



U.S. Department
of Transportation

Federal Highway
Administration

DIRECTOR'S OFFICE
DEPT. OF
TRANSPORTATION

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Hawaii Federal-Aid Division

May 20, 2015

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DIR 0629
copy for project files

In Reply Refer To:
HDA-HI

Mr. Ford Fuchigami
Director
Hawaii Department of Transportation
869 Punchbowl Street, Suite 500
Honolulu, HI 96813

Subject: Section 106 of the National Historic Preservation Act Memorandum of Agreement
Queen Kaahumanu Highway Widening, Phase 2
Kealakehe Parkway to Keahole Airport Access Road
Federal-aid Project No. NH-019-1(038)R

Dear Mr. Fuchigami:

Thank you for your participation in the National Historic Preservation Act (NHPA) Section 106 consultation process. Pursuant to Section 106 of the NHPA of 1966, the Federal Highway Administration rendered an adverse effect determination for the subject project's potential impacts to historic properties within the undertaking's area of potential effects. In cooperation with the Advisory Council on Historic Preservation (ACHP), the State of Hawaii Historic Preservation Officer, National Park Service, Hawaii Department of Transportation, Historic Hawaii Foundation, Office of Hawaiian Affairs, and Makani Hou o Kaloko-Honokohau, a memorandum of agreement (MOA) was prepared to address the adverse effect on historic properties. A copy of the signed MOA is enclosed for your records.

As noted on page 10 of the document, changes were made to the MOA in consultation with the ACHP. In particular, the note clarified the curation of archaeological materials and records in Stipulation 16 on page 7, and the definition of a minor change in Stipulation 21 on page 9. The changes have been initialed by all signatories and invited signatories. The MOA has been executed and filed with the ACHP, signifying completion of the Section 106 process and initiation of the MOA's implementation.

If you have any questions or need additional information, please feel free to contact Meesa Otani, Environmental Engineer at (808) 541-2316 or meesa.otani@dot.gov. Thank you for your assistance.

Sincerely yours,

Mayela Sosa
Division Administrator

Enclosure

MEMORANDUM OF AGREEMENT
Among the
ADVISORY COUNCIL ON HISTORIC PRESERVATION,
FEDERAL HIGHWAY ADMINISTRATION, and the
HAWAII STATE HISTORIC PRESERVATION OFFICER
Regarding the projects in the vicinity of the
District of North Kona, Island of Hawai'i, State of Hawai'i
which are known as the Queen Ka'ahumanu Highway Intersection
Improvements for the Kaloko-Honokōhau National Historical Park
and the Queen Ka'ahumanu Highway Widening, Kailua to Ke'āhole

WHEREAS, the Federal Highway Administration (FHWA) has funded the State of Hawai'i Department of Transportation (HDOT) projects known as Queen Ka'ahumanu Highway Intersection Improvements for the Kaloko-Honokōhau National Historical Park, and the Queen Ka'ahumanu Highway Widening, Kailua to Ke'āhole (collectively the "Projects") and described in a May 1996 Final Environmental Assessment (FEA) which contains a FHWA Finding of No Significant Impact (FONSI) determination dated June 10, 1996; and

WHEREAS, the FHWA consulted with the Hawai'i State Historic Preservation Officer (SHPO), the Hawai'i Department of Transportation (HDOT), the State of Hawai'i Office of Hawaiian Affairs (OHA), and the Historic Hawai'i Foundation (HHF) and the Advisory Council on Historic Preservation (ACHP) regarding project pursuant to Section 800.6(a) of the regulation (36 CFR 800) implementing Section 106 of the National Historic Preservation Act (NHPA, 16 USC 470f), and these parties executed a Memorandum of Agreement (MOA) in 1999 addressing effects to historic properties from the Projects, caused by either project singularly or both projects together; and

WHEREAS, the FHWA determined, with the ACHP and the SHPO concurring, that as of 1999 the Projects, considered together, would affect two historic properties identified as State Site 00002 (Māmalahoa Trail) and State Site 19953, and may potentially impact ten (10) additional historic properties, listed in Attachment 1 to the 1999 MOA; and

WHEREAS, this Memorandum of Agreement supersedes in its entirety the MOA dated March 5, 1999, as well as the 1999 Final Archaeological Treatment Plan; and

WHEREAS, the HDOT initiated and successfully completed the first phase of the Queen Ka'ahumanu Highway Widening Project extending 2.5 miles between Palani Road and Kealakehe Parkway in 2009; and

WHEREAS, the HDOT, with the FHWA participating, initiated in July 2010 the start of the second phase of the Projects including the highway widening between Kealakehe Parkway and the Ke'āhole Airport Access Road and the Queen Ka'ahumanu Highway Intersection Improvements for the Kaloko-Honokōhau National Historical Park; and

WHEREAS, the HDOT commissioned an Archaeological Inventory Survey (AIS) titled "*Archaeological Inventory Survey for the Proposed Queen Ka'ahumanu Highway Widening Phase 2 Project, Kalaoa, Kalaoa-'O'oma, 'O'oma 2, Kohanaiki, Kaloko, Honokōhau 1-2 and Kealakehe, North Kona District, Hawai'i Island (August 2012)*" in response to concerns raised by the National Park Service (NPS), Historic Hawai'i Foundation and the following Native Hawaiian organizations: Makani Hou o Kaloko-Honokōhau, Royal Order of Kamehameha, Kona Hawaiian Civic Club, Nakoa Foundation, OHA, Villages of La'i Opuia Master Association; and

WHEREAS, the August 2012 AIS identified a total of 76 historic properties (see Attachment 1 Summary List of Sites), where 57 historic properties were not previously described in a 1995

ALS which is an attachment to the 1999 MOA, and where 19 of 76 historic properties are recommended for preservation, 40 of 76 historic properties are recommended for data recovery and/or preservation, 17 of 76 sites are recommended for relocation, avoidance, or no further work in accordance with the "Secretary of the Interior's Standards and Guidelines for Archeological and Historic Preservation;" and Attachment 1 further identifies 23 sites that have had their mitigation/preservation action modified due to the proposed redesign of the south segment of the project; and

WHEREAS, the HDOT prepared and submitted to State Historic Preservation Division (SHPD) for approval 1) Data Recovery and Preservation Plan (DRPP) (approved October 2012); and 2) Archaeological Monitoring Plan (AMP) (approved October 2012), 3) Archaeological Preservation and Mitigation Plan (approved April 9, 2014); and

WHEREAS, the FHWA shall insure that the HDOT carries out the conditions of the approved reports cited above; and

WHEREAS, the HDOT prepared and submitted a Burial Treatment Plan (BTP) for Site 50-10-27-22415 to the Hawai'i Island Burial Council (HIBC) with a recommendation for preservation in-place. The HIBC concurred in October 2012. A second BTP for Site 50-10-27-29275 was submitted to SHPD for consideration, however, the landowner withdrew the application, with the SHPD concurring, from further consideration by the HIBC and SHPD; and

WHEREAS, the HDOT and the University of Hawai'i have entered into an agreement that will provide Native Hawaiian cultural outreach and education for a five (5) year duration commencing at the execution of this MOA via the following:

