

Pu'ukohola Heiau National Historic Site Accessibility Assessment

Summary Report Findings and Recommendations

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National Park Service
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**Pu'ukohola Heiau National Historic Site
Accessibility Assessment
Summary Report of Findings and Recommendations
Assessment Date: February 1, 2011**

I. Assessment Team

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II. Final Identified Locations in FMSS

108664	Visitor Center Parking Lot
78712	Visitor Center
51138	Headquarters
104734	Road Park Headquarters Parking Lot Rte
99851	Bldg Upper Restroom
51137	Governor's House Trail
104746	Spencer Beach Trail
51137	VC To Pelekani Trail
108667	Maintenance Facility Parking Area Rte
51151	Arch Ste John Young Homestead
51152	Arch Str Stone Leaning Post
51150	Arch Str Mailekini Heiau
51149	Arch Str Puukohola Heiau

III. Park Purpose, History and Themes

Pu'ukohola Heiau National Historic Site receives approximately 200,000 visitors per year. Park staff identified that a visitor should leave the Park with an understanding that there are two heiaus (temples) on Park grounds and that they are both different in terms of their use and their historical significance. The stone heiau at Pu'ukohola was built in 1790-1791 by Kamehameha I. Faced with an invasion from his cousin, Kamehameha learned through the prophet Kapoukahi that he would conquer all the islands if he built a large heiau atop Pu'ukohola dedicated to his family war god Kuka'ilimoku. The construction of the heiau took nearly a year to complete; workers formed a human chain at least 20 miles long transporting the water-worn lava rocks hand to hand to the top of Pu'ukohola.

News of the building of the temple spread and Kamehameha's rivals decided they must attack while Kamehameha and his warriors were occupied. Kamehameha counterattacked the chiefs of Mau, Lana 'I, and Moloka'I and resumed working.

The Park also wants visitors to understand the role that Kamehameha played in uniting the islands of Hawaii by constructing the Pu'ukohola heiau. Upon completion of the heiau, Kamehameha invited his cousin to the dedication ceremonies. When his cousin arrived, there was a scuffle and, whether Kamehameha intended it or not, his cousin along with most of his companions was slain. The body of his cousin was carried to the heiau and offered as the principal sacrifice to Ku (the family war god). The death also ended all opposition on the island of Hawaii, and the prophecy began to come true. By 1810, through conquest and treaties, Kamehameha the Great was the revered king of all the Hawaiian Islands.

IV. The National Center on Accessibility Assessment Approach

The National Center on Accessibility assessment process is designed to identify barriers to participation for people with disabilities, make recommendations for barrier removal and improved access, and develop associated work orders and cost estimates to assist Park personnel in long-term planning. The NCA assessment team utilizes the federal standard for program access, Section 504 of the 1973 Rehabilitation Act, as a guiding principle for viewing the programs, activities and services of the National Park or Historic Site, in its entirety, for consideration of barrier removal. The assessment team looks critically at the programs that make up the visitor experience from the point of view of persons who have impairments to vision, hearing, mobility, or cognitive processes. This approach focuses the assessment process and outcomes on the visitor experience and beyond the realm of solely the physical environment. The NCA assessment team views the physical environment as a catalyst for program access and thus forms recommendations for barrier removal with program access at the forefront of the investigative and reporting processes.

At Pu'ukohola Heiau National Historic Site, the assessment team from the National Center on Accessibility conducted an accessibility assessment of the physical and programmatic elements of the Visitor Center and the surrounding grounds. The team also interviewed key Park personnel, collecting information to provide a broad range of recommendations for improving access for visitors with disabilities.

V. Referenced Standards and Guidelines

The National Park Service is legislatively mandated to provide accessible facilities and programs for their visitors with disabilities. Based on these mandates, the National Center on Accessibility utilizes the following accessibility standards and guidelines for their assessment:

Architectural Barriers Act of 1968 as amended (U.S. Access Board, 2004; General Services Administration, effective date May 8, 2006)

This document contains scoping and technical requirements for accessibility to sites, facilities, buildings, and elements by individuals with disabilities. The requirements are to be applied during the design, construction, addition to, alteration, and lease of sites, facilities, buildings, and elements to the extent required by regulations issued by Federal agencies under the Architectural Barriers Act of 1968 (ABA).

Rehabilitation Act of 1973, as amended in 1978, Section 504

Section 504 of the Rehabilitation Act (1973) reads, "No otherwise qualified individual with a disability in the United States shall solely by reason of his disability, be excluded from the participation in, be denied benefits of, or be subjected to discrimination under any program or activity receiving Federal financial assistance, or under any program or activity conducted by an Executive Agency."

Rehabilitation Act of 1973, Section 508

This section, amended in 2000, requires access to electronic and information technology provided by the Federal government. The law applies to all Federal agencies when they develop, procure, maintain, or use electronic and information technology. Federal agencies must ensure that this technology is accessible to employees and members of the public with disabilities to the extent it does not pose an "undue burden."

NPS Director's Order #42: Accessibility for Visitors with Disabilities in National Park Service Programs and Services

This NPS Director's Order reiterates the NPS goal to ensure that all people, including the estimated 54 million citizens with disabilities, have the highest level of accessibility that is reasonable to their programs, facilities and services in conformance with applicable regulations and standards. Five objectives are outlined including: incorporation of the highest level of accessibility as a long range goal; implementation through daily operation, policies, organizational relationships and strategies; provision of guidance and direction regarding the NPS interpretation of laws and policies; establishment of a framework for effective implementation; and ensuring the implementation of "universal design" principles within the National Park system.

