DEPARTMENT OF PLANNING AND PERMITTING
CITY AND COUNTY OF HONOLULU
650 SOUTH KING STREET, 7TH FLOOR • HONOLULU, HAWAII 96813
PHONE: (808) 768-8000 • FAX: (808) 768-6041
DEPT. WEB SITE: www.honoluludpp.org • CITY WEB SITE: www.honolulu.gov

FILE COPY

KIRK CALDWELL
MAYOR

KATHY K. SOKUGAWA
ACTING DIRECTOR

TIMOTHY F. T. HIU
DEPUTY DIRECTOR

EUGENE H. TAKAHASHI
DEPUTY DIRECTOR

2017/ED-13(JL1)

March 12, 2018

MAR 23 2018

Mr. Scott Glenn, Director
State of Hawaii
Department of Health
Office of Environmental Quality Control
235 South Beretania Street, Suite 702
Honolulu, Hawaii 96813

RECEIVED
'18 MAR 13 A10:05
OFC. OF ENVIRONMENTAL QUALITY CONTROL

Dear Mr. Glenn:

SUBJECT:	Chapter 343, Hawaii Revised Statutes (HRS) Final Environmental Assessment (FEA)
Project:	Proposed Nimitz Highway Tower Relocation Site
Applicant:	Blow Up, LLC
Agent:	Centerline Solutions LLC
Location:	Makai of Nimitz Highway and West of Kalihi Stream – Kahauiki Village – Keehi Lagoon
Tax Map Keys:	1-1-003: 211, 003, 207, and 212
Proposal:	The Applicant proposes to install a 150-foot guyed broadcast lattice tower and accessory equipment, three concrete guy wire anchors, a 150-foot-long gravel access road, and a 150-foot-radius fence on state owned lands.
Determination:	Finding of No Significant Impact

Attached and incorporated by reference is the FEA as prepared by the Applicant for the subject Project. Based on the significance criteria outlined in Title 11, Chapter 200, Hawaii Administrative Rules, we have determined that the preparation of an Environmental Impact Statement is not required, and have issued a Finding of No Significant Impact. Please publish this finding in the next edition of the "*The Environmental Notice*" on **March 23, 2018**.

Enclosed, please find a completed OEQC Publication Form, a hard copy of the FEA, and a disk with three (3) copies of the FEA and electronic copy of the publication form in MS Word.

18-436

Should you have any questions, please contact Janet Lau, of our staff, at (808) 768-8033 or by email at janet.lau@honolulu.gov.

Very truly yours,

Kathy K. Sokugawa
Acting Director

Enclosure: Final EA, one hard copy and three on CD
OEQC Publication Form, one hard copy and one on CD

Doc1570487

APPLICANT
PUBLICATION FORM

Project Name:	Nimitz Highway Tower Relocation Site
Project Short Name:	KHKA Permanent
HRS §343-5 Trigger(s):	Use of State Land
Island(s):	Oahu
Judicial District(s):	Honolulu
TMK(s):	1-1-003: 211, 003, 207 and 212
Permit(s)/Approval(s):	Conditional Use Permit (Minor) for utility installation, Type A; Conditional Use Permit (Minor) for the joint development of four zoning lots; Minor Shoreline Structures Permit; Zoning Waiver for exceeding height limit; and Special Management Area Permit (Major)
Approving Agency:	City and County of Honolulu Department of Planning and Permitting
Contact Name, Email, Telephone, Address	Janet Lau, janet.lau@honolulu.gov, (808) 768-8033 Frank F. Fasi Municipal Building, 650 South King Street, 7th Floor, Honolulu, Hawaii 96813
Applicant:	Blow Up, LLC
Contact Name, Email, Telephone, Address	Susan Eichor, susane@aiohawaii.com 1000 Bishop Street, Suite 202, Honolulu, Hawaii 96813
Consultant:	Centerline Solutions
Contact Name, Email, Telephone, Address	Matt Miura, mmiura@centerlinesolutions.com, (808) 590-9837 Grant Nakaya, gnakaya@centerlinesolutions.com, (808) 990-0658 3375 Koapaka Street, Suite D-185, Honolulu, Hawaii 96819

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

Provide a description of the proposed action and purpose and need in 200 words or less.

The proposed action is the installation of a 150-foot guyed, broadcast lattice tower with a one-foot lightning rod at the top, sitting on a concrete foundation that will extend one-foot aboveground with a one-foot tall insulator between the tower and concrete foundation for a total tower height of 153 feet. A four-foot microwave antenna will be mounted at an 80-foot elevation on the tower. The tower will be installed in a 2,500 square foot fenced facility located at the center of a 150-foot radius fenced area. The facility will have an equipment shelter, emergency generator, and copper radial system for grounding installed within the fenced areas.

The original site of the broadcast tower is located along the Honolulu Rail Transit Project route. The proposed Project will be the permanent location for the broadcast tower. An Environment Assessment is required as the subject parcels are state owned lands. This Project will provide continued radio service to the Oahu community.

During construction, the ground surface will be disturbed by: excavating for foundation installation; constructing concrete piers for the equipment shelter and emergency generator; constructing concrete guy-wire anchors; grading for a gravel site access driveway; and erection of the chain-link fence enclosure.

FORD & ASSOCIATES, INC.
ENVIRONMENTAL SCIENTISTS & ENGINEERS

Final
Environmental Assessment
Report

Proposed Nimitz Highway Tower Relocation Site
Portion of
Tax Map Key (TMK) Number: (1) 1-1-003: Parcels 003, 207, 211 and 212
Honolulu, Honolulu County, Hawaii 96819

Project No. 16-1144

March 7, 2018

Prepared for:

BlowUp, LLC
c/o Centerline Solutions
3375 Koapaka Street, Suite D-185
Honolulu, Hawaii 96819

Prepared by:

Ford & Associates, Inc.
928 Nuuanu Avenue, Suite 505
Honolulu, Hawaii 96817
808.426.6927

TABLE OF CONTENTS

Section Page

List of Acronyms v
Executive Summary vii
Project Summary ix

1.0 INTRODUCTION 1
2.0 SUBJECT PROPERTY/PARCEL DESCRIPTION 1
2.1 SUBJECT PARCEL/PROPERTY LOCATION 1
2.2 CURRENT USE OF SUBJECT PARCEL/PROPERTY 1
2.3 SURROUNDING/ADJACENT PROPERTIES 2
3.0 PROPOSED ACTION 2
3.1 TECHNICAL CHARACTERISTICS 2
3.2 ENVIRONMENTAL CHARACTERISTICS 4
3.3 SCHEDULE 5
3.4 ALTERNATIVES AND NO ACTION ALTERNATIVE 5
4.0 PERMITS 6
5.0 COMMUNITY CONSULTATION 7
6.0 AFFECTED ENVIRONMENT 7
6.1 NATURAL RESOURCES – PHYSICAL RESOURCES 7
6.1.1 Earth Resources 8
6.1.1.1 Baseline Conditions 8
6.1.1.2 Proposed Action Impacts and Mitigation 8
6.1.2 Water Resources 8
6.1.2.1 Baseline Conditions 8
6.1.2.2 Proposed Action Impacts and Mitigation 9
6.1.3 Hazardous Substances 9
6.1.3.1 Baseline Conditions 9
6.1.3.2 Proposed Action Impacts and Mitigation 9
6.2 NATURAL RESOURCES – BIOLOGICAL RESOURCES 10
6.2.1 Wetlands 10
6.2.1.1 Baseline Conditions 10
6.2.1.2 Proposed Action Impacts and Mitigation 10
6.2.2 Wilderness Area 11
6.2.2.1 Baseline Conditions 11
6.2.2.2 Proposed Action Impacts and Mitigation 11
6.2.3 Wildlife Preserve 11
6.2.3.1 Baseline Conditions 11
6.2.3.2 Proposed Action Impacts and Mitigation 12

6.2.4 Listed or Proposed Threatened or Endangered Species and Designated or Proposed Critical Habitats 12
6.2.4.1 Baseline Conditions 12
6.2.4.2 Proposed Action Impacts and Mitigation 12
6.3 NOISE 13
6.3.1 Baseline Conditions 13
6.3.2 Proposed Action Impacts and Mitigation 13
6.4 VIEW AND VISUAL IMPACTS 14
6.4.1 Baseline Conditions 14
6.4.2 Proposed Action Impacts and Mitigation 14
6.5 UTILITIES 14
6.5.1 Baseline Conditions 14
6.5.2 Proposed Action Impacts and Mitigation 14
6.6 HISTORIC AND CULTURAL RESOURCES 15
6.6.2 Proposed Action Impacts and Mitigation 15
6.7 SOCIO-ECONOMICS 16
6.7.1 Baseline Conditions 17
6.7.2 Proposed Action Impacts and Mitigation 17
6.8 ENVIRONMENTAL JUSTICE 17
6.8.1 Baseline Conditions 17
6.8.2 Proposed Action Impacts and Mitigation 17
6.9 AIR QUALITY 18
6.9.1 Baseline Conditions 18
6.9.2 Proposed Action Impacts and Mitigation 19
6.10 PUBLIC ACCESS 19
6.10.1 Baseline Conditions 19
6.10.2 Proposed Action Impacts and Mitigation 19
6.11 TRAFFIC IMPACTS 19
6.12 LAND USE 20
6.12.1 Baseline Conditions 20
6.12.2 Proposed Action Impacts and Mitigation 20
6.13 ACCESS TO THE AREA 21
6.13.1 Baseline Conditions 21
6.13.2 Proposed Action Impacts and Mitigation 21
6.14 HEALTH AND SAFETY 21
6.14.1 Baseline Conditions 21
6.14.2 Proposed Action Impacts and Mitigation 21
7.0 COMPLIANCE WITH PLANS AND PROGRAMS 22
7.1 STATE LAND USE 22
7.2 STATE PLANNING ACT 22
7.3 COASTAL ZONE MANAGEMENT PROGRAM 23
7.4 CITY AND COUNTY OF HONOLULU GENERAL PLAN 28
7.5 PRIMARY URBAN CENTER DEVELOPMENT PLAN 29
8.0 FINDINGS 29

Figures

Photographs

Appendices

A References
B Community Consultation Correspondence
C Natural Resources Impacts, Regulatory Agency Correspondence
D Cultural Impacts, Agency and Organization Correspondence
E Regulatory Agency Correspondence for Permitting
F Draft EA Comments and Responses

Appendices (Detail)……..iv

APPENDICES (Detail)

A References
B Community Consultation Correspondence
- Public Notice
- Neighborhood Board Meeting Minutes
C Natural Resources Impacts, Regulatory Agency Correspondence
- U.S. Fish and Wildlife Service Correspondence
- State of Hawaii, Department of Land & Natural Resources, Division of Forestry and Wildlife Correspondence
- U.S. Army Corps of Engineers Correspondence
- Flood Insurance Rate Map
- Flood Hazard Assessment Report
- Wetland Inventory Map
- Soils Map
D Cultural Impacts, Agency and Organization Correspondence
- HPA Report
- Complete Form 620 Submittal
- E106 Filing Confirmation
- SHPO Reply Letter
- OHA Notification of Proposed Tower Construction Information
- OHA Correspondence
E Regulatory Agency Correspondence for Permitting
- DPP Correspondence
- DLNR Land Division Correspondence
F Draft DEA Comments and Responses

LIST OF ACRONYMS

AMSL	Above Mean Sea Level
AGL	Above Ground Level
APE	Area of Potential Effects
BMPs	Best Management Practices
CAA	Clean Air Act
Cl^-	Chloride
CO	Carbon Monoxide
CUP	Conditional Use Permit
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
FAA	Federal Aviation Administration
FCC	Federal Communications Commission
FEMA	Federal Emergency Management Agency
FIRM	Flood Insurance Rate Map
FONSI	Finding of No Significant Impact
GP	County of Honolulu General Plan
HAR	Hawaii Administrative Rules
HART	Honolulu Authority for Rapid Transportation
HECO	Hawaii Electric Company, Inc.
HEER	Hazard Evaluation and Emergency Response
HPA	Historic Properties Assessment
HRHP	Hawaii Register of Historic Places
HRS	Hawaii Revised Statutes
HSPA	Hawaii State Planning Act
H_2S	Hydrogen Sulfide
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
NOAA	National Oceanic and Atmospheric Administration
NO_2	Nitrogen Dioxide
NPA	National Programmatic Agreement
NRHP	National Register of Historic Places
O_3	Ozone

LIST OF ACRONYMS
(Continued)

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
SHPD	State Historic Preservation Division
SHPO	State Historic Preservation Officer
SMA	Special Management Area
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

Executive Summary for Nimitz Highway Tower Relocation Site Final EA
Located at Tax Map Key (TMK) No.: (1) 1-1-003: Parcels 003, 207, 211 and 212 (Portions), Honolulu, Hawaii

Purpose and Need

This Final Environmental Assessment (EA) for the proposed Nimitz Highway Tower Relocation Site located at Tax Map Key (TMK) No. (1) 1-1-003: Parcels 003, 207, 211 and 212 (portions), Honolulu, Honolulu County, Hawaii 96819 (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 BlowUp, LLC, the proposed action involves installing a 150-foot guyed, broadcast lattice tower with one, 4-foot microwave antenna mounted at a height of 80 feet above ground level (agl), and a 1-foot tall lightning rod mounted at the top. The lattice tower will sit on a concrete foundation underground, of which 1-foot will be above ground. A 1-foot tall insulator is located between the tower and the concrete foundation. Therefore, the total lattice tower height will be 153 feet. In addition, an equipment shelter and emergency generator will be installed south of the lattice tower. The lattice tower, equipment shelter and emergency generator will be installed within a 2,500 square foot fenced area, which will be within a 150-foot radius fenced area. A copper radial system (used for grounding) will be installed in the ground within the fenced areas.

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 lattice tower; (2) constructing new concrete piers for shelter for the equipment cabinets and emergency generator, (3) constructing new concrete anchors for the guy wires, (4) grading for a gravel site access driveway, and (5) 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 broadcast tower in the northeastern corner of the subject parcel. Grading and excavation activities required for the proposed project are limited to the immediate vicinity of the subject property. 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 resources, cultural resources, public access, traffic impacts, land use, access to the area, utilities or health and safety. The Proposed Action is expected to have positive impacts on socioeconomics and environmental justice.

Based on correspondence with USFWS and DLNR-DOFAW, the project may affect the Hawaiian hoary bat, Newell's shearwater, and Wedge-tailed shearwater. The USFWS and DLNR-DOFAW provided recommendations to mitigate impacts to the Hawaiian hoary bat, Newell's shearwater, and Wedge-tailed shearwater. These recommendations will be followed; therefore, no further mitigation measures are necessary.

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 broadcast tower facility will not be equipped with devices that produce emissions.

PROJECT SUMMARY

Applicant:	BlowUp, LLC c/o Centerline Solutions 3375 Koapaka Street, Suite D-185 Honolulu, HI 96819
Applicant's Agent:	Centerline Solutions 3375 Koapaka Street, Suite D-185 Honolulu, HI 96819 (808) 536-7400
Approving Agency:	City and County of Honolulu, Department of Planning and Permitting (DPP)
Project Name:	Nimitz Highway Tower Relocation Site
Project Location:	Makai of Nimitz Highway and west of Kalihi Stream, Honolulu, Oahu, HI
Tax Map Key (TMK):	(1) 1-1-003: Parcels 003, 207, 211 and 212 (portions)
Lot Area:	TMK (1) 1-1-003: 003 – 217,800 square feet (5 acres) TMK (1) 1-1-003: 207 – 87,120 square feet (2 acres) TMK (1) 1-1-003: 211 – 5,494 square feet (0.1261249 acres) TMK (1) 1-1-003: 212 – 52,500 square feet (1.2052342 acres) Total Lot Area: 362,914 square feet (8.3313591 acres)
Ownership:	State of Hawaii Contact: Barry Cheung Department of Land and Natural Resources (DLNR) 1151 Punchbowl Street, Room 220 Honolulu, HI 96813 (808) 587-0430
Project Area:	Approximately 70,686 SF (1.6227273 acres) – Within the circular fenced area
Zoning:	P-2 General Preservation
State Land Use:	Urban District
Existing Land Use:	The project area consists of cleared backfill land. The western portion of the project area formerly housed paintball and airsoft facilities, however the facilities have been cleared to make way

for the Kahauiki Village project. The eastern portion of the project area formerly contained squatter's encampments; the area has been cleared of encampments as part of the Kahauiki Village project. Gas and sewer pipelines exist along the northern portion of the project area; and unpaved roads, vegetation, and miscellaneous garbage are along the southern portion.

Project Description:

The current tower, located within the Keehi Interchange, needs to be relocated to make way for construction and operation of the elevated guideway for the Honolulu Rail Transit Project by the Honolulu Authority for Rapid Transportation (HART) while minimizing interruption to radio signal transmissions.

Therefore, the project will consist of installing a 150-foot guyed, broadcast lattice tower with one, 4-foot microwave antenna mounted at a height of 80 feet above ground level (agl), and a 1-foot tall lightning rod mounted at the top. The lattice tower will sit on a concrete foundation underground, of which 1-foot will be above ground. A 1-foot tall insulator is located between the tower and the concrete foundation. Therefore, the total lattice tower height will be 153 feet. In addition, an equipment shelter and emergency generator will be installed south of the lattice tower. The lattice tower, equipment shelter and emergency generator will be installed within a 2,500 square foot fenced area, which will be within a 150-foot radius fenced area. A copper radial system (used for grounding) will be installed in the ground within the fenced areas.

The project is entirely within the Special Management Area (SMA).

Project Funding Source:

This is a commercial project to relocate the AM broadcast station tower facility located at the Keehi Interchange site to make way for the HART project. HART, as part of its land acquisition process, will reimburse BlowUp, LLC for the cost to relocate/replace its tower facility. This reimbursement will be implemented through a Grant Agreement from the Federal Transit Administration.

1.0 INTRODUCTION

This Final Environmental Assessment (EA) for the proposed Nimitz Highway Tower Relocation Site located at Tax Map Key (TMK) No. (1) 1-1-003: Parcels 003, 207, 211 and 212 (portions), Honolulu, Honolulu County, Hawaii 96819 (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 City and County of Honolulu, Department of Planning and Permitting (DPP) is the approving authority. The anticipated outcome of this EA will be a Finding of No Significant Impact (FONSI) for the Proposed Nimitz Highway Tower Relocation Site.

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 proposed Nimitz Highway Tower Relocation Site consists of approximately 70,686 square feet (SF) of land located in an area south of Nimitz Highway, west of Kalihi Stream, north of Keehi Lagoon, and east of Moanalua Stream (beyond is Keehi Lagoon Park) (Figures 1, 2 and 3, *Figures* Tab).

The subject parcels, currently owned by the State of Hawaii, encompasses an irregular-shaped, approximately 322,229 square feet of land. The subject parcels, 003, 207 and 212, are currently leased to Tactical Airgun Games Hawaii LLP.

The subject parcels are further described as the parcel of land as TMK Number: (1) 1-1-003: Parcels 003, 207, 211 and 212. According to the City and County of Honolulu, DPP, the subject parcels are currently zoned "P-2 General Preservation". The State Land Use designation is "Urban" (Figure 4, *Figures* Tab).

The subject property, identified as the proposed Nimitz Highway Tower Relocation Site (approximate Lat/Long: N 21° 19' 54.71"; W 157° 53' 27.54"), is located near the eastern portion of the subject parcel (portion of parcel 207).

Site photographs are included behind the *Photographs* Tab.

2.2 CURRENT USE OF SUBJECT PARCEL/PROPERTY

The subject parcels consist of undeveloped land with areas of vegetation, unpaved roads, open gravel areas, and garbage. The subject parcels consisted of former paintball and airsoft facilities located along

the western portion, and former squatter's encampments located along the eastern portion and edge along the shoreline of Kalihi Stream, which have all been cleared as part of Kahauiki Village's ongoing construction activities.
Gas and sewer pipelines are located along the northern portion; and unpaved roads, vegetation and miscellaneous garbage along the southern portion.

The subject property is located near the eastern portion of the subject parcel (portion of parcel 207).

2.3 SURROUNDING/ADJACENT PROPERTIES

Kahauiki Village, a homeless housing development currently in development, is located adjacent (northwest, west, and south) to the project site. Further west is Moanalua Stream, and beyond is Keehi Lagoon Memorial Park which provides venue and space for private events. Further south is Keehi Lagoon.

North of the subject parcel/property is North Nimitz Highway. To the east is Kalihi Stream, and further east is a large industrial district. The properties closest to the project site are used for various warehouse and industrial business uses (Zoning Drawings A000, *Figures* Tab). The businesses located in the area include:

(1) Ruby Tuesday Catering (commercial catering kitchen with pick-up and delivery service for large catering orders),
(2) Vet's Termite Service (termite and pest control services),
(3) Futura Stone of Hawaii (stone, concrete, and paving installer service),
(4) Roberts Hawaii School Bus (school bus charter service lot),
(5) Impact Signs (commercial sign and banner printing),
(6) PWC People Who Clean (commercial cleaner service),
(7) Hawaiian Fresh Seafood (Hawaiian seafood wholesaler), and
(8) United Laundry Services commercial bulk laundry service)

3.0 PROPOSED ACTION

3.1 TECHNICAL CHARACTERISTICS

According to BlowUp, LLC, the proposed action involves installing a 150-foot guyed, broadcast lattice tower with one, 4-foot microwave antenna mounted at a height of 80 feet above ground level (agl), and a 1-foot tall lightning rod mounted at the top. The lattice tower will sit on a concrete foundation underground, of which 1-foot will be above ground. A 1-foot tall insulator is located between the tower and the concrete foundation. Therefore, the total lattice tower height will be 153 feet. In addition, an equipment shelter and emergency generator will be installed south of the lattice tower. The lattice tower, equipment shelter and emergency generator will be installed within a 2,500 square foot fenced area, which will be within a 150-foot radius fenced area. A copper radial system (used for grounding) will be installed in the ground within the fenced areas.

The project site is designed around the 150-foot lattice tower which acts as the antenna that will transmit AM signals. The tower is guyed to provide structural stability to withstand 100-plus miles per hour wind. The concrete foundation for the tower will house filtering devices for the AM station antenna. Signals from the transmitter equipment, which will be housed in the climate controlled equipment shelter, will be sent to the tower via underground conduits (3 feet deep for a distance of approximately 20 feet). The tower will not be lighted, as it is not required for towers under 200 feet above ground level.

The lattice tower will be constructed of galvanized steel, and painted an earth gray color that will blend with the sky and background. The equipment shelter will be pre-fabricated concrete and installed in place, and will be an earth brown color. The outdoor emergency generator will be constructed of steel, and painted an earth brown color with a pebble texture finish to blend in with the surroundings.

Combined concrete usage at the site is estimated at approximately 170 square feet, and consists of: (1) 12 concrete pylons for the equipment shelter, (2) the concrete broadcast tower foundation, (3) the concrete pad for the transformer, and (4) the anchors for the guyed wires.

Access to the project site will be an approximately 150-foot long gravel access road from the northwest entrance to the center of the AM station facility. The access road will consist of gray gravel to a depth of 6 inches, and will be maintained by BlowUp, LLC. The project site access gravel road connects with the Kahauiki Village access road. In addition to the access road, the roundabout and central compound area will be covered with gravel which will allow ground saturation of any storm water.

Two fences are planned for the project site for safety and security reasons. The outer, circular fence encompasses a 150-foot radius of the project area which secures the underground grounding system and the lattice tower guy wires. The outer fence along the eastern boundary edge will be “flattened” to allow access to the bank of Kalihi Stream. The 2,500 square foot (50-foot by 50-foot) inner fence encompasses the lattice tower, equipment shelter and emergency generator. These two fences will be constructed of galvanized steel chain link and outfitted with green-colored slats. Kahauiki Village plans to plant trees in its property around the outer fence as landscaping.

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 lattice tower; (2) constructing new concrete piers for shelter for the equipment cabinets and emergency generator, (3) constructing new concrete anchors for the guy wires, (4) grading for a gravel site access driveway, and (5) erecting chain-link fence enclosures.

During construction activities, these guidelines will be followed:

- Normal work hours for this project site will be from 7am – 3:30pm Mon-Fri.
- All deliveries to and from the site will be conducted during 8:30am to 3:30pm
- Larger pieces of materials for this project will be schedule for delivery over the weekend and/or at night.
- Neighboring properties, businesses and residences (Kahauiki Village) will be given prior notices through bulletins and/or memos about daily operations for this project.

Access to the project site is through Kahauiki Village. Proper traffic control will be in place to ensure safe ingress/egress to property. All pedestrian, bicyclist and vehicular signs will be posted, and temporary cross walks will be monitored by a crossing guard during normal project work hours, 7am – 3:30pm (Mon-Fri.). Should weekend work become necessary, a crossing guard will be on duty for duration of weekend operations.

A notice of construction will be filed with Department of Transportation for public announcement. The notice of construction will include affected streets, freeways, business, bike paths and sidewalks. In addition, notification to the local fire department and emergency medical services will be given informing them of construction site location & point-of contact in case of an emergency.

Best Management Practices (BMPs) will be implemented during construction activities. Soil-disturbed areas of the project site, including graded areas, trenches, and stockpiled materials at storage or staging areas, shall be kept to a minimum, and have appropriate erosion and sediment control BMPs implemented. Proper BMPs for the possibility of rain during construction will be implemented. Areas of exposed soils susceptible to erosion will be covered with seeded hydro mulch. The borders of construction areas will have Coir logs in place as a secondary run off protection. BMPs for non-storm water management, waste management and disposal shall be considered and implemented for all applicable activities on the construction site throughout the duration of the project. The following possible BMPs will be considered for the project, with the final determination reliant upon field verification of efficacy: (1) Temporary/Permanent Seeding and Planting; (2) Mulching and/or Sodding; (3) Silt Fence; (4) Spill Pans; (5) Dust Suppression; (6) Concrete Washout Disposal Site; (7) Covered Storage Areas; and (8) Vehicle Wash Station.

The facility will be unmanned and unoccupied. The site will be accessed by maintenance staff for regular monthly testing and maintenance of the facility equipment. In the event of a system outage, emergency personnel will access the site for recovery efforts.

The expected life of the AM station facility is 30 years. The emergency generator has an expected life of 10 years.

3.2 ENVIRONMENTAL CHARACTERISTICS

In determining a suitable location for construction of a communications 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 Nimitz Highway Tower Relocation Site is to relay broadcast signals outward at some distance. Therefore, the site selection is based on its ability to meet this purpose.

The proposed Nimitz Highway Tower Relocation Site 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 vegetated land. The surrounding area consisted of former paintball and airsoft facilities located to the west-southwest that have been demolished, and former

squatter's encampments to the east which have been cleared as part of Kahauiki Village's ongoing construction activities. An open gravel area is located to the north. Undeveloped land covered with vegetation makes up the rest of the surrounding area.

Disturbance of the land will be limited to the clearing of vegetation, installation of a gravel access road, setting fence posts, and construction of the foundation of the AM station facility. Existing vegetation includes brush and small trees that will be cleared to make way for the AM station facility. Kahauiki Village plans to plant trees in its property around the outer fence as landscaping. The site gravel access road will connect with Kahauiki Village access road, and will be graded, a weed barrier fabric or equivalent will be laid down and 6 inches of gravel will be placed on top of the weed barrier.

The AM station facility will require concrete foundations for the shelter, generator and the tower. The shelter will be on a steel platform designed to support the shelter weight. The steel platform shall be supported by pylons that are embedded in concrete piers. This design minimizes the potential for future flood impact to operations and facilities. The posts or feet shall require concrete piers that are poured into place into the ground. The generator, filters, and towers shall each be mounted on concrete pads that are on the surface of the ground, for a total of three (3) concrete pads.

3.3 SCHEDULE

The project is anticipated to proceed following a FONSI determination by the approving agency, the City and County of Honolulu, Department of Planning and Permitting (DPP). The project is anticipated to be completed in 6 months upon receipt of all licenses, permits and access rights from the pertinent jurisdictional authorities, with the exception of unforeseen delays.

3.4 ALTERNATIVES AND NO ACTION ALTERNATIVE

The Proposed Action will replace the existing broadcast tower located northeast of the project site across North Nimitz Highway (Keehi Interchange).

The No Action Alternative represents baseline conditions. Under the No Action Alternative, the 150-foot guyed, broadcast lattice tower would not be constructed, and the existing guyed, broadcast lattice tower, located across North Nimitz Highway and the H-1 freeway overpass, would impede imminent construction of the elevated guideway for the Honolulu Rail Transit Project by the Honolulu Authority for Rapid Transportation (HART) and its contractors.

As part of the NEPA process, all alternatives to the Proposed Action must be considered when preparing an EA. For all alternatives to be considered reasonable, the alternative must fulfill the purpose and the need of the Proposed Action.

The criteria for site selection included, but was not limited to: (1) proximity to other existing commercial and residential development, (2) soil conditions that would allow for proper grounding of the radio tower, (3) flood risk, (4) proximity to metro Honolulu where the preponderance of listeners are located, and (5) proximity to water, which would improve signal propagation.

- Keehi Interchange Tower Relocation Site – This site is the temporary location of the broadcast tower. It is located approximately 75 feet southeast of the original tower (Zoning Drawings 001, *Figures* Tab). However, this is a temporary site to make way for the imminent construction of the elevated guideway for the Honolulu Rail Transit Project by HART and its contractors, while minimizing interruption to radio signal transmissions. This site is considered a temporary site because it would interfere with the long-term operations of the Honolulu Rail Transit Project.

- Sand Island Parcels "X", "Y" and "Z" Sites – Proposed as potential locations by the State of Hawaii, Department of Land and Natural Resources (DLNR), these sites are located off of Sand Island Road along the western shoreline of Sand Island. The sites are south of the subject property and Kahauiki Village development, across Keehi Lagoon. Though these sites potentially fit most of the site selection criteria, they do not encompass a large enough area for optimal facility design.

  In addition, the current project site location became available and was determined to be the optimal location.

4.0 PERMITS

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

Permit or Approval (Federal Agencies)	Approving Agency
Shoreline Development Permit (not required)	Army Corps of Engineers
Operate License	Federal Communications Commission (FCC)
Broadcast License	FCC
Air Hazard Clearance	Federal Aviation Administration (FAA)

Permit or Approval (State Agencies)	Approving Agency
Run-Off Permit	DLNR

Permit or Approval (City Agencies)	Approving Agency
Conditional Use Permit, Minor	DPP
Joint Development Agreement (Conditional Use Permit, Minor)	DPP
Minor Shoreline Structures Permit	DPP
Height Waiver	DPP
Special Management Area Permit, Major	DPP
Grading Permit (*If the project does not qualify for an exclusion under Section 14-13.5 of the Revised Ordinances of Honolulu (ROH))	DPP

5.0 COMMUNITY CONSULTATION

Ford & Associates, Inc. (FAI) 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 March 17, 2017. As of the date of this report, FAI has not received any responses to the published notice. Documentation of the public notice is presented in Appendix B.

In addition, Centerline Solutions presented the project at the Kalihi-Palama Neighborhood Board No. 15 meeting on April 19, 2017. Mr. Aaron Toma, with Centerline Solutions, presented that the existing AM broadcast tower would be relocated within the parcel to make way for the HART construction. Mr. Toma also stated that the AM broadcast tower would eventually move to a permanent location adjacent to Kahauiki Village. A handout regarding the relocation of the AM broadcast tower was distributed prior to the presentation. No comments were made by the Board. Copies of the presentation handout, meeting agenda and draft meeting minutes are included in Appendix B.

Centerline Solutions also discussed the project with the following organizations, entities, and agencies:

- Hawaiian Electric Company
- Hawaiian Tel
- Time Warner Cable (now "Spectrum")
- State of Hawaii Department of Land and Natural Resources – Land Division
- Kalihi-Palama Neighborhood Board
- State of Hawaii Department of Land and Natural Resources – State Historic Preservation Division
- Office of Hawaiian Affairs
- U.S. Department of the Interior – Fish and Wildlife Service
- State of Hawaii Department of Land and Natural Resources – Division of Forestry and Wildlife
- Hawaii Department of Transportation
- HART
- Federal Communications Commission
- City and County of Honolulu Department of Planning and Permitting

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 physiographic region of the island of Oahu. The approximate latitude and longitude of the subject property are 21° 19' 54.71" North and 157° 53' 27.54" West, respectively.

According to the U.S. Geological Survey (USGS) 7.5-minute Pearl Harbor and Honolulu, Hawaii topographic quadrangle maps (1998), the elevation at the subject property is approximately 9 feet above mean sea level (amsl). The general topography of the subject property and surrounding region slopes down to the south, toward Keehi Lagoon and the Pacific Ocean.

The soil type found on the subject property is Fill Land, mixed (United States Department of Agriculture, Natural Resources Conservation Service). The Fill Land Series consists of areas filled with material from dredging, excavation from adjacent uplands, garbage, and bagasse and slurry from sugar mills.

6.1.1.2 Proposed Action Impacts and Mitigation

FAI 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 FAI, 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

FAI reviewed the *Aquifer Identification and Classification for Oahu: Groundwater Protection Strategy for Hawaii, Technical Report No. 179*, published by the Water Resources Research Center at the University of Hawaii, for information on groundwater conditions below the subject property. The aquifer below the subject property is part of the Kalihi aquifer system in the Honolulu sector. The groundwater system below the subject property consists of an upper and lower aquifer.

The upper aquifer is an unconfined, basal aquifer of the sedimentary type, occurring in non-volcanic lithology. It is described as currently used, but it is not considered a drinking water source nor is it ecologically important. This aquifer is further described as replaceable with moderate salinity (<1,000 to 5,000 milligrams per liter [mg/L] chloride). This aquifer has a high vulnerability to contamination.

The lower aquifer is a confined, basal aquifer of the flank type, occurring in horizontally extensive lavas. It is described as a currently used, irreplaceable drinking water source with fresh salinity (<250 mg/L

chloride). This aquifer has a low vulnerability to contamination. However, because the subject property is located below the designated underground injection control (UIC) line, the underlying groundwater would not be used as a drinking water source. This aquifer has a low vulnerability to contamination.

The depth to groundwater is estimated to be approximately 9 feet below ground surface (bgs), based on topography. The regional groundwater flow direction is generally inferred to flow in a south-southeasterly direction towards Keehi Lagoon/Kalihi Stream. However, the local gradient and flow direction under the property may be influenced naturally by zones of higher or lower permeability, tidal changes, 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. Therefore, mitigation measures are not necessary.

The Federal Emergency Management Agency Flood Insurance Rate Map (FEMA/FIRM Panel No. 15003C-0353G, Revised January 19, 2011) was reviewed to determine if the subject property was located in a flood hazard area. According to the map, the subject and adjoining properties are located in Zone X, which denotes areas determined to be outside the 0.2 percent annual chance floodplain.

The project site was designed to include three-foot pylons for the equipment shelter and one-foot foundation pads for the emergency generator and tower to further protect the site from potential sea level rise and climate change impacts. Based on National Oceanic and Atmospheric Administration (NOAA) sea level rise maps, the project site will remain unaffected for a sea level rise of 6 feet. Sea level rise may affect access to the project area from the main transit route if Nimitz Highway is inundated by sea level rise. Therefore, further 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 (2016).

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 Pearl Harbor and Honolulu Quadrangles (1998), which includes the subject and adjoining properties, does not depict creeks or delineated wetlands located on the subject property. However, Kalihi Stream is located to the east-northeast, and Keehi Lagoon is located south-southeast of the subject parcel. According to the United States Fish and Wildlife Service (USFWS) National Wetland Inventory Map, the subject parcel/property is not located in a designated wetland.

The Federal Emergency Management Agency Flood Insurance Rate Map (FEMA/FIRM Panel No. 15003C-0353G, Revised January 19, 2011) was reviewed to determine if the subject property was located in a flood hazard area. According to the map, the subject and adjoining properties are located in Zone X, which denotes areas determined to be outside the 0.2 percent annual chance floodplain.

The United States Army Corps of Engineers (USACE), Honolulu District Office was contacted regarding wetland permitting for the subject property/parcel. According to Ms. Joy Anamizu, Ecologist with 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 C.

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.

The project area has been cleared of vegetation as part of the ongoing Kahauiki Village development. The area is comprised of Fill Land (see Section 6.1.1.1), and no exceptional trees exist in the area.

6.2.2 Wilderness Area

6.2.2.1 Baseline Conditions

The subject property is located near the northeastern portion of the subject parcel which consists of undeveloped land with areas of vegetation, unpaved roads, and garbage. In addition, the subject parcels consisted of former paintball and airsoft facilities which were located along the western portion, and former squatter's encampments which were located along the eastern portion and edge along the shoreline of Kalihi Stream have been cleared as part of Kahauiki Village's ongoing construction activities. Gas and sewer pipelines are located along the northern portion; and unpaved roads, vegetation and miscellaneous garbage along the southern portion.

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 765 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 April 14, 2017 that, *"Based on the information in our database and records, …, the following are known threatened or endangered species that occur or transit through the vicinity of your proposed project area: the federally endangered Hawaiian hoary bat (Lasiurus cinereus semotus) and the threatened Newell's shearwater (Puffinus newelli). Also within the vicinity of the proposed project are the wedge-tailed shearwater (Puffinus pacificus), species that are protected under the MBTA. There is no designated critical habitat present in the vicinity of the proposed project area."* A copy of the correspondence from the USFWS is presented in Appendix C.
- The DLNR-DOFAW, Wildlife Program Manager indicated in a letter dated March 31, 2017 that the State and Federally listed Hawaiian hoary bat may occur in the vicinity of the project area. In addition, due to the proposed use of guy wires they recommend installing bird diverters to avoid seabird and bat collision, and to monitor for downed wildlife. A copy of the correspondence from the DLNR-DOFAW is presented in Appendix C.

6.2.4.2 Proposed Action Impacts and Mitigation

According to the baseline conditions, the project may affect listed or proposed threatened or endangered species. The USFWS and/or DLNR-DOFAW recommend that for:

- Hawaiian hoary bats – (1) Do not remove, trim or disturb woody plants greater than 15 feet tall during bat birthing and pup rearing season (June 1 through September 15); and (2) avoid using barbed wire.

- Newell's shearwater and Wedge-tailed shearwater – (1) Any lights used should be fully shielded to minimize impacts. At night, artificial lights can adversely affect seabirds that may pass

through the area causing disorientation which could result in seabird injury or mortality. (2) Nighttime construction should be avoided during the seabird fledging period (September 15 through December 15). (3) Install bird diverters to avoid seabird (and bat) collision with guy wires, and monitor for downed wildlife.

The USFWS and/or DLNR-DOFAW recommendations will be followed; therefore, no further mitigation measures are necessary. In addition, the project 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 A zone, which includes “preservation” zones at 55 A-weighted decibels (dBa) for daytime (7 a.m. to 10 p.m.) and 45 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 300 feet north of the site, overhead aircraft activities, and watercraft activities on Kalihi Stream approximately 150 feet east of the site and Keehi Lagoon approximately 1,000 feet south of the site.

6.3.2 Proposed Action Impacts and Mitigation

The site will include a 50 kilowatt outdoor emergency generator. The site is located near the eastern portion of the subject parcels, and will be bordered by an access road located to the north-northwest-west of the site. 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 "preservation"-zoned area. The subject property is located near the northeastern portion of the subject parcel which consists of undeveloped land with areas of vegetation, unpaved roads, and garbage. In addition, the subject parcels consisted of former paintball and airsoft facilities which were located along the western portion, and former squatter's encampments which were located along the eastern portion and edge along the shoreline of Kalihi Stream have been cleared as part of Kahauiki Village's ongoing construction activities. Gas and sewer pipelines are located along the northern portion; and unpaved roads, vegetation and miscellaneous garbage along the southern portion. Beyond the gas and sewer pipelines located along the northern portion is the highway.

6.4.2 Proposed Action Impacts and Mitigation

The project site is located in the vicinity of the future Kahauiki Village, a homeless housing development. The Proposed Action involves the installation of a guyed lattice tower on undeveloped land near the northeast corner of the subject parcel. The tower will be painted an earth gray tone that will blend with the sky and background (Figure 6, *Figures* Tab). The Proposed Action will be enclosed by chain link fencing and slatted with green slats to blend with the area. In addition, Kahauiki Village will plant trees around the outer fence to improve the view. It is not commonly used as a scenic vista. Keehi Lagoon Park is located west of the project site (across Moanalua Stream). However, the project will not negatively impact the park. 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

Gas and sewer pipelines are located along the northern portion of the subject parcel. Storm water at the subject property infiltrates into the ground surface and flows to the east and south of the subject property.

6.5.2 Proposed Action Impacts and Mitigation

Effects to utilities from the Proposed Action are expected to be insignificant. The future Kahauiki Village will be receiving new single phase 120/240 VAC service from HECO via Sand Island. The route of the electrical pole lines servicing the Kahauiki homes will be along the entrance road from Nimitz Highway to the Kahauiki community. The Nimitz Tower will be between the Nimitz Highway entrance and the Kahauiki Village, and a new transformer 120/240 VAC will be provided by Hawaiian Electric Company outside the Nimitz Tower site along the fence. The new service is designed to provide a 400 amp load capacity for the Nimitz Tower site operations. The Nimitz Tower site will be connected to and feed off of the new Hawaiian Electric Company transformer via underground cables and connect to a power

usage meter on the Nimitz Tower site equipment shelter. Therefore, no mitigation measures are necessary.

In addition, the Proposed Action will not utilize any water resources nor will it generate wastewater. The facility will not generate any waste or refuse. Therefore, no mitigation measures are necessary.

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.

A historic properties assessment (HPA) was conducted by Scientific Consultant Services, Inc. for the subject property. The HPA involved a field inspection, and background research including review of historic documents, maps, and archaeological reports on file at the Hawaii State Historic Preservation Division, Hawaii State Library, as well as a review of known cultural resource survey and excavation reports. In addition, the National Register of Historic Places (NRHP) and the Hawai`i Register of Historic Places (HRHP) were also consulted.

No historic properties are within the APE for direct effects. Three sites have been identified within the APE for visual effects: (1) Waikulu Fishpond, (2) Refuse Pit (SHPD Site # 50-80-14-6683), and (3) Keehi Lagoon Runway A; however, the first site has been destroyed, the second site is below ground surface, and the third site is submerged. Therefore, there are no visual impacts to these sites.

A copy of the HPA report is included in Appendix D.

6.6.2 Proposed Action Impacts and Mitigation

Based on the results of the HPA, no historic properties are within the APE for direct effects, and there are no visual impacts to the three sites within the APE for visual effects.

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 D.

In a response letter (Log No: 2017.01103 /Doc No: 1707JLP04), dated August 28, 2017, the SHPO concurred that no historic properties will be affected.

A copy of the correspondence from the SHPO is included in Appendix D.

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:

- OHA has not responded to emails sent on May 19, 2017, June 12, 2017, June 26, 2017, August 9, 2017 and September 11, 2017. Copies of the emails sent to OHA are presented in Appendix D.

- In a letter from the DPP dated April 5, 2017, the DPP stated that their records do not indicate the presence of any significant historical or cultural resources related to the site. DPP recommended that SHPD be contacted for information regarding historical or cultural resources related to the site. A copy of the correspondence from the DPP is presented in Appendix E.

Based on these inquiries and clearance from the SHPO, dated August 28, 2017, 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 Honolulu (zip code: 96819) had a population of 49,492 during the 2010 census. Approximately 5,385 of the housing units were owner-occupied, the average household income was approximately $70,374; and approximately 13.6 percent of individuals were living below the poverty line.

The nearest schools are as follows: (1) Puuhale School (public school) is located at 345 Puuhale Road, and (2) Damien Memorial School (private school) is located at 1401 Houghtailing Street.

6.7.2 Proposed Action Impacts and Mitigation

The proposed project will benefit the community at large by providing continued radio broadcast service to the public. Under the Proposed Action, the public will continue to enjoy a wealth of options for AM radio broadcast. This will guarantee an array of radio programming for listeners' enjoyment. The project site itself should have minimal social impact. The subject property is not in a specific neighborhood, and a majority of the surrounding area is used for industrial purposes. Parts of the project site were previously noted to contain squatter encampments. The project area has been cleared of any encampments as part of the ongoing development for the Kahauiki Village development. Therefore, no mitigation is necessary.

Economically, the project will provide room for Blow Up to lease space to other entities for broadcasting as well as the sale of over the radio advertising space. 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 Honolulu (zip code: 96819) from the 2010 census. According to the website, in 2010 the population of Honolulu (zip code: 96819) was approximately 93.5 percent minority (non-Caucasian) and 11.1 percent of families and 13.6 percent of individuals were living below the poverty line.

6.8.2 Proposed Action Impacts and Mitigation

The Proposed Action plans have been coordinated with the development team of Kahauiki Village (Figure 7, *Figures* Tab). Site access, electrical service, construction and landscaping have been in cooperation with Kahauiki Village. Kahauiki Village has removed the squatters as construction materials for Kahauiki Village are stored on site and home construction has commenced.

The Project will have no major impacts regarding presence, views, and noise on the nearby Kahauiki Village because the Proposed Action was designed prior to the Kahauiki Village project. The Kahauiki Village project was granted an exemption that allowed work on the project to proceed ahead of schedule; the Kahauiki Village project was designed after the Proposed Action and therefore, inherently took into account the future presence of the Proposed Action.

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 radios will benefit from continued reliance in the Honolulu area, as well as island-wide 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 2015 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 8-hour	Annual	3-hour 24-hour Annual	Quarterly	8-hour	24-hour Annual	24-hour Annual	1-hour
Standard	9 ppm 4.4 ppm	0.04 ppm	0.5 ppm 0.14 ppm 0.03 ppm	1.5 $\mu g/m^3$	0.08 ppm	150 $\mu g/m^3$ 50 $\mu g/m^3$	--	0.025 ppm

Source: DOH, Clean Air Branch Website

6.9.2 Proposed Action Impacts and Mitigation

The broadcast tower site 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. Best Management Practices (BMPs) will be implemented during 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 Honolulu and is currently undeveloped land zoned "General Preservation", 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 "General Preservation"-zoned area, the Proposed Action is not expected to affect public access to the shoreline or to mountain areas. The project area consists of a circular area across 4 parcels enclosed by a fence. The radius of the circle is 150 feet. However, the eastern boundary edge will be "flattened" (a straight, linear fence that approximately follows Kalihi Stream along the bank, rather than intersecting with the stream) to allow access to the bank of Kalihi Stream. Approximately 35 feet of shoreline will be available for access. A shoreline survey was conducted by DLNR and they determined that the shoreline runs across the mouth of Kalihi Stream and along the tip of the peninsula (south of the project site). A copy of DLNR letter and survey are included in Appendix E. Therefore, no mitigation measures are necessary.

6.11 TRAFFIC IMPACTS

Since the proposed broadcast tower site 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, FAI 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.

In addition, parking for routine maintenance will be within the enclosed project area.

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 parcels are described as the parcel of land designated as TMK Number: (1) 1-1-003: Parcels 003, 207, 211 and 212. According to the City and County of Honolulu, DPP, the subject property/parcels are currently zoned "P-2 General Preservation". The subject property (proposed Nimitz Highway Tower Relocation Site) is located near the eastern portion of the subject parcel (portion of parcel 207).

The subject property consists of undeveloped land with areas of vegetation, unpaved roads, and garbage. In addition, the subject parcels consisted of former paintball and airsoft facilities located along the western portion, and former squatter's encampments located along the eastern portion and edge along the shoreline of Kalihi Stream which have all been cleared as part of Kahauiki Village's ongoing construction activities. Gas and sewer pipelines are located along the northern portion; and unpaved roads, vegetation and miscellaneous garbage along the southern portion. Beyond the gas and sewer pipelines located along the northern portion is the highway.

6.12.2 Proposed Action Impacts and Mitigation

According to the DPP, the county zoning designation for the subject parcel is *"General Preservation*." The subject property is currently undeveloped land and the Proposed Action functions will be limited to the subject property. According to the DPP in a letter dated April 5, 2017, the proposed action is considered a broadcasting antenna.

According to comments from DLNR- Engineering Division dated May 31, 2017, the rules and regulations of the National Flood Insurance Program are in effect is the development falls within a designated Flood Hazard. In addition, comments from DLNR-Land Division dated May 30, 2017 indicated that any improvements on land under the Land Board jurisdiction require a land disposition from the Board. A copy of DLNR's comments is included in Appendix E.

The Proposed Action is located in Zone X, which denotes areas determined to be outside the 0.2 percent annual chance floodplain (see Section 6.2.1.1).

The subject property is in the Special Management Area (SMA) (Figure 5, *Figures* Tab). In addition, Minor Shoreline Structures and Conditional Use permits are required. An application for a SMA Use Permit (Major) will be submitted. Upon approval of the SMA Use Permit application by the City Council, applications will be submitted to DPP for the two Conditional Use permits (Broadcasting Antenna, and Joint Development Agreement), a Height Waiver Permit, and a Minor Shoreline Structures Permit.

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 a gravel and asphalt-paved access road off of Nimitz Highway, and an unpaved road within the subject parcel. The site is located near the northeast portion of the subject parcel.

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 “General Preservation” with health and safety concerns related to vehicular traffic to the north of the site. However, no issues are related to the proposed site. The nearest law enforcement stations are as follows: (1) Kalihi Police Station located at 1865 Kamehameha IV Road in Honolulu, and (2) Hawaii State Sheriff’s Division maintains a station at 20 pier off of Sand Island Access Road in Honolulu.

The nearest fire stations are as follows: (1) Kalihi Fire Station located at 1742 N. King Street in Honolulu, and (2) Kalihi Kai Fire Station located at the corner of Waikamilo Road and Hart Street in Honolulu.

6.14.2 Proposed Action Impacts and Mitigation

The levels of RF typically found near broadcast towers 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 within a few feet of the antenna. It is unlikely that a person will be exposed to RF levels in excess of the guidelines, as a 150-foot radius fence will enclose the subject property.

Following construction of the Proposed Action, RF measurements will be performed and compared to the pre-construction computer model estimates to confirm that the RF levels are within the Federal

Communications Commission guidelines, Office of Engineering and Technology, OET Bulletin 65, Edition 97-01, August.

Appropriate warning signs shall be placed as recommended by the Federal Communications Commission, based on the actual RF measurements taken at the prescribed mapped locations around the broadcast tower site. Entry shall be restricted by locked gates to the outer 150 foot radius fenced area, as well as the inner fenced area. In addition, a warning sign shall be installed on the tower.

Therefore, no mitigation is necessary.

The proposed broadcast tower site will include an equipment shelter which will house the station electronic equipment. This shelter as well as the entire facility shall be unmanned. The shelter will be equipped with FM-200 or equivalent automated fire protection system which uses a clean agent to suppress fires remotely or via alarm sensor. Unlike sprinklers, the clean agent shall not damage the equipment and leaves no residue. It discharges in 10 seconds or less to suppress a fire.

The fire suppression system will also trigger an alarm to the radio station office and the nearest Fire Department which is Kalihi Kai Fire Station. The access road and entry gate to the site are designed to accommodate fire trucks and includes a turnaround.

Therefore, no further mitigation measures are necessary.

7.0 COMPLIANCE WITH PLANS AND PROGRAMS

7.1 STATE LAND USE

State Land Use districts, established under Chapter 205, HRS, together with the City and County of Honolulu General Plan and Development/ Sustainable Community Plans, guide population and land use growth over a 20-plus year timeframe.

The proposed Nimitz Highway Tower Relocation Site project lies within the "Urban" district designated by the State, and conforms to uses allowed in this district.

7.2 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.*"

The objectives of the HSPA relate to:

(1) Population,

(2) Economy-In General,
(3) Economy-Agriculture,
(4) Economy-Visitor Industry,
(5) Economy-Federal Expenditures,
(6) Economy-Potential Growth Activities,
(7) Economy-Information Industry,
(8) Physical Environment-Land-Based, Shoreline, and Marine Resources,
(9) Physical Environment-Scenic, Natural Beauty, and Historic Resources,
(10) Physical Environment-Land, Air, and Water Quality,
(11) Facility Systems-In General,
(12) Facility Systems-Solid and Liquid Wastes,
(13) Facility Systems-Water,
(14) Facility Systems-Transportation,
(15) Facility Systems-Energy,
(16) Facility Systems-Telecommunications,
(17) Socio-Cultural Advancement-Housing,
(18) Socio-Cultural Advancement-Health,
(19) Socio-Cultural Advancement-Education,
(20) Socio-Cultural Advancement-Social Services,
(21) Socio-Cultural Advancement-Leisure,
(22) Socio-Cultural Advancement-Individual Rights and Personal Well-Being,
(23) Socio-Cultural Advancement-Culture,
(24) Socio-Cultural Advancement-Public Safety, and
(25) Socio-Cultural Advancement-Government.

The Nimitz Highway Tower Relocation Site project will not affect or inhibit the HSPA objectives.

7.3 COASTAL ZONE MANAGEMENT PROGRAM

All land and water use activities in the state must comply with HRS, Chapter 205A, Hawai‘i Coastal Zone Law. The State of Hawai‘i designates the Coastal Zone Management Program (CZMP) to manage the intent, purpose and provisions of HRS, Chapter 205A-2, as amended, for the areas from the shoreline to the seaward limit of the State’s jurisdiction, and any other area which a lead agency may designate for the purpose of administering the CZMP.

The following is an assessment of the Project with respect to the CZMP objectives and policies set forth in HRS, Chapter 205(A)-2.

(1) Recreational resources
Objective: Provide coastal recreational opportunities accessible to the public.
Policies:
A) Improve coordination and funding of coastal recreational planning and management; and
B) Provide adequate, accessible, and diverse recreational opportunities in the coastal zone management area by:

(i) Protecting coastal resources uniquely suited for recreational activities that cannot be provided in other areas;
(ii) Requiring replacement of coastal resources having significant recreational value including, but not limited to, surfing sites, fishponds, and sand beaches, when such resources will be unavoidably damaged by development; or requiring reasonable monetary compensation to the State for recreation when replacement is not feasible or desirable;
(iii) Providing and managing adequate public access, consistent with conservation of natural resources, to and along shorelines with recreational value;
(iv) Providing an adequate supply of shoreline parks and other recreational facilities suitable for public recreation;
(v) Ensuring public recreational uses of county, state, and federally owned or controlled shoreline lands and waters having recreational value consistent with public safety standards and conservation of natural resources;
(vi) Adopting water quality standards and regulating point and nonpoint sources of pollution to protect, and where feasible, restore the recreational value of coastal waters; (vii) Developing new shoreline recreational opportunities, where appropriate, such as artificial lagoons, artificial beaches, and artificial reefs for surfing and fishing; and (viii) Encouraging reasonable dedication of shoreline areas with recreational value for public use as part of discretionary approvals or permits by the land use commission, board of land and natural resources, and county authorities; and crediting such dedication against the requirements of section 46-6.

The proposed Project does not affect any ocean-side recreational resources.

(2) Historic resources
Objective: Protect, preserve, and, where desirable, restore those natural and manmade historic and prehistoric resources in the coastal zone management area that are significant in Hawaiian and American history and culture.
Policies:
A) Identify and analyze significant archaeological resources;
B) Maximize information retention through preservation of remains and artifacts or salvage operations; and
C) Support state goals for protection, restoration, interpretation, and display of historic resources.

A historic properties assessment (HPA) has been conducted for the Project Action. No historic properties are within the APE for direct effects. Three sites have been identified within the APE for visual effects; however, there will be no visual effects to these sites. In accordance with HRS, Chapter 6E, and the requirements of the SHPD, DLNR, should any historic resources, including human skeletal and significant cultural remains, be identified during ground disturbing activities at the site the following will take place: (1) Work will cease in the immediate vicinity of the find; (2) The find will be protected from any additional disturbance; and (3) The SHPD, will be contacted immediately at (808) 692-8015 (Main Office, Oʻahu) for further instructions, including the conditions under which Project activities may resume.

Refer to Section 6.6, Historic and Cultural Resources for additional discussion and Appendix D, for the HPA.

(3) Scenic and open space resources
Objective: Protect, preserve, and, where desirable, restore or improve the quality of coastal scenic and open space resources.
Policies:
A) Identify valued scenic resources in the coastal zone management area;
B) Ensure that new developments are compatible with their visual environment by designing and locating such developments to minimize the alteration of natural land forms and existing public views to and along the shoreline;
C) Preserve, maintain, and, where desirable, improve and restore shoreline open space and scenic resources; and
D) Encourage those developments that are not coastal dependent to locate in inland areas.

The Proposed Action involves the installation of a guyed lattice tower on undeveloped land near the northeast corner of the subject parcel. The Proposed Action will be enclosed by fencing, and will be surrounded by landscaping. Also, the project site is located in the vicinity of the future Kahauiki Village, a homeless housing development. It is not commonly used as a scenic vista.

Therefore, the Proposed Action will not have a significant visual impact and no mitigation measures are necessary. Refer to Section 6.4, View and Visual Impacts for a complete discussion.

Though the project site could potentially be developed for recreational use (through Conditional Use Permitting), the Proposed Action encompasses a small portion of the peninsula (northeastern portion). Most of the peninsula will be occupied by the Kahauiki Village project. Plans for Kahauiki Village include some open space.

In addition, the surrounding fencing will serve as a security measure for the facility and associated equipment. The project also provides the public with radio service which in the event of an emergency can be used as part of the State's emergency broadcast system. Therefore, the Proposed Action will not have a significant impact to open space resources.

(4) Coastal ecosystems
Objective: Protect valuable coastal ecosystems, including reefs, from disruption and minimize adverse impacts on all coastal ecosystems.
Policies:
A) Exercise an overall conservation ethic, and practice stewardship in the protection, use, and development of marine and coastal resources;
B) Improve the technical basis for natural resource management;
C) Preserve valuable coastal ecosystems, including reefs, of significant biological or economic importance;
D) Minimize disruption or degradation of coastal water ecosystems by effective regulation of stream diversions, channelization, and similar land and water uses, recognizing competing water needs; and

E) Promote water quantity and quality planning and management practices that reflect the tolerance of fresh water and marine ecosystems and maintain and enhance water quality through the development and implementation of point and nonpoint source water pollution control measures.

The construction of the proposed Project is not expected to negatively affect any valuable coastal ecosystems, including reefs.

(5) Economic uses
Objective: Provide public or private facilities and improvements important to the State's economy in suitable locations.
Policies:
A) Concentrate coastal dependent development in appropriate areas;
B) Ensure that coastal dependent development such as harbors and ports, and coastal related development such as visitor industry facilities and energy generating facilities, are located, designed, and constructed to minimize adverse social, visual, and environmental impacts in the coastal zone management area; and
C) Direct the location and expansion of coastal dependent developments to areas presently designated and used for such developments and permit reasonable long-term growth at such areas, and permit coastal dependent development outside of presently designated areas when:
(i) Use of presently designated locations is not feasible; (ii) Adverse environmental effects are minimized; and
(iii) The development is important to the State's economy.

The proposed Project will not have an impact to socio-economics and no mitigation measures are necessary. Please refer to Section 6.7, Socio-Economics, for a complete discussion.

(6) Coastal hazards
Objective: Reduce hazard to life and property from tsunami, storm waves, stream flooding, erosion, subsidence, and pollution.
Policies:
A) Develop and communicate adequate information about storm wave, tsunami, flood, erosion, subsidence, and point and nonpoint source pollution hazards;
B) Control development in areas subject to storm wave, tsunami, flood, erosion, hurricane, wind, subsidence, and point and nonpoint source pollution hazards;
C) Ensure that developments comply with requirements of the Federal Flood Insurance Program; and
D) Prevent coastal flooding from inland projects.

According to the Federal Emergency Management Agency Flood Insurance Rate Map, the subject property is located in Zone X, which denotes areas determined to outside the 0.2 percent annual chance floodplain.

Please see Sections 6.1.2.2 and 8.0, Findings, (Criteria 11) for a complete discussion.

(7) Managing development
Objective: Improve the development review process, communication, and public participation in the management of coastal resources and hazards.
Policies:
A) Use, implement, and enforce existing law effectively to the maximum extent possible in managing present and future coastal zone development;
B) Facilitate timely processing of applications for development permits and resolve overlapping or conflicting permit requirements; and
C) Communicate the potential short and long-term impacts of proposed significant coastal developments early in their life cycle and in terms understandable to the public to facilitate public participation in the planning and review process.

This Environmental Assessment is one of the many processes used by the City and County of Honolulu in implementing the development review process, informing the public about proposed projects, and engaging public participation in managing development within the "coastal zone." Please see Section 4.0, Permits, for a complete discussion of the many development review processes for the proposed action.

(8) Public participation
Objective: Stimulate public awareness, education, and participation in coastal management.
Policies:
A) Promote public involvement in coastal zone management processes;
B) Disseminate information on coastal management issues by means of educational materials, published reports, staff contact, and public workshops for persons and organizations concerned with coastal issues, developments, and government activities; and
C) Organize workshops, policy dialogues, and site-specific mitigation to respond to coastal issues and conflicts.

This Environmental Assessment is one of the many processes used by the City and County of Honolulu in implementing the development review process, informing the public about proposed projects, and engaging public participation in managing development within the "coastal zone." Please see Section 4.0, Permits, for a complete discussion of the many development review processes for the proposed action.

(9) Beach protection
Objective: Protect beaches for public use and recreation.
Policies:
A) Locate new structures inland from the shoreline setback to conserve open space, minimize interference with natural shoreline processes, and minimize loss of improvements due to erosion;
B) Prohibit construction of private erosion-protection structures seaward of the shoreline, except when they result in improved aesthetic and engineering solutions to erosion at the sites and do not interfere with existing recreational and waterline activities; and
C) Minimize the construction of public erosion-protection structures seaward of the shoreline.

The proposed Project does not affect any beach resources.

(10) Marine resources

Objective: Promote the protection, use, and development of marine and coastal resources to assure their sustainability.

Policies:

A) Ensure that the use and development of marine and coastal resources are ecologically and environmentally sound and economically beneficial;

B) Coordinate the management of marine and coastal resources and activities to improve effectiveness and efficiency;

C) Assert and articulate the interests of the State as a partner with federal agencies in the sound management of ocean resources within the United States exclusive economic zone;

D) Promote research, study, and understanding of ocean processes, marine life, and other ocean resources in order to acquire and inventory information necessary to understand how ocean development activities relate to and impact upon ocean and coastal resources; and

E) Encourage research and development of new, innovative technologies for exploring, using, or protecting marine and coastal resources.

The proposed Project does not affect any marine resources.

7.4 CITY AND COUNTY OF HONOLULU GENERAL PLAN

The Proposed Action was evaluated to confirm that it is in compliance with the General Plan (GP), as amended in October 2002. According to the document, the GP was established to set "*forth the long-range aspirations of Oahu's residents and the strategies of actions to achieve them.*"

The proposed Nimitz Highway Tower Relocation Site project will not inhibit the GP objectives and policies. The project is specifically in line with the objectives and policies of the GP in Chapter 5 of the GP on Transportation and Utilities as follows:

Objective A of this Chapter of the GP is to *"create a transportation system which will enable people and goods to move safely, efficiently, and at a reasonable cost; serve all people, including the poor, the elderly, and the physically handicapped; and offer a variety of attractive and convenient modes of travel."* The project aligns with Objective A, Policy 1(a) to develop a public transportation system for travel to and from work and travel within Central Honolulu by making way for the planned rail transit project which will facilitate travel to and from work as well as provide additional public transportation options to Central Honolulu. Policies 2, 6, and 7 of this objective are also promoted by the project as this project is necessary to the progress of the rail transit project, which will provide transportation services to Central and West Oahu and promote the use of public transportation (Policies 2 and 7), and will reduce the construction and operation costs of the rail system (Policy 6).

The project aligns with Objective C, Policy 1, of this Chapter to *"maintain a high level of service for all utilities"* and to *"[m]aintain existing utility systems in order to avoid major breakdowns"* by ensuring the

public's continued access to a variety of radio programming, as well as serving as a conduit for the delivery of public safety information in the event of an emergency.

Under Objective D of the GP, the project will allow Oahu to have continued access to a wide variety of radio programming, which enhances the desirability of Oahu as a place to live and visit."

7.5 PRIMARY URBAN CENTER DEVELOPMENT PLAN

The Primary Urban Center extends along Oahu's southern shore from Waialae-Kahala in the east to Pearl City in the west, and from the shoreline to the westerly slopes of the Koolau Mountain range. The PUCDP provides a coherent vision to guide resource protection and land use within the Primary Urban Center, which includes guidance on any development within its boundaries.

The GP also sets forth the intention of implementing the PUCDP. The purpose of the PUCDP is to take the broad statements in the GP and apply them to goals within the individual community. The PUCDP will help the community, which is Oahu's most diverse and populous region, to manage growth and ensure that the courses of action addressed in the GP are appropriately applied to the individual community.

The project will not affect any of the policies of the Primary Urban Center Development Plan. The project is a radio broadcast tower that does not affect: (1) Cultivating Livable Neighborhoods, (2) In-Town Housing Choices, (3) The Pacific's Leading City, (4) Balanced Transportation System, and (5) Natural, Cultural and Scenic Resources.

The proposed project will benefit the community at large by providing continued radio broadcast service to the public. Under the Proposed Action, the public will continue to enjoy a wealth of options for AM radio broadcast. This will guarantee an array of radio programming for listeners' enjoyment.

In addition, based on a historic properties assessment and inquiries and clearance from the Hawaii State Historic Preservation Division, the proposed project will not affect historic and cultural resources.

The subject property is not commonly used as a scenic vista. The project tower will be painted an earth gray tone that will blend with the sky and background. The Proposed Action will be enclosed by chain link fencing and slatted with green slats to blend with the area. In addition, Kahauiki Village will plant trees around the outer fence to improve the view.

According to the Primary Urban Center Development Plan, Map A.1 and Figure 3.1, the subject property is not within any significant panoramic view or view corridor.

8.0 FINDINGS

We have prepared this Final EA for the proposed Nimitz Highway Tower Relocation Site (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 FAI's 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 subject property consists of undeveloped land with areas of vegetation, unpaved roads, and garbage. In addition, the subject parcels consisted of former paintball and airsoft facilities which were located along the western portion, and former squatter's encampments which were located along the eastern portion and edge along the shoreline of Kalihi Stream have been cleared as part of Kahauiki Village's ongoing construction activities. Gas and sewer pipelines are located along the northern portion; and unpaved roads, vegetation and miscellaneous garbage along the southern portion. Beyond the gas and sewer pipelines located along the northern portion is the highway. A historic properties assessment (HPA) has been conducted for the Project Action. No historic properties are within the APE for direct effects. Three sites have been identified within the APE for visual effects; however, there will be no visual effects to these sites. 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 tower will be located on undeveloped land near the northeast corner of the subject parcel. The proposed tower site is located in the vicinity of the future Kahauiki Village, a homeless housing development. Kahauiki Village will be receiving new single phase 120/240 VAC service from HECO via Sand Island. The route of the electrical pole lines servicing the Kahauiki homes will be along the entrance road from Nimitz Highway to the Kahauiki community. The Nimitz Tower will be between the Nimitz Highway entrance and the Kahauiki Village, and a new transformer 120/240 VAC will be provided by Hawaiian Electric Company outside the Nimitz Tower site along the fence. The new service is designed to provide a 400 amp load capacity for the Nimitz Tower site operations. The Nimitz Tower site will be connected to and feed off of the new Hawaiian Electric Company transformer via underground cables and connect to a power usage meter on the Nimitz Tower site equipment shelter. Therefore, the proposed broadcast tower 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 continued radio broadcast service to customers. Under the Proposed Action, people in the Honolulu area, as well as island-wide will be able to enjoy radio broadcast service when using their radios. The economic and social welfare of the community or state will not be impacted. The land is currently vacant/ undeveloped and the tower will not disrupt the development of the adjacent homeless village.

(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 is not a drinking water source and is not ecologically important.

(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 tower will be placed in the northeastern corner of the subject parcel on land zoned "preservation" 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 tower; 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 tower will be located on undeveloped land. Also, the project site will be located in the vicinity of the future Kahauiki Village, a homeless housing development. In addition, the area is

not commonly used as a scenic vista. The project is a stand-alone project, and will have routine maintenance after construction – it does not involve a commitment for larger actions.

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

According to the USFWS and DOFAW, the project may affect listed or proposed threatened or endangered species. However, the USFWS and/or DLNR-DOFAW recommendations will be followed; therefore, no further mitigation measures are necessary. In addition, the project is not located in a designated or proposed critical habitat. Therefore, there will be no impacts and no mitigation measures are necessary.

(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 Panel No. 15003C-0353G, Revised January 19, 2011).

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 tower will be located on undeveloped land near the northeast corner of the subject parcel. The Proposed Action will be enclosed by fencing, and will be surrounded by landscaping. Also, the project site will be located in the vicinity of the future Kahauiki Village, a homeless housing development. In addition, the area is not commonly used as a scenic vista.

(13) Requires substantial energy consumption.

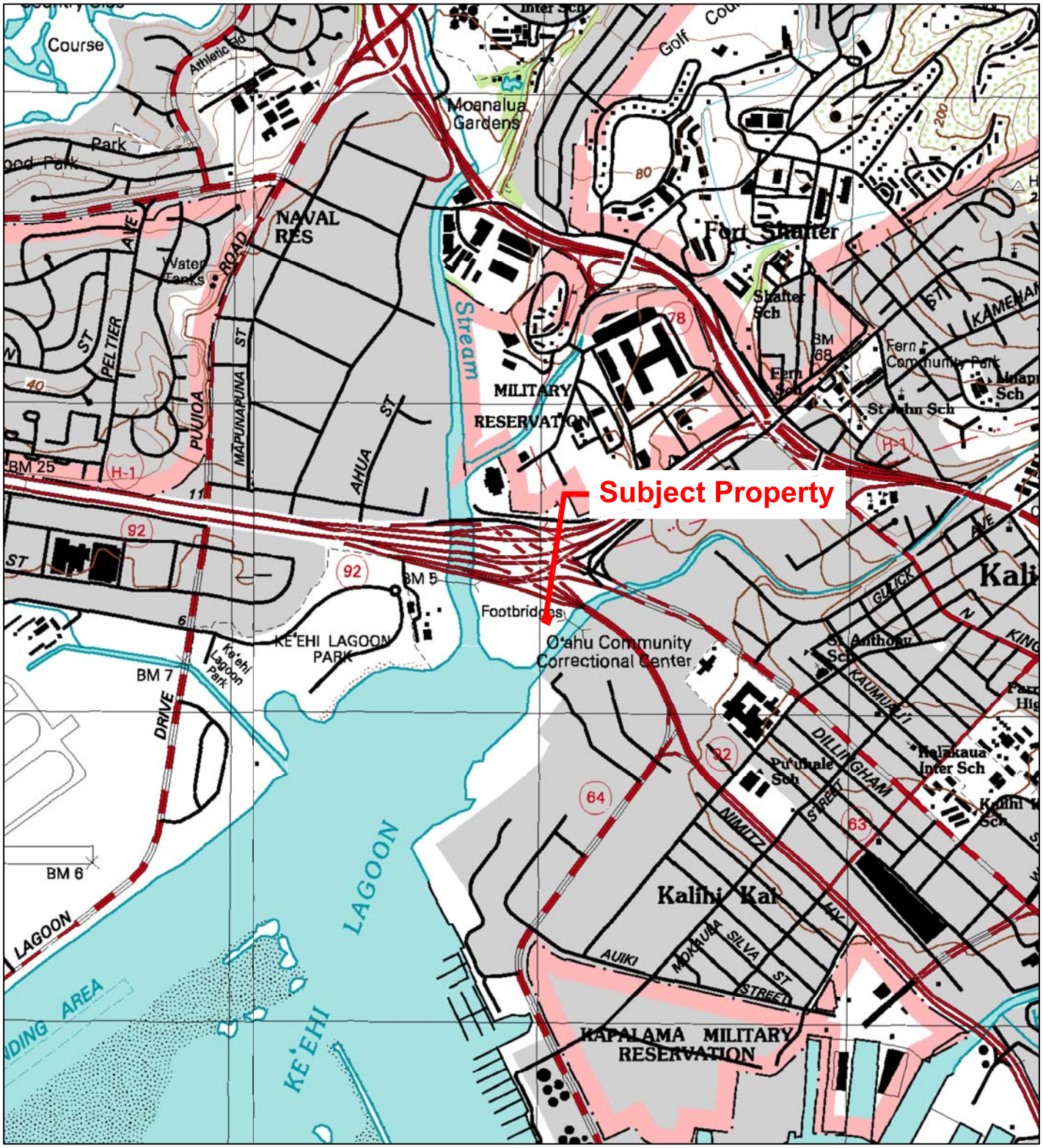
The construction and operation phases of the proposed project will not require substantial energy consumption relative to other similar projects. Energy consumption information is detailed above, under (2) *Curtails the range of beneficial uses of the environment.*

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



1000 0 1000 2000 3000 4000 5000 6000 7000 8000 9000 10000

Scale in Feet

N

USGS Topographic Map
7.5-Minute Series
Pearl Harbor & Honolulu Quandrangle
1998

FORD CANTY & ASSOCIATES, INC. ENVIRONMENTAL SCIENTISTS & ENGINEERS		Subject Property Location Map	Figure 1
Job Number: 16-1144	Created by: DG	Project: Proposed Nimitz Highway Tower Relocation North Nimitz Highway at Kahauiki Village (Portions of TMKs: [1] 1-1-003: Parcels 003, 207, 211, & 212) Honolulu, Oahu, Hawaii	
Date: 01/04/17	Reviewed By: TS	Client: BlowUp, LLC	

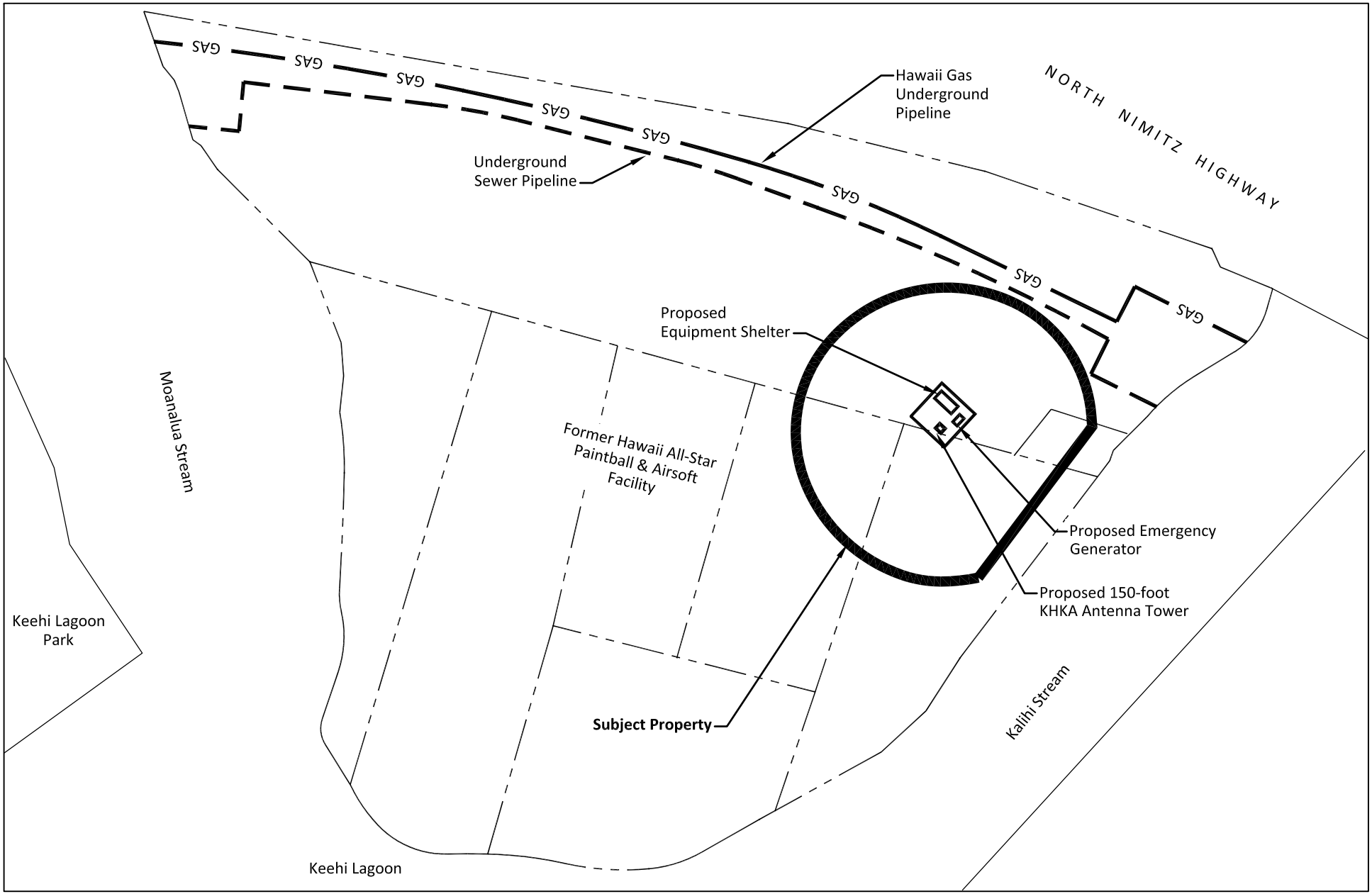
N

0 37.5 75 150 300

Scale in Feet

FORD CANTY & ASSOCIATES, INC. ENVIRONMENTAL SCIENTISTS & ENGINEERS		Subject Property Aerial Map
16-1144	DG	Proposed Nimitz Highway Tower Relocation North Nimitz Highway at Kahauiki Village (Portions of TMKs: [1] 1-1-003: Parcels 003, 207, 211, & 212) Honolulu, Oahu, Hawaii
09/28/17	TS	BlowUp, LLC

Figure **2**

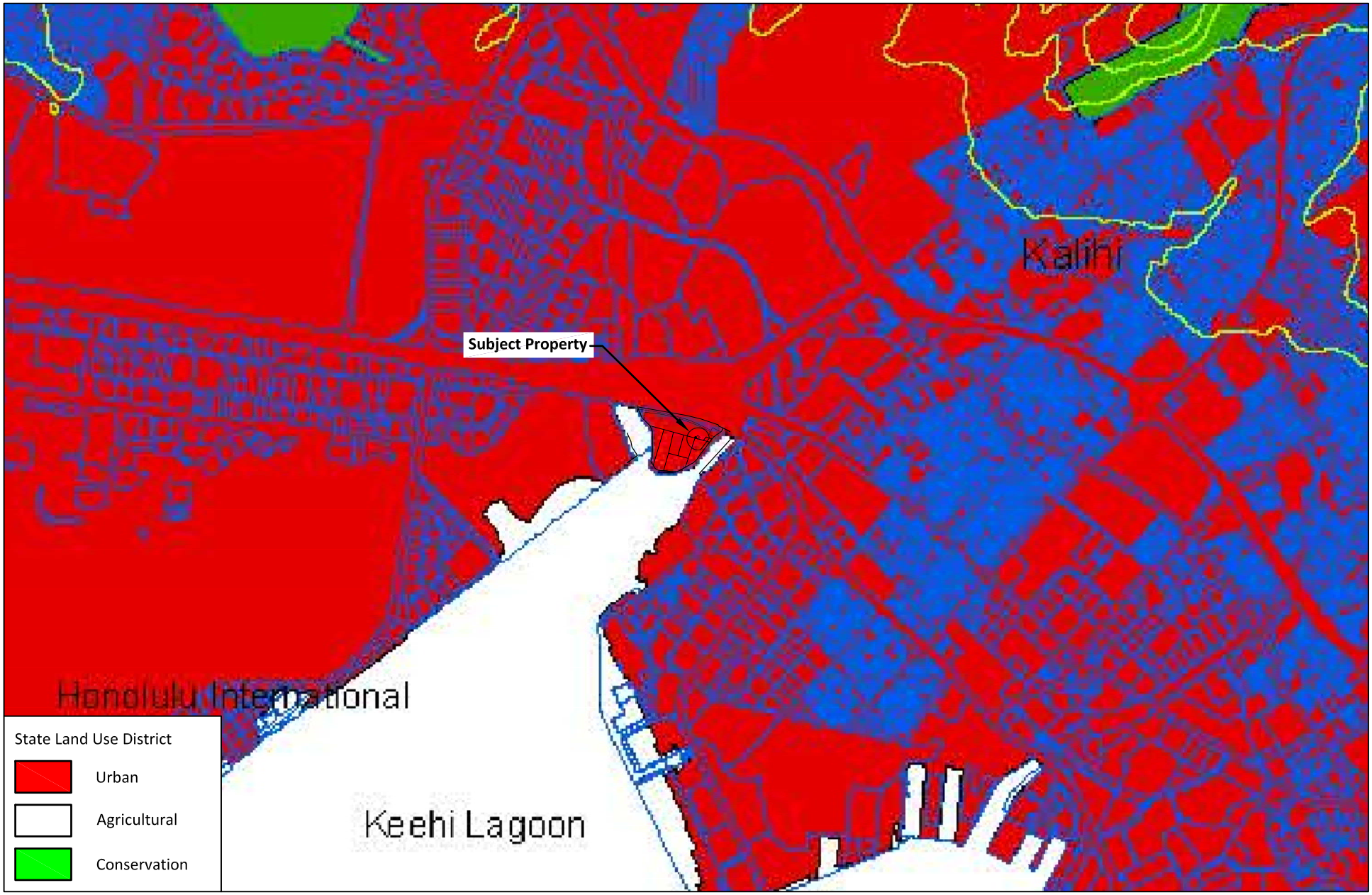


N

0 37.5 75 150 300

Scale in Feet

FORD CANTY & ASSOCIATES, INC. ENVIRONMENTAL SCIENTISTS & ENGINEERS		Subject Property Vicinity Map	Figure 3
16-1144	DG	Proposed Nimitz Highway Tower Relocation North Nimitz Highway at Kahauiki Village (Portions of TMKs: [1] 1-1-003: Parcels 003, 207, 211, & 212) Honolulu, Oahu, Hawaii	
09/28/17	TS	BlowUp, LLC	

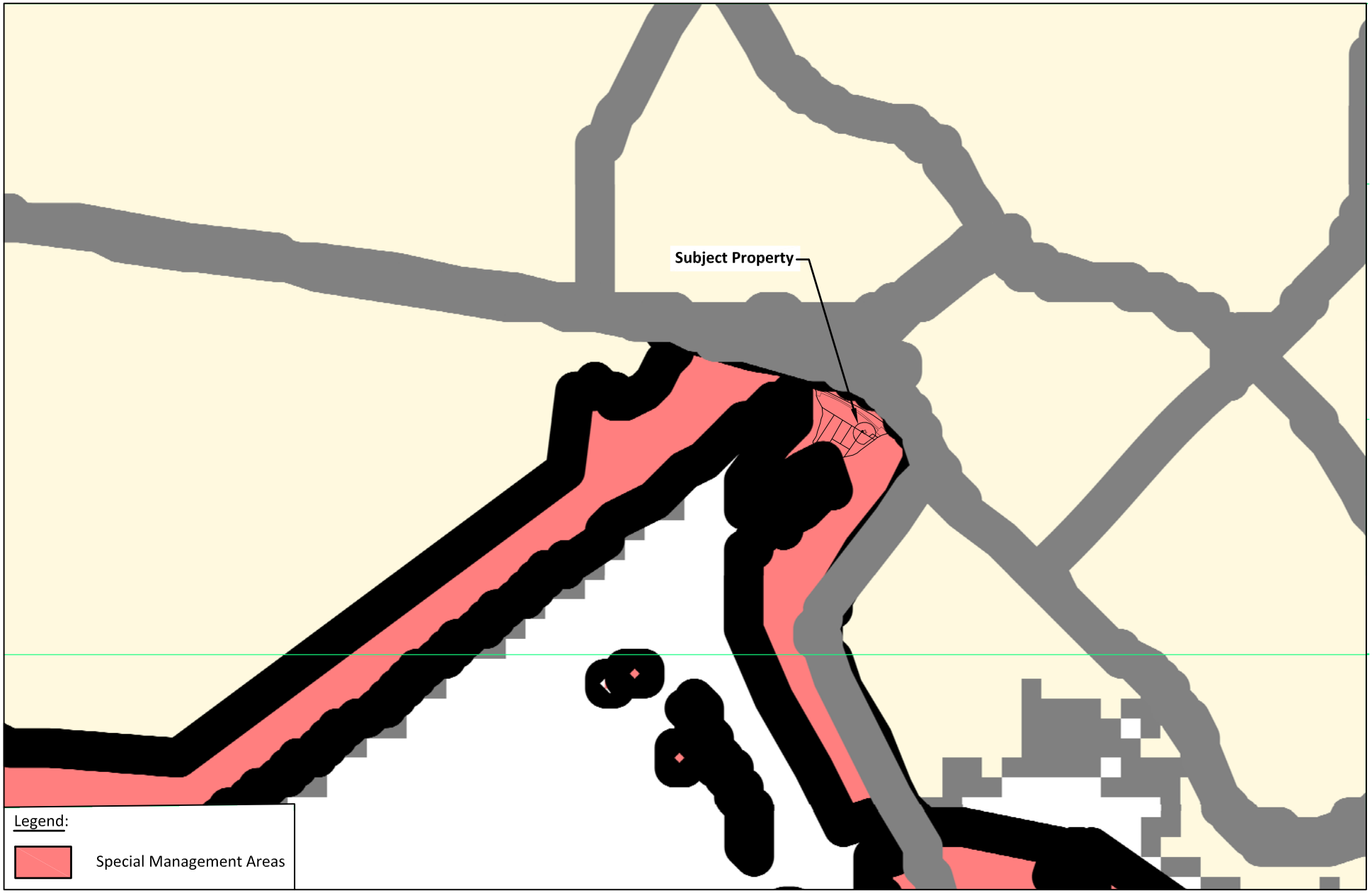


N

0 500 1,000 2,000 4,000

Scale in Feet

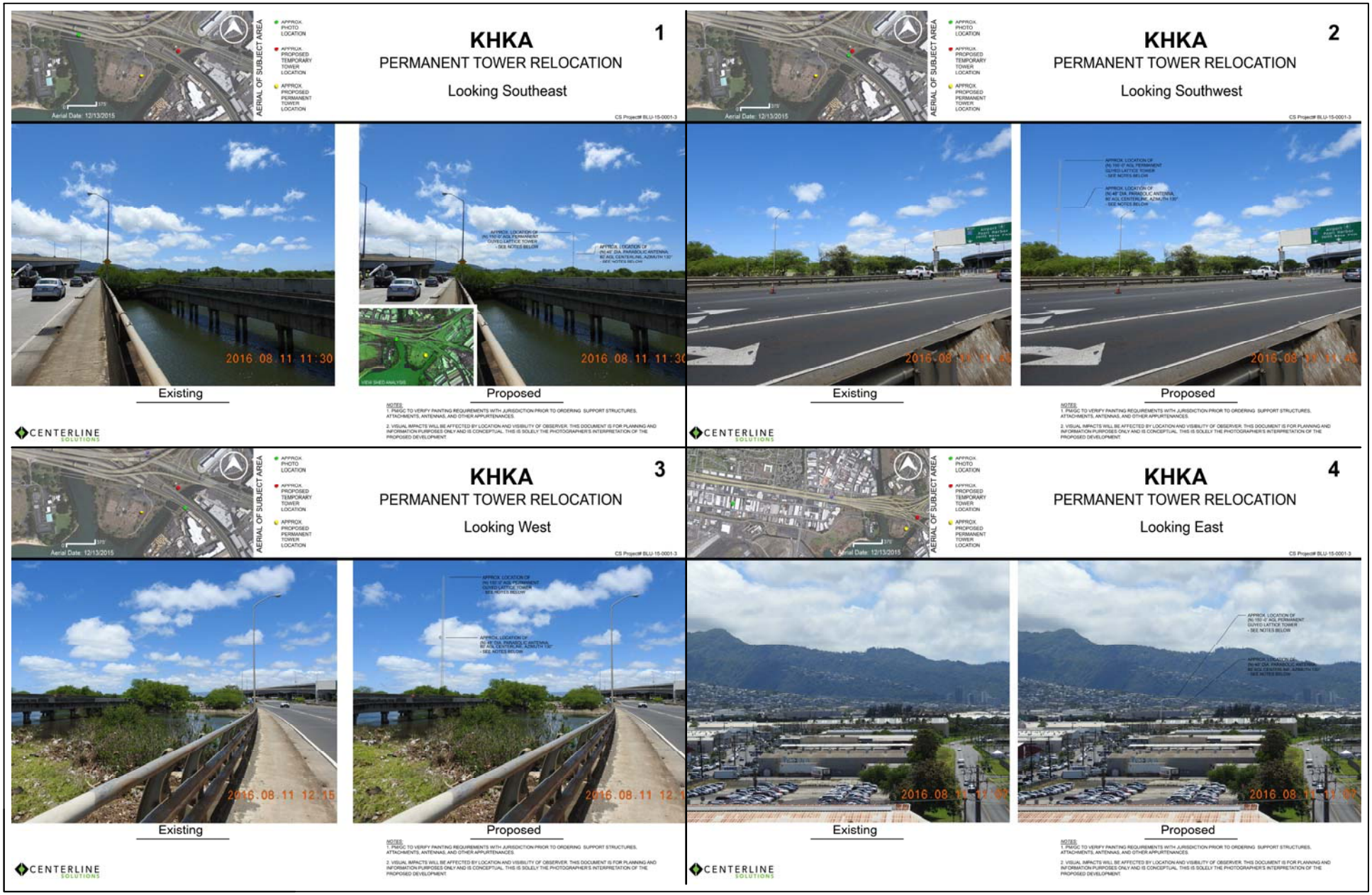
FORD CANTY & ASSOCIATES, INC. ENVIRONMENTAL SCIENTISTS & ENGINEERS		State Land Use District Map	Figure 4
16-1144	DG	Proposed Nimitz Highway Tower Relocation North Nimitz Highway at Kahauiki Village (Portions of TMKs: [1] 1-1-003: Parcels 003, 207, 211, & 212) Honolulu, Oahu, Hawaii	
10/27/17	TS	BlowUp, LLC	



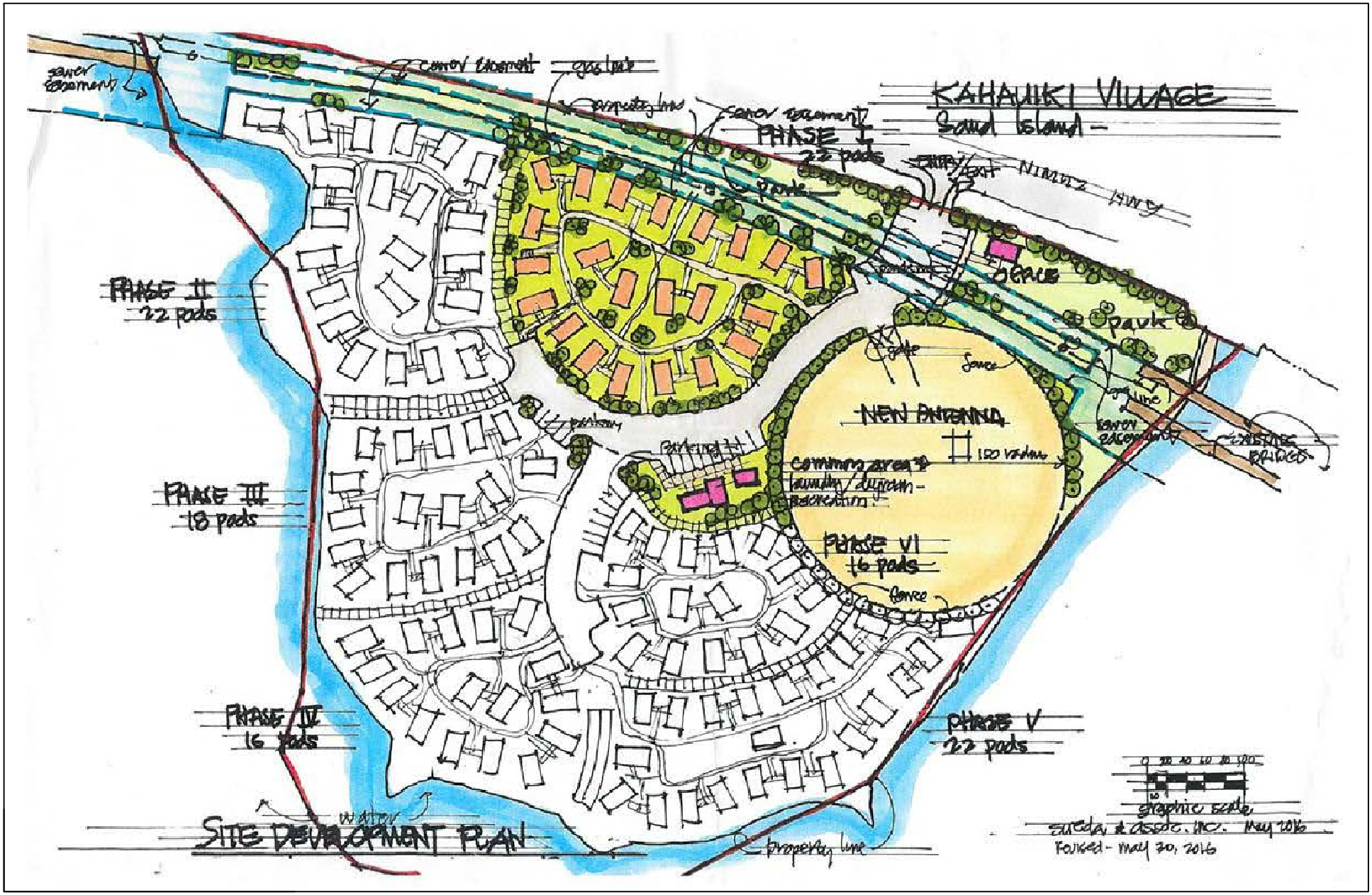
N

0 500 1,000 2,000 4,000
Scale in Feet

FORD CANTY & ASSOCIATES, INC. ENVIRONMENTAL SCIENTISTS & ENGINEERS		Special Management Area Map Proposed Nimitz Highway Tower Relocation North Nimitz Highway at Kahauiki Village (Portions of TMKs: [1] 1-1-003: Parcels 003, 207, 211, & 212) Honolulu, Oahu, Hawaii	Figure 5
16-1144	DG		
10/27/17	TS	BlowUp, LLC	



FORD CANTY & ASSOCIATES, INC. ENVIRONMENTAL SCIENTISTS & ENGINEERS		Photo Simulation of Lattice Tower	Figure 6
16-1144	DG	Proposed Nimitz Highway Tower Relocation North Nimitz Highway at Kahauiki Village (Portions of TMKs: [1] 1-1-003: Parcels 003, 207, 211, & 212) Honolulu, Oahu, Hawaii	
10/27/17	TS	BlowUp, LLC	



FORD CANTY & ASSOCIATES, INC. ENVIRONMENTAL SCIENTISTS & ENGINEERS		General Site Development Plan - Kahauiki Village	Figure 7
16-1144	DG	Proposed Nimitz Highway Tower Relocation North Nimitz Highway at Kahauiki Village (Portions of TMKs: [1] 1-1-003: Parcels 003, 207, 211, & 212) Honolulu, Oahu, Hawaii	
10/27/17	TS	BlowUp, LLC	

NIMITZ HIGHWAY TOWER

NIMITZ HIGHWAY AT KAHAUIKI VILLAGE
MOANALUA, HONOLULU, HI

ZONING DRAWINGS

PROJECT SUMMARY

THIS PROJECT INCLUDES THE FOLLOWING SCOPE OF WORK:

1. PROPOSED CONSTRUCTION OF A NEW TELECOMMUNICATIONS FACILITY.

2. PROPOSED INSTALLATION OF A NEW PERMANENT 153'-0" GUYED LATTICE TOWER WITHIN A NEW 150' RADIUS FENCED LEASE AREA.

3. PROPOSED INSTALLATION OF A NEW 11'-6" X 28'-0" EQUIPMENT SHELTER WITHIN A NEW 50'-0" X 50'-0" CHAIN-LINK FENCE ENCLOSURE.