- A) Fund/support continuing education in the study of Native Hawaiian archaeology and/or anthropology via a comprehensive agreement with the University of Hawai'i at Hilo;
- B) Funding of scholarships/fellowships/research of undergraduate or graduate work in Native Hawaiian Studies at the University of Hawai'i via a comprehensive agreement with the University of Hawai'i at Hilo;
- C) Fund/support local Hawaiian immersion and/or charter schools that have a Hawaiian focus on the Island of Hawai'i via a comprehensive agreement with the University of Hawai'i at Hilo;
- D) Fund/support the recording of oral histories in the Kekaha region via a comprehensive agreement with the University of Hawai'i at Hilo;
- E) Fund/support Cultural Programming in the Kekaha region via a comprehensive agreement with the University of Hawai'i at Hilo; and

The University of Hawai'i at Hilo and HDOT have entered into a separate agreement that details the requirements of the above program, and where the University of Hawai'i at Hilo shall provide the HDOT with an annual report detailing activities of the past calendar year. This report shall be shared with the parties of this MOA and the consulting NHOs.; and

WHEREAS, the FHWA has determined that Phase II of the Projects may also have an effect on the Honokōhau Settlement National Historic Landmark, the Kaloko-Honokōhau National Historical Park, the Ala Kahakai National Historic Trail, and has consulted with the NPS to resolve such effects, and

WHEREAS, the Honokōhau Settlement National Historic Landmark demonstrates the close relationship between the early Hawaiians and their environment and was designated in 1962 to preserve virtually intact sites that are the most characteristic features of ancient Hawaiian coastal settlement including fishponds of the area that reflect Hawaiian ingenuity in adapting to the environment, clear pools that provided the life-giving drinking water that enabled settlement

in an arid environment, the finest example of a platform-type heiau in Kona, and over 450 known archaeological and cultural sites; and

WHEREAS, Congress established Kaloko-Honokōhau National Historical Park in 1978 "to provide a center for the preservation, interpretation, and perpetuation of traditional native Hawaiian activities and culture, and to demonstrate historic land use patterns as well as provide needed resources for the education, enjoyment, and appreciation of such traditional native Hawaiian activities and culture by local residents and visitors..." (16 USC 396d); and

WHEREAS, Congress established the Ala Kahakai National Historic Trail in 2000 "to preserve its cultural and archaeological value as part of a national trails system that promotes the preservation of public access to, travel within, and enjoyment and appreciation of outdoor areas and historic resources of the Nation." (Public Law 106-509 and 16 USC 1244(a)(22)), and the National Historic Trail complex contains a variety of significant cultural and natural resources, played a significant part in events that affected Hawaiian history and culture, and continues in active use today; and

WHEREAS, perpetuation of clean water, night sky visibility, *mauka – makai* connectivity, traditional pedestrian access, and serenity and quiet, according to National Park Service (NPS), are essential to the integrity, historical significance, and character of these properties; to the continuing traditional and customary practices within these properties; and to the public enjoyment and understanding of the Kaloko-Honokōhau National Historical Park, Honokōhau Settlement National Historic Landmark, and Ala Kahakai National Historic Trail; and

WHEREAS, to address the effects of the projects on historic properties, including the newly identified historic properties described in the August 2012 AIS, the parties to the 1999 MOA agreed to develop and execute this MOA; and

WHEREAS, the FHWA, in cooperation with HDOT, has consulted with the NPS officials and has invited them to be signatories to this MOA; and

WHEREAS, the FHWA, in cooperation with HDOT, has consulted with the HHF and the following Native Hawaiian organizations (NHO): Royal Order of Kamehameha, Kona Hawaiian Civic Club, OHA, Villages of La'i Opua Master Association, Nakoia Foundation, and Makani Hou o Kaloko-Honokōhau, and have invited the HHF, OHA, and Makani Hou o Kaloko-Honokōhau to become concurring parties to this MOA;

WHEREAS, the HDOT provided the opportunity for five (5) individuals, identified and selected by the NHOs, to attend a three day workshop (May 2-4, 2012) in Hilo administered by the Hawai'i Local Technical Assistance Program (LTAP) relating to the National Historic Preservation Act (NHPA), Section 106. Attendees were given the opportunity to be reimbursed for expenses.

WHEREAS, the FHWA and HDOT acknowledge and agree that: a) Historic properties will be impacted through the widening of the highway; and b) mitigation actions will be taken by HDOT. The FHWA shall ensure that HDOT completes the redesign of the southern portions (between Kealakehe Parkway and Hinalani Street) of the proposed improvements, to minimize the impacts of the highway widening.

NOW, THEREFORE, the FHWA, the SHPO, the ACHP, the National Park Service, and HDOT agree that the Projects shall be implemented in accordance with the following stipulations in order to take into account the Projects effects on historic properties:

STIPULATIONS

The FHWA will ensure that the following Stipulations are carried out:

1. **ON SITE POINT OF CONTACT.** The FHWA in coordination with the HDOT shall designate an on-site point of contact (POC) within fourteen days of the execution of this MOA. This on-site POC shall maintain hard copies of all documents relative to this MOA and provide electronic copies of them upon request by any consulting party to this MOA. The on-site POC shall be responsible for receiving and distributing any daily archaeological or cultural monitoring reports related to the construction of the Project to the other consulting parties to this MOA via email on a weekly basis. All signatories, concurring parties, and consulting parties to this MOA shall identify a POC for their respective organizations and transmit contact information to the FHWA and HDOT who shall maintain a current POC list.
2. **AREA OF POTENTIAL EFFECT.** The Project's Area of Potential Effect (APE) includes the right-of-way (ROW) of the Queen Ka'ahumanu Highway, the Honokōhau Settlement National Historic Landmark, the Kaloko-Honokōhau National Historical Park, and trails that are immediately adjacent to and traverse the Project area that have been identified as significant to the Ala Kahakai National Historic Trail corridor (Attachment 2), most notably the Māmalahoa Trail.

3. **PROFESSIONAL STANDARDS.**

The HDOT shall ensure that all work carried out and documents prepared under this MOA are consistent with the recommendations of the August 2012 AIS cited above and conform to the *Secretary of the Interior's Standards and Guidelines for Archeological Documentation*, the ACHP's Section 106 "Archaeological Guidance" and the SHPO's requirements for data recovery and preservation. Further, all work pertaining to the identification and treatment of archaeological resources, including sites and objects, will be carried out by, or under the direct supervision of, a person or persons meeting the professional qualification for archaeology as found in "The Secretary of the Interior (SOI) Historic Preservation Professional Qualification Standards" (SOI Qualification Standards), per 36 CFR Part §61, Appendix A (Volume 48, No 190 dated September 29, 1983), and Title 13, Chapter 300, Hawai'i Administrative Rules (HAR).

The HDOT shall provide, upon request, the documents identified in this MOA in either digital or paper copy to the requestor, subject to the confidentiality provisions of Section 304 of the NHPA.

4. **ARCHAEOLOGICAL PRESERVATION AND MITIGATION PLAN (APMP, APRIL 2014), DATA RECOVERY AND PRESERVATION PLAN (DRPP, OCTOBER 2012), ARCHAEOLOGICAL MONITORING PLAN (AMP OCTOBER 2012) and BURIAL TREATMENT PLAN (BTP, OCTOBER 2012).**

FHWA will ensure that HDOT complies with the implementation of the APMP, AMP, DRPP, and BTP and its compliance with the conditions of approval stipulated by SHPD. The HDOT shall provide the parties to this MOA a copy of the findings of the APMP, AMP and DRPP activities.

Further, construction, including ground-disturbing activities will not commence until the data recovery fieldwork has been completed and a data recovery end of fieldwork report has been drafted and approved by SHPD. The end of fieldwork report shall be submitted to all parties of this MOA and NHOs who participated in the consultation process. The Data Recovery Final Report shall be submitted to SHPD for their approval.