Programmatic Accessibility Guidelines for National Park Service Interpretive Media (February 2012)

These NPS Guidelines combine laws, policies, and best practices for interpretive media. The guidelines acknowledge that no interpretive media product works alone. Media products are interdependent and each has inherent strengths and weaknesses. Park visitors sample and benefit from an array of interpretive media. These guidelines describe design and presentation solutions that are acceptable in most interpretive media situations. It should be noted however that these guidelines present highlights only and are not comprehensive.

Draft Final Accessibility Guidelines for Outdoor Developed Areas (U.S. Access Board, October 19, 2009)

Achieving accessibility in outdoor environments has long been a source of inquiry due to challenges and constraints posed by terrain, the degree of development, construction practices and materials, and other factors. These guidelines are proposed by the U.S. Access Board as new scoping and technical requirements for outdoor developed areas covered by the Architectural Barriers Act. The guidelines will cover new and altered trails, beaches, picnic and camping facilities and viewing areas. While these guidelines are not yet enforceable as requirements for Federal entities, they should be integrated into the planning, construction, and renovation of outdoor recreation areas and facilities and in the provision of programs and services provided to the public as best practice guidelines.

In addition to legislative mandates and proposed rulemaking, the NCA assessment team has made recommendations based on best practices in the field in order to create greater opportunities for participation and benefit among visitors with disabilities.

Principles of Universal Design

Universal Design is the design of products and environments to be usable by all people, to the greatest extent possible, without the need for adaptation or specialized design. The intent of Universal Design is to simplify life for everyone by making products, communications, and the built environment more usable by as many people as possible at little or no extra cost. Universal Design benefits people of all ages and abilities.

There are times when NCA may use the concept of Universal Design for recommendations that are not requirements but are seen as “best practices”. An example would be providing recommendations for benches in the outdoor environment, installing power assisted exterior doors, marking parking spaces uniformly at 11 feet wide, and/or utilizing the advisories in ABAAS when appropriate due to accessibility issues that contribute to safety risks.

Smithsonian Guidelines for Accessible Exhibition Design

The Smithsonian Guidelines is one of the very first and most formidable resources addressing exhibit design considerations for museum patrons with disabilities. The Smithsonian Guidelines are referenced as best practice for designing to various learning styles and functional abilities in the interpretive environment and especially in situations where the accessibility standards do not fully transfer to unique exhibition designs.

NPS Audio-Visual Accessibility Initiative for Visitors with Disabilities D24 (2420) (October 20, 2006)

A series of official disability rights complaints and testimony received at a Congressional oversight hearing on disability access revealed that the NPS has many audiovisual programs that are not captioned or audio-described; assembly areas that are not equipped with assistive listening systems; and in some cases, captioning systems that are broken and have not been repaired. This initiative established the fundamental goal that the films and audio-visual programs presented in parks provide three basic services: open captions, audio-description, and assistive listening devices for those with hearing loss.

Architectural and Transportation Barriers Compliance Board Revised Draft Guidelines for Accessible Public Rights-of-Way (November 23, 2005)

Sidewalks, street crossings, and other elements of the public rights-of-ways present unique challenges to accessibility for which specific guidance is considered essential. These proposed guidelines for public rights-of-way address various issues, including access for blind pedestrians at street crossings, wheelchair access to on-street parking, and various constraints posed by space limitations, roadway design practices, slope, and terrain. The new guidelines will cover pedestrian access to sidewalks and streets, including crosswalks, curb ramps, street furnishings, pedestrian signals, parking, and other components of public rights-of-way.

VI. Key Findings and Recommendations

This section provides an overview of the NCA assessment team’s key findings and recommendations. More complete details of findings, recommendations for corrective actions and cost estimates are available through the Facility Management Software System (FMSS) database, and the Cost Estimating Software System (CESS).

The deficiencies are given a priority rating by the assessors. The three accessibility deficiency priorities, as established by the National Park Service within FMSS, are:

Critical - A critical priority would be given to those deficiencies that occur in an asset or facility that is utilized by a significantly high number of people (visitors or employees); or "prohibits" or seriously inhibits people with disabilities from utilizing the facility.

Serious - A serious priority would be given to those deficiencies that occur in an asset or facility but only modestly inhibit an individual with a disability from utilizing the facility.

Minor - A minor priority would be given to those deficiencies that occur in any asset or facility but only slightly inhibit an individual with a disability from utilizing the facility. Minor classifications can also signify that the deficiency can be easily corrected with maintenance and/or minor adjustments or that correction might take more time and money but only needs to be corrected when renovations/replacements are scheduled.

1. Policy Considerations and Best Practices

During the review of assessment data, NCA accessibility specialists identified several barriers to accessibility, unique to Pu'ukohola Heiau National Historic Site, that are not explicitly addressed in the above referenced standards. As a result of discussion with Park management, and in collaboration with recommendations from the U.S. Access Board, the Park has decided to adopt the following best practices to maximize accessibility for visitors with disabilities.

