NATIONAL PARK SERVICE
PROFESSIONAL LAND SURVEY SERVICES

SCOPE OF WORK FOR BOUNDARY SURVEY
NPS TRACTS 101-03
HONOULIULI NATIONAL HISTORICAL SITE
HONOLULU, HAWAII

PROJECT TITLE: HONO-101-03-BAYER
DATE: 8/5/2026

CONTENTS

I. PROJECT INFORMATION/LIMITS OF SURVEY 1
II. PROJECT DETAILS 2
- PERFORMANCE PERIOD AND SCHEDULE 2
- PROJECT STAFF 2
- STANDARD SURVEY TASKS 3
- SURVEY STANDARDS OF CARE 6
- SURVEY & MAPPING CONTROL 6
- DELIVERABLES 7

III. POINTS OF CONTACT 8
IV. DATA AND MATERIALS PROVIDED BY NPS: 9
V. OTHER CONTRACT DETAILS 9
- DEFINITIONS 9
- TERMS AND CONDITIONS 9
- CONFIDENTIALITY 9
- QUALITY CONTROL 9
- INSPECTION AND ACCEPTANCE 9
- ARCHAEOLOGICAL AND CULTURAL FINDINGS 10
- INSURANCE 10

I. PROJECT INFORMATION/LIMITS OF SURVEY:

The site location and limits of survey are shown on the **Plan of Survey Diagram**.

General Project Location: Lat. 21° 22’ 49” N., Long. 158° 03’ 17” W. (WGS84)

The National Park Service (NPS) has recently acquired a parcel of land located on the island of Oahu in Honolulu County, Hawaii, at Honouliuli National Historical Site. The subject parcel is Lot 19957 as shown on Land Court Application No. 1069, Map 1676 (NPS tract 101-03, see plan of survey diagram). This parcel is contained within the NPS legislative boundary, which is defined by a description in an easement shown as Easement 10899 on Land Court Application No. 1069, Map 1587.

The property needs a boundary survey. Most of the parcel boundaries have not been surveyed and need to be monumented and have the boundary marked. The lines of ownership will be monumented and marked and portions of the legislative boundary not coincident with the line of ownership will be shown on the survey plat (see attached plan of survey diagram).

This project involves locating field evidence required to establish boundaries, research of survey history, deed interpretation, and the evaluation of boundary evidence.

A land survey plat will be prepared and filed with the Hawaii Department of Accounting and General Services (DAGS) - Land Survey Division.

See attached plan of survey diagram for a map of the area and depiction of the lines that need to be surveyed.

II. PROJECT DETAILS:

PERFORMANCE PERIOD AND SCHEDULE:

The selected firm can begin work on the day the contract is signed by both the federal contracting officer and company representative. All work will be completed and delivered no later than 270 days after the date the contract is awarded.

A pre-project conference call between NPS and licensed contract staff will take place within two weeks of the award date of this contract, the licensed surveyor must attend this meeting.

Progress reports will be provided on a monthly schedule.

Draft deliverables will be submitted electronically to the technical POC listed in Section III for NPS review. The reviewer will provide approval or request changes within 15 days of receipt of the draft documents. See Milestone Table below.

Milestone	Deliverable Milestone	Days after Milestone
1	Issuance of Task Order	Award Date is Issuance
2	Boundary Survey and Marking	180 calendar days after Milestone 1
3	Draft Plat	30 calendar days after Milestone 2
4	NPS review comments	15 calendar days after Milestone 3
5	A/E responses to draft review comments	15 calendar days after Milestone 4
6	Copy of Recorded Plat	30 calendar days after Milestone 5

PROJECT STAFF:

Project staff must include an individual who is a Registered Professional Land Surveyor in Hawaii, fully qualified to perform land surveys, prepare legal descriptions, and comply with all applicable federal, state and local laws. This person will be the responsible charge of the land survey work including field work, evaluation of evidence, and all land survey decisions.