5. **A. PROJECT REDESIGN.** The FHWA shall ensure that HDOT completes the redesign of the southern portions (between Kealakehe Parkway and Hinalani Street) of the proposed improvements, to minimize the impacts of the highway widening. The objective of the redesign is to avoid, where feasible, historic properties and to propose

mitigation action to minimize potential impacts. The revised plans shall be made available for review by the consulting parties of this MOA upon receipt of a timely request to the HDOT.

B. NATIVE HAWAIIAN CULTURAL OUTREACH AND EDUCATION. The HDOT and the University of Hawai'i at Hilo (UHH) have entered into a Memorandum of Understanding (MOU) to provide cultural programs and education to support Native Hawaiian studies. The HDOT shall ensure that the MOU between HDOT and UHH to provide cultural programs is fully implemented over the five year duration of the agreement. Annual reports documenting the activities of the past calendar year will be made available to all consulting parties.

6. CULTURAL MONITORS. HDOT prepared a Cultural Monitoring Scope of Work that describes the minimum qualifications and requirements for cultural monitor positions. The tasks of the cultural monitor(s) include: a) serve as a liaison with the community to assist in the interpretation of cultural resources, b) provide cultural education for construction workers, c) prevent and minimize impacts to historic and cultural resources, d) monitor the activities of the project archaeologist, and e) prepare daily reports. HDOT will engage a pool of cultural monitors to insure that whenever data recovery activities or construction activities disturb previously undisturbed areas a monitor is present. HDOT provided signatories and concurring parties to the MOA an opportunity to review and comment on the draft Cultural Monitoring scope of work. The FHWA approved the Final Cultural Monitoring Scope of Work on October 22, 2012. The HDOT shall select a cultural monitor(s) from a list of qualified applicants based on the objectives identified above. Participating NHOs were afforded the opportunity to identify and evaluate the potential cultural monitor candidates.
7. STREET LIGHTING. Street lighting shall only be provided at signalized intersections (Kealakehe Parkway, Lanihau, Hina Lani (also known as Hina-Lani or Hinalani), Huliko, Ka'iminani, and Ke'āhole Airport Road). Luminaire will be a CWES KS04-100 with SF-7 filter that will be "full cut-off" with no up light directed skyward other than incidental reflections. HDOT shall provide confirmation to the NPS that lights are level and properly installed. All lighting will use a "blue-cut" filter (yellow tinted) to prevent shorter wavelength light emission, which is known to disproportionately degrade the appearance of the night sky and disproportionately impact nocturnal wildlife species, and to reduce the perceived glare as seen from the National Parks. The intensity of the installed lighting shall not exceed 10,000 initial (at installation) lumens after filtering, nor exceed the minimum necessary for the task. For those intersections adjacent to the National Park (Kealakehe Parkway, Lanihau, and Hina Lani), the outer streetlights (those first and last encountered by drivers) shall be of lower intensity (at minimum 20% less intense than the other installed lights) to provide improved transition between lit and dark areas and to provide an incremental reduction in total lumen footprint. HDOT may modify the specifications contained herein if new technology becomes available that would better meet the intent of this stipulation, provided the NPS agrees to such change in writing.
8. NOISE STUDY. The HDOT conducted a noise impact study in March 2014 to determine if the roadway improvements planned has the potential for impacting the activities within the National Park. The study was conducted in accordance with 23 CFR 774. The final report is pending. The findings will be made available to consulting parties in this MOA.
9. HIGHWAY DRAINAGE. The HDOT shall install drainage control (drywells) equipped with oil/water separators to prevent polluted runoff from entering groundwater below the National Parks from a point 1,000 feet north of Hinalani Street to immediately south of the Kealakehe Parkway Intersection. HDOT shall construct the roadway and site the

drywells to capture 90+% of storm runoff flows from both northbound and southbound lanes of highway in accordance with the HDOT standard specifications for stormwater treatment. Products utilized by the contractor shall provide that oil/water separators shall meet a minimum removal efficiency of 95%, and removal efficiencies of metals shall meet 95% of copper, 93% of lead, and 95% of zinc. The HDOT shall maintain drywell oil/water separators pursuant to the manufacturer's specifications to provide maximum protection of groundwater from polluted runoff. Annually, the HDOT shall provide NPS with reports of the actual maintenance of the drywells no later than 30 days after the anniversary of the installation of the drywells is completed. The reports shall include drywell location, date filters replaced, condition of filter replaced, and comments. This report shall be also made available to parties of this MOA and NHOs participating in the consultation process.

10. PEDESTRIAN CROSSINGS. A. The HDOT shall provide at-grade pedestrian crossing at the following three locations: at the intersections of Hinalani Street, Lanihau Street/Park Entrance, and Kealakehe Parkway. These crossings shall incorporate pedestrian refuges (where feasible) in the highway median where there is adequate space available for the pedestrian refuge, and will accommodate bicycle users.

B. UNDERPASS FEASIBILITY STUDY. The HDOT shall conduct a feasibility study with the objective of facilitating safe pedestrian access across the Queen Ka'ahumanu Highway at the "Trail to Honokōhau." The study will examine at-grade crossing locations, the installation of a pedestrian tunnel crossing, and the modification of existing culverts for pedestrian-bicycle use. The study shall seek examples and policies regarding use of existing pedestrian tunnels and modified culverts in Hawai'i and other States. Subsurface crossing(s) shall include provisions for a third party organization to take responsibility for maintenance, security and liability for the crossing(s) as has been the policy of HDOT for more than a decade. The HDOT shall identify and select a qualified independent third party to conduct the study. As part of the study, HDOT shall consult with NPS to identify community organizations who may be invited to participate in the feasibility study. Organizations that may be invited to participate include: signatories to this MOA, NHOs, Peoples Advocacy Trails Hawai'i (PATH), County of Hawai'i, local primary and secondary school officials, universities, community groups, the Royal Order of Kamehameha, and the Association of Hawaiian Civic Clubs. As part of the feasibility study the HDOT shall convene a community meeting that has as its objective the development of design guidelines for future Queen Ka'ahumanu Highway expansion projects that includes provisions for trail connectivity and pedestrian crossings under the Queen Ka'ahumanu Highway as well as paralleling the highway. The HDOT shall transmit the findings of the feasibility study (inclusive of any documents or written testimony from the community meeting above) to parties participating in the feasibility study prior to the expiration of this MOA.

11. INTERPRETIVE SIGN(S). The HDOT shall research, design, and produce mutually agreed upon interpretive sign(s) in consultation with NPS and NHOs relating to the history of the trails identified in the Project ROW near the Kaloko-Honokōhau National Historical Park and how the trails relate to the surrounding community. The sign(s) shall be 1) designed to meet NPS sign standards, 2) produced by HDOT, and 3) installed by the NPS within the boundaries of the Kaloko-Honokōhau National Historical Park.
12. AHUPUA'A SIGNS. The HDOT shall install ahupua'a markers within the project limits following the guidelines of the HDOT's Ahupua'a Marker Program. The markers (ahu or sign on posts) shall be designed and installed in consultation with community groups and NHOs as prescribed by the Ahupua'a Marker Program. A notice of the proposed

installation shall be published in the West Hawai'i Today newspaper. The markers shall be installed as part of the highway widening project.