Exterior Doors

While there is no identified accessibility standard for the operating force of exterior doors, it is recommended as best practice for the Park to adjust exterior door closers to reduce the operating force to as close to 5 pounds (maximum force requirement for interior doors) as possible. If this is not possible, the Park should investigate the installation of a power assisted or automatic door opener to minimize the potential barrier for an individual with a disability.

Waysides and Interpretive Panels

As new waysides and interpretive panels are installed, or maintenance is conducted to existing routes where waysides and interpretive panels are furnished, clear ground space complying with ABAAS 305 should be provided, positioned for either a forward or parallel approach, centered on the frame.

Benches

All new accessible benches should be installed with clear floor or ground space positioned near the bench for wheelchair seating that does not overlap the accessible route. As benches are repaired or replaced, accessible benches should be provided until a minimum of 20 percent are accessible in each location. Accessible benches should have back support, at least one armrest, a seat height of between 17 inches minimum and 19 inches maximum, and should be installed along an accessible path of travel (i.e. accessible route, outdoor recreation access route, or trail).

2. Visitor Information / Trip Planning

The Park website is often the first point of contact for people planning their visit to Pu'ukohola Heiau NHS. While the website is abundant with general visitor information, details regarding the availability of accessible features and services at the Park are not included on the website. The Park does not have a specific "accessibility" section of the website. Pu'ukohola Heiau contains many physical features that meet accessibility guidelines, and both the Park and its visitors would benefit greatly from publicizing those features and accommodations.

The Park shall update the website to include an accessibility portion which outlines the accessibility accommodations provided within the Park. The Park should maintain this portion of the website to ensure accurate and comprehensive information regarding accommodations for visitors with disabilities. Provide specific, objective information about accessible routes, accessible features such as viewing opportunities, trails, and auxiliary aids and services to enable prospective visitors to plan accordingly. It is also recommended that the Park reference the latest regulations published by the Department of

Justice regarding service animals, and review and update the Park's policies on the issue. Provide the Park's policy, not only in the "Pets" section of the website, but also in the "Accessibility" section. Providing information about all of the accessibility accommodations that the Park makes available on a single page of the website will ensure the information gathering process is simplified for potential visitors. Be sure to include information, not only for people with physical disabilities, but also accessibility information for people with sensory and cognitive disabilities. Finally, include the name and phone number of the staff member who serves as the accessibility coordinator for the Park.

3. Visitor Orientation and Way-finding

The layout of the facilities and locations within Pu'ukohola Heiau NHS is communicated through signage, maps, and publications designed to welcome and orient the visitor to the Park. The vertical wayside/interpretive panels located throughout the Park provide basic Park information, a way-finding map (including the trails system) and photographs of different areas of the Park. These vertical information kiosks, along with maps of the Park and the Park brochures are not provided in electronic, large print, or tactile formats for people with low vision or who are blind. The Park has one three-dimensional map located at the Visitor Center which depicts the topography of the Park, elements such as the location of the Heiau (provided in three-dimensional form), identification of the various bodies of water in and around the Park which are essential to its history, the location of the Visitor Center (not three-dimensional), and three-dimensional houses and structures located throughout the Park. However, this three-dimensional map is labeled "Do Not Touch" and is not intended for tactile exploration. Therefore, this map does not effectively communicate critical information to those visitors who are blind, have low vision, or those with cognitive disabilities.

The Park shall identify local resources to reproduce the information found on the vertical kiosks, along with the information on the Park maps in electronic and large print formats. In addition, the Park should design and develop a tactile, topographical map of the Park grounds. While accessibility guidelines do not address visitor orientation and way-finding, visitor orientation signage and a topographical/tactile map should be provided at the Visitor Center which will allow individuals with low vision or who are blind to orient themselves to the surroundings in the Park. The Park shall work with a consultant to design a topographical map, containing three-dimensional features of Pu'ukohola Heiau for tactual exploration. Consider factors that make tactile maps accessible and functional for people who are blind or who have cognitive impairments, including size, depth, location, audio description, texturing, keys, legends, and degree of detail. The overall size of the map shall not exceed the maximum allowed reach ranges measured to the center, or opposite edge of the map (preferred), depending on the method of installation. Forward reach range requirements for both adults and children should be considered. Knee and toe clearances should be provided for a forward approach by someone in a wheelchair. The map material should be able to withstand high visitor use, be comfortable to the touch (i.e. be able to withstand temperature extremes), and be finished with a coating that allows for routine cleaning. Any text used to communicate essential information should incorporate accessible font size and type, should be sans serif or simple serif for essential information and should be large enough to convey the information to the widest range of visitors with and without visual impairments. A variety of textures should be used to distinguish between different landscape features, such as water and varying topographies. The tactile map should include components such as raised lines and scale orientation options.

4. Publications

Publications offer a wide range of information. It is critical that people with disabilities receive the same information - of the same quality - as other visitors. Publications that are considered "readily available," like the official park brochure, interpretive handouts, news bulletins and others should be available in large print, Braille, audio and electronic format. The Park does not have a procedure for converting secondary publications to alternate formats.

The Pu'ukohola Heiau NHS unigrid brochure and all other readily available publications should be converted to Braille, designed for large print, and formatted for audio and electronic distribution. Utilize the Harpers Ferry Center large print brochure template to adapt all primary standard Park brochures to large print. In addition, translate the content for the primary standard Park brochures to Braille, electronic text file (.txt, .rtf, .doc), and audio (CD, mp3), and maintain the alternate formats in stock for visitor requests. NPS and local resources should be identified to produce secondary publications in alternate formats upon request. Provide signage at the Visitor Center reception area stating that the publications are available in alternate formats, and insert a statement in those publications indicating, "Alternate formats of this publication are available upon request."