4. PROPOSED INSTALLATION OF A NEW MICROWAVE ANTENNA WITH ASSOCIATED CABLING.

5. PROPOSED INSTALLATION OF ELECTRICAL AND FIBER SERVICES.

6. SPECIAL INSPECTION REQUIRED ONLY FOR INSTALLATION OF EXPANSION ANCHORS IN CONCRETE. SEE SHEET G003, STRUCTURAL CONCRETE NOTES, NOTE 7.

7. PROPOSED INSTALLATION OF NEW OUTDOOR 50kW EMERGENCY DIESEL GENERATOR WITHIN 50'-0" X 50'-0" CHAIN-LINK FENCE ENCLOSURE.

GOVERNING CODES

GOVERNING CODES

IBC-2006, INTERNATIONAL BUILDING CODE W/ LOCAL AMENDMENTS

NEC-2008, NATIONAL ELECTRICAL CODE

A.D.A. COMPLIANCE
INSTALLATION IS UNMANNED AND NOT FOR HUMAN HABITATION.
HANDICAP ACCESS IS NOT REQUIRED PER A.D.A.

Know what's below.
Call before you dig.

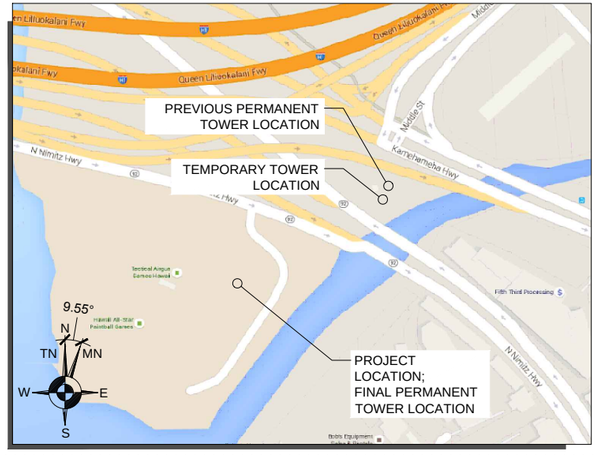
THE INFORMATION CONTAINED IN THIS SET OF DOCUMENTS IS PROPRIETARY BY NATURE. ANY USE OR DISCLOSURE OTHER THAN THAT WHICH RELATES TO KHKA IS STRICTLY PROHIBITED.

SITE INFORMATION

SITE NAME:	NIMITZ HIGHWAY TOWER
SITE ADDRESS:	NIMITZ HIGHWAY AT KAHAUIKI VILLAGE MOANALUA, HONOLULU, HI
CENTER OF PROPOSED STRUCTURE	PENDING SURVEY UPDATE
LATITUDE:	21° 19' 54.71" N (21.331864° N)
LONGITUDE:	157° 53' 27.54" W (-157.890983° W)
SOURCE:	SURVEY
PARCEL NUMBERS:	1-1-003:207; 1-1-003:212; 1-1-003:003; 1-1-003:211
JURISDICTION:	STATE OF HAWAII
TOP OF (N) STRUCTURE:	153'-0" AGL
GROUND ELEV. @ (N) STRUCTURE:	9' AMSL
ZONING:	P-2 GENERAL PRESERVATION
OCCUPANCY GROUP:	U
CONSTRUCTION TYPE:	II-B
FLOOD ZONE:	ZONES X & VE (EL13) **PROJECT AREA LOCATED IN ZONE X**

1

PROJECT VICINITY MAP



DRIVING DIRECTIONS

FROM HONOLULU INTERNATIONAL AIRPORT:

1. HEAD EAST ON EXIT 16 (404 FT)
2. KEEP LEFT AT THE FORK, FOLLOW SIGNS FOR PAIEA ST/AOLELE ST AND MERGE ONTO AOLELE ST (1.3 MI)
3. TURN LEFT ONTO LAGOON DR (0.2 MI)
4. TURN RIGHT ONTO HI-92 E (0.3 MI)
5. KEEP RIGHT TO STAY ON HI-92 E (0.4 MI)
6. TURN RIGHT; DESTINATION WILL BE ON THE RIGHT (433 FT)

ESTIMATED DISTANCE: 2.3 MILES
ESTIMATED TIME: 8 MINUTES

PROJECT CONTACTS

PROPERTY OWNER
STATE OF HAWAII
DLNR MAIN OFFICE
KALANIMOKU BUILDING
1151 PUNCHBOWL ST.
HONOLULU, HI 96813
PH: (808) 587-0400

TOWER OWNER
BLOW UP LLC
1088 BISHOP ST STE LL2
HONOLULU, HI 96813

ZONING AND PERMITTING CONSULTANT
CENTERLINE SOLUTIONS
3375 KOAPAKA STREET, SUITE D185
HONOLULU, HI, 96817
PH: 808.536.7400

SITE ACQUISITION CONSULTANT
CENTERLINE SOLUTIONS
3375 KOAPAKA STREET, SUITE D185
HONOLULU, HI, 96817
PH: 808.536.7400

DRAWING INDEX

SHEET	DESCRIPTION
001	TITLE SHEET
002	TOPOGRAPHIC SURVEY
A000	CITY LAND USE MAP
A000.1	STATE LAND USE MAP
A000.2	SMA BOUNDARIES MAP
A001	OVERALL SITE PLAN
A001.1	FLOOD ZONE SITE PLAN
A001.2	EXISTING CONDITIONS
A002	ENLARGED DEMOLITION SITE PLAN
A002.1	(N) ENLARGED SITE PLAN
A002.2	ENLARGED COMPOUND PLAN
A003	SOUTHEAST ELEVATION
A004	NORTHEAST ELEVATIONS

CENTERLINE SOLUTIONS

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION. CONSTRUCTION OF THIS PROJECT WILL BE UNDER MY OBSERVATION.

CP PROJECT NO.: BLU-15-0001-3

PRELIMINARY

NO.	DATE	D/C	DESCRIPTION
0	10-25-16	TT/KN	90% ZD REVIEW
3	03-21-17	TT/TT	CP COMMENT
4	09-28-17	KN/KN	CLIENT COMMENT

SUBMITTAL

NO.	DATE	D/C	DESCRIPTION
0	09-28-17	KN/KN	LU SUBMITTAL
1	11-28-17	KN/KN	LU COMMENTS

SITE NAME:

NIMITZ HIGHWAY TOWER

SITE ADDRESS:

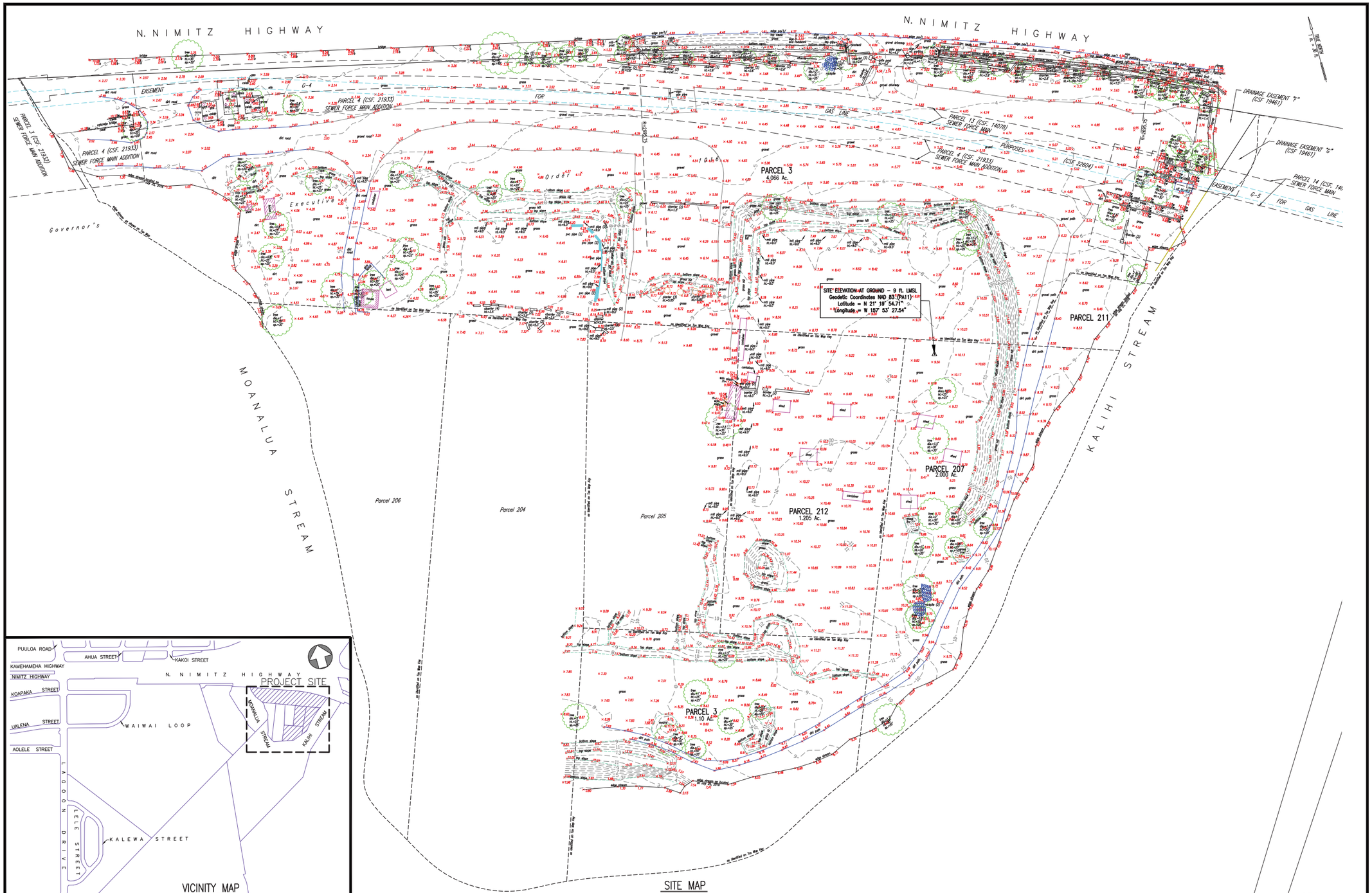
NIMITZ HIGHWAY AT
KAHAUIKI VILLAGE
MOANALUA, HONOLULU, HI

SHEET TITLE

TITLE SHEET

SHEET NO.

001



VICINITY MAP
NOT TO SCALE

SITE MAP
SCALE: 1 in=30 ft

Legend:

ac	asphalt concrete	mag	mag nail
b	bottom	mh	manhole
bw	bottom wall	mtl	metal pipe
cbarrier	concrete barrier	pav't	pavement
clf	chain link fence	pvc	polyvinyl chloride
clstr	cluster	shh	sewer handhole
cslab	concrete slab	smh	sewer manhole
cwall	concrete wall	sta	station
dia	diameter	stl	street light
dwy	driveway	sp	spread
elev	elevation	sw	sidewalk
ff	finished floor	t	top
grd	ground	tw	top wall
hbt	hub–tack	wdn	wooden
ht	height		
lp	light post		

Note: Origin of elevations: B 111 (AA6427). Elev. = 7.18 feet LMSL.

No metes & bounds found for TMK 1–1–003: 003, 207, 211 and 212. Parcels shown taken from Tax Map tracing and shown for convenience purposes.

TOPOGRAPHIC SURVEY MAP
KAHAUIKI VILLAGE
At Moanalua, Ilinui, Kaliawa, Honolulu, Oahu, Hawaii
Date: July 29, 2016
Tax Map Key: (1) 1–1–003: 003, 207, 211 and 212

REVISED: OCT. 7, 2016 SITE CHANGE

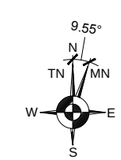
SHEET NO.
002

AARON J. TORGUSON
LICENSED PROFESSIONAL LAND SURVEYOR
No. 10257
HAWAII, U.S.A.

This map was prepared by me or under my direct supervision

LICENSED PROFESSIONAL LAND SURVEYOR
CERTIFICATE NUMBER 10257 – Exp. 4/30/2018

LEAPS & BOUNDARIES, INC.
2016 WATERHOUSE ST., STE. 101 PH. (808) 484–5701
HONOLULU, HI 96819 FAX (888) 542–2097
EMAIL: SURVEYS@LEAPSANDBOUNDARIES.COM



CENTERLINE SOLUTIONS

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION. CONSTRUCTION OF THIS PROJECT WILL BE UNDER MY OBSERVATION.

CP PROJECT NO.: BLU-15-0001-3

PRELIMINARY

NO.	DATE	D/C	DESCRIPTION
0	10-25-16	TT/KN	90% ZD REVIEW
3	03-21-17	TT/TT	CP COMMENT
4	09-28-17	KN/KN	CLIENT COMMENT

SUBMITTAL

NO.	DATE	D/C	DESCRIPTION
0	09-28-17	KN/KN	LU SUBMITTAL
1	11-28-17	KN/KN	LU COMMENTS

SITE NAME:

NIMITZ HIGHWAY TOWER

SITE ADDRESS:

NIMITZ HIGHWAY AT
KAHAUIKI VILLAGE
MOANALUA, HONOLULU, HI

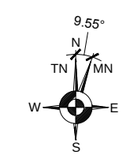
SHEET TITLE

CITY LAND USE MAP

SHEET NO.

1 A000

1	CITY LAND USE MAP	SCALE: NTS
		SCALE: NTS



1	STATE LAND USE MAP	SCALE: NTS	
		SCALE: NTS	

CENTERLINE SOLUTIONS

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION. CONSTRUCTION OF THIS PROJECT WILL BE UNDER MY OBSERVATION.

CP PROJECT NO.: BLU-15-0001-3

PRELIMINARY

NO.	DATE	D/C	DESCRIPTION
0	10-25-16	TT/KN	90% ZD REVIEW
3	03-21-17	TT/TT	CP COMMENT
4	09-28-17	KN/KN	CLIENT COMMENT

SUBMITTAL

NO.	DATE	D/C	DESCRIPTION
0	09-28-17	KN/KN	LU SUBMITTAL
1	11-28-17	KN/KN	LU COMMENTS

SITE NAME:

NIMITZ HIGHWAY TOWER

SITE ADDRESS:

NIMITZ HIGHWAY AT
KAHAUIKI VILLAGE
MOANALUA, HONOLULU, HI

SHEET TITLE

STATE LAND USE MAP

SHEET NO.

1

A000.1

9.55°
N
TN
MN
W
E
S

CENTERLINE SOLUTIONS

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION. CONSTRUCTION OF THIS PROJECT WILL BE UNDER MY OBSERVATION.

CP PROJECT NO.: BLU-15-0001-3

PRELIMINARY

NO.	DATE	D/C	DESCRIPTION
0	10-25-16	TT/KN	90% ZD REVIEW
3	03-21-17	TT/TT	CP COMMENT
4	09-28-17	KN/KN	CLIENT COMMENT

SUBMITTAL

NO.	DATE	D/C	DESCRIPTION
0	09-28-17	KN/KN	LU SUBMITTAL
1	11-28-17	KN/KN	LU COMMENTS

SITE NAME:

NIMITZ HIGHWAY TOWER

SITE ADDRESS:

NIMITZ HIGHWAY AT
KAHAUIKI VILLAGE
MOANALUA, HONOLULU, HI

SHEET TITLE

SMA BOUNDARIES MAP

SHEET NO.

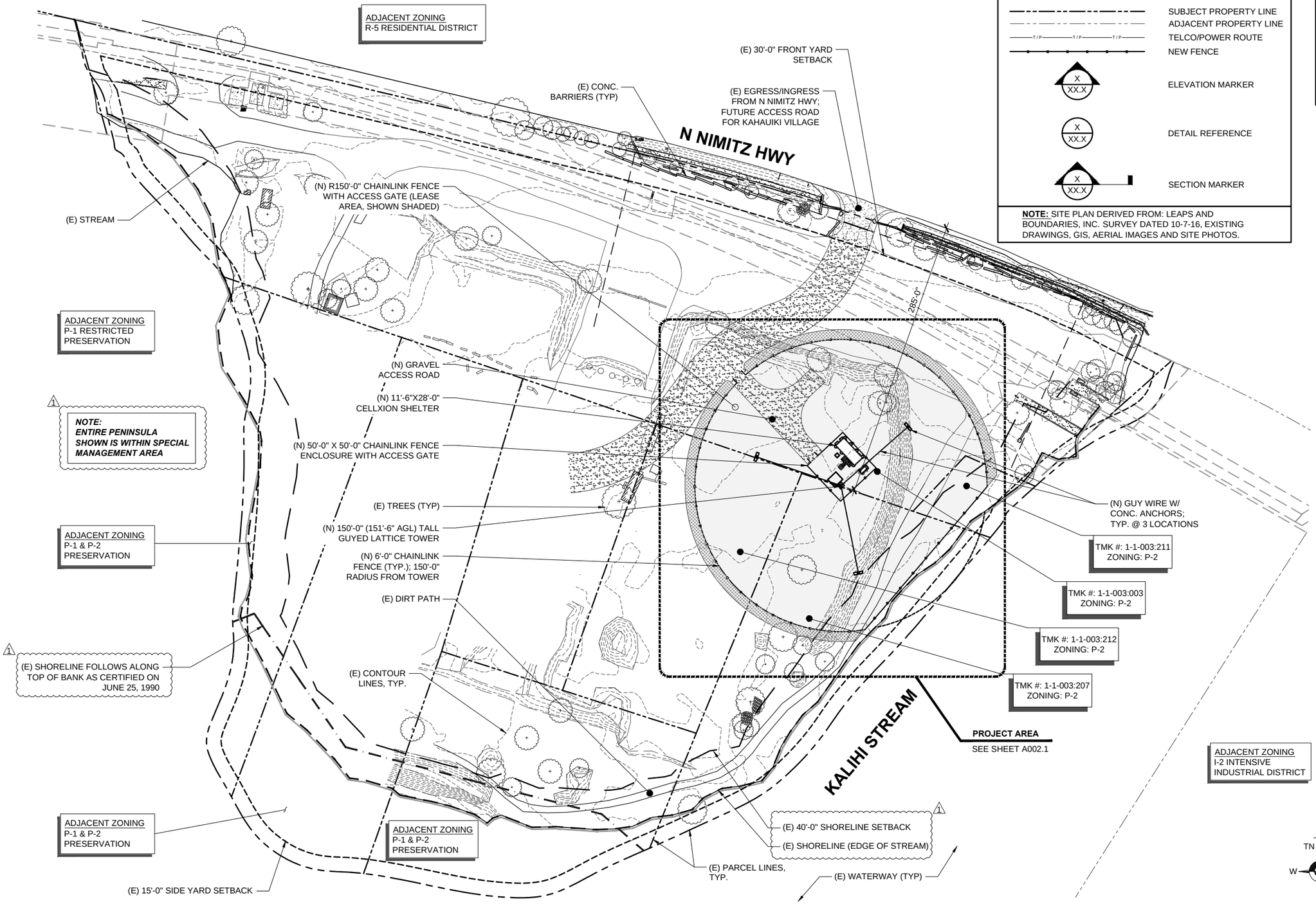
1 A000.2

1	SMA BOUNDARIES MAP	SCALE: NTS
		SCALE: NTS

DRAWING LEGEND

- SUBJECT PROPERTY LINE
- ADJACENT PROPERTY LINE
- T/P — TELCO/POWER ROUTE
- NEW FENCE
- X / XX.X — ELEVATION MARKER
- X / XX.X — DETAIL REFERENCE
- X / XX.X — SECTION MARKER

NOTE: SITE PLAN DERIVED FROM: LEAPS AND BOUNDARIES, INC. SURVEY DATED 10-7-16, EXISTING DRAWINGS, GIS, AERIAL IMAGES AND SITE PHOTOS.



1 OVERALL SITE PLAN

SCALE: 1" = 100'-0" (11X17)
SCALE: 1" = 50'-0" (22X34)
0' 50' 100' 200'

CENTERLINE SOLUTIONS

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION. CONSTRUCTION OF THIS PROJECT WILL BE UNDER MY OBSERVATION.

CP PROJECT NO.: BLU-15-0001-3

PRELIMINARY

NO.	DATE	D/C	DESCRIPTION
0	10-25-16	TT/KN	90% ZD REVIEW
3	03-21-17	TT/TT	CP COMMENT
4	09-28-17	KN/KN	CLIENT COMMENT

SUBMITTAL

NO.	DATE	D/C	DESCRIPTION
0	09-28-17	KN/KN	LU SUBMITTAL
1	11-28-17	KN/KN	LU COMMENTS

SITE NAME:

NIMITZ HIGHWAY TOWER

SITE ADDRESS:

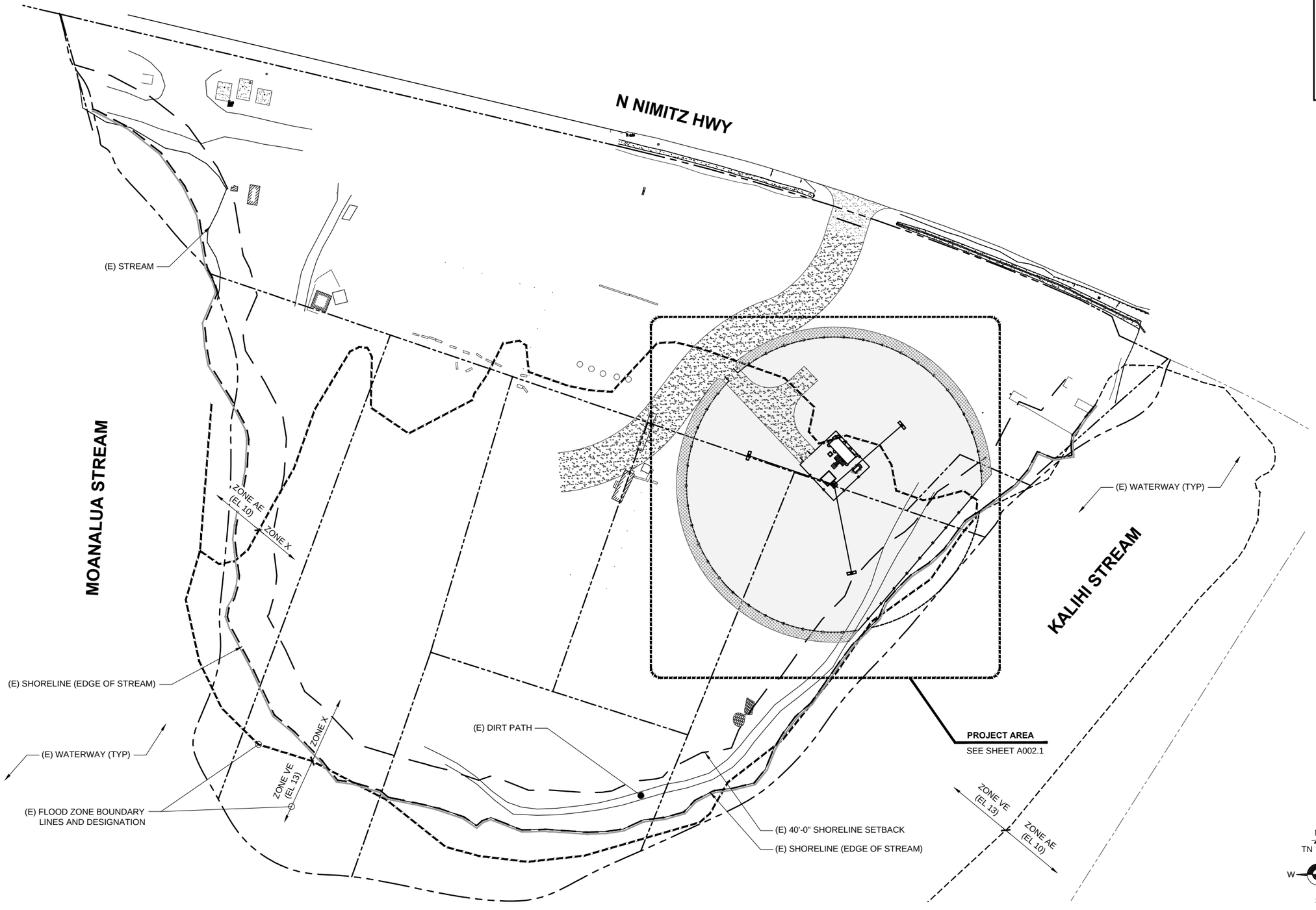
NIMITZ HIGHWAY AT KAHAUIKI VILLAGE
MOANALUA, HONOLULU, HI

SHEET TITLE

OVERALL SITE PLAN

SHEET NO.

A001



1 FLOOD ZONE SITE PLAN

SCALE: 1" = 100'-0" (11X17)
SCALE: 1" = 50'-0" (22X34)

0' 50' 100' 200'

CENTERLINE SOLUTIONS

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION. CONSTRUCTION OF THIS PROJECT WILL BE UNDER MY OBSERVATION.

CP PROJECT NO.: BLU-15-0001-3

PRELIMINARY

NO.	DATE	D/C	DESCRIPTION
0	10-25-16	TT/KN	90% ZD REVIEW
3	03-21-17	TT/TT	CP COMMENT
4	09-28-17	KN/KN	CLIENT COMMENT

SUBMITTAL

NO.	DATE	D/C	DESCRIPTION
0	09-28-17	KN/KN	LU SUBMITTAL
1	11-28-17	KN/KN	LU COMMENTS

SITE NAME:

NIMITZ HIGHWAY TOWER

SITE ADDRESS:

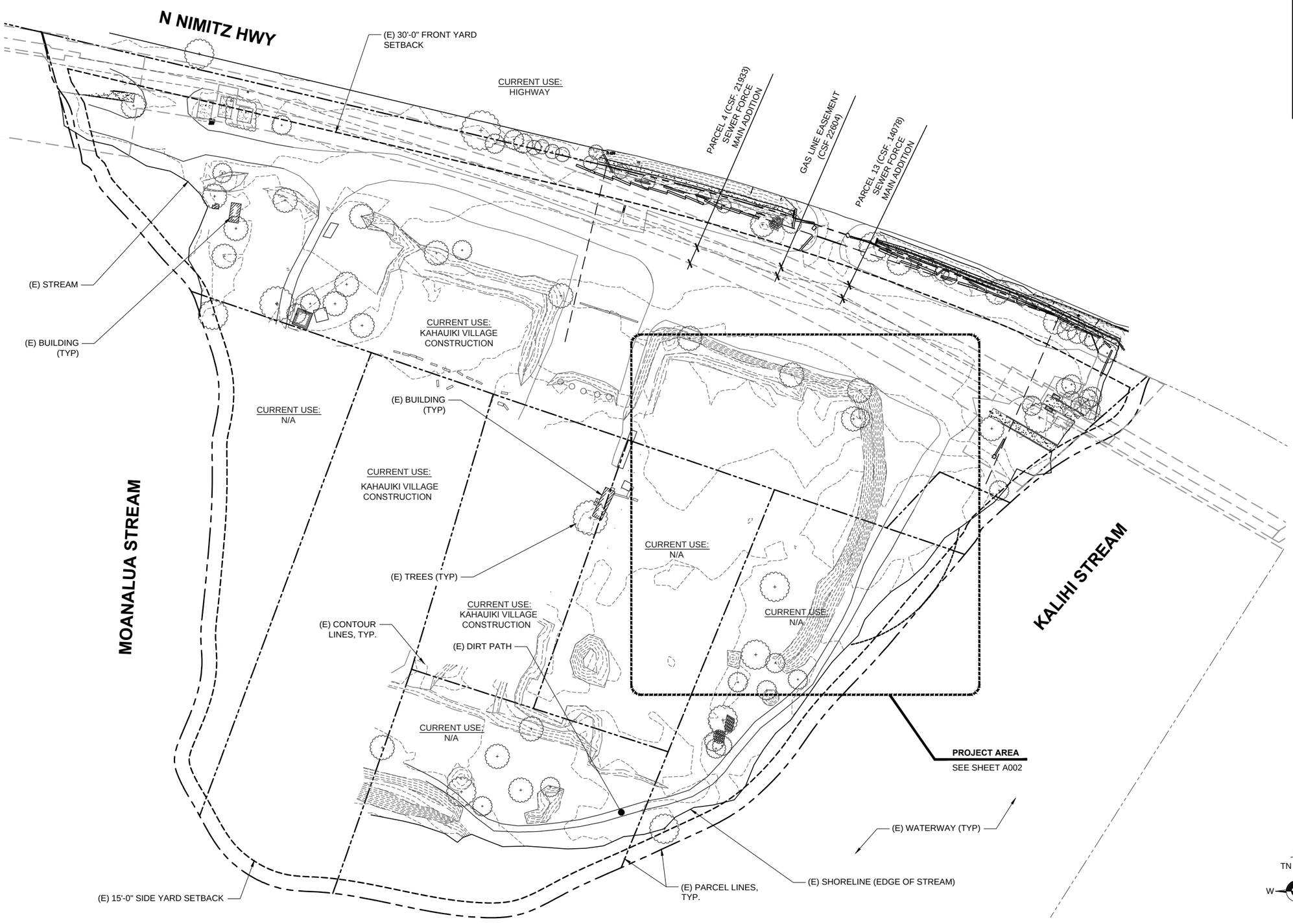
NIMITZ HIGHWAY AT
KAHAUIKI VILLAGE
MOANALUA, HONOLULU, HI

SHEET TITLE

FLOOD ZONE SITE PLAN

SHEET NO.

1 A001.1



1 EXISTING CONDITIONS

SCALE: 1" = 100'-0" (11X17)

SCALE: 1" = 50'-0" (22X34)

0' 50' 100' 200'

CENTERLINE SOLUTIONS

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION. CONSTRUCTION OF THIS PROJECT WILL BE UNDER MY OBSERVATION.

CP PROJECT NO.: BLU-15-0001-3

PRELIMINARY

NO.	DATE	D/C	DESCRIPTION
0	10-25-16	TT/KN	90% ZD REVIEW
3	03-21-17	TT/TT	CP COMMENT
4	09-28-17	KN/KN	CLIENT COMMENT

SUBMITTAL

NO.	DATE	D/C	DESCRIPTION
0	09-28-17	KN/KN	LU SUBMITTAL
1	11-28-17	KN/KN	LU COMMENTS

SITE NAME:

NIMITZ HIGHWAY TOWER

SITE ADDRESS:

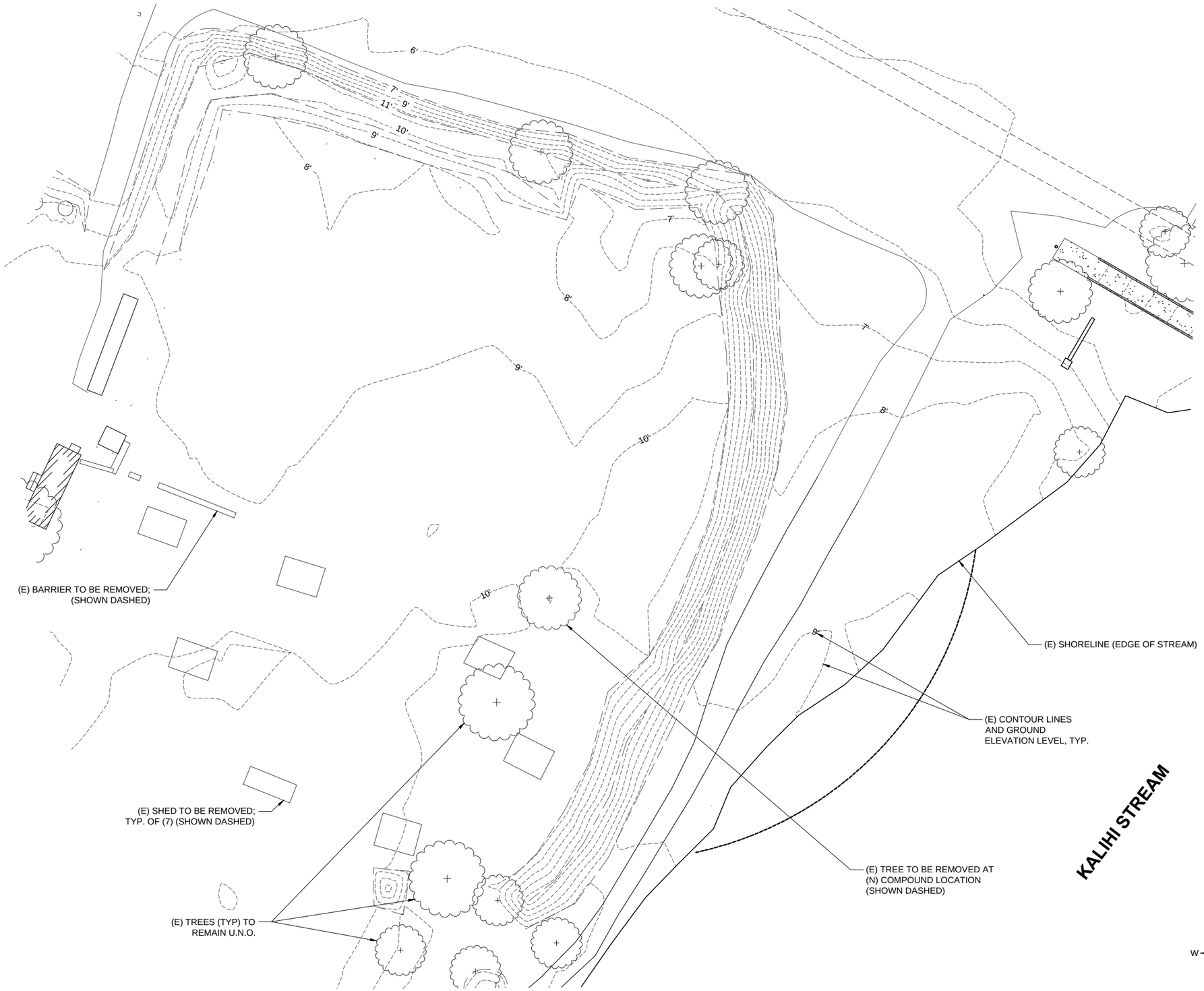
NIMITZ HIGHWAY AT KAHAUIKI VILLAGE MOANALUA, HONOLULU, HI

SHEET TITLE

EXISTING CONDITIONS

SHEET NO.

1 A001.2



1 ENLARGED DEMOLITION SITE PLAN

SCALE: 1" = 40'-0" (11X17)

SCALE: 1" = 20'-0" (22X34)

0' 20' 40' 80'

CENTERLINE SOLUTIONS

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION. CONSTRUCTION OF THIS PROJECT WILL BE UNDER MY OBSERVATION.

CP PROJECT NO.: BLU-15-0001-3

PRELIMINARY

NO.	DATE	D/C	DESCRIPTION
0	10-25-16	TT/KN	90% ZD REVIEW
3	03-21-17	TT/TT	CP COMMENT
4	09-28-17	KN/KN	CLIENT COMMENT

SUBMITTAL

NO.	DATE	D/C	DESCRIPTION
0	09-28-17	KN/KN	LU SUBMITTAL
1	11-28-17	KN/KN	LU COMMENTS

SITE NAME:

NIMITZ HIGHWAY TOWER

SITE ADDRESS:

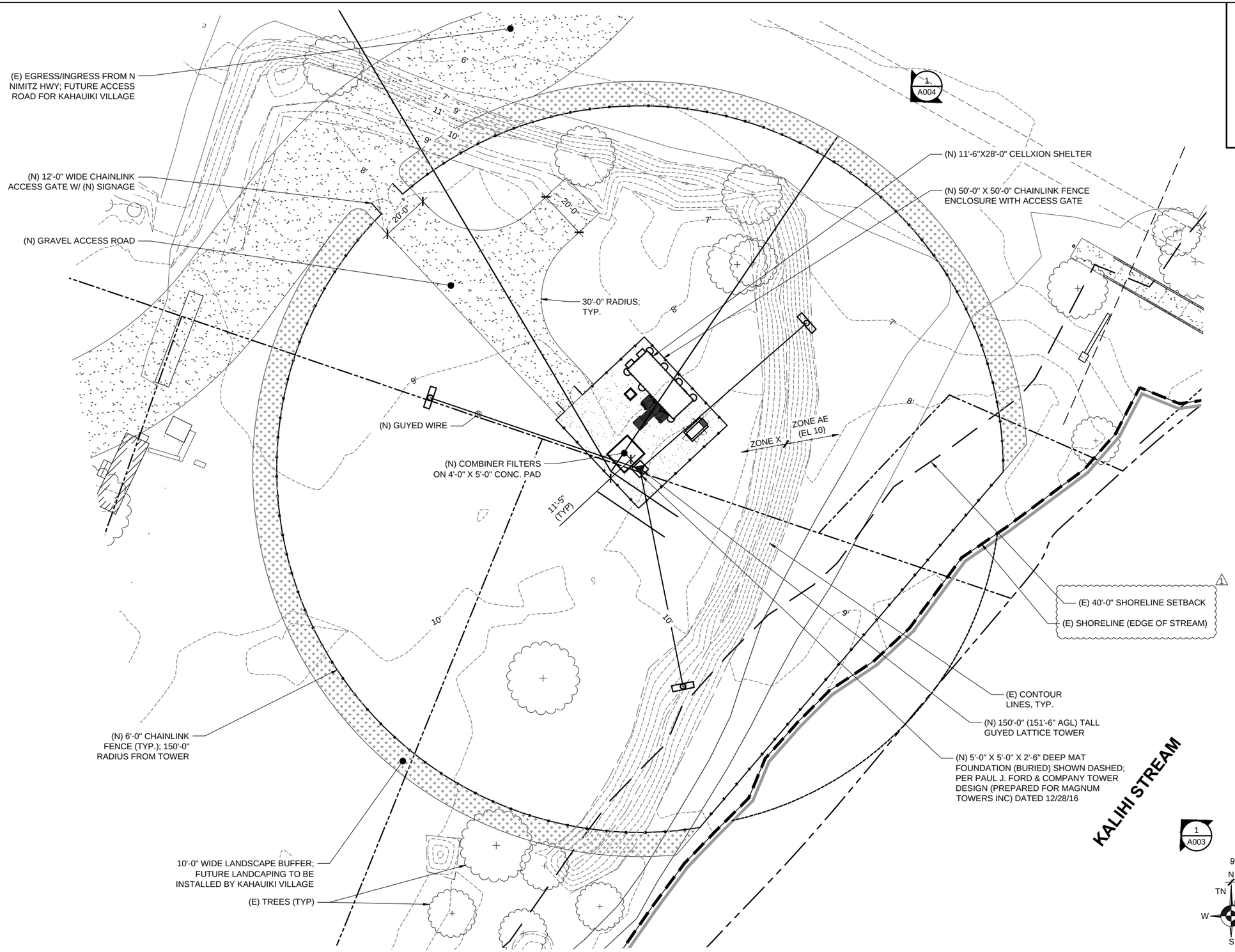
NIMITZ HIGHWAY AT
KAHAUIKI VILLAGE
MOANALUA, HONOLULU, HI

SHEET TITLE

ENLARGED DEMO. SITE PLAN

SHEET NO.

A002



1 (N) ENLARGED SITE PLAN

SCALE: 1" = 40'-0" (11X17)
SCALE: 1" = 20'-0" (22X34)

0' 20' 40' 80'

CENTERLINE SOLUTIONS

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION. CONSTRUCTION OF THIS PROJECT WILL BE UNDER MY OBSERVATION.

CP PROJECT NO.: BLU-15-0001-3

PRELIMINARY

NO.	DATE	D/C	DESCRIPTION
0	10-25-16	TT/KN	90% ZD REVIEW
3	03-21-17	TT/TT	CP COMMENT
4	09-28-17	KN/KN	CLIENT COMMENT

SUBMITTAL

NO.	DATE	D/C	DESCRIPTION
0	09-28-17	KN/KN	LU SUBMITTAL
1	11-28-17	KN/KN	LU COMMENTS

SITE NAME:

NIMITZ HIGHWAY TOWER

SITE ADDRESS:

NIMITZ HIGHWAY AT KAHAUIKI VILLAGE MOANALUA, HONOLULU, HI

SHEET TITLE

(N) ENLARGED SITE PLAN

SHEET NO.

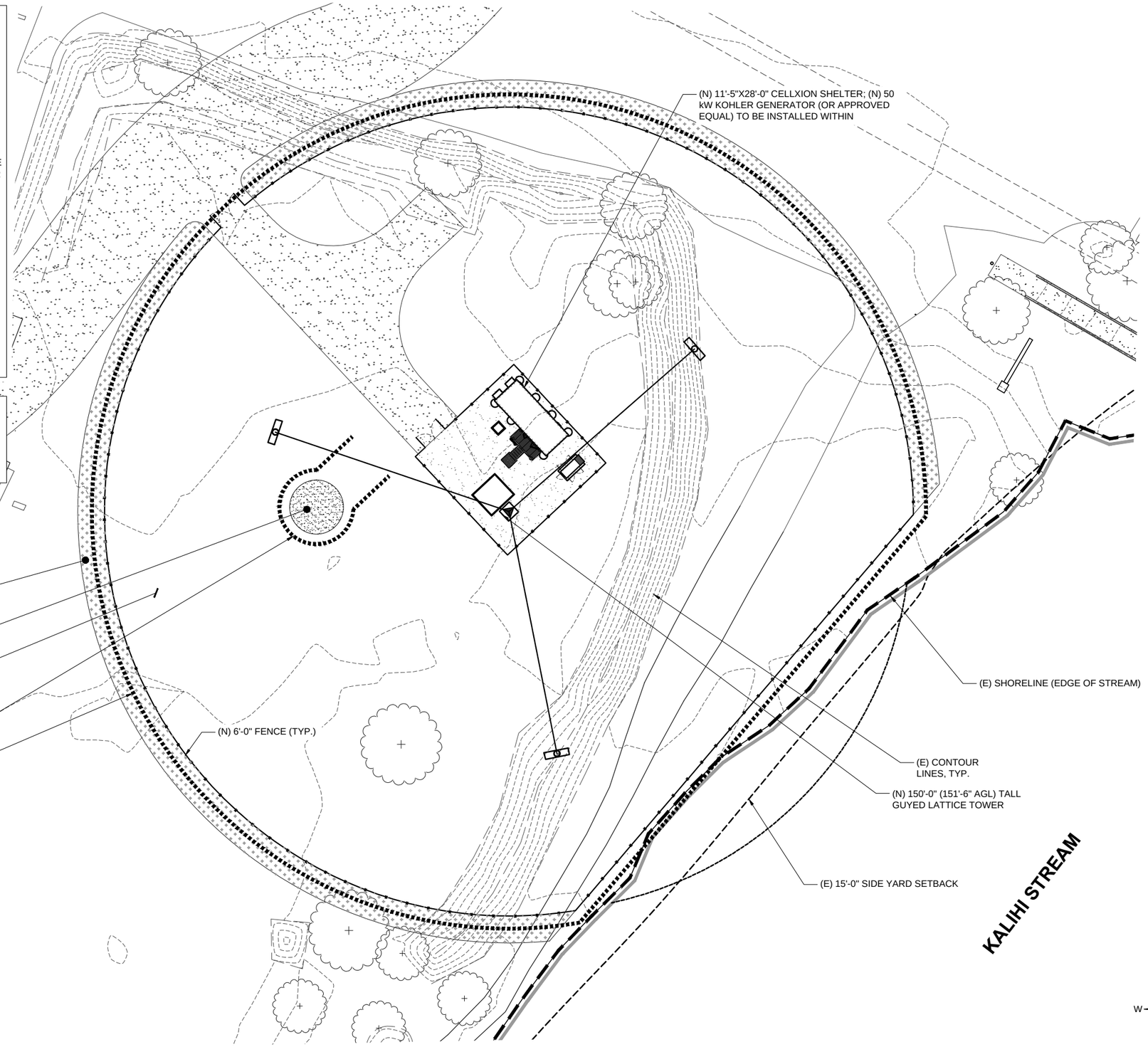
A002.1

EC / BMP NOTES:

1. THE FINAL LIFT OF EACH DAY'S WORK SHALL BE COMPACTED TO PREVENT EROSION OF FILL MATERIAL.
2. GOOD HOUSEKEEPING SHALL BE UTILIZED TO ENSURE PROTECTION OF ROADWAYS FROM MUD, DIRT, AND DEBRIS.
3. THE CONTRACTOR SHALL ENSURE THAT ALL TIRES IF CONSTRUCTION VEHICLES ARE SUFFICIENTLY CLEANED OFF SO THAT DIRT OR DEBRIS IS NOT TRACKED OFF THE CONSTRUCTION SITE, WASHING OFF TIRES WITH WATER WILL NOT BE ACCEPTABLE UNLESS THE RUNOFF IS CONTAINED & DOES NOT ENTER THE STORM DRAIN SYSTEM, OR ONTO THE ROADWAY.
4. AT THE END OF GRADING OPERATIONS AND AT THE COMPLETION OF PROJECT, CONTRACTOR SHALL INSPECT EACH CATCH BASIN, DRAIN INLET & DRAIN MANHOLE SURROUNDING THE PROJECT SITE. ANY ACCUMULATED SEDIMENT AND DEBRIS FOUND IN THE STORM DRAIN STRUCTURES SHALL BE REMOVED. PLEASE NOTE THAT FLUSHING INTO THE DRAIN STRUCTURES IS PROHIBITED.
5. ANY DIRT OR GRASSED AREA DISTURBED SHALL BE RESTORED BY RE-GRADDDING THE AREA OR BY SEEDED HYDROMULCH. THE GRASS SHALL BE FULLY ESTABLISHED AT COMPLETION OF PROJECT.

NOTE:

SITE GRADING WILL NOT BE REQUIRED FOR THIS INSTALL.



LEGEND

BIO-BAG DELINEATION

NOTES

1. BIO-BAGS SHALL REMAIN IN PLACE UNTIL THE GRASS IS FULLY ESTABLISHED.
2. AT COMPLETION OF PROJECT, BIO-BAG MATERIAL AND COMPOST SHALL BE REMOVED FROM SITE & DISPOSED OF PROPERLY.

1 EROSION CONTROL PLAN

SCALE: 1" = 20'-0" (11X17)
SCALE: 1" = 10'-0" (22X34)

0' 10' 20' 40'

CENTERLINE SOLUTIONS

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION. CONSTRUCTION OF THIS PROJECT WILL BE UNDER MY OBSERVATION.

CP PROJECT NO.: BLU-15-0001-3

PRELIMINARY

NO.	DATE	D/C	DESCRIPTION
0	10-25-16	TT/KN	90% ZD REVIEW
3	03-21-17	TT/TT	CP COMMENT
4	09-28-17	KN/KN	CLIENT COMMENT

SUBMITTAL

NO.	DATE	D/C	DESCRIPTION
0	09-28-17	KN/KN	LU SUBMITTAL
1	11-28-17	KN/KN	LU COMMENTS

SITE NAME:

NIMITZ HIGHWAY TOWER

SITE ADDRESS:

NIMITZ HIGHWAY AT
KAHAUIKI VILLAGE
MOANALUA, HONOLULU, HI

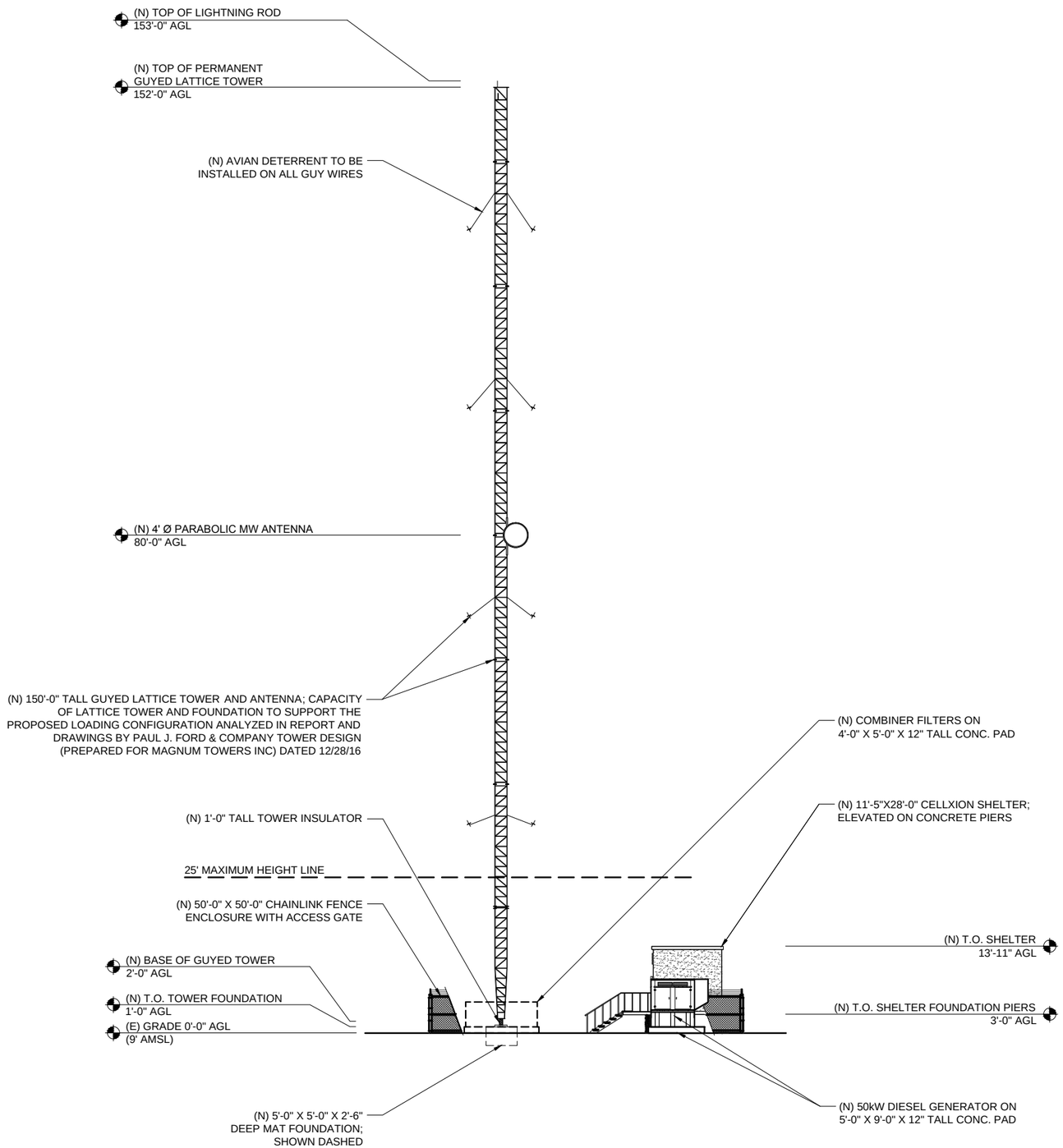
SHEET TITLE

EROSION CONTROL PLAN

SHEET NO.

A002.2

NOTE:
PM/GC TO VERIFY PAINTING REQUIREMENTS WITH JURISDICTION PRIOR TO ORDERING SUPPORT STRUCTURES, ATTACHMENTS, ANTENNAS, AND OTHER APPURTENANCES.



1 SOUTHEAST ELEVATION

SCALE: 1" = 20'-0" (11X17)
SCALE: 1" = 10'-0" (22X34)

0' 10' 20' 40'

CENTERLINE SOLUTIONS

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION. CONSTRUCTION OF THIS PROJECT WILL BE UNDER MY OBSERVATION.

CP PROJECT NO.: BLU-15-0001-3

PRELIMINARY

NO.	DATE	D/C	DESCRIPTION
0	10-25-16	TT/KN	90% ZD REVIEW
3	03-21-17	TT/TT	CP COMMENT
4	09-28-17	KN/KN	CLIENT COMMENT

SUBMITTAL

NO.	DATE	D/C	DESCRIPTION
0	09-28-17	KN/KN	LU SUBMITTAL
1	11-28-17	KN/KN	LU COMMENTS

SITE NAME:

NIMITZ HIGHWAY TOWER

SITE ADDRESS:

NIMITZ HIGHWAY AT
KAHAUIKI VILLAGE
MOANALUA, HONOLULU, HI

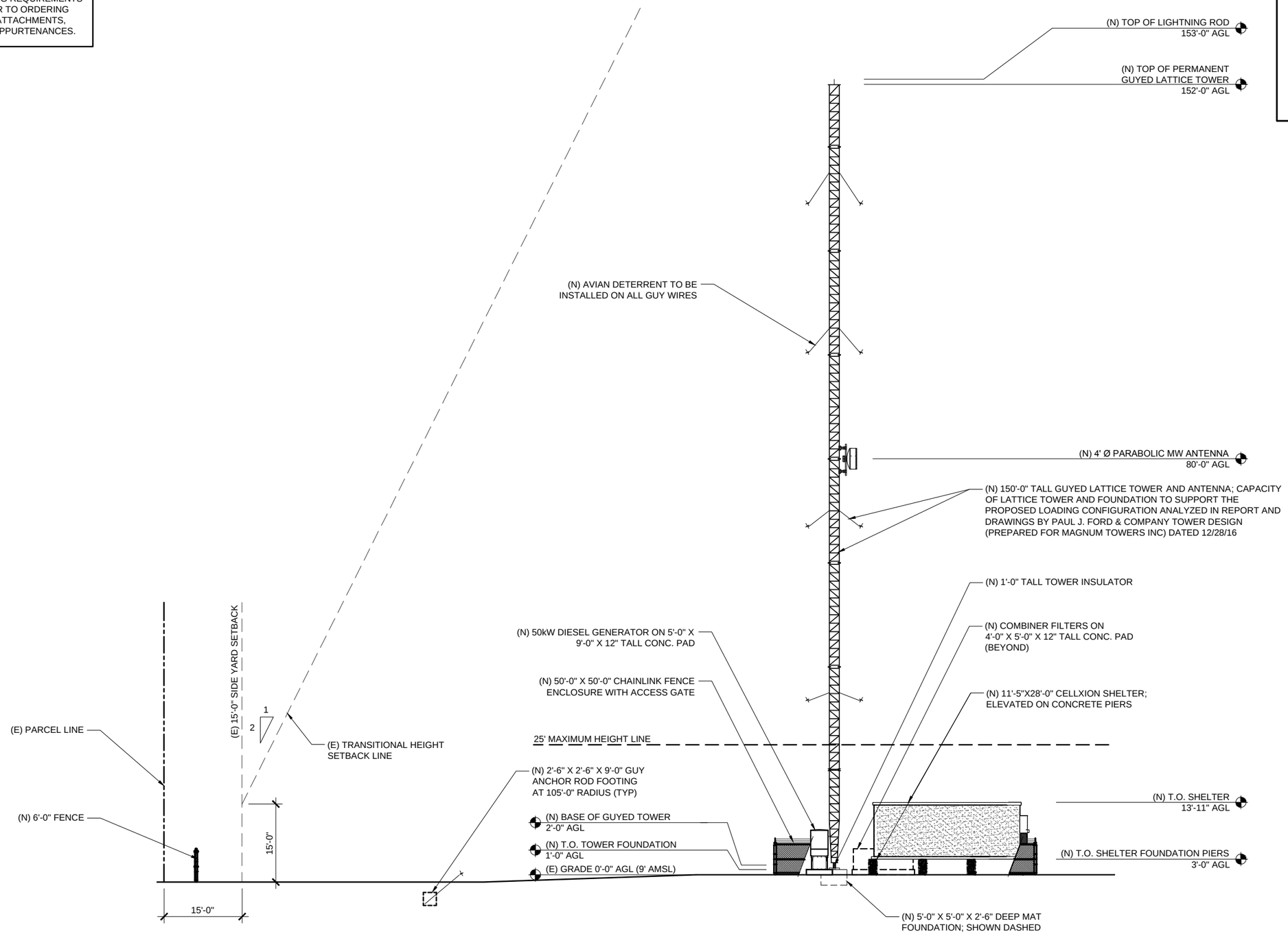
SHEET TITLE

ELEVATIONS

SHEET NO.

A003

NOTE:
PM/GC TO VERIFY PAINTING REQUIREMENTS WITH JURISDICTION PRIOR TO ORDERING SUPPORT STRUCTURES, ATTACHMENTS, ANTENNAS, AND OTHER APPURTENANCES.



1 NORTHEAST ELEVATION

SCALE: 1" = 20'-0" (11X17)
SCALE: 1" = 10'-0" (22X34)

0' 10' 20' 40'

CENTERLINE SOLUTIONS

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION. CONSTRUCTION OF THIS PROJECT WILL BE UNDER MY OBSERVATION.

CP PROJECT NO.: BLU-15-0001-3

PRELIMINARY

NO.	DATE	D/C	DESCRIPTION
0	10-25-16	TT/KN	90% ZD REVIEW
3	03-21-17	TT/TT	CP COMMENT
4	09-28-17	KN/KN	CLIENT COMMENT

SUBMITTAL

NO.	DATE	D/C	DESCRIPTION
0	09-28-17	KN/KN	LU SUBMITTAL
1	11-28-17	KN/KN	LU COMMENTS

SITE NAME:

NIMITZ HIGHWAY TOWER

SITE ADDRESS:

NIMITZ HIGHWAY AT
KAHAUIKI VILLAGE
MOANALUA, HONOLULU, HI

SHEET TITLE

ELEVATIONS

SHEET NO.

A004

PHOTOGRAPHS

Client: BlowUp, LLC **Project No.:** 16-1144

Site Name: Nimitz Highway Tower Relocation Site
North Nimitz Highway, TMK: (1) 1-1-003: Parcels 003, 207, 211 & 212
Honolulu, Oahu, Hawaii **Date:** December 8, 2016

View of gated entrance to access subject property off of North Nimitz Highway, showing the H-1 Freeway overpass to the north, looking northwest	PHOTO **1**

Overview of subject property from gated entrance, looking southeast	PHOTO **2**

Client: BlowUp, LLC	**Project No.:** 16-1144
Site Name: Nimitz Highway Tower Relocation Site North Nimitz Highway at Kahauiki Village Honolulu, Oahu, Hawaii	**Date:** December 8, 2016

View of subject property from north end, showing unpaved road extending through subject property with vegetation on both sides, looking south	PHOTO **3**

Former parked vehicles and squatter's encampments (now cleared) along unpaved road extending through subject property, looking south	PHOTO **4**

Client: BlowUp, LLC	**Project No.:** 16-1144
Site Name: Nimitz Highway Tower Relocation Site North Nimitz Highway, TMK: (1) 1-1-003: Parcels 003, 207, 211 & 212 Honolulu, Oahu, Hawaii	**Date:** December 8, 2016

Pile of household-type garbage along unpaved road on southeast portion of subject property, looking east	PHOTO **5**

Overview of eastern edge of subject property and adjoining Kalihi Stream/Keehi Lagoon, showing former squatter's encampments along shoreline (now cleared), looking southwest	PHOTO **6**

Client: BlowUp, LLC **Project No.:** 16-1144

Site Name: Nimitz Highway Tower Relocation Site
North Nimitz Highway, TMK: (1) 1-1-003: Parcels 003, 207, 211 & 212
Honolulu, Oahu, Hawaii **Date:** December 8, 2016

Overview of eastern portion of Hawaii All-Star Paintball & Airsoft facility (now demolished) that includes western portion of subject property, looking northeast	PHOTO **7**

View of western portion of the subject property located on east portion of Hawaii All-Star Paintball & Airsoft facility (now demolished) , looking east	PHOTO **8**

Client: BlowUp, LLC	**Project No.:** 16-1144
Site Name: Nimitz Highway Tower Relocation Site North Nimitz Highway, TMK: (1) 1-1-003: Parcels 003, 207, 211 & 212 Honolulu, Oahu, Hawaii	**Date:** December 8, 2016

Signage for underground gas pipeline (Hawaii Gas) and fenced enclosure containing aboveground portion of pipeline with valve, located just northeast of subject property by footbridges, looking east	PHOTO **9**

Unpaved road with vegetation and garbage on both sides, located just south of subject property, looking south	PHOTO **10**

Client: BlowUp, LLC **Project No.:** 16-1144

Site Name: Nimitz Highway Tower Relocation Site
North Nimitz Highway, TMK: (1) 1-1-003: Parcels 003, 207, 211 & 212
Honolulu, Oahu, Hawaii **Date:** December 8, 2016

Gravel-covered area located just north of subject property, with North Nimitz Highway and H-1 Freeway overpass in the background, looking northwest	PHOTO **11**

Footbridge over Kalihi Stream located northeast of subject property, looking northeast	PHOTO **12**

Client: BlowUp, LLC	**Project No.:** 16-1144
Site Name: Nimitz Highway Tower Relocation Site North Nimitz Highway, TMK: (1) 1-1-003: Parcels 003, 207, 211 & 212 Honolulu, Oahu, Hawaii	**Date:** December 8, 2016

Modular office building and shipping container associated at entrance to Hawaii All-Star Paintball & Airsoft facility (now demolished), located west of subject property, looking east	PHOTO **13**

APPENDIX A

REFERENCES

REFERENCES:

City and County of Honolulu, Department of Planning and Permitting (DPP)

City and County of Honolulu, Department of Planning and Permitting (DPP). (2002). General Plan (GP)

City and County of Honolulu, Department of Planning and Permitting (DPP). (2004). Primary Urban Center Development Plan (PUCDP)

Federal Communications Commission (FCC), Office of Engineering and Technology. (1998). *Information on Human Exposure to Radiofrequency Fields From Cellular and PCS Radio Transmitters*

Federal Communications Commission (FCC). (2004). *Nationwide Programmatic Agreement for Review of Effects on Historic Properties for Certain Undertakings Approved by the Federal Communications Commission*

Federal Emergency Management Agency, Flood Insurance Rate Map (FEMA/FIRM Panel No. 15003C-0353G, Revised January 19, 2011)

Honolulu Star-Advertiser, Classified Legals Advertising Department

National Oceanic and Atmospheric Administration (NOAA), Office of Coastal Management

National Wilderness Preservation System website

State of Hawaii, Department of Health. Chapter 200, Environmental Impact Rules (I 1-200-12)

State of Hawaii, Department of Health, Clean Air Branch. (2015). *State of Hawaii Annual Summary 2014 Air Quality Data.* Honolulu

State of Hawaii, Department of Health, Hazard Evaluation & Emergency Response (HEER) Office Database (2016)

State of Hawaii, Department of Natural Resources, Division of Forestry and Wildlife (DOFAW)

State of Hawaii, Department of Natural Resources, State Historic Preservation Division (SHPD)

State of Hawaii, Land Use Commission. Chapter 205, Hawaii Revised Statutes (Land Use)

State of Hawaii, Office of Hawaiian Affairs (OHA)

State of Hawaii, Office of Planning. Chapter 226, Hawaii Revised Statutes (Hawaii State Planning Act - HSPA)

State of Hawaii, Office of Planning. Chapter 205A, Hawaii Revised Statutes (Hawai'i Coastal Zone Law; Coastal Zone Management Program - CZMP)

State of Hawaii, Department of Health. Chapter 11-46, Hawaii Administrative Rules (Community Noise Control)

State of Hawaii. Chapter 343, Hawaii Revised Statutes (Environmental Impact Statements)

U.S. Army Corps of Engineers, Honolulu District

U.S. Census Bureau (2010 census)

U.S. Department of Agriculture, Natural Resources Conservation Service, National Cooperative Soil Survey

U.S. Fish and Wildlife Service (USFWS) Refuges website

U.S. Fish and Wildlife Service (USFWS), Pacific Islands Fish and Wildlife Office

U.S. Geological Survey (USGS). (1998). 7.5-minute Pearl Harbor and Honolulu, Hawaii topographic quadrangle maps

Water Resources Research Center, University of Hawaii. (1990). *Aquifer Identification and Classification for Oahu: Groundwater Protection Strategy for Hawaii, Technical Report No. 179*

APPENDIX B

COMMUNITY CONSULTATION CORRESPONDENCE

AFFIDAVIT OF PUBLICATION

IN THE MATTER OF
PUBLIC NOTICE TO NEWSPAPER

}
}
}
}
}
}
}

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

Doc. Date: MAR 17 2017 **# Pages:** 1
Notary Name: Patricia K. Reese First Judicial **Circuit**
Doc. Description: Affidavit of Publication

Patricia K. Reese MAR 17 2017
Notary Signature Date

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

PUBLIC NOTICE TO NEWSPAPER

BlowUp, LLC is proposing to install a 150-foot guyed, broadcast lattice tower with one, 4-foot microwave antenna mounted at a height of 80 feet above ground level (agl), located off of Nimitz Highway, TMK No.: (1) 1-1-003: Parcels 003, 207, 211 and 212 (portions), Honolulu, HI 96819. In addition, an equipment shelter and emergency generator will be installed south of the lattice tower. The lattice tower, equipment shelter and emergency generator will be installed within a 2,500 square foot fenced area, which will be within a 150-foot radius fenced area. Public comments regarding potential effects from this site on historic properties may be submitted within 30 days from the date of this publication to: Lori Ford, lford@fordcanty.com, 928 Nuuanu Avenue, Suite 505, Honolulu, HI 96813. (SA974345 3/17/17)

Gwyn Pang 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, MidWeek, The Garden Island, West Hawaii Today, and Hawaii Tribune-Herald, 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:
03/17/2017

MidWeek 0 times on:

The Garden Island 0 times on:

Hawaii Tribune-Herald 0 times on:

West Hawaii Today 0 times on:

Other Publications: 0 times on:

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

Gwyn Pang
Gwyn Pang

Subscribed to and sworn before me this 17 day of March A.D. 2017

Patricia K. Reese
Patricia K. Reese, Notary Public of the First Judicial Circuit, State of Hawaii

My commission expires: Oct 07, 2018

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

Ad # 0000974345

SP.NO.: _____ L.N.

CENTERLINE SOLUTIONS

3375 Koapaka Street, Suite D185
Honolulu, HI 96819-1872
P: 808.563.7400

PROPOSED DEVELOPMENT NEAR KAHAUIKI VILLAGE

Aloha Neighbors of Kahauiki Village:

As a result of HART construction near Middle Street, BlowUp LLC is relocating its AM radio broadcast facility to the properties shown in the attached drawings. Some basic facts about the development are bulleted below:

- Proposal is for a new 150' guyed telecommunication lattice tower and equipment shed;
- Lease area will be approximately 70,000 SF, and will be enclosed by a 6' chain-link fence;
- Will be on the makai side of Nimitz Highway, located on tax lots 1-1-003:207; 1-1-003:212; 1-1-003:003; and 1-1-003:211;
- The new AM radio tower will transmit programming of the following stations:
    - KHKA NBC Sports Radio 1500 AM
    - KLHT 1040 AM.

This presentation is presented as a part of the process of working with Honolulu Department of Planning and Permitting. This summer we will be submitting applications to DPP for the following permits:

1. Special Management Area (Major)
2. Conditional Use Permit (Type A, Utility)
3. Conditional Use Permit (Joint Development Agreement)
4. Height Waiver
5. Shoreline Setback Waiver
6. Building permit

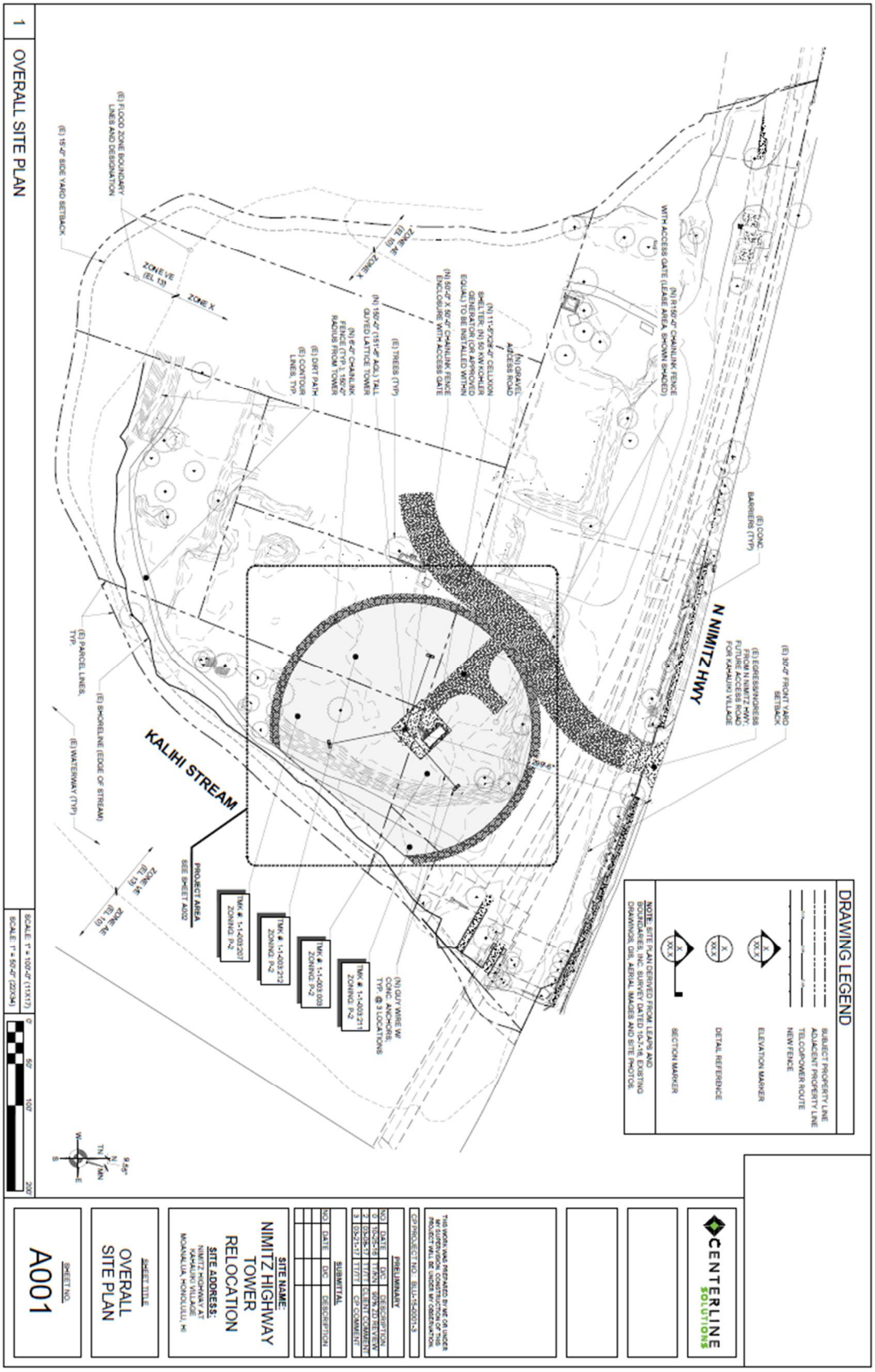
To prepare for submitting materials for the above permits, and to make sure that we've heard and responded to community feedback regarding this development, we invite you to share your thoughts with us tonight in this forum, and welcome further thoughts and suggestions. If you have any questions, thoughts or concerns, please contact me at:

Aaron Toma
Centerline Solutions
3375 Koapaka Street, Suite D185
Honolulu, HI 96819-1872
808-536-7400

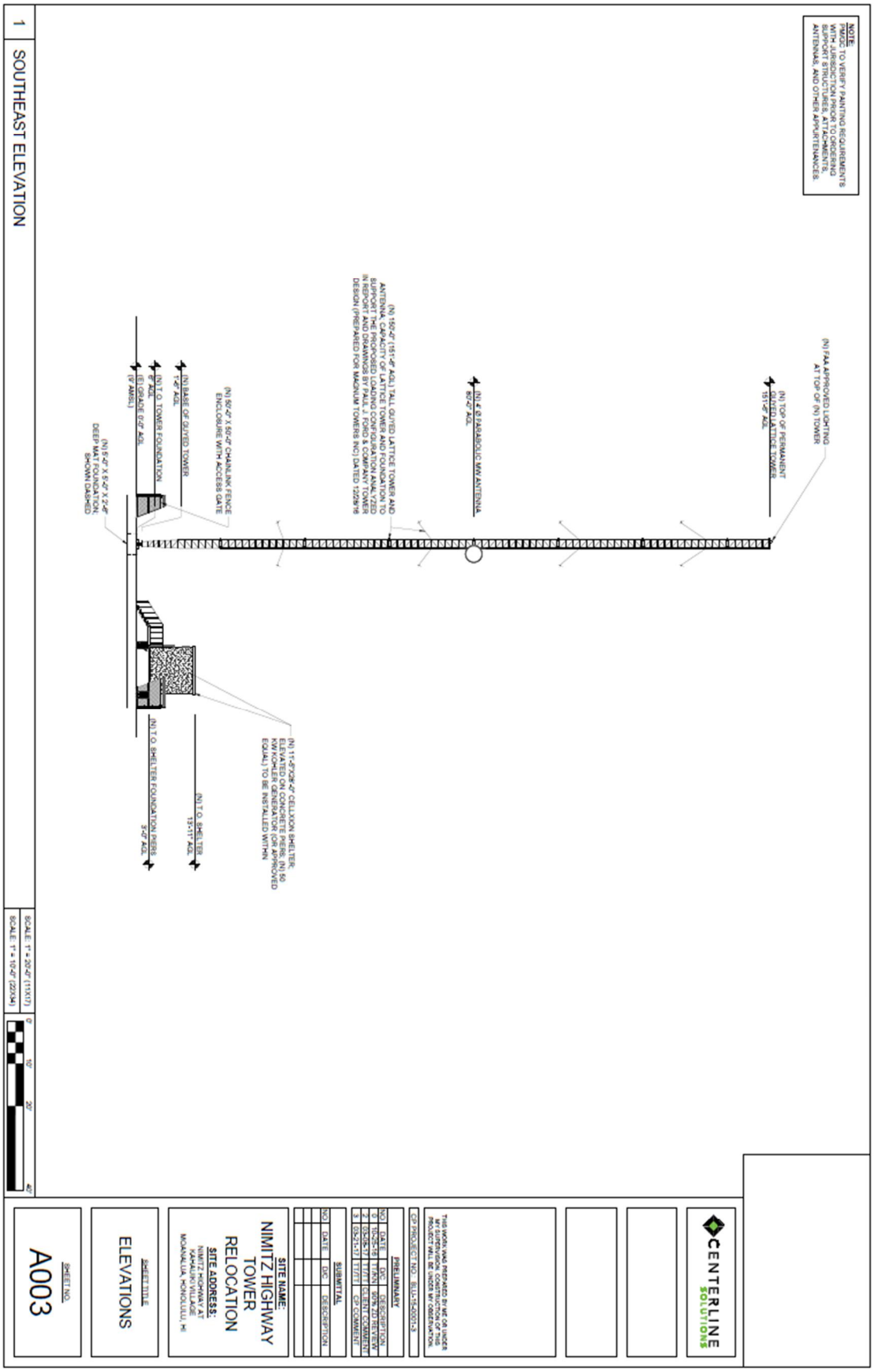
You may also reach out to Honolulu Department of Planning and Permitting at:

650 S. King Street, 7th Floor
Honolulu, HI 96813
(808) 768-8000 Fax (808) 768-6041

CENTERLINE SOLUTIONS
3375 Koapaka Street, Suite D185
Honolulu, HI 96819-1872
P: 808.563.7400



CENTERLINE SOLUTIONS
3375 Koapaka Street, Suite D185
Honolulu, HI 96819-1872
P: 808.563.7400



CENTERLINE SOLUTIONS
3375 Koapaka Street, Suite D185
Honolulu, HI 96819-1872
P: 808.563.7400

KALIHI – PALAMA NEIGHBORHOOD BOARD NO. 15

c/o NEIGHBORHOOD COMMISSION • 925 DILLINGHAM BOULEVAR SUITE 160 • HONOLULU, HAWAII, 96817
PHONE (808) 768-3710 • FAX (808) 768-3711 • INTERNET: http://www.honolulu.gov/nco

REGULAR MEETING AGENDA
WEDNESDAY, APRIL 19, 2017
KALIHI UNION CHURCH
2214 NORTH KING STREET
7:00 P.M.

Rules of Speaking: Anyone wishing to speak is asked to raise his/her hand, and when recognized by the Chair, to address comments to the Chair. Speakers and those giving reports are encouraged to keep their comments to less than three (3) minutes. Please silence all electronic devices. Thank you!

1. **CALL TO ORDER:** By Chair Ryan Mandado

2. **CITY MONTHLY REPORTS – Three (3) Minutes Each:** This is an opportunity for everyone to speak directly with representatives of the Honolulu Fire Department, Honolulu Police Department, and the Board of Water Supply. Community residents are encouraged to ask the representatives questions after each report. City representatives are encouraged to remain to listen and respond to concerns under the next agenda item.
   - **A.** Honolulu Fire Department
   - **B.** Honolulu Police Department – District One (1) and District Five (5)
   - **C.** Board of Water Supply
   - **D.** Honolulu Rail Transit Project (HRTP) – Pat Lee

3. **RESIDENTS' AND COMMUNITY CONCERNS – Three (3) Minutes Each:** Meeting participants may present their community concerns at this time. Note – Due to the State "Sunshine Law," concerns not listed on the agenda may be presented, but no Board action can be taken. Items brought up may be placed on a future agenda for discussion/action.

4. **PRESENTATIONS**
   - **A.** Kalihi Waena Elementary Community Day – Shirley Bringas
   - **B.** Kalihi Ahupuaa Ride – Kevin Faller
   - **C.** Youth Challenge Academy – Benji Maiava
   - **D.** American Savings Bank Construction Update – Michelle Bartell
   - **E.** Kalihi Street Improvement – Ed Sniffen, Department of Transportation
   - **F.** Lead on Factory Street – Felix Grange, HEER

5. **CITY ELECTED OFFICIALS – Three (3) Minutes Each:** This is an opportunity for everyone to speak directly with representatives of the City Administration and City elected officials. Residents are encouraged to ask the representatives questions after each report. Representatives are encouraged to remain to listen and respond to concerns under the next agenda item.
   - **A.** Mayor Kirk Caldwell's Representative – Director Sheri Kajiwara
   - **B.** Councilmember Joey Manahan – Lei Ishii

6. **STATE ELECTED OFFICIALS – Three (3) Minutes Each:** This is an opportunity for everyone to speak directly with representatives of the State Administration and State elected officials.
   - **A.** Governor David Ige
   - **B.** Senator Donna Mercado Kim
   - **C.** Senator Karl Rhoads
   - **D.** Senator Glenn Wakai
   - **E.** Representative Daniel Holt
   - **F.** Representative Romy Cachola

7. **NEW BUSINESS**

A. Urging the Hawaii State Legislature to pass a Constitutional Amendment to Improve Public Education Funding Resolution
B. Urging the City Council of the City and County of Honolulu to Recognize Kalihi-Palama as a Workforce Community
C. Farrington High School Graduation Venue

8. **APPROVAL OF THE MARCH 15, 2017 REGULAR MEETING MINUTES**

9. **OTHER REPORTS – Three (3) Minutes Each:**
   A. Chair's Report and Correspondence (If necessary)
   B. Treasurer's Report

10. **ANNOUNCEMENTS**
   A. The next Kalihi-Palama Neighborhood Board No. 15 meeting will be on Wednesday, May 17, 2017, 7:00 p.m., at the Kalihi Union Church, 2214 North King Street.
   B. The Kalihi-Palama Neighborhood Board No. 15 recordings can be seen on Olelo channel 49 or at www.olelo.org/live at the following times:
   - 1st Monday of each month at 9:00 p.m.
   - 2nd and 4th Thursday of each month at 11:00 a.m.

