities, marked the end of commercial shipping for Mākena Harbor.

MODERN ERA

From the 1940s through present times, much development has occurred to the north/west of the current project area. Military activities, such as amphibious beach landings, were conducted in Honua`ula district along coastal areas during World War II. In addition, concrete bunkers were constructed on beaches and other locations near the shoreline. Most recently, activities along the western coast have focused upon the development of large vacation resorts and golf courses. Massive infrastructure projects (water, wastewater, roadways and power) took place in the mid-1970s through the mid 1990s to provide for the development of South Maui, including Mākena (Lee-Greig *et al.* 2012). The development of today’s Makena Beach and Golf Resort began when Seibu Group’s Makena Resort Corporation developed a luxury golf course in 1981. Following construction of the golf course and its associated infrastructure, the Seibu

Group developed the 40 million dollar Maui Prince Hotel on 38-acres of coastal land in Kā`eo Ahupua`a. The hotel opened in 1986 (Lee-Greig *et al.* 2012). Seibu Group no longer owns the hotel and it has been re-named; renovation of the golf course is underway.

Cattle ranching continues on the upper slopes of the Honua`ula District on the extensive Ulupalakua Ranch lands. From the mid-1800s through the early 1900s, ranching activities employed many Mākena residents and as a result, lessened time for traditional activities. The previously mentioned Mākena Landing, a preserved example of ranching associated structures, was utilized as a staging from where cattle were transported to ships awaiting offshore. The many cattle walls and enclosures visible in the area today attest to the importance of ranching to the local economy, which continues today in areas such as Ulupalakua. Following the ranching period (c.1925 to current), the major foci of Mākena became oriented toward the construction of residential homes and tourist destinations (Chaffee and Spear 1994:5). These undertakings still dominate present-day coastal land use in the area, with areas more inland/upland either remaining fallow or eventually being converted into large lot properties.

PREVIOUS ARCHAEOLOGY

Prior to the current archaeological investigations, a large-scale survey project was conducted in the Mo`omuku Ahupua`a area, which included a portion of the current project area (Figure 3). The survey was conducted in 1991 Cleghorn (1991) and multiple sites were recorded around the current project area parcel, although none were identified directly within the parcel. To summarize, the Cleghorn (1991) study was composed of 150-acres of land, on which 26 sites with 60 component features were recorded (Figure 4). The most common features recorded were stone walls associated with historic cattle ranching activities. Modified outcrops were the second most common feature; their function related to agriculture and small activity areas. Several platforms, terraces, and enclosures also present, likely dating to the pre-Contact Period (pre-1778) and associated with habitation activities. One lava tube was identified and revealed a human skeleton. No religious sites, such as *heiau* or *ko`a*, were present in the project area. Recovered artifacts included glass bottles and very modest amounts of shell midden. Cleghorn (1991) suggests that many of the non-wall sites date to A.D. 1500-1800, with the walls representing 20th century ranching. Again, none of these sites occur in the current project area.

In addition to the above noted survey, multiple studies have been conducted in Honua`ula District over time, and include large-scale surveys very recently (Figure 4; Table 1). Prior to assessing the results of these recent projects, we commence the discussion with the foundation laid by Stokes and Walker in the early twentieth century.

John F. Stokes of the B.P. Bishop Museum conducted the first "modern" archaeological study of the Mākena/Honua`ula area in 1916. The goal was to systematically recorded *heiau* around the island and keep mostly to coastal reaches. Stokes (1916:4) identified multiple sites in the district, including a fishing shrine and seven *heiau* between Keone`ō`io and Mākena. Next, W. M. Walker (1931), between 1929 and 1930, conducted systematic archaeological survey of the Mākena area and inventoried both coastal and upland sites, including fishponds, *heiau*, and house sites. Although some of the sites Walker documented were destroyed, he nonetheless assigned site numbers. In Honua`ula District, Walker recorded a total of 21 sites, including 14 *heiau* (both coastal and upland), two fishponds, a coastal village, and four *ko`a*. One of the *ko`a* was identified in Mo`omuku Ahupua`a and is referred to as an un-named structure in Pa`ako near the coast, to the south of the current project area (Walker 1931:102-103). The site consisted of a

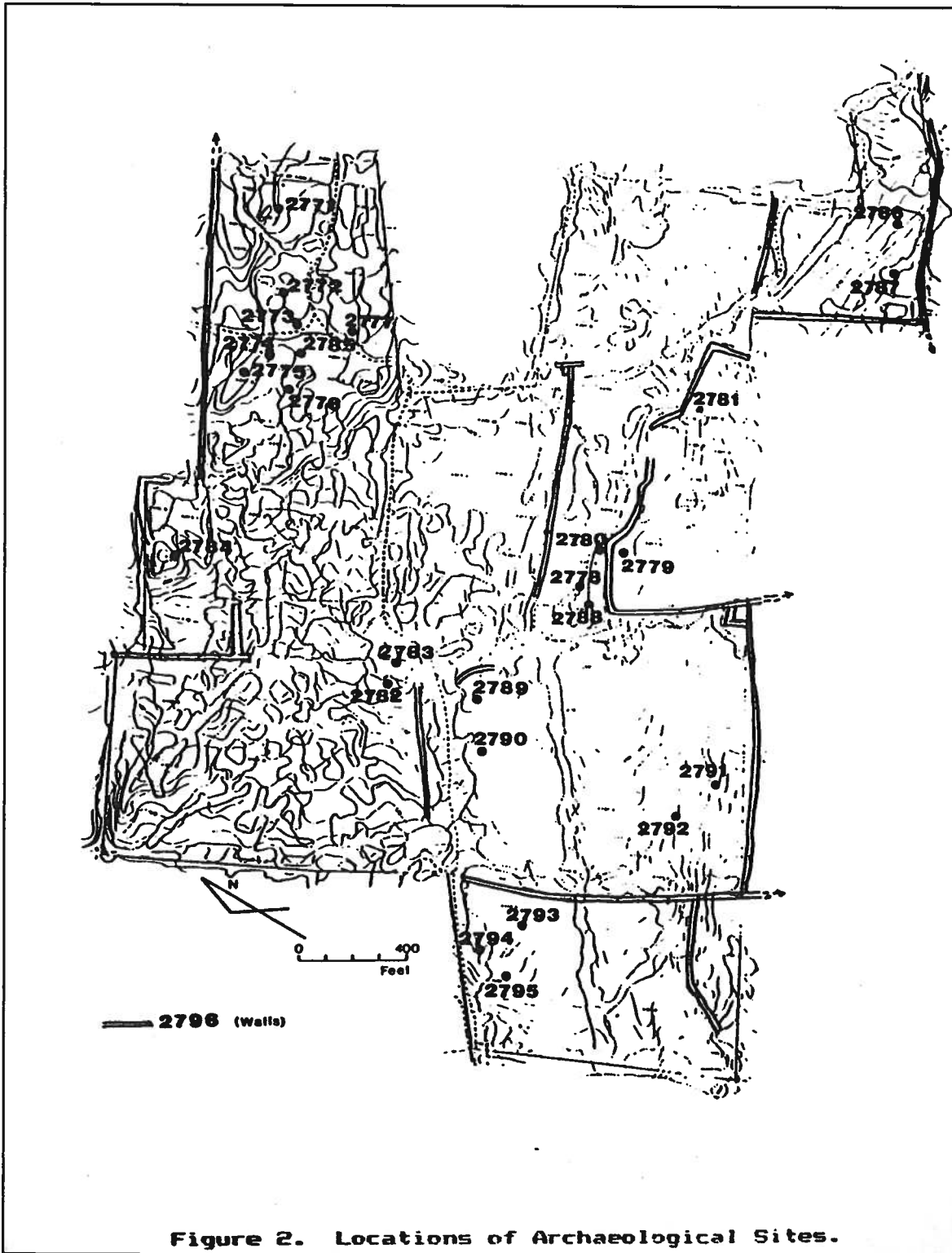


Figure 2. Locations of Archaeological Sites.

Figure 3: Map Showing Location of Sites Documented by Cleghorn (1991). Note: Current Project Area is Center of Map (no sites), above Site -2783 and -2789.

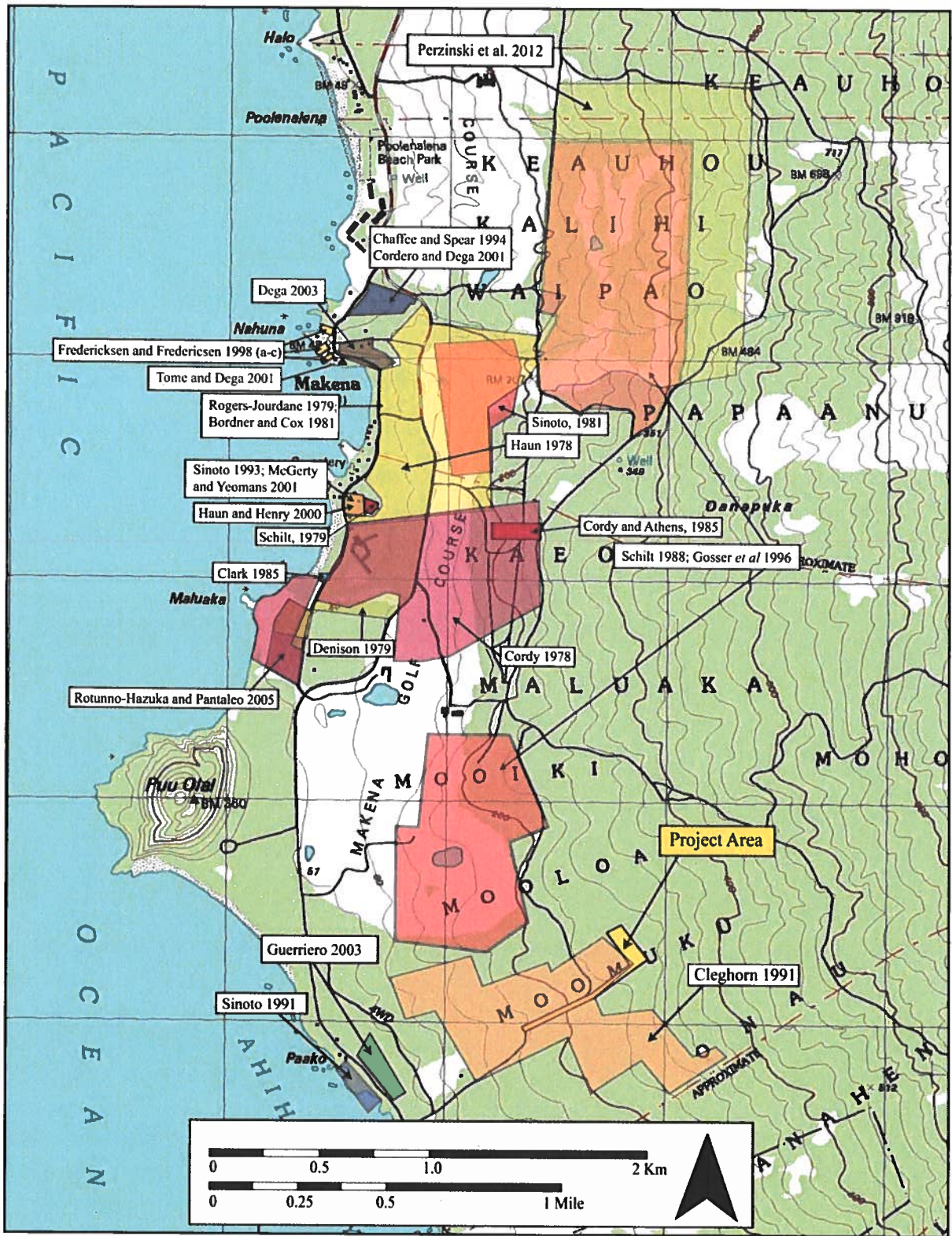


Figure 4: Portion of USGS Map Showing Location of Previous Archaeological Studies in the Vicinity of the Project Area.

Table 1. Previous Archaeological Studies in the Vicinity of the Project Area.

Author	Year	Ahupua`a	Results
Clark	1974	Multiple in Mākena	261 sites during a reconnaissance survey of 1000-acres
Sinoto	1978	Papa`anui	
Haun	1978	Maluaka	88- Including Walls, Terraces, Enclosures, C-Shapes, Mounds, Pavings, Pits
Cordy	1978	Ka`eo and Maluaka	79- Including Pre-Contact and Historic Sites; modified outcrops, terraces, enclosures, platforms, pits, midden scatters
Schilt	1979	Ka`eo	8- Including Kalani Heiau, enclosures, possible burial, modified outcrop, rockshelter
Rogers-Jourdane	1979	Papa`anui and Ka`eo	21 Sites.
Denison	1979	Papa`anui, Ka`eo and Maluaka	Data Recovery of Rogers-Jourdane sites
Sinoto	1981	Multiple in Mākena	14- Including midden scatters, modified outcrops, terraces, enclosure, platform, feature complex (agricultural and temporary habitation)
Bordner and Cox	1982	Multiple in Mākena	82- Sites and site complexes including agricultural complexes and at least 5 heiau that were recommended for further study
Cordy and Athens	1985	Ka`eo	Data Recovery of Sites -1916 and -2101; agricultural complexes with temporary habitation and workshop components
Clark and Kelly	1985	Ka`eo	Coastal reconnaissance and subsurface testing in sand dune; traditional coastal trail not found
Sinoto	1993	Ka`eo	Six sites including historic trash pit, enclosure, agricultural mounds and an historic well
Chaffee and Spear	1994	Waipao	Pohakunahaha Heiau
Fredericksen and Fredericksen	1998	Waipao	Enclosure, overhang shelter, a pre-Contact habitation area
Fredericksen and Fredericksen	1998 (multiple)	Papa`anui	WWII gun emplacements, overhang shelter, modified outcrop, fishing shrine, historic wall
McGerty and Yeomans	2000	Ka`eo	Site 4986 (intermingled historic and pre-Contact features), Kalani Heiau
Tome and Dega	2001	Papa`anui	Site 5123, numerous pre-Contact artifacts from a temporary habitation
Cordero and Dega	2001	Waipao	13 th century temporary habitation previously documented by Chaffee and Spear (1994)
Rotunno-Hazuka and Pantaleo	2005	Ka`eo	Nine sites including ranching enclosures, habitations, agricultural sites and a possible religious structure
Cleghorn	1991	Mo`omuku	26 Sites, 60 Features
Macintosh and Pantaleo	1998	Multiple in Mākena	Eighteen, Pre-Contact Agricultural Sites
Perzinski et al.-in prep	2014	Multiple In Mākena	130 sites, 549 Features
Perzinski et al.-in prep	2014	Multiple In Mākena	100 Sites, 556 Features

free-standing stone platform constructed of basalt blocks measuring 32 feet long by 42 feet wide by 4 to 7 feet high. The surface of the site was level and paved with coral and pebbles, with a cleared space (no paving) in the center.

During the late 20th and continuing into the 21st century, Honua`ula District was subject to more drastic land alterations caused by the influx of construction in which residential homes and tourist hotel destinations were quickly built. Supplemental to the major construction boom was the concomitant increase in associated archaeological work in the area. By 2000, a summary of sites was presented for the district and included 77 permanent habitation sites, 192 temporary habitation sites, 282 agricultural sites, eight burials, 23 ritual sites, and 11 trail segments from Keauhou Ahupua`a to Onau Ahupua`a (Haun 2001). Since that time period, many more sites have been found across the district, including those near the current project area. Lee-Greig *et al.* (2012) and other have provided current, overarching results of studies done across Honua`ula District in the past 20 years. As such, the following presents the results of studies geographically nearer the current project area.

Bishop Museum conducted a reconnaissance of approximately 1000-acres of land in Mākena that was comprised of 5 parcels. Parcel II included the project area and a rough count of archaeological features included —2 enclosures, seven platforms, three *ahu*, three isolated walls, three possible burials, seven cave shelters, three terraces and one possible house site—for a total of 50 (Clark 1974:4).” He then noted that, —The sites are not concentrated in any particular area but are scattered throughout the parcel. They are generally in fair condition. No artifacts or midden were seen (*ibid.*:5)

Sinoto (1978) conducted pedestrian survey of the Papa`anui Ahupua`a uplands that led to the identification of agricultural features. These features were assessed as pre-Contact in origin. In a model posed by Cordy and Athens (1988), these features, and possibly associated habitation areas, could have been constructed from the A.D. 1600s.

In Ka`eo Ahupua`a, Haun (1978) conducted Inventory Survey that led to the identification of multiple agricultural features. Utilizing volcanic glass hydration dating, the features were dated to A.D. 1606 to 1705 and A.D. 1600 (Haun 1978; see also McGerty and Yeomans 2001:12). Additionally, Bordner and Cox (1982) surveyed the uplands of Ka`eo Ahupua`a. The survey led to the identification of habitation structures and associated agricultural features. Upland of Mākena-Keone`ō`io Road and the present project area, a survey

by Schilt (1979) yielded several traditional features, including habitation enclosures and modified natural outcrops, with scatters of marine midden and historic artifacts. Excavation of a habitation site on the parcel produced a radiocarbon date of A.D. 1410 to 1660, intimating pre-Contact occupation of the area (see McGerty and Yeomans 2001:18).

Bishop Museum conducted an archaeological reconnaissance survey of the Garcia family property in Ka`eo Ahupua`a (Schilt 1979). In total, one previously identified site (Kalani Heiau, Ma-B8-1) and seven areas of archaeological significance were documented. These included a small enclosure, a possible burial, modified outcrop and a "lava-bubble" shelter.

An archaeological reconnaissance by Rogers-Jourdane (1979) was conducted in Ka`eo Ahupua`a, during which eight sites (and several others outside the present project area) were documented. The sites included a terrace (State Site 50-80-14-7058), enclosures (State Sites 50-80-14-7064 and -7071), historic walls (State Sites 50-80-14-7063 and -7068), platform (State Site 50-80-14-7086), modified outcrop (State Site 50-80-14-7070), and large cattle enclosures (State Site 50-80-14-7081). The sites were not all mapped, but locations and photos were taken.

Bishop Museum conducted Phase I and Phase II surveys at six sites in Papa`anui and Maluaka Ahupua`a for Seibu Hawai`i (Denison 1979). The sites were previously recorded by Rogers-Jourdane (1979) and included a wall, enclosure remnant, enclosure and platform complex, and a platform complex and terrace. The sites were typical for the area, and were interpreted as habitations and agricultural features.

Sinoto (1981) conducted a reconnaissance survey for Fairways 2-6 and a road alignment in areas north of the current project area. The survey included approximately 100-acres and a total of 14 sites (six site types) were located. The sites included a surface midden scatters, modified outcrops, terraces, an enclosure, platforms and a feature complex along a small ridge. Sinoto concluded that extensive historic disturbance to the project area had affected the site distribution and density (if compared to surrounding areas) and that there was a low variability in site types (suggesting limited utilization of the area).

An archaeological reconnaissance survey for Seibu Hawai`i located 82 sites and site complexes in lands *mauka* of the project area (Bordner and Cox 1982). Sites were noted but not mapped and included shelter caves, platforms, terraces, enclosures, historic walls and *heiau*. The study concluded that more sites were encountered than expected in the *mauka* portion of the project area (above 300-foot contour). At least five *heiau* were encountered, though these

structures need to be studied further. Agricultural sites seemed to follow the pattern suggested by Handy's descriptions, with sites in the lower portion of the study area distributed similarly to those in the north (Bordner and Cox 1982).

Cordy and Athens (1988) conducted data recovery on two sites (State Sites 50-80-14-1916 and -2101) in Mākena. The sites were both agricultural complexes that were recorded by Cordy in 1978. In sum, the study found that although there were some organization similarities in both field systems, there was also considerable variation. —At each site, there was a primary field shelter, a low, rectangular enclosure open to the sea. Remains indicate that these were probably sleeping, resting, eating, cooking and manufacturing- working areas that were used recurrently for short periods of time... However, there are marked variations in the nature, density and location of these basic activity areas in each site (Cordy and Athens 1988:11).”

Clark and Kelly (1985) were contracted by Seibu Hawai'i to conduct an archaeological reconnaissance for a segment of Mākena Road. The survey area was located along the coast and cut into a sand dune that was at elevations of 1-15 feet amsl. The 1,150 foot long by 60 foot wide corridor was investigated to locate a traditional coastal Hawaiian trail. Despite the limited subsurface testing and surface survey, no evidence of a trail or other cultural materials were found.

In 1993 Inventory Survey was conducted on another coastal Mākena property (TMK: (2) 2-1-007:066; Sinoto 1993). Altogether, the survey identified six archaeological features. Feature 1 was a trash deposit containing traditional and historic cultural materials; Features 2 and 3 were both walls of which one (Feature 2) was core-filled. Feature 4 was a sweet potato mound identified by oral accounts. Feature 5 was a small enclosure utilized for animal husbandry, which may have had an alternate, unknown primary function due to its well-stacked walls and general appearance. Feature 6 was a historic well-constructed of mortar and brick. Subsurface testing of selected feature and non-feature areas revealed traditional midden- sometimes intermingled with archaeologically historic debris.

Chaffee and Spear (1994:6) noted the presence of Pohakunahaha Heiau occurring some 15 meters to the south of State Site -3516, on an adjacent parcel (primarily TMK: (2) 2-1-007:012). The *heiau* and a platform adjacent to the *heiau* were previously documented by Kolb (1991). Only the *heiau* was later mentioned in the Chaffee and Spear (1994) report, the latter not having re-documented the platform. The retaining wall around the *heiau*, occurring on three parcels divided between Na Hale O Mākena (parcel 101), Seibu lands, and Chang family

property (parcel 12) and was further investigated and found to contain a burial. According to SHPD records, the burial has not yet received a site number. However, the *heiau* and environs were subject to Preservation planning.

In Waipao Ahupua`a (north of the project area along the coast), Fredericksen and Fredericksen (1998a) conducted Inventory Survey of a c. 1-acre land parcel occurring near the coast [TMK: (2) 2-1-07:71]. Survey led to the identification of an enclosure (State Site No. 50-50-14-4504), an overhang shelter (50-50-14-4505), and a pre-Contact habitation area (50-50-14-4506). Based on construction methods, Fredericksen and Fredericksen (1998a:29) placed construction of the rock enclosure to the early post-Contact Period. The function of the rock shelter was determined to be a low use activity area, due to the limited amount of recovered cultural material. Due to the absence of historic artifacts, use of the shelter was placed during the pre-Contact Period (*ibid.* 31). Based upon the recovery of traditional artifacts and midden, as well as the absence of historic artifacts, Site 4506 was also interpreted as a pre-Contact site (*ibid.* 34).

Cordero and Dega (2001) provide additional evidence in which to evaluate the temporal placement and nature of State Site 50-50-14-3513 Feature 2A (enclosure), Site 3514 Features 1–3 (modified outcrops-agricultural), and Site 3516 Feature 4 (surface lithic scatter) documented by Chaffee and Spear (1994). Briefly, block excavations within the Site 3513 enclosure yielded 64 subsurface features related to food preparation and habitation (postmolds) with various concentrations of lithic, faunal, and midden remains. Initial construction and occupation of the enclosure (house site) was dated to c. A.D. 1280–1460, a time period somewhat earlier than posed by Cordy and Athens (1988), yet, supported by the work of Gosser *et al.* (1996). Formalization of the structure (*ili`ili* pavement), occurred during the late pre-/early post-Contact Period. Overall, the *hale* was utilized for habitation, food preparation and consumption, and lithic manufacturing on a continuous basis from the A.D. 13th - 17th century. Intra-feature patterns regarding secular areas of domestic activity were identified.

The agricultural site (State Site 50-50-14-3514) yielded a date range of A.D. 1420–1700, a time period contemporaneous with occupation of the house site. No dates were acquired from Site 3516 (lithic scatter) but the nature and manufacture of the tools implied a traditional time frame. The pattern of these six sites shows long-term use of the Mākena landscape for various purposes.

A few years later, in the ahupua`a of Papa`anui, multiple surveys (reconnaissance and inventory-types) were reported by Fredericksen and Fredericksen (1998b and c). The results of an Inventory Survey on TMK: (2) 2-1-007:099 (1998b) identified multiple archaeological sites that included a World War Two shoreline gun footing (State Site 50-50-14-4673), a rock overhang shelter (State Site 50-50-14-4674), a modified rock structure remnant (State Site 50-50-14-4675), and a rock shelter (State Site 50-50-14-4676). Of the four sites, excavations yielded modern debris and beach-type materials (marine shellfish, coral, etc.). On TMK: (2) 2-1-007:007 and 098 (1998c) an Inventory Survey located four more sites that included a fishing shrine (-4524), small rock overhang shelters (State Sites 50-50-14-4525 and -4526) and a portion of the Old Government Road retaining wall (State Site 50-50-14-4527). The fishing shrine was thought to have been previously identified by Walker (1931) and subsurface testing revealed a subsurface pit feature, an *ili`ili* pavement and traditional cultural material. Subsurface testing at State Site 50-50-14-4525 revealed only historic cultural materials such as bottle glass sherds while the same type of testing at State Site 50-50-14-4526 yielded modest amounts of marine invertebrates, charcoal and waterworn pebbles. No radiocarbon samples were submitted for this survey.

In July 2000, Archaeological Inventory Survey-level investigations were conducted on a small land parcel also located near the Mākena coastline in Ka`eo Ahupua`a (McGerty and Yeomans 2001). Thirteen features composing State Site No. 50-50-14-4986 were recorded and tested. Representative shovel probes placed within the features yielded marine shell midden intermingled with historic artifacts. Carbon samples were not obtained due to the almost complete absence of charcoal and other organic matter. This situation inhibited absolute dating and thus, relative dating was utilized for this particular survey. A manufacturer's stamp dated "1901" on a bullet casing was recovered from one shovel probe and provided the only solid date. The existence of historic artifacts at all the features did not preclude them from solely relating to the Historic Period; the features occurred in a close proximity to Kalani Heiau (McGerty and Yeomans 2001:40-41). Overall, Site -4986 consisted mainly of historic features, yet, sampling methods may have precluded the identification of traditional components.

In 2001, Inventory Survey was conducted another coastal Mākena property that identified a temporary habitation site (State Site 50-50-14-5123) comprised of two features (see Tome and Dega 2001). Based on site location, feature architecture, and recovered traditional cultural materials (marine shell beads, volcanic glass and basalt flakes, cut bone, basalt flakes with polish), Feature 1 was identified as an alignment or truncated terrace and interpreted as a remnant temporary habitation terrace or agricultural terrace-retaining wall. Feature 2 was

identified as a rock-filled terrace fronted by a soil-terrace interpreted as a temporary habitation locus. A radiocarbon sample obtained from Feature 2 produced a radiocarbon date of A.D. 1410-1530 thus reinforcing that both features were utilized during the pre-Contact Period.

A few months later, the same parcel was subject to Archaeological Monitoring and resulted in the addition of a historic component being that excavation revealed artifacts—mainly glass bottles—associated with Mākena's military occupation (see Tome and Dega 2002). A few traditional type artifacts were also collected during the Monitoring that included traditional artifacts such as coral abraders, marine shell beads, lithic debitage (volcanic glass and basalt), a basalt hammerstone, and a basalt *ulu maika*.

In 2003, SCS (Tome and Dega 2005) conducted Archaeological Inventory Survey on several undeveloped land parcels totaling 4.76-acres in Papa`anui (TMK: 2-1-07:09; 2-1-08:por. 100; 2-1-7:por. 94; 2-1-7:60). Four sites, (State Site 50-50-14-5542, -5543, -5544, and -5545) were documented and all but one site (ranch wall) was subject to testing. Several time periods of land use are evident across the subject parcel in the form of built environment and landscape modifications. Constructed architecture spanned a time range of pre-contact (Site -5543, Feature C alignment; A.D. 1000-1230) to the Historic Period (Site -5545). This study provided additional evidence for earlier than expected occupation of the Mākena area.

In 2005, Archaeological Services Hawai`i, LLC (ASH; Rotunno and Pantaleo 2005) conducted an inventory survey in Ka`eo Ahupua`a (TMK: (2) 2-1-006:037, 056 and 2-1-005:084). Nine sites (six newly recorded) were identified and consisted of ranching enclosures, habitations, agricultural sites and a square enclosure classified as a religious structure.

SCS conducted Archaeological Inventory Survey for ATC Makena Holdings, LLC at three properties; a 22.1-acre property in Papa`anui Ahupua`a, a 16.4-acre parcel spanning both Papa`anui and Kā`eo Ahupua`a and a 9.5-acre parcel in Kā`eo Ahupua`a (Perzinski and Dega 2011a, b, and c). At the 22.1-acre parcel, 14 sites were documented, composed of 20 features. Of these sites, three had already been documented by Rogers-Jourdane (1979) and were re-documented during this study. The sites were a mix of pre-Contact and Historic period, and had various functions, including temporary and permanent habitations, ceremonial, agricultural, ranching and a historic road. Of the 14 sites, the two ceremonial sites (terrace platform and enclosure) were recommended for preservation; the remaining sites were either recommended for data recovery or no further work (Perzinski and Dega 2011a).

At the 16.4-acre parcel in Papa`anui and Kā`eo, five sites were documented, composed of six archaeological features; one of the sites had already been documented by Rogers-Jourdane (1979). Besides a historic ranching wall, the remaining four sites were pre-Contact, and represented a mix of functions including ceremonial, temporary habitation/workshop and agriculture. The authors write, —At elevations from near sea level to the 120-foot contour, the project area was likely under intensive or at the margins of an intensively cultivated area of Mākena” (Perzinski and Dega 2011b: 39). Again, only the ceremonial feature was recommended for preservation at this parcel; no further work was recommended at the remaining sites (Perzinski and Dega 2011b).

At the 9.5-acre parcel in Kā`eo, 17 sites composing 23 features were documented, including five sites previously documented by Rogers-Jourdane (1979). Again, the sites spanned the pre-Contact through Historic period and had various functions, including temporary habitation, historic ranching, agricultural, permanent habitation transportation, and sites of indeterminate function. Of these sites, only the permanent habitation site (adjacent to the Makena Beach and Golf Resort entrance driveway) and a well-preserved temporary habitation are recommended for preservation. All other sites are recommended for data recovery and no further work (Perzinski and Dega 2011c).