The NPS reserves the right to verify that an applicant's license is current, in good standing, and is not pending any disciplinary action.

STANDARD SURVEY TASKS:

The contractor will provide labor, equipment and supplies to complete a boundary survey as identified herein unless otherwise noted. Specific tasks noted below will be completed as part of this project:

1. **Landowner Contacts** (complete prior to field work)
   a. Contact the NPS park contact to provide times and dates of entry and coordinate any logistics regarding physical access to the project area (reference Section III for contact information).
   b. Contact all adjoining private property owner(s), if applicable, to provide times and dates of entry and obtain permission if needed or required by local jurisdictions (reference Section III for contact information). For larger projects, a general window of anticipated field work can be provided in lieu of specific times and dates. Please coordinate with the Technical POC listed in Section III to determine appropriate level of notification.
   c. Contact the local utility line location services (811) if there are any indications of utility infrastructure in the project area. Contractor is responsible for any damaged utility lines from survey activities. Please request that markings on hard surfaces be minimized to the greatest extent possible.

2. **Records Research**
   a. The land surveyor shall use due diligence in conducting the necessary research required to complete the tasks listed herein. In most circumstances, the chain of title should be researched back to the parent tract of land, and all descriptions of land (subject and adjoiner) should be plotted and checked for potential errors leading to misclosure. The occurrence of deed ambiguities and scrivener's errors should be identified and assessed. Special attention should focus on exceptions and reservations of land and any other encumbrances to title.
   b. To the extent available, NPS will supplement the land surveyor's due diligent research with a title commitment, government deeds, land status maps, and other documents in the possession of NPS related to the project.

3. **Investigate Boundary Line Evidence**
   a. The character and location of evidence of possession or occupation along the perimeter of the surveyed property, both by the occupants of the surveyed property and by adjoiners, observed in the process of conducting the fieldwork.
   b. Without expressing a legal opinion as to the ownership or nature of the potential encroachment, the evidence, location and extent of any conflicting boundary evidence related to record title documents.
   c. The diligent search for and the location of natural monumentation, original monumentation, local control, controlling corners, witness corners, reference monuments, corner accessories, adjoiner monumentation, on-line and off-line monumentation, spurious monumentation, and other supporting evidence of monumentation that may be indicated in the chain of title and the survey record.

d. The location, size, character, and type of any monuments found during the fieldwork, including legislated park boundary monuments and private property boundary monuments.
e. The diligent search for and the location of any (i.e. blazed trees, wire fences, stone fences, stone rows, plow lines, tree lines, rivers, creeks, and banks).
f. The diligent search for and the location, description, and character of any natural or manmade feature that appears to delineate or control the boundaries of the surveyed property (i.e. blazed trees, walls, wire fences, roads, stone, plow lines, tree lines, rivers, creeks, and banks).

4. Existing Survey Monuments

a. Any existing local monuments recovered and accepted as demarking property boundary extents will be left in place or remonumented to meet the local standards or requirements.
b. The evidence of all lines of occupation and possession along the perimeter of the subject tract will be evaluated and located during the course of the survey.
c. Any recovered monuments purporting to mark boundary corner locations which are found to be deficient or are not accepted as originally intended will be noted on the plat, including a brief summary of the evidence used to make this determination. These corners will be considered lost, requiring a new survey monument be established at the most defensible location of the boundary corner.
d. In the event any existing survey monument(s) established by prior National Park Service surveys (either contract or in-house) are not accepted as boundary monuments as noted above in 4.b, the letters "RM" will be added to the monument cap along with an arrow pointing towards the actual boundary line or angle point and the year of the current survey. If there is enough space on the cap, the distance to the actual corner location will be included near the arrow.

5. New Survey Monuments

Monument materials will not be provided and will be purchased separately by the land surveyor. Please contact the NPS Technical POC for assistance or approvals needed in ordering monuments with Department of the Interior caps.