11. **ADJOURNMENT**

A mailing list is maintained for interested persons and agencies to receive this board's agenda and minutes. Additions, corrections, and deletions to the mailing list may be directed to the Neighborhood Commission Office (NCO) at Honolulu Hale, Suite 160, 925 Dillingham Boulevard, Honolulu, Hawaii 96817; Telephone (808) 768-3710 Fax (808) 768-3711; or call Neighborhood Assistant Felipe M. PacquingII at (808) 768-3718 or e-mail felipe.pacquing@honolulu,gov. Agendas and minutes are also available on the internet at www.honolulu.gov/nco.

Any individual wishing to attend a Neighborhood Board meeting who has questions about accommodations for a physical disability or a special physical need should call the NCO at 768-3710 between 8:00 a.m. and 4:00 p.m. at least 24 hours before the scheduled meeting.

All written testimony must be received in the Neighborhood Commission Office 48 hours prior to the meeting. If within 48 hours, written and/or oral testimony may be submitted directly to the board at the meeting. If submitting written testimony, please note the board and agenda item(s) your testimony concerns. Send to: Neighborhood Commission Office 925 Dillingham Boulevard, Suite 160, Honolulu, HI 96817. Fax: (808) 768-3711. Email: nbtestimony@honolulu.gov.

KALIHI-PALAMA NEIGHBORHOOD BOARD NO. 15

c/o NEIGHBORHOOD COMMISSION • 925 DILINGHAM BOULEVARD SUIT 160 • HONOLULU, HAWAII, 96817
PHONE: (808) 768-3710 • FAX: (808) 768-3711 • INTERNET: www.honolulu.gov/nco

DRAFT REGULAR MEETING MINUTES
WEDNESDAY, APRIL 19, 2017
KALIHI UNION CHURCH

CALL TO ORDER ï Chair Ryan Mandado called the Kalihi-Palama Neighborhood Board No. 15 meeting to order at 7:00 p.m. **No quorum was established with only five (5) members present.** Note: This 13-member Board requires seven (7) members to establish a quorum and to take official Board action. The board introduced themselves to the community following the call to order.

Board Members Present: Firmo Dayao, Ken Farm, Donald Guerrero, Ryan Mandado, and Jonan Sagadraca.

Board Members Absent: Theresa Cummings. Joe Dumayag, Thomas Enos, Robert Erb, Rodolfo Ibay, Shirley Templo, and Amanda Ybanez.

Guests ï Sergeant Clinton Corpuz and Lieutenant B. Lee (Honolulu Police Department); Captain Stewart Williams (Honolulu Fire Department); Pat Lee and Laurie Simmons (HART); Ed Sniffen (Department of Tranportation); Sheri Kajiwara (Mayorôs Office); Lei Ishii and Dennis Arakai (Councilmember Joey Manahan) Colleen Takemouchi (Senator Donna Mercado Kimôs Office; Pam Ono (Senator Karl RhoadsôOffice); Gordon Fernandez (Senator Wakaiôs Office); Representative Daniel Holt; Dennis Galolo (Representative Cahalaôs Office; Bob Nardi and Thomas Rudary (OCCC); Aaron Toma (Centerline Solutions); Kiven Faller (KVIBE); Michelle Bartell (ASB); Damien Miller (Youth Challenge Academy); Ronnie Victor, Dan larkin, Shirley Bringas Dolores Villanueva Ronald Higa, Nobu Nakamura, and Cheryl Ariahi(Residents); Videographer (DVD-Modo); Felipe M. Pacquing II (Neighborhood Commission Office).

CITY MONTHLY REPORTS

Honolulu Fire Department (HFD) ï Captain Stewart Williams reported the following:

- Statistics: There were 3 nuisance fires, 10 activated alarms (no fire), 81 medical emergencies, 13 motor vehicle collisions, 3 hazardous Materials Incidents.
- Safety Tips: Fire Escape plan:
  - Make a home escape plan.
  - Know, at least two (2) ways out of every room.
  - Have an outside meeting place.
  - Practice home fire drill twice a year.
  - Close doors behind you to help contain the fire as you leave.
  - Call the fire department from the outside

Honolulu Police Department (HPD): Lieutenant Lee (District 1) and Lieutenant S. Viena (District 5) reported the following:

- District 1, March 2017 Statistics: There were 8 thefts, 3 unauthorized entries into a motor vehicle (UEMV), 2 assaults, 1 sex assault, and 1 drug violation. A total of 313 calls were placed for service.
- Safety Tips: Stop Criminals from Acquiring your Money (S.C.A.M.): Sergeant Corpuz gave the following tips:
  - Do not send money to somebody whom you do not know.
  - In case of collision, donôt give any money to the other party, and call 911.
  - If the price of a job is too low to be true, do not accept the offer.
  - If somebody calls you that a relative is in jail, call other relatives to check the status of the one in jail.
  - If an undercover police asks for money, call 911.

- District 5, December 2016 Statistics: There were 20 motor vehicle thefts, 11 burglaries, 69 thefts and 40 unauthorized entries into a motor vehicle. A total of 3,610 calls were placed for service.
- Safety Tips: Lieutenant Viena and Sergeant B. Bonnell advised the community to always lock their vehicles when unattended to avoid unauthorized entry to motor vehicles.

Questions, comments and concerns followed:

1. Illegal Parking: Sagadraca complained about numerous illegally parked vehicles along Puuhale Road causing road blocks and noise of vehicle owners, to which Sergeant Bonnell suggested to call 911 to address the noise and parking violations.
2. Police Response: Farm commended the Police from District 5 for their timely response to the communitiesô call for assistance.
3. Illegal Game Rooms: Chair Mandado inquired and Lieutenant Lee replied that the Narcotics Division is handling the problem of illegal gambling along North School Street, and also enforcing parking violations at the gambling site.
4. Motor Vehicle (MV) Theft: Dayao noted the 300% increase of MV thefts from the previous and inquired what is being done to decrease said incidents, to which Sergeant Bonnell replied that they are conducting investigations on the theft cases and advising MV owners to always lock their unattended vehicles.
5. Car Break-ins: Dayao reported about his car being burglarized while it was parked along McNeill Street and suggested that more patrols be done to deter such incidents.
6. Kalihi Watch: A resident commended District 5 for their timely response during their Kalihi watch activity where they patrol the Gulick area. Their activity has been successful in deterring theft and fights and is inviting the community to get involved.

Board of Water Supply (BWS) ï No representative was present.

Honolulu Authority for Rapid Transportation (HART) ï Pat Lee reported the following:

- American Public Transportation Association (APTA): APTA recently released a report titled ñWho Rides Public Transportationò. The report discovered that nearly 90 percent of public transit trips have a direct economic impact by connecting people to jobs, retail and entertainment. Information was compiled from almost 700,000 passenger surveys taken from 2008 to 2015.The research reveals passengers use of public transit for shopping more than doubled in the last decade from 8.5 percent to 21 percent, which shows how riders helped to support local businesses in the community. Findings from the study also showed commuting as the primary trip purpose for many public transit riders with 63 percent using transit at least five days a week. Other important data from the study includes:
    - Most public transit riders range from 20 to 64 years old, which accounts for 89 percent of transit passengers.
    - Public transit users are multi-modal with 65 percent holding a driver's license.
    - 77 percent of public transit user households include one or more people working.
- Rail Transit Benefits: For Oahu, using rail transit will be affordable for working families, seniors, and students. Many island residents, some of whom are too young, too old, or unable to drive or afford to own a car, now depend on the bus to get to work, to school, and run daily errands. A bus-rail multimodal transit system will improve commuting for all public transit users and move people more efficiently. There will be a single fare system for the train and TheBus. Transit riders will be able to use a single pass to ride both the train and TheBus similar to the senior, student, adult and discounted fares and passes that are now available for TheBus. Rail transit, as part of an overall public transportation system, is a way to enhance Honoluluôs quality of life by easing traffic congestion, enhancing our economy, reducing pollution, and providing greater mobility for current and future generations.
- HART Project Status: Regarding the current project status, HART and the City and County of Honolulu are seeking an extension of the half percent general excise tax surcharge from the State Legislature to obtain more funds to complete the 20-mile, 21 station rail project as planned to Ala Moana Center.
- Senate Bill (SB) 1183: SB 1183 was passed out of the House, but the Senate does not agree with the language, so the bill goes to Conference Committee for more discussion and deliberation.
- For general project information, traffic updates, meeting notices and more information, please visit the website www.honolulutransit.org, call the project hotline at 566-2299 or email a question at info@honolulutransit.org.
- HART Update: Laurie Simmons reported the ongoing work at night along Kamemeha Highway at the airport area where no residential areas are affected. Pre-construction work will be done at the Dillingham area.

Questions, comments and concerns followed:

1. Dust and Noise Issues: Board Member (BM) Farm inquired and Ms. Simmons replied that they will build screens on work areas and follow other guidelines of the Department of Health to protect the community from dust and noise.

2. Dillingham Residents: A resident inquired and Mr. Lee replied that the HART project will build guide way stations and re-develop the Dillingham area so as not to affect the residents in the construction.
3. Federal Grant: BM Dayao inquired and Mr. Lee replied that the assistance to rail project might be limited in the 2018 federal budget due to the policy of President Trump limiting assistance to state projects.

RESIDENT CONCERNS

Gaming Rooms: A resident manager of an apartment rows along Owen Street complained about gaming rooms causing noise, parking, and security problems in the vicinity.
Farrington High School (FHS) Community Council Meeting: Dennis Arakai announced the FHS Community Council meeting which shall be held at the school cafeteria on Wednesday, April 26, 2017 at 5:30 p.m. The meeting will focus on ñAcademic and Financial Planò and other concerns.
Oahu Community Correctional Center Project: Thomas Rudary announced its Town Hall meeting at Aloha Stadium Hospitality room on Monday, April 24, 2017 at 5:30 p.m. The community is invited to attend and raise their concerns on the project. The Chair inquired And Mr. Rudary replied that the choice of location has been narrowed down to four (4) sites and in the process making the final choice of location.
Relocation of Broadcast Facility: Aaron Toma announced the relocation of the AM radio broadcast near Middle Street, as a result of the HART construction. The facility will be transferred near Kahuiki Village.
Update on the Kapalama Canal Project: Council Member Joey Manahan reported that there was a public meeting conducted on the project, but the public is still welcome to raise their concerns on the Kapalama Canal Project. The project is on its planning and design stage and its cost is $20 million.
Old Water and Sewer Lines: A resident raised his concern on the very old water and sewer lines along Beckley Street that should be given priority, to which Council Member Manahan replied that he will look into it.
Kalihi Valley Instructional Bike Exchange (KVIBE): Kevin Faller, the youth manager of KVIBE announced that KVIBE is more than a bike shop; it's about teaching life lessons, mentorship, trust, safety and healthy living of young people. The young members (teenage youth) of the KVIBE shared their experiences in using bicycling to promote physical and emotional well-being by fostering healthy and sustainable relationship between youth leaders, the community, and the land.
Community Programs: A former gang member commented that the government should not spend on building jails, but rather use the funds for programs to prevent people from going to jail, like the KVIBE program. This was echoed by another resident who is not favor of constructing a jail facility in Kalihi. Chair Mandado, likewise, informed the community regarding the resolution adopted by the Board opposing the construction of the jail facility in Kalihi.
Graduation Venue: Guerrero raised his disappointment for not allowing the graduates of Farmington High School to have their graduation ceremonies to be held at the schoolôs athletic field.

PRESENTATIONS:

Kalihi Waena Elementary Community Day: Shirley Bringas spoke about the schoolôs program which is an education outside the classroom. The young students of Kalihi Waena Elementary School spoke of their learning experiences in the school's program on outside classroom education, where they did service learning and building community relationships. The students learned how to grow plants, harvest the produce and plant new ones. One student invited the community to attend their 'Community Day" at the school grounds on Saturday, May 20, 2017 from 8:00 to 12:00 noon. Donations may be given to the school program.

Kalihi Valley Instructional Bike Exchange (KVIBE): Kevin Faller announced their forthcoming Kalihi Ahupuaôa Ride from Hoôoulu Aina to BMX Sandbox in Sand Island on Saturday, June 24, 2017 from 9:00 a.m. to 12:00 noon. Donations, like water, may be given.

Youth Challenge Academy: Damien Miller informed the community about the academy which is an alternative education program for high school dropouts, ages 16 to 18 that provides the youth with skills, discipline, values and

education necessary to become successful individuals and community participants. The first phase is a 22week residential Phase focusing on teamwork, code of conduct, leadership, physical fitness, and academic program. The second phases is the Post-Residential Phase where they return to their communities to continue on with higher education, enter the workforce, or join a branch in the military. Mr. Miller also invited the community for a car wash at its site at Barbers Point on Saturday, April 22, 2017 from 9:00 a.m. to 2:30 p.m.

American Savings Bank Construction Update: Michelle Bartell reported that the project is underway since its ground breaking last February 2017. The main branch office is an 11-story building which shall be finished within 18 months. There will be a community mural at the construction wall.

Kalihi Street Improvement: Ed Sniffen of the Department of Transportation reported about the Kalihi Street Improvement Project, the scope of which includes the following: resurfacing and repairing weakened pavement areas, replacing curb, gutter sidewalk on Diamond head side, replacing planting strip with concrete to widen sidewalk, replacing drain inlet grates, installing loop detectors, pavement markings, striping and signing, adjusting utility manholes handholes and pullboxes, relocating portion of chain link fence and widening sidewalk at Farrington High School corner at King Street. The project stretches from limit highway to School Street. Notice to proceed to the contractor will be issued on October 2017. Chair Mandado inquired and Mr. Sniffen that the community has not yet been informed of the project.

Head on Factory Street No representative was present.

CITY ELECTED OFFICIALS

Mayor Kirk Caldwell's Representative: Sheri Kajiwara Director of the Customer Services Department (CSD) reported the following:

- Illegal Activity: The issue about the illegal activity on North School Street was forwarded to the HPD Chief's office.
- Airport Area Transit-Oriented Development (TOD) Plan: There will be a community workshop at Aliamanu Middle School Cafeteria on Wednesday, April 26, 2017 from 5:30 p.m. to 7:00 p.m. to discuss the various elements of the draft Airport Are TOD Plan.

Questions, comments and concerns followed:

- Moped Registration: Guerrero inquired what to do with the notice he received regarding the registration of the moped he used to own but does not know its wheravbout, to which Ms. Kajiwara replied to just disregard the notice.
- Moped Safety Check: Sagadraca noted that moped owners modify their mopeds after safety check; consequently, making noise again, to which Ms. Kajiwara replied that the only way to address the problem is for the police to make citation for the violation.

Councilmember Joey Manahan ï Council Member Manahan reported the following:

- Water Contamination at Factory Street: Council Member Manahan met with the Department of Health and the Board of Water Supply and after further study it was found out that there is no contamination of the waster along Factory Street.
- House Bill (HB) 13: Council Member Manahan reported that HB 13 has passed its third reading.
- General Excise Tax (GET) Surcharge: The extension of the of the GET surcharge for debt service is undergoing a joint committee discussion.

Questions, comments, and concerns followed:

- Hygiene Center: Farm inquired and Council Member Manahan replied that he has coordinated with the Department of Community services about the Hygiene Center and that it is on track.
- House Bill (HB) 28: Farm inquired and Council Member Manahan replied that in HB 28, the increase to the fare structure is to subsidize the mass transit system which is on deficit.

STATE ELECTED OFFICIALS

Governor David Ige's Representative: Kathy Ross, representative from the Governor's Office reported the following:

- Invasive Species Heroes: The State Capitol honored several establishments that fought to control alien pests in the islands. The awardees were recognized by the Hawai'i Invasive Species Council.
- Sustainable Hawai'i Initiative: This initiative is to effectively manage the marine environment to ensure healthy reefs for all.
- Free Pre-Kindergarten Classes: The State is giving free pre-kindergarten classes in 19 public schools on the six (6) islands. The state-funded program serves children who qualify based on federal guidelines and age requirement.

Questions, comments and concerns followed: Commendation: Farm commended the various project of and bills sponsored by the office of the Governor.

Senator Donna Mercado Kim: Colleen Takemouchi circulated a handout and reported the following: Senate Ways and Means (WAM) Committee: The WAM committee approved an amended state budget which proposes a financially prudent six-year plan to provide funding for core services and priority issues of the community.

Questions, comments and concerns followed: Commendation: Farm commended the various bills sponsored by Senator Kim, namely: Senate Bills 528, 508, and 78.

Senator Karl Rhoads: Pam Ono reported the following:

- Speed Limit Signage: The State Department of Transportation (DOT) will issue a work order to replace the missing signage on Olomea Street between Houghtailing Street and Vineyard Boulevard.
- Fire Hydrant: Based on the findings of the Board of Water Supply the fire hydrant located at Kokea Street does not warrant the installation of guard posts.
- Homeless Encampments: Due to legal issues, the state DOT can only respond to situations that present an immediate health and safety issue to the the general public; hence, they can only do one (1) cleanup on August this year on the homeless encampment along Nimitz Highway and Iwilei Road.

Senator Glenn Wakai: Gordon Fernandez reported the following: Lead Presence: Based on the findings of the Board of Water Supply, no contamination was found on Factory Street due to the cracks on the said street that could possibly expose lead.

Representative Daniel Holt: Representative Holt reported the following: House Bill (HB) 209: Representative Holt informed the Board and the community on HB 209 he co-introduced which will provide meaningful relief to low and middle income residents in Hawai'i.

Representative Romy Cachola: Dennis Galolo reported the following:

- House Bills 887 and 888: Mr. Galolo informed the Board and the community that said bills can help address the budget shortfall and save hundreds of millions of taxpayer dollars each year.
- Surcharge on General Excise Tax (GET): Mr. Galolo informed the board and the community that Representative Cahola is not in favor of the surcharge on the GET.

NEW BUSINESS

- Urging the Hawai'i State legislature to pass a constitutional Amendment to Improve Public Education Funding Resolution
- Urging the City Council of the City and County of Honolulu to Recognize Kalihi-Palama as a Working Community
- Farrington High school Graduation Venue
    - There being no quorum, the above resolutions cannot be acted upon.

APPROVAL OF THE April 19, 2017 REGULAR MEETING MINUTES: There being no quorum, the Motion to approve the April 19, 2017 cannot be acted upon.

Treasurer's Report ï Treasurer Sagadraca reported a balance of $183.30. The report was accepted and filed.

ANNOUNCEMENTS

- Next Meeting ï The next regular meeting of the Kalihi-Palama Neighborhood Board No. 15 is scheduled for Wednesday, May 17, 2017, 7:00 p.m., at the Kalihi Union Church.
- Olelo ï The Kalihi-Palama Neighborhood Board No. 15 recordings can be seen on Olelo channel 49 or at www.olelo.org/live at the following times: -1st Monday of each month at 9:00 p.m. -2nd and 4th Thursday of each month at 11:00 a.m.

ADJOURNMENT: The meeting was adjourned at 8:58 p.m.

Submitted by: Felipe M. Pacquing II, Neighborhood Assistant
Reviewed by: Robert Whitsell, Neighborhood Assistant

APPENDIX C

NATURAL RESOURCES IMPACTS, REGULATORY AGENCY CORRESPONDENCE

United States Department of the Interior

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

In Reply Refer To:
01EPIF00-2017-TA-0181

APR 1 4 2017

Ms. Lori Ford
Senior Project Manager
Ford Canty & Associates, Inc.
928 Nuuanu Avenue, Suite 505
Honolulu, Hawaii 96813

Subject: Technical Assistance for the Proposed Communication Tower Relocation, Nimitz Highway, Oahu

Dear Ms. Ford:

The U.S. Fish and Wildlife Service (Service) received your letter, dated March 16, 2017, requesting technical assistance for the proposed communication tower relocation near the Nimitz Highway in Honolulu, Oahu. Ford Canty & Associates, Inc., on behalf of the BlowUp, LLC, is requesting to install a 150 foot guyed broadcast lattice tower with one 4 foot microwave antenna mounted at 80 feet above ground. The proposed project also includes installation of an equipment shelter and emergency generator to be located south of the tower. The proposed tower, equipment shelter, and emergency generator will be installed within a 2,500 square foot fenced area which will be located within a 150 foot radius fenced area. The Service offers the following comments to assist you in your planning process so that impacts to trust resources can be avoided. Our comments are provided under the authorities of the Endangered Species Act of 1973 (ESA), as amended (16 U.S.C 1531 *et seq.*) and the Migratory Bird Treaty Act (16 U.S.C. 703-712) (MBTA).

Based on the information in our database and records, including data provided by the Hawaii Biodiversity and Mapping Program, the following are known threatened or endangered species that occur or transit through the vicinity of your proposed project area: the federally endangered Hawaiian hoary bat (*Lasiurus cinereus semotus*) and the threatened Newell's shearwater (*Puffinus newelli*). Also within the vicinity of the proposed project are the wedge-tailed shearwater (*Puffinus pacificus*), species that are protected under the MBTA. There is no designated critical habitat present in the vicinity of the proposed project area. We offer the following comments for your consideration.

Hawaiian hoary bat

The endangered Hawaiian hoary bat may be present within the proposed project area. The Hawaiian hoary bat roosts in both exotic and native woody vegetation and will leave young unattended in "nursery" trees and shrubs when they forage. If trees or shrubs suitable for bat roosting are cleared during the pupping season, there is a risk that young bats could inadvertently

be harmed or killed. To minimize impacts to the endangered Hawaiian hoary bat, woody plants greater than 15 feet tall should not be disturbed, removed, or trimmed during the bat birthing and pup rearing season (June 1 through September 15). Additionally, Hawaiian hoary bats forage for insects from as low as three feet to higher than 500 feet above the ground. When barbed wire is used in fencing, Hawaiian hoary bats can become entangled. Therefore, the Service recommends barbed wire not be used for fencing.

Hawaiian seabirds (Newell's shearwater and Wedge-tailed shearwater)
Hawaiian seabirds may traverse the project area at night during the breeding season. Outdoor lighting could result in seabird disorientation, fallout, and injury or mortality. Seabirds are attracted to lights and after circling the lights they may collide with nearby wires, buildings, or other structures or they may land on the ground due to exhaustion. Downed seabirds are subject to increased mortality due to collision with automobiles, starvation, and predation by dogs, cats, and other predators. Young birds (fledglings) traversing the project area between September 15 and December 15, in their first flights from their nests to the sea, are particularly vulnerable. To minimize potential project impacts to seabirds during their breeding season, all outdoor lights should be fully shielded so the bulb can only be seen from below bulb height and only used when necessary. Automatic motion sensor switches and controls should be installed on all outdoor lights or lights should be turned off when human activity is not occurring in the lighted area. Any increase in night-time lighting, particularly during each year's peak fallout period (September 15 through December 15), could result in seabird injury or mortality. Nighttime construction should be avoided during the seabird fledging period, September 15 through December 15.

If additional information becomes available, or it is determined that the proposed project may affect federally listed species, we recommend you coordinate with our office early in the planning process so that we may further assist you with Endangered Species Act compliance. We thank you for your efforts to conserve listed species and native habitats. Please contact Stacey Lowe, Fish and Wildlife Biologist (phone: 808-792-9400, email: stacey_lowe@fws.gov) should you have any questions pertaining to this response or require further guidance. When referring to this project, please include this reference number: 01EPIF00-2017-TA-0181.

Sincerely,

Leila Nagatani

for Aaron Nadig
Island Team Manager
Oahu, Kauai, Northwestern
Hawaiian Islands, and American Samoa

DAVID Y. IGE
GOVERNOR OF
HAWAII

STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES

POST OFFICE BOX 621
HONOLULU, HAWAII 96809

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
ENGINEERING
FORESTRY AND WILDLIFE
HISTORIC PRESERVATION
KAHOOLAWE ISLAND RESERVE COMMISSION
LAND
STATE PARKS

Lori Ford
Ford Canty and Associates, Inc.
928 Nuuanu Avenue, Suite 505
Honolulu, HI 96813

March 31, 2017

Dear Ms. Ford,

The Department of Land and Natural Resources (DLNR) Division of Forestry and Wildlife (DOFAW) has received your inquiry regarding the proposed tower in Honolulu. The proposed project would be located off of Nimitz Highway at TMKs (1) 1-1-003:003, 207, 211, and 212 at coordinates N 21° 19' 54.71" / W 157° 53' 27.54", and would consist of installing a 150-foot guyed broadcast lattice tower with one, four foot microwave antenna mounted at a height of 80 feet. The proposed lattice tower and equipment shelter would be installed within a 150-ft fenced areas within a larger 2,500 square foot fenced area.

Due to the proposed use of guy wires DOFAW recommends installing bird diverters to avoid seabird and bat collision, and to monitor for downed wildlife. DOFAW should be notified of any downed wildlife found in the vicinity of the project area.

The State and Federally listed Hawaiian hoary bat (*Lasiurus cinereus semotus*) has the potential to occur in the vicinity of the project area. Therefore, DOFAW recommends avoiding using barbed wire, as bat mortalities have been documented as a result of becoming ensnared by barbed wire during flight. If any trees are planned for removal during the bat breeding season there is a risk of injury or mortality to juvenile bats. To minimize the potential for impacts to this species, woody plants greater than 15 feet (4.6 meters) tall should not be disturbed, removed, or trimmed during the bat birthing and pup rearing season (June 1 through September 15).

Finally, we note that artificial lighting can adversely impact seabirds that may pass through the area at night causing disorientation which could result in collision with manmade artifacts or grounding of birds. If nighttime lighting is required at the facility, DOFAW recommends that any lights used be fully shielded to minimize impacts.

Should the proposed location of the project change, or should it become evident in the future that listed species are being impacted, DOFAW requests that the project proponent reinitiate consultation. If you have any questions, please contact Kate Cullison, Conservation Initiative Coordinator at 808-587-4148 katherine.cullison@hawaii.gov.

Sincerely,

James Cogswell
Wildlife Program Manager
Division of Forestry and Wildlife

DEPARTMENT OF THE ARMY
HONOLULU DISTRICT, U.S. ARMY CORPS OF ENGINEERS
FORT SHAFTER, HAWAII 96 5 5440

February 13, 2017

SUBJECT: No Permit Required for the KHKA Communications Tower Relocation project located in Honolulu (Kalihi), Oahu Island, Hawaii. DA File No. POH-2017-00027

BlowUp, LLC,
Attn: Mr. Mike Kelly
1088 Bishop Street, Suite LL2,
Honolulu HI 96813-3113

Dear Mr. Kelly:

The Honolulu District, U.S. Army Corps of Engineers (Corps) has received an email request, dated December 3, 2016, sent on behalf of Ms. Susan Burr, AECOS, Inc., and Mr. Aaron Toma of Centerline Solutions for a No Permit Required (NPR) determination for the above-subject project. DA file number POH-2017-00027 has been assigned this project. Please reference this number in all correspondence with our office concerning this project.

We have reviewed your submittal pursuant our authorities at Section 404 of the Clean Water Act (33 U.S.C. 1344)(Section 404) and Section 10 of the Rivers and Harbors Act of 1899 (33 U.S.C. 403)(Section 10). Section 404 requires authorization prior to the discharge and/or placement of dredged or fill material into waters of the U.S., including adjacent wetlands. Section 10 requires authorization prior to installing structures or conducting work in, over, under, and affecting navigable waters of the U.S.

Based on our review the information submitted, including the wetlands delineation report, "*Jurisdictional waters delineation and flora and fauna surveys of TMK: 1:-1-003: 003 (por.), 207 (por.), 211 (por.) and 212 (por.) for the KHKA antenna site beside Keehi Lagoon, Honolulu Oahu*", dated revised February 10, 2017 [dated corrected], available resources, and your project description and plans (Enclosure 1), we have determined that proposed project would not involve work and/or structures, or activities that result in a discharge of dredged or fill material in waters of the U.S., including adjacent wetlands. Therefore, a DA permit is NOT required.

Please be advised that although a DA permit is not required, the Corps notes that the project site is adjacent to several aquatic resources, including the Kalihi Stream, Moanalua Stream, Keehi Lagoon, and an unnamed estuarine wetland as described in the aforementioned wetlands report. Given the proximity of these aquatic resources to the Pacific Ocean, it is very likely that they may be subject to the Corps jurisdiction, and that certain structures and/or activities that are conducted within or near to the jurisdictional boundaries of these aquatic resources may require a DA permit.

Accordingly, we recommend that you coordinate with our office if your plans should change that would require work in or near to aquatic resources, and the use of Best Management Practices to avoid and minimize adverse impacts to the aquatic resource. It is your responsibility to ensure that your project complies with all other Federal, State, or local laws and regulations.

Thank you for your cooperation with the Honolulu District Regulatory Program. Should you have any questions related to this determination, please contact me at (808) 835-4308 or via e-mail at joy.n.anamizu@usace.army.mil. You are encouraged to provide comments on your experience with the Honolulu District Regulatory Office by accessing our web-based customer survey form at http://corpsmapu.usace.army.mil/cm_apex/f?p=136:4:0.

Sincerely,

ANAMIZU.JOY.N P.1258456366

Digitally signed by ANAMIZU.JOY.N P.1258456366
DN: c=US, o=U.S. Government, ou=DoD, ou=PKI, ou=USA, cn=ANAMIZU.JOY.N P.1258456366
Date: 2017.02.13 17:04:46 -10'00'

Joy N. P. Anamizu
Ecologist, Regulatory Branch

cc (via email w/encl):
State, DOH-CWB (Office Email)
State, CZM Program (J. Nakagawa)
Centerline Solutions (A. Toma)
AECOS, Inc. (S. Burr)

1. **Who POCs**
   a. **Prospective permittee:**
      i. **Name / Organi ation:** Mike Kelly/BlowUp, LLC
      ii. **Address:** 1088 Bishop Street, Ste. LL2
      iii. **Phone Number / Email:** 808.534.7101/mkelly@espn1420am.com

   b. **Authori ed agent for the prospective permittee**
      i. **Name / Organi ation:** AARON TOMA/CENTERLINE SOLUTIONS
      ii. **Address:** 3375 Koapaka Street, D185
      iii. **Phone Number / Email:** 808.536.7400x7400/atoma@centerlinesolutions.com

2. **What / How Project Description:**
   a. Basic [What]: Construction of a new AM broadcast facility to relocate the existing broadcast facility that sits in the path of the impending HART project.
   b. Detailed [How]:
      i. A new guyed 150' lattice tower with pier foundation and equipment shed will be constructed, with a new chain link fence (150' radius) surrounding the project to maintain FCC exposure limits.
      ii. Ground radials will be placed approximately 6" below grade. (120) 150' copper radials will be placed with approximately 3 degrees of separation.
      iii. Project BMPs:
         1. Bio-socks will be installed along the perimeter fence and will be adjusted as needed to facilitate construction activity.
         2. A temporary gravel driveway will be placed to the site from Nimitz Hwy. per DOT-Highways standard to prevent tracking mud out of the construction area.
      iv. Other Relevant Info:
         1. Related project: Kahauiki Village

3. **Where Project Site/Location**
   a. **Basic:** Keehi Interchange, vicinity of Middle St./Nimitz. Hwy. intersection, Oahu, Hawaii
   b. **Center Coordinates:** Tower coordinates: Latitude 21.331864 N / Longitude -157.890983 W
   c. **TMKs / Si e of parcel (sq. ft. or acres)**: 1-1-003:207, 1-1-003:212

4. **When When will you be conducting the wor activities**
   a. **Wor Period:** Forecasted construction start is June 2018
   b. **Wor schedule:** 07:00-15:30

5. **Why Reason for doing wor**
   a. **Purpose**: Maintain broadcast ability of KHKA and KLHT radio stations. Their current location is in the pathway of the planned rail project.

b. **Need**: Instead of diverting the rail guideway, HART decided to pursue relocating the broadcast facility.

Attachments:

1. Plans

2. Site photos (include water resource)

Jurisdictional waters delineation and flora and fauna surveys of TMK: 1-1-003:003 (por.), 207 (por.), 211 (por), and 212 (por.) for the KHKA antenna site beside Keʻehi Lagoon Honolulu, Oʻahu

December 7, 2016 *AECOS* No. 1488A
rev. February 10, 2017

Susan Burr and Eric Guinther
AECOS, Inc.
45-939 Kamehameha Hwy, Suite 104
Kāneʻohe, Hawaiʻi 96744
Phone: (808) 234-7770 Fax: (808) 234-7775 Email: sburr@aecos.com

Introduction

AECOS, Inc. was contracted by Centerline Inc.[1] to conduct a jurisdictional waters (including wetlands) delineation and flora and fauna surveys of 1.6 ac on a portion of a site identified as Tax Map Key (TMK): 1-1-003:003 (por.), 207 (por.), 211 (por.), and 212(por.); "Project Site"), a 13-ac peninsula beside Keʻehi Lagoon on leeward Oʻahu (Figure 1). Centerline proposes to relocate the KHKA Tower (AM radio 1500 kHz) from its current location on the north side of Nimitz Highway to the Project Site on the south side of the highway. On November 2, 2016, *AECOS* scientists conducted surveys of the Project area. Wetland data sheets and geospatial information for the delineation process and a listing of the flora and fauna are included in this report.

Project Area Description

Historically, Keʻehi Lagoon was an important fishing area for *ʻanae* (mullet) and the low-lying shore of the lagoon consisted of a series of fishponds (Napoka, 1976). In the modern era, Keʻehi Lagoon and the surrounding shore have been nearly completely reconfigured for the development of Honolulu International Airport, seaplane runways, expansion of Sand Island, and development of Honolulu Harbor. The peninsula appears to have been created between 1920 and 1940 by filling a fishpond with material dredged from Keʻehi Lagoon to

[1] Report prepared for Centerline, Inc. for project permitting and intended to become part of the public record.

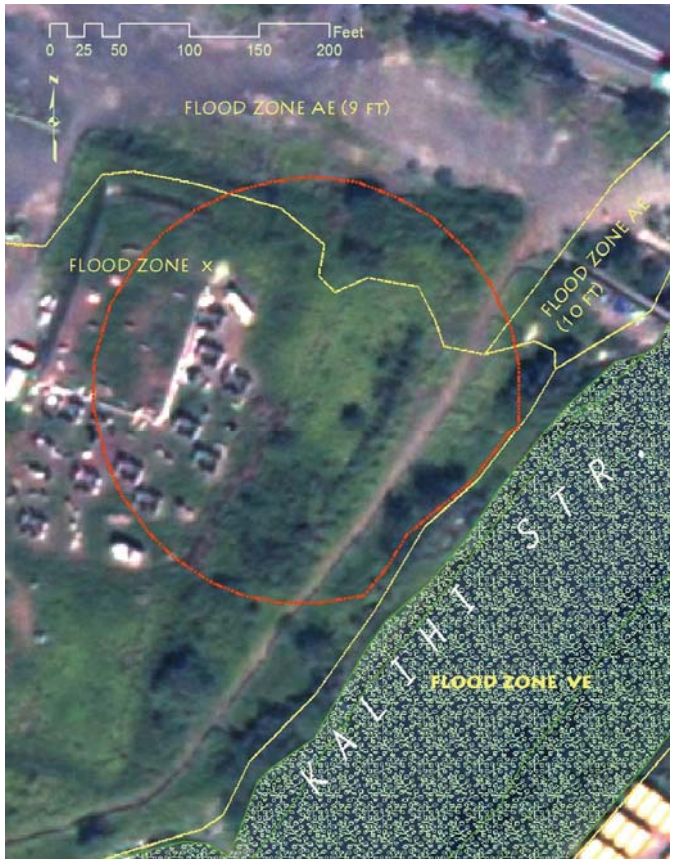


Figure 2. Project Site (outlined in red) with NWI map (green symbolized area) and Flood Zone (yellow) overlays.

NIMITZ HIGHWAY TOWER RELOCATION

NIMITZ HIGHWAY AT KAHAUIKI VILLAGE
MOANALUA, HONOLULU, HI

CONSTRUCTION DRAWINGS

PROJECT SUMMARY

THIS PROJECT INCLUDES THE FOLLOWING SCOPE OF WORK:

1. PROPOSED CONSTRUCTION OF A NEW TELECOMMUNICATIONS FACILITY.

2. PROPOSED INSTALLATION OF A NEW PERMANENT 150'-0" GUYED LATTICE TOWER WITHIN A NEW 150' RADIUS FENCED LEASE AREA.

3. PROPOSED INSTALLATION OF A NEW EQUIPMENT SHELTER W/ 50KW DIESEL GENERATOR WITHIN A NEW 50'X50' CHAIN-LINK FENCE ENCLOSURE.

4. PROPOSED INSTALLATION OF A NEW MICROWAVE ANTENNA WITH ASSOCIATED CABLING.

5. PROPOSED INSTALLATION OF ELECTRICAL AND FIBER SERVICES.

6. SPECIAL INSPECTION REQUIRED ONLY FOR INSTALLATION OF EXPANSION ANCHORS IN CONCRETE. SEE SHEET G003, STRUCTURAL CONCRETE NOTES, NOTE 7.

7. PROPOSED INSTALLATION NEW EMERGENCY GENERATOR

GOVERNING CODES

GOVERNING CODES

IBC-2006, INTERNATIONAL BUILDING CODE W/ LOCAL AMENDMENTS

NEC-2008, NATIONAL ELECTRICAL CODE

A.D.A. COMPLIANCE
INSTALLATION IS UNMANNED AND NOT FOR HUMAN HABITATION.
HANDICAP ACCESS IS NOT REQUIRED PER A.D.A.

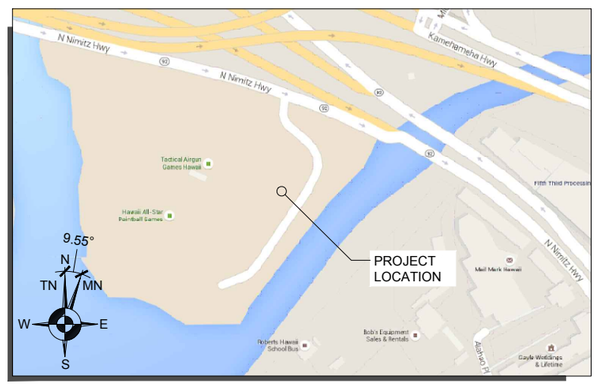
Know what's below.
Call before you dig.

THE INFORMATION CONTAINED IN THIS SET OF DOCUMENTS IS PROPRIETARY BY NATURE. ANY USE OR DISCLOSURE OTHER THAN THAT WHICH RELATES TO KHKA IS STRICTLY PROHIBITED.

SITE INFORMATION

SITE NAME:	NIMITZ HIGHWAY TOWER RELOCATION	
SITE ADDRESS:	NIMITZ HIGHWAY AT KAHAUIKI VILLAGE MOANALUA, HONOLULU, HI	
CENTER OF PROPOSED STRUCTURE		
LATITUDE:	21° 19' 54.71" N	(21.331864° N)
LONGITUDE:	157° 53' 27.54" W	(-157.890983° W)
SOURCE:	SURVEY	
PARCEL NUMBERS:	1-1-003:207; 1-1-003:212; 1-1-003:003; 1-1-003:211	
JURISDICTION:	STATE OF HAWAII	
TOP OF (N) STRUCTURE:	151'-6" AGL	
GROUND ELEV. @ (N) STRUCTURE:	9' LMSL	
OCCUPANCY GROUP:	U	
CONSTRUCTION TYPE:	II-B	
FLOOD ZONE:	ZONES X & VE (EL13) **PROJECT AREA LOCATED IN ZONE X**	

PROJECT VICINITY MAP



DRIVING DIRECTIONS

FROM HONOLULU INTERNATIONAL AIRPORT:

1. HEAD EAST ON EXIT 16 (404 FT)
2. KEEP LEFT AT THE FORK, FOLLOW SIGNS FOR PAIEA ST/AOLELE ST AND MERGE ONTO AOLELE ST (1.3 MI)
3. TURN LEFT ONTO LAGOON DR (0.2 MI)
4. TURN RIGHT ONTO HI-92 E (0.3 MI)
5. KEEP RIGHT TO STAY ON HI-92 E (0.4 MI)
6. TURN RIGHT; DESTINATION WILL BE ON THE RIGHT (433 FT)

ESTIMATED DISTANCE: 2.3 MILES
ESTIMATED TIME: 8 MINUTES

PROJECT CONTACTS

PROPERTY OWNER
STATE OF HAWAII
DLNR MAIN OFFICE
KALANIMOKU BUILDING
1151 PUNCHBOWL ST.
HONOLULU, HI 96813
PH: (808) 587-0400

TOWER OWNER
BLOW UP LLC
1088 BISHOP ST STE LL2
HONOLULU, HI 96813

ZONING AND PERMITTING CONSULTANT
CENTERLINE SOLUTIONS
3375 KOAPAKA STREET, SUITE D185
HONOLULU, HI, 96817
PH: 808.536.7400

SITE ACQUISITION CONSULTANT
CENTERLINE SOLUTIONS
3375 KOAPAKA STREET, SUITE D185
HONOLULU, HI, 96817
PH: 808.536.7400

STRUCTURAL ENGINEER
VECTOR STRUCTURAL ENGINEERS
9138 S STATE ST., SUITE 101
SANDY, UT 84070
ROGER T. ALWORTH, S.E.
PH: 801.990.1775

ENGINEER OF RECORD
CENTERLINE SOLUTIONS
16360 TABLE MOUNTAIN PARKWAY
GOLDEN, CO 80403
KHRISTOPHER SCOTT, P.E., LEED AP
PH: 303.993.3293

ELECTRICAL ENGINEER OF RECORD
CENTERLINE SOLUTIONS
16360 TABLE MOUNTAIN PARKWAY
GOLDEN, CO 80403
PATRICK KEARNS
PH: 303.993.3293

DRAWING INDEX

SHEET	DESCRIPTION
001	TITLE SHEET
002	TOPOGRAPHIC SURVEY
A001	OVERALL SITE PLAN
A002	ENLARGED DEMOLITION SITE PLAN
A002.1	(N) ENLARGED SITE PLAN
A002.2	EROSION CONTROL PLAN
A002.3	ENLARGED COMPOUND PLAN
A002.4	EQUIPMENT SHELTER PLAN
A003	SOUTHEAST ELEVATION
A004	NORTHEAST ELEVATIONS
A005	DETAILS
A006	FENCE DETAILS
A007	SIGN DETAILS
A008	GENERATOR DETAILS I
A008.1	GENERATOR DETAILS II
L001	LANDSCAPING PLAN
S001	PIER FOUNDATION DETAILS
S002	PLATFORM AND STAIRS DETAILS I
S002.1	PLATFORM AND STAIRS DETAILS II
E001	ELECTRICAL SITE PLAN
E001.1	ENLARGED ELECTRICAL SITE PLAN
E002	GROUNDING SCREEN PLAN
E002.1	ENLARGED GROUNDING PLAN
E003	GROUNDING DETAILS
GN001	GENERAL NOTES
GN002	GENERAL NOTES
GN003	GENERAL NOTES
GN004	GENERAL NOTES

CENTERLINE SOLUTIONS

VECTOR ENGINEERS

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION. CONSTRUCTION OF THIS PROJECT WILL BE UNDER MY OBSERVATION.

CP PROJECT NO.: BLU-15-0001-3

PRELIMINARY

NO.	DATE	D/C	DESCRIPTION
0	11-14-16	TT/KN	90% CD REVIEW
3	01-05-17	TT/GS	CS COMMENT
4	01-27-17	TT/GS	CS COMMENT

SUBMITTAL

NO.	DATE	D/C	DESCRIPTION

SITE NAME:
NIMITZ HIGHWAY TOWER RELOCATION

SITE ADDRESS:
NIMITZ HIGHWAY AT KAHAUIKI VILLAGE
MOANALUA, HONOLULU, HI

SHEET TITLE
TITLE SHEET

SHEET NO.
001

SITE MAP
SCALE: 1 in=30 ft

Legend:

ac	asphalt concrete	mag	mag nail
b	bottom	mh	manhole
bw	bottom wall	mtl	metal pipe
cbarrier	concrete barrier	pav't	pavement
clf	chain link fence	pvc	polyvinyl chloride
clstr	cluster	shh	sewer handhole
cslab	concrete slab	smh	sewer manhole
cwall	concrete wall	sta	station
dia	diameter	stl	street light
dwy	driveway	sp	spread
elev	elevation	sw	sidewalk
ff	finished floor	t	top
grd	ground	tw	top wall
hbt	hub-tack	wdn	wooden
ht	height		
lp	light post		

Note: Origin of elevations: B 111 (AM6427), Elev. = 7.18 feet LMSL.

No metes & bounds found for TMK 1-1-003: 003, 207, 211 and 212. Parcels shown taken from Tax Map tracing and shown for convenience purposes.

TOPOGRAPHIC SURVEY MAP
KAHAUIKI VILLAGE
At Moanalua, Ilinui, Kaliawa, Honolulu, Oahu, Hawaii
Date: July 29, 2016
Tax Map Key: (1) 1-1-003: 003, 207, 211 and 212

REVISED: OCT. 7, 2016 SITE CHANGE

ROGER J. TORCUATO
LICENSED PROFESSIONAL LAND SURVEYOR
No. 10267
HONOLULU, HI

This map was prepared by me or under my direct supervision

LICENSED PROFESSIONAL LAND SURVEYOR
CERTIFICATE NUMBER 10267 – Exp. 4/30/2018

LEAPS & BOUNDARIES, INC.
2016 WATERHOUSE ST., STE. 101 PH: (808) 484-3201
HONOLULU, HI 96819 FAX: (866) 542-2097
EMAIL: SURVEY@LEAPSANDBOUNDARIES.COM

Keehi Lagoon, Kalihi

F.B. 76:50

34" x 44"

CENTERLINE SOLUTIONS

VECTOR ENGINEERS

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION. CONSTRUCTION OF THIS PROJECT WILL BE UNDER MY OBSERVATION.

CP PROJECT NO.: BLU-15-0001-3

PRELIMINARY

NO.	DATE	D/C	DESCRIPTION
0	11-14-16	TT/KN	90% CD REVIEW
3	01-05-17	TT/GS	CS COMMENT
4	01-27-17	TT/GS	CS COMMENT

SUBMITTAL

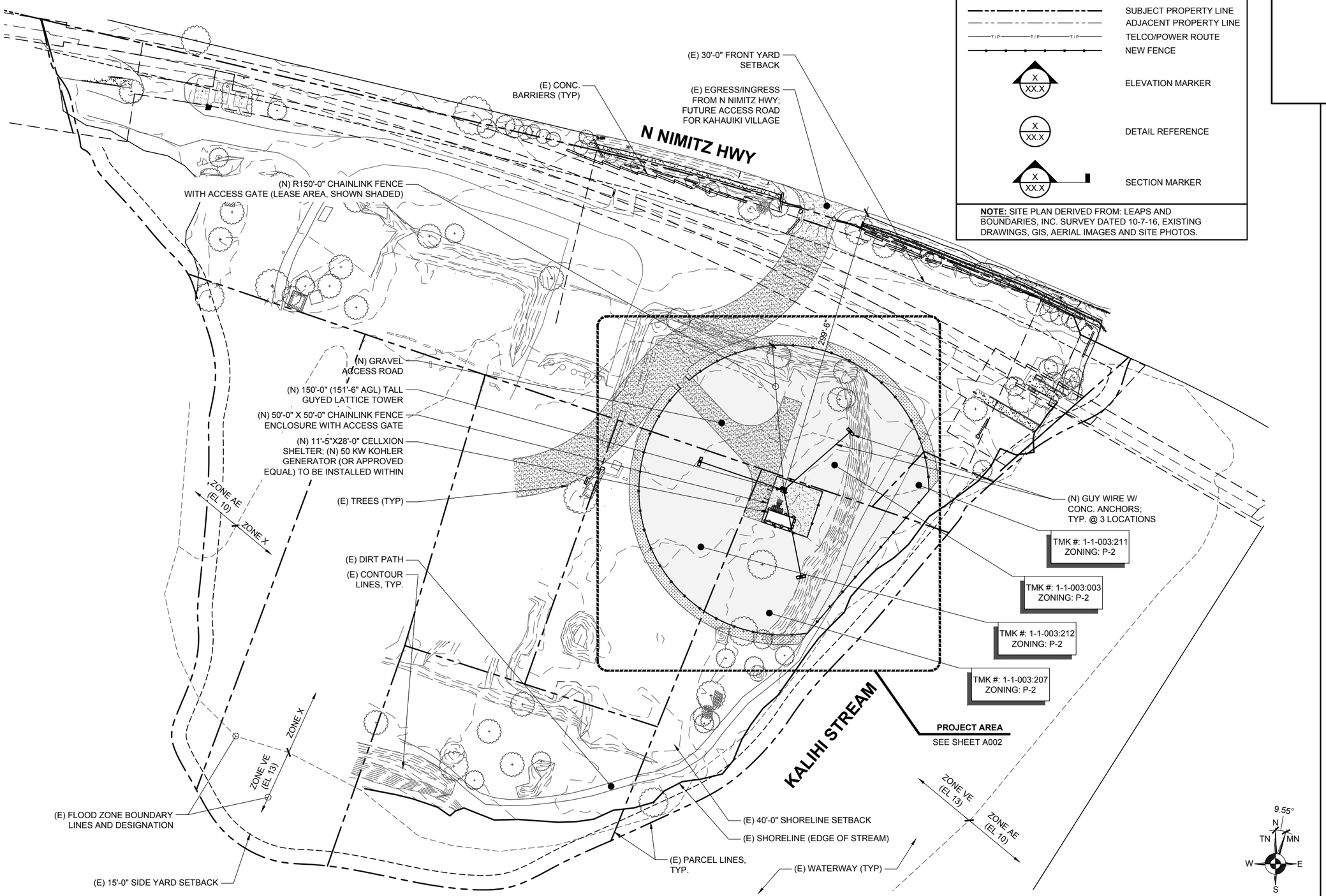
NO.	DATE	D/C	DESCRIPTION

SITE NAME:
NIMITZ HIGHWAY TOWER RELOCATION

SITE ADDRESS:
NIMITZ HIGHWAY AT KAHAUIKI VILLAGE MOANALUA, HONOLULU, HI

SHEET TITLE
TOPOGRAPHIC SURVEY

SHEET NO.
002



DRAWING LEGEND

- SUBJECT PROPERTY LINE
- ADJACENT PROPERTY LINE
- T/P — TELCO/POWER ROUTE
- NEW FENCE
- X / XX.X — ELEVATION MARKER
- X / XX.X — DETAIL REFERENCE
- X / XX.X — SECTION MARKER

NOTE: SITE PLAN DERIVED FROM: LEAPS AND BOUNDARIES, INC. SURVEY DATED 10-7-16, EXISTING DRAWINGS, GIS, AERIAL IMAGES AND SITE PHOTOS.

CENTERLINE SOLUTIONS

VECTOR ENGINEERS

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION. CONSTRUCTION OF THIS PROJECT WILL BE UNDER MY OBSERVATION.

CP PROJECT NO.: BLU-15-0001-3

PRELIMINARY

NO.	DATE	D/C	DESCRIPTION
0	11-14-16	TT/KN	90% CD REVIEW
3	01-05-17	TT/GS	CS COMMENT
4	01-27-17	TT/GS	CS COMMENT

SUBMITTAL

NO.	DATE	D/C	DESCRIPTION

SITE NAME:

NIMITZ HIGHWAY TOWER RELOCATION

SITE ADDRESS:

NIMITZ HIGHWAY AT KAHAUIKI VILLAGE
MOANALUA, HONOLULU, HI

SHEET TITLE

OVERALL SITE PLAN

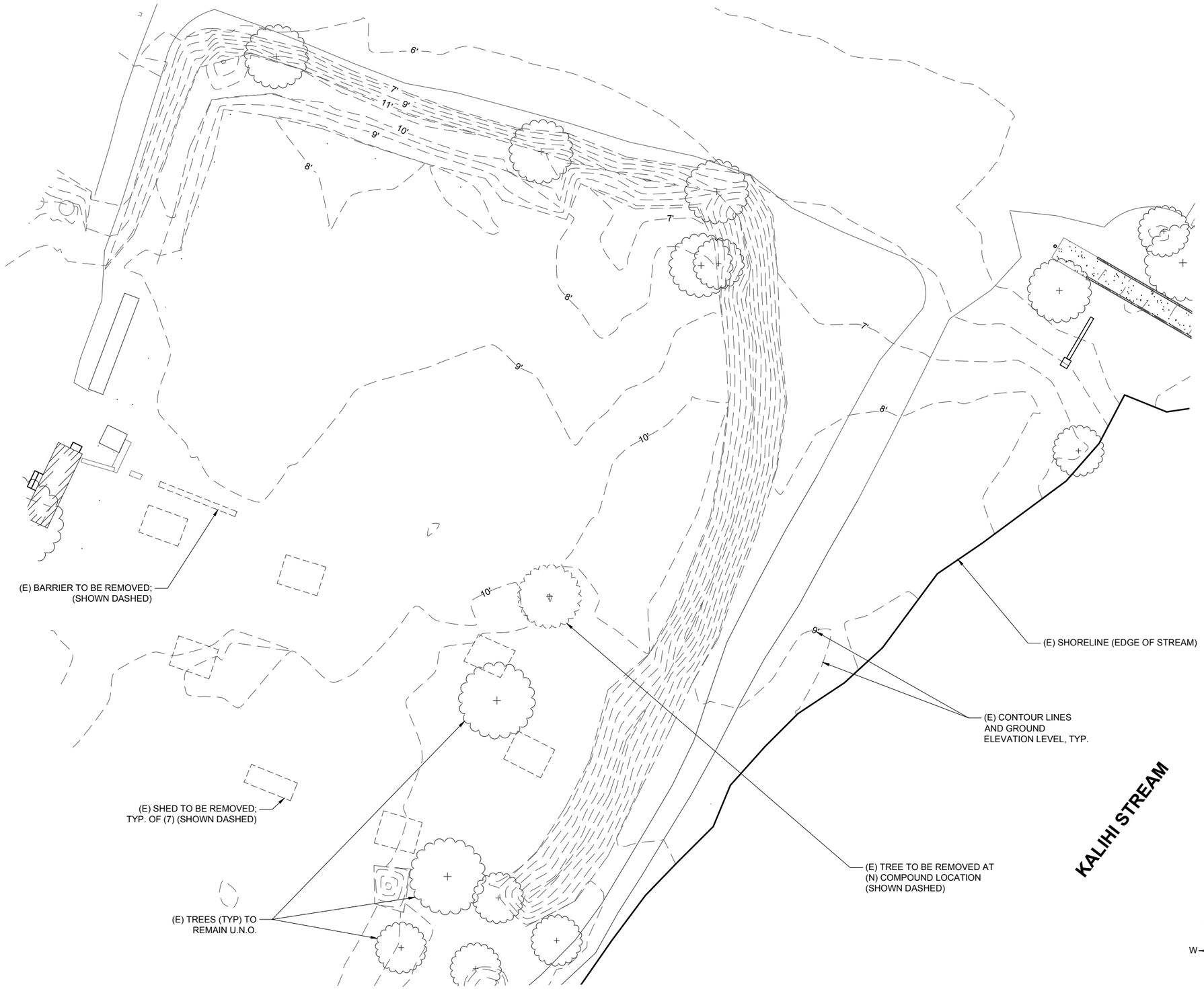
SHEET NO.

A001

1 OVERALL SITE PLAN

SCALE: 1" = 100'-0" (11X17)
SCALE: 1" = 50'-0" (22X34)

0' 50' 100' 200'



1 ENLARGED DEMOLITION SITE PLAN

SCALE: 1" = 40'-0" (11X17)
SCALE: 1" = 20'-0" (22X34)

0' 20' 40' 80'

CENTERLINE SOLUTIONS

VECTOR ENGINEERS

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION. CONSTRUCTION OF THIS PROJECT WILL BE UNDER MY OBSERVATION.

CP PROJECT NO.: BLU-15-0001-3

PRELIMINARY

NO.	DATE	D/C	DESCRIPTION
0	11-14-16	TT/KN	90% CD REVIEW
3	01-05-17	TT/GS	CS COMMENT
4	01-27-17	TT/GS	CS COMMENT

SUBMITTAL

NO.	DATE	D/C	DESCRIPTION

SITE NAME:

NIMITZ HIGHWAY TOWER RELOCATION

SITE ADDRESS:

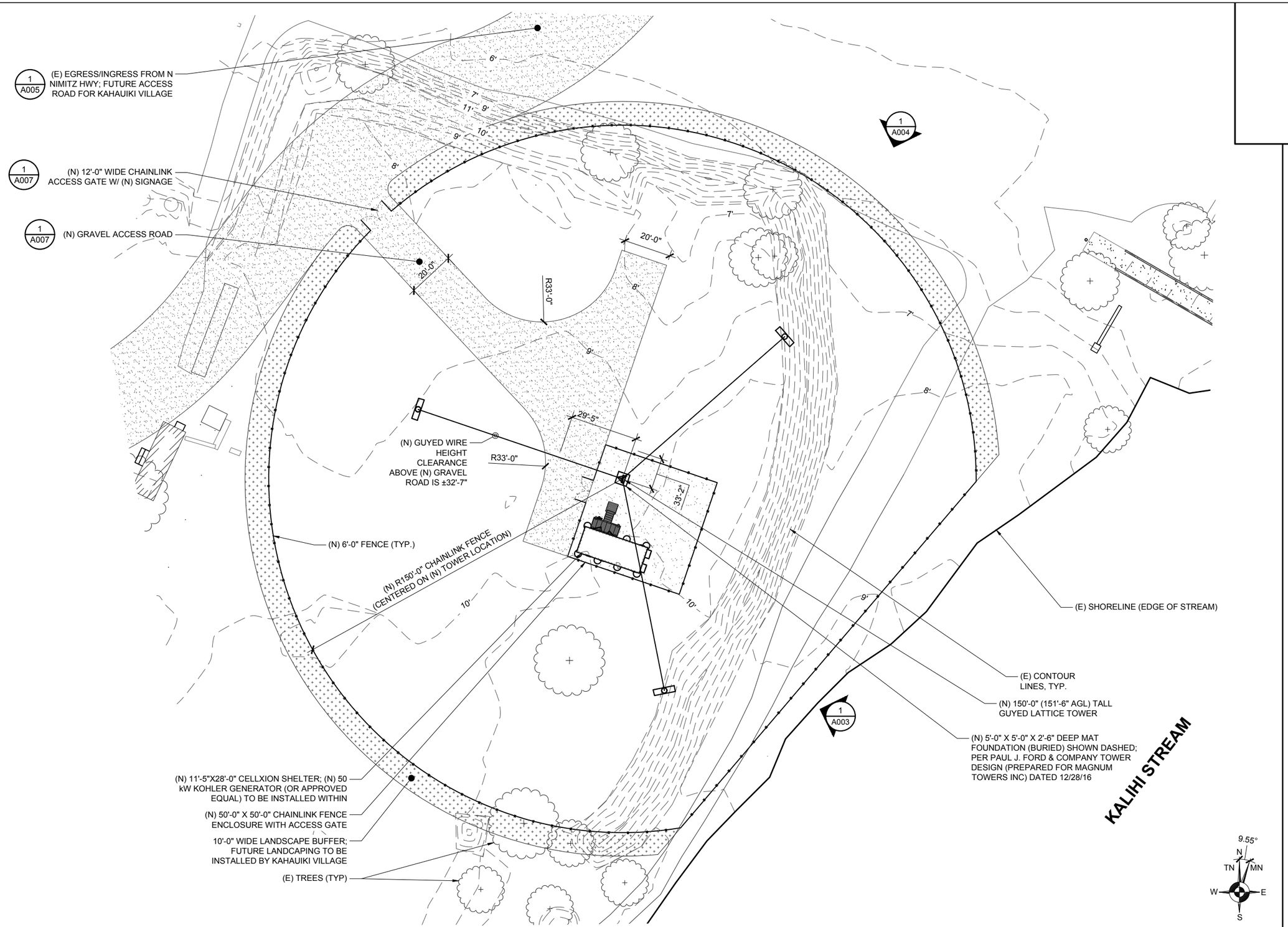
NIMITZ HIGHWAY AT KAHAUIKI VILLAGE MOANALUA, HONOLULU, HI

SHEET TITLE

ENLARGED DEMO. SITE PLAN

SHEET NO.

A002



1 (N) ENLARGED SITE PLAN

SCALE: 1" = 40'-0" (11X17)
SCALE: 1" = 20'-0" (22X34)

0' 20' 40' 80'

CENTERLINE SOLUTIONS

VECTOR ENGINEERS

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION. CONSTRUCTION OF THIS PROJECT WILL BE UNDER MY OBSERVATION.

CP PROJECT NO.: BLU-15-0001-3

PRELIMINARY

NO.	DATE	D/C	DESCRIPTION
0	11-14-16	TT/KN	90% CD REVIEW
3	01-05-17	TT/GS	CS COMMENT
4	01-27-17	TT/GS	CS COMMENT

SUBMITTAL

NO.	DATE	D/C	DESCRIPTION

SITE NAME:

NIMITZ HIGHWAY TOWER RELOCATION

SITE ADDRESS:

NIMITZ HIGHWAY AT KAHAUIKI VILLAGE MOANALUA, HONOLULU, HI

SHEET TITLE

(N) ENLARGED SITE PLAN

SHEET NO.

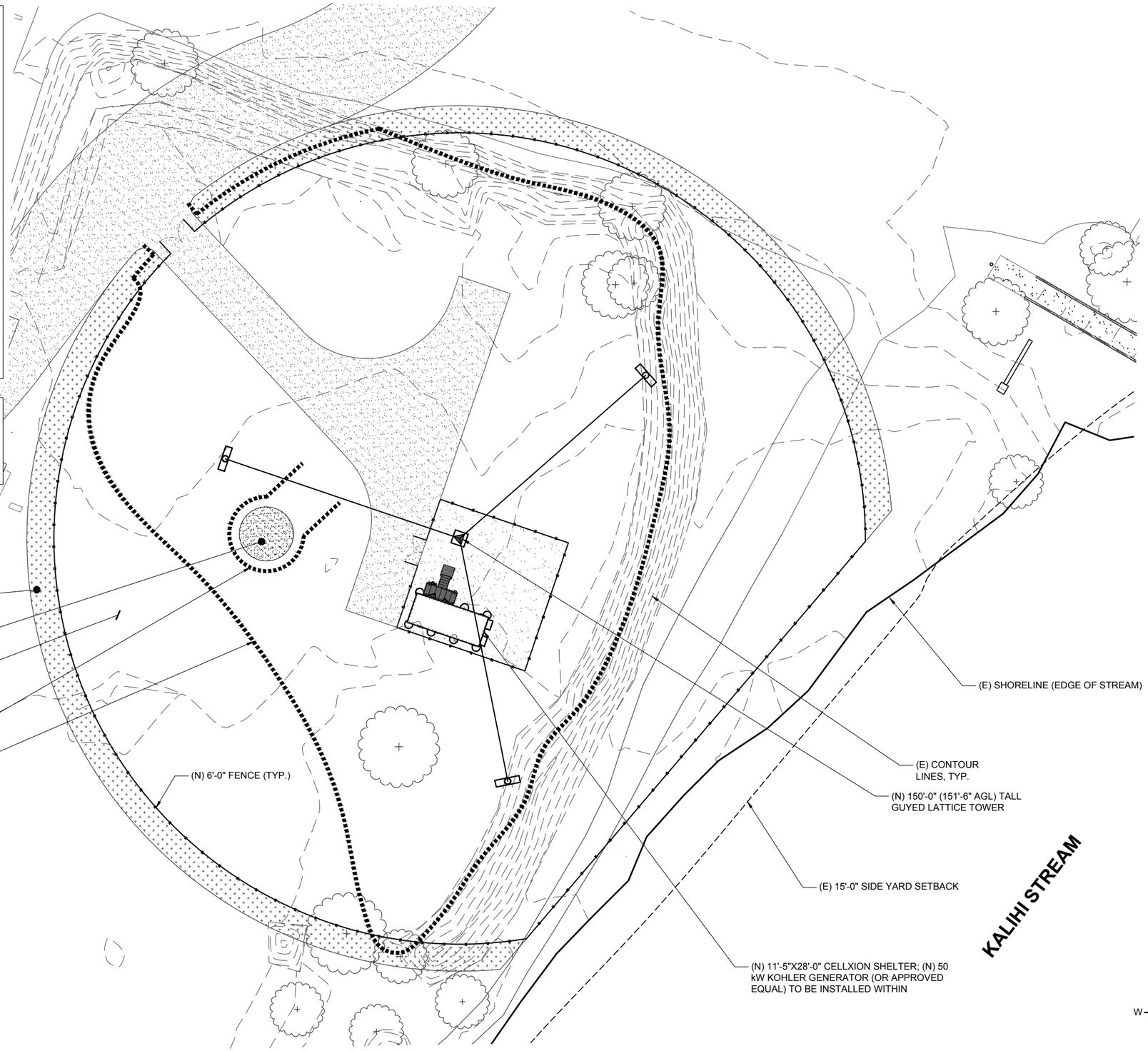
A002.1

EC / BMP NOTES:

1. THE FINAL LIFT OF EACH DAY'S WORK SHALL BE COMPACTED TO PREVENT EROSION OF FILL MATERIAL.
2. GOOD HOUSEKEEPING SHALL BE UTILIZED TO ENSURE PROTECTION OF ROADWAYS FROM MUD, DIRT, AND DEBRIS.
3. THE CONTRACTOR SHALL ENSURE THAT ALL TIRES IF CONSTRUCTION VEHICLES ARE SUFFICIENTLY CLEANED OFF SO THAT DIRT OR DEBRIS IS NOT TRACKED OFF THE CONSTRUCTION SITE, WASHING OFF TIRES WITH WATER WILL NOT BE ACCEPTABLE UNLESS THE RUNOFF IS CONTAINED & DOES NOT ENTER THE STORM DRAIN SYSTEM, OR ONTO THE ROADWAY.
4. AT THE END OF GRADING OPERATIONS AND AT THE COMPLETION OF PROJECT, CONTRACTOR SHALL INSPECT EACH CATCH BASIN, DRAIN INLET & DRAIN MANHOLE SURROUNDING THE PROJECT SITE. ANY ACCUMULATED SEDIMENT AND DEBRIS FOUND IN THE STORM DRAIN STRUCTURES SHALL BE REMOVED. PLEASE NOTE THAT FLUSHING INTO THE DRAIN STRUCTURES IS PROHIBITED.
5. ANY DIRT OR GRASSED AREA DISTURBED SHALL BE RESTORED BY RE-GRADDDING THE AREA OR BY SEEDED HYDROMULCH. THE GRASS SHALL BE FULLY ESTABLISHED AT COMPLETION OF PROJECT.

NOTE:

SITE GRADING WILL NOT BE REQUIRED FOR THIS INSTALL.



LEGEND

BIO-BAG DELINEATION

NOTES

1. BIO-BAGS SHALL REMAIN IN PLACE UNTIL THE GRASS IS FULLY ESTABLISHED.
2. AT COMPLETION OF PROJECT, BIO-BAG MATERIAL AND COMPOST SHALL BE REMOVED FROM SITE & DISPOSED OF PROPERLY.

1 EROSION CONTROL PLAN

SCALE: 1" = 20'-0" (11X17)
SCALE: 1" = 10'-0" (22X34)

0' 10' 20' 40'

CENTERLINE SOLUTIONS

VECTOR ENGINEERS

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION. CONSTRUCTION OF THIS PROJECT WILL BE UNDER MY OBSERVATION.

CP PROJECT NO.: BLU-15-0001-3

PRELIMINARY

NO.	DATE	D/C	DESCRIPTION
0	11-14-16	TT/KN	90% CD REVIEW
3	01-05-17	TT/GS	CS COMMENT
4	01-27-17	TT/GS	CS COMMENT

SUBMITTAL

NO.	DATE	D/C	DESCRIPTION

SITE NAME:

NIMITZ HIGHWAY TOWER RELOCATION

SITE ADDRESS:

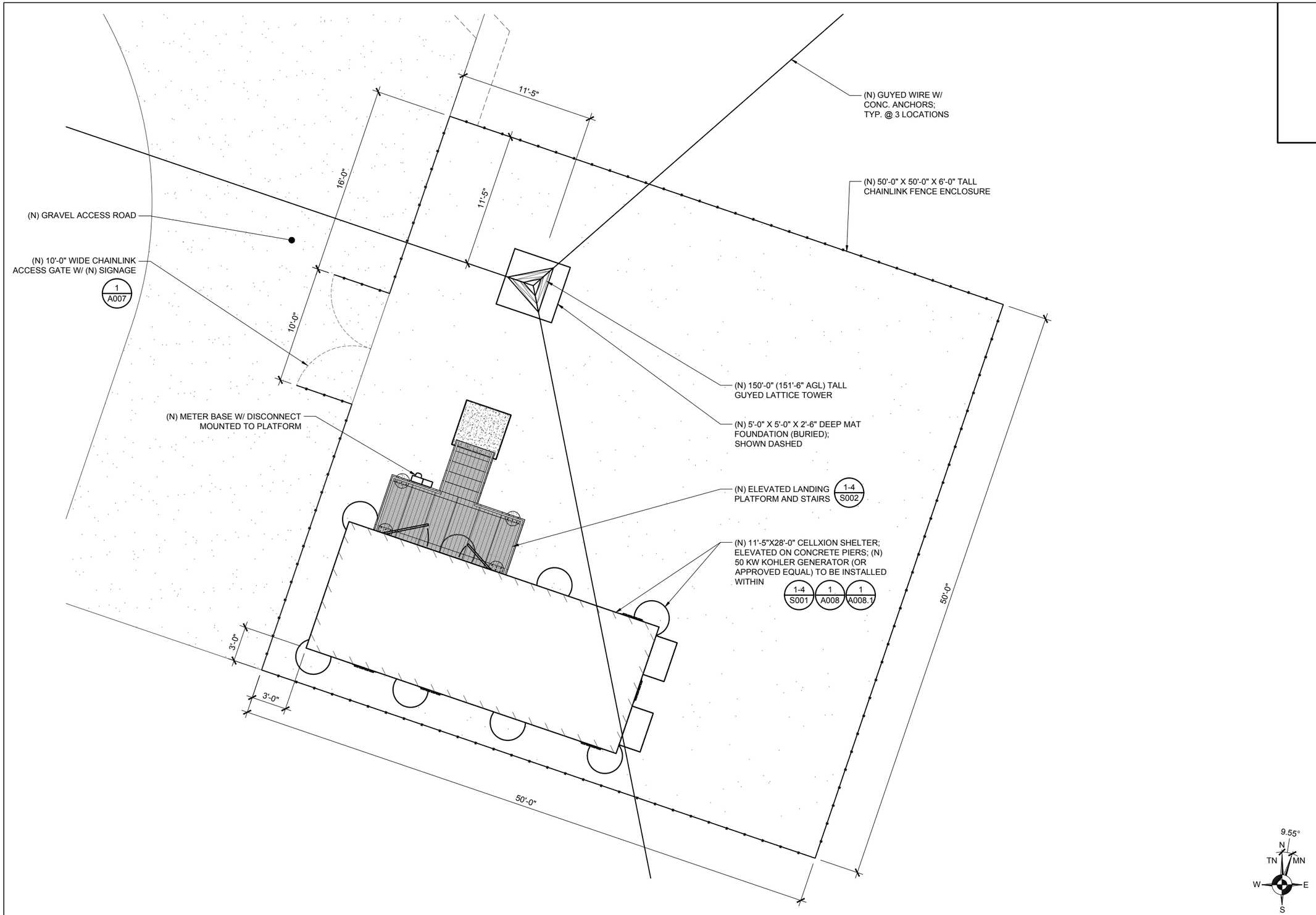
NIMITZ HIGHWAY AT KAHAUIKI VILLAGE MOANALUA, HONOLULU, HI

SHEET TITLE

EROSION CONTROL PLAN

SHEET NO.

A002.2



1 ENLARGED COMPOUND PLAN

SCALE: 1/8" = 1'-0" (11X17)
SCALE: 1/4" = 1'-0" (22X34)

0' 4' 8' 16'

CENTERLINE SOLUTIONS

VECTOR ENGINEERS

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION. CONSTRUCTION OF THIS PROJECT WILL BE UNDER MY OBSERVATION.

CP PROJECT NO.: BLU-15-0001-3

PRELIMINARY

NO.	DATE	D/C	DESCRIPTION
0	11-14-16	TT/KN	90% CD REVIEW
3	01-05-17	TT/GS	CS COMMENT
4	01-27-17	TT/GS	CS COMMENT

SUBMITTAL

NO.	DATE	D/C	DESCRIPTION

SITE NAME:

NIMITZ HIGHWAY TOWER RELOCATION

SITE ADDRESS:

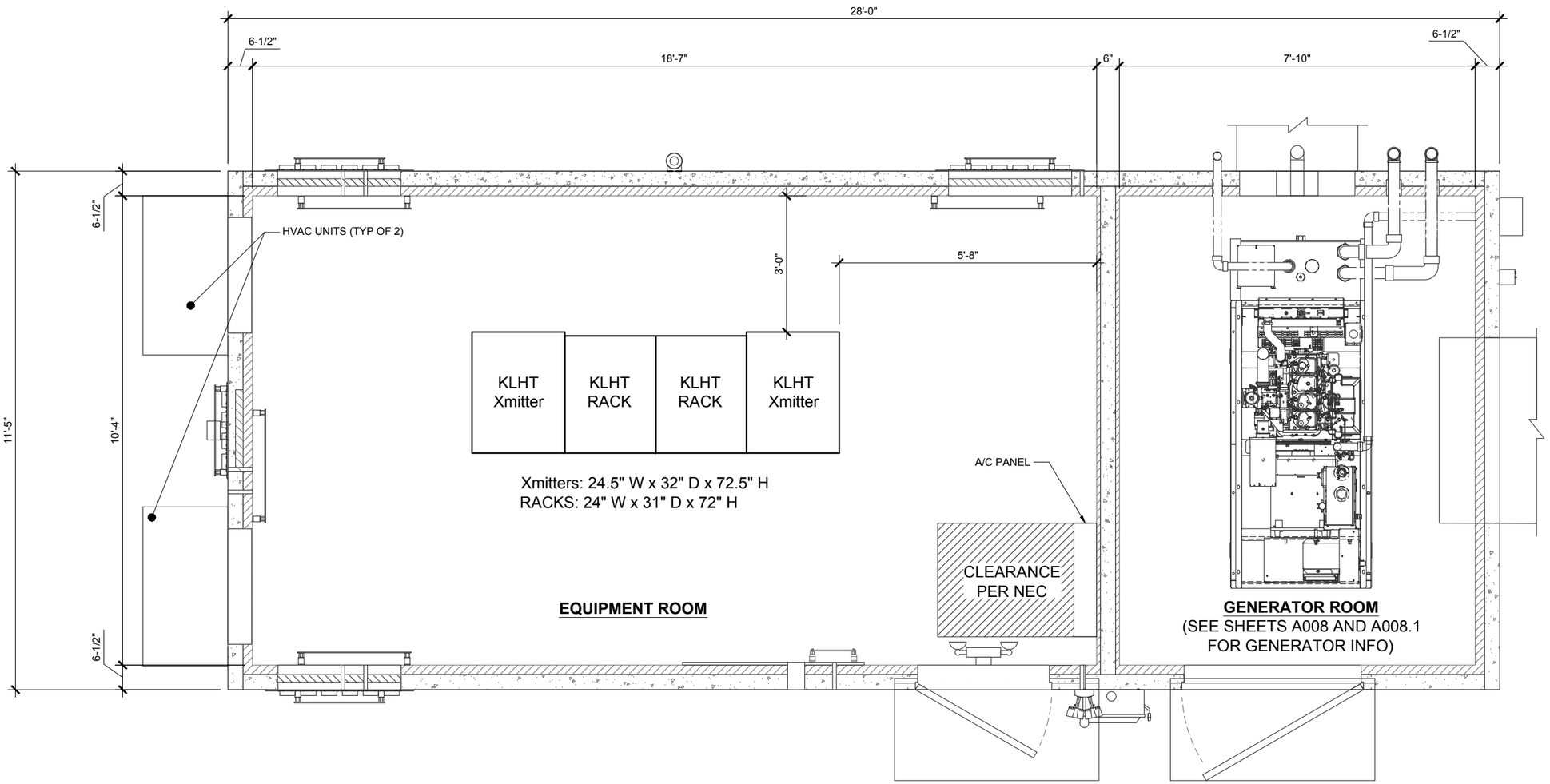
NIMITZ HIGHWAY AT KAHAUIKI VILLAGE MOANALUA, HONOLULU, HI

SHEET TITLE

ENLARGED COMPOUND PLAN

SHEET NO.

A002.3



1	EQUIPMENT SHELTER PLAN

SCALE: 3/8"= 1'-0" (11X17)
SCALE: 3/4" = 1'-0" (22X34)

0' 1' 3' 5'

CENTERLINE SOLUTIONS

VECTOR ENGINEERS

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION. CONSTRUCTION OF THIS PROJECT WILL BE UNDER MY OBSERVATION.

CP PROJECT NO.: BLU-15-0001-3

PRELIMINARY

NO.	DATE	D/C	DESCRIPTION
0	11-14-16	TT/KN	90% CD REVIEW
3	01-05-17	TT/GS	CS COMMENT
4	01-27-17	TT/GS	CS COMMENT

SUBMITTAL

NO.	DATE	D/C	DESCRIPTION

SITE NAME:

NIMITZ HIGHWAY TOWER RELOCATION

SITE ADDRESS:

NIMITZ HIGHWAY AT KAHAUIKI VILLAGE MOANALUA, HONOLULU, HI

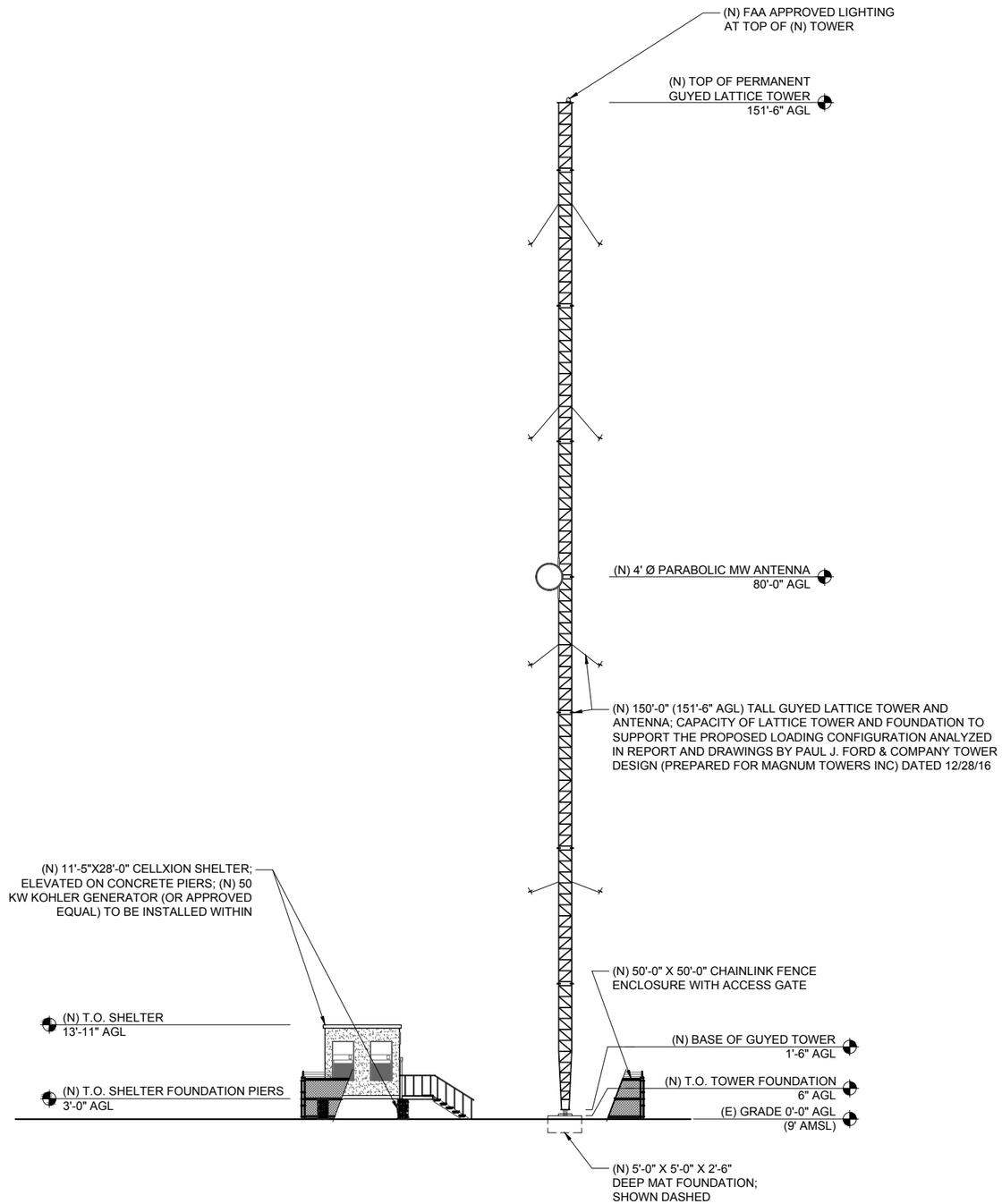
SHEET TITLE

EQUIPMENT SHELTER PLAN

SHEET NO.

A002.4

NOTE:
PM/GC TO VERIFY PAINTING REQUIREMENTS WITH JURISDICTION PRIOR TO ORDERING SUPPORT STRUCTURES, ATTACHMENTS, ANTENNAS, AND OTHER APPURTENANCES.



1 SOUTHEAST ELEVATION

SCALE: 1" = 20'-0" (11X17)
SCALE: 1" = 10'-0" (22X34)

0' 10' 20' 40'

CENTERLINE SOLUTIONS

VECTOR ENGINEERS

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION. CONSTRUCTION OF THIS PROJECT WILL BE UNDER MY OBSERVATION.

CP PROJECT NO.: BLU-15-0001-3

PRELIMINARY

NO.	DATE	D/C	DESCRIPTION
0	11-14-16	TT/KN	90% CD REVIEW
3	01-05-17	TT/GS	CS COMMENT
4	01-27-17	TT/GS	CS COMMENT

SUBMITTAL

NO.	DATE	D/C	DESCRIPTION

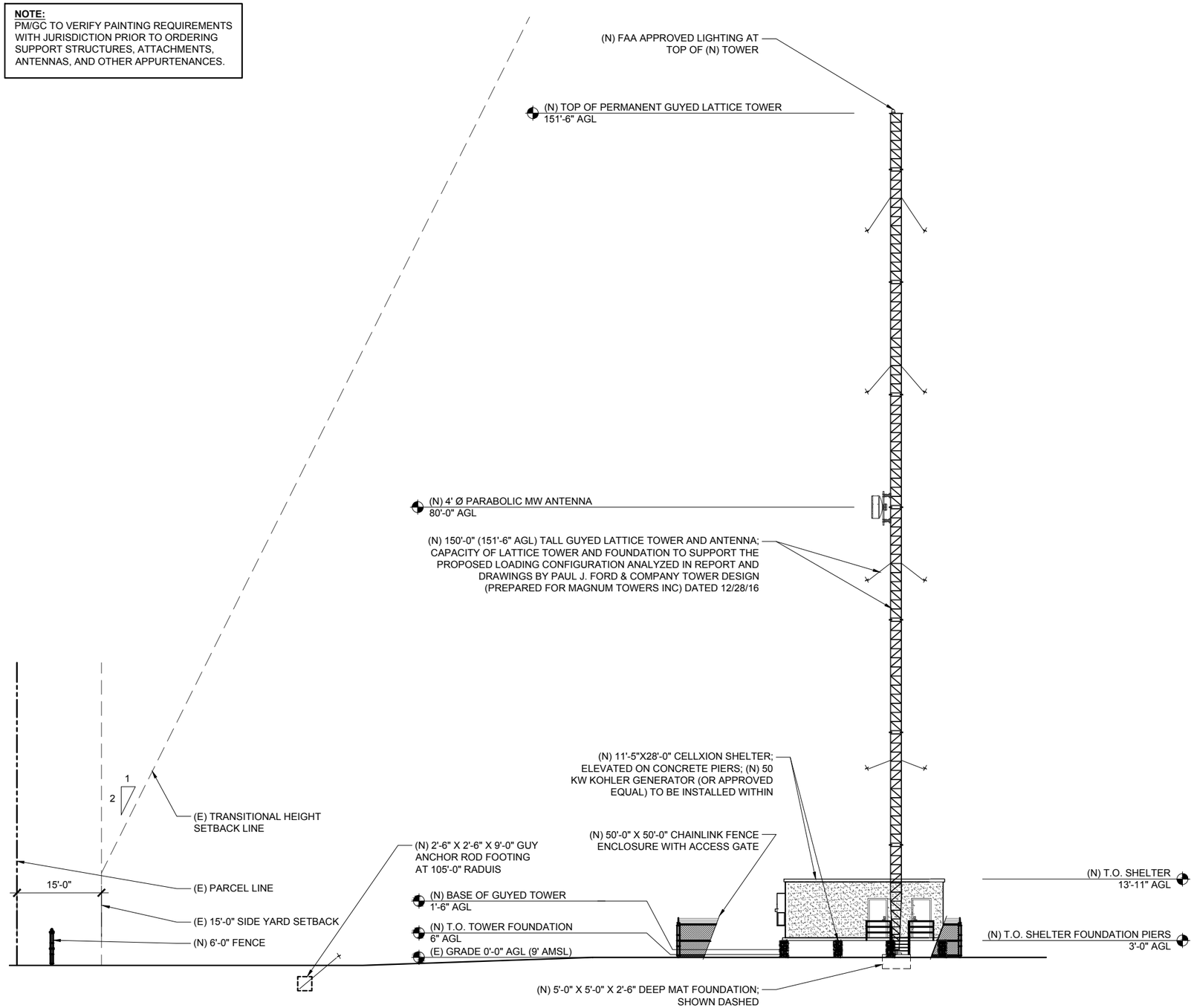
SITE NAME:
NIMITZ HIGHWAY TOWER RELOCATION

SITE ADDRESS:
NIMITZ HIGHWAY AT KAHAUIKI VILLAGE
MOANALUA, HONOLULU, HI

SHEET TITLE
ELEVATIONS

SHEET NO.
A003

NOTE:
PM/GC TO VERIFY PAINTING REQUIREMENTS WITH JURISDICTION PRIOR TO ORDERING SUPPORT STRUCTURES, ATTACHMENTS, ANTENNAS, AND OTHER APPURTENANCES.



1 NORTHEAST ELEVATION

SCALE: 1" = 20'-0" (11X17)
SCALE: 1" = 10'-0" (22X34)
0' 10' 20' 40'

CENTERLINE SOLUTIONS

VECTOR ENGINEERS

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION. CONSTRUCTION OF THIS PROJECT WILL BE UNDER MY OBSERVATION.