McIntosh and Pantaleo (1998) conducted survey of six petition areas in Mākena at TMK 2-1-5:83-85, por 108; TMK 2-1-7:4; and TMK 2-1-8: por 90). They noted 18 sites in the area related mostly to pre-Contact agriculture.

RECENT LARGE SURVEYS

Scientific Consultant Services, Inc. conducted Archaeological Inventory Survey on approximately 385 acres of land owned by ATC Makena Holdings, LLC. in the *ahupua`a* of Kealahou 1 and 2, Kalihi, Waipao and Papa`anui, Honua`ula District, Maui Island [TMK: (2) 2-1-008:090] (Perzinski *et al.* 2014a, in preparation). In total, 130 newly identified archaeological sites, composed of 545 features, and seven previously identified sites (with 15 features) were documented during the research. In total, 419 of the 545 newly recorded features (76.9%) were related to agriculture, 67 (12.3%) were temporary habitation features, 21 (3.8 %) were boundary walls, 14 (2.5%) were permanent habitation areas, 7 (1.3%) were ceremonial, 6 (1.0%) were markers, and the remaining 13 features functioned as trail segments (5; 1.0%), storage (5; 1.0%), and water diversion (1; 0.2%). Site construction and use is primarily within late pre-Contact and early Historic Period.

Scientific Consultant Services, Inc. also conducted Archaeological Inventory Survey on approximately 670 acres of undeveloped land for Honua`ula Partners, LLC, in the *ahupua`a* of Palauea, and Keauhou, Honua`ula District, Maui Island [TMK: (2) 2-1-008:71 and 56 por.] Perzinski *et al.* 2014b, in preparation). In total, 103 newly identified archaeological sites, composed of 614 features, were documented during the research. In total, 498 features were related to agriculture, 50 were habitation features, 10 were boundary walls, 9 were ceremonial, 4 were markers and 17 were storage features. Site construction and use is primarily within late pre-Contact and early Historic Period.

Finally, SCS (Perzinski and Dega 2014) conducted Archaeological Inventory Survey of 7.2 acres in Mo`omuku Ahupua`a, Makawao District, Island of Maui, Hawai`i [TMK: (2) 2-1-005:135 por.]. This project directly abutted the current project area. A total of 14 new sites with 21 component features were documented during fieldwork. The sites have been designated as State Site Nos. 50-50-14-7921 through 50-50-14-7934. The sites represent both pre-Contact and Contact period use of the landscape. Site types include rock enclosures, modified outcrops, mounds terraces, and work sites.

Previous archaeological research near the present project area and within the Honua`ula region has revealed a long history of habitation and agricultural endeavors in the coastal Mākena area. A range of site types and associated midden and artifacts have been recovered at both traditional and historic sites. As is discussed below, the settlement pattern of coastal Mākena has some time depth. The present data set can be utilized to refine the settlement pattern model of the area.

SETTLEMENT PATTERN AND PREDICTIVE MODEL

The settlement pattern for the district of Makawao, encompassing Honua`ula, is varied, with several competing chronologies and models being proposed (see Cordy 1981; Kolb *et al.* 1997; Cordy and Athens 1988; Gosser *et al.* 1996 and Cordero and Dega 2001).

Cordy (1981) suggests that pre-Contact Period permanent housing in the Mākena area dates to ca. A.D. 1600 or “no farther back than the mid-AD 1500s” (Cordy and Athens 1988:10). Conversely, Gosser *et al.* (1996) and Cordero and Dega (2001) provide evidence that permanent habitation initially appeared in the coastal Mākena area from approximately A.D. 1200s, with increased (read: more intensive) settlement in the form of a more heavily built landscape by A.D. 1650. More recent studies (Perzinski and Dega, 2012, Lee-Grieg and Hammatt 2012) in adjacent parcels have tended towards the later dates with occupation occurring ca. late 1600s A.D. to the early 1800s.

Gosser *et al.* (1996) established a clearer picture of settlement on the leeward side of Maui. Based on 63 radiocarbon dates from Parcel III and IV in Makena, initial occupation occurred as early as A.D. 1100-1400 (Early Expansion). Following initial settlement of inland areas, a second period of occupation appeared to occur ca. A.D. 1650-1795. —During this period, populations expanded into the inland portions of Mākena to intensify agricultural production (Gosser, *et al.*, 1996:436). As a majority of the sites recorded in the inland Mākena area have been temporary habitation and agricultural sites, there is a slight gap in knowledge concerning permanent habitation sites. Given the evidence that permanent habitations were established along the coast by A.D. 1200 (Cordero and Dega 2001), one would expect permanent habitation sites to have been established more inland following coastal settlement.

The elevation model proposed by Cordy and Athens (1988) suggests that certain site types may be associated with specific elevation zones and time periods. They proposed that permanent house sites in Mākena were situated within .25 miles of the coastline and agricultural lands and temporary house sites were located over .25 miles inland from the coast. Permanent housing settlements scarcely occurred beyond .25 miles from the coast (*ibid.*). Recent research has shown, however, that permanent habitation was indeed practiced over a mile and more from the coastline, albeit the sites were general suggested to have been occupied later, in the 1700-1800s, and agriculture flourished in the area. Over a kilometer from the coastline, SCS (Perzinski *et al.* 2013-in preparation) documented several types of enclosures (C-shape, L-shape, U-shape, J-shape, circular, oval and rectangular), rock shelters (modified overhangs), and large

terraces. In total 46 sites (32.6%) and 81 features (14.9%) were classified as habitation. Sixty-seven (67) of the habitations were believed to be temporary habitations and fourteen (14) were believed to be permanent habitations. This recent work has shown expansion into these non-coastal lands, particularly in the 1700-1800s, and also shown that permanent habitation sites occur further from the coastline, in the intermediate area between coast and uplands.

Agricultural features are generally concentrated along the slopes of rocky outcrop ridges, utilizing natural outcrops in the architecture of the features. The density of the agricultural features that were identified along the ridges suggests that a formal "field system" was developed and adapted to the dissected topography of the project area (Perzinski *et al.* 2014-in preparation). The agricultural features included modified outcrops, terraces, mounds and planters. Recent radiocarbon dates show intensification, particularly through the construction of many agricultural sites, occurring in the late 18th to 19th centuries for these more upland areas, over a kilometer from the coastline.

In all, cumulative settlement pattern models in the region suggest that as the population increased in the earlier settled areas of windward Maui, inhabitants began emigrating to leeward sides. This pattern is consistent with time periods suggesting early occupation of Windward Maui by A.D. 900 or A.D. 1000 and population spreading to more marginal areas by c. A.D. 1200 (see Kirch and McCoy 2007). Within comparatively environmentally marginal zones such as Mākena, even these zones could be subject to micro-divisions. As such, directly coastal and more upland areas would have been more amenable to habitation and/or cultivation than the drier areas in between, the so-called "Intermediate Zone." These "marginal" areas, such as Honua`ula and Kahikinui (Kirch 2014), required specialized farming practices due to the ubiquity of rocks, lack of water, and arid conditions.

In brief, the settlement pattern of Mākena shows the presence of both temporary and permanent habitation sites beginning from about A.D. 1200, and agricultural features, —mainly sweet potato mounds and terraces —beginning from the early 14th century. Occupation and land utilization of the area continued, with a spike in occupation and use in the 1700-1800s with permanent and temporary habitation and creation of "field systems" away from the Mākena coastline. These sites were occupied into the Historic Period. The area was also active through the Post-Contact Period, as evidenced by the area's LCAs denoting house sites and agricultural areas. Ranching activities in the late 1800s dominated much of Mākena's marginal areas while coastal habitation and fishing remained constant. While the influx of residences and hotels in the area during modern times covered much of the former traditional lands, evidence to refine

existing settlement pattern models for the area is still amenable to evaluation. The present project aims to contribute to this growing database.

Based on the above modeling and the results of previous archaeology work in the vicinity of the current project area, it was predicted prior to fieldwork that occupation of the project area, would be more permanent than temporary, and would date from the ca. A.D. 1200s. We expected to identify multiple areas containing C-shapes, small enclosures, and rock shelters. Additionally, given somewhat sustained use of the area over time, ceremonial sites would be present, in the form of platforms, enclosures, and/or mounds representing small *heiau* and *ahu*. Agricultural features would primarily consist of planters and terraces, placed along the tops and flanks of ridgelines. These agricultural features were expected to date from the A.D. 1700s to 1800s. Occupation of the area from the 1200s was suspected to be non-intensive but continual, through the 1800s when ranching became common in the area. Given the ranching history, rock walls associated with boundaries and cattle pens were also suspected to be present.

METHODOLOGY

Archaeological Inventory Survey Fieldwork was conducted by SCS Archaeologists Ian Bassford, B.A., Joe Farrugia, M.A., and Andrew Bastier, B.A., from November 15 to December 15, 2013, under the overall direction of Michael Dega, Ph.D., Principle Investigator. Inventory Survey consisted of a surface survey and manual excavation (testing) of a select feature within State Site 50-50-14-7905. A 100% pedestrian survey utilizing 3-5 meter (m) transects was carried out, oriented roughly north/south, depending on ground cover and visual range. The maximum 5 m survey distance was adequate as surface visibility was high.

When sites were encountered, the site location was flagged, noted on a project area map and later recorded. The sites were plotted using a Garmin GPS while site topography and visual indicators were documented with written descriptions, photographs, and scale plan view maps. Site boundaries were primarily determined by the horizontal extent of their surface components.

Testing was conducted at State Site 50-80-14-7905 via one 1.0 by 1.0 meter tests unit to better understand site/feature function, to assess the presence/absence of cultural materials associated with site/feature use, and to obtain samples amenable to radiocarbon dating. Testing was completed using shovels, trowels and brushes with all sediment being screened through 1/8 inch wire mesh screens. Once the test unit was excavated to sterile sediments, the units were recorded with scale profiles using Munsell Soil descriptions, plan views, and photographs. The units were back-filled following recordation.

Site age and function were partially interpreted based on surface architecture construction technique and morphology, spatial relationship to other sites and the topography of the area, and the presence/absence of cultural materials, including historic indicators (*i.e.* introduced materials, construction techniques).

Archival research entailed investigating the historic and archaeological background of the general project area. This examination included a documentary search of previous archaeological research conducted in this region of Maui, as well as a review of archival literature relating to Land Commission Awards and local mythology. The review of historical documents was mainly accomplished in order to understand the impact of post-Contact events on the cultural and archaeological landscape of the region.

Laboratory work was undertaken at the SCS laboratory on O`ahu and consisted of cleaning, sorting, and analyzing all artifacts and collected soil samples. Additional laboratory work involved cataloging all project photographs, drafting of sites and stratigraphic profiles, and writing. All original project area records (*i.e.* notes, profiles, photographs, etc.) are currently being curated in the SCS Maui office. All collected cultural material (*i.e.* artifacts, midden, and charcoal) are currently being curated in the SCS Honolulu office. These artifacts will be sent back to the SCS Maui office for long-term curation.

RESULTS OF FIELDWORK

Archaeological Inventory Survey was conducted on an approximate 27-acre parcel of undeveloped land in Mo`omuku Ahupua`a, Honua`ula District, Island of Maui, Hawai`i [TMK: (2) 2-1-005:134, 135 por. and 136]. A total of 36 new sites composed of 61 component features were documented during fieldwork (Figure 5). The sites have been designated as State Site Nos. 50-50-14-7885 through -7920. The sites represent both pre-Contact and Contact period use of the landscape. Site types include enclosures, rock mounds, modified outcrops, terraces, platforms, walls, midden scatters and planters. These sites represent habitation, agriculture, heating/consumption, ceremonial and historic ranching functions.

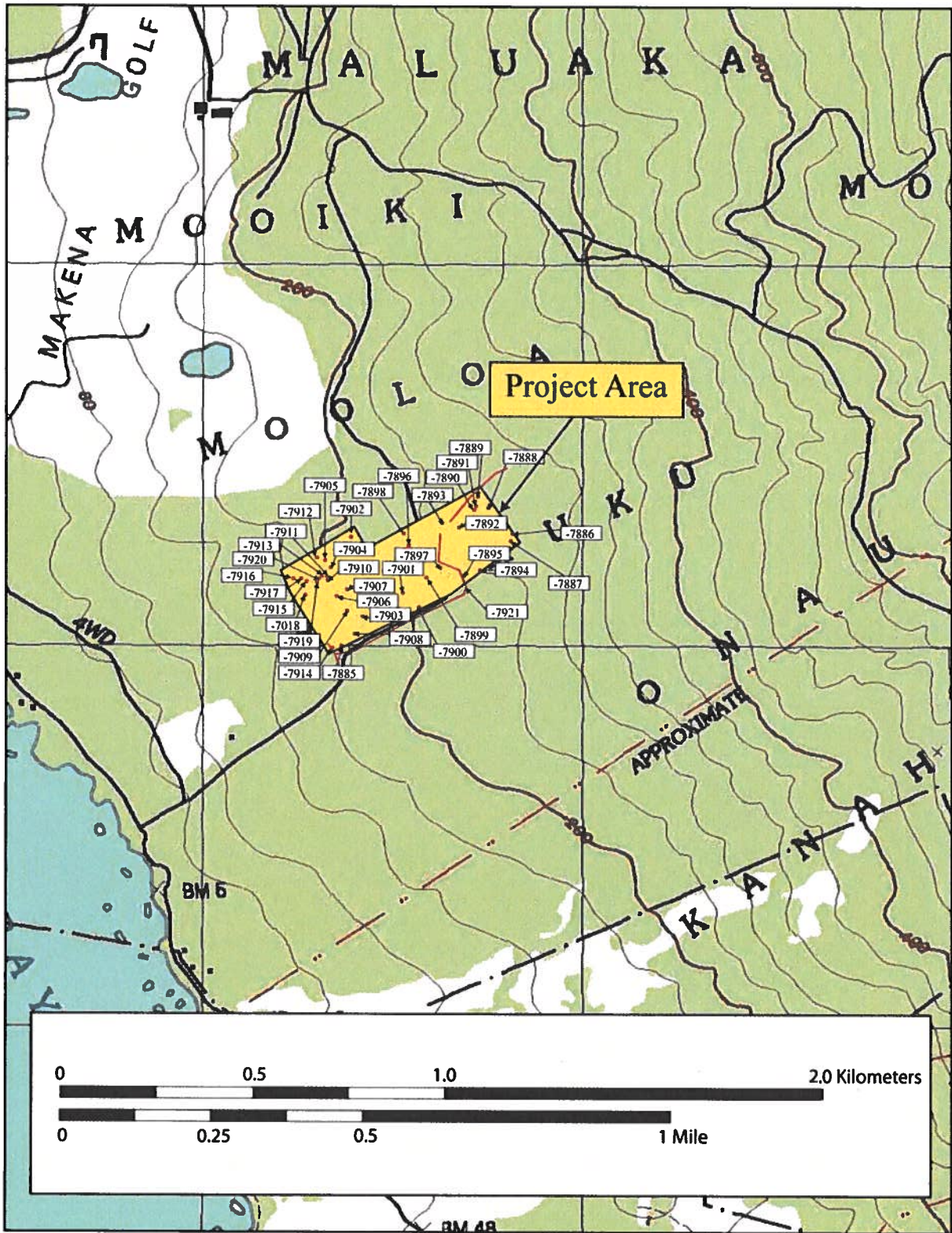


Figure 5: Portion of USGS Map Showing Location of Sites in Project Area.

STATE SITE 50-50-14-7885 (TS002)
GPS Coordinates: 767340 e; 2283016 n
Site Type: Terrace
Function: Agriculture
Feature (#): 1
Age: pre-Historic/Historic

Condition: Poor

Description: State Site 50-50-14-7885 (TS002) consists of a terrace located in the southwest portion of the project area. The site measures 4.5 m long by 4.5 m wide with a maximum height along the terrace wall of 1.1 m (Figure 6). The terrace is constructed of basalt cobbles and boulders stacked 1 course high and 2 courses wide. The boulders are up to 60 cm in diameter and it appears the terrace has suffered severe collapse, likely from historic cattle ranching operations.

STATE SITE 50-50-14-7886 (TS014)
GPS Coordinates: 767761 e; 2283288 n
Site Type: Terrace Platform
Function: Agriculture
Feature (#): 1
Age: pre-Historic/Historic

Condition: Poor

Description: State Site 50-50-14-7886 (TS014) (Figure 10) consists of a terrace platform located in the extreme eastern portion of the project area. The site is a roughly stacked platform with a terraced step on the downslope side. Overall, the platform measures 8 m by 2.3 m by 65 cm high. The site is constructed of basalt cobbles and boulders up to 50 cm in diameter that has been piled along a bedrock outcrop. The surface of the platform is extremely uneven that would have made it unsuitable for habitation (Figure 8). Based on these findings it is believed the site functioned for agricultural purposes.

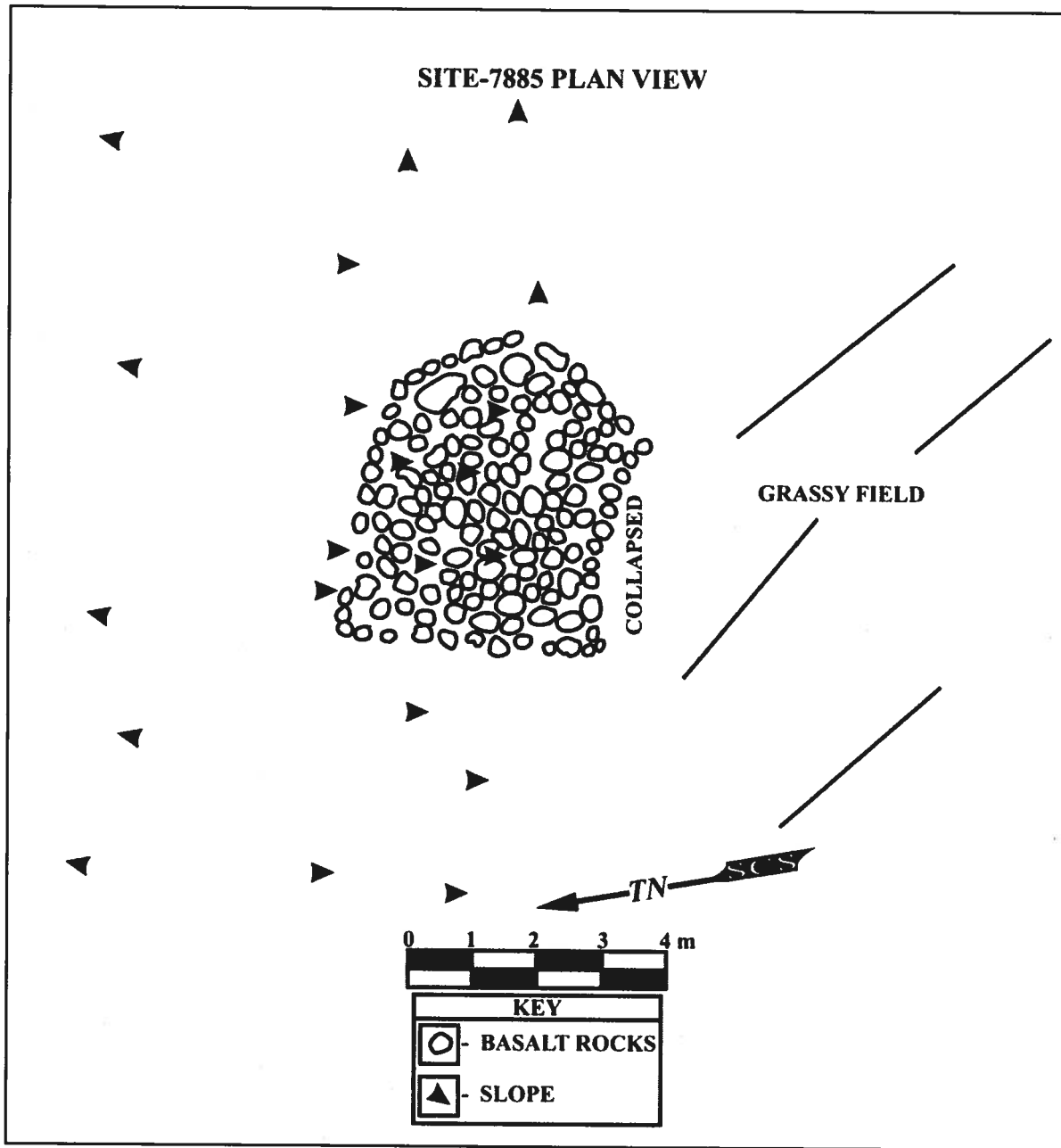


Figure 6: Plan View of State Site 50-50-14-7885 Showing Collapsed Terrace.

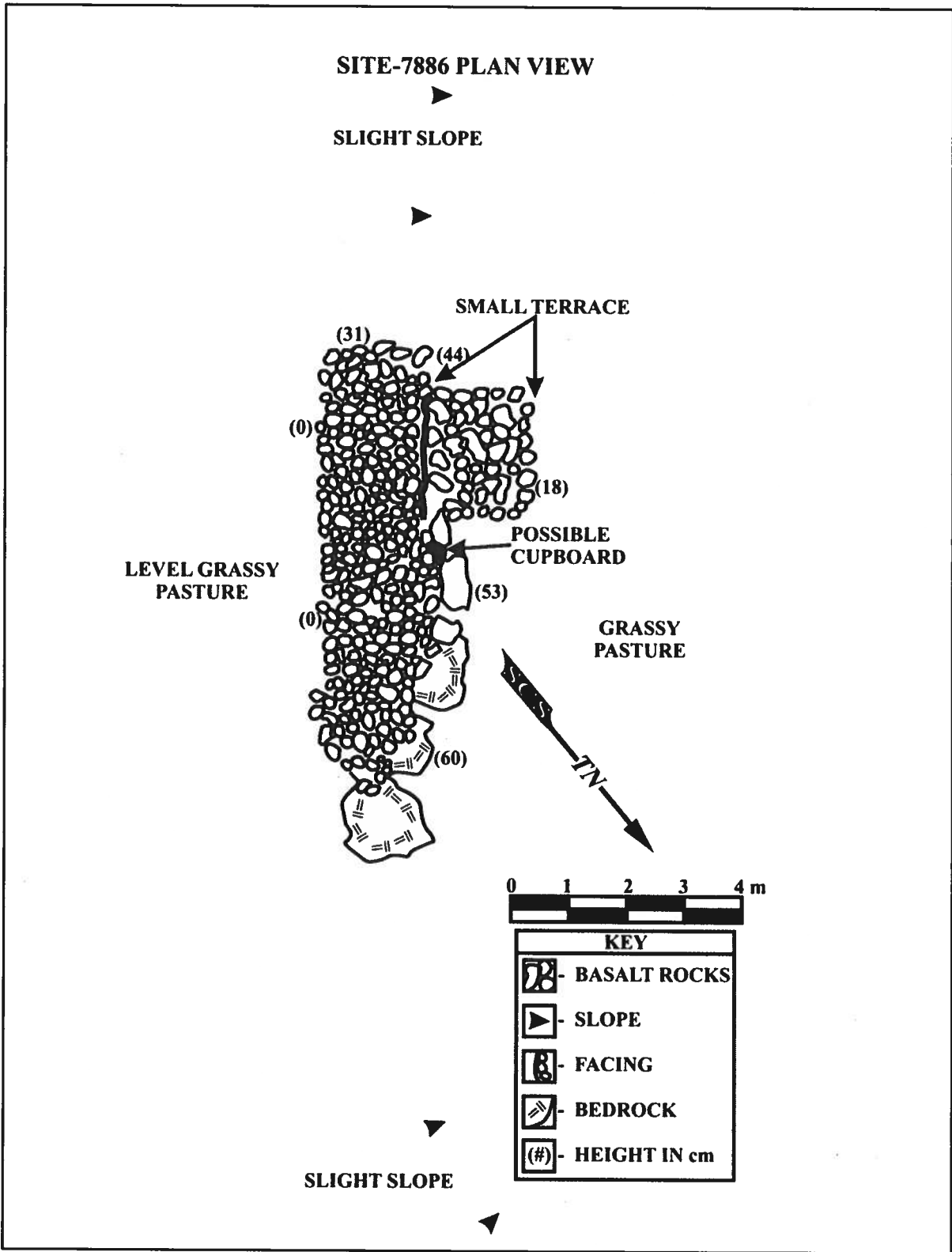


Figure 7: Plan View of State Site 50-50-14-7886 Showing Terraced Platform.



Figure 8: View Southeast of State Site 50-50-14-7886.

STATE SITE 50-50-14-7887 (TS015)
GPS Coordinates: 767754 e; 2283266 n
Site Type: L-Shape and Terrace
Function: Agriculture
Feature (#): 2
Age: pre-Historic/Historic

Condition: Fair to Poor

Description: State Site 50-50-14-7887 (TS015) consists of two features: an L-shape (Feature A) and a terrace (Feature B). The site is located in the eastern portion of the project area just south of Site -7886 (Figure 9).

Feature A (Figure 11) is an L-shape that measures 5 m long by 6.5 m wide with a maximum height of 75 cm and wall widths up to 1.2 m. The site is constructed of piled basalt boulders up to 40 cm in diameter and up to 4 courses. The interior surface of the L-shape is level soil. Based on the location and architecture of the site, it is believed to have been utilized for agriculture.

Feature B (Figure 10) is a terrace that measures 8 m long by 1 m wide with a maximum height of 90 cm along the leading edge. The terrace wall is constructed by piling rather than stacking of the basalt cobbles and boulders. The surface of the terrace is very uneven and covered in boulders suggesting that the site was most likely used as an agricultural feature.

STATE SITE 50-50-14-7888 (TS016)
GPS Coordinates: 767703 e; 2283345 n
Site Type: Wall
Function: Boundary
Feature (#): 1
Age: pre-Contact/Historic

Condition: Fair to Poor

Description: State Site 50-50-14-7888 (TS016) consists of a short wall segment located in the eastern portion of the project area, north of Site -7886 (Figure 12). The wall measures approximately 8 m in length by 90 cm wide with a maximum height of 1 m. The wall is stacked with basalt cobbles and boulders up to 50 cm in diameter. The wall extends downhill from a bedrock outcrop to where it has been truncated by a bulldozer path. Based on the location and architecture, it is believed the wall functioned as a boundary wall for an agricultural plot or possibly for ranching activities.

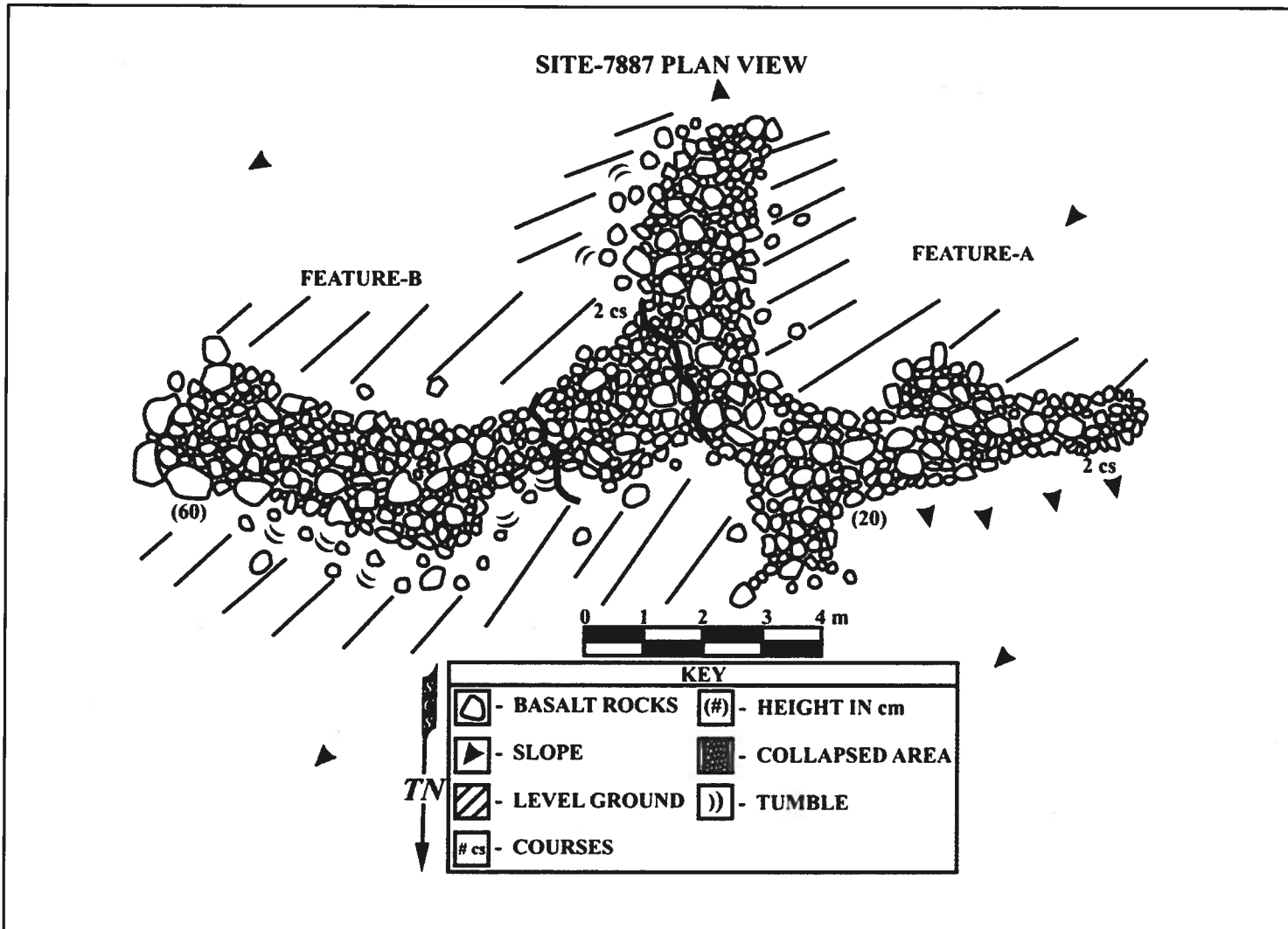


Figure 9: Plan View of State Site 50-50-14-7887 Showing L-Shape and Terrace. Note: The dark black lines on the map indicate edge of architecture, with rock in between representing small, collapsed sections.



Figure 10: View North of State Site 50-50-14-7887 Feature B.