See the NPS Standard Cap Logo below:

a. Monuments established along the boundary of the subject tract or coincident with an existing federal boundary, will be at minimum a ¾ inch diameter iron rod or rebar, 30 inches long with a 3¼ inch diameter cap bearing the NPS Standard Cap Logo, marked with the relevant corner identification information, the license number of the Professional Land Surveyor in responsible charge, and the year set.
   i. Monuments established in rock or concrete surfaces will be at minimum a 2½ inch diameter brass or bronze cap with a $2^{7}/_{8}$ inch stem, bearing the NPS Standard Cap Logo, drilled and set in place with concrete or epoxy, and be marked as stated above.
   ii. Monuments established in remote areas should use a 2½ inch diameter, 30-inch-long aluminum or stainless-steel regulation post, with a 3¼ inch diameter cap bearing the NPS Standard Cap Logo, and be marked as stated above.
   iii. Monuments established in urban areas may differ from the specifications above, given that they comply with current federal, state, or local requirements and are permitted by the NPS Regional Land Surveyor.
   iv. The NPS Regional Land Surveyor may permit the use of alternative monumentation on a case-by-case basis.
   v. All monuments with the NPS Standard Cap Logo will be oriented north and at minimum will bear the registration number of the professional land surveyor in responsible charge, the year set, and corner numbering. All markings will be carefully arranged, neat, distinct, and durable.
b. Corner locations that are not suitable for monumentation will have a reference or witness monument installed to the same criteria listed above, established as close as practical to the actual corner, and will clearly note "RM" or "WC" with an arrow pointing towards the actual corner location. If there is enough space on the cap, the distance to the actual corner location will be included near the arrow.
c. Natural monuments that are prone to becoming lost, such as trees and stones, should be remonumented, witnessed, or referenced as necessary to perpetuate the corner location.
d. Corner locations that are identical with structures will be witnessed or referenced as necessary to perpetuate the corner location.
e. New corner accessories, such as witness marks/hacks on trees, bearing trees, swing ties, XBO's, and chisel marks are recommended to evidence the position of the corner monument for future recovery efforts and for the potential restoration of the corner.
f. Detailed field notes will be kept documenting the description of all new corner monuments and their accessories, memorials, and ties.
g. All temporary control points and traverse points established will be removed after field work is completed and the final deliverables have been approved.

Please consult with the NPS land surveyor if site conditions warrant the use of unique survey monumentation.

6. Other Survey Tasks

a. All areas and features of encroachment onto USA lands (examples include cleared land, mowed areas, gardens, fences, buildings, roads, trails, riprap, etc.) Note the area of the encroachment(s) as surveyed in acres to the nearest hundredth (0.01). Parcels less than 0.01 acres will be reported in square feet. The length of linear

encroachment features will be noted to the nearest tenth of a foot (0.1). Photos (with information on what the photo depicts) of all encroachments will be taken and provided as a deliverable.

b. Establish boundary marker posts to be placed 1) at each corner of federal land alongside the monument and 2) at intervisible intervals along federal interest boundary lines, at a maximum distance of 300 ft. NPS boundary post materials will not be provided by NPS. Materials not provided by NPS will be ordered to the following specifications: Metal T-posts, medium duty at a minimum of 1.0 lb. per foot. If there are necessary or recommended alterations to the required posting materials consult with the technical point of contact in section III, herein.

c.