CP PROJECT NO.: BLU-15-0001-3

PRELIMINARY

NO.	DATE	D/C	DESCRIPTION
0	11-14-16	TT/KN	90% CD REVIEW
3	01-05-17	TT/GS	CS COMMENT
4	01-27-17	TT/GS	CS COMMENT

SUBMITTAL

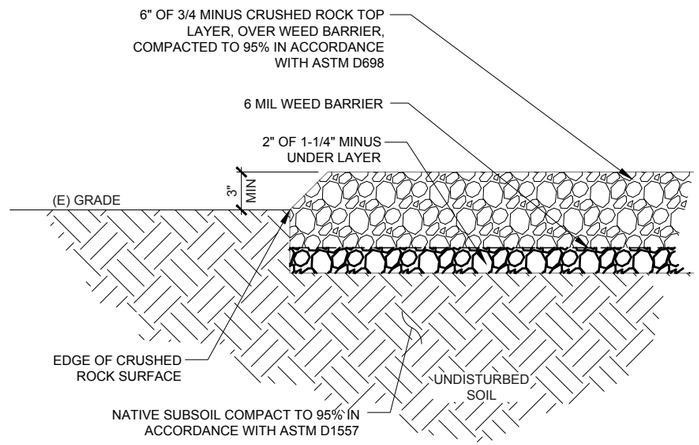
NO.	DATE	D/C	DESCRIPTION

SITE NAME:
NIMITZ HIGHWAY TOWER RELOCATION

SITE ADDRESS:
NIMITZ HIGHWAY AT KAHAUIKI VILLAGE
MOANALUA, HONOLULU, HI

SHEET TITLE
ELEVATIONS

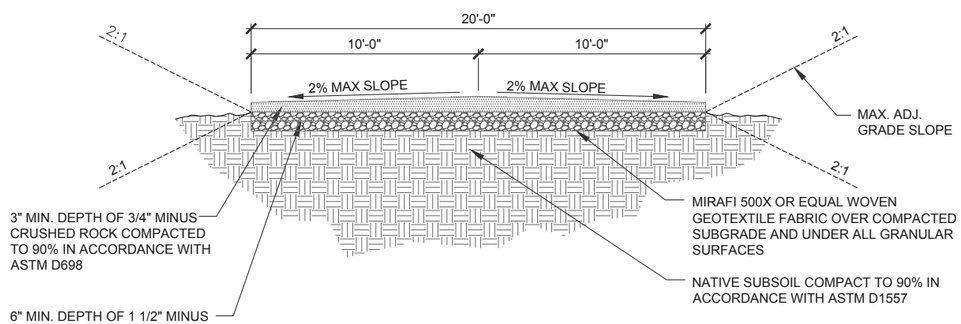
SHEET NO.
A004



NOTE:
CONTRACTOR SHALL STRIP SUPERFICIAL, SOFT, WET, ORGANIC OR DELETERIOUS SOILS TO EXPOSE FIRM AND UNYIELDING SOIL. IF STRIPPING IS REQUIRED DEEPER THAN 6", CONTRACTOR SHALL CONTACT THE SITE CONSTRUCTION MANAGER TO DETERMINE THE APPROPRIATE STRIPPING DEPTH AT THE TIME OF CONSTRUCTION.

1 | 50' X 50' COMPOUND SECTION DETAIL

SCALE: NTS (11X17)
SCALE: NTS (22X34)



NOTE: CONTRACTOR SHALL STRIP SUPERFICIAL, SOFT, WET, ORGANIC OR DELETERIOUS SOILS TO EXPOSE FIRM AND UNYIELDING SOIL (MIN. 6"). IF STRIPPING IS REQUIRED DEEPER THAN 6", CONTRACTOR SHALL CONTACT THE SITE CONSTRUCTION MANAGER TO DETERMINE THE APPROPRIATE STRIPPING DEPTH AT THE TIME OF CONSTRUCTION.

3 | GRAVEL ROAD SECTION DETAIL

SCALE: NTS (11X17)
SCALE: NTS (22X34)

CENTERLINE SOLUTIONS

VECTOR ENGINEERS

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION. CONSTRUCTION OF THIS PROJECT WILL BE UNDER MY OBSERVATION.

CP PROJECT NO.: BLU-15-0001-3

PRELIMINARY

NO.	DATE	D/C	DESCRIPTION
0	11-14-16	TT/KN	90% CD REVIEW
3	01-05-17	TT/GS	CS COMMENT
4	01-27-17	TT/GS	CS COMMENT

SUBMITTAL

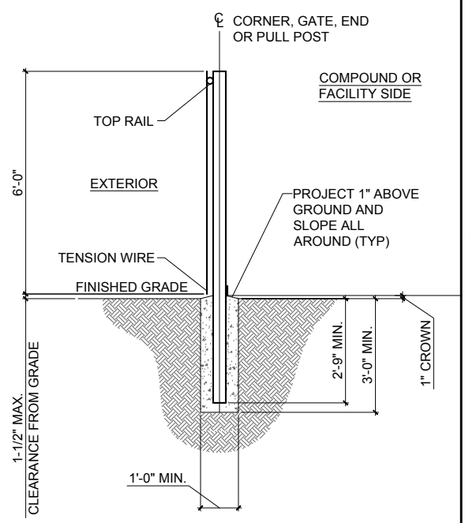
NO.	DATE	D/C	DESCRIPTION

SITE NAME:
NIMITZ HIGHWAY TOWER RELOCATION

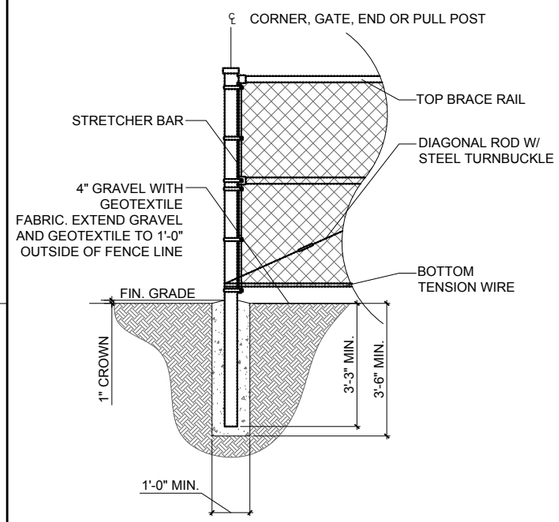
SITE ADDRESS:
NIMITZ HIGHWAY AT KAHAUIKI VILLAGE
MOANALUA, HONOLULU, HI

SHEET TITLE
DETAILS

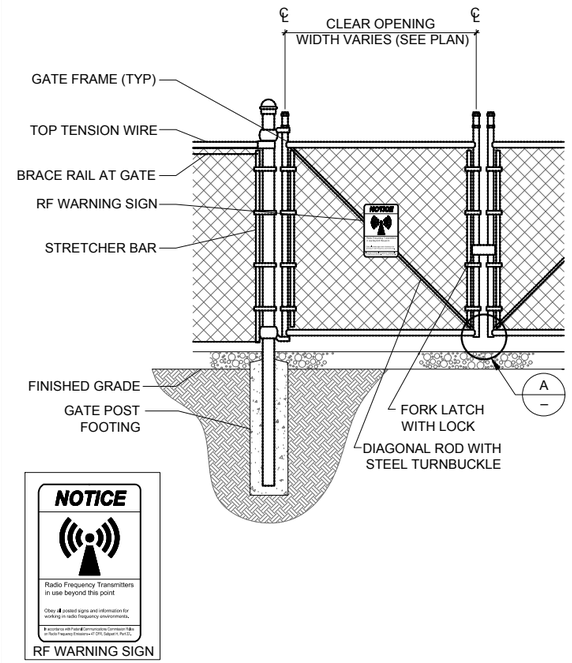
SHEET NO.
A005



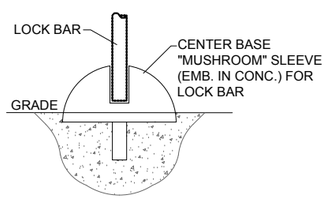
1 WOVEN WIRE DETAIL SCALE: NTS
SCALE: NTS



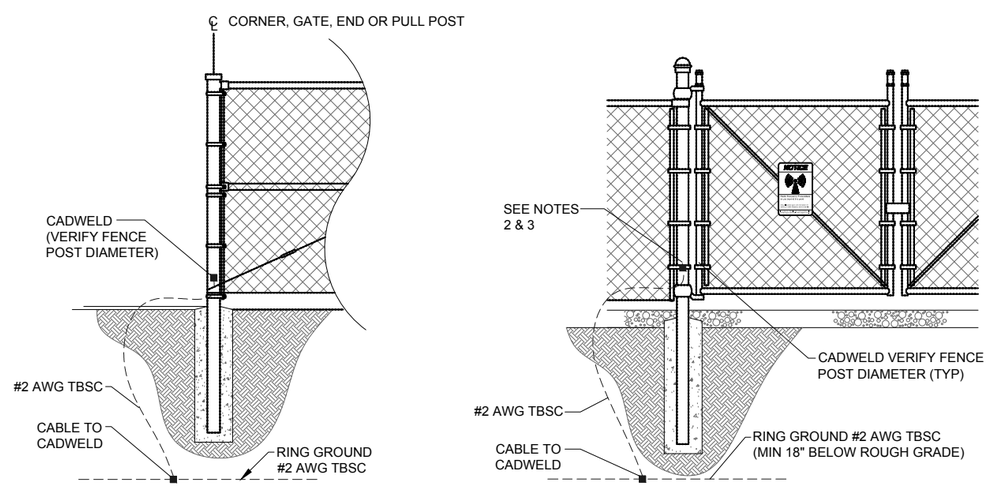
2 CORNER POST DETAIL SCALE: NTS
SCALE: NTS



3 SWING GATE DETAIL SCALE: NTS (11X17)
SCALE: NTS (22X34)



A GATE STOP DETAIL SCALE: NTS
SCALE: NTS



GROUNDING NOTES

1. VERTICAL POSTS SHALL BE BONDED TO THE RING AT EACH CORNER AND AT EACH GATE POST. AT MINIMUM, ONE VERTICAL POST SHALL BE BONDED TO THE GROUND RING IN EVERY 100-FOOT STRAIGHT RUN OF FENCE.

2. THE #2 AWG, TBSC, FROM THE RING GROUND SHALL BE CADWELD TO THE POST, ABOVE GROUND.

4 FENCE GROUNDING DETAILS SCALE: NTS (11X17)
SCALE: NTS (22X34)

FENCING

1. ALL FABRIC, WIRE RAILS, POLES, HARDWARE, AND OTHER STEEL MATERIAL SHALL BE HOT-DIPPED GALVANIZED AND CONFORM TO ALL ASTM REGULATIONS FOR GALVANIZING.

2. THE CONTRACTOR SHALL MATCH THE FENCING HEIGHT, STYLE, BANDING, BARBED WIRES, SUPPORTS, AND MEASUREMENTS OF THE EXISTING FENCE WHERE EVER THE PROJECT REQUIRES THE EXTENSION OR MODIFICATIONS OF AN EXISTING FENCED AREA.

3. FABRIC SHALL BE 6'-0" HIGH X 2" CHAIN LINK MESH OF NO. 9 GAUGE (0.148) WIRE. THE FABRIC SHALL HAVE A TWISTED AND BARBED FINISH FOR THE TOP EDGES AND A KNUCKLED FINISH FOR THE BOTTOM EDGES. FABRIC SHALL CONFORM TO THE SPECIFICATIONS OF ASTM A-392 CLASS-1.

4. BARBED WIRE SHALL BE DOUBLE-STRAND, 12 GAUGE TWISTED WIRE, WITH 14 GAUGE 4 POINT ROUND BARBS SPACED AT 5" ON CENTER.

5. ALL POSTS SHALL BE SCHEDULED 20-GALVANIZED STEEL PIPE OF THE FOLLOWING DIAMETERS: LINE = 2-3/8" I CORNER = 3" I GATE = 3"

6. EXTEND GATE AND CORNER POSTS 12" INCLUDING THE METAL DOME CAP TO PROVIDE FOR ATTACHMENT OF THE BARBED WIRE.

7. ALL TOP AND BRACED RAIL SHALL BE 1-5/8" DIAMETER SCHEDULE 20 MECHANICAL BRACE, SECURED IN PLACE BY USE OF GATE BRACE CLAMPS.

8. GATE FRAMES SHALL HAVE A FULL HEIGHT VERTICAL BRACE AND A FULL WIDTH HORIZONTAL BRACE, SECURED IN PLACE BY USE OF GATE BRACE CLAMPS.

9. HINGES SHALL BE A MINIMUM of 200 DEGREES WITH A HINGE ADAPTER, LATCHES, STOPS AND KEEPERS SHALL BE PROVIDED FOR ALL GATES. THE GUIDE LATCH ASSEMBLY SHALL BE TAMPER PROOF. ALL STOPS AND DOUBLE GATES SHALL HAVE A FULL HEIGHT PLUNGER BAR WITH A METAL DOME CAP.

10. USE A NO. 7 GAUGE ZINC COATED TENSION WIRE AT THE BOTTOM OF THE FABRIC, TERMINATED WITH BAND CLIPS AT CORN AND GATEPOSTS.

11. USE A 6" X 1/2" EYEBOLT TO HOLD TENSION WIRE AT LINE POSTS.

12. STRETCHER BARS SHALL BE 3/16 X 3/4" OR HAVE EQUIVALENT CROSS SECTION AREA.

13. ALL CORNER GATE AND END PANELS SHALL HAVE A 3/8" TRUSS ROD WITH TURNBUCKLES AND BE BRACED WITH ONE 1-5/8" HORIZONTAL COMPRESSION MEMBER, SECURELY ATTACHED WITH IRON FITTINGS.

14. PROVIDE ALL OTHER HARDWARE NECESSARY TO ATTACH, TENSION, CLIP, BAND, HINGE, FASTEN AND FINISH THE FENCING PROPERLY.

15. BARBED WIRE SUPPORT ARMS SHALL BE SCH. 40 GALVANIZED STEEL WITH SET BOLT AND LOCK LOCK WIRE IN THE ARM.

16. ALL POSTS, GATE GUARDS, AND OTHER OPEN PIPES SHALL BE CAPPED WITH A HOT DIPPED GALVANIZED CAST STEEL DOME CAP.

17. ALL POSTS SHALL HAVE A MINIMUM OF 6" OF CONCRETE UNDER THE LOWER MOST PORTION TO A MINIMUM OF 8" LARGER THAN THE DIAMETER AT THE FINISHED GRADE.

18. ALL FENCE POSTS SHALL BE SCH. 40 GALVANIZED STEEL POSTS WITH SET BOLT AND LOCK WIRE IN THE ARM.

19. AT CORNER POSTS, GATE POST, LINE POST, AND SIDE OF GATE FRAME, FABRIC SHALL BE ATTACHED WITH STRETCHER AND TENSION BAND CLIPS AT 1'-3" INTERVALS.

20. ATTACH FABRIC TO BRACE RAILS, TENSION WIRE AND TRUSS RODS WITH THE TIE CLIPS AT 2'-0" INTERVALS.

21. A MAXIMUM GAP OF 1" WILL BE PERMITTED BETWEEN THE CHAIN LINK FABRIC AND THE FINAL GRADE.

22. GATES SHALL BE INSTALLED SO THAT LOCKS ARE ACCESSIBLE FROM BOTH SIDES.

23. GATE HINGES SHALL HAVE THEIR THREADS PEENED OR WELDED TO PREVENT UNAUTHORIZED REMOVAL.

24. TOUCH UP ALL SCRAPES, SCRATCHES, MARKS, AND BARE AREAS WITH A COLD GALVANIZED SPRAY.

FENCING NOTES

CENTERLINE SOLUTIONS

VECTOR ENGINEERS

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION. CONSTRUCTION OF THIS PROJECT WILL BE UNDER MY OBSERVATION.

CP PROJECT NO.: BLU-15-0001-3

PRELIMINARY

NO.	DATE	D/C	DESCRIPTION
0	11-14-16	TT/KN	90% CD REVIEW
3	01-05-17	TT/GS	CS COMMENT
4	01-27-17	TT/GS	CS COMMENT

SUBMITTAL

NO.	DATE	D/C	DESCRIPTION

SITE NAME:
NIMITZ HIGHWAY TOWER RELOCATION

SITE ADDRESS:
NIMITZ HIGHWAY AT KAHAUIKI VILLAGE
MOANALUA, HONOLULU, HI

SHEET TITLE
FENCE DETAILS

SHEET NO.
A006

1. SIGNS AND PLACEMENT

A. LOW LEVEL (BLUE) WARNING SIGNS - PLACE AT SITE ENTRY/ACCESS POINTS ONLY:

ROOF TOPS: PLACE SIGNS ON THE INSIDE OF ROOF HATCH; PLACE ON ACCESS DOOR UNLESS DOOR IS USED BY GENERAL PUBLIC OR BUILDING TENANTS REGULARLY FOR ACCESS - IN THESE CASES CONSULT CONSTRUCTION MANAGER OR QC SUPERVISOR

WATER TANKS: PLACE SIGNS ON COMPOUND GATE

SITES: PLACE ONE SIGN ON SITE GATE

B. HIGH LEVEL (RED) CAUTION SIGNS - PLACE AT ALL ANTENNA SECTORS WHERE ACCESS BY THE GENERAL PUBLIC TO THE ANTENNAS IS POSSIBLE:

ALL SIGNS WILL BE SECURED WITH EITHER STAINLESS STEEL ZIP TIES OR STAINLESS TECH SCREWS

2. CC PARTICIPATION IN SIGN LOCATION

CM WILL MEET WITH ALL CC'S TO OUTLINE CRITERIA FOR SIGN PLACEMENT; EMPHASIS WILL BE ON 'GRAY AREA' SITES, WHERE SIGN PLACEMENT IS PARTICULARLY CHALLENGING - WE WILL GIVE CC'S AS MUCH GUIDANCE ON SPECIFIC SITUATIONS AS WE CAN FORESEE, BUT CC'S WILL BE ENCOURAGED TO PARTNER CM OR QC IN DECIDING PLACEMENT OF DIFFICULT SITES. A JOINT SITE VISIT MAY BE REQUIRED TO FULFILL REQUIREMENTS

CC WILL CALL OUT SIGN LOCATION(S) AT THE A&E WALK FOR EACH SITE AS THOSE OCCUR

ON SITES WITH EXISTING A&E BUT NOT YET CONSTRUCTED, CC WILL BE ASKED TO PROVIDE (WITHIN A REASONABLE TIME FRAME TBD) A DETAIL FOR SIGN PLACEMENT THAT WILL BE SLIP-SHEETED INTO EXISTING SETS

3. SIGN DISBURSEMENT FROM WAREHOUSE

SIGNS WILL BE IN STACK AT KENT WAREHOUSE TO BE DISBURSED AS PART OF THE GC BOM AS CALLED OUT IN A&E DRAWINGS FOR EACH SITE

NOTICE

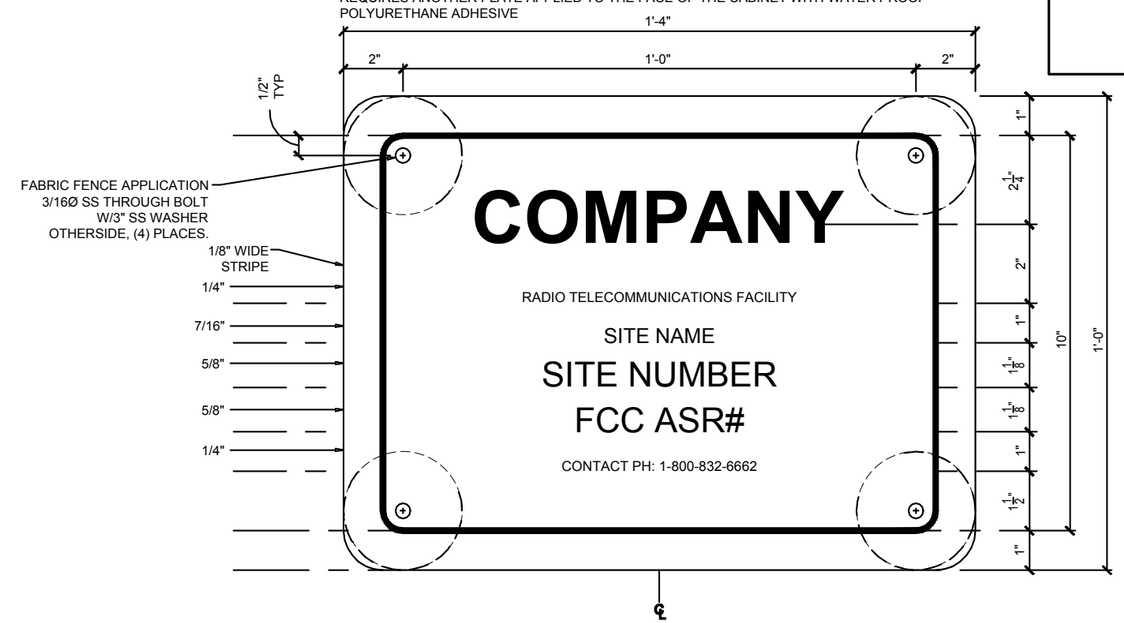
Beyond this point you are entering an area where RF Emissions may exceed the FCC General Population Exposure Limits

Follow all posted signs and site guidelines for working in an RF environment

Ref: FCC 47cfr 1.137(b)

RF WARNING SIGN
NOT TO SCALE

NOTES:
1. FOR BLOW UP LLC LOGO SEE BLOW UP LLC DESIGN SPECIFICATIONS (PROVIDED BY BLOW UP LLC)
2. ALL TEXT FONT IS ARIAL U.N.O.
3. CONTRACTOR TO PROCURE FCC NO. FROM COMPLIANCE COORDINATOR PH: (425) 895-7000
4. TEXT FOR SIGNAGE SHALL INDICATE CORRECT SITE NAME AND NUMBER AS PER BLOW UP LLC CONSTRUCTION MANAGER RECOMMENDATIONS. 5. CABINET / SHELTER MOUNTING APPLICATION REQUIRES ANOTHER PLATE APPLIED TO THE FACE OF THE CABINET WITH WATER PROOF POLYURETHANE ADHESIVE



BLOW UP LLC SIGNAGE DETAIL
NOT TO SCALE

INFORMATION

BLOW UP LLC operates telecommunications antennas at this location. Remain at least 3 feet away from any antenna and obey all posted signs.

Contact the owner(s) of the antenna(s) before working closer then 3 feet from the antenna(s)

Contact BLOW UP LLC at (VERIFY PHONE#) prior to performing any maintenance or repairs near BLOW UP LLC antennas

This is site#
Contact the management office if this door/hatch/gate is found unlocked.

INFORMACION

En esta propiedad se ubican antenas de telecommunicaciones operaadas par BLOW UP LLC Favor mantener una disiancia de no menos de 3 pies y obedecar todos las avisos.

Comuniquese can el propietaria o las propiatarios de las antes de trabajar o caminar de menos de 3 pies de la antena

Comuniquese can BLOW UP LLC (PHONE#) antes de realizar cualquier mantenimiento a reparaciones cera de las antenas de BLOW UP LLC

Esta es la estacion base numero

favor comunicarse can la oficina de la administracion del adificio si esta puerta o compuerta se encuentra sin canado

CAUTION

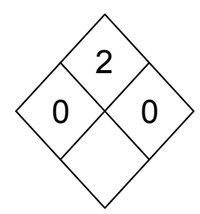
On this tower:
Radio frequency fields near some antennas may exceed FCC rules for human exposure.

Personnel climbing this tower should be trained for working in radio frequency environments and use a personal RF monitor if working near active antennas.

Ref: FCC 47cfr 1.137(b)

RF WARNING SIGN
NOT TO SCALE

NFPA 704 HAZARD IDENTIFICATION SYSTEM
15" DIAMOND



HAZARD RATINGS:
NINE O'CLOCK: HEALTH
TWELVE O'CLOCK: FLAMMABILITY
THREE O'CLOCK: INSTABILITY
SIX O'CLOCK: SPECIAL

REFERENCES:
NFPA 704
UFC 7901.9
IFC 2703.5

FUEL STORAGE SIGN
NOT TO SCALE

NO TRESPASSING SIGN
NOT TO SCALE

CENTERLINE SOLUTIONS

VECTOR ENGINEERS

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION. CONSTRUCTION OF THIS PROJECT WILL BE UNDER MY OBSERVATION.

CP PROJECT NO.: BLU-15-0001-3

PRELIMINARY

NO.	DATE	D/C	DESCRIPTION
0	11-14-16	TT/KN	90% CD REVIEW
3	01-05-17	TT/GS	CS COMMENT
4	01-27-17	TT/GS	CS COMMENT

SUBMITTAL

NO.	DATE	D/C	DESCRIPTION

SITE NAME:
NIMITZ HIGHWAY TOWER RELOCATION

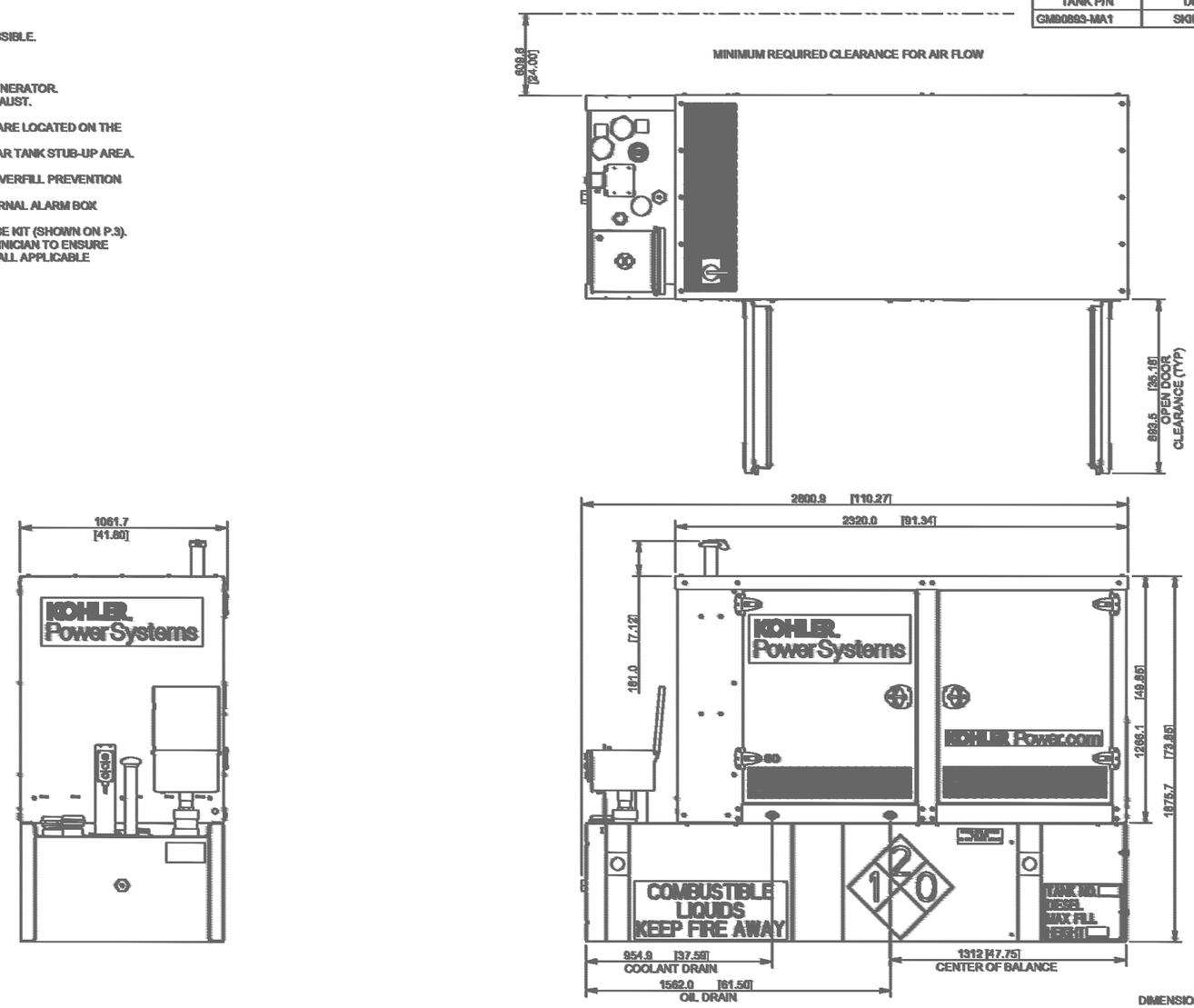
SITE ADDRESS:
NIMITZ HIGHWAY AT KAHAUIKI VILLAGE
MOANALUA, HONOLULU, HI

SHEET TITLE
SIGNAGE DETAILS

SHEET NO.
A007

TANK P/N	DESCRIPTION	ASSY WEIGHT
GM90893-MA1	SKID/TANK, 50KW	1651 KG [3640 LBS]

NOTES:
1. THE LEFT SIDE OF THE GENERATOR IS SERVICE ACCESSIBLE.
2. 6 AMP BATTERY CHARGER.
3. 120VAC ENGINE BLOCK HEATER.
4. GENERATOR MUST BE GROUNDED.
5. SOUND ATTENUATED ENCLOSURE STANDARD WITH GENERATOR.
6. MUST ALLOW FREE FLOW OF DISCHARGE AIR AND EXHAUST.
7. MUST ALLOW FREE FLOW OF INTAKE AIR.
8. DOORS MUST BE ABLE TO OPEN 90 DEGREES. DOORS ARE LOCATED ON THE LEFT SIDE OF THE GENERATOR ONLY.
9. BASE TANK REQUIRES ALL STUB-UPS TO BE IN THE REAR TANK STUB-UP AREA.
10. 224 FILLABLE, 210 GALLONS USEABLE CAPACITY.
11. TANK EQUIPPED WITH A 5 GAL. SPILL FILL, WITH 95% OVERFILL PREVENTION VALVE AND CAM & GROOVE LOCKABLE FUEL CAP.
12. TANK EQUIPPED WITH 90% HIGH FUEL SWITCH & EXTERNAL ALARM BOX WITH SILENCE ALARM.
13. OPTIONAL BEAMS WITH SKIRTING. AVAILABLE AS LOOSE KIT (SHOWN ON P.3).
14. IT IS THE RESPONSIBILITY OF THE INSTALLATION TECHNICIAN TO ENSURE THAT THE GENERATOR INSTALLATION COMPLIES WITH ALL APPLICABLE CODES, STANDARDS, AND REGULATIONS.



REV	DATE	ON COMPONTIE DWGS, SEE PART NO. FOR REVISION LEVEL.	BY
-	12-20-13	NEW DRAWING [CT89589]	JMR

APPROVALS	DATE
JMR	12-20-13
JMR	12-20-13
SDF	12-20-13

KOHLER CO. METRIC PRO-E
POWER SYSTEMS, KOHLER, WI 53044 U.S.A.
THIS DRAWING IN DESIGN AND DETAIL IS KOHLER CO. PROPERTY AND MUST NOT BE USED EXCEPT IN CONNECTION WITH KOHLER CO. WORK. ALL RIGHTS OF DESIGN OR INVENTION ARE RESERVED.

DIMENSION PRINT, 50KW 4045 JD

ADV-8642 D

CENTERLINE SOLUTIONS

VECTOR ENGINEERS

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION. CONSTRUCTION OF THIS PROJECT WILL BE UNDER MY OBSERVATION.

CP PROJECT NO.: BLU-15-0001-3

PRELIMINARY

NO.	DATE	D/C	DESCRIPTION
0	11-14-16	TT/KN	90% CD REVIEW
3	01-05-17	TT/GS	CS COMMENT
4	01-27-17	TT/GS	CS COMMENT

SUBMITTAL

NO.	DATE	D/C	DESCRIPTION

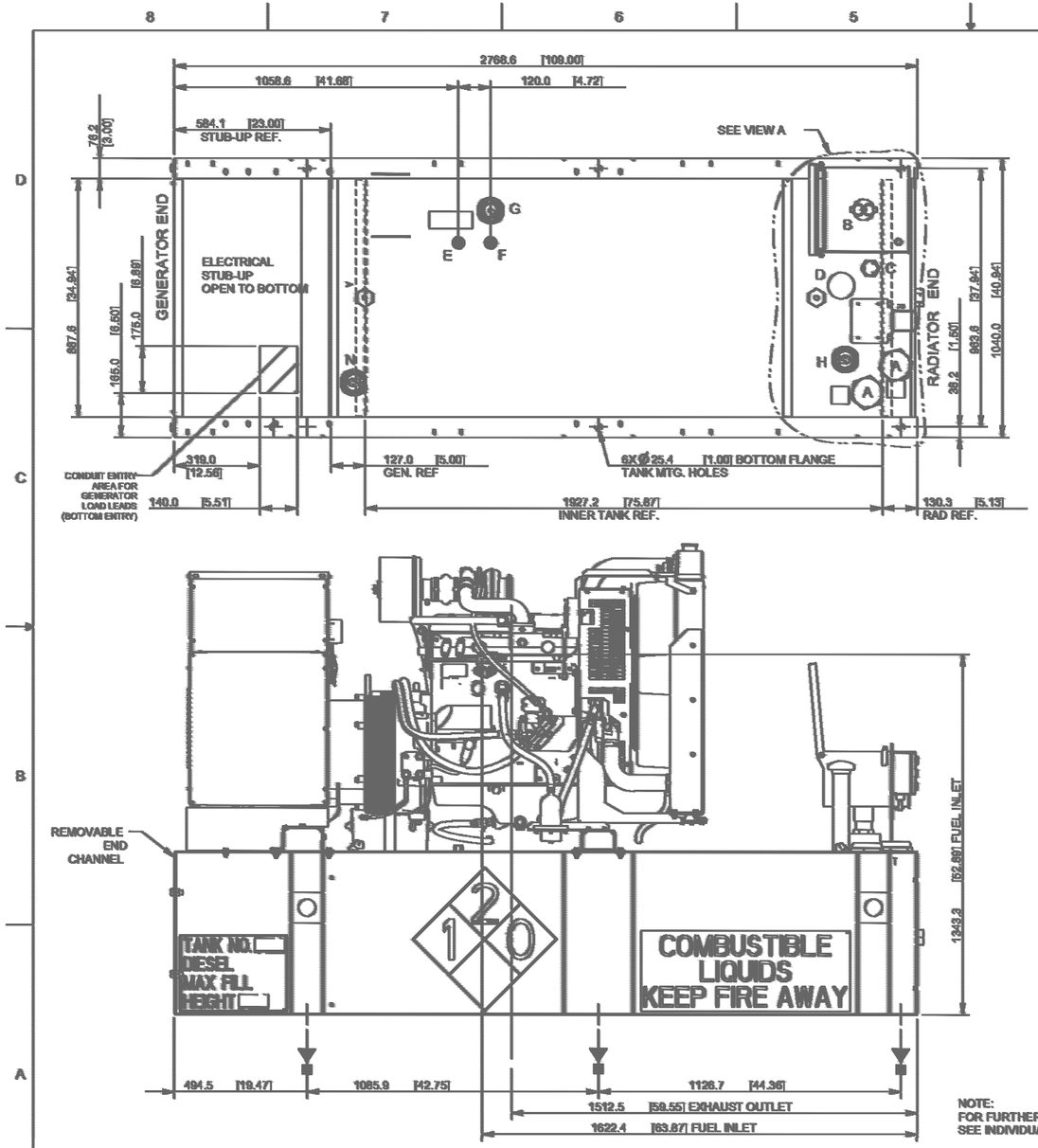
SITE NAME:
NIMITZ HIGHWAY TOWER RELOCATION

SITE ADDRESS:
NIMITZ HIGHWAY AT KAHAUIKI VILLAGE
MOANALUA, HONOLULU, HI

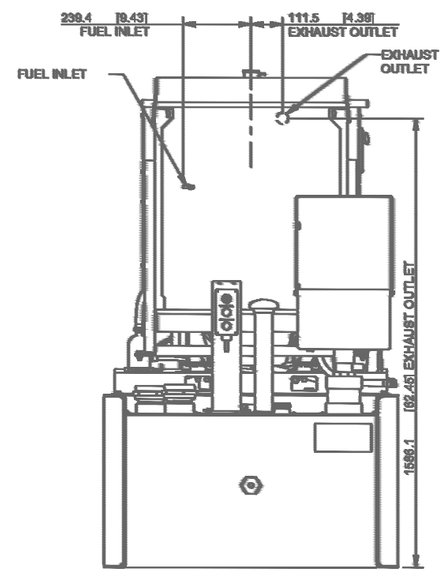
SHEET TITLE
GENERATOR DETAIL I

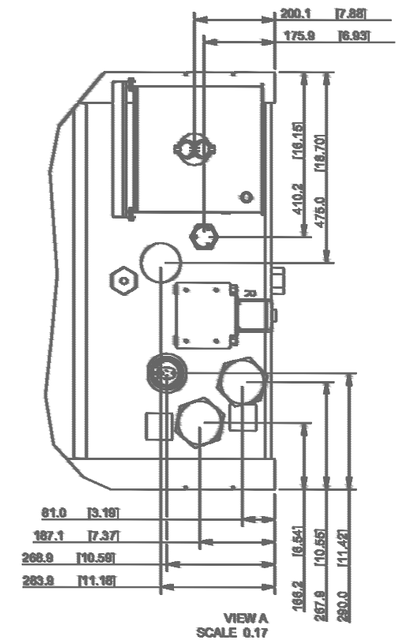
SHEET NO.
A008

1	GENERATOR DETAIL - MANUFACTURER	SCALE: NTS
		SCALE: NTS



TANK FITTINGS:
A. 3" NPT EMERGENCY VENT FITTING PER NFPA 30 WITH VENT CAPS (QTY 2).
B. 4" NPT FUEL FILL FITTING WITH A 5 GAL SPILL FILL 95% OPV AND LOCKABLE CAP.
C. 1-1/2" NPT FUEL LEVEL GAUGE FITTING WITH DIRECT READING MECHANICAL GAUGE.
D. 2" NPT NORMAL VENT FITTING WITH MUSHROOM VENT CAP AND 15" RISER.
E. 1/2" NPT FITTING REMOVABLE ENGINE SUPPLY DIP TUBE.
F. 1/2" NPT FITTING REMOVABLE FUEL RETURN DIP TUBE.
G. 2" NPT FITTING FUEL LEVEL SENDING UNIT.
H. 2" NPT FITTING FOR HIGH LEVEL SWITCH (90%).
N. 2" NPT FUEL IN BASIN SWITCH.





NOTE:
FOR FURTHER TANK DETAIL SEE INDIVIDUAL DRAWINGS

■ 6X Ø25.4 [1.00] STANDARD MOUNTING

▼ 6X Ø25.4 [1.00] BOTTOM BEAM MOUNTING

REV	DATE	ON COMPOSITE DWGS, SEE PART NO. FOR REVISION LEVEL	BY
–	12-20-13	NEW DRAWING [CTB6588]	JMR

APPROVALS		DATE
DRAWN	JMR	12-20-13
CHECKED	JMR	12-20-13
APPROVED	GDF	12-20-13

KOHLER CO. POWER SYSTEMS, KOHLER, WI 53044 U.S.A.
THIS DRAWING IN DESIGN AND DETAIL IS KOHLER CO. PROPERTY AND MUST NOT BE USED EXCEPT IN CONNECTION WITH KOHLER CO. WORK. ALL RIGHTS OF DESIGN OR INVENTION ARE RESERVED.

METRIC | PRO-E

TITLE: DIMENSION PRINT, 50KW 4045 JD

SIZE: D.02 | CODE IDENT. | SHEET 2 of 3

DRAWING: ADV-8642 | D

CENTERLINE SOLUTIONS

VECTOR ENGINEERS

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION. CONSTRUCTION OF THIS PROJECT WILL BE UNDER MY OBSERVATION.

CP PROJECT NO.: BLU-15-0001-3

PRELIMINARY

NO.	DATE	D/C	DESCRIPTION
0	11-14-16	TT/KN	90% CD REVIEW
3	01-05-17	TT/GS	CS COMMENT
4	01-27-17	TT/GS	CS COMMENT

SUBMITTAL

NO.	DATE	D/C	DESCRIPTION

SITE NAME:
NIMITZ HIGHWAY TOWER RELOCATION

SITE ADDRESS:
NIMITZ HIGHWAY AT KAHAUIKI VILLAGE
MOANALUA, HONOLULU, HI

SHEET TITLE
GENERATOR DETAIL II

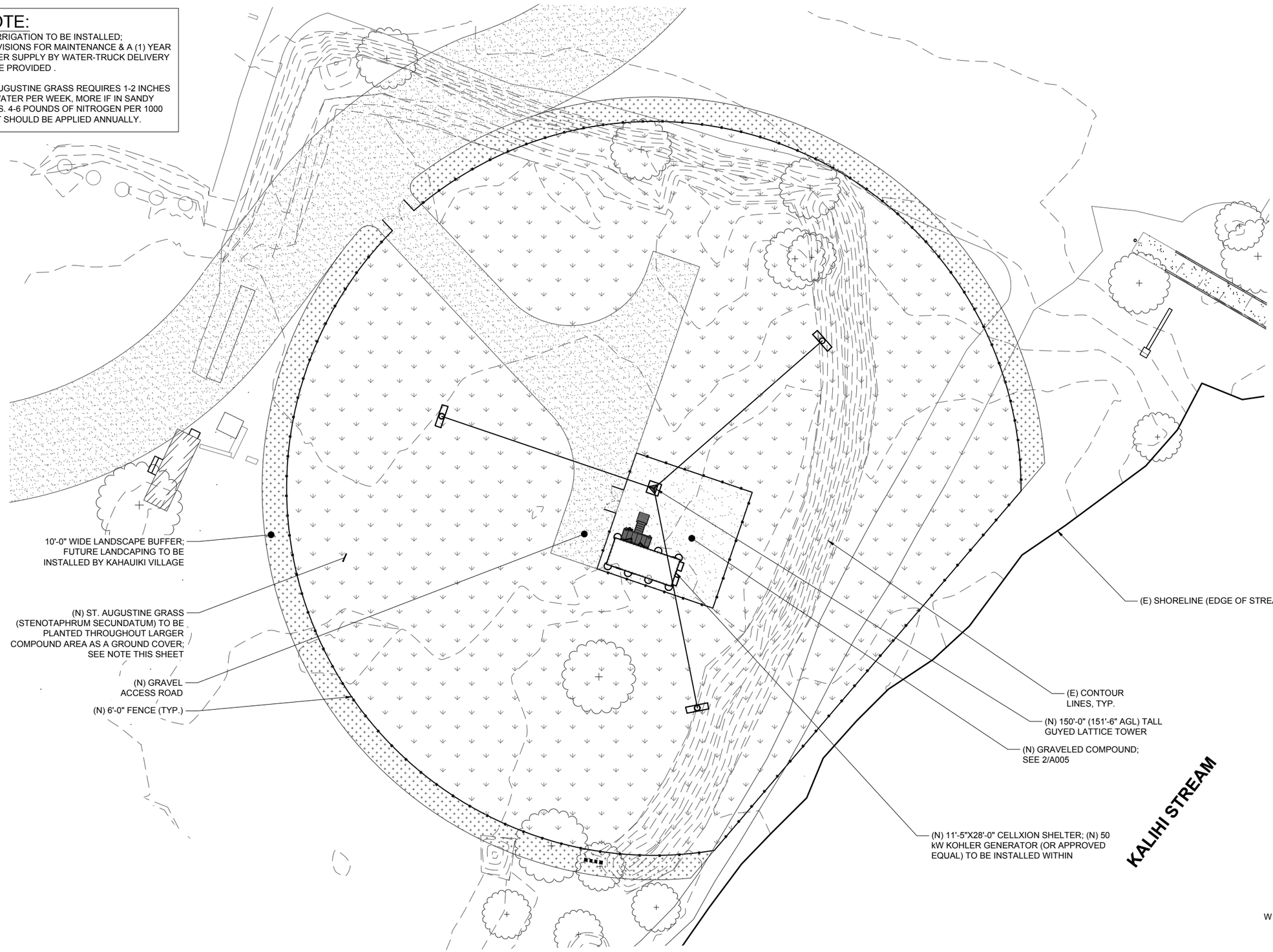
SHEET NO.
A008.1

1	GENERATOR DETAIL - MANUFACTURER	SCALE: NTS
		SCALE: NTS

NOTE:

NO IRRIGATION TO BE INSTALLED; PROVISIONS FOR MAINTENANCE & A (1) YEAR WATER SUPPLY BY WATER-TRUCK DELIVERY TO BE PROVIDED .

ST AUGUSTINE GRASS REQUIRES 1-2 INCHES OF WATER PER WEEK, MORE IF IN SANDY SOILS. 4-6 POUNDS OF NITROGEN PER 1000 SQFT SHOULD BE APPLIED ANNUALLY.



1	LANDSCAPING PLAN

SCALE: 1" = 20'-0" (11X17)
SCALE: 1" = 10'-0" (22X34)

0' 10' 20' 40'

CENTERLINE SOLUTIONS

VECTOR ENGINEERS

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION. CONSTRUCTION OF THIS PROJECT WILL BE UNDER MY OBSERVATION.

CP PROJECT NO.: BLU-15-0001-3

PRELIMINARY

NO.	DATE	D/C	DESCRIPTION
0	11-14-16	TT/KN	90% CD REVIEW
3	01-05-17	TT/GS	CS COMMENT
4	01-27-17	TT/GS	CS COMMENT

SUBMITTAL

NO.	DATE	D/C	DESCRIPTION

SITE NAME:

NIMITZ HIGHWAY TOWER RELOCATION

SITE ADDRESS:

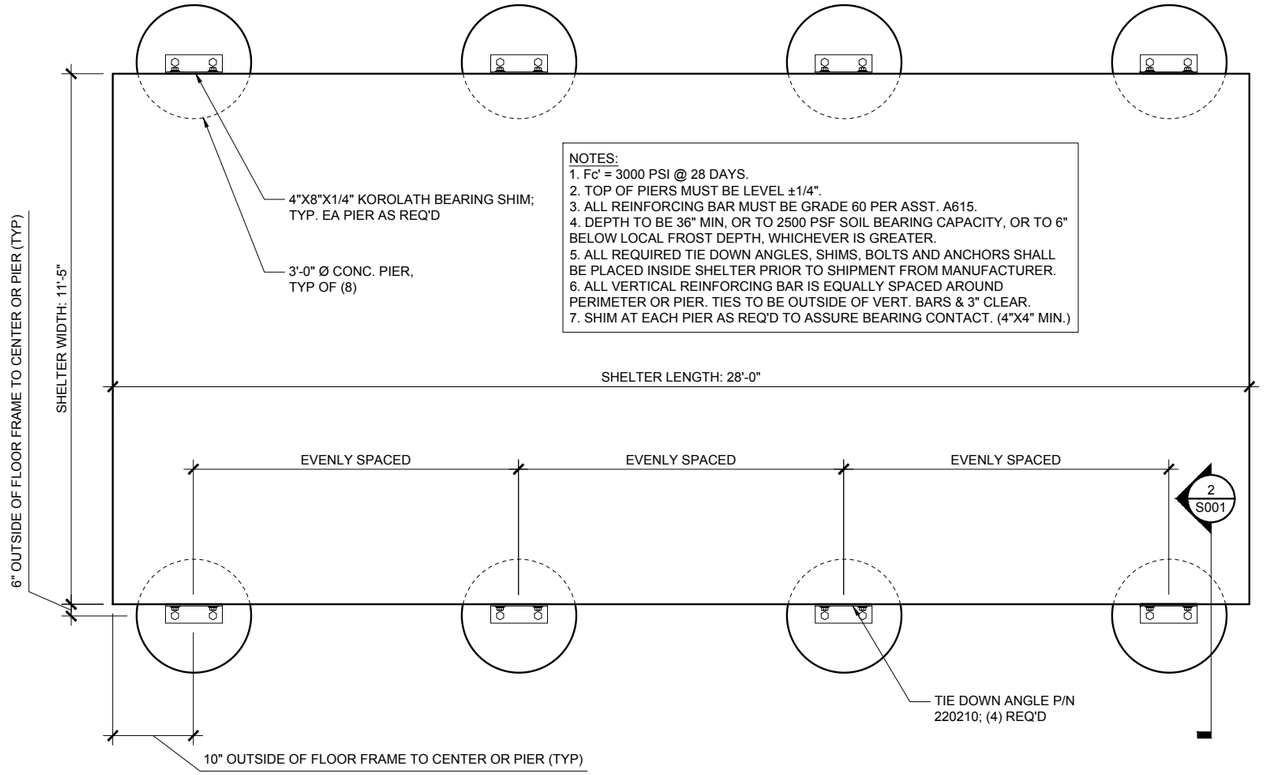
NIMITZ HIGHWAY AT KAHAUIKI VILLAGE MOANALUA, HONOLULU, HI

SHEET TITLE

LANDSCAPING PLAN

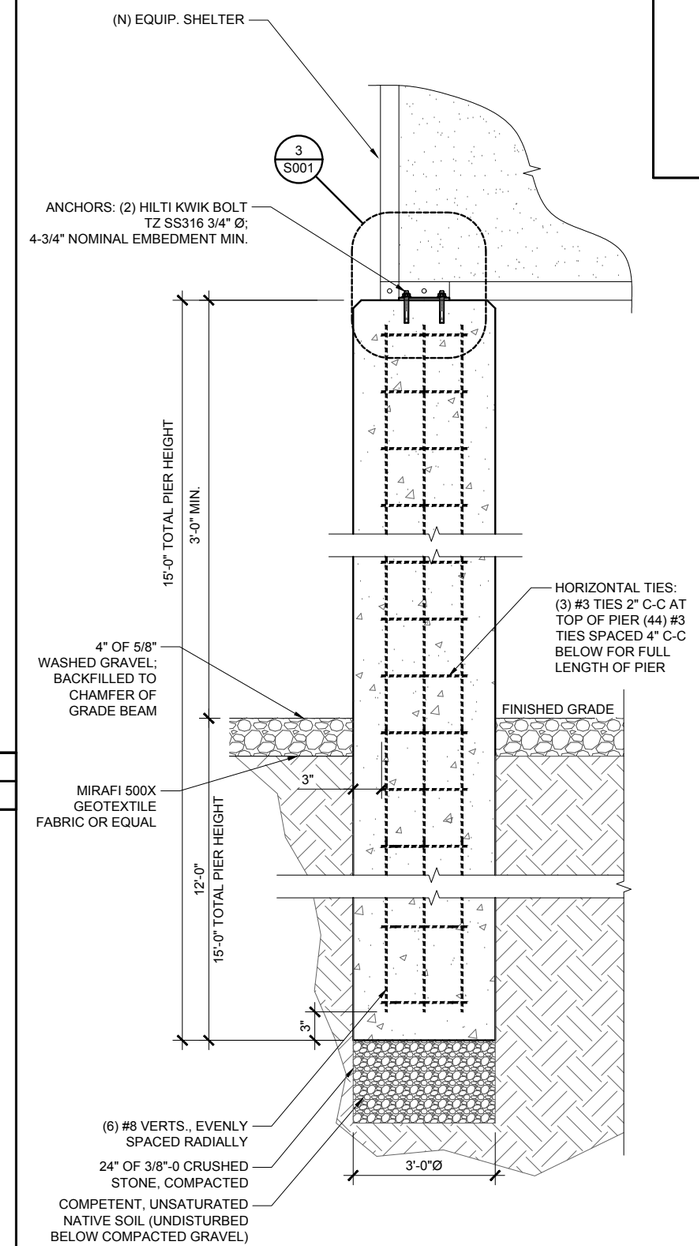
SHEET NO.

L001

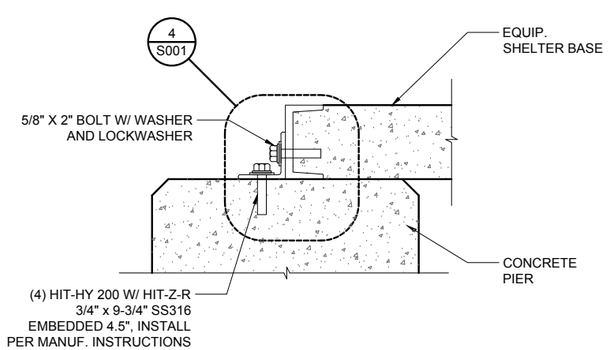


NOTES:
1. Fc' = 3000 PSI @ 28 DAYS.
2. TOP OF PIERS MUST BE LEVEL ±1/4".
3. ALL REINFORCING BAR MUST BE GRADE 60 PER ASST. A615.
4. DEPTH TO BE 36" MIN, OR TO 2500 PSF SOIL BEARING CAPACITY, OR TO 6" BELOW LOCAL FROST DEPTH, WHICHEVER IS GREATER.
5. ALL REQUIRED TIE DOWN ANGLES, SHIMS, BOLTS AND ANCHORS SHALL BE PLACED INSIDE SHELTER PRIOR TO SHIPMENT FROM MANUFACTURER.
6. ALL VERTICAL REINFORCING BAR IS EQUALLY SPACED AROUND PERIMETER OR PIER. TIES TO BE OUTSIDE OF VERT. BARS & 3" CLEAR.
7. SHIM AT EACH PIER AS REQ'D TO ASSURE BEARING CONTACT. (4"X4" MIN.)

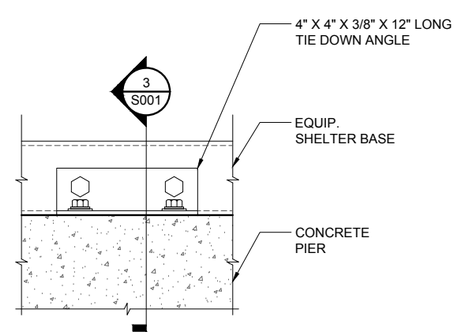
1 SHELTER FOUNDATION PLAN VIEW — SCALE: NTS



2 CONCRETE PIER SECTION — SCALE: NTS



3 PIER TO SKID — SCALE: NTS (11X17) / SCALE: NTS (22X34)



4 PIER TO SKID — SCALE: NTS (11X17) / SCALE: NTS (22X34)

CENTERLINE SOLUTIONS

VECTOR ENGINEERS

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION. CONSTRUCTION OF THIS PROJECT WILL BE UNDER MY OBSERVATION.

CP PROJECT NO.: BLU-15-0001-3

PRELIMINARY

NO.	DATE	D/C	DESCRIPTION
0	11-14-16	TT/KN	90% CD REVIEW
3	01-05-17	TT/GS	CS COMMENT
4	01-27-17	TT/GS	CS COMMENT

SUBMITTAL

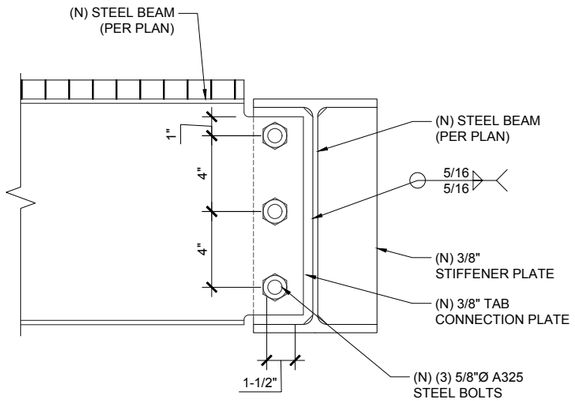
NO.	DATE	D/C	DESCRIPTION

SITE NAME:
NIMITZ HIGHWAY TOWER RELOCATION

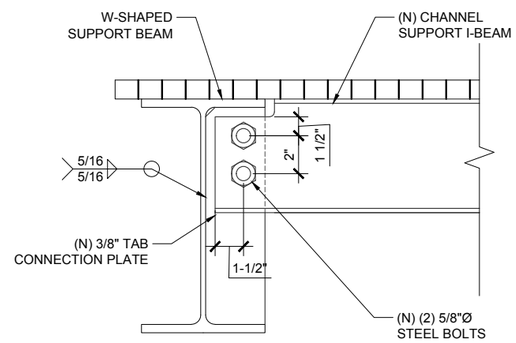
SITE ADDRESS:
NIMITZ HIGHWAY AT KAHAUIKI VILLAGE
MOANALUA, HONOLULU, HI

SHEET TITLE
PIER FOUNDATION DETAILS

SHEET NO.
S001

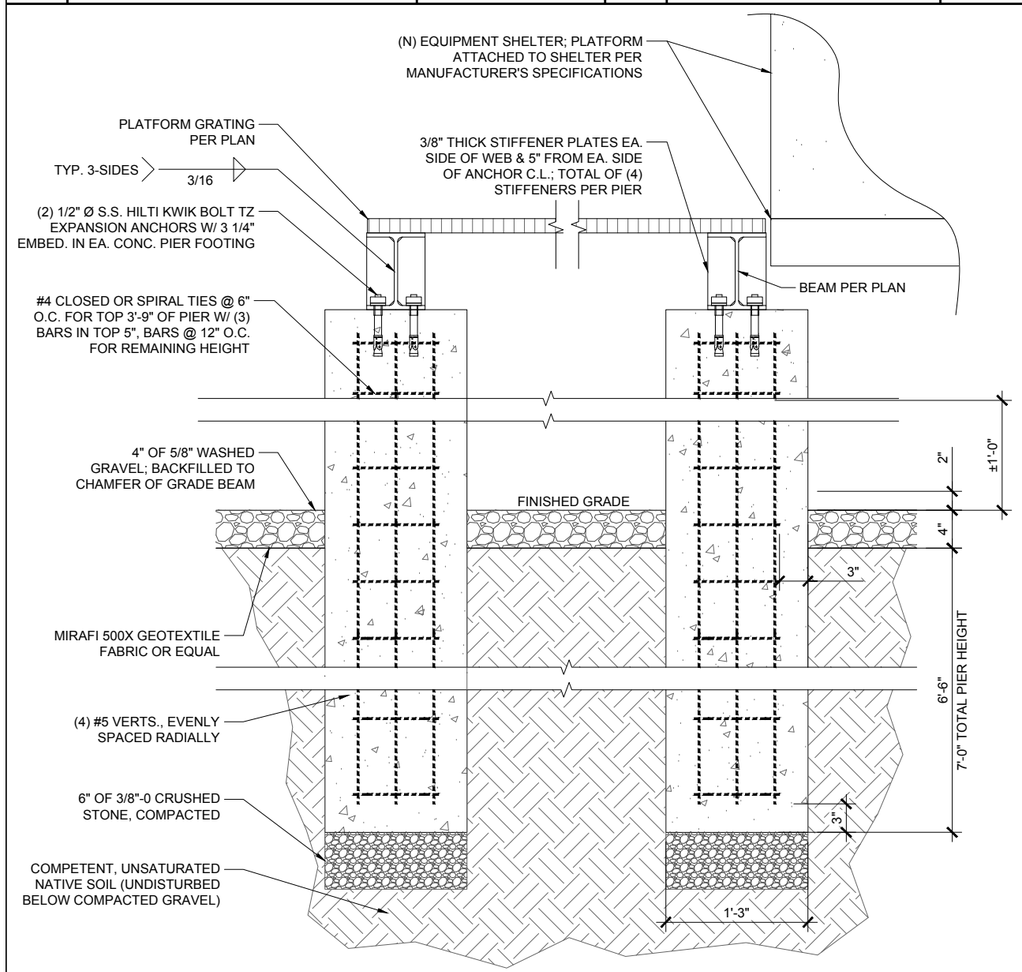


1	PLATFORM - SECTION	SCALE: NTS (11X17) SCALE: NTS (22X34)

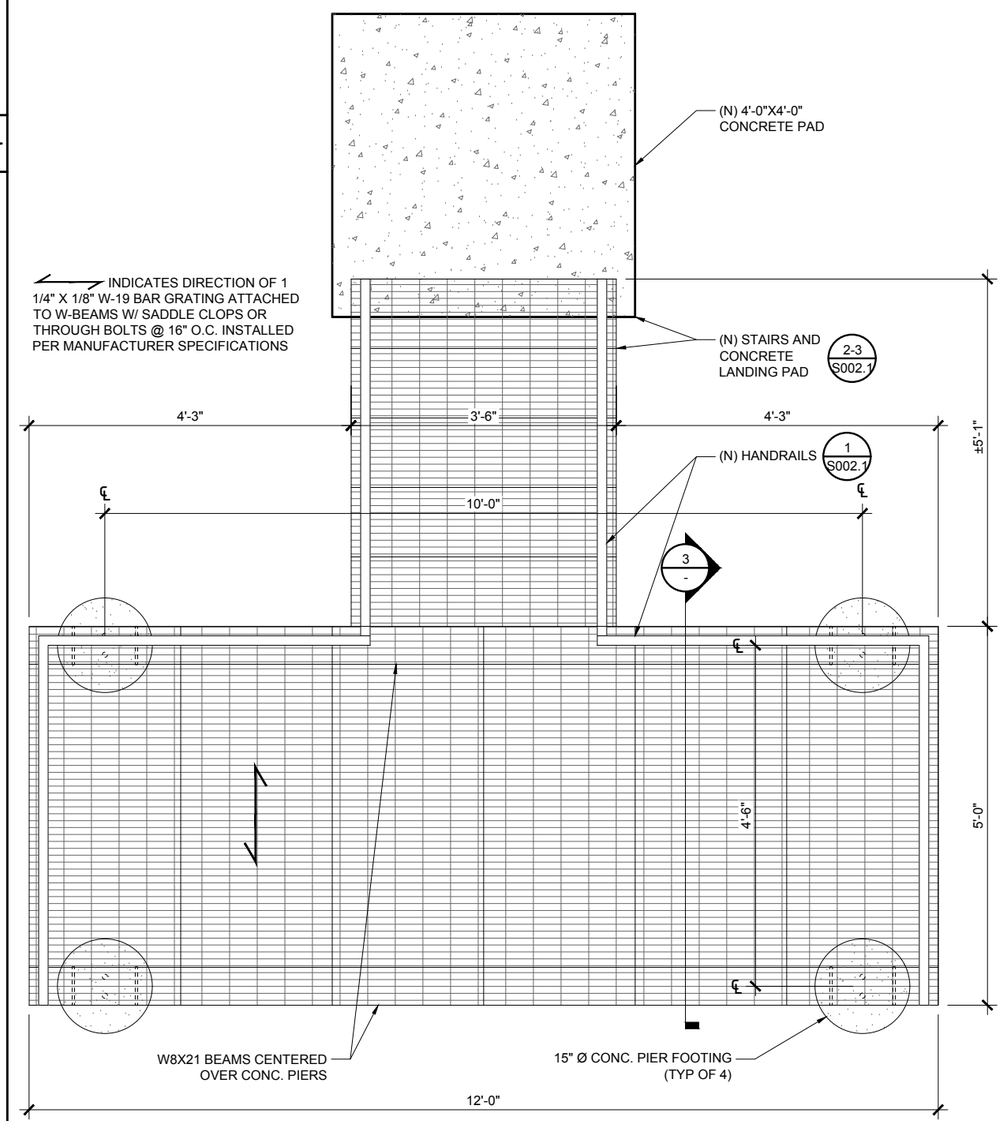


SPECIAL INSPECTION REQUIRED FOR ALL WELDING AND STRUCTURAL BOLTING - SEE SHEET GN004 FOR ADDITIONAL INFORMATION.

2	PLTFRM - SECTION	SCALE: NTS (11X17) SCALE: NTS (22X34)



3	EQUIP. PLATFORM SECTION	SCALE: 3/4" = 1'-0" (11X17) SCALE: 1-1/2" = 1'-0" (22X34)



4	EQUIP. PLATFORM PLAN	SCALE: 1/2" = 1'-0" (11X17) SCALE: 1" = 1'-0" (22X34)

CENTERLINE SOLUTIONS

VECTOR ENGINEERS

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION. CONSTRUCTION OF THIS PROJECT WILL BE UNDER MY OBSERVATION.

CP PROJECT NO.: BLU-15-0001-3

PRELIMINARY

NO.	DATE	D/C	DESCRIPTION
0	11-14-16	TT/KN	90% CD REVIEW
3	01-05-17	TT/GS	CS COMMENT
4	01-27-17	TT/GS	CS COMMENT

SUBMITTAL

NO.	DATE	D/C	DESCRIPTION

SITE NAME:

NIMITZ HIGHWAY TOWER RELOCATION

SITE ADDRESS:

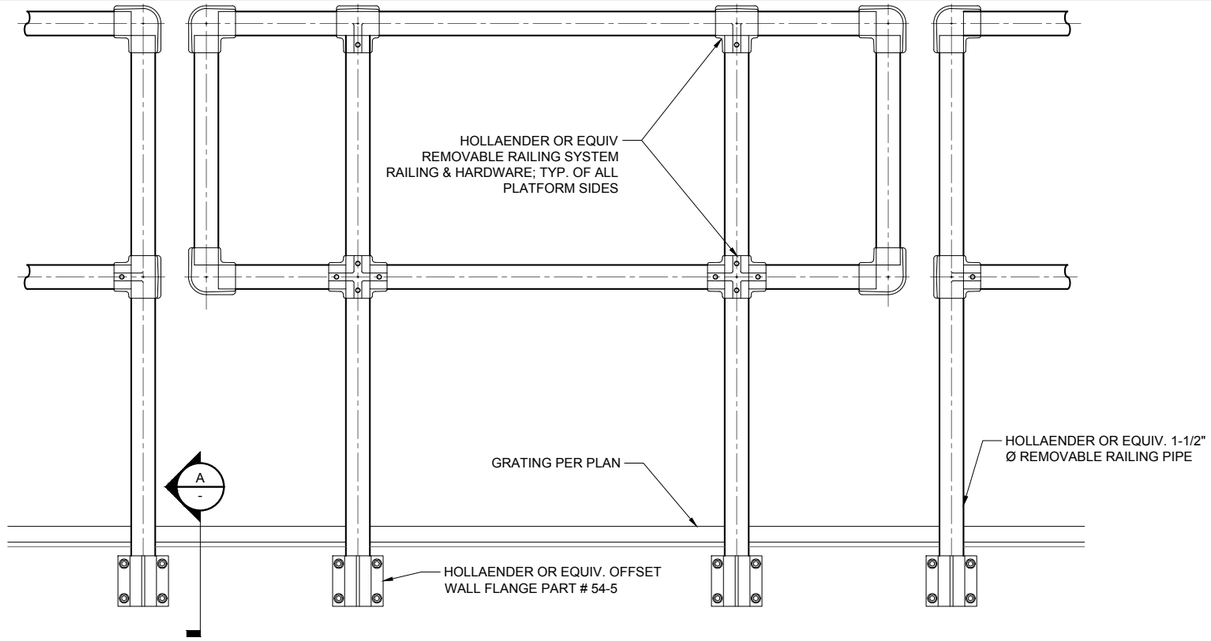
NIMITZ HIGHWAY AT
KAHAUIKI VILLAGE
MOANALUA, HONOLULU, HI

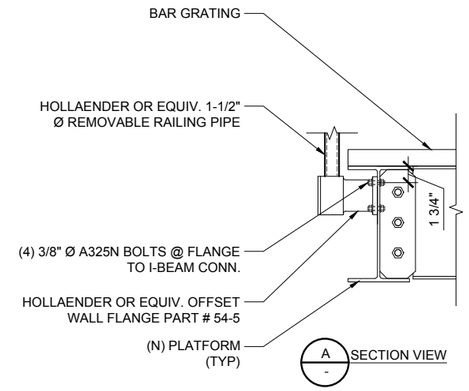
SHEET TITLE

PLATFORM & STAIR DETAILS I

SHEET NO.

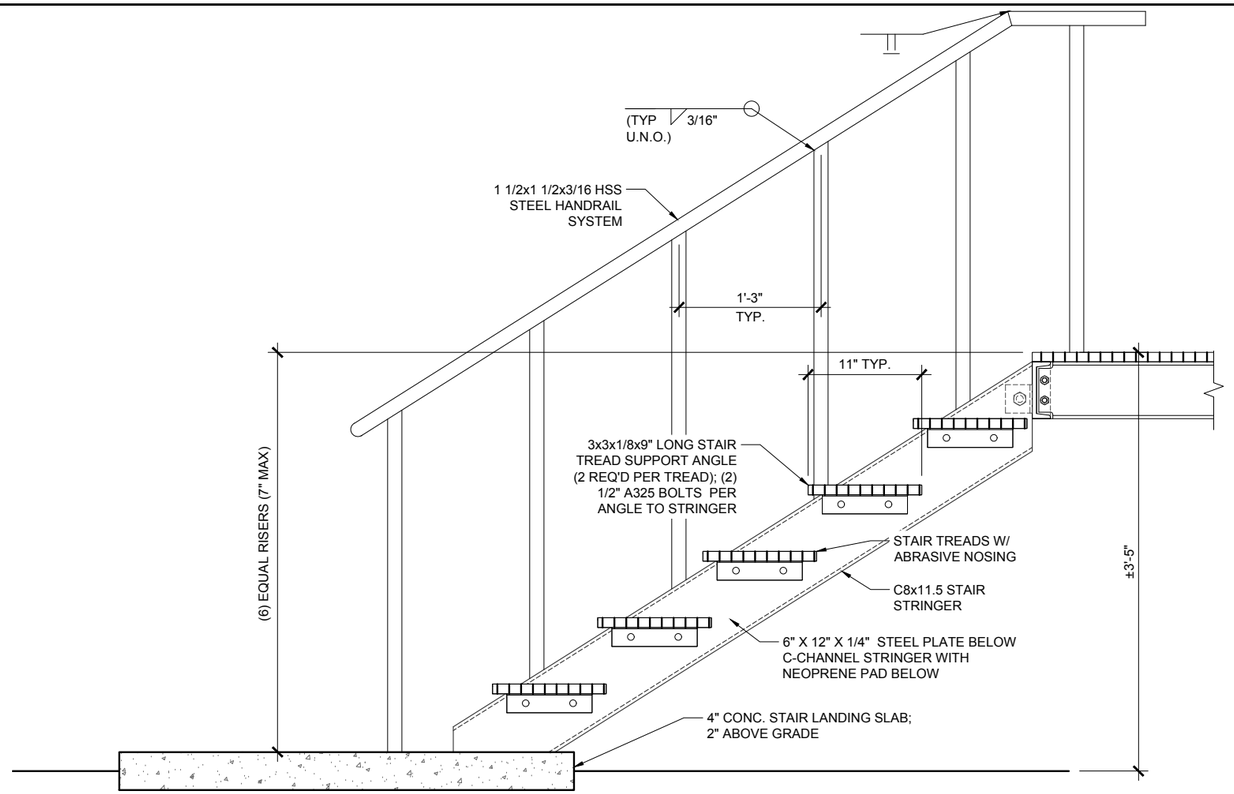
S002





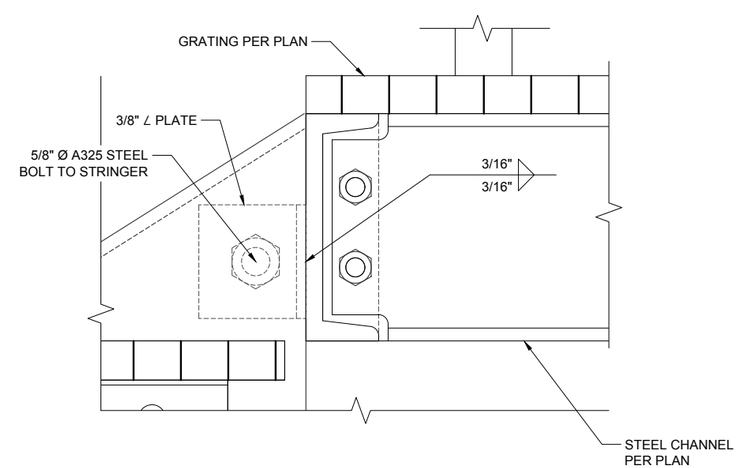
1 PLATFORM RAILING DETAILS

SCALE: NTS (11X17)
SCALE: NTS (22X34)



2 STAIR STRINGER DETAIL

SCALE: NTS (11X17)
SCALE: NTS (22X34)



3 STAIR TO LANDING CONNECTION

SCALE: NTS (11X17)
SCALE: NTS (22X34)

CENTERLINE SOLUTIONS

VECTOR ENGINEERS

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION. CONSTRUCTION OF THIS PROJECT WILL BE UNDER MY OBSERVATION.

CP PROJECT NO.: BLU-15-0001-3

PRELIMINARY

NO.	DATE	D/C	DESCRIPTION
0	11-14-16	TT/KN	90% CD REVIEW
3	01-05-17	TT/GS	CS COMMENT
4	01-27-17	TT/GS	CS COMMENT

SUBMITTAL

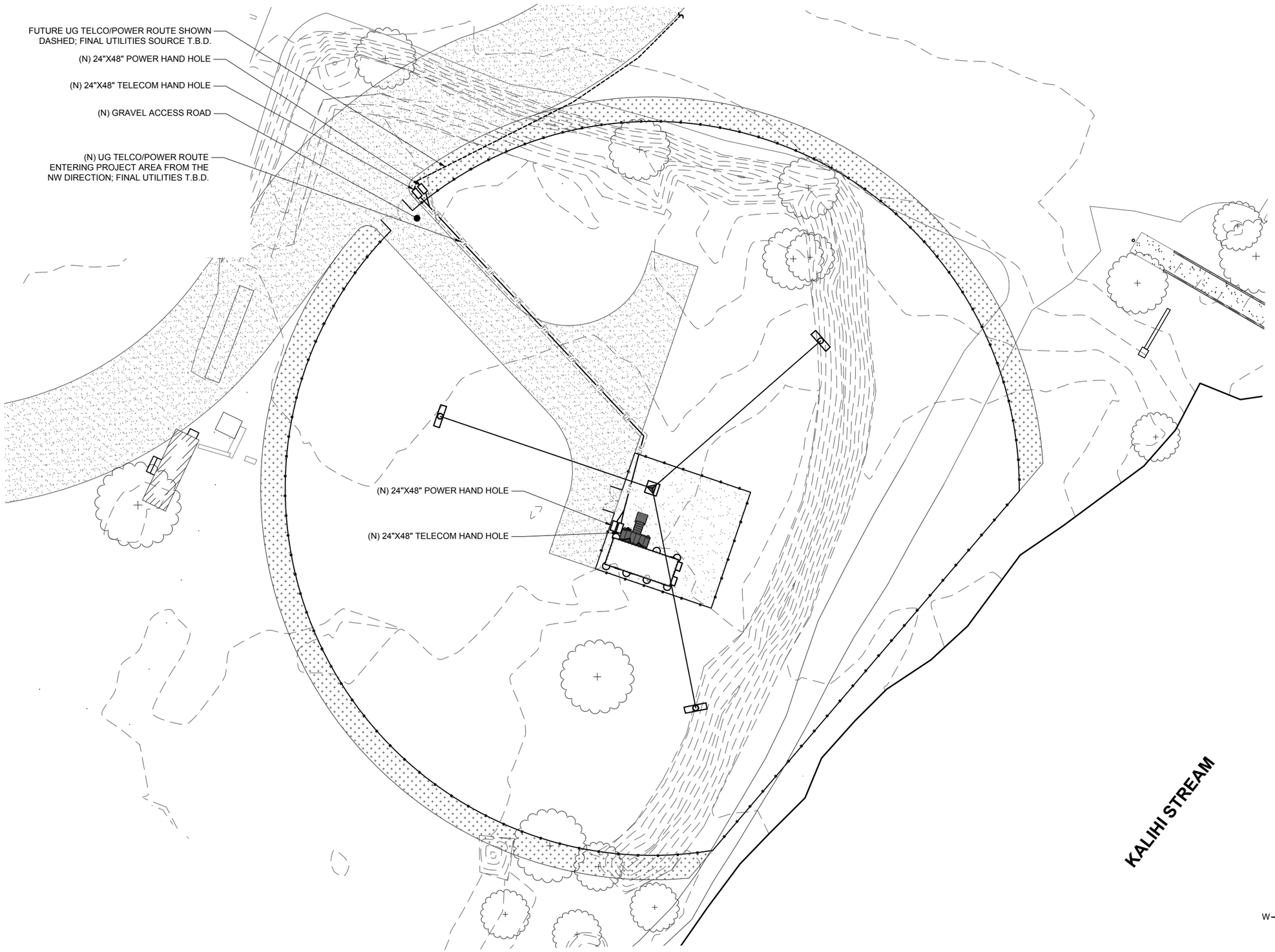
NO.	DATE	D/C	DESCRIPTION

SITE NAME:
NIMITZ HIGHWAY TOWER RELOCATION

SITE ADDRESS:
NIMITZ HIGHWAY AT
KAHAUIKI VILLAGE
MOANALUA, HONOLULU, HI

SHEET TITLE
PLATFORM & STAIR DETAILS II

SHEET NO.
S002.1



1	ELECTRICAL SITE PLAN

SCALE: 1" = 40'-0" (11X17)
SCALE: 1" = 20'-0" (22X34)

0' 20' 40' 80'

CENTERLINE SOLUTIONS

VECTOR ENGINEERS

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION. CONSTRUCTION OF THIS PROJECT WILL BE UNDER MY OBSERVATION.

CP PROJECT NO.: BLU-15-0001-3

PRELIMINARY

NO.	DATE	D/C	DESCRIPTION
0	11-14-16	TT/KN	90% CD REVIEW
3	01-05-17	TT/GS	CS COMMENT
4	01-27-17	TT/GS	CS COMMENT

SUBMITTAL

NO.	DATE	D/C	DESCRIPTION

SITE NAME:

NIMITZ HIGHWAY TOWER RELOCATION

SITE ADDRESS:

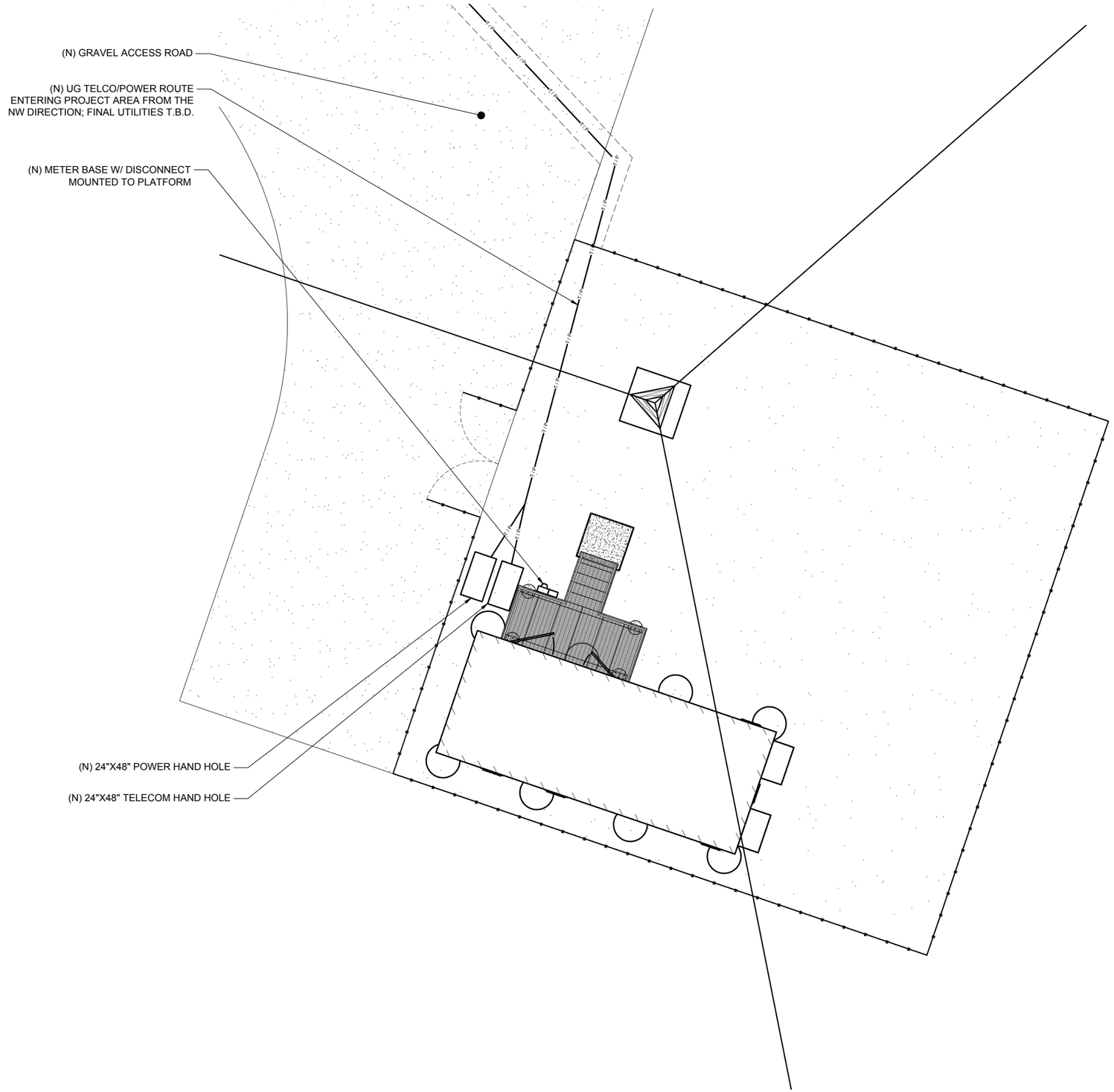
NIMITZ HIGHWAY AT KAHAUIKI VILLAGE MOANALUA, HONOLULU, HI

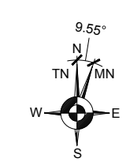
SHEET TITLE

ELECTRICAL SITE PLAN

SHEET NO.

E001





1 ENLARGED ELECTRICAL SITE PLAN

SCALE: 1" = 10'-0" (11X17)
SCALE: 1" = 5'-0" (22X34)

0' 5' 10' 20'

CENTERLINE SOLUTIONS

VECTOR ENGINEERS

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION. CONSTRUCTION OF THIS PROJECT WILL BE UNDER MY OBSERVATION.

CP PROJECT NO.: BLU-15-0001-3

PRELIMINARY

NO.	DATE	D/C	DESCRIPTION
0	11-14-16	TT/KN	90% CD REVIEW
3	01-05-17	TT/GS	CS COMMENT
4	01-27-17	TT/GS	CS COMMENT

SUBMITTAL

NO.	DATE	D/C	DESCRIPTION

SITE NAME:

NIMITZ HIGHWAY TOWER RELOCATION

SITE ADDRESS:

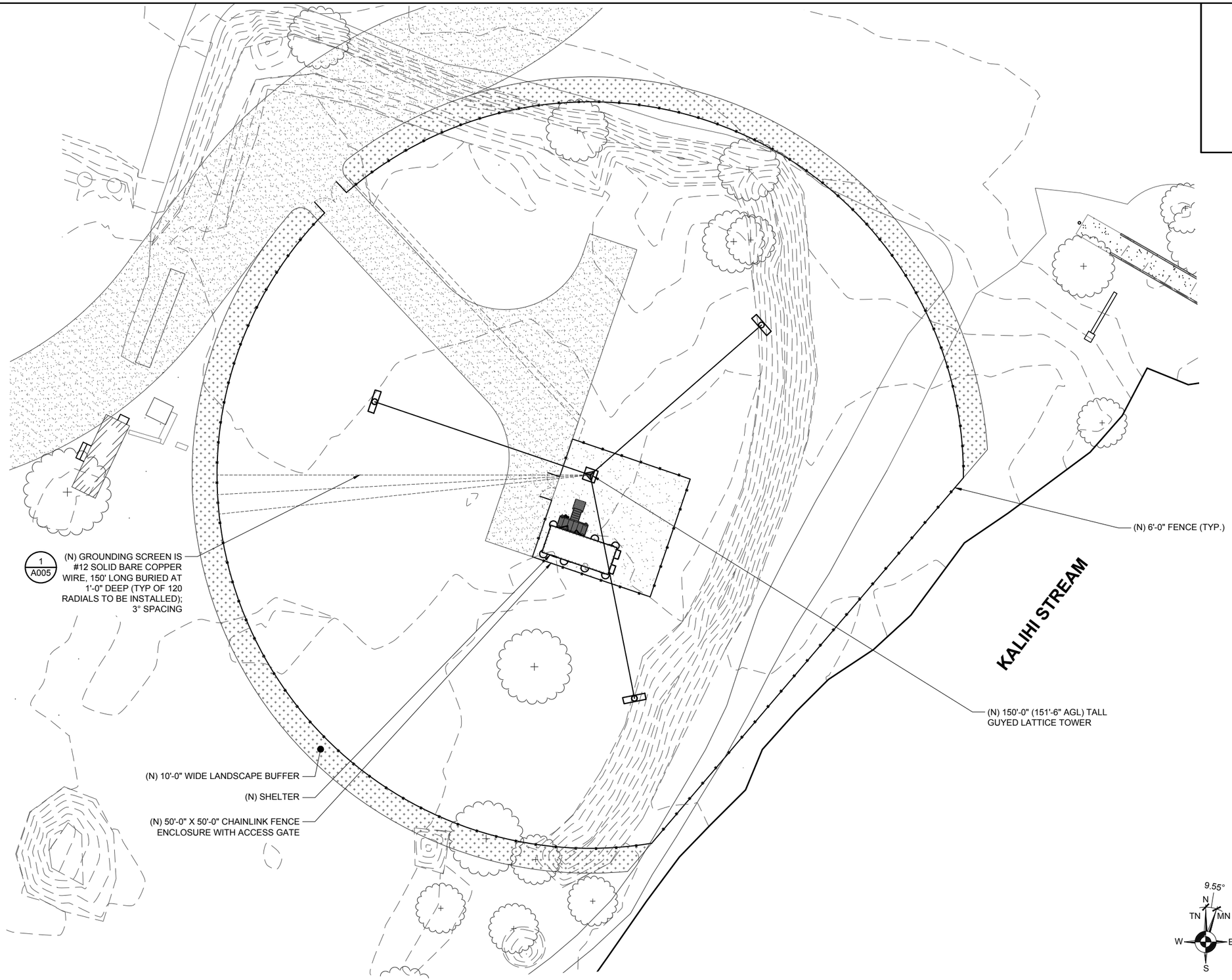
NIMITZ HIGHWAY AT KAHAUIKI VILLAGE MOANALUA, HONOLULU, HI

SHEET TITLE

ENLARGED ELECTRICAL PLAN

SHEET NO.

E001.1



1 GROUNDING SCREEN PLAN

SCALE: 1" = 40'-0" (11X17)
SCALE: 1" = 20'-0" (22X34)

0' 20' 40' 80'

CENTERLINE SOLUTIONS

VECTOR ENGINEERS

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION. CONSTRUCTION OF THIS PROJECT WILL BE UNDER MY OBSERVATION.