Figure 11: View East of State Site 50-50-14-7887 Feature A.

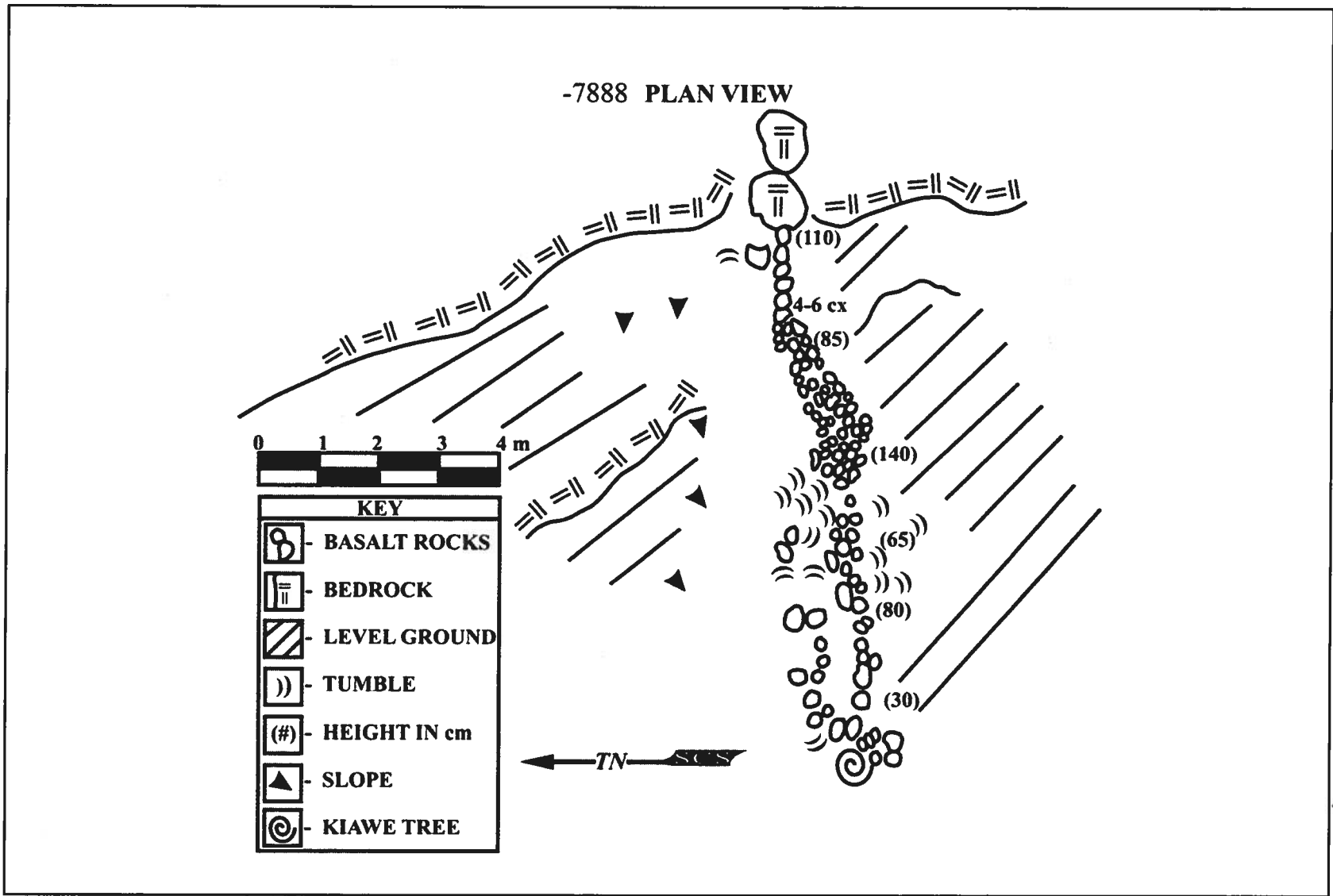


Figure 12: Plan View of State Site 50-50-14-7888 Showing Wall Segment.

STATE SITE 50-50-14-7889 (TS017)
GPS Coordinates: 767677 e; 2283376 n
Site Type: Terrace and Planter
Function: Agriculture
Feature (#): 2
Age: pre-Contact/Historic

Condition: Fair to Poor

Description: State Site 50-50-14-7889 (TS017) (Figure 13 and Figure 14) consists of a terrace and a planter located in the northeastern portion of the project area.

Feature A is a terrace that measures 4.2 m long by 2.3 m wide with a maximum height of 80 cm along the terrace wall leading edge. The terrace's wall is constructed of basalt cobbles and boulders up to 35 cm in diameter. Along with the constructed wall, the terrace utilizes naturally occurring bedrock into its architecture. Based on these findings it is believed the terrace was utilized for agricultural use.

Feature B consists of a planter that measures 1.5 m by 80 cm with a maximum height of 50 cm. The planter is roughly oval in shape and was constructed abutting a bedrock outcrop. The surface of the planter is level soil and is believed to have functioned as an agricultural planting area.

STATE SITE 50-50-14-7890 (TS018)
GPS Coordinates: 767668 e; 2283344 n
Site Type: Terrace
Function: Agriculture
Feature (#): 1
Age: pre-Contact/Historic

Condition: Fair to Poor

Description: State Site 50-50-14-7890 (TS018) (Figure 15 and Figure 16) consists of a terrace located in the northeastern portion of the project area approximately 30 m south of Site -7888. The terrace measures 5.7 m long by 2 m wide with a maximum height of 76 cm. The leading edge wall of the terrace is constructed of `a`ā cobbles and boulders up to 45 cm in diameter and stacked up to 2 courses against a bedrock outcrop. One hammerstone and a single piece of waterworn coral were found near the edge of the terrace. Based on the location and site type, it is believed the feature was utilized for agricultural purposes.

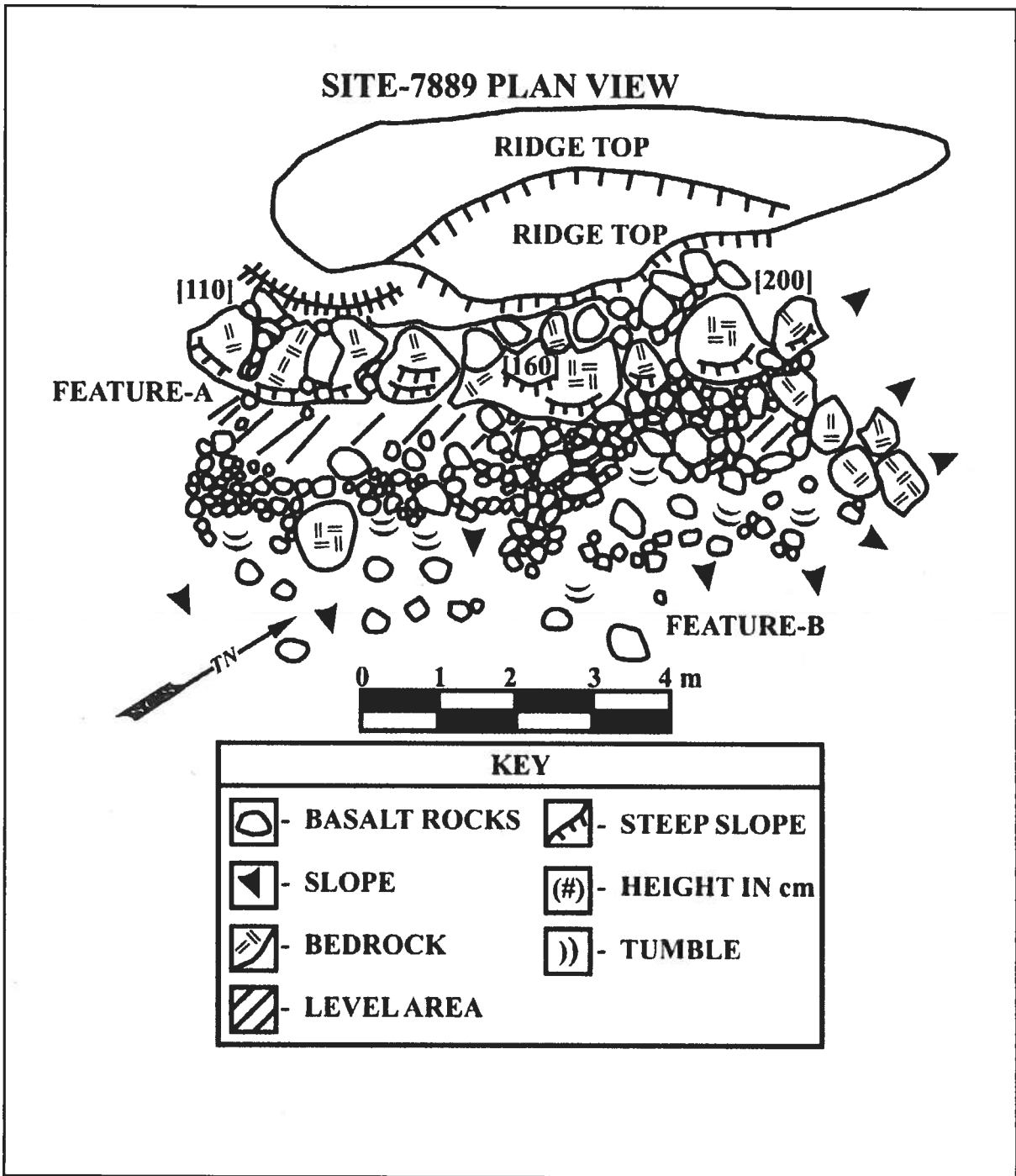


Figure 13: Plan View of State Site 50-50-14-7889.



Figure 14: View Southwest of State Site 50-50-14-7889.

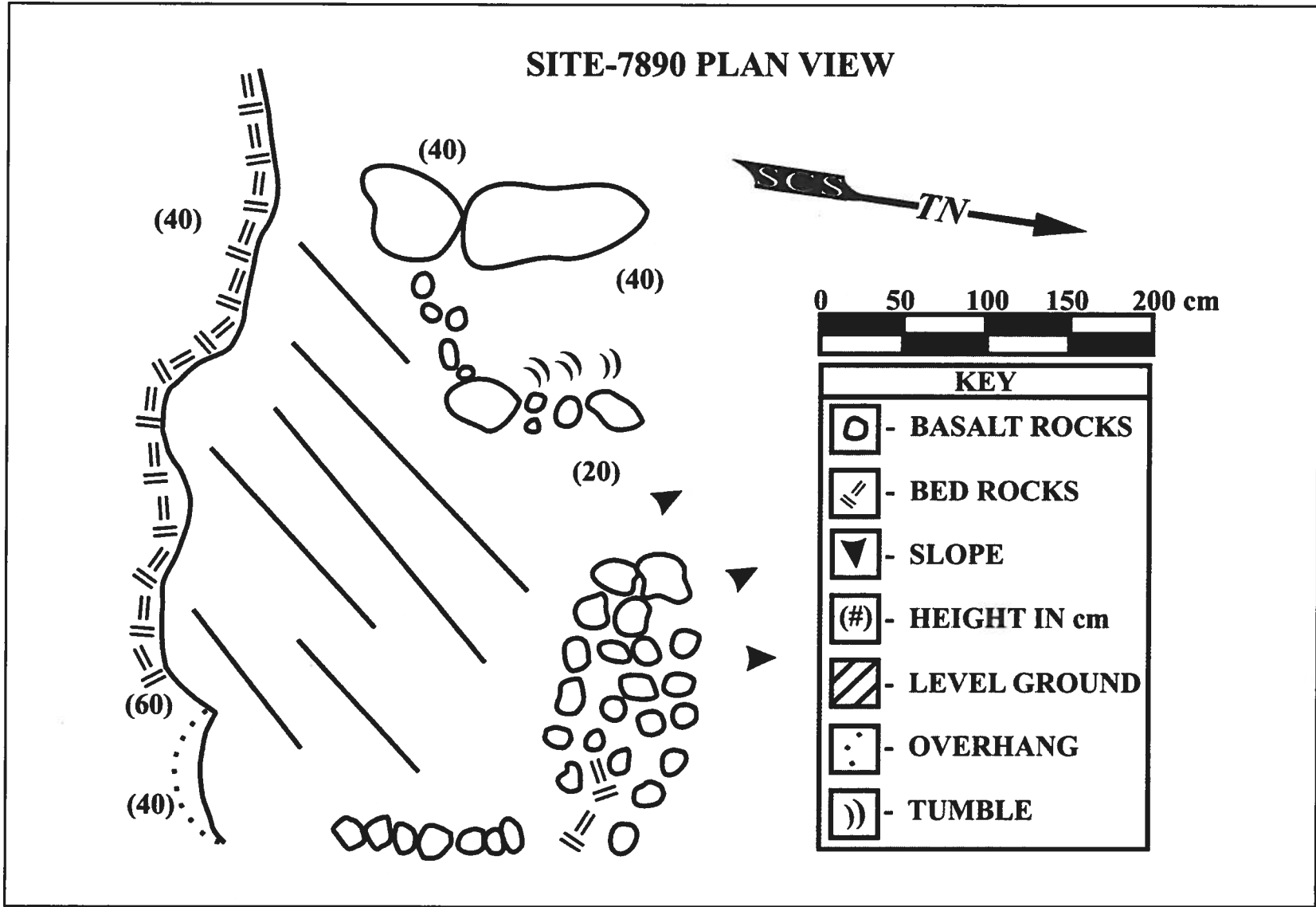


Figure 15: Plan View of State Site 50-50-14-7890.



Figure 16: View West of State Site 50-50-14-7890.

STATE SITE 50-50-14-7891 (TS019)
GPS Coordinates: 767676 e; 2283350 n
Site Type: Terraces/Planters
Function: Habitation/Agriculture
Feature (#): 8
Age: pre-Contact

Condition: Fair

Description: State Site 50-50-14- (TS019) (Figure 17) consists of two terraces (Features A and B) and six small agricultural features (Features C-H) that are located along the southern slope of a bedrock ridge. Overall, the site dimensions measure approximately 12 m east/west by 14 m north/south for an overall area of 168 square meters. The site is believed to have functioned as a small habitation and agricultural complex.

Feature A consists of a terrace located near the top of the ridge and encompasses a small overhang. The feature measures 5.8 m by 3.2 m and shares its east wall with Feature B. The terrace wall measures 5.5 m long and is constructed of medium to large cobbles and small boulders stacked 3-5 courses. The face of the terrace has a maximum height of 76 cm and is partially collapsed on the west side. The pad of the terrace measures 4.9 m by 1.8 m and is level and soil filled and had coral, lithic debitage and shell midden observed on the surface. The overhang portion measures 1.3 m wide by 2.1 m deep with a maximum height of 1.27 m from the ceiling to the floor.

Feature B consists of a terraced area abutting the east side of Feature A. The feature is located atop a small ledge along the bedrock with the terrace wall measuring only 1.4 m long. The pad of the terrace measures 4 m by 2.2 m and drops off 2.4 m along the southern side. The remainder of the terraced area is surrounded by a 2.8 m high bedrock outcrop. On the surface of the feature two pieces of invertebrate shell midden, lithics and charcoal were observed.

Features C through H consist of a planter, four terraces and a modified outcrop and were located below (downslope) of Features A and B (Table 2). The table below depicts the dimensions and characteristics of the agricultural features.

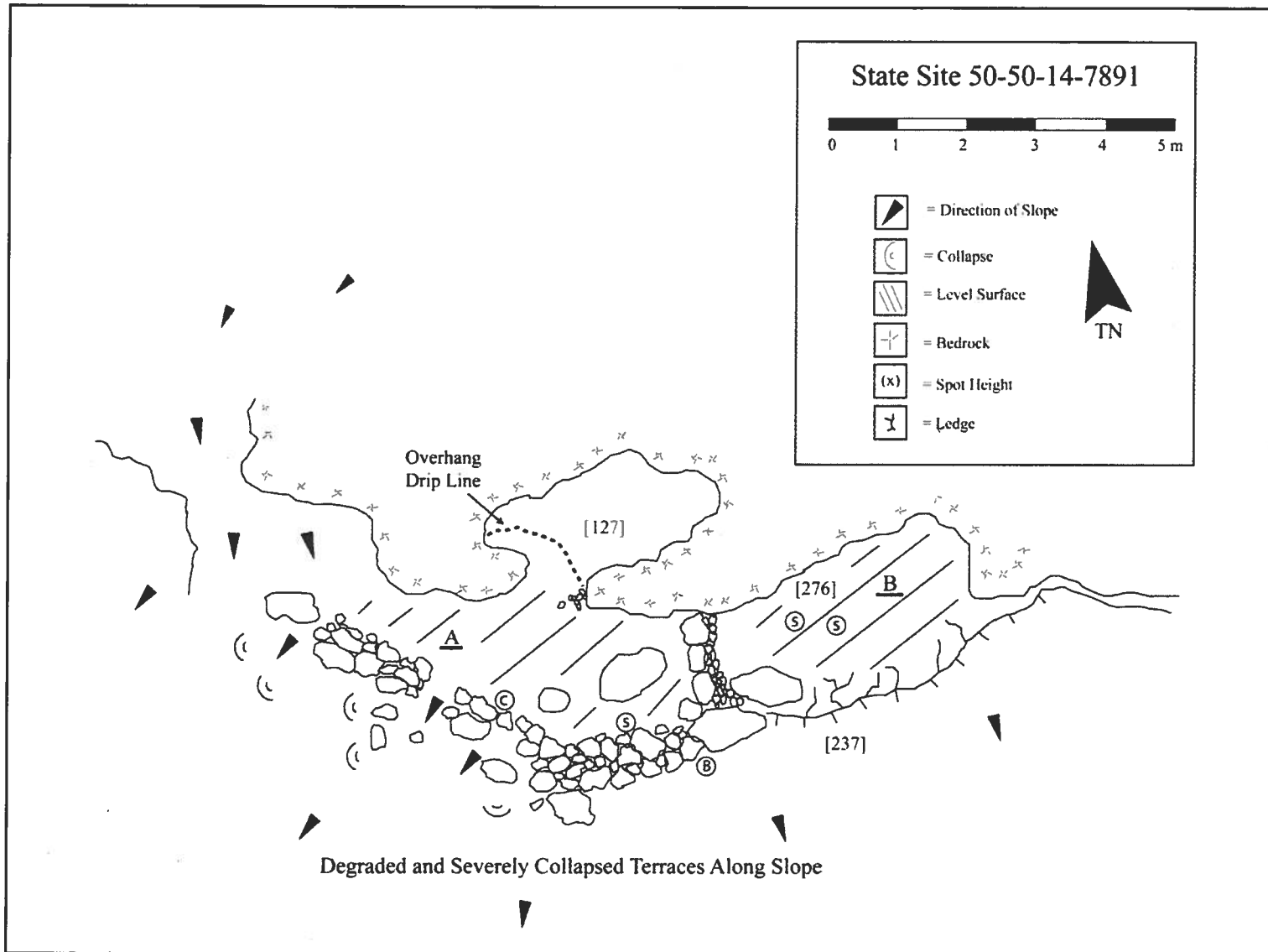


Figure 17: Plan View of State Site 50-50-14-7891.

Table 2. Table Showing Agriculture Features Associated with Site -7891.

Feature	Type	Function	Dimensions (m) (L x W x H)	Comments
C	Planter	Agriculture	3.4 x 2.3 x 0.28	2-3 courses; level soil interior
D	Terrace	Agriculture	2.7 x 2.5	3-4 courses; level interior
E	Terrace	Agriculture	3.8 x 2.8	Bedrock riser; level soil interior
F	Mod. Outcrop	Agriculture	1.6 x 1.3 x 0.52	Bedrock augmented with stacked rock
G	Terrace	Agriculture	4.2 x 3.3	Abutting bedrock riser; level soil interior
H	Terrace	Agriculture	4.6 x 3.4	4-6 courses; utilizes bedrock; level soil interior; Abuts Feature G

STATE SITE 50-50-14-7892 (TS020)

Condition: Fair

GPS Coordinates: 767632 e; 2283302 n

Site Type: Terrace Platform

Function: Ceremonial

Feature (#): 1

Age: pre-Contact

Description: State Site 50-50-14-7892 (TS020) (Figure 18 and Figure 19) consists of a terraced platform located in the east central portion of the project area. The site measures 6.3 m by 2.5 m with a maximum height of 60 cm on the downslope side. The platform is constructed of basalt cobbles and boulders stacked to form a roughly rectangular platform with a single step terrace on the downslope side. One coral fragment was documented on the southeast corner of the site which was also damaged by bulldozer activity. Based on the site's location and architecture, as well as the presence of coral, it is believed the platform functioned as a small agricultural *ko`a*.

STATE SITE 50-50-14-7893 (TS021)

Condition: Fair to Poor

GPS Coordinates: 767591 e; 2283312 n

Site Type: Mound

Function: Agriculture

Feature (#): 1

Age: pre-Contact/Historic

Description: State Site 50-50-14-7893 (TS021) (Figure 20 and Figure 21) consists of stone mound located in the northeastern portion of the project area. The mound measures 3 m by 2 m with a maximum height of 45 cm. The mound is constructed of basalt cobbles and boulders up to 40 cm in

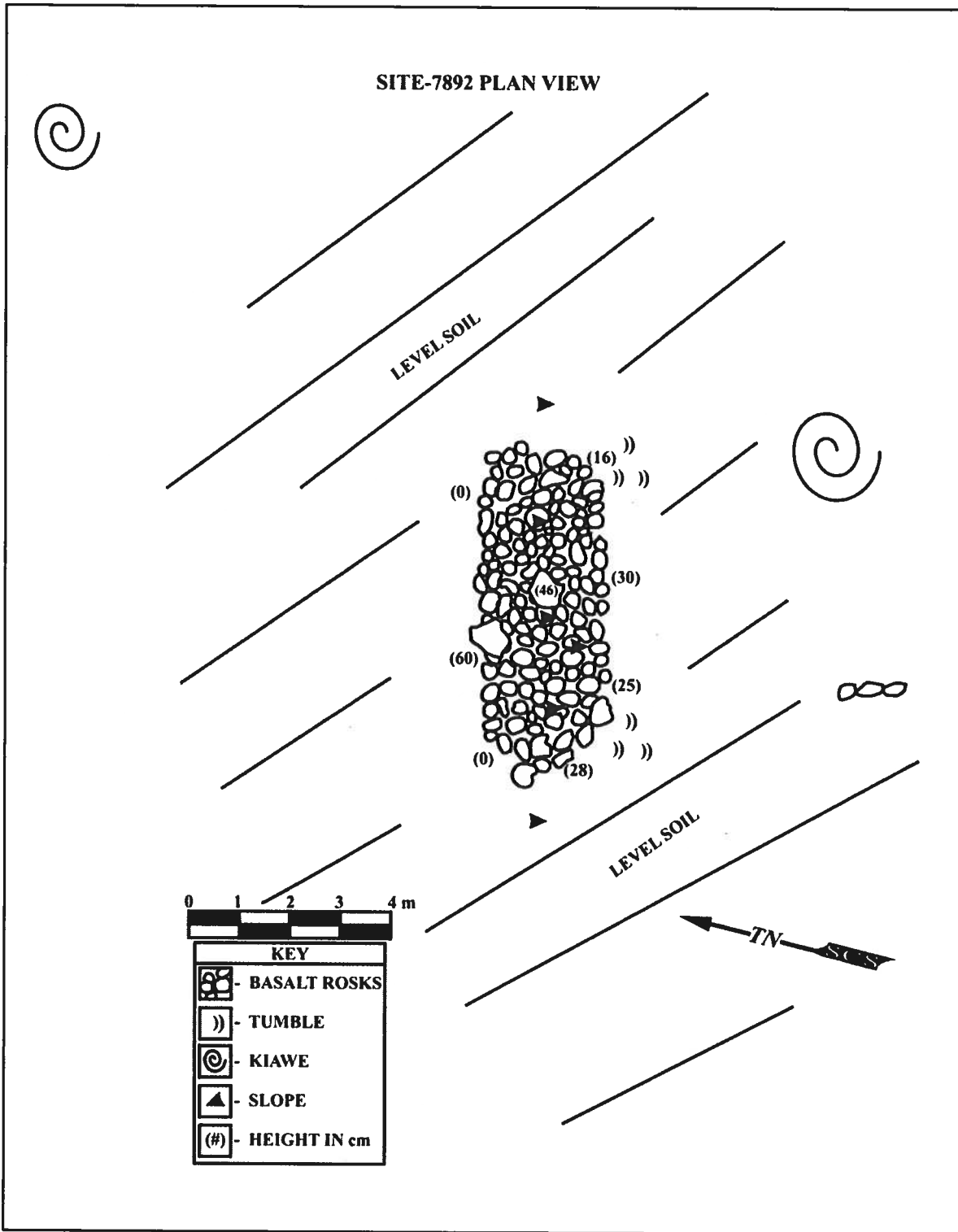


Figure 18: Plan View of State Site 50-50-14-7892.



Figure 19: View East of State Site 50-50-14-7892.

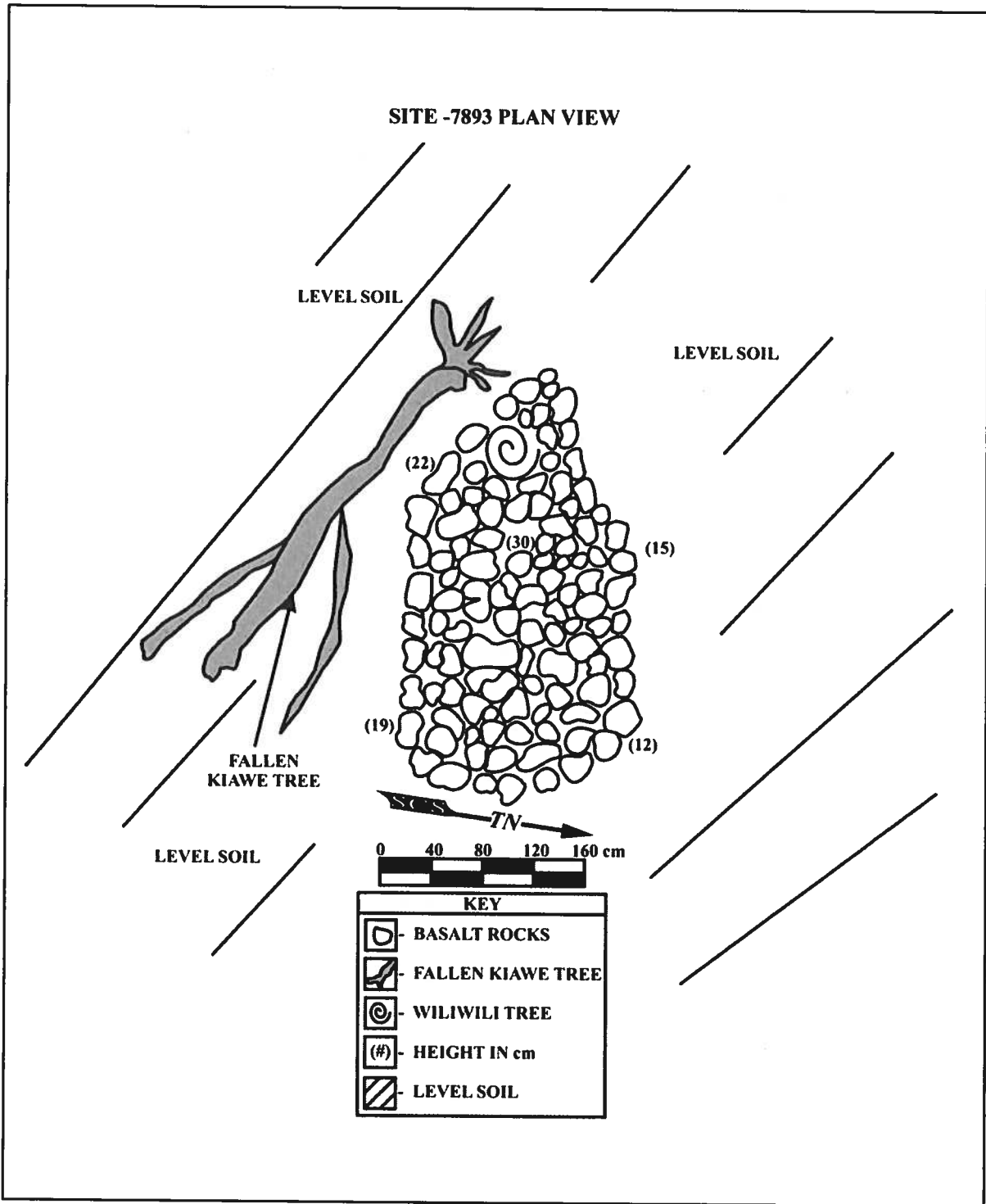


Figure 20: Plan View of State Site 50-50-14-7893.



Figure 21: View North of State Site 50-50-14-7893.

diameter and has been piled to form a roughly oval mound. A wiliwili tree is located on the eastern end. It is believed that the mound functioned for agricultural purposes, either as a clearing pile or a planting mound.

STATE SITE 50-50-14-7894 (TS022)

Condition: Fair

GPS Coordinates: 767682 e; 2283198 n

Site Type: Hearth

Function: Cooking/Heat

Feature (#): 1

Age: Historic

Description: State Site 50-50-14-7894 (TS022) (Figure 22) consists of an isolated hearth feature situated in the southeastern portion of the project area. The hearth measures 1 m by 1 m with the perimeter partially enclosed with small boulders. The interior of the hearth has small pebbles and cobbles and is believed to have functioned as a temporary fire pit for paniolo or ranchers.

STATE SITE 50-50-14-7895 (TS023)

Condition: Fair to Poor

GPS Coordinates: 767644 e; 2283186 n

Site Type: Wall

Function: Boundary

Feature (#): 1

Age: Historic

Description: State Site 50-50-14-7895 (TS023) (Figure 24) consists of a wall segment that extends off of Site -7921 (Wall) in the southeastern portion of the project area. The wall is constructed of basalt cobbles and boulders stacked up to 7 courses. Overall, the wall segment measures 84 m in length with a maximum width of 1 m and a maximum height of 1 m. The wall is truncated by a ranching road on its eastern side and is believed to have functioned as a boundary for historic ranching activities.



Figure 22: View West of State Site 50-50-14-7894.