Add a section to the primary Park brochures explaining the availability of services for visitors with disabilities including information to request a sign language interpreter, availability of auxiliary services, alternate formats, trail information, accessibility improvements to the Park, and the contact information for the Park's Accessibility Coordinator. Ensure that the same information is added to the Park's website when the accessibility section of the website is built.

5. Exhibits

Visitor Center Exhibits

Pu'ukohola Heiau NHS should be commended for the amount of tactile and interactive exhibits provided at the Visitor Center. There are a number of exhibits that visitors can explore such as the "Tools of War" exhibit that contains multiple types of spears used by the armies of ancient Hawaii. The spears vary in weight and density, and to demonstrate this, the Park has provided six wood blocks of varying wood types and weights that visitors are to lift to compare to one another. Other exhibits such as the "Building the Heiau" exhibit offer a tactile experience for a central interpretive element of the Park, the building of the Heiau. Visitors are invited to lift the two top stones of a stone wall to experience the excessive weight of an average stone. However, the exhibit presents just one section of a wall of a Heiau. There is no three-dimensional model of a complete Heiau, thereby limiting effective communication of critical information about the structure for those visitors who are blind, have low vision, or those with cognitive disabilities. Inside the Visitor Center are tactile exhibits such as sea urchins, Kukui (candlenut), Baleen, Hala (edible fruit used for painting kappa), and more. However, the exhibit content both inside and outside of the Visitor Center does not include accompanying audio description, which creates a barrier for individuals with visual and cognitive impairments.

The Park shall work with a consultant to develop a three-dimensional scale model of the Pu'ukohola Heiau utilizing materials that would best replicate the stones used in the original structure. Consider factors that make tactile models accessible and functional for people who are blind or who have cognitive impairments, including size, depth, location, audio description, texturing, and degree of detail. The overall size of the model shall not exceed the maximum allowed reach ranges measured to the center, or opposite edge of the model (preferred), depending on the method of installation. Forward reach range requirements for both adults and children should be considered. Knee and toe clearances

should be provided for a forward approach by someone in a wheelchair. The model material should be able to withstand high visitor use, be comfortable to the touch (i.e. be able to withstand temperature extremes), and be finished with a coating that allows for routine cleaning. Ensure an element is provided on the model to show the size and scale of the Heiau in reference to something familiar to the visitor.

Interpretive Panels and Waysides

There are a few instances where the interpretive panels and wayside panels contain italics and have text overlaying photos. The italics can reduce readability for someone with low vision due to the leading edges of the letters. The text on top of the photos does not provide the required contrast and could be difficult for someone with low vision to read. The Park's interpretive program content should be designed to communicate as effectively to people with disabilities as it does to people without disabilities. Generally, this requires purposeful design in the planning phase to accommodate what may be a wide range of sensory and cognitive impairments. At a minimum, interpretive panels should be replaced to include high-contrast, no glare, sans serif or simple serif font and larger font size appropriate for viewing distance and height. Interpretive information provided on waysides should be included in the audio description program, as explained in more detail in Section 7 of this report. Any maps on display should be made tactually available for all visitors.

There are three waysides located at the Visitor Center viewing area and an additional three interpretive waysides found along the trail that originates at the Visitor Center. All six waysides have metal frames installed into lava rock bases that exceed the maximum allowed height requirements for standard low profile waysides. In addition to the height requirement deficiencies, two of the three waysides provided along the trail are not directly connected to the trail by a firm, stable and slip resistant surface. The distance from the trail to the two waysides ranges from 4 to 4 ¼ feet. The Park should reinstall the three trail waysides into the ground surface to ensure that maximum requirements for viewing height are met for a standard NPS 30 or 45 degree wayside. Ensure the waysides are installed and constructed in consideration of accessible reach range, clear floor or ground space that is firm, stable and slip-resistant, and offer an unrestricted view of exhibits and Park features. Wayside exhibits shall be regularly maintained to ensure accessibility of information for all visitors.

6. Audio/Visual Programs

All new media productions shall be open captioned and audio described per Section 508 and the NPS Audio-Visual Accessibility Initiative. All existing media shall be captioned, audio described and available for use with an assistive listening system. The accessible features of the audio/visual programs such as assistive listening, audio description and open captioning shall be maintained through periodic testing and staff training. Display signage at visitor information areas indicating that the assistive listening system and audio description is available, and market their availability through brochures, program announcements and the Park website.

Assistive Listening System

The open-air theatre at the Visitor Center where Park films are shown does not have an assistive listening system. Scoping for assistive listening systems is based on the seating capacity of the assembly area it serves. The Park shall purchase one fixed base transmitter to be installed in the Visitor Center theatre, and a minimum of two multi-channel assistive listening receivers (both of which shall be hearing-aid compatible). Purchase one sign indicating that an assistive listening system is available and display at the Visitor Center information desk. The Park should also consider the purchase and

installation of an additional sign at the outdoor theatre in the event the visitor does not stop inside the Visitor Center before viewing the films.

