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STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES

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April 27, 2016

Ref. No.: 12HD-161
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OFC. OF ENVIRONMENTAL QUALITY CONTROL

MEMORANDUM:

TO: Scott Glenn, Director
Office of Environmental Quality Control

FROM: Suzanne D. Case, Chairperson
Board of Land and Natural Resources

SUBJECT: Final Environmental Assessment and Anticipated Finding of No Significant Impact for Cellco Partnership, dba: Verizon Wireless for Wireless Telecommunication Tower Site Purposes at Kalaoa, North Kona, Hawaii, Tax Map Key: (3) 7-3-049: portion of 038.

The Department of Land and Natural Resources, Land Division, hereby transmits the Final Environmental Assessment and Findings of No Significant Impact (FEA-FONSI) for the above referenced project for publication in the next available edition of the Environmental Notice.

We have enclosed a completed OEQC Bulletin Publication Form, one (1) copy of the FEA-FONSI, a CD with an Adobe Acrobat PDF file of the same and an electronic copy of the publication form in MS Word for your review.

Should you or your staff have any questions, please feel free to call Wesley Matsunaga, at the Hawaii District Land Office at (808) 961-9590. Thank you.

Enclosures

cc: Land Board Member
Central Files
District Files

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# APPLICANT PUBLICATION FORM

| | |
|---|---|
| Project Name: | Cellco Partnership, dba: Verizon Wireless, Lease on State Land for Kona Airport Telecommunication Facility |
| Project Short Name: | Kona Airport Telecommunication Facility |
| HRS §343-5 Trigger(s): | Propose the use of state or county lands |
| Island(s): | Hawaii |
| Judicial District(s): | North Kona |
| TMK(s): | (3) 7-3-049: Portion of 038 |
| Permit(s)/Approval(s): | Hawaii State DLNR: Approval of lease<br>Hawaii State OCCL: Review and approval<br>Hawaii County: Building Permit |
| Approving Agency: | Hawaii Department if Land and Natural Resources<br>c/o Land Division, Hawaii District |
| *Contact Name, Email, Telephone, Address* | 75 Aupuni Street, Room 204<br>Hilo, HI 96720<br>Attn: Wesley T. Matsunaga, Land Agent, (808) 961-9590, wesley.t.matsunaga@hawaii.gov |
| Applicant: | Cellco Partnership, dba: Verizon Wireless<br>c/o MP Property Services |
| *Contact Name, Email, Telephone, Address* | 76-6357 Kololia Street<br>Kailua-Kona, HI 96740<br>Attn: Danette Martin, Principal Broker/Agent, (808) 895-3569, danette@martinpacific.com |
| Consultant: | Ford Canty & Associates, Inc. |
| *Contact Name, Email, Telephone, Address* | 173 Kuuala Street<br>Kailua, HI 96734<br>Attn: Lori Ford, Senior Project Manager, (808) 295-0604, lford@fordcanty.com |

| **Status (select one)** | **Submittal Requirements** |
|---|---|
| ____ DEA-AFNSI | Submit 1) the approving agency notice of determination/transmittal letter on agency letterhead, 2) this completed OEQC publication form as a Word file, 3) a hard copy of the DEA, and 4) a searchable PDF of the DEA; a 30-day comment period follows from the date of publication in the Notice. |
| _X_ FEA-FONSI | Submit 1) the approving agency notice of determination/transmittal letter on agency letterhead, 2) this completed OEQC publication form as a Word file, 3) a hard copy of the FEA, and 4) a searchable PDF of the FEA; no comment period follows from publication in the Notice. |
| ____ FEA-EISPN | Submit 1) the approving agency notice of determination/transmittal letter on agency letterhead, 2) this completed OEQC publication form as a Word file, 3) a hard copy of the FEA, and 4) a searchable PDF of the FEA; a 30-day comment period follows from the date of publication in the Notice. |
| ____ Act 172-12 EISPN ("Direct to EIS") | Submit 1) the approving agency notice of determination letter on agency letterhead and 2) this completed OEQC publication form as a Word file; no EA is required and a 30-day comment period follows from the date of publication in the Notice. |
| ____ DEIS | Submit 1) a transmittal letter to the OEQC and to the approving agency, 2) this completed OEQC publication form as a Word file, 3) a hard copy of the DEIS, 4) a searchable PDF of the DEIS, and 5) a searchable PDF of the distribution list; a 45-day comment period follows from the date of publication in the Notice. |
| ____ FEIS | Submit 1) a transmittal letter to the OEQC and to the approving agency, 2) this completed OEQC publication form as a Word file, 3) a hard copy of the FEIS, 4) a searchable PDF of the FEIS, and 5) a searchable PDF of the distribution list; no comment period follows from publication in the Notice. |
| ____ FEIS Acceptance Determination | The approving agency simultaneously transmits to both the OEQC and the applicant a letter of its determination of acceptance or nonacceptance (pursuant to Section 11-200-23, HAR) of the FEIS; no comment period ensues upon publication in the Notice. |

| | |
|---|---|
| ____ FEIS Statutory Acceptance | The approving agency simultaneously transmits to both the OEQC and the applicant a notice that it did not make a timely determination on the acceptance or nonacceptance of the applicant's FEIS under Section 343-5(c), HRS, and therefore the applicant's FEIS is deemed accepted as a matter of law. |
| ____ Supplemental EIS Determination | The approving agency simultaneously transmits its notice to both the applicant and the OEQC that it has reviewed (pursuant to Section 11-200-27, HAR) the previously accepted FEIS and determines that a supplemental EIS is or is not required; no EA is required and no comment period ensues upon publication in the Notice. |
| ____ Withdrawal | Identify the specific document(s) to withdraw and explain in the project summary section. |
| ____ Other | Contact the OEQC if your action is not one of the above items. |

**Project Summary**

Cellco Partnership, dba: Verizon Wireless is proposing to construct its HI3 Kona Airport Telecommunication Facility upon the State parcel located at Kalaoa, North Kona, Hawaii, Tax Map Key: (3) 7-3-049: 038 (portion). The project involves the installation of a 100-foot monopole with 12, 8-foot panel antennas mounted at the top, within an approximately 30- by 40-foot (1,200 s.f.) chain link fenced area. The maximum finished height will be at approximately 104-feet above ground level. In addition, an emergency generator and equipment cabinets will be installed northwest and west adjacent to the monopole within the fenced area. Installation and operation of the proposed wireless telecommunication tower facility will provide wireless high-speed 4G Internet service to the Kona Airport and the surrounding neighborhoods. Currently, the Kona Airport is one of the few airports in the nation without 4G services. The proposed action is not expected to impact views and visual impacts, natural physical and biological resources, cultural resources, public access, traffic impacts, land use, access to the area, or health and safety. The proposed action is expected to have positive impacts on socioeconomics and environmental justice.

FORD CANTY & ASSOCIATES, INC.
ENVIRONMENTAL SCIENTISTS & ENGINEERS

# Final
# Environmental Assessment
# Report

Proposed Verizon Wireless
HI3 Kona Airport Telecommunications Facility
(VZW Project ID #2012769574)
Portion of TMK No.: (3) 7-3-049: Parcel 038
Kailua-Kona, Hawaii County, Hawaii 96740

Ford Canty Project No. 16-1081

May 12, 2016

*Prepared for:*

**Verizon Wireless**
c/o Cades Schutte, LLP
1000 Bishop Street, Suite 1200
Honolulu, Hawaii 96813

*Prepared by:*

**Ford Canty & Associates, Inc.**
173 Kuuala Street
Kailua, Hawaii 96734
808.426.6927

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## LIST OF ACRONYMS

| | |
|---|---|
| AMSL | Above Mean Sea Level |
| APE | Area of Potential Effects |
| CAA | Clean Air Act |
| CEO | Chief Executive Officer |
| $Cl^-$ | Chloride |
| CO | Carbon Monoxide |
| DA | Department of Army |
| dBa | Decibel, A-weighted |
| DLNR | State of Hawaii, Department of Land and Natural Resources |
| DOFAW | Division of Forestry and Wildlife |
| DOH | State of Hawaii, Department of Health |
| DPP | County of Hawaii, Department of Planning and Permitting |
| EA | Environmental Assessment |
| EPA | Environmental Protection Agency |
| FCC | Federal Communications Commission |
| FEMA | Federal Emergency Management Agency |
| FIRM | Flood Insurance Rate Map |
| FONSI | Finding of No Significant Impact |
| GP | County of Hawaii General Plan |
| HAR | Hawaii Administrative Rules |
| HEER | Hazard Evaluation and Emergency Response |
| HELCO | Hawaii Electric Light Company, Inc. |
| HRS | Hawaii Revised Statutes |
| HSPA | Hawaii State Planning Act |
| $H_2S$ | Hydrogen Sulfide |
| KCDP | Kona Community Development Plan |
| kW | Kilowatts |
| LUO | Land Use Ordinance |
| mg/L | Milligrams per liter |
| NAAQS | National Ambient Air Quality Standards |
| NCRP | National Council on Radiation Protection and Measurements |
| NEPA | National Environmental Policy Act |
| NHO | Native Hawaiian Organization |
| $NO_2$ | Nitrogen Dioxide |
| NPA | National Programmatic Agreement |
| $O_3$ | Ozone |
| OEQC | Office of Environmental Quality Control |
| OHA | Office of Hawaiian Affairs |
| Pb | Lead |
| $PM_{10}$ | Particulate Matter, 10 micrometers in diameter and larger than 2.5 micrometers in diameter |
| $PM_{2.5}$ | Particulate Matter, 2.5 micrometers in diameter and smaller |
| RF | Radio Frequency |

**LIST OF ACRONYMS**
**(Continued)**

| | |
|---|---|
| SHPD | State Historic Preservation Division |
| SHPO | State Historic Preservation Officer |
| $SO_2$ | Sulfur Dioxide |
| TMK | Tax Map Key |
| UIC | Underground Injection Control |
| US | United States |
| USCB | United States Census Bureau |
| USACE | United State Army Corps of Engineers |
| USFWS | United States Fish and Wildlife Service |
| USGS | United States Geological Survey |
| VZW | Verizon Wireless |

**Executive Summary for VZW HI3 Kona Airport Telecommunications Facility Final EA**
**Located at Tax Map Key (TMK) No.: (3) 7-3-049: Parcel 038 (Portion), Kailua-Kona, Hawaii**

Purpose and Need

This Final Environmental Assessment (EA) for the proposed Verizon Wireless (VZW) HI3 Kona Airport Telecommunications Facility located at Tax Map Key (TMK) No. (3) 7-3-049: Parcel 038 (portion), Kailua-Kona, Hawaii County, Hawaii 96740 (the "subject property"), has been prepared in accordance with Chapter 343, Hawaii Revised Statutes (HRS); and Hawaii Administrative Rules (HAR) Title 11, State of Hawaii, Department of Health (DOH), Chapter 200, Environmental Impact Rules.

Proposed Action

According to VZW, the Proposed Action involves installing a 100-foot monopole with 12, 8-foot panel antennas mounted at the top, within an approximately 30-by 40-foot chain link fenced area. The maximum finished height will be at approximately 104 feet above ground level (agl). In addition, an emergency generator and equipment cabinets will be installed northwest and west adjacent to the monopole within the fenced area. (Lat/Long: 19$^{o}$ 43' 59.14" N and 156$^{o}$ 01' 32.80" W [NAD83]).

Construction activities that will disturb the ground surface in the vicinity of the proposed project site include: (1) excavating to install a new foundation for the monopole, (2) constructing new foundations for the equipment cabinets and emergency generator, (3) grading for a gravel site access driveway, and (4) erecting a chain-link fence enclosure.

Environmental Consequences

The Proposed Action is not expected to have significant adverse effects on the environment. The Proposed Action involves erecting a monopole in the northeastern portion of the subject parcel adjacent to an asphalt-paved access road. Grading and excavation activities required for the proposed project are limited to the immediate vicinity of the subject property. No significant impact to the land is anticipated because the proposed project is located near a radio station broadcast tower and an electrical substation. Specific environmental resources with the potential for environmental consequences include natural physical and biological resources, noise, view and visual impacts, utilities, cultural resources, socioeconomics, environmental justice, air quality, public access, traffic impacts, land use, access to the area, and health and safety.

The Proposed Action is not expected to impact views and visual impacts, natural physical and biological resources, cultural resources, public access, traffic impacts, land use, access to the area or health and safety. The Proposed Action is expected to have positive impacts on socioeconomics and environmental justice.

Noise levels are anticipated to slightly increase during construction. The emergency generator will increase noise levels during power outages and maintenance activities; however, it will be minimal and occur infrequently.

Air quality may decrease during construction due to a slight increase in particulate matter in the form of dust. However, due to the restricted access and protective measures, public health will not likely be affected. Subsequent to construction, air quality levels are not expected to deviate from current baseline conditions since the telecommunications facility will not be equipped with devices that produce emissions. Utility lines within the site will be connected to the existing overhead utility lines to the west.

## 1.0 INTRODUCTION

This Final Environmental Assessment (EA) for the proposed Verizon Wireless (VZW) HI3 Kona Airport Telecommunications Facility located at Tax Map Key (TMK) No. (3) 7-3-049: Parcel 038 (portion), Kailua-Kona, Hawaii County, Hawaii 96740 (the "subject property"), has been prepared in accordance with Chapter 343, Hawaii Revised Statutes (HRS); and Hawaii Administrative Rules (HAR) Title 11, State of Hawaii, Department of Health (DOH), Chapter 200, Environmental Impact Rules.

This EA was conducted to comply with the DOH - Office of Environmental Quality Control (OEQC) requirements. The State of Hawaii is the approving authority. The outcome of this EA will be a Finding of No Significant Impact (FONSI) for the Proposed VZW HI3 Kona Airport Telecommunications Facility.

For purposes of this assessment, the term "subject property" is specifically defined as the lease land area that encompasses the "Proposed Action," as defined in Section 3.1 of this report. The "subject parcel" is defined as the entire parcel of land, as identified by a county tax assessor, on which the subject property lies.

## 2.0 SUBJECT PROPERTY/PARCEL DESCRIPTION

### 2.1 SUBJECT PARCEL/PROPERTY LOCATION

The subject parcel, currently owned by the State of Hawaii and the Big Island Broadcasting Co. Ltd., encompasses a roughly trapezoidal-shaped, approximately 174,240 square feet (4 acres) of land.

The subject parcel is further described as the parcel of land as TMK Number: (3) 7-3-049: Parcel 038. According to the County of Hawaii Planning and Zoning Department, the subject parcel is zoned "Open", and the State Land Use designation is "Conservation."

The subject property, identified as the VZW HI3 Kona Airport Telecommunications Facility (VZW ID #2012769574), is located near the northeast corner of the subject parcel. Four radio station broadcast towers are located south-southwest of the subject property. (Approximate Lat/Long: N 19° 43' 59.14", W 156° 01' 32.8" [NAD83]). Site location and construction drawings are included behind the *Figures* Tab. Site photographs are included behind the *Photographs* Tab.

### 2.2 CURRENT USE OF SUBJECT PARCEL/PROPERTY

The subject parcel consists of radio station broadcast towers (four, 100-foot towers) and associated equipment shed located along the western portion. The remaining portion of the parcel consists of undeveloped land with areas of sparse grass.

The subject property is located in near the northeast corner of the subject parcel adjacent to an asphalt-paved access road.

## 3.0 PROPOSED ACTION

### 3.1 TECHNICAL CHARACTERISTICS

According to VZW, the Proposed Action involves constructing a 1,200-square foot (30- by 40-foot), fenced telecommunications facility located near the northeast corner of the subject parcel. Equipment cabinets and an emergency generator will be installed on concrete slabs, and a 100-foot monopole will be constructed within the fenced facility. The maximum finished height of the monopole will be at approximately 104 feet above ground level (agl). Electricity will be provided to the facility through overhead utility lines connected to an existing utility pole.

Construction activities that will disturb the ground surface in the vicinity of the proposed project site include: (1) excavating to install a new foundation for the monopole; (2) constructing a new foundation for the equipment cabinets and emergency generator, (3) grading for a gravel site access driveway, and (4) erecting a chain-link fence enclosure.

### 3.2 ENVIRONMENTAL CHARACTERISTICS

In determining a suitable location for construction of a telecommunications antenna site, several search criteria must be met. Various topographic features in the area must be evaluated, including but not limited to: elevation, terrain, and building obstruction. In addition, the antenna tower(s) can only be located in areas that are appropriately zoned by the local jurisdiction.

The purpose of the VZW HI3 Kona Airport Telecommunications Facility is to relay signals to a receiving antenna (i.e., personal cell phones) located horizontally outward at some distance. Therefore, the site selection is based on its ability to meet this purpose.

The proposed VZW HI3 Kona Airport Telecommunications Facility was chosen primarily because the radio frequency engineer indicated that it would best cover the objective area, and it is available for lease. Visually, the site is located on mainly undeveloped land with areas of sparse grass. The surrounding area consists of radio station broadcast towers (four, 100-foot towers) and associated equipment shed located to the west-southwest, Hawaii Electric Light Company, Inc. (HELCO) substation further west, and a water tank to the east-northeast. Undeveloped land covered with grass makes up the rest of the surrounding area.

### 3.3 SCHEDULE

The project is anticipated to proceed following a FONSI determination by the approving agency, the State of Hawaii. The estimated starting date of the project is June, 2016. The project should take no longer than approximately five weeks to complete, with the exception of unforeseen delays.

## 3.4 IDENTIFICATION OF ALTERNATIVES

A no action alternative would keep the site in its present condition; however, this alternative is not considered desirable based on the need for better cellular phone reception for the purpose of benefitting the community at-large.

Other alternatives in the area were disregarded because they were not available for lease.

## 4.0 PERMITS

Various federal, state, and local government agencies were contacted for information on environmental permits required for the Proposed Action to move forward. Responses from agencies contacted concerning permits for this site are listed below.

- In a response letter dated August 7, 2009, the United States Army Corps of Engineers (USACE) provided the following comment on the proposed project, *"Based on the information submitted, it appears the project site consists entirely of uplands and is absent of waters of the U.S. under the regulatory jurisdiction of the Corps. We anticipate the proposed installation of a 100-foot monopole with 12, 8-foot panel antennas mounted at the top, emergency generator, and equipment cabinets will not involve the discharge of fill material into waters of the U.S., therefore, a DA permit will not be required."* A copy of the correspondence from the USACE is presented in Appendix E, Section 3.

- In a letter dated September 19, 2012, the County of Hawaii, Department of Planning and Permitting (DPP) commented that for zoning purposes, the proposed action is classified as a *"Open"*, and the State Land Use designation is "*Conservation*". A use permit is required for the proposed action. A copy of the correspondence from the DPP is presented in Appendix D, Section 1.

## 5.0 COMMUNITY CONSULTATION

Bureau Veritas submitted information regarding the Proposed Action to the Honolulu Star Advertiser and requested that a Public Notice be posted to provide notification of the proposed project to the general public. A Public Notice describing the Proposed Action was published in the Honolulu Star Advertiser daily newspaper on August 2, 2012. As of the date of this report, Bureau Veritas has not received any responses to the published notice. Documentation of the public notice is presented in Appendix B, Section 1.

# 6.0 AFFECTED ENVIRONMENT

## 6.1 NATURAL RESOURCES – PHYSICAL RESOURCES

Discussions of physical resources of the natural environment include descriptions of earth and water resources, as well as hazardous materials. Components of the earth include topography, geology, and soil. Topography describes the earth's surface features, including terrain and land forms. Geology studies the solid matter from which the earth is made and includes the history and processes that helped to shape it. Soil is the segment of the earth's surface particulates formed from a parent material when various environmental conditions cause the breakdown of that material. Water resources include surface water and groundwater.

### 6.1.1 Earth Resources

#### *6.1.1.1 Baseline Conditions*

The subject property lies in the Kona physiographic region of the island of Hawaii. The approximate latitude and longitude of the subject property are 19° 43' 59.14" North and 156° 01' 32.80 " West, respectively.

According to the U.S. Geological Survey (USGS) 7.5-minute Keahole Point, Hawaii topographic quadrangle map (1997), the elevation at the subject property is approximately 225 feet above mean sea level (amsl). The general topography of the subject property and surrounding region slopes down to the west, toward the Pacific Ocean.

According to the *Soil Survey of the Island of Hawaii (*Sato, H.H. et al., 1973), the soil type found on the subject property is Lava Flows, Pahoehoe. The lava flows, pahoehoe has a billowy, glassy surface that is relatively smooth. In some areas, the surface is rough and broken, and there are hummocks and domes.

Pahoehoe lava has no soil covering and is typically bare of vegetation. This miscellaneous land type is at an elevation from sea level to 13,000 feet.

#### *6.1.1.2 Proposed Action Impacts and Mitigation*

Bureau Veritas reviewed client-supplied materials regarding the Proposed Action at the subject parcel/property and the potential for the Proposed Action to significantly change the earth resources (*e.g.*, wetland fill, deforestation, or water diversion). According to the design information provided to Bureau Veritas, the Proposed Action will not involve a significant disturbance to the ground surface. Since significant impacts to this resource are not expected, no mitigation measures are necessary.

### 6.1.2 Water Resources

#### *6.1.2.1 Baseline Conditions*

Bureau Veritas reviewed the *Aquifer Identification and Classification for the Island of Hawaii: Groundwater Protection Strategy for Hawaii, Technical Report No. 191*, published by the Water Resources Research Center at the University of Hawaii, for information on groundwater conditions below the subject property. The report indicates that regional groundwater in the vicinity of the subject parcel/property is derived from the Keauhou Aquifer System within the Hualalai Aquifer Sector.

The aquifer is an unconfined basal aquifer of the flank type, occurring in horizontally extensive lavas. The aquifer is currently used and is considered a low salinity (between 250 to 1,000 milligrams of chloride per liter of water [mg/L $Cl^-$]) drinking water source. This aquifer is considered irreplaceable and highly vulnerable to contamination.

The estimated depth to first groundwater in the vicinity of the subject properties is approximately 220 feet below ground surface (bgs), and the inferred groundwater flow direction is expected to be to the east. However, the local gradient and flow direction under the subject property may be influenced naturally by zones of higher or lower permeability, or by nearby pumping or recharge, and may deviate from the regional trend.

#### *6.1.2.2 Proposed Action Impacts and Mitigation*

The subject property is located below the State of Hawaii Department of Health (DOH) defined Underground Injection Control (UIC) line. Areas above the UIC line denote potential underground drinking water sources. Areas below the UIC line generally denote groundwater that is unsuitable for drinking water purposes. Consequently, the groundwater below the subject property is considered unsuitable for drinking water purposes.

Due to the depth of the groundwater, there will be no contact with groundwater during the proposed construction activities. In addition, there are no surface waters in the vicinity of the subject property. Therefore, mitigation measures are not necessary.

### 6.1.3 Hazardous Substances

#### *6.1.3.1 Baseline Conditions*

A database review of the DOH, Hazard Evaluation and Emergency Response (HEER) Office records was conducted regarding environmental concerns or violations at the subject property. The subject property was not listed in the HEER database (2012).

#### *6.1.3.2 Proposed Action Impacts and Mitigation*

Potentially hazardous materials are currently not used or stored onsite at the subject property.

The Proposed Action will not involve the use or creation of hazardous substances during the construction or the operation phases. Since no impacts are anticipated, no mitigation measures are necessary.

## 6.2 NATURAL RESOURCES – BIOLOGICAL RESOURCES

Biological resources of the natural environment include wild plants and animals, both native and alien, which may be affected by the Proposed Action. These species live in an ecological community, or specific habitat, and interact with each other within that community. Ecological communities may include wetlands, oceans, shorelines, mountains, etc.

### 6.2.1 Wetlands

#### *6.2.1.1 Baseline Conditions*

The subject property was inspected for the presence of sensitive ecological areas by noting environmental indicators (e.g., wetlands vegetation, floodplains) located on or immediately adjoining the subject property.

No sensitive ecological areas were observed on the subject property. The USGS 7.5-Minute Topographic Map Keahole Point Quadrangle (1997), which includes the subject and adjoining properties, does not depict creeks or delineated wetlands located on the subject or adjoining properties. According to the United States Fish and Wildlife Service (USFWS) National Wetland Inventory Map, the subject parcel/property is not located in or near a designated wetland.

The Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map (FIRM) was reviewed to determine if the subject property is located in a flood hazard area. The FEMA FIRM was not printed due to minimal tsunami inundation, indicating the subject parcel/property lies within Flood Zone X, which denotes an area outside the 0.2 percent (%) annual chance (500-year) floodplain (FEMA/FIRM Map No. 1551660707C [panel not printed]).

The United States Army Corps of Engineers (USACE), Honolulu District Office was contacted regarding wetland permitting for the subject property/parcel. According to Mr. George Young of the USACE, Honolulu District Office, a Department of the Army (DA) permit is not required for the proposed project at the subject property/parcel. A copy of the correspondence from the USACE is presented in Appendix E, Section 3.

#### *6.2.1.2 Proposed Action Impacts and Mitigation*

According to the baseline conditions described in the previous section, the subject property is not located in a designated Wetland; therefore, the Proposed Action will have no effects on wetlands. No mitigation measures are necessary, since there will no impact to this resource.

### 6.2.2 Wilderness Area

#### *6.2.2.1 Baseline Conditions*

The subject property is located near the northeast corner of the subject parcel which consists of vacant land with areas of sparse grass. The subject parcel consists of undeveloped land, covered with fountain grass, and radio station broadcast towers located in the western portion of the subject parcel.

The National Wilderness Preservation System website, http://www.wilderness.net, was reviewed for information on whether the proposed project site is located within an officially designated wilderness area. According to this website, four federal agencies (the National Park Service, Forest Service, Fish and Wildlife Service, and Bureau of Land Management) manage a total of 757 designated wilderness areas in the US. Two of these wilderness areas are located in the state of Hawaii, including Hawaii Volcanoes Wilderness on the island of Hawaii and Haleakala Wilderness on the island of Maui, which are managed by the National Park Service. Neither area encompasses the subject parcel/property.

#### *6.2.2.2 Proposed Action Impacts and Mitigation*

According to the baseline conditions, the project is not located in a wilderness area. Therefore, there will be no impacts and therefore, no mitigation measures are necessary.

### 6.2.3 Wildlife Preserve

#### *6.2.3.1 Baseline Conditions*

The website http://www.fws.gov/refuges/refugeLocatorMaps/Hawaii.html, maintained by the United States Fish and Wildlife Service (USFWS), was reviewed for information on whether the proposed project site is located within a designated wildlife preserve. According to this website, there are a total of nine wildlife preserves located within the Hawaiian Islands, including:

1. Hakalau Forest National Wildlife Refuge
2. Hanalei National Wildlife Refuge
3. Huleia National Wildlife Refuge
4. James Campbell National Wildlife Refuge
5. Kakahaia National Wildlife Refuge
6. Kilauea Point National Wildlife Refuge

7. Kealia Pond National Wildlife Refuge
8. Oahu Forest National Wildlife Refuge
9. Pearl Harbor National Wildlife Refuge

None of the nine listed wildlife preserves identified encompasses the subject parcel/property.

#### *6.2.3.2 Proposed Action Impacts and Mitigation*

According to the baseline conditions, the project is not located in a wildlife refuge. Therefore, there will be no impacts and no mitigation measures related to this resource.

### 6.2.4 Listed or Proposed Threatened or Endangered Species and Designated or Proposed Critical Habitats

#### *6.2.4.1 Baseline Conditions*

The USFWS, Honolulu Office and the State of Hawaii, Department of Land and Natural Resources-Division of Forestry and Wildlife (DLNR-DOFAW) were contacted regarding the presence of listed or proposed threatened or endangered species and designated or proposed critical habitats on the subject property.

- The USFWS, Honolulu Office indicated in a response letter dated August 20, 2012 that, *"To the best of our knowledge, there are no federally listed or proposed species, or proposed or designated critical habitat in the immediate vicinity of project site."* A copy of the correspondence from the USFWS is presented in Appendix E, Section 1.
- The DLNR-DOFAW, Hawaii District Manager indicated in a letter dated August 30, 2012 that the subject property is not within a designated critical habitat, and the area has previously been disturbed/altered. In addition, no adverse impact to endangered species is indicated , A copy of the correspondence from the DLNR-DOFAW is presented in Appendix E, Section 2.

#### *6.2.4.2 Proposed Action Impacts and Mitigation*

According to the baseline conditions, the project will not affect listed or proposed threatened or endangered species and is not located in a designated or proposed critical habitat. Therefore, there will be no impacts and no mitigation measures are necessary.

## 6.3 NOISE

Noise is generally regarded as unwelcome sound that can distract from normal activities. The negative impacts of noise on the environment are collectively known as noise pollution. Noise pollution is usually generated from cars, aircrafts, humans, animals, and industrial sites. Areas with an excess of noise pollution are generally caused by poor planning. Projects should be analyzed for potential noise pollution so that good planning and mitigation takes place before they are implemented.

Depending on the level and duration of the noise pollution, it may have a harmful effect on human health. Minor levels of noise pollution can cause agitation or annoyance, while significant levels may cause hearing loss. The DOH, under Title 11, Chapter 46 of the HAR, sets the maximum permissible sounds level for a Class C zone, which includes "agricultural" zones at 70 A-weighted decibels (dBa) for daytime (7 a.m. to 10 p.m.) and 70 dBa for nighttime (10 p.m. to 7 a.m.). This standard does not apply to emergency generators. If noise is to be emitted above the permissible sounds level, then a permit must be obtained prior to the related activities.

### 6.3.1 Baseline Conditions

Activities that may produce noise include traffic from cars on the main road located approximately 2,000 feet east of the site, and overhead aircraft activities. However, these sources of noise are considered insignificant.

### 6.3.2 Proposed Action Impacts and Mitigation

The site will include a 30 kilowatt outdoor emergency generator. The site is located near the northeast corner of the subject parcel, bordering the asphalt-paved access road. There are no residential units within the immediate vicinity of the subject property. Any noise from the generator will be minimal and occur infrequently.

During construction and installation activities, noise levels might increase slightly. If the noise levels are to be above the standards stipulated in Title 11, Chapter 46 of the HAR, then a permit will be acquired. Subsequent to construction activities, the Proposed Action will not have a significant impact on noise levels since the generator will run only during a power outage and for short periods during maintenance activities. Therefore, no mitigation measures are required. Emergency generators are exempt from the maximum permissible sound levels under Title 11, Chapter 46 of the HAR.

## 6.4 VIEW AND VISUAL IMPACTS

### 6.4.1 Baseline Conditions

The Proposed Action is to take place in a "open"-zoned area. The subject property is bordered by undeveloped land to the south and east, radio station broadcast towers to the west, and an asphalt-paved access road to the north. Beyond the access road are undeveloped land and a water tank.

### 6.4.2 Proposed Action Impacts and Mitigation

The Proposed Action involves the installation of a self-supporting monopole on undeveloped land near the northeast corner of the subject parcel. Also, the project site is located in the vicinity of four radio station broadcast towers, and an electrical substation. It is not commonly used as a scenic vista.

Therefore, the Proposed Action will not have a significant adverse visual impact and no mitigation measures are necessary.

## 6.5 UTILITIES

### 6.5.1 Baseline Conditions

Radio station broadcast towers (four, 100-foot towers) and associated shed are located along the western portion of the subject parcel. County water and sewer services are not provided to the subject parcel. Storm water at the subject property infiltrates into the ground surface and flows to the west of the subject property.

### 6.5.2 Proposed Action Impacts and Mitigation

Effects to utilities from the Proposed Action are expected to be insignificant. Impacts will be mitigated by connecting to the existing overhead utility lines to the west.

## 6.6 HISTORIC AND CULTURAL RESOURCES

Cultural resources include districts, sites, buildings, structures, or objects significant in Hawaiian and American history, architecture, archeology, engineering, or culture that are listed, or are eligible for listing, in the National and/or State Register of Historic Places, which may be impacted by the Proposed Action's Area of Potential Effects (APE) for direct or visual effects.

The APE for direct effects is defined by the Nationwide Programmatic Agreement (NPA) as *"the area of potential ground disturbance and any property, or any portion thereof, that will be physically altered or destroyed"* by the Proposed Action. The APE for visual effects is defined by the NPA as *"the geographic area, in which the (Proposed Action) has the potential to introduce visual elements that diminish or alter the setting, including the landscape, where the setting is a character-defining feature of a Historic Property that makes it eligible for listing in the National Register."* In the case of the subject property, the APE for visual effects is 0.5 mile from the Proposed Action.

### 6.6.1 Baseline Conditions

The DLNR- State Historic Preservation Division (SHPD) maintains an inventory of all known historic properties in the State of Hawaii, which is the state's official list of historic resources. Based on the review of the website list of historic sites on the island of Hawaii, the subject parcel/property and surrounding properties are not listed on the Hawaii Register of Historic Sites or National Register of Historic Places. A copy of the Hawaii DLNR-SHPD Historic Sites List is provided in Appendix C, Section 2.

A historic properties assessment was conducted by T.S. Dye and Colleagues, Archaeologists, Inc. for the subject property. No historic properties were identified within the APE for direct and visual effects.