13. HIGHWAY LANDSCAPING. The HDOT shall coordinate landscaping plans with the NPS in areas within the ROW fronting the Kaloko-Honokōhau National Historical Park; including intersections. The criteria for landscaping material include: native plant species or appropriate Polynesian-introduced species that require low maintenance and are drought tolerant. The plant species to be planted shall be decided upon jointly between HDOT and the NPS in consultation with the NHOs.

14. RELATIONSHIP BUILDING WORKSHOP. The FHWA and HDOT acknowledge the need to build upon existing and develop new relationships with NHO and communities statewide. The FHWA and HDOT shall commit to sponsoring an initial statewide (one day) relationship building workshop to provide a forum where discussion and knowledge exchange can occur between the FHWA, HDOT, NHOs, concurring parties, and community representatives in a non-project specific context. Other agencies may be invited to participate in this forum as deemed appropriate by a consensus decision between FHWA, HDOT, and OHA, advocating on behalf of NHO interests. This workshop shall be held within 24 months following the execution of this MOA.

The subject of the workshop may cover five (5) major areas: 1) identification of issues, challenges or problems that NHOs and HDOT/FHWA have experienced in consultation with each other; 2) a technical training about National Historic Preservation Act Section 106, U.S. Department of Transportation Act Section 4(f), National Environmental Policy Act (NEPA), NHO protocols, relevant Hawaiian history or cultural practices, or other relevant laws and practices (mutually sharing information); 3) a problem-solving session to share knowledge about best practices that would assist NHOs, HDOT and FHWA to have productive and effective consultation; 4) to identify NHO and community representatives interested in participating in the next stage of relationship building that may involve a training course sponsored by the FHWA/HDOT that integrates the NEPA/NHPA/U.S. Department of Transportation Act, Section 4(f) decision making processes for transportation projects in Hawai'i; and 5) explore the development of agreement documents that guide NEPA/NHPA consultation for transportation projects in Hawai'i.

The FHWA and HDOT may sponsor additional phases of the relationship building process and will decide within one year after the conclusion of the first workshop as appropriate and/or necessary.

15. TERRAIN MODEL. The HDOT shall commission the construction of a terrain model depicting the lands of Kekaha (between Kailua and Anaehoomalu) in consultation with Makani Hou o Kaloko-Honokōhau. The model shall incorporate topographic relief, traditional place names, historic trails, settlement locations, interpretive signs, and other important landmarks, to be determined. The model may be housed at the Kaloko-Honokōhau National Historical Park under the auspices of the Hawai'i Pacific Parks Association. The model shall be of such scale that it can be transported to other locations and be used as a teaching tool. A second digital model will also be developed and include similar information as the terrain model.

16. ARCHAEOLOGICAL MATERIALS AND RECORDS. All archaeological materials and records discovered as a result of the subject project shall be housed and curated by the HDOT, *. The location and methods used shall be subject to review and consultation with SHPD and shall be open for review and inspection by the public upon request to HDOT. If at some future date the NPS has space, personnel, and resources to take on this responsibility, the HDOT shall consult with NPS.

JB (DOT)
D SHPD
JM (ACHP)
R (FHWA)
PAD (NPS)
M (NPS)

17. **POST-REVIEW DISCOVERIES.** If previously unknown potential historic properties are discovered or unanticipated effects on identified historic properties are found during project construction, the HDOT shall take the actions identified below. The HDOT will immediately notify the SHPO, and immediately stop work at the site of the find until appropriate final mitigation measures are implemented.
- A. If the discovery or unanticipated adverse effect is located within the ROW, the HDOT will notify SHPO and the signatories, invited signatories, concurring parties, and consulting NHOs to this MOA of the findings within 72 hours. If the finding is adjacent to the Park boundary, then the HDOT will also notify the NPS at the same time that the SHPO is notified. All signatories, invited signatories and concurring parties to this MOA shall designate a "point of contact" and contact information for the representative who shall be notified pursuant to this provision or the inadvertent discovery of human skeletal remains as described at 17(C) below.
 - B. The FHWA, the SHPO, and the signatories, invited signatories, concurring parties, and consulting NHOs to this MOA shall consult on the potential significance of the discovered property, National Register of Historic Places eligibility and any proposed treatment. Comments on the significance, of the discovered property, National Register of Historic Places eligibility and any proposed treatment or a request for additional time to provide comments shall be provided by the SHPO, signatories, invited signatories, and concurring parties to the FHWA within 48 hours of any notification as described in 17(A) in order to be considered. HDOT to ensure that any recommended treatment measures are implemented; and HDOT shall provide a final report to the SHPO and all signatories, invited signatories, and concurring parties on these actions when they are completed.
 - C. In the event human skeletal remains are inadvertently discovered during project construction, the requirements of Chapter §6E-43.6, HRS, and Chapter 13-300, HAR, shall determine appropriate treatment. In addition to the parties who are notified of inadvertent discoveries pursuant to Chapter 13-300-40(b), HAR, and (c), the FHWA shall ensure all signatories, invited signatories and concurring parties to this MOA are notified of the inadvertent discovery and afforded a reasonable opportunity to comment on appropriate treatment. Comments shall be directed to the SHPD.
18. **DISPUTE RESOLUTION.** Should any signatory, invited signatory, or concurring party to this MOA object at any time to any actions proposed or the manner in which the terms of this MOA are implemented, FHWA shall consult with such party to resolve the objection. If FHWA determines that such objection cannot be resolved, FHWA will:
- A. Forward all documentation relevant to the dispute, including the FHWA's proposed resolution, to the ACHP. The ACHP shall provide FHWA with its advice on the resolution of the objection within thirty (30) days of receiving adequate documentation. Prior to reaching a final decision on the dispute, FHWA shall prepare a written response that takes into account any timely advice or comments regarding the dispute from the ACHP, signatories and concurring parties, and provide them with a copy of this written response. The FHWA will then proceed according to its final decision.
 - B. Make a final decision on the dispute and proceed accordingly if the ACHP does not provide its advice regarding the dispute within the thirty (30) day time period. Prior to reaching such a final decision, the FHWA shall prepare a written

response that takes into account any timely comments regarding the dispute from the signatories and concurring parties to the MOA, and provide them and the ACHP with a copy of such written response.

C. Be responsible to carry out all other actions, subject to the terms of this MOA that are not the subject of the dispute.

19. **MONITORING AND REPORTING.** At the end of each calendar year following the execution of this MOA, or until it expires or is terminated, the FHWA, with the assistance of HDOT, shall provide all parties to this MOA and NHOs that participated a summary report (report) detailing work undertaken pursuant to its terms. This report shall summarize the implementation of the plans identified in Stipulation 4 and any other agreed upon mitigation measures detailed in this MOA. Such a report shall also include any scheduling changes proposed, any problems encountered, and any disputes and objections received in HDOT's and the FHWA's efforts to carry out the terms of this MOA. A review meeting may be called by the FHWA or HDOT upon request of a signatory, invited signatory or concurring party to this MOA. A Final Report shall be prepared and transmitted to the parties to this MOA, and NHOs that participated in consultation at the expiration of the MOA.

20. **DURATION.** The term of this MOA shall apply for a period of five (5) years from the execution of the MOA, unless amended pursuant to Stipulation 21 of this MOA below.

21. **AMENDMENTS.** Any signatory, invited signatory, or concurring party to this MOA may request that it be amended, whereupon the parties shall consult in accordance with 36 CFR Part 800 to consider such amendment. The authority to execute any final amendments shall be with the signatories of this MOA. The amendment will be effective on the last date a copy of it is signed by all of the signatories. If the signatories cannot agree to appropriate terms to amend the MOA, any signatory may terminate consultation on the proposed amendment in accordance with Stipulation 22 below.