CP PROJECT NO.: BLU-15-0001-3

PRELIMINARY

NO.	DATE	D/C	DESCRIPTION
0	11-14-16	TT/KN	90% CD REVIEW
3	01-05-17	TT/GS	CS COMMENT
4	01-27-17	TT/GS	CS COMMENT

SUBMITTAL

NO.	DATE	D/C	DESCRIPTION

SITE NAME:

NIMITZ HIGHWAY TOWER RELOCATION

SITE ADDRESS:

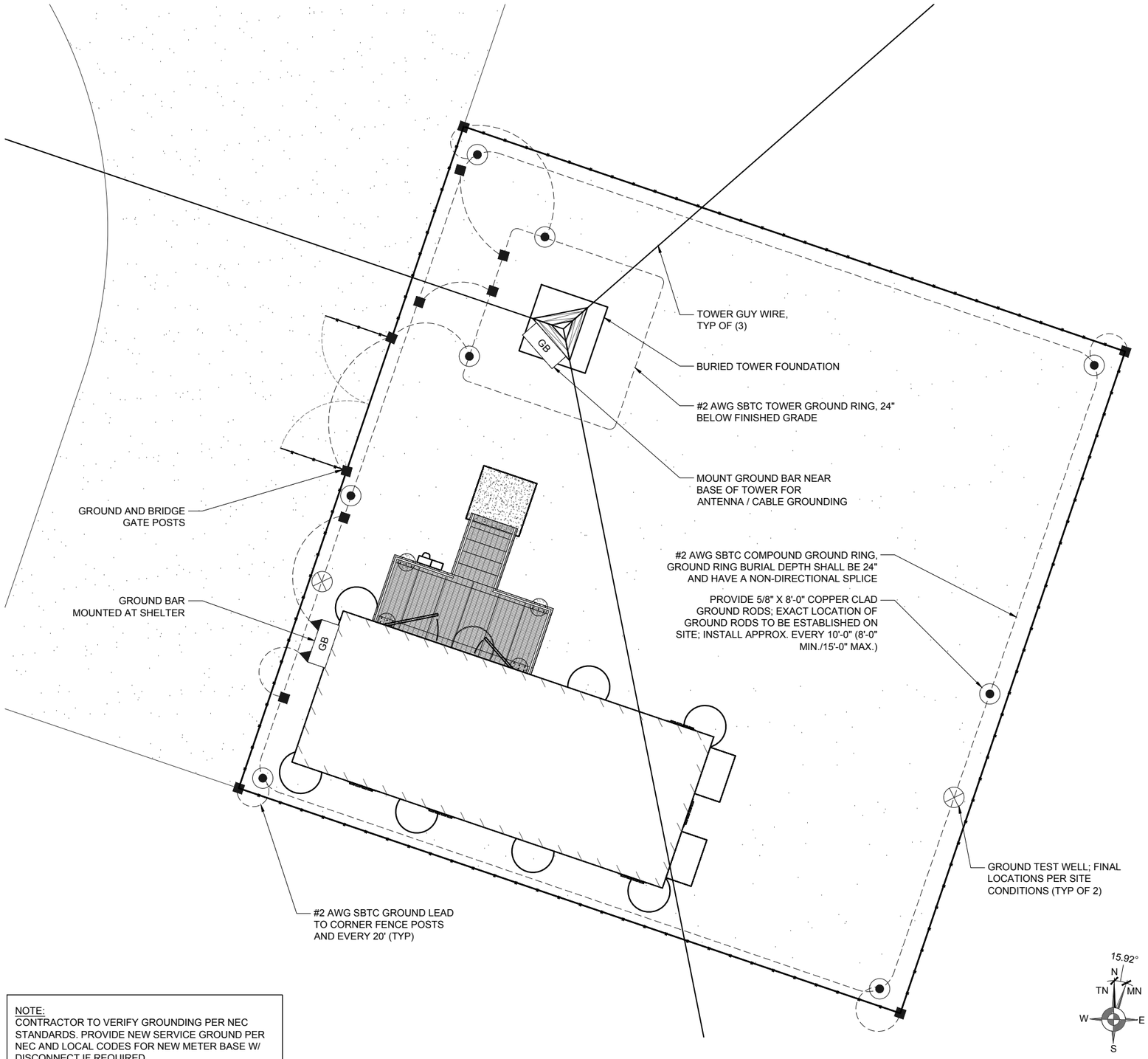
NIMITZ HIGHWAY AT
KAHAUIKI VILLAGE
MOANALUA, HONOLULU, HI

SHEET TITLE

GROUNDING SCREEN PLAN

SHEET NO.

E002



NOTE:
CONTRACTOR TO VERIFY GROUNDING PER NEC STANDARDS. PROVIDE NEW SERVICE GROUND PER NEC AND LOCAL CODES FOR NEW METER BASE W/ DISCONNECT IF REQUIRED.

1 ENLARGED GROUNDING PLAN

SCALE: 1/8" = 1'-0" (11X17)
SCALE: 1/4" = 1'-0" (22X34)

0' 4' 8' 16'

- ⊗ GROUND TEST WELL
- ⊙ GROUND ROD
- ▲ MECHANICAL CONNECTION (DOUBLE HOLE LUG)
- ■ CAD WELD CONNECTION
- ● CONNECT PER MANUFACTURER SPECIFICATIONS
- GB GROUND BAR
- EARTH GROUND

NOTES:
1. ALL ABOVE GRADE GROUND LEADS TO BE SHEATHED IN CARFLEX-X-FLEX ™ FLEXIBLE CONDUIT OR EQUIV.

2. DEPICTION OF GROUNDING ROUTING IS FOR CONCEPTUAL PURPOSES ONLY. CONTRACTOR TO DETERMINE PER EXISTING SITE CONDITIONS.

GROUNDING LEGEND

1. GROUNDING SHALL COMPLY WITH LATEST EDITION OF THE NATIONAL ELECTRICAL CODE.
2. MINIMUM BENDING RADIUS FOR GROUND CONDUCTOR IS 8", WHEN BENDING IS NECESSARY. GROUND CONDUCTORS ARE TO BE AS STRAIGHT AS POSSIBLE.
3. NO SPLICES PERMITTED IN GROUND CONDUCTORS.
4. ALL GROUNDING CONNECTORS TO BE CLEAN AND FREE OF PAINT AT THEIR MATING SURFACES AND INSTALLED PER MANUFACTURER'S RECOMMENDATIONS. USE PENETROX OR EQUIVALENT ANTIOXIDANT GREASE.
5. ALL GROUND BAR CONNECTIONS ARE TO BE 2 HOLE LUG COMPRESSION TYPE. STACKED CONNECTIONS ARE NOT ACCEPTABLE. BACK TO BACK CONNECTIONS ON OPPOSITE SIDES OF THE GROUND BAR WILL BE PERMITTED.
6. ENSURE ALL MECHANICAL CONNECTORS ARE TORQUED TO THE MANUFACTURER'S SPECIFIED VALUES.
7. MULTIPLE BONDS ON GROUND RODS TO BE SEPARATED BY AT LEAST 6".
8. MAXIMUM RESISTANCE OF THE COMPLETED GROUND SYSTEM SHALL NOT EXCEED A RESISTANCE OF 5 OHMS TO EARTH.
9. GROUND WIRES SHALL NOT BE INSTALLED THROUGH HOLES IN ANY METAL OBJECTS OR SUPPORTS TO PRECLUDE ESTABLISHING A "CHOKE" POINT.
10. FERROUS METAL CLIPS WHICH COMPLETELY SURROUND THE GROUND WIRE SHALL NOT BE USED. METAL CLIPS THAT DO NOT COMPLETELY SURROUND THE GROUND WIRE OR PLASTIC CLIPS ARE ACCEPTABLE.
11. GROUND BARS SHALL NOT BE FIELD MODIFIED.
12. ALL HORIZONTAL FENCE SECTIONS TO BE GROUNDED WITH 8" SINGLE BARREL GROUND STRAPS.
13. GROUND RING BURIAL DEPTH SHALL BE 24" AND HAVE A NON-DIRECTIONAL SPLICE.
14. A CERTIFIED CONTRACTOR WILL MAKE ALL MEASUREMENTS REQUIRED TO TEST THE GROUNDING SYSTEM, USING A MEGGER OR EQUIVALENT. THE ACCEPTABLE RESISTANCE MEASURED FOR THE GROUNDING SYSTEM WILL NOT EXCEED 5 OHMS RESISTANCE. THREE DISTANCES SHALL BE USED: 1 AT 100 FEET, 1 AT 70 FEET, AND 1 AT 35 FEET. THESE DISTANCES ARE SUBJECT TO A SITE BY SITE BASIS. BLOW UP LLC SHALL BE GIVEN 24 HOURS NOTICE BEFORE TESTING IS TO BE DONE. THE COST ASSOCIATED WITH GROUND TESTING WILL BE AT THE EXPENSE OF THE CONTRACTOR.
15. PROVIDE #2 TW GREEN JUMPER FROM EACH WAVEGUIDE BRIDGE POST TO WAVEGUIDE BRIDGE CHANNEL.
16. ALL OUTDOOR CONNECTIONS TO BE EXOTHERMIC CADWELD, INTERIOR CONNECTIONS CAN BE A PROPERLY APPLIED CRIMP TYPE UNLESS OTHERWISE SPECIFIED.

GENERAL GROUNDING NOTES

CENTERLINE SOLUTIONS

VECTOR ENGINEERS

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION. CONSTRUCTION OF THIS PROJECT WILL BE UNDER MY OBSERVATION.

CP PROJECT NO.: BLU-15-0001-3

PRELIMINARY

NO.	DATE	D/C	DESCRIPTION
0	11-14-16	TT/KN	90% CD REVIEW
3	01-05-17	TT/GS	CS COMMENT
4	01-27-17	TT/GS	CS COMMENT

SUBMITTAL

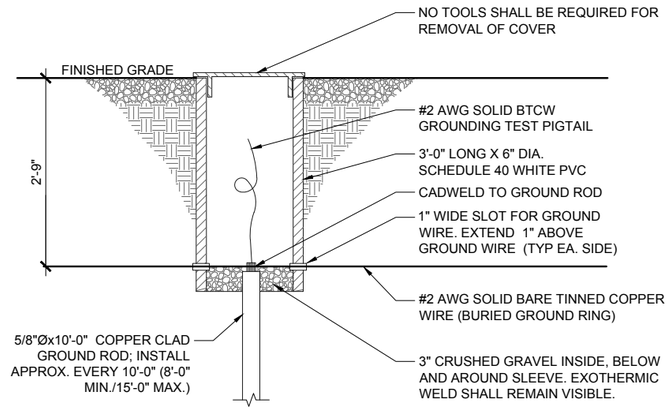
NO.	DATE	D/C	DESCRIPTION

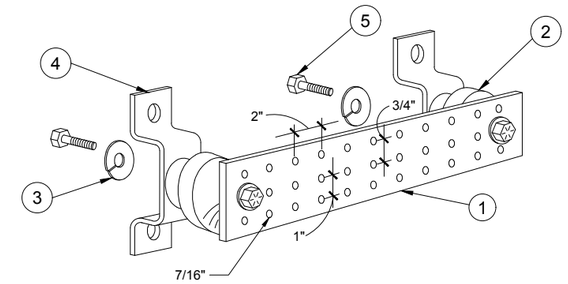
SITE NAME:
NIMITZ HIGHWAY TOWER RELOCATION

SITE ADDRESS:
NIMITZ HIGHWAY AT KAHAUIKI VILLAGE
MOANALUA, HONOLULU, HI

SHEET TITLE
ENLARGED GROUNDING PLAN

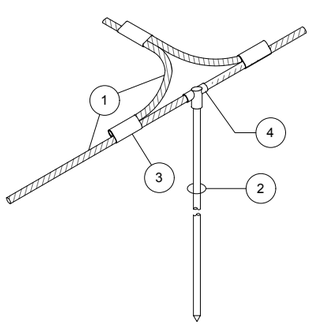
SHEET NO.
E002.1





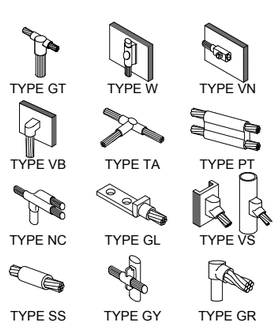
1. TINNED COPPER GROUND BUSBAR, TESSCO 1/4" X 4" X 20" OR APPROVED EQUAL. HOLE CENTERS TO MATCH NEMA DOUBLE LUG CONFIGURATION.
2. INSULATORS, MEET REQUIREMENTS OF UL 94 VO FOR SELF-EXTINGUISHING MATERIALS.
3. 5/8" LOCKWASHERS.
4. WALL MOUNTING BRACKET.
5. 5/8-11 X 1" HHCS BOLTS.

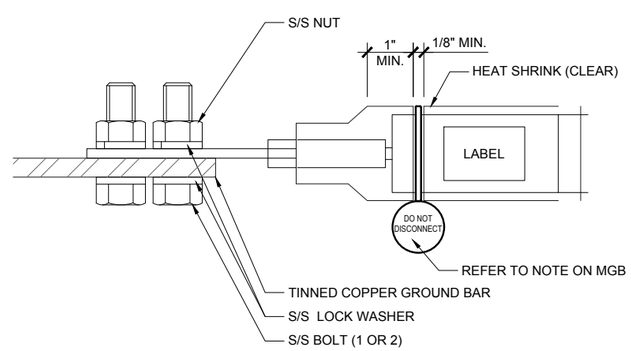
1	NOT USED	SCALE: NTS	2	GROUND TEST WELL DETAIL	SCALE: NTS	3	GROUND BAR DETAIL	SCALE: NTS
		SCALE: NTS			SCALE: NTS			SCALE: NTS



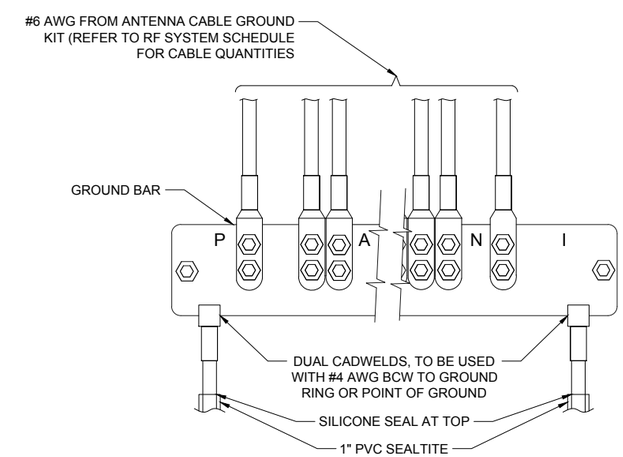
1. MAIN CONDUCTOR, COPPER CABLE
2. 5/8" X 10' COPPER CLAD STEEL GROUND ROD
3. CADWELD TYPE "NC"
4. CADWELD TYPE "GT"

TYPICAL CADWELD GROUNDING CONNECTIONS





NOTES:
1. ALL HARDWARE 18/8 STAINLESS STEEL INCLUDING LOCK WASHER. COAT ALL SURFACES WITH KOPR-SHIELD BEFORE MATCHING.
2. FOR GROUND BOND TO STEEL ONLY: INSERT A DRAGON TOOTH WASHER BETWEEN LUG AND STEEL. COAT ALL SURFACES WITH KOPR-SHIELD.
3. PROVIDE 'DO NOT DISCONNECT' TAG.



4	GROUND RING & CADWELD CONN.	SCALE: NTS	5	TYPICAL LUG DETAIL	SCALE: NTS	6	GROUND BAR TO GROUND WIRE	SCALE: NTS
		SCALE: NTS			SCALE: NTS			SCALE: NTS

CENTERLINE SOLUTIONS

VECTOR ENGINEERS

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION. CONSTRUCTION OF THIS PROJECT WILL BE UNDER MY OBSERVATION.

CP PROJECT NO.: BLU-15-0001-3

PRELIMINARY

NO.	DATE	D/C	DESCRIPTION
0	11-14-16	TT/KN	90% CD REVIEW
3	01-05-17	TT/GS	CS COMMENT
4	01-27-17	TT/GS	CS COMMENT

SUBMITTAL

NO.	DATE	D/C	DESCRIPTION

SITE NAME:
NIMITZ HIGHWAY TOWER RELOCATION

SITE ADDRESS:
NIMITZ HIGHWAY AT KAHAUIKI VILLAGE
MOANALUA, HONOLULU, HI

SHEET TITLE
GROUNDING DETAILS

SHEET NO.
E003

GENERAL CONSTRUCTION NOTES

1. ALL WORK SHALL CONFORM TO THE REQUIREMENTS OF THE LOCAL BUILDING CODE, THE LATEST EDITION AND ALL OTHER APPLICABLE CODES AND ORDINANCES.

2. CONTRACTOR SHALL CONSTRUCT SITE IN ACCORDANCE WITH THESE DRAWINGS AND BLOW UP LLC INTEGRATED CONSTRUCTION STANDARDS FOR WIRELESS SITES (LATEST REVISION). THE SPECIFICATION IS THE RULING DOCUMENT AND ANY DISCREPANCIES BETWEEN THE SPECIFICATION AND THESE DRAWINGS SHOULD BE BROUGHT TO THE ATTENTION OF THE ENGINEER PRIOR TO PROCEEDING WITH CONSTRUCTION.

3. CONTRACTOR SHALL VISIT THE JOB SITE AND SHALL FAMILIARIZE HIMSELF WITH ALL CONDITIONS AFFECTING THE PROPOSED WORK AND SHALL MAKE PROVISIONS AS TO THE COST THEREOF. FIELD CONDITIONS AND DIMENSIONS AND CONFIRMING THAT THE WORK MAY BE ACCOMPLISHED AS SHOWN PRIOR TO PROCEEDING WITH CONSTRUCTION. ANY DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER PRIOR TO THE COMMENCEMENT OF WORK. NO COMPENSATION WILL BE AWARDED BASED ON CLAIM OF LACK OF KNOWLEDGE OF FIELD CONDITIONS.

4. PLANS ARE NOT TO BE SCALED. THESE PLANS ARE INTENDED TO BE A DIAGRAMMATIC OUTLINE ONLY UNLESS OTHERWISE NOTED. THE WORK SHALL INCLUDE FURNISHING MATERIALS, EQUIPMENT AND APPURTENANCES, AND LABOR NECESSARY TO EFFECT ALL INSTALLATIONS AS INDICATED ON THE DRAWINGS.

5. DIMENSIONS SHOWN ARE TO FINISH SURFACES UNLESS OTHERWISE NOTED. SPACING BETWEEN EQUIPMENT IS REQUIRED CLEARANCE. THEREFORE, IT IS CRITICAL TO FIELD VERIFY DIMENSIONS, SHOULD THERE BE ANY QUESTIONS REGARDING THE CONTRACT DOCUMENTS, EXISTING CONDITIONS AND/OR DESIGN INTENT, THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING THE WORK.

6. DETAILS ARE INTENDED TO SHOW DESIGN INTENT. MODIFICATIONS MAY BE REQUIRED TO SUIT JOB DIMENSIONS OR CONDITIONS, AND SUCH MODIFICATIONS SHALL BE INCLUDED AS PART OF THE WORK.

7. CONTRACTOR SHALL RECEIVE CLARIFICATION IN WRITING, AND SHALL RECEIVE IN WRITING AUTHORIZATION TO PROCEED BEFORE STARTING WORK ON ANY ITEMS NOT CLEARLY DEFINED OR IDENTIFIED BY THE CONTRACT DOCUMENTS.

8. CONTRACTOR SHALL SUPERVISE AND DIRECT THE WORK USING THE BEST CONSTRUCTION SKILLS AND ATTENTION. CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES AND PROCEDURES AND FOR COORDINATING ALL PORTIONS OF THE WORK UNDER CONTRACT, UNLESS OTHERWISE NOTED.

9. CONTRACTOR SHALL BE RESPONSIBLE FOR THE SAFETY OF THE WORK AREA, ADJACENT AREAS AND BUILDING OCCUPANTS THAT ARE LIKELY TO BE AFFECTED BY THE WORK UNDER THIS CONTRACT. WORK SHALL CONFORM TO ALL OSHA REQUIREMENTS.

10. CONTRACTOR SHALL COORDINATE HIS WORK WITH THE SUPERINTENDENT OF BUILDINGS & GROUNDS AND SCHEDULE HIS ACTIVITIES AND WORKING HOURS IN ACCORDANCE WITH THE REQUIREMENTS.

11. CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING HIS WORK WITH THE WORK OF OTHERS AS IT MAY RELATE TO RADIO EQUIPMENT, ANTENNAS AND ANY OTHER PORTIONS OF THE WORK.

12. INSTALL ALL EQUIPMENT AND MATERIALS IN ACCORDANCE WITH MANUFACTURERS RECOMMENDATIONS UNLESS SPECIFICALLY OTHERWISE INDICATED OR WHERE LOCAL CODES OR REGULATIONS TAKE PRECEDENCE.

13. MAKE NECESSARY PROVISIONS TO PROTECT EXISTING SURFACES, EQUIPMENT, IMPROVEMENTS, PIPING ETC. AND IMMEDIATELY REPAIR ANY DAMAGE THAT OCCURS DURING CONSTRUCTION.

14. IN DRILLING HOLES INTO CONCRETE WHETHER FOR FASTENING OR ANCHORING PURPOSES, OR PENETRATIONS THROUGH THE FLOOR FOR CONDUIT RUNS, PIPE RUNS, ETC., MUST BE CLEARLY UNDERSTOOD THAT REINFORCING STEEL SHALL NOT BE DRILLED INTO, CUT OR DAMAGED UNDER ANY CIRCUMSTANCES (UNLESS NOTED OTHERWISE). LOCATIONS OF REINFORCING STEEL ARE NOT DEFINITELY KNOWN AND THEREFORE MUST BE SEARCHED FOR BY APPROPRIATE METHODS AND EQUIPMENT.

15. REPAIR ALL EXISTING WALL SURFACES DAMAGED DURING CONSTRUCTION SUCH THAT THEY MATCH AND BLEND IN WITH ADJACENT SURFACES.

16. SEAL PENETRATIONS THROUGH FIRE RATED AREAS WITH U.L. LISTED AND FIRE CODE APPROVED MATERIALS.

17. KEEP CONTRACT AREA CLEAN, HAZARD FREE, AND DISPOSE OF ALL DIRT, DEBRIS, AND RUBBISH. EQUIPMENT NOT SPECIFIED AS REMAINING ON THE PROPERTY OF THE OWNER SHALL BE REMOVED. LEAVE PREMISES IN CLEAN CONDITION AND FREE FROM PAINT SPOTS, DUST, OR SMUDGES OF ANY NATURE. CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING ALL ITEMS UNTIL COMPLETION OF CONSTRUCTION.

18. MINIMUM BEND RADIUS OF ANTENNA CABLES SHALL BE IN ACCORDANCE WITH CABLE MANUFACTURERS RECOMMENDATIONS.

19. ALL EXISTING INACTIVE SEWER, WATER, GAS, ELECTRIC AND OTHER UTILITIES, WHICH INTERFERE WITH THE EXECUTION OF THE WORK, SHALL BE REMOVED AND/OR CAPPED, PLUGGED OR OTHERWISE DISCONTINUED AT POINTS WHICH WILL NOT INTERFERE WITH THE EXECUTION OF THE WORK, SUBJECT TO THE APPROVAL OF THE ENGINEER.

20. CONTRACTOR SHALL MINIMIZE DISTURBANCE TO EXISTING SITE DURING CONSTRUCTION. EROSION CONTROL MEASURES, IF REQUIRED DURING CONSTRUCTION SHALL BE IN CONFORMANCE WITH JURISDICTIONAL OR STATE AND LOCAL GUIDELINES FOR EROSION AND SEDIMENT CONTROL AND COORDINATED WITH LOCAL REGULATORY AUTHORITIES.

21. LIGHT SHADED LINES AND NOTES REPRESENT WORK PREVIOUSLY DONE. DARK SHADED LINES AND NOTES REPRESENT THE SCOPE OF WORK FOR THIS PROJECT. CONTRACTOR SHALL VERIFY IF EXISTING CONSTRUCTION IS COMPLETE. CONTRACTOR SHALL NOTIFY ENGINEER OF ANY EXISTING CONDITIONS THAT DEVIATE FROM THE DRAWINGS PRIOR TO BEGINNING CONSTRUCTION.

22. CONTRACTOR SHALL SECURE ALL NECESSARY PERMITS AND/OR WIRING CERTIFICATES REQUIRED FOR THE ELECTRICAL SERVICE UPGRADE. IN ADDITION, CONTRACTOR SHALL PROVIDE ALL NECESSARY COORDINATION AND SCHEDULING WITH THE SERVING ELECTRICAL UTILITY AND LOCAL INSPECTION AUTHORITIES.

ELECTRICAL NOTES

1. ELECTRICAL CONTRACTOR SHALL SUPPLY AND INSTALL ANY/ALL ELECTRICAL WORK INDICATED. ANY/ALL CONSTRUCTION SHALL BE IN ACCORDANCE W/DRAWINGS AND ANY/ALL APPLICABLE SPECIFICATIONS. IF ANY PROBLEMS ARE ENCOUNTERED BY COMPLYING WITH THESE REQUIREMENTS, CONTRACTOR SHALL NOTIFY 'CONSTRUCTION MANAGER' AS SOON AS POSSIBLE, AFTER THE DISCOVERY OF THE PROBLEMS, AND SHALL NOT PROCEED WITH THAT PORTION OF WORK, UNTIL THE 'CONSTRUCTION MANAGER' HAS DIRECTED THE CORRECTIVE ACTIONS TO BE TAKEN.

2. ELECTRICAL CONTRACTOR SHALL VISIT THE JOB SITE AND FAMILIARIZE HIMSELF WITH ANY/ALL CONDITIONS AFFECTING ELECTRICAL AND COMMUNICATION INSTALLATION AND MAKE PROVISIONS AS TO THE COST THEREOF. ALL EXISTING CONDITIONS OF ELECTRICAL EQUIP., LIGHT FIXTURES, ETC., THAT ARE PART OF THE FINAL SYSTEM, SHALL BE VERIFIED BY THE CONTRACTOR, PRIOR TO THE SUBMITTAL OF HIS BID. FAILURE TO COMPLY WITH THIS PARAGRAPH WILL IN NO WAY RELIEVE CONTRACTOR OF PERFORMING ALL WORK NECESSARY FOR A COMPLETE AND WORKING SYSTEM.

3. ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE LATEST EDITION OF THE NEC AND ALL CODES AND LOCAL ORDINANCES OF THE LOCAL POWER & TELEPHONE COMPANIES HAVING JURISDICTION AND SHALL INCLUDED BUT NOT BE LIMITED TO:

A. UL -- UNDERWRITERS LABORATORIES
B. NEC -- NATIONAL ELECTRICAL CODE
C. NEMA -- NATIONAL ELECTRICAL MANUFACTURERS ASSOC.
D. OSHA -- OCCUPATIONAL SAFETY AND HEALTH ACT
E. IBC -- INTERNATIONAL BUILDING CODE
F. NFPA -- NATIONAL FIRE CODES

4. DO NOT SCALE ELECTRICAL DRAWINGS, REFER TO SITE PLANS AND ELEVATIONS FOR EXACT LOCATIONS OF ALL EQUIPMENT, AND CONFIRM WITH 'CONSTRUCTION MANAGER' ANY SIZES AND LOCATIONS WHEN NEEDED.

5. EXISTING SERVICES: CONTRACTOR SHALL NOT INTERRUPT EXISTING SERVICES WITHOUT WRITTEN PERMISSION OF ALCATEL-LUCENT.

6. CONTRACTOR SHALL PAY FOR ANY/ALL PERMITS, FEES, INSPECTIONS AND TESTING. CONTRACTOR IS TO OBTAIN PERMITS AND APPROVED SUBMITTALS PRIOR TO THE WORK BEGINNING OR ORDERING EQUIPMENT.

7. THE TERM "PROVIDE" USED IN CONSTRUCTION DOCUMENTS AND SPECIFICATIONS, INDICATES THAT THE CONTRACTOR SHALL FURNISH AND INSTALL.

8. CONTRACTOR SHALL CONFIRM WITH LOCAL UTILITY COMPANY ANY/ALL REQUIREMENTS SUCH AS THE: LUG SIZE RESTRICTIONS, CONDUIT ENTRY, SIZE OF TRANSFORMERS, SCHEDULED DOWNTIME FOR THE OWNERS' CONFIRMATION, ETC. ANY/ALL CONFLICTS SHALL BE BROUGHT TO THE ATTENTION OF THE CONSTRUCTION MANAGER, PRIOR TO BEGINNING ANY WORK.

9. MINIMUM WIRE SIZE SHALL BE #12 AWG, NOT INCLUDING CONTROL WIRING, UNLESS NOTED OTHERWISE. ALL CONDUCTORS SHALL BE COPPER WITH THWN INSULATION.

10. OUTLET BOXES SHALL BE PRESSED STEEL IN DRY LOCATIONS, CAST ALLOY WITH THREADED HUBS IN WET/DAMP LOCATIONS AND SPECIAL ENCLOSURES FOR OTHER CLASSIFIED AREAS.

11. IT IS NOT THE INTENT OF THESE PLANS TO SHOW EVERY MINOR DETAIL OF THE CONSTRUCTION. CONTRACTOR IS EXPECTED TO FURNISH AND INSTALL ALL ITEMS FOR A COMPLETE ELECTRICAL SYSTEM AND PROVIDE ALL REQUIREMENTS FOR THE EQUIPMENT TO BE PLACED IN PROPER WORKING ORDER.

12. ELECTRICAL SYSTEM SHALL BE AS COMPLETELY AND EFFECTIVELY GROUNDED, AS REQUIRED BY SPECIFICATION, SET FORTH BY BLOW UP LLC.

13. ALL WORK SHALL BE PERFORMED BY A LICENSED ELECTRICAL CONTRACTOR IN A FIRST CLASS, WORKMANLIKE MANNER. THE COMPLETED SYSTEM SHALL BE FULL OPERATIVE AND SUBJECT TO REGULATORY INSPECTION AND APPROVAL BY CONSTRUCTION MANAGER.

14. ALL WORK SHALL BE COORDINATED WITH OTHER TRADES TO AVOID INTERFERENCE WITH THE PROGRESS OF CONSTRUCTION.

15. CONTRACTOR SHALL GUARANTEE ANY/ALL MATERIALS AND WORK FREE FROM DEFECTS OR A PERIOD OF NOT LESS THAN TWO YEAR FROM DATE OF CUSTOMER'S ACCEPTANCE.

16. THE CORRECTION OF ANY DEFECTS SHALL BE COMPLETED WITHOUT ANY ADDITIONAL CHARGE WITHIN 48 HOURS AND SHALL INCLUDE THE REPLACEMENT OF THE REPAIR OF ANY OTHER PHASE OF THE INSTALLATION, WHICH MAY HAVE BEEN DAMAGED THEREIN.

17. ADEQUATE AND REQUIRED LIABILITY INSURANCE SHALL BE PROVIDED FOR PROTECTION AGAINST PUBLIC LOSS AND ANY/ALL PROPERTY DAMAGE FOR THE DURATION OF WORK.

18. PROVIDE AND INSTALL CONDUIT, CONDUCTORS, PULL WIRES, BOXES, COVER PLATES AND DEVICES FOR ALL OUTLETS AS INDICATED.

19. DITCHING AND BACK FILL: CONTRACTOR SHALL PROVIDE FOR ALL UNDERGROUND INSTALLED CONDUIT AND/OR CABLES INCLUDING EXCAVATION AND BACKFILLING AND COMPACTION. REFER TO NOTES AND REQUIREMENTS, EXCAVATION, AND BACKFILLING.

20. MATERIALS, PRODUCTS AND EQUIPMENT, INCLUDING ALL COMPONENTS THEREOF, SHALL BE NEW AND SHALL APPEAR ON THE LIST OF U.L. APPROVED ITEMS AND SHALL MEET OR EXCEED THE REQUIREMENTS OF THE NEC, NEMA AND IEEE.

21. CONTRACTOR SHALL SUBMIT SHOP DRAWINGS OR MANUFACTURES CATALOG INFORMATION OF ANY/ALL LIGHTING FIXTURES, SWITCHES AND ALL OTHER ELECTRICAL ITEMS FOR APPROVAL BY THE CONSTRUCTION MANAGER PRIOR TO INSTALLATION.

22. ANY CUTTING OR PATCHING DEEMED NECESSARY FOR ELECTRICAL WORK IS THE ELECTRICAL CONTRACTORS RESPONSIBILITY AND SHALL BE INCLUDED IN THE COST FOR WORK AND PERFORMED TO THE SATISFACTION OF THE 'CONSTRUCTION MANAGER' UPON FINAL ACCEPTANCE.

23. THE ELECTRICAL CONTRACTOR SHALL LABEL ALL PANELS WITH ONLY TYPEWRITTEN DIRECTORIES. ALL ELECTRICAL WIRING SHALL BE THE RESPONSIBILITY OF THE ELECTRICAL CONTRACTOR.

24. DISCONNECT SWITCHES SHALL BE H.P. RATED HEAVY-DUTY, QUICK-MAKE AND QUICK-BREAK ENCLOSURES, AS REQUIRED BY EXPOSURE TYPE.

25. ALL CONNECTIONS SHALL BE MADE WITH A PROTECTIVE COATING OF AN ANTI-OXIDE COMPOUND SUCH AS "NO-OXIDE A" BY DEARBORNE CHEMICAL CO. COAT ALL WIRE SURFACES BEFORE CONNECTING. EXPOSED COPPER SURFACES, INCLUDING GROUND BARS, SHALL BE TREATED - NO SUBSTITUTIONS.

26. RACEWAYS: CONDUIT SHALL BE SCHEDULE 40 PVC MEETING OR EXCEEDING NEMA TC2 - 1990. CONTRACTOR SHALL PLUG AND CAP EACH END OF SPARE AND EMPTY CONDUITS AND PROVIDE TWO SEPARATE PULL STRINGS - 200 LBS TEST POLYETHYLENE CORD. ALL CONDUIT BENDS SHALL BE A MINIMUM OF 2 FT. RADIUS. RGS CONDUITS WHEN SPECIFIED, SHALL MEET UL-6 FOR GALVANIZED STEEL. ALL FITTINGS SHALL BE SUITABLE FOR USE WITH THREADED RIGID CONDUIT. COAT ALL THREADS WITH 'BRITE ZINC' OR 'GOLD CALV'.

27. SUPPORT OF ALL ELECTRICAL WORK SHALL BE AS REQUIRED BY NEC.

28. CONDUCTORS: CONTRACTOR SHALL USE 98% CONDUCTIVITY COPPER WITH TYPE THWN INSULATION, 600 VOLT, COLOR CODED. USE SOLID CONDUCTORS FOR WIRE UP TO AND INCLUDING NO. 8 AWG. USE STRANDED CONDUCTORS FOR WIRE ABOVE NO. 8 AWG.

29. CONNECTORS FOR POWER CONDUCTORS: CONTRACTOR SHALL USE PRESSURE TYPE INSULATED TWIST-ON CONNECTORS FOR NO. 10 AWG AND SMALLER. USE SOLDERLESS MECHANICAL TERMINAL LUGS FOR NO. 8 AWG AND LARGER.

30. SERVICE: 240/120V, SINGLE PHASE, 3 WIRE CONNECTIONS AVAILABLE FROM UTILITY COMPANY. OWNER OR OWNERS AGENT WILL APPLY FOR POWER.

31. TELEPHONE SERVICE: CONTRACTOR SHALL PROVIDE EMPTY CONDUITS WITH MULE TAPE AS INDICATED ON DRAWINGS.

32. ELECTRICAL AND TELCO RACEWAYS TO BE BURIED A MINIMUM OF 2' DEPTH.

33. CONTRACTOR SHALL PLACE TWO LENGTHS OF WARNING TAPE AT A DEPTH OF 12" BELOW GROUND AND DIRECTLY ABOVE ELECTRICAL AND TELCO SERVICE CONDUITS. CAUTIONS TAPE TO READ "CAUTION BURIED ELECTRIC" OR "BURIED TELECOM".

34. ALL BOLTS SHALL BE STAINLESS STEEL.

35. ALL ELECTRICAL WORK SHALL BE DONE IN ACCORDANCE WITH CURRENT NATIONAL ELECTRICAL CODES AND ALL LOCAL AND STATE CODE, LAWS AND ORDINANCES. PROVIDE ALL COMPONENTS AND WIRING SIZES AS REQUIRED TO MEET NEC STANDARDS.

36. CONTRACTOR SHALL COORDINATE WITH LOCAL POWER COMPANY FOR REQUIREMENTS OF POWER SERVICE LINE TO THE METER BASE. POWER SERVICE REQUIREMENT IS COMMERCIAL. AC NOMINAL 120/208 VOLT OR 120/240 VOLT, SINGLE PHASE WITH 200 AMP RATING WHEN REQUIRED.

37. CONTRACTOR SHALL COORDINATE WITH LOCAL TELEPHONE COMPANY FOR SERVICE LINE REQUIREMENTS TO TERMINATE AT THE PPC CABINET.

38. CONTRACTOR SHALL FURNISH AND INSTALL ELECTRIC METER BASE AND 200A DISCONNECT SWITCH PER SITE PLAN DETAIL DRAWINGS AND PER LOCAL UTILITY COMPANY SPECIFICATIONS. THE METER BASE SHOULD BE LOCATED IN A MANNER WHERE ACCESSIBLE BY THE LOCAL POWER COMPANY.

39. LOCAL POWER COMPANY SHALL PROVIDE 200 AMP ELECTRIC METER. CONTRACTOR SHALL COORDINATE INSTALLATION OF METER WITH LOCAL POWER COMPANY.

40. UNDERGROUND POWER AND TELCO SERVICE LINES SHALL BE ROUTED IN A COMM0N TRENCH. ALL UNDERGROUND CONDUIT SHALL BE PVC SCHEDULE 40 AND CONDUIT EXPOSED AB0VE GROUND SHALL BE GALVANIZED RIGID STEEL TUBING UNLESS OTHERWISE INDICATED.

41. ALL TELCO CONDUIT LINES SHALL BE 4" SCH. 40 PVC CONDUIT UNLESS OTHERWISE INDICATED. THE TELCO CONDUIT FROM THE PPC SHALL BE ROUTED AND TERMINATED AT DESIGNATED TELCO DEMARCATION OR 2-FEET OUTSIDE FENCED AREA, NEAR UTILITY POLE (IN FENCED AREA), OR END CAP OFF AND PROVIDE MARKER STAKE PAINTED BRIGHT ORANGE WITH DESIGNATION FOR TELCO SERVICE.

42. CONDUITS INSTALLED AT PCS EQUIPMENT ENDS PRIOR TO THE EQUIPMENT INSTALLATION SHALL BE STUBBED AND CAPPED AT 6" ABOVE GRADE OR PLATFORM. IF SERVICE LINES CAN'T BE INSTALLED INITIALLY, PROVIDE NYLON PULL CORD IN CONDUITS.

43. THE BLOW UP LLC CABINET, INCLUDING 200 AMP LOAD PANEL AND TELCO PANEL, SHALL BE PROVIDED BY OWNER AND INSTALLED BY THE CONTRACTOR. CONTRACTOR IS TO INSTALL BREAKER(S) NOT PROVIDED BY MANUFACTURER. SEE PANEL SCHEDULE ON THIS SHEET FOR BREAKER REQUIREMENTS.

CENTERLINE SOLUTIONS

VECTOR ENGINEERS

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION. CONSTRUCTION OF THIS PROJECT WILL BE UNDER MY OBSERVATION.

CP PROJECT NO.: BLU-15-0001-3

PRELIMINARY

NO.	DATE	D/C	DESCRIPTION
0	11-14-16	TT/KN	90% CD REVIEW
3	01-05-17	TT/GS	CS COMMENT
4	01-27-17	TT/GS	CS COMMENT

SUBMITTAL

NO.	DATE	D/C	DESCRIPTION

SITE NAME:

NIMITZ HIGHWAY TOWER RELOCATION

SITE ADDRESS:

NIMITZ HIGHWAY AT
KAHAUIKI VILLAGE
MOANALUA, HONOLULU, HI

SHEET TITLE

GENERAL NOTES

SHEET NO.

GN001

44. LOCATION OF ELECTRIC METER AND DISCONNECT SWITCH TO BE PROVIDED BY GENERAL CONTRACTOR.

45. CONTRACTOR SHALL INSPECT THE EXISTING CONDITIONS PRIOR TO SUBMITTING BID. ANY QUESTIONS ARISING DURING THE BID PERIOD IN REGARDS TO THE CONTRACTORS FUNCTIONS. THE SCOPE OF WORK, OR ANY OTHER ISSUE RELATED TO THIS PROJECT SHALL BE BROUGHT UP DURING THE BID PERIOD WITH THE PROJECT MANAGER FOR CLARIFICATION, NOT AFTER THE CONTRACT HAS BEEN AWARDED.

46. LOCATION OF EQUIPMENT, CONDUIT AND DEVICES SHOWN ON THE DRAWINGS ARE APPROXIMATE AND SHALL BE COORDINATED WITH FIELD CONDITIONS PRIOR TO ROUGH-IN.

47. THE CONDUIT RUNS AS SHOWN ON THE PLANS ARE APPROXIMATE. EXACT LOCATION AND ROUTING SHALL BE PER EXISTING FIELD CONDITIONS.

48. PROVIDE PULL BOXES AND JUNCTION BOXES WHERE SHOWN OR REQUIRED BY NEC.

49. ALL CONDUITS SHALL BE MET WITH BENDS MADE IN ACCORDANCE WITH NEC TABLE 346-10. NO RIGHT ANGLE DEVICE OTHER THAN STANDARD CONDUIT ELBOWS WITH 12" MINIMUM INSIDE SWEEPS FOR ALL CONDUITS 2" OR LARGER.

50. ALL CONDUIT TERMINATIONS SHALL BE PROVIDED WITH PLASTIC THROAT INSULATING GROUNDING BUSHINGS.

51. ALL WIRE SHALL BE "TYPE THWN, SOLID. ANNEALED COPPER UP TO SIZE 1/10 AWG (18 AND LARGER SHALL BE CONCENTRIC STRANDED) 75 DEGREE C, (167 DEGREES F), 98° CONDUCTIVITY. MINIMUM #12.

52. ALL WIRES SHALL BE TAGGED AT ALL PULL BOXES. J-BOXES, EQUIPMENT BOXES AND CABINETS WITH APPROVED PLASTIC TAGS, ACTION CRAFT, BRADY, OR APPROVED EQUAL.

53. ALL NEW MATERIAL SHALL HAVE A U.L. LABEL.

54. CONDUIT ROUGH-IN SHALL BE COORDINATED WITH THE MECHANICAL EQUIPMENT TO AVOID LOCATION TO CONFLICTS. VERIFY WITH MECHANICAL CONTRACTOR AND COMPLY AS REQUIRED.

55. ALL PANEL DIRECTORIES SHALL BE TYPEWRITTEN NOT HAND WRITTEN.

56. INSTALL AN EQUIPMENT GROUNDING CONDUCTOR IN ALL CONDUITS PER THE SPECIFICATIONS AND NEC. THE EQUIPMENT GROUNDING CONDUCTORS SHALL BE BONDED AT ALL JUNCTION BOXES. PULLBOXES, AND ALL DISCONNECT SWITCHES, STARTERS, AND EQUIPMENT CABINETS.

57. THE CONTRACTOR SHALL PREPARE AS-BUILT DRAWINGS. DOCUMENT ANY AND ALL WIRING AND EQUIPMENT CONDITIONS AND CHANGES WHILE COMPLETING THIS CONTRACT. SUBMIT AT SUBSTANTIAL COMPLETION.

60. ALL DISCONNECT SWITCHES AND OTHER CONTROLLING DEVICES SHALL BE PROVIDED WITH ENGRAVED PHENOLIC NAMEPLATES INDICATING EQUIPMENT CONTROLLED, BRANCH CIRCUITS INSTALLED ON, AND PANEL FIELD LOCATIONS FED FROM (NO EXCEPTIONS.) PROVIDE SAMPLE FOR CONSTRUCTION MANAGER'S APPROVAL.

61. ALL ELECTRICAL DEVICES AND INSTALLATIONS OF THE DEVICES SHALL COMPLY WITH (ADA) AMERICANS WITH DISABILITIES ACT AS ADOPTED BY THE APPLICABLE STATE.

62. PROVIDE CORE DRILLING AS NECESSARY FOR PENETRATIONS OR RISERS THROUGH BUILDING. DO NOT PENETRATE STRUCTURAL MEMBERS WITHOUT CONSTRUCTION MANAGERS APPROVAL. SLEEVES ANO/OR PENETRATIONS IN FIRE RATED CONSTRUCTION SHALL BE PACKED WITH FIRE RATED MATERIAL WHICH SHALL MAINTAIN THE FIRE RATING OF THE WALL OR STRUCTURE. FILL FOR FLOOR PENETRATIONS SHALL PREVENT PASSAGE OF WATER, SMOKE, FIRE AND FUMES. ALL MATERIAL SHALL BE UL APPROVED FOR THIS PURPOSE.

63. ELECTRICAL CHARACTERISTICS OF ALL EQUIPMENT (NEW AND EXISTING) SHALL BE FIELD VERIFIED WITH THE OWNER'S REPRESENTATIVE AND EQUIPMENT SUPPLIER PRIOR TO ROUGH-IN Of CONDUIT AND WIRE. ALL EQUIPMENT SHALL BE PROPERLY CONNECTED ACCORDING TO THE NAMEPLATE DATA FURNISHED ON THE EQUIPMENT (THE DESIGN OF THESE PLANS ARE BASED UPON BEST AVAILABLE INFORMA110N AT THE TIME OF DESIGN AND SOME EQUIPMENT CHARACTERISTICS MAY VARY FROM DESIGN AS SHOWN ON THESE DRAWINGS).

64. LOCATION OF ALL OUTLET, BOXES, ETC., AND THE TYPE OF CONNECTION (PLUG OR DIRECT) SHALL BE CONFIRMED WITH THE OWNER'S REPRESENTATIVE PRIOR TO ROUGH-IN.

ANTENNA & HYBRID CABLE NOTES

1. VERIFY EACH HYBRID CABLE LENGTH, ROUTING, DIAMETER, COLOR CODING AND ALL APPURTENANCES WITH ALCATEL-LUCENT.

2. THE HYBRID CABLE AND DIAMETER LENGTH IS SHOWN ON A-4. EXCESS CABLE LENGTHS TO BE DRESSED IN A MANNER APPROVED BY ALCATEL-LUCENT. CABLES CANNOT BE CUT TO FIT.

3. HYBRID CABLE INTERNAL GROUND WIRE TO BE GROUNDED AT TOP AND BOTTOM PER SAMSUNG'S (BLOW UP LLC) SPECIFICATIONS.

4. EXCESS TOP 15' HYBRID CABLE FIBER JUMPERS TO BE DRESSED IN A MANNER APPROVED BY ALCATEL-LUCENT, CANNOT BE COILED, MUST BE SECURED TO TOWER MOUNTS.

5. ALL MAIN CABLES SHALL BE COLOR CODED AS SHOWN ON SHEET RF-1 & IN ACCORDANCE WITH BLOW UP LLC SPECIFICATIONS.

6. BANDING SHALL BE IN ACCORDANCE WITH SHEET A-4, RF-1 & AS FOLLOWS:

A. MAIN LINE COLOR BANDS SHALL BE 2" WIDE. MAINTAIN 1" SPACING BETWEEN
B. JUMPER COLOR BANDS SHALL BE 1" WIDE WITH 1" SPACE.
C. START COLOR BANDS 2" BEFORE MAIN CABLE END

7. FINAL HYBRID CABLE SIZES SHALL BE DETERMINED BY SAMSUNG RF ENGINEER. SEE HYBRID CABLE SCHEDULE SHEET A-4. BASED ON FINAL CABLE RUN LENGTHS DETERMINED BY ALCATEL-LUCENT.

8. ALL HYBRID CABLE WILL BE SECURED TO THE DESIGNED SUPPORT STRUCTURE AT DISTANCES NOT TO EXCEED 3' HORIZONTALLY OR 4' VERTICALLY OR THE CABLE MANUFACTURER'S SPECIFICATIONS WHICHEVER IS LESS, WITH HARDWARE SPECIFIED IN THE HYBRID CABLE ROUTING DETAILS OF THE SUPPLIED STRUCTURAL SUPPORT.

ANTENNA & COAX NOTES

1. VERIFY EACH COAXIAL AND HYBRID CABLE LENGTH, DIAMETER, ROUTING, COLOR CODING AND ALL APPURTENANCES WITH ALCATEL-LUCENT.

2. THE MAXIMUM COAXIAL CABLE LENGTH AND CORRESPONDING COAXIAL CABLE DIAMETER IS SHOWN ESTIMATED ON SHEET A-6.0. THIS CABLE LENGTH IS TO BE USED FOR FABRICATION OR CONSTRUCTION. ACTUAL ANTENNA CABLE LENGTH(S) MUST BE VERIFIED. COAXIAL CABLE SHALL BE PROVIDED BY ALCATEL-LUCENT.

3. ALL COAX CABLES SHALL UTILIZE GROUND KITS, GROUNDED AS FOLLOWS:

A. NEAR ANTENNA RAD CENTER ELEVATION,
B. MIDDLE OF TOWER (MID-HEIGH OF ANTENNA), IF CABLE RUN IS OVER 200',
C. BOTTOM OF TOWER,
D. AT MASTER GROUND BAR 3'-0" FROM MMBS-BBU CABINET

4. ALL TOP JUMPERS SHALL BE LENGTHS AS SHOWN AND INSTALLED BY CONTRACTOR.

5. ALL CABLES SHALL BE COLOR CODED AS SHOWN ON SHEET RF-1 AND IN ACCORDANCE WITH BLOW UP LLC SPECIFICATIONS.

6. BANDING SHALL BE IN ACCORDANCE WITH SHEET A-4, RF-1 AND AS FOLLOWS:

A. MAIN LINE COLOR BANDS SHALL BE 2" WIDE. MAINTAIN 1" SPACING BETWEEN COLORS.
B. FREQUENCY COLOR BANDS SHALL BE 2" WIDE WITH NO SPACE BETWEEN COLORS.
C. JUMPER COLOR BANDS SHALL BE 1" WIDE WITH 1" SPACE.
D. START COLOR BANDS 2" BEYOND WEATHERPROOFING.
E. START SELECTOR COLOR NEXT TO END CONNECTORS.

7. FINAL COAXIAL ANTENNA CABLE SIZES SHALL BE DETERMINED BY BLOW UP LLC RF ENGINEER. SEE ANTENNA SCHEDULE SHEET A-4. BASED ON FINAL CABLE RUN LENGTHS DETERMINED BY BLOW UP LLC.

8. SEE CONSTRUCTION MANAGER FOR ANTENNA SUPPORT ASSEMBLY TYPE.

9. ALL COAXIAL CABLE WILL BE SECURED TO THE DESIGNED SUPPORT STRUCTURE AT DISTANCES NOT TO EXCEED 3' OR THE CABLE MANUFACTURES SPECIFICATIONS WHICHEVER IS LESS, WITH HARDWARE SPECIFIED IN THE COAXIAL CABLE ROUTING DETAILS OF THE SUPPLIED STRUCTURAL REPORT.

10. PROVIDE AT LEAST 6" OF SLACK IN THE MAIN COAXIAL CABLES AT THE ANTENNA MOUNTING ELEVATION TO PROVIDE FOR FUTURE CONNECTOR REPLACEMENT.

SITE WORK NOTES

1. DO NOT EXCAVATE OR DISTURB BEYOND THE PROPERTY LINES OR LEASE LINES, UNLESS OTHERWISE NOTED.

2. DO NOT SCALE BUILDING DIMENSIONS FROM DRAWING.

3. SIZE, LOCATION AND TYPE OF ANY UNDERGROUND UTILITIES OR IMPROVEMENTS SHALL BE ACCURATELY NOTED AND PLACED ON AS-BUILT DRAWINGS BY GENERAL CONTRACTOR AND ISSUED TO ARCHITECT/ENGINEER AT COMPLETION OF PROJECT.

4. ALL EXISTING UTILITIES, FACILITIES, CONDITIONS AND THEIR DIMENSIONS SHOWN ON PLANS HAVE BEEN PLOTTED FROM AVAILABLE RECORDS. THE ENGINEER AND OWNER ASSUME NOT RESPONSIBILITY WHATSOEVER AS TO THE SUFFICIENCY OR ACCURACY OF THE INFORMATION SHOWN ON THE PLANS OR THE MANNER OF THEIR REMOVAL OR ADJUSTMENT. CONTRACTOR SHALL BE RESPONSIBLE FOR DETERMINING EXACT LOCATION OF ALL EXISTING UTILITIES AND FACILITIES PRIOR TO START OF CONSTRUCTION. CONTRACTOR SHALL ALSO OBTAIN FROM EACH UTILITY COMPANY DETAILED INFORMATION RELATIVE TO WORKING SCHEDULES AND METHODS OF REMOVING OR ADJUSTING EXISTING UTILITIES.

5. CONTRACTOR SHALL VERIFY ALL EXISTING UTILITIES BOTH HORIZONTALLY AND VERTICALLY PRIOR TO START OF CONSTRUCTION. ANY DISCREPANCIES OR DOUBTS AS TO THE INTERPRETATION OF PLANS SHALL BE IMMEDIATELY REPORTED TO THE ARCHITECT/ENGINEER FOR RESOLUTION AND INSTRUCTION, AND NO FURTHER WORK SHALL BE PERFORMED UNTIL THE DISCREPANCY IS CHECKED AND CORRECTED BY THE ARCHITECT/ENGINEER. FAILURE TO SECURE SUCH INSTRUCTION MEANS CONTRACTOR WILL HAVE WORKED AT HIS/HER OWN RISK AND EXPENSE.

6. CONTRACTOR SHALL CALL LOCAL DIGGER HOT LINE FOR UTILITY LOCATIONS 48 HOURS PRIOR TO START OF CONSTRUCTION.

7. ALL NEW AND EXISTING UTILITY STRUCTURES ON SITE AND IN AREAS TO BE DISTURBED BY CONSTRUCTION SHALL BE ADJUSTED TO FINISH ELEVATIONS PRIOR TO FINAL INSPECTION OF WORK.

8. GRADING OF THE SITE WORK AREA IS TO BE SMOOTH AND CONTINUOUS IN SLOPE AND IS TO FEATHER INTO EXISTING GRADES AT THE GRADING LIMITS.

9. ALL TEMPORARY EXCAVATIONS FOR THE INSTALLATION OF FOUNDATIONS, UTILITIES, ETC., SHALL BE PROPERLY LAID BACK OR BRACED IN ACCORDANCE WITH CORRECT OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA) REQUIREMENTS.

10. STRUCTURAL FILLS SUPPORTING PAVEMENTS SHALL BE COMPACTED TO 95% OF MAXIMUM STANDARD PROCTOR DRY DENSITY.

11. NEW GRADES NOT IN BUILDING AND DRIVEWAY IMPROVEMENT AREA TO BE ACHIEVED BY FILLING WITH APPROVED CLEAN FILL AND COMPACTED TO 95% OF STANDARD PROCTOR DENSITY.

12. ALL FILL SHALL BE PLACED IN UNIFORM LIFTS. THE LIFTS THICKNESS SHOULD NOT EXCEED THAT WHICH CAN BE PROPERLY COMPACTED THROUGHOUT ITS ENTIRE DEPTH WITH THE EQUIPMENT AVAILABLE.

13. ANY FILLS PLACED ON EXISTING SLOPES THAT ARE STEEPER THAN 10 HORIZONTAL TO 1 VERTICAL SHALL BE PROPERLY BENCHED INTO THE EXISTING SLOPE AS DIRECTED BY A GEOTECHNICAL ENGINEER.

14. CONTRACTOR SHALL CLEAN ENTIRE SITE DAILY AFTER CONSTRUCTION SUCH THAT NO PAPERS, THRASH, WEEDS, BRUSH OR ANY OTHER DEPOSITS WILL REMAIN. ALL MATERIALS COLLECTED DURING CLEANING OPERATIONS SHALL BE DISPOSED OF OFF-SITE BY THE GENERAL CONTRACTOR.

15. ALL TREES AND SHRUBS WHICH ARE NOT IN DIRECT CONFLICT WITH THE IMPROVEMENTS SHALL BE PROTECTED BY THE GENERAL CONTRACTOR.

16. ALL SITE WORK SHALL BE CAREFULLY COORDINATED BY GENERAL CONTRACTOR WITH LOCAL UTILITY COMPANY, TELEPHONE COMPANY, AND ANY OTHER UTILITY COMPANIES HAVING JURISDICTION OVER THIS LOCATION.

ENVIRONMENTAL NOTES

1. ALL WORK PERFORMED SHALL BE DONE IN ACCORDANCE WITH ISSUED PERMITS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PAYMENT OF FINES AND PROPER CLEAN UP FOR AREAS IN VIOLATION.

2. CONTRACTOR AND/OR DEVELOPER SHALL BE RESPONSIBLE FOR CONSTRUCTION AND MAINTENANCE OF EROSION AND SEDIMENTATION CONTROLS DURING CONSTRUCTION FOR PROTECTION OF ADJACENT PROPERTIES, ROADWAYS AND WATERWAYS AND SHALL BE MAINTAINED IN PLACE THROUGH FINAL JURISDICTIONAL INSPECTION & RELEASE OF SITE.

3. CONTRACTOR SHALL INSTALL/CONSTRUCT ALL NECESSARY SEDIMENT/SILT CONTROL FENCING AND PROTECTIVE MEASURES WITHIN THE LIMITS OF SITE DISTURBANCE PRIOR TO CONSTRUCTION.

4. NO SEDIMENT SHALL BE ALLOWED TO EXIT THE PROPERTY. THE CONTRACTOR IS RESPONSIBLE FOR TAKING ADEQUATE MEASURES FOR CONTROLLING EROSION. ADDITIONAL SEDIMENT CONTROL FENCING MAY BE REQUIRED IN ANY AREAS SUBJECT TO EROSION.

5. THE CONTRACTOR IS RESPONSIBLE FOR MAINTAINING POSITIVE DRAINAGE ON THE SITE AT ALL TIMES WITH SILT AND EROSION CONTROL MEASURES MAINTAINED ON THE DOWNSTREAM SIDE OF SITE DRAINAGE. ANY DAMAGE TO ADJACENT PROPERTY AS A RESULT OF EROSION WILL BE CORRECTED AT THE CONTRACTORS EXPENSE.

6. CONTRACTOR SHALL BE RESPONSIBLE FOR DAILY INSPECTIONS AND ANY REPAIRS OF ALL SEDIMENT CONTROL MEASURES INCLUDING SEDIMENT REMOVAL AS NECESSARY.

7. CLEARING OF VEGETATION AND TREE REMOVAL SHALL BE ONLY AS PERMITTED AND BE HELD TO A MINIMUM. ONLY TREES NECESSARY FOR CONSTRUCTION OF THE FACILITIES SHALL BE REMOVED.

8. SEEDING SAND MULCHING AND/OR SODDING OF THE SITE WILL BE ACCOMPLISHED AS SOON AS POSSIBLE AFTER COMPLETION OF THE PROJECT FACILITIES AFFECTING LAND DISTURBANCE.

9. CONTRACTOR SHALL PROVIDE ALL EROSION AND SEDIMENTATION CONTROL MEASURES AS REQUIRED BY LOCAL, COUNTY AND STATE CODES AND ORDINANCES TO PROTECT EMBANKMENTS FROM SOIL LOSS AND TO PREVENT ACCUMULATION OF SOIL AND SILT IN STREAMS AND DRAINAGE PATHS LEAVING THE CONSTRUCTION AREA. THIS MAY INCLUDE SUCH MEASURES AS SILT FENCES, STRAW BALE SEDIMENT BARRIERS, AND CHECK DAMS.

10. RIP RAP OF SIZES INDICATED SHALL CONSIST OF CLEAN, HARD, SOUND, DURABLE, UNIFORM IN QUALITY STONE FREE OF ANY DETRIMENTAL QUANTITY OF SOFT, FRIABLE, THIN, ELONGATED OR LAMINATED PIECES, DISINTEGRATED MATERIAL, ORGANIC MATTER, OIL, ALKALI, OR OTHER DELETERIOUS SUBSTANCES.

FOUNDATION, EXCAVATION AND BACKFILL NOTES

1. ALL FINAL GRADED SLOPES SHALL BE A MAXIMUM OF 3 HORIZONTAL TO 1 VERTICAL.

2. ALL EXCAVATIONS PREPARED FOR PLACEMENT OF CONCRETE SHALL BE OF UNDISTURBED SOILS, SUBSTANTIALLY HORIZONTAL AND FREE FROM ANY LOOSE, UNSUITABLE MATERIAL OR FROZEN SOILS, AND WITHOUT THE PRESENCE OF POUNDING WATER. DEWATERING FOR EXCESS GROUND WATER SHALL BE PROVIDED WHEN REQUIRED. COMPACTION OF SOILS UNDER CONCRETE PAD FOUNDATIONS SHALL NOT BE LESS THAN 95% OF THE MODIFIED PROCTOR MAXIMUM DRY DENSITY FOR THE SOIL IN ACCORDANCE WITH ASTM D1557.

3. CONCRETE FOUNDATIONS SHALL NOT BE PLACED ON ORGANIC OR UNSUITABLE MATERIAL. IF INADEQUATE BEARING CAPACITY IS REACHED AT THE DESIGNED EXCAVATION DEPTH, THE UNSATISFACTORY SOIL SHALL BE EXCAVATED TO ITS FULL DEPTH AND EITHER BE REPLACED WITH MECHANICALLY COMPACTED GRANULAR MATERIAL OR THE EXCAVATION SHALL BE FILLED WITH CONCRETE OF THE SAME TYPE SPECIFIED FOR THE FOUNDATION. CRUSHED STONE MAY BE USED TO STABILIZE THE BOTTOM OF THE EXCAVATION. ANY STONE SUB BASE MATERIAL, IF USED, SHALL NOT SUBSTITUTE FOR REQUIRED THICKNESS OF CONCRETE.

4. ALL EXCAVATIONS SHALL BE CLEAN OF UNSUITABLE MATERIAL SUCH AS VEGETATION, TRASH, DEBRIS, AND SO FORTH PRIOR TO BACK FILLING. BACK FILL SHALL CONSIST OF APPROVED MATERIALS SUCH AS EARTH, LOAM SANDY CLAY, SAND AND GRAVEL, OR SOFT SHALE, FREE FROM CLODS OR LARGE STONES OVER 2 1/2" MAX DIMENSIONS. ALL BACK FILL SHALL BE PLACED IN COMPACTED LAYERS.

5. ALL FILL MATERIALS AND FOUNDATION BACK FILL SHALL BE PLACED MAXIMUM 6" THICK LIFTS BEFORE COMPACTION. EACH LIFT SHALL BE WETTED IF REQUIRED AND COMPACTED TO NOT LESS THAN 95% OF THE MODIFIED PROCTOR MAXIMUM DRY DENSITY FOR SOIL IN ACCORDANCE WITH ASTM D1557.

6. NEWLY PLACED CONCRETE FOUNDATIONS SHALL CURE A MINIMUM OF 72 HRS PRIOR TO BACK FILLING.

7. FINISHED GRADING SHALL BE SLOPED TO PROVIDE POSITIVE DRAINAGE AND PREVENT STANDING WATER. THE FINAL (FINISH) ELEVATION OF SLAB FOUNDATIONS SHALL SLOPE AWAY IN ALL DIRECTIONS FROM THE CENTER. FINISH GRADE OF CONCRETE PADS SHALL BE A MAXIMUM OF 4 INCHES ABOVE FINAL FINISH GRADE ELEVATIONS. PROVIDE SURFACE FILL GRAVEL TO ESTABLISH SPECIFIED ELEVATIONS WHERE REQUIRED.

CENTERLINE SOLUTIONS

VECTOR ENGINEERS

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION. CONSTRUCTION OF THIS PROJECT WILL BE UNDER MY OBSERVATION.

CP PROJECT NO.: BLU-15-0001-3

PRELIMINARY

NO.	DATE	D/C	DESCRIPTION
0	11-14-16	TT/KN	90% CD REVIEW
3	01-05-17	TT/GS	CS COMMENT
4	01-27-17	TT/GS	CS COMMENT

SUBMITTAL

NO.	DATE	D/C	DESCRIPTION

SITE NAME:

NIMITZ HIGHWAY TOWER RELOCATION

SITE ADDRESS:

NIMITZ HIGHWAY AT
KAHAUIKI VILLAGE
MOANALUA, HONOLULU, HI

SHEET TITLE

GENERAL NOTES

SHEET NO.

GN002

FNDN, EXCAVATION AND BACKFILL NOTES CONT.

8. NEWLY GRADED SURFACE AREAS TO RECEIVE GRAVEL SHALL BE COVERED WITH GEOTEXTILE FABRIC TYPE: TYPAR-3401 AS MANUFACTURED BY "CONSTRUCTION MATERIAL 1-800-239-3841" OR AN APPROVED EQUIVALENT, SHOWN ON PLANS. THE GEOTEXTILE FABRIC SHALL BE BLACK IN COLOR TO CONTROL THE RECURRENCE OF VEGETATIVE GROWTH AND EXTEND TO WITHIN 1 FOOT OUTSIDE THE SITE FENCING OR ELECTRICAL GROUNDING SYSTEM PERIMETER WHICH EVER IS GREATER. ALL FABRIC SHALL BE COVERED WITH A MINIMUM OF 4" DEEP COMPACTED STONE OR GRAVEL AS SPECIFIED. I.E. FDOT TYPE NO. 57 FOR FENCED COMPOUND; FDOT TYPE NO. 67 FOR ACCESS DRIVE AREA.

9. IN ALL AREAS TO RECEIVE FILL, REMOVE ALL VEGETATION, TOPSOIL, DEBRIS, WET AND UNSATISFACTORY SOIL MATERIALS, OBSTRUCTIONS, AND DELETERIOUS MATERIALS FROM GROUND SURFACE. PLOW STRIP OR BREAK UP SLOPED SURFACES STEEPER THAN 1 VERTICAL TO 4 HORIZONTAL SUCH THAT FILL MATERIAL WILL BIND WITH EXISTING/PREPARED SOIL SURFACE.

10. WHEN SUB GRADE OR PREPARED GROUND SURFACE HAS A DENSITY LESS THAN THAT REQUIRED FOR THE FILL MATERIAL, SCARIFY THE GROUND SURFACE TO DEPTH REQUIRED, PULVERIZE, MOISTURE-CONDITION AND/OR AERATE THE SOILS AND RE-COMPACT TO THE REQUIRED DENSITY PRIOR TO PLACEMENT OF FILLS.

11. IN AREAS WHICH EXISTING GRAVEL SURFACING IS REMOVED OR DISTURBED DURING CONSTRUCTION OPERATIONS, REPLACE GRAVEL SURFACING TO MATCH ADJACENT GRAVEL SURFACING AND RESTORED TO THE SAME THICKNESS AND COMPACTION AS SPECIFIED. ALL RESTORED GRAVEL SURFACING SHALL BE FREE FROM CORRUGATIONS AND WAVES.

12. EXISTING GRAVEL SURFACING MAY BE EXCAVATED SEPARATELY AND REUSED WITH THE CONDITION THAT ANY UNFAVORABLE AMOUNTS OF ORGANIC MATTER, OR OTHER DELETERIOUS MATERIALS ARE REMOVED PRIOR TO REUSE. FURNISH ANY ADDITIONAL GRAVEL RESURFACING MATERIAL AS NEEDED TO PROVIDE A FULL DEPTH COMPACTED SURFACE THROUGHOUT SITE.

13. GRAVEL SUB SURFACE SHALL BE PREPARED TO REQUIRED COMPACTION AND SUB GRADE ELEVATIONS BEFORE GRAVEL SURFACING IS PLACED AND/OR RESTORED. ANY LOOSE OR DISTURBED MATERIALS SHALL BE THOROUGHLY COMPACTED AND ANY DEPRESSIONS IN THE SUB GRADE SHALL BE FILLED AND COMPACTED WITH APPROVED SELECTED MATERIAL. GRAVEL SURFACING MATERIAL SHALL NOT BE USED FOR FILLING DEPRESSIONS IN THE SUB GRADE.

14. PROTECT EXISTING GRAVEL SURFACING AND SUB GRADE IN AREAS WHERE EQUIPMENT LOADS WILL OPERATE. .

15. DAMAGE TO EXISTING STRUCTURES AND/OR UTILITIES RESULTING FROM CONTRACTORS NEGLIGENCE SHALL BE REPAIRED AND/OR REPLACED TO THE OWNERS SATISFACTION AT NO ADDITIONAL COST TO THE CONTRACT.

16. ALL SUITABLE BORROW MATERIAL FOR BACK FILL OF THE SITE SHALL BE INCLUDED IN THE BID. EXCESS TOPSOIL AND UNSUITABLE MATERIAL SHALL BE DISPOSED OF OFF SITE AT LOCATIONS APPROVED BY GOVERNING AGENCIES AT NO ADDITIONAL COST TO THE CONTRACT.

STRUCTURAL STEEL NOTES

1. ALL STEEL WORK SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE AISC MANUAL OF STEEL CONSTRUCTION. STEEL SECTIONS SHALL BE IN ACCORDANCE WITH ASTM AS INDICATED BELOW:
   W-SHAPES: ASTM A992, 50 KSI
   ANGLES, BARS CHANNELS: ASTM A36, 36 KSI
   HSS SECTIONS: ASTM 500, 46 KSI
   PIPE SECTIONS: ASTM A53-E, 35 KSI

2. ALL EXTERIOR EXPOSED STEEL AND HARDWARE SHALL BE HOT DIPPED GALVANIZED.

3. ALL WELDING SHALL BE PERFORMED USING E70XX ELECTRODES AND WELDING SHALL CONFORM TO AISC. WHERE FILLET WELD SIZES ARE NOT SHOWN, PROVIDE THE MINIMUM SIZE PER TABLE J2.4 IN THE AISC "MANUAL OF STEEL CONSTRUCTION". PAINTED SURFACES SHALL BE TOUCHED UP.

4. ALL BOLTS FOR STEEL TO STEEL CONNECTIONS SHALL BE PER ASTM A325, U.N.O.

5. NON-STRUCTURAL CONNECTIONS FOR STEEL GRATING MAY USE 5/8"Ø ASTM A 307 BOLTS UNLESS NOTED OTHERWISE.

6. FIELD MODIFICATIONS ARE TO BE COATED WITH ZINC ENRICHED PAINT.

7. THIRD PARTY SPECIAL INSPECTION IS REQUIRED FOR ALL HIGH STRENGTH BOLT (A325) INSTALLATIONS AND FOR ALL FIELD WELDING (IF UTILIZED).

SPECIAL INSPECTIONS

1. INDEPENDENT PERIODIC THIRD PARTY SPECIAL INSPECTIONS SHALL BE REQUIRED FOR THE FOLLOWING
   - HIGH STRENGTH BOLTING, IF UTILIZED, PER SPECIAL INSPECTION NOTES AND TABLE ON GN004
   - CONTINUOUS FOR ALL RETROFIT ANCHORS INSTALLED IN CONCRETE, IF UTILIZED
   - LATTICE TOWER AND FOUNDATION AS REQUIRED ON SHEET S-5 OF THE TOWER AND FOUNDATION DRAWINGS BY PAUL J. FORD & COMPANY & MAGNUM TOWERS, DATED 03-24-16 (VERIFY LATEST)

CONCRETE MASONRY NOTES

1. CONCRETE MASONRY UNITS SHALL BE MEDIUM WEIGHT UNITS CONFORMING TO ASTM C90, GRADE N-1, (F'M=1,500 PS). MEDIUM WEIGHT (115 PCF).

2. MORTAR SHALL BE TYPE "S" (MINIMUM 1,800 PSI AT 28 DAYS).

3. GROUT SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 3,000 PSI AT 28 DAYS.

4. ALL CELLS CONTAINING REINFORCING STEEL OR EMBEDDED ITEMS AND ALL CELLS IN RETAINING WALLS AND WALLS BELOW GRADE SHALL BE SOLID GROUTED.

5. ALL HORIZONTAL REINFORCEMENT SHALL BE PLACED IN BOND BEAM OR LINTEL BEAM UNITS.

6. WHEN GROUTING IS STOPPED FOR ONE HOUR OR LONGER, HORIZONTAL CONSTRUCTION JOINTS SHALL BE FORMED BY STOPPING THE GROUT POUR 1-1/2" BELOW TOP OF THE UPPERMOST UNIT.

7. ALL BOND BEAM BLOCK SHALL BE "DEEP CUT" UNITS.

8. PROVIDE INSPECTION AND CLEAN-OUT HOLES AT BASE OF VERTICAL CELLS HAVING GROUT LIFTS IN EXCESS OF 4'-0" OF HEIGHT.

9. ALL GROUT SHALL BE CONSOLIDATED WITH A MECHANICAL VIBRATOR.

10. CEMENT SHALL BE AS SPECIFIED FOR CONCRETE.

11. REINFORCING BARS - SEE NOTES UNDER "STRUCTURAL CONCRETE NOTES" FOR REQUIREMENTS.

12. PROVIDE ONE BAR DIAMETER (A MINIMUM OF 1/2") GROUT BETWEEN MAIN REINFORCING AND MASONRY UNITS.

13. LOW LIFT CONSTRUCTION, MAXIMUM GROUT POUR HEIGHT IS 4 FEET.

14. ALL CELLS IN CONCRETE BLOCKS SHALL BE FILLED SOLID WITH GROUT, EXCEPT AS NOTED IN THE DRAWINGS OR SPECIFICATIONS.

15. CELLS SHALL BE IN VERTICAL ALIGNMENT, DOWELS IN FOOTINGS SHALL BE SET TO ALIGN WITH CORES CONTAINING REINFORCING STEEL.

16. REFER TO ARCHITECTURAL DRAWINGS FOR SURFACE AND HEIGHT OF UNITS, LAYING PATTER AND JOINT TYPE.

17. SAND SHALL BE CLEAN, SHARP AND WELL GRADED, FREE FROM INJURIOUS AMOUNTS OF DUST, LUMPS, SHALE, ALKAU OR ORGANIC MATERIAL.

18. BRICK SHALL CONFORM TO ASTM C-62 AND SHALL BE GRADE MW OR BETTER.

STRUCTURAL CONCRETE NOTES

1. ALL CONCRETE WORK SHALL BE IN ACCORDANCE WITH THE ACI 318-11 AND THE SPECIFICATION FOR CAST-IN-PLACE CONCRETE.

2. ALL CONCRETE SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH FC'=3,000 PSI AT 28 DAYS UNLESS NOTED OTHERWISE.

3. REINFORCING STEEL SHALL CONFORM TO ASTM A 615, GRADE 60, DEFORMED UNLESS NOTED OTHERWISE. WELDED WIRE FABRIC SHALL CONFORM TO ASTM A 185 WELDED STEEL WIRE FABRIC UNLESS NOTED OTHERWISE. SPLICES CLASS "B" AND ALL HOOKS SHALL BE STANDARD UNLESS NOTED OTHERWISE.

4. THE FOLLOWING MINIMUM CONCRETE COVER SHALL BE PROVIDED FOR REINFORCING STEEL UNLESS SHOWN OTHERWISE ON DRAWINGS:

   CONCRETE CAST AGAINST EARTH.....3 IN.

   CONCRETE EXPOSED TO EARTH OR WEATHER:
   #6 AND LARGER.....2 IN.
   #5 AND SMALLER & WWF.....1 1/2 IN.

   CONCRETE NOT EXPOSED TO EARTH OR WEATHER OR NOT CAST AGAINST THE GROUND:
   SLAB AND WALL.....3/4 IN.
   BEAMS AND COLUMNS.....1 1/2 IN.

5. A 3/4" CHAMFER SHALL BE PROVIDED AT ALL EXPOSED EDGES OF CONCRETE U.N.O. IN ACCORDANCE WITH ACI 301, LATEST EDITION, SECTION 4.

6. HOLES TO RECEIVE EXPANSION/WEDGE ANCHORS SHALL BE 1/8" LARGER IN DIAMETER THAN THE ANCHOR BOLT, DOWEL OR ROD AND SHALL CONFORM TO MANUFACTURER'S RECOMMENDATION FOR EMBEDMENT DEPTH OR AS SHOWN ON THE DRAWINGS. LOCATE AND AVOID CUTTING EXISTING REBAR OR TENDONS WHEN DRILLING HOLES IN ELEVATED CONCRETE SLABS OR CONCRETE WALLS.

7. USE AND INSTALLATION OF CONCRETE EXPANSION/WEDGE ANCHOR, SHALL BE PER ICC & MANUFACTURER'S WRITTEN RECOMMENDED PROCEDURES. THIRD PARTY SPECIAL INSPECTION IS REQUIRED FOR (HILTI KWIK BOLT-TZ EXPANSION ANCHORS PER ESR-1917) CONCRETE EXPANSION ANCHORS. INSTALLATION OF WEDGE ANCHORS (I.E. KWIK BOLT TZ ANCHORS) IN MASONRY IS NOT PERMITTED.

CENTERLINE SOLUTIONS

VECTOR ENGINEERS

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION. CONSTRUCTION OF THIS PROJECT WILL BE UNDER MY OBSERVATION.

CP PROJECT NO.: BLU-15-0001-3

PRELIMINARY

NO.	DATE	D/C	DESCRIPTION
0	11-14-16	TT/KN	90% CD REVIEW
3	01-05-17	TT/GS	CS COMMENT
4	01-27-17	TT/GS	CS COMMENT

SUBMITTAL

NO.	DATE	D/C	DESCRIPTION

SITE NAME:

NIMITZ HIGHWAY TOWER RELOCATION

SITE ADDRESS:

NIMITZ HIGHWAY AT KAHAUIKI VILLAGE
MOANALUA, HONOLULU, HI

SHEET TITLE

GENERAL NOTES

SHEET NO.

GN003

SPECIAL INSPECTION NOTES

INSPECTION OF HIGH-STRENGTH BOLTING (PER AISC 360-10, SECTION N5):

OBSERVATION OF BOLTING OPERATIONS SHALL BE THE PRIMARY METHOD USED TO CONFIRM THAT THE MATERIALS, PROCEDURES AND WORKMANSHIP INCORPORATED IN CONSTRUCTION ARE IN CONFORMANCE WITH THE CONSTRUCTION DOCUMENTS AND THE PROVISIONS OF THE RSCS SPECIFICATION.

(1) FOR SNUG-TIGHT JOINTS, PRE-INSTALLATION VERIFICATION TESTING AS SPECIFIED IN TABLE N5.6-1 AND MONITORING OF THE INSTALLATION PROCEDURES AS SPECIFIED IN TABLE N5.6-2 ARE NOT APPLICABLE. THE QCI AND QAI NEED NOT BE PRESENT DURING THE INSTALLATION OF FASTENERS IN SNUG-TIGHT JOINTS.

(2) FOR PRETENSIONED JOINTS AND SLIP-CRITICAL JOINTS, WHEN THE INSTALLER IS USING THE TURN-OF-NUT METHOD WITH MATCHMARKING TECHNIQUES, THE DIRECT-TENSION-INDICATOR METHOD, OR THE TWIST-OFF-TYPE TENSION CONTROL BOLT METHOD,MONITORING OF BOLT PRETENSIONING PROCEDURES SHALL BE AS SPECIFIED IN TABLE N5.6-2. THE QCI AND QAI NEED NOT BE PRESENT DURING THE INSTALLATION OF FASTENERS WHEN THESE METHODS ARE USED BY THE INSTALLER.

(3) FOR PRETENSIONED JOINTS AND SLIP-CRITICAL JOINTS, WHEN THE INSTALLER IS USING THE CALIBRATED WRENCH METHOD OR THE TURN-OF-NUT METHOD WITHOUT MATCHMARKING, MONITORING OF BOLT PRETENSIONING PROCEDURES SHALL BE AS SPECIFIED IN TABLE N5.6-2. THE QCI AND QAI SHALL BE ENGAGED IN THEIR ASSIGNED INSPECTION DUTIES DURING INSTALLATION OF FASTENERS WHEN THESE METHODS ARE USED BY THE INSTALLER.

AS A MINIMUM, BOLTING INSPECTION TASKS SHALL BE IN ACCORDANCE WITH TABLES N5.6-1, N5.6-2 AND N5.6-3. IN THESE TABLES, THE INSPECTION TASKS ARE AS FOLLOWS:

O - OBSERVE THESE ITEMS ON A RANDOM BASIS. OPERATIONS NEED NOT BE DELAYED PENDING THESE INSPECTIONS.

P - PERFORM THESE TASKS FOR EACH BOLTED CONNECTION.

MINIMUM REQUIREMENT FOR INSPECTION

TABLE N5.6-1
INSPECTION TASKS PRIOR TO BOLTING

INSPECTION TASKS PRIOR TO BOLTING	QC	QA
MANUFACTURER'S CERTIFICATIONS AVAILABLE FOR FASTENER MATERIALS	O	P
FASTENERS MARKED IN ACCORDANCE WITH ASTM REQUIREMENTS	O	O
PROPER FASTENERS SELECTED FOR THE JOINT DETAIL (GRADE, TYPE, BOLT LENGTH IF THREADS ARE TO BE EXCLUDED FROM SHEAR PLATE)	O	O
PROPER BOLTING PROCEDURE SELECTED FOR JOINT DETAIL	O	O
CONNECTING ELEMENTS, INCLUDING THE APPROPRIATE FAYING SURFACE CONDITIONS AND HOLE PREPARATION, IF SPECIFIED, MEET APPLICABLE REQ'S	O	O
PRE-INSTALLATION VERIFICATION TESTING BY INSTALLATION PERSONNEL OBSERVED AND DOCUMENTED FOR FASTENER ASSEMBLIES AND METHODS USED	P	O
PROPER STORAGE PROVIDED FOR BOLTS, NUTS, WASHERS AND OTHER FASTENER COMPONENTS	O	O

TABLE N5.6-2
INSPECTION TASKS DURING BOLTING

INSPECTION TASKS DURING BOLTING	QC	QA
FASTENER ASSEMBLIES, OF SUITABLE CONDITION, PLACED IN ALL HOLES AND WASHERS (IF REQUIRED) ARE POSITIONED AS REQUIRED	O	O
JOINT BROUGHT TO THE SNUG-TIGHT CONDITION PRIOR TO PRETENSIONING OPERATION	O	O
FASTENER COMPONENT NOT TURNED BY WRENCH PREVENTED FROM ROTATING	O	O
FASTENERS ARE PRETENSIONED IN ACCORDANCE WITH THE RCSC SPECS., PROGRESSING SYSTEMATICALLY FROM MOST RIGID POINT TOWARD FREE EDGES	O	O

TABLE N5.6-2
INSPECTION TASKS AFTER BOLTING

INSPECTION TASKS AFTER BOLTING	QC	QA
DOCUMENT ACCEPTANCE OR REJECTION OF BOLTED CONNECTION	P	P

DRAWING ABBREVIATIONS

AFF	ABOVE FINISH FLOOR	LF	LINEAR FEET
AGL	ABOVE GRADE LEVEL	MAX	MAXIMUM
AWG	AMERICAN WIRE GAUGE	MECH	MECHANICAL
AC	AIR CONDITIONING	MFR	MANUFACTURER
APPROX	APPROXIMATELY	MGR	MANAGER
AZ	AZIMUTH	MIN	MINIMUM
BLDG	BUILDING	MISC	MISCELLANEOUS
CM	CONSTRUCTION MANAGER	MTL	METAL
CAB	CABINET	MW	MICROWAVE
CL	CENTERLINE	NEC	NATIONAL ELECTRICAL CODE
CLG	CEILING	NIC	NOT IN CONTRACT
CLR	CLEAR	NTS	NOT TO SCALE
CO	COPPER	N/A	NOT APPLICABLE
CONC	CONCRETE	OC	ON CENTER
COND	CONDUIT	OD	OUTSIDE DIAMETER
CONST	CONSTRUCTION	OP	OVERHEAD POWER
CONT	CONTINUOUS	OT	OVERHEAD FIBER
D/C	DRAFTER/CHECKER	OPP	OPPOSITE
DEMO	DEMOLISH	PL	PROPERTY LINE
DIA OR Ø	DIAMETER	PLYWD	PLYWOOD
DIM	DIMENSION	PM	PROJECT MANAGER
DN	DOWN	PROJ	PROJECT
DTL	DETAIL	PROP	PROPERTY
DWG	DRAWING	PT	PRESSURE TREATED
EA	EACH	RF	RADIO-FREQUENCY
ELECT	ELECTRICAL	RO	ROUGH OPENING
ELEV	ELEVATION	ROW	RIGHT OF WAY
EQ	EQUAL	RRU	REMOTE RADIO UNIT
EQUIP	EQUIPMENT	REQ	REQUIRED
EXT	EXTERIOR	SBTC	SOLID BARE TINNED COPPER
FIN	FINISH	SF	SQUARE FEET
FLR	FLOOR	SHT	SHEET
FRP	FIBERGLASS REINFORCED POLYMER	SPEC	SPECIFICATION
FT	FOOT, FEET	SQ	SQUARE
GA	GAUGE	SS	STAINLESS STEEL
GALV	GALVANIZED	STL	STEEL
GC	GENERAL CONTRACTOR	STRUCT	STRUCTURE, STRUCTURAL
GLB	GLULAM BEAM	TOC	TOP OF CONCRETE
GWB	GYPSUM WALL BOARD	TOM	TOP OF MASONRY
GR	GRADE	THRU	THROUGH
GRND	GROUND	TYP	TYPICAL
HVAC	HEATING/VENTING/AIR CONDITIONING	UBC	UNIFORM BUILDING CODE
HORIZ	HORIZONTAL	UG	UNDERGROUND
HT	HEIGHT	UNO	UNLESS NOTED OTHERWISE
IBC	INTERNATIONAL BUILDING CODE	UP	UNDERGROUND POWER
ID	INSIDE DIAMETER	UF	UNDERGROUND FIBER
IN	INCH	VIF	VERIFY IN FIELD
INSUL	INSULATION	VERT	VERTICAL
INT	INTERIOR	WP	WATERPROOF
JBOX	JUNCTION BOX	W/	WITH
LB(S) OR #	POUND(S)	W/O	WITHOUT

CENTERLINE SOLUTIONS

VECTOR ENGINEERS

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION. CONSTRUCTION OF THIS PROJECT WILL BE UNDER MY OBSERVATION.

CP PROJECT NO.: BLU-15-0001-3

PRELIMINARY

NO.	DATE	D/C	DESCRIPTION
0	11-14-16	TT/KN	90% CD REVIEW
3	01-05-17	TT/GS	CS COMMENT
4	01-27-17	TT/GS	CS COMMENT

SUBMITTAL

NO.	DATE	D/C	DESCRIPTION

SITE NAME:
NIMITZ HIGHWAY TOWER RELOCATION

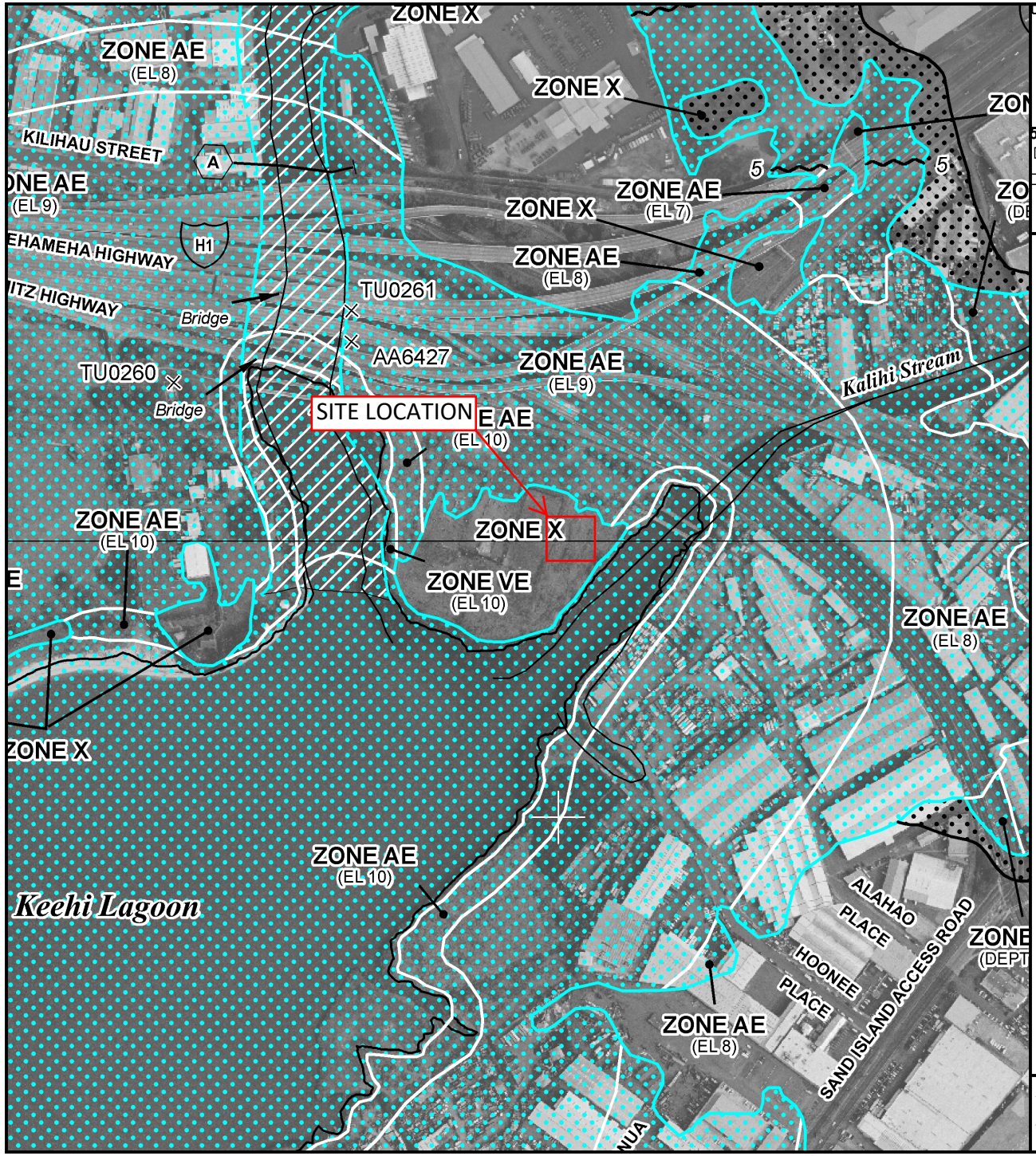
SITE ADDRESS:
NIMITZ HIGHWAY AT
KAHAUIKI VILLAGE
MOANALUA, HONOLULU, HI

SHEET TITLE

GENERAL NOTES

SHEET NO.

