# Accessibility Self-Evaluation and Transition Plan

# Hawai‘i Volcanoes National Park

# Hawai‘i

# August 2023

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# EXECUTIVE SUMMARY

Hawai‘i Volcanoes National Park’s Accessibility Self-Evaluation and Transition Plan (SETP) includes findings from the self-evaluation process, as well as a plan for improving accessibility parkwide. The Accessibility Self-Evaluation and Transition Plan resulted from the work of a National Park Service (NPS) interdisciplinary team, including planning, design, and construction professionals; and interpretive, resource, visitor safety, maintenance, and accessibility specialists. Site plans, photographs, and specific actions for identified park areas were developed. Associated time frames and implementation strategies were established to assist NPS park staff in scheduling and performing required actions and to document completed work. Park policies, practices, communication, and training needs were also addressed. The goals of the plan are to 1) document existing park barriers to accessibility for people with disabilities, 2) provide an effective approach for upgrading facilities, services, and programs, and 3) instill a culture around creating universal access.

The following are the key park experiences and associated park areas addressed in the transition plan:

1) **Experience the largest and most continuously active shield volcanoes, including two of the world’s most active volcanoes, and understand the distinctive geology and natural and cultural adaptations to the land –** Devastation Trail and Parking Area, End of Chain of Craters Road and Hōlei Sea Arch, Environmental Education Center, Kahua and the Hale, Kealakomo Overlook, Kīlauea Iki, Kīlauea Overlook, Kīlauea Visitor Center, Kūpinaʻi Pali (Waldron Ledge), Maunaulu, Muliwai a Pele, Nāhuku (Thurston Lava Tube), ‘Ōʻhiʻa Wing, Pauahi Crater Overlook, Puhimau Overlook, Puʻuloa Petroglyphs, Puʻupuaʻi Overlook, Steam Vents and Steaming Bluff (Wahinekapu), Sulphur Banks (Haʻakulamanu), Tree Molds, Uēkahuna (Jaggar), Volcano Art Center Gallery, Volcano House and Viewing Platform
2) **Learn how the park’s active volcanoes have been observed and documented through chants for centuries by Native Hawaiians, have served as a living laboratory for scientific investigations for over a century, and continue to advance the global understanding of volcanic processes –** End of Chain of Craters Road and Hōlei Sea Arch, Environmental Education Center, Kīlauea Iki, Kīlauea Visitor Center, Maunaulu, Nāhuku (Thurston Lava Tube), ‘Ōhiʻa Wing, Sulphur Banks (Haʻakulamanu), Uēkahuna (Jaggar), Volcano Art Center Gallery, Volcano House and Viewing Platform
3) **Observe the unique and diverse ecosystems and endemic species in the park that resulted from more than 30 million years of evolution in an isolated environment characterized by its active volcanic landscape and wide climate variations –** Devastation Trail and Parking Area, End of Chain of Craters Road and Hōlei Sea Arch, Environmental Education Center, Kahua and the Hale, Kealakomo Overlook, Kīlauea Iki, Kīlauea Overlook, Kīlauea Visitor Center,

Kīpukapuaulu Picnic and Day Use Area, Maunaulu, Nāhuku (Thurston Lava Tube), ʻŌhiʻa Wing, Puʻuloa Petroglyphs, Puʻupuaʻi Overlook, Steam Vents and Steaming Bluff (Wahinekapu), Sulphur Banks (Haʻakulamanu), Tree Molds, Uēkahuna (Jaggar), Volcano Art Center Gallery, Volcano House and Viewing Platform

4) **Embrace the Native Hawaiian spiritual significance of this landscape and related cultural traditions –** Devastation Trail and Parking Area, End of Chain of Craters Road and Hōlei Sea Arch, Environmental Education Center, Kahua and the Hale, Kīlauea Iki, Kīlauea Overlook, Kīlauea Visitor Center, Kūpinaʻi Pali (Waldron Ledge), Maunaulu, Nāhuku (Thurston Lava Tube), ʻŌhiʻa Wing, Puʻuloa Petroglyphs, Steam Vents and Steaming Bluff (Wahinekapu), Sulphur Banks (Haʻakulamanu), Uēkahuna (Jaggar), Volcano Art Center Gallery, Volcano House and Viewing Platform

5) **Witness the vast cultural history of the park, including sites, structures, objects, and landscapes that document more than 600 years of human life and activities in an active volcanic landscape –** Devastation Trail and Parking Area, End of Chain of Craters Road and Hōlei Sea Arch, Environmental Education Center, Kahua and the Hale, Kealakomo Overlook, Kīlauea Iki, Kīlauea Overlook, Kīlauea Visitor Center, Kīpukapuaulu Picnic and Day Use Area, Kūpinaʻi Pali (Waldron Ledge), Maunaulu, Nāhuku (Thurston Lava Tube), Nāmakanipaio Campground, ʻŌʻhiʻa Wing, Puʻuloa Petroglyphs, Steam Vents and Steaming Bluff (Wahinekapu), Sulpher Banks (Haʻakulamanu), Uēkahuna (Jaggar), Volcano Art Center Gallery, Volcano House and Viewing Platform

6) **Enjoy the recreational opportunities of the park, including the natural sounds, night skies, scenic vistas, and remote and challenging experiences –** Devastation Trail and Parking Area, End of Chain of Craters Road and Hōlei Sea Arch, Kahua and the Hale, Kealakomo Overlook, Kīlauea Iki, Kīlauea Overlook, Kīlauea Visitor Center, Kīpukapuaulu Picnic and Day Use Area, Kūpinaʻi Pali (Waldron Ledge), Maunaulu, Muliwai a Pele, Nāhuku (Thurston Lava Tube), Nāmakanipaio Campground, ʻŌhiʻa Wing, Pauahi Crater Overlook, Puhimau Overlook, Puʻuloa Petroglyphs, Puʻupuaʻi Overlook, Steam Vents and Steaming Bluff (Wahinekapu), Sulphur Banks (Haʻakulamanu), Tree Molds, Uēkahuna (Jaggar), Visitor Emergency Operations Center and Backcountry Office, Volcano House and Viewing Platform

Overall, similar facilities, services, and programs were found throughout park areas, as were assessment findings for physical and program accessibility.

## PHYSICAL ACCESSIBILITY

The self-evaluation process provided a thorough understanding of the state of accessibility at the primary visitor areas of Hawai'i Volcanoes National Park. In many cases, barrier removal through simple and cost-effective actions could yield substantial improvements to accessibility for many visitors. During the assessment, accessibility barriers were identified for parking areas, accessible paths of travel and outdoor recreation access routes, hiking trails, and visitor information areas, such as kiosks, bulletin boards, interpretive panels, and waysides. These findings included surfaces that were not firm and stable and slopes that exceeded allowable standards. Some restrooms did not have adequate footprints for accessible stalls, and many features did not meet required standards for placement. Amenities offered for picnicking and camping, such as tables and water hydrants, did not always meet appropriate access route and clearance standards.

## PROGRAM ACCESSIBILITY

Findings related to program accessibility included interpretive waysides that require modifications to meet size and readability standards and interactive exhibits that can be more easily operable. In general, interpretive panels, waysides, publications, videos, and self-guided tours had a limited number of alternate formats, including braille, large print, open captioning, or audio or electronic formats. Assistive listening devices for guided tours or special events were not widely available for people with hearing loss. Audio description for ranger-led interpretive tours and self-guided tours that describe visual elements to persons with low or no vision were also not widely available. Tactile exhibit elements were found in the primary visitor centers but were limited elsewhere.

## PARKWIDE ACCESSIBILITY

Some of the more noteworthy parkwide accessibility challenges that were discussed by the planning team during the self-evaluation and assessment process include balancing accessibility with the protection of cultural and natural resources and the dynamic nature of volcanic landscapes.

It is recommended that park staff employ trained consultants and reach out to disability organizations for assistance in determining how best to address accessibility improvements parkwide and to ensure that design and implementation of alternate format programs meet the needs of the intended audiences. Notify visitors through signage placed in appropriate locations and in park publications that alternative formats are available.

Creating parkwide accessibility requires staff awareness, understanding, and appropriate action. The assessment process served as a field training tool that increases staff knowledge and commitment toward embracing accessibility as a core park value. Continued training in physical and programmatic access requirements for all park staff, particularly those in maintenance and interpretation, is strongly advised.

Because of fiscal constraints and limited park resources, staff will need to determine which park area improvements will benefit the greatest numbers of park visitors with disabilities. Suggested implementation time frames and relative costs need to be factored into all accessibility investment decisions.

Hawai‘i Volcanoes National Park strives to be inclusive and welcoming. Park staff and partners have a strong awareness of accessibility and are committed to accommodating visitors with disabilities. Park staff is working to clearly communicate current conditions to the public through their park website and publications. Park staff has made strides in exploring new media formats, including webcams and videos found on the park website, which provide a range of remote views of the physical conditions and the cultural and natural resources in the park. Park staff is designing and building new facilities with universal accessibility in mind, and ongoing maintenance and improvements may potentially remove barriers.

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# INTRODUCTION

Since 1916, the National Park Service (NPS) mission has been to preserve, unimpaired, the natural and cultural resources and values of the national park system, while also providing for the enjoyment, education, and inspiration of current and future generations.

Many of our national parks were founded because of their stunning views, extreme and unique geography, challenging and sensitive natural environments, and historic and fragile structures. This park, Hawai'i Volcanoes National Park, and other parks exist because of their history and resources. The NPS mission balances protection of resources (both natural and cultural) with visitation. Facilities, services, and programs were designed and built within parks to accommodate our visitors and help them better understand each park purpose and significance.

Many facilities were constructed prior to the passage of laws and policies that reflect the commitment of the National Park Service to provide access to the widest cross section of the public and to ensure compliance with the Architectural Barriers Act of 1968, the Rehabilitation Act of 1973, the Equal Employment Opportunity Act of 1972, and the Americans with Disabilities Act of 1990 (42 USC 12207). Commercial services and partnerships working with the National Park Service are required to comply with all applicable accessibility laws. After 100 years of operation, the National Park Service continues to work toward a more inclusive environment. The more than 400 park units that comprise the national park system today include not only the large western parks, for which the agency is well known, but also nationally significant urban parks, historic sites, monuments, parkways, battlefields, and a diversity of other park types across the country.

For a century, the National Park Service has been a leader in connecting people to both our natural and cultural heritage. Visitors today have different needs and expectations, and the agency must adapt to meet these changing demands. Modern scientific research and visitor trend analysis provide new insight into accessibility opportunities and challenges in the national park system. There are approximately 60 million people with disabilities in the United States today, and the number is expected to rise to 71 million in upcoming years as more baby boomers reach retirement age (people 65 and older). This information helps the National Park Service understand changing visitation patterns, the nexus between resource stewardship and accessibility, and the impacts of managing visitors, resources, and infrastructure against the threat of decreased funding. Adequate planning can identify solutions to challenges and provide services with the knowledge and understanding that serves as a trajectory full of opportunity for current and future visitors. The National Park Service is committed to making NPS facilities, programs, services, and employment opportunities accessible to all people, including those with disabilities.

## HAWAIʻI VOLCANOES NATIONAL PARK DESCRIPTION

Hawaiʻi Volcanoes National Park is on the southern end of the island of Hawaiʻi, the southernmost island of the Hawaiian archipelago. The park was established by Congress on August 1, 1916, as Hawaiʻi National Park (subsequent legislation separated Hawaiʻi Volcanoes National Park and Haleakalā National Park).

Today, Hawaiʻi Volcanoes National Park protects approximately 354,461acres of public land, which includes some of the most unique geologic, biologic, and cultural landscapes in the world. Extending from sea level to the summit of Mauna Loa at 13,677 feet, the park encompasses the summits and rift zones of two of the world's most active shield volcanoes—Kīlauea, representing the newest land in the Hawaiian Islands chain, and Mauna Loa, the largest volcano in the world.

While these two volcanoes are the primary features of the park and the principal reason for its establishment, this volcanic topography also supports one of the most fascinating biologic landscapes in the world, sustaining highly diverse populations of plant and animal communities across seven ecological life zones. Located more than 2,000 miles from the nearest continent, Hawaiian plants and animals have evolved in almost complete isolation for the past 30 million years. As a result, more than 90% of the native terrestrial flora and fauna in Hawaiʻi are endemic to this small archipelago. The park provides habitat for 62 federally listed endangered or threatened species and 9 species that are proposed for listing. Included among these species are the nēnē (Hawaiian goose), ʻiʻiwi (scarlet honeycreeper), and ʻāhinahina (Mauna Loa silversword). Considering this diversity of life and its distinction on the planet, Hawaiʻi Volcanoes National Park is both a laboratory for the study of biogeography and evolution within the Pacific Islands and a cornerstone for recovery of native Hawaiian species found nowhere else in the world.

The park also plays a unique role in the history of human development on the Hawaiian Islands and remains an important home to living cultures in Hawaiʻi. Just as the volcanic and biologic features of the land have shaped the landscape of Hawaiʻi Volcanoes National Park, so too have the people who have been a part of its history. Over five centuries before the establishment of the park, Native Hawaiians lived, worked, and worshipped on this sacred ground. Later, in the 19th and early 20th centuries, adventurers, explorers, scientists, philanthropists, and individuals also left their mark on the landscape. Today, ancient petroglyphs, stone walls, and footpaths remain between massive lava flows. Historic housing districts, historic structures, and historic roads dot the developed corridors of the park, together revealing the diverse cultures and history that have been, and continue to play, an integral role on this landscape.

Hawaiʻi Volcanoes National Park contains 123,100 acres (official deeded acreage) or 130,950 acres (Geographic Information Systems estimate of acreage) of federally designated wilderness set aside in 1978. In 2012, an additional 121,015 acres were determined as eligible for preservation as wilderness in the Kahuku unit. In 1980, Hawaiʻi Volcanoes and Haleakalā National Parks were jointly designated as "Hawaiian Islands International Biosphere Reserve"

by the United Nations Educational, Scientific and Cultural Organization (UNESCO), and seven years later, in 1987, Hawai'i Volcanoes National Park was also declared a World Heritage Site by the World Heritage Convention of UNESCO. Very few areas in the United States and the world are designated as both a Biosphere Reserve and World Heritage Site.

## HAWAI'I VOLCANOES NATIONAL PARK PURPOSE AND SIGNIFICANCE STATEMENTS

In 2017, Hawai'i Volcanoes National Park completed a foundation document. Foundation documents provide basic guidance for planning and management decisions by identifying the park purpose, significance, and fundamental resources and values. The Hawai'i Volcanoes National Park foundation plan identifies special mandates and administrative commitments and provides an assessment and prioritization of park planning and data needs. Understanding these elements helps set the stage for appropriately integrating accessibility into the overall park priorities and plans. The following foundation elements were identified for Hawai'i Volcanoes National Park.

### Park Purpose

The purpose of Hawai'i Volcanoes National Park is to protect, study, and provide access to Kīlauea and Mauna Loa, two of the world's most active volcanoes, and perpetuate endemic Hawaiian ecosystems and the traditional Hawaiian culture connected to these landscapes.

### Park Significance

The following significance statements have been identified for Hawai'i Volcanoes National Park. (Please note that the sequence of the statements does not reflect the level of significance.)

- Hawai'i Volcanoes National Park protects and interprets the largest and most continuously active shield volcanoes in the United States and provides the best physical evidence of island-building processes that continue to form the 2,000-mile-long Hawaiian archipelago.
- Hawai'i Volcanoes National Park's active volcanoes serve as a living laboratory for scientific investigations that began more than a century ago and continue to advance the global understanding of volcanic processes.
- Hawai'i Volcanoes National Park protects, restores, and studies unique and diverse ecosystems and endemic species that are the result of more than 30 million years of evolution in an isolated environment characterized by its active volcanic landscape and wide climate variations.
- Hawai'i Volcanoes National Park encompasses the largest and most ecologically diverse wilderness in the Pacific Islands.

- Hawai‘i Volcanoes National Park embraces the Native Hawaiian spiritual significance of this landscape and interprets related cultural traditions.
- Hawai‘i Volcanoes National Park encompasses sites, structures, objects, and landscapes that document more than 600 years of human life and activities on an active volcanic landscape.
- Hawai‘i Volcanoes National Park provides access to two of the most active volcanoes in the world and an opportunity to understand and appreciate the distinctive geology and natural and cultural adaptations to the land.

# ACCESSIBILITY SELF-EVALUATION AND TRANSITION PLAN PROCESS

## ACCESSIBILITY SELF-EVALUATION AND TRANSITION PLAN

The creation of a transition plan is mandated by regulations under the Rehabilitation Act of 1973, as they apply to the US Department of the Interior, which states that "No otherwise qualified handicapped individual in the United States . . . shall, solely by reason of his handicap, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any program or activity receiving federal assistance." It specifically requires parks to document architectural barriers, solutions, and time frames for making improvements to increase accessibility.

This Accessibility Self-Evaluation and Transition Plan has been prepared to provide Hawai'i Volcanoes National Park a tool for addressing overall needs associated with making the park accessible when viewed in its entirety. The plan is based on an understanding of key park experiences and establishes a methodical process that identifies, prioritizes, and outlines improvements to park accessibility. The plan proposes strategies for implementation over time and in a manner consistent with park requirements and protocols.

All key park experiences and all park areas were identified to ensure that all park programs were considered in the plan. Park areas were then evaluated against measurable criteria to determine which would be assessed for purposes of the plan. Each park area assessed was evaluated to identify barriers that prevented participation in park programs, and the best manner in which access could be improved. In some situations, it is not reasonably practicable to create physical or universal design solutions. A transition plan was drafted documenting the barriers and setting forth a strategy for removing them.

## SELF-EVALUATION

### Step 1: Identify Key Park Experiences and Park Areas

Key park experiences are those park experiences that are iconic and important for visitors to understand the purpose and significance of the park unit. They are "musts" for park visitors. Park legislation serves as the foundation for key park experiences, which are identified through park purpose, significance, interpretive themes, and those programs or activities highlighted in park communications. Key park experiences were identified at Hawai'i Volcanoes National Park to ensure that planned improvements were prioritized to best increase overall access to the experiences available.

1) Experience the largest and most continuously active shield volcanoes, including two of the world's most active volcanoes, and understand the distinctive geology and natural and cultural adaptations to the land.
2) Learn how the park's active volcanoes have been observed and documented through chants for centuries by Native Hawaiians, have served as a living laboratory for scientific investigations for over a century, and continue to advance the global understanding of volcanic processes.
3) Observe the unique and diverse ecosystems and endemic species in the park that resulted from more than 30 million years of evolution in an isolated environment characterized by its active volcanic landscape and wide climate variations.
4) Embrace the Native Hawaiian spiritual significance of this landscape and related cultural traditions.
5) Witness the vast cultural history of the park, including sites, structures, objects, and landscapes that document more than 600 years of human life and activities in an active volcanic landscape.
6) Enjoy the recreational opportunities of the park, including the natural sounds, night skies, scenic vistas, and remote and challenging experiences.

After key park experiences were identified, all park areas were listed. Next, a matrix was developed to determine which key experiences occurred in each park area. A park area is a place defined by the park for visitor or administrative use. All park areas within Hawai'i Volcanoes National Park were evaluated per criteria in step 2, to determine which, if not all, areas would be assessed.

### Step 2: Identify Park Areas to be Assessed

The criteria below were used to determine which park areas would receive assessments:

1) Level of visitation
2) Diversity of services, activities, and programs offered in the area
3) Geographic favorability (as a whole, the park areas selected reflect a broad distribution throughout the park)
4) Other unique characteristics of the site

The areas selected for assessment provide the best and greatest opportunities for the public to access all key park experiences. These park areas received comprehensive assessments as outlined in steps 3 and 4. Areas not assessed at this time are to be assessed and improved as part of future facility alterations or as a component of a future planned construction project.

### Step 3: Identify Facilities, Services, and Programs in Park Areas

During step 3, all facilities, services, and programs within each park area were identified. This process ensured that during step 4 all visitor amenities within a park area, including both physical and programmatic elements, were reviewed for accessibility. The comprehensive lists of facilities, services, and programs were the basis for conducting the assessments and documenting all elements as they pertained to improving access to park experiences.

### Step 4: Conduct Accessibility Assessment

During step 4, an interdisciplinary assessment team identified physical and programmatic barriers and reviewed possible solutions within each park area.

Existing conditions and barriers to facilities, services, and programs were discussed on-site by the assessment team. The assessment team then developed a reasonable range of recommended actions for consideration, including solutions that would provide universal access. Barrier-specific solutions, as well as alternative ways to improve access overall, were addressed and included both physical changes and/or the addition of alternate format methods. In some cases, programmatic alternatives needed to be examined because it was not always possible to eliminate physical barriers due to historic designations, environmental concerns, topography, or sensitive cultural and natural resources. Therefore, a full range of programmatic alternatives was considered that would provide access to the key experience for as many visitors as possible. All field results, including collected data, findings, preliminary options, and conceptual site plans, are organized by park area and formalized with recommendations in the transition plan.

### Step 5: Draft Transition Plan

The next step of the process was drafting the transition plan and implementation strategy. Developing an implementation strategy can be complex because of a large range of coordination efforts associated with scheduling accessibility improvements. All improvement efforts need to consider park activities and operational requirements. The plan recommends accessibility improvements, identifies improvement time frames, and identifies responsible parties for such actions.

Implementation time frames are based on park staff's ability to complete the improvements within normal scheduling of park operations and planned projects. Time frames are categorized as follows:

1) **Immediate (0–1 year):** Improvements that are easy, quick, and inexpensive to fix internally. It does not require supplemental NPS project funding.

   immediate

2) **Short-term (1–3 years):** If the improvement does not require supplemental NPS project funding, park staff will initiate the elimination of the barrier internally; or, if a project is currently scheduled for funding, the improvement will be incorporated into the project and the barrier eliminated.

   short-term

3) **Mid-term (3–7 years):** Park staff will develop a proposal and submit it for those projects requiring supplemental NPS project funding in the next annual servicewide budget call. For those projects requiring supplemental NPS project funding, the park will submit a request in the next budget call. Improvements will be scheduled dependent upon the year funding is received. If the improvement does not require supplemental NPS project funding, park staff will continue the elimination of the barrier internally.

   mid-term

4) **Long-term (>7 years):** Park staff will eliminate the barrier when other work is taking place as part of facility alterations or as a component of a future planned construction project.

   long-term

### Step 6: Conduct Public Involvement

Public involvement occurs at the draft stage of the transition plan; however, it is recommended that at the beginning of the SETP process parks initiate public outreach efforts with organizations representing people with disabilities. The draft plan will be released to solicit input from the public, including people with disabilities and organizations that represent people with disabilities, to provide comments and thoughts on whether the document represents a reasonable review of the park's barriers and a feasible and appropriate strategy for overcoming the barriers.

### Step 7: Finalize Transition Plan

After the comment period has closed, park staff will analyze all comments to determine if any revisions to the plan are necessary. Those revisions will be made before the implementation strategy is finalized. Once finalized, a notification will be sent to the public to announce the plan's availability.

## IMPLEMENTATION OF THE PLAN

One of the goals of the plan is to increase accessibility awareness and understanding among staff and volunteers of Hawai'i Volcanoes National Park. The superintendent is responsible for implementation and completion of the plan using the implementation strategy table, which lives in the park's database. The park-designated accessibility coordinator ensures adequate communication to park employees and works with the superintendent to follow up on the implementation and relevancy of the plan by documenting improvements and keeping the plan updated.

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# IMPLEMENTATION STRATEGY FOR HAWAIʻI VOLCANOES NATIONAL PARK

## PARK AREAS ASSESSED

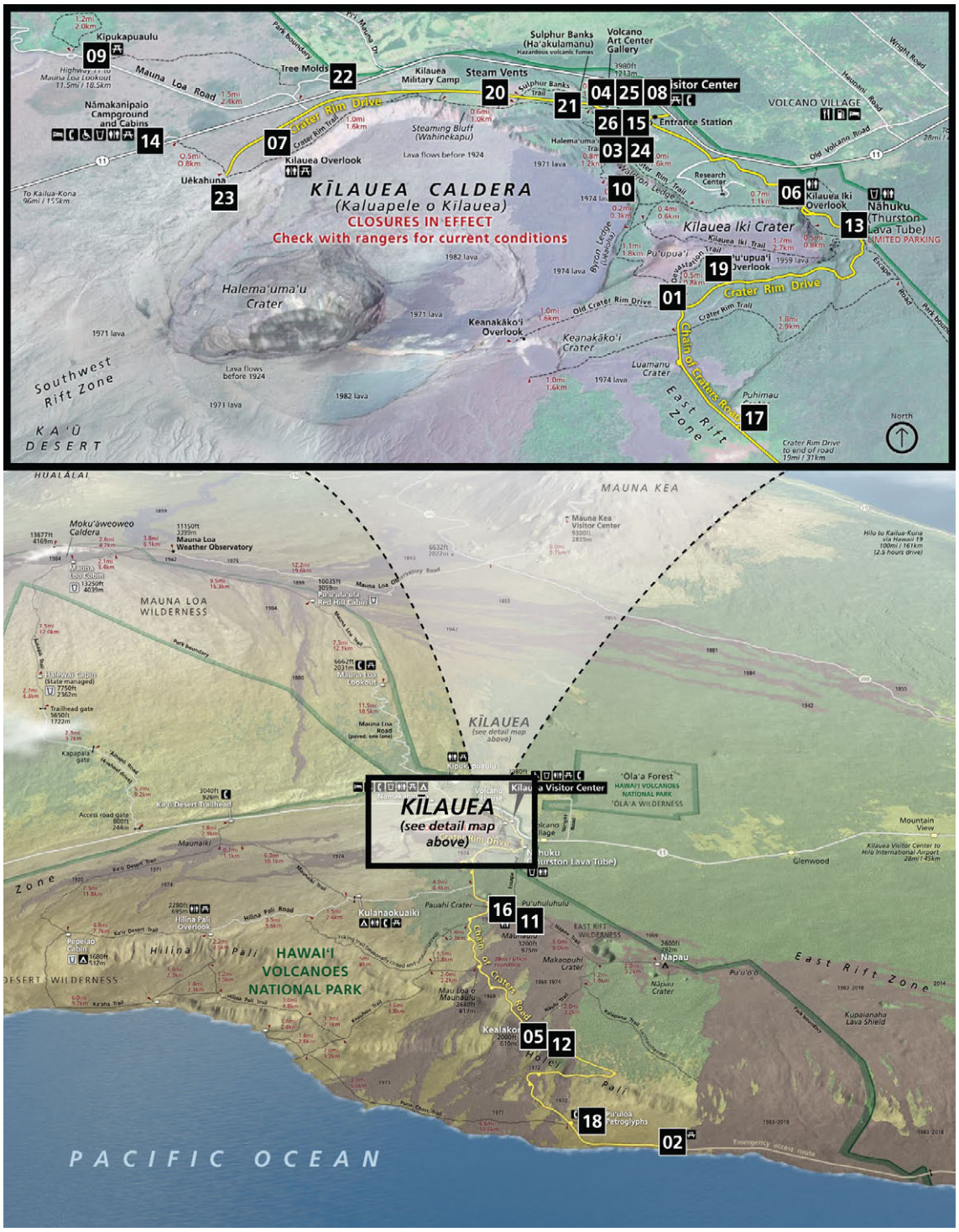
All key park experiences at Hawaiʻi Volcanoes National Park are represented within the park areas assessed. Park areas not included in the park area list will be improved to meet current code requirements when facility alteration and/or new construction is planned. All park areas assessed are listed below in alphabetical order and identified in the associated map.