To address minor changes** in the projects or the treatment of historic properties affected by the projects, FHWA may propose revisions to the APMP, DRPP, AMP, BTP or Cultural Monitoring Scope of work to the other parties to this MOA. Upon the written concurrence of the signatories and invited signatories, FHWA may revise the plans(s) to incorporate the agreed upon changes without executing a formal amendment to this MOA.

22. **TERMINATION.** If any signatory or invited signatory to this MOA determines that its terms will not or cannot be carried out, that party shall immediately consult with the other signatories to attempt to develop an amendment per Stipulation 21, above. If within thirty (30) days or another time period agreed to by the approving signatories an amendment cannot be reached, any approving signatory may terminate consultation on the proposed amendment to the MOA upon written notification to the other signatories. Other provisions of the MOA shall remain in effect.

23. **COUNTERPART SIGNATURES.** This MOA may be executed in counterparts. Each signature page shall be incorporated into the MOA and considered a part of this MOA.

24. This Agreement supersedes in its entirety the MOA dated March 5, 1999, as well as the 1999 Final Archaeological Treatment Plan.

APPROVAL

Execution of this MOA by the parties below and implementation of its terms evidence that the FHWA has afforded the ACHP an opportunity to comment on the Queen Ka'ahumanu Highway improvements between Kealakehe Parkway to Ke'āhole Airport Access Road and the projects' effects on historic properties, and that the FHWA has taken into account the effects of the Projects on historic properties.

The following organizations are identified as parties to this MOA:

Signatories:

Advisory Council on Historic Preservation

Federal Highway Administration

State Historic Preservation Officer

Invited Signatories:

National Park Service

State of Hawai'i, Department of Transportation

Concurring Parties:

Historic Hawai'i Foundation

Office of Hawaiian Affairs

Makani Hou o Kaloko-Honokōhau

JB (DOT)

CH (ACHP) in coordination with professionally qualified facilities and its staff. (Stipulation 16)

RC (FHWA)

A minor change would include modifications to the planned project improvements or agreed upon treatments; for example, the modification of a specific resource's buffer area from an agreed upon 10 feet to 8 feet, wall height, or landscaping plant type. It would be a revision to a detail. It would not include the addition of a new project element, the elimination of an agreed upon treatment, or the substitution of one type of treatment for another. (Stipulation 21)

SE (SARD)

AD (NPS)

AA (NPS)

SIGNATORY:

ADVISORY COUNCIL ON HISTORIC PRESERVATION

By Javier Marques
Acting For John M. Fowler, Executive Director
(JAVIER MARQUES)

Date: 3-17-2015

SIGNATORY:


FEDERAL HIGHWAY ADMINISTRATION

By: 
Mayela Sosa, Division Administrator

Date: 3 Feb 2015

SIGNATORY:


HISTORIC PRESERVATION OFFICER (State of Hawai'i)

By:  _____ Date: 2.5.15

Alan S. Downer,
Deputy State of Hawai'i Historic Preservation Officer

INVITED SIGNATORY:

NATIONAL PARK SERVICE


By:  Date: 2/5/15
Tammy Duchesne, Superintendent, Kaloko-Honokōhau National Historical Park

By: _____ Date: _____
Aric Arakaki, Superintendent, Ala Kahakai National Historical Trail

INVITED SIGNATORY:


NATIONAL PARK SERVICE

By: _____ Date: _____
Tammy Duchesne, Superintendent, Kaloko-Honokōhau National Historical Park

By:  Date: 2/11/14
Aric Arakaki, Superintendent, Ala Kahakai National Historical Trail

INVITED SIGNATORY:

STATE OF HAWAI'I DEPARTMENT OF TRANSPORTATION

By: 
Ford N. Fuchigami, Director of Transportation

Date: 2.3.15

CONCURRING PARTY:

HISTORIC HAWAII FOUNDATION

By: Kiersten Faulkner
Kiersten Faulkner, Executive Director

Date: Nov. 6, 2015

CONCURRING PARTY:

OFFICE OF HAWAIIAN AFFAIRS

By:  Date: 3/9/15
Kamana'opono Crabbe, Ph.D., Ka Pouhana Chief Executive Officer

CONCURRING PARTY:

MAKANI HOU O KALOKO-HONOKŌHAU

By: *Fred Cachola*
Fred Cachola, President

Date: *2/27/15*

ATTACHMENT 1
SUMMARY LISTING OF HISTORIC AND CULTURAL SITES (APRIL 2014)

ATTACHMENT 2
AREA OF POTENTIAL EFFECT (APE) MAP

ATTACHMENT 1. SUMMARY LISTING OF HISTORIC AND CULTURAL SITES (APRIL 2014)

TABLE 28 SITES, EFFECT, AND RECOMMENDED MITIGATION

Revised Dec. 12, 2012 Based on Revised Plan of December 4, 2012; June 24, 2013

Site #	Site Type	Function	Significance	Segment	Original Effect	Original Recommendation	Project Effects	Recommended Mitigation
03002	Māmalaha Trail	Transportation	A, B, C, D and E	S	Destruction of a portion of site	Data Recovery (Archival Research) & Preservation	Destruction of a portion of site	Data Recovery (Archival Research) & Preservation
06432	Core-Filled Stone Wall	Ahupua'a Boundary	D and E	N	Destruction of a small portion of site	Minimize Destruction through Archaeological and Cultural Monitoring	Destruction of a small portion of site	Minimize Destruction through Archaeological and Cultural Monitoring
10154	Walled Enclosure	Indeterminate-Possible Habitation	D and E	N	Construction plans will be redesigned to avoid this entire site	Preservation	Construction plans will be redesigned to avoid this entire site	Preservation
10714	Trail System (mauka-makai). Interpreted as part of the "Road to the Sea Trail" (3 Features)	Transportation	A, C, D and E	S	Portions of all three features (Features A, B and C) will be destroyed by construction; portions of all three features (Features A, B and C) will not be physically impacted by construction	Data Recovery (Archival Research) & Preservation	Portions of all three features (Features A, B and C) will be destroyed by construction; portions of all three features (Features A, B and C) will not be physically impacted by construction	Data Recovery (Archival Research) & Preservation
15324	Trail (mauka-makai)	Transportation	C, D and E	S	Destruction of a portion of site	Data Recovery (Archival Research) & Preservation	Entire site not impacted by construction	Data Recovery (Archival Research) & Preservation
18099	Trail (mauka-makai) Trail to Honokohau	Transportation	A, C, D and E	S	Destruction of a portion of site	Data Recovery (Archival Research) & Preservation	Entire site not impacted by construction	Data Recovery (Archival Research) & Preservation
19943	Lava Tube	Temporary Habitation	D and E	N	Entire site will not be physically impacted by construction	Preservation	Entire site not impacted by construction	Preservation
19945	Petroglyphs (n=2) and Basethat/Pecked Pihukohoe (n=7)	Symbolic Expression and Prospecting for Voids in Lava Flows	D and E	N	Features A & B (Petroglyphs); will not be physically impacted by construction. Features C through I (Pecking Marks); Most will be destroyed by construction	Preservation of Features A and B (Petroglyphs) No Further Work for Features C-I (Pecking Marks) on Lava	Features A & B (Petroglyphs); will not be physically impacted by construction. Features C through I (Pecking Marks); Most will be destroyed by construction	Preservation of Features A and B (Petroglyphs) No Further Work for Features C-I (Pecking Marks) on Lava
19946	Trail (mauka-makai)	Transportation	C, D and E	S	Destruction of a portion of site	Avoidance During Construction (as may be possible)	Entire site not impacted by construction	Data Recovery (Archival Research) & Preservation
19947	Stacked Rocks	Ahupua'a Boundary Markers	D and E	N	Destruction of entire site (total of 3 features, Features A-C)	Relocation of all three Features (A-C) to the west (within the ROW)	Entire site not impacted by construction	Relocation of all three Features (A-C) to the west (within the ROW)
19948	Complex	Agriculture and Quarrying	D and E	N	Features A & B; will be physically impacted by construction. Features C-F; will not be physically impacted by construction. Feature G; will be physically impacted by construction. Feature H; will not be physically impacted by construction	Data Recovery (Excavation) for Features A, B and G Preservation for Features C, D, E, F and H	Entire site not impacted by construction	Data Recovery (Excavation) for Features A, B and G Preservation for Features C, D, E, F and H
19949	Enclosure	Indeterminate-Possible Windbreak / Temporary Shelter	D and E	S	Destruction of entire site	Data Recovery (Excavation)	Entire site not impacted by construction	Data Recovery (Excavation)
19950	Modified Outcrop Complex	Agriculture	D and E	S	Entire site (Features A-E) will not be physically impacted by construction	Preservation	Entire site not impacted by construction	Preservation