Audio Description

There are total of six films shown in the open-air theatre at the Visitor Center, none of which contain an audio description component. The Park shall develop an audio description script and recording for each of the six films. Along with the production of the audio description program, audio description equipment will need to be purchased and installed. A media specialist is recommended to visit with Park staff to help determine the best equipment for the specific needs at each location.

Open Captioning

None of the six films shown in the open-air theatre at the Visitor Center are captioned for visitors with hearing impairments. While separate caption boards can provide open captioning, they are not recommended. According to the Programmatic Accessibility Guidelines NPS Interpretive Media the Department of the Interior Civil Rights Directive 2008-05, advises that they should no longer be installed. Caption boards are prone to mechanical breakdown and may not provide ease of viewing if not placed strategically in the line of the sight of the viewer. The Park shall reproduce the six films to include open captioning that meets requirements for size and contrast. Captioning for individuals with hearing loss or deafness is recommended to be white text on a black or dark colored background. On-screen captions or subtitles for the deaf and hard of hearing must be readable. While there are no legal or other requirements to display captions or subtitles for the deaf and hard of hearing in a black box, white letters on a light background or letters with no outline to distinguish them are examples of unreadable text. Captions should distinguish between narration and spoken dialogue and should indicate the presence of music and sound effects.

Accessibility of Technology

The open-air theatre at the Visitor Center offers visitors the opportunity to view six different films using the same audio-visual equipment. The instructions for operating the controls to select a movie are not provided in audio format. In addition, the three buttons that provide on-screen navigation for selecting a film are not tactilely discernible for visitors with visual impairments. The Park shall hire a consultant to determine the feasibility of adding an audio navigation component to the existing audio-visual equipment. The addition of an audio navigation component may require the purchase and installation of a new type of equipment. The new audio component should include the basic instructions for navigation currently provided in writing on the existing control panel. The Park shall also provide at least one tactilely discernible input control for each of the three available functions. Operable parts shall be tactilely discernible without activation. On the control panel, the two existing arrows designating the up/down navigation buttons and the word "select" above its respective control should be converted to raised characters that are tactilely discernible for visitors with visual disabilities. If the audio-visual equipment is to be replaced, ensure these considerations are met when purchasing the new equipment.

7. Talks and Tours

Portable Assistive Listening System

Pu'ukohola Heiau NHS has daily ranger guided tours originating from the Visitor Center where Park staff interprets the primary historic sites of the Park. In addition, the Park conducts special events such as shark watching and living history tours, and educational tours for school groups. There is no portable assistive listening system available for visitors with hearing loss to use during ranger led walks, talks and tours. Scoping for portable assistive listening system receivers should be generally based on the seating

capacity of the Park's assembly areas. The maximum capacity of the open-air theatre at the Visitor Center is 50 persons. Therefore, a minimum of two portable multi-channel assistive listening system receivers (two of which shall be hearing-aid compatible) and two portable multi-channel transmitters shall be provided for ranger led walks, talks and tours. One portable hearing-aid compatible receiver shall be designated for each type of tour (i.e. walking tour and ranger led talks). The Park shall display a sign at the Visitor Center information desk indicating that the assistive listening system is available, and include a notice on the Park website when the portable assistive listening system is acquired.

Audio Description

There are many visual elements within the Pu'ukohola Heiau NHS Visitor Center and throughout the Park property, as well as the Park landscape itself that are not audio described. This presents a barrier to full participation for visitors who are blind or have low vision, and for individuals with cognitive impairments. While the Park offers a complete tour on its website to be used as a walking tour of the grounds, it does not provide the description necessary for visitors who are blind to gain an equal understanding of the subject matter. A self-guided cell phone tour is available to visitors in addition to the online tour. The existing cell phone tour does not provide enough visual description for individuals who are blind or have low vision. An audio tour and audio description tour do not include the same content; therefore, an audio described tour needs to be developed in addition to the audio tour.

The Park shall work with a consultant to develop and record a script that will incorporate the visual elements of Pu'ukohola Heiau NHS into an audio-described tour. Be sure to include the following elements in development of the script: a general orientation to the Visitor Center; the six films offered in the Visitor Center (as addressed in Section 6 of this Summary Report); the Park landscape, including grounds structures (multiple Heiau) and buildings; the exterior interpretive panels and waysides; photos and text on interpretive panels; any exhibits behind Plexiglas; John Young's Homestead site; exhibits and interpretation along the trail; and all tactile components throughout exhibit areas. Where audio description for specific exhibits is provided, incorporate a 2x2 inch sign alerting to the availability of audio description. In addition, the consultant should assist in determining what equipment would be most appropriate for the site's specific audio description needs. Ensure that the equipment is hands-free or has a hands-free option (so that visitors have the freedom to tactilely explore their surroundings), is able to be independently operated, and is hearing-aid compatible.

While the cell phone tour was not assessed during the site visit, it should be noted that the interpretive program should meet the minimum requirements of Section 508 for electronic and information technology, and the program access standard mandated by Section 504 of the Rehabilitation Act. Wherever communication is made with visitors, whether through audio or visual means, the communication should be as effective for people with disabilities as it is for people without disabilities. Use of technology, such as cell phones, smart phones, MP3 players, and portable GPS should include purposeful planning to accommodate the range of needs of people with hearing loss, people with visual impairments, people with mobility impairments, and people with cognitive impairments. Consideration should also be given to the diversity of the Park visitor population including those traveling with children, older adults, large groups, and individuals who may not own or have access to such devices. The Park should consider purchasing a number of accessible MP3 players to be made available at the Visitor Center information desk. The MP3 players shall contain preloaded media content including the cell phone tour audio program and an audio described version of the cell phone tour for visitors with visual impairments who request this accommodation. This method of communication shall be investigated as a means of providing the interpretive information that does not cause an undue burden

on the user who has a disability or cannot individually provide the technology required to access the program.