1) Devastation Trail and Parking Area
2) End of Chain of Craters Road and Hōlei Sea Arch
3) Environmental Education Center
4) Kahua and the Hale
5) Kealakomo Overlook
6) Kīlauea Iki
7) Kīlauea Overlook
8) Kīlauea Visitor Center
9) Kīpukapuaulu Picnic and Day Use Area
10) Kūpinaʻi Pali (Waldron Ledge)
11) Maunaulu
12) Muliwai a Pele
13) Nāhuku (Thurston Lava Tube)
14) Nāmakanipaio Campground
15) ʻŌhiʻa Wing
16) Pauahi Crater Overlook
17) Puhimau Overlook
18) Puʻuloa Petroglyphs
19) Puʻupuaʻi Overlook
20) Steam Vents and Steaming Bluff (Wahinekapu)
21) Sulphur Banks (Haʻakulamanu)
22) Tree Molds
23) Uēkahuna (Jaggar)

24) Visitor Emergency Operations Center and Backcountry Office

25) Volcano Art Center Gallery

26) Volcano House and Viewing Platform



## IMPLEMENTATION STRATEGY FOR PARK AREAS ASSESSED

The Architectural Barrier Act (ABA) of 1968 requires that any building or facility designed, constructed, altered, or leased with federal funds be accessible and usable by any individuals with disabilities. The Uniform Federal Accessibility Standards (UFAS) and the Architectural Barriers Act Accessibility Standards (ABAAS) were adopted for federal facilities in 1984 and 2006, respectively. Subsequently in 2011, standards for recreational facilities were incorporated into ABAAS as chapter 10.

Dependent upon the date of a building's construction or alteration, different design standards apply. In conducting the transition plan facility assessments, the 2011 ABAAS standards were used as the on-site assessments. Although a barrier may be identified by the current assessment for improvement, facilities constructed pre-1984, or between 1984 and 2011, are only required to be compliant with the standard in place at the time of construction and/or alteration. Therefore, they may not be in violation of ABAAS. However, any renovation or upgrade of that building will be required to meet the most current standard at the time of work.

Recommended improvements for park policies, practices, communication, and training are included. Park policies are adopted by the park and are those defined courses of action for reaching a desired outcome. Park practices are those habitual and/or customary performances or operations park staff employs for reaching a desired outcome. Communication and training strategies help park staff keep informed on how to best deliver facilities, services, and programs to visitors with disabilities in the most appropriate and accessible formats.

This document does not include strategies for transitioning employee workspaces to be accessible. In the event an employee with a disability is hired by Hawai'i Volcanoes National Park, the supervisor and employee will discuss the employee's needs. The supervisor will then determine what accommodations are reasonable within the given work environment and determine a plan of action to meet those needs.

For each park area, conceptual site plans illustrate existing conditions and recommended improvements. Final improvements will likely vary from those shown in the site plans. During the implementation phase, reassessment of the project site conditions and consultation with the Architectural Barriers Act Accessibility Standards is necessary to ensure that specific design and programmatic solutions are addressed correctly. Additional compliance will be necessary for some improvements. Assistance is available at the Denver Service Center and through the Pacific West Region accessibility coordinator.

## DEVASTATION TRAIL AND PARKING AREA

### Site Plan

## Implementation Strategy

Devastation Trail and parking area invites visitors to hike a 1-mile paved loop through a recovering landscape that was buried by cinder falling from the lava fountains of the 1959 Kīlauea Iki eruption. The area has been recently rehabilitated and features two accessible parking spaces, an accessible route, trail signage, and two waysides along level-to-gently sloped asphalt and natural earth surface.

The following improvements to this park area are planned:

### 01 Car Parking

1) Improve the parking spaces and access aisles to have 2% maximum slope in all directions.
2) Provide "Van Accessible" signage on the van-accessible parking space. The signs shall be 60" minimum above the ground to the bottom of the sign.

immediate

### 02 Trailhead Signage

1) Provide trail information signage at the trailhead that includes the following information about trail conditions: length of the trail or trail segment, surface type, typical and minimum tread width, typical and maximum running slope, and typical and maximum cross slope.

mid-term

2) Provide a level, clear ground space at the sign, with 2% maximum slope in all directions, measuring 30" by 48" minimum for a forward approach.

immediate

### 03 Boot Cleaning Station

1) Provide a level, clear ground space at the boot-cleaning station, with 2% maximum slope in all directions, measuring 30" by 48" minimum for a forward approach.

short-term

### 04 Hiking Trail

1) As a best practice, remove large vertical obstacles and openings to provide more access to visitors, with resting intervals provided at the top and bottom of the run. Provide level resting areas and benches along the trail to improve the visitor experience.

long-term

## 05 Car Parking

1) Improve the parking spaces and access aisles to have 2% maximum slope in all directions.
2) Provide "Van Accessible" signage on the van-accessible parking space. The signs shall be 60" minimum above the ground to the bottom of the sign.

immediate

## 06 Outdoor Recreation Access Route

1) Improve the route to the restrooms to have cross slopes no greater than 2%.

short-term

## 07 Trash Receptacles

1) Improve the clear ground space in front of the receptacles to have 2% maximum slope in all directions, measuring 36" by 48" minimum for a forward approach.

immediate

## 08 Outdoor Recreation Access Route

1) Improve the resting interval between steeper sections of the route to have slopes no greater than 2% in all directions.

immediate

## 09 Restroom

1) Provide a tactile sign on the latch side of the doors. The bottom of the tactile characters shall be 48" minimum above the ground and the bottoms of the highest tactile characters 60" minimum above the ground. Ensure there is an 18" by 18" minimum clear space underneath the braille sign.

short-term

2) Reinstall toilet paper dispenser to be between 7" and 9" in front of the toilet to the centerline of the dispenser.
3) Lower the hand sanitizer dispenser to be between 15" and 48" from the ground.

immediate

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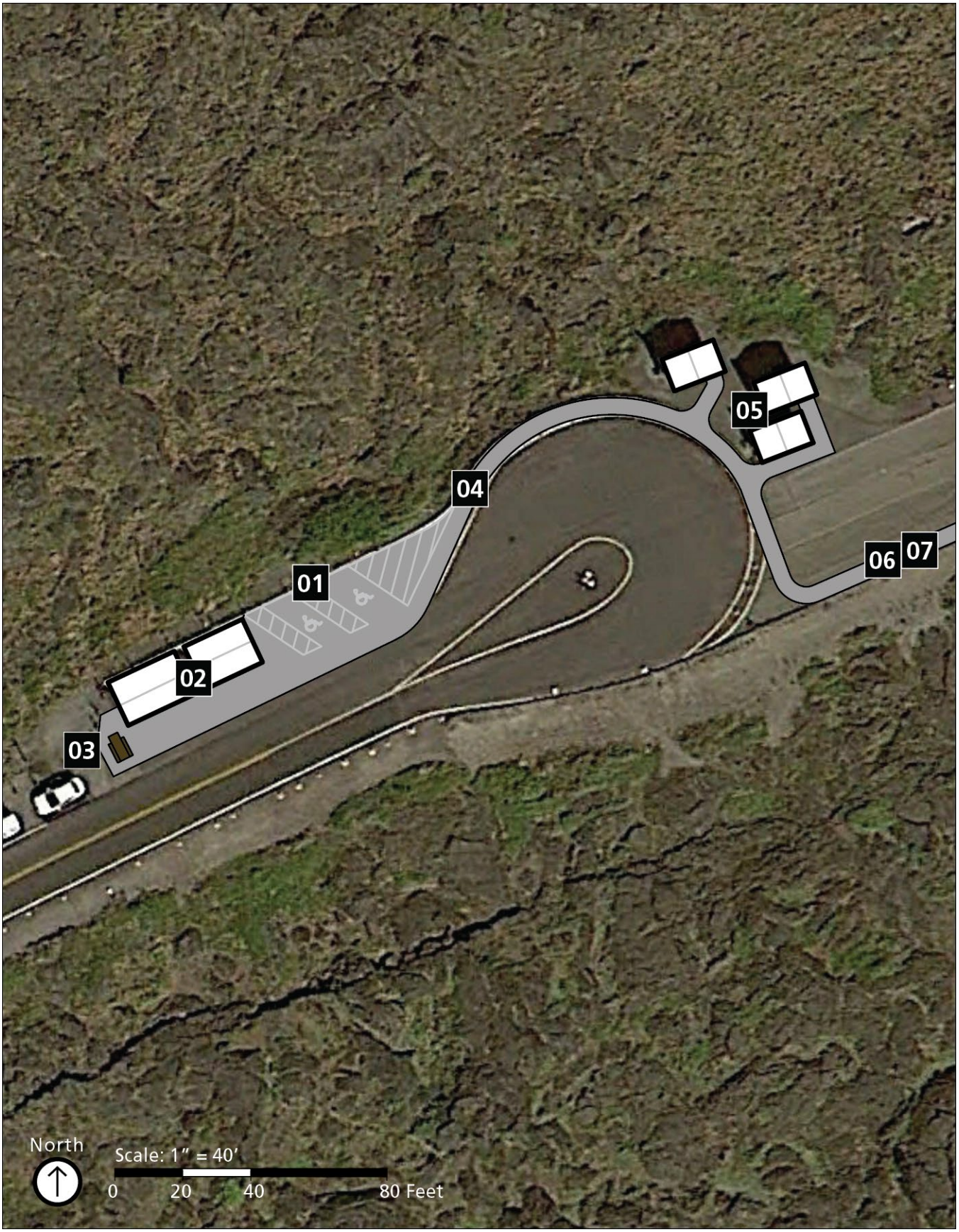
## END OF CHAIN OF CRATERS ROAD AND HŌLEI SEA ARCH

### Site Plan



## Implementation Strategy

At the end of Chain of Craters Road, visitors can walk 1,000 feet along a decommissioned roadway to see Hōlei Sea Arch, a stark lava rock formation that extends from the steep sea cliffs into the Pacific Ocean. This impressive sea arch was cut into the cliff of an ancient lava flow from about 550 years ago but will eventually crumble into the sea. The area features parking along the asphalt road that has generally flat-to-slightly sloped grades. Three parking spaces are marked as accessible, with unstriped parking along the road. Facilities include a concession building with walk-up service and a visitor contact station with stairs; however, visitors do not use the building interiors. Visitor information is enclosed in glass and mounted on the exterior building walls. One bench and two picnic tables with extended tabletops are provided. Three restrooms feature ramped entries and mostly accessible features requiring minor modifications. Visitors are advised that walking along the lava flow fields can be hazardous due to deep earth cracks, uneven and unstable terrain, and razor-sharp lava. There is a funding request to replace the existing buildings with three similar size buildings that will include accessibility into the structures, as well as a breezeway for shade and shelter between the buildings.

The following improvements to this park area are planned:

### 01 Car Parking

1) Improve the parking spaces and access aisles to have a 2% maximum slope in all directions.

   mid-term

2) Provide an accessible parking sign to designate each accessible parking space, installed 60" minimum above the ground to the bottom of the sign. Provide "Van Accessible" signage on the van-accessible parking space.

   immediate

### 02 Service Counter

1) Lower the service counter so it is 36" high maximum from the floor, and provide 36" minimum width of clear counter space at the checkout counter.

   mid-term

### 03 Picnic Tables

1) Provide 36" minimum-width clear ground space on all usable sides of accessible tables that has a 2% slope maximum in all directions.

   short-term

## 04 Accessible Route

1) Improve the route to the restrooms and wayside to have cross slopes 2% maximum.

mid-term

2) Install a curb ramp with 8.3% maximum running slope, 10% maximum slope on flares, and a level landing at the top that is 36" deep with 2% maximum slope in any direction.

immediate

## 05 Restrooms

1) Improve all three vault toilets to be accessible units.

long-term

2) Improve the thresholds at the restroom entrance doors to be no greater than ¼", or ½" with a beveled edge.

3) Replace doorknobs with units that are operable without tight grasping, pinching, or twisting of the wrist and with less than 5 pounds of force.

short-term

4) Relocate the toilet paper dispensers so that their centerline is between 7" and 9" from the front of the toilet.

5) Provide tactile signs on the latch side of the doors. The bottom of the tactile characters shall be 48" minimum above the ground and the bottoms of the highest tactile characters 60" minimum above the ground. Ensure there is an 18" by 18" minimum clear space underneath the braille sign.

immediate

## 06 Interpretive Waysides

1) Provide level, clear ground spaces at the waysides, with 2% maximum slope in all directions, measuring 30" by 48" minimum for a forward approach.

immediate

## 07 Trailhead Signage

1) Provide trail information signage at the trailhead that includes the following information about trail conditions: length of the trail or trail segment, surface type, typical and minimum tread width, typical and maximum running slope, and typical and maximum cross slope.

mid-term

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## ENVIRONMENTAL EDUCATION CENTER

### Site Plan

## Implementation Strategy

Located in the historic superintendents' quarters of the Kilauea Administration and Employee Housing Historic District, this building has been adaptively reused to serve as an environmental education center. The site features a striped parking area with a flat, paved surface. The building has a ramped entry access into the front door. The interior is open with good clearances and a ramped access to elevated rooms. Door widths allow sufficient passage space for a wheelchair. Due to the historic nature of this building, additional design and compliance will be required for interior modifications.

The following improvements to this park area are planned:

### 01 Car Parking

1) As a best practice, provide a van-accessible parking space by the education center. It shall be 11' minimum in width with a 5' minimum width access aisle or 8' minimum in width with an 8' minimum width access aisle. It shall be firm, stable, and slip resistant at a 2% maximum slope in all directions. Provide an accessible parking sign at 60" minimum to the bottom of the sign and include "Van Accessible" designation.

mid-term

### 02 Accessible Route

1) At the bottom of the stairs, provide handrail extensions at the slope of the stair flight for a horizontal distance at least equal to one tread depth beyond the last riser nosing. At the top of the stairs, provide 12" handrail extensions that extend horizontally above the landing.
2) Improve the ramp to have 12" handrail extensions that extend horizontally above the landing at the tops and bottoms of ramp runs.

mid-term

### 03 Accessible Route

1) Improve the ramp to have handrails on both sides. Handrails shall have the tops of gripping surfaces between 34" and 38" in height and 12" handrail extensions that extend horizontally above the landing at the tops and bottoms of ramp runs.

mid-term

### 04 Restroom (at top of ramp)

1) Lower the light switch so the operable part is between 15" and 48"above the ground.

2) Provide turning space in the restroom that is 60" in diameter minimum. Clearance at fixtures is permitted to overlap the turning space.

3) Lower the mirror so the bottom edge is located 40" maximum above the floor.

4) Lower the paper towel dispenser to be between 15" and 48" from the ground.

5) Improve the sink to provide 27" high knee clearance extending 11" minimum underneath the sink.

6) Reinstall the toilet paper dispenser to be between 7" and 9" in front of the toilet to the centerline of the dispenser.

7) Provide grab bars on the side wall and rear wall with 1½" between the wall and the bar. Ensure the grab bars are 33"-36" above the floor. The side wall grab bar shall be 42" long minimum and located 12" maximum from the rear wall. The rear wall grab bar shall be 36" long minimum and located at least 1' on the closed side of the toilet and 2' on the open side.

mid-term

## 05 Restrooms (near back rooms)

1) Lower the light switch so the operable part is between 15" and 48"above the ground.

2) Provide turning space in the restroom that is 60" in diameter minimum. Clearance at fixtures is permitted to overlap the turning space.

3) Lower the mirror so the bottom edge is located 40" maximum above the floor.

4) Lower the paper towel dispenser to be between 15" and 48" from the ground.

5) Improve the sink to provide 27" high knee clearance extending 11" minimum underneath the sink.

6) Reinstall the toilet paper dispenser to be between 7" and 9" in front of the toilet to the centerline of the dispenser.

7) Provide grab bars on the side wall and rear wall with 1½" between the wall and the bar. Ensure the grab bars are 33"-36" above the floor. The side wall grab bar shall be 42" long minimum and located 12" maximum from the rear wall. The rear wall grab bar shall be 36" long minimum and located at least 1' on the closed side of the toilet and 2' on the open side.

mid-term

## 06 Picnic Tables

1) Move the picnic tables to provide a 36" clear space on all usable sides for each picnic table.

mid-term

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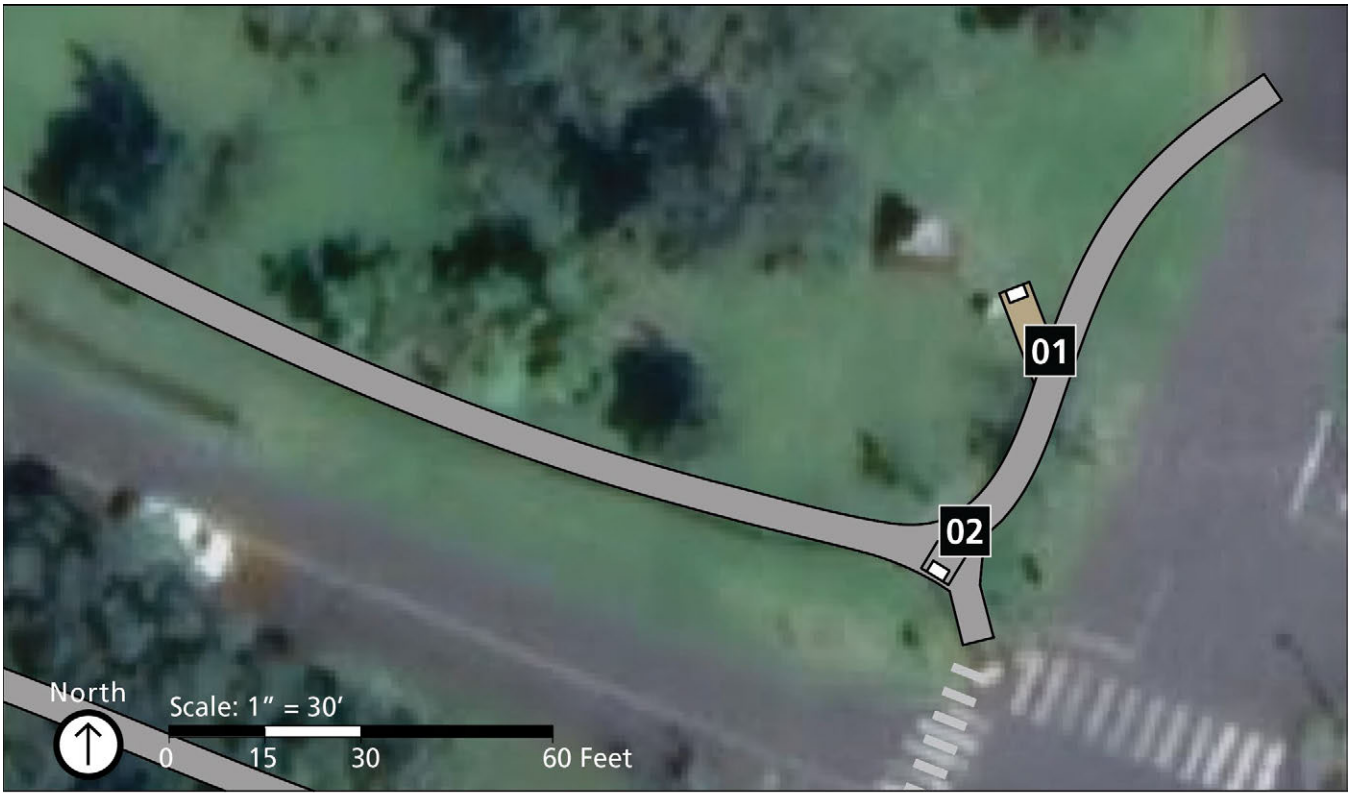
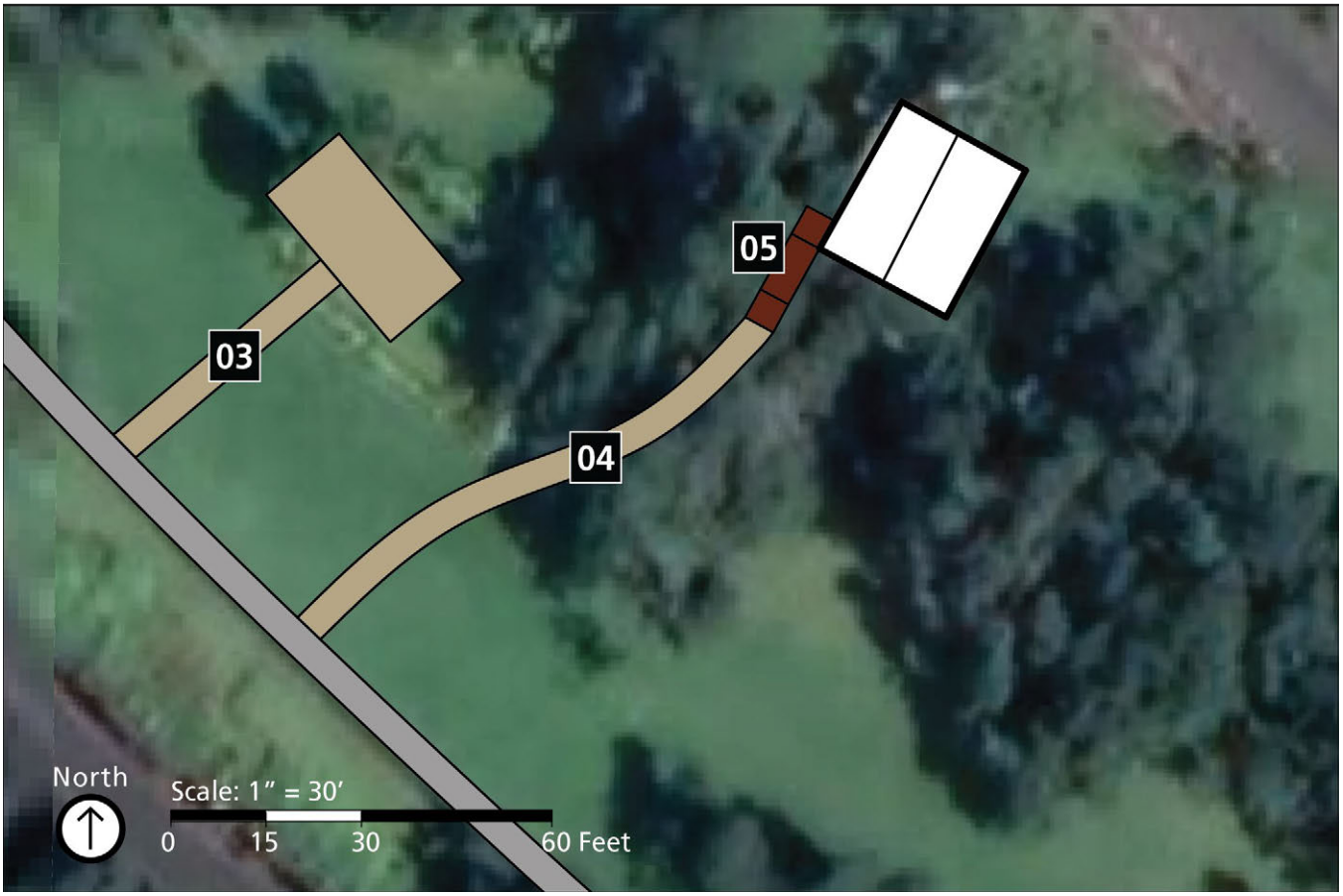
## KAHUA AND THE HALE

### Site Plan



## Implementation Strategy

Along the rim of Kīlauea is an area known as Kaʻauea, referenced in Hawaiian chants and oral histories going back hundreds of years. With its cultural significance and its position facing Halemaʻumaʻu crater, the site was selected as a place to perform hula kahiko. Today visitors will find an elevated kahua hula platform, built in 1979, and a hale, a traditional-style Hawaiian house, rebuilt in 2019. The hale is a reminder of the cultural significance of the Kīlauea summit area. Though few people ever lived directly on the rim of Kīlauea, the hale illustrates what traditional life may have looked like elsewhere in Hawaiʻi Volcanoes National Park and the island of Hawaiʻi. The completed structure allows for further cultural discussion, a place to learn Hawaiian arts and crafts, and opportunities for hālau hula groups to prepare before performing traditional hula on the nearby kahua hula platform. The area is accessed by following an asphalt trail from the visitor center to a flat, dense grassy area. Interpretive waysides are found along the route. The kahua hula platform is situated in front of the hale, which is visible to visitors but not open to the public.