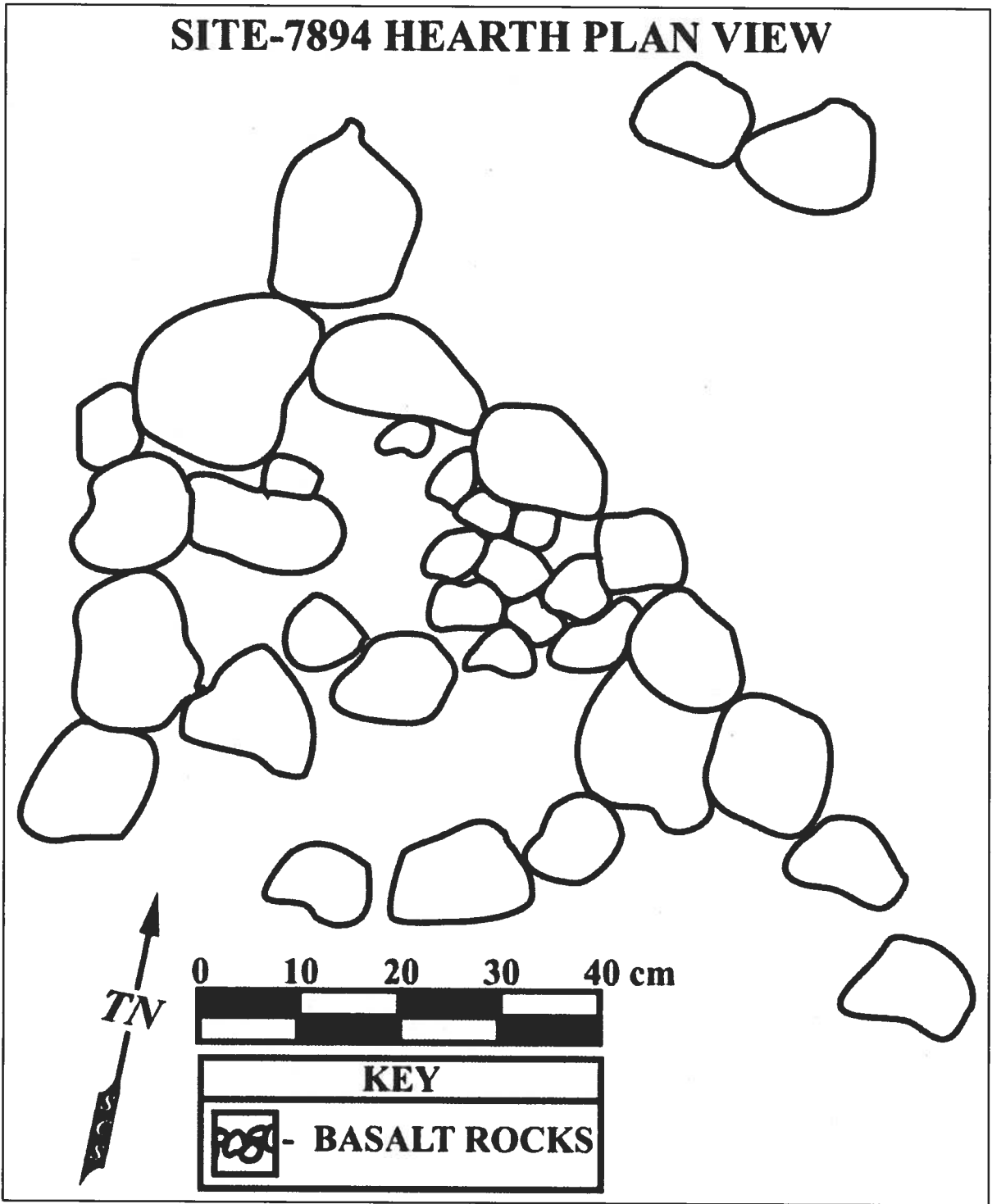


Figure 23: Plan View of State Site 50-50-14-7984 Hearth.



Figure 24: View South of State Site 50-50-14-7895 Showing Wall.

STATE SITE 50-50-14-7896 (TS025)

Condition: Fair

GPS Coordinates: 767507 e; 2283260 n

Site Type: Planter

Function: Agriculture

Feature (#): 1

Age: pre-Contact

Description: State Site 50-50-14-7896 (TS025) (Figure 25 and Figure 26) consists of a planter located in the central portion of the project area. The planter measures 2.6 m by 1.7 m with the perimeter ring of basalt up to 40 cm high. It appears the planter was constructed by extracting rocks from the planting area and placing them around the perimeter of the feature. Based on the location and technique of construction it is believed the planter was utilized for agricultural purposes.

STATE SITE 50-50-14-7897 (TS026)

Condition: Fair

GPS Coordinates: 767587 e; 2283206 n

Site Type: Planters

Function: Agriculture

Feature (#): 3

Age: pre-Contact

Description: State Site 50-50-14-7897 (TS026) consists of a series of three planter features located in the central portion of the project area.

Feature A (Figure 27) is roughly square and measures 2 m by 2 m and consists of a cleared depression with a soil interior. The planter, like many encountered in Honua`ula District, was constructed by removing stones down to the soil substrate and placing them around the perimeter of the feature.

Feature B is roughly oval and measures 1.8 m by 1.3 and like Feature A was constructed in the reductive method of removing stones down to the soil substrate and placing them around the perimeter. The surface of the feature is level soil with few scattered pebbles and cobbles.

Feature C is roughly oval and measures 3 m by 1 m and like Features A and B, was constructed using a reductive method. The surface of the feature is soil.

Based on the location, grouping and architecture of the three planting features it is believed they functioned as a small agricultural plot.

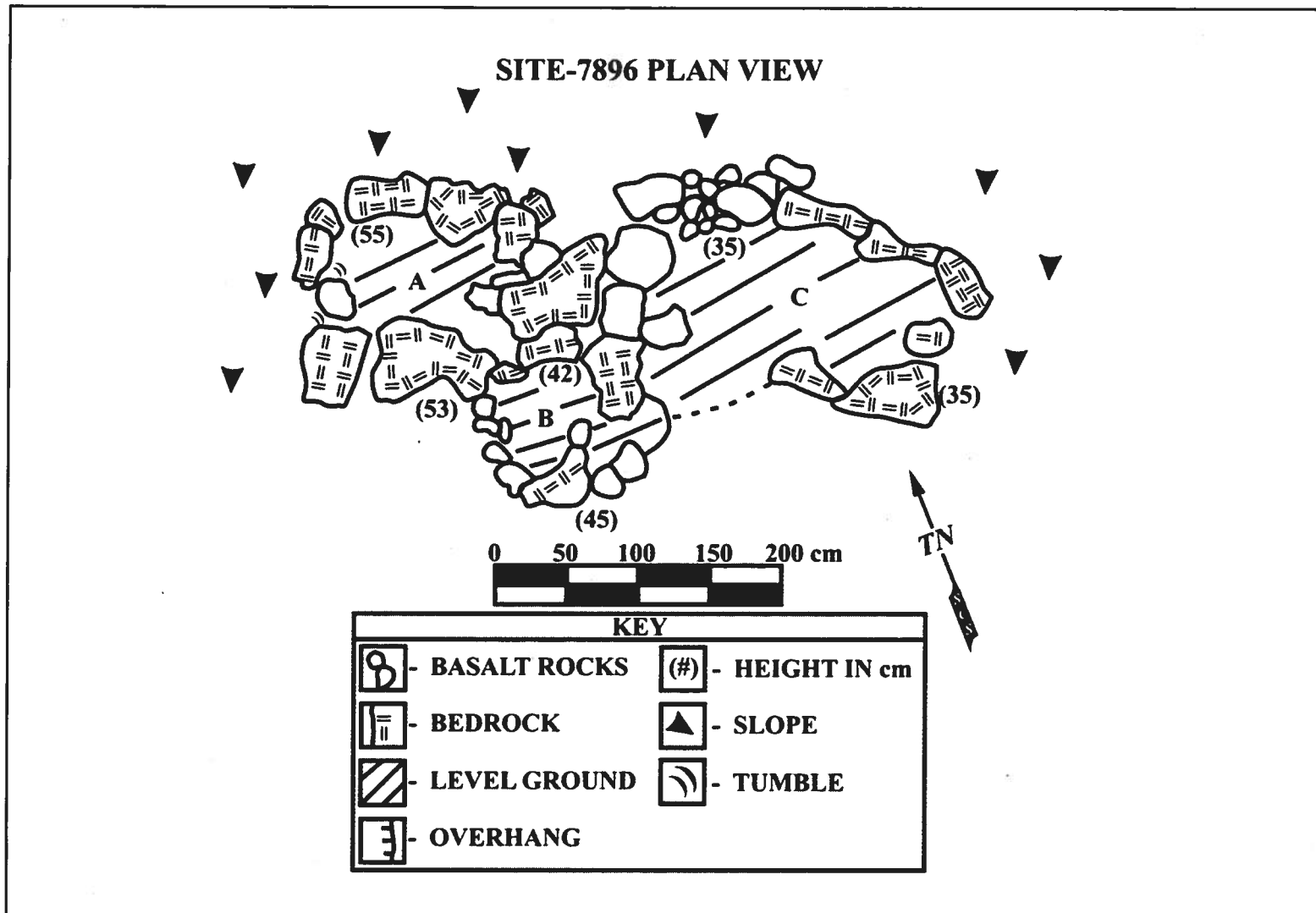


Figure 25: Plan View of State Site 50-50-14-7896.





Figure 26: View West of State Site 50-50-14-7896 Showing Planter.

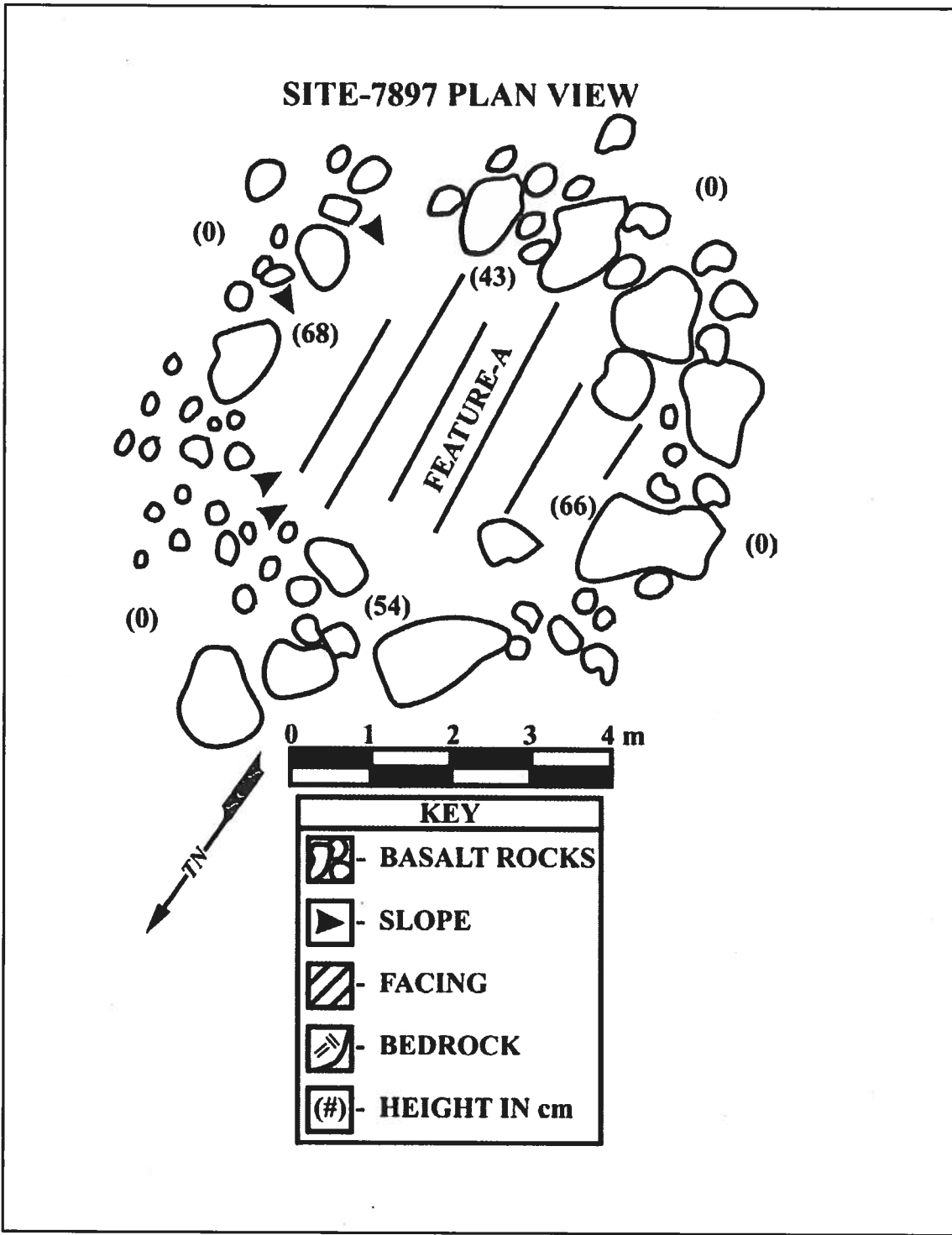


Figure 27: Plan View of State Site 50-50-14-7897 Feature A.

STATE SITE 50-50-14-7898 (TS027)
GPS Coordinates: 767497 e; 2283288 n
Site Type: Terrace
Function: Agriculture
Feature (#): 1
Age: pre-Contact

Condition: Fair

Description: State Site 50-50-14-7898 (TS027) (Figure 28 and Figure 29) consists of a terrace located in the north central portion of the project area. The terrace measures 4.5 m long by 6.75 m wide with a maximum height of 65 cm along its leading edge. The terrace is constructed atop a bedrock outcrop with the terrace wall built of basalt cobbles and boulders up to 4 courses high. The pad of the terrace is composed of soil and gravel/cobbles. Based on the location and architecture of the site it is believed the terrace functioned for agricultural purposes.

STATE SITE 50-50-14-7899 (TS028)
GPS Coordinates: 767550 e; 2283187 n
Site Type: Midden Scatter
Function: Consumption
Feature (#): 1
Age: pre-Contact

Condition: Fair

Description: State Site 50-50-14-7899 (TS028) consists of a midden scatter located in the central portion of the project area (Figure 30). The midden scatter covers an area of approximately 200 sq. meters and consisted of approximately 10 pieces of marine invertebrate midden including cowrie. The scatter was encountered next to a bulldozed area and may have been unearthed from a subsurface context.

STATE SITE 50-50-14-7900 (TS029)
GPS Coordinates: 767533 e; 2283112 n
Site Type: Wood Trough
Function: Ranching/Animal Husbandry
Feature (#): 1
Age: Historic

Condition: Fair

Description: State Site 50-50-14-7900 (TS029) (Figure 32) consists of a trough located in the south portion of the project area. The trough is constructed out of pine planks and posts and

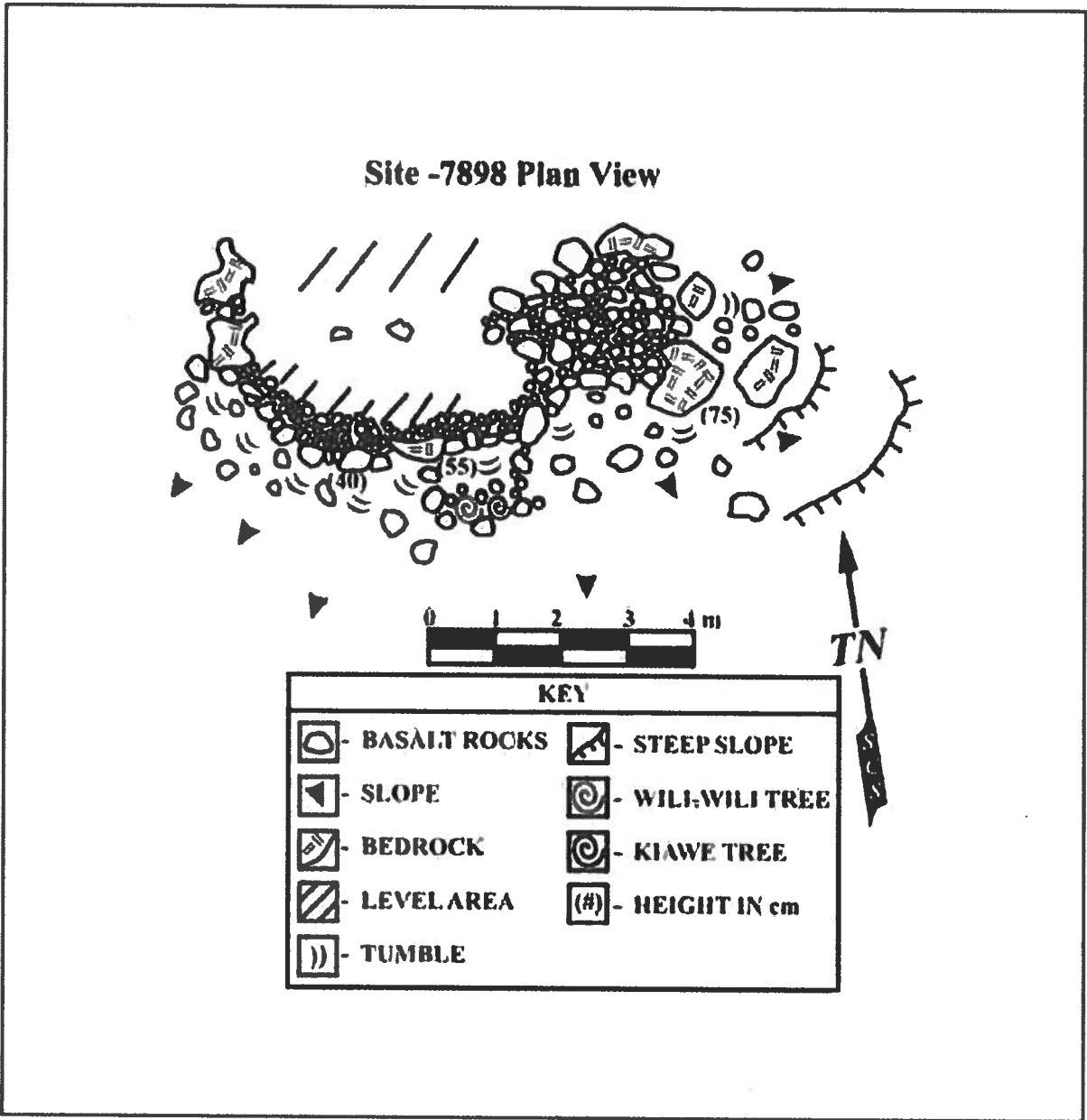


Figure 28: Plan View of State Site 50-50-14-7898.



Figure 29: View Southwest of State Site 50-50-14-7898 Showing Terrace.



Figure 30: View West of Midden Scatter Area State Site 50-50-14-7899.

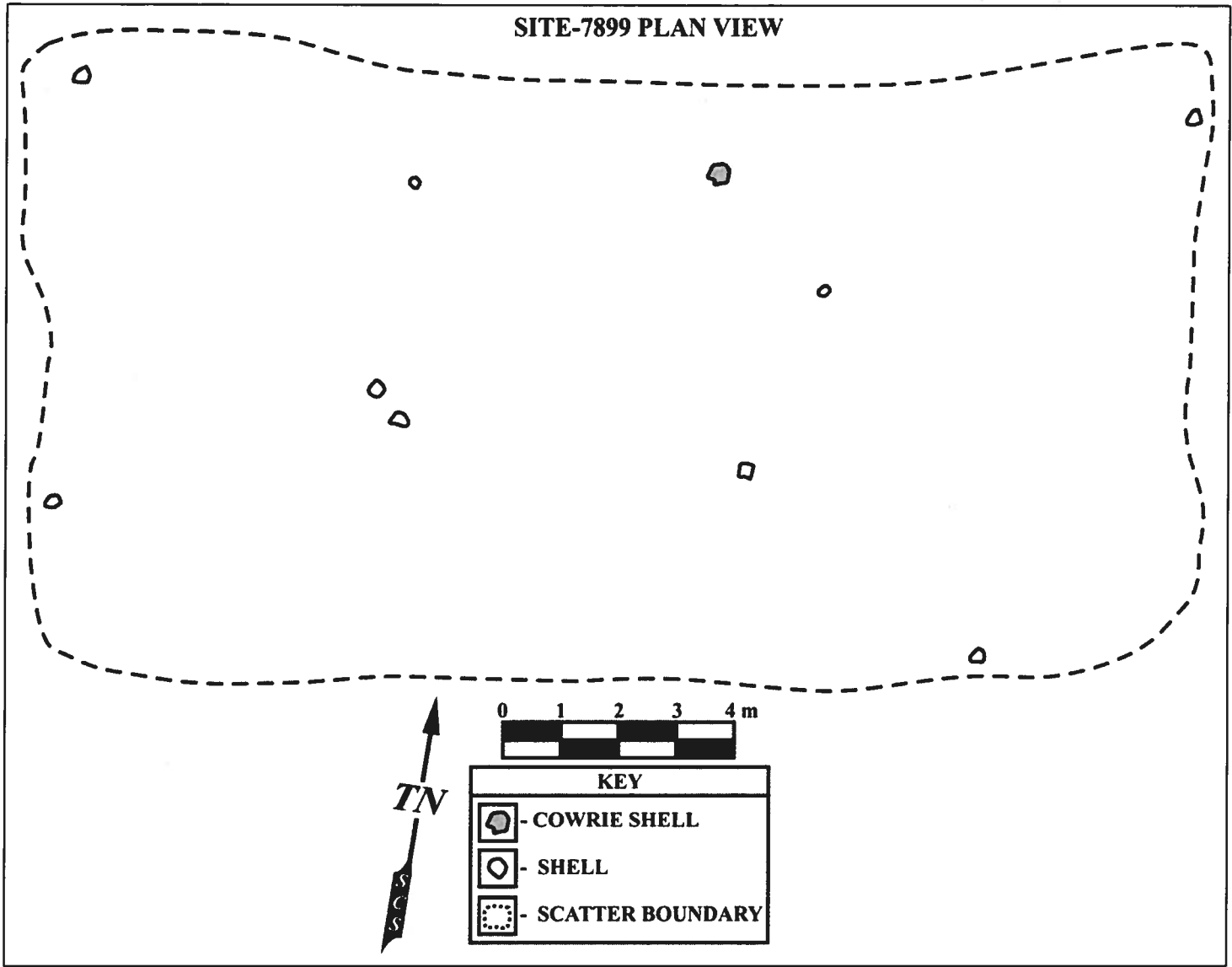


Figure 31: Plan View of State Site 50-50-14-7899.



Figure 32: View North of State Site 50-50-14-7900 Showing Wood Trough.

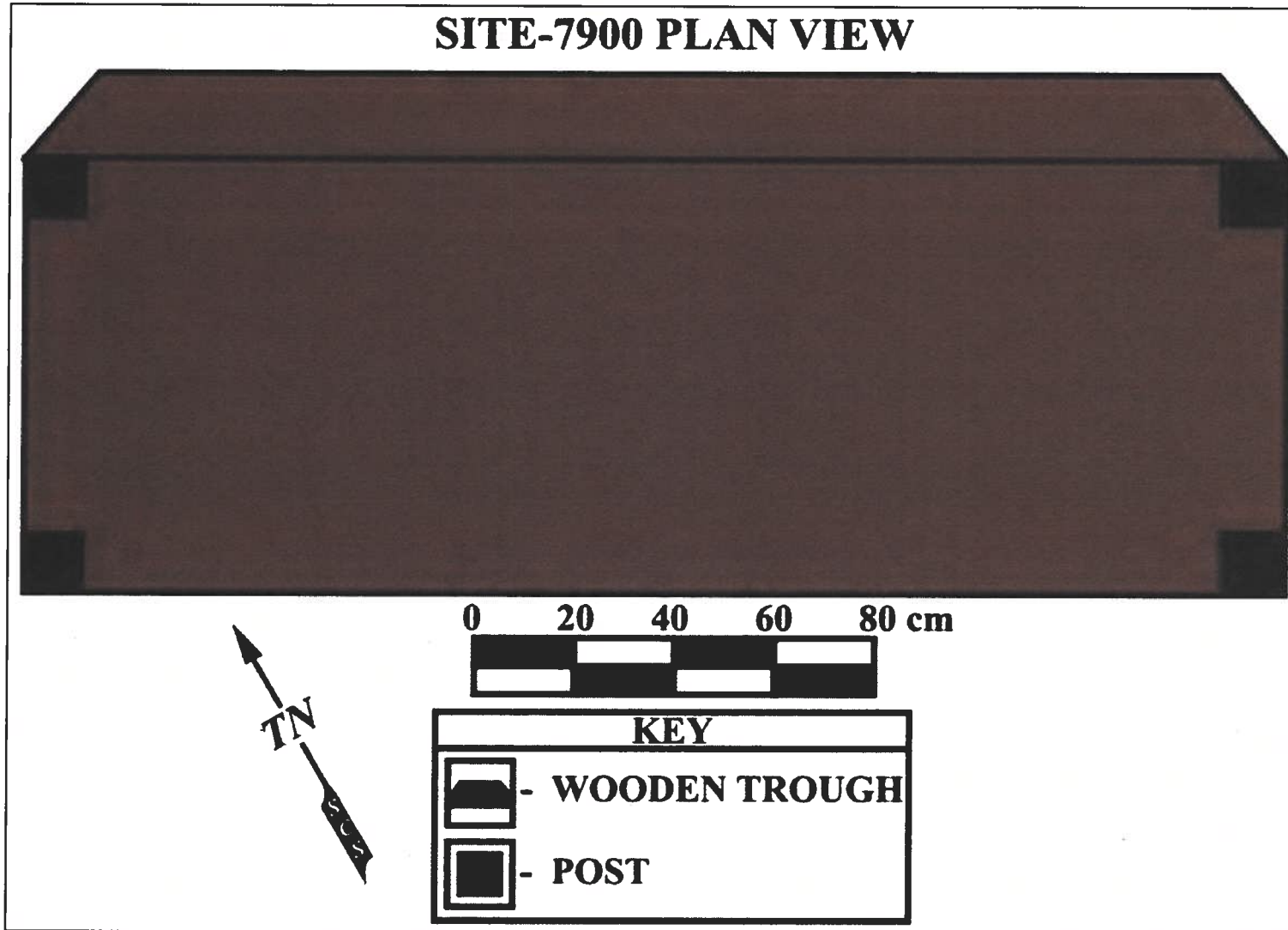


Figure 33: Plan View of State Site 50-50-14-7900.

measures 2 m long by 40 cm wide with a maximum height of 50 cm. The trough is located in a relatively level area of the project area and was likely used as a feeding trough for cattle.

STATE SITE 50-50-14-7901 (TS030)

Condition: Fair

GPS Coordinates: 767492 e; 2283147 n

Site Type: Terrace

Function: Agriculture

Feature (#): 1

Age: pre-Contact/Early Historic

Description: State Site 50-50-14-7901 (TS030) (Figure 34 and Figure 35) consists of an irregular shaped terrace located in the central portion of the project area. The terrace measures 5.5 m long by 3 meters wide with a maximum height of 40 cm and is oriented roughly north to southwest. The site is constructed of basalt cobbles and boulders up to 35 cm in diameter that are piled tightly forming a fairly level though rough surface. Based on the shape, location and architecture it is believed the terrace functioned for agricultural purposes.

STATE SITE 50-50-14-78902 (TS031)

Condition: Fair

GPS Coordinates: 767365 e; 2283281 n

Site Type: Wall

Function: Boundary

Feature (#): 1

Age: pre-Contact

Description: State Site 50-50-14-7902 (TS031) consists of a wall located in the northern portion of the project area. The wall measures approximately 50 m in length with a width of 90 cm and height of 75 cm. The wall extends roughly northeast to southwest and abuts a push pile at its northeast extent. The wall is constructed of basalt cobbles and boulders up to 50 cm in diameter and stacked up to 6 courses. The southwest end is collapsed and is cut off by a dozer cut through the project area.

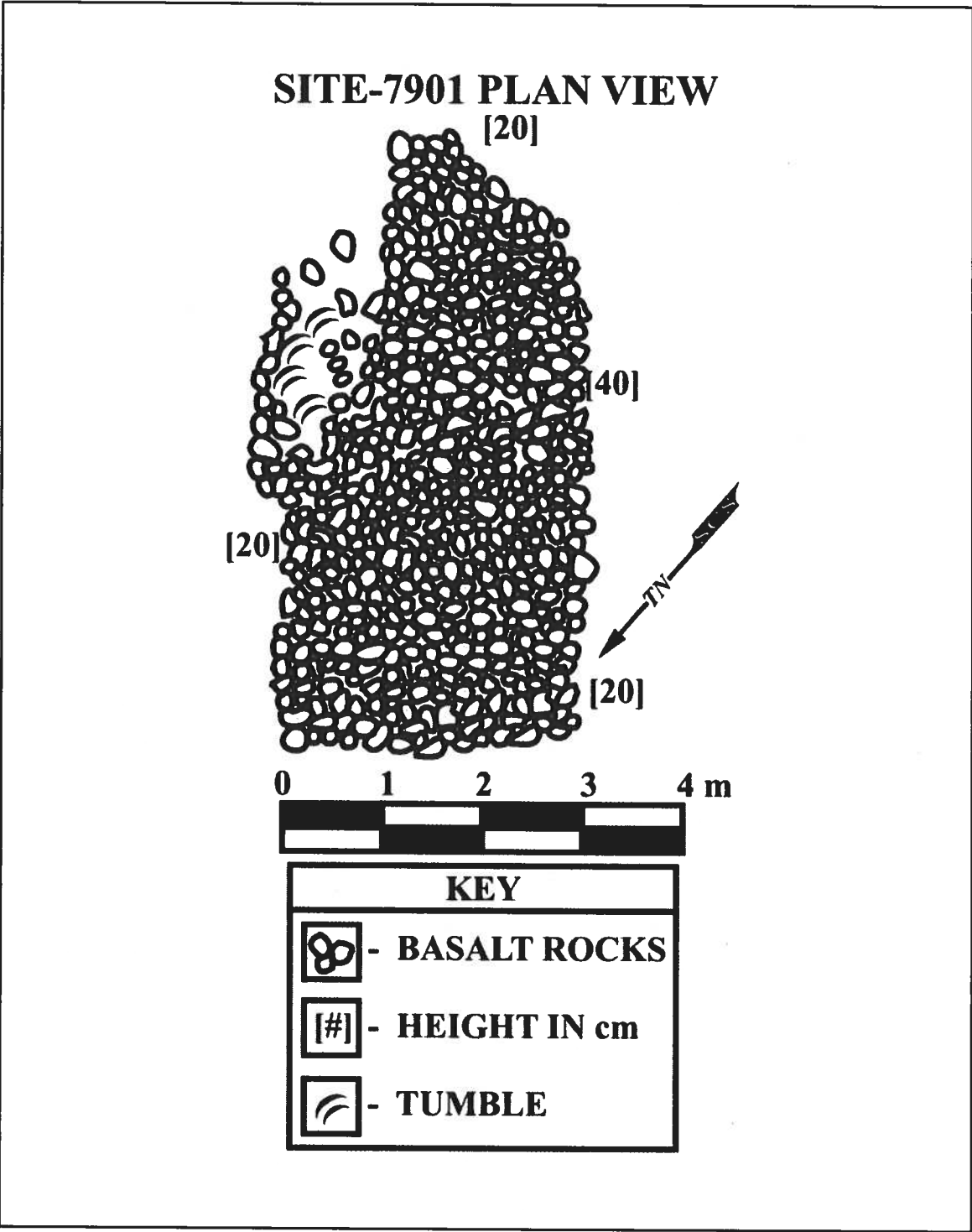


Figure 34: Plan View of State Site 50-50-14-7901.