### 6.6.2 Proposed Action Impacts and Mitigation

The DLNR-SHPD was contacted regarding districts, sites, buildings, structures, or objects significant in Hawaiian history, architecture, archeology, engineering, or culture that are listed, or are eligible for listing, in the National Register of Historic Places and may be located on the subject parcel/property. A New Tower Submission Packet (FCC Form 620) was submitted to DLNR-SHPD for review by the State Historic Preservation Officer (SHPO) through the FCC Electronic Section 106 System (E-106).

A copy of the FCC Form 620 submittal and E-106 Filing Confirmation are included in Appendix C, Section 1.

Responses from DLNR-SHPD are as follows:

- In a response letter (Log No: 2012.0000/Doc No: 1110MV29), dated October 31, 2012, the State Historic Preservation Officer (SHPO) indicated that based on previous archaeological surveys conducted in the general area of the subject property, undocumented historic sites may exist. Therefore, the SHPO requested that an archaeological field inspection be conducted at the subject property.

  An archaeological field inspection was conducted and no historic properties were within the APE for direct effect.

- In a follow-up response letter (Log No: 2012.3755/Doc No: 1301MV05), dated January 22, 2013, the SHPO stated that based on the archaeological field inspection they believe "that no historic properties will be affected by the proposed project."

  Copies of the correspondence from the SHPO are presented in Appendix C, Section 2. In addition, copies of the historic properties assessment report and addendum letter are included in Appendix C, Section 3.

In addition, the Office of Hawaiian Affairs (OHA) and DPP were contacted regarding districts, sites, buildings, structures, or objects significant in Hawaiian history, architecture, archeology, engineering, or culture that are listed, or are eligible for listing, in the National Register of Historic Places and may be located on the subject parcel/property. Responses from these agencies are as follows:

- In a response letter dated September 12, 2012, the OHA Chief Executive Officer (CEO) stated that this project will have "no adverse effect" on historic properties eligible for listing on the National Register of Historic Places. A copy of the correspondence from OHA is presented in Appendix C, Section 4.

- In a letter from the DPP dated September 19, 2012, the DPP indicated that they have no knowledge of historical or cultural resources at the site. However, for zoning purposes, the proposed action is classified as *"Open"*, and requires a use permit. A copy of the correspondence from the DPP is presented in Appendix D, Section 1.

Based on these inquiries and clearance from the SHPO, dated January 22, 2013, the proposed project will not affect any historic places. However, in the case that cultural resources are found during construction activities, effects will be mitigated by ceasing work and notifying the DLNR-SHPD. Therefore, should historic resources, including human skeletal remains, be identified during construction activities associated with the Proposed Action, all work will cease in the immediate vicinity of the find until additional consultation with the DLNR-SHPD is conducted and appropriate evaluation of the resources has been completed.

## 6.7 SOCIO-ECONOMICS

Socioeconomics describes the link between economic activity and social life, where one has an effect on the other. Many things can affect socioeconomic activities such as new technology, a change in the environment, and development. Effects of economics on social life can include redistribution of wealth and an alteration in quality of life.

### 6.7.1 Baseline Conditions

According to the United States Census Bureau (USCB) website, the town of Kailua (-Kona) had a population of 9,870 during the 2000 census. Approximately 1,815 of homes were owner-occupied, the average income was $40,874; and 10.8 percent of individuals were living below the poverty line.

### 6.7.2 Proposed Action Impacts and Mitigation

The proposed project will benefit the community at large by providing better telecommunications coverage and service to customers within and passing through the general surrounding area. Under the Proposed Action, people in the Kailua-Kona area will be able to communicate better with others when using their VZW phones. Therefore, no mitigation is necessary.

## 6.8 ENVIRONMENTAL JUSTICE

Environmental justice is a movement that defines the environment as “where people live and work.” The movement seeks to balance the burden that is borne by minorities, women, the poor, and those who are generally discriminated against by redistributing these burdens (such as industrial developments that pollute the area) out of a select group of neighborhoods and making various goods more accessible.

### 6.8.1 Baseline Conditions

The USCB website has estimated percentages of people with various backgrounds residing in Kailua (-Kona) from the 2000 census. According to the website, in 2000 the population of Kailua (-Kona) was approximately 61.3 percent minority (non-Caucasian) and 6.5 percent of families and 10.8 percent of individuals were living below the poverty line.

### 6.8.2 Proposed Action Impacts and Mitigation

The Proposed Action would provide no environmental burden to minorities, women, or the poor. The Proposed Action will in fact have a positive impact on environmental justice because all people with VZW cellular telephones will benefit from increased reliance in the Kailua-Kona area and no mitigation measures are necessary.

## 6.9 AIR QUALITY

The US Congress passed the Clean Air Act (CAA) in 1963 to reduce air pollution and regulate emissions. Several amendments have been passed since its inception that stipulate specific emission regulations according to industry. The CAA mainly focuses on the following points: cleaning commonly found air pollutants, regulating automobile emissions, regulating interstate and international air pollution, cleaning the air in national parks, reducing acid rain and toxic pollutants, protecting the ozone layer, enforcing permits, and providing a pathway for public participation. Various states, including Hawaii, have since developed their own set of air quality standards that must, at a minimum, match those of the CAA.

### 6.9.1 Baseline Conditions

The DOH, Clean Air Branch has several air monitoring stations set up on Oahu. These stations monitor for levels of carbon monoxide (CO), nitrogen dioxide ($NO_2$), sulfur dioxide ($SO_2$), lead (Pb), ozone ($O_3$), and particulate matter ($PM_{10}$ and $PM_{2.5}$), as stipulated in the National Ambient Air Quality Standards (NAAQS) set by the EPA. The State of Hawaii has stricter standards for carbon monoxide and nitrogen dioxide than are set by the NAAQS, and also requires levels of hydrogen sulfide ($H_2S$) to be regulated. According to the "State of Hawaii Annual Summary 2012 Air Quality Data", none of the monitoring stations reported concentrations above Hawaii standards for any of the materials monitored. The Hawaii standards for these substances are listed in the table below.

| **Pollutant** | **CO** | **$NO_2$** | **$SO_2$** | **Pb** | **$O_3$** | **$PM_{10}$** | **$PM_{2.5}$** | **$H_2S$** |
|---|---|---|---|---|---|---|---|---|
| **Averaging Time** | 1-hour<br>8-hour | Annual | 3-hour<br>24-hour<br>Annual | Quarterly | 8-hour | 24-hour<br>Annual | 24-hour<br>Annual | 1-hour |
| **Standard** | 9 ppm<br>4.4 ppm | 0.04 ppm | 0.5 ppm<br>0.14 ppm<br>0.03 ppm | 1.5 $\mu g/m^3$ | 0.08 ppm | 150 $\mu g/m^3$<br>50 $\mu g/m^3$ | -- | 0.025 ppm |

Source: DOH, Clean Air Branch Website

### 6.9.2 Proposed Action Impacts and Mitigation

The telecommunications facility will not be equipped with any devices that would release emissions once construction is complete, except in rare instances during a power outage or routine maintenance. During construction, there will be an increase in the amount of airborne particulate matter in the form of dust; however, workers will adhere to applicable regulations to reduce dust resulting from normal construction activities. Any emissions would be minimal and for a limited duration. Therefore, no additional mitigation measures are necessary.

## 6.10 PUBLIC ACCESS

Hawaii is known for its beautiful shoreline and mountain areas. These resources are important to both the Hawaiian culture and the tourism industry, so it is important to maintain easy public access to these areas.

### 6.10.1 Baseline Conditions

The project site is located in Kailua-Kona and is currently vacant, undeveloped land zoned “Open”, and does not include any public access to shoreline and mountain areas.

### 6.10.2 Proposed Action Impacts and Mitigation

Since the project site is located in a “Open”-zoned area, the Proposed Action is not expected to affect public access to the shoreline or to mountain areas. Therefore, no mitigation measures are necessary.

## 6.11 TRAFFIC IMPACTS

Since the proposed telecommunications facility will not be used as a regular public or private gathering area, and traffic to and from the site will only be for small, routine maintenance operations, Bureau Veritas believes that traffic will not be affected by the project and a traffic impact survey is, therefore, not necessary. The Proposed Action will not affect traffic and does not require a traffic impact survey.

## 6.12 LAND USE

Land use pertains to the human modification of the natural environment, including deforestation, soil degradation, water usage, etc. Human-created land use divides land according to zones, land ownership, parcels, etc. The human division of land use is targeted towards a goal for the region and to promote smart growth of a particular area.

### 6.12.1 Baseline Conditions

The subject parcel is described as the parcel of land designated as TMK Number: (3) 7-3-049: Parcel 038. According to County of Hawaii Planning and Zoning Department, the subject property/parcel is currently zoned “*Open*”, and the State Land Use designation is “*Conservation*." The subject property (proposed VZW HI3 Kona Airport Telecommunications Facility) comprises an approximately 1,200-square foot area

of undeveloped land located near the northeast corner of the subject parcel adjacent to the asphalt-paved access road. The subject parcel consists of undeveloped land, and four, 100-foot tall radio station broadcast towers located on the western portion.

### 6.12.2 Proposed Action Impacts and Mitigation

According to the DPP, the county zoning designation for the subject parcel is *"Open*", and the State Land Use designation is "Conservation." The subject property is currently vacant, undeveloped land and the Proposed Action functions will be limited to the subject property. According to the DPP in a letter dated September 19, 2012, the proposed action requires a use permit. The subject lot is not in the Special Management Area. Therefore, no further mitigation is necessary.

## 6.13 ACCESS TO THE AREA

### 6.13.1 Baseline Conditions

Access to the project site is provided from an asphalt-paved access road off of Queen Kaahumanu Highway. The site is located near the northeast corner of the subject parcel, bordering the access road.

### 6.13.2 Proposed Action Impacts and Mitigation

The Proposed Action includes a gravel driveway off an access road to the subject property. The ground surface may be disturbed during construction activities; however, any potential effects are expected to be minor and short-term. The operation phase of the Proposed Action will not have a significant effect on access to the area as travel to the project site will be only for periodic maintenance activities. Therefore, no mitigation is necessary.

## 6.14 HEALTH AND SAFETY

The National Council on Radiation Protection and Measurements (NCRP) has established limits for human exposure to radio frequency (RF). The maximum permissible level for RF exposure is 580 microwatts per square centimeter over a 30-minute period. Federal Communications Commission (FCC) guidelines for RF exposure limits are identical to that of the NCRP guidelines.

### 6.14.1 Baseline Conditions

The project site is located in an area zoned "Open" with health and safety concerns related to vog. However, no issues are related to the proposed site.

### 6.14.2 Proposed Action Impacts and Mitigation

The levels of RF typically found near cellular base station transmitters are significantly lower than the exposure limit established by the FCC and NCRP. Calculations for a worst-case scenario show that to be exposed at levels near the limit, a person would have to remain in the main transmitting beam, at the

height of the antenna and within a few feet of the antenna. The height of the monopole will be 100 feet agl; therefore, it is unlikely that a person will be exposed to RF levels in excess of the guidelines.

The Proposed Action is expected to increase safety in the project area because better cellular coverage in the area will allow emergencies to be reported immediately, thereby increasing public safety. Therefore, no mitigation is necessary.

## 7.0 COMPLIANCE WITH PLANS AND PROGRAMS

### 7.1 HAWAII STATE PLANNING ACT

The Hawaii State Planning Act (HSPA) was created to guide for future long-range development of the state, to provide for wise use of Hawaii's resources, and to improve coordination among different agencies and levels of government in the planning process. The goals of the HSPA are to, "*create a strong, viable economy; a desired physical environment; and physical, social, and economic well-being for the people of Hawaii.*"

#### 7.1.1 Population

The HSPA provides for objectives in planning population growth so that it is "*consistent with the achievement of physical, economic, and social objectives.*" The Proposed Action is for a telecommunications site that neither provides a facility for populations to gather nor presents a significant environmental effect that would deter people from living in the area; therefore, the Proposed Action is not expected to impact population.

#### 7.1.2 Economy – In General

Objectives for general economic matters in the HSPA include increasing and diversifying employment and the economic base of the state, especially on neighbor islands. While the VZW Kona Airport Telecommunications Facility will not directly increase employment or economic bases, it will allow for better business communications during the planning and operation phases of achieving these objectives.

#### 7.1.3 Economy – Agriculture

Hawaii's objectives for the agriculturally-related economy include developing diversified agriculture while maintaining the sugar and pineapple industries. The Proposed Action is located in an open zoned area; therefore, it will not affect agriculturally-related economic goals. In addition, the subject parcel/subject property consists of radio station broadcast towers (four, 100-foot towers) and associated equipment shed located along the western portion. The remaining portion of the parcel consists of undeveloped land covered with grass.

### 7.1.4 Economy – Visitor Industry

The HSPA plans for the continued growth of the visitor industry as part of Hawaii's economy. While the Proposed Action will not affect the growth of the visitor industry either adversely or beneficially, it will provide for better telecommunications for those visitors in the Kona area.

### 7.1.5 Economy – Federal Expenditures

The Proposed Action does not involve federal expenditures; therefore, it will not affect the objectives set forth in this section of the HSPA.

### 7.1.6 Economy – Potential Growth Activities

Objectives for potential growth activities discussed in the HSPA pertain to achieving the increase and diversification of Hawaii's economic base. One of the policies for achieving this objective is to "*increase research and development of businesses and services in the telecommunications and information industries.*" The development of the Proposed VZW HI3 Kona Airport Telecommunications Facility helps to carry out this policy and achieve the objective for potential growth activities by expanding the cellular coverage in the area.

### 7.1.7 Economy – Information Industry

The objective for the information industry is to position "*Hawaii as the leading dealer in information businesses and services in the Pacific Rim.*" To help achieve this goal, one of the listed policies is to "*encourage the continued development and expansion of telecommunications infrastructure serving Hawaii to accommodate future growth in the information industry.*" The Proposed Action is to develop a telecommunications facility, which will help Hawaii attain its objective for the information industry.

### 7.1.8 Physical Environment – Land-Based, Shoreline, and Marine Resources

The objectives for land based shoreline and marine resources are for "*prudent use of Hawaii's land-based, shoreline, and marine resources; and effective protection of Hawaii's unique and fragile environmental resources.*" The subject parcel lies in the Kona physiographic region, approximately 2 miles west of the coastline. The subject property is located near the northeast corner of the subject parcel at an elevation of approximately 225 feet amsl. Therefore, it will not affect the objectives set forth in this section of the HSPA.

### 7.1.9 Physical Environment – Scenic, Natural Beauty, and Historic Resources

The objective for scenic, natural beauty and historic resources is for "*enhancement of Hawaii's scenic assets, natural beauty, and multi-cultural/historical resources.*" The Proposed Action will comply with this objective because:

- It will be constructed in the general area that consists of radio station broadcast towers; and it will not be disturbing native vegetation or scenic views;

- It will not alter any existing waterways;
- It will not cause a significant increase in noise, water, or air pollution;
- It will have no impact on trees in the area;
- If any historic resources are discovered during construction activities, work will cease and the DLNR-SHPD will be contacted immediately to ensure preservation of the find; and
- According to the DLNR-DOFAW and USFWS, it will not affect listed or proposed threatened or endangered species and is not located in a designated or proposed critical habitat.

#### 7.1.10 Physical Environment – Land, Air, and Water Quality

The State of Hawaii is striving to maintain and improve good land, air, and water quality within the physical environment while developing a greater public awareness of these resources. According to the analyses and conclusions discussed in Sections 6.1, and 6.9, the Proposed Action is not expected to significantly impact these aspects of the physical environment because air quality will only be impacted temporarily during the construction phase and there will be no contact with groundwater.

#### 7.1.11 Facility Systems – In General

Arrangements for facility systems developments in the HSPA includes, "*Planning for the State's facility systems in general shall be directed towards achievement of the objective of water, transportation, waste disposal, and energy and telecommunication systems that support statewide social, economic, and physical objectives.*" Later sections in the HSPA discuss each topic in more detail.

#### 7.1.12 Facility Systems – Solid and Liquid Wastes

Objectives for solid and liquid waste facility systems outlined in the HSPA include maintaining public health and sanitation standards and providing for sufficient sewer facilities. The Proposed Action is only expected to produce solid wastes during the construction phase; therefore, impacts will be minimal and the project will be in compliance with the HSPA's objectives.

#### 7.1.13 Facility Systems – Water

The HSPA provides an objective for water facility systems to adequately accommodate water resource needs of the State. The Proposed Action will not consume or affect the distribution of water; therefore, it is in compliance with the outlined objective.

#### 7.1.14 Facility Systems – Transportation

According to the HSPA, the State should strive to achieve current and future transportation needs for both people and goods. The Proposed Action will not affect transportation objectives described in the HSPA.

### 7.1.15 Facility Systems – Energy

Under the HSPA, Hawaii should strive towards dependable energy facility systems, increasing energy self-sufficiency, providing energy security, and reducing greenhouse gas emissions. The Proposed Action will not impede the first three objectives and is in compliance with the fourth objective because no greenhouse gas emissions will be released from the telecommunications facility.

### 7.1.16 Facility Systems – Telecommunications

According to the HSPA, "*Planning for the State's telecommunications facility systems shall be directed towards the achievement of dependable, efficient, and economical statewide telecommunications systems capable of supporting the needs of the people.*" The Proposed Action is for a telecommunications facility that is intended to increase communication for those in the Kona area with VZW telephones; therefore, the Proposed Action is in compliance with the HSPA telecommunications facility systems objective.

### 7.1.17 Socio-Cultural Advancement – Housing

The objectives for housing outlined in the HSPA include "*greater opportunities for people to secure reasonably priced, safe, sanitary homes; orderly development of residential areas sensitive to community needs; and development and provision of affordable rental housing by the State.*" The Proposed Action will not provide new housing or take away existing housing; therefore, it will not affect the housing objectives for the State of Hawaii.

### 7.1.18 Socio-Cultural Advancement – Health

Objectives for health outlined in the HSPA include fulfilling basic individual health needs and maintaining a healthy environment. According to the various descriptions in Section 6.0, the Proposed Action will not significantly impact the environment or create a health risk for the people of Hawaii; therefore, health objectives will not be hindered by the Proposed Action.

### 7.1.19 Socio-Cultural Advancement – Education

Objectives for education outlined in the HSPA are that "*education shall be directed towards achievement of educational opportunities to fulfill the needs, responsibilities, and aspirations of the people of Hawaii.*" The Proposed Action is for a telecommunications facility to be located in an open area; therefore, it will not adversely affect objectives associated with education.

### 7.1.20 Socio-Cultural Advancement – Social Services

The objective outlined for social services is to "*improve public and private social services to enable citizens to become more self-reliant.*" The Proposed Action will allow for people in the Kona area with VZW to communicate better with others, thereby increasing self-reliance. Therefore, the Proposed Action helps achieve the objective for social services advancement.

### 7.1.21 Socio-Cultural Advancement – Leisure

The objective outlined for advancement- leisure is to "*allocate an adequate provision of resources to accommodate diverse cultural, artistic, and recreational needs for present and future generations.*" The Proposed Action is located in an open area; therefore, it will not affect any objectives associated with leisure.

### 7.1.22 Socio-Cultural Advancement – Individual Rights and Personal Well-Being

The objective outlined in the HSPA is for "*increased opportunities and protection of individual rights, to enable individuals to fulfill their socio-economic needs.*" The Proposed Action is expected to help individuals fulfill their socio-economics needs and aspirations by providing more reliable cellular phone service in the Kona area. More details on how this will be achieved are described in Section 6.7.

### 7.1.23 Socio-Cultural Advancement – Culture

The objective outlined for Advancement – Culture is to "*enhance cultural identities, traditions, values, customs, and arts of Hawaii's people.*" Based on information provided in Section 6.6, no cultural resources will be affected by the Proposed Action.

### 7.1.24 Socio-Cultural Advancement – Public Safety

Objectives in this section of the HSPA are targeted towards maintaining public safety and increasing awareness of public safety concerns among citizens. The Proposed Action is expected to increase public safety in the area through enhanced cellular communications. Potential impacts to public safety are further described in Section 6.14.

### 7.1.25 Socio-Cultural Advancement – Government

Objectives outlined for government are for "*efficient, effective and responsive government services at all levels of the State; and fiscal integrity, responsibility and efficiency in the State and County Governments.*" The Proposed Action is located in an open area and is not related to government activities; therefore, it will not affect any objectives associated with the government.

## 7.2 COUNTY OF HAWAII GENERAL PLAN

The Proposed Action was evaluated to confirm that it is in compliance with the General Plan (GP), as amended in February 2005. According to the document, the GP was established to setup "*the long term comprehensive development of the island of Hawaii.*"

The proposed VZW HI3 Kona Airport telecommunications facility complies with the GP objectives relating to: (1) economic, (2) public facilities, and (3) public utilities. The proposed action enhances these objectives by providing better telecommunications coverage in the general area.

The proposed VZW HI3 Kona Airport telecommunications facility will not affect or inhibit the GP objectives relating to: (1) energy, (2) environmental quality, (3) flooding and other natural hazards, (4) historic sites, (5) natural beauty, (6) natural resources and shoreline, (7) housing, (8) public facilities, (9) recreation, (10) transportation, and (11) land use.

### 7.3 KONA COMMUNITY DEVELOPMENT PLAN (KCDP)

The GP also sets forth the intention of implementing the KCDP. The purpose of the KCDP is to take the broad statements in the GP and apply them to goals within the individual community. The KCDP will help the community to manage growth and ensure that the courses of action addressed in the GP are appropriately applied to the individual community.

It is believed that since the Proposed Action is in compliance with or will not affect the GP, that it is also in compliance with or will not affect plans for the Kona community.

## 8.0 FINDINGS

We have prepared this Draft EA for the proposed VZW HI3 Kona Airport Telecommunications Facility (subject property) in conformance with the Chapter 343, HRS; HAR Title 11; and DOH Chapter 200 Environmental Impact Rules. The findings presented in this Section are based on Bureau Veritas' understanding of the subject property location and the Proposed Action at the subject property, as such action is described in Section 3.0. Should modifications to the location of the subject property or Proposed Action be made in the future, then additional inquiries may be prudent.

According to the DOH Rules (I 1-200-12), an applicant or agency must determine whether an action may have significant impact on the environment, including all phases of the project, its expected consequences both primary and secondary, its cumulative impact with other projects, and its short- and long-term effects.

In making the determination, the Rules establish "Significant Criteria" to be used as a basis for identifying whether significant environmental impacts will occur. According to the Rules, an action shall be determined to have significant impact on the environment if it meets any one of the following criteria:

**(1) Involves an irrevocable commitment to loss or destruction of any natural or cultural resources;**

The proposed project site comprises an approximately 1,200-square foot area of undeveloped land located near the northeast corner of the subject parcel adjacent to the asphalt-paved access road. The subject parcel consists of undeveloped land, and four, 100-foot tall radio station broadcast towers located on the western portion. An archaeological field inspection indicated that no historic properties will be affected by the proposed project, and the SHPO concurred that no historic properties will be affected by the proposed project.

**(2) Curtails the range of beneficial uses of the environment;**

The proposed telecommunications facility will be located on vacant, undeveloped land adjacent to an asphalt-paved access road. In addition, four radio station broadcast towers are currently located on the subject parcel. Utilities will be provided to the facility through connection to the existing overhead utility lines to the west; therefore, the proposed telecommunications facility will not reduce the beneficial uses of the environment.

**(3) Conflicts with the State's long-term environmental policies or goals and guidelines as expressed in Chapter 344, HRS; and any revisions thereof and amendments thereto, court decisions, or executive orders;**

The proposed project is not expected to have a significant impact on the surrounding natural environment, historical areas or the existing community. Additionally, it will have no negative economic or social impacts on the area. Therefore, it is consistent with the Environmental Policies established in Chapter 344, HRS, and the NEPA.

**(4) Substantially affects the economic or social welfare of the community or state;**

The proposed project will benefit the community at large by providing better telecommunications coverage and service to customers within and passing through the general surrounding area.

**(5) Substantially affects public health;**

Impacts to public health may be affected by air and noise during construction; however, these will be insignificant or not detectable. The water quality impact will not have an effect on public health since the groundwater in the area will not be disturbed.

**(6) Involves substantial secondary impacts, such as population changes or effects on public facilities;**

The proposed project is anticipated to have no growth impact to the regional population. The proposed monopole will be placed in the northeastern portion of the subject parcel on land zoned "open" and will, therefore, have no effect on public facilities.

**(7) Involves a substantial degradation of environmental quality;**

The proposed activities will be limited to the immediate area of the proposed telecommunications facility; therefore, the Proposed Action will not involve substantial degradation of environmental quality.

**(8) Is individually limited but cumulatively has considerable effect on the environment, or involves a commitment for larger actions;**

The Proposed Action is designed to maintain the given space and benefit the community at large. No views will be obstructed or be visually incompatible with the surrounding area since the monopole will be located in the vicinity of four radio station broadcast towers, and an electrical substation. In addition, the area is not commonly used as a scenic vista.

**(9) Substantially affects a rare, threatened or endangered species or habitat;**

According to USFWS determinations, the Proposed Action will not affect listed, proposed threatened or endangered species and is not within or immediately adjacent to any proposed or designated critical habitat, wetland, or coral reef.

**(10) Detrimentally affects air or water quality or ambient noise levels;**

The proposed project is not anticipated to detrimentally affect air or water quality or ambient noise levels of the area.

**(11) Affects or is likely to suffer damage by being located in an environmentally sensitive area, such as a flood plain, tsunami zone, beach, erosion-prone area, geologically hazardous land, estuary, freshwater, or coastal waters;**

The Federal Emergency Management Agency Flood Insurance Rate Map was reviewed to determine if the subject property was located in a flood hazard area. The subject property is located in Zone X, which denotes an area outside the 0.2 percent annual chance (500-year) floodplain (FEMA/FIRM Map No. 1551660707C [panel not printed]).

In addition, the USACE has determined that there are no waters of the US at the proposed project site and, therefore, a Department of the Army permit will not be required for this project.

Based on the above criteria, there are no environmentally sensitive areas associated within the proposed project.

**(12) Substantially affects scenic vistas and view planes identified in county or state plans or studies;**

No views will be obstructed or be visually incompatible with the surrounding area since the monopole will be located in the vicinity of four radio station broadcast towers, and an electrical substation. In addition, the area is not commonly used as a scenic vista.

**(13) Requires substantial energy consumption.**

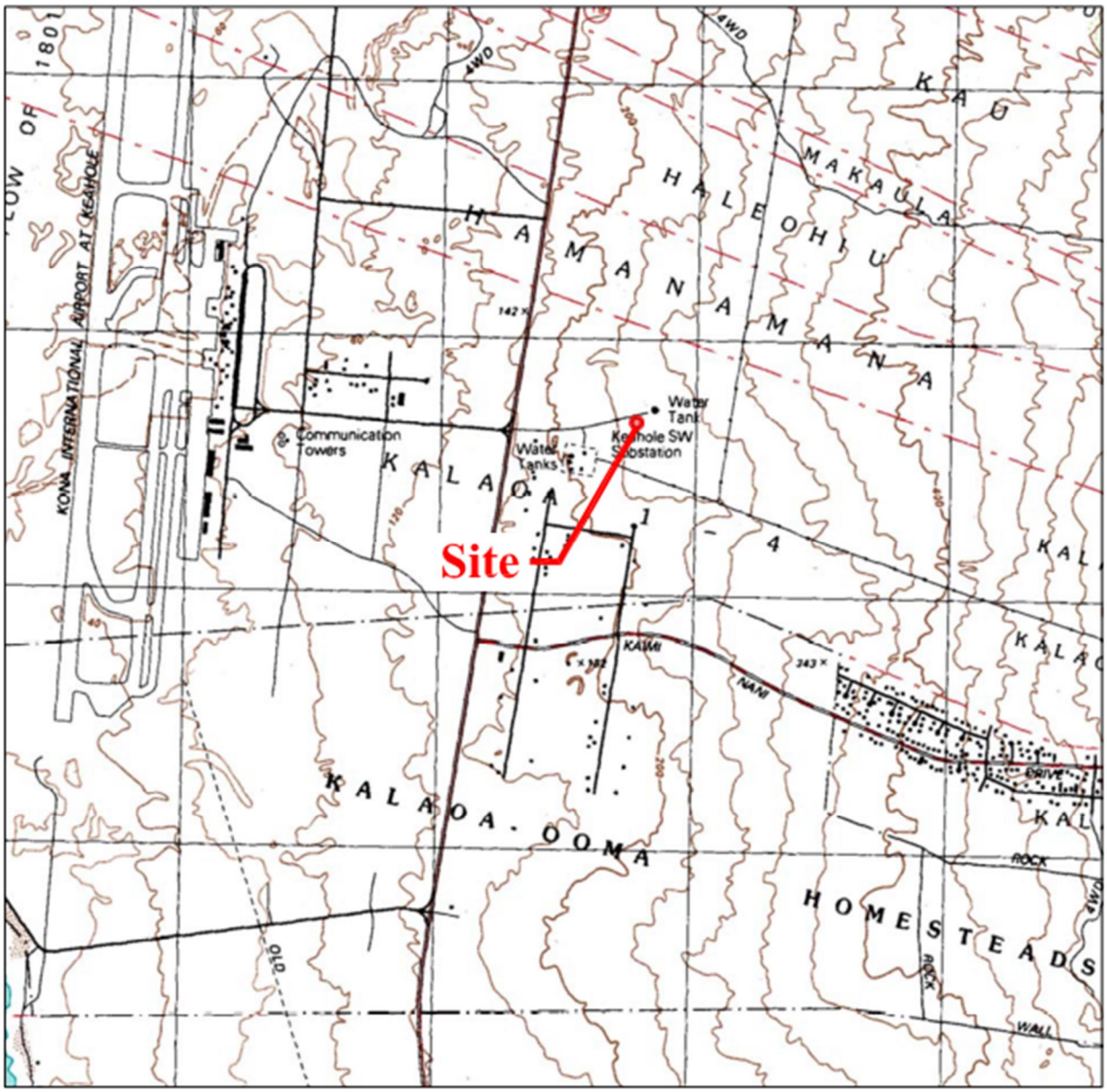
The construction and operation phases of the proposed project will not require substantial energy consumption relative to other similar projects.

None of the inquiries made or documents reviewed during this EA indicated direct evidence of significant negative environmental conditions with respect to the Proposed Action at the subject property.

Based upon the EA and review of significant criteria above, a Finding of No Significant Impact has been determined.

Comments and responses received during the Draft EA 30-day comment period are included in Appendix F.