8. Physical Building Elements

Below is a summary of the major physical accessibility deficiencies, by area, found at Pu'ukohola Heiau National Historic Site. The identified barriers and recommended solutions have been entered into FMSS, and work orders have been generated and cost estimated for the removal of the specific barrier. For a detailed explanation of a specific deficiency and recommended solution, please refer to the FMSS data and generated work orders.

Parking

The van accessible parking space at the headquarters parking lot does not have a "van accessible" sign installed onto the existing sign post. Signs identifying van parking spaces shall contain the designation "van accessible." Purchase one "van accessible" sign and install onto the existing metal sign post. When installing the sign onto the post, ensure the lower of the two signs is installed to meet minimum requirements above the ground surface measured to the bottom of the sign.

Accessible Routes

The grassy area located to the west of the Headquarters building is the location of the Park interpretation programs and ranger talks. An asphalt path approximately 10 linear feet in length is the only route that connects the parking area to the edge of the grassy area. The cross slope on this route exceeds the maximum requirements for an accessible route. There is no defined accessible route to bring visitors beyond the asphalt route to the actual interpretation area. The grass surface is not a firm, stable and slip resistant surface. The Park shall remove the existing 10 linear feet of asphalt and install an accessible route that provides access from the sidewalk at the parking lot to the perimeter of the interpretation area. The Park shall ensure that the new route meets flush with the existing sidewalk at the parking area, and does not exceed maximum running and cross slope requirements.

The stairs that lead from the restroom to the Visitor Center have handrails provided along only one side of the stairway. The Park shall provide handrails along both sides of stairs. The stairway has two flights of stairs with a landing between them. Handrails shall include top extensions that extend horizontally above the landing and bottom extensions that extend for a horizontal distance at least equal to one tread depth beyond the last riser nosing. Handrails shall also have a gripping surface that is continuous along their full length, a cross section that meets requirements for a gripping surface, and a height to the top of the gripping surface that meets minimum and maximum requirements.

At the Visitor Center front entrance, there is an opening in the ground surface that exceeds maximum requirements and spans the full width of the double doors. The Park shall fill the opening to ensure it does not exceed requirements, using a porous aggregate to allow for proper drainage.

The existing left handrail (when standing at the top of the ramp) on the ramp to the entrance of the headquarters building has a top extension that does not meet minimum length requirements. Using in kind wood materials, the Park shall install an additional handrail extension to ensure it meets minimum requirements. When installing the extension, ensure a smooth transition between the existing handrail and the new addition as a continuous gripping surface along the full length of the rail is required.

The exterior door of the headquarters building exceeds maximum recommendations for opening force. While there is no identified standard for the opening force of exterior doors in the accessibility

standards, it is recommended as best practice for the Park to adjust the closer on the headquarters exterior door to reduce the operating force to as close to 5 pounds as feasible (maximum force requirement for an interior door). If this is not possible, the Park shall investigate the installation of automatic or power-assisted doors.

Restrooms

The women's restroom at the Visitor Center contains multiple barriers to accessibility. The front rim of the wall-hung lavatory exceeds maximum height requirements. The centerline of the wall-hung water closet in the accessible toilet stall exceeds maximum requirements from the side partition. The rear grab bar does not extend far enough beyond the centerline of the water closet and has a space between the wall and inside of the grab bar that does not meet the exact 1 ½ inch requirement. The Park shall relocate the wall-hung plastic double-lavatory unit to ensure that the front rim does not exceed maximum height requirements. Reinstall the water closet on an offset flange to ensure centerline requirements are met. Replace the rear grab bar with a 40-inch grab bar, and when reinstalling, ensure it extends from the centerline of the water closet according to the standards. When reinstalling, ensure minimum and maximum height requirements are met and the space between the wall and grab bar is exactly 1 ½ inches.

The men's restroom at the Visitor Center contains multiple barriers to accessibility. The wall-hung urinal has a rim height that exceeds maximum requirements. The rear grab bar in the accessible toilet stall does not extend far enough beyond the centerline of the water closet and has a space between the wall and inside of the grab bar that does not meet the exact 1 ½ inch requirement. The hook installed onto the stall door exceeds maximum reach range requirements. The Park shall lower one of the wall-hung urinals to ensure the rim height does not exceed maximum requirements. Replace the rear grab bar with a 40-inch grab bar, and when reinstalling, ensure it extends from the centerline of the water closet according to the standards. When reinstalling, ensure minimum and maximum height requirements are met and the space between the wall and grab bar is exactly 1 ½ inches. Purchase an additional hook and install it onto the interior wall of the accessible stall within reach range requirements.