The following improvements to this park area are planned:

### 01 Accessible Route

1) Ensure the route to the sign is 36" wide minimum and is firm, stable, and slip resistant.

mid-term

### 02 Interpretive Wayside

1) Provide a level, clear ground space at the wayside, with 2% maximum slope in all directions, measuring 30" by 48" minimum for a forward approach.
2) Provide signage at the trailhead that details trail conditions, including trail length, surface type, typical and maximum running and cross slopes, and typical and minimum tread width. Other recommended information includes providing a description of potential obstacles, distances to experiences and/or features, and graphics, such as a cross section that demonstrates slope conditions.

mid-term

### 03 Accessible Route

1) Ensure the route to the sign is 36" wide minimum and is firm, stable, and slip resistant.

mid-term

## 04 Accessible Route

1) Ensure the route to view the hale is 36" wide minimum and is firm, stable, and slip resistant.

mid-term

## 05 Accessible Route

1) Provide a temporary ramp to the hale to have a running slope no greater than 8.3% with handrails. The route shall be firm, stable, and slip resistant.

mid-term

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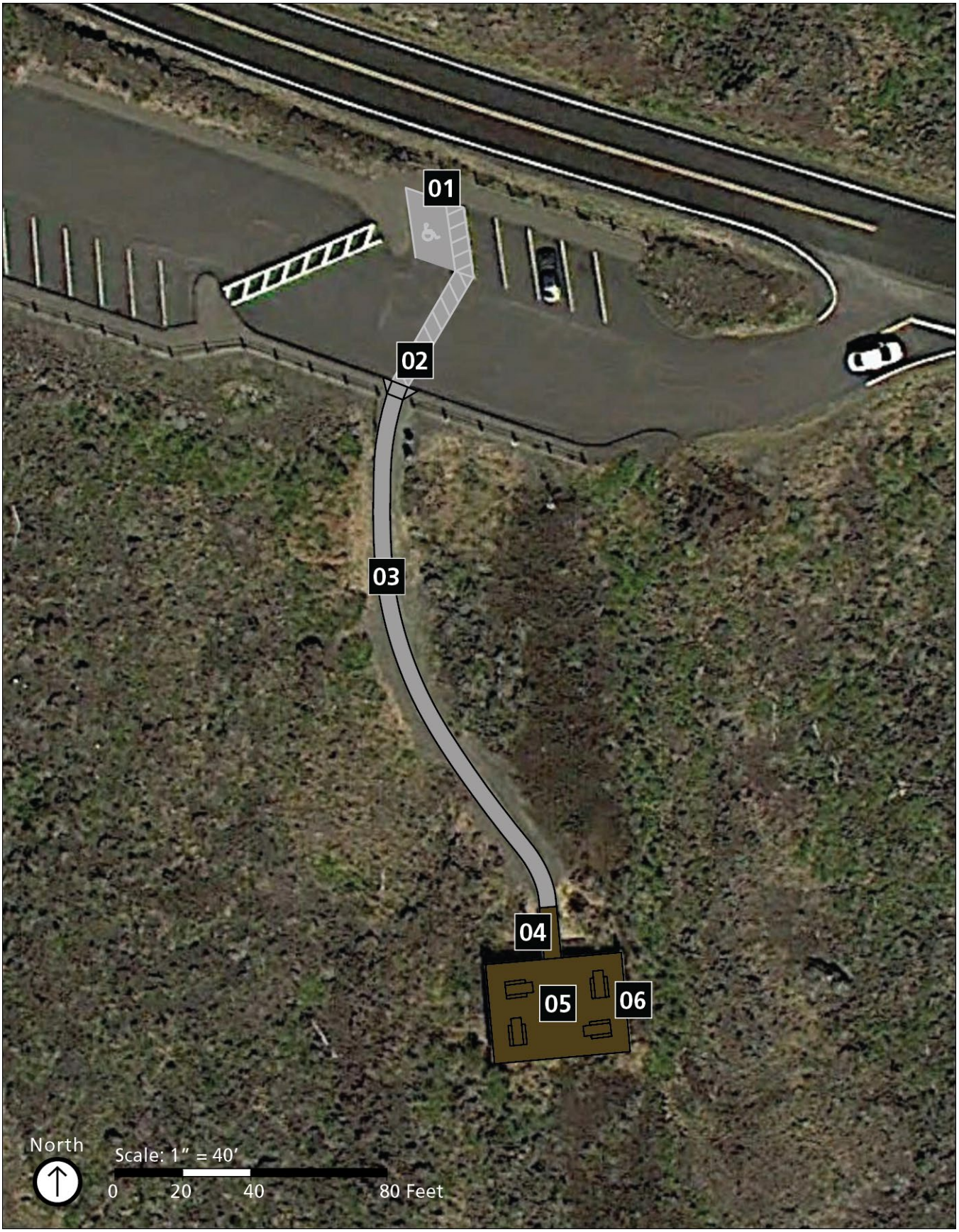
## KEALAKOMO OVERLOOK

### Site Plan



## Implementation Strategy

From Kealakomo Overlook is a panoramic vista of the Pacific Ocean and the vast lava field that covered portions of the ancient village of Kealakomo, a coastal village most likely destroyed and abandoned after the 1868 earthquake and tsunami and then buried by the Maunaulu flows of 1969–1974. Visitors can see both ʻaʻā and pāhoehoe flows from this overlook. The jagged ʻaʻā lava flows below appear as dull black, while the smooth pāhoehoe lava flows appear as silver grey. The site features an accessible parking space, with a route to a wooden overlook. Other amenities provided at the overlook include trash and recycling receptacles and three picnic tables at the wooden overlook with extended tabletops. Construction documents and compliance have been completed to move the accessible parking stall to a more suitable location and create an accessible path to the current overlook platform. The decision was made to retain the current location of the overlook, as changing its location would not provide the same experience, which has also been stated by the Kūpuna consultation group.

The following improvements to this park area are planned:

### 01 Car Parking

1) Relocate the accessible parking space to a location that can be made van accessible, with 2% slopes in all directions. Ensure the space is 11' minimum in width with a 5' minimum width access aisle or 8' minimum in width with an 8' minimum width access aisle. Provide an accessible parking sign with "Van Accessible" signage to designate the accessible parking space. The signs shall be 60" minimum above the ground to the bottom of the sign.

long-term

### 02 Outdoor Recreation Access Route

1) Connect the parking access aisle to the route by providing a curb ramp with 8.3% maximum running slope, 10% maximum slope on flares, and a level landing at the top that is 36" deep with 2% maximum slope in any direction.

long-term

### 03 Outdoor Recreation Access Route

1) Develop a new route to the viewing platform with running slopes no greater than 10% (for 30' maximum) and cross slopes no greater than 2%. Best practice is to keep running slopes no greater than 5%. Where running slopes exceed 5%, provide resting intervals with slopes no greater than 2% in all directions at the top and bottom of each segment.

long-term

## 04 Car Parking

1) Provide handrails on both sides of the ramp. Handrails shall be between 34" and 38" in height and have 12" extensions at the top and bottom of each ramp run.

long-term

## 05 Outdoor Recreation Access Route

1) Ensure the gaps between decking are no greater than ½" wide.

long-term

## 06 Picnic Tables

1) Provide 36" minimum width clear ground space on all usable sides of accessible tables, with a 2% maximum slope in all directions.

long-term

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## KĪLAUEA IKI

### Site Plan

## Implementation Strategy

The Kīlauea Iki crater is the site of the 1959 eruption, considered to be the most spectacular eruption event of the 20th century. The crater is a mile long and 3,000 feet across, and the floor is 400 feet below, with Mauna Loa looming in the distance. The site features parking for a trail, an overlook area, a vault toilet, and overflow parking for Nāhuku (Thurston Lava Tube). The road profile, parking, and access to the pedestrian routes and trail facilities are steep and narrow, so making these features accessible will require some redesign and/or programmatic alternative considerations. One end of the parking lot provides access to the Kīlauea Iki Trail along Crater Rim Trail. The trail begins on a steep slope, and entrance is via a stairway. On the other end is a wayside information board with maps, trail information, and the part of the Crater Rim Trail that goes to Nāhuku. This site is historic (Mission 66 era), so any work will require compliance and consultation. The concentric cracking around the crater has also been a concern. The existing parking lot pavement may be hiding cracks. If the park excavates to create accessible parking, an overlook, and a trail, the area may become unstable and unusable. Alternatives suggested previously include raising everything instead of excavating, but that will require removing and reinstalling the historic wall and overlook kiosk.

The following improvements to this park area are planned:

### 01 Car Parking

1) Provide a total of three accessible parking spaces, including one that is van accessible. The van-accessible space should be 11' minimum in width with a 5' minimum width access aisle or 8' minimum in width with an 8' minimum width access aisle. The other spaces shall be 8' minimum in width with a 5' minimum width access aisle.

   long-term

2) Provide an accessible parking sign to designate each accessible parking space, installed 60" minimum above the ground to the bottom of the sign. Provide "Van Accessible" signage on the van-accessible parking space.

   immediate

### 02 Curb Ramp

1) Improve the curb ramp so there are no vertical obstacles greater than ¼", or ½" with a beveled edge, and no openings wider than ½".

   mid-term

### 03 Informational Panel

1) Improve the clear ground space at the panel to be 30" by 48" minimum for a forward approach, with 2% maximum slope in all directions.

   mid-term

## 04 Interpretive Kiosk

1) Provide a level, clear ground space at the kiosk, with 2% maximum slope in all directions, measuring 30" by 48" minimum for a forward approach.

long-term

## 05 Outdoor Recreation Access Route

1) Improve the route between the parking lot and the kiosk to have 2% maximum cross slopes.

long-term

## 06 Outdoor Recreation Access Route

1) Improve the route to the restrooms to have running slopes no greater than 10% (for 30' maximum) and cross slopes no greater than 2%. Best practice is to keep running slopes no greater than 5%. Where running slopes exceed 5%, provide resting intervals with slopes no greater than 2% in all directions at the top and bottom of each segment.

long-term

## 07 Restroom

1) Provide a tactile sign on the latch side of the restroom door. The bottom of the tactile characters shall be 48" minimum above the ground and the bottoms of the highest tactile characters 60" minimum above the ground. Ensure there is an 18" by 18" minimum clear space underneath the braille sign. Improve the curb ramp so there are no vertical obstacles greater than ¼", or ½" with a beveled edge, and no openings wider than ½".
2) Reinstall toilet paper dispensers to be located between 7" and 9" in front of the toilets to the centerline of the dispenser.

immediate

3) Provide a grab bar on the side wall with 1½" between the wall and the bar. Ensure the grab bar is located 33"–36" above the floor. The side wall grab bar shall be 42" long minimum and located 12" maximum from the rear wall.

short-term

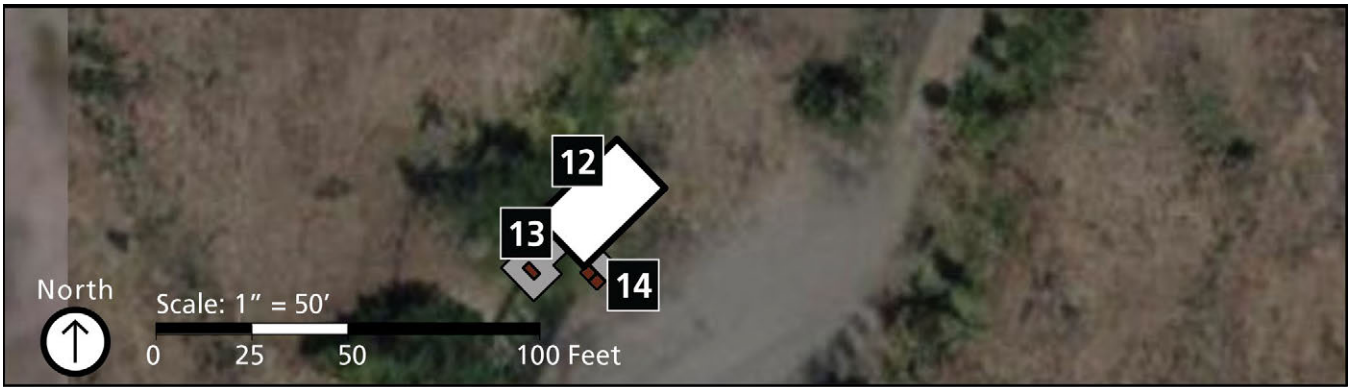
## 08 Trail Information and Fee Box

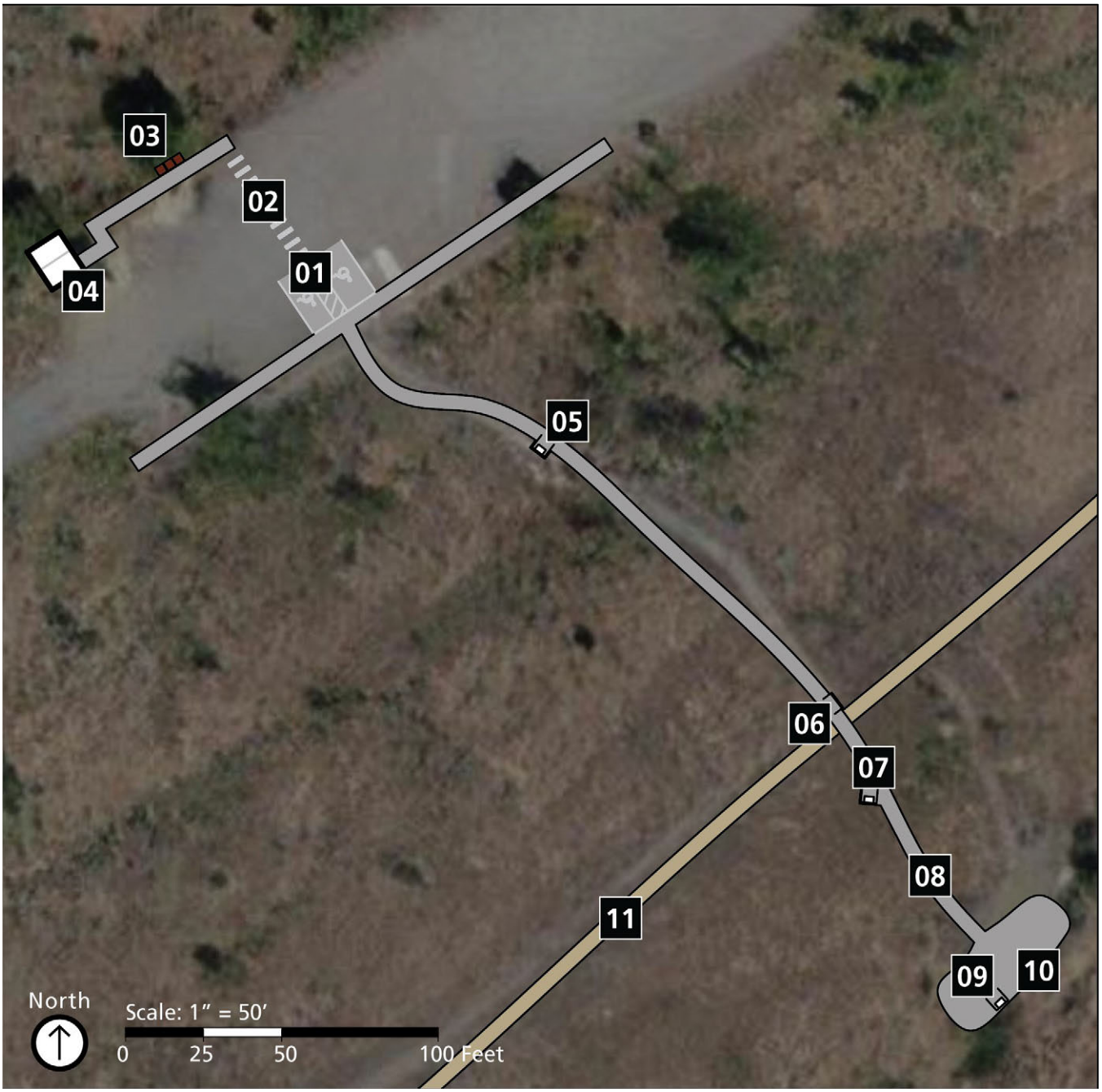
1) Relocate information panel and fee box to an accessible location, or improve the route to the to have running slopes no greater than 10% (for 30' maximum) and cross slopes no greater than 2%. Best practice is to keep running slopes no greater than 5%. Where running slopes exceed 5%, provide resting intervals with slopes no greater than 2% in all directions at the top and bottom of each segment.

short-term

## KĪLAUEA OVERLOOK

### Site Plan



## Implementation Strategy

Kīlauea Overlook provides dramatic views of the Kīlauea caldera and Halemaʻumaʻu crater. The area features a paved parking area with accessible parking, a paved route to restrooms, an overlook, gathering area, and interpretive waysides. A nearby picnic pavilion offers visitors two tables with extended tabletops, trash and recycling receptacles, and firepits/grills.

The following improvements to this park area are planned:

### 01 Car Parking

1) Provide two accessible parking spaces. One van-accessible parking space shall be 11' minimum in width with a 5' minimum width access aisle or 8' minimum in width with an 8' minimum width access aisle. The other space shall be 8' minimum in width with a 5' minimum width access aisle. Provide an accessible parking sign to designate each accessible space. The signs shall be 60" minimum above the ground to the bottom of the sign. Provide "Van Accessible" signage on the van-accessible space.

immediate

### 02 Outdoor Recreation Access Route

1) Improve the route to the vault toilet so that cross slopes are no higher than 2%.

short-term

### 03 Trash Receptacle

1) Improve the clear ground space in front of the receptacle to have 2% maximum slope in all directions, measuring 36" by 48" minimum for a forward approach.

mid-term

### 04 Restroom

1) Provide a tactile sign on the latch side of the door. The bottom of the tactile characters shall be 48" minimum above the ground and the bottoms of the highest tactile characters 60" minimum above the ground. Ensure there is an 18" by 18" minimum clear space underneath the braille sign.
2) Reinstall the toilet paper dispensers to maintain 12" of clear wall space above the grab bar and 1½" below the grab bar. Ensure that the dispenser outlets are located between 15" and 48" from the floor and that the centerline of the dispensers are between 7" and 9" from the front of the toilet.

immediate

## 05 Interpretive Wayside

1) Provide a level, clear ground space at the wayside, with 2% maximum slope in all directions, measuring 30" by 48" minimum for a forward approach.

long-term

## 06 Interpretive Wayside

1) Provide signage at the trailhead that details trail conditions, including trail length, surface type, typical and maximum running and cross slopes, and typical and minimum tread width. Other recommended information includes providing a description of potential obstacles, distances to experiences and/or features, and graphics, such as a cross section that demonstrates slope conditions.

mid-term

## 07 Interpretive Wayside

1) Provide a level, clear ground space at the wayside, with 2% maximum slope in all directions, measuring 30" by 48" minimum for a forward approach.

long-term

## 08 Outdoor Recreation Access Route

1) Improve the route to the lookout to have 2% maximum cross slopes.

long-term

## 09 Interpretive Wayside

1) Provide a level, clear ground space at the wayside, with 2% maximum slope in all directions, measuring 30" by 48" minimum for a forward approach.

long-term

## 10 Viewing Areas

1) As a best practice, lower the railing to provide a clear viewing space between 32" and 51" above the ground that extends the full length of the clear ground space, of 36" by 48" minimum, for the viewing area.

long-term

## 11 Hiking Trail

1) As a best practice, remove vertical obstacles and openings and reduce slopes to be 5% maximum to the extent possible. Slopes up to 12% maximum are allowed for 10' maximum with resting intervals provided at the top and bottom of each run. Reduce cross slopes to be 2% maximum.

long-term

## 12 Picnic Tables

1) Move the picnic tables to provide a 36" clear space on all usable sides for each picnic table.

immediate

## 13 Fireplace

1) Provide a route to the fireplace to be 36" minimum in width with a 2% maximum cross slope and a 5% maximum running slope. Segments up to 10% are allowed for short distances but must include resting intervals at the top and bottom of each segment. Routes shall be firm and stable.
2) Provide a fire-building surface at 9" minimum above the ground.

long-term

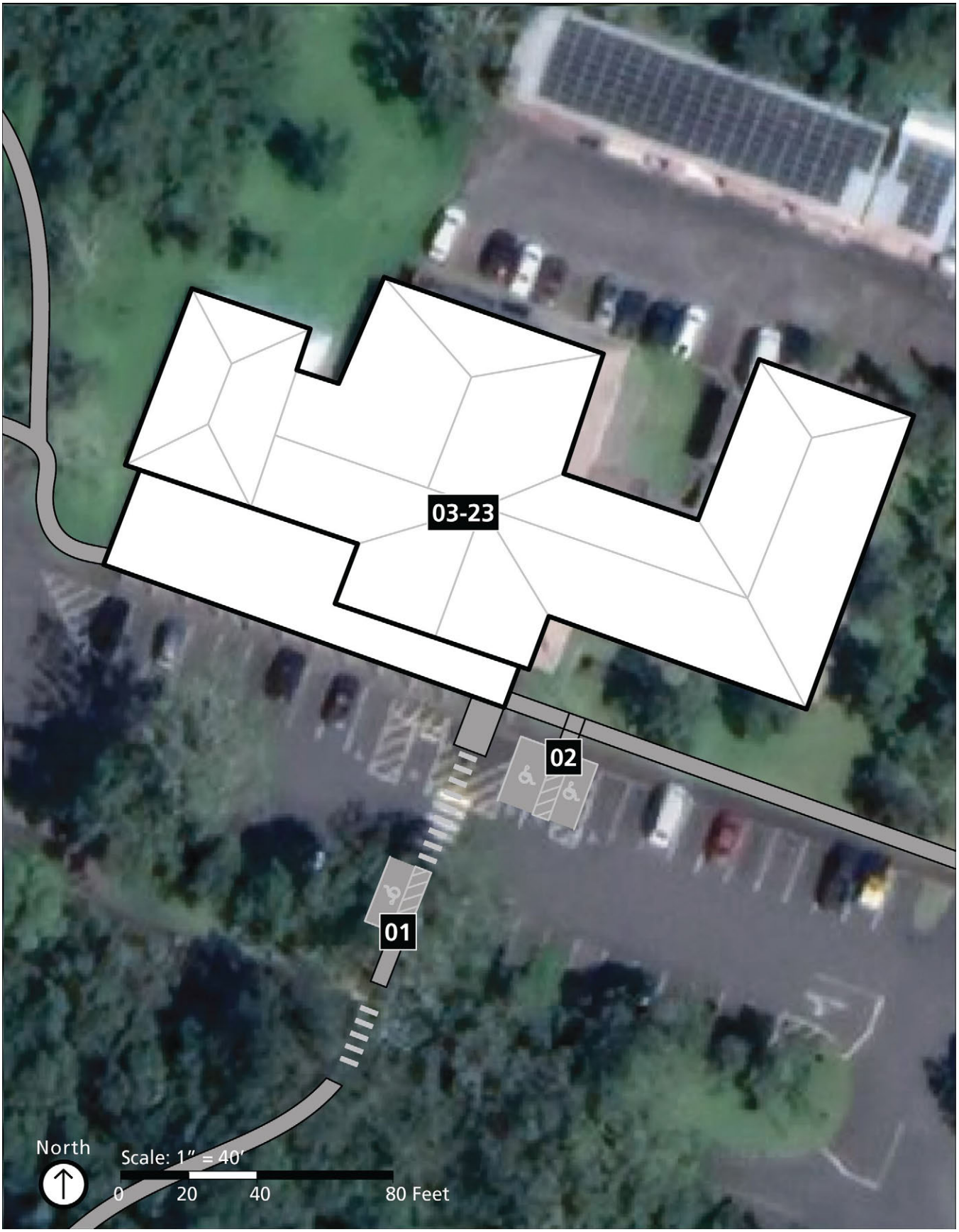
## 14 Trash Receptacle

1) Provide clear ground space in front of the receptacle with 2% maximum slope in all directions, measuring 36" by 48" minimum for a forward approach.

short-term

## KĪLAUEA VISITOR CENTER

### Site Plan



## Implementation Strategy

Located a short distance beyond the park entrance, the Kīlauea Visitor Center is a common first stop when entering the park. Rangers and volunteers are on duty daily to provide visitors with information on current conditions, hiking information, things to do, and the daily schedule of ranger-led activities. The Hawai'i Pacific Parks Association operates a bookstore that sells books, posters, and other educational materials. The site provides five accessible parking spaces near the entrance. A ramped, paved route connects to the covered lanai area and visitor center entrance. Beneath the lanai is a large, paved orientation plaza with wall-mounted interpretive panels. Facilities provided include sanitization station, seat benches, dual-height drinking fountain, entrance fee station, trash and recycling receptacles, and restrooms. Tour operators and interpretive rangers gather with visitors under the lanai to kick off programs. Two restrooms are accessible from the exterior of the building and have ramped floors at entry but lack level landings between sloping sections. Entry into the visitor center is via double doors with automatic entry. Inside, the bookstore provides dual-height counters for both information and purchases and ample circulation space throughout, with most items within an accessible reach. Most exhibits are glass encased; however, there are a few interactive tactile exhibits, including two volcano exhibits and flipbooks with audio interpreting a tropical rainforest. The theater features films that are open captioned, and audio description devices are provided for the park film. Park staff recently completed a theater rehabilitation project, which included new carpet and seats. The Kīlauea Visitor Center will be rehabilitated to accommodate the loss of facilities and functions at Uēkahuna bluff from the 2018 eruption. Universal design will be incorporated throughout the design development.

The following improvements to this park area are planned:

### 01 Car Parking

1) Provide a sixth accessible parking space that is 8' minimum in width with a 5' minimum width access aisle. Parking spaces and access aisles shall be firm, stable, and slip resistant at a 2% maximum slope in all directions. Provide an accessible parking sign to designate the space that is 60" minimum above the ground to the bottom of the sign.

immediate

### 02 Car Parking

1) Remove the curb ramp from the access aisle so the aisle extends the full length of the parking space.
2) Improve the curb ramp so it has an 8.3% maximum running slope with the flared sides having a 10% maximum running slope.

short-term

## 03 Ramp

1) Improve the slopes of the bottom and top landing at the ramp to be 2% maximum in all directions.

long-term

2) Provide handrails on both sides of the ramp. Handrails shall be between 34" and 38" in height and have 12" extensions at the top and bottom of each ramp run.

short-term

## 04 Accessible Route

1) Improve the maneuvering clearance by the front door to have a 2% slope maximum in all directions.

long-term

## 05 Door Opener

1) Move the sign to provide a clear ground space in front of the button, measuring 30" by 48" minimum for a forward approach.

short-term

## 06 Door

1) As a best practice, reduce the force required to open the door to be 10 pounds maximum.

short-term

## 07 Accessible Route

1) Improve the pavement under the lanai so there are no vertical obstacles greater than ¼", or ½" with a beveled edge and no openings wider than ½".

long-term

## 08 Interpretive Wayside

1) Provide a level, clear ground space at the wayside, with 2% maximum slope in all directions, measuring 30" by 48" minimum for a forward approach.

long-term

## 09 Accessible Route

1) Provide a cane-detectable object at ground level below the panel or reduce the width of the panel so it does not protrude more than 4" into the path of circulation.

short-term

## 10 Benches

1) As a best practice, improve a bench to provide an armrest, backrest, and companion seating, 36" by 48" minimum.

short-term

## 11 Drinking Fountains

1) Provide a level, clear space centered on the unit, with 2% maximum slope in all directions, measuring 30" by 48" minimum for a forward approach.

long-term

2) Raise the standing fountain to have a spout height between 38" and 43" above the ground and the seated fountain to have a spout height of 36" maximum above the ground.

short-term

## 12 Telephone

1) Work with the telephone company to lower the telephone's coin deposit slot to be between 15" and 48" above the ground, or remove it.

short-term

## 13 Accessible Route

1) Improve the route into the restrooms to have running slopes no greater than 5% and cross slopes no greater than 2%. Ensure the surface is slip resistant.

mid-term

## 14 Women's Restroom

1) Insulate or otherwise configure the supply and drainpipes under the sink to protect against contact.
2) Relocate the toilet paper dispenser so that its centerline is between 7" and 9" from the front of the toilet.

immediate

3) Improve the door to the accessible toilet compartment to be self-closing.

4) Improve the door latch to be operable without tight grasping, pinching, or twisting of the wrist and with less than 5 pounds of force.

5) Improve or replace the toilet so that the flusher is on the open side of the toilet.

6) Move the rear wall grab bar towards the side wall to have 2' of the grab bar on the flusher side of the toilet and 1' of the grab bar on the side wall of the toilet.