# FIGURES




SCALE 1:24000

1 ½ 0 1 MILE

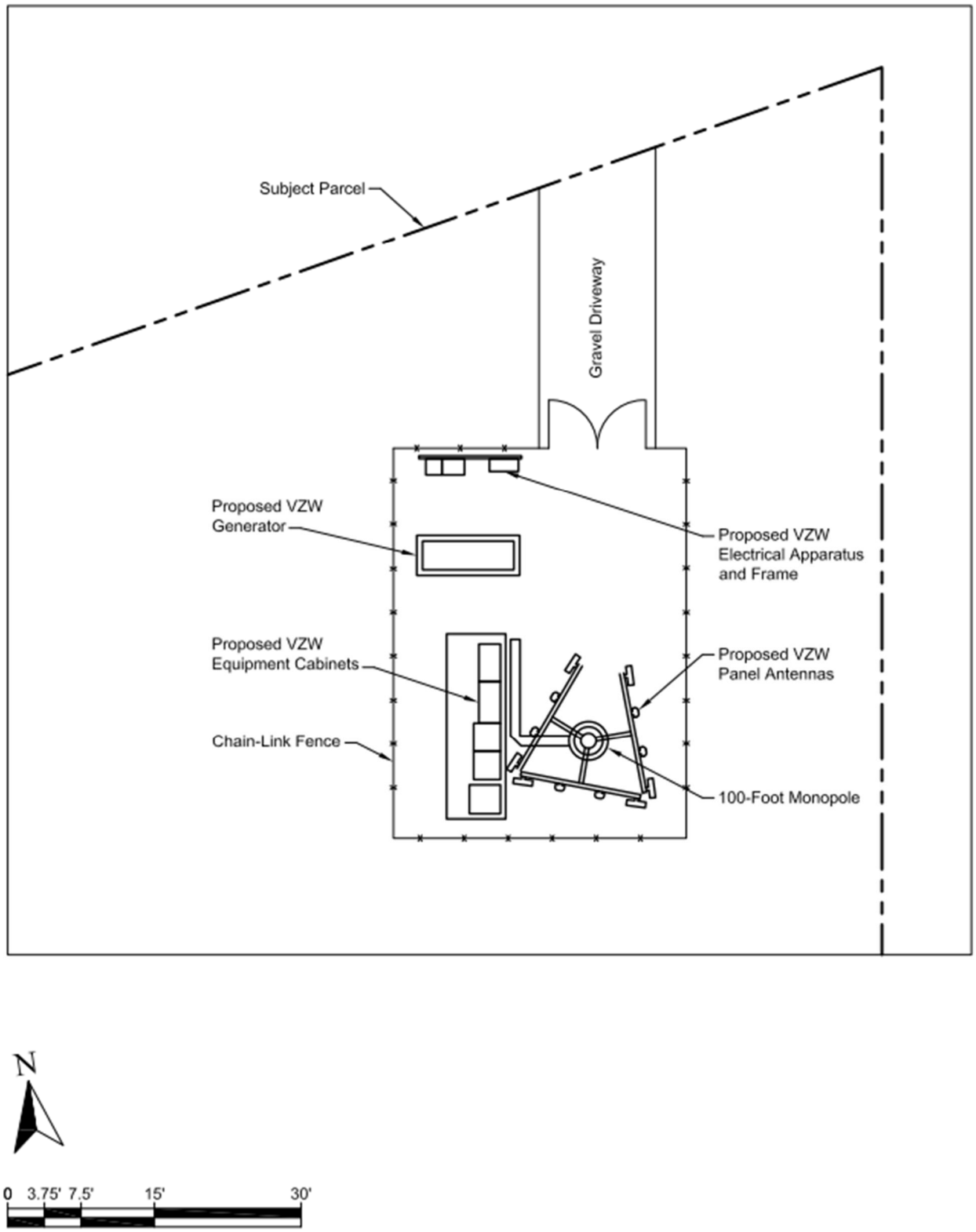
1000 0 1000 2000 3000 4000 5000 6000 7000 FEET

1 .5 0 1 KILOMETER

N

Portion of 7.5-minute Series (Topographic) Maps
United States Drpartment of Interior
United States Geological Survey
Keahole Point Quadrangle, Hawaii County, Hawaii
1997

| FORD CANTY & ASSOCIATES, INC. ENVIRONMENTAL SCIENTISTS & ENGINEERS | | Subject Property Location Map | Figure |
|---|---|---|---|
| Job Number: 16-1081 | Created by: LLF | Project: VZW HI3 Kona Airport Telecommunications Facility TMK: (3) 7-3-049: 038 (portion) Kailua-Kona, Hawaii | 1 |
| Date: 3/9/16 | Reviewed by: DPF | Client: **Cades Schutte, LLP / Verizon Wireless (VZW)** | |




| | | | |
|---|---|---|---|
| FORD CANTY & ASSOCIATES, INC. ENVIRONMENTAL SCIENTISTS & ENGINEERS | | **Subject Property Vicinity Map** | **Figure** |
| Job Number: 16-1081 | Created by: LLF | Project: VZW HI3 Kona Airport Telecommunications Facility TMK: (3) 7-3-049: 038 (portion) Kailua-Kona, Hawaii | 2 |
| Date: 3/9/16 | Reviewed by: DPF | Client: **Cades Schutte, LLP / Verizon Wireless (VZW)** | |

# HI3 KONA AIRPORT TELECOMMUNICATIONS FACILITY

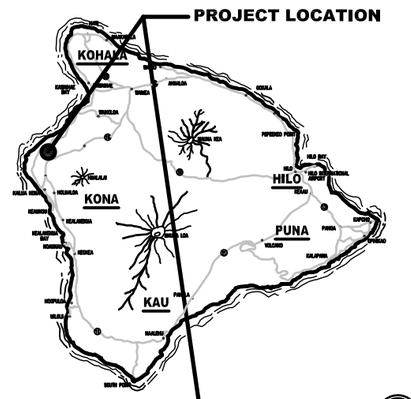
## KAILUA, KONA, HAWAII 96740

## TMK: (3) 7-3-049:038

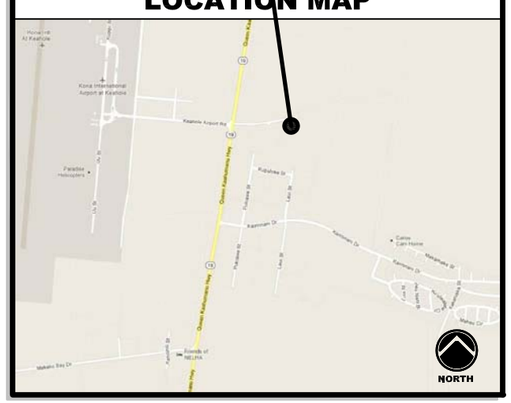
## ABBREVIATIONS

| | |
|---|---|
| A.C. | AIR CONDITIONING |
| ACOUS. | ACOUSTICAL |
| ADJ. | ADJUSTABLE |
| A.E.S. | ABOVE EXISTING SLAB |
| A.F.F. | ABOVE FINISH FLOOR |
| AL. | ALUMINUM |
| APPROX. | APPROXIMATE |
| ARCH. | ARCHITECTURAL |
| BD. | BOARD |
| BLDG. | BUILDING |
| BLK. | BLOCK |
| BLKG. | BLOCKING |
| BM. | BEAM |
| BOT. | BOTTOM |
| CAB. | CABINET |
| CEM. | CEMENT |
| CER. | CERAMIC |
| CLG. | CEILING |
| CLR. | CLEAR |
| C.M.U. | CONCRETE MASONRY UNIT |
| CNTR. | COUNTER |
| COL. | COLUMN |
| CONC. | CONCRETE |
| COND. | CONDITION |
| CONN. | CONNECTION |
| CONSTR. | CONSTRUCTION |
| CONT. | CONTINUOUS |
| CONTR. | CONTRACTOR |
| C.R.M. | CONCRETE RUBBLE MASONRY |
| CTR. | CENTER |
| DBL. | DOUBLE |
| DET. | DETAIL |
| DIA. | DIAMETER |
| DIM. | DIMENSION |
| D.O. | DOOR OPENING |
| DR. | DOOR |
| DS. | DOWN SPOUT |
| DWG. | DRAWING |
| DWR. | DRAWER |
| (E) | EXISTING |
| EA. | EACH |
| E.J. | EXPANSION JOINT |
| EL. | ELEVATION |
| ELEC. | ELECTRICAL |
| ELEV. | ELEVATOR |
| ENCL. | ENCLOSURE |
| E.P. | ELECTRICAL PANEL BOARD |
| EQ. | EQUAL |
| EQPT. | EQUIPMENT |
| EXIST. | EXISTING |
| EXT. | EXTERIOR |
| F.A. | FIRE ALARM |
| F.D. | FLOOR DRAIN |
| FDN. | FOUNDATION |
| FIN. | FINISH |
| FL. | FLOOR |
| FLASH. | FLASHING |
| FLUOR. | FLUORESCENT |
| F.O.C. | FACE OF CONCRETE |
| F.O.F. | FACE OF FINISH |
| F.O.S. | FACE OF STUDS |
| FPRF. | FIREPROOF |
| FR. | FRAME |
| FT. | FOOT OR FEET |
| FTG. | FOOTING |
| FURR. | FURRING |
| GA. | GAUGE |
| GALV. | GALVANIZED |
| G.B. | GRAB BAR |
| GL. | GLASS |
| GND. | GROUND |
| GR. | GRADE |
| GYP. | GYPSUM |
| H.B. | HOSE BIB |
| H.C. | HOLLOW CORE |
| HDR. | HEADER |
| HDWD. | HARDWOOD |
| HGT. | HEIGHT |
| HORIZ. | HORIZONTAL |
| HR. | HOUR |
| I.D. | INSIDE DIAMETER (DIA.) |
| INSUL. | INSULATION |
| INT. | INTERIOR |
| JST. | JOIST |
| JT. | JOINT |
| LAM. | LAMINATE |
| LAV. | LAVATORY |
| LT. | LIGHT |
| MAX. | MAXIMUM |
| M.C. | MEDICINE CABINET |
| MECH. | MECHANICAL |
| MET. | METAL |
| MFR. | MANUFACTURER |
| MILL WK. | MILLWORK |
| MIN. | MINIMUM |
| MIR. | MIRROR |
| MISC. | MISCELLANEOUS |
| M.O. | MASONRY OPENING |
| MTD. | MOUNTED |
| MUL. | MULLION |
| MWC | MILLWORK CONTRACTOR |
| (N) | NEW |
| N.I.C. | NOT IN CONTRACT |
| NO., # | NUMBER |
| NOM. | NOMINAL |
| N.T.S. | NOT TO SCALE |
| O.A. | OVERALL |
| O.C. | ON CENTER |
| O.D. | OUTSIDE DIAMETER (DIA.) |
| O.F.C.I. | OWNER FURNISHED CONTRACTOR INSTALLED |
| OPNG. | OPENING |
| OPP. | OPPOSITE |
| PL. | PLATE |
| P.LAM. | PLASTIC LAMINATE |
| PLAS. | PLASTER |
| PLBG. | PLUMBING |
| PLYWD. | PLYWOOD |
| PNL. | PANEL |
| POL. | POLISHED |
| PR. | PAIR |
| PRCST. | PRE-CAST |
| PTD. | PAINTED |
| RAD. | RADIUS |
| R.D. | ROOF DRAIN |
| REF. | REFRIGERATOR |
| REQ. | REQUIRED |
| RM. | ROOM |
| R.O. | ROUGH OPENING |
| S.C. | SOLID CORE |
| SCHED. | SCHEDULE |
| SCR. | SCREEN |
| SECT. | SECTION |
| SHT. | SHEET |
| SIM. | SIMILAR |
| SL. | SLOPE |
| SLDG. | SLIDING |
| SPEC. | SPECIFICATION |
| SQ. | SQUARE |
| SST. | STAINLESS STEEL |
| STA. | STATION |
| STD. | STANDARD |
| STL. | STEEL |
| STOR. | STORAGE |
| STRL. | STRUCTURAL |
| SURR. | SURROUND |
| SUSP. | SUSPENDED |
| SYM. | SYMMETRICAL |
| T.C. | TOP OF CURB |
| TEL. | TELEPHONE |
| TEMP. | TEMPERED |
| TAG | TAG |
| THK. | THICK |
| THR. | THRESHOLD |
| T.P. | TOP OF PAVEMENT |
| TRD. | TREAD |
| T.V. | TELEVISION |
| T.W. | TOP OF WALL |
| TYP. | TYPICAL |
| UNF. | UNFINISHED |
| U.O.N. | UNLESS OTHERWISE NOTED |
| UR. | URINAL |
| VERT. | VERTICAL |
| VEST. | VESTIBULE |
| W/ | WITH |
| W.C. | WATER CLOSET |
| WD. | WOOD |
| WDW. | WINDOW |
| W/O | WITHOUT |
| WP. | WATERPROOF |
| W.R. | WATER RESISTANT |
| WSCT. | WAINSCOT |
| WT. | WEIGHT |
| W.W.M. | WELDED WIRE MESH |

## VICINITY MAP




## LOCATION MAP




## PROJECT DATA

| | |
|---|---|
| LEGAL OWNER: | BIG ISLAND BROADCASTING CO, LTD.<br>74-5605 LUHIA ATREET, B-7<br>KAILUA, KONA, HAWAII 96740<br><br>STATE OF HAWAII |
| APPLICANT/ LESSEE: | VERIZON WIRELESS<br>300 KAHELU AVENUE<br>MILILANI, HAWAII 96789 |
| PROJECT: | VERIZON WIRELESS TELECOM. FACILITY<br>HI3 KONA AIRPORT<br>KAILUA, KONA, HAWAII 96740 |
| TMK: | (3) 7-3-049:038 |
| ZONING: | OPEN |
| SETBACKS: | FRONT: NONE<br>SIDE: 20'-0"<br>REAR: 30'-0" |

FACILITY IS UNMANNED AND NOT FOR HUMAN HABITATION/PUBLIC ACCESS. ADA ACCESSIBILITY NOT REQUIRED.

## PROJECT CONSULTANTS

## SHEET INDEX


**ARCHITECTURAL DRAWINGS**

| | |
|---|---|
| T1 | TITLE SHEET, VICINITY/LOCATION MAP, ABBREVIATIONS, PROJECT DATA |
| A1 | LOCATION PLAN, OVERALL SITE PLAN |
| A2 | EQUIPMENT YARD PLAN |
| A3 | ELEVATION |


## SCOPE OF WORK

THE PROJECT CONSISTS OF THE INSTALLATION AND OPERATION OF COMMUNICATIONS EQUIPMENT FOR VERIZON WIRELESS' EXISTING TELECOMMUNICATIONS NETWORK.

NEW PANEL ANTENNAS TO BE INSTALLED AT A NEW MONOPOLE AND NEW EQUIPMENT CABINETS and EMERGENCY GENERATOR ON SLAB ON GRADE TO BE ENCLOSED BY A NEW CHAIN-LINK FENCE ARE TO BE INSTALLED AT THIS SITE.

## CODES AND STANDARDS

ALL WORK AND MATERIALS SHALL BE PERFORMED AND INSTALLED IN ACCORDANCE WITH THE CURRENT EDITIONS OF THE FOLLOWING CODES AS ADOPTED BY THE LOCAL GOVERNING AUTHORITIES. NOTHING IN THESE PLANS IS TO BE CONSTRUED TO PERMIT WORK NOT CONFORMING TO THESE CODES:

1. UBC, 1991 EDITION W/LOCAL AMENDMENTS
2. UPC, 1997 EDITION W/LOCAL AMENDMENTS
3. NATIONAL ELECTRIC CODE, 1999 EDITION
4. UNIFORM FIRE CODE, 1997 EDITION
5. HAWAII COUNTY ZONING CODE, 2/28/03
6. ANSI/EIA-222-F LIFE SAFETY CODE NFPA-101-1990


MA
ARCHITECTURE
McPEAK ARCHITECTS
INTERIORS
500 ALA MOANA BOULEVARD
5 WATERFRONT PLAZA, SUITE 345
HONOLULU, HAWAII 96813
PHONE 808.524.3446


CONSULTANT

ISSUE: JOB NO.:

LICENSURE:

This work was prepared by me or under my supervision. Construction of this project will be under my observation.

Expiration date of license: APRIL 30, 2014

"Observation of Construction" shall be defined in chapter 115, Hawaii Administrative Rules for Professional Engineers, Architects, Surveyors and Landscape Architects, State of Hawaii, Subchapter 1, Section 16-115-2, Definitions effective 8/94.

PROJECT INFORMATION:

verizon wireless

NEW TELECOM. FACILITY

HI3 KONA AIRPORT

KAILUA, KONA, HAWAII 96740

TMK: (3) 7-3-049:038

SHEET TITLE:

TITLE SHEET, ABBREV., PROJECT DATA, SHEET INDEX

CURRENT ISSUE DATE/ISSUED FOR:

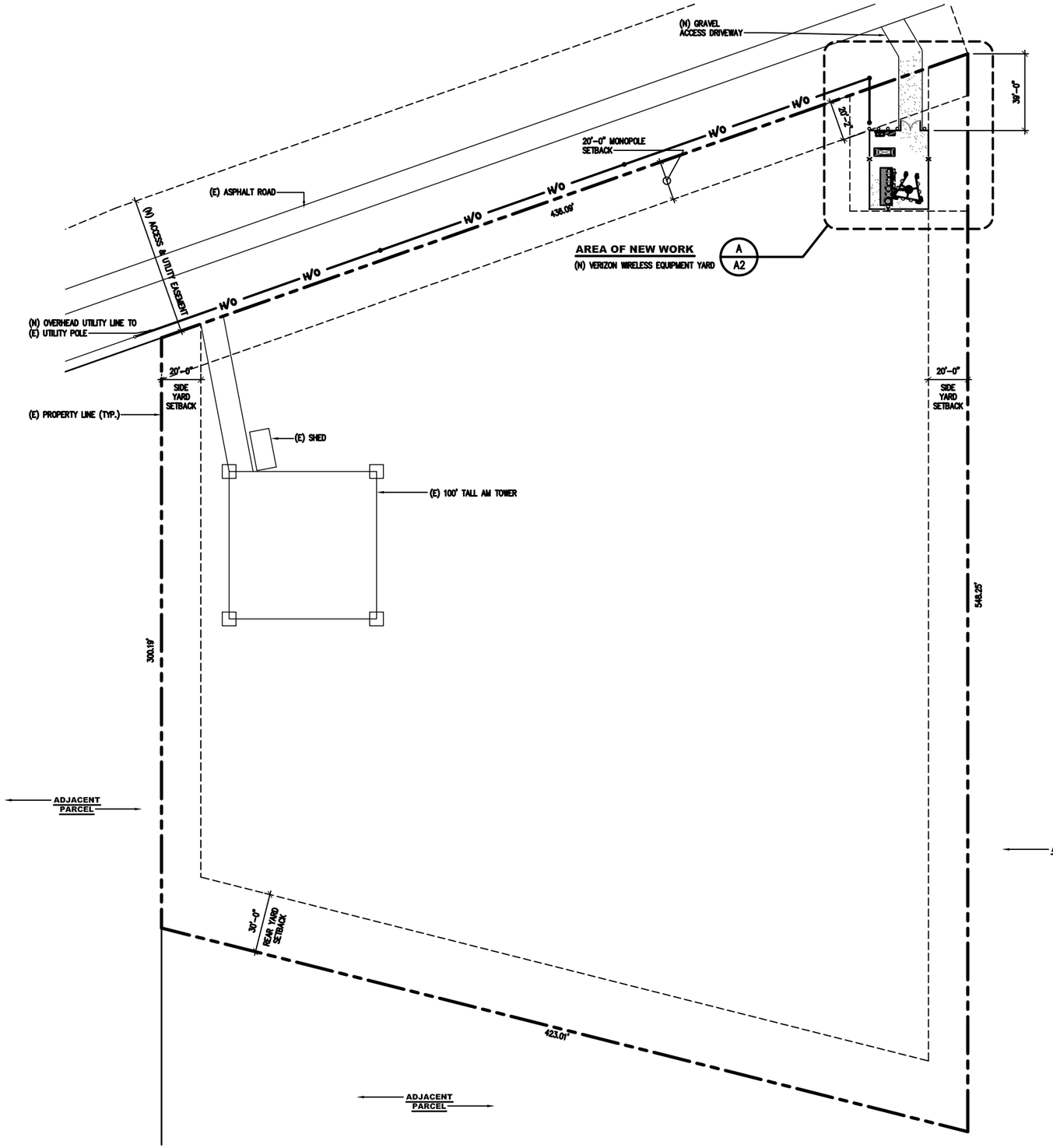
6/4/2012 -- ZONING

| REV. | DATE: | DESCRIPTION: |
|---|---|---|
| | | |

SHEET NUMBER:

T1

1 OF 4 SHTS.



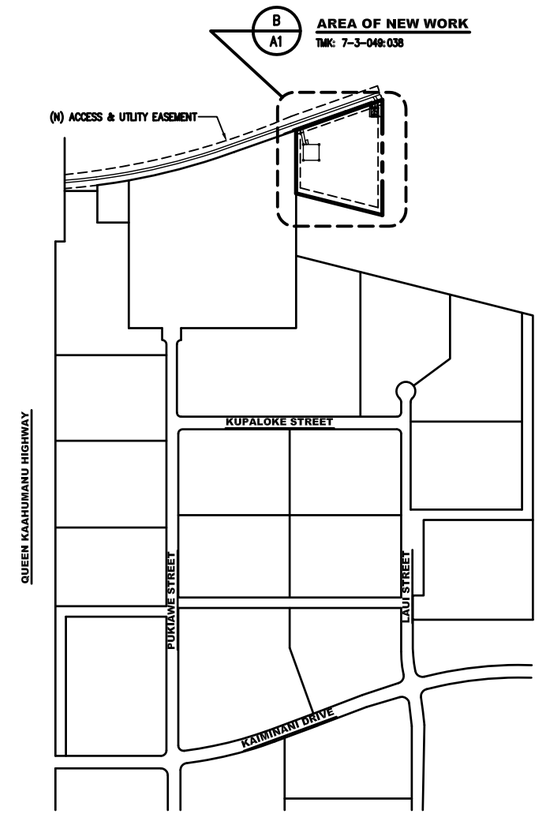

**B OVERALL SITE PLAN**

SCALE: 1" = 300'-0" (22 x 34 SHEET)
SCALE: 1" = 600'-0" (11 x 17 SHEET)

(E) EXISTING
(N) NEW

0 150 300 600ft.

NORTH




**A LOCATION PLAN**

NOT TO SCALE

(E) EXISTING
(N) NEW

NORTH


MA ARCHITECTURE INTERIORS
McPEAK ARCHITECTS
500 ALA MOANA BOULEVARD
5 WATERFRONT PLAZA, SUITE 345
HONOLULU, HAWAII 96813
PHONE 808.524.3446


CONSULTANT:

ISSUE: JOB NO.:

LICENSURE:

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PROJECT INFORMATION:

verizon wireless

NEW TELECOM. FACILITY

# HI3 KONA AIRPORT

KAILUA, KONA, HAWAII 96740

TMK: (3) 7-3-049:038

SHEET TITLE:

LOCATION PLAN, OVERALL SITE PLAN

CURRENT ISSUE DATE/ISSUED FOR:

6/4/2012 -- ZONING

| REV.: | DATE: | DESCRIPTION: |
|---|---|---|
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| | | |

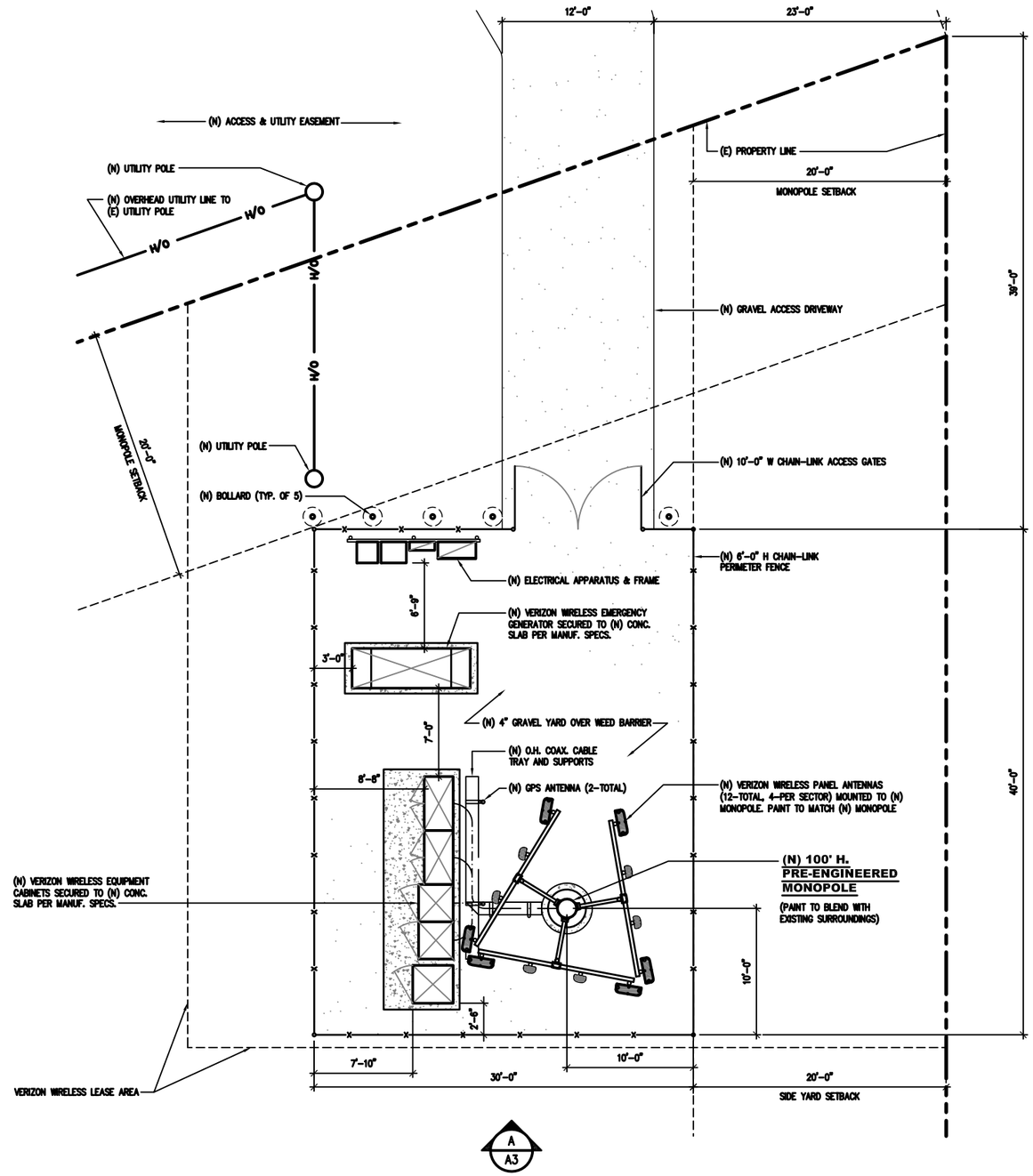
SHEET NUMBER:

A1

2 OF 4 SHTS.

NOTE:

1) 12-7/8" COAXIAL CABLE LINES (120 LINEAR FEET) RUN ON THE INTERIOR OF THE NEW MONOPOLE.




## A EQUIPMENT YARD PLAN

SCALE: 3/16" = 1'-0" (22 x 34 SHEET)
SCALE: 3/32" = 1'-0" (11 x 17 SHEET)

(E) EXISTING
(N) NEW

0 2 4 8ft.

NORTH


MA
ARCHITECTURE
McPEAK ARCHITECTS
INTERIORS
500 ALA MOANA BOULEVARD
5 WATERFRONT PLAZA, SUITE 345
HONOLULU, HAWAII 96813
PHONE 808.524.3446


CONSULTANT:

ISSUE: JOB NO.:

LICENSURE:

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Expiration date of License: APRIL 30, 2014

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PROJECT INFORMATION:

verizonwireless

NEW TELECOM. FACILITY

# HI3 KONA AIRPORT

KAILUA, KONA, HAWAII 96740

TMK: (3) 7-3-049:038

SHEET TITLE:

EQUIPMENT YARD PLAN

CURRENT ISSUE DATE/ISSUED FOR:

6/4/2012 -- ZONING

| REV. | DATE: | DESCRIPTION: |
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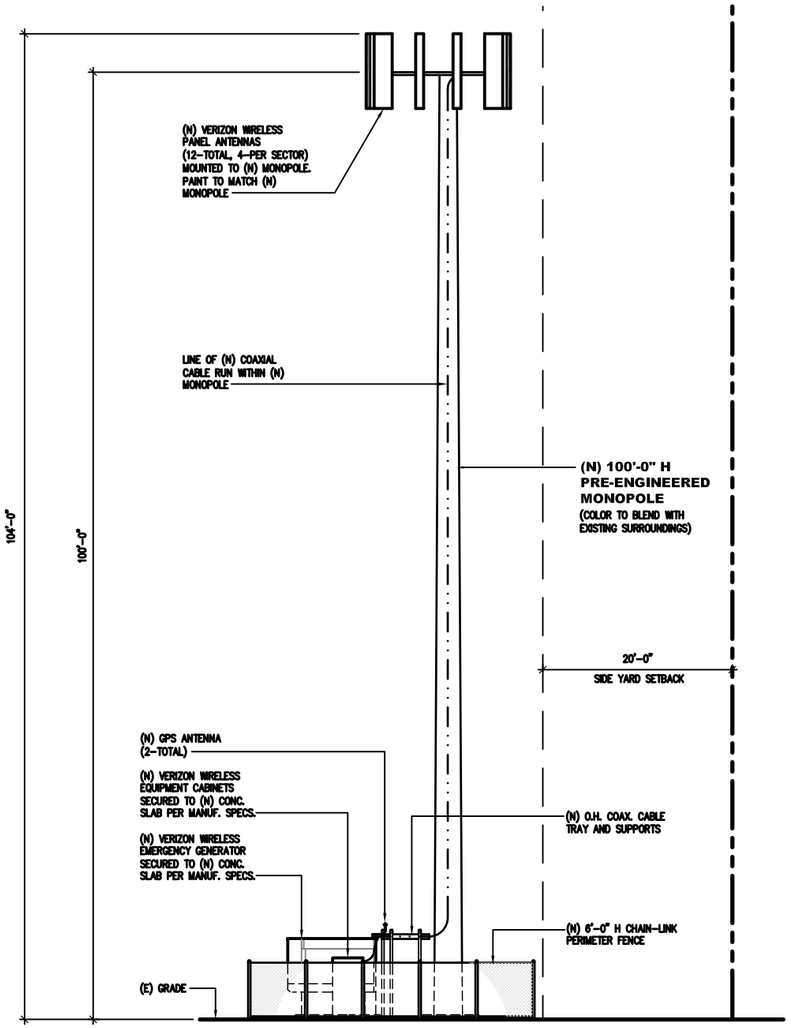
SHEET NUMBER:

A2

3 OF 4 SHTS.




## A SOUTH ELEVATION

SCALE: 1/8" = 1'-0" (22 x 34 SHEET)
SCALE: 1/16" = 1'-0" (11 x 17 SHEET)

(E) EXISTING
(N) NEW

0 2 4 8 16ft.

NOTE:

1) 12-7/8" COAXIAL CABLE LINES (113 LINEAR FEET) RUN ON THE INTERIOR OF THE NEW MONOPOLE.


MA
ARCHITECTURE
McPEAK ARCHITECTS
INTERIORS
500 ALA MOANA BOULEVARD
5 WATERFRONT PLAZA, SUITE 345
HONOLULU, HAWAII 96813
PHONE 808.524.3446


CONSULTANT

ISSUE: JOB NO.:

LICENSURE:

This work was prepared by me or under my supervision. Construction of this project will be under my observation.