SURVEY STANDARDS OF CARE:

1. **Other Requirements and Standards of Practice** - Many states and some local jurisdictions have adopted statutes, administrative rules, and/or ordinances that set out standards regulating the practice of surveying within their jurisdictions. In addition to the standards set forth herein, surveyors must also conduct their surveys in accordance with applicable jurisdictional survey requirements and standards of practice. Where conflicts between the standards set forth herein and any such jurisdictional requirements and standards of practice occur, the more stringent must apply.
2. **Prior Federal Surveys -** The procedures used to recover or reestablish any previous federal survey monuments or lines that control the location of any project boundary will comply with the federal "Manual of Survey Instructions" in affect at the time of the survey. New monuments or controlling corners not previously established will comply with the most current "Manual" version prepared by the Bureau of Land Management, unless otherwise indicated by this document. Federal surveys include all approved Public Land Surveys or official federal boundary surveys completed for the National Park Service or other agency.
3. **Boundary Resolution** - The boundary lines and corners of any property or interest in real property being surveyed as part of this contract must be laid out in an original survey or by retracement of existing boundary lines in accordance with appropriate boundary law principles and location doctrines governed by the set of facts and evidence found in the course of performing the research and fieldwork.
4. **Measurement Standards** - The acceptable relative positional accuracy of the survey is the same as identified in the current version of Section C, NSPS Classifications and Accuracy Standards for Property Surveys.

SURVEY & MAPPING CONTROL:

All reported horizontal distances will be based on ground measurements in either U.S. or International Feet at the discretion of the surveyor or as required by law. The basis of bearings for the project is at the discretion of the surveyor. Both the units and basis of bearings will be noted on the plat.

At least two survey monuments (existing or new) within the project extents will serve as mapping control points. These can be existing property corner monuments, project control points, NGS monuments or combination thereof. Both will be described and referenced on the final plat in Hawaii State Plane Grid Coordinates, Zone 3, NAD

83(2011), The grid coordinate pairs for each point and combined scale factor from ground to grid will also be noted. If either control point is not a boundary monument, sufficient information will be included to tie it to a boundary monument. These points should be located on opposite sides of the project area if possible.

At least one of the control points will be occupied by a dual-frequency GPS unit for a minimum of four hours. A current Online Positional User Service (OPUS) solution data sheet for this monument will be provided as a deliverable. If site conditions prevent the use of GPS equipment, sufficient information will be included on the plat as to the procedure and control utilized to determine coordinate information.

DELIVERABLES:

All deliverables and products created under this project including such items certified plats of survey, field notes and research documents used to produce this survey and descriptions are considered property of the National Park Service, U.S. Department of the Interior.

At a minimum, one land survey plat will be prepared on an 18”x24” (Architectural C) or 24”x36” (Architectural D) map sheet. The size will be based on any state or local requirements or the surveyor’s professional opinion as to the appropriate degree of precision to convey the required information in an easy to understand manner. A copy of this plat will be deposited or recorded in the designated public land records office in which the project is located. In jurisdictions where no recording procedures exist for plat recordation, two signed and sealed original plats will be provided to NPS.

Detailed information or decisions related to corner evidence, acceptance or rejection of conflicting monuments, land records research, or any other unique situations that are not required to be documented on the face of the plat but are deemed important to the survey results will be provided as a separate Land Surveyors Report to accompany the plat. The report will be signed, sealed and dated by the surveyor in responsible charge of the project.

Land Survey Plat Elements

1. The evidence and locations gathered, and the monuments and lines located during the fieldwork pursuant to Section II above, with accompanying notes if deemed necessary by the surveyor or as otherwise required as specified below.
2. Boundary, descriptions, dimensions, and closures:
   - **a.** A full description of all found and set monuments, including artificial and natural monuments or features. A full description will include monument material(s), size, depth, and markings (e.g. found ⅝” rebar projecting 6”, set in concrete base, 4” diam., with 2½” diam. aluminum cap stamped, “PLS XXXXX, S&S Co., 1995”)
   - **b.** The point of beginning, the remote point of beginning or point of commencement (if applicable) and all distances and directions identified in the record description of the surveyed property (and in the new description, if one was prepared). Where a measured or calculated dimension differs from the record by an amount deemed significant by the surveyor, such dimension must be shown in addition to, and differentiated from, the corresponding record dimension. All dimensions shown on the survey and contained in any new description must be ground dimensions

unless otherwise noted.