7) Lower the baby changing table so that, when open, it is 34" maximum in height above the ground.

short-term

## 15 Men's Restroom

1) Lower the coat hook to be between 15" and 48" above the floor.

2) Improve the accessible toilet compartment door to have door pulls on both sides.

3) Relocate the toilet paper dispenser so that its centerline is between 7" and 9" from the front of the toilet.

immediate

4) Improve the door to the accessible toilet compartment to be self-closing.

5) Move rear wall grab bar towards the side wall to have 2' of the grab bar on the flusher side of the toilet and 1' of the grab bar on the side wall of the toilet.

6) Raise the toilet seat height to be between 17" and 19" above the floor.

7) Lower the baby changing table so that, when open, it is 34" maximum in height above the ground. Provide a clear space positioned for a forward approach that is 30" by 48".

8) Lower the urinal so that its bottom lip is no higher than 17" above the floor.

short-term

9) Improve the accessible toilet compartment to have a 60" minimum width measured perpendicular from the side wall and a 59" minimum depth measured perpendicular from the rear wall.

mid-term

## 16 Theater Door

1) Provide a tactile sign on the latch side of the door. The bottom of the tactile characters shall be 48" minimum above the ground and the bottoms of the highest tactile characters 60" minimum above the ground. Ensure there is an 18" by 18" minimum clear space underneath the braille sign.

short-term

## 17 Theater Seating

1) Provide designated accessible seating and companion spaces. Spaces shall be firm, stable, and slip resistant at a 2% maximum slope in all directions. The wheelchair space shall be 36" minimum in width and 48" minimum in depth (33" apiece if adjacent to one another) when entered from the front or rear (60" minimum depth when entered from the side). The companion seat shall be in shoulder alignment with the adjacent wheelchair space. Disperse accessible seating areas.

short-term

## 18 Accessible Route

1) Provide a route to the stage to have a running slope no greater than 5% and a cross slope no greater than 2%. The running slope may be up to 8.3% using a ramp with handrails. The route shall be firm, stable, and slip resistant.

long-term

## 19 Donation Box

1) Move the donation box to provide a clear ground space in front of the button, measuring 30" by 48" minimum for a forward approach.

short-term

## 20 Retail Items

1) As feasible, distribute items, especially popular ones, lower on shelves and displays. Provide a sign letting visitors know that assistance accessing other items is available.

short-term

## 21 Checkout Counter

1) Provide 36" minimum width of clear counter space at the checkout counter.

short-term

## 22 Fee Drop Box

1) Lower the drop box to be between 15" and 48" above the ground.

short-term

## 23 Exhibits

1) Improve all exhibits to have 70% or greater contrast between text and background images.
2) As a best practice, improve or replace text to use sans serif fonts, 24-point minimum text, and high-contrast images and text and minimize the use of all caps and italics.
3) Improve exhibits to provide 27" minimum-height knee clearance.
4) Improve exhibits to be operable with no more than 5 pounds of force.
5) Provide audio description for the exhibits.
6) Raise the maps to be between 15" and 48" above the ground.

mid-term

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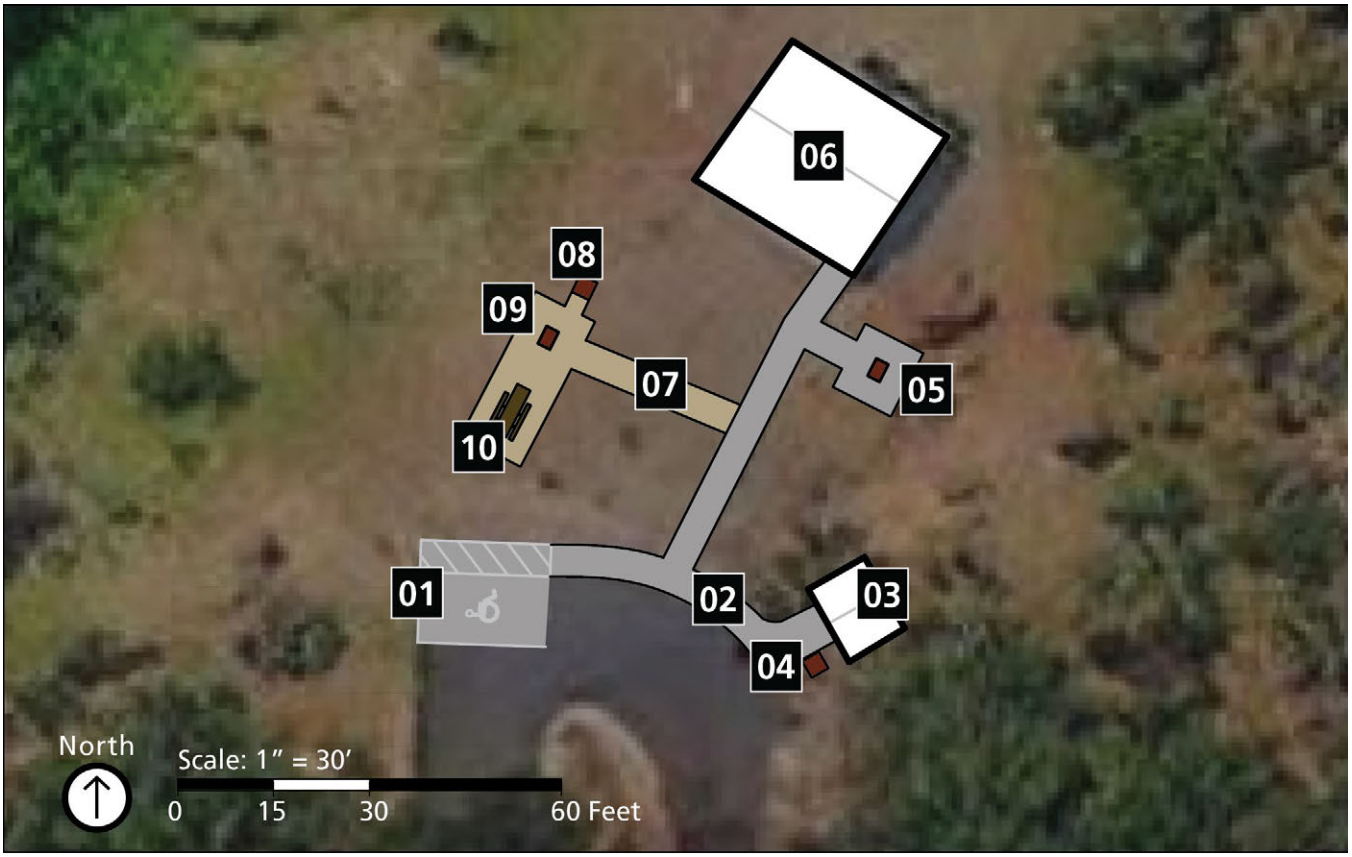
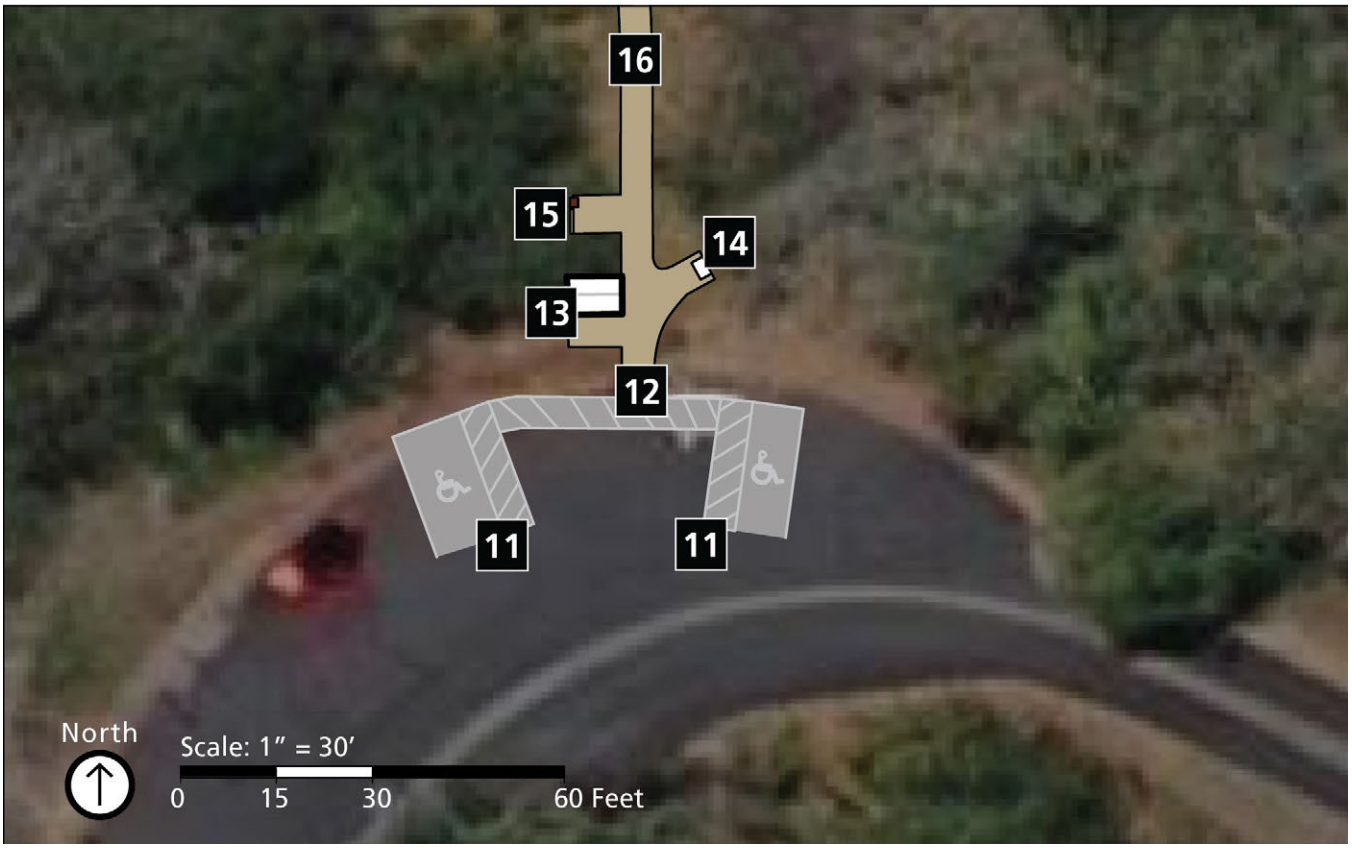
## KĪPUKAPUAULU PICNIC AND DAY USE AREA

### Site Plan



## Implementation Strategy

Kīpukapuaulu is a popular day-use area and trailhead with a nearby picnic area, known by some as “Bird Park.” The picnic area features grills, picnic tables, trash receptacles, and a historic covered picnic shelter. The Kīpukapuaulu trail is a 1.2-mile loop consisting of a dirt path with gentle inclines and declines that takes visitors through a kīpuka, an area of older vegetation surrounded by a more recent lava flow from Mauna Loa. The site features a flat, unstriped asphalt parking loop with a firm and stable, compacted, natural surface trailhead, with a historic information kiosk, a wayside, and trailhead information. The trail features benches, some steep, rocky areas, and steps. Bollards between the parking area and trailhead are well spaced for wheelchair access into the site.

The following improvements to this park area are planned:

### 01 Car Parking

1) Provide an accessible parking sign to designate each accessible parking space. The signs shall be 60" minimum above the ground to the bottom of the sign. Provide "Van Accessible" signage on the van-accessible parking space.

immediate

### 02 Outdoor Recreation Access Route

1) Improve the route to the vault toilet to have running slopes no greater than 10% (for 30' maximum) and cross slopes no greater than 2%. Best practice is to keep running slopes no greater than 5%. Where running slopes exceed 5%, provide level resting spaces at the top and bottom of each segment, and ensure these have slopes no greater than 2% in all directions.
2) Improve the route to the vault toilet so vertical obstacles are no greater than ½" high.

long-term

### 03 Restroom

1) Provide a tactile sign on the latch side of the door. The bottom of the tactile characters shall be 48" minimum above the ground and the bottoms of the highest tactile characters 60" minimum above the ground. Ensure there is an 18" by 18" minimum clear space underneath the braille sign.
2) Move the metal hook so it is 12" above the side wall grab bar minimum.

immediate

3) Relocate the toilet paper dispenser so that its centerline is between 7" and 9" from the front of the toilet.

short-term

## 04 Trash Receptacle

1) Extend the clear ground space in front of the receptacle to be 36" by 48" minimum for a forward approach, with 2% maximum slope in all directions.

mid-term

## 05 Grill

1) Provide clear ground space, 48" minimum width, on all usable sides of the grill. Clear space should have 2% maximum slopes in all directions.

long-term

## 06 Picnic Facilities

1) Provide 36" minimum-width clear ground space on all usable sides of accessible table. Improve the ground surface to have a slope no greater than 2% in all directions.

long-term

## 07 Outdoor Recreation Access Route

1) Provide a route to the uncovered picnic area to be 36" minimum in width with a 2% maximum cross slope and a 5% maximum running slope. Segments up to 10% are allowed for short distances but must include resting intervals at the top and bottom of each segment. Routes shall be firm and stable.

long-term

## 08 Trash Receptacle

1) Extend the clear ground space in front of the receptacle to be 36" by 48" minimum for a forward approach, with 2% maximum slope in all directions.

long-term

## 09 Grill

1) Improve the grill cooking surface to be operable without tight grasping, pinching, or twisting of the wrist and with less than 5 pounds of force. Ensure the fire-building surface of the grills are 9" minimum above the ground.

mid-term

2) Provide clear ground space, 48" minimum width, on all usable sides of the grill. Clear space should have 2% maximum slopes in all directions.

long-term

## 10 Picnic Facilities

1) Provide a 36" minimum-width clear ground space on all usable sides of accessible table. Improve the ground surface to have a slope no greater than 2% in all directions.
2) Replace the picnic table to have an extended section or a bench cutout with appropriate knee and toe clearance.

long-term

## 11 Car Parking

1) Provide two accessible parking spaces. One van-accessible space shall be 11' minimum in width with a 5' minimum width access aisle or 8' minimum in width with an 8' minimum width access aisle. The other parking space shall be 8' minimum in width with a 5' minimum width access aisle. Provide an accessible parking sign to designate each accessible parking space. The signs shall be 60" minimum above the ground to the bottom of the sign. Provide "Van Accessible" signage on the van-accessible parking spaces.

long-term

## 12 Outdoor Recreation Access Route

1) Provide a route to the trailhead sign that says, "Save Our Forests" and a trail map holder and trail information sign to be 36" minimum in width with a 2% maximum cross slope. Routes shall be firm and stable. Ensure vertical obstacles are no more than ½" high.

mid-term

## 13 Trailhead

1) Provide a level, clear ground space at the trailhead sign, with 2% maximum slope in all directions, measuring 30" by 48" minimum for a forward approach.
2) Lower the height of the counter to be between 28" and 34" above the ground.

mid-term

## 14 Interpretive Wayside

1) Provide a level, clear ground space at the "Save Our Forests" sign, with 2% maximum slope in all directions, measuring 30" by 48" minimum for a forward approach.

2) Improve the "Save Our Forests" sign to provide 27" high knee clearance extending 11" minimum underneath and 9" high toe clearance 25" minimum underneath the sign.

mid-term

## 15 Trailhead

1) Provide a level, clear ground space at the trail map holder, with 2% maximum slope in all directions, measuring 30" by 48" minimum for a forward approach.
2) Lower the trail information sign so the bottom edge is between 24" and 36."
3) Provide more trail condition details on the sign, including trail length, surface type, typical and maximum running and cross slopes, and typical and minimum tread width. Other recommended information includes providing a description of potential obstacles, distances to experiences and/or features, and graphics, such as a cross section that demonstrates slope conditions.
4) As a best practice, move the carsinite post, or provide regulation information, closer to the trail conditions information sign.

mid-term

## 16 Hiking Trail

1) As a best practice, remove vertical obstacles and openings and reduce slopes to be 5% maximum to the extent possible. Slopes up to 12% maximum are allowed for 10' maximum with resting intervals provided at the top and bottom of each run. Reduce cross slopes to be 2% maximum.
2) Provide a clear space in front of benches that is 36" by 48" minimum with a slope no greater than 2% in all directions. For any benches from which a view is important, provide a clear ground space adjacent to the bench that is 36" by 48" minimum. As a best practice, adjust the benches so the seat surface is between 17" and 19" above the ground and a backrest and armrest are provided.

long-term

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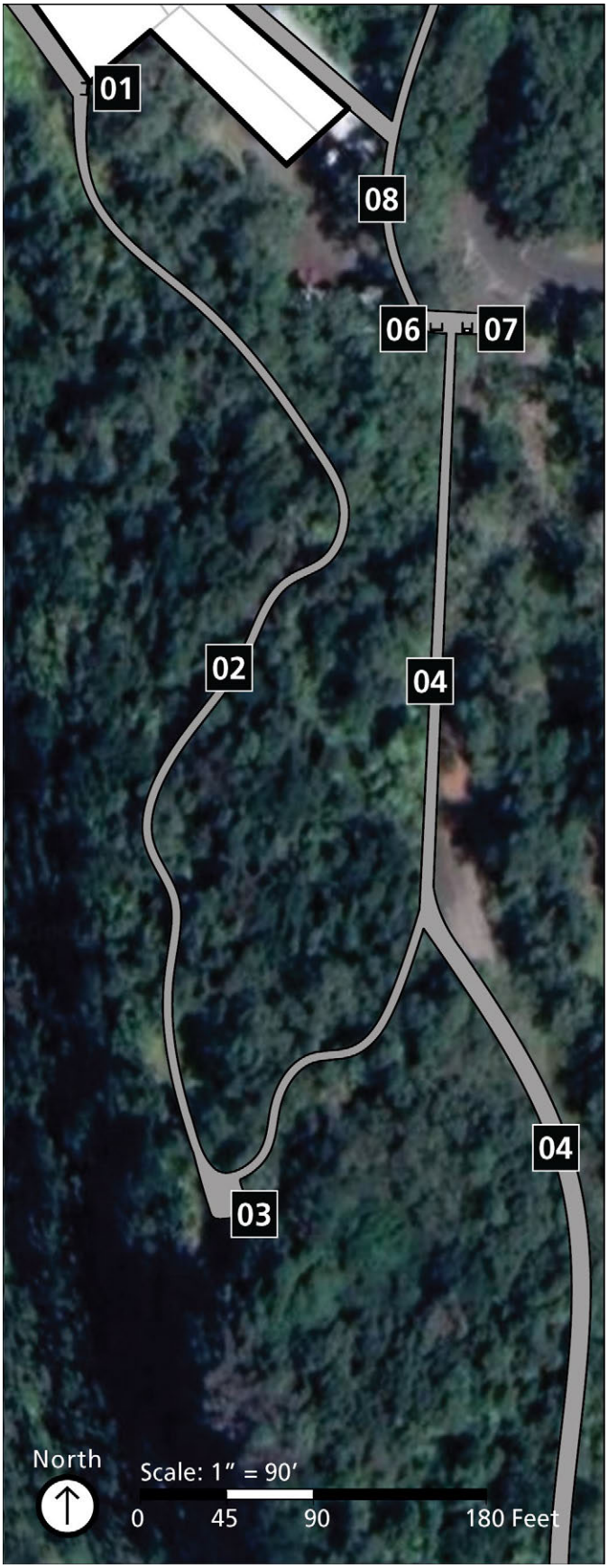
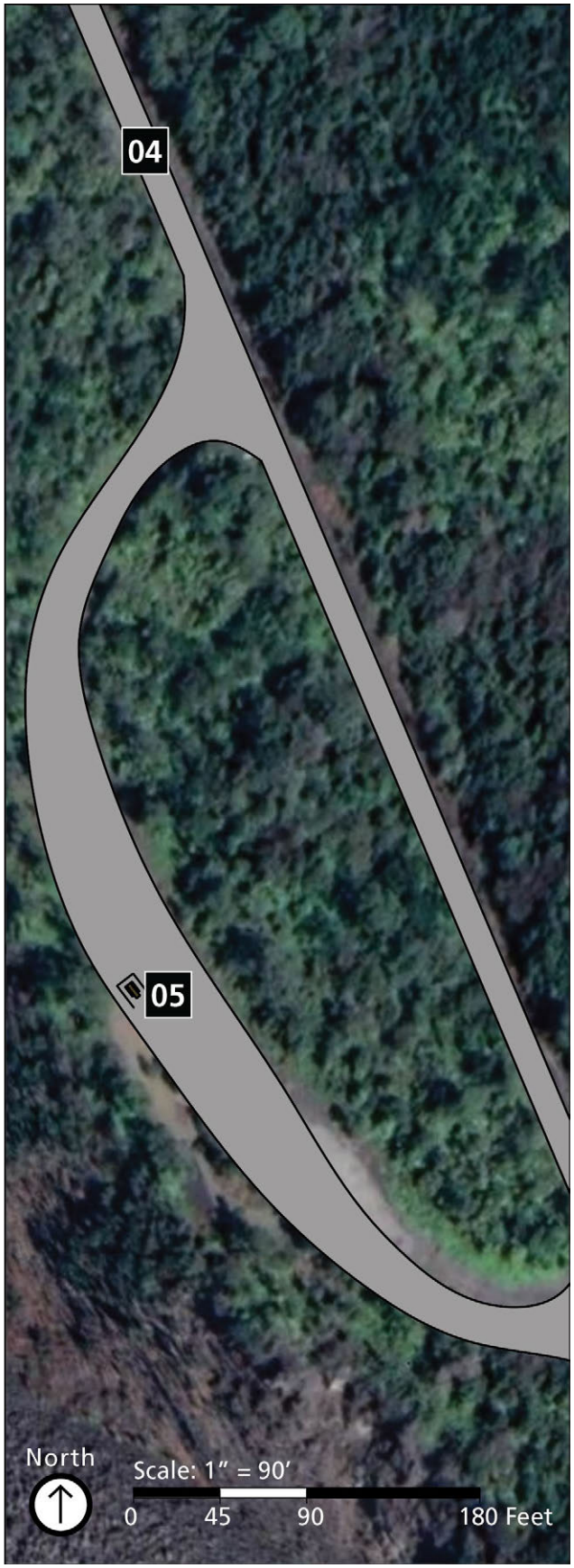
## KŪPINAʻI PALI (WALDRON LEDGE)

### Site Plan



## Implementation Strategy

The Kūpinaʻi Pali (Waldron Ledge) portion of Crater Rim Trail allows visitors to walk through history, leading to a panoramic view of the Kīlauea caldera and Halemaʻumaʻu crater, which both dramatically collapsed in 2018. At one point in time, this stretch of trail was part of Crater Rim Drive, the road that encircled the summit caldera. However, on November 16, 1983, a magnitude 6.7 earthquake struck the island, decimating parts of the road. Large chunks collapsed and deep cracks developed, rendering it impassable. As part of repairs from the seismic event, the road was rerouted to its current path, and the portions left behind were converted to today's Crater Rim Trail. Painted road lines are visible on the trail, providing a reminder of its history. Locally, this area may still sometimes be referred to as "Earthquake Trail." The distance to the overlook on this route is about a 1-mile round trip. The trail begins across the street from the Kīlauea Visitor Center to the left of the Volcano House and down the service road to the rock wall on the left. This section of trail includes some cracked and tilted sections. The first small overlook past the Volcano House on the right has a steep descent, but the larger overlook has level ground and is mostly paved. Picnic tables are located at the overlook.

The following improvements to this park area are planned:

### 01 Trailhead Signage

1) Provide trail condition details, including trail length, surface type, typical and maximum running and cross slopes, and typical and minimum tread width. Other recommended information includes providing a description of potential obstacles, distances to experiences and/or features, and graphics, such as a cross section that demonstrates slope conditions.

mid-term

### 02 Outdoor Recreation Access Route

1) Improve the surface of the route from behind the Volcano House to have vertical obstacles that are ½" high maximum and openings that are ½" wide maximum.
2) Improve the route to be 36" minimum in width with a 2% maximum cross slope and a 5% maximum running slope. Segments up to 10% are allowed for short distances but must include resting intervals at the top and bottom of each segment.

long-term

3) Trim vegetation to maintain a clear height of 80" minimum on the route to the viewing area.

short-term

## 03 Viewing Areas

1) Provide a level, clear ground space at the viewing area, with 2% maximum slope in all directions, measuring 30" by 48" minimum for a forward approach.

long-term

## 04 Outdoor Recreation Access Route

1) Improve, as practicable, the surface of the historic road to have 2% maximum cross slopes and openings no greater than ½".

long-term

## 05 Trailhead Signage

1) Move the picnic table to provide a 36" clear space on all usable sides.
2) Raise the picnic table to provide 27" high knee clearance.

mid-term

## 06 Trailhead Signage

1) Provide trail condition details, including trail length, surface type, typical and maximum running and cross slopes, and typical and minimum tread width. Other recommended information includes providing a description of potential obstacles, distances to experiences and/or features, and graphics, such as a cross section that demonstrates slope conditions.

mid-term

## 07 Interpretive Wayside

1) Move the interpretive wayside to provide 27" high knee clearance extending 11" minimum underneath and 9" high toe clearance 25" minimum underneath the interpretive wayside.
2) As a best practice, lower the interpretive wayside so that its bottom edge is 32" above the ground.

short-term

## 08 Outdoor Recreation Access Route

1) Improve the surface of the route from behind the Volcano House to ʻŌhiʻa Wing to have vertical obstacles that are ½" high maximum.

long-term

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## MAUNAULU

### Site Plan

## Implementation Strategy

The Maunaulu parking area connects visitors with a lava landscape from the 1969–1974 Maunaulu flow. This parking area and trailhead connects to several trails that provide views of lava flows and the Pacific Ocean. The site features accessible parking and restrooms. An asphalt path connects to the Nāpau Trailhead, to access the information trail sign requires traversing over rugged lava flows.

The following improvements to this park area are planned:

### 01 Car Parking

1) Provide an accessible parking sign to designate each accessible parking space. The signs shall be 60" minimum above the ground to the bottom of the sign. Provide "Van Accessible" signage on the van-accessible parking space.

   immediate

2) Improve the access aisle to have 2% maximum slope in all directions.

   long-term

### 02 Outdoor Recreation Access Route

1) Prune branches to ensure that a minimum vertical clearance height of 80" from the ground is provided.

   immediate

2) Improve the route from parking to trailhead to have no vertical obstacles greater than ½" in height.