Figure 35: View Northeast of State Site 50-50-14-7901.

STATE SITE 50-50-14-7903 (TS032)

Condition: Fair

GPS Coordinates: 767393 e; 2283091 n

Site Type: Wall segment

Function: Enclosure

Feature (#): 1

Age: pre-Contact

Description: State Site 50-50-14-7903 (TS032) (Figure 36 and Figure 37) consists of a short wall segment located in the southwestern portion of the project area. The wall measures 3.75 m long by 70 cm wide with a maximum height of 93 cm and is oriented northeast to southwest. The wall is constructed of basalt cobbles and boulders that are stacked up to 7 courses and is core filled with small cobbles. It is probably that the wall extended further at one time, but unlikely that it represented a long, ranching era, historic cattle wall. It is believed this wall section is a remnant of a habitation enclosure or possibly an animal pen.

STATE SITE 50-50-14-7904 (TS033)

Condition: Fair

GPS Coordinates: 767315 e; 2283208 n

Site Type: Wall

Function: Soil Retention

Feature (#): 1

Age: pre-Contact

Description: State Site 50-50-14-7904 (TS033) consists of a soil retention wall located in the northwestern portion of the project area. The retaining wall measures 3 m long by 1 m wide with a maximum height of 1.25 m. The wall is constructed in between two collapsed bedrock outcrops, with the bedrock flanking both ends. Construction material consists of bedrock cobbles and boulder stacked up to 7 courses. The upslope side appears to retain a substantial amount of soil with the downslope side dropping into a natural drainage. Based on the location and architecture of the site it is believed that it functioned to retain soil possibly for agricultural use or to prevent water runoff into the drainage.

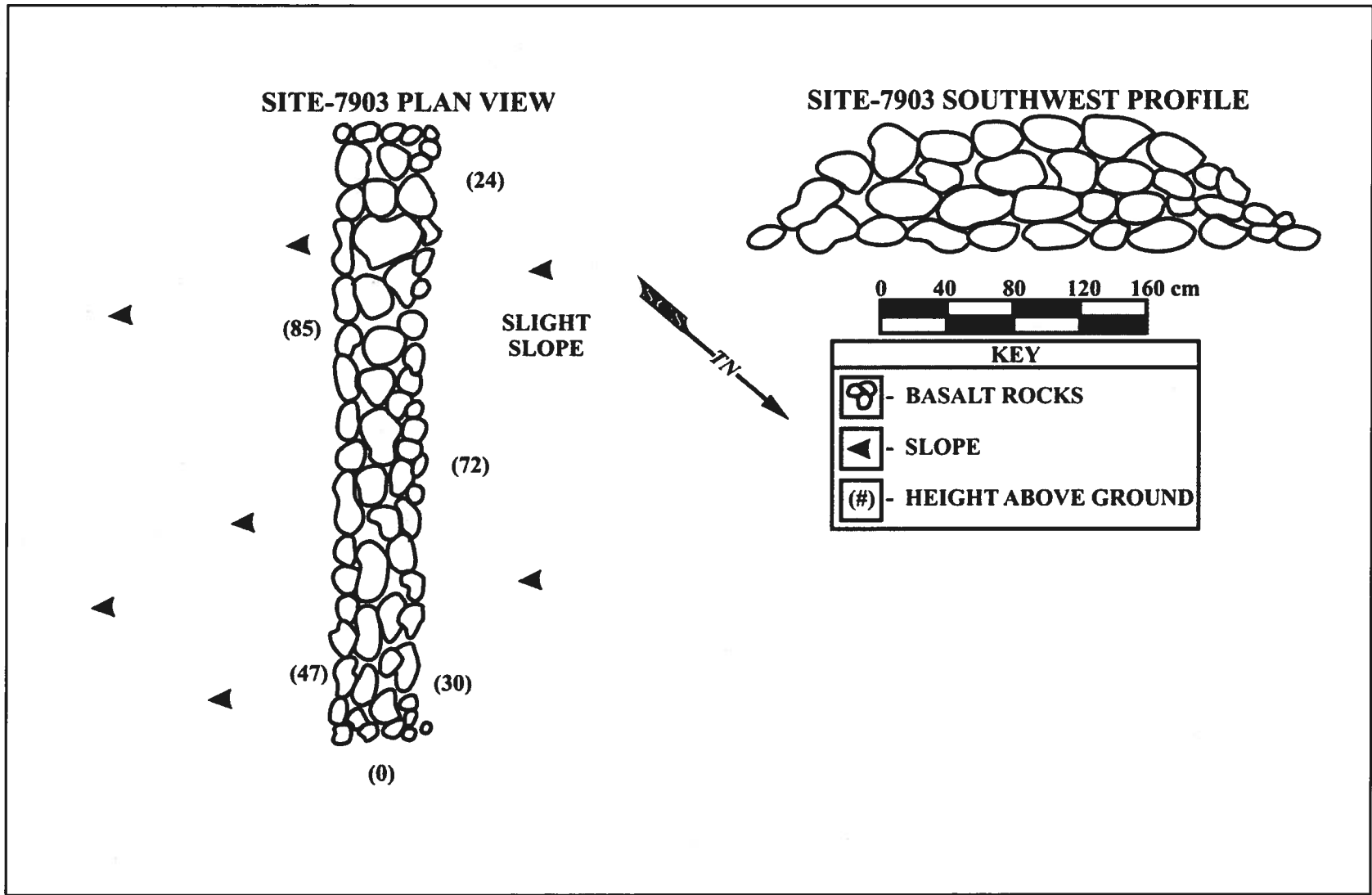


Figure 36: Plan View and Profile of State Site 50-50-14-7903.



Figure 37: View West of State Site 50-50-14-7903 Showing Wall.

STATE SITE 50-50-14-7905 (TS034)

Condition: Excellent

GPS Coordinates: 767299 e; 2283226 n

Site Type: Terraces/Planters

Function: Habitation/Agriculture

Feature (#): 8

Age: pre-Historic/Historic

Description: State Site 50-50-14-7905 (TS034) (Figure 38) consists of a terrace (Feature A) and seven small agricultural features (Features B-I) that are located along the southwestern slope of a bedrock outcrop. The outcrop continues downslope approximately 75 m (north/south) with the 9 features located along the western side of the outcrop. Along the bedrock outcrop numerous pieces of shell midden, coral, basalt debitage and artifacts were observed and documented. Overall, the site dimensions measure approximately 30 m east/west by 50 m north/south for an overall area of 1500 square meters. The site is believed to have functioned as a small habitation and agricultural complex.

Feature A consists of a level, soil filled terrace that measures 7.5 m long by 6 m wide from the base of the bedrock outcrop at the top of the site to the base of the terrace riser. The feature is enclosed on the eastern end by the bedrock flow that extends makai about 75 m. From the terrace pad is an uninterrupted view of the coastline and Kaho`olawe. The terrace riser measures up to 1.1 m high and is anchored by large boulders up to 1.3 m in diameter. The riser is 4-5 courses high in spots and only 1 course in others. Cultural material noted within the site consisted of coral, opihi, cowrie, conus sp., and basalt debitage. The midden was dispersed evenly throughout the site rather than concentrated in a discrete area. The bedrock outcrop immediately north of the terrace is 1.6 m high and contains a small overhang measuring 2.3 m deep by 1.4 m wide. The height is a maximum 82 cm from the ceiling to the floor. One piece of shell and one piece of `ili`ili was noted on the level floor.

A 1 m by 1 m test unit was manually excavated in the southern portion of the feature. Within the test unit, a single piece of shell and coral was noted. Stratum I consisted of dark brown (7.5 YR 3/3) gravelly silt that contained approximately 40% gravel. In addition, a single spent ammunition round was collected as was a single volcanic glass flake. Stratum II consisted of dark yellowish brown (10 YR 3/6) silt that contained charcoal flecking (sample collected). Coral, invertebrate shell midden and volcanic glass flakes were also recovered from the layer which extended to a maximum depth of 30 cm below surface.

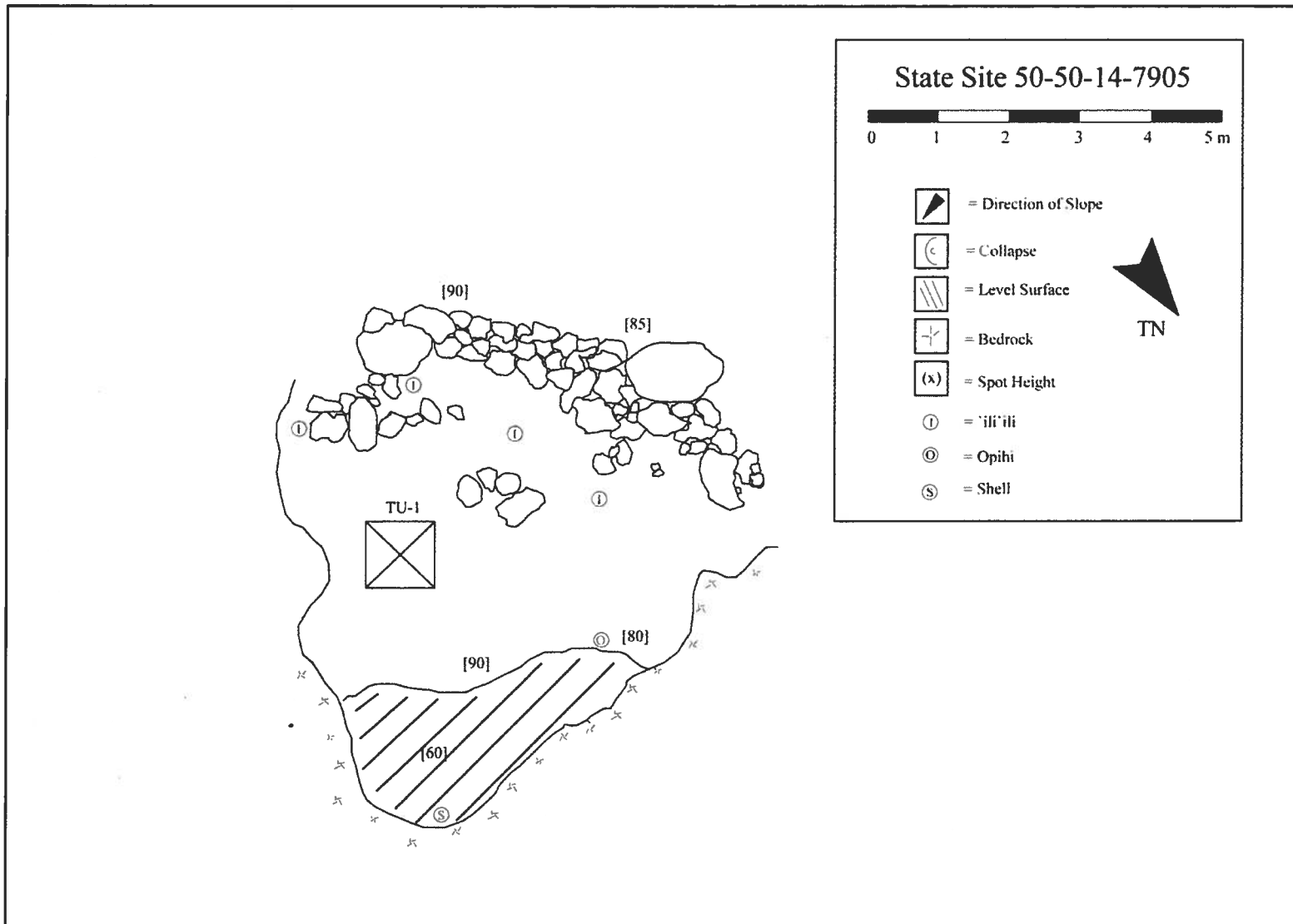


Figure 38: Plan View of State Site 50-50-14-7905.

Radiometric dating of charcoal recovered from the test unit returned a date of AD 1700-1840 suggesting the site was used during the late pre-Contact to early Historic Period.

Features B through H consist of two planters and seven terraces located near Feature and are believed to have functioned as ancillary agricultural features to the habitation terrace. The table below depicts the dimensions and characteristics of the agricultural features.

Table 3. Site -7905 Agricultural Features.

Feature	Type	Function	Dimensions (m) (L x W x H)	Comments
B	Planter	Agriculture	3.4 x 2.2 x 0.6	Rectangular; single course; soil interior
C	Terrace	Agriculture	3.75 x 1.0 x 0.95	Collapsed but retains some intact architecture
D	Terrace	Agriculture	7.5 x 3.5 x 0.75	Terrace with soil interior
E	Terrace	Agriculture	8.6 x 3.6 x 1.3	Boulders to 90 cm; thick terrace wall
F	Terrace	Agriculture	2.9 x 2.5 x 0.85	1 piece cowrie on surface
G	Terrace	Agriculture	2.7 x 1.7 x 0.6	Medium cobbles; near base of slope
H	Planter	Agriculture	3.0 x 1.2 x 0.8	Roughly circular; abuts flow of bedrock

STATE SITE 50-50-14-7906 (TS035)

Condition: Fair

GPS Coordinates: 767328 e; 2283193 n

Site Type: Planters

Function: Agriculture

Feature (#): 2

Age: pre-Contact

Description: State Site 50-50-14-7906 (TS035) consists of 2 planters located in the west central portion of the project area.

Feature A (Figure 39) is a planter that measures 3.25 m by 3 m with a ring of cobbles around the perimeter up to 75 cm high. The feature abuts a small overhang creating an enclosed space that is believed to have functioned as an agricultural feature.

Feature B consists of another planter that measures 6 m by 2.5 m and is enclosed by a ring of boulders up to 95 cm in diameter. The surface of the feature is extremely rough with the surface consisting of scattered angular cobbles and boulders. Based on the location and architecture of the planter it is believed it functioned as an agricultural feature.



Figure 39: View North of State Site 50-50-14-7906 Feature A.

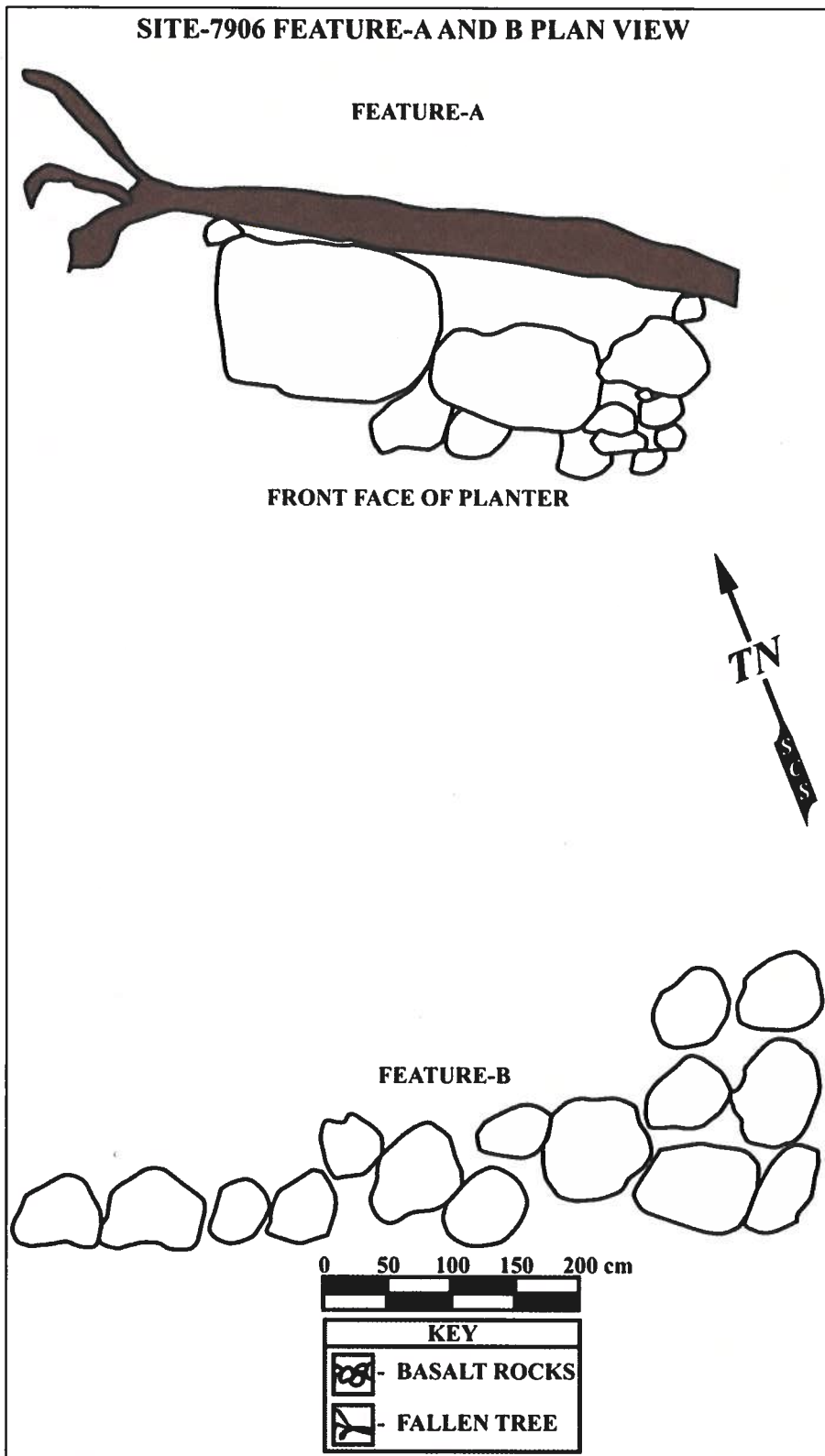


Figure 40: Plan View of State Site 50-50-14-7906 Features A and B.

STATE SITE 50-50-14-7907 (TS036)
GPS Coordinates: 767354 e; 2283155 n
Site Type: Enclosure
Function: Temporary Habitation
Feature (#): 1
Age: pre-Contact

Condition: Fair

Description: State Site 50-50-14-7907 (TS036) (Figure 41 and Figure 42) consists of a rectangular enclosure located in the central portion of the project area. The enclosure measures 3.8 m by 3 m by 75 cm high with interior dimensions of 2.1 m by 1.7 m for a total area of 3.5 sq meters. The enclosure is constructed of basalt cobbles and boulders stacked up to 5 courses. Although the majority of the enclosure has collapsed, the one section that remains intact has walls up to 80 cm thick. Bulldozer activity has nearly destroyed the northeast corner of the site with additional collapse around almost the entirety of the structure. Based on the location, architecture and size of the site, it is believed the enclosure once functioned as a temporary habitation.

STATE SITE 50-50-14-7908 (TS038)
Site Type: Enclosure
Function: Animal Pen
Feature (#): 1
Age: pre-Contact/Early Historic

Condition: Fair

Description: State Site 50-50-14-7908 (TS038) consists of an enclosure that is constructed with a single wall enclosing a natural three-sided opening in a bedrock outcrop (Figure 43). The outcrop enclosure measures 5.3 m long by 2.4 m wide and has a maximum height of 1.9 m. The constructed wall that creates the enclosures was 3 m long by 1 m high and was constructed of basalt boulders stacked up to four courses. A small overhang exists in the northern portion of the enclosure and measured 3.2 m deep by 3 m wide with a maximum height of 1.1 m at the drip edge. Based on the location and construction of the site (fully enclosed with no opening), it is believed the enclosure functioned as an animal pen.

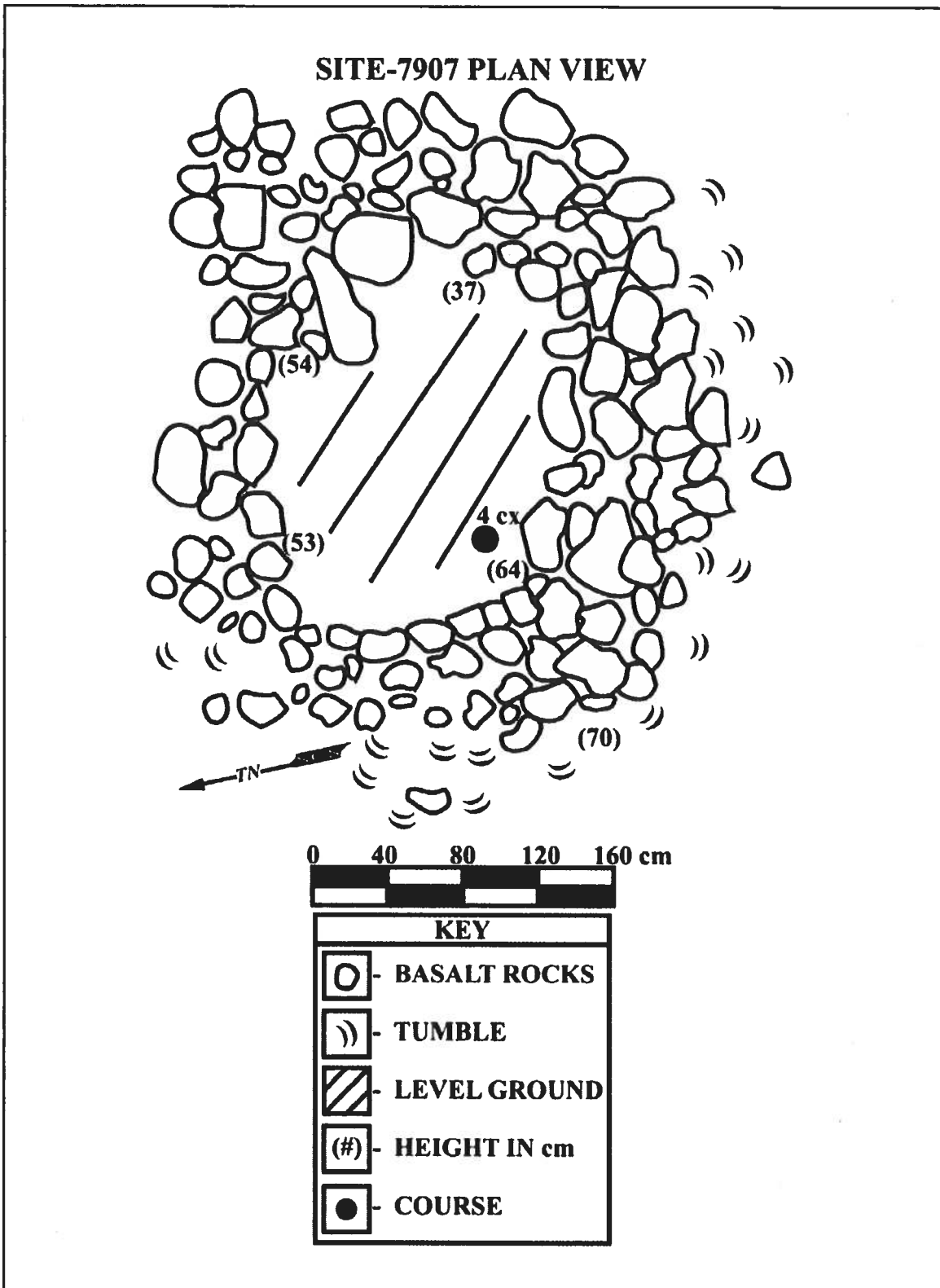


Figure 41: Plan View of State Site 50-50-14-7907.



Figure 42: View East of State Site 50-50-14-7907 Showing Small Enclosure

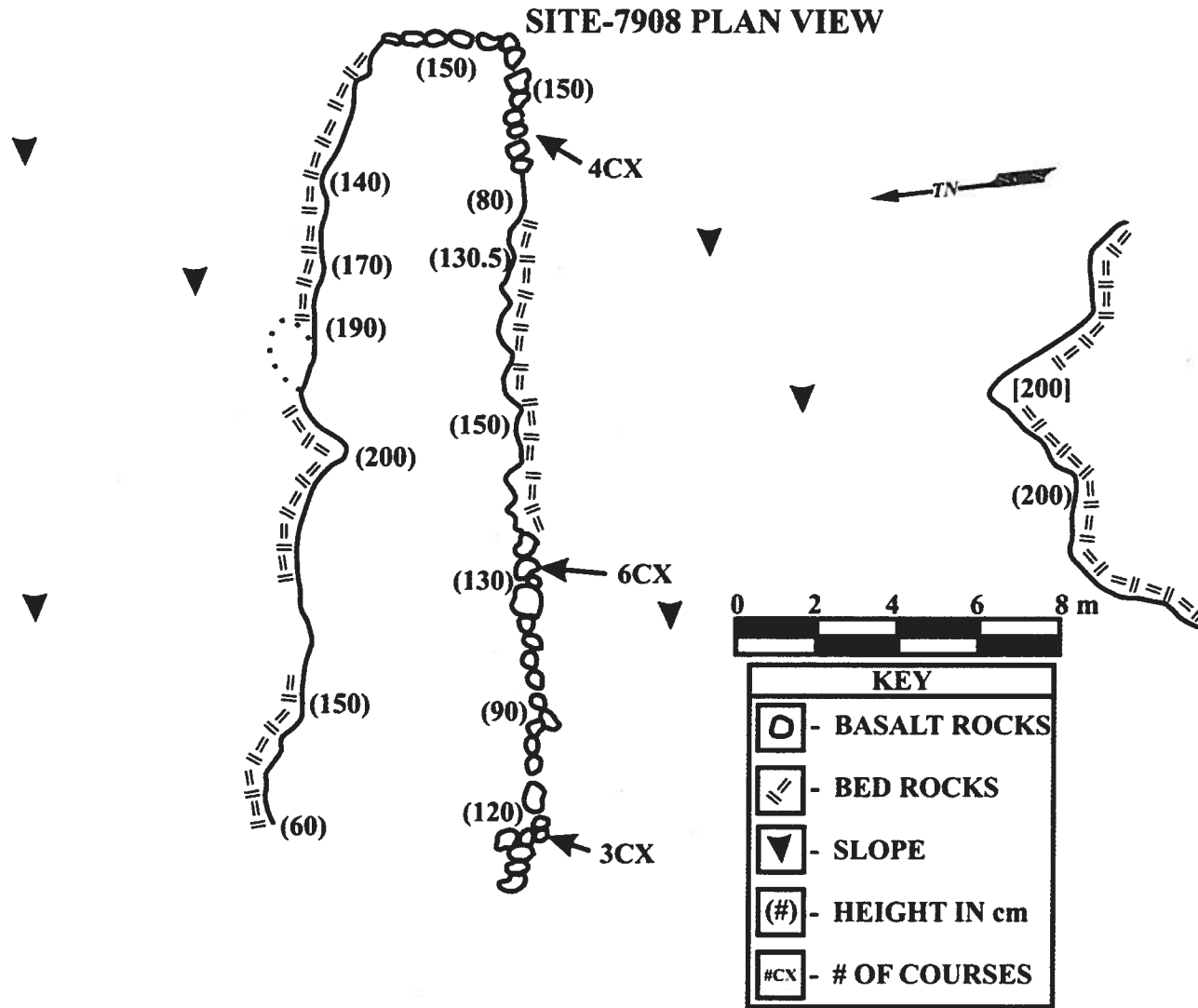


Figure 43. Plan View of State Site 50-50-14-7908.

STATE SITE 50-50-14-7909 (TS039)

Condition: Fair

GPS Coordinates: 767353 e; 2283104 n

Site Type: Enclosure

Function: Temporary Habitation

Feature (#): 1

Age: pre-Contact

Description: State Site 50-50-14-7909 (TS039) (Figure 44 and Figure 45) consists of an enclosure located in the west central portion of the project area. The site consists of a roughly square enclosure that measures 3.3 m long by 3.5 m wide by 55 cm high, the interior measures 1.8 m square. The enclosure is constructed of basalt cobbles and boulder stacked up to 5 courses and has one faced wall. A coral *ulu maika* (Figure) was found near the enclosure along with a green glass bottle base and midden scatter outside of the site's walls. A large *koa haole* tree is growing out of the center of the enclosure and a kiawe tree has collapsed along a wall. Based on the location, size architecture and presence of an ulu maika and scattered midden it is believed the site functioned as a temporary habitation.

STATE SITE 50-50-14-7910 (TS040)

Condition: Fair

GPS Coordinates: 767305 e; 2283177 n

Site Type: Terrace

Function: Agriculture

Feature (#): 1

Age: pre-Contact

Description: State Site 50-50-14-7910 (TS040) (Figure 46) consists of an agricultural terrace located in the northwestern portion of the project area. The site consists of a terrace incorporated into a natural bedrock outcrop. The terrace measures 4 m long by 2.6 m wide by 75 cm high and is a level area within a bedrock outcrop. The terrace pad is soil filled and is believed to have functioned as an agricultural site.