Site #	Site Type	Function	Significance	Segment	Original Effect	Original Recommendation	Project Effects	Recommended Mitigation
19951	Wall	Ranching / Boundary	D and E	S	East end of wall is at the edge of grading limits—construction plans will be redesigned to avoid the entire site	Preservation	Entire site not impacted by construction	Preservation
19952	Trail (mauka-makai)	Transportation	C, D and E	S	Entire site (in the ROW) will not be physically impacted by construction	Data Recovery (Archival Research) & Preservation	Entire site not impacted by construction	Data Recovery (Archival Research) & Preservation
19953	Trail (mauka-makai)	Transportation	C, D and E	S	Destruction of a portion of site	Data Recovery (Archival Research) & Preservation	Destruction of a portion of site	Data Recovery (Archival Research) & Preservation
19954	Trail (mauka-makai)	Transportation	C, D and E	S	Destruction of a portion of site	Data Recovery (Archival Research) & Preservation	Entire site not impacted by construction	Data Recovery (Archival Research) & Preservation
22415	Platform	Burial	D and E	S	Entire site will not be physically impacted by construction	Burial Treatment Plan (Preservation)	Entire site not impacted by construction	Burial Treatment Plan (Preservation)
22417	Modified Lava Biscuit	Agriculture / Planting Pit	D and E	S	Destruction of entire site	Data Recovery (Excavation)	Entire site not impacted by construction	Data Recovery (Excavation)
22418	Trail (mauka-makai)	Transportation	C, D and E	S	Destruction of entire site	Data Recovery (Excavation)	Entire site not impacted by construction	Data Recovery (Archival Research) & Preservation
22507	Trail (mauka-makai)	Transportation	C, D and E	S	Destruction of a portion of site	Data Recovery (Archival Research) & Preservation	Entire site not impacted by construction	Data Recovery (Archival Research) & Preservation
28774	Trail (mauka-makai)	Transportation	C, D and E	S	Destruction of a portion of site	Data Recovery (Archival Research) & Preservation	Entire site not impacted by construction	Data Recovery (Archival Research) & Preservation
28778	Pahoehoe Excavation	Agriculture / Planting Pit	D and E	S	Destruction of entire site	Data Recovery (Excavation)	Destruction of entire site	Data Recovery (excavation)
28780	'A'a Excavation	Indeterminate, possible burial	D and E	S	Entire site will not be physically impacted by construction	Preservation	Entire site not impacted by construction	Preservation
28781	Parow / Leveled Area	Indeterminate-Possible Agricultural Clearing	D and E	S	Entire site will not be physically impacted by construction	Preservation	Entire site not impacted by construction	Preservation
28782	Trail (mauka-makai)	Transportation	C, D and E	S	Destruction of a portion of site	Data Recovery (Archival Research) & Preservation	Entire site not impacted by construction	Data Recovery (Archival Research) & Preservation
28783	Complex	Agriculture	D and E	S	Feature A: will not be physically impacted by construction; Feature B: will be destroyed by construction; Features C, D, E & F: will not be physically impacted by construction	Data Recovery (Excavation) for Feature B; Preservation for Features A, C, F	Entire site not impacted by construction	Data Recovery (Excavation) for Feature B; Preservation for Features A, C, F
28784	Trail (mauka-makai)	Transportation	C, D and E	S	Entire site (in the ROW) will not be physically impacted by construction	Data Recovery (Archival Research) & Preservation	Entire site not impacted by construction	Data Recovery (Archival Research) & Preservation
28785	Enclosure	Transportation	D and E	S	Destruction of entire site	Data Recovery (Excavation)	Destruction of entire site	Data Recovery (Archival Research) & Preservation
28786	Modified Depression	Agriculture	D and E	S	Destruction of entire site	Data Recovery (Excavation)	Destruction of entire site	Data Recovery (Excavation)
28787	Trail (mauka-makai)	Transportation	C, D and E	S	Entire site (in the ROW) will not be physically impacted by construction	Data Recovery (Archival Research) & Preservation	Entire site not impacted by construction	Data Recovery (Archival Research) & Preservation
28788	Modified Outcrop Complex	Agriculture	D and E	S	Entire site (both Feature A and B) will not be physically impacted by construction	Preservation	Entire site (both Feature A and B) will not be physically impacted by construction	Preservation
28789	Mound Complex	Agriculture	D and E	S	Entire site (Features A-F) will not be physically impacted by construction	Preservation	Entire site not impacted by construction	Preservation
28790	Pahoehoe Excavation	Quarrying	D and E	S	Entire site will not be physically impacted by construction	Preservation	Entire site not impacted by construction	Preservation