The family restroom at the Visitor Center contains multiple barriers to accessibility. The floor-mounted water closet has a seat that does not meet the minimum height requirements. The front rim of the wall-hung lavatory exceeds maximum height requirements, and the operating controls of the lavatory faucet exceed the maximum allowed operating force. The paper towel dispenser exceeds maximum reach range requirements to the operable parts. The Park shall, using a spacer, raise the floor mounted water closet to ensure a seat height that meets minimum and maximum requirements. Relocate the wall-hung plastic double-lavatory unit to ensure the front rim does not exceed maximum height requirements. Adjust the lavatory hardware to ensure it does not exceed the maximum pounds of force required to operate, and lower the paper towel dispenser to ensure the operable parts meet reach range requirements.

The women's and men's restrooms of the upper restroom building contain multiple reoccurring barriers to accessibility. Both exterior doors exceed maximum recommendations for opening force. The signage at both restrooms is installed at the latch side of the doors but does not contain the required raised characters and Braille. The operating force of the lavatory water faucet in the women's restroom exceeds maximum requirements and does not remain open for the minimum required time. The baby changing table in both restrooms is installed in the corner of the restroom adjacent to the lavatory which overlaps the clear floor space required for the changing table. The rear grab bars in the accessible stalls in both restrooms do not extend far enough from the centerline of the water closets. In the men's

restroom accessible stall, the space between the wall and inside of the grab bar does not meet the exact 1 ½ inch requirement. The centerline of the wall-mounted water closet in the men's restroom exceeds maximum requirements from the side wall. The hooks installed onto the stall doors in the accessible stalls exceed maximum reach range requirements.

While there is no identified standard for the opening force of exterior doors in the accessibility standards, it is recommended as best practice for the Park to adjust the closers on the restroom doors to reduce the operating force to as close to 5 pounds as feasible (maximum force requirement for an interior door). If this is not possible, the Park shall investigate the installation of automatic doors. The signage installed on the exterior partitions contains the required raised characters and Braille and should be switched with the signage currently installed at the latch side of both restroom doors. Ensure when installing the signs at the doors, that the tactile characters meet minimum height requirements. Adjust the lavatory faucet controls in the women's restroom to ensure a maximum allowed operating force, and ensure the water flow remains open for 10 seconds minimum. Remove and relocate the baby changing tables onto the same wall approximately 10 inches (women's) and 6 inches (men's) closer to the toilet stalls. This will ensure the required clear floor space is provided, positioned for a forward approach. When reinstalling, ensure the operable parts when in the closed position, and the work surface when in the open position meet reach range and height requirements respectively. Replace the rear grab bars in each restroom with 40-inch grab bars, and when reinstalling, ensure they extend from the centerline of the water closets according to standards. When reinstalling, ensure minimum and maximum height requirements are met and the space between the wall and grab bars is exactly 1 ½ inches. The toilet seat cover dispensers will need to be relocated as it will obstruct the use of the rear grab bar in its new location. Reinstall the wall-mounted water closet in the men's accessible stall on an offset flange to provide a centerline that meets requirements. Purchase an additional hook for each restroom and install it onto the interior wall of the accessible stall within reach range requirements.

Drinking Fountains

The high exterior drinking fountain at the Visitor Center, located at the top of the stairs, protrudes horizontally into the circulation path and is not cane detectable. The Park shall provide a panel as a cane detectable warning on the outer side of the high drinking fountain unit to ensure that it does not remain a protruding object.

The drinking fountain unit at the upper restroom building protrudes horizontally into the circulation path and is not cane detectable on either side of the unit, with a lower leading edge that exceeds maximum height requirements. The water flow of the low drinking fountain does not meet minimum height requirements. The operating force of both drinking fountains exceeds maximum requirements. The Park shall provide panels as a cane detectable warning on the outer side of both drinking fountains to ensure that neither unit remains a protruding object. The Park shall also adjust the controls for both fountains to ensure maximum pounds of force to operate are met and to increase the water flow height of the low unit.

Benches

There are a total of four non-fixed wood benches located in three different locations along the trail that originates at the Visitor Center. None of the benches have the recommended back support, at least one armrest, or the recommended seat height. Where benches are provided on trails, at least 20 percent but not less than one bench at each location should be accessible. The Park shall purchase and install three accessible benches. Ensure a firm, stable and slip resistant clear ground space that does not exceed maximum slope requirements is positioned near each accessible bench, with one side adjoining the trail.

9. Trails & Scenic Viewing Opportunities

During the accessibility assessment, the trail system that was assessed is the ½ mile natural surface and asphalt trail that is approximately 6 feet wide. The trail begins at the Visitor Center and loops past historic structures, interpretation and the coast. Deficiencies and recommended solutions for this trail system are identified below. Consideration should be given to accessibility improvements during future alteration projects and/or new construction on any trails at Pu'ukohola Heiau.

The Draft Final Accessibility Guidelines for Outdoor Developed Areas (Draft Final – Outdoor) apply to Federal land management agencies, including the National Park Service. The guidelines also apply to non-federal entities that construct or alter facilities on Federal lands on behalf of the Federal government. According to the Draft Final – Outdoor, a trail is defined as, “A pedestrian route developed primarily for outdoor recreational purposes. A pedestrian route developed primarily to connect elements, spaces, or facilities within a site is not a trail.”

Where the Park determines that a specific portion of a trail does not permit full compliance with the trail guidelines set forth in the Draft Final - Outdoor, the Park should ensure that the trail complies with the guidelines to the maximum extent feasible. The Park should document the basis for the determination, and should maintain the documentation with the records for the construction or alteration project.