3) Improve the route to the trailhead to have a 5% maximum running slope and 2% maximum cross slope. Segments with running slopes up to 10% are allowed for short distances but must include resting intervals at the top and bottom of each segment.

   long-term

### 03 Trailhead Signage

1) Provide trail information signage at the trailhead that includes the following information about trail conditions: length of the trail or trail segment, surface type, typical and minimum tread width, typical and maximum running slope, and typical and maximum cross slope.

   mid-term

2) Relocate sign or improve the route to the trailhead sign to have a 5% maximum running slope and 2% maximum cross slope

3) Provide a level, clear ground space at the trailhead sign, with 2% maximum slope in all directions, measuring 30" by 48" minimum for a forward approach.

long-term

## 04 Trail Guide Fee Box

1) Provide a level, clear ground space at the fee box, with 2% maximum slope in all directions, measuring 30" by 48" minimum for a forward approach.

long-term

## 05 Eruption Signage

1) Provide a level, clear ground space at the eruption sign, with 2% maximum slope in all directions, measuring 30" by 48" minimum for a forward approach.

long-term

## 06 Outdoor Recreation Access Route

1) Improve the route to the viewing platform to have running slopes no greater than 5% or provide level resting intervals at the top and bottom of each segment with running slopes between 5% and 10%. Ensure that resting intervals have slopes no greater than 2% in all directions.

long-term

## 07 Recycling Receptacle

1) Locate the receptacle so it has a clear ground measuring 36" by 48" minimum for a forward approach, with 2% maximum slope in all directions.

short-term

## 08 Restroom

1) Provide a tactile sign on the latch side of the door. The bottom of the tactile characters shall be 48" minimum above the ground and the bottoms of the highest tactile characters 60" minimum above the ground. Ensure there is an 18" by 18" minimum clear space underneath the braille sign.
2) As a best practice, reduce the force required to open the door to be 10 pounds maximum.
3) Relocate the toilet paper dispenser so that its centerline is between 7" and 9" from the front of the toilet.
4) Lower the hand sanitizer dispenser to be between 15" and 48" from the ground.

Immediate

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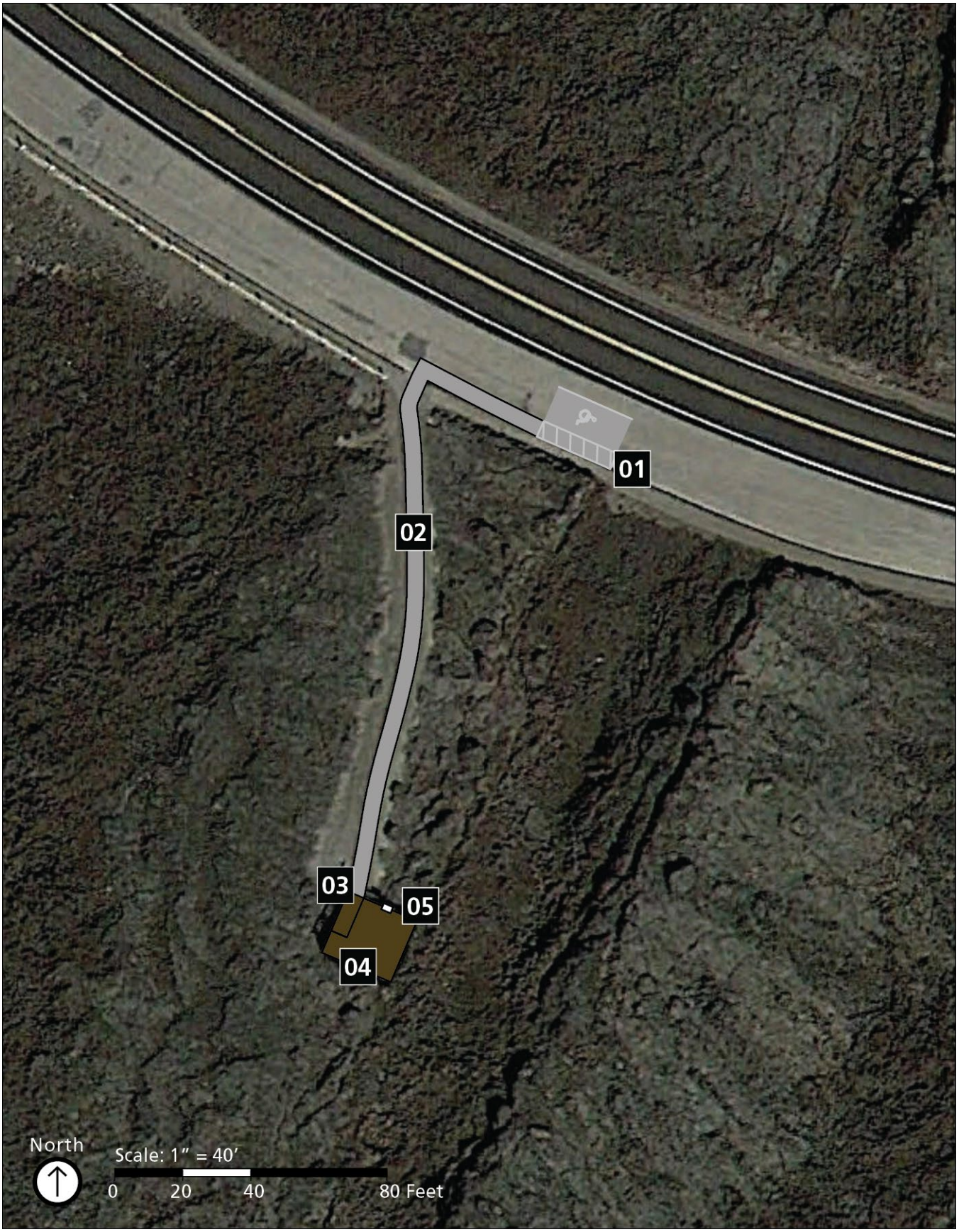
## MULIWAI A PELE

### Site Plan



## Implementation Strategy

Muliwai a Pele is an overlook area that offers wide views of the Pacific Ocean over jagged black lava and a “river” channel that the lava river flowed in. The site has a steep, unmarked pullout parking area and a steep trail up to wooden overlook platforms. Information about the Maunaulu flow is provided on an aging interpretive panel mounted on the viewing platform.

The following improvements to this park area are planned:

### 01 Car Parking

1) Provide one van-accessible parking space measuring 11' minimum in width with a 5' minimum width access aisle, or 8' minimum in width with an 8' minimum width access aisle. Provide an accessible parking sign to designate each accessible stall. The signs shall be 60" minimum above the ground to the bottom of the sign. Provide "Van Accessible" signage on the van-accessible stall.

long-term

### 02 Outdoor Recreation Access Route

1) Improve the route to the viewing platform to have running slopes no greater than 10% (for 30’ maximum) and cross slopes no greater than 2%. Best practice is to keep running slopes no greater than 5%. Where running slopes exceed 5%, provide resting intervals with slopes no greater than 2% in all directions at the top and bottom of each segment.

long-term

### 03 Ramp to Viewing Platform

1) Improve the ramp to have running slopes no greater than 8.3% maximum.
2) Provide handrails on both sides of the ramp. Handrails shall be between 34" and 38" in height and have 12" extensions at the top and bottom of each ramp run.

immediate

### 04 Viewing Platform

1) Reduce the gaps between decking to be no greater than ½" wide.

immediate

## 05 Outdoor Recreation Access Route

1) Improve the wayside to have 70% or greater contrast between text and background images.
2) Improve the wayside to provide 27" minimum height knee clearance with 11" minimum depth beneath the exhibit and 9" minimum depth toe clearance.

mid-term

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## NĀHUKU (THURSTON LAVA TUBE)

### Site Plan

## Implementation Strategy

Nāhuku (Thurston Lava Tube) was created by a river of molten lava. When the supply of lava stopped or was diverted elsewhere, it left behind an empty cave. This lava tube is accessed by a hike starting from the Nāhuku roadside parking area. The topography in this entire area, including the road, parking area, the lava entrance area, and the visitor facilities, are steep, with asphalt surface. There are two spaces striped for accessible parking. The route from the parking area leads to an information panel, a pair of waysides, a drinking fountain, and restrooms and continues for a 1.5-mile round loop through the tunnel. Alternate parking is available at Kīlauea Iki Overlook a half mile away.

The following improvements to this park area are planned:

### 01 Car Parking

1) Improve the parking spaces and access aisles to have 2% maximum slope in all directions.

long-term

### 02 Bus Passenger Loading Zone

1) Improve bus loading zone to have a vehicle pull-up space and access aisle with a 2% maximum slope in all directions. The vehicle pull-up space shall have an 8' minimum width and 20' minimum length. The access aisle shall be 5' minimum width and extend the full length of the pull-up space.

long-term

### 03 Trash Receptacles

1) Improve the clear ground space in front of the receptacle to have 2% maximum slope in all directions, measuring 36" by 48" minimum for a forward approach.

long-term

### 04 Interpretive Kiosk

1) Provide a level, clear ground space at the panel, with 2% maximum slope in all directions, measuring 30" by 48" minimum for a forward approach.

long-term

## 05 Accessible Route

1) Improve the route to have a 5% maximum running slope. Segments up to 10% are allowed for short distances but must include resting intervals at the top and bottom of each segment.

long-term

## 06 Interpretive Waysides

1) Improve the wayside to provide 27" minimum height knee clearance with 11" minimum depth beneath the exhibit and 9" minimum depth toe clearance.

mid-term

## 07 Drinking Fountain

1) Provide an accessible drinking fountain near the historic fountain, with spouts for standing and seated users near the historic fountain. Provide a level, clear ground space centered on the unit, measuring 30" by 48" minimum for a forward approach, with 2% maximum slope in all directions.

long-term

## 08 Outdoor Recreation Access Route

1) Improve the route to have a 2% maximum cross slope, firm and stable surface, and vertical obstacles no greater ½" high.

long-term

## 09 Men's and Women's Restrooms

1) Improve the door threshold to be no greater than ¼" or ½" with a beveled edge.
2) Reinstall the toilet paper dispenser to maintain 12" of clear wall space above the grab bar, and 1½" below the grab bar. Ensure that the dispenser outlet is located between 15" and 48" from the floor and that the centerline of the dispenser is between 7" and 9" from the front of the toilet.
3) Improve the door to the accessible toilet compartment to be self-closing.
4) Improve the accessible toilet compartment door to have door pulls on both sides.
5) Lower the sink so that the counter surface is between 28" and 34" above the floor. Maintain 27" minimum-height knee clearance underneath.
6) Lower the paper towel dispensers so they are between 15" and 48" above the floor.

short-term

7) Improve the toilet compartment depth to be 59" minimum.

long-term

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## NĀMAKANIPAIO CAMPGROUND

### Site Plan


## Implementation Strategy

The Nāmakanipaio Campground is in a cultural landscape that features a large, open grassy area with tall eucalyptus, koa, and ʻŌhiʻa trees. The campground features tent campsites, camper cabins, and a picnic area. The camper cabins and campground are operated by Hawaiʻi Volcanoes Lodge Company and can be reserved through the Volcano House. Ten historic camper cabins are available by reservation and sleep four guests each. The nearby cabin dedicated restroom area features wall-mounted information, trash and recycling receptacles, and dual-height drinking fountains for standing and seated users. Each cabin has a parking space on a level asphalt surface and a covered entry area with a picnic table on a concrete pad. A fireplace and grill are located near the concrete pad on a firm, compacted surface. Access into the cabins requires the use of two stairs and a narrow door clearance. Each cabin has a double bed and twin bunks and has adequate turning space at the entry to access sleeping accommodations. The campground includes 16 tent-only campsites, with paved routes to 3 restrooms, outdoor sinks, information boards, and trash and recycling receptacles. Each site has an asphalt parking pad and picnic tables and grills on mostly flat-to-gently sloped sites. Ample circulation and access to facilities and information is provided. The picnic area features accessible parking, with a paved route to a picnic shelter that includes a grill, fireplaces, and tables. Due to the historic nature of this area, additional design and compliance will be required for modifications.

The following improvements to this park area are planned:

### 01 Outdoor Recreation Access Route

1) Improve the route to the restrooms to have a 5% maximum running slope (if paved). Segments up to 10% are allowed for short distances but must include resting intervals at the top and bottom of each segment.

long-term

### 02 Men's Restroom (near cabins)

1) Insulate or otherwise configure the supply and drainpipes under the sink to protect against contact.
2) Lower the coat hook to be between 15" and 48" above the floor.
3) Reinstall the toilet paper dispenser to maintain 12" of clear wall space above the grab bar and 1½" below the grab bar. Ensure that the dispenser outlet is located between 15" and 48" from the floor and that the centerline of the dispenser is between 7" and 9" from the front of the toilet.
4) Lower the coat hook to be between 15" and 48" above the floor.
5) Lower the soap dispensers to be between 15" and 48" above the floor.

short-term

6) Improve the door to the accessible toilet compartment to be self-closing.

7) Improve the accessible toilet compartment door to have door pulls on both sides.

long-term

## 03 Women's Restroom (near cabins)

1) Insulate or otherwise configure the supply and drainpipes under the sink to protect against contact.
2) Reinstall the toilet paper dispenser to maintain 12" of clear wall space above the grab bar and 1½" below the grab bar. Ensure that the dispenser outlet is located between 15" and 48" from the floor and that the centerline of the dispenser is between 7" and 9" from the front of the toilet.
3) Lower the coat hook to be between 15" and 48" above the floor.
4) Lower the soap dispensers to be between 15" and 48" above the floor.

short-term

5) Improve the door handle to be operable with 5 pounds of force or less.
6) Improve the door to the accessible toilet compartment to be self-closing.
7) Improve the accessible toilet compartment door to have door pulls on both sides.
8) Improve the toilet compartment depth to be 59" minimum.

long-term

## 04 Drinking Fountains

1) Provide a level, clear ground space centered on the unit, with 2% maximum slope in all directions, measuring 30" by 48" minimum for a forward approach.
2) Improve the drinking fountains to be operable with 5 pounds of force or less.

long-term

## 05 Sink (by restrooms near cabins)

1) Insulate or otherwise configure the supply and drainpipes under the sink to protect against contact.

short-term

2) Widen the turning space by the utility sink to be 60" in diameter.

long-term

## 06 Camper Cabins

1) Improve two camper cabins to be accessible so that the parking spaces, outdoor constructed features, routes, and lodging room meet the requirements

of Architectural Barriers Act Accessibility Standards (ABAAS). Quantity of accessible cabins shall be based on scoping requirements in ABAAS F224.2, applied to each type of cabin unit provided. Cabins shall be distributed within the various areas.

long-term

## 07 Outdoor Recreation Access Route

1) Improve the route from the parking space to the road to have a 5% maximum running slope (if paved). Segments up to 10% are allowed for short distances but must include resting intervals at the top and bottom of each segment.

long-term

## 08 Accessible Route

1) Provide a ramp to the cabin to have a running slope no greater than 8.3% with handrails. The route shall be firm, stable, and slip resistant.
2) Lower all elements in the cabin to be between 15" and 48" above the ground.

long-term

## 09 Picnic Facilities

1) Provide a 36" minimum-width clear ground space on all usable sides of accessible table. Provide an extended top or bench cutout at each accessible picnic table.

long-term

## 10 Fire Ring

1) Provide a clear ground space 48" in width on all usable sides of the fire ring. It shall be firm and stable and have 2% maximum slopes in all directions. Fire-building surface shall be 9" minimum above the ground.
2) Provide a wheelchair space that is firm, stable, and slip resistant at a 2% maximum slope in all directions. The wheelchair space shall be 36" minimum in width and 48" minimum in depth (33" apiece if adjacent to one another) when entered from the front or rear (60" minimum depth when entered from the side).

long-term

## 11 Grill

1) Provide clear ground space, 48" minimum width, on all usable sides of the grill. Clear space should have 2% maximum slopes in all directions.

2) Improve the grill cooking surface to be operable without tight grasping, pinching, or twisting of the wrist and with less than 5 pounds of force. Ensure the fire-building surface of the grills are 9" minimum above the ground.

long-term

## 12 Single-User Restroom (near campsites)

1) Remove the doorstop to provide a smooth surface on the bottom 10" of the push side of the door that extends the width of the entire door.
2) Insulate or otherwise configure the supply and drainpipes under the sink to protect against contact.
3) Replace the rear wall grab bar to be 36" minimum in length.
4) Move the sink out of the transfer space so the restroom is 60" width by 59" in depth.
5) Relocate the toilet paper dispenser so that its centerline is between 7" and 9" from the front of the toilet.
6) Lower the coat hook to be between 15" and 48" above the floor.

long-term

## 13 Men's Restroom (near campsites)

1) Improve the handle to be operable without tight grasping, pinching, or twisting of the wrist and with less than 5 pounds of force.
2) Provide a clear space positioned for a forward approach that is 30" by 48".
3) Improve the baby changing station to be operable without tight grasping, pinching, or twisting of the wrist and with less than 5 pounds of force.

long-term

## 14 Women's Restroom (near campsites)

1) Improve the handle to be operable without tight grasping, pinching, or twisting of the wrist and with less than 5 pounds of force.
2) Provide a clear space positioned for a forward approach that is 30" by 48".
3) Improve the baby changing station to be operable without tight grasping, pinching, or twisting of the wrist and with less than 5 pounds of force.

long-term

## 15 Sink (near restrooms)

1) Insulate or otherwise configure the supply and drainpipes under the sink to protect against contact.

short-term

2) Lower the sink so that the counter surface is between 28" and 34" above the floor. Maintain 27" minimum-height knee clearance underneath.

long-term

## 16 Telephone

1) Lower the telephone so that its operable parts are between 15" and 48" above the ground.

long-term

## 17 Kiosk

1) Lower all information panels so the bottom edge is between 24" and 36."

short-term

## 18 Trash Receptacle

1) Provide clear ground space in front of the receptacle, with 2% maximum slope in all directions, measuring 36" by 48" minimum for a forward approach.

long-term

## 19 Outdoor Recreation Access Route

1) Ensure vertical obstacles are no more than ½" high.

long-term

## 20 Trash Receptacle

1) Provide clear ground space in front of the receptacle with 2% maximum slope in all directions, measuring 36" by 48" minimum for a forward approach.

long-term

## 21 Trash Receptacle

1) Provide clear ground space in front of the receptacle with 2% maximum slope in all directions, measuring 36" by 48" minimum for a forward approach.

long-term

## 22 Camping Facilities

1) Improve a minimum of two campsites to be accessible so that the parking spaces, tent pads, outdoor constructed features, and routes meet the requirements of ABAAS. Quantity of accessible campsites shall be based on scoping requirements in ABAAS F244.2, applied to each type of camping unit provided. Sites shall be distributed within the various loops.
2) Improve the parking stalls to be 16' minimum in width and have 2% maximum slope in any direction.
3) Improve the grill cooking surfaces to be operable without tight grasping, pinching, or twisting of the wrist and with less than 5 pounds of force. Ensure the fire-building surface of the grills are 9" minimum above the ground and the cooking surfaces are between 15" and 34" above the ground.
4) Improve the routes within the accessible campsites to be 36" minimum in width, with running slopes no greater than 8.3% and cross slopes no greater than 2%. Ensure vertical obstacles are no more than ½" high and openings in the surface are less than ½" in width.
5) Provide a clear ground space around the fire rings that is 48" minimum in width and at a 2% maximum slope in any direction.
6) Provide 36" minimum-width clear ground space on all usable sides of tables, with a 2% slope maximum in all directions.
7) Improve the tent pads to have a 2% maximum slope in all directions.

long-term

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## ʻŌHIʻA WING

### Site Plan

## Implementation Strategy

The historic ʻŌhiʻa Wing is the 1932 Administration Building within the Kīlauea Administration and Employee Housing Historic District, located along Crater Rim Drive. The district is historically significant for the period 1927–1942 and its association with early park planning, the Civilian Conservation Corps, and the embodiment of distinctive characteristics of the rustic style. The building is used for interpretive programs and is accessed from the visitor center parking lot. An accessible parking space and access aisle in the parking lot outside the bottom level is provided for visitors conducting archival research by appointment. A route starting at the historic entrance provides universal access around to the side of the building. No public access is provided into the stairway and historic front door entry. This site and building exemplify universal design principles and generous circulation, from the parking to the double-door entry and wide foyer, continuing throughout hallways and the building interior. The site has an accessible restroom, and all rooms are identified with tactile signage.

The following improvements to this park area are planned:

### 01 Accessible Route

1) Trim vegetation to maintain a clear width of 36" minimum to ʻŌhiʻa Wing.

   immediate

2) Improve the route to the restrooms to have cross slopes no greater than 2%.

   long-term

### 02 Signage

1) Remove or modify the sign to read "Visitor Entrance," as this is the main entrance for all visitors.

   short-term

### 03 Accessible Route

1) Improve the door threshold to be no greater than ¼" or ½" with a beveled edge.
2) As a best practice, reduce the force required to open the door to be 10 pounds maximum.
3) Ensure there is an 18" by 18" minimum clear space underneath the braille sign.

   short-term

### 04 Restroom (upstairs)

1) Improve the soap dispenser to be operable with 5 pounds of force or less.

2) Improve or replace the toilet so that the flusher is on the open side of the toilet.

short-term

## 05 Restroom (downstairs)

1) Provide a tactile sign on the latch side of the door. Ensure there is an 18" by 18" minimum clear space underneath the braille sign.
2) Improve or replace the toilet so that the flusher is on the open side of the toilet.
3) Improve the soap dispenser to be operable with 5 pounds of force or less.

short-term

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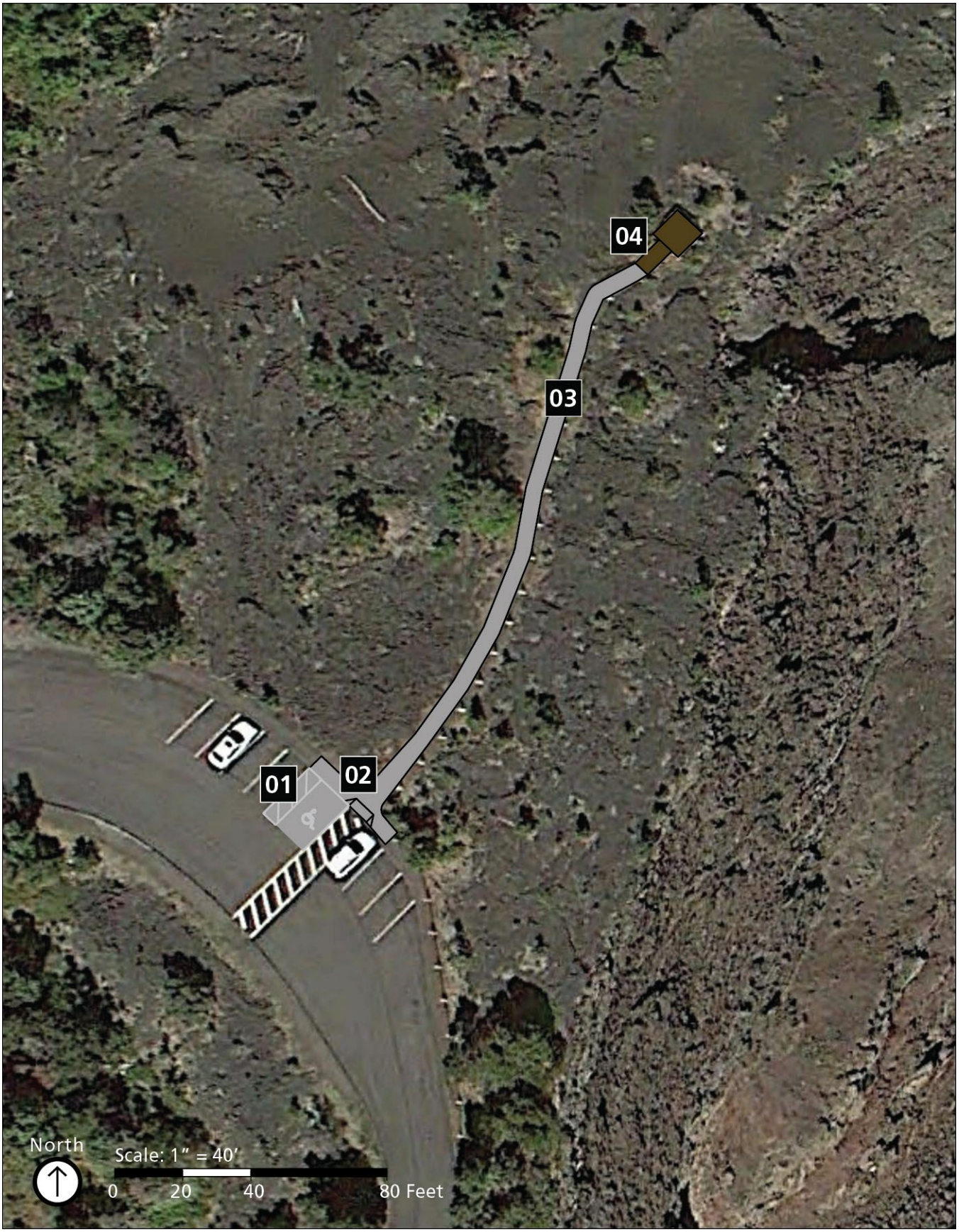
## PAUAHI CRATER OVERLOOK

### Site Plan



## Implementation Strategy

Pauahi Crater was given the name Pauahi, which means destroyed by fire, and has been the site of several eruptions, most recently in 1973 and 1979. The crater comprises three pits and measures 1,600 feet long and 360 feet deep. Pauahi Crater is culturally significant and sacred to some Native Hawaiians. This site currently has one accessible parking stall. From the parking area, a short but steep route leads to a viewing platform at the rim of Pauahi Crater, providing views of the crater below. Park managers have previously attempted to make this site accessible using contracted work. Some compliance has been completed within the scope and scale of the informal site design, but a formal design has not been completed.

The following improvements to this park area are planned:

### 01 Car Parking

1) Provide "Van Accessible" signage on the van-accessible stall. The signs shall be 60" minimum above the ground to the bottom of the sign.

   immediate

2) Improve the parking space and access aisle to have 2% maximum slope in all directions.

   long-term

### 02 Curb Ramp

1) Improve the curb ramp so it has 8.3% maximum slopes, with the flared sides having a 10% slope maximum.

   long-term

### 03 Outdoor Recreation Access Route

1) Improve the route to the viewing area to have a 5% maximum running slope and 2% maximum cross slope. Segments with running slopes up to 10% are allowed for short distances but must include resting intervals at the top and bottom of each segment.

   long-term

### 04 Ramp

1) Provide handrails on both sides of the ramp. Handrails shall be between 34" and 38" in height and have 12" extensions at the top and bottom of each ramp run.

   long-term

## PUHIMAU OVERLOOK

### Site Plan

## Implementation Strategy

With steep, crumbling walls, this dramatic crater is representative of many pit craters located further down Chain of Craters Road. On certain days, faint plumes of steam can be seen on the far side of the crater as heated water vapor emanates from cracks in the earth. The site features a short route to a small overlook. A project to renovate this area was completed in 2022.