Site #/1	Site Type	Function	Significance	Segment	Original Effect	Original Recommendation	Project Effects	Recommended Mitigation
28791	Trail (mudate-maker)	Transportation	C, D and E	S	Entire site (in the ROW) will not be physically impacted by construction	Data Recovery (Archival Research) & Preservation	Entire site not impacted by construction	Data Recovery (Archival Research) & Preservation
28792	Petroglyph	Symbolic Expression	D and E	S	Entire site will not be physically impacted by construction	Preservation	Entire site not impacted by construction	Preservation
28794	Filled Crevice	Indeterminate-Possible Agricultural Clearing	D and E	N	Entire site will not be physically impacted by construction	Avoidance During Construction	Entire site not impacted by construction	Avoidance During Construction
28796	Stacked boulders	Marker	D and E	S	Entire site will not be physically impacted by construction	Preservation	Entire site not impacted by construction	Preservation
28797	Mound Complex	Agriculture	D and E	N	Entire site (both Features A-B) will not be physically impacted by construction	Preservation	Entire site not impacted by construction	Preservation
28798	Excavated Pit Complex	Agriculture	D and E	N	Entire site (Features A-C) will not be physically impacted by construction	Preservation	Entire site not impacted by construction	Preservation
28800	Pit/hoop Excavation	Quarrying	D and E	N	Destruction of entire site	Data Recovery (Excavation)	Entire site not impacted by construction	Data Recovery (Excavation)
28801	Modified Outcrop Complex	Agriculture	D and E	N	Entire site (both Features A-B) will not be physically impacted by construction activities	Avoidance During Construction	Entire site not impacted by construction	Avoidance During Construction
28802	Complex	Temporary Habitation	D and E	N	Entire site (Features A-C) will not be physically impacted by construction	Preservation	Entire site not impacted by construction	Preservation
28803	Complex	Indeterminate-Possible Agricultural Clearing	D and E	N	Entire site (both Features A-B) will not be physically impacted by construction	Avoidance During Construction	Entire site not impacted by construction	Avoidance During Construction
28804	Filled Crevice	Indeterminate-Possible Agricultural Clearing	D and E	N	Entire site will not be physically impacted by construction	Avoidance During Construction	Entire site not impacted by construction	Avoidance During Construction
28805	Modified Outcrop	Agriculture/Clearing	D and E	N	Entire site will not be physically impacted by construction	Avoidance During Construction	Entire site not impacted by construction	Avoidance During Construction
28806	Mound	Possible Marker	D and E	N	Entire site will not be physically impacted by construction	Preservation	Entire site not impacted by construction	Preservation
28807	Filled Crevice	Indeterminate	D and E	N	East end of site will be destroyed by construction; entire site is within construction limits	Data Recovery (Excavation/Removal of Core)	East end of site will be destroyed by construction; entire site is within construction limits	Data Recovery (Excavation/Removal of Core)
28808	Mound Complex	Markers	D and E	N	Three (of total five) features (A, B and C) will not be physically impacted by construction; Features D and E will be physically impacted by construction	Features A-C; Preservation Features D and E; Relocation (to the west within the ROW)	Three (of total five) features (A, B and C) will not be physically impacted by construction; Features D and E will be physically impacted by construction	Features A-C; Preservation Features D and E; Relocation (to the west within the ROW)
28809	Pit/hoop Excavation	Quarrying	D and E	N	Entire site will not be physically impacted by construction	Avoidance During Construction	Entire site not impacted by construction	Avoidance During Construction
28810	Lava Tube	Indeterminate / Possible Water Catchment	D and E	N	Entire site will not be physically impacted by construction	Preservation	Entire site not impacted by construction	Preservation
28811	Pit/hoop Excavation	Quarrying	D and E	N	Destruction of entire site	Data Recovery (Excavation)	Entire site not impacted by construction	Avoidance during construction
28812	Possible Filled Crevice	Indeterminate	D and E	N	Destruction of entire site	Data Recovery (Excavation/Removal of Rock)	Destruction of entire site	Data Recovery (Excavation/Removal of Rock)
28813	Modified Lava Blisters	Agriculture	D and E	N	Feature A: will not be physically impacted by construction Feature B-E: will be destroyed during construction	Feature A: Preservation Features B-E: Data Recovery (Excavation)	Feature A: will not be physically impacted by construction Feature B-E: will be destroyed during construction	Feature A: Preservation Features B-E: Data Recovery (Excavation)

Site #1	Site Type	Function	Significance	Segment	Original Effect	Original Recommendation	Project Effects	Recommended Mitigation
28814	Lava Tube	Indeterminate / Possible Water Catchment	D and E	N	Destruction of entire site	Data Recovery (Excavation)	Destruction of entire site	Data Recovery (Excavation)
28815	Pāhoehoe Excavation	Quarrying	D and E	N	Destruction of entire site	Data Recovery (Excavation)	Destruction of entire site	Data Recovery (Excavation)
29272	Level Area in "A's" with Trail (mauikamaka)	Possible Temporary Resting Spot / Work Area and Transportation	C, D and E	N	Feature A (Level Area): will be destroyed by construction. Feature B (Trail): will not be physically impacted by construction.	Feature A: Data Recovery (Excavation) Feature B: Data Recovery (Archival Research) & Preservation	Entire site not impacted by construction	Data Recovery (Archival Research) & Preservation
29275 **	Lava Tube	Burial, Contemporary Habitation	D and E	N	Entire site will not be physically impacted by construction, in consultation with SHPD a BTP to be prepared	Burial Treatment Plan in progress, resolution contingent upon consent of landowner	Entire site will not be physically impacted by construction, in consultation with SHPD a BTP to be prepared	Burial Treatment Plan to be addressed by landowner
29332	Mound/Paved Area within Naturally-formed Pāhoehoe Depression	Indeterminate, possible burial	D and E	S	Entire site will not be impacted by construction	Data Recovery (as per SHPD letter of July 9, 2012)	Entire site not impacted by construction	Data Recovery (as per SHPD letter of July 9, 2012)
29333	Rock Stacking (Poss. Ahu)	Indeterminate	D and E	S	Destruction of entire site	Data Recovery (Dismantling)	Entire site not impacted by construction	Data Recovery (Dismantling)
29334	Rock Mound within Naturally-formed Pāhoehoe Depression	Indeterminate	D and E	S	Destruction of entire site	Data Recovery (Excavation/Dismantling)	Entire site not impacted by construction	Data Recovery (Excavation/Dismantling)
29335	Rock Wall Segment	Indeterminate	D and E	S	Destruction of entire site	Data Recovery (Excavation)	Destruction of entire site	Data Recovery (Excavation)
29336	Rock Terrace	Indeterminate	D and E	S	Destruction of entire site	Data Recovery (Excavation)	Entire site not impacted by construction	Avoidance during construction
29337	Excavated Pit	Indeterminate-Possible Quarry or Sweet Potato Planter	D and E	S	Entire site will not be physically impacted by construction	Avoidance During Construction	Entire site not impacted by construction	Avoidance during construction
29338	Excavated Pit	Indeterminate-Possible Quarry or Sweet Potato Planter	D and E	S	Destruction of entire site	No Further Work	Destruction of entire site	No further work
29339	Rock Wall Segment	Indeterminate	D and E	S	Entire site will not be physically impacted by construction	Avoidance During Construction	Entire site not impacted by construction	Avoidance During Construction
29340	Rock Mound	Indeterminate, possible burial	D and E	S	Entire site will not be physically impacted by construction	Data Recovery (Excavation)	Entire site not impacted by construction	Data Recovery (Excavation)
29341	Excavated Pits	Indeterminate-Possible Quarry or Sweet Potato Planter	D and E	S	Entire site, both features (A and B), are approximately 10 feet west (maker) of grading limits, and will not be physically impacted by construction	Avoidance During Construction	Entire site not impacted by construction	Avoidance During Construction
29342	Excavated Pit	Indeterminate-Possible Quarry for Rock to Repair Nearby Mānākahehe Trail	D and E	S	Entire site will not be physically impacted by construction	Avoidance During Construction	Entire site not impacted by construction	Avoidance During Construction
29343	Excavated Pit	Indeterminate-Possible Quarry or Sweet Potato Planter	D and E	S	Entire site will not be physically impacted by construction	Avoidance During Construction	Entire site not impacted by construction	Avoidance During Construction
29344	Excavated Pit	Indeterminate-Possible Quarry or Sweet Potato Planter or Bird Pit	D and E	S	Destruction of entire site	Data Recovery (Excavation)	Entire site not impacted by construction	Data Recovery (Excavation)