GN004



ional Flood Insurance Program at 1-800-638-6620.

MAP SCALE 1" = 500'

50 0 500 1000 FEET

METERS

NFIP

NATIONAL FLOOD INSURANCE PROGRAM

PANEL 0353G

FIRM

FLOOD INSURANCE RATE MAP

CITY AND COUNTY OF HONOLULU, HAWAII

PANEL 353 OF 395

(SEE MAP INDEX FOR FIRM PANEL LAYOUT)

CONTAINS:

COMMUNITY	NUMBER	PANEL	SUFFIX
HONOLULU, CITY AND COUNTY OF	150001	0353	G

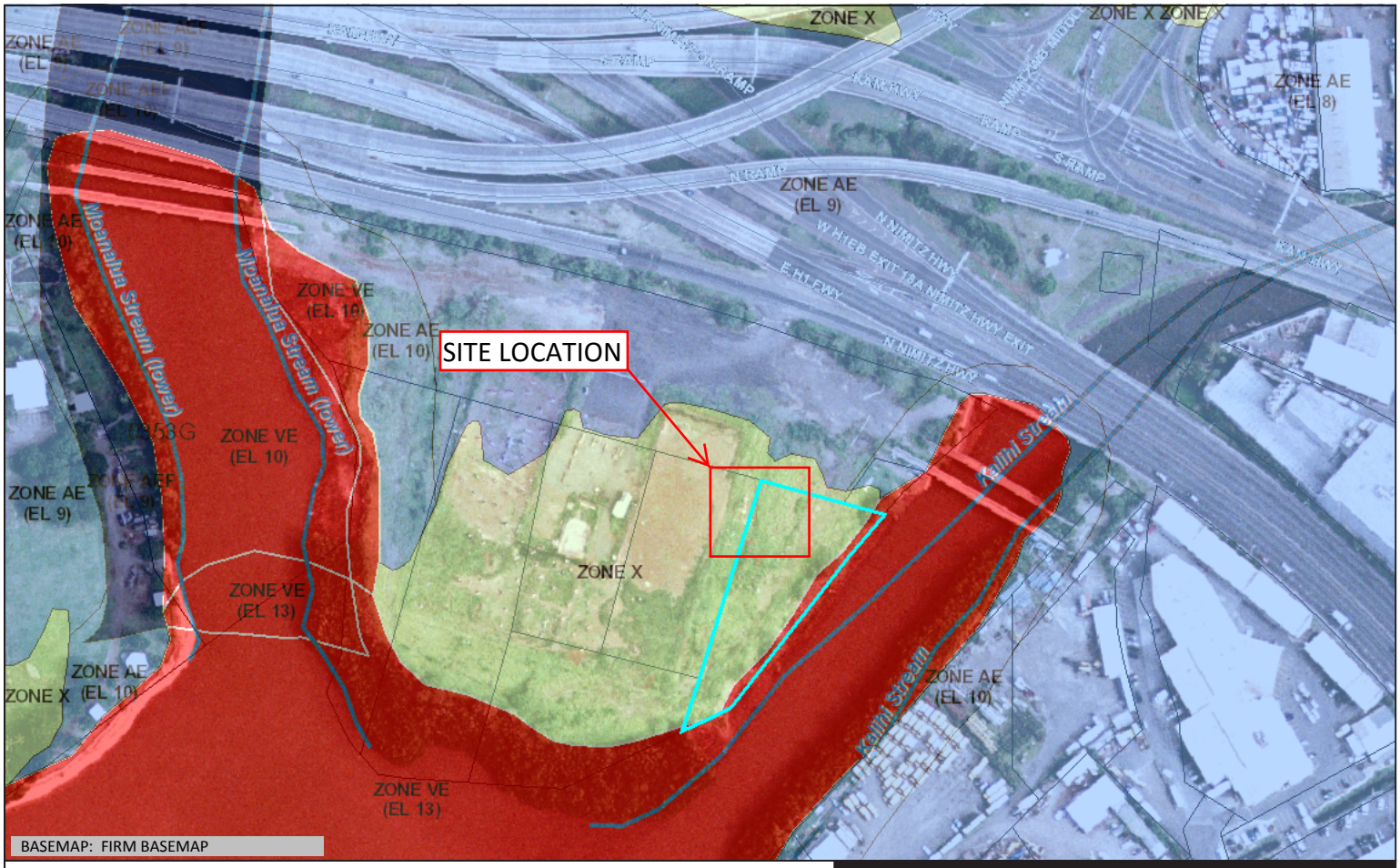
Notice to User: The **Map Number** shown below should be used when placing map orders; the **Community Number** shown above should be used on insurance applications for the subject community.

MAP NUMBER 15003C0353G

MAP REVISED JANUARY 19, 2011

Federal Emergency Management Agency

This is an official copy of a portion of the above referenced flood map. It was extracted using F-MIT On-Line. This map does not reflect changes or amendments which may have been made subsequent to the date on the title block. For the latest product information about National Flood Insurance Program flood maps check the FEMA Flood Map Store at www.msc.fema.gov



Flood Hazard Assessment Report

www.hawaiinfip.org

Nimitz Highway Tower Relo

Property Information

COUNTY:	HONOLULU
TMK NO:	(1) 1-1-003:207
WATERSHED:	KALIHI
PARCEL ADDRESS:	KEEHI LAGOON HONOLULU, HI 96819

Notes:

Flood Hazard Information

FIRM INDEX DATE:	NOVEMBER 05, 2014
LETTER OF MAP CHANGE(S):	NONE
FEMA FIRM PANEL:	15003C0353G
PANEL EFFECTIVE DATE:	JANUARY 19, 2011

THIS PROPERTY IS WITHIN A TSUNAMI EVACUTION ZONE: YES
FOR MORE INFO, VISIT: http://www.scd.hawaii.gov/

THIS PROPERTY IS WITHIN A DAM EVACUATION ZONE: NO
FOR MORE INFO, VISIT: http://dlnreng.hawaii.gov/dam/

0 200 400 ft

Disclaimer: The Hawaii Department of Land and Natural Resources (DLNR) assumes no responsibility arising from the use, accuracy, completeness, and timeliness of any information contained in this report. Viewers/Users are responsible for verifying the accuracy of the information and agree to indemnify the DLNR, its officers, and employees from any liability which may arise from its use of its data or information.

If this map has been identified as 'PRELIMINARY', please note that it is being provided for informational purposes and is not to be used for flood insurance rating. Contact your county floodplain manager for flood zone determinations to be used for compliance with local floodplain management regulations.

FLOOD HAZARD ASSESSMENT TOOL LAYER LEGEND
(*Note: legend does not correspond with NFHL*)

SPECIAL FLOOD HAZARD AREAS (SFHAs) SUBJECT TO INUNDATION BY THE 1% ANNUAL CHANCE FLOOD - The 1% annual chance flood (100-year), also know as the base flood, is the flood that has a 1% chance of being equaled or exceeded in any given year. SFHAs include Zone A, AE, AH, AO, V, and VE. The Base Flood Elevation (BFE) is the water surface elevation of the 1% annual chance flood. Mandatory flood insurance purchase applies in these zones:

	Zone A: No BFE determined.
	Zone AE: BFE determined.
	Zone AH: Flood depths of 1 to 3 feet (usually areas of ponding); BFE determined.
	Zone AO: Flood depths of 1 to 3 feet (usually sheet flow on sloping terrain); average depths determined.
	Zone V: Coastal flood zone with velocity hazard (wave action); no BFE determined.
	Zone VE: Coastal flood zone with velocity hazard (wave action); BFE determined.
	Zone AEF: Floodway areas in Zone AE. The floodway is the channel of stream plus any adjacent floodplain areas that must be kept free of encroachment so that the 1% annual chance flood can be carried without increasing the BFE.

NON-SPECIAL FLOOD HAZARD AREA - An area in a low-to-moderate risk flood zone. No mandatory flood insurance purchase requirements apply, but coverage is available in participating communities.

	Zone XS (X shaded): Areas of 0.2% annual chance flood; areas of 1% annual chance flood with average depths of less than 1 foot or with drainage areas less than 1 square mile; and areas protected by levees from 1% annual chance flood.
	Zone X: Areas determined to be outside the 0.2% annual chance floodplain.

OTHER FLOOD AREAS

	Zone D: Unstudied areas where flood hazards are undetermined, but flooding is possible. No mandatory flood insurance purchase apply, but coverage is available in participating communities.

U.S. Fish and Wildlife Service
National Wetlands Inventory

Nimitz Highway Tower Relocation Site

February 10, 2017

- Estuarine and Marine Deepwater
- Estuarine and Marine Wetland
- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
- Freshwater Pond
- Lake
- Other
- Riverine

This map is for general reference only. The US Fish and Wildlife Service is not responsible for the accuracy or currentness of the base data shown on this map. All wetlands related data should be used in accordance with the layer metadata found on the Wetlands Mapper web site.

National Wetlands Inventory (NWI)
This page was produced by the NWI mapper

Soil Map—Island of Oahu, Hawaii
(Nimitz Highway Tower Relocation Site)

Map Scale: 1:569 if printed on A landscape (11" x 8.5") sheet.

N

Meters: 0 5 10 20 30

Feet: 0 25 50 100 150

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 4N WGS84

MAP LEGEND

Area of Interest (AOI)

Area of Interest (AOI)

Soils

Soil Map Unit Polygons

Soil Map Unit Lines

Soil Map Unit Points

Special Point Features

Blowout

Borrow Pit

Clay Spot

Closed Depression

Gravel Pit

Gravelly Spot

Landfill

Lava Flow

Marsh or swamp

Mine or Quarry

Miscellaneous Water

Perennial Water

Rock Outcrop

Saline Spot

Sandy Spot

Severely Eroded Spot

Sinkhole

Slide or Slip

Sodic Spot

Spoil Area

Stony Spot

Very Stony Spot

Wet Spot

Other

Special Line Features

Water Features

Streams and Canals

Transportation

Rails

Interstate Highways

US Routes

Major Roads

Local Roads

Background

Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:24,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Island of Oahu, Hawaii
Survey Area Data: Version 11, Sep 22, 2016

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Data not available.

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Legend

Island of Oahu, Hawaii (HI990)			
Map Unit Symbol	**Map Unit Name**	**Acres in AOI**	**Percent of AOI**
FL	Fill land, mixed	1.2	100.0%
Totals for Area of Interest		**1.2**	**100.0%**

APPENDIX D

CULTURAL IMPACTS, AGENCY AND ORGANIZATION CORRESPONDENCE

SCS Project Number 2066 HPA-2

HISTORIC PROPERTY ASSESSMENT FOR THE NIMITZ HIGHWAY TOWER RELOCATION PROJECT

KALIHI AHUPUA`A, ISLAND OF OAHU, HAWAI`I
TMK (1) 1-1-003:003, 207, 211, and 212 (por)

Prepared by:
Kepa Lyman, M.A.
and
Robert L. Spear, Ph.D.

May 2017

FINAL

Prepared for:
Tim Swartz
Senior Project Manager
Ford Canty & Associates, Inc.
928 Nuuanu Ave., Suite 505
Honolulu, HI 96813

SCIENTIFIC CONSULTANT SERVICES, Inc.

HAWAII

1347 Kapiolani Blvd., Suite 408 Honolulu Hawai`i 96814

Copyright © Scientific Consultant Services, Inc. 2017. All rights reserved.

TABLE OF CONTENTS

INTRODUCTION 2

METHODS 5

HISTORIC BACKGROUND 5

RECORD SEARCH RESULTS 13

PREVIOUS ARCHAEOLOGICAL STUDIES WITHIN THE INDIRECT APE 13

FIELD INSPECTION 15

DIRECT AND INDIRECT (VISUAL) IMPACT ANALYSIS 15

RECOMMENDATION 16

REFERENCES 16

LIST OF FIGURES

Figure 1. Direct and Indirect Area of Potential Effect. Portions of Honolulu and Pearl Harbor 1:25,000 USGS quad (1997). 3

Figure 2. Project area within TMK 111003003. The TMK parcel is entirely fill land, constructed sometime between 1945 and 1953. 4

Figure 3. Portion of Registered Map 1472, Map of Reef Titles of Kalihi, compiled by C.J. Lyons (1886). 6

Figure 4. Portion of historic Oahu map (1902) by John M. Donn. Blue hatch areas denote wetland taro or rice fields. The direct APE appears to be located within the Kalihi entrance east of Onini Island. 7

Figure 5. Portion of historic (1933) topographic Honolulu quad showing the area before the construction of the seaplane base at Keehi Lagoon. The direct APE appears to be located in marsh land. 9

Figure 6. Portion of Honolulu topographic quad (1943). Note large areas of fill land made possible by dredging operations for the seaplane runways. 10

Figure 7. Map showing areas dredged (and where fill was utilized) by US Army dredger Jefferson during the construction of Keehi Lagoon Seaplane Basin. Note that the direct APE appears to be unmodified. 11

Figure 8. Aerial image of NAS Honolulu seaplane and land runways, 1945. The direct APE appears to consist of tidal flats. View to west. (State of Hawaii Airports Division, 2017) 12

Figure 9. Previous archaeological studies within the indirect APE (labeled by SHPD Library # (Please note that report authors are not preserved within SHPD Library records). 14

Figure 10: View to north from north edge of site. 18

Figure 11:View to west towards paintball facility. 19

Figure 12:View to south along road bordering Kalihi Stream (at left). 20

Figure 13: View to north along road bordering Kalihi Stream (at right). 21

Figure 14:View to south along road bordering Kalihi Stream (at left). Note extensive disturbance to project area by local residents. 22

LIST OF TABLES

Table 1. Assessed Impacts to Historic Properties within the indirect APE. 16

INTRODUCTION

At the request of Ford Canty & Associates, Inc., Scientific Consultant Services (SCS) conducted a historic properties assessment for the proposed relocation of the Nimitiz Highway radio tower located in Kalihi Ahupua`a, Island of O`ahu, Hawai`i [TMK (1) 1-1-003:003, 207, 211, and 212 (por)]. The assessment was conducted to identify historic properties (prehistoric or historic sites, buildings, structures, objects, or districts) listed in, or eligible for listing in, the regulations implementing Section 106 of the National Historic Preservation Act of 1966, as amended. The project area consists of an undeveloped area.

The proposed action involves installing a 150-foot lattice tower supported by guy wires. In addition, an equipment shelter and emergency generator will be installed south of the lattice tower. The lattice tower, equipment shelter and emergency generator will be installed within a 2,500 square foot fenced area, which will be within a 150-foot radius fenced area.

The direct Area of Potential Effect (APE) is considered the location where the radio tower will be placed. The indirect (visual) APE is considered the area within which the tower is visible from any historic property listed in, or eligible for listing in, the National Register of Historic Places and/or the Hawai`i Register of Historic Places. No significant or eligible historic properties are within the direct APE for this proposed tower relocation.

PROJECT AREA

The direct APE consists of a semi-circular area approximately 1.56 acres in size located on an artificial peninsula created c 1950. The Kalihi Stream borders the direct APE on the east, The Hawaii Paintball facility on the west, Keehi Lagoon to the south, and the Nimitz/H2 freeway interchange to the north. The Indirect APE is composed of a half-mile (840 meter) radius circle around the Direct APE. The Indirect APE reaches Fort Shafter in the north, Keehi Lagoon Park to the west, Puuhale Road to the east , and Sand Island Access Road to the south (Figures 1 and 2).

SOILS

The project area is classified as Fill Land (FL). According to historic maps of the area, the project area was either completely submerged or consisted of tidal flats before the construction of the Keehi Lagoon Seaplane Basin Project in 1941-44.

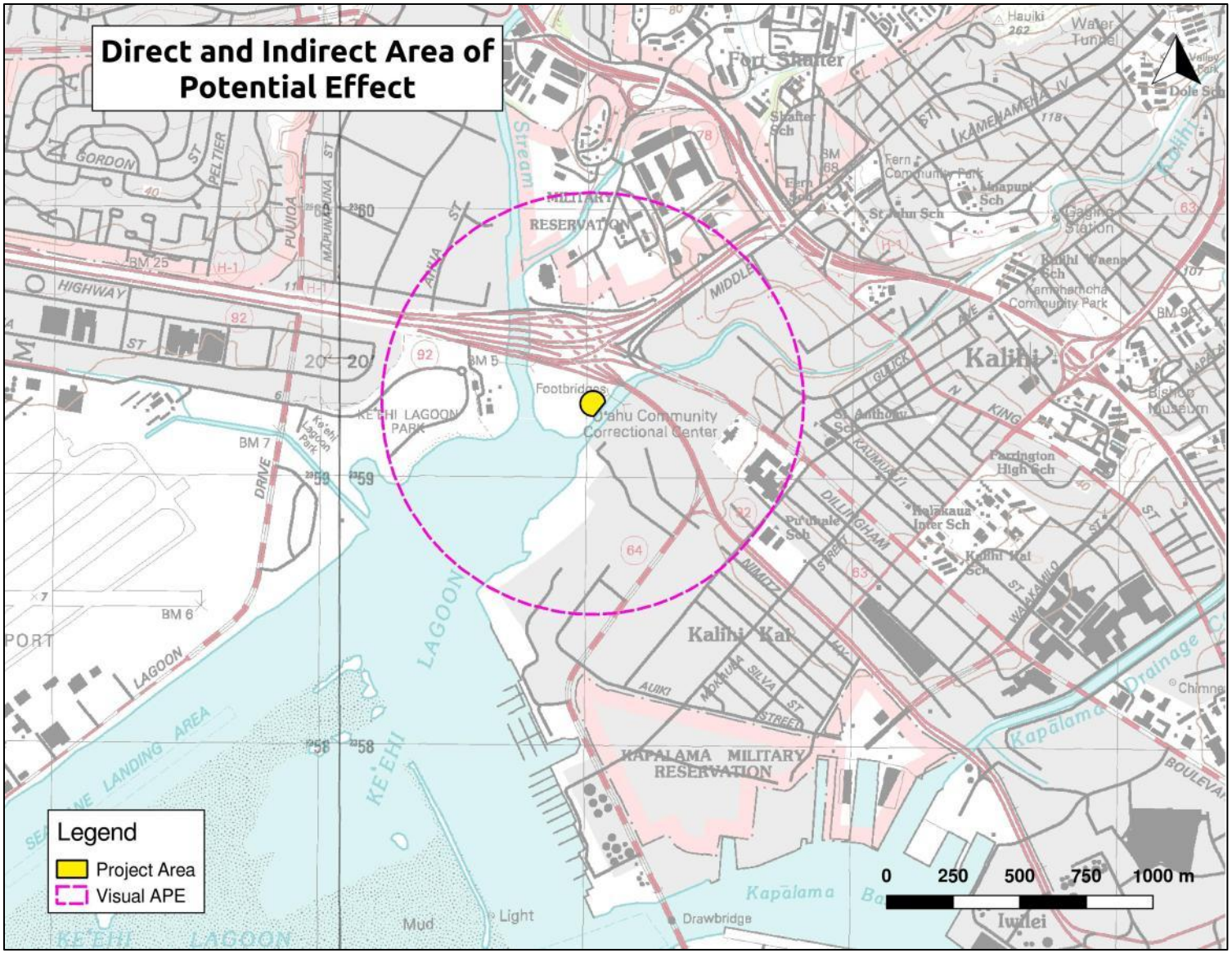


Figure 1. Direct and Indirect Area of Potential Effect. Portions of Honolulu and Pearl Harbor 1:25,000 USGS quad (1997).

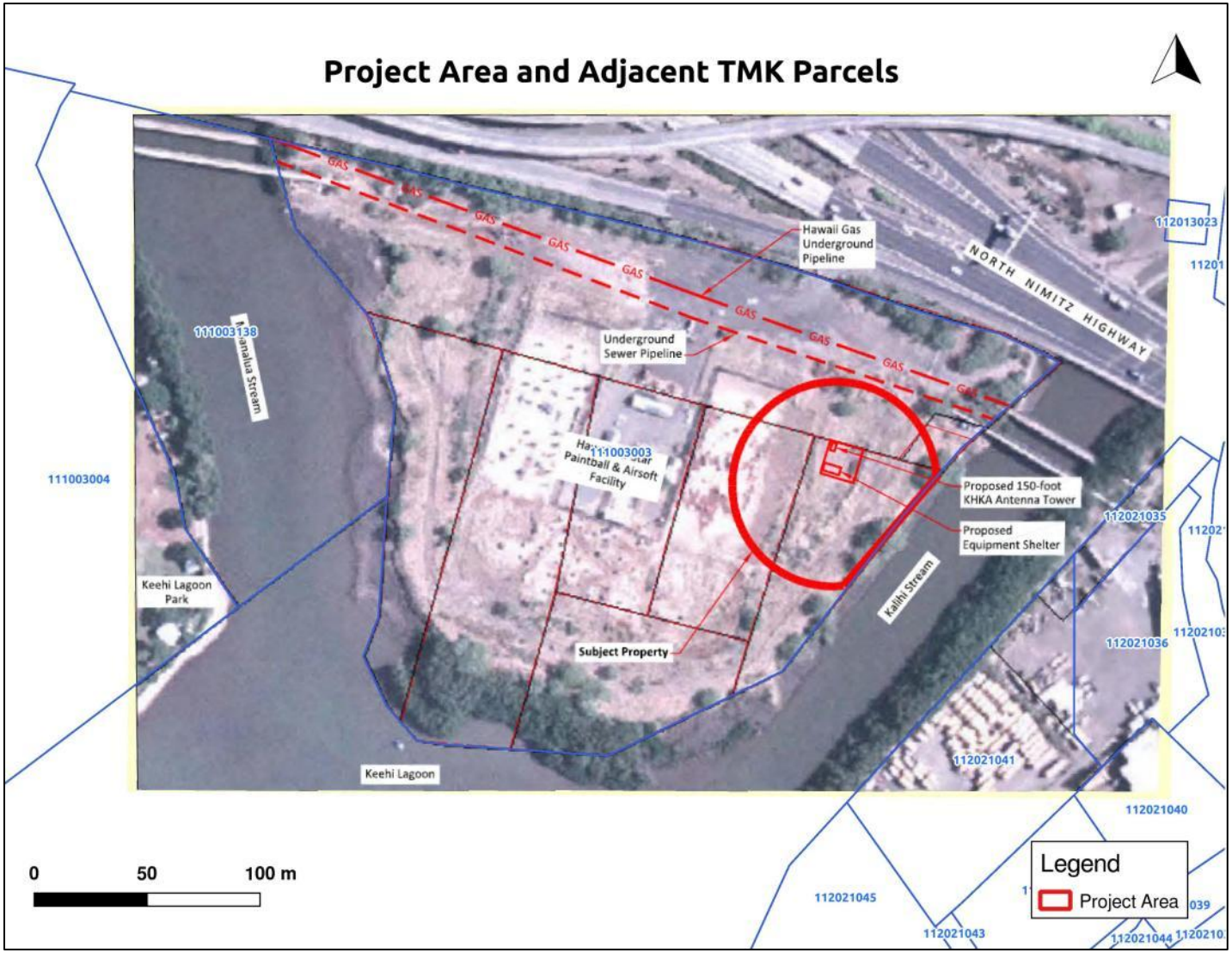


Figure 2. Project area within TMK (1) 1-1-003:003, 207, 211, and 212 (por). The TMK parcel is entirely fill land, constructed sometime between 1945 and 1953.

METHODS

A records search was conducted at the State Historic Preservation Division, located in Kapolei, O`ahu; it included a review of all recorded historic and prehistoric archaeological sites within a one-half mile radius of the direct APE, as well as a review of known cultural resource survey and excavation reports. The National Register of Historic Places (NRHP) and the Hawai`i Register of Historic Places (HRHP) were also consulted.

HISTORIC BACKGROUND

Due to its geography, room to accommodate the growing population of nineteenth-century Honolulu was largely confined to a narrow littoral plain. Throughout the latter half of the 19th century and well into the twentieth, the principal direction of urban growth was northwest towards Moanalua. Archival research shows that in earlier times this was a productive region of rich off-shore fisheries: fishponds extended out into Māmala Bay, salt pans dotted tidal flats, and irrigated taro lands and other gardens and habitations stretched across the plain and extended up the valleys (Handy and Handy 1972). For example, a cursory examination of the O`ahu Tax Key Maps for this region found 29 Land Commission Awards (LCAs). Included are awards for house lots (15), gardens (16), *`auwai* for irrigation (3), fishponds (2), and trees for fruit, nut, and/or wood/leaf products (1). The records suggest that this was a well-populated coastal region with an integrated mix of residential, horticultural, and marine properties.

Fishponds were once prominent archaeological features along the Ke`ehi Lagoon shoreline on the plain below Fort Shafter (McAllister 1931; Wickler *et al*. 1991:4). Most were destroyed or filled with the destruction of the Keehi Lagoon seaplane project before and during World War II. Twelve fishponds once were located along the Ke`ehi shoreline (Kikuchi 1973). Several fishponds once existed within the Indirect APE; Weli fishpond to the north, and Apili and Pahou ponds to the south, but they have all since been filled and destroyed (Figure 3 and Figure 4).

Kikuchi lists Waikulu Fishpond as Site #157. The pond encompassed an area of one acre and was identified as a Type IIIb pond. The Type IIIb, or *loko wai*, are freshwater ponds that have been artificially altered by an earthen or stone embankment-wall to separate it from an adjacent stream or river. Such ponds are typically formed in a natural backwater or flood land, as in the case of Waikulu Fishpond and Kalihi Stream.

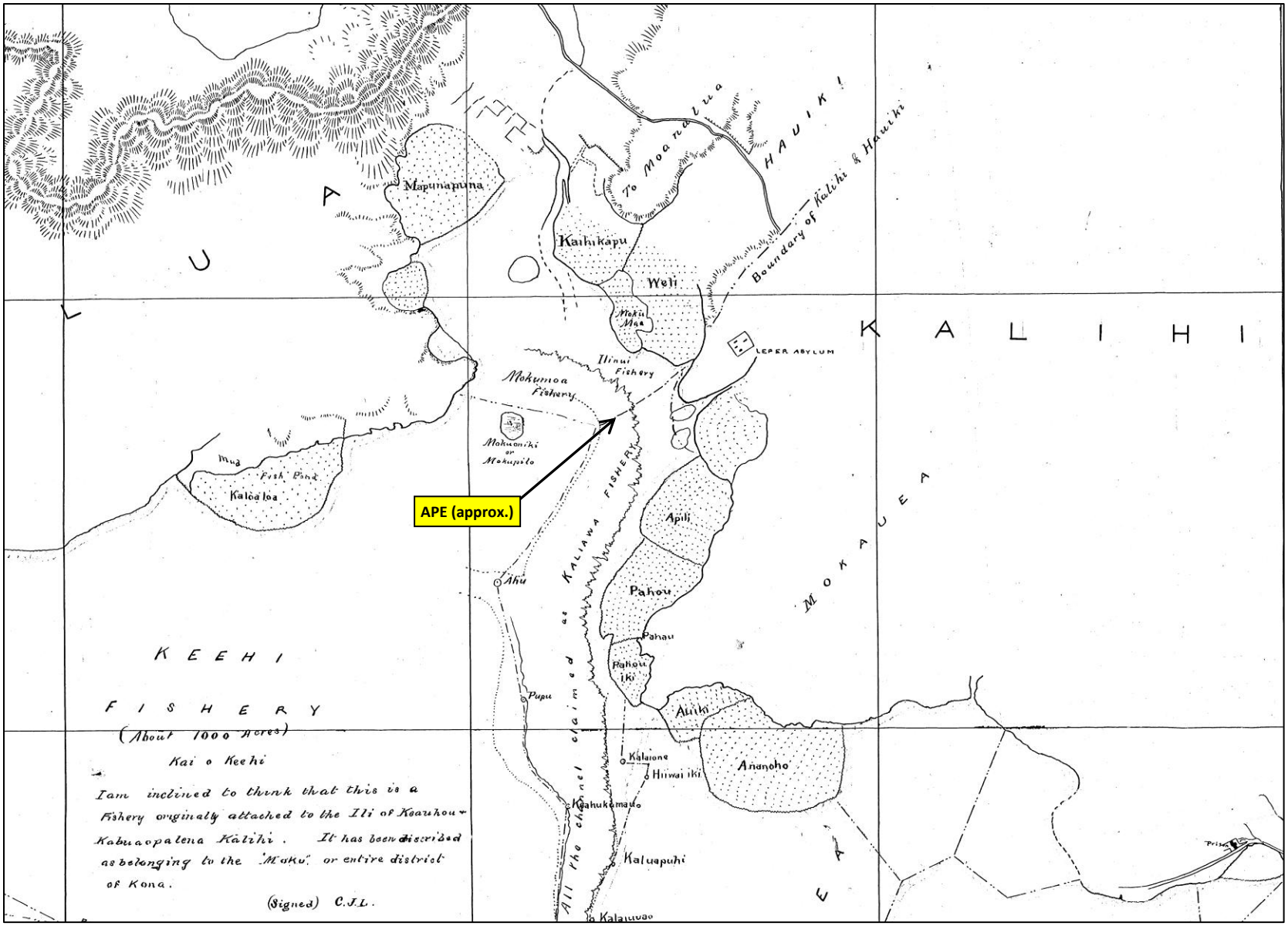


Figure 3. Portion of Registered Map 1472, Map of Reef Titles of Kalihi, compiled by C.J. Lyons (1886).

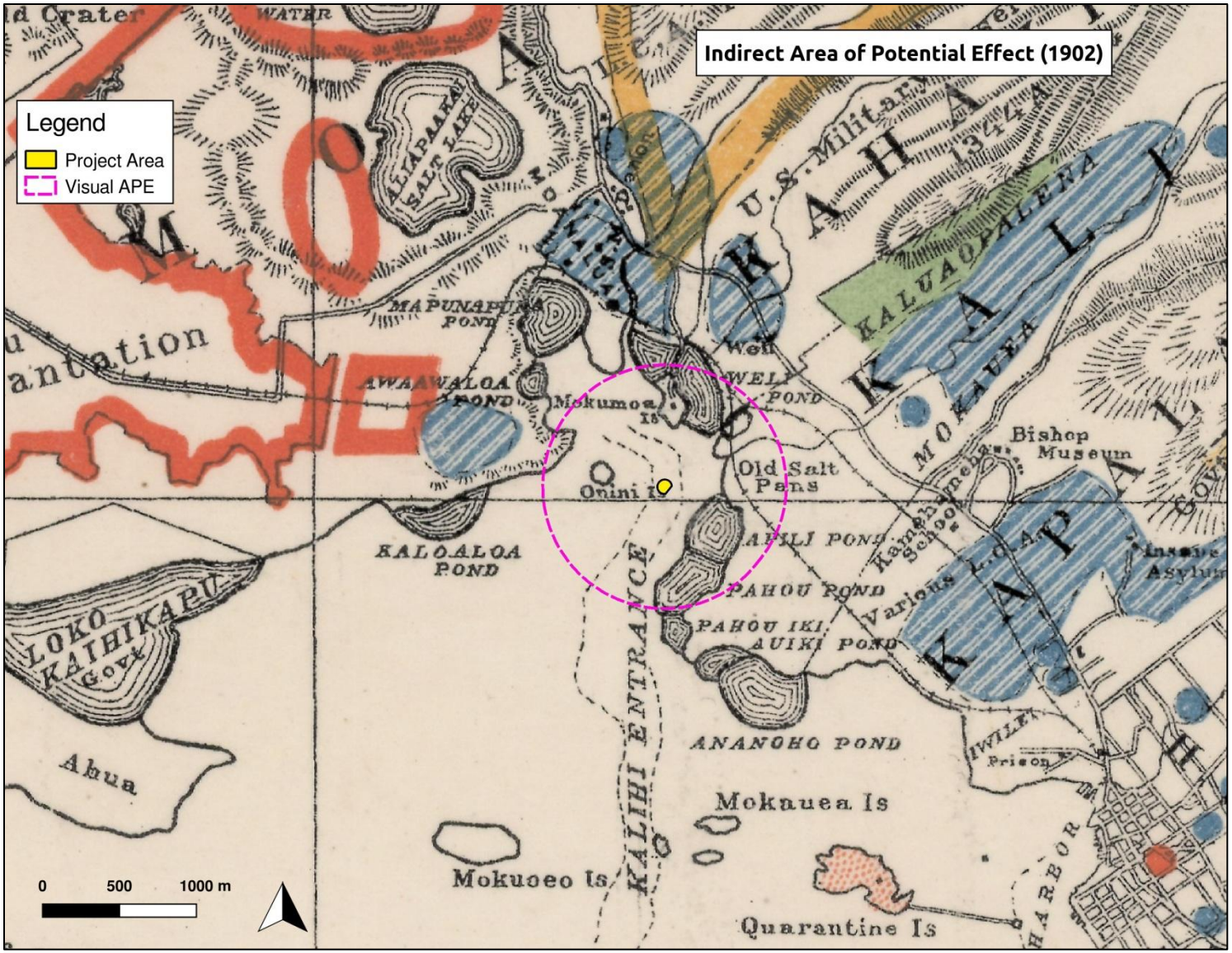


Figure 4. Portion of historic Oahu map (1902) by John M. Donn. Blue hatch areas denote wetland taro or rice fields. The direct APE appears to be located within the Kalihi entrance east of Onini Island.

NAVAL AIR STATION, HONOLULU

An overview of historic maps show the accumulative impact of development to the region (Figure 5 and Figure 6). The largest impact was caused by the dredging of seaplane runways during World War II within Keehi Lagoon.

Plans to construct a major seaplane base and anchorage were first initiated in 1935. Dredging started in 1941, and by the start of the war in December was only ten percent complete. The plan called for three runways two miles in length and one thousand feet in width. Kaneohe was considered for improvements to its seaplane facilities but due to the topography and frequently poor flying weather, Honolulu was selected instead. It was estimated that the new seaplane runways at Keehi would be able to accommodate the largest seaplanes available and all those conceivable in the foreseen post-war future. The seaplane base opened in 1944 as part of Naval Air Station, Honolulu, and closed in 1945, declared obsolescent. The seaplane portion of Honolulu Airport was abandoned in 1965 (State of Hawaii Airports Division, 2017; Ingals 1945).

Although activity utilizing the seaplane runways was short-lived, Naval Air Station, Honolulu provided a vital service for the Naval Air Transit command during the course of war. In 1943, military medical history was made when aircraft from the air station transported refrigerated blood for casualties caused by the battles for the invasion of Leyte, Philippines (41). Naval Air Transit continued to operate at maximum capacity as the war front moved further west, resembling, as base commandant Captain Ingals observed, a full-fledged airline (40). Captain Ingals was the only U.S. Navy ace in the First World War (24).

The dredging of the seaplane runways caused major changes to Keehi Lagoon and the neighboring shorelines. The dredging material ("indispensable coral") provided the fill to extend John Rodgers Airport, Sand Island, and Honolulu harbor facilities (Figure 7; Ingals 1945:15). It was noted that the:

> Dredged material from these operations proved to be of great benefit to the war effort. More than 10 million cubic yards of coral were dredged by six cutterhead and hopper dredges and the material was deposited from Fort Kamehameha to Mapunapuna to Fort Shafter Flats and Sand Island. The elevation of the airport was continued at about eight feet above low water. The amount of land at John Rodgers Airport increased from about 200 acres to more than 1,000 acres. A square mile of area between Hickam Field and John Rodgers Field was also filled in and a future joint runway conceived. (State of Hawaii Airports Division, 2017)

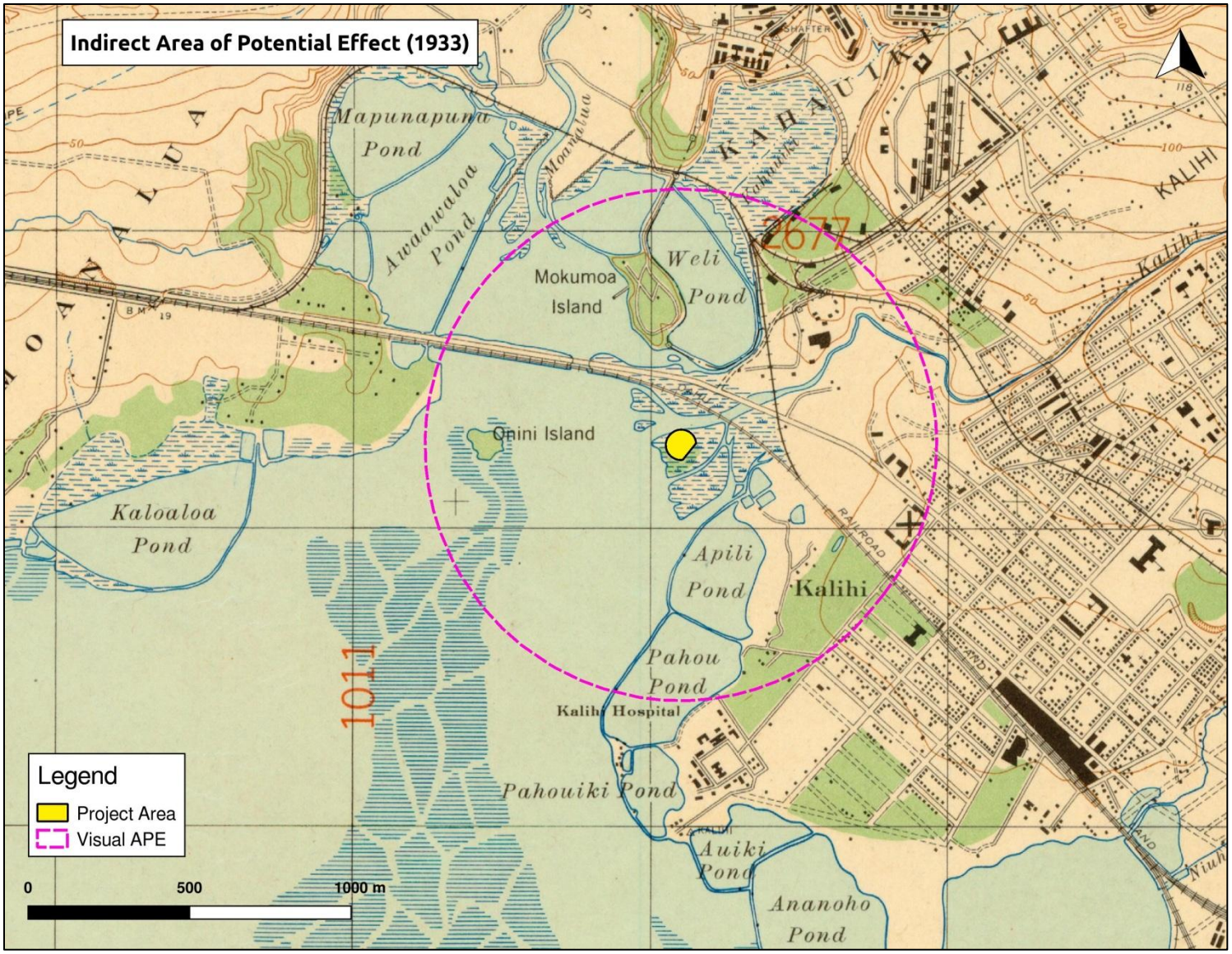


Figure 5. Portion of historic (1933) topographic Honolulu quad showing the area before the construction of the seaplane base at Keehi Lagoon. The direct APE appears to be located in marsh land.

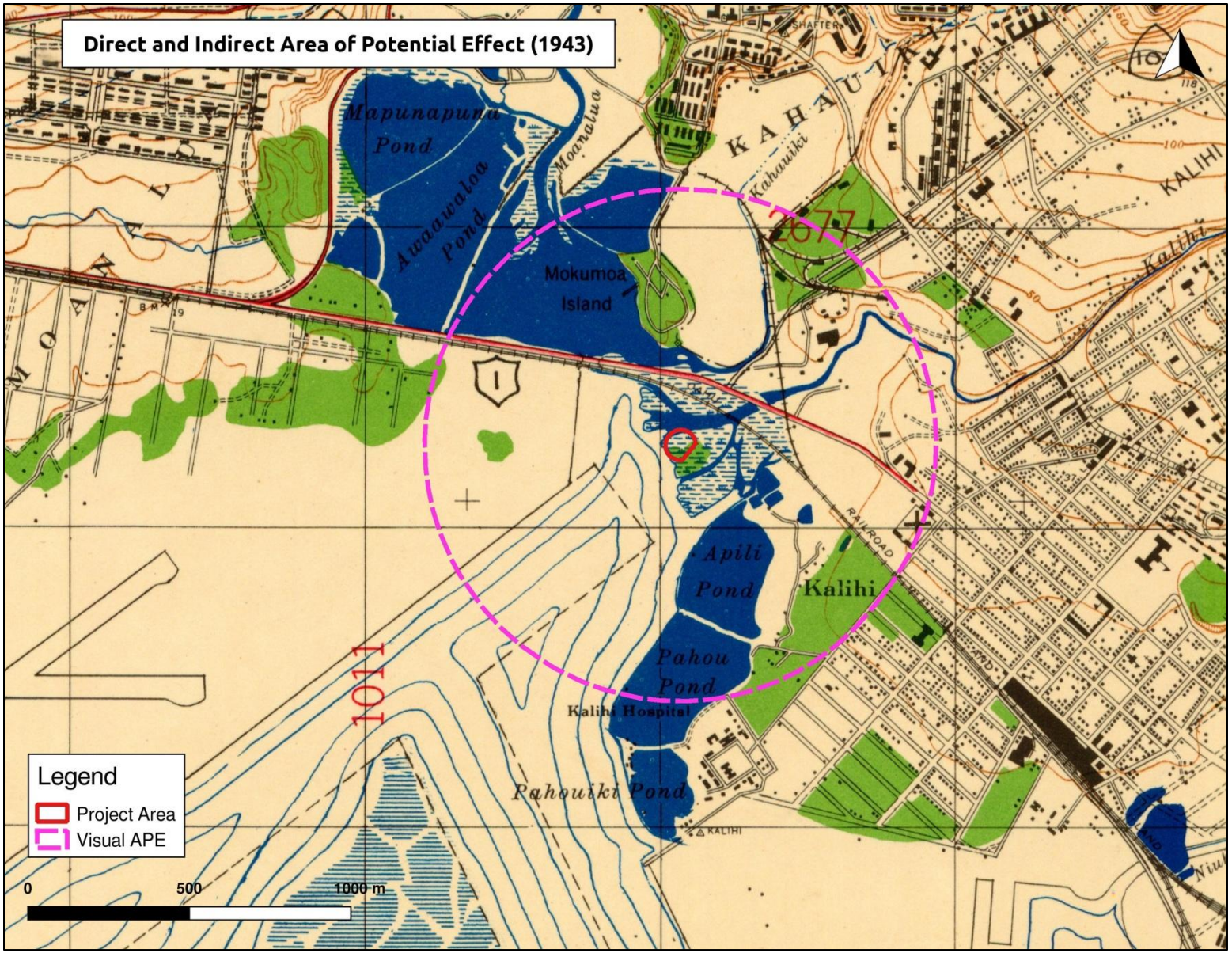


Figure 6. Portion of Honolulu topographic quad (1943). Note large areas of fill land made possible by dredging operations for the seaplane runways.

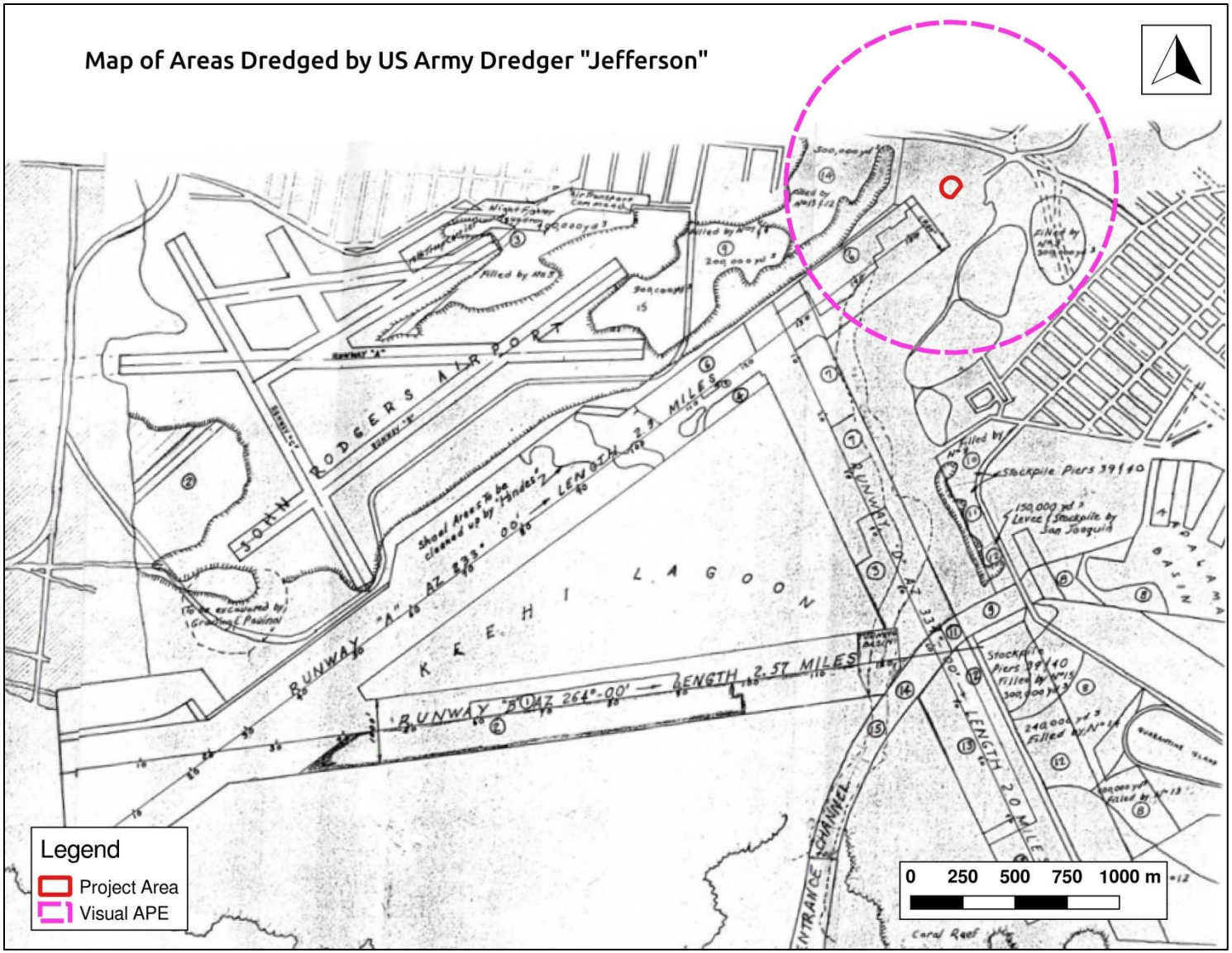


Figure 7. Map showing areas dredged (and where fill was utilized) by US Army dredger Jefferson during the construction of Keehi Lagoon Seaplane Basin. Note that the direct APE appears to be unmodified.

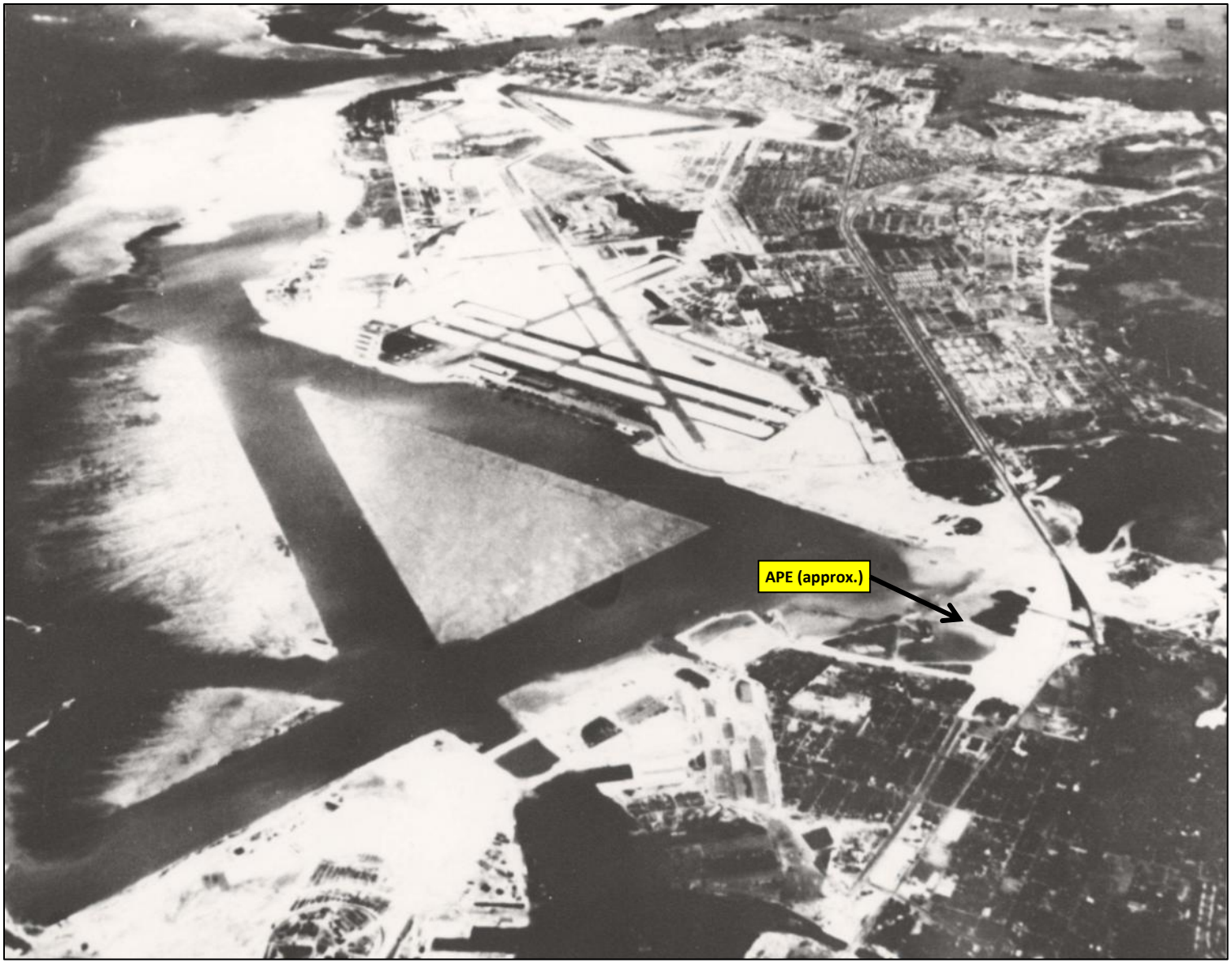


Figure 8. Aerial image of NAS Honolulu seaplane and land runways, 1945. The direct APE appears to consist of tidal flats. View to west. (State of Hawaii Airports Division, 2017)

RECORD SEARCH RESULTS

The results of the records search indicate under HRS §6E-2 Historic Preservation Program definitions, the term 'Historic Property' "means any building, structure, object, district, area, or site … which is over 50 years old." Data from the Historic Site State National Register indicates that there are no historic properties listed on the Register within the project search radius.

One potential site was identified during the records research, NAS Honolulu Seaplane Runway A (see Figure 6 and Figure 7). The northeast end of the runway extends into the indirect APE. However, as the site consists of a submerged dredged channel, there is no visual impact from the construction of the tower.

PREVIOUS ARCHAEOLOGICAL STUDIES WITHIN THE INDIRECT APE

No archaeological studies are known to have occurred within the direct APE. Multiple studies have been conducted in the half-mile radius of the Indirect APE (Figure 9).

In 1991, Bishop Museum performed a literature review and archival research for a 3.7-acre parcel at the present site of the Kalihi-Palama Bus Facility (SHPD Library # O-00995). This parcel is located northeast of the Direct APE. In 1993, Folk and Hammatt conducted an archaeological study in the same parcel (SHPD Library # O-00940). A total of 19 trenches were excavated, four of which revealed three primary inhumations, two in simple wooden coffins (possibly from the former leprosarium), and a possible cultural deposit incorporating an estimated 400 square meters. The cultural unit contained bits of charcoal and a very limited range of shellfish: *Brachidontes crebristriatus*, *Isognomon* sp., *Pinctada* sp., and *Hetercentrotus mammillatus*.

In 2002, Garcia and Associates performed archaeological monitoring on a 79-acre parcel at TMK 1-1-1-008:001 within Fort Shafter (SHPD Library #O-01999). The results of the monitoring program cannot be determined as the report cannot be located.

In 2004, Archaeological Consultants of the Pacific conducted an archaeological inventory survey on a 5.4-acre parcel at TMK 1-1-2-021:013 (SHPD Library #O-02239). The results of the survey could not be determined as the report could not be located. This parcel is located within the former Apili fishpond south of the direct APE.

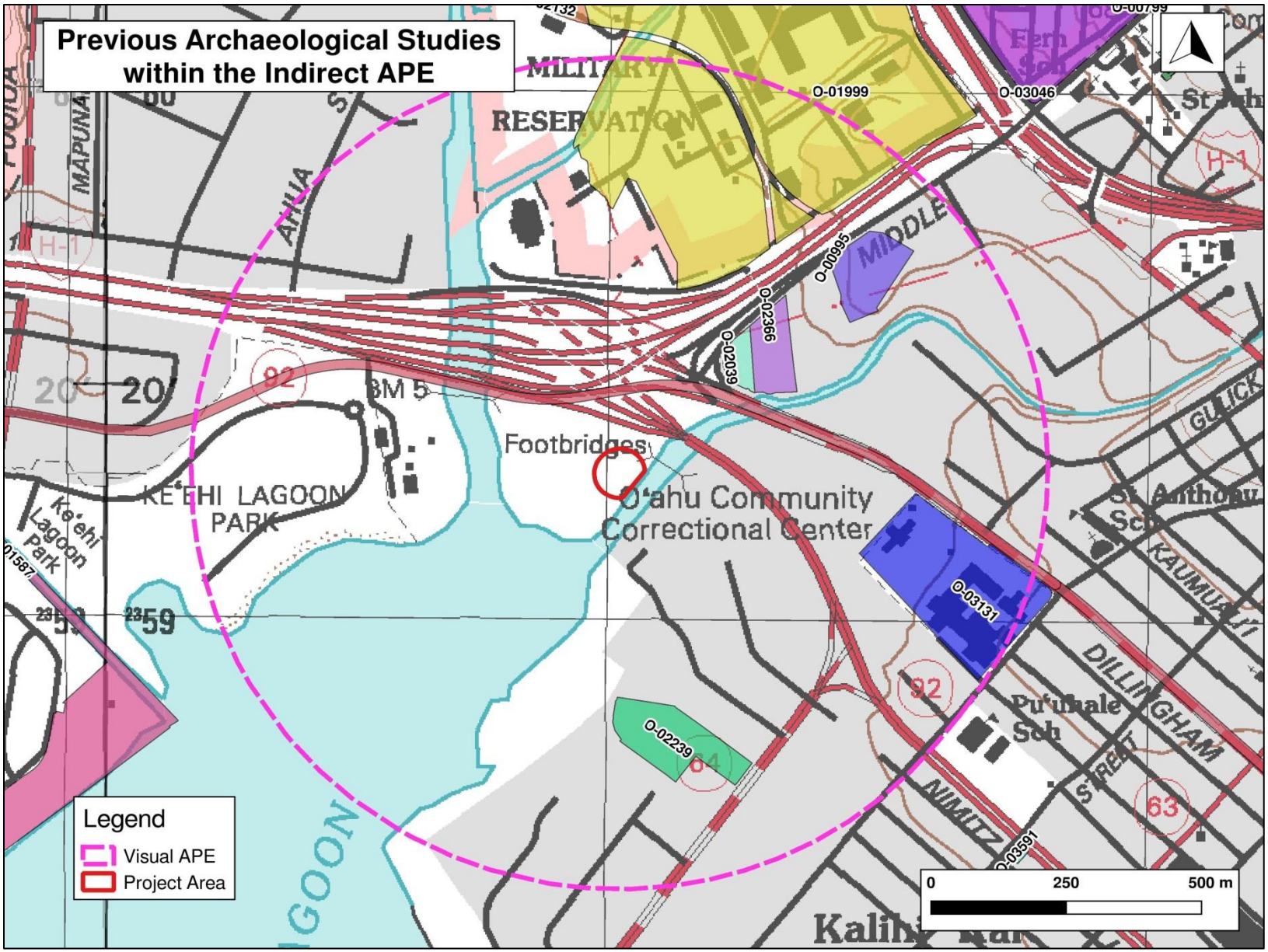


Figure 9. Previous archaeological studies within the indirect APE (labeled by SHPD Library # (Please note that report authors are not preserved within SHPD Library records).

In 2006, Dega et al. conducted an archaeological survey of an 8.67 acre area for the development of the Middle Street Intermodal Center (SHPD Library #O-02366). A Cultural Impact Assessment was previously done by SCS (Davis and McGerty 2002) which identified this property as the site of a traditional Hawaiian fishpond. Previous work by Cultural Surveys Hawaii (2002) failed to identify any historic sites in the project area (SHPD Library #O-02940/ O-02039). Bottom sediments were found to be consistent with a fishpond environment, but yielded disparate dates. Overall, the sediments provide greater evidence that the fishpond was in use at least during the A.D. 1600–1700s; however, specific architectural evidence in the form of a constructed fishpond wall and/or associated habitation deposits were not identified. Trenching has also led to the recovery of an historic-era refuse pit and material remains associated with the site's use by slaughterhouse and cold storage companies. This portion of the site is now designated State Site 50-80-14-6683.

In 2008, Pacific Legacy conducted an archaeological assessment on an 14.7-acre parcel TMK (1) 1-2-013:002 (SHPD Library # O-03319/O-03131). No historic sites were identified.

FIELD INSPECTION

A field inspection was conducted by SCS Archaeologist Kepa Lyman, M.A, in May 2017 (Figures 10 to 14). The project area is undeveloped except for the construction of multiple homeless camps. A road runs roughly north/south along the bank of Kalihi Stream on the east side of the project area. Based on the field inspection and given there are no Historic Properties within the direct APE, the relocation of the radio tower will have no immediate effect on Historic Properties.

DIRECT AND INDIRECT (VISUAL) IMPACT ANALYSIS

The archival research and literature search found three sites within the search area, though there is no impact anticipated to the integrity or visual character of these sites. The current project consists entirely of the proposed construction of a 150-foot radio tower and support structures. There are no anticipated visual or cultural impacts to any historic properties (Table 1).

Table 1. Assessed Impacts to Historic Properties within the indirect APE.

Site	Location	Status	Impact
Waikulu Fishpond (157)	Intermodal Center	Destroyed	None
Refuse Pit (50-80-14-6683)	Intermodal Center	Below Ground Surface	None
Keehi Lagoon Runway A	SE of Direct APE	Submerged	None

RECOMMENDATION

No significant or eligible historic properties are within the Direct APE for this project. Those sites within the Indirect APE will not be visually impacted.

REFERENCES

Bishop Museum (n.a)
1991. Historical Literature and Document Search for the City and County of Honolulu, Department of Transportation Services, Bus Unit Repair Shop Facility, Kalihi, O'ahu. Bishop Museum, Honolulu.

Davis, B.D. and L. McGerty
2002. An Assessment of Archaeological and Cultural Resources along the Proposed Honolulu Bus Rapid Transit Primary Corridor, Honolulu, Hawaii. SCS/CRMS, Inc., Honolulu.

Dega, M.F, G. Tome, and B.D. Davis
2006. An Archaeological Inventory Survey at the Proposed Middle Street Intermodal Center, Honolulu, Kalihi, Ahupua'a, Kona District, Oahu Island, Hawaii. [TMKs 1-2-18:001, 002, 003, 009, and 010]. Scientific Consultant Services, Honolulu.

Folk, W.H., S. Crotty, and H.H. Hammatt
1993. Archaeological Survey with Subsurface Testing at 711 Middle Street, O`ahu (TMK 1-2-16:17). Ms. on file, State Historic Preservation Division, Honolulu.

Garcia and Associates (n.a)
2002. Archaeological Monitoring and Sampling for Outside Cable Rehabilitation (OSCAR) Project Fort Shafter Military Reservation, O'ahu Island, Hawai'i (Contract No. DACA83-00-P-0024). Garcia and Associates, Honolulu.

Handy, E.S.C. and E.G. Handy
1972. Native Planters in Old Hawaii: Their Life, Lore, and Environment. B.P. Bishop Museum. Bulletin, 223.

Ingals, D.S.
1945. History of U.S. Naval Air Station Honolulu. Report to the Office of the Chief of Naval Operations. SECRET.

Kennedy et al.
2004. An Archaeological Inventory Survey Report for a Property Located at TMK: 1-2-21:13 in Kalihi Ahupua'a, Kona District, Island of O'ahu. Archaeological Consultants of the Pacific, Honolulu.

Kikuchi, W.K.
1973. Hawaiian Aquacultural Systems. Ph.D. Dissertation, University of Arizona.
1976. Prehistoric Hawaiian Fishponds. Science. 193:295–99.

Kuykendall, R.
1953. The Hawaiian Kingdom (Volume II). Honolulu: University Press of Hawaii.

Lyons, C.J.
1886. Registered Map 1472: Map of Reef Titles of Kalihi. On file, State Survey Office, Honolulu.

McAllister, J.G.
1931. Archaeology of Oahu. B.P. Bishop Museum Bulletin 104.

Pacific Legacy (n.a)
2008. Proposed Temporary Program Structures Oahu Community Correctional Center Archaeological Assessment. Pacific Legacy, Honolulu.

State of Hawaii, Airports Division.
John Rodgers Airport. http://aviation.hawaii.gov/airfields-airports/oahu/john-rodgers-airport/. Accessed May 2017.

Wickler, S., J.S. Athens, and J.V. Ward
1991. Vegetation and Landscape Change in a Leeward Coastal Environment: Paleoenvironmental and Archaeological Investigations, Fort Shafter Flats Sewerline Project, Honolulu, Hawaii. International Archaeological Research Institute, Inc., Honolulu.

Figure 10: View to north from north edge of site.

Figure 11:View to west towards paintball facility.

Figure 12:View to south along road bordering Kalihi Stream (at left).

Figure 13: View to north along road bordering Kalihi Stream (at right).

Figure 14:View to south along road bordering Kalihi Stream (at left). Note extensive disturbance to project area by local residents.

FCC Form 620

Notification Date: **7AM EST 05/22/2017**
File Number: **0007781888**

FCC Wireless Telecommunications Bureau
New Tower ("NT") Submission Packet

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

General Information

1) (Select only one) **(NE)** **NE** – New **UA** – 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): **0006935753**
4) Name: **BlowUp, LLC**

Contact Name

5) First Name: **Mike**	6) MI:	7) Last Name: **Kelly**	8) Suffix:
9) Title: **President/ General Manager**			

Contact Information

10) P.O. Box:	**And /Or**	11) Street Address: **126 Queen Street, Suite 204**		
12) City: **Honolulu**			13) State: **HI**	14) Zip Code: **96813**
15) Telephone Number: **(808)534-7101**		16) Fax Number:		
17) E-mail Address: **mkelly@espn1420am.com**				

Consultant Information

18) FCC Registration Number (FRN): **0026156646**
19) Name: **Ford Canty & Associates, Inc.**

Principal Investigator

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

Principal Investigator Contact Information

25) P.O. Box:	**And /Or**	26) Street Address: **928 Nuuanu Avenue, Suite 505**		
27) City: **Honolulu**			28) State: **HI**	29) Zip Code: **96813**
30) Telephone Number: **(808)295-0604**		31) Fax Number:		
32) E-mail Address: **lford@fordcanty.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: **Robert**	37) MI:	38) Last Name: **Spear**	39) Suffix:
40) Title:			

41) Areas of Professional Qualification:

(X) Archaeologist

( ) Architectural Historian

( ) Historian

( ) Architect

( ) Other (Specify) _____

Site Information

Tower Construction Notification System

1) TCNS Notification Number: **156364**

Site Information

2) Positive Train Control Filing Subject to Expedited Treatment Under Program Comment: ( ) Yes (X) No

3) Site Name: **Nimitz Highway Tower Relocation Site**

4) Site Address: **Nimitz Highway**

5) Detailed Description of Project:

6) City: **Honolulu**	7) State: **HI**	8) Zip Code: **96819**

9) County/Borough/Parish: **HONOLULU**

10) Nearest Crossroads: **south of Nimitz Highway between Kalihi Stream, Moanalua Stream and Keehi Lagoon**

11) **NAD 83** Latitude (DD-MM-SS.S): **21-19-54.7** (X) N or ( ) S

12) **NAD 83** Longitude (DD-MM-SS.S): **157-53-27.5** ( ) E or (X) W

Tower Information

13) Tower height above ground level (include top-mounted attachments such as lightning rods): **45.7** ( ) Feet (X) Meters

14) Tower Type (Select One):

(X) Guyed lattice tower

( ) Self-supporting lattice

( ) Monopole

( ) Other (Describe):

Project Status

15) 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):

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

(X) 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

Tribal/NHO Involvement

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: 156364 Number of Tribes/NHOs: 1

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

Tribe/NHO Contacted Through TCNS

3) Tribe/NHO FRN:

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

Contact Name

5) First Name: **Everett**	6) MI:	7) Last Name: **Ohta**	8) Suffix:
9) Title: **Compliance Lead**			

Dates Response

10) Date Contacted 05/18/2017 11) Date Replied _____

(X) No Reply

( ) Replied/No Interest

( ) Replied/Have Interest

( ) Replied/Other

Other Tribes/NHOs Contacted

Tribe/NHO 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 /Or**	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: ( ) E-mail ( ) Letter ( ) 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?	(X) Yes ( ) No
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?	( ) Yes (X) No
3) Are there more than 10 historic properties within the APEs for direct and visual effect? If "Yes", you are required to attach a Cultural Resources Report in lieu of adding the Historic Property below.	( ) Yes (X) No

Historic Property

4) Property Name: **Waikulu Fishpond #157**
5) SHPO Site Number:

Property Address

6) Street Address: **North of the project site (status: destroyed)**		
7) City: **Honolulu**	8) State: **HI**	9) Zip Code: **96819**
10) County/Borough/Parish: **HONOLULU**		

Status Eligibility

11) Is this property listed on the National Register? Source: _____	( ) Yes (X) No
12) Is this property eligible for listing on the National Register? Source: _____	( ) Yes (X) No
13) Is this property a National Historic Landmark?	( ) Yes (X) No

14) Direct Effects (Select One):

(X) 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):

(X) 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

Historic Properties

Properties Identified

1) Have any historic properties been identified within the APEs for direct and visual effect?	(X) Yes ( ) No
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?	( ) Yes (X) No
3) Are there more than 10 historic properties within the APEs for direct and visual effect? If "Yes", you are required to attach a Cultural Resources Report in lieu of adding the Historic Property below.	( ) Yes (X) No

Historic Property

4) Property Name: **Refuse Pit**
5) SHPO Site Number: **50-80-14-6683**

Property Address

6) Street Address: **Middle Street Intermodal Center (status: below ground surfac**		
7) City: **Honolulu**	8) State: **HI**	9) Zip Code: **96819**
10) County/Borough/Parish: **HONOLULU**		

Status Eligibility

11) Is this property listed on the National Register? Source: _____	( ) Yes (X) No
12) Is this property eligible for listing on the National Register? Source: _____	( ) Yes (X) No
13) Is this property a National Historic Landmark?	( ) Yes (X) No

14) Direct Effects (Select One):

(X) 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):

(X) 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

Historic Properties

Properties Identified

1) Have any historic properties been identified within the APEs for direct and visual effect?	(X) Yes ( ) No
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?	( ) Yes (X) No
3) Are there more than 10 historic properties within the APEs for direct and visual effect? If "Yes", you are required to attach a Cultural Resources Report in lieu of adding the Historic Property below.	( ) Yes (X) No

Historic Property

4) Property Name: **Keehi Lagoon Runway A**
5) SHPO Site Number:

Property Address

6) Street Address: **SE of project site (status: submerged)**		
7) City: **Honolulu**	8) State: **HI**	9) Zip Code: **96819**
10) County/Borough/Parish: **HONOLULU**		

Status Eligibility

11) Is this property listed on the National Register? Source: _____	( ) Yes (X) No
12) Is this property eligible for listing on the National Register? Source: _____	( ) Yes (X) No
13) Is this property a National Historic Landmark?	( ) Yes (X) No

14) Direct Effects (Select One):

(X) 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):

(X) 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

Local Government Involvement

Local Government Agency

1) FCC Registration Number (FRN):	
2) Name: **City and County of Honolulu, Department of Planning and Permitting (DPP)**	

Contact Name

3) First Name: **Kathy**	4) MI: **K**	5) Last Name: **Sokugawa**	6) Suffix:
7) Title: **Acting Director**			

Contact Information

8) P.O. Box:	**And /Or**	9) Street Address: **650 South King Street, 7th Floor**	
10) City: **Honolulu**		11) State: **HI**	12) Zip Code: **96813**
13) Telephone Number: **(808)768-8000**		14) Fax Number:	
15) E-mail Address:			

16) Preferred means of communication:

( ) E-mail

(**X**) Letter

( ) Both

Dates Response

17) Date Contacted **03/14/2017**

18) Date Replied **04/05/2017**

( ) No Reply

(**X**) Replied/No Interest

( ) Replied/Have Interest

( ) Replied/Other

Additional Information

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

Other Consulting Parties

Other Consulting Parties Contacted

1) Has any other agency been contacted and invited to become a consulting party?	( ) Yes (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 /Or**	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: ( ) E-mail ( ) Letter ( ) 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 SHPO/THPO

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

SHPO/THPO

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: **05/19/2017**

FAILURE TO SIGN THIS APPLICATION MAY RESULT IN DISMISSAL OF THE APPLICATION AND FORFEITURE OF ANY FEES PAID.

WILLFUL FALSE STATEMENTS MADE ON THIS FORM OR ANY ATTACHMENTS ARE PUNISHABLE BY FINE AND/OR IMPRISONMENT (U.S. Code, Title 1 , Section 1001) AND/OR REVOCATION OF ANY STATION LICENSE OR CONSTRUCTION PERMIT (U.S. Code, Title 47, Section 312(a)(1)), AND/OR FORFEITURE (U.S. Code, Title 47, Section 503).

Attachments :

Type	Description	Date Entered
Resumes/Vitae	Resume for Robert Spear	05/19/2017
Map Documents	Figures 1 & 2	05/19/2017
Photographs	Site Photos	05/19/2017
Area of Potential Effects	Area of Potential Effects	05/19/2017
Historic Properties for Visual Effects	Historic Properties Assessment Report	05/19/2017
Historic Properties for Direct Effects	Historic Properties Assessment Report	05/19/2017
Tribal/NHO Involvement	Notice Sent to OHA	05/19/2017
Local Government Involvement	Notice Sent to DPP	05/19/2017
Public Involvement	Newspaper Announcement	05/19/2017

RESUMES/VITAE

Resume for Robert Spear

RO ERT L. SPEAR, Ph.D.

Scientific Consultant Services, Inc., President (since 1 2)
o scshawaii.com

EDUCATION:

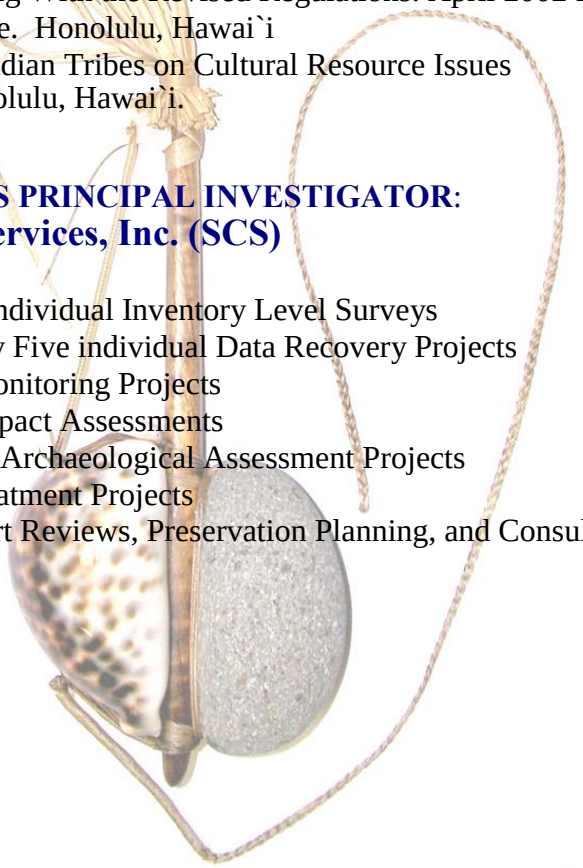
- 1986 Ph.D. degree in Anthropology, University of Oregon
- 1977 M.A. degree in Anthropology, Western Washington University
- 1973 B.A. degree in Anthropology, Western Washington University

PROFESSIONAL SEMINARS LECTURES ATTENDED

- Section 106: A Review for Experienced Practitioners, November 2015 from the National Preservation Institute, Honolulu, Hawai`i.
- Identification and Management of Traditional Cultural Places, November 2015 from the National Preservation Institute, Honolulu, Hawai`i.
- NAGPRA and ARPA: Applications and Requirements, September 2005 from the National Preservation Institute, Honolulu, Hawai`i.
- Integrating Cultural Resources in NEPA Compliance. September 2004 from the National Preservation Institute, Honolulu, Hawai`i.
- Identification and Management of Traditional Cultural Places, September 2003 from the National Preservation Institute. Honolulu, Hawai`i.
- Section 106: Working With the Revised Regulations. April 2002 from the National Preservation Institute. Honolulu, Hawai`i
- Consultation with Indian Tribes on Cultural Resource Issues October 2001. Honolulu, Hawai`i.

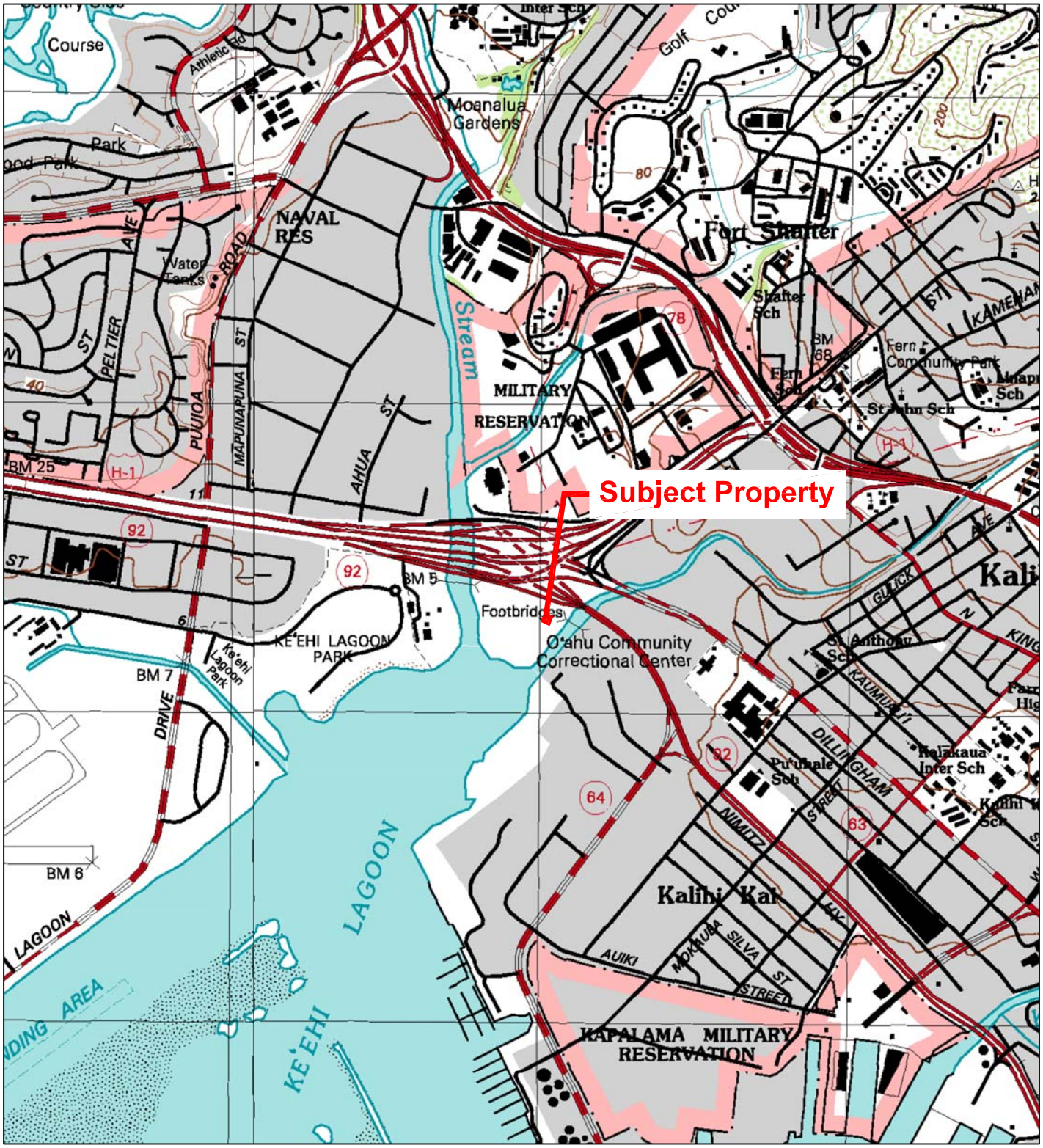
PROJECT DIVERSITY AS PRINCIPAL INVESTIGATOR:
Scientific Consultant Services, Inc. (SCS)

- Over Four Hundred Individual Inventory Level Surveys
- One Hundred Seventy Five individual Data Recovery Projects
- Over Six Hundred Monitoring Projects
- Over 100 Cultural Impact Assessments
- Dozens of Individual Archaeological Assessment Projects
- Numerous Burial Treatment Projects
- Archaeological Report Reviews, Preservation Planning, and Consultations



MAPS

Figures 1 and 2



1000 0 1000 2000 3000 4000 5000 6000 7000 8000 9000 10000

Scale in Feet

N

USGS Topographic Map
7.5-Minute Series
Pearl Harbor & Honolulu Quandrangle
1998

FORD CANTY & ASSOCIATES, INC. ENVIRONMENTAL SCIENTISTS & ENGINEERS		Subject Property Location Map	Figure 1
Job Number: 16-1144	Created by: DG	Project: Proposed Nimitz Highway Tower Relocation North Nimitz Highway at Kahauiki Village (Portions of TMKs: [1] 1-1-003: Parcels 003, 207, 211, & 212) Honolulu, Oahu, Hawaii	
Date: 01/04/17	Reviewed By: TS	Client: BlowUp, LLC	

N

0 37.5 75 150 300

Scale in Feet

FORD CANTY & ASSOCIATES, INC.
ENVIRONMENTAL SCIENTISTS & ENGINEERS

Job Number: 16-1144	Created by: DG	Project:	Subject Property Vicinity Map
Date: 01/04/17	Reviewed By: TS	Client: BlowUp, LLC	Figure 2

Proposed Nimitz Highway Tower Relocation
North Nimitz Highway at Kahauiki Village
(Portions of TMKs: [1] 1-1-003: Parcels 003, 207, 211, & 212)
Honolulu, Oahu, Hawaii

PHOTOGRAPHS

Site Photos

Client: BlowUp, LLC **Project No.:** 16-1144

Site Name: Nimitz Highway Tower Relocation Site
North Nimitz Highway, TMK: (1) 1-1-003: Parcels 003, 207, 211 & 212
Honolulu, Oahu, Hawaii **Date:** December 8, 2016

View of gated entrance to access subject property off of North Nimitz Highway, showing the H-1 Freeway overpass to the north, looking northwest	PHOTO **1**

Overview of subject property from gated entrance, looking southeast	PHOTO **2**

Client: BlowUp, LLC	**Project No.:** 16-1144
Site Name: Nimitz Highway Tower Relocation Site North Nimitz Highway at Kahauiki Village Honolulu, Oahu, Hawaii	**Date:** December 8, 2016

View of subject property from north end, showing unpaved road extending through subject property with vegetation on both sides, looking south	PHOTO **3**

Parked vehicles and squatter's encampments along unpaved road extending through subject property, looking south	PHOTO **4**

Client: BlowUp, LLC **Project No.:** 16-1144

Site Name: Nimitz Highway Tower Relocation Site
North Nimitz Highway, TMK: (1) 1-1-003: Parcels 003, 207, 211 & 212
Honolulu, Oahu, Hawaii **Date:** December 8, 2016

Pile of household-type garbage along unpaved road on southeast portion of subject property, looking east	PHOTO **5**

Overview of eastern edge of subject property and adjoining Kalihi Stream/Keehi Lagoon, showing squatter's encampments along shoreline, looking southwest	PHOTO **6**

Client: BlowUp, LLC **Project No.:** 16-1144

Site Name: Nimitz Highway Tower Relocation Site
North Nimitz Highway, TMK: (1) 1-1-003: Parcels 003, 207, 211 & 212
Honolulu, Oahu, Hawaii **Date:** December 8, 2016

Overview of eastern portion of Hawaii All-Star Paintball & Airsoft facility that includes western portion of subject property, looking northeast	PHOTO **7**

View of western portion of the subject property located on east portion of Hawaii All-Star Paintball & Airsoft facility, looking east	PHOTO **8**

Client: BlowUp, LLC	**Project No.:** 16-1144
Site Name: Nimitz Highway Tower Relocation Site North Nimitz Highway, TMK: (1) 1-1-003: Parcels 003, 207, 211 & 212 Honolulu, Oahu, Hawaii	**Date:** December 8, 2016

Signage for underground gas pipeline (Hawaii Gas) and fenced enclosure containing aboveground portion of pipeline with valve, located just northeast of subject property by footbridges, looking east	PHOTO **9**

Unpaved road with vegetation and garbage on both sides, located just south of subject property, looking south	PHOTO **10**

Client: BlowUp, LLC **Project No.:** 16-1144

Site Name: Nimitz Highway Tower Relocation Site
North Nimitz Highway, TMK: (1) 1-1-003: Parcels 003, 207, 211 & 212
Honolulu, Oahu, Hawaii **Date:** December 8, 2016

Gravel-covered area located just north of subject property, with North Nimitz Highway and H-1 Freeway overpass in the background, looking northwest	PHOTO **11**

Footbridge over Kalihi Stream located northeast of subject property, looking northeast	PHOTO **12**

Client: BlowUp, LLC	**Project No.:** 16-1144
Site Name: Nimitz Highway Tower Relocation Site North Nimitz Highway, TMK: (1) 1-1-003: Parcels 003, 207, 211 & 212 Honolulu, Oahu, Hawaii	**Date:** December 8, 2016

Modular office building and shipping container associated at entrance to Hawaii All-Star Paintball & Airsoft facility, located west of subject property, looking east	PHOTO **13**

AREA OF POTENTIAL EFFECTS

Area of Potential Effects

The Nationwide Programmatic Agreement for Review of Effects on Historic Properties for Certain Undertakings approved by the FCC (NPA) released by the FCC on October 5, 2004 and effective March 7, 2005 indicates that a proposed project will have Area of Potential Effects for direct and visual effects as defined below:

- Direct Effects ï ñthe area of potential ground disturbance and any property, or any portion thereof, that will be physically altered or destroyedò by the proposed action.

  The APE for direct effects for the proposed action includes the lease area and would involve minor ground disturbance for the installation of the lattice tower.

- Visual Effects ï ñthe 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.òAs stated by the NPA, the APE for visual effects for a tower

  1. less than or equal to 200 feet in overall height, is ½ mile;
  2. greater than 200 feet in height and less than 400 feet in height, is ¾ mile; and
  3. greater than 400 feet in height, is 1.5 miles.

  The APE for visual effects for the proposed action includes the area within ½ mile of the subject property.

HISTORIC PROPERTIES FOR VISUAL EFFECTS

Historic Properties Assessment Report

A copy of the Historic Properties Assessment Report performed by Scientific Consultant Services, Inc. (SCS) is attached. According to this report, there are three archaeological sites within the APE for Visual Effects. However, there will be no effect on these sites within the APE for Visual Effects.

In addition, there are No Historic Properties in the APE for Visual Effects for the proposed project.

SCS Project Number 2066 HPA-2

HISTORIC PROPERTY ASSESSMENT FOR THE NIMITZ HIGHWAY TOWER RELOCATION PROJECT

KALIHI AHUPUA`A, ISLAND OF OAHU, HAWAI`I
TMK (1) 1-1-003:003, 207, 211, and 212 (por)

Prepared by:
Kepa Lyman, M.A.
and
Robert L. Spear, Ph.D.

May 2017

FINAL

Prepared for:
Tim Swartz
Senior Project Manager
Ford Canty & Associates, Inc.
928 Nuuanu Ave., Suite 505
Honolulu, HI 96813

SCIENTIFIC CONSULTANT SERVICES, Inc.

HAWAII

1347 Kapiolani Blvd., Suite 408 Honolulu Hawai`i 96814

Copyright © Scientific Consultant Services, Inc. 2017. All rights reserved.