The following improvements to this park area are planned:

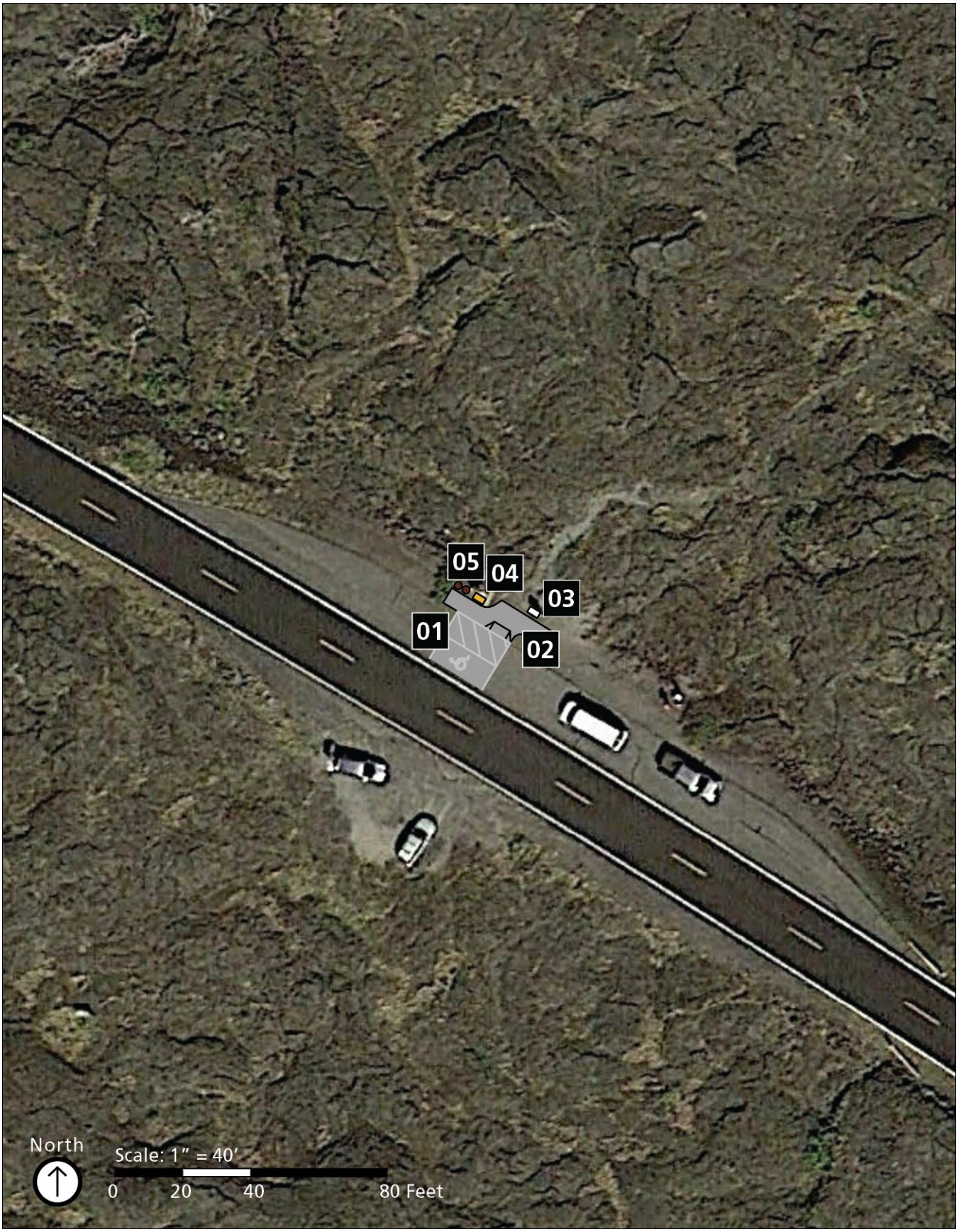
### 01 Car Parking

1) Improve the parking spaces and access aisles to have 2% maximum slope in all directions.

immediate

## PU‘ULOA PETROGLYPHS

### Site Plan



## Implementation Strategy

Pu‘uloa is considered a sacred place to the people of Hawai‘i and contains a vast area covered with pecked images in the hardened lava known as petroglyphs. The area features a pullout parking area, emergency call box, and a 0.7-mile path that leads visitors over a gently undulating lava bedrock trail to reach a boardwalk above the ground surface. The elevated boardwalk allows visitors to view a section of the extensive area and a variety of petroglyphs at the site while protecting the petroglyphs from damage. The pullout parking area has unstriped parking on an asphalt surface. The trailhead, wayside, trash and recycling receptacles, safety information, and emergency call box are located on soil and lava surfaces with varying slopes and stability. The Puna Coast Trail can be accessed across the road from the Pu‘uloa parking area from an unstriped, gravel parking area. A wayfinding sign is located a short distance down the lava surface trail.

The following improvements to this park area are planned:

### 01 Car Parking

1) Provide one van-accessible parking space at the trailhead measuring 11' minimum in width with a 5' minimum width access aisle or 8' minimum in width with an 8' minimum width access aisle. It shall be firm, stable, and slip resistant at a 2% maximum slope in all directions. Provide an accessible parking sign at 60" minimum to the bottom of the sign and include "Van Accessible" designation.

long-term

### 02 Outdoor Recreation Access Route

1) Install a curb ramp with 8.3% maximum running slope, 10% maximum slope on flares, and a level landing at the top that is 36" deep with 2% maximum slope in any direction.
2) Improve the route to have a firm and stable surface with 2% maximum cross slopes.

long-term

### 03 Interpretive Wayside and Trailhead Signage

1) Improve the clear ground space at the wayside to have 2% maximum slope in all directions, measuring 30" by 48" minimum for a forward approach.
2) Provide a duplicate trail information sign or relocate the sign to be closer to the trailhead parking, located on an outdoor recreation access route.

long-term

## 04 Emergency Call Box

1) Lower the emergency call box so all operable parts are between 15" and 48"above the ground.
2) Provide a level, clear ground space at the emergency call box, with 2% maximum slope in all directions, measuring 30" by 48" minimum for a forward approach.

long-term

## 05 Trash Receptacles

1) Provide a level, clear ground space at the trash receptacles, with 2% maximum slope in all directions, measuring 30" by 48" minimum for a forward approach.

long-term

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## PUʻUPUAʻI OVERLOOK

### Site Plan

## Implementation Strategy

Pu‘upua‘i is a gigantic cinder cone that formed as a result of the towering 1,900-foot lava fountains during the eruption of Kīlauea Iki in 1959. From this overlook, visitors can look into Kīlauea Iki Crater and begin the Devastation Trail. The site features one parking space, with an outdoor recreation access route to the overlook. The trail begins with gentle grades but transitions to steeper grades at the top, where visitors reach a ramp at a small wooden overlook. The park has construction drawings to install an accessible overlook with similar views into the crater closer to the parking lot, but it is not yet funded. The existing overlook and path that follows the old Crater Rim Drive and includes pock marks from lava pieces falling on it in the 1959 eruption are not accessible, but both are historic, and park managers determined it would be an adverse effect if they were modified.

The following improvements to this park area are planned:

### 01 Car Parking

1) Provide an accessible parking sign to designate each accessible parking space, installed 60" minimum above the ground to the bottom of the sign. Provide "Van Accessible" signage on the van-accessible parking space.

immediate

### 02 Outdoor Recreation Access Routes

1) Improve the route to have a firm and stable surface with 2% maximum cross slopes.
2) Improve the resting interval between steeper sections of the route to have slopes no greater than 2% in all directions.

long-term

### 03 Interpretive Wayside

1) Provide a level, clear ground space in front of the waysides, with 2% maximum slope in all directions, measuring 30" by 48" minimum for a forward approach.

long-term

### 04 Trailhead

1) Provide a level, clear ground space in front of the trailhead sign, with 2% maximum slope in all directions, measuring 30" by 48" minimum for a forward approach.

long-term

2) Provide trail information signage at the trailhead that includes the following information about trail conditions: length of the trail or trail segment, surface

type, typical and minimum tread width, typical and maximum running slope, and typical and maximum cross slope.

mid-term

## 05 Viewing Platform

1) Improve the surface to have vertical obstacles no greater than ½" high maximum and no openings wider than ½."
2) Improve the clear ground space at the viewing area to be 36" by 48" minimum for a forward approach and have 2% maximum slope in all directions.

mid-term

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## STEAM VENTS AND STEAMING BLUFF (WAHINEKAPU)

### Site Plan

## Implementation Strategy

Located a short walk from the Steam Vents parking area, Steaming Bluff (Wahinekapu) provides visitors with the opportunity to feel the breath of the volcano as hot water vapor billows from the earth. The area is a sacred place and provides excellent views of the Kīlauea caldera. From here, visitors can hike along Crater Rim Trail, which traverses the summit caldera of Kīlauea. The area features an asphalt parking area with five accessible parking spaces, a wayside map, a trail and directional signs, and a bike rack. Two steam vents are enclosed by a railing system that protects visitors while allowing views of the features. A sidewalk connects to the trailhead, a gravel trail continues to Steaming Bluff, Crater Rim Trail, and an asphalt trail leads to Sulphur Banks and the visitor center area. The route from the Steam Vents parking area to Sulphur Banks is paved and accessible.

The following improvements to this park area are planned:

### 01 Car Parking

1) Restripe the van-accessible parking space to be 11' minimum in width with a 5' minimum width access aisle or 8' minimum in width with an 8' minimum width access aisle.

immediate

### 02 Accessible Route

1) Improve the surface in the access aisle and within the accessible route to have vertical changes in level no greater than ¼" or ½" with a beveled edge.
2) Improve the changes in level around the steam vents to be ¼" or ½" with a beveled edge.
3) Provide a level, clear ground space at a location where the steam vents are viewable, with 2% maximum slope in all directions, measuring 30" by 48" minimum for a forward approach.

long-term

### 03 Car Parking

1) Restripe the van-accessible parking space to be 11' minimum in width with a 5' minimum width access aisle or 8' minimum in width with an 8' minimum width access aisle.

immediate

### 04 Trailhead

1) Provide a level, clear ground space at the trailhead sign, with 2% maximum slope in all directions, measuring 30" by 48" minimum for a forward approach.

long-term

2) Provide more trail condition details on the sign, including trail length, surface type, typical and maximum running and cross slopes, and typical and minimum tread width. Other recommended information includes providing a description of potential obstacles, distances to experiences and/or features, and graphics, such as a cross section that demonstrates slope conditions.

mid-term

## 05 Outdoor Recreation Access Route

1) Improve the route to the overlook to be firm and stable with cross slopes 2% maximum.

long-term

## 06 Interpretive Wayside

1) Provide a level, clear ground space at the interpretive wayside, with 2% maximum slope in all directions, measuring 30" by 48" minimum for a forward approach.

long-term

2) Raise the interpretive wayside to provide 27" minimum knee clearance extending 11" minimum underneath and with 9" minimum toe clearance.

short-term

## 07 Outdoor Recreation Access Route

1) Improve the surface of the overlook to be firm and stable with cross slopes 2% maximum.

mid-term

## 08 Viewing Areas

1) Provide a level, clear ground space at the viewing area, with 2% maximum slope in all directions, measuring 30" by 48" minimum for a forward approach.

mid-term

## 09 Trailhead

1) Provide more trail condition details on the sign, including trail length, surface type, typical and maximum running and cross slopes, and typical and minimum tread width. Other recommended information includes providing a description of potential obstacles, distances to experiences and/or features, and graphics, such as a cross section that demonstrates slope conditions.

mid-term

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## SULPHUR BANKS (HA‘AKULAMANU)

### Site Plan


## Implementation Strategy

At Sulphur Banks, visitors can see and smell the effects of volcanic gases and groundwater steam seeping from the ground. Fumes emitted here include sulfur dioxide, with a distinct smell of a struck match, and hydrogen sulfide, which smells of rotten eggs. This unique place is famous for its birds, colorful deposits, and billowing vapors. Visitors connect to the site from the Steam Vents parking area and begin an out-and-back route on a wooden boardwalk. Visitors with heart or respiratory conditions such as asthma, pregnant women, infants, or young children are advised to avoid this route. The trail features interpretive waysides along the route that have clear imagery, contrast, fonts, and information. The boardwalk connects to a steep asphalt trail that begins a steep incline to the Kīlauea Visitor Center.

The following improvements to this park area are planned:

### 01 Hiking Trail

1) Provide 60" by 60" of passing space every 1,000' of trail length. Passing space and resting intervals are permitted to overlap. Ensure the surface is firm and stable with a 2% maximum slope in all directions to meet the requirements of a resting interval.

mid-term

### 02 Benches

1) Provide a clear space in front of benches that is 36" by 48" minimum with a slope no greater than 2% in all directions. For any benches from which a view is important, provide a clear ground space adjacent to the bench that is 36" by 48" minimum. As a best practice, adjust the benches so the seat surface is between 17" and 19" above the ground and a backrest and armrest are provided.

mid-term

### 03 Interpretive Wayside

1) Provide a level, clear ground space at the interpretive waysides, with 2% maximum slope in all directions, measuring 30" by 48" minimum for a forward approach. Ensure gaps are no more than ½" wide.
2) Improve the interpretive waysides to provide 9" high minimum of toe clearance that extends between 17" and 25" under the wayside.
3) As a best practice, lower interpretive waysides so that their bottom edge is 32" above the ground.

mid-term

## 04 Hiking Trail

1) Improve the route so vertical obstacles are no more than ½" high and gaps are no more than ½" wide.
2) As a best practice, provide edge protection around the edges of the boardwalk that is 4" high maximum.

mid-term

## 05 Trailhead Signage

1) Provide more trail condition details on the sign, including trail length, surface type, typical and maximum running and cross slopes, and typical and minimum tread width. Other recommended information includes providing a description of potential obstacles, distances to experiences and/or features, and graphics, such as a cross section that demonstrates slope conditions.

mid-term

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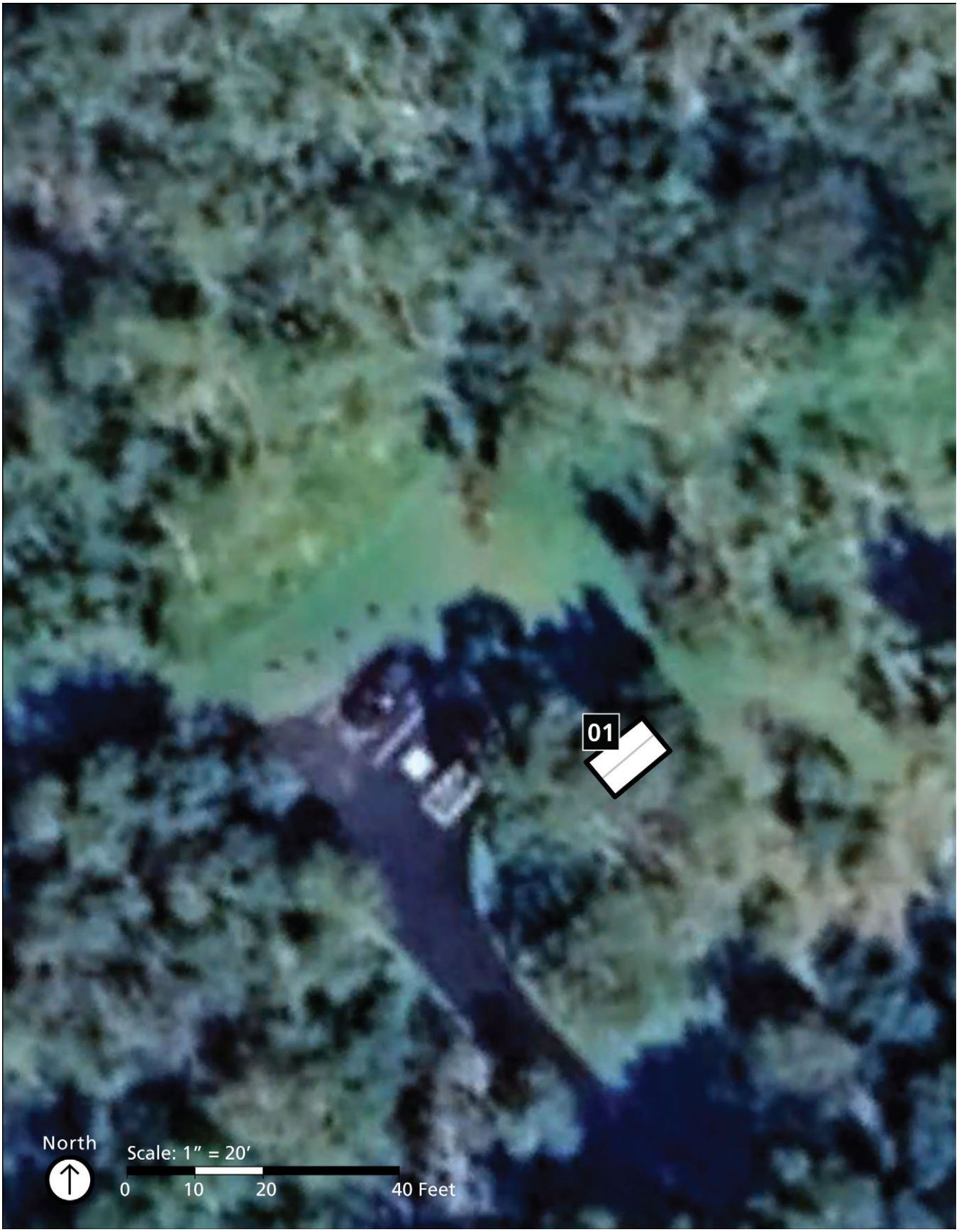
## TREE MOLDS

### Site Plan



## Implementation Strategy

Tree Molds is an area that showcases a series of cavities or holes in the ground that mark where forests once stood in the path of an approaching lava flow. When lava flows through a forest, it swirls around tree trunks and quickly solidifies. Moisture in the wood and gas bubbles in the lava form excellent insulation against instant incineration. As the level of the surrounding flows rises, the trees eventually burn off while a thick crust forms on the surface of the lava flow. Though the trees disappear, their footprints in the lava remain. This site features an accessible parking area and route to a level area that provides a view into a tree mold. An additional flat area provides a view of the ʻŌhiʻa forest, an interpreted corridor of trees hardened by lava, and a wayside panel.

The following improvements to this park area are planned:

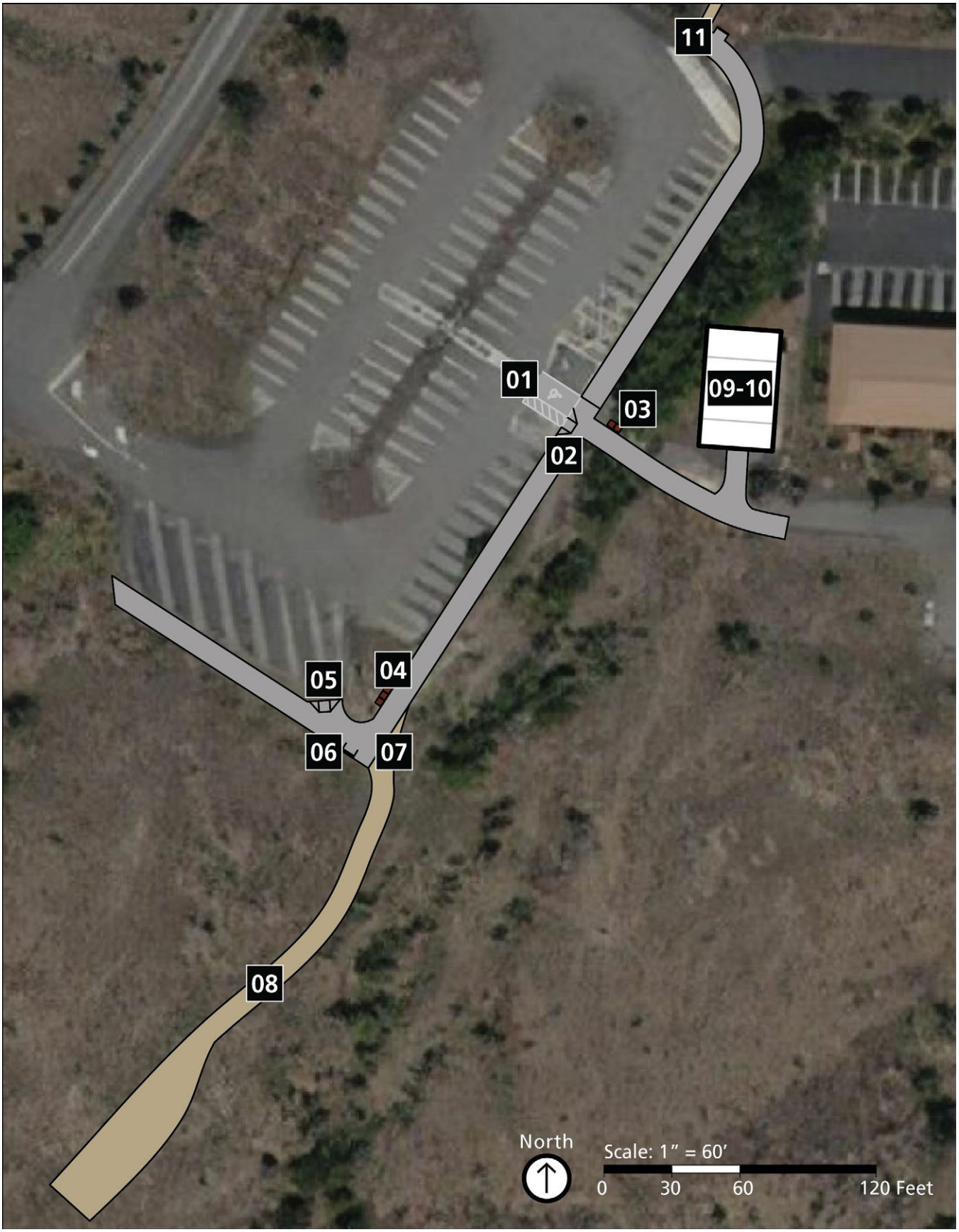
### 01 Kiosk

1) Lower the kiosk so the bottom edge is between 24" and 36."

mid-term

## UĒKAHUNA (JAGGAR)

### Site Plan



## Implementation Strategy

Uēkahuna is the summit of Kīlauea and is the region located above the steep cliffs of the caldera. Uēkahuna is one of the sites for Native Hawaiian cultural practices to honor the Hawaiian volcanic deity, Pelehonuamea. At an elevation over 4,000 feet, Uēkahuna presents visitors with spectacular vistas of Kaluapele, Mauna Loa, and surrounding areas. Permanent structures were built at Uēkahuna beginning in 1927 and housed both the National Park Service and the USGS Hawaiian Volcano Observatory. These structures, including the former Jaggar Museum, were severely damaged following the lower East Rift Zone eruption and caldera collapse of Kīlauea in 2018. The former Jaggar Museum is planned to be demolished in 2023, and the paved overlook will be repaired and reopened. The site currently features a large, flat parking area with five accessible parking spaces on paved surfaces, restrooms, and dual-height drinking fountains for standing and seated users. Permanent restrooms will be retained. A site information panel provides context and a history of the site. A level walkway joins a compacted natural earth area, offering views of the caldera. At the opposite end of the parking lot, a 3-foot-wide asphalt (then compacted natural surface) trail with varied slopes and stability connects to the Kīlauea Overlook, Steam Vents, and Kīlauea Visitor Center.

The following improvements to this park area are planned:

### 01 Car Parking

1) Improve the parking space and access aisle to have 2% maximum slope in all directions.

long-term

### 02 Accessible Route

1) Provide a level landing at the top of the curb ramp with a 2% maximum slope in all directions with a clear length of 36" minimum.

long-term

### 03 Trash Receptacle

1) Improve the clear ground space in front of the receptacle to have 2% maximum slope in all directions, measuring 36" by 48" minimum for a forward approach.

long-term

### 04 Trash Receptacle

1) Improve the clear ground space in front of the receptacle to have 2% maximum slope in all directions, measuring 36" by 48" minimum for a forward approach.

long-term

## 05 Accessible Route

1) Provide a curb ramp by the bus parking so it has an 8.3% slope maximum, with the flared sides having a 10% slope maximum. Ensure a level landing is provided at the top of the curb ramp with a 2% maximum slope in all directions.

long-term

## 06 Trailhead Signage

1) As a best practice, provide more trail condition details on the sign, including trail length, surface type, typical and maximum running and cross slopes, and typical and minimum tread width. Other recommended information includes providing a description of potential obstacles, distances to experiences and/or features, and graphics, such as a cross section that demonstrates slope conditions.

mid-term

## 07 Outdoor Recreation Access Route

1) Lower the threshold to be no more than ½" high.

mid-term

## 08 Outdoor Recreation Access Route

1) Improve the surface of the route to the viewing area to have cross slopes 2% maximum and ensure vertical obstacles are ½" high maximum.

mid-term

## 09 Women's Restroom

1) Insulate or otherwise configure the supply and drainpipes under the sink to protect against contact.
2) Improve the accessible toilet compartment door to have door pulls on both sides.

immediate

3) Improve the side wall grab bar to be 42" long minimum.
4) Lower the grab bars so that the tops of the gripping surfaces are between 33" and 36" in height.
5) Reinstall the toilet paper dispenser to maintain 1½" of clear space below the grab bar. Ensure that the dispenser outlet is located between 15" and 48" from the floor and that the centerline of the dispenser is between 7" and 9" from the front of the toilet.