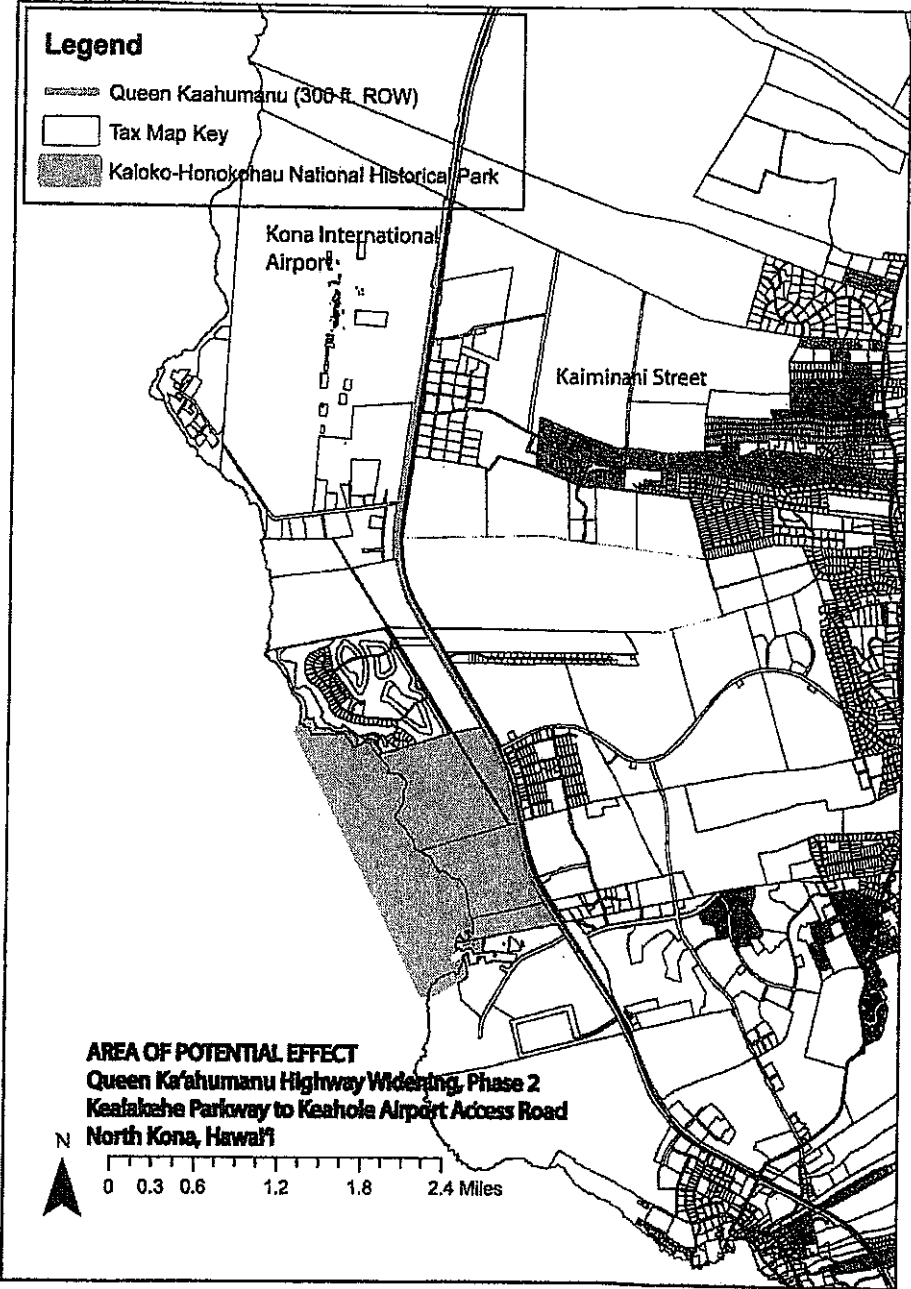
Site #1	Site Type	Function	Significance	Segment	Original Effect	Original Recommendation	Project Effects	Recommended Mitigation
29345	Coral-filled Palisades Crevices	Indeterminate	D and E	N	Entire site will not be physically impacted by construction	Data Recovery (Excavation/Removal of Coral)	Entire site not impacted by construction	Data Recovery (Excavation/Removal of Coral)
29346	Mound	Indeterminate - Possible Marker or Quarrying	D and E	N	Destruction of entire site	Relocation to the west (within the ROW)	Destruction of entire site	Relocation to the west (within the ROW)
29347	Mound	Possible Marker or Quarrying	D and E	N	Entire site will not be physically impacted by construction	Avoidance During Construction	Entire site not impacted by construction	Avoidance During Construction
29348	Boulder (Palisades Baseline) in Excavated Pit	Prospecting for Voids in Lava Flow	D and E	N	Entire site is immediately adjacent to grading limits	Collection and Curation the Portable Artifact (Boulder); No Further Work for the Excavated Pit	Avoidance during construction	Collection and Curation the Portable Artifact (Boulder); No Further Work for the Excavated Pit
29349	Boulder (Palisades Baseline) and Associated Excavated Pit	Prospecting for Voids in Lava Flow	D and E	N	Feature A (Boulder): will not be physically impacted by construction; Feature B (Excavated Pit): will be destroyed by construction	Collection and Curation the Portable Artifact (Boulder, Feature A); No Further Work for the Excavated Pit (Feature B)	Feature A (Boulder): will not be physically impacted by construction; Feature B (Excavated Pit): will be destroyed by construction	Collection and Curation the Portable Artifact (Boulder, Feature A); No Further Work for the Excavated Pit (Feature B)

Explanation of mitigation terminology: (1) Avoidance During Construction = protection during all project-related construction activities with interim protection measures under the preservation plan and commitment by HDOT to conduct a new historic preservation review in the future should other construction projects be planned that may affect these sites; (2) Burial Treatment Plan (Preservation) = preparation of a BTP proposing preservation in place to be submitted to the SHPD/HIBC for review, comment and approval; (3) Collection and Curation = portable artifact will be collected (removed) from its current location and curated according to the MOA; (4) Data Recovery (Archival Research) = for trail sites, data recovery consists of additional archival research that will place the project-area trail segments in a wider geographic context that accurately reflects their cultural and historical significance; (5) Data Recovery (Excavation) = data recovery consists of traditional archaeological excavation of soil-sediment for the purposes of recovering material evidence germane to the site/feature's function and/or age; in some cases, where there is little or no soil-sediment to excavate, data recovery consists of dismantling or removing rocks or coral in order to inspect what lies beneath; (6) No Further Work = no mitigation is proposed for these sites; (7) Preservation = protection during construction and permanent in-place, preservation in perpetuity; (8) Relocation = site will be carefully dismantled, moved west beyond the construction limits, and rebuilt within the ROW. In addition to these mitigation recommendations, Archaeological and Cultural Monitoring is recommended for all ground-disturbing activities in the project area (ROW). See text above for details.

* These two sites (SHP #s 00002 and 19953) are special cases. Their treatment was codified in the original 1999 MOA. Construction plans will be designed to adhere to the 1999 MOA specifications.

** Site outside of highway ROW; BTP to be completed by landowner.

ATTACHMENT 2. Area of Potential Effect (APE) Map



DEPT. OF TRANSPORTATION
HIGHWAYS DIVISION
HAWAII DISTRICT
ROUTE SLIP

MAY 29 2015, 20

26-8

- 1 TO
- District Engineer
- 2 Assistant District Engineer *26-8*
- Construction Engineer
- Consultant Engineer
- Maintenance Engineer
- Design Engineer
- Testing Laboratory
- MVSO
- 3 Office Manager

- 2 FOR
- Your information
- Comments & recommendations
- Appropriate attention or action
- Drafting reply & other necessary prepare
- Direct reply
- Signature
- 3 File