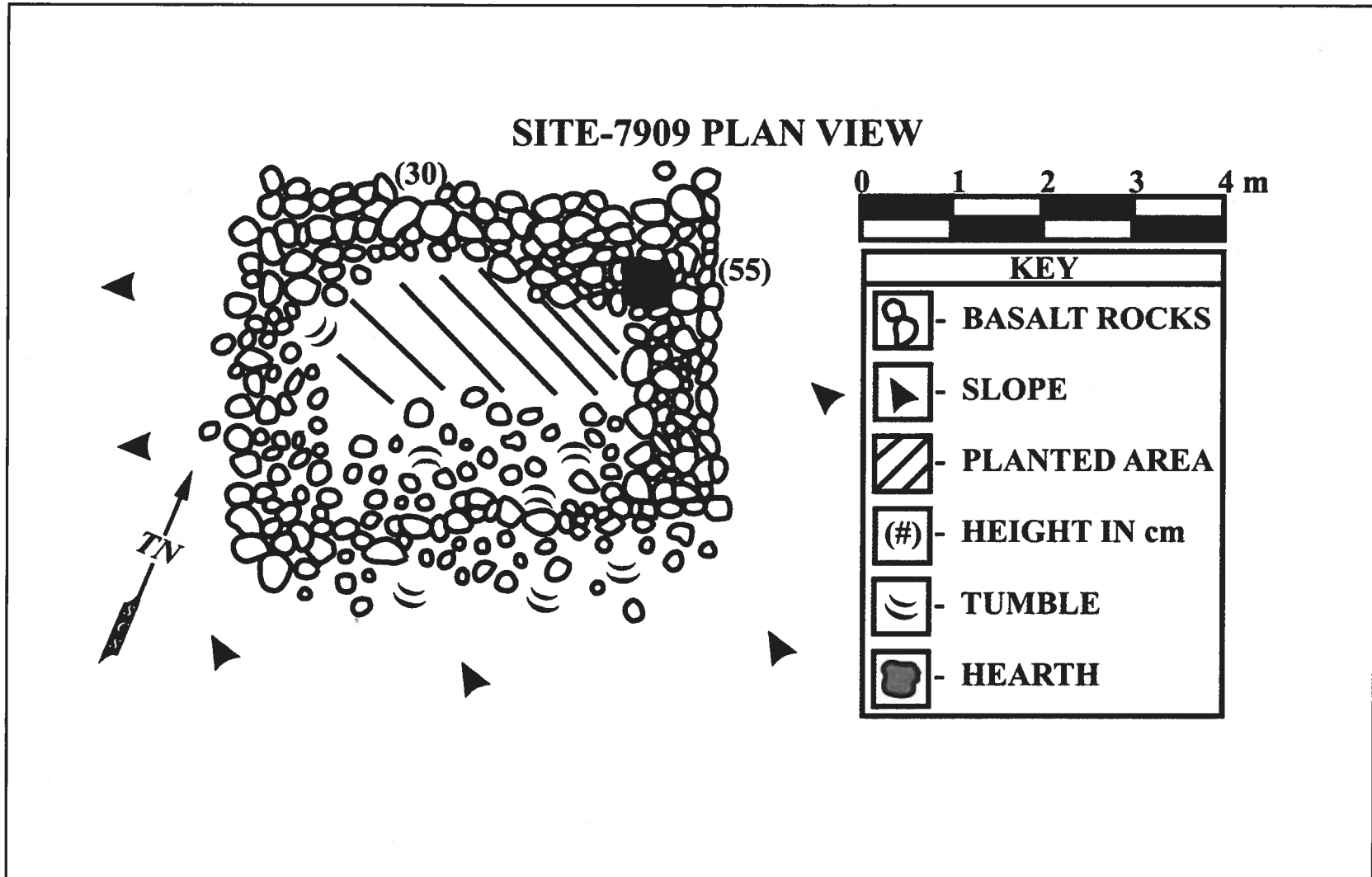


Figure 44: Plan View of State Site 50-50-14-7909.



Figure 45: View West of State Site 50-50-14-7909 Showing Enclosure.

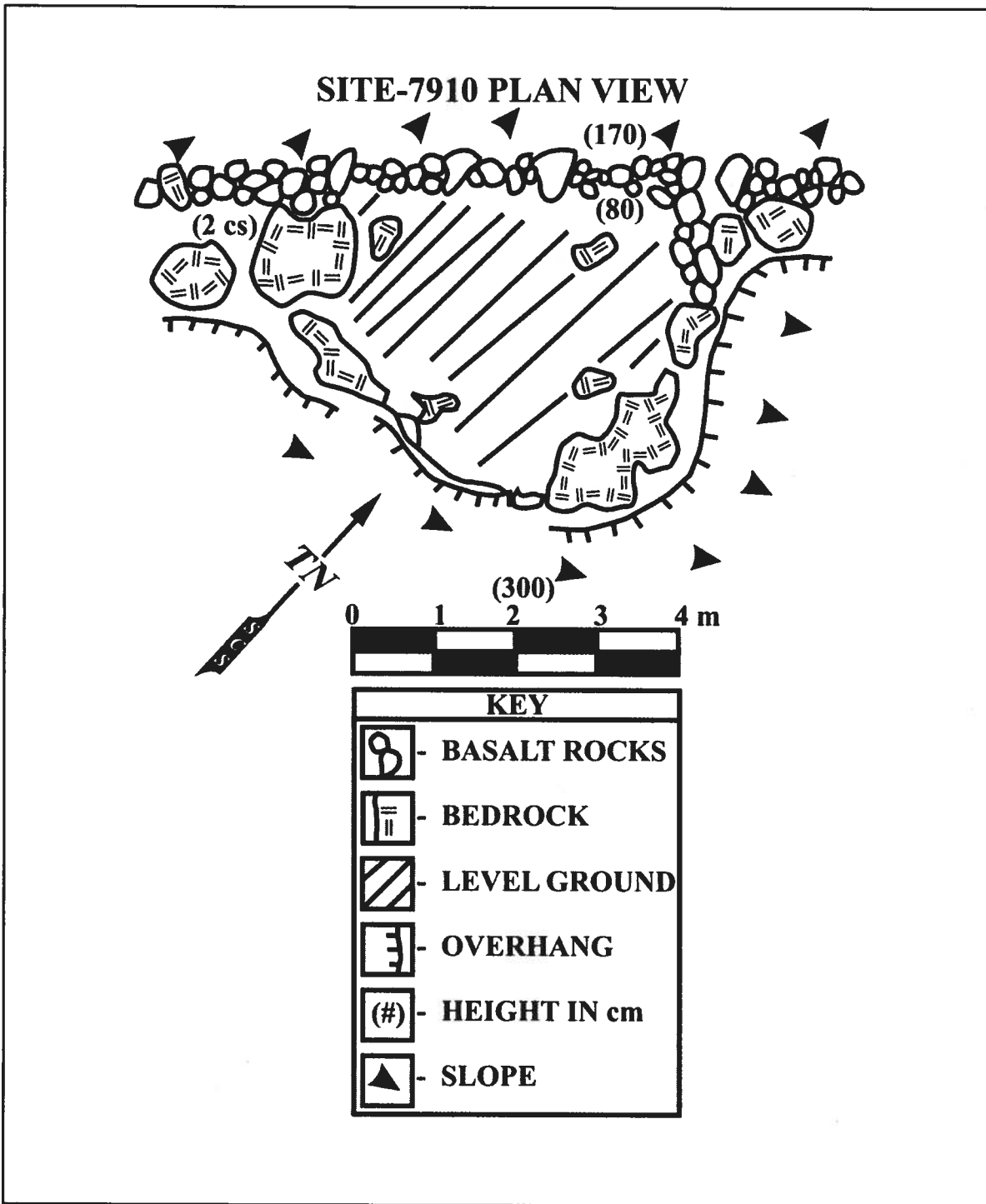


Figure 46: Plan View of State Site 50-50-14-7910.

STATE SITE 50-50-14-7911 (TS041)
GPS Coordinates: 767305 e; 2283186 n
Site Type: Enclosure/Rock Shelter
Function: Temporary Habitation
Feature (#): 1
Age: pre-Contact

Condition: Good

Description: State Site 50-50-14-7911 (TS041) (Figure 47 and Figure 48) consists of a rock shelter located in the northwestern portion of the project area. The site is a rock shelter that has an enclosure constructed around the natural lava blister opening. The rock shelter measures 2.8 m wide by 2.2 m deep with a maximum height of 48 cm at the drip edge. The enclosed area measures 2.4 m by 1.2 m with a maximum wall height of 80 cm. The enclosure walls are constructed of basalt cobbles and boulders up to 50 cm in diameter and stacked 3-4 courses. No cultural material was observed within the site. Based on the location, size and architecture around the natural overhang, it is believed the site functioned as a temporary habitation.

STATE SITE 50-50-14-7912 (TS042)
GPS Coordinates: 767256 e; 2283273 n
Site Type: Wall
Function: Boundary
Feature (#): 1
Age: pre-Contact

Condition: Poor

Description: State Site 50-50-14-7912 (TS042) consists of a rock wall located in the northwestern portion of the project area. The wall consists of a low remnant that is poorly stacked on the southern end and more formally constructed on the northern end. Overall, the wall measures 45 m long with a maximum width of 85 cm and a maximum height of 65 cm. On the north end the wall is stacked up to 5 courses while on the south end the basalt cobbles and boulders have been piled rather than stacked. It is likely the wall either collapsed or was left uncompleted by the original builders.

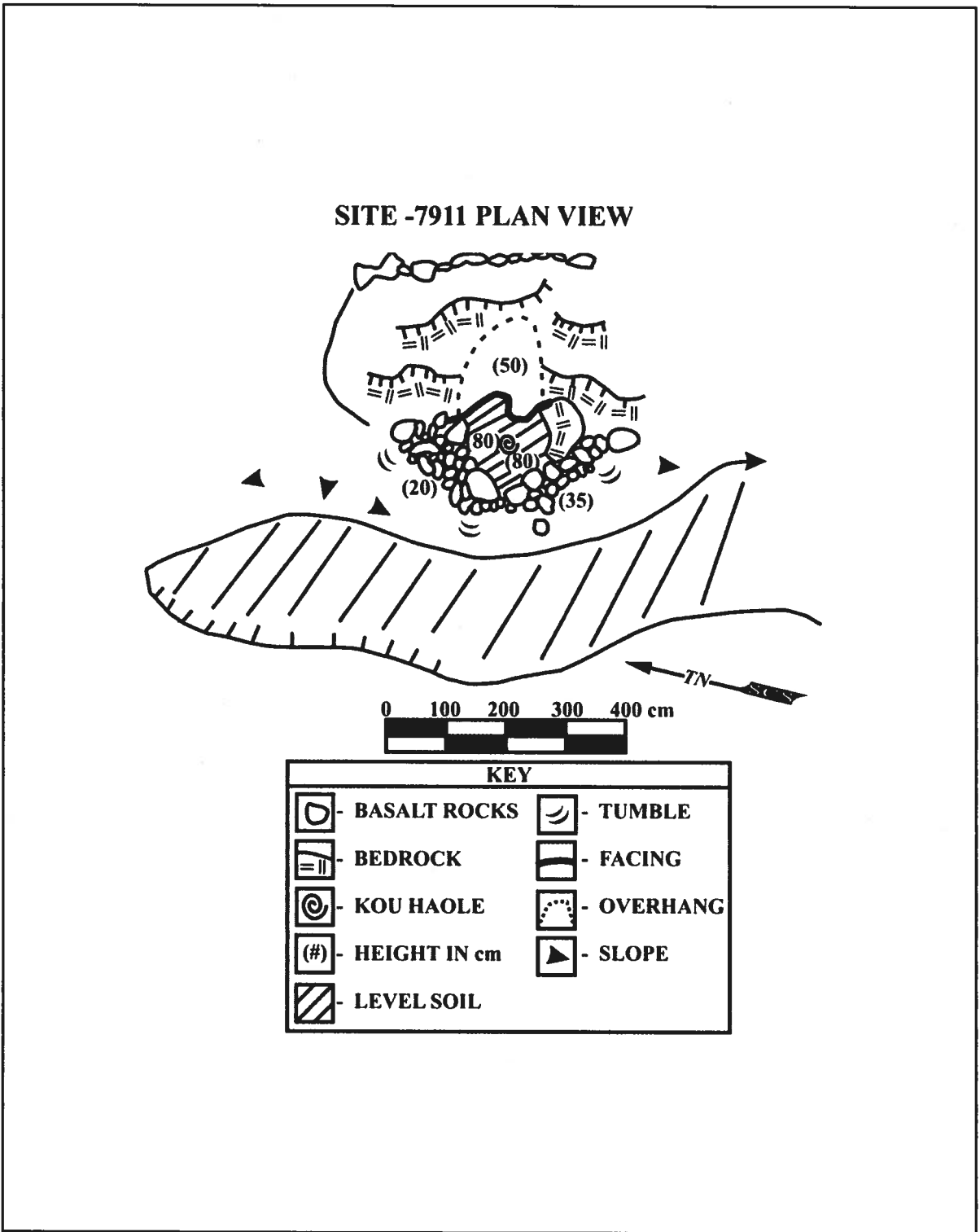


Figure 47: Plan View of State Site 50-50-14-7911.



Figure 48: View Southeast of State Site 50-50-14-7911 Showing Rockshelter and Enclosure.

STATE SITE 50-50-14-7913 (TS043)

Condition: Fair

GPS Coordinates: 767292 e; 2283186 n

Site Type: Planter

Function: Agriculture

Feature (#): 1

Age: pre-Contact

Description: State Site 50-50-14-7913 (TS043) (Figure 49 and Figure 50) consists of a planter located in the northwestern portion of the project area. The planter is constructed within a level soil area of a basalt bedrock outcrop. Overall, the planter measures 4.8 m long by 3 m wide with a maximum height of 60 cm. The planter surface is level soil and few modifications were made to the bedrock around the site. It is believed the planter functioned as an agricultural site.

STATE SITE 50-50-14-7914 (TS045)

Condition: Fair

Site Type: Enclosures

Function: Permanent Habitation

Feature (#): 6

Age: Historic

Description: State Site 50-50-14-7914 (TS045) (Figure 51) consists of a series of stacked and faced basalt enclosure features that is bisected by a bulldozer path and lying on a slight slope. A portion of a rock wall was also collapsed by the bulldozing. Features A and B, both enclosures, lie south of the road that bisects the site. The remaining features including a formal platform (Feature C), an enclosure (Feature D), an L-Shape (Feature E) and a smaller platform (Feature F) are located on the north side of the bulldozer path. Historic artifacts including ceramics and broken glass were documented within the site complex.

Feature A consists of an enclosure that measures 13 m long by 7 m wide. The walls are constructed of stacked boulders and large cobbles up to 9 courses on the east wall and up to 6 courses on the west wall. The northern wall is mostly collapsed in the center; however the NW and NE corners are mostly intact. Feature A shares its east wall with Feature C and is up to 1.7 m in height. About 40% of the interior surface is raised bedrock up to 30 cm in height and the remaining surface consists of soil and rock rubble. Within the feature was waterworn coral, historic glass and a bottle base.

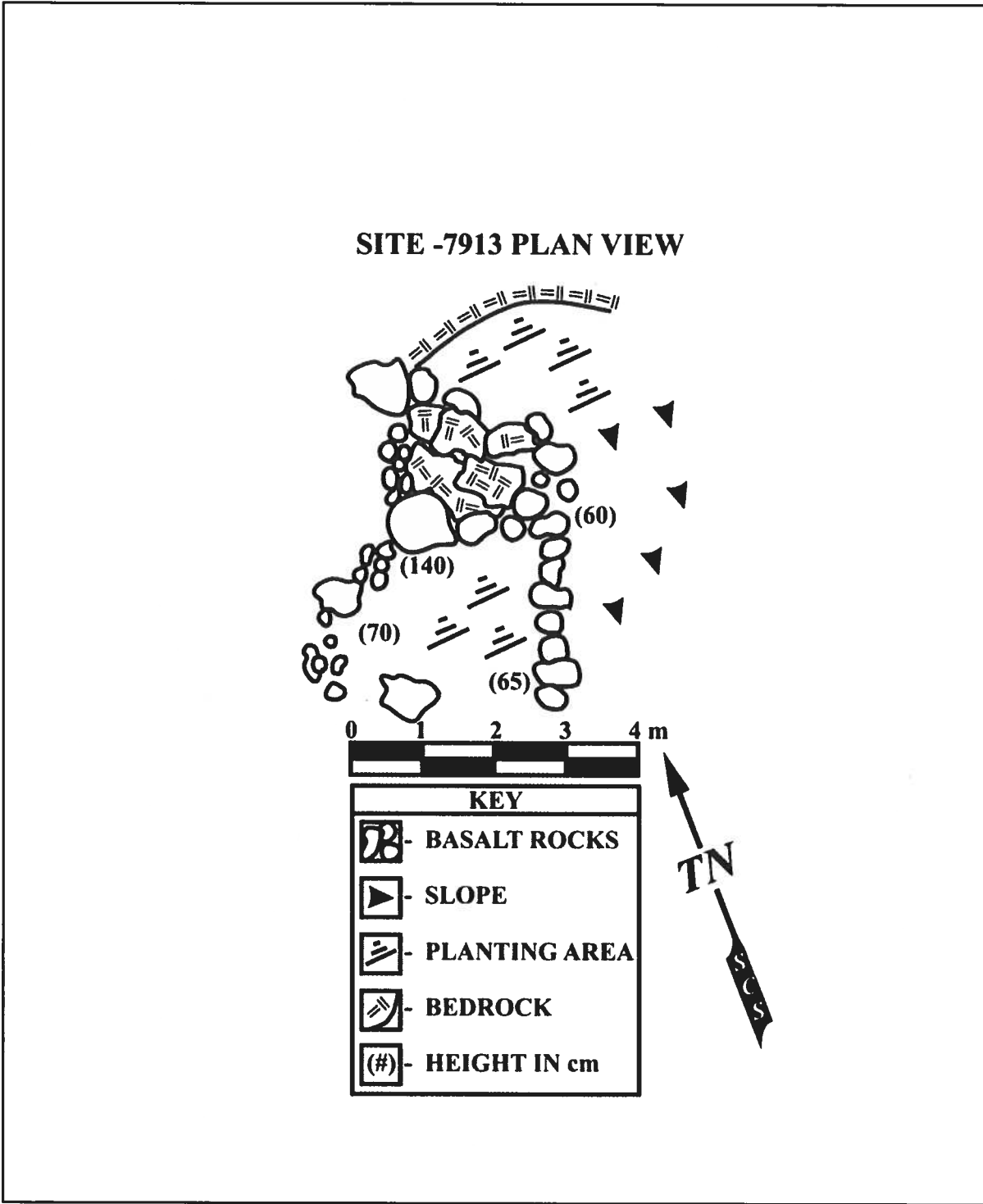


Figure 49: Plan View of State Site 50-50-14-7913.



Figure 50: View West of State Site 50-50-14-7913 Showing Planter.

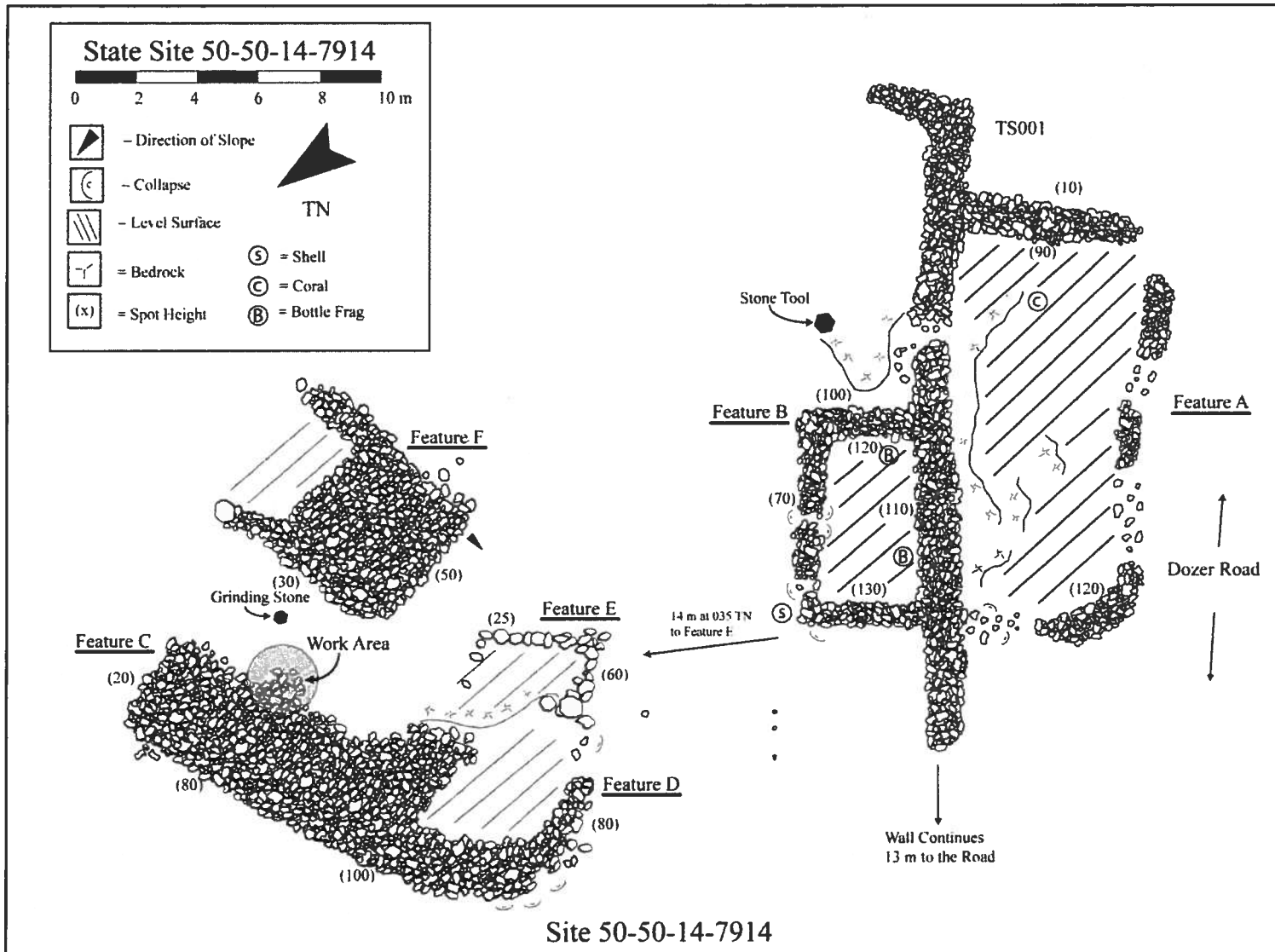


Figure 51: Plan View of State Site 50-50-14-7914.

Feature B consists of an enclosure constructed of basalt boulders and cobbles up to 50 cm in diameter. The enclosure measures 7.5 m long by 5.5 m high with a maximum height of 1.3 m. The walls are up to 1.5 m wide and stacked 9 courses. Feature B is rectangular in shape and shared its west wall with TS001 and Feature A (see figure). There is significant collapse in the center section of the eastern wall and the northern section of the western wall. The surface of the enclosure is comprised of soil with less than 5% consisting of rubble and vegetation. Within the enclosure an historic glass bottle was documented. Based on the location, size and architectural components, it is believed the enclosure functioned as an animal pen.

Feature C consists of a platform that measures 11.5 m long by 4.4 m wide and a maximum height of 1.05 m along the western end that is still in excellent condition. The platform walls are stacked up to 6 courses and the surface of the platform is covered in tightly packed cobbles creating a level surface. A small work area was documented in the southern portion of the platform and measured 2.0 m by 0.5 m. The area had a discrete concentration of artifacts and manuports including a preform, basalt hammerstone, and grinding stone fragment. In addition, a waterworn cobble, unmodified coral cobble and a green glass bottle were observed on the work surface.

Feature D consists of a roughly rectangular enclosure that measures 7 m long by 5.4 m wide with a maximum height of 95 cm. The walls have a maximum thickness of 2.1 m and are constructed of basalt cobbles and boulders. The feature's northern end is bounded by portion of Feature C. The western wall is stacked 2-3 courses and has collapsed in portions of the southern wall. The southern edge is a single course of widely spaced boulders.

Feature E consists of an L-Shape that measures 4.2 m by 2.6 m with a maximum wall height of 60 cm. The feature abuts Feature D to the west, but is above the latter atop a bedrock outcrop. The interior of the feature is level and soil filled

Feature F consists of a rectangular terraced platform that measures 6.5 m by 5 m with a maximum height of 50 cm. The feature is constructed with up to 3 courses on the western side and up to 2 courses on the northern perimeter along the bedrock. The majority of the interior is large cobbles transitioning into smaller cobbles to the east. Most of the perimeter is stacked and the interior surface is semi-level.

STATE SITE 50-50-14-7915 (TS046)

Condition: Fair

GPS Coordinates: 767251 e; 2283173 n

Site Type: Wall

Function: Water Diversion

Feature (#): 1

Age: pre-Contact

Description: State Site 50-50-14-7911 (TS041) (Figure 52 and Figure 53) consists of a wall located in the northwestern portion of the project area that crosses a natural drainage creating a diversion for the natural flow of water. The wall is constructed of `a`ā boulders up to 60 cm in diameter and up to 4 courses. Overall, the wall measures 2.4 m long by 60 cm wide by 70 cm high.

STATE SITE 50-50-14-7916 (TS047)

Condition: Fair

GPS Coordinates: 767218 e; 2283180 n

Site Type: Planter

Function: Agriculture

Feature (#): 1

Age: pre-Contact

Description: State Site 50-50-14-7916 (TS047) (Figure 54) consists of a two planting areas (Feature A and B) located in the northwestern portion of the project area. Feature A is situated along the base of a bedrock ridge/outcrop and has slight modifications to the natural rock. Overall, the planter measures 5.2 m long by 2.5 m wide with the surrounding bedrock up to 1.1 m high. Feature B is located 4 m south of Feature A and is a planter situated within a natural soil filled notch within a bedrock outcrop. The planter measures 5.2 m long by 2.4 m wide with the surrounding bedrock measuring up to 1.25 m high.

STATE SITE 50-50-14-7917 (TS048)

Condition: Fair

GPS Coordinates: 767237 e; 2283181 n

Site Type: Platform/Modified Outcrop

Function: Ceremonial

Feature (#): 1

Age: pre-Contact

Description: State Site 50-50-14-7917 (TS048) (Figure 55) consists of a platform located in the northwestern portion of the project area. The platform is constructed by augmenting a

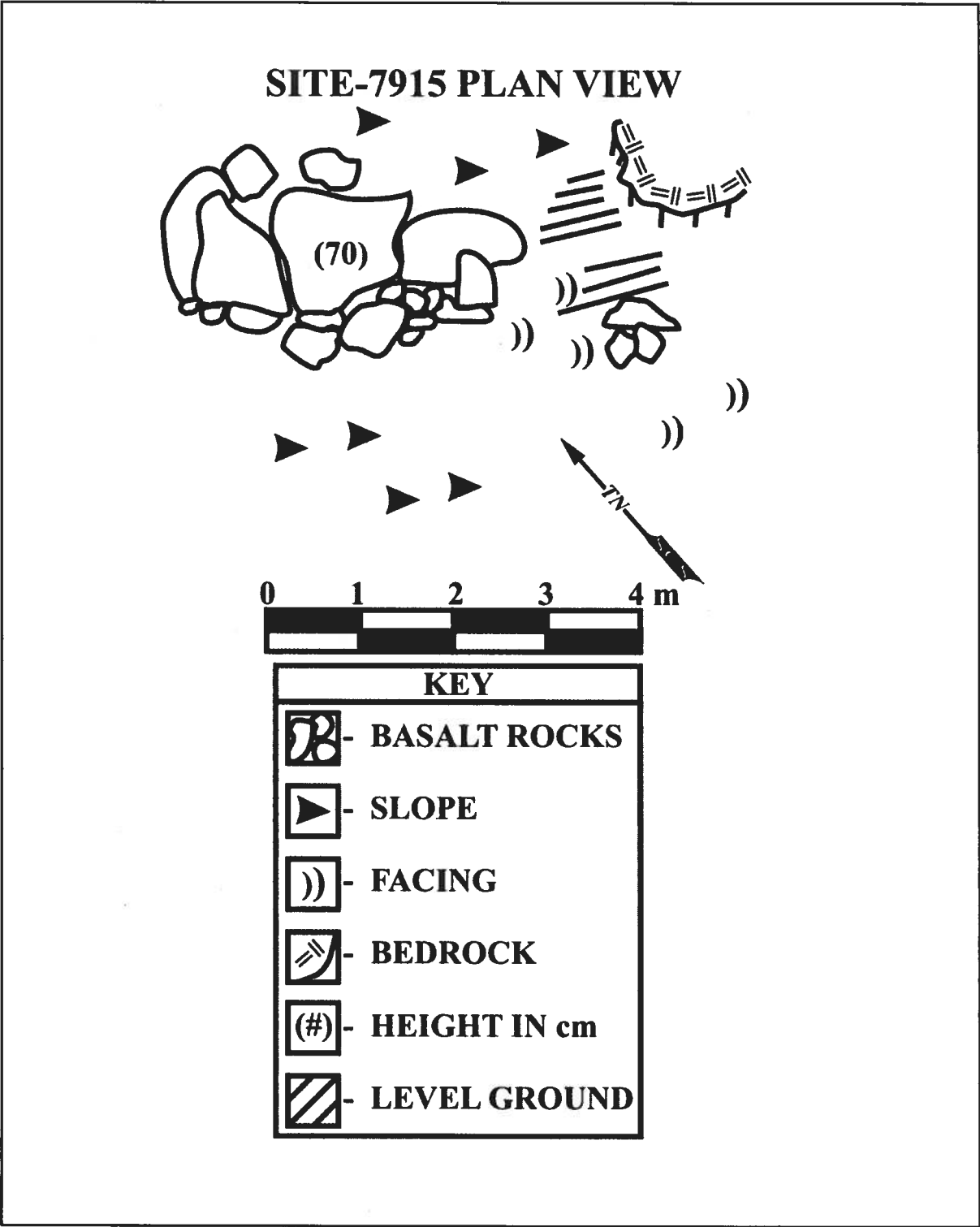


Figure 52: Plan View of State Site 50-50-14-7915.