6) Lower the mirror so the bottom edge is located 40" maximum above the floor.

short-term

## 10 Men's Restroom

1) Insulate or otherwise configure the supply and drainpipes under the sink to protect against contact.
2) Improve the accessible toilet compartment door to have door pulls on both sides.

immediate

3) Improve the side wall grab bar to be 42" long minimum.
4) Lower the grab bars so that the tops of the gripping surfaces are between 33" and 36" in height.
5) Reinstall the toilet paper dispenser to be between 7" and 9" in front of the toilet to the centerline of the dispenser.
6) Lower the mirror so the bottom edge is located 40" maximum above the floor.
7) Lower the soap dispenser to be between 15" and 48" from the ground.

short-term

8) Improve or replace the toilet so that the flusher operable part is on the open side of the toilet.
9) Relocate the toilet so the centerline is located between 16" and 18" from the side wall.
10) Lower the urinal so that its bottom lip is no higher than 17" above the floor.

long-term

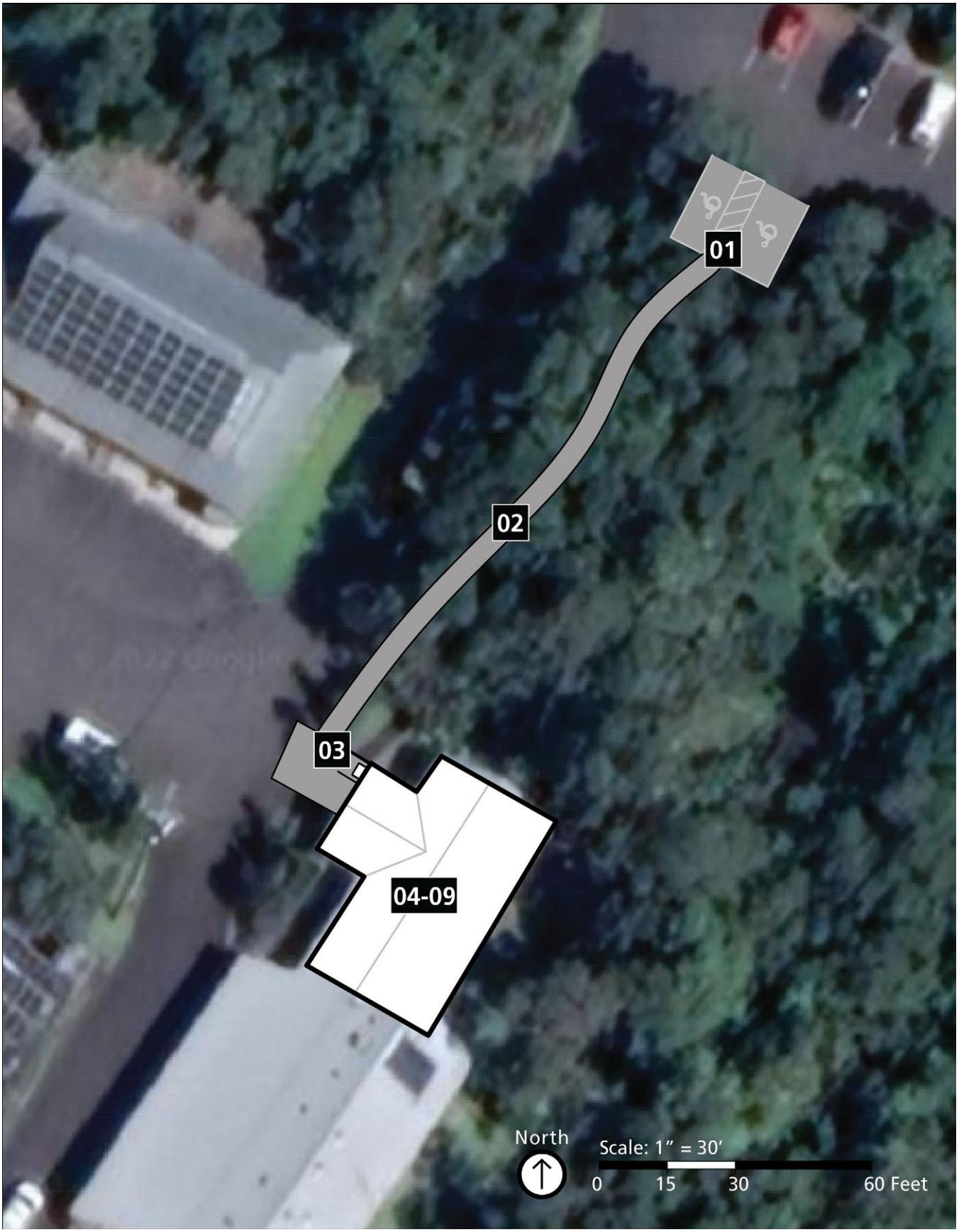
## 11 Trailhead

1) Provide trail condition details, including trail length, surface type, typical and maximum running and cross slopes, and typical and minimum tread width. Other recommended information includes providing a description of potential obstacles, distances to experiences and/or features, and graphics, such as a cross section that demonstrates slope conditions.
2) Move the sign closer to the trailhead where there is clear, level ground space, or create a new sign that has big enough font to see from a distance.

mid-term

## VISITOR EMERGENCY OPERATIONS CENTER AND BACKCOUNTRY OFFICE

### Site Plan



## Implementation Strategy

Located southeast of the Kīlauea Visitor Center, the Visitor Emergency Operations Center and Backcountry Office provide emergency services and permitting for backcountry hiking and camping. The area includes two accessible parking spaces, with an asphalt path to the office and a flat concrete entry plaza with information and trash and recycling receptacles. The interior is a large, open foyer with a park map, information, permit boxes, a customer service counter, and an accessible restroom.

The following improvements to this park area are planned:

### 01 Car Parking

1) Improve the parking space and access aisle to have 2% maximum slope in all directions.

long-term

### 02 Accessible Route

1) Improve the route to the office to have running slopes no greater than 5% and cross slopes no greater than 2%.

long-term

### 03 Interpretive Wayside

1) Provide a level, clear ground space in front of the "Save Our Forests" sign, with 2% maximum slope in all directions, measuring 30" by 48" minimum for a forward approach.
2) Improve the "Save Our Forests" sign to provide 27" high knee clearance extending 11" minimum underneath and 9" high toe clearance 25" minimum underneath the sign. Ensure the sign is 32" high maximum from the ground.

long-term

### 04 Accessible Route

1) Remove the doorstop to provide a smooth surface on the bottom 10" of push side of the door that extends the width of the entire door.

mid-term

### 05 Service Counter

1) Lower the service counter so it is 36" high maximum from the floor.

mid-term

## 06 Accessible Route

1) Lower the permit pick-up box to be between 15" and 48" above the ground.

short-term

## 07 Signage

1) Lower the information sign so the bottom edge is between 24" and 36."

short-term

## 08 Accessible Route

1) Lower the defibrillator to be between 15" and 48" above the ground, and move the chair to provide a 30" by 48" clear space in front of it.

short-term

## 09 Restroom

1) Improve the threshold at the restroom entrance door to be no greater than ¼", or ½" with a beveled edge.
2) Move the rear wall grab bar so it is located 1' on the closed side of the toilet and 2' on the open side.

short-term

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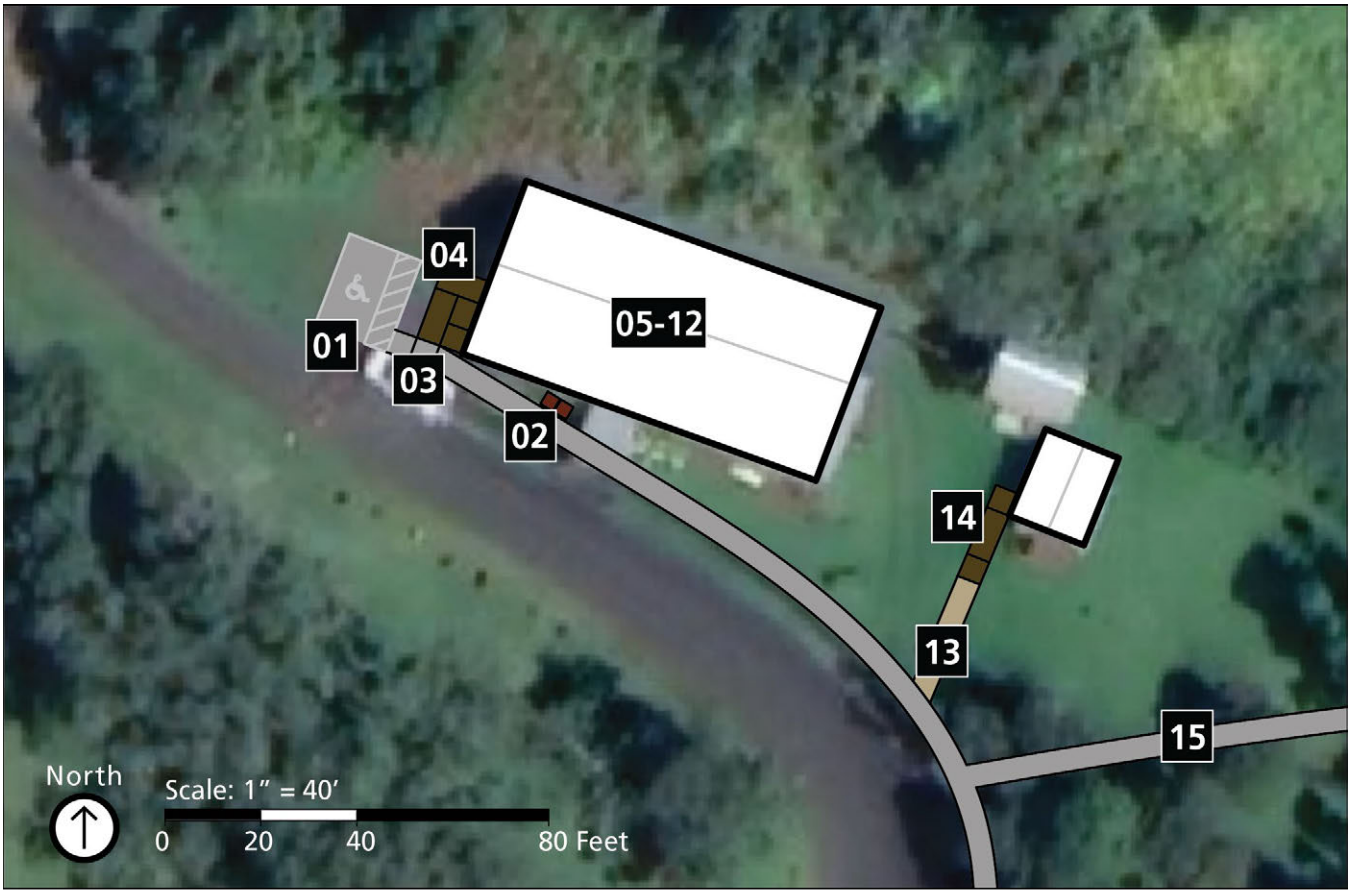
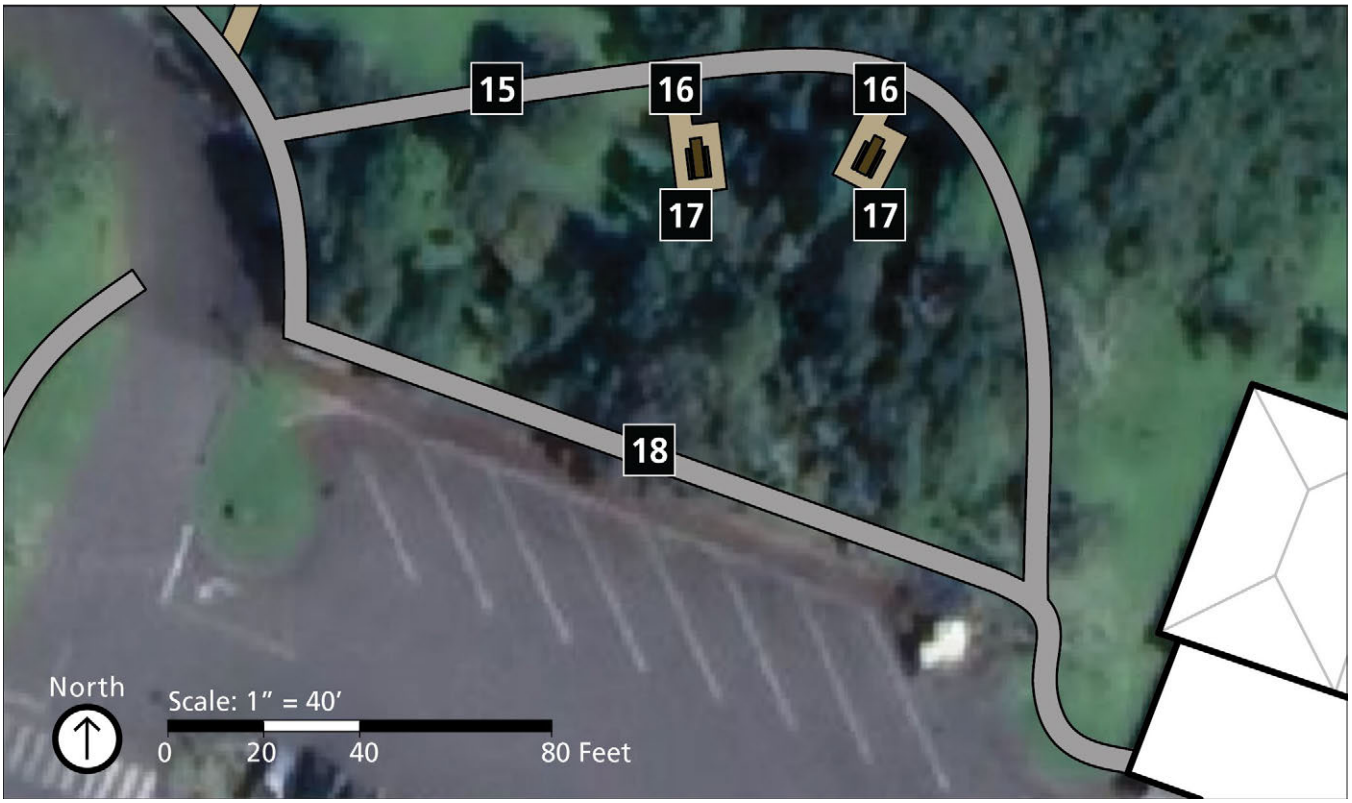
## VOLCANO ART CENTER GALLERY

### Site Plan



## Implementation Strategy

The Volcano Art Center Gallery is in the historic 1877 Volcano House Hotel, in what was the first western-style building on the rim of Kīlauea. Upon its construction in 1877, this version of the Volcano House Hotel replaced more rudimentary structures that had been in the area since 1846. The gallery is now operated under a historic lease between the Volcano Art Center and the National Park Service. The area features an accessible parking stall near the building. A wooden access ramp with handrails connects to a wooden deck, with a short ramp up into the historic building. The covered deck is furnished with worktables and benches. The interior of the gallery features various artist displays, display counters, a sign-in station, a checkout counter, two office spaces, and three doorways leading to more display rooms and installations. All doorways are approximately 31 inches wide. Good circulation is provided to all room entry points, and most rooms have adequate space to maneuver. Outside the gallery is an informal picnic area with tables amongst the trees. In the future, park staff would like to formalize the picnic area and cover the tables so they can be used more in the wet conditions.

The following improvements to this park area are planned:

### 01 Car Parking

1) Improve the parking space and access aisle to have 2% maximum slope in all directions. Stripe the van-accessible parking space to be 11' minimum in width with a 5' minimum width access aisle or 8' minimum in width with an 8' minimum width access aisle.

immediate

### 02 Trash Receptacle

1) Improve the clear ground space in front of the receptacle to have 2% maximum slope in all directions, measuring 36" by 48" minimum for a forward approach.

long-term

### 03 Accessible Route

1) Provide a level landing at the bottom of the ramp that is as wide as the ramp width and 60" in length minimum. The slope shall be 2% maximum in all directions.

long-term

### 04 Accessible Route

1) Improve the ramp to have running slopes no greater than 8.3% maximum.
2) Lower the handrails to be between 34" and 38" in height.

3) Provide a curb or barrier as edge protection on the ramp that is 4" high maximum.

long-term

## 05 Accessible Route

1) At the bottom of the stairs, provide handrail extensions at the slope of the stair flight for a horizontal distance at least equal to one tread depth beyond the last riser nosing. At the top of the stairs, provide 12" handrail extensions that extend horizontally above the landing.

long-term

## 06 Accessible Route

1) Improve the surface of the wood planks so openings are no greater than ½" wide.

long-term

## 07 Accessible Route

1) Improve the ramp to have running slopes no greater than 8.3% maximum.
2) Provide a curb or barrier as edge protection on the ramp that is 4" high maximum.

long-term

## 08 Accessible Route

1) As feasible, improve the doors to provide 32" minimum-width clearance between the door handle and door jamb.

long-term

## 09 Accessible Route

1) Improve the thresholds throughout the building to be no greater than ¼", or ½" with a beveled edge.

long-term

## 10 Gift Shop

1) As feasible, distribute items, especially popular ones, lower on shelves and displays. Provide a sign letting visitors know that assistance accessing other items is available.

long-term

## 11 Gift Shop

1) As a best practice, tilt labels for easier readability.

long-term

## 12 Service Counter

1) Lower the service counter so it is 36" high maximum from the floor and provide 36" minimum width of clear counter space at the checkout counter.

long-term

## 13 Outdoor Recreation Access Route

1) Improve the route to be firm and stable by maintaining a mowed path to the vault toilets or paving it.

long-term

## 14 Outdoor Recreation Access Route

1) Provide a route to the vault toilets 36" minimum in width with a 2% maximum cross slope and a 5% maximum running slope. Segments up to 10% are allowed for short distances but must include resting intervals at the top and bottom of each segment. Routes shall be firm and stable.

long-term

## 15 Outdoor Recreation Access Route

1) Widen the route through the picnic area to be 36" wide minimum with vertical obstacles that are no more than ½" high.

long-term

## 16 Outdoor Recreation Access Route

1) Provide a route to the picnic tables to be 36" minimum in width with a 2% maximum cross slope and a 5% maximum running slope. Segments up to 10% are allowed for short distances but must include resting intervals at the top and bottom of each segment. Routes shall be firm and stable.

long-term

## 17 Picnic Tables

1) Improve two picnic tables to be accessible. Provide 36" minimum-width clear ground space on all usable sides of accessible tables that has a 2% slope maximum in all directions. Distribute the location of each accessible picnic table. At the bottom of the stairs, provide handrail extensions at the slope of

the stair flight for a horizontal distance at least equal to one tread depth beyond the last riser nosing. At the top of the stairs, provide 12" handrail extensions that extend horizontally above the landing.

long-term

## 18 Accessible Route

1) Improve the route to the Volcano Art Center so vertical obstacles between sections of paving are no greater than ¼", or ½" with a beveled edge, and openings are no greater than ½".

long-term

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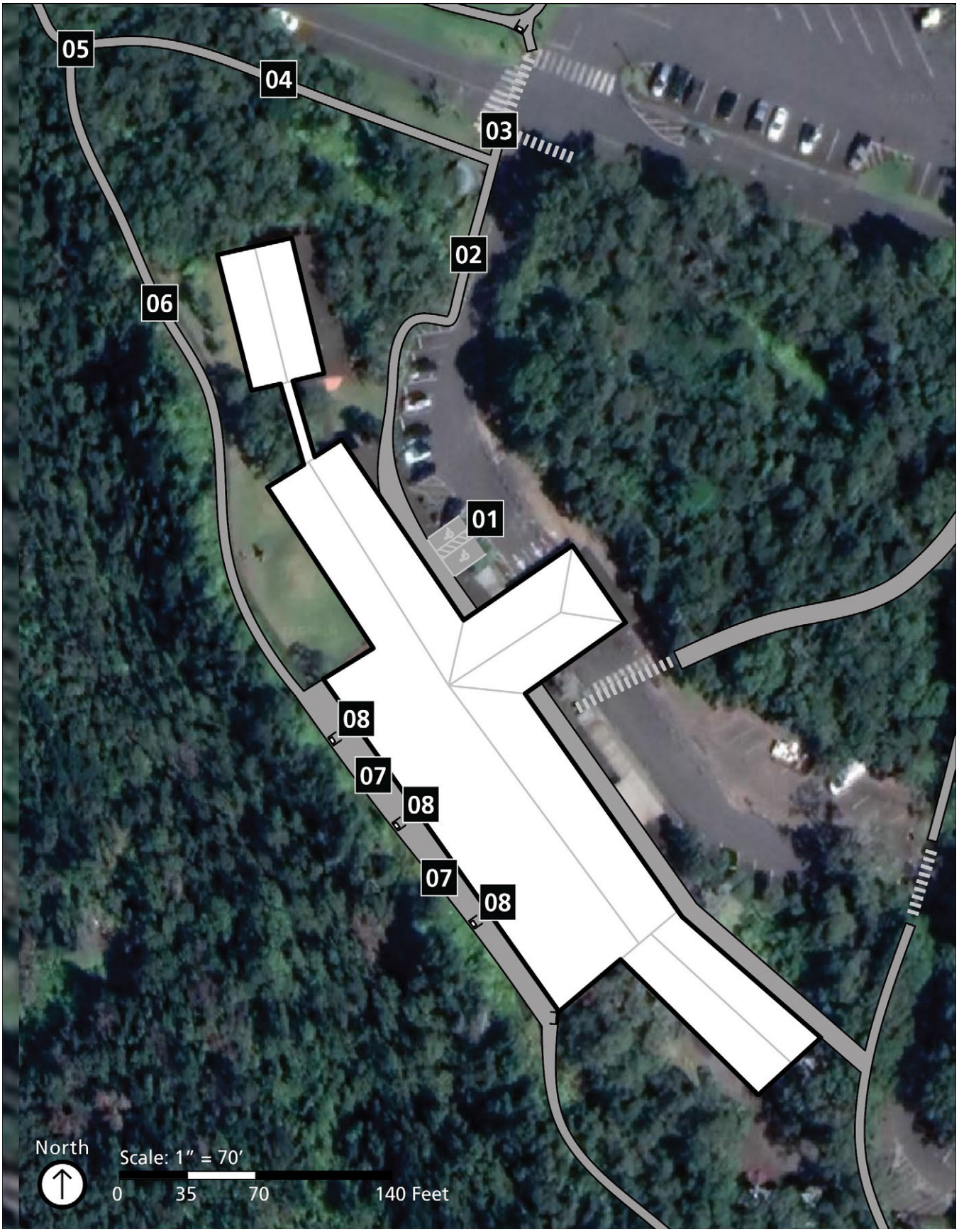
## VOLCANO HOUSE AND VIEWING PLATFORM

### Site Plan



## Implementation Strategy

The historic 1941 Volcano House offers overnight lodging in 33 guest rooms, a dining room, snack bar, lounge, and gift shop, along with cultural events and demonstrations. Perched on the rim of the Kīlauea caldera, the hotel and viewing platform face Halemaʻumaʻu crater while also offering views of the summit of Kīlauea. Volcano House is located just a short walk across Crater Rim Drive from the Kīlauea Visitor Center. Two striped accessible parking spaces are provided at the Volcano House, with accessible routes along the parking area leading to Crater Rim Trail. The trail offers dramatic views of the caldera along the flat-to-gently sloping trail and viewing platform. A short connector spur connects to Kūpinaʻi Pali (Waldron Ledge), but it requires hiking some steep sections of paved trail and crossing a steep metal grate bridge before intersecting the historic roadbed.

The following improvements to this park area are planned:

### 01 Detectable Warning

1) As a best practice, remove this detectable warning, as it could cause confusion to someone who uses these to help with orientation.

immediate

### 02 Outdoor Recreation Access Route

1) Improve the surface of the route in front of the Volcano House to the route junction to be firm and stable.

long-term

### 03 Detectable Warning

1) As a best practice, improve the detectable warning to be oriented towards all directions of travel.

long-term

### 04 Outdoor Recreation Access Route

1) Improve the surface of the route to the viewing area to have 2% maximum cross slopes, and ensure vertical obstacles are ½" high maximum and openings are ½" wide maximum.
2) Provide 60" by 60" of passing space every 200' of route length.

long-term

### 05 Outdoor Recreation Access Route

1) Improve the landing to have a 2% maximum slope in all directions.

long-term

## 06 Outdoor Recreation Access Route

1) Trim vegetation to maintain a clear width of 36" minimum and a clear height of 80" minimum on the route to the viewing area.

long-term

## 07 Outdoor Recreation Access Route

1) Improve the surface at the viewing area to have cross slopes 2% maximum and ensure vertical obstacles are ½" high maximum.

long-term

## 08 Interpretive Wayside

1) Provide a level, clear ground space at the waysides, with 2% maximum slope in all directions, measuring 30" by 48" minimum for a forward approach.
2) Move the interpretive waysides to provide 27" high knee clearance extending 11" minimum underneath and 9" high toe clearance 25" minimum underneath the interpretive waysides.
3) As a best practice, lower interpretive waysides so that their bottom edge is 32" above the ground.
4) When lowering the interpretive wayside, ensure the tactile element is located between 15" and 48" from the ground.
5) Provide a passing space, 60" by 60" at the interpretive waysides.

long-term

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## HAWAIʻI VOLCANOES NATIONAL PARK PROGRAMS

### Park Features

## Implementation Strategy

## Publications

### 01 Publicly Shared Documents

1) Revise all publicly shared documents by removing discriminatory or outdated accessibility-related language or restrictions.

mid-term

### 02 Accessibility Guide

1) Develop an accessibility guide for the park that outlines accessible facilities, services, and programs. Make it available on the park website and let visitors know of its availability in relevant publications and signage. Update it on a regular basis with new or altered accessible facilities, services, and programs.

short-term

### 03 Large-Print Publications

1) Provide large-print format publications. Use a minimum readable typeface at 18-point font. Align flush left and rag right. Avoid hyphens. Use black or white type color and avoid red text. Avoid italicized and underlined text. Provide graphics with at least 70% contrast.
2) Provide signage where appropriate that alternative-format publications, brochures, and maps are available to visitors.

mid-term

### 04 Braille Publications

1) Provide braille format publications and tactile wayfinding maps.
2) Provide signage where appropriate that alternative-format publications, brochures, and maps are available to visitors.

mid-term

### 05 Audio Publications

1) Provide audio versions of park publications, brochures, and maps.
2) Provide audio description of park publications, brochures, and maps.
3) Notify visitors on-site, in relevant publications, and on the park website that audio and audio-described park publications, brochures, and maps are available.

mid-term

### 06 Accessibility Contact Information in Publications

1) Provide the email address and telephone number of the park accessibility contact in relevant publications for visitors who have accessibility-related questions, concerns, or complaints.

immediate

## Audiovisuals

### 07 Open Captions

1) Provide open captions on all park videos.

mid-term

### 08 Assistive Listening Systems

1) Provide options for assistive listening (e.g., assistive listening devices, neckloops, induction loop systems, Bluetooth) for appropriate audiovisuals in accordance with the scoping requirements of ABAAS F219.
2) Notify visitors on-site, in relevant publications, and on the park website of the availability and type(s) of assistive listening systems.
3) Develop, distribute, and practice standard operating procedures for checking out and returning, pre- and post-inspection, and cleaning and maintaining devices.

mid-term

### 09 Audio Description

1) Provide audio description for visual content on all on-site park videos. Provide a means of accessing the audio description, whether through an assistive listening system or other device.
2) Notify visitors on-site, in relevant publications, and on the park website of the availability of audio description and how to access it.

mid-term

## Website and Social Media

### 10 Images

1) Create alt text for all images shared on the park website and accordingly update the website.

short-term

### 11 Videos

1) Provide closed-captions for all videos shared on the park website.
2) Provide audio description for all videos shared on the park website.

short-term

### 12 Accessibility Information

1) Provide accessibility information on the park website for visitors with physical/mobility, blind/low vision, Deaf/hard of hearing, and cognitive disabilities. The information should be detailed and include relevant characteristics about accessible facilities, services, and programs.

short-term

### 13 Accessibility Contact Information on Website

1) Provide the email address and telephone number of the park accessibility contact on the park website for visitors who have accessibility-related questions, concerns, or complaints, or who want to submit accommodation requests.

immediate

### 14 Accommodations

1) Provide the following Federal Relay Service phone numbers on the park website for visitors who are requesting accommodations or making reservations: Voice (1-866-377-8642), Voice Carry Over (1-877-877-6280), Speech-to-Speech (1-877-877-8982), and TeleBraille (1-866-893-8340).

short-term

### 15 Accessibility Information on Social Media

1) As appropriate, provide accessibility information regarding programs and special events on park social media platforms (e.g., Facebook Twitter) so that visitors are aware of accessibility specifics, such as where to park during events or how to submit accommodation requests.

immediate

## Walks, Talks, Tours, and Special Events

### 16 Physical Conditions of Walks, Talks, Tours, and Special Events

1) Provide information on the physical conditions of walks, talks, tours, and special events (e.g., number of steps, significant slopes, other barriers that exist) on-site, in relevant publications, and on the park website.

immediate

### 17 Large-Print Publications

1) Provide large-print format printed program materials. Use a minimum readable typeface at 18-point font. Align flush left and rag right. Avoid hyphens. Use black or white type color and avoid red text. Avoid italicized and underlined text. Provide graphics with at least 70% contrast.
2) Notify visitors on-site, in relevant publications, and on the park website that large-print program materials are available.

mid-term

### 18 Braille Publications

1) Provide braille format printed program materials.
2) Notify visitors on-site, in relevant publications, and on the park website that braille program materials are available.

mid-term

### 19 Audio Publications

1) Provide audio versions of printed program materials.
2) Provide audio description of printed program materials.
3) Notify visitors on-site, in relevant publications, and on the park website that audio and audio-described program materials are available.

mid-term

## 20 Assistive Listening Systems

1) Provide options for assistive listening (e.g., assistive listening devices, neckloops, induction loop systems, Bluetooth) for guided walks, talks, and tours, and special events in accordance with the scoping requirements of ABAAS F219.
2) Notify visitors on-site, in relevant publications, and on the park website of the availability and type(s) of assistive listening systems.
3) Develop, distribute, and practice standard operating procedures for checking out and returning, pre- and post-inspection, and cleaning and maintaining devices.

mid-term

## 22 Live Audio Description

1) Provide audio description for important visual elements along self-guided tours, including waysides.
2) Notify visitors on-site, in relevant publications, and on the park website that audio description is available. Provide audio description for important visual elements along self-guided tours, including waysides.

short-term

## 23 Tactile Maps and Models

1) Provide relevant and educational tactile maps and models for walks, talks tours, and special events. These may be static, in-place figures and maps or passed-around replicas of important and unique features.

mid-term

## HAWAIʻI VOLCANOES NATIONAL PARK POLICIES, PRACTICES, COMMUNICATION, AND TRAINING

### Park Features


## Implementation Strategy

Park policies and practices are specific to the park unit and provide guidance for reaching desired outcomes. Park policies are defined courses of action adopted by the park, while park practices are those habitual and/or customary performances of operations that park staff employs.