Expiration date of license: APRIL 30, 2014

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PROJECT INFORMATION:

verizonwireless

NEW TELECOM. FACILITY

# HI3 KONA AIRPORT

KAILUA, KONA, HAWAII 96740

TMK: (3) 7-3-049:038

SHEET TITLE:

ELEVATION

CURRENT ISSUE DATE/ISSUED FOR:

6/4/2012 -- ZONING

| REV. | DATE: | DESCRIPTION: |
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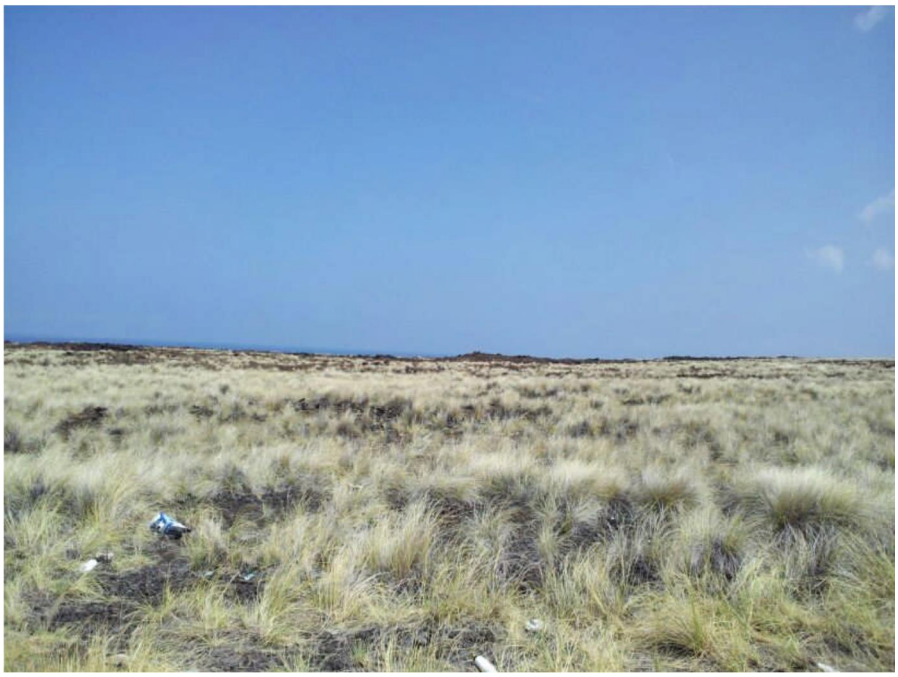
SHEET NUMBER:

A3

4 OF 4 SHTS.

# PHOTOGRAPHS

| | |
|---|---|
| **Client:** Cades Schutte, LLP / Verizon Wireless (VZW) **Project No.:** 16-1081<br><br>**Site Name:** Proposed HI3 Kona Airport Telecommunications Facility, TMK: (3) 7-3-049: 038 (portion),Kailua-Kona, Hawaii **Date:** May 8, 2012 | |
| | |
| View of the subject property, looking southeast. | PHOTO **1** |
|  | |
| View looking north of the subject property. | PHOTO **2** |

| | | | |
|---|---|---|---|
| **Client:** | Cades Schutte, LLP / Verizon Wireless (VZW) | **Project No.:** | 16-1081 |
| **Site Name:** | Proposed HI3 Kona Airport Telecommunications Facility, TMK: (3) 7-3-049: 038 (portion),Kailua-Kona, Hawaii | **Date:** | May 8, 2012 |

| | |
|---|---|
| View of a water tank located east-northeast of the subject property. | PHOTO **3** |

| | |
|---|---|
| View of the four, 100-foot AM Radio Station towers located southwest of the subject property. | PHOTO **4** |

| | | | |
|---|---|---|---|
| **Client:** | Cades Schutte, LLP / Verizon Wireless (VZW) | **Project No.:** | 16-1081 |
| **Site Name:** | Proposed HI3 Kona Airport Telecommunications Facility, TMK: (3) 7-3-049: 038 (portion),Kailua-Kona, Hawaii | **Date:** | May 8, 2012 |

| | |
|---|---|
| View looking west of the subject property (Note: Asphalt road leading to the subject property). | PHOTO **5** |

# APPENDIX A

# LIST OF SOURCES/REFERENCES

**CONTACTS:**

| | |
|---|---|
| Agency and division/source: | County of Hawaii, Department of Planning & Permitting |
| Name/title of representative: | Ms. BJ Leithead-Todd, Director |
| Location of Agency: | Hilo, Hawaii |
| Agency Telephone Number: | (808) 961-8288 |
| | |
| Agency and division/source: | DLNR – Division of Forestry & Wildlife (DOFAW) |
| Name/title of representative: | Mr. Roger Imoto, Hawaii Branch Manager |
| Location of agency: | Hilo, Hawaii |
| Agency telephone number: | (808) 974-4221 |
| | |
| Agency and division/source: | DLNR – State Historic Preservation Division (SHPD) |
| Name/title of representative: | Ms. Theresa K. Donham, Archaeology Branch Chief and Deputy SHPO<br>Mr. Michael Vitousek, Hawaii Archaeologist |
| Location of agency: | Hilo, Hawaii |
| Agency telephone number: | (808) 933-7650 |
| | |
| Agency and division/source: | Honolulu Star Advertiser / Legal Advertising Department |
| Name/title of representative: | Ms. Rose Rosales, Staff |
| Location of Agency: | Honolulu, Oahu, Hawaii |
| Agency Telephone Number: | (808) 529-4825 Phone; (808) 529-4829 Fax |
| | |
| Agency and division/source: | Office of Hawaiian Affairs (OHA); Hawaiian Rights Division |
| Name/title of representative: | Dr. Kamana`opono M. Crabbe, Ph.D., Chief Executive Officer |
| Location of Agency: | Honolulu, Oahu, Hawaii |
| Agency Telephone Number: | (808) 594-1888 |
| | |
| Agency and division/source: | U.S. Army Corp of Engineers – Honolulu District |
| Name/title of representative: | Mr. George Young, Director |
| Location of Agency: | Honolulu, Oahu, Hawaii |
| Agency Telephone Number: | (808) 438-1091 |
| | |
| Agency and division/source: | U.S. Fish & Wildlife Service (USFWS) |
| Name/title of representative: | Dr. Loyal Mehrhoff, Ph.D., Field Supervisor<br>Ms. Jiny Kim, Consultation and Habitat Conservation Planning Program |
| Location of agency: | Honolulu, Oahu, Hawaii |
| Agency telephone number: | (808) 792-9400 |

**REFERENCES:**

Name of publication: *Soil Survey of Island of Hawaii*
Author of publication: Sato, Harry H. et al. US Department of Agriculture, Soil Conservation Service, in cooperation with the University of Hawaii Agricultural Experiment Station
Date of publication: December 1973

Name of publication: *Aquifer Identification and Classification for the Island of Hawaii: Groundwater Protection Strategy for Hawaii. Technical Report No. 191*
Author of publication: Mink, J.F. and L.S. Lau
Date of publication: May 1993

Name of publication: County of Hawaii General Plan
Author of publication: County of Hawaii, Department of Planning and Permitting
Date of publication: Amended February 2005

Name of publication: County of Hawaii Kona Community Development Plan
Author of publication: County of Hawaii, Department of Planning and Permitting
Date of publication:

Name of publication: U.S.G.S. 7.5-Minute Series Keahole Point, Hawaii Quadrangle Map
Author of publication: United States Geological Survey (USGS)
Date of publication: 1997

Name of publication: Hazard Evaluation & Emergency Response (HEER) Office Database
Author of publication: State of Hawaii, Department of Health, HEER Office
Date of publication: 2012

Name of publication: State of Hawaii Annual Summary 2012 Air Quality Data
Author of publication: State of Hawaii, Department of Health, Clean Air Branch
Date of publication: September 2013

| | |
|---|---|
| Name of publication: | Information on Human Exposure to Radiofrequency Fields From Cellular and PCS Radio Transmitters |
| Author of publication: | Federal Communications Commission Office of Engineering & Technology |
| Date of publication: | January 1998 |
| | |
| Name of publication: | National Programmatic Agreement |
| Author of publication: | FCC |
| Date of publication: | September 2004 / March 7, 2005 |
| | |
| Name of publication: | National Wetlands Inventory |
| Author of publication: | http://www.fws.gov/wetlands |
| | |
| Name of publication: | Federal Emergency Management Agency (FEMA) |
| Author of publication: | http://www.msc.fema.gov |
| | |
| Name of publication: | National Wilderness Preservation System |
| Author of publication: | http://www.wilderness.net |
| | |
| Name of publication: | United States Fish and Wildlife Service |
| Author of publication: | http://www.fws.gov/refuges |
| | |
| Name of publication: | The State of Hawai`i, DLNR – SHPD, Hawaii and National Register of Historic Places |
| Author of publication: | http://hawaii.gov/dlnr/2013-shpd/ |
| | |
| Name of publication: | United States Census Bureau |
| Author of publication: | http://www.census.gov/ |
| | |
| Name of publication: | Chapter 205A, Hawaii Revised Statutes (HRS) |
| Author of publication: | State of Hawaii |
| Date of publication: | January 31, 2006 |

| | |
|---|---|
| Name of publication: | Chapter 226, HRS (Hawaii State Planning Act) |
| Author of publication: | State of Hawaii |
| Date of publication: | 2005 |

| | |
|---|---|
| Name of publication: | Chapter 343 HRS (Environmental Impact Statements) |
| Author of publication: | State of Hawaii |
| Date of publication: | 1993 |

| | |
|---|---|
| Name of publication: | Chapter 200, Hawaii Administrative Rules (HAR) |
| Author of publication: | State of Hawaii |
| Date of publication: | 1996 |

| | |
|---|---|
| Name of publication: | Chapter 11-46, HAR |
| Author of publication: | State of Hawaii, Department of Health |
| Date of publication: | 1996 |

# APPENDIX B

# COMMUNITY CONSULTATION CORRESPONDENCE

# SECTION 1

## Honolulu Star Advertiser Newspaper
## Public Notice

**AFFIDAVIT OF PUBLICATION**

**IN THE MATTER OF**
PUBLIC NOTICE TO NEWSPAPER
AND/OR RESIDENTS

**STATE OF HAWAII** }
} SS.
**City and County of Honolulu** }

**Doc. Date:** AUG - 2 2012 **# Pages:** 1
**Notary Name:** Patricia K. Reese First Judicial **Circuit**
**Doc. Description:** Affidavit of Publication

Patricia K. Reese AUG - 2 2012
Notary Signature Date

PATRICIA K. REESE NOTARY PUBLIC Comm. No. 86-467 STATE OF HAWAII

Rose Rosales being duly sworn, deposes and says that she is a clerk, duly authorized to execute this affidavit of Oahu Publications, Inc. publisher of The Honolulu Star-Advertiser and MidWeek, that said newspapers are newspapers of general circulation in the State of Hawaii, and that the attached notice is true notice as was published in the aforementioned newspapers as follows:

Honolulu Star-Advertiser 1 times on:
08/02/2012

Midweek Wed. 0 times on:

_____ times on:

And that affiant is not a party to or in any way interested in the above entitled matter.

Rose Rosales

Subscribed to and sworn before me this 2nd day
of August A.D. 2012

Patricia K. Reese, Notary Public of the First Judicial Circuit, State of Hawaii
My commission expires: Oct 07 2014

PATRICIA K. REESE NOTARY PUBLIC Comm. No. 86-467 STATE OF HAWAII

Ad # 0000439636

LN: _____

**PUBLIC NOTICE TO NEWSPAPER AND/OR RESIDENTS**

Pursuant to FCC rules under Section 106 of the National Historic Preservation Act (NHPA), Verizon Wireless (VZW) is providing notice of the following proposed wireless telecommunications facility: VZW is proposing to construct the HI3 Kona Airport Cell Site (VZW Project ID #2012769574), located at TMK No.: (3) 7-38-049: Parcel 038 (portion), Kailua-Kona, Hawaii 96740 (Lat/Long: 19° 43' 59.14" N 156° 01' 32.80" W). According to Verizon, the proposed action involves installing a 100-foot monopole with 12, 8-foot panel antennas mounted at the top, within an approximately 30-by 40-foot chain link fenced area. The maximum finished height will be at approximately 104 feet above ground level (agl). In addition, an emergency generator and equipment cabinets will be installed northwest and west adjacent to the monopole within the fenced area. Construction activities will have a minor impact to the ground surface. Interested parties who wish to submit comments and/or concerns regarding the potential for this project to impact historic structures and cultural resources may contact Lori Ford by mail at 970 N. Kalaheo Avenue, Suite C-316, Kailua, Oahu, Hawaii 96734 or by telephone at (808) 531-6708.
(SA439636 8/2/12)

# APPENDIX C

# CULTURAL IMPACTS, AGENCY AND ORGANIZATION CORRESPONDENCE

# SECTION 1

## FCC Form 620 Submittal

## AND

## E-106 Filing Confirmation

**FCC Form 620**

Notification Date: **7AM EST 09/10/2012**
File Number: **0005384176**

# FCC Wireless Telecommunications ureau
## New Tower ("NT") Submission Packet

Approved by OMB
3060 – 1039
See instructions for
public burden estimates

## eneral Information

| | |
|---|---|
| 1) (Select only one) **NE**<br>**NE** – New **A** – Update of Application **WD** – Withdrawal of Application | |
| 2) If this application is for an Update or Withdrawal, enter the file number of the pending application currently on file. | File Number: |

## Applicant Information

| |
|---|
| 3) FCC Registration Number (FRN): **0012845343** |
| 4) Name: **Verizon Wireless (VZW)** |

### Contact Name

| | | | |
|---|---|---|---|
| 5) First Name: **Patricia** | 6) MI: | 7) Last Name: **McHenry** | 8) Suffix: |
| 9) Title: | | | |

### Contact Information

| | | | | |
|---|---|---|---|---|
| 10) P.O. Box: | **And r** | 11) Street Address: **1000 Bishop Street, Suite 1200** | | |
| 12) City: **Honolulu** | | | 13) State: **HI** | 14) Zip Code: **96813** |
| 15) Telephone Number: **(808)521-9200** | | 16) Fax Number: | | |
| 17) E-mail Address: **pmchenry@cades.com** | | | | |

## Consultant Information

| |
|---|
| 18) FCC Registration Number (FRN): **0013673579** |
| 19) Name: **Bureau Veritas North America, Inc.** |

### Principal In estigator

| | | | |
|---|---|---|---|
| 20) First Name: **Lori** | 21) MI: | 22) Last Name: **Ford** | 23) Suffix: |
| 24) Title: | | | |

### Principal In estigator Contact Information

| | | | | |
|---|---|---|---|---|
| 25) P.O. Box: | **And r** | 26) Street Address: **970 North Kalaheo Avenue, Suite C-316** | | |
| 27) City: **Kailua** | | | 28) State: **HI** | 29) Zip Code: **96734** |
| 30) Telephone Number: **(808)531-6708** | | 31) Fax Number: | | |
| 32) E-mail Address: **lford@hawaii.rr.com** | | | | |

**Professional ualification**

| | |
|---|---|
| 33) Does the Principal Investigator satisfy the Secretary of the Interior's Professional Qualification Standards? | ( ) Yes ( X ) No |

34) Areas of Professional Qualification:

( ) Archaeologist

( ) Architectural Historian

( ) Historian

( ) Architect

( X ) Other (Specify) **Environmental**

**Additional Staff**

| | |
|---|---|
| 35) Are there other staff involved who meet the Professional Qualification Standards of the Secretary of the Interior? | ( X ) Yes ( ) No |

If "YES," complete the following:

| | | | |
|---|---|---|---|
| 36) First Name: **Thomas** | 37) MI: | 38) Last Name: **Dye** | 39) Suffix: |

40) Title: **Senior Archaeologist**

41) Areas of Professional Qualification:

( X ) Archaeologist

( ) Architectural Historian

( ) Historian

( ) Architect

( ) Other (Specify) _____

## Site Information

### To er Construction Notification System

1) TCNS Notification Number: **87276**

### Site Information

| | | |
|---|---|---|
| 2) Site Name: **HI3 Kona Airport** | | |
| 3) Site Address: **TMK (3) 7-3-049: Parcel 038** | | |
| 4) City: **Kailua-Kona** | 5) State: **HI** | 6) Zip Code: **96740** |
| 7) County/Borough/Parish: **HAWAII** | | |
| 8) Nearest Crossroads: **Queen Kaahumanu Highway and Keahole Airport Road** | | |
| 9) **NAD 3** Latitude (DD-MM-SS.S): **19-43-59.1** | ( **X** ) **N** or ( ) **S** | |
| 10) **NAD 3** Longitude (DD-MM-SS.S): **156-01-32.8** | ( ) **E** or ( **X** ) **W** | |

### To er Information

11) Tower height above ground level (include top-mounted attachments such as lightning rods): **31.7** ( ) Feet ( **X** ) Meters

12) Tower Type (Select One):

( ) Guyed lattice tower

( ) Self-supporting lattice

( **X** ) Monopole

( ) Other (Describe):

### Project Status

13) Current Project Status (Select One):

( **X** ) Construction has not yet commenced

( ) Construction has commenced, but is not completed — Construction commenced on: _____

( ) Construction has been completed — Construction commenced on: _____

Construction completed on: _____

**Determination of Effect**

14) Direct Effects (Select One):

( X ) No Historic Properties in Area of Potential Effects (APE)

( ) No Effect on Historic Properties in APE

( ) No Adverse Effect on Historic Properties in APE

( ) Adverse Effect on one or more Historic Properties in APE

15) Visual Effects (Select One):

( X ) No Historic Properties in Area of Potential Effects (APE)

( ) No Effect on Historic Properties in APE

( ) No Adverse Effect on Historic Properties in APE

( ) Adverse Effect on one or more Historic Properties in APE

## Tri al NH In ol ement

| | |
|---|---|
| 1) Have Indian Tribes or Native Hawaiian Organizations (NHOs) been identified that may attach religious and cultural significance to historic properties which may be affected by the undertaking within the APEs for direct and visual effects? | ( X ) Yes ( ) No |

2a) Tribes/NHOs contacted through TCNS Notification Number: 87276 Number of Tribes/NHOs: 1

2b) Tribes/NHOs contacted through an alternate system: Number of Tribes/NHOs: 0

### Tri e NH Contacted Through TCNS

3) Tribe/NHO FRN:

4) Tribe/NHO Name: **Office of Hawaiian Affairs**

### Contact Name

| | | | |
|---|---|---|---|
| 5) First Name: **Clyde** | 6) MI: **W** | 7) Last Name: **Namu'o** | 8) Suffix: |
| 9) Title: **Chief Executive Officer** | | | |

### Dates & Response

10) Date Contacted 07/26/2012 11) Date Replied _____

( X ) No Reply

( ) Replied/No Interest

( ) Replied/Have Interest

( ) Replied/Other

## ther Tri es NH s Contacted

### Tri e NH Information

| |
|---|
| 1) FCC Registration Number (FRN): |
| 2) Name: |

### Contact Name

| | | | |
|---|---|---|---|
| 3) First Name: | 4) MI: | 5) Last Name: | 6) Suffix: |
| 7) Title: | | | |

### Contact Information

| | | | | |
|---|---|---|---|---|
| 8) P.O. Box: | **And r** | 9) Street Address: | | |
| 10) City: | | | 11) State: | 12) Zip Code: |
| 13) Telephone Number: | | 14) Fax Number: | | |
| 15) E-mail Address: | | | | |
| 16) Preferred means of communication:<br>( ) E-mail<br>( ) Letter<br>( ) Both | | | | |

### Dates & Response

17) Date Contacted _____ 18) Date Replied _____

( ) No Reply

( ) Replied/No Interest

( ) Replied/Have Interest

( ) Replied/Other

## Historic Properties

### Properties Identified

| | |
|---|---|
| 1) Have any historic properties been identified within the APEs for direct and visual effect? | (  ) _es ( X ) **N**o |
| 2) Has the identification process located archaeological materials that would be directly affected, or sites that are of cultural or religious significance to Tribes/NHOs? | (  ) _es ( X ) **N**o |
| 3) Are there more than 10 historic properties within the APEs for direct and visual effect?<br>If "Yes", you are required to attach a Cultural Resources Report in lieu of adding the Historic Property below. | (  ) _es ( X ) **N**o |

### Historic Property

| |
|---|
| 4) Property Name: |
| 5) SHPO Site Number: |

### Property Address

| | | |
|---|---|---|
| 6) Street Address: | | |
| 7) City: | 8) State: | 9) Zip Code: |
| 10) County/Borough/Parish: | | |

### Status & Eligi ility

| | |
|---|---|
| 11) Is this property listed on the National Register?<br><br>Source: _____ | (  ) _es (  ) **N**o |
| 12) Is this property eligible for listing on the National Register?<br><br>Source: _____ | (  ) _es (  ) **N**o |
| 13) Is this property a National Historic Landmark? | (  ) _es (  ) **N**o |

14) Direct Effects (Select One):

(  ) No Effect on this Historic Property in APE

(  ) No Adverse Effect on this Historic Property in APE

(  ) Adverse Effect on this Historic Property in APE

15) Visual Effects (Select One):

(  ) No Effect on this Historic Property in APE

(  ) No Adverse Effect on this Historic Property in APE

(  ) Adverse Effect on this Historic Property in APE

## ocal o ernment In ol ement

### ocal o ernment Agency

| |
|---|
| 1) FCC Registration Number (FRN): |
| 2) Name: **County of Hawaii, Department of Planning and Permitting (DPP)** |

### Contact Name

| | | | |
|---|---|---|---|
| 3) First Name: **BJ** | 4) MI: | 5) Last Name: **Leithead-Todd** | 6) Suffix: |
| 7) Title: **Director** | | | |

### Contact Information

| | | | |
|---|---|---|---|
| 8) P.O. Box: | **And r** | 9) Street Address: **101 Pauahi Street, Suite 3** | |
| 10) City: **Hilo** | | 11) State: **HI** | 12) Zip Code: **96720** |
| 13) Telephone Number: **(808)961-8288** | | 14) Fax Number: | |
| 15) E-mail Address: | | | |

16) Preferred means of communication:

( ) E-mail

( **X** ) Letter

( ) Both

### Dates & Response

17) Date Contacted **07/24/2012** 18) Date Replied _____

( **X** ) No Reply

( ) Replied/No Interest

( ) Replied/Have Interest

( ) Replied/Other

### Additional Information

19) Information on local government's role or interest (optional):

## ther Consulting Parties

### ther Consulting Parties Contacted

| | |
|---|---|
| 1) Has any other agency been contacted and invited to become a consulting party? | (  ) _es ( X ) No |

### Consulting Party

| |
|---|
| 2) FCC Registration Number (FRN): |
| 3) Name: |

### Contact Name

| | | | |
|---|---|---|---|
| 4) First Name: | 5) MI: | 6) Last Name: | 7) Suffix: |
| 8) Title: | | | |

### Contact Information

| | | | | |
|---|---|---|---|---|
| 9) P.O. Box: | And r | 10) Street Address: | | |
| 11) City: | | | 12) State: | 13) Zip Code: |
| 14) Telephone Number: | | 15) Fax Number: | | |
| 16) E-mail Address: | | | | |
| 17) Preferred means of communication:<br>(  ) E-mail<br>(  ) Letter<br>(  ) Both | | | | |

### Dates & Response

18) Date Contacted _____ 19) Date Replied _____

(  ) No Reply

(  ) Replied/No Interest

(  ) Replied/Have Interest

(  ) Replied/Other

### Additional Information

20) Information on other consulting parties' role or interest (optional):

## Designation of SHP THP

1) Designate the Lead State Historic Preservation Officer (SHPO) or Tribal Historic Preservation Officer (THPO) based on the location of the tower.

**SHP THP**

Name: **State Historic Preservation Office**

2) You may also designate up to three additional SHPOs/THPOs if the APEs include multiple states. If the APEs include other countries, enter the name of the National Historic Preservation Agency and any state and provincial Historic Preservation Agency.

SHPO/THPO Name: _____

SHPO/THPO Name: _____

SHPO/THPO Name: _____

## Certification

I certify that all representations on this FCC Form 620 Submission Packet and the accompanying attachments are true, correct, and complete.

**Party Authori ed to Sign**

| First Name: **Lori** | MI: | Last Name: **Ford** | Suffix: |
|---|---|---|---|

| Signature: **Lori Ford** | Date: **09/07/2012** |
|---|---|

**FAI RE T SI N THIS APP ICATI N MA RES T IN DISMISSA F THE APP ICATI N AND F RFEIT RE F AN FEES PAID.**

**WI F FA SE STATEMENTS MADE N THIS F RM R AN ATTACHMENTS ARE P NISHA E FINE AND R IMPRIS NMENT .S. Code, Title 1 , Section 1 1 AND R REV CATI N F AN STATI N ICENSE R C NSTR CTI N PERMIT .S. Code, Title 4 , Section 312 a 1 , AND R F RFEIT RE .S. Code, Title 4 , Section 5 3 .**

## Attachments :

| Type | Description | Date Entered |
|---|---|---|
| Resumes/Vitae | Resume for Thomas Dye | 09/07/2012 |
| Maps | Figure 1 | 09/07/2012 |
| Maps | Figure 2 | 09/07/2012 |
| Photographs | Site Photos | 09/07/2012 |
| Public Involvement | Newspaper Announcement | 09/07/2012 |
| Local Government Involvement | Notice Sent to DPP | 09/07/2012 |
| Tribal/NHO Involvement | Notice Sent to OHA | 09/07/2012 |
| Area of Potential Effects | Historic Properties Assessment Report | 09/07/2012 |

# Statement of Qualifications

*T. S. Dye & Colleagues, Archaeologists, Inc.* researches the history of Hawai'i and other Pacific Islands. We provide a wide range of high quality historic preservation services to non-profit community organizations, government agencies, private landowners, and others.

The principals of *T. S. Dye & Colleagues, Archaeologists, Inc.* each have more than 30 years archaeological experience in the islands of Polynesia and Micronesia. We grew up in Hawai'i and are active in the local community, primarily through our work on the boards of non-profit and professional organizations. Trained at Yale University and the University of Hawai'i, and with backgrounds in archaeological consulting, museology, government, and academia, we provide unparalleled service to our clients.

*T. S. Dye & Colleagues, Archaeologists, Inc.* has special expertise in geographic information systems, global positioning systems, radiocarbon dating, statistical analysis, and report production on paper, digital media, and the internet. We are productive team players, whose skills and capabilities integrate easily with community members, engineers, land surveyors, land managers, and other archaeologists and historians to achieve project goals.

*T. S. Dye & Colleagues, Archaeologists, Inc.* has extensive training and experience in historic preservation review at both the state and federal levels. We have worked as government regulators in the State Historic Preservation Office, in the anthropology department of B.P. Bishop Museum, as archaeological consultants to a wide variety of clients, and have taught graduate and undergraduate courses in archaeology and historic preservation at UH Mānoa and Hawaii Pacific University. We rely upon our long-term working relationships throughout the historic preservation community in Hawai'i, the rest of Polynesia, and Micronesia to achieve our clients' historic preservation goals.

*T. S. Dye & Colleagues, Archaeologists, Inc.* is a Hawai'i corporation established in 2001. We maintain a business office conveniently located in the historic Dillingham Transportation Building on Bishop Street in the heart of Honolulu's business district. Validated parking with complimentary valet service is available at the Alakea Street entrance to Pacific Guardian Center (formerly Grosvenor Center) between Queen Street and North Nimitz Highway.

# Résumé

## Personal Information

Thomas Stuart Dye
735 Bishop Street, Suite 315
Honolulu, Hawai'i 96813

Tel. (808) 387–9352
Fax (808) 529–0884
E-mail tsd@tsdye.com

Born 8/16/52, Watervliet, Michigan

## Education

| | |
|---|---|
| 1987 | Ph.D., Anthropology, Yale University |
| 1983 | M.Phil., Anthropology, Yale University |
| 1980 | B.A., Anthropology, University of Hawai'i at Mānoa |

## Archaeological Positions Held

| | |
|---|---|
| 2001–present | President, T. S. Dye & Colleagues, Archaeologists, Inc. |
| 2004 | Guest Lecturer on Bayesian Statistics for Archaeologists, University of Arizona |
| 1997–2001 | Associate Archaeologist, Projects Manager, International Archaeological Research Institute, Inc. |
| 1997 | Instructor, Historic Preservation Seminar, University of Hawai'i at Mānoa |
| 1991–1997 | O'ahu Island Archaeologist, Department of Land and Natural Resources, State of Hawaii |
| 1987–1991 | Associate Professor of Anthropology, Hawai'i Pacific University, Honolulu |
| 1987 | Research Associate, B.P. Bishop Museum, Honolulu |
| 1984–1985 | Associate Anthropologist, B.P. Bishop Museum |
| 1977–1978 | Staff Contract Archaeologist, B.P. Bishop Museum |

## Professional Memberships

Hawaiian Historical Society, Past President
Society for Hawaiian Archaeology, Past President
Sigma Xi
Society for American Archaeology
Register of Professional Archaeologists

## Research Interests

| | |
|---|---|
| $^{14}C$ dating | Primary interests are identification of suitable dating materials, full specification of dated archaeological contexts, and Bayesian calibration. Recent focus on the ages of sites on the Waimānalo plain near the Bellows Dune site has shown that most of the plain was used late in traditional Hawaiian times, casting doubt on the hypothesis that the Bellows Dune site is a particularly old site. |
| Fish remains | Primary interests are fish remains identification, statistical analysis of collections, and interpretation of patterns across space and through time. Published a manual of fish remains identification with Ken Longenecker. Established collection size/diversity relationship for leeward Hawai'i Island. Developed a method to estimate the distribution of fish sizes from measurements of vertebrae centrum diameters. Discovered with Ken Longenecker that bonefish were a major component of the traditional Hawaiian fishing catch at Waimānalo. |
| Statistics | Primary interests are exploratory multivariate data analysis and its application to archaeological collections and statistical shape analysis. Developed graphical software for star plots distributed with the R Project for Statistical Computing and used this software package to invent a graphical display of large collections over the space of an excavation, which was applied to excavations at site 50–80–15–4856 on the Waimānalo plain. Developed a set of landmarks for shape analysis of fishhooks and am investigating shape changes over time for a large collection from Hawai'i Island. |
| Social change | Developing the necessary theory to evaluate and refine a hypothesis proposed by Rob Hommon concerning changes in rights of person of traditional Hawaiian commoners. |

## Publications


[1] *An Archaeological Assessment of a Coastal Lot, TMK:(4)5–9–05:029, at Hā'ena, Halele'a, Kaua'i.* Prepared for Landmark Consulting Services Inc. T. S. Dye & Colleagues, Archaeologists, Inc., Honolulu, July 2005.

[2] *A Burial Treatment Plan for the Coastal Portion of Kaiholena Ahupua'a, North Kohala, Island of Hawai'i.* Prepared for Pohaku Kea, LLC. T. S. Dye & Colleagues, Archaeologists, Inc., Honolulu, January 2005.

[3] *Archaeological Monitoring Report for Architectural Barrier Removal Work at Ali'iolani Hale in Downtown Honolulu, Hawai'i (TMK:2–1–25–003.* Prepared for Oceanic Companies, Inc. T. S. Dye & Colleagues, Archaeologists, Inc., Honolulu, March 2004. With Jeffrey L. Putzi.

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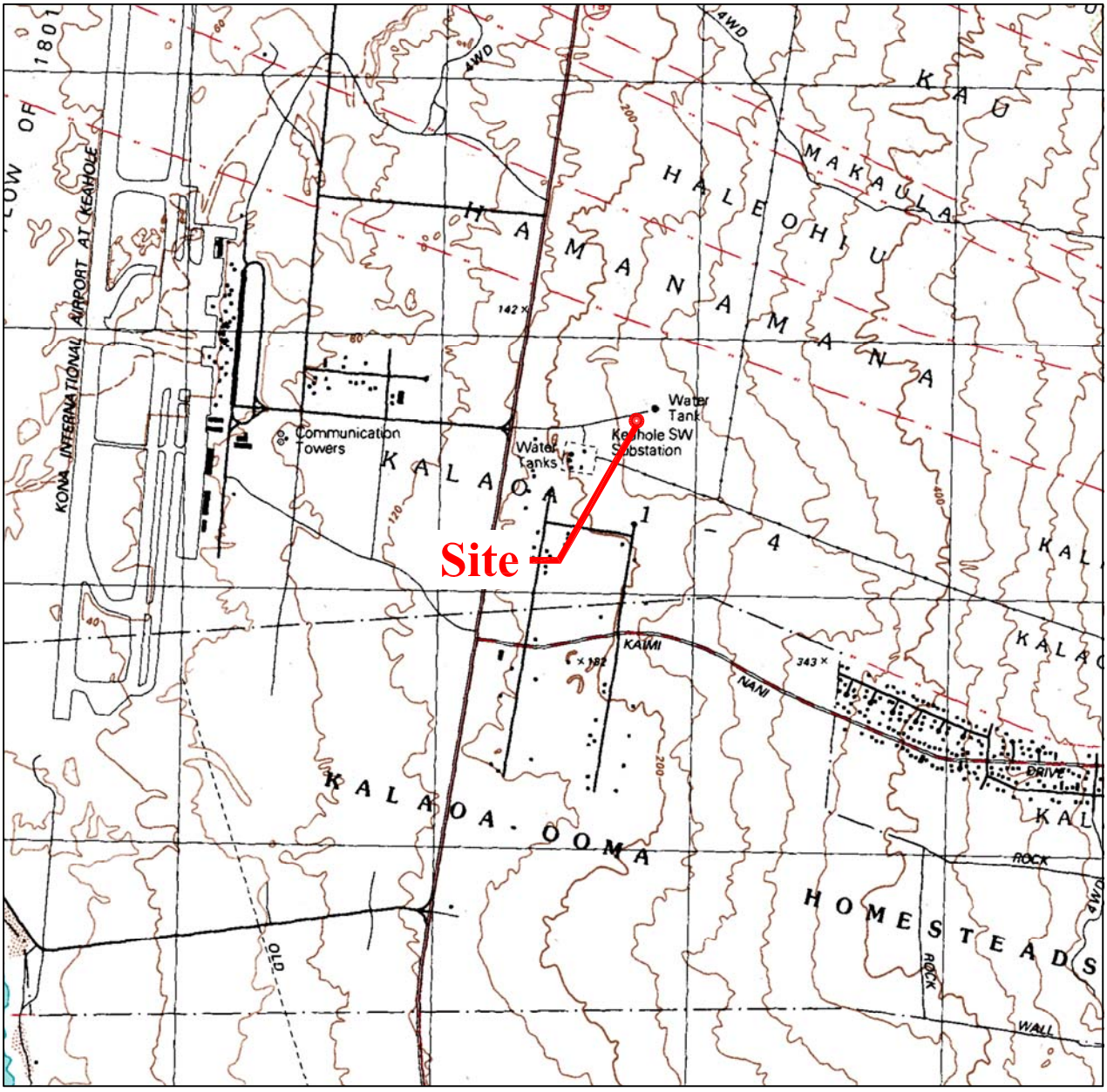