TABLE OF CONTENTS

INTRODUCTION 2

METHODS 5

HISTORIC BACKGROUND 5

RECORD SEARCH RESULTS 13

PREVIOUS ARCHAEOLOGICAL STUDIES WITHIN THE INDIRECT APE 13

FIELD INSPECTION 15

DIRECT AND INDIRECT (VISUAL) IMPACT ANALYSIS 15

RECOMMENDATION 16

REFERENCES 16

LIST OF FIGURES

Figure 1. Direct and Indirect Area of Potential Effect. Portions of Honolulu and Pearl Harbor 1:25,000 USGS quad (1997). 3

Figure 2. Project area within TMK 111003003. The TMK parcel is entirely fill land, constructed sometime between 1945 and 1953. 4

Figure 3. Portion of Registered Map 1472, Map of Reef Titles of Kalihi, compiled by C.J. Lyons (1886). 6

Figure 4. Portion of historic Oahu map (1902) by John M. Donn. Blue hatch areas denote wetland taro or rice fields. The direct APE appears to be located within the Kalihi entrance east of Onini Island. 7

Figure 5. Portion of historic (1933) topographic Honolulu quad showing the area before the construction of the seaplane base at Keehi Lagoon. The direct APE appears to be located in marsh land. 9

Figure 6. Portion of Honolulu topographic quad (1943). Note large areas of fill land made possible by dredging operations for the seaplane runways. 10

Figure 7. Map showing areas dredged (and where fill was utilized) by US Army dredger Jefferson during the construction of Keehi Lagoon Seaplane Basin. Note that the direct APE appears to be unmodified. 11

Figure 8. Aerial image of NAS Honolulu seaplane and land runways, 1945. The direct APE appears to consist of tidal flats. View to west. (State of Hawaii Airports Division, 2017) 12

Figure 9. Previous archaeological studies within the indirect APE (labeled by SHPD Library # (Please note that report authors are not preserved within SHPD Library records). 14

Figure 10: View to north from north edge of site. 18

Figure 11:View to west towards paintball facility. 19

Figure 12:View to south along road bordering Kalihi Stream (at left). 20

Figure 13: View to north along road bordering Kalihi Stream (at right). 21

Figure 14:View to south along road bordering Kalihi Stream (at left). Note extensive disturbance to project area by local residents. 22

LIST OF TABLES

Table 1. Assessed Impacts to Historic Properties within the indirect APE. 16

INTRODUCTION

At the request of Ford Canty & Associates, Inc., Scientific Consultant Services (SCS) conducted a historic properties assessment for the proposed relocation of the Nimitiz Highway radio tower located in Kalihi Ahupua`a, Island of O`ahu, Hawai`i [TMK (1) 1-1-003:003, 207, 211, and 212 (por)]. The assessment was conducted to identify historic properties (prehistoric or historic sites, buildings, structures, objects, or districts) listed in, or eligible for listing in, the regulations implementing Section 106 of the National Historic Preservation Act of 1966, as amended. The project area consists of an undeveloped area.

The proposed action involves installing a 150-foot lattice tower supported by guy wires. In addition, an equipment shelter and emergency generator will be installed south of the lattice tower. The lattice tower, equipment shelter and emergency generator will be installed within a 2,500 square foot fenced area, which will be within a 150-foot radius fenced area.

The direct Area of Potential Effect (APE) is considered the location where the radio tower will be placed. The indirect (visual) APE is considered the area within which the tower is visible from any historic property listed in, or eligible for listing in, the National Register of Historic Places and/or the Hawai`i Register of Historic Places. No significant or eligible historic properties are within the direct APE for this proposed tower relocation.

PROJECT AREA

The direct APE consists of a semi-circular area approximately 1.56 acres in size located on an artificial peninsula created c 1950. The Kalihi Stream borders the direct APE on the east, The Hawaii Paintball facility on the west, Keehi Lagoon to the south, and the Nimitz/H2 freeway interchange to the north. The Indirect APE is composed of a half-mile (840 meter) radius circle around the Direct APE. The Indirect APE reaches Fort Shafter in the north, Keehi Lagoon Park to the west, Puuhale Road to the east , and Sand Island Access Road to the south (Figures 1 and 2).

SOILS

The project area is classified as Fill Land (FL). According to historic maps of the area, the project area was either completely submerged or consisted of tidal flats before the construction of the Keehi Lagoon Seaplane Basin Project in 1941-44.

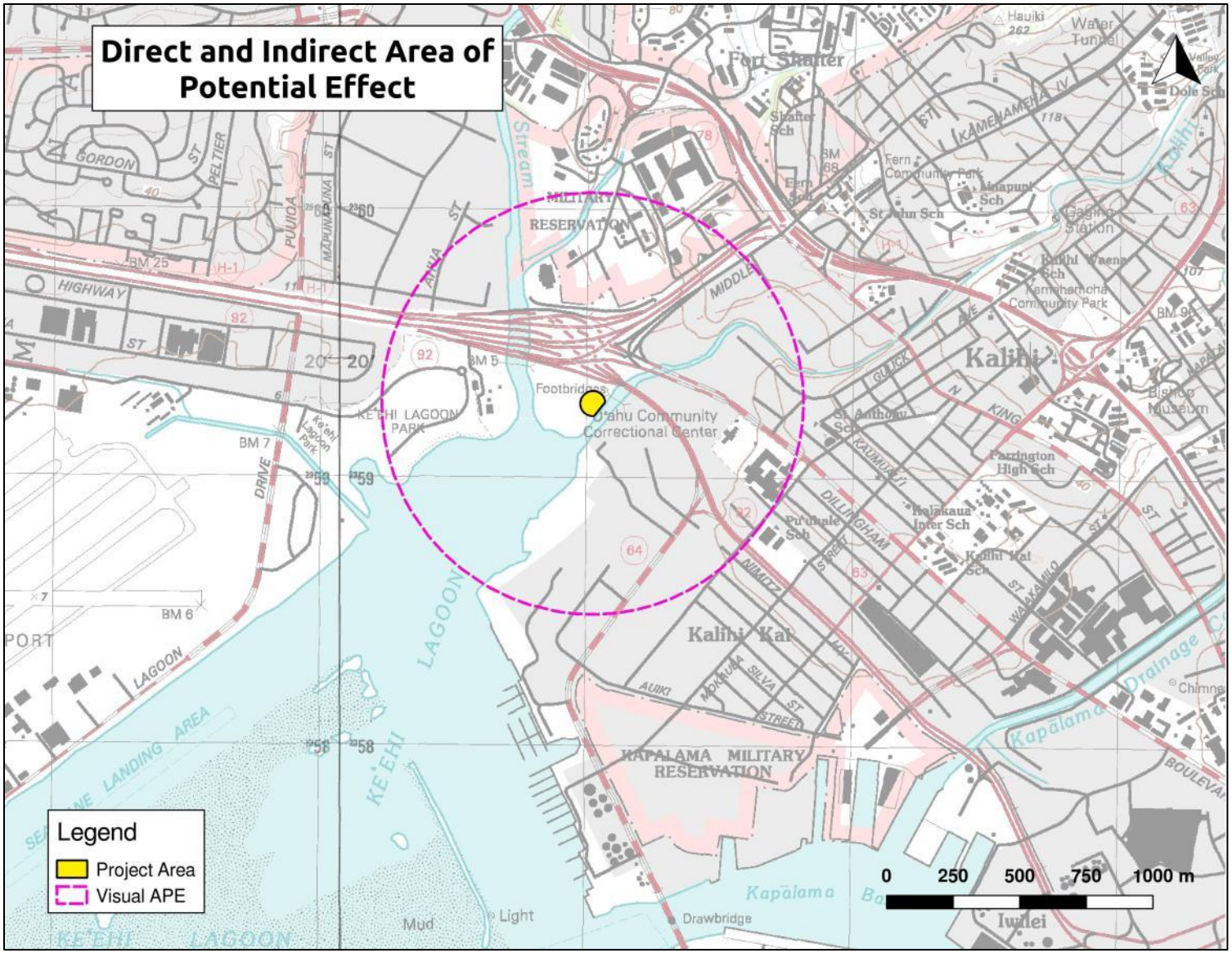


Figure 1. Direct and Indirect Area of Potential Effect. Portions of Honolulu and Pearl Harbor 1:25,000 USGS quad (1997).

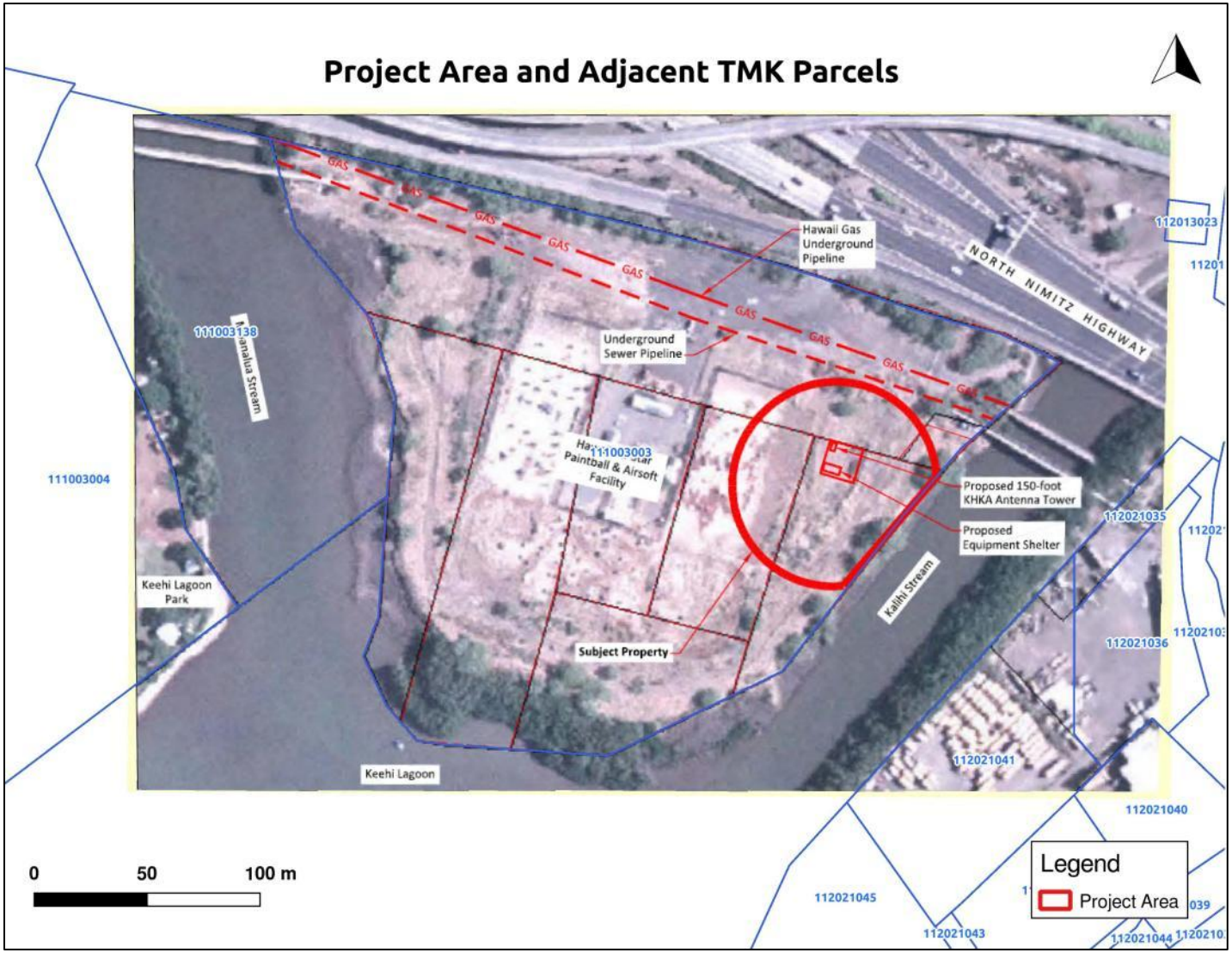


Figure 2. Project area within TMK (1) 1-1-003:003, 207, 211, and 212 (por). The TMK parcel is entirely fill land, constructed sometime between 1945 and 1953.

METHODS

A records search was conducted at the State Historic Preservation Division, located in Kapolei, O`ahu; it included a review of all recorded historic and prehistoric archaeological sites within a one-half mile radius of the direct APE, as well as a review of known cultural resource survey and excavation reports. The National Register of Historic Places (NRHP) and the Hawai`i Register of Historic Places (HRHP) were also consulted.

HISTORIC BACKGROUND

Due to its geography, room to accommodate the growing population of nineteenth-century Honolulu was largely confined to a narrow littoral plain. Throughout the latter half of the 19th century and well into the twentieth, the principal direction of urban growth was northwest towards Moanalua. Archival research shows that in earlier times this was a productive region of rich off-shore fisheries: fishponds extended out into Māmala Bay, salt pans dotted tidal flats, and irrigated taro lands and other gardens and habitations stretched across the plain and extended up the valleys (Handy and Handy 1972). For example, a cursory examination of the O`ahu Tax Key Maps for this region found 29 Land Commission Awards (LCAs). Included are awards for house lots (15), gardens (16), *`auwai* for irrigation (3), fishponds (2), and trees for fruit, nut, and/or wood/leaf products (1). The records suggest that this was a well-populated coastal region with an integrated mix of residential, horticultural, and marine properties.

Fishponds were once prominent archaeological features along the Ke`ehi Lagoon shoreline on the plain below Fort Shafter (McAllister 1931; Wickler *et al*. 1991:4). Most were destroyed or filled with the destruction of the Keehi Lagoon seaplane project before and during World War II. Twelve fishponds once were located along the Ke`ehi shoreline (Kikuchi 1973). Several fishponds once existed within the Indirect APE; Weli fishpond to the north, and Apili and Pahou ponds to the south, but they have all since been filled and destroyed (Figure 3 and Figure 4).

Kikuchi lists Waikulu Fishpond as Site #157. The pond encompassed an area of one acre and was identified as a Type IIIb pond. The Type IIIb, or *loko wai*, are freshwater ponds that have been artificially altered by an earthen or stone embankment-wall to separate it from an adjacent stream or river. Such ponds are typically formed in a natural backwater or flood land, as in the case of Waikulu Fishpond and Kalihi Stream.

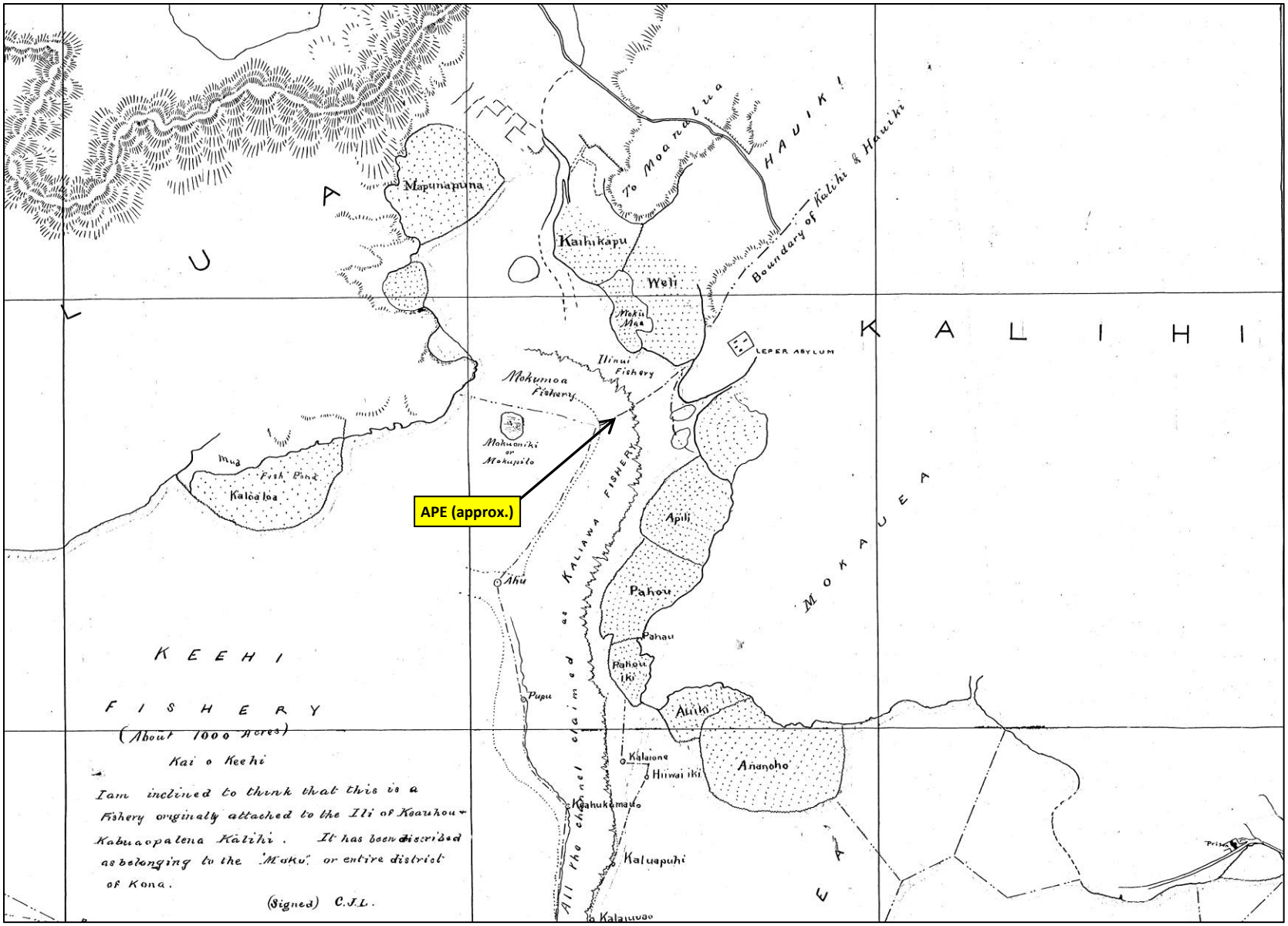


Figure 3. Portion of Registered Map 1472, Map of Reef Titles of Kalihi, compiled by C.J. Lyons (1886).

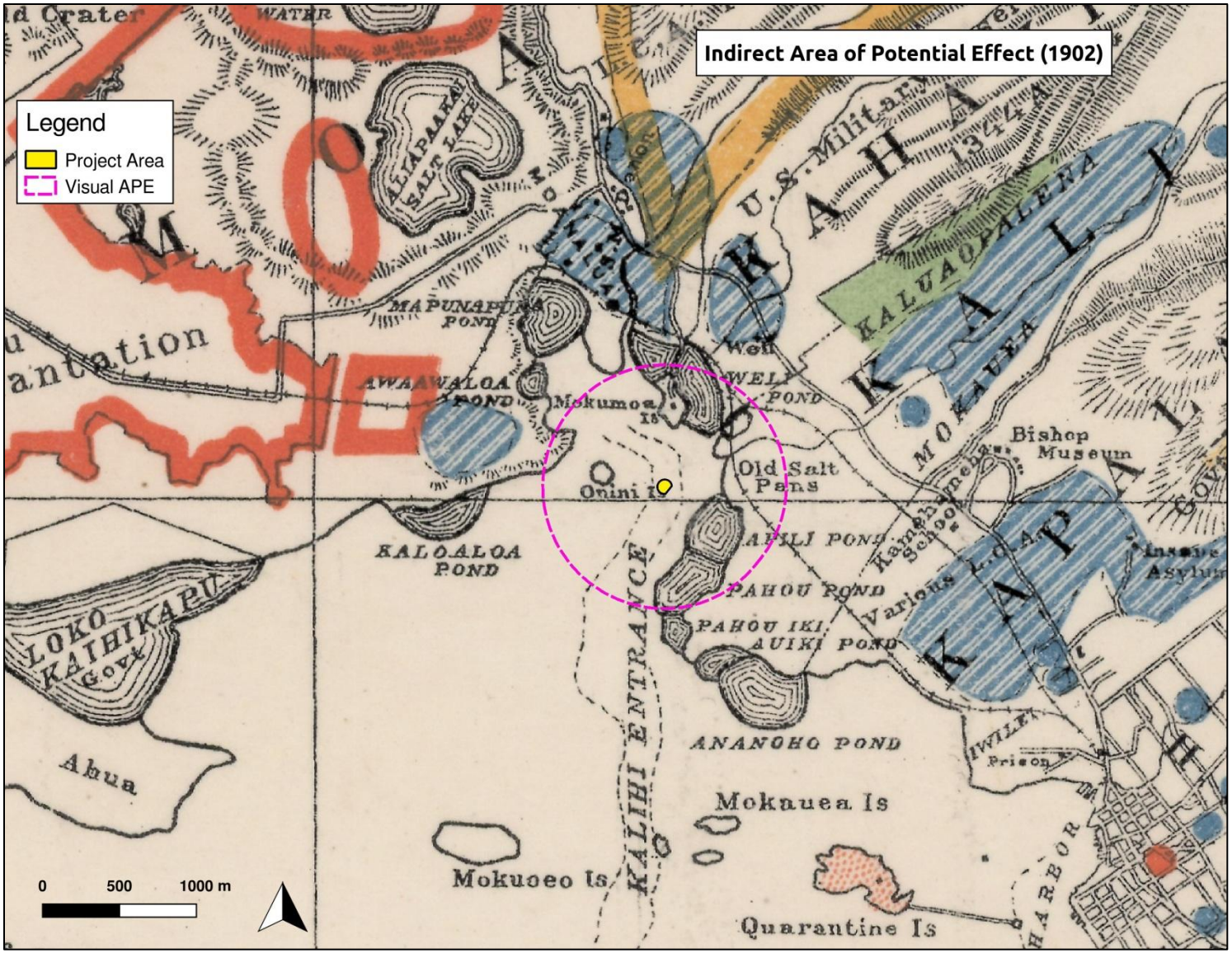


Figure 4. Portion of historic Oahu map (1902) by John M. Donn. Blue hatch areas denote wetland taro or rice fields. The direct APE appears to be located within the Kalihi entrance east of Onini Island.

NAVAL AIR STATION, HONOLULU

An overview of historic maps show the accumulative impact of development to the region (Figure 5 and Figure 6). The largest impact was caused by the dredging of seaplane runways during World War II within Keehi Lagoon.

Plans to construct a major seaplane base and anchorage were first initiated in 1935. Dredging started in 1941, and by the start of the war in December was only ten percent complete. The plan called for three runways two miles in length and one thousand feet in width. Kaneohe was considered for improvements to its seaplane facilities but due to the topography and frequently poor flying weather, Honolulu was selected instead. It was estimated that the new seaplane runways at Keehi would be able to accommodate the largest seaplanes available and all those conceivable in the foreseen post-war future. The seaplane base opened in 1944 as part of Naval Air Station, Honolulu, and closed in 1945, declared obsolescent. The seaplane portion of Honolulu Airport was abandoned in 1965 (State of Hawaii Airports Division, 2017; Ingals 1945).

Although activity utilizing the seaplane runways was short-lived, Naval Air Station, Honolulu provided a vital service for the Naval Air Transit command during the course of war. In 1943, military medical history was made when aircraft from the air station transported refrigerated blood for casualties caused by the battles for the invasion of Leyte, Philippines (41). Naval Air Transit continued to operate at maximum capacity as the war front moved further west, resembling, as base commandant Captain Ingals observed, a full-fledged airline (40). Captain Ingals was the only U.S. Navy ace in the First World War (24).

The dredging of the seaplane runways caused major changes to Keehi Lagoon and the neighboring shorelines. The dredging material ("indispensable coral") provided the fill to extend John Rodgers Airport, Sand Island, and Honolulu harbor facilities (Figure 7; Ingals 1945:15). It was noted that the:

> Dredged material from these operations proved to be of great benefit to the war effort. More than 10 million cubic yards of coral were dredged by six cutterhead and hopper dredges and the material was deposited from Fort Kamehameha to Mapunapuna to Fort Shafter Flats and Sand Island. The elevation of the airport was continued at about eight feet above low water. The amount of land at John Rodgers Airport increased from about 200 acres to more than 1,000 acres. A square mile of area between Hickam Field and John Rodgers Field was also filled in and a future joint runway conceived. (State of Hawaii Airports Division, 2017)

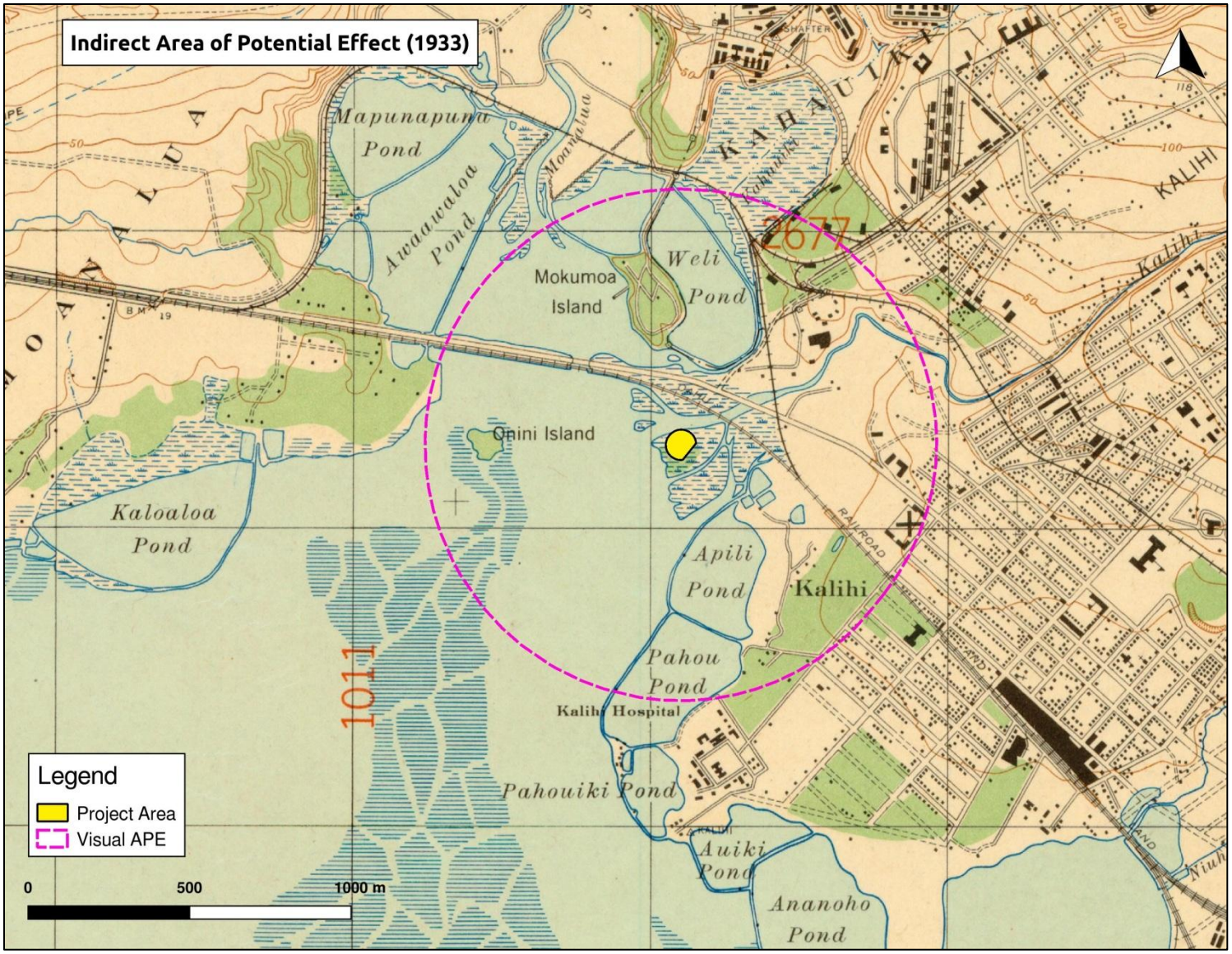


Figure 5. Portion of historic (1933) topographic Honolulu quad showing the area before the construction of the seaplane base at Keehi Lagoon. The direct APE appears to be located in marsh land.

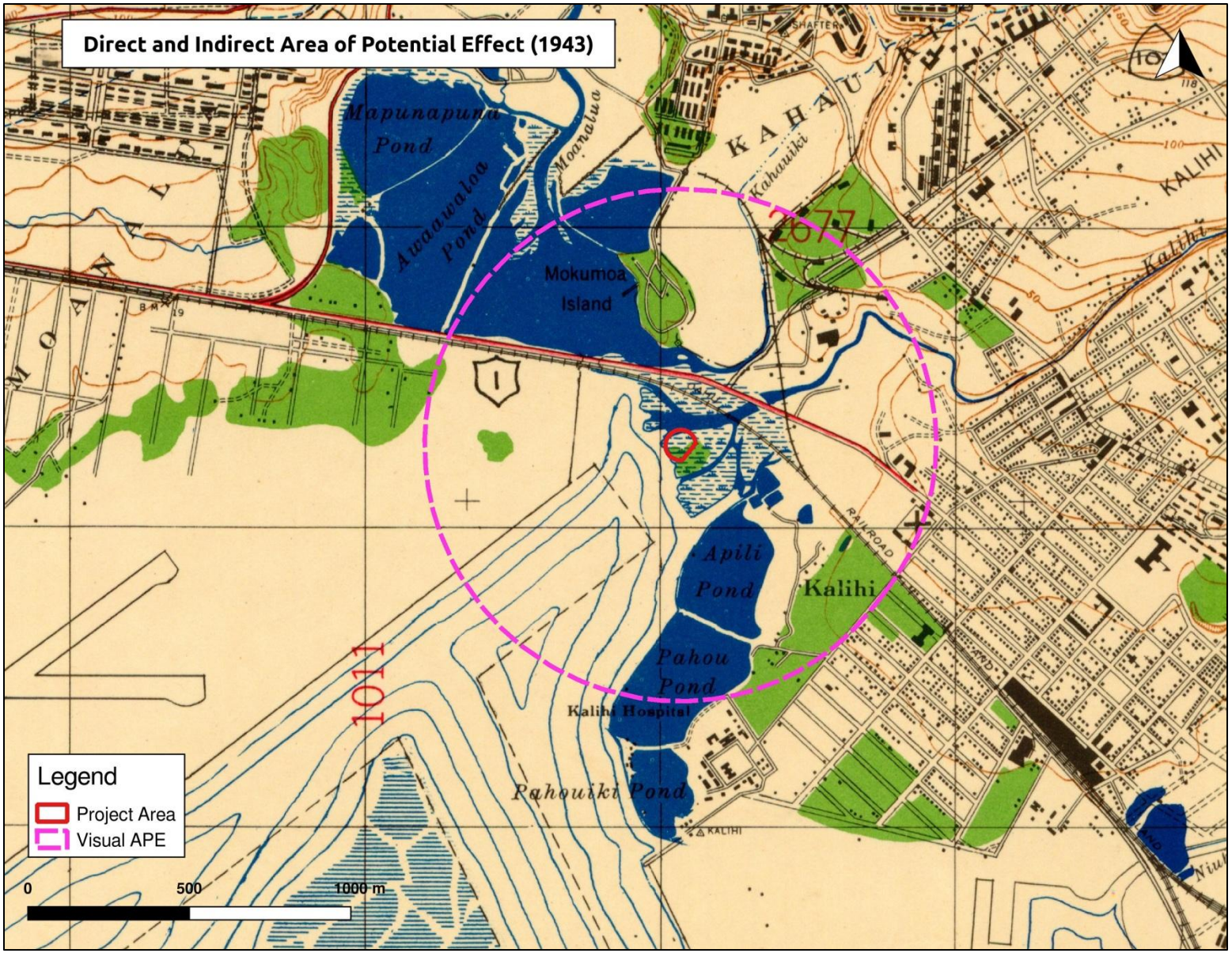


Figure 6. Portion of Honolulu topographic quad (1943). Note large areas of fill land made possible by dredging operations for the seaplane runways.

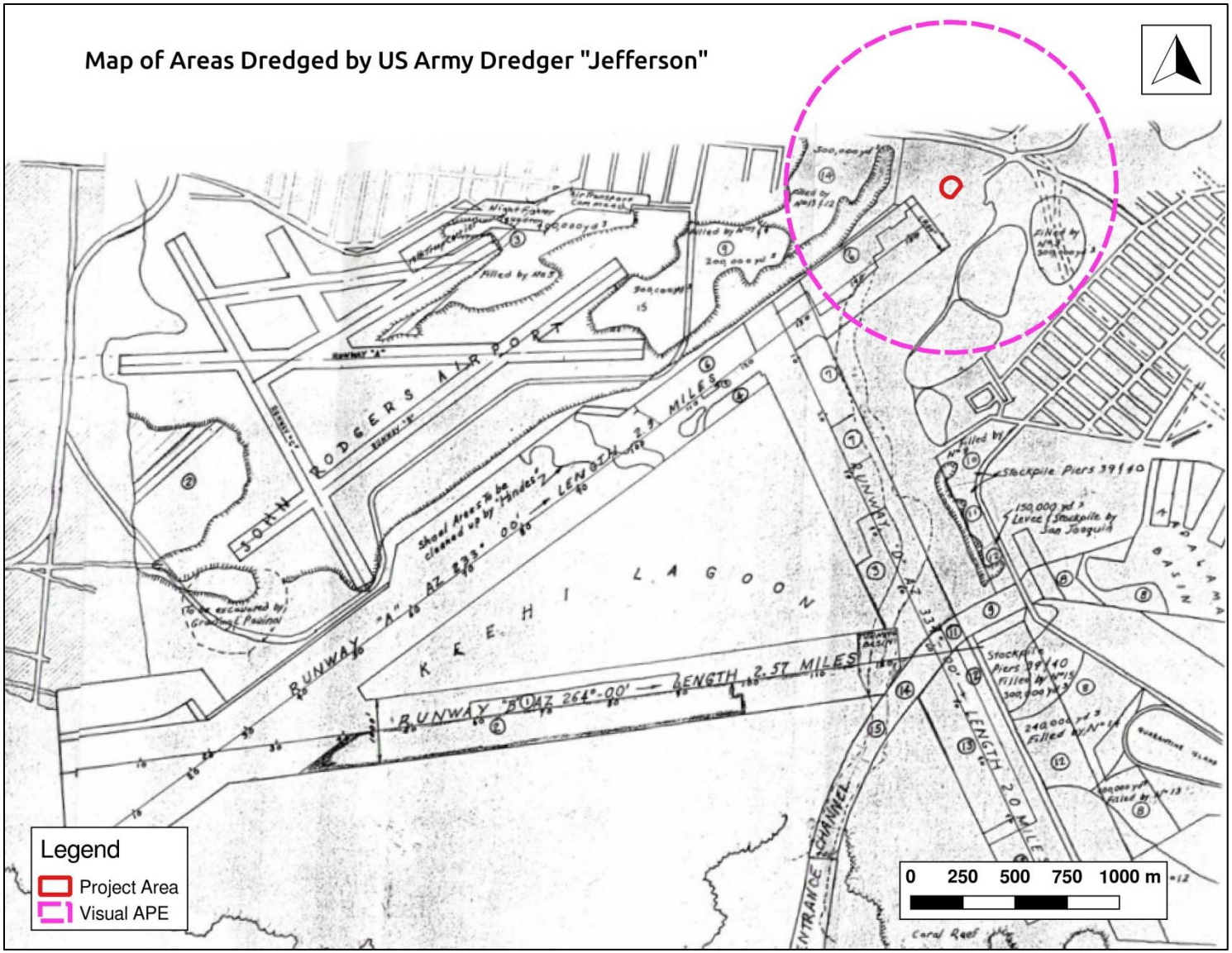


Figure 7. Map showing areas dredged (and where fill was utilized) by US Army dredger Jefferson during the construction of Keehi Lagoon Seaplane Basin. Note that the direct APE appears to be unmodified.

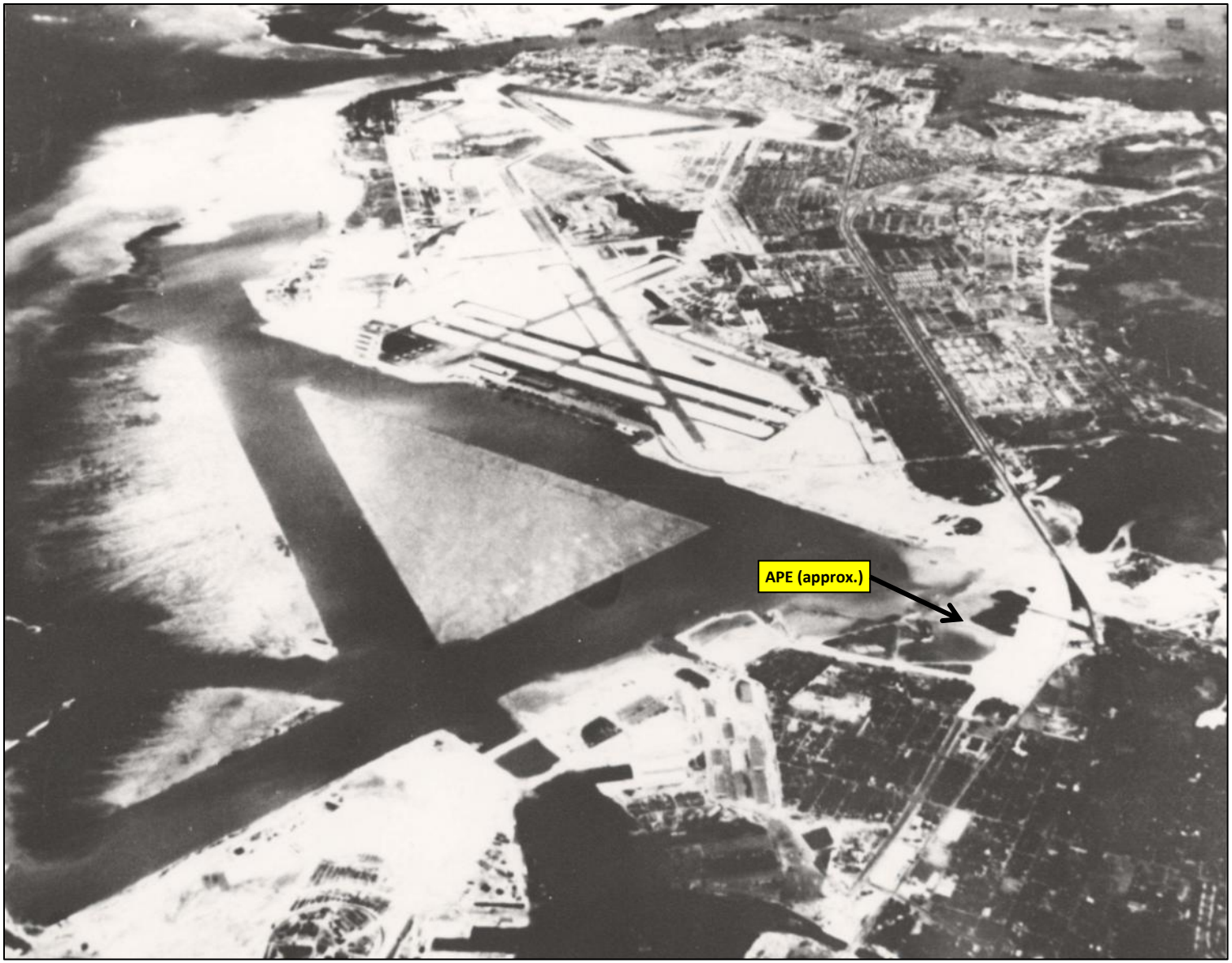


Figure 8. Aerial image of NAS Honolulu seaplane and land runways, 1945. The direct APE appears to consist of tidal flats. View to west. (State of Hawaii Airports Division, 2017)

RECORD SEARCH RESULTS

The results of the records search indicate under HRS §6E-2 Historic Preservation Program definitions, the term 'Historic Property' "means any building, structure, object, district, area, or site … which is over 50 years old." Data from the Historic Site State National Register indicates that there are no historic properties listed on the Register within the project search radius.

One potential site was identified during the records research, NAS Honolulu Seaplane Runway A (see Figure 6 and Figure 7). The northeast end of the runway extends into the indirect APE. However, as the site consists of a submerged dredged channel, there is no visual impact from the construction of the tower.

PREVIOUS ARCHAEOLOGICAL STUDIES WITHIN THE INDIRECT APE

No archaeological studies are known to have occurred within the direct APE. Multiple studies have been conducted in the half-mile radius of the Indirect APE (Figure 9).

In 1991, Bishop Museum performed a literature review and archival research for a 3.7-acre parcel at the present site of the Kalihi-Palama Bus Facility (SHPD Library # O-00995). This parcel is located northeast of the Direct APE. In 1993, Folk and Hammatt conducted an archaeological study in the same parcel (SHPD Library # O-00940). A total of 19 trenches were excavated, four of which revealed three primary inhumations, two in simple wooden coffins (possibly from the former leprosarium), and a possible cultural deposit incorporating an estimated 400 square meters. The cultural unit contained bits of charcoal and a very limited range of shellfish: *Brachidontes crebristriatus*, *Isognomon* sp., *Pinctada* sp., and *Hetercentrotus mammillatus*.

In 2002, Garcia and Associates performed archaeological monitoring on a 79-acre parcel at TMK 1-1-1-008:001 within Fort Shafter (SHPD Library #O-01999). The results of the monitoring program cannot be determined as the report cannot be located.

In 2004, Archaeological Consultants of the Pacific conducted an archaeological inventory survey on a 5.4-acre parcel at TMK 1-1-2-021:013 (SHPD Library #O-02239). The results of the survey could not be determined as the report could not be located. This parcel is located within the former Apili fishpond south of the direct APE.

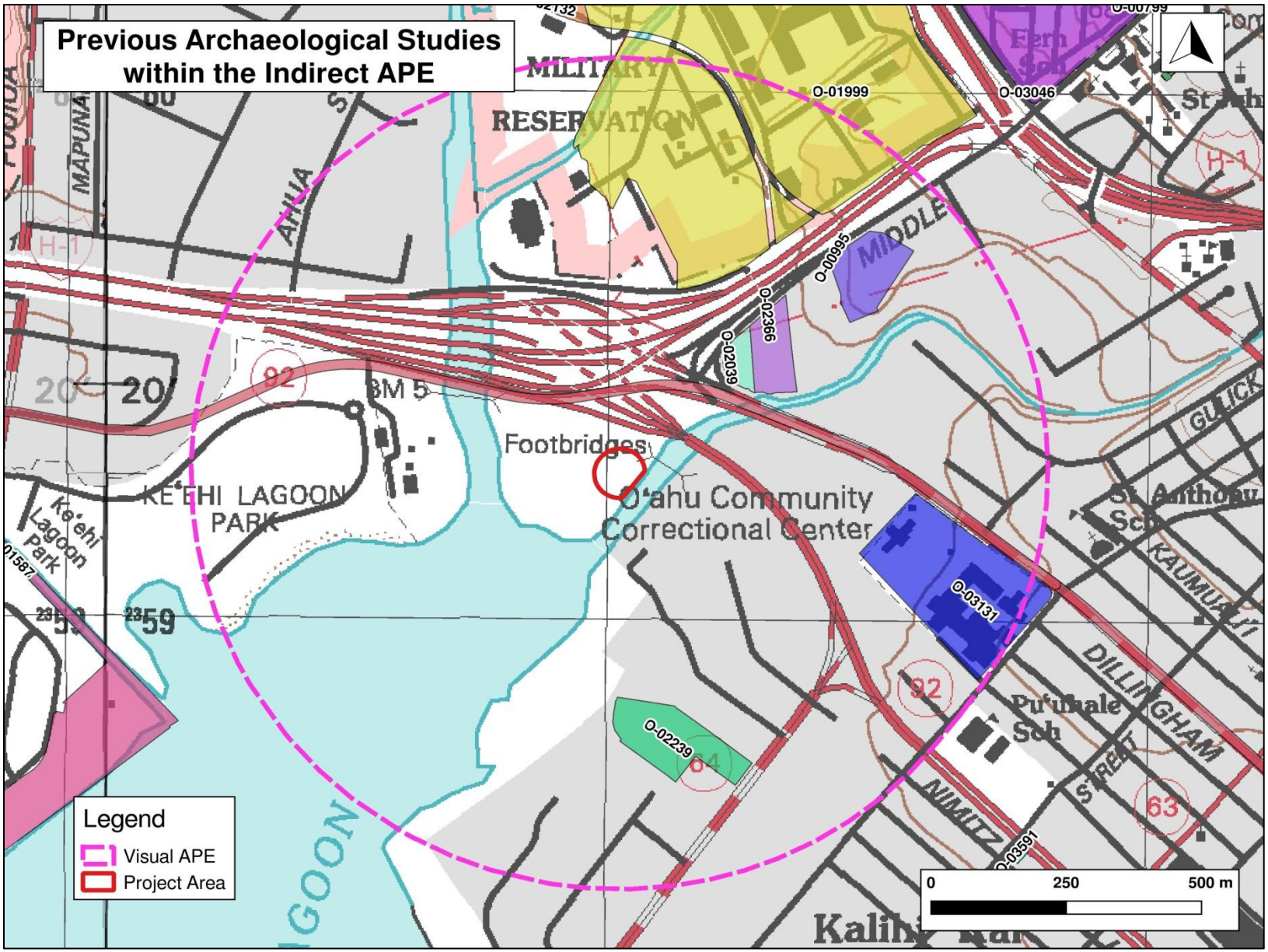


Figure 9. Previous archaeological studies within the indirect APE (labeled by SHPD Library # (Please note that report authors are not preserved within SHPD Library records).

In 2006, Dega et al. conducted an archaeological survey of an 8.67 acre area for the development of the Middle Street Intermodal Center (SHPD Library #O-02366). A Cultural Impact Assessment was previously done by SCS (Davis and McGerty 2002) which identified this property as the site of a traditional Hawaiian fishpond. Previous work by Cultural Surveys Hawaii (2002) failed to identify any historic sites in the project area (SHPD Library #O-02940/ O-02039). Bottom sediments were found to be consistent with a fishpond environment, but yielded disparate dates. Overall, the sediments provide greater evidence that the fishpond was in use at least during the A.D. 1600–1700s; however, specific architectural evidence in the form of a constructed fishpond wall and/or associated habitation deposits were not identified. Trenching has also led to the recovery of an historic-era refuse pit and material remains associated with the site's use by slaughterhouse and cold storage companies. This portion of the site is now designated State Site 50-80-14-6683.

In 2008, Pacific Legacy conducted an archaeological assessment on an 14.7-acre parcel TMK (1) 1-2-013:002 (SHPD Library # O-03319/O-03131). No historic sites were identified.

FIELD INSPECTION

A field inspection was conducted by SCS Archaeologist Kepa Lyman, M.A, in May 2017 (Figures 10 to 14). The project area is undeveloped except for the construction of multiple homeless camps. A road runs roughly north/south along the bank of Kalihi Stream on the east side of the project area. Based on the field inspection and given there are no Historic Properties within the direct APE, the relocation of the radio tower will have no immediate effect on Historic Properties.

DIRECT AND INDIRECT (VISUAL) IMPACT ANALYSIS

The archival research and literature search found three sites within the search area, though there is no impact anticipated to the integrity or visual character of these sites. The current project consists entirely of the proposed construction of a 150-foot radio tower and support structures. There are no anticipated visual or cultural impacts to any historic properties (Table 1).

Table 1. Assessed Impacts to Historic Properties within the indirect APE.

Site	Location	Status	Impact
Waikulu Fishpond (157)	Intermodal Center	Destroyed	None
Refuse Pit (50-80-14-6683)	Intermodal Center	Below Ground Surface	None
Keehi Lagoon Runway A	SE of Direct APE	Submerged	None

RECOMMENDATION

No significant or eligible historic properties are within the Direct APE for this project. Those sites within the Indirect APE will not be visually impacted.

REFERENCES

Bishop Museum (n.a)
1991. Historical Literature and Document Search for the City and County of Honolulu, Department of Transportation Services, Bus Unit Repair Shop Facility, Kalihi, O'ahu. Bishop Museum, Honolulu.

Davis, B.D. and L. McGerty
2002. An Assessment of Archaeological and Cultural Resources along the Proposed Honolulu Bus Rapid Transit Primary Corridor, Honolulu, Hawaii. SCS/CRMS, Inc., Honolulu.

Dega, M.F, G. Tome, and B.D. Davis
2006. An Archaeological Inventory Survey at the Proposed Middle Street Intermodal Center, Honolulu, Kalihi, Ahupua'a, Kona District, Oahu Island, Hawaii. [TMKs 1-2-18:001, 002, 003, 009, and 010]. Scientific Consultant Services, Honolulu.

Folk, W.H., S. Crotty, and H.H. Hammatt
1993. Archaeological Survey with Subsurface Testing at 711 Middle Street, O`ahu (TMK 1-2-16:17). Ms. on file, State Historic Preservation Division, Honolulu.

Garcia and Associates (n.a)
2002. Archaeological Monitoring and Sampling for Outside Cable Rehabilitation (OSCAR) Project Fort Shafter Military Reservation, O'ahu Island, Hawai'i (Contract No. DACA83-00-P-0024). Garcia and Associates, Honolulu.

Handy, E.S.C. and E.G. Handy
1972. Native Planters in Old Hawaii: Their Life, Lore, and Environment. B.P. Bishop Museum. Bulletin, 223.

Ingals, D.S.
1945. History of U.S. Naval Air Station Honolulu. Report to the Office of the Chief of Naval Operations. SECRET.

Kennedy et al.
2004. An Archaeological Inventory Survey Report for a Property Located at TMK: 1-2-21:13 in Kalihi Ahupua'a, Kona District, Island of O'ahu. Archaeological Consultants of the Pacific, Honolulu.

Kikuchi, W.K.
1973. Hawaiian Aquacultural Systems. Ph.D. Dissertation, University of Arizona.
1976. Prehistoric Hawaiian Fishponds. Science. 193:295–99.

Kuykendall, R.
1953. The Hawaiian Kingdom (Volume II). Honolulu: University Press of Hawaii.

Lyons, C.J.
1886. Registered Map 1472: Map of Reef Titles of Kalihi. On file, State Survey Office, Honolulu.

McAllister, J.G.
1931. Archaeology of Oahu. B.P. Bishop Museum Bulletin 104.

Pacific Legacy (n.a)
2008. Proposed Temporary Program Structures Oahu Community Correctional Center Archaeological Assessment. Pacific Legacy, Honolulu.

State of Hawaii, Airports Division.
John Rodgers Airport. http://aviation.hawaii.gov/airfields-airports/oahu/john-rodgers-airport/. Accessed May 2017.

Wickler, S., J.S. Athens, and J.V. Ward
1991. Vegetation and Landscape Change in a Leeward Coastal Environment: Paleoenvironmental and Archaeological Investigations, Fort Shafter Flats Sewerline Project, Honolulu, Hawaii. International Archaeological Research Institute, Inc., Honolulu.

Figure 10: View to north from north edge of site.

Figure 11:View to west towards paintball facility.

Figure 12:View to south along road bordering Kalihi Stream (at left).

Figure 13: View to north along road bordering Kalihi Stream (at right).

Figure 14:View to south along road bordering Kalihi Stream (at left). Note extensive disturbance to project area by local residents.

HISTORIC PROPERTIES FOR DIRECT EFFECTS

Historic Properties Assessment Report

A copy of the Historic Properties Assessment Report performed by SCS is attached under the cover ñHistoric Properties for Visual Effectsò According to this report, there are No Historic Properties in the APE for Direct Effects for the proposed project.

TRIBAL/NHO INVOLVEMENT

Notice Sent to OHA

Ford Canty submitted information concerning the proposed project to the FCCõs Tower Construction Notification System (TCNS) on May 15, 2017 and was assigned an identification number of 156364. The TCNS was developed to aid in identifying Native American Indian Tribes, Native Hawaiian Organizations, and Tribal Historic Preservation Officers (collectively ñtribesò) that have requested consultation for projects located within specific geographic regions as defined by each tribe. Tribes were contacted through TCNS on May 18, 2017.

Lori Ford

From: towernotifyinfo@fcc.gov
Sent: Thursday, May 18, 2017 9:02 PM
To: lford@fordcanty.com
Cc: Jessica.Hynosky@fcc.gov; diane.dupert@fcc.gov
Subject: NOTICE OF ORGANIZATION(S) WHICH WERE SENT PROPOSED TOWER CONSTRUCTION NOTIFICATION INFORMATION - Email ID #5192562

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 "Tribal Nations"), Native Hawaiian Organizations (NHOs), and State Historic Preservation Officers (SHPOs). For your convenience in identifying the referenced Tribal Nations and NHOs and in making further contacts, the City and State of the Seat of Government for each Tribal Nation and NHO, as well as the designated contact person, is included in the listing below. We note that Tribal Nations 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 Tribal Nations 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 Tribal Nation or NHO. (NPA, Section IV.F.4).

The information you provided was forwarded to the following Tribal Nations and NHOs. If a Tribal Nation or NHO does not respond within a reasonable time, you should make a reasonable effort at follow-up contact, unless the Tribal Nation or NHO has agreed to different procedures (NPA, Section IV.F.5). In the event a Tribal Nation or NHO does not respond to a follow-up inquiry, or if a substantive or procedural disagreement arises between you and a Tribal Nation 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. Compliance Lead Everett Ohta - Office of Hawaiian Affairs - 560 N. Nimitz Highway - Suite 200 Honolulu, HI - Jerryn@oha.org - 808-594-0244

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. Chairperson Suzanne D Case - Department of Land & Natural Resources - 1151 Punchbowl Street - Room 220 Honolulu, HI - suzanne.case@hawaii.gov; Russell.Y.Tsuji@hawaii.gov - 808-587-0401

3. Deputy SHPO Theresa K Donham - State Historic Preservation Office - 601 Kamokila Blvd Room 555 Kapolei, HI - theresa.k.donham@hawaii.gov - 808-692-8015

"Exclusions" above set forth language provided by the Tribal Nation or SHPO. These exclusions may indicate types of PTC wayside pole notifications that the Tribal Nation or SHPO does not wish to review. TCNS automatically forwards all notifications to all Tribal Nations and SHPOs that have an expressed interest in the geographic area of a proposal. However, if a proposal falls within a designated exclusion, you need not expect any response and need not pursue any additional process with that Tribal Nation or SHPO. Exclusions may also set forth policies or procedures of a particular Tribal Nation or SHPO (for example, types of information that a Tribal Nation routinely requests, or a policy that no response within 30 days indicates no interest in participating in pre-construction review).

Please be advised that the FCC cannot guarantee that the contact(s) listed above opened and reviewed an electronic or regular mail notification. If you learn any of the above contact information is no longer valid, please contact the FCC. The following information relating to the proposed tower was forwarded to the person(s) listed above:

Notification Received: 05/15/2017
Notification ID: 156364
Tower Owner Individual or Entity Name: BlowUp, LLC
Consultant Name: Lori Ford
Street Address: 928 Nuuanu Ave Suite 505
City: Honolulu
State: HAWAII
Zip Code: 96813
Phone: 808-295-0604
Email: lford@fordcanty.com

Structure Type: GTOWER - Guyed Structure Used for Communication Purposes
Latitude: 21 deg 19 min 54.7 sec N
Longitude: 157 deg 53 min 27.5 sec W
Location Description: Nimitz Highway
City: Honolulu
State: HAWAII
County: HONOLULU
Detailed Description of Project:
Ground Elevation: 2.7 meters
Support Structure: 45.7 meters above ground level
Overall Structure: 45.7 meters above ground level
Overall Height AMSL: 48.4 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

LOCAL GOVERNMENT INVOLVEMENT

Notice Sent to DPP

Ford Canty submitted the proposed projectôs information to the City and County of Honolulu Department of Planning and Permitting (DPP) and requested their comment concerning the proposed projectôs impact to cultural resources and historic properties. Correspondence to the DPP is attached.

928 Nuuanu Avenue, Suite 505
Honolulu, HI 96813
808.426.6927

FORD CANTY & ASSOCIATES, INC.
ENVIRONMENTAL SCIENTISTS & ENGINEERS

March 13, 2017

Ms. Kathy Sokugawa, Acting Director
City and County of Honolulu
Department of Planning and Permitting
650 South King Street, 7th Floor
Honolulu, HI 96813

Project No. 16-1144

Subject: Notice to Local Zoning Board for the Proposed Nimitz Highway Tower Relocation Site, Located off of Nimitz Highway, Tax Map Key (TMK) Number: (1) 1-1-003: Parcels 003, 207, 211 and 212 (Portions), Honolulu, Hawaii

Dear Ms. Sokugawa:

Ford Canty & Associates, Inc. (Ford Canty) has been retained by BlowUp, LLC to conduct a site evaluation for the Federal Communications Commission (FCC) of the above-referenced proposed tower relocation.

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, Ford Canty 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. Any applicable submission and application for zoning approval of the proposed project is being handled by other professionals under separate project tasks.

Project Description

The subject parcels, currently owned by the State of Hawaii, encompasses an irregular-shaped, approximately 322,229 square feet of land. The subject parcels, 003, 207 and 212, are currently leased to Tactical Airgun Games Hawaii LLP.

The subject parcels are further described as the parcel of land as TMK Number: (1) 1-1-003: Parcels 003, 207, 211 and 212. According to the City and County of Honolulu, DPP, the subject parcels are currently zoned ñP-2 General Preservationò

The subject property, identified as the proposed Nimitz Highway Tower Relocation Site (approximate Lat/Long: N 21° 19ô54.71ò, W 157° 53ô27.54ò), is located near the eastern portion of the subject parcel (portion of parcel 207).

According to BlowUp, LLC, the proposed action involves installing a 150-foot guyed, broadcast lattice tower with one, 4-foot microwave antenna mounted at a height of 80 feet above ground level (agl). In addition, an equipment shelter and emergency generator will be installed south of the lattice tower. The lattice tower, equipment shelter and emergency generator will be installed within a 2,500 square foot fenced area, which will be within a 150-foot radius fenced area.

Construction activities will have a minor impact to the ground surface.

Figures and photographs of the subject property and surrounding area are attached.

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 Nimitz Highway Tower Relocation 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, or by email at lford@fordcanty.com.

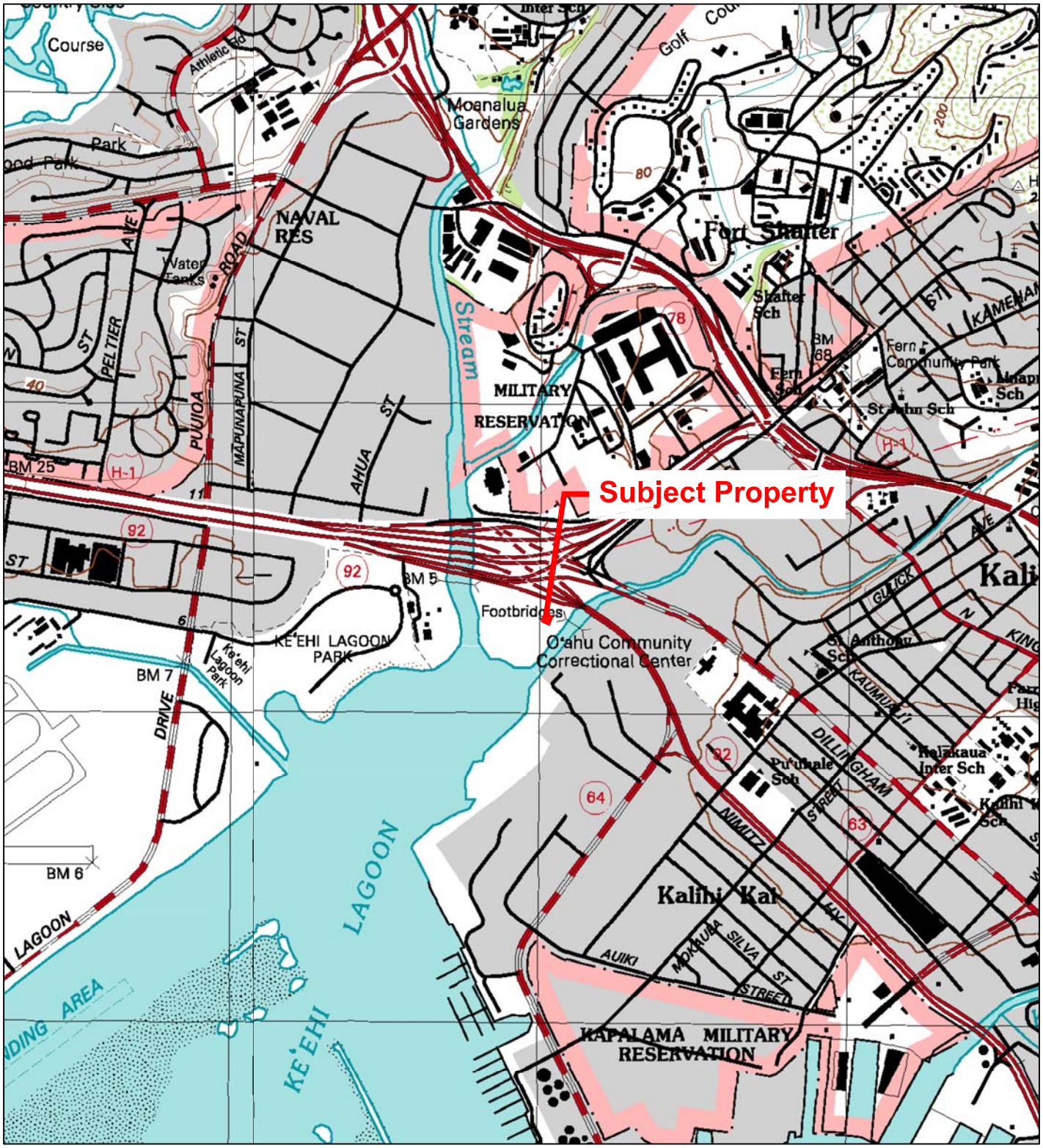
If you have any questions or concerns, please feel free to contact me at 808.295.0604 or by email at lford@fordcanty.com. We greatly appreciate your time and assistance in this matter.

Sincerely,

Lori Ford, MS
Senior Project Manager

/lf

Attachments: Figures
Site Photographs



1000 0 1000 2000 3000 4000 5000 6000 7000 8000 9000 10000

Scale in Feet

N

USGS Topographic Map
7.5-Minute Series
Pearl Harbor & Honolulu Quandrangle
1998

FORD CANTY & ASSOCIATES, INC. ENVIRONMENTAL SCIENTISTS & ENGINEERS		Subject Property Location Map	Figure 1
Job Number: 16-1144	Created by: DG	Project: Proposed Nimitz Highway Tower Relocation North Nimitz Highway at Kahauiki Village (Portions of TMKs: [1] 1-1-003: Parcels 003, 207, 211, & 212) Honolulu, Oahu, Hawaii	
Date: 01/04/17	Reviewed By: TS	Client: BlowUp, LLC	

N

0 37.5 75 150 300

Scale in Feet

FORD CANTY & ASSOCIATES, INC.
ENVIRONMENTAL SCIENTISTS & ENGINEERS

Job Number: 16-1144	Created by: DG	Project:	Subject Property Vicinity Map
Date: 01/04/17	Reviewed By: TS	Client: BlowUp, LLC	Figure 2

Proposed Nimitz Highway Tower Relocation
North Nimitz Highway at Kahauiki Village
(Portions of TMKs: [1] 1-1-003: Parcels 003, 207, 211, & 212)
Honolulu, Oahu, Hawaii

Client: BlowUp, LLC **Project No.:** 16-1144

Site Name: Nimitz Highway Tower Relocation Site
North Nimitz Highway, TMK: (1) 1-1-003: Parcels 003, 207, 211 & 212
Honolulu, Oahu, Hawaii **Date:** December 8, 2016

View of gated entrance to access subject property off of North Nimitz Highway, showing the H-1 Freeway overpass to the north, looking northwest	PHOTO **1**

Overview of subject property from gated entrance, looking southeast	PHOTO **2**

Client: BlowUp, LLC	**Project No.:** 16-1144
Site Name: Nimitz Highway Tower Relocation Site North Nimitz Highway at Kahauiki Village Honolulu, Oahu, Hawaii	**Date:** December 8, 2016

View of subject property from north end, showing unpaved road extending through subject property with vegetation on both sides, looking south	PHOTO **3**

Parked vehicles and squatter's encampments along unpaved road extending through subject property, looking south	PHOTO **4**

Client: BlowUp, LLC **Project No.:** 16-1144

Site Name: Nimitz Highway Tower Relocation Site
North Nimitz Highway, TMK: (1) 1-1-003: Parcels 003, 207, 211 & 212
Honolulu, Oahu, Hawaii **Date:** December 8, 2016

Pile of household-type garbage along unpaved road on southeast portion of subject property, looking east	PHOTO **5**

Overview of eastern edge of subject property and adjoining Kalihi Stream/Keehi Lagoon, showing squatter's encampments along shoreline, looking southwest	PHOTO **6**

Client: BlowUp, LLC **Project No.:** 16-1144

Site Name: Nimitz Highway Tower Relocation Site
North Nimitz Highway, TMK: (1) 1-1-003: Parcels 003, 207, 211 & 212
Honolulu, Oahu, Hawaii **Date:** December 8, 2016

Overview of eastern portion of Hawaii All-Star Paintball & Airsoft facility that includes western portion of subject property, looking northeast	PHOTO **7**

View of western portion of the subject property located on east portion of Hawaii All-Star Paintball & Airsoft facility, looking east	PHOTO **8**

Client: BlowUp, LLC	**Project No.:** 16-1144
Site Name: Nimitz Highway Tower Relocation Site North Nimitz Highway, TMK: (1) 1-1-003: Parcels 003, 207, 211 & 212 Honolulu, Oahu, Hawaii	**Date:** December 8, 2016

Signage for underground gas pipeline (Hawaii Gas) and fenced enclosure containing aboveground portion of pipeline with valve, located just northeast of subject property by footbridges, looking east	PHOTO **9**

Unpaved road with vegetation and garbage on both sides, located just south of subject property, looking south	PHOTO **10**

Client: BlowUp, LLC **Project No.:** 16-1144

Site Name: Nimitz Highway Tower Relocation Site
North Nimitz Highway, TMK: (1) 1-1-003: Parcels 003, 207, 211 & 212
Honolulu, Oahu, Hawaii **Date:** December 8, 2016

Gravel-covered area located just north of subject property, with North Nimitz Highway and H-1 Freeway overpass in the background, looking northwest	PHOTO **11**

Footbridge over Kalihi Stream located northeast of subject property, looking northeast	PHOTO **12**

Client: BlowUp, LLC	**Project No.:** 16-1144
Site Name: Nimitz Highway Tower Relocation Site North Nimitz Highway, TMK: (1) 1-1-003: Parcels 003, 207, 211 & 212 Honolulu, Oahu, Hawaii	**Date:** December 8, 2016

Modular office building and shipping container associated at entrance to Hawaii All-Star Paintball & Airsoft facility, located west of subject property, looking east	PHOTO **13**

DEPARTMENT OF PLANNING AND PERMITTING
CITY AND COUNTY OF HONOLULU
650 SOUTH KING STREET, 7TH FLOOR • HONOLULU, HAWAII 96813
PHONE: (808) 768-8000 • FAX: (808) 768-6041
DEPT. WEB SITE: www.honoluludpp.org • CITY WEB SITE: www.honolulu.gov

KIRK CALDWELL
MAYOR

KATHY K. SOKUGAWA
ACTING DIRECTOR

TIMOTHY F. T. HIU
DEPUTY DIRECTOR

2017/ELOG-597(JL1)

April 5, 2017

Ms. Lori Ford
Ford Canty & Associates, Inc.
928 Nuuanu Avenue, Suite 505
Honolulu, Hawaii 96813

Dear Ms. Ford:

SUBJECT: Zoning Verification
Proposed Nimitz Highway Tower Relocation Site – Keehi Lagoon
Tax Map Key 1-1-3: 3, 207, 211 and 212

This is a response to your letter received on March 16, 2017, requesting information on any potential impacts to historic properties or cultural/archaeological resources for the proposed Nimitz Highway Tower Relocation Site.

Our records do not indicate the presence of any significant historical or cultural resources related to the site. However, we recommend that you contact the State of Hawaii Department of Land and Natural Resources, Historic Preservation Division, for information concerning the presence of any historical and/or cultural resources.

The property is zoned P-2 General Preservation District. The telecommunications facility is considered a utility installation, Type A under the Land Use Ordinance.

Should you have any questions, please contact Janet Lau of our staff at 768-8033 or janet.lau@honolulu.gov.

Very truly yours,

Anthony X. Ching

FOR Kathy K. Sokugawa
Acting Director

Doc1444950

PUBLIC INVOLVEMENT

Newspaper Announcement

Ford Canty provided public notice of the proposed project through publication of a legal notice in the Honolulu Star-Advertiser. A copy of the affidavit of publication, which affirms that the ad copy, as shown on the affidavit, was published in the above newspaper on March 17, 2017, is attached. Ford Canty did not receive responses or objections to the notice.

If additional correspondence is received, Ford Canty will forward a copy of that correspondence to your office.

AFFIDAVIT OF PUBLICATION

IN THE MATTER OF
PUBLIC NOTICE TO NEWSPAPER

}
}
}
}
}
}
}

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

Doc. Date: MAR 17 2017 **# Pages:** 1
Notary Name: Patricia K. Reese First Judicial **Circuit**
Doc. Description: Affidavit of Publication

Patricia K. Reese MAR 17 2017
Notary Signature Date

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

PUBLIC NOTICE TO NEWSPAPER

BlowUp, LLC is proposing to install a 150-foot guyed, broadcast lattice tower with one, 4-foot microwave antenna mounted at a height of 80 feet above ground level (agl), located off of Nimitz Highway, TMK No.: (1) 1-1-003: Parcels 003, 207, 211 and 212 (portions), Honolulu, HI 96819. In addition, an equipment shelter and emergency generator will be installed south of the lattice tower. The lattice tower, equipment shelter and emergency generator will be installed within a 2,500 square foot fenced area, which will be within a 150-foot radius fenced area. Public comments regarding potential effects from this site on historic properties may be submitted within 30 days from the date of this publication to: Lori Ford, lford@fordcanty.com, 928 Nuuanu Avenue, Suite 505, Honolulu, HI 96813. (SA974345 3/17/17)

Gwyn Pang 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, MidWeek, The Garden Island, West Hawaii Today, and Hawaii Tribune-Herald, 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:
03/17/2017

MidWeek 0 times on:

The Garden Island 0 times on:

Hawaii Tribune-Herald 0 times on:

West Hawaii Today 0 times on:

Other Publications: 0 times on:

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

Gwyn Pang
Gwyn Pang

Subscribed to and sworn before me this 17 day of March A.D. 2017

Patricia K. Reese
Patricia K. Reese, Notary Public of the First Judicial Circuit, State of Hawaii

My commission expires: Oct 07, 2018

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

Ad # 0000974345

SP.NO.: _____ L.N.

Lori Ford

From: towernotifyinfo@fcc.gov
Sent: Friday, May 19, 2017 12:15 PM
To: lford@fordcanty.com
Subject: Section 106 New Filing Submitted- Email ID #2329792

The following new Section 106 filing has been submitted:

File Number: 0007781888
TCNS Number: 156364
Purpose: New Tower Submission Packet
Notification Date: 7AM EST 05/22/2017
Applicant: BlowUp, LLC
Consultant: Ford Canty & Associates, Inc.
Positive Train Control Filing Subject to Expedited Treatment Under Program Comment: No
Site Name: Nimitz Highway Tower Relocation Site
Site Address: Nimitz Highway
Detailed Description of Project:
Site Coordinates: 21-19-54.7 N, 157-53-27.5 W
City: Honolulu
County: HONOLULU
State:HI
Lead SHPO/THPO: State Historic Preservation Office

Consultant Contact Information:
Name: Ford Canty & Associates, Inc.
Title:
PO Box:
Address: 928 Nuuanu Avenue, Suite 505
City: Honolulu
State: HI
Zip: 96813
Phone: 808-295-0604
Fax:
Email: lford@fordcanty.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.

DAVID Y. IGE
GOVERNOR OF HAWAII

STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES

STATE HISTORIC PRESERVATION DIVISION
KAKUHIHEWA BUILDING
601 KAMOKILA BLVD, STE 555
KAPOLEI, HAWAII 96707

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

KEKOA KALUHIWA
FIRST DEPUTY

JEFFREY T. PEARSON
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

August28, 2017

IN REPLY REFER TO:
LOG: 2017.01103
DOC: 1707JLP04
Architecture

Lori Ford
Ford Canty & Associates, Inc.
928 Nuuanu Avenue, Suite 505
Honolulu, HI 96813

Dear Ms. Ford:

RE: National Historic Preservation Act (NHPA) Section 106 Review
Chapter 6E-42 Historic Preservation Review
Agency: Federal Communications Commission (FCC)
Nimitz Highway Tower Relocation Site
TMK: (1) 1-1-003:003, 207, 211, and 212 (por)

Thank you for the opportunity to comment on this request from Ford Canty & Associates, Inc. (FCA) on behalf of BlowUp, LLC and the Federal Communications Commission (FCC) for consultation and concurrence with FCAôs determination of no historic properties affected for the proposed Nimitz Highway Tower Relocation Site project. FCA has determined that this project is an undertaking, as defined in 36 CFR § 800.16(y), and that the area of potential effects (APE) includes a 1.56-acre area. The proposed undertaking is also subject to the Hawaii Revised Statutes (HRS) 6E-42 review. The State Historic Preservation Division (SHPD) received this submittal on May 23, 2017.

The proposed project includes construction of a 150ô-0ò lattice tower, equipment shelter, and emergency generator, which will be located within a 2,500-square foot fenced area located within the APE. The project is located on an undeveloped, vacant lot, which is sited on a peninsula created in 1950 and adjacent to Kalihi Stream.

Based on the submitted information, there were no resources identified within in the APE that meet the definition of historic properties per Chapter 6E-2, HRS.

For purposes of Section 106, NHPA, the State Historic Preservation Officer (SHPO) **concurs** with the determination of **"no historic properties affected"**.

For purposes of Chapter 6E-42, HRS, SHPD has determined **"no historic properties affected"**.

Please contact Kaiwi Yoon, Architecture Branch Chief, at (808) 692-8032 or at Kaiwi.N.Yoon@hawaii.gov regarding architectural resources or this letter.

Mahalo,

Alan Downer

Dr. Alan Downer
Deputy State Historic Preservation Officer
Administrator, State Historic Preservation Division

CC: Lori Ford, lford@fordcanty.com

In the event that historic resources, including human skeletal remains, cultural layers, cultural deposits, features, artifacts, or sinkholes, lava tubes or lava blisters/bubbles are identified during construction activities, all work should cease in the immediate vicinity of the find, the find should be protected from additional disturbance, and the State Historic Preservation Division should be contacted immediately at (808) 692-8015.

Lori Ford

From: towernotifyinfo@fcc.gov
Sent: Thursday, May 18, 2017 9:02 PM
To: lford@fordcanty.com
Cc: Jessica.Hynosky@fcc.gov; diane.dupert@fcc.gov
Subject: NOTICE OF ORGANIZATION(S) WHICH WERE SENT PROPOSED TOWER CONSTRUCTION NOTIFICATION INFORMATION - Email ID #5192562

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 "Tribal Nations"), Native Hawaiian Organizations (NHOs), and State Historic Preservation Officers (SHPOs). For your convenience in identifying the referenced Tribal Nations and NHOs and in making further contacts, the City and State of the Seat of Government for each Tribal Nation and NHO, as well as the designated contact person, is included in the listing below. We note that Tribal Nations 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 Tribal Nations 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 Tribal Nation or NHO. (NPA, Section IV.F.4).

The information you provided was forwarded to the following Tribal Nations and NHOs. If a Tribal Nation or NHO does not respond within a reasonable time, you should make a reasonable effort at follow-up contact, unless the Tribal Nation or NHO has agreed to different procedures (NPA, Section IV.F.5). In the event a Tribal Nation or NHO does not respond to a follow-up inquiry, or if a substantive or procedural disagreement arises between you and a Tribal Nation 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. Compliance Lead Everett Ohta - Office of Hawaiian Affairs - 560 N. Nimitz Highway - Suite 200 Honolulu, HI - Jerryn@oha.org - 808-594-0244

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. Chairperson Suzanne D Case - Department of Land & Natural Resources - 1151 Punchbowl Street - Room 220 Honolulu, HI - suzanne.case@hawaii.gov; Russell.Y.Tsuji@hawaii.gov - 808-587-0401

3. Deputy SHPO Theresa K Donham - State Historic Preservation Office - 601 Kamokila Blvd Room 555 Kapolei, HI - theresa.k.donham@hawaii.gov - 808-692-8015

"Exclusions" above set forth language provided by the Tribal Nation or SHPO. These exclusions may indicate types of PTC wayside pole notifications that the Tribal Nation or SHPO does not wish to review. TCNS automatically forwards all notifications to all Tribal Nations and SHPOs that have an expressed interest in the geographic area of a proposal. However, if a proposal falls within a designated exclusion, you need not expect any response and need not pursue any additional process with that Tribal Nation or SHPO. Exclusions may also set forth policies or procedures of a particular Tribal Nation or SHPO (for example, types of information that a Tribal Nation routinely requests, or a policy that no response within 30 days indicates no interest in participating in pre-construction review).

Please be advised that the FCC cannot guarantee that the contact(s) listed above opened and reviewed an electronic or regular mail notification. If you learn any of the above contact information is no longer valid, please contact the FCC. The following information relating to the proposed tower was forwarded to the person(s) listed above:

Notification Received: 05/15/2017
Notification ID: 156364
Tower Owner Individual or Entity Name: BlowUp, LLC
Consultant Name: Lori Ford
Street Address: 928 Nuuanu Ave Suite 505
City: Honolulu
State: HAWAII
Zip Code: 96813
Phone: 808-295-0604
Email: lford@fordcanty.com

Structure Type: GTOWER - Guyed Structure Used for Communication Purposes
Latitude: 21 deg 19 min 54.7 sec N
Longitude: 157 deg 53 min 27.5 sec W
Location Description: Nimitz Highway
City: Honolulu
State: HAWAII
County: HONOLULU
Detailed Description of Project:
Ground Elevation: 2.7 meters
Support Structure: 45.7 meters above ground level
Overall Structure: 45.7 meters above ground level
Overall Height AMSL: 48.4 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

Lori Ford

From: Lori Ford <lford@fordcanty.com>
Sent: Monday, September 11, 2017 12:43 PM
To: kaim@oha.org
Cc: Kfarm1@honolulu.gov; grapp@honolulu.gov; susane@aiohawaii.com
Subject: RE: Status of Review for FW: Proposed Tower Construction Notification Information - Notification ID 156364

Kai,

We have not received a response regarding the proposed Nimitz Highway Tower Relocation Site project (see emails below).

We will assume that OHA does not have any comments at this time.

If you have any questions, please contact me.

Thanks,
Lori Ford

Lori Ford, MS
Senior Project Manager

FORD CANTY & ASSOCIATES, INC.
ENVIRONMENTAL SCIENTISTS & ENGINEERS
928 Nuuanu Avenue, Suite 505
Honolulu, HI 96813
m: 808.295.0604
Email: lford@fordcanty.com
Web: www.fordcanty.com

From: Lori Ford [mailto:lford@fordcanty.com]
Sent: Wednesday, August 09, 2017 9:22 AM
To: 'kaim@oha.org'
Cc: 'Kfarm1@honolulu.gov'; 'grapp@honolulu.gov'; 'susane@aiohawaii.com'
Subject: RE: Status of Review for FW: Proposed Tower Construction Notification Information - Notification ID 156364

Kai,

I'm following up on your review of the proposed Nimitz Highway Tower Relocation Site project.

If you have any questions or need additional information, please contact me.

I appreciate your time and assistance in this matter.

Thanks,
Lori Ford

Lori Ford, MS
Senior Project Manager

FORD CANTY & ASSOCIATES, INC.
ENVIRONMENTAL SCIENTISTS & ENGINEERS
928 Nuuanu Avenue, Suite 505
Honolulu, HI 96813
m: 808.295.0604
Email: lford@fordcanty.com
Web: www.fordcanty.com

From: Lori Ford [mailto:lford@fordcanty.com]
Sent: Monday, June 26, 2017 9:59 AM
To: kaim@oha.org
Cc: Kfarm1@honolulu.gov; grapp@honolulu.gov; susane@aiohawaii.com
Subject: RE: Status of Review for FW: Proposed Tower Construction Notification Information - Notification ID 156364

Kai,

I'm following up on your review of the proposed Nimitz Highway Tower Relocation Site (see below).

I appreciate your time and assistance in this matter.

Thanks,
Lori Ford

Lori Ford, MS
Senior Project Manager

FORD CANTY & ASSOCIATES, INC.
ENVIRONMENTAL SCIENTISTS & ENGINEERS
928 Nuuanu Avenue, Suite 505
Honolulu, HI 96813
m: 808.295.0604
Email: lford@fordcanty.com
Web: www.fordcanty.com

From: Lori Ford [mailto:lford@fordcanty.com]
Sent: Monday, June 12, 2017 3:49 PM
To: kaim@oha.org
Subject: Status of Review for FW: Proposed Tower Construction Notification Information - Notification ID 156364

Kai,

I'm just checking on your review of the proposed Nimitz Highway Tower Relocation Site (see below).

Please let me know if you have any comments or if you have no comments/no interest in this site/project.

I appreciate your time and assistance in this matter.

Thanks,
Lori Ford

Lori Ford, MS
Senior Project Manager

FORD CANTY & ASSOCIATES, INC.
ENVIRONMENTAL SCIENTISTS & ENGINEERS
928 Nuuanu Avenue, Suite 505
Honolulu, HI 96813
m: 808.295.0604
Email: lford@fordcanty.com
Web: www.fordcanty.com

From: Lori Ford [mailto:lford@fordcanty.com]
Sent: Friday, May 19, 2017 9:32 AM
To: kaim@oha.org
Subject: Proposed Tower Construction Notification Information - Notification ID 156364

Kai,

I'm sending the attached notification because you may not have received it through the Federal Communications Commission's (FCC) Tower Construction Notification System (TCNS).

In addition, a summary of the project description is given below:

The subject property, identified as the proposed Nimitz Highway Tower Relocation Site (approximate Lat/Long: N 21° 19' 54.71"; W 157° 53' 27.54"), is located near the eastern portion of the subject parcel (TMK No. [1] 1-1-003: Parcels 003, 207, 211 and 212 [portions]; specifically portion of parcel 207).

According to BlowUp, LLC, the proposed action involves installing a 150-foot guyed, broadcast lattice tower with one, 4-foot microwave antenna mounted at a height of 80 feet above ground level (agl). In addition, an equipment shelter and emergency generator will be installed south of the lattice tower. The lattice tower, equipment shelter and emergency generator will be installed within a 2,500 square foot fenced area, which will be within a 150-foot radius fenced area.

Please let me know if you have any comments or if you have no comments/no interest in this site/project.

I appreciate your time and assistance in this matter.

Thanks,
Lori Ford

Lori Ford, MS
Senior Project Manager

FORD CANTY & ASSOCIATES, INC.
ENVIRONMENTAL SCIENTISTS & ENGINEERS
928 Nuuanu Avenue, Suite 505
Honolulu, HI 96813
m: 808.295.0604
Email: lford@fordcanty.com
Web: www.fordcanty.com

APPENDIX E

REGULATORY AGENCY CORRESPONDENCE FOR PERMITTING

DEPARTMENT OF PLANNING AND PERMITTING
CITY AND COUNTY OF HONOLULU
650 SOUTH KING STREET, 7TH FLOOR • HONOLULU, HAWAII 96813
PHONE: (808) 768-8000 • FAX: (808) 768-6041
DEPT. WEB SITE: www.honoluludpp.org • CITY WEB SITE: www.honolulu.gov

KIRK CALDWELL
MAYOR

KATHY K. SOKUGAWA
ACTING DIRECTOR

TIMOTHY F. T. HIU
DEPUTY DIRECTOR

2017/ELOG-597(JL1)

April 5, 2017

Ms. Lori Ford
Ford Canty & Associates, Inc.
928 Nuuanu Avenue, Suite 505
Honolulu, Hawaii 96813

Dear Ms. Ford:

SUBJECT: Zoning Verification
Proposed Nimitz Highway Tower Relocation Site – Keehi Lagoon
Tax Map Key 1-1-3: 3, 207, 211 and 212

This is a response to your letter received on March 16, 2017, requesting information on any potential impacts to historic properties or cultural/archaeological resources for the proposed Nimitz Highway Tower Relocation Site.

Our records do not indicate the presence of any significant historical or cultural resources related to the site. However, we recommend that you contact the State of Hawaii Department of Land and Natural Resources, Historic Preservation Division, for information concerning the presence of any historical and/or cultural resources.

The property is zoned P-2 General Preservation District. The telecommunications facility is considered a utility installation, Type A under the Land Use Ordinance.

Should you have any questions, please contact Janet Lau of our staff at 768-8033 or janet.lau@honolulu.gov.

Very truly yours,

Anthony X. Ching

FOR Kathy K. Sokugawa
Acting Director

Doc1444950

DAVID Y. IGE
GOVERNOR OF HAWAII

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

STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
LAND DIVISION

POST OFFICE BOX 621
HONOLULU, HAWAII 96809

June 16, 2017

Ford Canty & Associates, Inc.
Attention: Ms. Lori Ford
928 Nuuanu Avenue, Suite 505
Honolulu, Hawaii 96813

via email: lford@fordcanty.com

Dear Ms. Ford:

SUBJECT: FCC Tower Construction Notification – Blowup, LLC; TCNS ID 156364
Honolulu, Oahu

Thank you for the opportunity to review and comment on the subject matter. The Department of Land and Natural Resources' (DLNR) Land Division distributed or made available a copy of your report pertaining to the subject matter to DLNR Divisions for their review and comments.

At this time, enclosed are comments from the (a) Engineering Division and (b) Land Division – Oahu District on the subject matter. Should you have any questions, please feel free to call Lydia Morikawa at 587-0410. Thank you.

Sincerely,

Russell Y. Tsuji
Land Administrator

Enclosure(s)
cc: Central Files

'17 MAY 30 AM 11:10 ENGINEERING

DAVID Y. IGE
GOVERNOR OF HAWAII

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

STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
LAND DIVISION

POST OFFICE BOX 621
HONOLULU, HAWAII 96809

May 26, 2017

MEMORANDUM

TO: **DLNR Agencies:**
___Div. of Aquatic Resources
___Div. of Boating & Ocean Recreation
X Engineering Division
___Div. of Forestry & Wildlife
___Div. of State Parks
___Commission on Water Resource Management
___ Office of Conservation & Coastal Lands
X Land Division – Oahu District
X Historic Preservation

FROM: Russell Y. Tsuji, Land Administrator
SUBJECT: FCC Tower Construction Notification – Blowup, LLC; TCNS ID 156364
LOCATION: Honolulu, Island of Oahu; TMK: (1) 1-1-003:207 (por.)
APPLICANT: FCC – Wireless Telecommunication Bureau

Transmitted for your review and comment is information on the above-referenced notification. We would appreciate your comments on this notification. Please submit any comments by **June 16, 2017**.

If no response is received by this date, we will assume your agency has no comments. If you have any questions about this request, please contact Lydia Morikawa at 587-0410. Thank you.

Attachments

( ) We have no objections.
( ) We have no comments.
(X) Comments are attached.

Signed: _____

Print Name: Carty S. Chang, Chief Engineer
Date: 5/31/17

cc: Central Files

DEPARTMENT OF LAND AND NATURAL RESOURCES
ENGINEERING DIVISION

LD/Russell Y. Tsuji
Ref: FCC Tower Construction Notification – Blowup, LLC; TCNS ID 156364

COMMENTS

The rules and regulations of the National Flood Insurance Program (NFIP), Title 44 of the Code of Federal Regulations (44CFR), are in effect when development falls within a designated Flood Hazard.

The owner of the project property and/or their representative is responsible to research the Flood Hazard Zone designation for the project. Flood Hazard Zone designations can be found using the Flood Insurance Rate Map (FIRM), which can be accessed through the Flood Hazard Assessment Tool (FHAT) (http://gis.hawaiinfip.org/FHAT).