Program Access on Trails

A common misconception among park and recreation practitioners is that the “program access” standard under Section 504 of the Rehabilitation Act only applies to staffed, structured, traditional programs, such as specially scheduled interpretive tours. The program access standard applies to every good, service or activity provided by the Park to the public, including trails. In addition to assessing the trails for physical access, the programmatic elements offered on each individual trail should also be assessed. Program access on trails encompasses more than just information provided on waysides along the trail; it includes the entire experience that the trail offers to a visitor. The experience could include prominent features found along a trail, facilities and/or amenities along the trail, or a type of environment provided on a trail that may not be found elsewhere within the Park. Therefore, it will be necessary to first look at Pu'ukohola Heiau's *entire* trail system, and then each individual trail, to adequately determine if visitors with disabilities are being offered equal programmatic experiences on the trails at Pu'ukohola Heiau.

Trailhead Signage

There is no trailhead signage or information in the Park brochure about the trails found throughout Pu'ukohola Heiau NHS. While trailhead signage is only required where provided when constructing a new trail, altering a trail, or the Park is replacing an existing trailhead sign, Park staff has expressed an interest in the recommendation to provide trailhead signage. Providing information to visitors on the Park website, in either the unigrid or separate trail brochure, and via trailhead signage allows visitors to prepare in advance for their trip to the Park, and allows visitors to make a more informed decision about hiking the trails. The minimum recommended information to be provided on an accessible trailhead sign includes: length of the trail or trail segment; surface type; typical and minimum tread width; and typical and maximum running and cross slope.

Trail System

It should be noted that for the purpose of the assessment, “stations” denote the number of feet from the trailhead. The trailhead for this entry is at the Visitor Center. Beginning at station 0214 and

continuing to station 0286 the asphalt surface of the trail is deteriorating and causing the resulting loose fill to create a non-stable surface. This segment of trail shall be resurfaced with asphalt (upon the recommendation of the Park) to ensure the surface meets recommendations for firmness and stability.

Beginning at station 0861 and continuing to station 1263 there are multiple instances of running slope that exceed maximum allowances per trail segment according to the Draft Final - Outdoor. At station 1125, and again at station 1603 continuing to station 1643 there are stairs built into the asphalt trail tread that create tread obstacles exceeding the maximum allowed height for an asphalt surface. Beginning at station 0861 and continuing to station 1263 the Park should redesign the trail segment to ensure that it meets the technical specifications for running slope established in the Draft Final - Outdoor. Approximately 1,608 square feet (402 linear feet by 4 feet wide) of trail surface will be disrupted, and will need to be repaved to ensure running slope guidelines per trail segment are met and resting intervals are constructed where necessary. Ensure tread obstacles do not exceed maximum recommendations for an asphalt surface tread. To ensure this technical specification can be met, eliminate non-essential steps to remove the barrier of tread obstacles. Ensure that during the redesign, cross slope, running slope, resting intervals, and tread obstacle recommendations are met.

10. Concessions

Hawaii Pacific Parks Association is the Park's operating concessionaire, managing the Park bookstore, and providing educational items for visitors. Concessions for the Park are provided in the Visitor Center.

Provision of accessible goods, activities and services by the concessionaire should be reviewed as part of the annual NPS evaluation. At a minimum, the concessionaire should strive to achieve the same level of program access as is expected of the programs or services offered by the National Park Service. As such, taking action on the recommendations to improve program access as outlined in this report would also be prescribed for the concessionaire. For example, when new inventory is selected, buyers are encouraged to seek video/DVD programs with captions and audio description and make those titles known to customers. If videos or DVDs are shown in retail spaces, versions with open-captions and audio descriptions are recommended for viewing. There were no barriers noted at the time of the assessment in the concessions area.

VII. Action Planning

Upon receipt of the assessment data, it will be critical for Park personnel to review and embark on a series of actions to continue planning for improved access to the programs and facilities at the Pu'ukohola Heiau National Historic Site.

Park senior management is encouraged to establish a core accessibility management team with representation from various divisions including interpretation, maintenance, administration, concessions and senior management. Representation should include individuals with decision-making authority in order to appropriately prioritize funds while assuming responsibilities for compliance oversight in those key areas.

A process to review and prioritize corrective actions to improve Park access for visitors with disabilities should be developed. In addition, a strategy and timeline should be outlined to conduct accessibility assessments of facilities and programs as they are changed or updated so that any deficiencies may be

entered into FMSS, and proposed corrective actions can be cost estimated to serve future planning and budget requests.

A process to review all new construction and renovation plans or designs should be implemented to ensure the minimum accessibility standards and guidelines are appropriately applied and opportunities for the application of universal design are seized. In addition, a process to inspect all construction projects for compliance with the minimum accessibility standards and guidelines should be established.

Provide staff training for full-time staff, seasonal staff and volunteers on select topics including the application of the accessibility standards and guidelines for Park maintenance; the principles of universal design; program access; methods for developing accessible interpretive programs; the accommodation process; techniques for interacting with people with disabilities and the use of people first language. Interpretive staff should receive more specific training on the provision of audio description for people with visual impairments and tailoring talks for people with cognitive impairments. Frontline customer service staff should also receive a seasonal update on accessibility improvements in order to field and/or refer questions on accessibility from the public.

An ongoing evaluation of programs, services and activities should be instituted to ensure the Park is meeting the needs of visitors with disabilities.