## Staff Training and Park Protocols

### 01 Accessibility Training

1) Provide ongoing accessibility training to all staff, including permanent and nonpermanent employees. Provide employees a thorough understanding of accessibility, relevant accessibility laws and policies, and each individual's role in providing accessible facilities, services, and programs for visitors with disabilities.

immediate

### 02 Emergency Preparedness

1) Develop, distribute, and practice standard operating procedures for assisting people with disabilities in emergencies.

immediate

### 03 Other Power-Driven Mobility Devices (OPDMDs)

1) Provide guidance outlining the use of OPDMDs within the park.

immediate

## Communications and Partnerships

### 04 Outreach

1) Develop an outreach strategy to regularly communicate with and inform people with disabilities and groups representing people with disabilities about recent accessibility efforts, and include them in park accessibility decisions.

short-term

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# CONCLUSION

Hawaiʻi Volcanoes National Park is committed to providing all visitors the opportunity to connect with and learn about the park's unique natural, cultural, and recreational resources. Accessibility improvements identified in the Hawaiʻi Volcanoes National Park Self-Evaluation and Transition Plan will make it easier for individuals with cognitive, hearing, vision, and mobility disabilities to discover, understand, and enjoy the range of experiences available at the park. Implementation of the plan will ensure that Hawaiʻi Volcanoes National Park will continue to work toward accommodating all park visitors while sustaining its legacy to protect the ecosystems and cultural resources connected to these landscapes.

The Self-Evaluation and Transition Plan for Hawaiʻi Volcanoes National Park includes an implementation strategy table (IST) that serves as a living spreadsheet intended to be used as a guiding reference for park managers as it implements accessibility upgrades and documents accessibility accomplishments. As barriers to accessibility are removed and/or improved, the changes will be updated in the IST. Park staff will conduct periodic reviews to evaluate and update conditions to reflect accomplishments and to document new programs or other changes that occur over time. Revisions to the IST may include conducting additional assessments for areas not originally conducted as a part of this plan.

The primary goal of the transition plan is to define key park experiences and document modifications needed to provide independent program participation for the widest range of disabilities possible. As park staff works towards its accessibility goals and makes the implementation strategy a reality, both physical and programmatic accessibility will improve across the breadth of key park experiences at Hawaiʻi Volcanoes National Park.

For visitors with mobility disabilities, access will be improved from the moment they enter the park. Facilities, as well as numerous programs, services, and activities the park offers will be more universally accessible. Experiences such as hiking, viewing unique wildlife, enjoying scenic vistas, camping and picnicking with friends and family, and learning about the human history and environment of the park, will be enhanced.

Park programs will be created and delivered for all visitors, including visitors with mild to severe disabilities impacting their mobility, vision, hearing, and/or cognitive abilities. Ranger led walks/talks, visitor center exhibits, films, trail waysides, and all materials that interpret park resources to the public will be provided in formats that allow visitors with disabilities to participate fully. Some of those formats include, but are not limited to: large-print transcripts for printed materials, audio description for exhibits and films, assistive listening devices and sign language interpreters for ranger-led tours and programs, neckloops, and inductive loop systems for park films.

Over time, the results of this collective effort will make Hawaiʻi Volcanoes National Park a truly welcoming and accommodating place for all visitors and will provide equal opportunity to access the many places, resources, stories, and experiences the park has to offer.

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# APPENDIX A: ACCESSIBILITY LAWS, STANDARDS, GUIDELINES, AND NPS POLICIES APPLICABLE TO HAWAIʻI VOLCANOES NATIONAL PARK

As a national park, Hawai'i Volcanoes National Park is required to comply with specific federal laws that mandate that discriminatory barriers be removed to provide equal opportunities to persons with disabilities. The following laws, design guidelines, and Director's Orders specifically pertain to Hawai'i Volcanoes National Park.

## LAWS AND STANDARDS

A law is a principle and regulation established in a community by some authority and applicable to its people, whether in the form of legislation or of custom and policies recognized and enforced by judicial decision. A standard is something considered by an authority or by general consent as a basis of comparison; an approved model. It is a specific low-level mandatory control that helps enforce and support a law.

### Architectural Barriers Act of 1968

https://www.access-board.gov/guidelines-and-standards/buildings-and-sites/about-the-aba-standards/aba-standards

The Architectural Barriers Act of 1968 requires physical access to facilities designed, built, altered, or leased with federal funds. The Uniform Federal Accessibility Standards (UFAS) are the design guidelines used as the basis for enforcement of the law. The UFAS regulations were adopted in 1984. Architectural Barriers Act Accessibility Standards (ABAAS) were revised and adopted in November 2005. The United States Access Board was created to enforce the Architectural Barriers Act, which it does through the investigation of complaints. Anyone concerned about the accessibility of a facility that may have received federal funds can easily file a complaint with the United States Access Board. In 2013, guidelines for Outdoor Developed Areas were adopted and added to the standards as Chapter 10.

https://www.access-board.gov/guidelines-and-standards/buildings-and-sites/about-the-aba-standards/aba-standards/single-file-version#chapter10

### Section 504 of the Rehabilitation Act of 1973

https://www.hhs.gov/sites/default/files/ocr/civilrights/resources/factsheets/504.pdf

To the extent that section 504 of the Rehabilitation Act of 1973 applies to departments and agencies of the federal government, the parks operated by the National Park Service are subject to the provisions of that statute. As will be discussed in the following text, both section 504 and the Architectural Barriers Act require the application of stringent access standards to new construction and the alteration of existing facilities. The Rehabilitation, Comprehensive Services, and Developmental Disabilities Amendments of 1978 (PL 95-602) extends the scope of section 504 of the Rehabilitation Act of 1973 (PL

93-112) to include Executive Branch agencies of the federal government. As amended, section 504 states:

No otherwise qualified handicapped individual in the United States, as defined in Section 7 (6), shall, solely by reason of his handicap, be excluded from the participation in, be denied the benefits of, or be subjected to discrimination under any program or activity receiving federal financial assistance or under any program or activity conducted by any Executive agency or by the United States Postal Service. The head of each such agency shall promulgate such regulations as may be necessary to carry out the amendments to this section made by the Rehabilitation, Comprehensive Services, and Developmental Disabilities Act of 1978. Copies of any proposed regulation shall be submitted to appropriate authorizing committees of Congress, and such regulation may take effect no earlier than the thirtieth day after the date on which such regulation is so submitted to such committees.

As noted above, section 504 and the Architectural Barriers Act govern new construction and alterations. However, as a civil rights law, section 504 goes further. Unlike the construction-driven ABA mandates, section 504 also requires covered entities to consider the accessibility of programs, services, and activities.

### Section 508 of the Rehabilitation Act of 1973

https://www.section508.gov/manage/laws-and-policies

In 1998, Congress amended the Rehabilitation Act of 1973 to require federal agencies to make their electronic and information technology accessible to people with disabilities. Inaccessible technology interferes with an ability to obtain and use information quickly and easily. Section 508 was enacted to eliminate barriers in information technology, open new opportunities for people with disabilities, and encourage development of technologies that will help achieve these goals. The law applies to all federal agencies when they develop, procure, maintain, or use electronic and information technology. Under section 508 (29 USC §794 d), agencies must give disabled employees and members of the public access to information that is comparable to access available to others.

### Accessibility Standards for Shared Use Paths

http://www.access-board.gov/guidelines-and-standards/streets-sidewalks/shared-use-paths

Shared use paths provide a means of off-road transportation and recreation for various users, including pedestrians, bicyclists, skaters, and others. In its rulemaking on public rights-of-way and on trails and other outdoor developed areas, comments from the public urged the board to address access to shared use paths because they are distinct from sidewalks and trails. Shared-use paths, unlike most sidewalks, are physically separated from streets by an open space or barrier. They also differ from trails because they are designed not just for recreation purposes but for transportation as well.

In response, the board is supplementing its rulemaking on public rights-of-way to also cover shared-use paths. The proposed rights-of-way guidelines, which address access to sidewalks, streets, and other pedestrian facilities, provide requirements for pedestrian access routes, including specifications for route width, grade, cross slope, surfaces, and other features. The board proposes to apply these and other relevant requirements to shared-use paths as well. This supplementary rulemaking also would add provisions tailored to shared-use paths into the rights-of-way guidelines.

### Draft Accessibility Standards for Public Rights-of-Way

http://www.access-board.gov/guidelines-and-standards/streets-sidewalks/public-rights-of-way

The board is developing new guidelines for public rights-of-way that will 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. The board's aim in developing these guidelines is to ensure that access for persons with disabilities is provided wherever a pedestrian way is newly built or altered, and that the same degree of convenience, connection, and safety afforded the public generally is available to pedestrians with disabilities. Once these guidelines are adopted by the Department of Justice, they will become enforceable standards under ADA Title II.

### Effective Communication

http://www.ada.gov/effective-comm.htm

People who have vision, hearing, or speech disabilities ("communication disabilities") use different ways to communicate. For example, people who are blind may give and receive information audibly rather than in writing and people who are deaf may give and receive information through writing or sign language rather than through speech. The ADA requires that Title II entities (state and local governments) and Title III entities (businesses and nonprofit organizations that serve the public) communicate effectively with people who have communication disabilities. The goal is to ensure that communication with people with disabilities is equally effective as communication with people without disabilities.

- The purpose of the effective communication rules is to ensure that the person with a vision, hearing, or speech disability can communicate with, receive information from, and convey information to, the covered entity.
- Covered entities must provide auxiliary aids and services when needed to communicate effectively with people who have communication disabilities.

- The key to communicating effectively is to consider the nature, length, complexity, and context of the communication and the person's normal method(s) of communication.

The rules apply to communicating with the person who is receiving the covered entity's goods or services, as well as with that person's parent, spouse, or companion in appropriate circumstances.

### Reasonable Accommodations

http://www.opm.gov/policy-data-oversight/disability-employment/reasonable-accommodations/

Federal agencies are required by law to provide reasonable accommodation to qualified employees with disabilities. The federal government may provide reasonable accommodation based on appropriate requests (unless so doing will result in undue hardship to the agencies). For more information, see the Equal Employment Opportunity Commission's Enforcement Guidance: Reasonable Accommodation and Undue Hardship under the Americans with Disabilities Act.

Reasonable accommodations can apply to the duties of the job and/or where and how job tasks are performed. The accommodation should make it easier for the employee to successfully perform the duties of the position. Examples of reasonable accommodations include providing interpreters, readers, or other personal assistance; modifying job duties; restructuring work sites; providing flexible work schedules or work sites (i.e., telework); and providing accessible technology or other workplace adaptive equipment. Telework provides employees additional flexibility by allowing them to work at a geographically convenient alternative worksite, such as home or a telecenter, on an average of at least one day per week.

Requests are considered on a case-by-case basis. To request reasonable accommodations:

- Look at the vacancy announcement.
- Work directly with person arranging the interviews.
- Contact the agency Selective Placement Program Coordinator.
- Contact the hiring manager and engage in an interactive process to clarify what the person needs and identify reasonable accommodations.
- Make an oral or written request; no special language is needed.

## Other Power-Driven Mobility Devices

https://www.ada.gov/opdmd.htm

The definition and regulation to permit the use of mobility devices has been amended. The rule adopts a two-tiered approach to mobility devices, drawing distinctions between wheelchairs and other power-driven mobility devices such as the Segway Human Transporter. Wheelchairs (and other devices designed for use by people with mobility impairments) must be permitted in all areas open to pedestrian use. Other power-driven mobility devices must be permitted for use unless the covered entity can demonstrate that such use would fundamentally alter its programs, services, or activities, create a direct threat, or create a safety hazard. The rule also lists factors to consider in making this determination.

## Service Animals

http://www.nps.gov/goga/planyourvisit/service-animals.htm

The following is excerpted from the Department of Justice and Americans with Disabilities Act Revised Regulations (effective 3/15/2011).

34.104 Definitions: Service animal means any dog [or miniature horse as outlined in the following text] that is individually trained to do work or perform tasks for the benefit of an individual with a disability, including a physical, sensory, psychiatric, intellectual, or other mental disability. Other species of animals, whether wild or domestic, trained or untrained, are not service animals for the purposes of this definition. The work or tasks performed by a service animal must be directly related to the handler's disability.

Examples of work or tasks include, but are not limited to, assisting individuals who are blind or have low vision with navigation and other tasks, alerting individuals who are deaf or hard of hearing to the presence of people or sounds, providing nonviolent protection or rescue work, pulling a wheelchair, assisting an individual during a seizure, alerting individuals to the presence of allergens, retrieving items such as medicine or the telephone, providing physical support and assistance with balance and stability to individuals with mobility disabilities, and helping persons with psychiatric and neurological disabilities by preventing or interrupting impulsive or destructive behaviors. The crime deterrent effects of an animal's presence and the provision of emotional support, well-being, comfort, or companionship do not constitute work or tasks for the purposes of this definition.

## Section 17.549 Program Accessibility: Discrimination Prohibited

http://www.law.cornell.edu/cfr/text/43/17.549

Except as otherwise provided in §17.550, no qualified handicapped person shall, because the agency's facilities are inaccessible to or unusable by handicapped persons, be denied the benefits of, be excluded from participation in, or otherwise be subjected to discrimination under any program or activity conducted by the agency.

The reference to §17.550 in the below quotes is intended to address exclusions available to covered entities in connection with existing facilities.

### Section 17.550 Program Accessibility: Existing Facilities

http://www.law.cornell.edu/cfr/text/43/17.550

Section 17.550 requires that agencies operate each program or activity so that the program or activity, when viewed in its entirety, is readily accessible to and usable by people with disabilities. It explains exceptions and provides methods on how agencies should implement this policy.

### Section 17.551 Program Accessibility: New Construction and Alterations

http://www.law.cornell.edu/cfr/text/43/17.551

Each building or part of a building that is constructed or altered by, on behalf of, or for the use of the agency shall be designed, constructed, or altered so as to be readily accessible to and usable by handicapped persons. The definitions, requirements, and standards of the Architectural Barriers Act (42 USC 4151–4157) as established in 41 CFR 101 – 19.600 to 101 – 19.607 apply to buildings covered by this section.

## NATIONAL PARK SERVICE DIRECTOR'S ORDERS AND MANAGEMENT POLICIES

A policy is a definite course of action adopted and pursed by a government, ruler, or political party. It is an action or procedure conforming to or considered with reference to prudence or expediency.

### Director's Order 16A

http://www.nps.gov/policy/DOrders/DOrder16a.html

Director's Order 16A establishes the framework for meeting reasonable accommodation requirements in all areas of employment, including: application, hiring, retention, promotion, recognition, and special hiring authority. Within this framework, NPS Human Resources and Equal Opportunity Program officials will take the lead in providing specific guidance and services to applicants, employees, and supervisors and other managers with respect to the provision of reasonable accommodation.

### Director's Order 42

http://www.nps.gov/policy/DOrders/DOrder42.html

Director's Order 42 addresses accessibility for visitors with disabilities in National Park Service programs and services. It is the goal of the National Park Service to ensure that all people, including persons with disabilities, have the highest level of access that is reasonable to NPS programs, facilities, and services. The order gives detailed guidance based on the minimum requirements set forth in laws, rules, and regulations with the

goal to provide the highest level of access that is reasonable, exceeding the minimum level of access required by law. The order sets forth six implementation strategies:

1. to increase employee awareness and technical understanding of accessibility requirements
2. to ensure all new and renovated buildings and facilities, and all new services and programs (including those offered by concessioners and interpreters) will be "universally designed" and implemented in conformance with applicable regulations and standards
3. to ensure existing programs, facilities and services will be evaluated to determine the degree to which they are currently accessible to and useable by individuals with disabilities
4. to ensure that barriers that limit access be identified and incorporated into the NPS Assets Management Program
5. to develop action plans identifying how identified barriers will be removed (where feasible)
6. to ensure action will be taken on a day-to-day basis to eliminate identified barriers, using existing operational funds or other funding sources or partnerships

### Guidelines

A guideline is an indication of a future course of action. It consists of recommended, nonmandatory controls that help support standards or serve as a reference when no applicable standard is in place.

### Programmatic Accessibility Guidelines for National Park Service Interpretive Media

http://www.nps.gov/hfc/accessibility/

The "Programmatic Accessibility Guidelines for National Park Service Interpretive Media" is for media specialists, superintendents, and other NPS employees and contractors who develop and approve interpretive media. Publications, exhibits, audiovisual programs and tours, wayside exhibits, signage, and web-based media provide park visitors with information and context so that their experience of visiting national parks can be both safe and meaningful. Park visitors who have physical, sensory, or cognitive disabilities have legally established civil rights to receive the same information and context that NPS interpretive media products have always provided to their fellow citizens.

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# APPENDIX B: GLOSSARY OF TERMS

**Accessibility assessment:** A process in which physical and programmatic barriers to accessibility are identified at a park unit.

**Accessibility assessment team:** This group is a subgroup of the Interdisciplinary Design Team (see definition below) and includes an accessibility specialist and/or technician, coordinators, a regional representative, the primary facilitator for the process, architect, engineer and/or landscape architect, and typically the chiefs of interpretation, resources management, and facilities management.

**Accessibility Self-Evaluation and Transition Plan:** A tool that establishes a methodical process for identifying and improving parkwide access and proposes strategies for implementing the plan over time, in a manner consistent with park requirements and protocols.

**Architectural Barriers Act Accessibility Standard (ABAAS):** Standards issued under the Architectural Barriers Act apply to facilities designed, built, altered, or leased with certain federal funds. Passed in 1968, the Architectural Barriers Act is one of the first laws to address access to the built environment. The law applies to federal buildings, including post offices, social security offices, federal courthouses and prisons, and national parks.

**Barrier:** Architectural and programmatic obstacles to accessibility that make it difficult, and sometimes impossible, for people with disabilities to maneuver, understand, or experience.

**Best practice:** A method or technique that has consistently shown results superior to those achieved with other means, and that is used as a benchmark for meeting accessibility requirements.

**Consultation:** A formal or informal process for discussing an action or process for implementing a solution, such as section 106 (cultural resource compliance), or design for an Accessibility Self-Evaluation and Transition Plan.

**Facility Management Software System (FMSS) work order:** The process for documenting work needs and collecting information to aid the work scheduling and assignment process within the Facility Management Software System. Information collected should include labor, equipment and material costs, hours, types, and quantities.

**Guideline:** A guideline is an indication of a future course of action. It consists of recommended, nonmandatory controls that help support standards or serve as a reference when no applicable standard is in place.

**Interdisciplinary design team:** This team is composed of all the people involved in the workshop at the park unit, potentially including planning, design, and construction professionals; and interpretive, resource (natural and cultural), visitor safety, maintenance and accessibility specialists.

**Key park experience:** For the purpose of the Self-Evaluation and Transition Plan, key park experiences are those experiences that are iconic and essential for visitors to understand the purpose and significance of a given park unit. They are those experiences that are "musts" for all park visitors. Key park experiences can be identified through a consideration of park purpose, significance, interpretive themes, and those programs or activities highlighted in park communications.

**Law:** A law is a principle and regulation established in a community by some authority and applicable to its people, whether in the form of legislation or of custom and policies recognized and enforced by judicial decision.

**National Environmental Policy Act (NEPA) Requirements:** NEPA defines a process that federal agencies must follow when proposing to take actions that have environmental impacts. NEPA requires federal agencies to fully consider the impacts of proposals that would affect the human environment prior to deciding to take an action. NEPA also requires federal agencies to involve the interested and affected public in the decision-making process.

**Park area:** A park area is the geographic location that is home to a single or multiple key park experience(s).

**Park Asset Management Plan-Optimizer Banding (PAMP-OB):** Provides a 5-year asset management strategy for park units, allowing for annual updates that coincide with the budget and planning processes already occurring in park units. As this approach includes life cycle total cost of ownership, analysis, processing, and calculations, it also helps park units and the service as a whole to manage the gap between what should be spent on facilities and what is actually being spent.

**Park policy:** A policy is a definite course of action adopted and pursed by a government, ruler, or political party. It is an action or procedure conforming to or considered with reference to prudence or expediency.

**Park practice:** Those habitual and/or customary performances or operations for reaching a desired outcome that the park employs.

**People-first language:** A type of disability etiquette that aims to avoid perceived and subconscious dehumanization when discussing people with disabilities. It emphasizes the person rather than the disability, noting that the disability is not the primary defining characteristic of the individual but one of several aspects of the whole person.

**Project Management Information System (PMIS) Facility:** A separate and individual building, structure, or other constructed real property improvement.

**Project Management Information System (PMIS) Nonfacility:** A project that includes anything not covered by the definition for PMIS facility

**Project Management Information System (PMIS) # (number):** A unique Project ID Number that is automatically generated when adding a new project into the Project Management Information System

**Project planning team**: This group is a subgroup of the interdisciplinary design team and includes DSC planners and PWR staff. This team collects baseline data, facilitates calls, develops the participant guide, plans for and facilitates the workshop, and produces the draft and final documents.

**Readily achievable:** Easily accomplished and able to be carried out without much difficulty or expense.

**Recommended solution:** The action to eliminate the identified barrier.

**Responsible person:** The person/position responsible for seeing that the elimination of a barrier is completed.

**Service, activity, and program:** A service, activity, or program that is undertaken by a department and affords benefits, information, opportunities, and activities to one or more members of the public.

**Standard:** A standard is something considered by an authority or by general consent as a basis of comparison; an approved model. It is a specific low-level mandatory control that helps enforce and support a law.

**Time frame:** Time frames for implementation of a recommended solution are primarily based on park's ability of park staff to complete the improvements within normal scheduling of park operations and planned projects. They describe when staff will eliminate the barrier. Recommended solutions are divided into four time frames including: immediate, short-term, mid-term, and long-term.

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# APPENDIX C: CONTRIBUTORS

## HAWAIʻI VOLCANOES NATIONAL PARK

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# APPENDIX D: PARK AREAS NOT ASSESSED

The following park areas are those not assessed for this Accessibility Self-Evaluation and Transition Plan. The selection process determined that key park experiences provided in these park areas were available in an equivalent way within the areas that were assessed. If any of the park areas not assessed are improved by new construction or alterations in the future, the area will be assessed and improved to comply with the current Architectural Barriers Act Accessibility Standards.

- ʻĀpua Point
- Crater Rim Trailhead on Chain of Craters Road
- Crater Views Pull Offs
- Entrance Signs
- Environmental Education Center
- Forested Pit Crater
- Great Crack
- Halapē
- Hilina Pali Overlook
- Kaʻaha
- Kaʻū Desert Trailhead and Footprints Shelter
- Kahuku Visitor Contact Station and Picnic Area
- Keanakākoʻi Overlook
- Keauhou
- Kīpukapuaulu Trailhead
- Kulanaokuaiki Campground
- Mauna Loa Lookout
- Maunaulu Parking and Trailhead
- Nāpau
- Pali o Kaeo Trailheads
- Palm Trail Trailheads
- Pepeiao Cabin

- Puʻu o Lokuana Trailhead
- Puʻuʻulaʻula Red Hill Cabin
- Research Center

# HAWAIʻI VOLCANOES NATIONAL PARK
# ACCESSIBILITY SELF-EVALUATION AND TRANSITION PLAN
# AUGUST 2023

This Accessibility Self-Evaluation and Transition Plan has been prepared as a collaborative effort between Hawaiʻi Volcanoes National Park staff, Pacific West Regional staff, and Denver Service Center staff and is recommended for approval by the superintendent.

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**Approved** Date

Rhonda Loh, Superintendent, Hawaiʻi Volcanoes National Park

As the nation's principal conservation agency, the Department of the Interior has responsibility for most of our nationally owned public lands and natural resources. This includes fostering sound use of our land and water resources; protecting our fish, wildlife, and biological diversity; preserving the environmental and cultural values of our national parks and historic places; and providing for the enjoyment of life through outdoor recreation. The department assesses our energy and mineral resources and works to ensure that their development is in the best interests of all our people by encouraging stewardship and citizen participation in their care. The department also has a major responsibility for American Indian reservation communities and for people who live in island territories under U.S. administration.

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