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Keahole Point Quadrangle, Hawaii County, Hawaii
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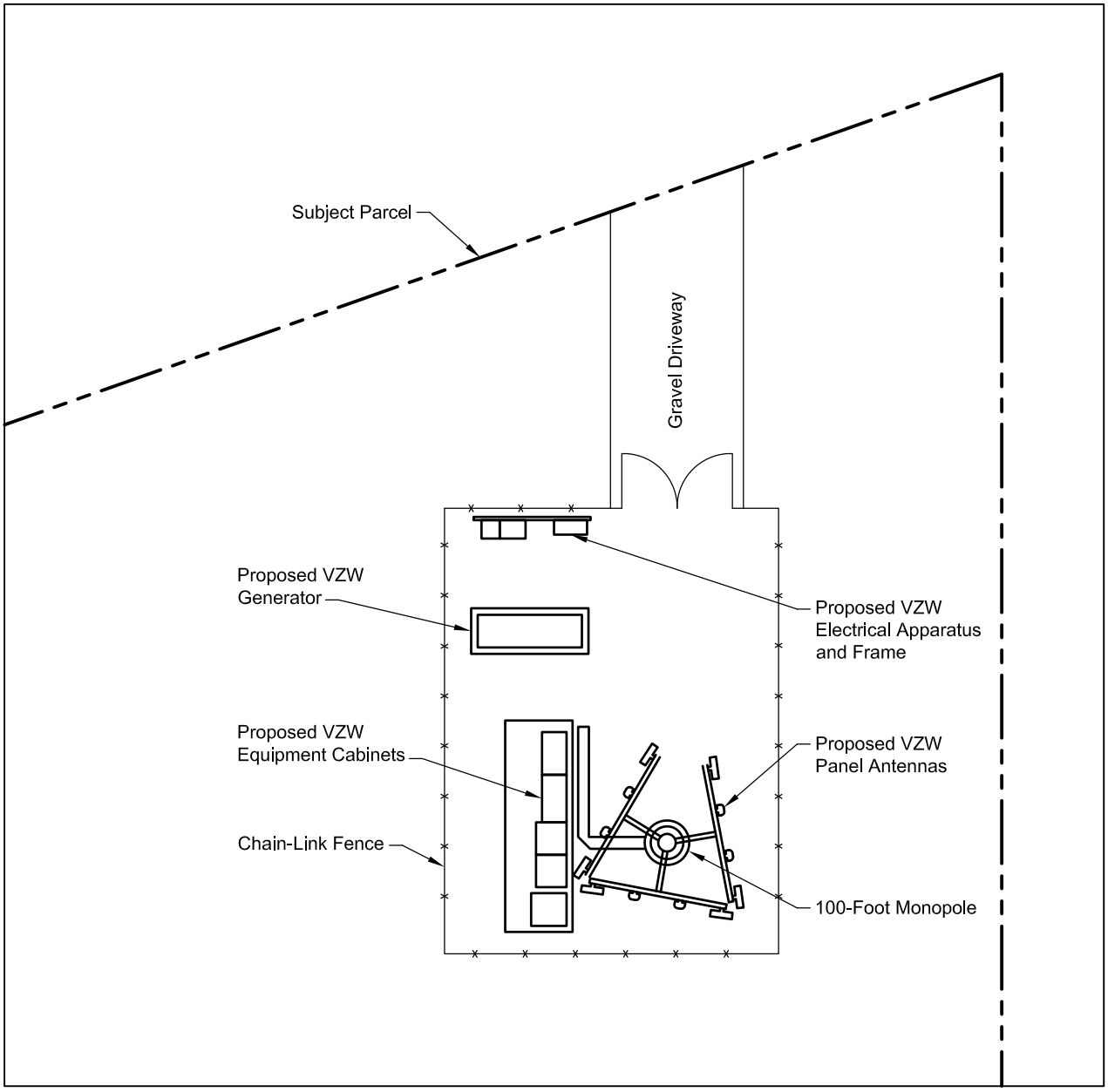
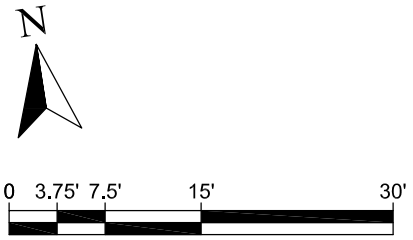
| BUREAU VERITAS | Project No.: 17012-012119.00 | Title: Site Location Map | FIGURE 1 |
| | Date: 07/12/12 | Location: VZW HI3 Kona Airport Cell Site (TMK: [3] 7-3-049: Parcel 038) Kailua-Kona, Hawaii | |
| | Revised By: DG | | |
| | Checked By: LF | Client: Verizon Wireless (VZW) c/o Cades Schutte, LLP | |

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| BUREAU VERITAS | Project No.: 17012-012119.00 | Title: Site Vicinity Map | FIGURE 2 |
| | Date: 07/12/12 | Location: VZW HI3 Kona Airport Cell Site (TMK: [3] 7-3-049: Parcel 038) Kailua-Kona, Hawaii | |
| | Revised By: DG | | |
| | Checked By: LF | Client: Verizon Wireless (VZW) c/o Cades Schutte, LLP | |

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| **Project No.** 1 12 1211 . | **Description** | View of the subject property, looking southeast | **VZW Photo 1** |
| | **Site Name** | Proposed HI3 Kona Airport Cell Site (VZW ID #2012769574), Portion of TMK: [3] 7-3-049: Parcel 038, Kailua-Kona, Hawaii | **Photo Date** |
| | **Client** | Cades Schutte, LLP / Verizon Wireless (VZW) | May 8, 2012 |

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| **Project No.** 1 12 1211 . | **Description** | View looking north of the subject property | **VZW Photo 2** |
| | **Site Name** | Proposed HI3 Kona Airport Cell Site (VZW ID #2012769574), Portion of TMK: [3] 7-3-049: Parcel 038, Kailua-Kona, Hawaii | **Photo Date** |
| | **Client** | Cades Schutte, LLP / Verizon Wireless (VZW) | May 8, 2012 |

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| **Project No.** 1 12 1211 . | **Description** | View of a water tank located east-northeast of the subject property | **VZW Photo 3** |
| | **Site Name** | Proposed HI3 Kona Airport Cell Site (VZW ID #2012769574), Portion of TMK: [3] 7-3-049: Parcel 038, Kailua-Kona, Hawaii | **Photo Date** |
| | **Client** | Cades Schutte, LLP / Verizon Wireless (VZW) | May 8, 2012 |

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| **Project No.** 1 12 1211 . | **Description** | View of the four, 100-foot AM Radio Station towers located southwest of the subject property | **VZW Photo 4** |
| | **Site Name** | Proposed HI3 Kona Airport Cell Site (VZW ID #2012769574), Portion of TMK: [3] 7-3-049: Parcel 038, Kailua-Kona, Hawaii | **Photo Date** |
| | **Client** | Cades Schutte, LLP / Verizon Wireless (VZW) | May 8, 2012 |

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| **Project No.** | **Description** | View looking west of the subject property (Note: Asphalt road leading to the subject property) | **VZW Photo 5** |
| **1 12 1211 .** | **Site Name** | Proposed HI3 Kona Airport Cell Site (VZW ID #2012769574), Portion of TMK: [3] 7-3-049: Parcel 038, Kailua-Kona, Hawaii | **Photo Date** |
| | **Client** | Cades Schutte, LLP / Verizon Wireless (VZW) | May 8, 2012 |

**AFFIDAVIT OF PUBLICATION**

**IN THE MATTER OF**
PUBLIC NOTICE TO NEWSPAPER
AND/OR RESIDENTS

**STATE OF HAWAII** }
} SS.
**City and County of Honolulu** }

**Doc. Date:** AUG - 2 2012 **# Pages:** 1
**Notary Name:** Patricia K. Reese First Judicial **Circuit**
**Doc. Description:** Affidavit of Publication

Patricia K. Reese AUG - 2 2012
Notary Signature Date

PATRICIA K. REESE NOTARY PUBLIC Comm. No. 86-467 STATE OF HAWAII

Rose Rosales being duly sworn, deposes and says that she is a clerk, duly authorized to execute this affidavit of Oahu Publications, Inc. publisher of The Honolulu Star-Advertiser and MidWeek, that said newspapers are newspapers of general circulation in the State of Hawaii, and that the attached notice is true notice as was published in the aforementioned newspapers as follows:

Honolulu Star-Advertiser 1 times on:
08/02/2012

Midweek Wed. 0 times on:

_____ times on:

And that affiant is not a party to or in any way interested in the above entitled matter.

Rose Rosales

Subscribed to and sworn before me this 2nd day
of August A.D. 2012

Patricia K. Reese, Notary Public of the First Judicial Circuit, State of Hawaii
My commission expires: Oct 07 2014

PATRICIA K. REESE NOTARY PUBLIC Comm. No. 86-467 STATE OF HAWAII

Ad # 0000439636

LN: _____

**PUBLIC NOTICE TO NEWSPAPER AND/OR RESIDENTS**

Pursuant to FCC rules under Section 106 of the National Historic Preservation Act (NHPA), Verizon Wireless (VZW) is providing notice of the following proposed wireless telecommunications facility: VZW is proposing to construct the HI3 Kona Airport Cell Site (VZW Project ID #2012769574), located at TMK No.: (3) 7-38-049: Parcel 038 (portion), Kailua-Kona, Hawaii 96740 (Lat/Long: 19° 43' 59.14" N 156° 01' 32.80" W). According to Verizon, the proposed action involves installing a 100-foot monopole with 12, 8-foot panel antennas mounted at the top, within an approximately 30-by 40-foot chain link fenced area. The maximum finished height will be at approximately 104 feet above ground level (agl). In addition, an emergency generator and equipment cabinets will be installed northwest and west adjacent to the monopole within the fenced area. Construction activities will have a minor impact to the ground surface. Interested parties who wish to submit comments and/or concerns regarding the potential for this project to impact historic structures and cultural resources may contact Lori Ford by mail at 970 N. Kalaheo Avenue, Suite C-316, Kailua, Oahu, Hawaii 96734 or by telephone at (808) 531-6708.
(SA439636 8/2/12)

July 24, 2012

Ms. BJ Leithead-Todd, Director
County of Hawaii
Department of Planning and Permitting
Aupuni Center, 101 Pauahi Street, Suite 3
Hilo, Hawaii 96720

Project No. 17012-012119.00

Subject: Notice to Local Zoning Board for the Proposed Verizon Wireless (VZW) HI3 Kona Airport Cell Site (VZW Project ID # 2012769574), Located at Tax Map Key (TMK) Number: (3) 7-3-049: Parcel 038 (Portion), Kailua-Kona, Hawaii 96740

Dear Ms. Leithead-Todd:

Bureau Veritas North America, Inc. (Bureau Veritas) has been retained by Cellco Partnership and its affiliates doing business as Verizon Wireless (Verizon Wireless [VZW]) to conduct a site evaluation for the Federal Communications Commission (FCC) of the above-referenced proposed cellular wireless telecommunications project.

Pursuant to FCC rules regarding review under Section 106 of the National Historic Preservation Act (NHPA), we are contacting you for information with regards to any potential impacts to historic properties, religious, or cultural resources that the proposed wireless telecommunications facility may have at the site.

Per FCC requirements, Bureau Veritas is also contacting other applicable agencies and native Hawaiian organizations and will be posting a Legal Notice in the local newspaper as a public notification effort. A formal submission and application for zoning approval of the proposed project is being handled by other professionals under separate project tasks.

**Project Description**

The subject parcel, currently owned by the State of Hawaii and the Big Island Broadcasting Co. Ltd., encompasses a roughly trapezoidal-shaped, approximately 174,240 square feet (4 acres) of land.

The subject parcel is further described as the parcel of land as TMK Number: (3) 7-3-049: Parcel 038. According to the County of Hawaii Planning and Zoning Department, the subject parcel is zoned ñOpenò and the State Land Use designation is ñConservation.ò

The subject property, identified as the VZW HI3 Kona Airport Cell Site (VZW ID #2012769574), is located near the northwest corner of the subject parcel. Four radio towers are located south-southwest of the subject property. (Approximate Lat/Long: N 19° 43' 59.14", W 156° 01ô32.8" [NAD83]).

According to VZW, the proposed action involves installing a 100-foot monopole with 12, 8-foot panel antennas mounted at the top, within an approximately 30-by 40-foot chain link fenced area. The maximum finished height will be at approximately 104 feet above ground level (agl). In addition, an

Bureau Veritas North America, Inc.

Main: (808) 531-6708

970 N. Kalaheo Avenue, Suite C-316

Fax: (808) 537-4084

Kailua, Oahu, HI 96734

www.us.bureauveritas.com

emergency generator and equipment cabinets will be installed northwest and west adjacent to the monopole within the fenced area.

Construction activities will have a minor impact to the ground surface. Figures showing the location and design of the proposed cell site, as well as recent photographs of the site, are included as attachments.

**Information Request**

As noted, we are requesting information on any native Hawaiian cultural, religious, and/or burial sites; historic places, artifacts, and/or other related concerns at the proposed project site; and whether or not any of these issues will be impacted by the proposed wireless telecommunications project.

Per FCC NEPA/NHPA 106 review process guidelines, please provide *written* documentation of your findings within 30 days, either to the address shown on the first page, via fax at 808.537.4084, or by email at lford@hawaii.rr.com.

If you have any questions or concerns, please feel free to contact me at 808.531.6708. We greatly appreciate your time and assistance in this matter. Mahalo!

Regards,

Lori Ford
Senior Project Manager
Bureau Veritas North America, Inc.

/llf

Attachments:
1) VZW HI3 Kona Airport Cell Site Figures
2) VZW HI3 Kona Airport Cell Site Photographs

September 7, 2012

Mr. Kamanaôopono M. Crabbe, Ph.D., Chief Executive Officer
Office of Hawaiian Affairs (OHA)
711 Kapiôolani Boulevard, Suite 500
Honolulu, Oahu, Hawaii 96813

Project No. 17012-012119.00

Subject: Historic Sites and Impact Determination Request for the Proposed Verizon Wireless (VZW) HI3 Kona Airport Cell Site (VZW Project ID #2012769574), Located at Tax Map Key (TMK) Number: (3) 7-3-049: Parcel 038), Kailua-Kona, Hawaii 96740

Dear Mr. Crabbe:

Bureau Veritas North America, Inc. (Bureau Veritas) has been retained by Cellco Partnership and its controlled affiliates doing business as Verizon Wireless (Verizon Wireless) to conduct a site evaluation for the Federal Communications Commission (FCC) of the above-reference proposed cellular wireless telecommunications project.

Pursuant to FCC rules regarding review under Section 106 of the National Environmental Policy Act (NEPA) and National Historic Preservation Act (NHPA), we are contacting you for information with regards to any potential impacts to historic properties, religious, or cultural resources that the proposed wireless telecommunications facility may have at the site. Per 36 CFR Part 800.4 (b)(1), ñ*reasonable and good faith effort to carry out appropriate identification efforts*ò have been made. Based on the scope of the undertaking, the location of historic properties (if any), and the extent of potential effects on historic properties (if any) direct the level of effort to identify historic properties. This may, but is not required to include all of the following: background research, consultation, oral history interviews, sample field investigation, and field survey. A report prepared by T.S. Dye & Colleagues, Archaeologists, Inc., meets the requirements of FCC, and is included as an attachment.

Per FCC requirements and guidelines, Bureau Veritas is also contacting other applicable agencies, and will be running a Legal Notice in the local newspaper as a public notification effort regarding the proposed project.

**Project Description**

The subject parcel, currently owned by the State of Hawaii and the Big Island Broadcasting Co. Ltd., encompasses a roughly trapezoidal-shaped, approximately 174,240 square feet (4 acres) of land.

The subject parcel is further described as the parcel of land as TMK Number: (3) 7-3-049: Parcel 038. According to the County of Hawaii Planning and Zoning Department, the subject parcel is zoned ñOpenò and the State Land Use designation is ñConservation.ò

The subject property, identified as the VZW HI3 Kona Airport Cell Site (VZW ID #2012769574), is located near the northwest corner of the subject parcel. Four radio towers are located south-southwest of the subject property. (Approximate Lat/Long: N 19° 43' 59.4", W 156° 01ô32.8" [NAD83]).

Bureau Veritas North America, Inc.

970 N. Kalaheo Avenue, Suite C-316

Kailua, Oahu, HI 96734

Main: (808) 531-6708

Fax: (808) 537-4084

www.us.bureauveritas.com

According to VZW, the proposed action involves installing a 100-foot monopole with 12, 8-foot panel antennas mounted at the top, within an approximately 30-by 40-foot chain link fenced area. The maximum finished height will be at approximately 104 feet above ground level (agl). In addition, an emergency generator and equipment cabinets will be installed northeast and east adjacent to the monopole within the fenced area.

Construction activities will have a minor impact to the ground surface. Figures showing the location and design of the proposed cell site, as well as recent photographs of the site, are included as attachments.

**Information Request**

As noted, we are requesting information on any native Hawaiian cultural, religious, and/or burial sites; historic places, artifacts, and/or other related concerns at the proposed project site; and whether or not any of these issues will be impacted by the proposed wireless telecommunications project.

Per FCC NEPA/NHPA 106 review process guidelines, please provide *written* documentation of your findings within 30 days, either to the address shown on the first page, via fax at 808.537.4084, or by email at lford@hawaii.rr.com.

If you have any questions or concern, please feel free to contact me at 808.531.6708. We greatly appreciate your time and assistance in this matter. Mahalo nui loa!

Regards,

Lori Ford
Senior Project Manager
Bureau Veritas North America, Inc.

/llf

Attachments:
1) VZW HI3 Kona Airport Cell Site Figures
2) VZW HI3 Kona Airport Cell Site Photographs
3) T.S. Dye & Colleagues, Archaeologists, Inc. Historic Properties Assessment Report for Proposed VZW HI3 Kona Airport Cell Site

*T. S. Dye & Colleagues, Archaeologists, Inc.*
*735 Bishop St., Suite 315, Honolulu, Hawai'i 96813*

# Historic Properties Assessment for the Proposed VZW HI3 Kona Airport Cell Site*

**Kalaoa Ahupua'a, North Kona District, Hawai'i Island, TMK: (3) 7–3–049:038**

Krickette Murabayashi  Elaine H. R. Jourdane
Thomas S. Dye, PhD

August 29, 2012

**Applicant:** Bureau Veritas North America.
**Applicant's Consultant:** T. S. Dye & Colleagues, Archaeologists, Inc.
**Location:** Kalaoa Ahupua'a, North Kona District, Hawai'i Island.
**Tax Map Key:** TMK: (3) 7–3–049:038.
**Request:** Proposed VZW HI3 Kona Airport cell site.
**Direct Effect:** No historic properties in APE for direct effect.
**Visual Effect:** No historic properties in APE for visual effect.

## 1 Introduction

At the request of Bureau Veritas North America, T. S. Dye & Colleagues, Archaeologists conducted an historic properties assessment of a parcel for the proposed VZW HI3 Kona Airport cell site. The primary focus of the *project* was on the discovery and appropriate treatment of historic properties within the area of potential effect (APE). The goals of the investigation were to determine whether the installation of a telecommunications facility, including an antenna monopole, will have direct or visual effects on historic properties.

### 1.1 Project Area

Verizon Wireless proposes to install a new 100 ft. monopole with twelve 8 ft. panel antennas on a parcel located at Kailua-Kona, *mauka* of Kona International Airport in Kalaoa, Hawai'i. The 30 × 40 ft., 1,200 ft.$^2$ lease parcel is located in the northeast corner of a 4 ac. parcel owned by the State of Hawai'i and Big Island Broadcasting Co. Ltd. and identified as TMK: (3) 7–3–049:038 (figs. 1, 2).

*Prepared for Bureau Veritas North America, 970 North Kalāheo Avenue, Suite C-316, Kailua, HI 96734.

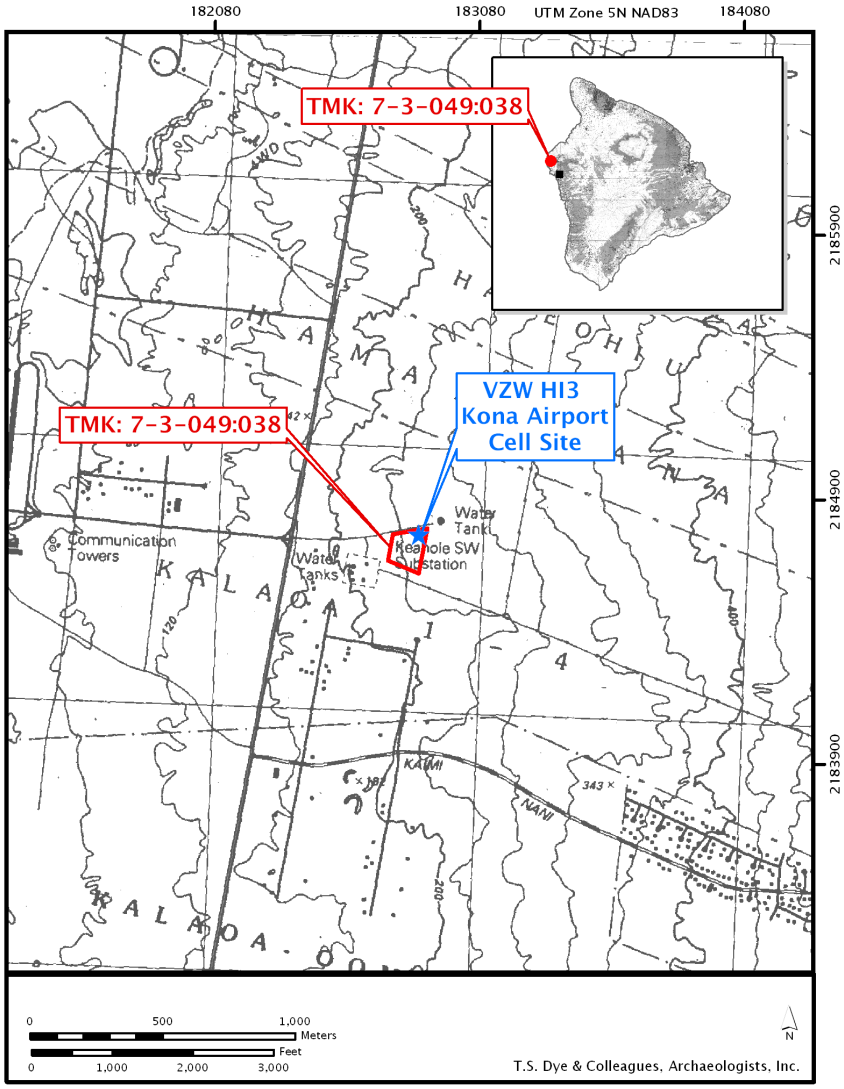


**Figure 1:** Proposed VZW HI3 Kona Airport cell site on a portion of the 1996 USGS Keahole Point Quadrangle.

The prefabricated equipment cabinets with associated equipment and emergency generator will be installed on concrete slabs. The maximum finished height of the antenna pole will be approximately 104 ft. above ground. The entire facility will be enclosed with a 6 ft. high chain-link fence. Ground disturbance is expected for the installation of the antenna pole, equipment cabinet and emergency generator foundations, utility conduits, and fence posts (fig. 3).

According to the FCC Nationwide Programmatic Agreement, the APE for direct effects on historic properties includes the area of potential ground disturbance during the

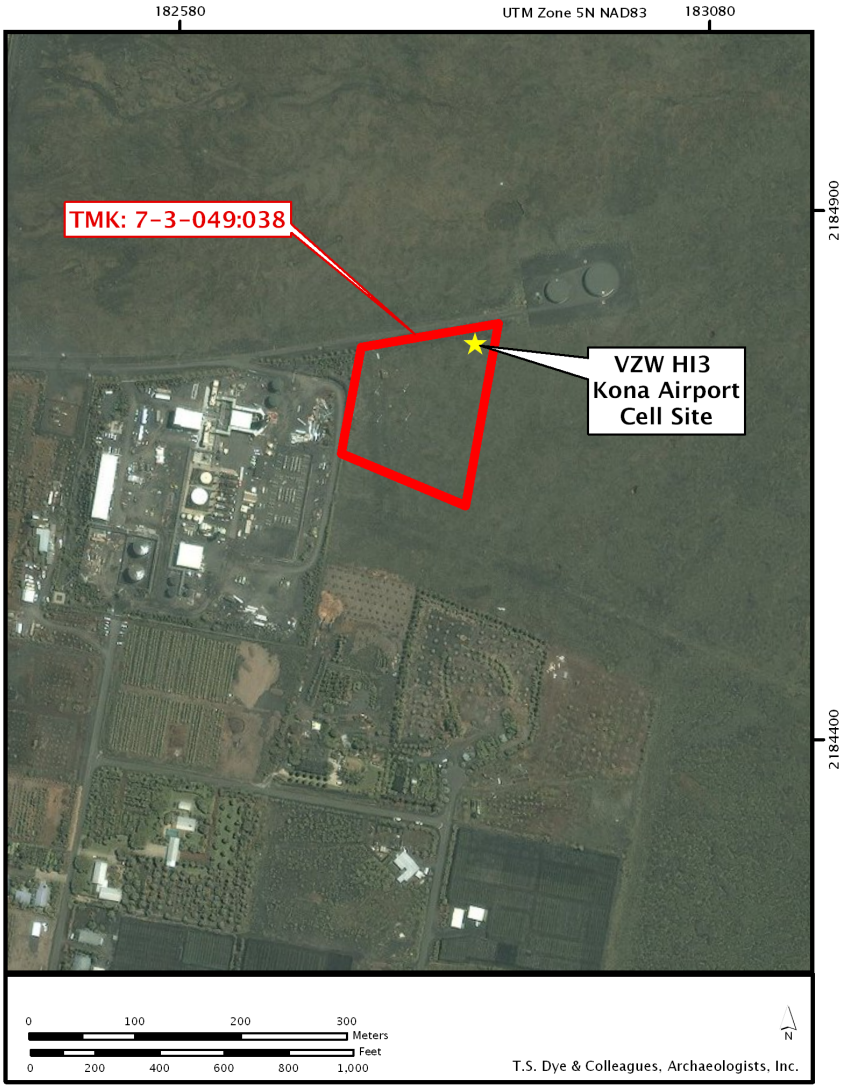


**Figure 2:** Proposed VZW HI3 Kona Airport cell site location. Image adapted from ESRI World Imagery.

installation of the antenna pole, equipment cabinet and emergency generator foundations, utility conduits, and fence posts. The APE for visual effects on historic properties for a tower 200 ft. or less is the area within ca. 0.5 mi. of the tower.

## 1.2 Background Research

This historic properties assessment includes the review of historic documents, maps, and archaeological reports on file at the State Historic Preservation Division library, the Hawaii

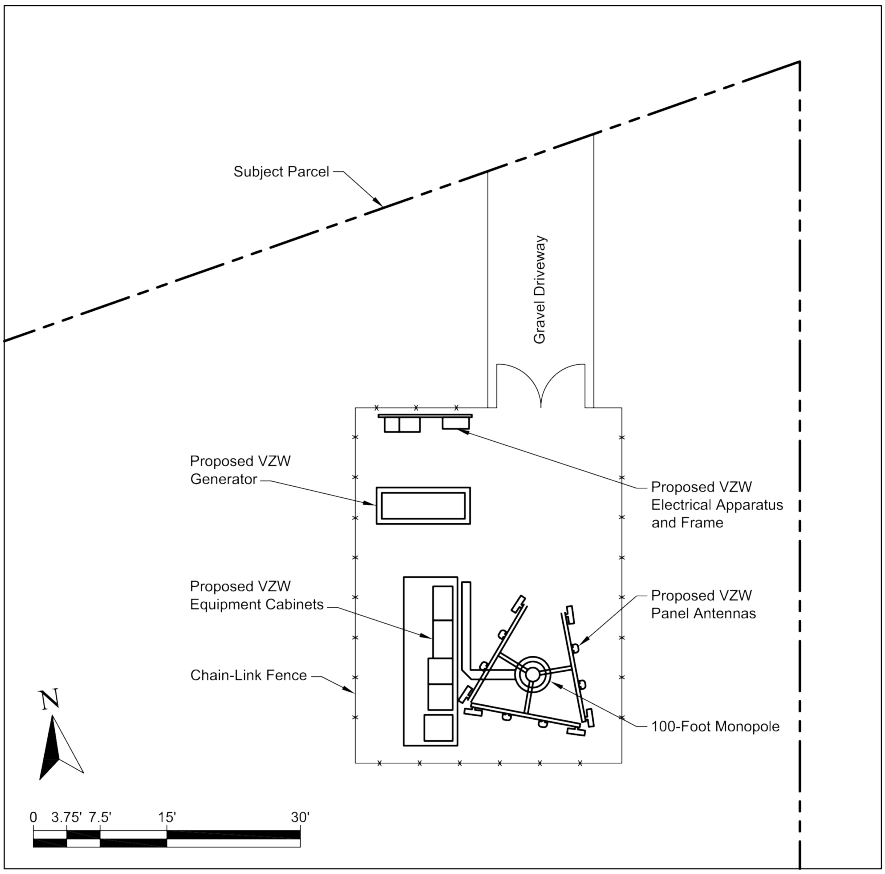


**Figure 3:** Proposed VZW HI3 Kona Airport cell site plan, adapted from a plan provided courtesy of Bureau Veritas North America.

State Library, and the State Bureau of Conveyances. No field inspection of the proposed site was conducted by T. S. Dye & Colleagues, Archaeologists; however, a field inspection was conducted by Bureau Veritas North America, and the information and photographs have been reviewed.

### 1.2.1 Natural Setting

The VZW HI3 Kona Airport cell site lies at an elevation of ca. 250 ft. above sea level. The soils underlying the area are classified as lava flows, *pāhoehoe* (rLW).[1] The project area receives 20–30 in. of rainfall annually [6].

[1]USDA Web Soil Survey, `http://websoilsurvey.nrcs.usda.gov`.

### 1.2.2 Traditional and Historic Land Use

The VZW HI3 Kona Airport cell site is located in Kalaoa Ahupuaʻa. According to Pukui et al. Kalaoa is "said to be named for Kalaoa Puʻumoi, sister of Ka-palaoa, the mother of the riddling expert, Kala-pana." The literal meaning of Kalaoa is "the choker (as a stick for catching eels)" [12:75]. A saying is associated with Kalaoa: *Ka-laoa ʻai pō ʻeleʻele*, which means "Ka-laoa eats [in the] dark night." The saying means to intimate that "[t]he people are stingy and don't want to share their food" [12:268].

The native Hawaiian historian John Papa ʻĪʻī refers to Kalaoa briefly in a passage describing a journey in ships of Kamehameha: "The gentle Eka sea breeze of the land was blowing when the ship sailed past the lands of the Mahaiulas, Awalua, Haleohiu, Kalaoas, Hoona, on to Oomas" [11:110]. He also observed in this area how when the sunlight hit the old *pāhoehoe* flows, it glistened like flowing water [11:109].

Handy and Handy [8] have a single reference to Kalaoa.

> In North Kona dry taro flourishes only in the uplands, which are now largely given over to ranching, though some Hawaiians still have taro plantations above Kalaoa. [8:523]

Thus, it seems to follow that in Kalaoa and below—presumably south—there were not many taro plantations.

There were 13 claims for land in Kalaoa in the *Māhele*. Only three claims were awarded; two of the awarded claims were in Kalaoa 5, south of the VZW HI3 Kona Airport cell site.[2] The land is currently owned by the State of Hawaiʻi and Big Island Broadcasting Co. Ltd. The *ahupuaʻa* of Kalaoa 1–4 were designated as government lands in the *Māhele* of 1848.[3]

### 1.2.3 Archaeological Background

A couple of archaeological investigations have included the project area.

An archaeological survey was conducted in 1977 for a proposed agricultural park at Keahole [5]. The ca. 915 ac. proposed agricultural park was located *mauka* of Kaʻahumanu Highway in Kalaoa and included the VZW HI3 Kona Airport cell site. Twenty-two sites were found during the archaeological survey, none of them within the VZW HI3 Kona Airport cell site. The nearest was *site* 50–10–27–6419, a complex of natural lava outcroppings modified into platforms and miscellaneous paved areas, which was located approximately 0.5 mi. south of the VZW HI3 Kona Airport cell site. The northern portion of the area surveyed for the proposed agricultural park, where the VZW HI3 Kona Airport cell site lies, yielded very few archaeological remains. The low site density led to a recommendation that the area including the VZW HI3 Kona Airport cell site be developed as an agricultural park.

In 1980, data recovery excavations were conducted at several of the sites at the proposed Keahole Agricultural Park [7]. The purpose of the excavations was to mitigate the

[2] Waihona ʻAina, `http://www.waihona.com`.

[3] "Crown, Government and Fort Lands, Enumerated," in *Indices of Awardes Made by the Board of Commissioners to Quiet Land Titles in the Hawaiian Islands*, Star-Bulletin Press, 1929, p. 31.

effects of the agricultural park development on significant historic properties. Excavations were focused at sites with natural sink and lava tube features, where evidence of traditional Hawaiian activity was recovered. On the basis of the data recovery excavations, preservation was recommended for two of sites, 50–10–27–262 and –6418. Site 50–10–27–262 is a cave site which consists of a large collapsed section of a lava tube, forming a sink area. It is located about 0.6 mi. south of the VZW HI3 Kona Airport cell site. Site 50–10–27–6418 is a large modified sink within a lava tube complex located about 0.6 mi. southeast of the VZW HI3 Kona Airport cell site.

In addition to the two archaeological projects that included the VZW HI3 Kona Airport cell site, several projects were carried out on neighboring and nearby land parcels. An archaeological reconnaissance was conducted in the parcel just north of the VZW HI3 Kona Airport cell site. Eighteen sites were identified, including ten *ahu*, a small partially destroyed wall, a circular enclosure, a platform, a trail, and four lava tubes. It was recommended that further work be done in that area, including mapping and test excavations.

An archaeological assessment was completed in 1993 of an approximately 2,460 ac. project area spanning five *ahupuaʻa* [9]. The parcels on the north and west adjacent to the VZW HI3 Kona Airport cell site were included in the assessment area. The project included an aerial reconnaissance survey in which a total of 23 sites were identified, 11 of which were newly recorded. Following the aerial survey, a pedestrian survey covering approximately 11.5% of the project area identified 42 newly recorded sites. The sites nearest, ca. 0.25 mi southeast of the VZW HI3 Kona Airport cell site, include a terrace, modified outcrops, and lava tubes (sites 50–10–27–18450 to –18452 and 50–10–27–18478 to –18480). The lava tubes are possible habitation sites, and the rest are related to agriculture. They were all assessed as significant for Criterion A, and further data collection was recommended.

Archaeological investigations were conducted in 1998 of the 275 ac. proposed site of the University Center at West Hawaiʻi. The western boundary of the parcel lies about 0.5 mi. east of the VZW HI3 Kona Airport cell site [4]. Fifteen sites were investigated, all but one of which were previously recorded. Six of the sites were significant for Criterion D, and one of those six was also significant for Criterion C. The rest of the sites were determined not significant. Five archaeological preserves were recommended to be established and managed because the sites in the study area have great interpretive value. In addition, further investigations were recommended for four of the sites.