Figure 53: View Southwest of State Site 50-50-14-7915 Showing Water Diversion Wall.

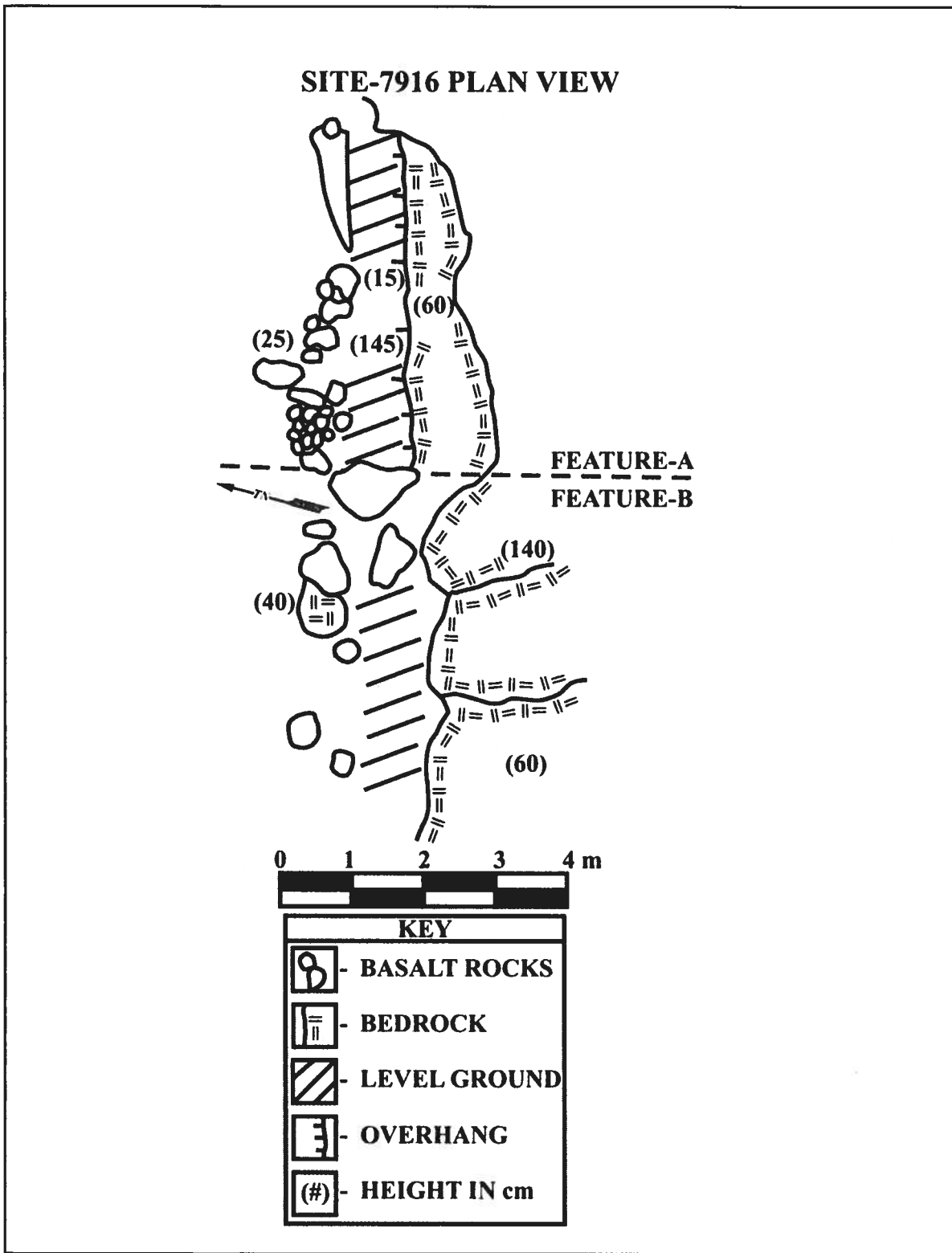


Figure 54: Plan View of State Site 50-50-14-7916.

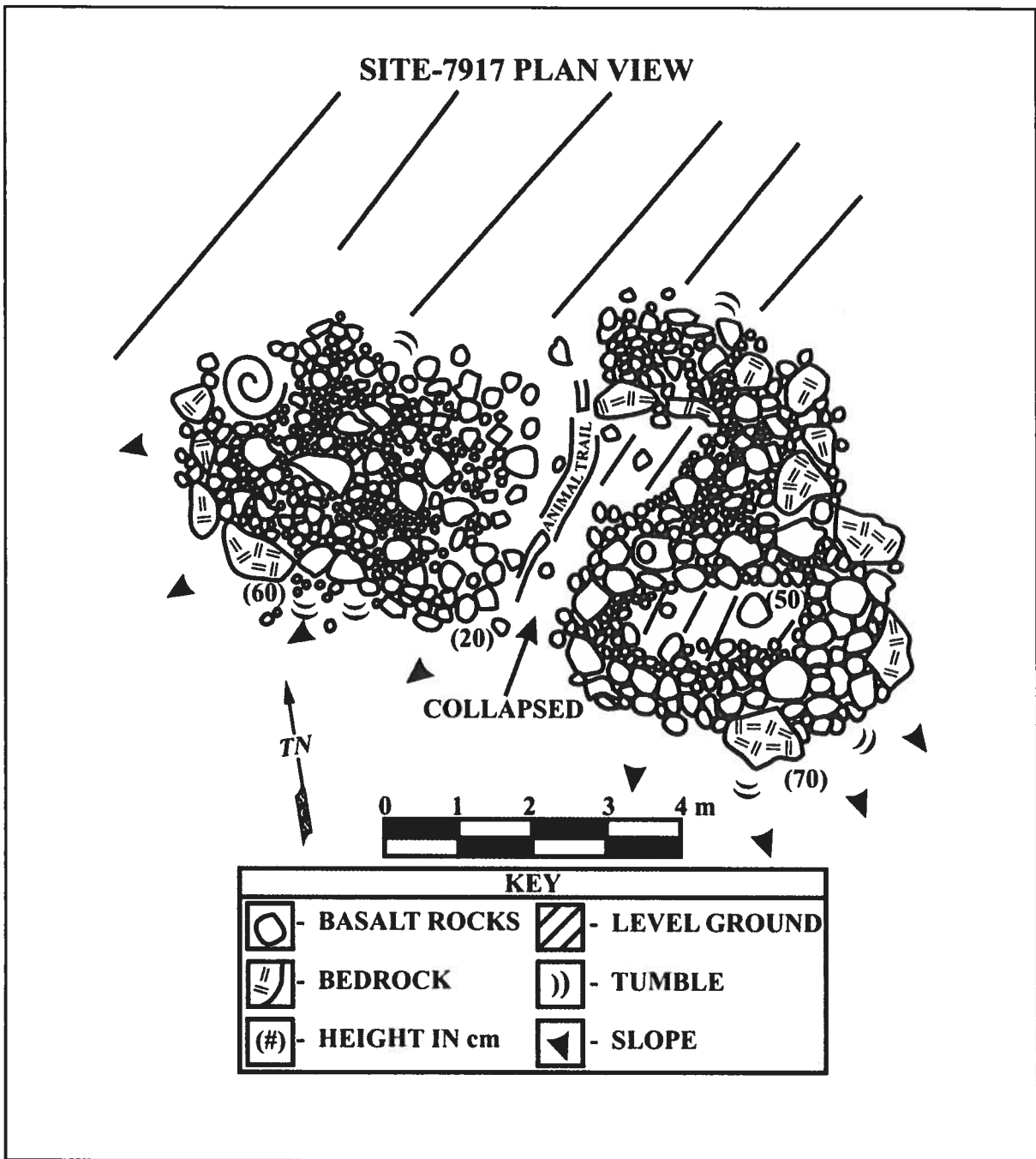


Figure 55: Plan View of State Site 50-50-14-7917.



Figure 56: View North of State Site 50-50-14-7917 Showing Platform on Bedrock Outcrop.

natural outcrop creating a rectangular platform. Overall, the site measures 2.5 m long by 2.2 m wide with a maximum height of 60 cm on the northwest corner. A fallen wiliwili tree has disturbed the uphill portion of the site while the lower half remains intact. The surface of the feature is core filled and relatively level with several boulders scattered over the top. Based on the location, size and architecture, it is believed the platform functioned as a small ceremonial *ko`a*.

STATE SITE 50-50-14-7918 (TS049)

Condition: Fair

GPS Coordinates: 767246 e; 2283140 n

Site Type: Midden Scatter

Function: Consumption

Feature (#): 1

Age: Historic

Description: State Site 50-50-14-7918 (TS049) (Figure 57) consists of a midden scatter along a bedrock outcrop located in the northwestern portion of the project area. The scatter measures approximately 20 sq. meters overall and contained conus sp, few basalt flakes, coral, historic ceramics and rusted metal straps. It is believed that the site functioned as a rest site where food was consumed.

STATE SITE 50-50-14-7919 (TS050)

Condition: Fair

GPS Coordinates: 767278 e; 2283170 n

Site Type: Planter

Function: Agriculture

Feature (#): 1

Age: pre-Contact

Description: State Site 50-50-14-7919 (TS050) (Figure 59) consists of a double planter located in the northwestern portion of the project area. The site is set within a roughly rectangular in shape natural bedrock outcrop with a dividing wall across the midsection of the outcrop. Overall, the site measures 4.5 m long by 1.8 m wide with a maximum height of 52 cm. Boulders up to 60 cm in diameter form one wall while a natural outcrop forms the back wall. Based on the location and architecture, it is believed the site functioned as an agricultural site.



Figure 57: View West of State Site 50-50-14-7918 Showing Midden Scatter.

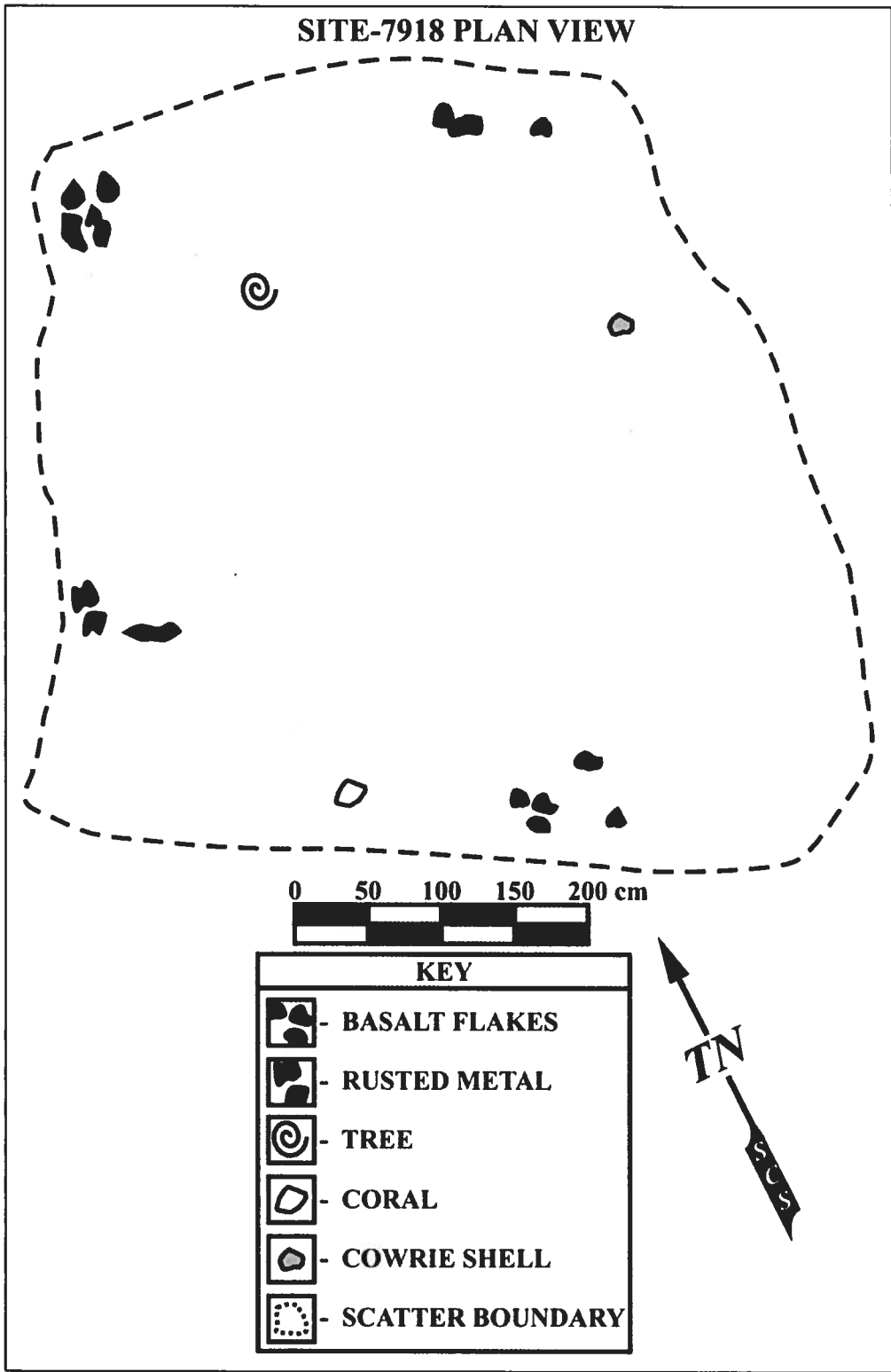


Figure 58: Plan View of State Site 50-50-14-7918.

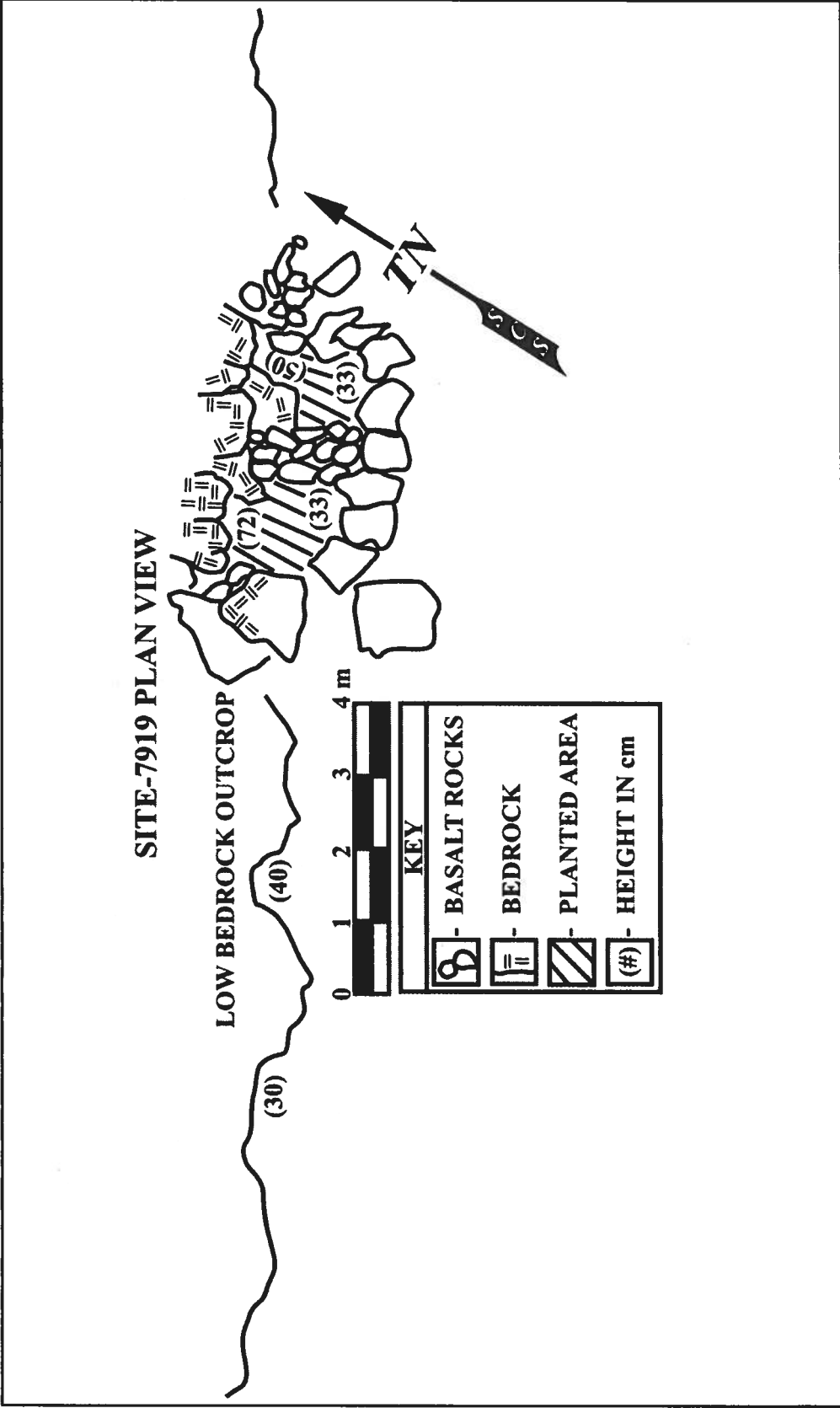


Figure 59: Plan View of State Site 50-50-14-7919.

STATE SITE 50-50-14-7920 (TS051)

Condition: Fair

GPS Coordinates: 767279 e; 2283182 n

Site Type: Planter

Function: Agriculture

Feature (#): 1

Age: pre-Contact

Description: State Site 50-50-14-7920 (TS051) (Figure 60 and Figure 61) consists of a planter located in the northwestern portion of the project area. The planter is roughly C-shaped and constructed of basalt `a`ā cobbles and boulders up to 65 cm in diameter and stacked 2-3 courses. Overall, the planter measures 2.75 m by 2.1 m with a maximum height of 61 cm with the interior consisting of exposed bedrock and a shallow soil deposit. Based on the architecture and size of the site, it is believed it was utilized as an agricultural planting area.

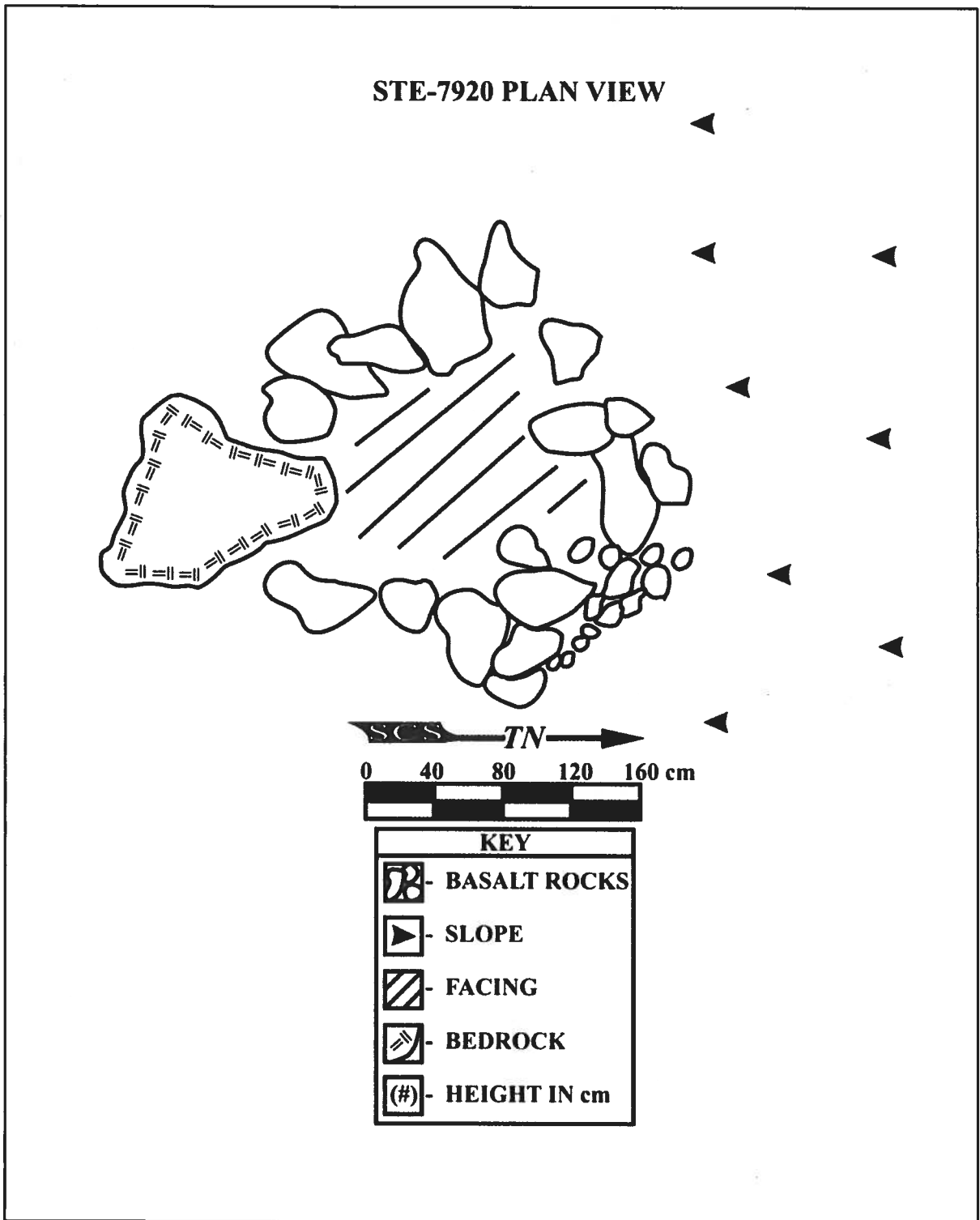


Figure 60: Plan View of State Site 50-50-14-7920.

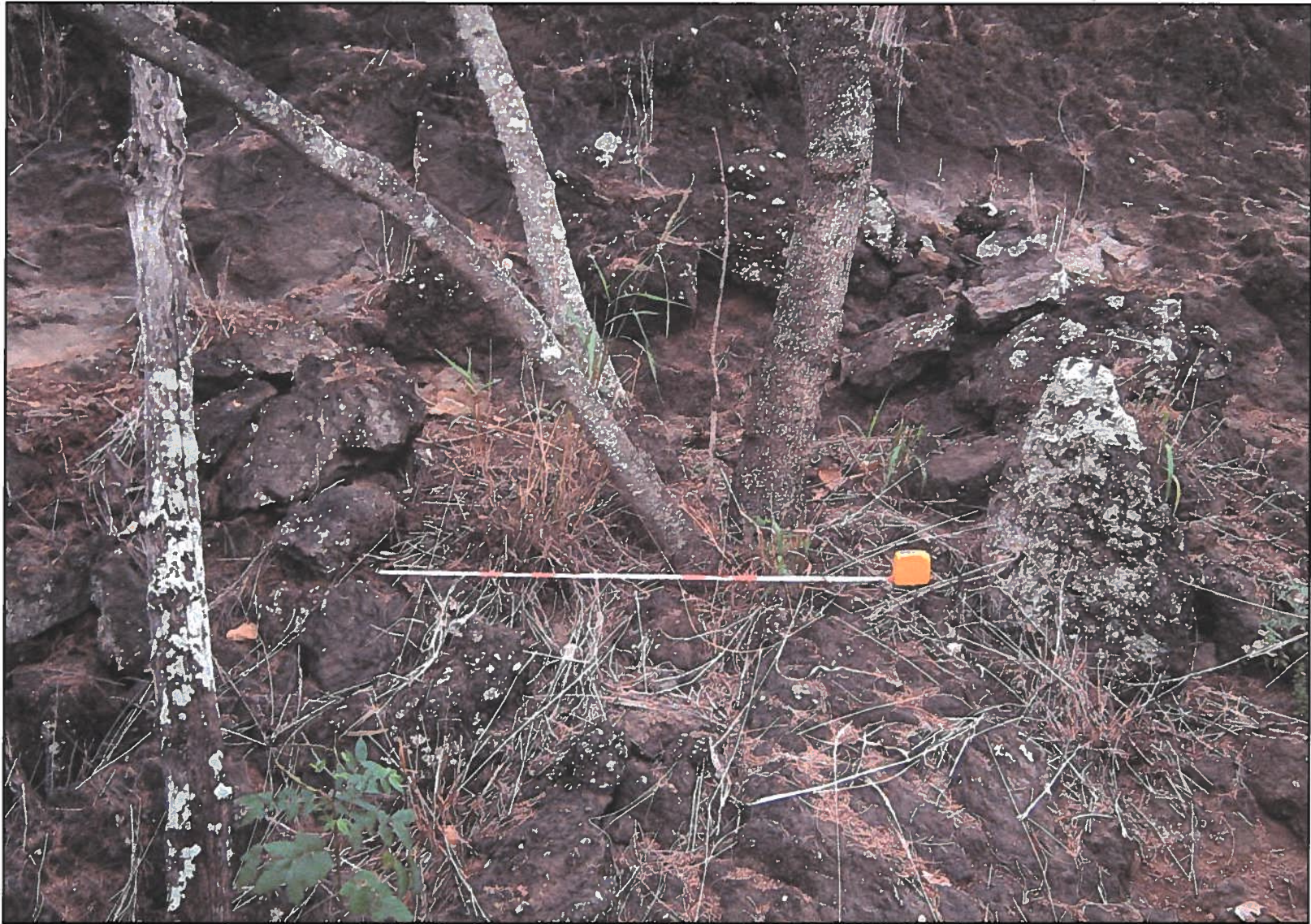


Figure 61: View North of State Site 50-50-14-7920 Showing C-Shaped Planter.

DISCUSSION AND CONCLUSIONS

Archaeological Inventory Survey of a 27 acre project area led to the documentation of 36 sites composed of 61 archaeological features; these designated as State Sites 50-50-14-7885 through 7920. The sites represent both pre-Contact and Historic Period activities on the parcel. Of the 36 sites documented during the project, 10 are considered as sites that spanned from pre-Contact into Historic Period sites, five sites are of the historic period and 21 sites are believed to be associated with the pre-Contact Period. Functional interpretation of the 36 sites documented during the Inventory Survey included 16 agricultural sites (44.4%), 7 habitation sites (19.4%), 4 boundary (wall) sites (11.1%), two ceremonial sites (5.6%), two consumption (midden scatter) sites (5.6%), one cooking/heat site, one ranching site, one soil retention site and one water diversion site (each 2.8%) (Figure 30).

AGRICULTURAL FEATURES

The agricultural features documented during this project appear to concur with the land use model suggested by Cordy (1977), Cordy and Athens (1988), and Perzinski *et al.* 2013-in preparation). At elevations from 140-foot to the 240-foot contour, the project area was likely under intensive, or at the margins of, an intensively cultivated area of Mākena. The types of agricultural sites encountered within the current project area include modified outcrops, rock mounds, planters and terraces. These feature types are fairly common throughout this elevation across the breadth of Honua`ula/Mākena, as has been identified through numerous projects (see above). Cordy (1985:22) states: —information indicates that the area of Mākena from about 0.25 miles inland (the 80 foot contour) up to the old forest line at the 1,200 foot elevation, 2.1 miles inland, was the cultivation zone” and —Fields (in Mākena) are scattered clusters of small irregular features adapted to the intricacies of the dry, rocky terrain (*ibid*:23).” Not only were agricultural sites present in this dry, leeward zone, but likely were constructed in more intensive fashion from the A.D. 1700s.

In total, 35 agricultural features (57.4 percent of the total number of features) and 16 agricultural sites were documented during the archaeological inventory survey. Feature types that were considered agricultural in function included 16 terraces, 15 planters, 1 L-shape, 1 modified outcrop, 1 mound and 1 terrace platform. The features were documented along bedrock outcrops as well as within the more gently sloping soil terrain

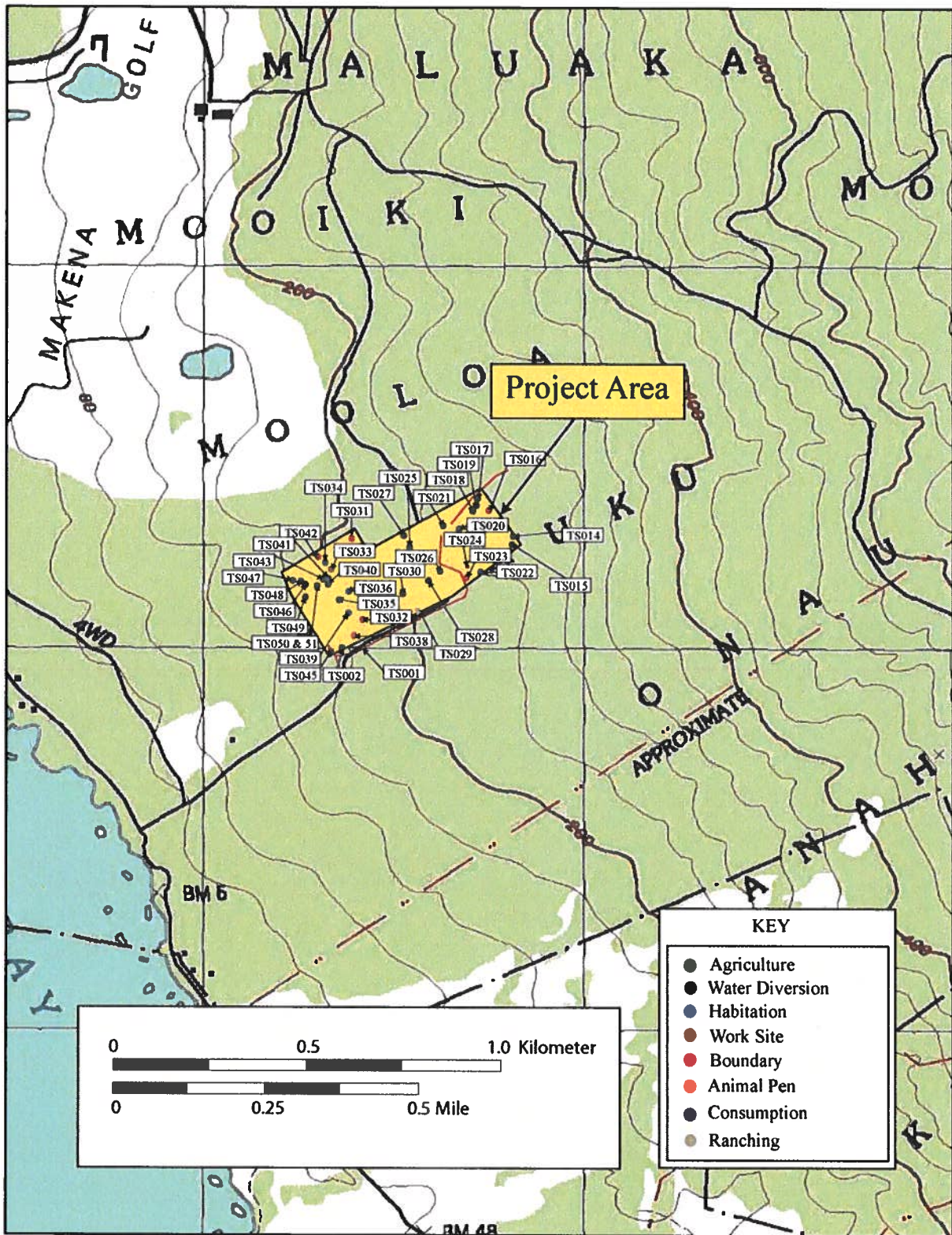


Figure 62: USGS Map Showing the Location of Sites by Function.