c. The directional, distance and curve data necessary to compute a mathematical closure of the surveyed boundary. A note if the record description does not mathematically close. The basis of bearings and, where it differs from the record basis, the difference.

d. The relationship of the boundaries of the surveyed property with its adjoiners where ascertainable from documents provided to or obtained by the surveyor and/or from field evidence gathered during the process of conducting the fieldwork.

e. When, in the opinion of the surveyor, the results of the survey differ significantly from the record, or if a fundamental decision related to the boundary resolution is not clearly reflected on the plat or map, the surveyor must explain this information with notes on the face of the plat or map.

f. Note the area of the property as surveyed in acres to the nearest hundredth (0.01). Parcels less than 0.01 acres will be reported in square feet.

g. A note on the face of the plat or map explaining the site conditions that resulted in a Relative Positional Precision that exceeds the maximum noted above under Measurement Standards.

h. The survey mapping control point coordinate pairs, datum and combined scale factor from ground to grid, and any related field procedure information.

3. Map layout elements:

a. Title block with project name, project location information, date of the survey, and the signature and seal of the licensed surveyor in responsible charge.

b. Name and address of the contractor and any subcontractor.

c. Bar and numeric scale, legend defining map point and line symbols and north arrow.

d. Map number provided by NPS (Technical Information Center map number).

4. Any items checked below will also be included on the plat.

_X__ NPS Tract numbers (provided by NPS).

Items to Deliver

1. Two signed and sealed original copies of the land survey plat and any related reports.
2. One electronic copy (.pdf or equivalent) of the final signed, and if applicable, recorded plat.

All deliverables will be provided to:

National Park Service
PWRO – Land Resources Program Center
168 S. Jackson St.
Seattle, WA 98104

III. POINTS OF CONTACT:

CONTRACTUAL: Contracting Officer assigned to project (please refer to contract).

TECHNICAL: Jason Lightbown, Pacific West Regional Land Surveyor, Contracting Officer's Representative (COR)

PARK CONTACT/ PROJECT INSPECTOR: Christine Ogura, Park Superintendent. Please contact park staff prior to beginning work on site.

PARK ADDRESS AND MAIN PHONE NUMBER:

National Park Service
Honouliuli National Historic Site
1 Arizona Memorial Place
Honolulu, HI 96818

IV. DATA AND MATERIALS PROVIDED BY NPS:

1. Plan of survey diagram indicating project area and lines to be surveyed and marked.
2. Current Title Commitments for the tract.
3. Various maps and surveys of record obtained during preliminary research.

V. OTHER CONTRACT DETAILS:

DEFINITIONS:

Legislated boundary line as used herein references the official legislated boundary of the park unit as established by proclamation or congressional authority. Each park unit is unique in its establishment. If the survey project involves any portion of a legislated boundary, a copy of the enabling legislation and boundary description or official map will be provided at the request of the contractor. Legislated boundaries may or may not follow existing property boundary lines. Consult with NPS staff for clarification if needed.

CONFIDENTIALITY:

The information developed under this contract is the property of the U.S. Government and will remain in strict confidence unless otherwise indicated.

INSPECTION AND ACCEPTANCE:

NPS park staff and the contractor's representative will coordinate and conduct a final walk-through of the project area prior to the end date of the contract. The purpose of this walk-through is to provide park staff with a final visual inspection of the location and physical characteristics of all boundary markers found or placed as a result of this survey.

All deliverables will be provided to the technical point of contact in a draft format for review and approval prior to the end of the contract date as noted above under Performance Period and Schedule.

ARCHAEOLOGICAL AND CULTURAL FINDINGS:

NPS is responsible for all required NEPA/106 investigations and compliance prior to survey work. If the contractor or subcontractor discovers archaeological or cultural artifacts during the course of field work, immediately stop work and contact the technical or park contact listed in Section III.