Recently, in 2009, data recovery excavations were conducted for the proposed University of Hawaiʻi Center at West Hawaiʻi [13]. This project area is different from the previously described UH parcel; it lies just north of the previously proposed parcel and consists of 133 ac. The excavations were within a single feature, an area of modified roof fall within a lava tube that runs between sites 50–10–28–15302 and –26454. A raised rubble berm was removed in order to determine if it is a burial feature. No human remains were found and the mound appeared to be a natural deposition. Archaeological monitoring was recommended for construction activity in the vicinity.

Other previous archaeological work done in the area is related to development of the Kona International Airport, formerly known as the Keahole Airport, and the Keāhole–

Kailua transmission corridor. The airport is located about 1 mi. west (*makai*) of the VZW HI3 Kona Airport cell site. The kinds of sites found in those studies are similar to those described above [1–3; 10; 14; 15]. However, those studies will not be summarized for the VZW HI3 Kona Airport cell site project.

## 2 Results

Archaeological investigations did not identify any historic properties within the VZW HI3 Kona Airport cell site area. Photographs of the lease parcel do not show any potentially significant historic properties (fig. 4). Four 100 ft. radio station towers are located on the same parcel less than 0.1 mi. southwest of the VZW HI3 Kona Airport cell site (fig. 5). None of the historic properties listed on the Hawai‘i and National Registers of Historic Places are within 0.5 mi. of the VZW HI3 Kona Airport cell site.

**Figure 4:** View of proposed VZW HI3 Kona Airport cell site, looking north. Courtesy of Bureau Veritas North America.

## 3 Discussion and Conclusions

A review of the archaeological literature, historic maps, and information provided by Bureau Veritas North America shows that no historic properties exist in the project site. No subsurface deposits are likely to be found because of the shallow soil deposition on these lava flows. Sites that have been identified in Kalaoa have had surface architecture or

**Figure 5:** View of the existing radio towers on the project parcel, looking southwest. Courtesy of Bureau Veritas North America.

are within lava tubes and modified natural sinks, none of which have been found during previous investigations of the VZW HI3 Kona Airport cell site parcel. Because no surface historic properties are present, the construction of the facility will have no direct effect on historic properties.

There are no historic properties within the 0.5 mi. visual APE of the VZW HI3 Kona Airport cell site. Additionally, there are four existing 100 ft. radio towers less than 0.1 mi. away from the proposed VZW HI3 Kona Airport cell site. The VZW HI3 Kona Airport cell site will have no effect on historic properties for visual effects because no historic properties exist within the APE.

## Glossary

**project** The archaeological investigation, including laboratory analyses and report preparation. See also *undertaking*.

**site** The fundamental unit of archaeological investigation, a location that exhibits material evidence of past human activity.

**undertaking** Any action with the potential for an adverse effect on significant historic properties. See also project.

## Hawaiian Terms

***ʻaʻā*** Basaltic lava flows typified by a rough, jagged, spinose, clinkery surface. See also *pāhoehoe*.

***ahu*** Heap, pile; altar, shrine, cairn.

***ahupuaʻa*** Traditional Hawaiian land division, usually extending from the uplands to the sea.

***Māhele*** The mid-nineteenth century land division responsible for the introduction of fee simple land title in Hawaiʻi.

***makai*** Seaward.

***mauka*** Inland, upland, toward the mountain.

***pāhoehoe*** Basaltic lava flows typified by smooth, billowy, or ropy surface. See also *ʻaʻā*.

## Abbreviations

**APE** The geographic area or areas within which an undertaking may cause changes in the character or use of historic properties, if any such properties exist. See also undertaking.

**USDA** A federal government agency whose mission is to provide leadership on food, agriculture, natural resources, and related issues based on sound public policy, the best available science, and efficient management. Archaeologists in Hawaiʻi typically describe sediments according to standards established by the agency.

## Bibliography


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**Lori Ford**

**From:** towernotifyinfo@fcc.gov
**Sent:** Friday, September 07, 2012 3:45 PM
**To:** lford@hawaii.rr.com
**Subject:** Section 106 New Filing Submitted- Email ID #314806

The following new Section 106 filing has been submitted:

File Number: 0005384176
Purpose: New Tower Submission Packet
Notification Date: 7AM EST 09/10/2012
Applicant: Verizon Wireless (VZW)
Consultant: Bureau Veritas North America, Inc.
Site Name: HI3 Kona Airport
Site Address: TMK (3) 7-3-049: Parcel 038
Site Coordinates: 19-43-59.1 N, 156-1-32.8 W
City: Kailua-Kona
County: HAWAII
State:HI
Lead SHPO/THPO: State Historic Preservation Office

Consultant Contact Information:
Name: Bureau Veritas North America, Inc.
Title:
PO Box:
Address: 970 North Kalaheo Avenue, Suite C-316
City: Kailua
State: HI
Zip: 96734
Phone: 808-531-6708
Fax:
Email: lford@hawaii.rr.com

NOTICE OF FRAUDULENT USE OF SYSTEM, ABUSE OF PASSWORD AND RELATED MISUSE
Use of the Section 106 system is intended to facilitate consultation under Section 106 of the National Historic Preservation Act and may contain information that is confidential, privileged or otherwise protected from disclosure under applicable laws. Any person having access to Section 106 information shall use it only for its intended purpose. Appropriate action will be taken with respect to any misuse of the system.

# SECTION 2

## State of Hawaii
## Department of Land and Natural Resources (DLNR)
## State Historic Preservation Division (SHPD)

## AND

## Hawaii DLNR-SHPD Historic Sites List

NEIL ABERCROMBIE
GOVERNOR OF HAWAII

RECEIVED
JAN 29 2013

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

ETHER KIA'AINA
FIRST DEPUTY

WILLIAM M. TAM
DEPUTY DIRECTOR - WATER

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

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

POST OFFICE BOX 621
HONOLULU, HAWAII 96809

January 22, 2013

Lori Ford
Bureau Veritas North America, Inc.
970 North Kalaheo Avenue Suite C-316
Kailua, HI 96734

LOG NO: 2012.3755
DOC NO: 1301MV05
Archaeology

Dear Ms. Ford:

SUBJECT: **National Historic Preservation Act (NHPA) Section 106 Consultation – Construction of a New Cellular Tower at Kona Airport Cell Site Kalaoa Ahupua'a, North Kona District, Island of Hawai'i TMK: (3) 7-3-049:038 (portion)**

Thank you for the opportunity to review the proposed undertaking that was received by our office December 28, 2012. According to your letter, a new cell tower will be constructed on the aforementioned parcel. Currently the proposed cell tower site is an undeveloped pahoehoe lava flow. The Historic Properties Assessment for this undertaking that was attached to your original letter indicates that there are no known archaeological sites in the area of direct effect of this undertaking (T.S. Dye & Colleagues 2012). A review of our records indicated that this project area was included in a previous inventory survey that covered a larger area (Hammatt and Folk 1980). Subsequent archaeological surveys in the former Hammatt and Folk 1980 survey area have revealed additional archaeological sites that were missed by the original survey (PHRI 1992 Rpt. No. H-01111). This new information indicated that the previous survey was not adequate according to the current archaeological standards established by Hawaii Administrative Rule 13-276. Therefore, SHPD believed that additional, undocumented historic properties may exist within this proposed project area and requested that an archaeological field inspection by a qualified archaeologist be conducted in the project area (Doc. No: 1110MV29).

Subsequently, an archaeological field inspection was conducted by T.S. Dye & Colleagues, and a Field Inspection Report dated December 13, 2012 was submitted to SHPD. This report indicates that no archeological sites or cultural resources were identified in the project area. Therefore, SHPD believes that **no historic properties will be affected** by the proposed project.

In the event that cultural resources, including human skeletal remains, structural remains, sand deposits, midden deposits, or lava tubes are identified during project activities, please cease work in the immediate vicinity of the find, protect the find from additional disturbance, and contact the State Historic Preservation Division at (808) 933-7651.

Please contact Michael Vitousek at (808) 652-1510 or Michael.Vitousek@hawaii.gov if you have any questions or concerns regarding this letter.

Aloha,

Theresa Donham
Deputy State Historic Preservation Officer
Historic Preservation Division

NEIL ABERCROMBIE
GOVERNOR OF HAWAII

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

POST OFFICE BOX 621
HONOLULU, HAWAII 96809

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

ETHER KIA'AINA
FIRST DEPUTY

WILLIAM M. TAM
DEPUTY DIRECTOR - WATER

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

October 31, 2012

Lori Ford
Bureau Veritas North America, Inc.
970 North Kalaheo Avenue Suite C-316
Kailua, HI 96734

LOG NO: 2012.0000
DOC NO: 1110MV29
Archaeology

Dear Ms. Ford:

SUBJECT: **National Historic Preservation Act (NHPA) Section 106 Consultation – Construction of New Cellular Tower at Kona Airport Cell Site. Kalaoa Ahupua'a, North Kona District, Island of Hawai'i TMK: (3) 7-3-049:038**

Thank you for the opportunity to review the proposed undertaking that was received by our office on September 12, 2012. We apologize for the delayed review and thank you for your patience. According to your letter, a new cell tower will be constructed on the aforementioned parcel. Currently the proposed cell tower site is an undeveloped pahoehoe lava flow. The Historic Properties Assessment for this undertaking that was attached to your letter indicates that there are no known archaeological sites in the area of direct effect of this undertaking (T.S. Dye & Colleagues 2012).

A review of our records indicates that this project area was included in a previous inventory survey the survey that covered a larger area (Hammatt and Folk 1980). Subsequent archaeological surveys in the former Hammatt and Folk 1980 survey area have revealed additional archaeological sites that were missed by the original survey (PHRI 1992 Rpt. No. H-01111). This new information indicates that the previous survey is not adequate according to the current archaeological standards established by Hawaii Administrative Rule 13-276. SHPD believes that additional, undocumented historic properties may exist within this proposed project area. A previous SHPD review of a temporary cell tower at on the same parcel as the subject undertaking resulted in the request for an archaeological field inspection by a qualified archaeologist (LOG NO: 2012.2201, DOC NO: 1207MV10). In order to satisfy the requirements of 36 CFR Part 800.4, we request that **an archaeological field inspection be conducted** on this project area by a qualified archaeologist. If undocumented significant historic properties are found, an archeological inventory survey (AIS) report should be prepared in order to document identified historic properties and determine an appropriate course of mitigation. We look forward to the opportunity to review the results of the identification process.

Please contact Michael Vitousek at (808) 652-1510 or Michael.Vitousek@hawaii.gov if you have any questions or concerns regarding this letter.

Aloha,

Theresa Donham
Deputy State Historic Preservation Officer
Historic Preservation Division

# National and State Register of Historic Places

| TAX MAP KEY | SITE NUMBER | CROSS LIST NUMBER | SITE NAME | ADDRESS | HAWAI'I REGISTER | NATIONAL REGISTER |
|---|---|---|---|---|---|---|
| 1-1-005:019 & :042 | 10 53 7519 | | Johnston Summer Home/Hale Ohia Cottages | | 08/21/1999 | |
| 1-1-005:024-:026, :028-:033 | 10 53 7521 | | Hale Ohia Tract Historic District Boundary Amendment | | 8/26/00 3/19/01 | |
| 1-2-006:081 (portion) | 10 55 7515 | | Kalapana Painted Church | | 11/02/1996 | 05/09/1997 |
| 1-2-009:003 (portion) | 10 55 10,922 | | Ala Loa (Puna District) | | 01/14/1989 | |
| 1-2-009:003 (portion) | 10 55 11,333 | | Keauohana Ahupua'a Archaeological District (District w/multiple sites) | | 01/14/1989 | |
| 1-3-004:018 | 10 55 7384 | | 'Opihikao Evangelical Church Residence | | 08/15/1987 | |
| 1-3-007:026 | 10 46 2530 | | (Kapoho Quad) King's Highway | | 02/21/1981 | |
| 1-3-007:026, 1-3-008:001 | 10 46 2529 | | MacKenzie Petroglyphs | | 02/21/1981 | |
| 1-8-002:001 | 10 44 7511 | | Mountain View Theater | | 02/24/1996 | |
| 2-1-013:001 | 10 36 1840, 1841, 1842, 1843 | | (Keaau Ranch Quad) Burials | | 02/21/1981 | |
| 2-1-021:043 | 10 35 7506 | | Kamehameha Hall | | 09/28/1992 | 05/20/1993 |
| 2-2-019:040 & :041 | 10 35 9014 | | Matayoshi Hospital | 59 and 41 Hoku St., Hilo | 12/10/2005 | |
| 2-2-020:001 | 10 35 7522 | | PUBLIC SCHOOLS ON THE ISLAND OF HAWAI`I Chiefess Kapiolani Elementary School | | 06/29/2002 | |
| 2-2-020:002 | 10 35 7510 | | United Community Church | | 04/16/1994 | |
| 2-3-015:020 | 10 35 7455 | | Thomas Guard House (a.k.a. Wylie House and Leonard House) | 240 Kaiulani St., Hilo | 03/29/2003 | |

| TAX MAP KEY | SITE NUMBER | CROSS LIST NUMBER | SITE NAME | ADDRESS | HAWAI'I REGISTER | NATIONAL REGISTER |
|---|---|---|---|---|---|---|
| 2-3-003:009 | 10 35 7507 | | Volcano Block | | 09/28/1992 | 01/07/1993 |
| 2-3-005:003 | 10 35 5500 | | United States Post Office and Office Building | | | 10/01/1974 |
| 2-3-005:007 | 10 35 7508 | | Hilo Masonic Lodge | | 06/28/1993 | 04/21/1994 |
| 2-3-006:004 | 10 35 7497 | | District Courthouse and Police Station | | 05/04/1979 | 09/04/1979 |
| 2-3-007:021 | 10 35 7504 | | Palace Theatre | | 03/09/1991 | 05/11/1993 |
| 2-3-008:016 | 10 35 7420 | | S. Hata Building | 318 Kamehameha Avenue, Hilo | 01/14/1989 | 08/27/1991 |
| 2-3-012:009 | 10 35 7417 | | Waiakea Mission Station or Haili Church | | 11/17/2001 | 04/23/2002 |
| 2-3-014:001 (portion) | 10 35 7522 | | PUBLIC SCHOOLS ON THE ISLAND OF HAWAI`I Hilo High School | | 06/29/2002 | |
| 2-3-014:002 | 10 35 11,001 | | Michael Victor Houses | | 08/15/1987 | |
| 2-3-015:001 | 10 35 7522 | | PUBLIC SCHOOLS ON THE ISLAND OF HAWAII Old Riverside School (Hilo District Office) | | 06/29/2002 | |
| 2-3-15:004,005 | 10 35 7405 | | W. H. Shipman House | | 07/23/1977 | 06/23/1978 |
| 2-3-016:024 | 10 35 7454 | | Rev. D. B. Lyman House | | 10/04/1977 | 03/24/1978 |
| 2-3-016:037 (portion) | 10 35 7522 | | PUBLIC SCHOOLS ON THE ISLAND OF HAWAII Hilo Union Elementary School | | 06/29/2002 | |
| 2-3-028:022 | 10 35 7500 | | Ludloff Residence | 1432 Wailuku Dr. | 03/09/1991 | |

| TAX MAP KEY | SITE NUMBER | CROSS LIST NUMBER | SITE NAME | ADDRESS | HAWAI'I REGISTER | NATIONAL REGISTER |
|---|---|---|---|---|---|---|
| 2-3-028:044 | 10 35 7502 | | Masao Kubo Residence | 1411 Wailuku Dr. | 03/09/1991 | |
| 2-6-006:004 | 10 35 9069 | | HALAULANI PLACE Multiple Property: Walter Irving and Jean | 82 Halaulani Place | 08/08/2009 | 02/28/2011 |
| 2-6-006:007 | 10 35 9069 | | HALAULANI PLACE Multiple Property: Herbert Austin Truslow Residence a.k.a. Ellen G. Lyman Residence | 52 Halaulani Place | 08/08/2009 | 02/28/2011 |
| 2-6-006:008 | 10 35 9069 | | HALAULANI PLACE Multiple | 40 Halaulani | 08/08/2009 | 02/28/2011 |
| 2-6-006:016 | 10 35 9069 | | HALAULANI PLACE Multiple Property: W. H. Hill Residence a.k.a. Vernon D. and Alice L. Shutte Residence | 91 Halaulani Place | 08/08/2009 | 02/28/2011 |
| 2-6-006:017 and :025 | 10 35 9069 | | HALAULANI PLACE Multiple Property: Edward H. and Claire L. Moses Residence | 105 Halaulani Place | 08/08/2009 | 02/28/2011 |
| 2-6-006:018 | 10 35 9069 | | HALAULANI PLACE Multiple Property: Patrick and Ethel McGuinness Residence | 30 Halaulani Place | 08/08/2009 | Rejected due modifications |
| 2-6-006:027 | 10 35 9069 | | HALAULANI PLACE Multiple Property: James and Catherine Parker Residence | 72 Halaulani Place | 08/08/2009 | 02/28/2011 |
| 2-6-006:011 | 10 35 7516 | 10 35 9069 | A.J. Williamson Residence | | 11/02/1996 | 05/09/1997 |
| 2-7-022:002, :003 | 10 35 7522 | | PUBLIC SCHOOLS ON THE ISLAND OF HAWAI`I Kalanianaole Elementary & Intermediate School | | 06/29/2002 | |

| TAX MAP KEY | SITE NUMBER | CROSS LIST NUMBER | SITE NAME | ADDRESS | HAWAI'I REGISTER | NATIONAL REGISTER |
|---|---|---|---|---|---|---|
| 2-8-014:015-Residence (3) 2-8-014:107-Theater | 10 25 7505 | | H. Tanimoto Residence (Honomu Theater) | | 09/28/1992 | |
| 2-9-002:039 | 10 16 9070 | | Hakalau Plantation Manager's House | 29-2301 Old Mamalahoa | 08/08/2009 | |
| 2-9-003:018 | 10 16 7518 | | Yamamoto Store | | 07/25/1998 | |
| 3-2, 3-3 | 10 16, 26 9090 | | Hamakua Steel Bridges | Mamalahoa Hwy | 08/08/2010 | |
| 3-5-004:026,:050 3-5-005:001 | 10 26 7522 | | PUBLIC SCHOOLS ON THE ISLAND OF HAWAI`I Laupahoehoe High and Elementary | | 06/29/2002 | |
| 3-6-002:034 | 10 16 9078 | | Old Laupahoehoe Jodo Mission | 46-1006 Laupahoehoe | 04/24/2010 | |
| 4-4-006:001 | 10 08 7184 | | East Hamakua Protestant Church | | 08/15/1987 | |
| 4-4-006:022 | 10 08 7499 | | Paauhau Plantation House | | 11/26/1986 | |
| 4-4-015:001, :009, :010 | 10 23 4136 | | Mauna Kea Adze Quarry | | 05/21/1981 | 12/29/62 1962 NHL |
| 4-5-003:020 (portion) | 10 08 7522 | | PUBLIC SCHOOLS ON THE ISLAND OF HAWAI`I Honokaa | | 06/29/2002 | |

| TAX MAP KEY | SITE NUMBER | CROSS LIST NUMBER | SITE NAME | ADDRESS | HAWAI'I REGISTER | NATIONAL REGISTER |
|---|---|---|---|---|---|---|
| 4-5-009:009 | 10 08 7194 demolished | | Chee Ying Society Clubhouse Delisted: 6/30/2007 | | 01/19/1978 | 07/20/1978 |
| 4-8-006:013 | 10 08 7514 | | Honokaa Plantation Manager's Residence | | 02/24/1996 | |
| 5-3-005:004, :005, :017, :019, :020, :026, :027 | 10 02 7100 | | Elias Bond District | Kapaau | 07/22/1977 | 03/30/1978 |
| 5-3-008:020 | 10 02 7115 | | Tong Wo Society Building | | 10/02/1977 | 06/09/1978 |
| 5-4-005:001 | 10 02 7127 | | Kohala District Courthouse | | 05/04/1979 | 08/31/1979 |
| 5-4-005:022 | 10 02 7517 | | Nanbu Hotel/Holy's Bakery | Akoni Pule Hwy., Kapaau | 04/25/1998 | 11/18/1999 |
| 5-4-10:58,59 | 10 02 7135 | | Union Mill Managers Residence | | 03/09/1991 | |
| 5-5-05:20 | 10 01 2328 | | Mo'okini Heiau | | 02/21/1981 | 12/29/62 NHL 1962 |
| 5-5-15:25 | 10 02 7102 | | Kohala Pilgrim Church (Delisted: 6/30/2007) | | 06/27/1983 | 7/9/84 E |
| 5-5-015:035 | 10 02 7501 | | James M. Hind Residence | | 03/09/1991 | 02/03/1994 |
| 5-5-015:038 | 10 02 7503 | | Hashimoto House | | 03/09/1991 | |
| 5-5-015:041 | 10 02 7512 | | Hawi Plantation Manager's Residence | | 02/24/1996 | |
| 5-6-001:082 | 10 02 9071 | | Puakea Ranch | 56-2864 Akoni Pule Highway | 08/08/2009 | |
| 5-6-001:075 | 10 02 4135 | | Heiau in Kukuipahu | | 08/29/1994 | 04/24/1973 |

| TAX MAP KEY | SITE NUMBER | CROSS LIST NUMBER | SITE NAME | ADDRESS | HAWAI'I REGISTER | NATIONAL REGISTER |
|---|---|---|---|---|---|---|
| 5-7-001:021 | 10 04 2352 | | (Keawanui Quad) Vault Complex | | 02/21/1981 | |
| 5-7-001:021 | 10 04 4152 | | (Keawanui Quad) Habitation Complex | | 02/21/1981 | |
| 5-8-001:012 | 10 04 2424 | | Makeanehu Complex | | 02/21/1981 | |
| 5-8-001:012 | 10 04 2426 | | (Keawanui Quad) Habitation and Burials | | 02/21/1981 | |
| 5-8-001:013 | 10 04 2348 | | (Keawanui Quad) Possible Heiau | | 02/21/1981 | |
| 6-2-002:009, :010, :016 | 10 05 4139 | | Pu'ukohola Heiau National Historic Park (District w/ multiple sites) | | | 1966 NHL |
| 6-4-001:145 | 10 06 7456 | | Heichi and Hawai Kawabata Family Home | 64-810 Mamalahoa | 07/30/2005 | |
| 6-5-006 & 003 | 10 06 9027 | | Anna Ranch (a.k.a Lindsey Ranch and Waiauia Ranch) | 65-1480 Kawaihae Rd., | 07/30/2005 | 04/28/2008 |
| 6-5-007:003 | 10 06 7523 | | Old Waimea Elementary School Building/ Isaacs Art Center | | 03/29/2003 | |
| 6-5-003:042 | 10 06 7520 | | Old Lindsey House | | 04/24/1999 | |
| 6-5-004:004 | 10 06 7151 | | 'Imiola Church | | 07/25/1981 | 08/28/1975 |
| 6-8-001:022, :015, :017 (por.) | | | Boundary Change | | 03/03/2007 | 06/06/2007 |

| TAX MAP KEY | SITE NUMBER | CROSS LIST NUMBER | SITE NAME | ADDRESS | HAWAI'I REGISTER | NATIONAL REGISTER |
|---|---|---|---|---|---|---|
| 6-8-01:032, :035 (portions), 6-8-022:032 (portion), 6-9-001:015 (portion), 6-9-007: (portion), 7-1-003:022 (portion) | 10 10 and 11,334 | | Ala Loa Foot Trail (Southernmost Kohala & Northernmost Kona Districts) | | 01/14/1989 | |
| 6-9-002:009 | 10 11 9083 | | Hoku Loa Church | 69-160 Puako Beach Drive | 12/13/2008 | |
| 6-9-001:015 | 10 11 4713 | | Puako Petroglyph Archaeological District | | 11/19/1982 | 04/08/1983 |
| 6-9-001:015 | 10 11 9053 | | Puako Petroglyph Boundary Change | | 03/03/2007 | |
| 7-1-003:003, :012, :013 | 10 19 7498 | | Francis Ii Brown Beach Residence | | 09/14/1985 | 08/21/1986 |
| 7-1-004:006 | 10 30 5004 | | Bobcat Trail Habitation Cave | | | 05/15/1986 |
| 7-3-009:002, 7-4-008:003, :010, :025 | 10 27 4138 | | Honokohau Settlement/ Kaloko-Honokohau National Historic Park (U.S. Government has acquired TMK 7-3-09:02 & 7-4-08:25 for park) (District w/ multiple sites) | | | 12/29/62 NHL |
| 7-3-043:003 | 10 27 1917 | | (Keahole Quad) Shelter and Pen | | 02/21/1981 | |
| 7-3-043:003 | 10 27 1918 | | Wawalo'i Habitation | | 02/21/1981 | |
| 7-3-043:003 | 10 27 1920 | | (Keahole Quad) Habitation Cluster | | 02/21/1981 | |
| 7-3-043:042 (portion) | 10 27 10,205 | | Kalaoa Permanent House Site 10,205 | | 01/14/1989 | 11/21/1992 |

| TAX MAP KEY | SITE NUMBER | CROSS LIST NUMBER | SITE NAME | ADDRESS | HAWAI'I REGISTER | NATIONAL REGISTER |
|---|---|---|---|---|---|---|
| 7-4-008:003 | 10 27 1896 | | Haleokane Heiau | | 02/21/1981 | |
| | 10 27 1897 | | (Keahole Quad) Habitation Site | | 02/21/1981 | |
| 7-5-004:035 | 10 28 9040 | | Asa and Lucy Thurston House Site (a.k.a. "Laniakea") | Between Alahou and Lamaokaola Streets, Kailua | 09/24/2005 | |
| 7-5-005:007 | 10 27 2001 | | Lanihau Papamu | | 02/21/1981 | |
| 7-5-005:007 | 10 27 2002 | | (Keahole Quad) House and Burials | | 02/21/1981 | |
| 7-5-006:024, :032 | 10 27 7002 | | Kamakahonu (Residence of King Kamehama I) | | 07/17/1993 | 12/29/62 1962 NHL |
| 7-5-007:018 | 10 28 7231 | | Moku'aikaua Church | | 01/12/1978 | 10/03/1978 |
| 7-5-007:020 | 10 28 7001 | | Hulihe'e Palace (Additional Documentation Accepted to Change Level of Significance) | | 2/21/1981 3/3/2007 | 5/25/1973 4/13/2007 |
| 7-5-014:023 (portion) | 10 28 10,229 | | Pua'a 2 Agricultural Fields Archaeological District | | 03/15/1986 | 10/14/1986 |
| 7-6-008:020 | 10 37 9020 | | Tomikawa Store | 76-5902 Mamalahoa Hwy., Holualoa | 03/03/2007 | |
| 7-6-016:013 | 10 37 7234 | | Hale Halawai o Holualoa | | 11/26/1986 | 06/05/1987 |
| 7-7-004 | 10 37 23,661 | | Holualoa 4 Archaeological District | | 08/02/2003 | 06/08/2005 |
| 7-7-004:012, :028, :031, :051, :052 | 10 37 2059 | | Keolonahihi Complex/Kamoa Point Complex (District w/multiple sites) | | 11/02/1977 | 07/14/1983 |
| 7-8-001:003 | 10 29 3810 | | Ahu-a-'Umi Heiau | | | 08/13/1974 |
| 7-8-010:002, :004, :035 | 10 37 4150 | | Kahaluu Historic District (District w/multiple sites) | | | 12/27/1974 |
| 7-8-010:030 | 10 37 1669 | | Keauhou Holua Slide | | | 12/29/1962 1962 NHL |

| TAX MAP KEY | SITE NUMBER | CROSS LIST NUMBER | SITE NAME | ADDRESS | HAWAI'I REGISTER | NATIONAL REGISTER |
|---|---|---|---|---|---|---|
| 7-8-010:066 | 10 37 1745 | | Kuamo'o Burials | | | 08/13/1974 |
| 7-8-012:017 | 10 37 4383 | | Kamehameha III Birthplace (Kauikeaouli Stone) | | 01/13/1978 | 07/24/1978 |
| 8-1-004:050 | 10 37 7243 | | Greenwell Store | | 08/17/1977 | 05/22/1978 |
| 8-1-005:008 | 10 37 7225 | | Christ Church Episcopal | | 08/25/2001 | |
| 8-2 , 8-3 | 10 47 7000 | | Kealakekua Bay Historical District (District w/multiple sites) | | | 12/12/1973 |
| 8-2-007:006 | 10 47 7215 | | Kahikolu Church | | 07/30/1982 | 11/15/1982 |
| 8-2-010:020 | 10 47 7222 | | Daifukuji Soto Zen Mission | | 03/09/1991 | 04/21/1994 |
| 8-2-015:013, por. | 10 47 7509 | | Uchida Coffee Farm | | 04/16/1994 | 02/09/1995 |
| 8-4-006:006 | 10 47 7230 | | St. Benedict's Catholic Church | | 03/27/1979 | 05/31/1979 |
| 8-4-011:007 | 10 47 4137 | | Pu'uhonua o Honaunau National Historical Park (District w/multiple sites) | | | 1966 NHL |
| 8-9-003:001 | 10 65 1992 | | (Milolii Quad) Burial Cave | | 02/21/1981 | |
| 8-9-003:001 | 10 65 2132 | | North Honomalino Complex | | 02/21/1981 | |

| TAX MAP KEY | SITE NUMBER | CROSS LIST NUMBER | SITE NAME | ADDRESS | HAWAI'I REGISTER | NATIONAL REGISTER |
|---|---|---|---|---|---|---|
| 8-9-003:001 | 10 65 3710 | | Okoe Bay Complex | | 02/21/1981 | |
| 8-9-006:002 | 10 72 3700 | | Kaulanamaluna Upland Complex | | 02/21/1981 | |
| 8-9-006:003 | 10 65 2134 | | Ahole Holua Complex | | | 11/26/1973 |
| 9 | 10 62 5503 | | Puna-Ka'u Historic District, Hawaii Volcanoes National Park (District w/multiple sites) | | | 07/01/1974 |
| 9 | 10 41 5504 | | Mauna Loa Trail | | | 07/19/1974 |
| 9-9-001:006 | 10 62 19,429 | | Ainahou Ranch House | | 04/16/1994 | 02/08/1995 |
| 9-1-001:003 | 10 71 2146 | | Manuka Bay Petroglyphs | | 02/21/1981 | 09/19/1973 |
| 9-1-001:003 | 10 71 2148 | | (Manuka Quad) Platform and Mounds | | 02/21/1981 | |
| 9-1-001:003 | 10 71 2149 | | (Manuka Quad) Kuleana Complex | | 02/21/1981 | |
| 9-1-001:003 | 10 71 2151 | | (Manuka Quad) Koa | | 02/21/1981 | |
| 9-1-001:003 | 10 71 2152 | | South Manuka Bay Complex | | 02/21/1981 | |
| 9-1-001:003 | 10 71 2155 | | (Manuka Quad) Platform and Shelters | | 02/21/1981 | |
| 9-1-001:003 | 10 71 2156 | | (Manuka Quad) Lava Tube Complex | | 02/21/1981 | |
| 9-1-001:003 | 10 71 2159 | | Kaiakekua Complex | | 02/21/1981 | |

| TAX MAP KEY | SITE NUMBER | CROSS LIST NUMBER | SITE NAME | ADDRESS | HAWAI'I REGISTER | NATIONAL REGISTER |
|---|---|---|---|---|---|---|
| 9-1-001:003 | 10 72 2161 | | Keawaiki Complex | | 02/21/1981 | |
| 9-1-001:003 | 10 71 3660 | | Manuka Bay Holua Slide | | 02/21/1981 | |
| 9-1-001:003 | 10 71 3661 | | (Manuka Quad) Heiau and Trail | | 02/21/1981 | |
| 9-1-001:003, :006 | 10 71 2153 | | Kipuka Malua Complex | | 02/21/1981 | |
| 9-1-001:003, :007 | 10 71 3663 | | (Manuka Quad) Shrine and Heiau | | 02/21/1981 | |

| TAX MAP KEY | SITE NUMBER | CROSS LIST NUMBER | SITE NAME | ADDRESS | HAWAI'I REGISTER | NATIONAL REGISTER |
|---|---|---|---|---|---|---|
| 9-1-001:007 | 10 71 2160 | | (Manuka Quad) Habitation Complex | | 02/21/1981 | |
| 9-3 | 10 51, 52 9057 | | Mauna Loa Road | | 03/15/2007 | |
| 9-3 | 10 53, 61, 62 9058 | | Hilina Pali Road | | 03/15/2007 | |
| 9-3 | 10 52 9059 | | Crater Rim Drive | | 03/15/2007 | |
| 9-3-001:001, :003, :007, :011 | 10 76 4140 | | South Point Complex | | | 12/29/62 1962 NHL |

| TAX MAP KEY | SITE NUMBER | CROSS LIST NUMBER | SITE NAME | ADDRESS | HAWAI'I REGISTER | NATIONAL REGISTER |
|---|---|---|---|---|---|---|
| 9-3-001:002 (portion) | 10 76 10,231 | | Kapalaoa Archaeological District | | 03/15/1986 | |
| 9-3-001:002 (portion) | 10 76 10,230 | | Mahana Archaeological District | | 03/15/1986 | 10/14/1986 |
| 9-5-006:001 | 10 76 3598 | | Ki'i Petroglyphs | | 03/19/1984 | 07/12/1984 |
| 9-5-09:006, :015 | 10 74 7522 | | PUBLIC SCHOOLS ON THE ISLAND OF HAWAI`I Naalehu School | | 06/29/2002 | |
| 9-6-005:008 | 10 69 7522 | | PUBLIC SCHOOLS ON THE ISLAND OF HAWAI`I Ka`u High & Pahala Elementary School | | 06/29/2002 | |
| 9-9-001:001 | 10 52 5502 | | Kilauea Crater | | | 07/24/1974 |
| 9-9-001:001, :002 | 10 61 5505 | | 1790 Footprints | | | 08/07/1974 |
| 9-9-001:003 | 10 50 5501 | | 'Ainapo Trail (Menzies Trail) | | | 08/30/1974 |
| 9-9-001:003 | 10 50 5507 | | Wilkes Campsite | | | 07/24/1974 |
| 9-9-001:023 | 10 52 5506 | | Whitney Seismograph Vault | | | 07/24/1974 |
| 9-9-001:023 | 10 52 5508 | | Old Volcano House No. 42 | | | 07/24/1974 |

| TAX MAP KEY | SITE NUMBER | CROSS LIST NUMBER | SITE NAME | ADDRESS | HAWAI'I REGISTER | NATIONAL REGISTER |
|---|---|---|---|---|---|---|
| Multiple | 10 02 2245 | | Lapakahi Complex (District w/ multiple sites) | | | 07/02/1973 |
| Multiple | 10-10 and 11 | | Kiholo-Puako Trail | | 04/29/1983 | 06/05/1987 |

# SECTION 3

## Historic Properties Assessment Report

## AND

## Addendum Letter

*T. S. Dye & Colleagues, Archaeologists, Inc.*
*735 Bishop St., Suite 315, Honolulu, Hawai'i 96813*

# Historic Properties Assessment for the Proposed VZW HI3 Kona Airport Cell Site*

**Kalaoa Ahupua'a, North Kona District, Hawai'i Island, TMK: (3) 7–3–049:038**

Krickette Murabayashi  Elaine H. R. Jourdane
Thomas S. Dye, PhD

August 29, 2012

**Applicant:** Bureau Veritas North America.
**Applicant's Consultant:** T. S. Dye & Colleagues, Archaeologists, Inc.
**Location:** Kalaoa Ahupua'a, North Kona District, Hawai'i Island.
**Tax Map Key:** TMK: (3) 7–3–049:038.
**Request:** Proposed VZW HI3 Kona Airport cell site.
**Direct Effect:** No historic properties in APE for direct effect.
**Visual Effect:** No historic properties in APE for visual effect.