HABITATION FEATURES

Sites 7891, -7903, -7911, -7914, 7905, 7907 and 7909 were considered habitations or temporary habitations. Feature types considered habitation in function included wall remnants, terraces, rock shelters, enclosures, platform and an I shape. Functional interpretations were based on the size and formality of the feature architecture. In addition, two midden scatters (Sites -7899 and -7918) and one hearth (-7894) were documented that further demonstrates that the project area was utilized for activities related to habitation.

It is likely that the temporary habitations were field *hale*, or temporary, isolated habitation locales. This is supported by a) the size of the features; b) proximity of agricultural features; c) lack of associated habitation features or activity areas (no larger site complexes), and d) virtual absence of cultural deposits/materials. The fact that many of the features were in poor-fair condition may also be a reason for difficulty in interpretation. The presence of one permanent habitation complex (-7914) is consistent with findings from similar locales in Honua`ula (Lee-Greig *et al.*, 2012 in preparation; Perzinski *et al.* 2013-in preparation) that suggested that permanent habitation did occur in these intermediary locations removed from the shoreline and at lower elevations than the uplands. An upcoming survey of lands surrounding the current project area will again test this thesis.

CEREMONIAL FEATURES

Two features documented during the inventory survey were considered ceremonial in function. Site -7892 consisted of a terraced platform and Site -7917 consisted of a formal, well built platform constructed atop a bedrock outcrop. The classification of the ceremonial sites found within the project area included interpretation of architectural features that are often associated with *heiau* and/or *ko`a*.

Kolb (1985) lists five criteria for evaluating ritual places and included notched (six-sided) enclosures as a relatively common type. Also, the presence of unmodified branch coral within a well-developed cultural layer suggests a ceremonial function. Kolb (1997) states, —since the early 1970's, the presence of numerous pieces of branch coral has been used to identify religious activities” (Kolb 1997:29). Site -7892 is a well-constructed terraced platform that contained a coral fragment on its surface. Site -7917 consisted of a formally constructed platform atop a bedrock outcrop. The relatively small site (5.5 sq. meters) was unique in the project area and was situated in a portion of the project area rich in features. Though these sites are not likely to have functioned as formal —*heiau*”, based on their architectural features, size and location within the project area, it is believed that they had ceremonial functions (i.e. *ko`a*).

HISTORIC FEATURES

Five sites are believed to represent historic land use within the project area. The sites include a hearth (-7894), wall (-7895), a wood trough (-7900), an animal pen (-7908) and a group of enclosures (-7914). The hearth was located in the open field and based on its location is believed to have been used by cowboys during ranching operations. The large enclosures (-7914) contained abundant historic refuse (broken ceramics, etc) that suggest the site was also a camp for the paniolo. At least one wall (-7895) is believed to have been used as a pasture wall for cattle ranching and the trough (-7900) indicates that the project area was at one time an active feeding/watering pasture. Given the extensive ranching use of lands from the late 1800s on the parcel and environs, and the nature of these enclosures themselves, animal husbandry appears the primary function. Such features have been documented elsewhere in Mākena, at similar locations and elevations (see Perzinski *et al.* 2013-in preparation). The numerous rock walls traversing the landscape outside the current parcel further attest to the landscape modifications occurring during the historic ranching period.

DISCUSSION

Previous archaeological studies in the Mākena area have fairly well established general settlement patterns and land use. Early studies such as those conducted by Stokes and Walker concentrated on large scale, monumental architecture sites (*i.e. heiau*). Studies in the 1970's and early 1980's consisted of large scale reconnaissance surveys and inventory level surveys for future development of Mākena and Wailea resorts and golf courses. It was during these studies that the lands were found to contain rich and varied types of archaeological sites, ranging from small scale agricultural plots to large scale *heiau* to historic ranching and habitation sites. More recent work in these areas of Honua`ula has led to the documentation of thousands of sites and features occurring not only along the coastline but inland, to over a mile or two from the shoreline, where a vast, but not necessarily old, archaeological record is present.

When comparing the site-elevation model proposed by Cordy and Athens (1988; see above) which suggests that certain site types may be associated with specific elevation zones and time periods, the data gleaned from the current project area also show that pre-Contact sites do occur beyond 0.25 miles of the coastline. These findings support the model primarily because the project area landscape is more conducive to temporary habitation and agricultural sites rather than permanent occupation. Permanent occupation is present, however, as identified during work just to the north of the current study (Lee-Grieg, *et al.*, 2012 under review; Perzinski *et al.* 2013-in preparation). The lack of local water resources also makes permanent occupation more tenuous as well, though it is likely that the gulches would at times have provided a local water

source. Permanent housing settlements of the *ahupua`a* are found to be more common at higher elevations, specifically in the uplands. At these higher elevations, staple crops such as banana, dryland taro, and sweet potato were readily cultivated. These plants would be more adept to survive for extended periods of time, in contrast to crops (*i.e.* sweet potato) located at lower elevations and in such places as the arid Mākena region. However, the use of planters and rock mounds, which are ubiquitous across the current landscape and constructed intensively from the 1700s, does show some leaning towards permanent habitation of the area. Both temporary and permanent habitation, albeit in low intensity, are now considered hallmarks of this more inland landscape that transcends the shoreline and upland areas. Furthermore, activities such as fishing, supplemented by small scale agricultural plots located on the ridges would more likely be dominant types of subsistence strategies along coastal Mākena. This is also supported by the oral and historic literature (see Handy and Handy 1972 and Sterling 1988).

Previous and current archaeological investigations and historic documentation in the project area and vicinity indicate that the area was traditionally utilized for temporary habitation, agricultural activities, and ranching endeavors. Further afoot the landscape, in northern *ahupua`a* of Honua`ula District, permanent habitation sites are interspersed with a large agricultural field system composed of mounds, terraces, modified outcrops, and even garden enclosures. The temporal span of recorded sites extends from pre-Contact Period to the Historic Period. With an upcoming survey of c. 150 acres surrounding the current parcel, it will be interesting to see if the same pattern holds.

The current site population shows a dominance of agricultural sites over habitation locales, with animal husbandry from the historic ranching period also occurring post-occupation. The paucity of cultural materials in the shallow soils, as well as radiocarbon dates from nearby projects, further suggests a late, brief occupation and use of the area. Prior to the 1700s, the area was most certainly utilized for bird hunting and collecting, small scale agriculture, and temporary habitation; however the empirical record of these times is thin indeed. Additional survey of the surrounding parcels, to be conducted in the near future, will refine this settlement model and expand the regional settlement model.

SIGNIFICANCE AND RECOMMENDATIONS

A total of 36 sites composed of 61 individual features were documented in the project area during Archaeological Inventory Survey at [TMK: (2) 2-1-05:134, 135 por. and 136]. The sites have been evaluated for significance according to the criteria established for the State and National Register of Historic Places. The five criteria are listed below:

- Criterion A:** Site is associated with events that have made a significant contribution to the broad patterns of our history;
- Criterion B:** Site is associated with the lives of persons significant to our past;
- Criterion C:** Site is an excellent site type; embodies distinctive characteristics of a type, period, or method of construction, or represents the work of a master, or possesses high artistic values, or represents a significant and distinguishable entity whose components may lack individual construction;
- Criterion D:** Site has yielded or has the potential to yield information important in prehistory or history;
- Criterion E:** Site has cultural significance; probable religious structures or burials present (State of Hawai`i criteria only).

State Sites 50-50-14-7885 through 50-50-14-7920 have been assessed as significant under Criterion D, as sites that have yielded or have the potential to yield information important in prehistory or history. Of the 36 sites, two are recommended for preservation, four are recommended for data recovery and the remaining 30 sites are recommended for no further work (Table 4).

Sites -7892 and -7917 were assessed as significant under Criterion E as well for their possible ceremonial function. For these sites preservation is recommended [Note: due to these Criterion E assessments, this report was submitted to the Office of Hawaiian Affairs for review/concurrence in September, 2014. There has been no response to date. SCS will again submit this revised report to OHA for consultation]. Sites -7891, -7908, -7911 and -7914 consist of various habitation sites that could yield additional information on the settlement patterns in Mākena and Honua`ula. For these sites a program of data recovery is recommended.

It is believed that the remaining sites have been adequately documented and additional research focused on the site would not contribute to the interpretation of the area, region, or Hawaiian prehistory and/or history. In addition, many of the sites discussed herein occur in poor preservation states. If the landowner chooses to preserve any of the sites documented during this study, SCS will work with them on interim and long-term preservation planning.

Due to the long history of cattle ranching in the area, there is a high likelihood that the surface architecture of sites may have been significantly altered or destroyed altogether. This possibility does not rule out the potential for subsurface cultural deposits. Therefore, based on the documentation of surface cultural deposits within the project area, archaeological monitoring is recommended during the initial grading and grubbing activities associated with development of the parcel to further gather additional information about the history of the project area and Honua`ula District.

Table 4. Site Significance and Recommendations.

SIHP #50-50-14-	Ahupua`a	Formal Site Type	Site Function	Number of Features	Significance	Recommendations
7885	Mo`omuku	Terrace	Agriculture	1	D	No Further Work
7886	Mo`omuku	Terrace Platform	Agriculture	1	D	No Further Work
7887	Mo`omuku	Terraces	Agriculture	2	D	No Further Work
7888	Mo`omuku	Wall	Boundary	1	D	No Further Work
7889	Mo`omuku	Terrace/Planter	Agriculture	2	D	No Further Work
7890	Mo`omuku	Terrace	Agriculture	1	D	No Further Work
7891	Mo`omuku	Terraces	Habitation	2	D	Data Recovery
7892	Mo`omuku	Terrace Platform	Habitation	1	D, E	Preservation
7893	Mo`omuku	Mound	Agriculture	1	D	No Further Work
7894	Mo`omuku	Hearth	Temporary Habitation	1	D	No Further Work
7895	Mo`omuku	Wall	Boundary	1	D	No Further Work
7896	Mo`omuku	Planter	Agriculture	1	D	No Further Work
7897	Mo`omuku	Planters	Agriculture	3	D	No Further Work
7898	Mo`omuku	Terrace	Agriculture	1	D	No Further Work
7899	Mo`omuku	Midden Scatter	Consumption	1	D	No Further Work
7900	Mo`omuku	Wooden Trough	Ranching	1	D	No Further Work
7901	Mo`omuku	Terrace	Agriculture	1	D	No Further Work
7902	Mo`omuku	Wall	Boundary	1	D	No Further Work
7903	Mo`omuku	Wall	Boundary	1	D	No Further Work
7904	Mo`omuku	Wall	Soil Retention	1	D	No Further Work
7905	Mo`omuku	Terraces/ Planter	Temporary Habitation	8	D	No Further Work
7906	Mo`omuku	Planter	Agriculture	2	D	No Further Work
7907	Mo`omuku	Enclosure	Temporary Habitation	1	D	No Further Work

SIHP #50-50-14-	Ahupua`a	Formal Site Type	Site Function	Number of Features	Significance	Recommendations
7908	Mo`omuku	Enclosure	Animal Pen	1	D	Data Recovery
7909	Mo`omuku	Enclosure	Temporary Habitation	1	D	No Further Work
7910	Mo`omuku	Terrace	Agriculture	1	D	No Further Work
7911	Mo`omuku	Rock Shelter/ Enclosure	Habitation	1	D	Data Recovery
7912	Mo`omuku	Wall	Boundary	1	D	No Further Work
7913	Mo`omuku	Planter	Agriculture	1	D	No Further Work
7914	Mo`omuku	Enclosure	Habitation	6	D	Data Recovery
7915	Mo`omuku	Enclosure	Water Diversion	1	D	No Further Work
7916	Mo`omuku	Enclosure	Agriculture	2	D	No Further Work
7917	Mo`omuku	Enclosure	Temporary Habitation	1	D,E	Preservation
7918	Mo`omuku	Enclosure	Consumption	1	D	No Further Work
7919	Mo`omuku	Enclosure	Agriculture	1	D	No Further Work
7920	Mo`omuku	Enclosure	Agriculture	1	D	No Further Work

REFERENCES CITED

- ABCFCM Trustees Minute Book
1912 *American Board of Commissioners for Foreign Missions*. Houghton Library, Harvard University, Cambridge.
- Barrère, D.B.
1975 *Kamehameha in Kona: Two Documentary Studies*. Pacific Anthropological Records No 23. Bernice Pauahi Bishop Museum, Honolulu.
- Bordner, R., and D. Cox
1982 *Makena Golf Course Extension: Archaeological Reconnaissance*. MS. Environmental Impact Study Corp., Honolulu.
- Chaffee, D., and R.L. Spear
1994 *An Archaeological Inventory Survey of 6-Acres in the Ahupua`a of Papa`anui, Makawao District, Makena, Island of Maui, Hawai`i [TMK: 2-1-07:12, Lot B]*. Prepared for Malia Aina Ltd. Ms. on file, State Historic Preservation Division, Kapolei.
- Clark, Stephen D.
1974 *A Reconnaissance Survey of Makena Properties for Seibu Corp.* Bernice Pauahi Bishop Museum, Honolulu.
- Clark, Stephan D. and Marion Kelly
1985 *Supplemental Archaeological and Historical Studies at Makena, Makawao, Maui*. Prepared for Seibu Hawai`i. Department of Anthropology, Bernice Pauahi Bishop Museum, Honolulu.
- Cleghorn, P.L.
1991 *Inventory Level Survey Report of Specified Lands in Mo`oloa and Mo`omuku, Honua`ula, Makawao, Maui*. On file, State Historic Preservation Division, Wailuku.
- Cordero, A.B., and M. Dega
2001 *Archaeological Data Recovery Within Makena, Waipao Portion of Papa`anui Ahupua`a, Honua`ula District, Maui Island, Hawai`i (TMK: 2-1-07:12 Lot B)*. Prepared for CMI Development, Inc. MS. on file, State Historic Preservation Division, Kapolei.
- Cordy, R.
1978 *Archaeological Survey and Excavations at Makena, Maui: Third Increment Seibu Golf Course: Fairways 1, 7 through 18*. For Seibu Hawaii, Inc. Bernice Pauahi Bishop Museum. Honolulu.

1981 *A Study of Prehistoric Social Change: The Development of Complex Societies in the Hawaiian Islands*. Academic Press, San Francisco.

- Cordy, R., and J.S. Athens
 1988 *Archaeological Survey and Excavation, Seibu Sites 1916 and 2101, Makena, Honuaula, Maui (TMK: 2-1-05:108)*. International Archaeological Research Institute Incorporated, Honolulu.
- Cordy, R., J. Tainter, R. Renger, and R. Hitchcock
 1977 *Archaeology of Kaloko: a Generalized Model of a Hawaiian Community's Social Organization and Adaptation*. Harpers Ferry Center.
- Daws, G.
 1968 *The Shoal of Time: A History of the Hawaiian Islands*. University of Hawaii Press, Honolulu.
- Day, A.G.
 1984 *History Makers of Hawaii*. Mutual Publishing, Honolulu.
- Denison, David O.
 1979 *Archaeological Phase I Testing and Phase II Salvage of Area Designated for Hotel Construction on Seibu Land, Makena, Makawao, Maui*. Department of Anthropology, Bernice Pauahi Bishop Museum, Honolulu.
- Department of Land and Natural Resources/State Historic Preservation Division
 2002a *Hawaii Administrative Rules: Rules Governing Procedures for Historic Preservation Review for Government Projects Covered Under Sections 6E-7 and 6E-8*.
- 2002b *Hawaii Administrative Rules: Rules Governing Standards for Archaeological Inventory Surveys and Reports. (HRS 13-276)*.
- Foote, D.E., E. Hill, S. Nakamura, and F. Stephens
 1972 *Soil Survey of the Islands of Oahu, Maui, Molokai, and Lanai, State of Hawaii*. U.S. Department of Agriculture Soil Conservation Service, Washington, D.C.
- Fredericksen, E.M., and D.L. Fredericksen
 1998a *Archaeological Inventory Survey Report on a 1-Acre Parcel Located in Waipao Ahupua`a, Honua`ula, Makawao District, Maui Island (TMK: 2-1-07:71)*. Prepared for Mr. Robert Cella. MS. on file, State Historic Preservation Division, Kapolei.
- 1998b *An Archaeological Inventory Survey of a 0.5-Acre Coastal Property (Lot 5C) in Makena, Maui, Papa`anui Ahupua`a, Honua`ula Moku, Makawao District, Maui Island TMK: 2-1-07:99*. Prepared for Mr. Fred Loesberg, AIA. MS. on file, State Historic Preservation Division, Kapolei.

- 1998c *Archaeological Inventory Survey of the Kukahiko Property, a 1-Acre Parcel Located in Makena (TMK: 2-1-07: 7 & 98), Papa`anui Ahupua`a, Honua`ula Moku, Makawao District, Maui Island.* Prepared for Mr. Tim Farrington, AIA. MS. on file, State Historic Preservation Division, Kapolei.
- 1998d *An Archaeological Inventory Survey of a 0.81 Acre Coastal Parcel in Papa`anui Ahupua`a, Honua`ula Moku, Makawao District, Maui Island (TMK: 2-1-07:79).* Prepared for The John and Kamaka Kukahiko of Makena Corporation, Makena, Maui. MS. on file, State Historic Preservation Division, Kapolei.
- Giambelluca, T.W., M.A. Nuller, and T.A. Schroeder
1986 *Rainfall Atlas of Hawai`i. Report R76.* Water Resources Research Center, University of Hawai`i, Manoa, for the Department of Land and Natural Resources, State of Hawai`i, Honolulu.
- Gosser, Dennis, Stephan D. Clark and Boyd Dixon
1993 *Na Lawai`a O `Ao `Ao Kona O Ka Moku: Excavations at the Southern Acreage and Lot 15, Wailea, Maui.* Department of Anthropology, Bernice Pauahi Bishop Museum, Honolulu.
- Gosser, D., S.D. Clark, B. Dixon, and J. Pantaleo
1996 *Data Recovery Procedures in Parcels III and IV, Makena Resort Corp., Makena, Maui (Draft).* Department of Anthropology, Bernice Pauahi Bishop Museum, Honolulu.
- Handy, E.S. Craighill
1940 *The Hawaiian Planter.* Bishop Museum Press. Honolulu.
- Handy, E.S., and E.G. Handy
1972 *Native Planters in Old Hawaii: Their Life, Lore, and Environment.* Bernice Pauahi Bishop Museum, Bulletin 233. Honolulu.
- Haun, Alan
1978 *Archaeological Survey and Salvage Excavation in Mooiki and Maluaka, Makawao District, Maui.* Prepared for Seibu Hawaii, Inc. Department of Anthropology Bernice P. Bishop Museum, Honolulu. On file at State of Hawai`i Department of Land and Natural Resources, State Historic Preservation Division, Kapolei.
- 2001 *Archaeological Assessment TMK: (2) 2-1-6:08, Land of Moomuku, Makawao District, Island of Maui.* Prepared for Maui Architectural Group, Wailuku. Haun & Associates, Keauu. On file at State Historic Preservation Division, Kapolei.
- Juvik, S.P. and J.O. Juvik.
1998 *Atlas of Hawai`i,* Third edition. University of Hawai`i Press: Honolulu.

- Kamakau, S.M.
1992 *Ruling Chiefs of Hawaii: Revised Edition*. Kamehameha Schools Press, Honolulu.
- Kame`eleihiwa, Lilikala
1992 *Native Land and Foreign Desires: Pehea Lā E Pono Ai? How Shall We Live in Harmony?* Bishop Museum Press, Honolulu.
- Kirch, P.V.
1985 *Feathered Gods and Fishhooks: An Introduction to Hawaiian Archaeology and Pre-History*. University of Hawaii Press, Honolulu.
2014 *Kua`aina Kahiko: Life and Land in Ancient Kahikinui, Maui*. University of Hawaii Press, Honolulu.
- Kirch, Patrick Vinton and Marshall Sahlins
1992 *Anahulu. Vol. I and II*. University of Chicago Press, Chicago.
- Kirch, P.V. and M. McCoy
2007 Reconfiguring the Hawaiian Cultural Sequence: Results of Re-Dating the Halawa Dine Site (Mo-A1-3) Molokai Island. *The Journal of the Polynesian Society*, Volume 116, No. 4, pp. 385-406.
- Kolb, M.J.
1991 *Social Power, Chiefly Authority, and Ceremonial Architecture in an Island Polity, Maui Hawai`i*. Ph.D. Dissertation, Department of Anthropology, University of California, Los Angeles.
- Kolb, M.J., P.J. Conte, and R. Cordy
1997 *Kula: The Archaeology of Upcountry Maui in Waiohuli and Keokea: An Archaeological and Historical Settlement Survey in the Kingdom of Maui*. Prepared for The Department of Hawaiian Home Lands. MS. on file, State of Hawai`i, Honolulu.
- Kuykendall, R.S.
1938 *The Hawaiian Kingdom*, Volume 1. University of Hawaii Press, Honolulu.
- Lee-Greig, T.L., R.R. Hill, and H.H. Hammatt
2012 *Cultural Historical Background for Keauhou, Kalihi, Waipao, Papa`anui, Kā`eo, Maluaka, Mo`oiki, Mo`oloa, and Mo`omuku Ahupua`a, Honua`ula Moku, Maui Island, Makawao District, Island of Maui, TMK: [2] 2-1-05, 08: multiple parcels*. Prepared for ATC Makena Holdings, LLC. Cultural Surveys Hawai`i, Inc. Wailuku.

Maly, K., and O. Maly

- 2005 *He Mo'olelo 'Āina no Ka'eo me Kāhi 'Āina e a'e ma Honua'ula o Maui A Cultural-Historical Study of Ka'eo and Other Lands in Honua'ula, Island of Maui, TMK: (2) 2-1-07:67*. Prepared for Sam Garcia, Jr. & Jon Garcia. Makena. Kumu Pono Associates LLC. Hilo.

Matsuoka, Jon K., Davianna Pomaika'i McGregor, Luciano Minerbi, Cultural Advocacy Network for Developing Options (CANDO), Pualani Kanahale, Marion Kelly, Noenoe Barney-Campbell, L.D. Trettin, J.W. Saulsbury, Energy Division and ORNL Subcontract Managers

- 1996 *Native Hawaiian Ethnographic Study for the Hawai'i Geothermal Project Proposed for Puna and Southeast Maui*. Prepared for U.S. Department of Energy, Oak Ridge Operations Office, DC-AC05-96OR22464. Lockheed Martin Energy Research Corp., Oak Ridge, TN.

McGerty, L., and S. Yeomans

- 2001 *Archaeological Inventory Survey of 1.552-Acres in Kaeo Ahupua'a Makena, Makawao District, Island of Maui, Hawai'i [TMK 2-1-07:66]*. Prepared for Pacific Rim Incorporated. On file at Scientific Consultant Services, Inc., Honolulu.

McIntosh, J. and J. Pantaleo

- 1998 *Archaeological Procedures in Six Petition Areas Proposed for State Land-Use District Boundary Amendment by the Makena Resort Corp. Mākena, Makawao, Maui Island [TMK 2-1-5:83-85, por 108; TMK 2-1-7:4; and TMK 2-1-8: por 90]*. On file, State Historic Preservation Division, Wailuku.

Perzinski, D. and M. Dega

- 2011a *Archaeological Inventory Survey Report for 22.1 Acres in Mākena, Papa'anui Ahupua'a, Honua'ula District, Island of Maui, Hawai'i [TMK: (2) 2-1-08:98, 100 and 106]*. Prepared for Stanford Carr Development. Scientific Consultant Services, Inc., Honolulu.

- 2011b *Archaeological Inventory Survey Report for 16.4 Acres in Mākena, Papa'anui and Kā'eo Ahupua'a, Honua'ula District, Island of Maui, Hawai'i [TMK: (2) 2-1-008:080]*. Prepared for ATC Makena Holdings, LLC. Scientific Consultant Services, Inc., Honolulu.

- 2011c *Archaeological Inventory Survey Report for 9.5 Acres in Mākena, Kā'eo Ahupua'a, Honua'ula District, Island of Maui, Hawai'i [TMK: (2) 2-1-008:080 (por.)]*. Prepared for ATC Makena Holdings, LLC. Scientific Consultant Services, Inc., Honolulu.

- 2014 *An Archaeological Inventory Survey Report for a 7.2-Acre Utility Corridor in Makena, Mo'omuku Ahupua'a, Makawao District, Island of Maui, Hawai'i [TMK: (2) 2-1-005:135 por.]*. SCS, Inc. Honolulu, HI.

- Perzinski, D. , E. Potter, and M. Dega
 2014 *Archaeological Inventory Survey on approximately 385 acres of land in the ahupua`a of Kealahou 1 and 2, Kalihi, Waipao and Papa`anui, Honua`ula District, Maui Island, Hawaii [TMK: (2) 2-1-008:090].* Prepared for ATC Makena Holdings. Scientific Consultant Services, Inc., Honolulu.
- Perzinski, D. , K. Lyman, C. Medieros, R. Hodara, and M. Dega
 2014 *Archaeological Inventory Survey of a 670 acre parcel in Honua`ula, in Palauea and Keauhou Ahupua`a, Makawao District, Maui Island, Hawaii [TMK: (2) 2-1-008:071 and 56 por.].* Prepared for Honua`ula Partners LLC. Scientific Consultant Services, Inc., Honolulu.
- Pratt, Linda W. and Samuel M. III Gon
 1998 *Terrestrial Ecosystems.* In *Atlas of Hawai`i Third Edition.*, edited by S. P. Juvik and J. O. Juvik, pp. 121-129. University of Hawaii Press., Honolulu.
- Pukui, M.K., S.H. Elbert, and E.T. Mookini
 1976 *Place Names of Hawaii.* Revised and expanded edition. University of Hawaii Press, Honolulu.
- Rogers-Jourdane, Elaine
 1979 *Archaeological Reconnaissance and Partial Phase I Surveys, Proposed Hotel and Residential Areas, Makena, Makawao, Maui.* Prepared for Seibu Hawai`i, Inc. Bernice Pauahi Bishop Museum, Honolulu.
- Rotunno-Hazuka, Lisa J, and Jeffrey Pantaleo
 2005 *Archaeological Inventory Survey Report for the Development of a Condominium and Associated Retention Basin Located at Parcel H-1, Ka`eo Ahupua`a; Makena, Makawao District, Island of Maui (TMK 2-1-06:37 & 56 and TMK 2-1-5:84).* Prepared for Keaka Company, LLC.
- Schilt, R.
 1979 *Archaeological Reconnaissance Survey of the Garcia Family Property at Makena, Maui.* MS. Department of Anthropology, Bernice Pauahi Bishop Museum, Honolulu.
- Sinoto, A.
 1978 *Archaeological Reconnaissance Survey of Makena Shores Property, Makawao, Maui.* Department of Anthropology, Bernice Pauahi Bishop Museum, Honolulu.
- 1981 *Report on The Phase I Archaeological Survey of a Proposed Golf Course at Makawao, Maui, Second Increment: Fairways 2-6 and `Ulupalakua Road Realignment.* Prepared for Seibu Hawai`i, Inc. Department of Anthropology, Bernice Pauahi Bishop Museum, Honolulu.
- 1993 *Post-Field Summary for Archaeological Inventory Procedures at the Houselot,*

Makena, Makawao, Maui (TMK: 2-1-07:66). Prepared for Seibu Resort Corporation, Kihei, HI. Aki Sinoto Consulting, Honolulu. On file at State Historic Preservation Division, Kapolei.

Sterling, E.P.

1998 *Sites of Maui*. Bishop Museum Press, Honolulu.

Stokes, John F. G.

1916 *Maui Heiau*. December 1916. (typeset notes). Unpublished Bernice Pauahi Bishop Museum, Honolulu.

Thrum, T.G.

1926 1925 Early Ulupalakua Data. In *The Hawaiian Annual For 1926*. Thomas G. Thrum, Honolulu, Hawaii.

Tome, G., and M. Dega

2001 *Archaeological Inventory Survey of a Coastal Parcel in Makena, Waipao Portion of Papa`anui Ahupua`a, Honua`ula District, Maui Island, Hawai`i [TMK: 2-1-07:87]*. Prepared for Eric Taniguchi, AIA. Scientific Consultant Services, Inc., Honolulu.

2002 *Archaeological Monitoring Report for a Coastal Parcel in Makena, Waipao Portion of Papa`anui Ahupua`a, Honua`ula District, Maui Island, Hawai`i [TMK:2-1-07:87]*. Prepared for Eric Taniguchi, AIA. Scientific Consultant Services, Inc., Honolulu.

2005 *Archaeological Inventory Survey Report for 4.76-acres of Land in Makena, Papa`anui Ahupua`a, Honua`ula District, Island of Maui, Hawai`i [TMK 2-1-07:09; 2-1-08:por. 100; 2-1-7:por. 94; 2-1-7:60]*. Scientific Consultant Services, Inc., Honolulu.

Waihona `Aina Corporation

2014 Māhele Database, www.waihona.com. Kaneohe. Accessed March 2014

Walker, W. M.

1931 *Archaeology of Maui*. Department of Anthropology, Bernice Pauahi Bishop Museum, Honolulu.