## 1 Introduction

At the request of Bureau Veritas North America, T. S. Dye & Colleagues, Archaeologists conducted an historic properties assessment of a parcel for the proposed VZW HI3 Kona Airport cell site. The primary focus of the *project* was on the discovery and appropriate treatment of historic properties within the area of potential effect (APE). The goals of the investigation were to determine whether the installation of a telecommunications facility, including an antenna monopole, will have direct or visual effects on historic properties.

### 1.1 Project Area

Verizon Wireless proposes to install a new 100 ft. monopole with twelve 8 ft. panel antennas on a parcel located at Kailua-Kona, *mauka* of Kona International Airport in Kalaoa, Hawai'i. The 30 × 40 ft., 1,200 ft.$^2$ lease parcel is located in the northeast corner of a 4 ac. parcel owned by the State of Hawai'i and Big Island Broadcasting Co. Ltd. and identified as TMK: (3) 7–3–049:038 (figs. 1, 2).

*Prepared for Bureau Veritas North America, 970 North Kalāheo Avenue, Suite C-316, Kailua, HI 96734.

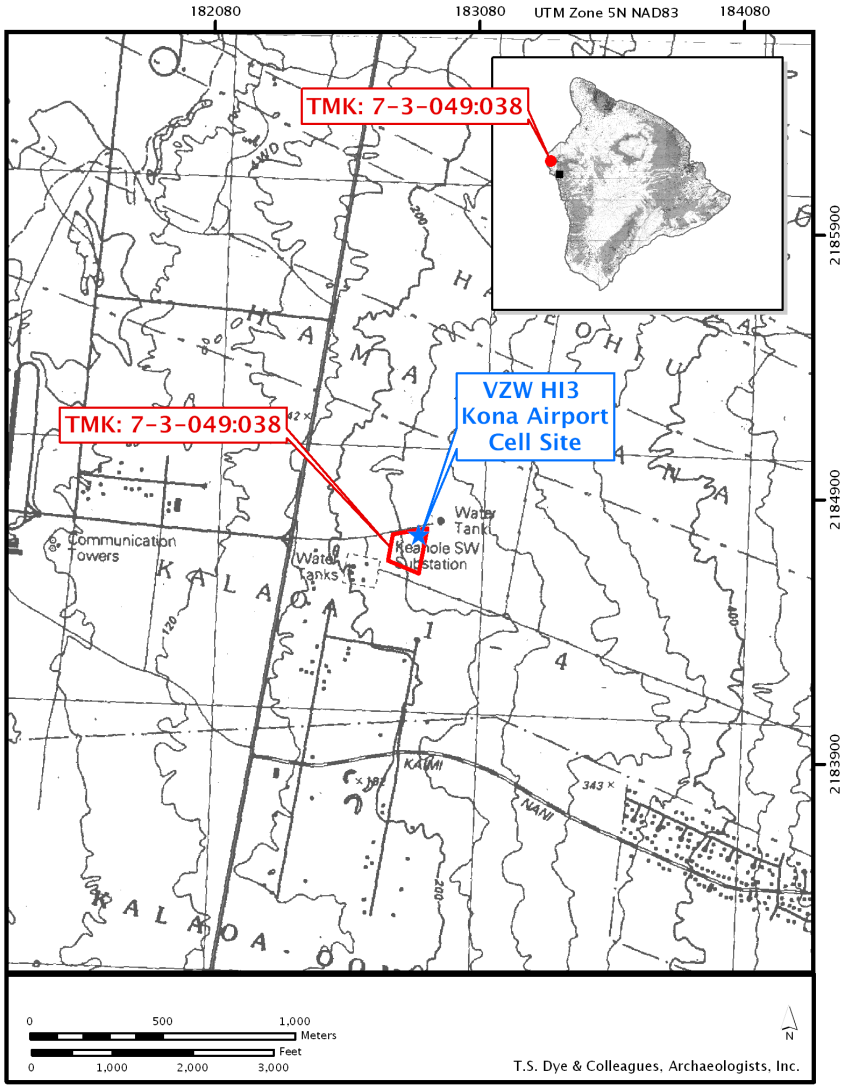


**Figure 1:** Proposed VZW HI3 Kona Airport cell site on a portion of the 1996 USGS Keahole Point Quadrangle.

The prefabricated equipment cabinets with associated equipment and emergency generator will be installed on concrete slabs. The maximum finished height of the antenna pole will be approximately 104 ft. above ground. The entire facility will be enclosed with a 6 ft. high chain-link fence. Ground disturbance is expected for the installation of the antenna pole, equipment cabinet and emergency generator foundations, utility conduits, and fence posts (fig. 3).

According to the FCC Nationwide Programmatic Agreement, the APE for direct effects on historic properties includes the area of potential ground disturbance during the

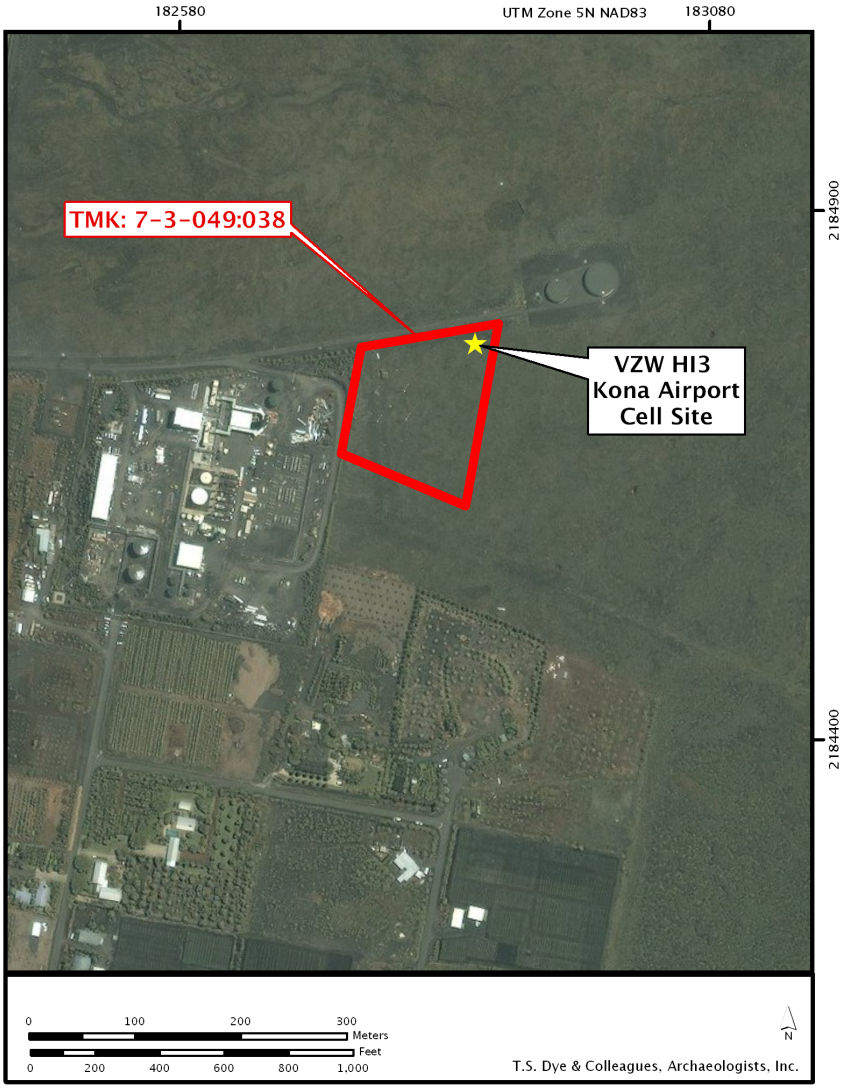


**Figure 2:** Proposed VZW HI3 Kona Airport cell site location. Image adapted from ESRI World Imagery.

installation of the antenna pole, equipment cabinet and emergency generator foundations, utility conduits, and fence posts. The APE for visual effects on historic properties for a tower 200 ft. or less is the area within ca. 0.5 mi. of the tower.

## 1.2 Background Research

This historic properties assessment includes the review of historic documents, maps, and archaeological reports on file at the State Historic Preservation Division library, the Hawaii

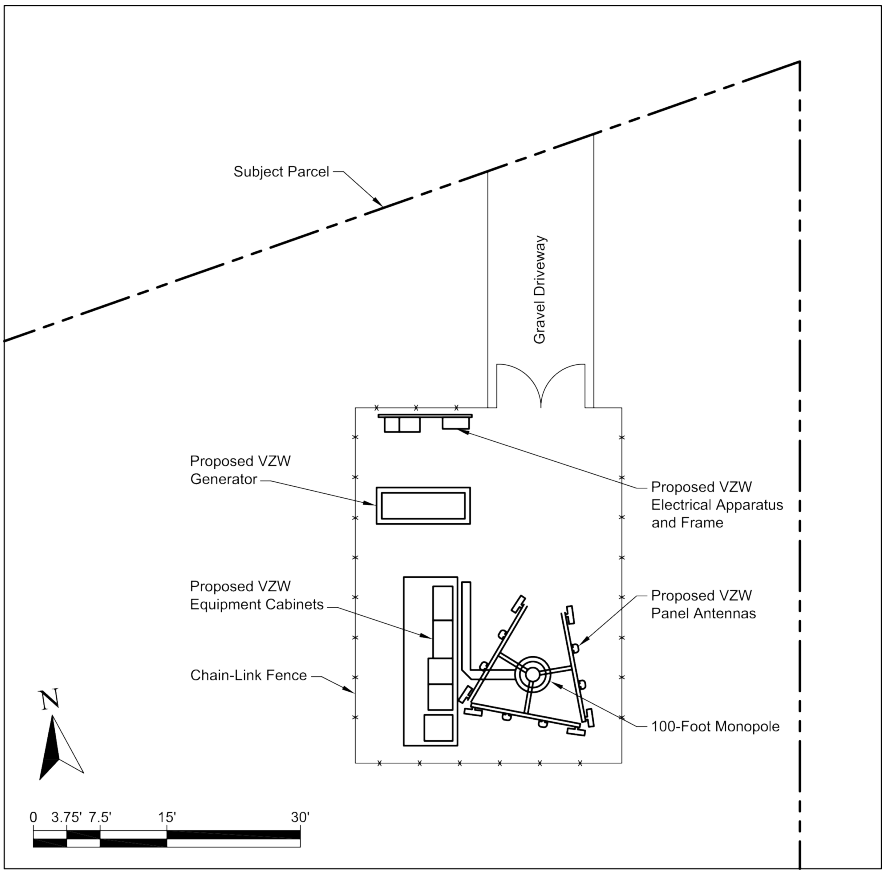


**Figure 3:** Proposed VZW HI3 Kona Airport cell site plan, adapted from a plan provided courtesy of Bureau Veritas North America.

State Library, and the State Bureau of Conveyances. No field inspection of the proposed site was conducted by T. S. Dye & Colleagues, Archaeologists; however, a field inspection was conducted by Bureau Veritas North America, and the information and photographs have been reviewed.

### 1.2.1 Natural Setting

The VZW HI3 Kona Airport cell site lies at an elevation of ca. 250 ft. above sea level. The soils underlying the area are classified as lava flows, *pāhoehoe* (rLW).[1] The project area receives 20–30 in. of rainfall annually [6].

[1]USDA Web Soil Survey, `http://websoilsurvey.nrcs.usda.gov`.

### 1.2.2 Traditional and Historic Land Use

The VZW HI3 Kona Airport cell site is located in Kalaoa Ahupuaʻa. According to Pukui et al. Kalaoa is "said to be named for Kalaoa Puʻumoi, sister of Ka-palaoa, the mother of the riddling expert, Kala-pana." The literal meaning of Kalaoa is "the choker (as a stick for catching eels)" [12:75]. A saying is associated with Kalaoa: *Ka-laoa ʻai pō ʻeleʻele*, which means "Ka-laoa eats [in the] dark night." The saying means to intimate that "[t]he people are stingy and don't want to share their food" [12:268].

The native Hawaiian historian John Papa ʻĪʻī refers to Kalaoa briefly in a passage describing a journey in ships of Kamehameha: "The gentle Eka sea breeze of the land was blowing when the ship sailed past the lands of the Mahaiulas, Awalua, Haleohiu, Kalaoas, Hoona, on to Oomas" [11:110]. He also observed in this area how when the sunlight hit the old *pāhoehoe* flows, it glistened like flowing water [11:109].

Handy and Handy [8] have a single reference to Kalaoa.

> In North Kona dry taro flourishes only in the uplands, which are now largely given over to ranching, though some Hawaiians still have taro plantations above Kalaoa. [8:523]

Thus, it seems to follow that in Kalaoa and below—presumably south—there were not many taro plantations.

There were 13 claims for land in Kalaoa in the *Māhele*. Only three claims were awarded; two of the awarded claims were in Kalaoa 5, south of the VZW HI3 Kona Airport cell site.[2] The land is currently owned by the State of Hawaiʻi and Big Island Broadcasting Co. Ltd. The *ahupuaʻa* of Kalaoa 1–4 were designated as government lands in the *Māhele* of 1848.[3]

### 1.2.3 Archaeological Background

A couple of archaeological investigations have included the project area.

An archaeological survey was conducted in 1977 for a proposed agricultural park at Keahole [5]. The ca. 915 ac. proposed agricultural park was located *mauka* of Kaʻahumanu Highway in Kalaoa and included the VZW HI3 Kona Airport cell site. Twenty-two sites were found during the archaeological survey, none of them within the VZW HI3 Kona Airport cell site. The nearest was *site* 50–10–27–6419, a complex of natural lava outcroppings modified into platforms and miscellaneous paved areas, which was located approximately 0.5 mi. south of the VZW HI3 Kona Airport cell site. The northern portion of the area surveyed for the proposed agricultural park, where the VZW HI3 Kona Airport cell site lies, yielded very few archaeological remains. The low site density led to a recommendation that the area including the VZW HI3 Kona Airport cell site be developed as an agricultural park.

In 1980, data recovery excavations were conducted at several of the sites at the proposed Keahole Agricultural Park [7]. The purpose of the excavations was to mitigate the

[2] Waihona ʻAina, `http://www.waihona.com`.

[3] "Crown, Government and Fort Lands, Enumerated," in *Indices of Awardes Made by the Board of Commissioners to Quiet Land Titles in the Hawaiian Islands*, Star-Bulletin Press, 1929, p. 31.

effects of the agricultural park development on significant historic properties. Excavations were focused at sites with natural sink and lava tube features, where evidence of traditional Hawaiian activity was recovered. On the basis of the data recovery excavations, preservation was recommended for two of sites, 50–10–27–262 and –6418. Site 50–10–27–262 is a cave site which consists of a large collapsed section of a lava tube, forming a sink area. It is located about 0.6 mi. south of the VZW HI3 Kona Airport cell site. Site 50–10–27–6418 is a large modified sink within a lava tube complex located about 0.6 mi. southeast of the VZW HI3 Kona Airport cell site.

In addition to the two archaeological projects that included the VZW HI3 Kona Airport cell site, several projects were carried out on neighboring and nearby land parcels. An archaeological reconnaissance was conducted in the parcel just north of the VZW HI3 Kona Airport cell site. Eighteen sites were identified, including ten *ahu*, a small partially destroyed wall, a circular enclosure, a platform, a trail, and four lava tubes. It was recommended that further work be done in that area, including mapping and test excavations.

An archaeological assessment was completed in 1993 of an approximately 2,460 ac. project area spanning five *ahupuaʻa* [9]. The parcels on the north and west adjacent to the VZW HI3 Kona Airport cell site were included in the assessment area. The project included an aerial reconnaissance survey in which a total of 23 sites were identified, 11 of which were newly recorded. Following the aerial survey, a pedestrian survey covering approximately 11.5% of the project area identified 42 newly recorded sites. The sites nearest, ca. 0.25 mi southeast of the VZW HI3 Kona Airport cell site, include a terrace, modified outcrops, and lava tubes (sites 50–10–27–18450 to –18452 and 50–10–27–18478 to –18480). The lava tubes are possible habitation sites, and the rest are related to agriculture. They were all assessed as significant for Criterion A, and further data collection was recommended.

Archaeological investigations were conducted in 1998 of the 275 ac. proposed site of the University Center at West Hawaiʻi. The western boundary of the parcel lies about 0.5 mi. east of the VZW HI3 Kona Airport cell site [4]. Fifteen sites were investigated, all but one of which were previously recorded. Six of the sites were significant for Criterion D, and one of those six was also significant for Criterion C. The rest of the sites were determined not significant. Five archaeological preserves were recommended to be established and managed because the sites in the study area have great interpretive value. In addition, further investigations were recommended for four of the sites.

Recently, in 2009, data recovery excavations were conducted for the proposed University of Hawaiʻi Center at West Hawaiʻi [13]. This project area is different from the previously described UH parcel; it lies just north of the previously proposed parcel and consists of 133 ac. The excavations were within a single feature, an area of modified roof fall within a lava tube that runs between sites 50–10–28–15302 and –26454. A raised rubble berm was removed in order to determine if it is a burial feature. No human remains were found and the mound appeared to be a natural deposition. Archaeological monitoring was recommended for construction activity in the vicinity.

Other previous archaeological work done in the area is related to development of the Kona International Airport, formerly known as the Keahole Airport, and the Keāhole–

Kailua transmission corridor. The airport is located about 1 mi. west (*makai*) of the VZW HI3 Kona Airport cell site. The kinds of sites found in those studies are similar to those described above [1–3; 10; 14; 15]. However, those studies will not be summarized for the VZW HI3 Kona Airport cell site project.

## 2 Results

Archaeological investigations did not identify any historic properties within the VZW HI3 Kona Airport cell site area. Photographs of the lease parcel do not show any potentially significant historic properties (fig. 4). Four 100 ft. radio station towers are located on the same parcel less than 0.1 mi. southwest of the VZW HI3 Kona Airport cell site (fig. 5). None of the historic properties listed on the Hawai‘i and National Registers of Historic Places are within 0.5 mi. of the VZW HI3 Kona Airport cell site.

**Figure 4:** View of proposed VZW HI3 Kona Airport cell site, looking north. Courtesy of Bureau Veritas North America.

## 3 Discussion and Conclusions

A review of the archaeological literature, historic maps, and information provided by Bureau Veritas North America shows that no historic properties exist in the project site. No subsurface deposits are likely to be found because of the shallow soil deposition on these lava flows. Sites that have been identified in Kalaoa have had surface architecture or

**Figure 5:** View of the existing radio towers on the project parcel, looking southwest. Courtesy of Bureau Veritas North America.

are within lava tubes and modified natural sinks, none of which have been found during previous investigations of the VZW HI3 Kona Airport cell site parcel. Because no surface historic properties are present, the construction of the facility will have no direct effect on historic properties.

There are no historic properties within the 0.5 mi. visual APE of the VZW HI3 Kona Airport cell site. Additionally, there are four existing 100 ft. radio towers less than 0.1 mi. away from the proposed VZW HI3 Kona Airport cell site. The VZW HI3 Kona Airport cell site will have no effect on historic properties for visual effects because no historic properties exist within the APE.

## Glossary

**project** The archaeological investigation, including laboratory analyses and report preparation. See also *undertaking*.

**site** The fundamental unit of archaeological investigation, a location that exhibits material evidence of past human activity.

**undertaking** Any action with the potential for an adverse effect on significant historic properties. See also project.

## Hawaiian Terms

***ʻaʻā*** Basaltic lava flows typified by a rough, jagged, spinose, clinkery surface. See also *pāhoehoe*.

***ahu*** Heap, pile; altar, shrine, cairn.

***ahupuaʻa*** Traditional Hawaiian land division, usually extending from the uplands to the sea.

***Māhele*** The mid-nineteenth century land division responsible for the introduction of fee simple land title in Hawaiʻi.

***makai*** Seaward.

***mauka*** Inland, upland, toward the mountain.

***pāhoehoe*** Basaltic lava flows typified by smooth, billowy, or ropy surface. See also *ʻaʻā*.

## Abbreviations

**APE** The geographic area or areas within which an undertaking may cause changes in the character or use of historic properties, if any such properties exist. See also undertaking.

**USDA** A federal government agency whose mission is to provide leadership on food, agriculture, natural resources, and related issues based on sound public policy, the best available science, and efficient management. Archaeologists in Hawaiʻi typically describe sediments according to standards established by the agency.

## Bibliography


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*T. S. Dye & Colleagues, Archaeologists, Inc.*
*735 Bishop St., Suite 315, Honolulu, Hawai'i 96813*

*Reference*: 342 Addendum

December 13, 2012

Lori Ford
Bureau Veritas North America
970 North Kalaheo Avenue, Suite C-316
Kailua, HI 96734

Dear Ms. Ford:

**Subject: Addendum - Historic Properties Assessment for the Proposed VZW HI3 Kona Airport Cell Site, TMK: (3) 7–3–049:038**

In response to recent State Historic Preservation Division (SHPD) comments, T. S. Dye & Colleagues, Archaeologists conducted an archaeological field inspection for the proposed VZW HI3 Kona Airport Cell Site area of potential effect for direct effects (APE).[1] The field inspection was conducted by T. S. Dye & Colleagues archaeologist Carl E. Sholin on December 12, 2012. The field inspection included a pedestrian survey of one hundred percent of the APE. Potential cultural resources that were anticipated included stacked stone surface architecture, deposits of marine shell midden material, lava tube openings, *pāhoehoe* pit excavations, and petroglyphs.

The field inspection revealed that the surface at the APE consisted of exposed *pāhoehoe* bedrock that supported thinly dispersed fountain grass. Little to no soil formation was observed at the APE. A corridor of bulldozed material was present parallel to the existing access road and included mounds of crushed lava rock that ranged in size from small gravels to small boulders. The bulldozed material extended approximately 10–15 meters (m) south of the existing access road into the APE. Additionally, scars from track vehicles were present on in-situ deposits of *pāhoehoe* bedrock within the APE, indicating recent traffic of heavy machinery. No cultural resources of any kind were identified.

Therefore, observations from the archaeological field inspection supported the conclusions reached by the historic properties assessment: that there are no historic properties within the APE for direct effect.[2]

[1] SHPD correspondence, Log No. 2012.0000 /Doc. No. 1110MV29

[2] Murabayashi et al. (November 2012). *Historic Properties Assessment for the Proposed VZW HI3 Kona Airport Cell Site, Kalaoa Ahupua'a, North Kona District, Hawai'i Island TMK: (3) 7–3–049:038*. Prepared for Bureau Veritas North America. T. S. Dye & Colleagues, Archaeologists, Inc. Honolulu.

*Telephone:* *(808) 529-0866* *Internet:* *http://www.tsdye.com*
*Facsimile:* *(808) 529-0884* *E-mail:* *colleagues@tsdye.com*

If you should have any questions, please feel free to call me at (808) 387-9352.

Sincerely,

Thomas S. Dye
President

# SECTION 4

## State of Hawaii
## Office of Hawaiian Affairs (OHA)

PHONE (808) 594-1888

FAX (808) 594-1865

**STATE OF HAWAI'I**
**OFFICE OF HAWAIIAN AFFAIRS**
711 KAPI'OLANI BOULEVARD, SUITE 500
HONOLULU, HAWAI'I 96813

HDR12-6406B

September 12, 2012

Lori Ford, Senior Project Manager
Bureau Vistas North America, Inc.
970 N. Kalaheo Avenue, Suite C-316
Kailua, Hawai`i 96734

**RE: National Historic Preservation Act Consultation**
**Proposed Verizon Wireless Kona Airport Cell Site**
**Kailua-Kona, Island of Hawai`i**
**Tax Map Key: (3) 7-3-049:038**

Aloha e Ms. Ford,

The Office of Hawaiian Affairs (OHA) is in receipt of your September 7, 2012 letter initiating consultation pursuant to Section 106 of the National Historic Preservation Act of 1966, as amended (36 CFR) for a cellular wireless telecommunications project (undertaking) proposed by Verizon Wireless.

Based on the information within your letter, it is our understanding this proposed undertaking involves installing a 100-foot monopole with twelve (12), 8-foot panel antennas mounted at the top, within an existing 30-by 40-foot chain link fenced area. In addition, an emergency generator and equipment cabinets will be installed adjacent to the monopole within the fenced area. These activities will have a minor impact to the ground surface. OHA believes that this proposed undertaking will have "no adverse effect" on historic properties eligible for listing on the National Register of Historic Places.

OHA does request assurances that should iwi kūpuna or Native Hawaiian cultural or traditional deposits be identified during ground altering activities related to this project, all work will immediately cease and the appropriate agencies, including OHA, will be notified pursuant to applicable law.

Thank you for initiating consultation at this early stage and providing an opportunity to comments. Should you have any questions, please contact Kathryn Keala at 594-0272 or kathyk@oha.org.

'O wau iho nō me ka 'oia'i'o,

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

KMC:kk

C: OHA, Kona Community Outreach Coordinator

## Lori Ford

**From:** towernotifyinfo@fcc.gov
**Sent:** Tuesday, July 24, 2012 10:13 AM
**To:** lford@hawaii.rr.com
**Subject:** Proposed Tower Structure Info - Email ID #3061904

Dear Lori Ford,

Thank you for submitting a notification regarding your proposed construction via the Tower Construction Notification System. Note that the system has assigned a unique Notification ID number for this proposed construction. You will need to reference this Notification ID number when you update your project's Status with us.

Below are the details you provided for the construction you have proposed:

Notification Received: 07/24/2012

Notification ID: 87276
Tower Owner Individual or Entity Name: Verizon Wireless
Consultant Name: Lori Ford
Street Address: 970 N. Kalaheo Avenue
Suite C-316
City: Kailua, Oahu
State: HAWAII
Zip Code: 96734
Phone: 808-531-6708
Email: lford@hawaii.rr.com

Structure Type: POLE - Any type of Pole
Latitude: 19 deg 43 min 59.1 sec N
Longitude: 156 deg 01 min 32.8 sec W
Location Description: TMK (3) 7-3-049: Parcel 038
City: Kailua-Kona
State: HAWAII
County: HAWAII
Ground Elevation: 68.6 meters
Support Structure: 30.5 meters above ground level
Overall Structure: 31.7 meters above ground level
Overall Height AMSL: 100.3 meters above mean sea level

## Lori Ford

**From:** towernotifyinfo@fcc.gov
**Sent:** Thursday, July 26, 2012 9:01 PM
**To:** lford@hawaii.rr.com
**Cc:** kim.pristello@fcc.gov; diane.dupert@fcc.gov
**Subject:** NOTICE OF ORGANIZATION(S) WHICH WERE SENT PROPOSED TOWER CONSTRUCTION NOTIFICATION INFORMATION - Email ID #3063187

*Dear Sir or Madam:*

Thank you for using the Federal Communications Commission's (FCC) Tower Construction Notification System (TCNS). The purpose of this electronic mail message is to inform you that the following authorized persons were sent the information you provided through TCNS, which relates to your proposed antenna structure. The information was forwarded by the FCC to authorized TCNS users by electronic mail and/or regular mail (letter).

Persons who have received the information that you provided include leaders or their designees of federally-recognized American Indian Tribes, including Alaska Native Villages (collectively "Tribes"), Native Hawaiian Organizations (NHOs), and State Historic Preservation Officers (SHPOs). For your convenience in identifying the referenced Tribes and in making further contacts, the City and State of the Seat of Government for each Tribe and NHO, as well as the designated contact person, is included in the listing below. We note that Tribes may have Section 106 cultural interests in ancestral homelands or other locations that are far removed from their current Seat of Government. Pursuant to the Commission's rules as set forth in the Nationwide Programmatic Agreement for Review of Effects on Historic Properties for Certain Undertakings Approved by the Federal Communications Commission (NPA), all Tribes and NHOs listed below must be afforded a reasonable opportunity to respond to this notification, consistent with the procedures set forth below, unless the proposed construction falls within an exclusion designated by the Tribe or NHO. (NPA, Section IV.F.4).

The information you provided was forwarded to the following Tribes and NHOs who have set their geographic preferences on TCNS. If the information you provided relates to a proposed antenna structure in the State of Alaska, the following list also includes Tribes located in the State of Alaska that have not specified their geographic preferences. For these Tribes and NHOs, if the Tribe or NHO does not respond within a reasonable time, you should make a reasonable effort at follow-up contact, unless the Tribe or NHO has agreed to different procedures (NPA, Section IV.F.5). In the event such a Tribe or NHO does not respond to a follow-up inquiry, or if a substantive or procedural disagreement arises between you and a Tribe or NHO, you must seek guidance from the Commission (NPA, Section IV.G). These procedures are further set forth in the FCC's Declaratory Ruling released on October 6, 2005 (FCC 05-176).

1. Chief Executive Officer Clyde W Namu'o - Office of Hawaiian Affairs - Honolulu, HI - electronic mail and regular mail

The information you provided was also forwarded to the additional Tribes and NHOs listed below. These Tribes and NHOs have NOT set their geographic preferences on TCNS, and therefore they are currently receiving tower notifications for the entire United States. For these Tribes and NHOs, you are required to use reasonable and good faith efforts to determine if the Tribe or NHO may attach religious and cultural significance to historic properties that may be affected by its proposed undertaking. Such efforts may include, but are not limited to, seeking information from the relevant SHPO or THPO, Indian Tribes, state agencies, the U.S. Bureau of Indian Affairs, or, where applicable, any federal agency with land holdings within the state (NPA, Section IV.B). If after such reasonable and good faith efforts, you determine that a Tribe or NHO may attach religious and cultural significance to historic properties in the area and the Tribe or NHO

does not respond to TCNS notification within a reasonable time, you should make a reasonable effort to follow up, and must seek guidance from the Commission in the event of continued non-response or in the event of a procedural or substantive disagreement. If you determine that the Tribe or NHO is unlikely to attach religious and cultural significance to historic properties within the area, you do not need to take further action unless the Tribe or NHO indicates an interest in the proposed construction or other evidence of potential interest comes to your attention.

None

The information you provided was also forwarded to the following SHPOs in the State in which you propose to construct and neighboring States. The information was provided to these SHPOs as a courtesy for their information and planning. You need make no effort at this time to follow up with any SHPO that does not respond to this notification. Prior to construction, you must provide the SHPO of the State in which you propose to construct (or the Tribal Historic Preservation Officer, if the project will be located on certain Tribal lands), with a Submission Packet pursuant to Section VII.A of the NPA.

2. SHPO Laura H Thielen - Department of Land & Natural Resources - Honolulu, HI - regular mail

3. Deputy SHPO Theresa K Donham - State Historic Preservation Office - Kapolei, HI - electronic mail

If you are proposing to construct a facility in the State of Alaska, you should contact Commission staff for guidance regarding your obligations in the event that Tribes do not respond to this notification within a reasonable time.

Please be advised that the FCC cannot guarantee that the contact(s) listed above opened and reviewed an electronic or regular mail notification. The following information relating to the proposed tower was forwarded to the person(s) listed above:

Notification Received: 07/24/2012
Notification ID: 87276
Tower Owner Individual or Entity Name: Verizon Wireless
Consultant Name: Lori Ford
Street Address: 970 N. Kalaheo Avenue
Suite C-316
City: Kailua, Oahu
State: HAWAII
Zip Code: 96734
Phone: 808-531-6708
Email: lford@hawaii.rr.com

Structure Type: POLE - Any type of Pole
Latitude: 19 deg 43 min 59.1 sec N
Longitude: 156 deg 1 min 32.8 sec W
Location Description: TMK (3) 7-3-049: Parcel 038
City: Kailua-Kona
State: HAWAII
County: HAWAII
Ground Elevation: 68.6 meters
Support Structure: 30.5 meters above ground level

Overall Structure: 31.7 meters above ground level
Overall Height AMSL: 100.3 meters above mean sea level

If you have any questions or comments regarding this notice, please contact the FCC using the electronic mail form located on the FCC's website at:

http://wireless.fcc.gov/outreach/notification/contact-fcc.html.

You may also call the FCC Support Center at (877) 480-3201 (TTY 717-338-2824). Hours are from 8 a.m. to 7:00 p.m. Eastern Time, Monday through Friday (except Federal holidays). To provide quality service and ensure security, all telephone calls are recorded.

Thank you,
Federal Communications Commission

# APPENDIX D

# REGULATORY AGENCY CORRESPONDENCE FOR PERMITTING

# SECTION 1

## County of Hawaii
## Department of Planning and Permitting

William P. Kenoi
*Mayor*

BJ Leithead Todd
*Director*

Margaret K. Masunaga
*Deputy*

West Hawai'i Office
74-5044 Ane Keohokalole Hwy
Kailua-Kona, Hawai'i 96740
Phone (808) 323-4770
Fax (808) 327-3563

# County of Hawai'i
## PLANNING DEPARTMENT

East Hawai'i Office
101 Pauahi Street, Suite 3
Hilo, Hawai'i 96720
Phone (808) 961-8288
Fax (808) 961-8742

September 19, 2012

Ms. Lori Ford, Senior Project Manager
Bureau Veritas North America, Inc.
970 North Kalaheo Avenue, Suite C-316
Kailua, Oahu, Hawaii 96734

Dear Ms. Ford:

**SUBJECT: Proposed Verizon Wireless (VZW) HI3 Kona Airport Cell Site**
**Project No. 2012769574**
**Tax Map Key: (3) 7-3-049:038, Kailua-Kona, Hawaii 96740**

Thank you for your letter dated July 24, 2012 (COR-12-080103), requesting information for your proposed Kailua-Kona wireless telecommunications cell site. Please accept our apologies for the late response.

The subject property consists of 4 acres of land, and is zoned OPEN (O). The State Land Use designation for this property is Conservation. In accordance with Chapter 25, article 5, section 25-5-162(b), Telecommunication antennas or towers shall be permitted in the O District, provided that a use permit is issued for each use. Plan approval shall be required for all proposed projects. The minimum setbacks for a telecommunication antenna or tower shall be as follows:

(1) Freestanding antennas and towers shall be set back from every property line a minimum of one foot for every five feet of antenna or tower height.

(2) Telecommunication antennas and towers supported by guy wires shall be set back from every property line a minimum of one foot for every one foot of antenna or tower height.

Information pertaining to the Conservation district may be obtained through the State Office of Conservation and Coastal Lands (OCCL) of the State Department of Land and Natural Resources (DLNR) at (808)587-0322

Information on any native Hawaiian cultural, religious, and/or burial sites, historical places, artifacts and other related concerns, may be obtained through the State Historical Preservation Division (SHPD) of the State Department of Land and Natural Resources (DLNR) at (808) 692-8015.

Please feel free to contact us at (808) 961-8288 should you have any further questions or concerns.

Sincerely,

BJ LEITHEAD TODD
Planning Director

GS/KWR:ak
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# APPENDIX E

# NATURAL RESOURCES IMPACTS, REGULATORY AGENCY CORRESPONDENCE

# SECTION 1

## United States Department of the Interior
## United States Fish & Wildlife Service (USFWS)
## Pacific Islands Fish and Wildlife Office

RECEIVED 8-22-12

# United States Department of the Interior

FISH AND WILDLIFE SERVICE
Pacific Islands Fish and Wildlife Office
300 Ala Moana Boulevard, Room 3-122, Box 50088
Honolulu, Hawaii 96850

AUG 2 0 2012

In Reply Refer To:
2012-SL-0387

Ms. Lori Ford
Bureau Veritas North America, Inc.
970 North Kalaheo Ave., Suite C-316
Kailua, Hawaii 96734

Subject: Species List for the Proposed Verizon Wireless Kona Airport Cell Site, Hawaii

Dear Ms. Ford:

The U.S. Fish and Wildlife Service (Service) received your letter, dated July 24, 2012, in which you requested information regarding potential impacts of the proposed installation of a Verizon cellular communications tower in Kailua-Kona, Hawaii. The proposed action involves installing a 100-foot monopole with 12, 8-foot panel antennas mounted at the top, within an approximately 30-foot by 40-foot chain link fenced area. The maximum finished height will be approximately 104 feet above ground level. In addition, an emergency generator and equipment cabinets will be installed adjacent to the monopole within the fenced area. The subject parcel, [TMK (3) 7-3-019:038], is owned by the State of Hawaii and the Big Island Broadcasting Co. Ltd. According to the County of Hawaii Planning and Zoning Department, the parcel is zoned "Open," and the State Land Use designation is "Conservation." We understand the Federal Communications Commission (FCC) has designated the licensees, applicants, tower companies and their representatives as non-Federal representatives for informal section 7 consultations with the Service pursuant to the Endangered Species Act (ESA) of 1973 [16 U.S.C. 1531-1544], as amended.

You requested our assistance in determining: (1) whether the proposed site is located within a wilderness area, wildlife preserve or a National Wildlife Refuge; and (2) whether there are any proposed or listed federally threatened or endangered species, or proposed or designated critical habitat within the proposed project site. We reviewed the proposed project pursuant to the ESA and the Migratory Bird Treaty Act [16 U.S.C. 703-712]. We searched our databases, including data compiled by the Hawaii Biodiversity and Mapping Program. The project is not located near a wilderness area, a wildlife preserve or a National Wildlife Refuge. To the best of our knowledge, there are no federally listed or proposed species, or proposed or designated critical habitat in the immediate vicinity of the project site.

You also requested our assistance regarding the potential effect of this project to listed species.

TAKE PRIDE® IN AMERICA

Pursuant to section 7 of the ESA, it is the responsibility of the lead Federal action agency or their official designee to determine if a project "may affect" listed species or designated critical habitat. Section 7 requires a Federal agency to consult with the Service if they are funding, permitting, undertaking or authorizing an action to assure that action will not jeopardize the continued existence of listed species or adversely modify designated critical habitat.

We appreciate your efforts to conserve endangered species. If you have questions regarding these comments, please contact Jiny Kim, Consultation and Habitat Conservation Planning Program (phone: 808-792-9400, fax: 808-792-9581).

Sincerely,

for Loyal Mehrhoff
Field Supervisor

# SECTION 2

## State of Hawaii
## Department of Land and Natural Resources (DLNR)
## Division of Forestry and Wildlife (DOFAW)

NEIL ABERCROMBIE
GOVERNOR OF HAWAII

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

GUY H. KAULUKUKUI
FIRST DEPUTY

WILLIAM M. TAM
DEPUTY DIRECTOR - WATER

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

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

DIVISION OF FORESTRY AND WILDLIFE
19 EAST KAWILI STREET
HILO, HAWAII 96720
PH: (808)974-4221 FAX: 808)974-4226

August 30th, 2012

Lori Ford
Senior Project Manager
Bureau Veritas North America, Inc.

Madam,

The proposed Verizon Wireless (VZW) HI3 Kona Airport Cell Site (VZW Project ID #2012769574) located at TMK Number: (3) 7-3-049: Parcel 038 (Portion), Kailua-Kona, Hawaii is not located within federally designated critical habitat for either plant species or the Blackburn's sphinx moth (*Manduca blackburni*). There are no known records of endangered plant species locations within the proposed site though it is strongly recommended that a proper biological survey be conducted prior to any disturbance/development of the parcel. Since the monopole will be installed in a previously disturbed/altered area the proposed action should have no adverse impact to any listed endangered plant species. There may be the federally endangered Hawaiian Hawk or i`o (*Buteo solitarius*) or Hawaiian Hoary Bat (*Lasiurus cinereus semotus*) in the area so care should be taken if larger trees are to be removed as bats and hawks are known to roost in large trees. Additionally, the area in question is extremely dry and the risk of fire is great so proper mitigative measures need to be taken to lessen the accidental chance of a fire start. Please contact us if you have additional questions and thank you for the opportunity to comment on the proposed action.

Sincerely,

Roger Imoto
Hawaii District Manager
Division of Forestry and Wildlife
19 East Kawili Street
Hilo, Hawaii 96720
(808) 974-4221

# SECTION 3

## U.S. Army Corp of Engineers (USACE) Clearance

**DEPARTMENT OF THE ARMY**
**U.S. ARMY CORPS OF ENGINEERS, HONOLULU DISTRICT**
**FORT SHAFTER, HAWAII 96858-5440**

RECEIVED 8-11-12

**REPLY TO ATTENTION OF:**

August 7, 2012

Regulatory Branch

File Number **POH-2012-00194**

Bureau Veritas North America, Inc.
Attention: Lori Ford
970 North Kalaheo Avenue, Suite C-316
Kailua, HI 96734

**NO PERMIT REQUIRED**

Dear Ms. Ford:

We have received your letter dated July 24, 2012 requesting the Department of the Army (DA) review and comment on the proposed installation of the Verizon Wireless HI3 Kona Airport Cell Site. We have assigned this project the reference number **POH-2012-00194.** Please cite this reference number in any future correspondence concerning this project.

We completed our review of the submitted document pursuant to Section 10 of the Rivers and Harbors Act of 1899 (Section 10) and Section 404 of the Clean Water Act (Section 404). Section 10 requires a DA permit be obtained from the U.S. Army Corps of Engineers (Corps) prior undertaking any construction, dredging, or other activity occurring in, over or under, or affecting navigable water of the U.S. For tidal waters, the shoreward limit of the Corps jurisdiction extends to the Mean High Water Mark. Section 404 required a DA permit be obtained for the discharge (placement) of dredged and/or fill material into waters of the U.S., including wetlands. For tidally influenced waters, in the absence of adjacent wetlands, the shoreward limit of the Corps jurisdiction extends to the High Tide Line, which in Hawai'i may be approximated by reference to the Mean Higher High Water Mark. For non-tidal waters, the lateral limits of the Corps jurisdiction extend to the Ordinary High Water Mark or the approved delineated boundary of any adjacent wetlands.

Based on the information submitted, it appears the project site consist entirely of uplands and is absent of waters of the U.S. under the regulatory jurisdiction of the Corps. We anticipate the proposed installation of a 100-foot monopole with 12, 8-foot panel antennas mounted at the top, emergency generator, and equipment cabinets will not involve the discharge of fill material into waters of the U.S. therefore, **a DA permit will not be required**.

This determination does not relieve you of the responsibility to obtain any other permits, licenses, or approvals that may be required under County, State, or Federal law for the proposed work.

Thank you for contacting us regarding this project and providing us with the opportunity to review and comment. Should you have any questions, please contact Ms. Michelle Lazaro at (808) 835-4307, or through email at *Michelle.K.Lazaro@usace.army.mil*. You are encouraged to

provide comments on your experience with the Honolulu District Regulatory Branch by accessing our web-based customer survey form at *http://per2.nwp.usace.army.mil/survey.html*.

Sincerely,

for

George P. Young, P.E.
Chief, Regulatory Branch

# APPENDIX F

# DRAFT EA COMMENTS AND RESPONSES

## Lori Ford

**From:** Owen Miyamoto <owen@hawaii.edu>
**Sent:** Thursday, November 13, 2014 2:14 PM
**To:** Lori Ford
**Cc:** Chauncey Wong-Yuen
**Subject:** Kona Airport Telecommunication Facility
**Attachments:** faa7460_1.pdf

Lori,

The Draft Environmental Assessment for the Verizon Wireless Cellular Tower at Kalaeloa, North Kona, Hawaii should include the requirement that the applicant will file a Form 74460-1 Notice of Proposed Construction with the Federal Aviation Administration. A copy of the form is attached. The requirements for the notice are described in:

http://www.faa.gov/airports/central/engineering/part77/#on_airport

The tower will be located within 20,000 feet and above the 100 to 1 slope as measured from the runway at Keahole Airport, which requires a notice to be filed before construction is allowed to proceed.

Owen Miyamoto, PE, FASCE
Honolulu Community College
874 Dillingham Boulevard
Honolulu, HI 96817-4598
Phone: 808-832-3726
Email: owen@hawaii.edu

February 18, 2016

Mr. Owen Miyamoto
Honolulu Community College
874 Dillingham Boulevard
Honolulu, HI 96817-4598

Dear Mr. Miyamoto:

In response to your inquiry regarding our proposed telecommunications structure at Kona Airport, Verizon did submit the form 7460-1 – Notice of Proposed Construction to the Federal Aviation Administration (FAA) on June 2nd, 2015. The FAA issued a Determination of No Hazard letter for the proposed construction of this antenna tower on June 22nd, 2015. A copy of this letter is attached for your convenience.

Please do not hesitate to contact me at 501.905.6507, should you have any questions.

Sincerely,

Beth B. Tunnell

Supervisor, Network Regulatory

Mail Processing Center
Federal Aviation Administration
Southwest Regional Office
Obstruction Evaluation Group
2601 Meacham Boulevard
Fort Worth, TX 76193

Aeronautical Study No.
2015-AWP-6349-OE

Issued Date: 06/22/2015

Regulatory
Cellco Partnership
1120 Sanctuary Pkwy
#150, GASA5REG
Alpharetta, GA 30009

**** DETERMINATION OF NO HAZARD TO AIR NAVIGATION ****

The Federal Aviation Administration has conducted an aeronautical study under the provisions of 49 U.S.C., Section 44718 and if applicable Title 14 of the Code of Federal Regulations, part 77, concerning:

| | |
|---|---|
| Structure: | Monopole Kona Airport |
| Location: | Kailua-Kona, HI |
| Latitude: | 19-43-59.02N NAD 83 |
| Longitude: | 156-01-31.95W |
| Heights: | 252 feet site elevation (SE) |
| | 104 feet above ground level (AGL) |
| | 356 feet above mean sea level (AMSL) |

This aeronautical study revealed that the structure would have no substantial adverse effect on the safe and efficient utilization of the navigable airspace by aircraft or on the operation of air navigation facilities. Therefore, pursuant to the authority delegated to me, it is hereby determined that the structure would not be a hazard to air navigation provided the following condition(s) is(are) met:

As a condition to this Determination, the structure is marked/lighted in accordance with FAA Advisory circular 70/7460-1 K Change 2, Obstruction Marking and Lighting, red lights - Chapters 4,5(Red),&12.

It is required that FAA Form 7460-2, Notice of Actual Construction or Alteration, be e-filed any time the project is abandoned or:

_____ At least 10 days prior to start of construction (7460-2, Part 1)
__X__ Within 5 days after the construction reaches its greatest height (7460-2, Part 2)

See attachment for additional condition(s) or information.

Any height exceeding 104 feet above ground level (356 feet above mean sea level), will result in a substantial adverse effect and would warrant a Determination of Hazard to Air Navigation.

This determination expires on 12/22/2016 unless:

(a) the construction is started (not necessarily completed) and FAA Form 7460-2, Notice of Actual Construction or Alteration, is received by this office.
(b) extended, revised, or terminated by the issuing office.
(c) the construction is subject to the licensing authority of the Federal Communications Commission (FCC) and an application for a construction permit has been filed, as required by the FCC, within 6 months of the date of this determination. In such case, the determination expires on the date prescribed by the FCC for completion of construction, or the date the FCC denies the application.

NOTE: REQUEST FOR EXTENSION OF THE EFFECTIVE PERIOD OF THIS DETERMINATION MUST BE E-FILED AT LEAST 15 DAYS PRIOR TO THE EXPIRATION DATE. AFTER RE-EVALUATION OF CURRENT OPERATIONS IN THE AREA OF THE STRUCTURE TO DETERMINE THAT NO SIGNIFICANT AERONAUTICAL CHANGES HAVE OCCURRED, YOUR DETERMINATION MAY BE ELIGIBLE FOR ONE EXTENSION OF THE EFFECTIVE PERIOD.

This determination is subject to review if an interested party files a petition that is received by the FAA on or before July 22, 2015. In the event a petition for review is filed, it must contain a full statement of the basis upon which it is made and be submitted to the Manager, Airspace Regulations & ATC Procedures Group, Federal Aviation Administration, 800 Independence Ave, SW, Room 423, Washington, DC 20591.

This determination becomes final on August 01, 2015 unless a petition is timely filed. In which case, this determination will not become final pending disposition of the petition. Interested parties will be notified of the grant of any review. For any questions regarding your petition, please contact Airspace Regulations & ATC Procedures Group via telephone -- 202-267-8783 - or facsimile 202-267-9328.

This determination is based, in part, on the foregoing description which includes specific coordinates, heights, frequency(ies) and power. Any changes in coordinates, heights, and frequencies or use of greater power will void this determination. Any future construction or alteration, including increase to heights, power, or the addition of other transmitters, requires separate notice to the FAA.

This determination does include temporary construction equipment such as cranes, derricks, etc., which may be used during actual construction of the structure. However, this equipment shall not exceed the overall heights as indicated above. Equipment which has a height greater than the studied structure requires separate notice to the FAA.

This determination concerns the effect of this structure on the safe and efficient use of navigable airspace by aircraft and does not relieve the sponsor of compliance responsibilities relating to any law, ordinance, or regulation of any Federal, State, or local government body.

Any failure or malfunction that lasts more than thirty (30) minutes and affects a top light or flashing obstruction light, regardless of its position, should be reported immediately to (877) 487-6867 so a Notice to Airmen (NOTAM) can be issued. As soon as the normal operation is restored, notify the same number.

This aeronautical study considered and analyzed the impact on existing and proposed arrival, departure, and en route procedures for aircraft operating under both visual flight rules and instrument flight rules; the impact on all existing and planned public-use airports, military airports and aeronautical facilities; and the cumulative impact resulting from the studied structure when combined with the impact of other existing or proposed structures. The study disclosed that the described structure would have no substantial adverse effect on air navigation.

An account of the study findings, aeronautical objections received by the FAA during the study (if any), and the basis for the FAA's decision in this matter can be found on the following page(s).

A copy of this determination will be forwarded to the Federal Communications Commission (FCC) because the structure is subject to their licensing authority.

If we can be of further assistance, please contact Karen McDonald, at (310) 725-6557. On any future correspondence concerning this matter, please refer to Aeronautical Study Number 2015-AWP-6349-OE.

**Signature Control No: 253687349-255761913** ( DNH )
Mike Helvey
Manager, Obstruction Evaluation Group

Attachment(s)
Additional Information
Case Description
Frequency Data
Map(s)

cc: FCC

The proposal, submitted by Cellco Partnership, will construct a 104-foot above ground level (agl) monopole antenna structure, on significantly rising natural terrain in Kailua-Kona, Hawaii. The site is located approximately 1.19 nautical miles (NM) northeast of the Kona International at Keahole (KOA)(PHKO) airport reference point, 4008 feet abeam the single Runway 17/35 centerline . The KOA Field Elevation (FE) is 47 feet above mean sea level (amsl). KOA is the closest civilian public-use landing area. The site elevation of this proposal is 252 feet amsl.

The structure height exceeds the obstruction standards of Title 14 Code of Federal Regulations (CFR) Part 77 as follows:

Section 77.19(a) by 159 feet, the entire height of the structure above the ground because of the significantly rising site terrain - a height exceeding the KOA Horizontal Surface.

Details of the proposal were not circularized for public aeronautical comment because internal FAA evaluation finds that the adverse effect of this structure is known. There would be no derogation of the navigable airspace overlying the site. Existing obstacles and terrain control the development of future approach and departure instrument Terminal Procedures at KOA. Therefore, no further attempt to negotiate the structure to a lower height was considered necessary. This does not affect the right to petition for review determinations regarding structures which exceed the subject obstruction standards.

AERONAUTICAL STUDY FOR POSSIBLE EFFECT UPON THE OPERATION OF AN AIR NAVIGATION AID:

- None. At a distance of 4300 feet from transmitter site spurious emissions signal levels from proposed transmitters must be less than -104 dBm in the 108-137, 225-400 MHz frequency bands.

AERONAUTICAL STUDY FOR POSSIBLE INSTRUMENT FLIGHT RULES (IFR) EFFECT DISCLOSED THE FOLLOWING:

- The proposal would have no effect on any existing or proposed IFR arrival/departure routes, operations, or procedures.

- The proposal would have no effect on any existing or proposed IFR en route routes, operations, or procedures.

- The proposal would have no effect on any existing or proposed IFR minimum flight altitudes.

AERONAUTICAL STUDY FOR POSSIBLE VISUAL FLIGHT RULES (VFR) EFFECT DISCLOSED THE FOLLOWING:

- The proposal would have no effect on any existing or proposed VFR arrival or departure routes, operations or procedures.

- The proposal would not conflict with airspace required to conduct normal VFR traffic pattern operations at any known public use or military airports, including KOA. The proposal is sited abeam the Runway 17/35 centerline to the east. RWY 17 has non-standard Right Traffic in the VFR Traffic Pattern. RWY 35 has standard Left Traffic in the VFR Traffic Pattern. Therefore, this proposal does not have significant penetration

or adverse impact on the maneuvering area associated with VFR Traffic Pattern operations at KOA. Aircraft at normal Traffic Pattern altitudes and standard rates of descent have reasonable clearance above this structure.

- The proposal would not penetrate those altitudes normally considered available to airmen for VFR en route flight.

The cumulative impact of the proposed structure, when combined with other existing structures is not considered significant. Study did not disclose any adverse effect on existing or proposed public-use or military airports or navigational facilities. Nor would the proposal affect the capacity of any known existing or planned civilian public-use or military airport.

Therefore, it is determined that the proposed construction would not have a substantial adverse effect on the safe and efficient utilization of the navigable airspace by aircraft or on any air navigation facility and would not be a hazard to air navigation.

This determination, issued in accordance with Part 77, concerns the effect of the proposal on the safe and efficient use of the navigable airspace by aircraft and does not relieve the sponsor of any compliance responsibilities relating to laws, ordinances, or regulations of any Federal, state, or local governmental bodies.

Determinations, which are issued in accordance with Part 77, do not supersede or override any state, county, or local laws, avigation easements, or ordinances, or local zoning maximum heights.

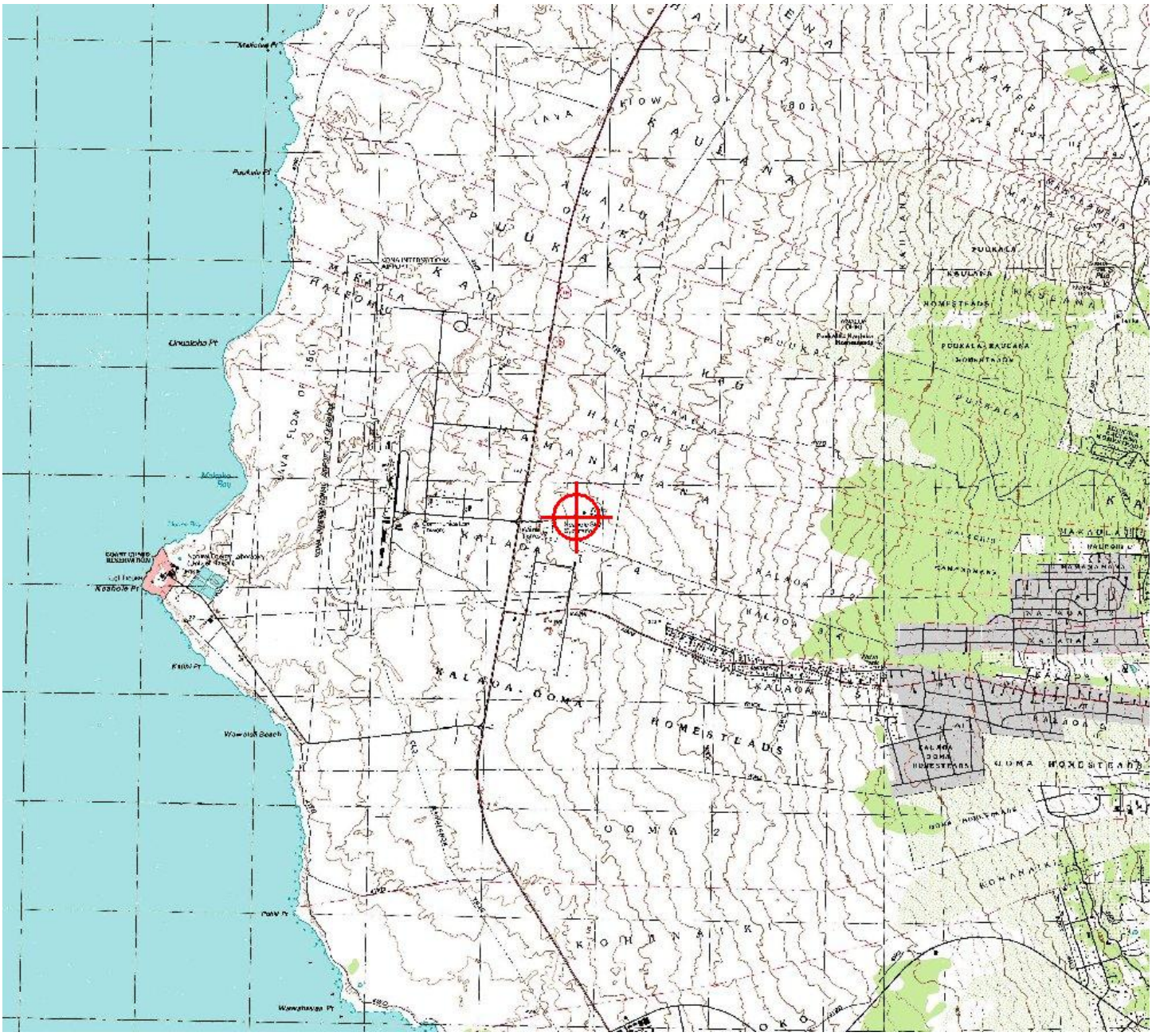
## Case Description for ASN 2015-AWP-6349-OE

Proposed 104' monopole. If marking/lighting is required, red lights only is requested. For questions, please contact Candice Koenig @ 770-797-1056

**Frequency Data for ASN 2015-AWP-6349-OE**

| LOW FREQUENCY | HIGH FREQUENCY | FREQUENCY UNIT | ERP | ERP UNIT |
|---|---|---|---|---|
| 698 | 806 | MHz | 1000 | W |
| 806 | 824 | MHz | 500 | W |
| 824 | 849 | MHz | 500 | W |
| 851 | 866 | MHz | 500 | W |
| 869 | 894 | MHz | 500 | W |
| 896 | 901 | MHz | 500 | W |
| 901 | 902 | MHz | 7 | W |
| 930 | 931 | MHz | 3500 | W |
| 931 | 932 | MHz | 3500 | W |
| 932 | 932.5 | MHz | 17 | dBW |
| 935 | 940 | MHz | 1000 | W |
| 940 | 941 | MHz | 3500 | W |
| 1850 | 1910 | MHz | 1640 | W |
| 1930 | 1990 | MHz | 1640 | W |
| 2305 | 2310 | MHz | 2000 | W |
| 2345 | 2360 | MHz | 2000 | W |

# TOPO Map for ASN 2015-AWP-6349-OE



**Sectional Map for ASN 2015-AWP-6349-OE**

DAVID Y. IGE
GOVERNOR OF
HAWAII

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

KEKOA KALUHIWA
FIRST DEPUTY

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

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

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

OFFICE OF CONSERVATION AND COASTAL LANDS
POST OFFICE BOX 621
HONOLULU, HAWAII 96809

REF: OCCL: AJR

COR: HA-16-191

APR - 6 2016

Lori Ford
c/o Ford Canty & Associates, Inc.
173 Ku'uala St.
Kailua, HI 96734

**RE: REVIEW AND COMMENTS ON A DRAFT – FINAL ENVIRONMENTAL ASSESSMENT FOR A PROPOSED NEW TELECOMMUNICATIONS FACILITY**
North Kona District, Island of Hawaii
*TMK: (3) 7-3-049:038*

Dear Ms. Ford,

The Office of Conservation and Coastal Lands (OCCL) is in receipt of your "draft" Final Environmental Assessment document for a proposed new Verizon Wireless telecommunications facility. For reference, the subject parcel and project site are located in the State Land Use (SLU) Conservation District, *General* Subzone.

It should be noted that this is the first review the OCCL has completed of any Environmental Assessment related to this project; the OCCL was not provided an opportunity to comment on the Draft Environmental Assessment. Previous approval to conduct land uses at this site was provided by the Chairperson of the Board of Land and Natural Resources (BLNR) on April 26, 2013 via Conservation District Use Permit – CDUP: HA-3656. That approval allowed the applicant to install temporary telecommunications equipment on the subject parcel to determine feasibility of building a permanent facility at this site.

According to the Draft – Final Environmental Assessment the applicant (Verizon Wireless) is proposing to, 1) install a 100-foot tall monopole with twelve (12) 8-foot panel antennae mounted to the top of the monopole, 2) install approximately 140 linear feet (1200 sq. ft.) of chain link security fencing, 3) installation of an emergency generator and equipment cabinets, and 4) construction of new concrete pads, foundations and gravel access drive.

After reviewing the documents provided, we find that:

1. Your proposal to construct a new Telecommunication Facility on the subject parcel is an identified land use within the Conservation District General Subzone pursuant to Hawaii Administrative Rules (HAR), §13-5-22, P-14, **TELECOMMUNICATIONS** (D-1), *New*

*telecommunications facility.* *A management plan approved simultaneously with the permit is also required*. In order to apply for this land use the applicant will be required to submit to this office a completed Conservation District Use Application (CDUA) and *Management Plan* (see Hawaii Administrative Rules §13-5-39) for review and processing. Please note that the final decision to approve or deny this proposal rests with the Board of Land and Natural Resources;

2. Pursuant to HAR §13-5-40, Hearings, a public hearing *may* be required;

3. A Draft Environmental Assessment (DEA) was published in the Office of Environmental Quality Control (OEQC) publication the Environmental Notice (EN) on *November 8, 2014*. At this time the Final Environmental Assessment (FEA) is being completed for submission to the OEQC; and

4. A Special Management Area (SMA) determination will not be required as this project site is located outside the County of Hawaii SMA.

If you have any questions related to this correspondence, or on our rules and regulations, please contact Alex J. Roy, M.Sc., of our Office of Conservation and Coastal Lands staff at 808-587-0316 or via email at alex.j.roy@hawaii.gov

Sincerely,

Samuel J. Lemmo, Administrator
*Office of Conservation and Coastal Lands*

*CC:* *Chairperson*
*HDLO*
*County of Hawaii – Planning Department*
*PUC*

173 Kuuala Street
Kailua, HI 96734
808.426.6927

**Ford Canty & Associates, Inc.**
Environmental Scientists & Engineers

April 29, 2016

Mr. Samuel J. Lemmo, Administrator
State of Hawaii
Department of Land and Natural Resources (DLNR)
Office of Conservation and Coastal Lands (OCCL)
P.O. Box 621
Honolulu, HI 96809

Project No. 16-1081

Subject: Environmental Assessment Report for the Proposed Verizon Wireless HI3 Kona Airport Telecommunications Facility (VZW Project ID #2012769574), Portion of TMK No.: (3) 7-3-049: Parcel 038, Kailua-Kona, Hawaii County, Hawaii 96740

Dear Mr. Lemmo:

We received your letter, dated April 6, 2016, regarding the Environmental Assessment Report for the Proposed Verizon Wireless HI3 Kona Airport Telecommunications Facility (VZW Project ID #2012769574), Portion of TMK No.: (3) 7-3-049: Parcel 038, Kailua-Kona, Hawaii County, Hawaii 96740. The Draft Environmental Assessment Report was published in the Office of Environmental Quality Control (OEQC) bulletin, *The Environmental Notice*, dated November 8, 2014.

Based on your review, we understand that (1) a completed Conservation District Use Application (CDUA) and Management Plan is required, (2) a public hearing may be required, and (3) a Special Management Area (SMA) determination will not be required for this proposed project.

Thank you for your review and comments on this matter.

Sincerely,

Lori Ford
Senior Project Manager

cc: Teresa Beard, VZW