Be advised that 44CFR reflects the minimum standards as set forth by the NFIP. Local community flood ordinances may take precedence over the NFIP standards as local designations prove to be more restrictive. If there are questions regarding the local flood ordinances, please contact the applicable County NFIP Coordinators below:

- Oahu: City and County of Honolulu, Department of Planning and Permitting (808) 768-8098.
- Hawaii Island: County of Hawaii, Department of Public Works (808) 961-8327.
- Maui/Molokai/Lanai County of Maui, Department of Planning (808) 270-7253.
- Kauai: County of Kauai, Department of Public Works (808) 241-4846.

Signed: _____
CARTY S. CHANG, CHIEF ENGINEER

Date: 5/31/17

DAVID Y. IGE
GOVERNOR OF HAWAII

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

STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
LAND DIVISION

POST OFFICE BOX 621
HONOLULU, HAWAII 96809

RECEIVED
LAND DIVISION
2017 MAY 31 AM 7:12
DEPT. OF LAND & NATURAL RESOURCES
STATE OF HAWAII

May 26, 2017

MEMORANDUM

TO: **DLNR Agencies:**
___Div. of Aquatic Resources
___Div. of Boating & Ocean Recreation
_X_Engineering Division
___Div. of Forestry & Wildlife
___Div. of State Parks
___Commission on Water Resource Management
___ Office of Conservation & Coastal Lands
_X_Land Division – Oahu District
_X_Historic Preservation

FROM: Russell Y. Tsuji, Land Administrator
SUBJECT: FCC Tower Construction Notification – Blowup, LLC; TCNS ID 156364
LOCATION: Honolulu, Island of Oahu; TMK: (1) 1-1-003:207 (por.)
APPLICANT: FCC – Wireless Telecommunication Bureau

Transmitted for your review and comment is information on the above-referenced notification. We would appreciate your comments on this notification. Please submit any comments by **June 16, 2017**.

If no response is received by this date, we will assume your agency has no comments. If you have any questions about this request, please contact Lydia Morikawa at 587-0410. Thank you.

Attachments

Any improvements on lands under the Land Board juristiction needs a land disposition from the Board.

( ) We have no objections.
( ) We have no comments.
(✗) Comments are attached.

Signed: Darlene Bryant-Takomatsu

Print Name: Darlene Bryant-Takomatsu
Date: 5/30/17

cc: Central Files

DAVID Y. IGE
GOVERNOR OF HAWAII

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

STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
LAND DIVISION

POST OFFICE BOX 621
HONOLULU, HAWAII 96809

August 30, 2017

File No.: OA-1755

Centerline Solutions
3375 Koapaka Street, Suite D185
Honolulu, Hawaii 96819

Dear Applicant:

Subject: Transmittal of Signed Shoreline Certification Maps
Owner(s): State of Hawaii, Department of Land and Natural Resources
Tax Map Key: (1) 1-1-003:003, 207, 211

Enclosed please find three (3) copies of the certified shoreline survey maps for the subject property.

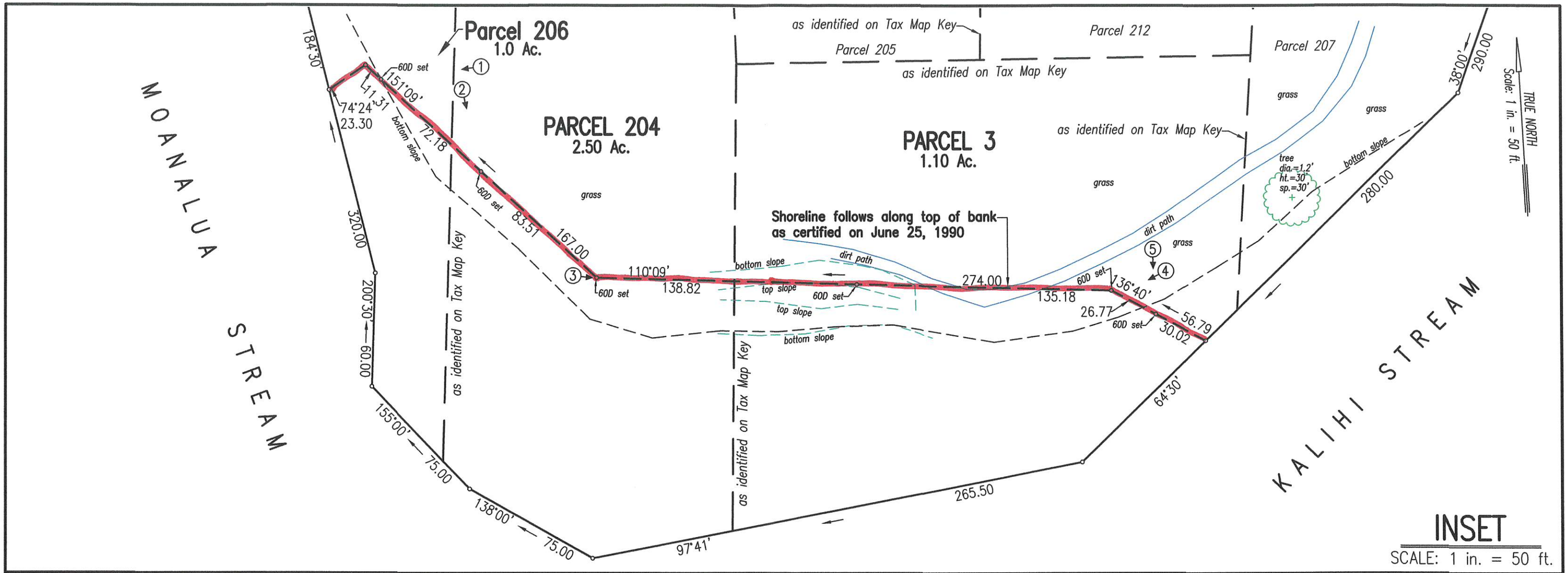
If you have any questions, please feel free to call us at (808) 587-0424. Thank you.

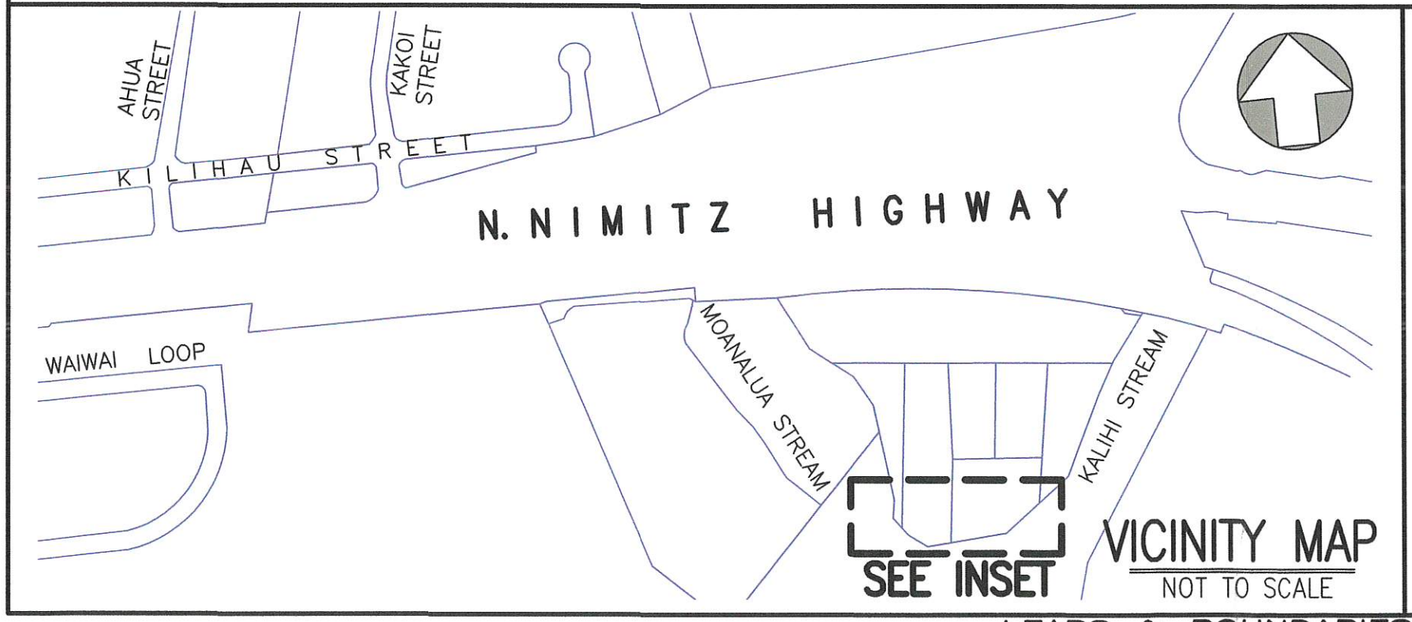
Sincerely,

Cal Miyahara
Shoreline Disposition Specialist

Enclosures

cc: DAGS





SHORELINE SURVEY
ADDITION TO PACIFIC WAR MEMORIAL SITE
(H. T. S. PLAT 2157)

At Moanalua and Kaliawa, Honolulu, Oahu, Hawaii
Date: April 17, 2017
Tax Map Key (1) 1-1-003: 003, 204, 206
Scale: 1 in. = 50 ft.

The shoreline as delineated in red is hereby certified as the shoreline as of

AUG 29 2017

Chairperson, Board of Land and Natural Resources

Legend:

dia	diameter
ht	height
sp	spread

Owner: State of Hawaii

Note: (1)→ Picture Number & Direction

ARDEN J. TORCUATO
LICENSED PROFESSIONAL LAND SURVEYOR No. 10257
HAWAII, U.S.A.

This map was prepared by me or under my direct supervision

LICENSED PROFESSIONAL LAND SURVEYOR
CERTIFICATE NUMBER 10257
Exp. 4/30/2018

Keehi Lagoon, Kalihi
F.B. 76:53

LEAPS & BOUNDARIES, INC.
2016 WATERHOUSE ST., STE. 101 PH. (808) 484-5701
HONOLULU, HI 96819 FAX (888) 542-2097
EMAIL: SURVEYS@LEAPSANDBOUNDARIES.COM

11" x 17"

APPENDIX F

DRAFT EA COMMENTS AND RESPONSES

BOARD OF WATER SUPPLY

CITY AND COUNTY OF HONOLULU
630 SOUTH BERETANIA STREET
HONOLULU, HI 96843
www.boardofwatersupply.com

January 3, 2018

KIRK CALDWELL, MAYOR

BRYAN P. ANDAYA, Chair
KAPUA SPROAT, Vice Chair
DAVID C. HULIHEE
KAY C. MATSUI
RAY C. SOON

ROSS S. SASAMURA, Ex-Officio
JADE T. BUTAY, Ex-Officio

ERNEST Y. W. LAU, P.E.
Manager and Chief Engineer

ELLEN E. KITAMURA, P.E.
Deputy Manager and Chief Engineer

Mr. Grant Nakaya
Centerline Solutions LLC
3375 Koapaka Street, Suite D185
Honolulu, Hawaii 96819

Ms. Janet Lau
Department of Planning and Permitting
650 South King Street, 7th Floor
Honolulu, Hawaii 96813

Dear Mr. Nakaya:

Subject: Letter from Department of Planning and Permitting Dated December 11, 2017 Requesting Comments on the Draft Environmental Assessment on the Proposed Nimitz Highway Tower Relocation Site
Tax Map Key: 1-1-003: 003, 207, 211 & 212

Thank you for the opportunity to comment on the proposed broadcast lattice tower.

The Board of Water Supply does not have water facilities in the area of the proposed project.

The on-site fire protection requirements should be coordinated with the Fire Prevention Bureau of the Honolulu Fire Department.

If you have any questions, please contact Robert Chun, Project Review Branch of our Water Resources Division at 748-5443.

Very truly yours,

ERNEST Y. W. LAU, P.E.
Manager and Chief Engineer

CENTERLINE SOLUTIONS

3375 Koapaka Street, Ste. D-185
Honolulu, HI 96816
P: 808-536-7400

January 27, 2018

Ernest Y. W. Lau, P.E.
Manager and Chief Engineer
Board of Water Supply – City and County of Honolulu
630 South Beretania Street
Honolulu, HI 96843

RE: Response to Comments on the Nimitz Highway Tower Relocation Site Draft Environmental Assessment (DEA) Dated January 3, 2018

Dear Mr. Lau,

Thank you for your letter dated January 3, 2018 regarding the Nimitz Highway Tower Relocation Site DEA.

Centerline Solutions, Consultant for Blow Up LLC has received your letter and understands that the Board of Water Supply does not have any water facilities in the area of the proposed project, and should therefore be unaffected by the proposed project.

Fire protection requirements will be coordinated with Battalion Chief Wayne Masuda of the Fire Prevention Bureau of the Honolulu Fire Department.

Should you have any additional questions you may reach me by phone at (808) 536-7400 x. 7470 or via email at gnakaya@centerlinesolutions.com.

Sincerely,

Grant Nakaya
Project Coordinator
Centerline Solutions – Consultant for Blow Up LLC

DEPARTMENT OF DESIGN AND CONSTRUCTION
CITY AND COUNTY OF HONOLULU
650 SOUTH KING STREET, 11TH FLOOR
HONOLULU, HAWAII 96813
Phone: (808) 768-8480 • Fax: (808) 768-4567
Web site: www.honolulu.gov

KIRK CALDWELL
MAYOR

ROBERT J. KRONING, P.E.
DIRECTOR

MARK YONAMINE, P.E.
DEPUTY DIRECTOR

January 11, 2018

Ford Canty & Associates
ATTN: Lori Ford
928 Nuuanu Ave., Suite 505
Honolulu, HI 96813

Ms. Ford,

Subject: Notice of Office of Environmental Quality Control, Publication Draft of Environmental Assessment Report for the Nimitz Highway Tower Relocation Site Project TMK: (1) 1-1-003 003,207,212

Thank you for the opportunity to review and comment. The Department of Design and Construction does not have any comments at this time.

Should you have any further questions, please call me at 768-8480.

Sincerely,

Robert J. Kroning, P.E.
Director

RJK:ms(713586)

CENTERLINE SOLUTIONS

3375 Koapaka Street, Ste. D-185
Honolulu, HI 96816
P: 808-536-7400

January 27, 2018

Robert J. Kroning, P.E.
Director
Department of Design and Construction
650 South King Street, 11th Floor
Honolulu, Hawaii 96813

RE: Response to Comments on the Nimitz Highway Tower Relocation Site Draft Environmental Assessment (DEA)

Dear Director Kroning,

Thank you for your letter of comment on the Nimitz Highway Tower Relocation Site DEA. Centerline Solutions, Consultant for Blow Up LLC has received your letter and understands the project should have no adverse impacts on any Department of Community Services' activities or projects.

Should you have any additional questions you may reach me by phone at (808) 536-7400 x. 7470 or via email at gnakaya@centerlinesolutions.com.

Sincerely,

Grant Nakaya
Project Coordinator
Centerline Solutions – Consultant for Blow Up LLC

DEPARTMENT OF TRANSPORTATION SERVICES
CITY AND COUNTY OF HONOLULU
650 SOUTH KING STREET, 3RD FLOOR
HONOLULU, HAWAII 96813
Phone: (808) 768-8305 • Fax: (808) 768-4730 • Internet: www.honolulu.gov

KIRK CALDWELL
MAYOR

WES FRYSZTACKI
DIRECTOR

JON Y. NOUCHI
DEPUTY DIRECTOR

TP12/17-713628R

January 22, 2018

Ms. Lori Ford
Senior Project Manager
Ford Canty & Associates, Inc.
928 Nuuanu Avenue, Suite 505
Honolulu, Hawaii 96813

Dear Ms. Ford:

SUBJECT: Draft Environmental Assessment for Nimitz Highway Tower Relocation Site Project, Keehi Lagoon, Oahu, Hawaii

In response to your letter dated December 18, 2017, we have the following comments:

1. Construction materials and equipment should be transferred to and from the project site during off-peak traffic hours (8:30 a.m. to 3:30 p.m.) to minimize any possible disruption to traffic on the local streets.

2. Construction schedules should be coordinated with other nearby properties that have planned developments to ensure minimal impacts on City streets.

3. All access driveways to the project site should be designed with the highest pedestrian and bicycle safety measures and constructed to current City standards.

4. Any existing pedestrian, bicycle and vehicle access/crossing shall be maintained with the highest safety measures during construction.

5. The area Neighborhood Board, as well as the area businesses, emergency personnel (fire, ambulance and police), Oahu Transit Services, Inc. (TheBus and TheHandi-Van), etc., should be kept apprised of the details of the proposed project and the impacts that the project may have on the adjoining local street area network.

Thank you for the opportunity to review this matter. Should you have any questions, please contact Renee Yamasaki of my staff at 768-8383.

Very truly yours,

Wes Frysztacki
Director

CENTERLINE SOLUTIONS

3375 Koapaka Street, Ste. D-185
Honolulu, HI 96816
P: 808-536-7400

January 30, 2018

Wes Frysztacki
Director
Department of Transportation Services
650 South King Street, 3rd Floor
Honolulu, Hawaii 96813

RE: Draft Environmental Assessment for Nimitz Highway Tower Relocation Site Project, Keehi Lagoon, Oahu, Hawaii

Dear Director Frysztacki,

Thank you for your comments dated January 22, 2018 on the Draft Environmental Assessment (DEA) for the Nimitz Highway Tower Relocation Site by Blow Up LLC. In response to these comments, Centerline Solutions, consultant for Blow Up LLC, responds as follows:

1) Normal work hours for this project site will be from 7am – 3:30pm Mon-Fri.
    a. All deliveries to and from the site will be conducted during 8:30am to 3:30pm
        i. Larger pieces of materials for this project will be schedule for delivery over the weekend and/or at night.
        ii. Neighboring properties, businesses and residences (Kahauiki Viliage) will be given prior notices through bulletins and/or memos about daily operations for this project.
2) Access to the project site is through Kahauiki Village. Proper traffic control will be in place to ensure safe ingress/egress to property.
    a. All pedestrian, bicyclist and vehicular signs will be posted
    b. Temporary cross walks will be monitored by a crossing guard during normal project work hours, 7am – 3:30p Mon-Fri
        i. Should weekend work become necessary, a crossing guard will be on duty for duration of weekend operations.
3) A notice of construction will be filed with Department of Transportation for public announcement.
    a. Notice of construction to include affected streets, freeways, business, bike paths and sidewalks.
    b. Notification to the local Fire Dept and EMS services informing them of construction site location & POC in case of an emergency.
4) Details of the project have been provided to all relevant and interested parties.
    a. The project is not in a specific Neighborhood Board jurisdiction, however does immediately border the Kalihi-Palama Neighborhood Board #15. Centerline Solutions

CENTERLINE SOLUTIONS
3375 Koapaka Street, Ste. D-185
Honolulu, HI 96816
P: 808-536-7400

will be present at the February 21, 2018 Neighborhood Board meeting to provide an update on the project.

b. The Department of Health, Honolulu Fire Department, and Honolulu Police Department have been contacted and invited to respond as part of the EA review process.

Should you have any additional questions you may reach me by phone at (808) 536-7400 x. 7470 or via email at gnakaya@centerlinesolutions.com.

Sincerely,

Grant Nakaya
Project Coordinator
Centerline Solutions – Consultant for Blow Up LLC

DAVID Y. IGE
GOVERNOR OF
HAWAII

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

ROBERT K. MASUDA
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
ENGINEERING
FORESTRY AND WILDLIFE
HISTORIC PRESERVATION
KAHOOLAWE ISLAND RESERVE COMMISSION
LAND
STATE PARKS

STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
DIVISION OF AQUATIC RESOURCES
1151 PUNCHBOWL STREET, ROOM 330
HONOLULU, HAWAII 96813

Date: Jan. 19, 2018
DAR # 5658

MEMORANDUM

TO: Bruce S. Anderson, PhD
DAR Administrator

FROM: Glenn Higashi GRH, Aquatic Biologist

SUBJECT: Draft Environmental Assessment (DEA) for proposed Nimitz Highway Tower Relocation Site

Request Submitted by: Blow Up, LLC

Location of Project: Makai of Nimtiz Highway and West of Kalihi Stream-Kahauiki Village-Keehi Lagoon

Brief Description of Project:

The proposed project involves installing a 150-foot guyed, broadcast lattice tower with one, 4-foot microwave antenna mounted at a height of 80 feet above ground level (agl), and a 1-foot tall lightning rod mounted at the top. The lattice tower will sit on a concrete foundation underground, of which 1-foot will be above ground. A 1-foot tall insulator is located between the tower and the concrete foundation. Therefore, the total lattice tower height will be 153 feet. In addition, an equipment shelter and emergency generator will be installed south of the lattice tower. (continued in the next page)

Comments:
☐ No Comments ☒ Comments Attached

Thank you for providing DAR the opportunity to review and comment on the proposed project. Should there be any changes to the project plan, DAR requests the opportunity to review and comment on those changes.

Comments Approved: Bruce S. Anderson Date: 1/22/18
Bruce S. Anderson, PhD
DAR Administrator

DAR# 5658

Brief Description of Project

The lattice tower, equipment shelter and emergency generator will be installed within a 2,500 square foot fenced area, which will be within a 150-foot radius fenced area. A copper radial system (used for grounding) will be installed in the ground within the fenced areas.

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 lattice tower; (2) constructing new concrete piers for shelter for the equipment cabinets and emergency generator, (3) constructing new concrete anchors for the guy wires, (4) grading for a gravel site access driveway, and (5) erecting a chain-link fence enclosure.

The current tower, is located within the Keehi Interchange, needs to be relocated to make way for construction and operation of the elevated guideway for the Honolulu Rail Transit Project by the Honolulu Authority for Rapid Transportation (HART) while minimizing interruption to radio signal transmissions.

The proposed Nimitz Highway Tower Relocation Site located at Tax Map Key (TMK) No. (1) 1-1-003: Parcels 003, 207, 211 and 212 (portions), Honolulu, Honolulu County, Hawaii 96819

The project is entirely within the Special Management Area (SMA).

DAR# 5658

Comments

The proposed project is not expected to have adverse impacts on the aquatic environment. However, since the project location is adjacent to the Kalihi Stream, the Division recommends Best Management Practices (BMPs) be incorporated to minimize the potential for erosion, siltation and pollution of the aquatic environment during excavation, construction, and grading activities.

1) Lands denuded of vegetation should be planted or covered as quickly as possible to prevent further erosion and soil from falling or flowing into the stream environment;
2) Scheduling site work (particularly the excavation and grading during periods of minimal rainfall; and,
3) Prevent construction materials, petroleum products, debris and landscaping products, etc. from falling, blowing or leaching into the aquatic environment.

DEPARTMENT OF PLANNING AND PERMITTING
CITY AND COUNTY OF HONOLULU
650 SOUTH KING STREET, 7TH FLOOR • HONOLULU, HAWAII 96813
PHONE: (808) 768-8000 • FAX: (808) 768-6041
DEPT. WEB SITE: www.honoluludpp.org • CITY WEB SITE: www.honolulu.gov

RECEIVED
DEC 13 2017
Division of Aquatic Resources
DAR 5658

KIRK CALDWELL
MAYOR

KATHY K. SOKUGAWA
ACTING DIRECTOR

TIMOTHY F. T. HIU
DEPUTY DIRECTOR

2017/ED-13(JL1)

December 11, 2017

Dear Participant:

SUBJECT: Chapter 343, Hawaii Revised Statutes (HRS)
Draft Environmental Assessment (DEA)

Project: Proposed Nimitz Highway Tower Relocation Site
Applicant: Blow Up, LLC
Agent: Centerline Solutions LLC
Location: Makai of Nimitz Highway and West of Kalihi Stream – Kahauiki Village – Keehi Lagoon
Tax Map Keys: 1-1-003: 003, 207, 211, and 212

Enclosed for your review and comment is a DEA for the Nimitz Highway Tower Relocation Site, which has been prepared pursuant to Chapter 343, HRS. The Project involves the development of a new telecommunications facility to include a permanent 150-foot guyed lattice tower within a 150-foot radius fenced area. The land is owned by the State of Hawaii and is located within the Special Management Area (SMA).

Please send any comments regarding potential environmental impacts to Mr. Grant Nakaya at Centerline Solutions LLC by **January 19, 2018**.

Address: 3375 Koapaka Street, Suite D185
Honolulu, Hawaii 96819
Phone: (808) 536-7400, extension 7470

Please copy responses to Janet Lau with the Department of Planning and Permitting (DPP).

Address: 650 South King Street, 7th Floor
Honolulu, Hawaii 96813
Phone: (808) 768-8033

The DPP must determine whether the impacts of the Project are significant enough to warrant the preparation of an Environmental Impact Statement (EIS). Based on the information currently available, the DPP anticipates a "Finding of No Significant Impact" for this Project (i.e., no EIS required). Following completion of the EA phase, the Applicant will be submitting an application for a SMA Use Permit.

Very truly yours,

FOR Kathy K. Sokugawa
Acting Director

Enclosure: Disk with application materials

Doc 1538623

CENTERLINE SOLUTIONS

3375 Koapaka Street, Ste. D-185
Honolulu, HI 96816
P: 808-536-7400

January 30, 2018

Glenn Higashi
Department of Land and Natural Resources
Division of Aquatic Resources
1151 Punchbowl Street, Room 330
Honolulu, Hawaii 96813

RE: Response to Comments on Draft Environmental Assessment for Nimitz Highway Tower Relocation Site

Dear Mr. Higashi

Thank you for your comments on the Draft Environmental Assessment (DEA) for the Nimitz Highway Tower Relocation Site project. We have received your letter dated January 19, 2018, concerning the use of best management practices (BMPs) and respond as follows:

Best Management Practices for Nimitz Highway Tower Relocation Site:

1) Soil-disturbed areas of the project site, including graded areas, trenches, and stockpiled materials at storage or staging areas, shall be kept to a minimum, and have appropriate erosion and sediment control BMPs implemented
2) Proper BMPs for the possibility of rain during construction will be implemented. Areas of exposed soils susceptible to erosion will be covered with seeded hydro mulch. The borders of construction areas will have Coir logs in place as a secondary run off protection.
3) BMPs for non-storm water management, waste management and disposal shall be considered and implemented for all applicable activities on the construction site throughout the duration of the project.
    a. The following possible BMPs will be considered for the project, with final determination reliant upon field verification of efficacy:
        i. Temporary/Permanent Seeding and Planting
        ii. Mulching and/or Sodding
        iii. Silt Fence
        iv. Spill Pans
        v. Dust Suppression
        vi. Concrete Washout Disposal Site
        vii. Covered Storage Areas
        viii. Vehicle Wash Station

CENTERLINE SOLUTIONS
3375 Koapaka Street, Ste. D-185
Honolulu, HI 96816
P: 808-536-7400

Should you have any additional questions you may reach me by phone at (808) 536-7400 x. 7470 or via email at gnakaya@centerlinesolutions.com.

Sincerely,

Grant Nakaya
Project Coordinator
Centerline Solutions – Consultant for Blow Up LLC

dupd.

2018/ELOG-208

DEPARTMENT OF COMMUNITY SERVICES
CITY AND COUNTY OF HONOLULU
925 DILLINGHAM BOULEVARD, SUITE 200 • HONOLULU, HAWAII 96817
PHONE: (808) 768-7762 • FAX: (808) 768-7792
www.honolulu.gov/dcs

2018 JAN 24 PM 4:20

DEPT OF PLANNING
AND PERMITTING
CITY & COUNTY OF HONOLULU

KIRK CALDWELL
MAYOR

PAMELA A. WITTY-OAKLAND
DIRECTOR

SUSAN L. FERNANDEZ
DEPUTY DIRECTOR

January 22, 2018

Mr. Grant Nakaya
Centerline Solutions LLC
3375 Koapaka Street, Suite D185
Honolulu, Hawaii 96819

Dear Mr. Nakaya:

SUBJECT: Chapter 343, Hawaii Revised Statutes (HRS)
Draft Environmental Assessment (DEA)
Proposed Nimitz Highway Tower Relocation Site
Kahauiki Village – Keehi Lagoon
Tax May Key: (1) 1-003: 003, 207, 211, and 212

Thank you for the opportunity to review the request regarding Centerline Solutions' draft environmental analysis of the Proposed Nimitz Highway Tower Relocation Site project.

Our review of the provided document indicates that the proposed project will have no adverse impacts on any Department of Community Services' activities or projects at this time.

Sincerely,

Susan L. Fernandez for
Pamela A. Witty-Oakland
Director

PAW:ta

cc: Ms. Janet Lau
Department of Planning and Permitting (DPP)

CENTERLINE SOLUTIONS

3375 Koapaka Street, Ste. D-185
Honolulu, HI 96816
P: 808-536-7400

January 27, 2018

Pamela A. Witty-Oakland
Director
Department of Community Services
925 Dillingham Boulevard, Suite 200
Honolulu, Hawaii 96817

RE: Response to Comments on the Nimitz Highway Tower Relocation Site Draft Environmental Assessment (DEA)

Dear Director Witty-Oakland,

Thank you for your letter of comment on the Nimitz Highway Tower Relocation Site DEA. Centerline Solutions, Consultant for Blow Up LLC has received your letter and understands the Department of Community Services has determined that the proposed project will have no adverse impacts on any of the Department's activities or projects.

Should you have any additional questions you may reach me by phone at (808) 536-7400 x. 7470 or via email at gnakaya@centerlinesolutions.com.

Sincerely,

Grant Nakaya
Project Coordinator
Centerline Solutions – Consultant for Blow Up LLC

DAVID Y. IGE
GOVERNOR OF HAWAII

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

STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
LAND DIVISION

POST OFFICE BOX 621
HONOLULU, HAWAII 96809

January 17, 2018

Centerline Solutions LLC
Attention: Mr. Grant Nakaya
3375 Koapaka Street, Suite D185
Honolulu, Hawaii 96819

Dear Mr. Nakaya:

SUBJECT: Draft Environmental Assessment for Proposed Nimitz Highway Tower Relocation Site; Honolulu, Oahu

Thank you for the opportunity to review and comment on the subject matter. The Department of Land and Natural Resources' (DLNR) Land Division distributed or made available a copy of your report pertaining to the subject matter to DLNR Divisions for their review and comments.

At this time, enclosed are comments from the (a) Engineering Division and (b) Land Division – Oahu District on the subject matter. Should you have any questions, please feel free to call Lydia Morikawa at 587-0410. Thank you.

Sincerely,

Russell Y. Tsuji
Land Administrator

Enclosure(s)
cc: Ms. J. Lau; City and County of Honolulu, Department of Planning and Permitting
Central Files

DAVID Y. IGE
GOVERNOR OF HAWAII

RECEIVED
LAND DIVISION
2017 DEC 18 AM 10: 5
DEPT. OF LAND & NATURAL RESOURCES STATE OF HAWAII

'17 DEC 14 AM 10:28 ENGINEERING

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

STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
LAND DIVISION

POST OFFICE BOX 621
HONOLULU, HAWAII 96809

December 14, 2017

MEMORANDUM

TO:

DLNR Agencies:
__Div. of Aquatic Resources
__Div. of Boating & Ocean Recreation
X Engineering Division
__Div. of Forestry & Wildlife
__Div. of State Parks
X Commission on Water Resource Management
__Office of Conservation & Coastal Lands
X Land Division – Oahu District
X Historic Preservation

FROM

FROM: Russell Y. Tsuji, Land Administrator
SUBJECT: Draft Environmental Assessment for Proposed Nimitz Highway Tower Relocation Site
LOCATION: Honolulu, Island of Oahu; TMK: (1) 1-1-003: 003, 207, 211 and 212
APPLICANT: Center Solutions LLC

Transmitted for your review and comment is information on the above-referenced project which can be found at:

1. https://hawaiioimt.sharepoint.com/sites/dlnr-ld (using the Chrome browser)
2. Username: your Hawaii.gov email address
3. Password: outlook password (if you do not know it, please contact IT by email to reset and get a password)
4. Click on: Request for Comments, then click on the subject link.
5. If you cannot access the document, please scan this Memo and email to Quoc Le at quoc.le@hawaii.gov to grant you access.

Please submit any comments by **January 17, 2018**. If no response is received by this date, we will assume your agency has no comments. If you have any questions about this request, please contact Lydia Morikawa at 587-0410. Thank you.

( ) We have no objections.
( ) We have no comments.
(✓) Comments are attached.

Signed: _____

Print Name: Carty S. Chang, Chief Engineer
Date: 12/15/17

Attachment
cc: Central Files

DEPARTMENT OF LAND AND NATURAL RESOURCES
ENGINEERING DIVISION

LD/Russell Y. Tsuji
Ref: Draft Environmental Assessment for Proposed Nimitz Highway Tower Relocation Site, Honolulu, Island of Oahu; TMK: (1) 1-1-003: 003, 207, 211, and 212

COMMENTS

The rules and regulations of the National Flood Insurance Program (NFIP), Title 44 of the Code of Federal Regulations (44CFR), are in effect when development falls within a Special Flood Hazard Area (high risk areas). Be advised that 44CFR reflects the minimum standards as set forth by the NFIP. Local community flood ordinances may stipulate higher standards that can be more restrictive and would take precedence over the minimum NFIP standards.

The owner of the project property and/or their representative is responsible to research the Flood Hazard Zone designation for the project. Flood Hazard Zones are designated on FEMA's Flood Insurance Rate Maps (FIRM), which can be viewed on our Flood Hazard Assessment Tool (FHAT) (http://gis.hawaiinfip.org/FHAT).

If there are questions regarding the local flood ordinances, please contact the applicable County NFIP coordinating agency below:

- Oahu: City and County of Honolulu, Department of Planning and Permitting (808) 768-8098.
- Hawaii Island: County of Hawaii, Department of Public Works (808) 961-8327.
- Maui/Molokai/Lanai County of Maui, Department of Planning (808) 270-7253.
- Kauai: County of Kauai, Department of Public Works (808) 241-4846.

Signed: _____
CARTY S. CHANG, CHIEF ENGINEER

Date: 12/15/17

DAVID Y. IGE
GOVERNOR OF HAWAII

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

STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
LAND DIVISION

POST OFFICE BOX 621
HONOLULU, HAWAII 96809

RECEIVED
LAND DIVISION
2017 DEC 29 AM 8:02
DEPT. OF LAND & NATURAL RESOURCES
STATE OF HAWAII

December 14, 2017

MEMORANDUM

TO: ~~TO~~:

DLNR Agencies:
__Div. of Aquatic Resources
__Div. of Boating & Ocean Recreation
X Engineering Division
__Div. of Forestry & Wildlife
__Div. of State Parks
X Commission on Water Resource Management
__Office of Conservation & Coastal Lands
X Land Division – Oahu District
X Historic Preservation

~~FROM~~: Russell Y. Tsuji, Land Administrator
SUBJECT: Draft Environmental Assessment for Proposed Nimitz Highway Tower Relocation Site
LOCATION: Honolulu, Island of Oahu; TMK: (1) 1-1-003: 003, 207, 211 and 212
APPLICANT: Center Solutions LLC

Transmitted for your review and comment is information on the above-referenced project which can be found at:

1. https://hawaiioimt.sharepoint.com/sites/dlnr-ld (using the Chrome browser)
2. Username: your Hawaii.gov email address
3. Password: outlook password (if you do not know it, please contact IT by email to reset and get a password)
4. Click on: Request for Comments, then click on the subject link.
5. If you cannot access the document, please scan this Memo and email to Quoc Le at quoc.le@hawaii.gov to grant you access.

Please submit any comments by **January 17, 2017**. If no response is received by this date, we will assume your agency has no comments. If you have any questions about this request, please contact Lydia Morikawa at 587-0410. Thank you.

( ) We have no objections.
( ) We have no comments.
(x) Comments are attached.

Signed: Barry Cheung

Print Name: BARRY CHEUNG
Date: 12/28/17

Attachment

DAVID Y. IGE
GOVERNOR OF HAWAII

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

STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
LAND DIVISION

POST OFFICE BOX 621
HONOLULU, HAWAII 96809

December 28, 2017

MEMORANDUM

TO: Russell Y. Tsuji, Land Administrator
Land Division

FROM: Barry Cheung
Oahu District Land Office

SUBJECT: DEA for Proposed Nimitz Highway Tower Relocation Site

Paragraph 2.1
The subject parcels are included in the Governor's Executive Order No. 4513 dated October 17, 2016 setting aside to the City and County of Honolulu ("City") for Affordable Housing Project for Homeless Families Purposes. The presence of Tactical Airgun Games Hawaii LLP on the ground is anticipated to end soon, making way for the development of the Kahauiki Village. Upon completion of the environmental assessment process under Chapter 43, HRS, the operator of the tower site is required to obtain a land disposition [likely, in the form of an easement] from the Board of Land and Natural Resources ("Board"), further subject to the terms and conditions prescribed by the Board and concurrence from the City.

We do not have other comments on the subject DEA. Any further questions, the consultant can contact Oahu District Land Office at 587-0433. Thank you.

CENTERLINE SOLUTIONS

3375 Koapaka Street, Ste. D-185
Honolulu, HI 96816
P: 808-536-7400

January 30, 2018

Russell Y. Tsuji
Department of Land and Natural Resources
Land Division
P.O. Box 621
Honolulu, Hawaii 96809

RE: Response to Comments on the Draft Environmental Assessment for Blow Up LLC's Nimitz Highway Tower Relocation Site Project

Dear Mr. Tsuji,

Thank you for the letter of comment dated January 17, 2018 from the Engineering Division and Land Division of the Department of Land and Natural Resources. We respond to the comments as follows:

Special Flood Hazard Area

Section 6.1.2.2 of the Draft Environmental Assessment (DEA) notes that the project area has been designated outside of the 100-year flood zone by the Federal Emergency Management Agency Flood Insurance Rate Map (FEMA FIRM).

Land Disposition

Following approval of the DEA and all necessary permitting requirements, Blow Up LLC will seek an easement from the Board of Land and Natural Resources in order to begin construction of the proposed project.

Should you have any additional questions you may reach me by phone at (808) 536-7400 x. 7470 or via email at gnakaya@centerlinesolutions.com.

Sincerely,

Grant Nakaya
Project Coordinator
Centerline Solutions – Consultant for Blow Up LLC

DAVID Y. IGE
GOVERNOR OF HAWAII

VIRGINIA PRESSLER, M.D.
DIRECTOR OF HEALTH

STATE OF HAWAII
DEPARTMENT OF HEALTH
P. O. BOX 3378
HONOLULU, HI 96801-3378

In reply, please refer to:
File:

EPO 17-319

January 17, 2018

Mr. Grant Nakaya
Centerline Solutions LLC
3375 Koapaka Street, Suite D185
Honolulu, Hawaii 96819
Email: gnakaya@centerlinesolutions.com

Dear Mr. Nakaya:

SUBJECT: Draft Environmental Assessment (DEA) for Proposed Nimitz Highway Tower Relocation Site TMK: (1) 1-1-003: Parcels 003, 207, 211 and 212

The Department of Health (DOH), Environmental Planning Office (EPO), acknowledges receipt of your DEA to our office via the OEQC link:
http://oeqc2.doh.hawaii.gov/EA_EIS_Library/2017-12-23-OA-DEA-Nimitz-Highway-Tower-Relocation-Site.pdf

We understand from the project summary that *"The Project consists of the installation of a 150-foot guyed broadcast lattice tower with an attached microwave antenna, 1-foottall lightning rod, and 1-foot-tall insulator atop a 1-foot-above-ground level concrete foundation. The project will also contain an associated equipment shelter and emergency generator, 3 concrete guy wire anchors, a 150-foot-long gravel access road, a facility enclosure fence around the tower, and a 150-foot-radius fence surrounding the project area."*

Hawaii's environmental review laws require Environmental Assessments (EAs) and Environmental Impact Statements (EISs) to consider health in the discussion and the mitigation measures to reduce negative impacts. In its definition of 'impacts,' §11-200-2, Hawaii Administrative Rules (HAR) includes health effects, whether primary (direct), secondary (indirect), or cumulative. Further, §11-200-12(b)(5), HAR, lists public health as one of the criteria for determining whether an action may have a significant impact on the environment.

In the development and implementation of all projects, EPO strongly recommends regular review of State and Federal environmental health land use guidance. State standard comments to support sustainable healthy design are provided at: http://health.hawaii.gov/epo/landuse. Projects are required to adhere to all applicable standard comments.

EPO also encourages you to examine and utilize the Hawaii Environmental Health Portal at: https://eha-cloud.doh.hawaii.gov. This site provides links to our e-Permitting Portal, Environmental Health Warehouse, Groundwater Contamination Viewer, Hawaii Emergency Response Exchange, Hawaii State and Local Emission Inventory System, Water Pollution Control Viewer, Water Quality Data, Warnings, Advisories and Postings.

We suggest you review the requirements of the Clean Water Branch (Hawaii Administrative Rules {HAR}, Chapter 11-54-1.1, -3, 4-8) and/or the National Pollutant Discharge Elimination System (NPDES) permit (HAR, Chapter 11-55) at: http://health.hawaii.gov/cwb. If you have any questions, please contact the Clean Water Branch (CWB), Engineering Section at (808) 586-4309 or cleanwaterbranch@doh.hawaii.gov. If your project involves waters of the U.S., it is highly recommended that you contact the Army Corps of Engineers, Regulatory Branch at: (808) 835-4303.

If temporary fugitive dust emissions could be emitted when the project site is prepared for construction and/or when construction activities occur, we recommend you review the requirements of the Clean Air Branch (CAB). Effective air pollution control measures need to be provided to prevent or minimize any fugitive dust emissions caused by construction work from affecting the surrounding areas. This includes the off-site roadways used to enter/exit the project. The control measures could include, but are not limited to, the use of water wagons, sprinkler systems, and dust fences. For questions contact the Clean Air Branch via e-mail at: Cab.General@doh.hawaii.gov or call (808) 586-4200.

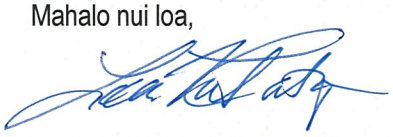
Any waste generated by the project (that is not a hazardous waste as defined in state hazardous waste laws and regulations), needs to be disposed of at a solid waste management facility that complies with the applicable provisions (HAR, Chapter 11-58.1 "Solid Waste Management Control"). The open burning of any of these wastes, on or off site, is strictly prohibited. You may wish you review the Minimizing Construction & Demolition Waste Management Guide at: http://health.hawaii.gov/shwb/files/2016/05/constdem16.pdf Additional information is accessible at: http://health.hawaii.gov/shwb. For specific questions call (808) 586-4226.

If noise created during the construction phase of the project may exceed the maximum allowable levels (HAR, Chapter 11-46, "Community Noise Control") then a noise permit may be required and needs to be obtained before the commencement of work. Relevant information is online at: http://health.hawaii.gov/irhb/noise EPO recommends you contact the Indoor and Radiological Health Branch (IRHB) at (808) 586-4700 with any specific questions.

To better protect public health and the environment, the U.S. Environmental Protection Agency (EPA) has developed an environmental justice (EJ) mapping and screening tool called EJSCREEN. It is based on nationally consistent data and combines environmental and demographic indicators in maps and reports. EPO encourages you to explore, launch and utilize this powerful tool in planning your project. The EPA EJSCREEN tool is available at: http://www.epa.gov/ejscreen.

We hope this information is helpful. If you have any questions please contact us at DOH.epo@doh.hawaii.gov or call us at (808) 586-4337. Thank you for the opportunity to comment.

Mahalo nui loa,



Laura Leialoha Phillips McIntyre, AICP
Environmental Planning Office

Attachment:
U.S. EPA Environmental Justice Summary Report

c: Susan Eichor, Bow Up LLC (via email: susane@aiohawaii.com)
Janet Lau, DPP (via email: janet.lau@hawaii.gov)

EJSCREEN Report (Version 2017)

1 mile Ring Centered at 21.332051,-157.890756, HAWAII, EPA Region 9

Approximate Population: 18,134

Input Area (sq. miles): 3.14

(The study area contains 2 blockgroup(s) with zero population.)

January 16, 2018

Digitized Point

1:1,128

Sites reporting to EPA	
Superfund NPL	0
Hazardous Waste Treatment, Storage, and Disposal Facilities (TSDF)	0

EJSCREEN Report (Version 2017)

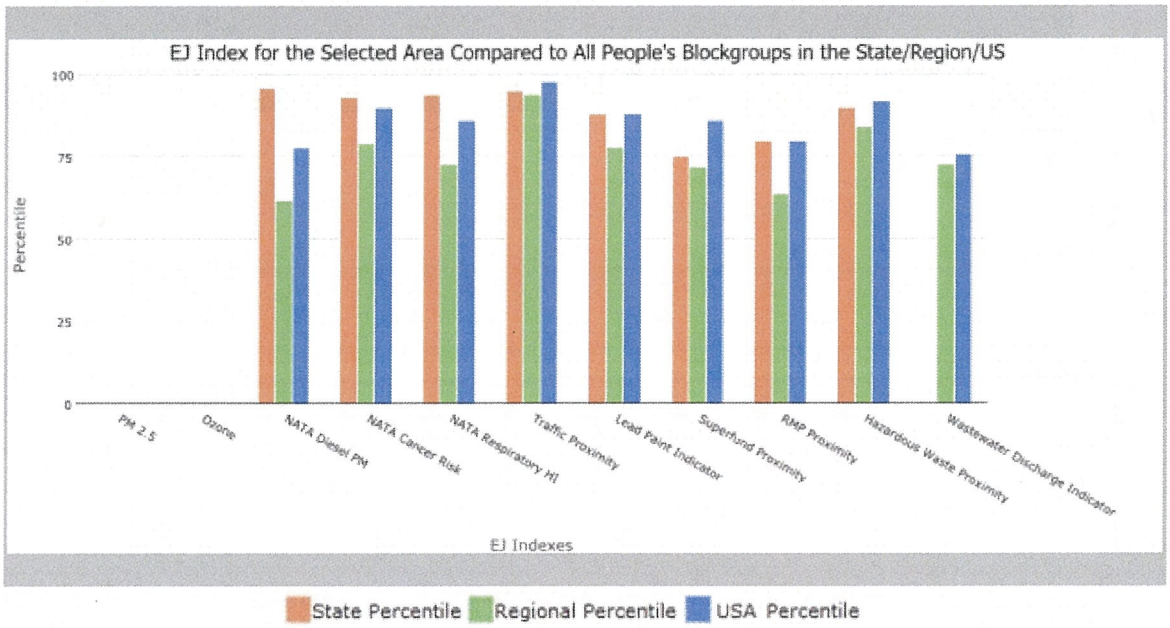
1 mile Ring Centered at 21.332051,-157.890756, HAWAII, EPA Region 9

Approximate Population: 18,134

Input Area (sq. miles): 3.14

(The study area contains 2 blockgroup(s) with zero population.)

Selected Variables	State Percentile	EPA Region Percentile	USA Percentile
EJ Indexes			
EJ Index for PM2.5	N/A	N/A	N/A
EJ Index for Ozone	N/A	N/A	N/A
EJ Index for NATA* Diesel PM	96	62	78
EJ Index for NATA* Air Toxics Cancer Risk	93	79	90
EJ Index for NATA* Respiratory Hazard Index	94	73	86
EJ Index for Traffic Proximity and Volume	95	94	98
EJ Index for Lead Paint Indicator	88	78	88
EJ Index for Superfund Proximity	75	72	86
EJ Index for RMP Proximity	80	64	80
EJ Index for Hazardous Waste Proximity	90	84	92
EJ Index for Wastewater Discharge Indicator	N/A	73	76



This report shows the values for environmental and demographic indicators and EJSCREEN indexes. It shows environmental and demographic raw data (e.g., the estimated concentration of ozone in the air), and also shows what percentile each raw data value represents. These percentiles provide perspective on how the selected block group or buffer area compares to the entire state, EPA region, or nation. For example, if a given location is at the 95th percentile nationwide, this means that only 5 percent of the US population has a higher block group value than the average person in the location being analyzed. The years for which the data are available, and the methods used, vary across these indicators. Important caveats and uncertainties apply to this screening-level information, so it is essential to understand the limitations on appropriate interpretations and applications of these indicators. Please see EJSCREEN documentation for discussion of these issues before using reports.

EJSCREEN Report (Version 2017)

1 mile Ring Centered at 21.332051,-157.890756, HAWAII, EPA Region 9

Approximate Population: 18,134

Input Area (sq. miles): 3.14

(The study area contains 2 blockgroup(s) with zero population.)

Selected Variables	Value	State Avg.	%ile in State	EPA Region Avg.	%ile in EPA Region	USA Avg.	%ile in USA
Environmental Indicators							
Particulate Matter (PM 2.5 in µg/m³)	N/A	N/A	N/A	9.9	N/A	9.14	N/A
Ozone (ppb)	N/A	N/A	N/A	41.8	N/A	38.4	N/A
NATA* Diesel PM (µg/m³)	0.493	0.149	95	0.978	<50th	0.938	<50th
NATA* Cancer Risk (lifetime risk per million)	52	34	94	43	80-90th	40	80-90th
NATA* Respiratory Hazard Index	1.9	1	92	2	<50th	1.8	60-70th
Traffic Proximity and Volume (daily traffic count/distance to road)	3300	1000	91	1100	90	590	96
Lead Paint Indicator (% Pre-1960 Housing)	0.26	0.16	74	0.24	61	0.29	57
Superfund Proximity (site count/km distance)	0.083	0.1	66	0.15	57	0.13	60
RMP Proximity (facility count/km distance)	0.36	0.39	70	0.98	44	0.73	53
Hazardous Waste Proximity (facility count/km distance)	0.16	0.1	90	0.12	81	0.093	86
Wastewater Discharge Indicator (toxicity-weighted concentration/m distance)	0	0.04	N/A	13	59	30	40
Demographic Indicators							
Demographic Index	61%	51%	77	47%	70	36%	82
Minority Population	92%	77%	75	59%	84	38%	91
Low Income Population	30%	26%	63	36%	45	34%	47
Linguistically Isolated Population	27%	6%	96	9%	91	5%	96
Population With Less Than High School Education	25%	9%	95	17%	71	13%	83
Population Under 5 years of age	7%	6%	62	7%	57	6%	61
Population over 64 years of age	11%	16%	29	13%	50	14%	40

* The National-Scale Air Toxics Assessment (NATA) is EPA's ongoing, comprehensive evaluation of air toxics in the United States. EPA developed the NATA to prioritize air toxics, emission sources, and locations of interest for further study. It is important to remember that NATA provides broad estimates of health risks over geographic areas of the country, not definitive risks to specific individuals or locations. More information on the NATA analysis can be found at: https://www.epa.gov/national-air-toxics-assessment.

For additional information, see: www.epa.gov/environmentaljustice

EJSCREEN is a screening tool for pre-decisional use only. It can help identify areas that may warrant additional consideration, analysis, or outreach. It does not provide a basis for decision-making, but it may help identify potential areas of EJ concern. Users should keep in mind that screening tools are subject to substantial uncertainty in their demographic and environmental data, particularly when looking at small geographic areas. Important caveats and uncertainties apply to this screening-level information, so it is essential to understand the limitations on appropriate interpretations and applications of these indicators. Please see EJSCREEN documentation for discussion of these issues before using reports. This screening tool does not provide data on every environmental impact and demographic factor that may be relevant to a particular location. EJSCREEN outputs should be supplemented with additional information and local knowledge before taking any action to address potential EJ concerns.

928 Nuuanu Avenue, Suite 505
Honolulu, HI 96817
808.426.6927

Ford & Associates, Inc.
Environmental Scientists & Engineers

February 1, 2018

Ms. Laura Leialoha Phillips McIntyre, AICP
State of Hawaii
Department of Health, Environmental Planning Office
P.O. Box 3378
Honolulu, HI 96801-3378

Project No. 16-1144

Subject: Draft Environmental Assessment (DEA) for the Proposed Nimitz Highway Tower Relocation Site Project, Tax Map Key (TMK) No. (1) 1-1-003: Parcels 003, 207, 211 and 212 (Portions), Honolulu, Hawaii 96819

Dear Ms. McIntyre:

We have received your letter, dated January 17, 2018, regarding the DEA Report for the Proposed Nimitz Highway Tower Relocation Site Project, TMK No. (1) 1-1-003: Parcels 003, 207, 211 and 212 (portions), Honolulu, Hawaii 96819, which was published in the Office of Environmental Quality Control (OEQC) bulletin, *The Environmental Notice*, dated December 23, 2017.

Based on the comments in your letter, we offer the following responses:

- Impacts to health and mitigation measures were discussed in the DEA. It is our commitment to make every effort to protect public health.

- Based on your recommendation in your letter, we have reviewed the program and planning documents cited, and forwarded them to our design team for consideration.

- There will be no impacts/discharges into State waters from the proposed project activities. Best Management Practices (BMPs) will be implemented during construction activities. In addition, a letter from the Army Corps of Engineers dated February 13, 2017 stated that they "*determined that proposed project would not involve work and/or structures, or activities that result in a discharge of dredged or fill material in waters of the U.S., including adjacent wetlands. Therefore, a DA permit is NOT required.*"

- Measures to control fugitive dust will comply with the provisions of Hawaii Administrative Rules (HAR) Section 11-60.1-33. In addition, BMPs will be implemented to mitigate any dust emissions.

- Waste will not be generated by the project. However, disposition of any waste will comply with applicable provisions of HAR Section 11-58.1.

- If the noise levels during construction and installation activities are to be above the standards stipulated in HAR Section 11-46, then a permit will be acquired.

The DEA adheres to all applicable standard comments, including, but not limited to Environmental Health programs, statewide planning documents and incorporating BMPs.

Thank you for your comments and assistance in these matters.

Sincerely,

Lori Ford, M.S.
Senior Project Manager

/llf

cc: Centerline Solutions LLC

DEPARTMENT OF PLANNING AND PERMITTING
CITY AND COUNTY OF HONOLULU
650 SOUTH KING STREET, 7TH FLOOR • HONOLULU, HAWAII 96813
PHONE: (808) 768-8000 • FAX: (808) 768-6041
DEPT. WEB SITE: www.honoluludpp.org • CITY WEB SITE: www.honolulu.gov

KIRK CALDWELL
MAYOR

KATHY K. SOKUGAWA
ACTING DIRECTOR

TIMOTHY F. T. HIU
DEPUTY DIRECTOR

EUGENE H. TAKAHASHI
DEPUTY DIRECTOR

2017/ED-13(JL1)

January 23, 2017

Mr. Grant Nakaya
Centerline Solutions LLC
3375 Koapaka Street, Suite D185
Honolulu, Hawaii 96819

Dear Mr. Nakaya:

SUBJECT: Review Comments
Draft Environmental Assessment
Nimitz Highway Tower Relocation Site
Kahauiki Village – Keehi Lagoon
Tax Map Keys 1-1-003: 003, 207, 211, and 212

We have reviewed the Draft Environmental Assessment (DEA), received December 8, 2017, for the above-mentioned project and have the following comments:

A. Site Development Division, Civil Engineering Branch

1. Section 4.0 (Permits) - A grading permit may be required. (Refer to Page 3, 5th paragraph, which states that grading work is proposed to construct the gravel site access driveway.)

2. The project shall comply with the prevailing Rules Relating to Water Quality.

B. Site Development Division, Subdivision Branch - The new tower is anticipated to be outside the 100-year flood zone.

C. Planning Division, Policy Planning Branch

1. Alignment with the General Plan (GP) - Section 7.4 of the DEA should state the specific policies of the GP that demonstrate the project's alignment, especially as they pertain to utilities (see Chapter 5, Objectives C and D).

2. Alignment with the Primary Urban Center Development Plan (PUC DP)

a. DEA Section 7.5 states that "It is believed that since the proposed project is in compliance with or will not affect the GP, it is also in compliance with or will not affect plans for the Primary Urban Center community". While it

is true that the Development Plans are required to be in accord with the GP, they contain policies and guidelines at a finer grain than the GP. Therefore, it is not correct to assume that concordance with the GP amounts to concordance with the PUC DP without further analysis.

b. The project site is depicted as "Major Parks and Open Space" on PUC DP Map A.4: Land Use; however, the project site is not identified as part of a significant view corridor as depicted in PUC DP Map A.1: Significant Panoramic Views.

3. Sea Level Rise - In December 2017, the State Climate Change and Mitigation Commission published the Hawaii Sea Level Rise Vulnerability and Adaptation Report with updated projections of sea level rise, coastal erosion, and episodic flooding due to sea level rise for Oahu. The project should reevaluate sea level rise related risks and reassess any mitigations needed based on the State report and the best available science.

Should you have any further questions on this matter, please contact Janet Lau of our Urban Design Branch at (808) 768-8033 or by email at janet.lau@honolulu.gov.

Very truly yours,

FOR Anthony X. Cheng
Kathy K. Sokugawa
Acting Director

CENTERLINE SOLUTIONS

3375 Koapaka Street, Ste. D-185
Honolulu, HI 96816
P: 808-536-7400

January 26, 2018

Kathy K. Sokugawa, Acting Director
Department of Planning and Permitting
Attn: Planning Division – Policy Planning Branch
650 South King Street, 7th Floor
Honolulu, Hawaii 96813

RE: Response to Comments on Draft Environmental Assessment titled Nimitz Highway Tower Relocation Site, Dated January 23, 2018

Dear Acting Director Sokugawa,

Centerline Solutions, the consultant for Blow Up LLC, has received comments from the Civil Engineering Branch and Subdivision Branch of the Site Development Division, and the Policy Planning Branch of the Planning Division of the Department of Planning and Permitting on the Draft Environmental Assessment (DEA) for the Nimitz Highway Tower Relocation Site Dated January 23, 2018. Please find our responses to those comments below.

Site Development Division, Civil Engineering Branch

1. ***Grading Permit***

If the project does not qualify for an exclusion under Section 14-13.5 of the Revised Ordinances of Honolulu (ROH), then pursuant to Section 14-14.1 of Revised Ordinances of Honolulu, an application for a grading permit shall be filed for the proposed project.

Language indicating the possibility of requiring a Grading Permit issued by the Department of Planning and Permitting will be added to Section 4.0 of the DEA.

2. ***Compliance with Rules Relating to Water Quality***

The project shall comply with all applicable rules relating to water quality. Sections 6.1.2.1 and 6.1.2.2 note that the project site is below the State of Hawaii Department of Health defined Underground Injection Control line. The ground water is thus considered unsuitable for drinking water purposes.

Site Development Division, Subdivision Branch

Section 6.1.2.2 of the DEA notes that the project area has been designated outside of the 100-year flood zone by the Federal Emergency Management Agency Flood Insurance Rate Map (FEMA FIRM).

Planning Division, Policy Planning Branch

1. Alignment with the General Plan

In response to comment 1 regarding which policies of the General Plan, Section 7.4 of the DEA has been updated to read as follows:

"7.4 CITY AND COUNTY OF HONOLULU GENERAL PLAN

The Proposed Action was evaluated to confirm that it follows the General Plan (GP), as amended in October 2002. According to the document, the GP was established to set *"forth the long-range aspirations of Oahu's residents and the strategies of actions to achieve them."*

The proposed Nimitz Highway Tower Relocation Site project will not inhibit the GP objectives and policies. The project is specifically in line with the objectives and policies of the GP in Chapter 5 of the GP on Transportation and Utilities as follows:

Objective A of this Chapter of the GP is to *"create a transportation system which will enable people and goods to move safely, efficiently, and at a reasonable cost; serve all people, including the poor, the elderly, and the physically handicapped; and offer a variety of attractive and convenient modes of travel."* The project aligns with Objective A, Policy 1(a) to develop a public transportation system for travel to and from work and travel within Central Honolulu by making way for the planned rail transit project which will facilitate travel to and from work as well as provide additional public transportation options to Central Honolulu. Policies 2, 6, and 7 of this objective are also promoted by the project as this project is necessary to the progress of the rail transit project, which will provide transportation services to Central and West Oahu and promote the use of public transportation (Policies 2 and 7), and will reduce the construction and operation costs of the rail system (Policy 6).

The project aligns with Objective C, Policy 1, of this Chapter to *"maintain a high level of service for all utilities"* and to *"[m]aintain existing utility systems in order to avoid major breakdowns"* by ensuring the public's continued access to a variety of radio programming, as well as serving as a conduit for the delivery of public safety information in the event of an emergency.

Under Objective D of the GP, the project will allow Oahu to have continued access to a wide variety of radio programming, which enhances the desirability of Oahu as a place to live and visit."

2. Alignment with the Primary Urban Center Development Plan

In response to comment 2, the project will not affect any of the policies of the Primary Urban Center Development Plan. The project is a radio broadcast tower that does not affect: (1) Cultivating Livable Neighborhoods, (2) In-Town Housing Choices, (3) The Pacific's Leading City, (4) Balanced Transportation System, and (5) Natural, Cultural and Scenic Resources.

The proposed project will benefit the community at large by providing continued radio broadcast service to the public. Under the Proposed Action, the public will continue to enjoy a wealth of

options for AM radio broadcast. This will guarantee an array of radio programming for listeners' enjoyment.

In addition, based on a historic properties assessment and inquiries and clearance from the Hawaii State Historic Preservation Division, the proposed project will not affect historic and cultural resources.

The subject property is not commonly used as a scenic vista. The project tower will be painted an earth gray tone that will blend with the sky and background. The Proposed Action will be enclosed by chain link fencing and slatted with green slats to blend with the area. In addition, Kahauiki Village will plant trees around the outer fence to improve the view.

According to the Primary Urban Center Development Plan, Map A.1 and Figure 3.1, the subject property is not within any significant panoramic view or view corridor.

3. Addressing Sea Level Rise

In response to comment 3 from the Planning Division, Policy Planning Branch to reevaluate sea level rise related risks and reassess any mitigations based on the December 2017 Hawaii Sea Level Rise Vulnerability and Adaptation Report, we have reviewed the report's findings and note that the current projected sea level rise is 3.2 feet by the year 2060, and a possibility of 5-6 feet in sea level rise by the year 2100.

Section 6.1.2.2 of the DEA notes that the project site design includes 3-foot pylons for the equipment shelter and one-foot foundation pads for the emergency generator and tower to increase protection of the site from potential sea level rise and climate change impacts. This section also notes that the project site will remain unaffected with a sea level rise of 6 feet according to sea level rise maps from the National Oceanic and Atmospheric Administration (NOAA), which is the highest projected sea level rise by the year 2100 according to the State's report. The State's tools which display the data associated with the report also indicate that the site will remain unaffected by the 3.2-foot sea level rise figure that was the focus of the report.

Beyond the expected 3.2-foot sea level rise figure, the report raises concerns over historical and cultural resources, erosion, flooding, and beach loss associated with sea level rise and possible mitigation factors.

Section 6.6 of the DEA addresses historic and cultural resources. A historic properties assessment involving a field inspection, review of historic documents, maps, and archaeological reports on file at the Hawaii State Historic Preservation Division, and a review of known cultural resource survey and excavation reports was conducted. This assessment noted that no historic properties will be directly affected by the project, however 3 sites will be affected by the project for visual effects: (1) Waikulu Fishpond, (2) Refuse Pit (SHPD Site # 50-80-14-6683), and (3) Keehi Lagoon Runway A. This section notes that Waikulu Fishpond was destroyed, the Refuse Pit is below ground surface, and the Keehi Lagoon Runway A is submerged. As such, the assessment concludes that the visual impact to these sites is minimal.

CENTERLINE SOLUTIONS
3375 Koapaka Street, Ste. D-185
Honolulu, HI 96816
P: 808-536-7400

Best Management Practices (BMP) will be utilized to mitigate erosion during and after construction. Should additional steps become necessary in the future to further mitigate erosion beyond present BMP, such steps can be taken.

Flooding was also addressed in section 6.1.2.2 of the DEA, which notes that the FEMA FIRM places the subject and adjoining properties in Flood Zone X, which denotes areas determined to be outside the 0.2 percent annual chance floodplain. Flooding risks associated with rising sea levels are further not anticipated to impact the site up to the 3.2-foot level which is the focus of this study, based on the lack of impact on the site with a 6-foot sea level rise according to NOAA sea level rise maps.

Section 6.10 of the DEA focuses on public access to shoreline and mountain areas. A shoreline survey conducted by the Department of Land and Natural Resources concluded that the shoreline in the area runs across the mouth of the Kalihi Stream, along the tip of the peninsula south of the project site. As the project site is not located adjacent to the shoreline as described in the DLNR Survey, this project will not have any impact on the shoreline. Section 6.1.1 of the DEA covers Earth Resources, and describes the soil on the site of the proposed project as Fill Land consisting of an area filled with material from dredging, excavation from adjacent uplands, garbage, and bagasse and slurry from sugar mills. No beaches are located at the project site or adjoining properties. As such, the project will not affect any beaches, nor would any potential future sea level rise mitigation measures such as seawalls or hard armoring of the shore in the project area result in beach loss as contemplated in the report.

Should you have any additional questions you may reach me by phone at (808) 536-7400 x. 7470 or via email at gnakaya@centerlinesolutions.com.

Sincerely,

Grant Nakaya
Project Coordinator
Centerline Solutions – Consultant for Blow Up LLC

DEPARTMENT OF PARKS & RECREATION

CITY AND COUNTY OF HONOLULU

1000 Uluohia Street, Suite 309, Kapolei, Hawaii 96707
Phone: (808) 768-3003 • Fax: (808) 768-3053
Website: www.honolulu.gov

KIRK CALDWELL
MAYOR

MICHELE K. NEKOTA
DIRECTOR

JEANNE C. ISHIKAWA
DEPUTY DIRECTOR

2017/ELOG-2598

December 14, 2017

RECEIVED
DEC 18 2017
DEPT. OF PLANNING AND PERMITTING

Mr. Grant Nakaya
Centerline Solutions LLC.
3375 Koapaka Street, Suite D185
Honolulu, Hawaii 96819

Dear Mr. Nakaya:

SUBJECT: Draft Environmental Assessment
Proposed Nimitz Highway Tower Relocation Plan
Tax Map Key 1-1-003: 003, 207, 211 and 212

Thank you for the opportunity to review and comment on the subject Draft Environmental Assessment regarding the development of a new telecommunications facility to include a permanent 150-foot guyed lattice tower within a 150-foot radius fenced area on State land.

The Department of Parks and Recreation (DPR) has no comment. As the proposed project will have no impact on any program or facility of the Department, you may remove us as a consulted party to the balance of the EIS process.

Should you have any questions, please contact Mr. John Reid, Planner, at 768-3017.

Sincerely,

Michele K. Nekota
Director

MKN:jr
(712556)

cc: Janet Lau, Department of Planning and Permitting

CENTERLINE SOLUTIONS

3375 Koapaka Street, Ste. D-185
Honolulu, HI 96816
P: 808-536-7400

January 27, 2018

Michele K. Nekota
Director
Department of Parks and Recreation
1000 Uluohia Street, Suite 309
Kapolei, Hawaii 96707

RE: Response to Comments on the Nimitz Highway Tower Relocation Site Draft Environmental Assessment (DEA)

Dear Director Nekota,

Thank you for your letter of comment on the Nimitz Highway Tower Relocation Site DEA. Centerline Solutions, Consultant for Blow Up LLC has received your letter and understands you have no comment regarding this project.

Should you have any additional questions you may reach me by phone at (808) 536-7400 x. 7470 or via email at gnakaya@centerlinesolutions.com.

Sincerely,

Grant Nakaya
Project Coordinator
Centerline Solutions – Consultant for Blow Up LLC

From: Leo Gozar [mailto:l.gozar@capitol.hawaii.gov]
Sent: Tuesday, January 23, 2018 3:25 PM
To: Matt Miura <mmiura@centerlinesolutions.com>
Cc: nco@honolulu.gov
Subject: Nimitz Highway Tower Relocation Site Project

Aloha Mr. Miura,

Thank you for sharing your insight and plans to permanently relocate your broadcast facility in the purview of District 30. We suggest however for Blow Up LLC to do a presentation to the members of the board of Neighborhood Board #15, the Kalihi-Palama Board.

Good Luck on this endeavor,
Rep. Cachola

Representative Romy M. Cachola
Hawaii State House District 30
State Capitol, Room 435 | 415 South Beretania St. | Honolulu, HI 96813
Phone 808-586-6010 | Fax 808-586-6011 | Email: repcachola@capitol.hawaii.gov

CENTERLINE SOLUTIONS

3375 Koapaka Street, Ste. D-185
Honolulu, HI 96816
P: 808-536-7400

January 27, 2018

Representative Romy M. Cachola
Hawaii State Capitol, Room 435
415 South Beretania Street
Honolulu, Hawaii 96813

RE: Response to Comments on the Nimitz Highway Tower Relocation Site Draft Environmental Assessment (DEA)

Dear Representative Cachola,

Thank you for your letter of comment on the Nimitz Highway Tower Relocation Site DEA. Centerline Solutions, Consultant for Blow Up LLC has received your comment regarding providing a presentation on this project to the Kalihi-Palama Neighborhood Board, No. 15.

Centerline Solutions, consultant for Blow Up LLC, provided a presentation on the Nimitz Highway Tower Relocation Site project to the Kalihi-Palama Neighborhood Board on April 19, 2017. (See Section 5.0 Community Consultation of the DEA) The Kalihi-Palama Neighborhood Board will have its next meeting at 7:00pm on February 21, 2018 at the Kalihi Union Church. Centerline Solutions will be providing an update on the proposed project at this upcoming meeting.

Should you have any additional questions you may reach me by phone at (808) 536-7400 x. 7470 or via email at gnakaya@centerlinesolutions.com.

Sincerely,

Grant Nakaya
Project Coordinator
Centerline Solutions – Consultant for Blow Up LLC

HONOLULU FIRE DEPARTMENT

CITY AND COUNTY OF HONOLULU

636 South Street
Honolulu, Hawaii 96813-5007
Phone: 808-723-7139 Fax: 808-723-7111 Internet: www.honolulu.gov/hfd

KIRK CALDWELL
MAYOR

MANUEL P. NEVES
FIRE CHIEF

LIONEL CAMARA JR.
DEPUTY FIRE CHIEF

December 27, 2017

Mr. Grant Nakaya
Centerline Solutions LLC
3375 Koapaka Street, Suite D185
Honolulu, Hawaii 96819

Dear Mr. Nakaya:

Subject: Proposed Nimitz Highway Tower Relocation Site
Kahauiki Village - Keehi Lagoon
Tax Map Keys: 1-1-003: 003, 207, 211, and 212

In response to a letter from Ms. Kathy Sokugawa of the City and County of Honolulu's Department of Planning and Permitting (DPP) dated December 11, 2017, regarding the abovementioned subject, the Honolulu Fire Department (HFD) reviewed the material provided and requires that the following be complied with:

1. Fire department access roads shall be provided such that any portion of the facility or any portion of an exterior wall of the first story of the building is located not more than 150 feet from fire department access roads as measured by an approved route around the exterior of the building or facility. (National Fire Protection Association [NFPA] 1; Uniform Fire Code [UFC]™, 2012 Edition, Sections 18.2.3.2.2. and 18.2.3.2.2.1.)

   A fire department access road shall extend to within 50 feet of at least one exterior door that can be opened from the outside and that provides access to the interior of the building. (NFPA 1; UFC™, 2012 Edition, Section 18.2.3.2.1.)

2. A water supply approved by the county, capable of supplying the required fire flow for fire protection, shall be provided to all premises upon which facilities or buildings, or portions thereof, are hereafter

constructed, or moved into or within the county. When any portion of the facility or building is in excess of 150 feet from a water supply on a fire apparatus access road, as measured by an approved route around the exterior of the facility or building, on-site fire hydrants and mains capable of supplying the required fire flow shall be provided when required by the AHJ [Authority Having Jurisdiction]. (NFPA 1; UFC™, 2012 Edition, Section 18.3.1, as amended.)

3. The unobstructed width and unobstructed vertical clearance of a fire apparatus access road shall meet county requirements. (NFPA 1; UFC™, 2012 Edition, Section 18.2.3.4.1.1 and 18.2.3.4.1.2, as amended.)

4. Submit civil drawings to the HFD for review and approval.

Should you have questions, please contact Battalion Chief Wayne Masuda of our Fire Prevention Bureau at 723-7151 or wmasuda@honolulu.gov.

Sincerely,

SOCRATES D. BRATAKOS
Assistant Chief

SDB/TC:jl

cc: Janet Lau, DPP

CENTERLINE SOLUTIONS

3375 Koapaka Street, Ste. D-185
Honolulu, HI 96816
P: 808-536-7400

January 24, 2018

Mr. Socrates D. Bratakos
Assistant Chief
Honolulu Fire Department
636 South Street
Honolulu, Hawaii 96813-5007

RE: Response to December 27, 2017 Comments from Honolulu Fire Department on DEA for Proposed Nimitz Highway Tower Relocation Site

Dear Assistant Chief Bratakos,

In response to your letter dated December 27, 2017 regarding the Draft Environmental Assessment (DEA) for the proposed Nimitz Highway Tower Relocation Site at Kahauiki Village – Keehi Lagoon on Tax Map Keys 1-1-003:003, 207, 211, and 212, Centerline Solutions, Consultant for Blow Up LLC has reviewed the Honolulu Fire Department's comments and responds to those as follows:

1. Comments 1 and 3 specify that any portion of the facility or of an exterior wall of the first story of the building must be no more than 150 feet from fire department access roads, and that such roads must be constructed according to county requirements. Sheets A001 and A002.1 of the Zoning Drawings as published in the addendum of the DEA illustrate the proposed gravel access road that will serve as the fire department access road for the project. This road extends from the access point of the project area to the central compound. The gravel access road will be constructed in accordance with the City and County of Honolulu's design standards. This gravel access road will extend about 115 feet, beginning at the primary vehicle access gate to the facility and terminating at the access gate to the central compound.

   The corner of the fence of the central compound furthest from the gravel access road is 33 feet away from the gate which marks the end of the gravel access road, with every other point of the central compound closer than that. The furthest corner of the exterior wall of the enclosed equipment shelter will be about 26 feet from the gravel access road.

   There is one (1) exterior door that provides access to the proposed equipment shelter. This door can be opened from the outside, and is about 18 feet from the gravel access road.

2. Comment 2 notes that the facility must comply with the fire flow requirements as specified in the Universal Fire Code, 12th edition, as amended by the Honolulu Fire Code. The nearest fire hydrant is an estimated 170 feet from the central facility where the proposed shelter will be installed. However, "[w]hen buildings are protected throughout with an approved automatic sprinkler system… an increase in distance in Section 18.2.3.2.2 [150-foot base requirement], shall be permitted as set forth by the AHJ (Honolulu Land Use Ordinance Section 20-1.1(18)) As the proposed equipment shelter will be a pre-fabricated CellXion Concrete Shelter with

CENTERLINE SOLUTIONS
3375 Koapaka Street, Ste. D-185
Honolulu, HI 96816
P: 808-536-7400

Generator Room and Fire Suppression system, it is understood that a distance increase may be permitted beyond 150 feet.

The proposed shelter exterior dimensions are 11’ -5” x 28’ -0” and 11’ -1” in height. The total square footage of the shelter is about 320 square feet.

The fire suppression system will come pre-installed with the shelter. This system will utilize FE-25 agent with two 180-degree release nozzles, photo electric smoke detectors, a thermal detector, and manual release pulls which will allow the fire suppression system to be activated automatically or manually in the event of a fire.

The shelter will not be manned or occupied except for monthly maintenance. Access to the shelter and facility will be secured by an encompassing fence around the project area and a secondary fence around the central compound with locked access gates.

3. Civil drawings will be submitted to the Honolulu Fire Department for review and approval as a portion of the building permit review process.

Should you have any additional questions you may reach me by phone at (808) 536-7400 x. 7470 or via email at gnakaya@centerlinesolutions.com.

Sincerely,

Grant Nakaya
Project Coordinator
Centerline Solutions – Consultant for Blow Up LLC

Lupd

POLICE DEPARTMENT

CITY AND COUNTY OF HONOLULU

801 SOUTH BERETANIA STREET · HONOLULU, HAWAII 96813
TELEPHONE: (808) 529-3111 · INTERNET: www.honolulupd.org

2018 JAN 10 PM 2:01
DEPT OF PLANNING AND PERMITTING
CITY & COUNTY OF HONOLULU

KIRK CALDWELL
MAYOR

SUSAN BALLARD
CHIEF

JOHN D. McCARTHY
JONATHON GREMS
DEPUTY CHIEFS

OUR REFERENCE MT-AL

January 8, 2018

Mr. Grant Nakaya
Centerline Solutions LLC
3375 Koapaka Street, Suite D185
Honolulu, Hawaii 96819

Dear Mr. Nakaya:

This is in response to a letter we received from the Department of Planning and Permitting, City and County of Honolulu, dated December 11, 2017, requesting comments on a Draft Environmental Assessment for the Nimitz Highway Tower Relocation Site project.

Based on the information provided, this project should have no significant impact on the services or operations of the Honolulu Police Department at this time.

If there are any questions, please call Acting Major Stephen Silva, Jr. of District 5 (Kalihi) at 723-8202.

Thank you for the opportunity to review this project.

Sincerely,

MARK TSUYEMURA
Management Analyst VI
Office of the Chief

cc: Ms. Janet Lau
Department of Planning and Permitting

CENTERLINE SOLUTIONS

3375 Koapaka Street, Ste. D-185
Honolulu, HI 96816
P: 808-536-7400

January 27, 2018

Mark Tsuyemura
Honolulu Police Department
801 South Beretania Street
Honolulu, Hawaii 96813

RE: Response to Comments on the Nimitz Highway Tower Relocation Site Draft Environmental Assessment (DEA)

Dear Mr. Tsuyemura,

Thank you for your letter of comment on the Nimitz Highway Tower Relocation Site DEA. Centerline Solutions, Consultant for Blow Up LLC has received your letter and understands the project should have no significant impact on the services or operations of the Honolulu Police Department.

Should you have any additional questions you may reach me by phone at (808) 536-7400 x. 7470 or via email at gnakaya@centerlinesolutions.com.

Sincerely,

Grant Nakaya
Project Coordinator
Centerline Solutions – Consultant for Blow Up LLC

DAVID Y. IGE
GOVERNOR OF HAWAII

VIRGINIA PRESSLER, M.D.
DIRECTOR OF HEALTH

STATE OF HAWAII
DEPARTMENT OF HEALTH
P. O. BOX 3378
HONOLULU, HI 96801-3378

In reply, please refer to:
EMD/CWB

02009PKP.18

February 8, 2018

Mr. Grant Nakaya
Centerline Solutions LLC
3375 Koapaka Street, Suite D185
Honolulu, Hawaii 96819

Dear Mr. Nakaya:

SUBJECT: Chapter 343, Hawaii Revised Statutes (HRS) Draft Environmental Assesment (DEA)
Proposed Nimitz Highway Tower Relocation Site
Honolulu, Oahu, Hawaii

The Department of Health (DOH), Clean Water Branch (CWB), acknowledges receipt of your letter, dated December 11, 2017, requesting comments on your project. The DOH-CWB has reviewed the subject document and offers these comments. Please note that our review is based solely on the information provided in the subject document and its compliance with the Hawaii Administrative Rules (HAR), Chapters 11-54 and 11-55. You may be responsible for fulfilling additional requirements related to our program. We recommend that you also read our standard comments on our website at: http://health.hawaii.gov/epo/files/2013/05/Clean-Water-Branch-Std-Comments.pdf

1. Any project and its potential impacts to State waters must meet the following criteria:

   a. Antidegradation policy (HAR, Section 11-54-1.1), which requires that the existing uses and the level of water quality necessary to protect the existing uses of the receiving State water be maintained and protected.

   b. Designated uses (HAR, Section 11-54-3), as determined by the classification of the receiving State waters.

   c. Water quality criteria (HAR, Sections 11-54-4 through 11-54-8).

2. You may be required to obtain National Pollutant Discharge Elimination System (NPDES) permit coverage for discharges of wastewater, including storm water runoff, into State surface waters (HAR, Chapter 11-55).

For NPDES general permit coverage, a Notice of Intent (NOI) form must be submitted at least 30 calendar days before the commencement of the discharge. An application for a NPDES individual permit must be submitted at least 180 calendar days before the commencement of the discharge. To request NPDES permit coverage, you must submit the applicable form ("CWB Individual NPDES Form" or "CWB NOI Form") through the e-Permitting Portal and the hard copy certification statement with the respective filing fee ($1,000 for an individual NPDES permit or $500 for a Notice of General Permit Coverage). Please open the e-Permitting Portal website located at: https://eha-cloud.doh.hawaii.gov/epermit/. You will be asked to do a one-time registration to obtain your login and password. After you register, click on the Application Finder tool and locate the appropriate form. Follow the instructions to complete and submit the form.

3. If your project involves work in, over, or under waters of the United States, it is highly recommended that you contact the Army Corp of Engineers, Regulatory Branch (Tel: 835-4303) regarding their permitting requirements.

   Pursuant to Federal Water Pollution Control Act [commonly known as the "Clean Water Act" (CWA)], Paragraph 401(a)(1), a Section 401 Water Quality Certification (WQC) is required for "[a]ny applicant for Federal license or permit to conduct any activity including, but not limited to, the construction or operation of facilities, which may **result** in any discharge into the navigable waters..." (emphasis added). The term "discharge" is defined in CWA, Subsections 502(16), 502(12), and 502(6); Title 40 of the Code of Federal Regulations, Section 122.2; and Hawaii Administrative Rules (HAR), Chapter 11-54.

4. Please note that all discharges related to the project construction or operation activities, whether or not NPDES permit coverage and/or Section 401 WQC are required, must comply with the State's Water Quality Standards. Noncompliance with water quality requirements contained in HAR, Chapter 11-54, and/or permitting requirements, specified in HAR, Chapter 11-55, may be subject to penalties of $25,000 per day per violation.

5. It is the State's position that all projects must reduce, reuse, and recycle to protect, restore, and sustain water quality and beneficial uses of State waters. Project planning should:

   a. Treat storm water as a resource to be protected by integrating it into project planning and permitting. Storm water has long been recognized as a source of irrigation that will not deplete potable water resources. What is often overlooked is that storm water recharges ground water supplies and feeds streams and estuaries; to ensure that these water cycles are not disrupted, storm water cannot be relegated as a waste product of impervious surfaces. Any project

planning must recognize storm water as an asset that sustains and protects natural ecosystems and traditional beneficial uses of State waters, like community beautification, beach going, swimming, and fishing. The approaches necessary to do so, including low impact development methods or ecological bio-engineering of drainage ways must be identified in the planning stages to allow designers opportunity to include those approaches up front, prior to seeking zoning, construction, or building permits.

b. Clearly articulate the State's position on water quality and the beneficial uses of State waters. The plan should include statements regarding the implementation of methods to conserve natural resources (e.g. minimizing potable water for irrigation, gray water re-use options, energy conservation through smart design) and improve water quality.

c. Consider storm water Best Management Practice (BMP) approaches that minimize the use of potable water for irrigation through storm water storage and reuse, percolate storm water to recharge groundwater to revitalize natural hydrology, and treat storm water which is to be discharged.

d. Consider the use of green building practices, such as pervious pavement and landscaping with native vegetation, to improve water quality by reducing excessive runoff and the need for excessive fertilization, respectively.

e. Identify opportunities for retrofitting or bio-engineering existing storm water infrastructure to restore ecological function while maintaining, or even enhancing, hydraulic capacity. Particular consideration should be given to areas prone to flooding, or where the infrastructure is aged and will need to be rehabilitated.

If you have any questions, please visit our website at:http://health.hawaii.gov/cwb/, or contact the Engineering Section, CWB, at (808) 586-4309.

Sincerely,

Alec Wong

ALEC WONG, P.E., CHIEF
Clean Water Branch

KP

c: DOH-EPO [via e-mail Noella.Narimatsu@doh.hawaii.gov only]
Ms. Janet Lau, CCH-DPP

CENTERLINE SOLUTIONS

3375 Koapaka Street, Ste. D-185
Honolulu, HI 96816
P: 808-536-7400

March 1, 2018

Alec Wong
Clean Water Branch
State of Hawaii Department of Health
P.O. Box 3378
Honolulu, HI 96801-3378

RE: Response to the Clean Water Branch's comments dated February 8, 2018 to the Nimitz Highway Tower Relocation Site Environmental Assessment

Dear Mr. Wong,

Centerline Solutions, consultant for Blow Up LLC, has received your comments dated February 8, 2018 on the Nimitz Highway Tower Relocation Site Environmental Assessment (EA). Centerline Solutions provides the following responses to those comments:

1. Regarding the Nimitz Highway Tower Relocation Site's ("Project") potential impacts to State waters:
    a. The Project will not affect the existing uses and level of water quality in the area. As described in Section 6.5.2 of the EA, the Project "will not utilize any water resources nor will it generate wastewater. The facility will not generate any waste or refuse."
    b. As the Project will not generate any waste or refuse nor utilize any water resources, no impacts are anticipated from the use of, or to designated uses of, any State waters.
    c. As the project will not generate any waste or refuse, the project is not anticipated to have an impact upon the water quality of adjacent waters.
2. As the project will not generate any waste or refuse, it is not anticipated that a National Pollutant Discharge Elimination System permit will be required. As described in the EA and associated plans, the Project area will be primarily raw land. The access road and central compound will be composed of gravel; thus, storm water is expected to saturate into the ground. Additionally, Best Management Practices (BMPs) will be utilized to minimize and mitigate any potential storm water runoff during the construction period.
3. The United States Army Corps of Engineers (USACE) has been consulted regarding the Project. Section 6.2.1.1 of the EA notes that the USACE Honolulu District Office was contacted regarding the Project and potential wetland permitting for the Project. Ms. Joy Anamizu, an Ecologist with the USACE stated that a permit from the Department of the Army is not required for the proposed Project. In the letter dated February 13, 2017 from the USACE, available in Appendix C of the EA, Ms. Joy Anamizu further states that "[b]ased upon our review [of] the information submitted, including the wetlands delineation report…, available resources, and your project description and plans…, we have determined that [the] proposed project would not involve work and/or structures, or activities that result in a discharge of dredged or fill material in waters of the U.S., including adjacent wetlands. Therefore, a [Department of the Army} permit is NOT required."

CENTERLINE SOLUTIONS
3375 Koapaka Street, Ste. D-185
Honolulu, HI 96816
P: 808-536-7400

4. As previously indicated, no discharges are expected related to the construction or operation of the Project, and water quality of the adjacent waters is not anticipated to be affected. BMPs for discharge control will be utilized.
5. Regarding project planning with the goals of sustaining water quality and beneficial uses of State Waters:
    a. Most of the Project area will be covered with gravel (the access road, roundabout, and central facility), or raw land. Combined concrete usage at the site is estimated at approximately 170 square feet, and consists of: (1) 12 concrete pylons for the equipment shelter, (2) the concrete broadcast tower foundation, (3) the concrete pad for the transformer, and (4) the anchors for the guyed wires. Discharge from the Project area is not anticipated. Storm water will naturally saturate into the ground. Section 6.1.2.2 of the EA notes that the groundwater below the subject property is considered unsuitable for drinking water purposes as it is below the State of Hawaii Department of Health defined Underground Injection Control line. Given this information, water quality should not be affected by the Project.
    b. The Project will not utilize any water resources nor generate any wastewater, discharge, or waste.
    c. BMPs will be utilized to control discharge. Due to the design of the Project area, storm water should naturally saturate into the ground.
    d. As previously noted, the Project will utilize minimal ground coverage by concrete and primarily consist of raw land and gravel coverage that will permit ground saturation of storm waters. The concrete coverage will primarily be in the center of the Project area.
    e. Section 6.1.2.2 of the EA notes that the Project area has a Federal Emergency Management Agency Flood Insurance Rate Map flood hazard determination of Flood Zone X. This determination denotes areas that are determined to be outside of the 0.2 percent chance floodplain. As such, no flooding is anticipated in the Project area. The Project area is further currently undeveloped with no existing storm water infrastructure on the parcel that may be retrofitted, bio-engineered, or rehabilitated. As previously stated, the Project is not anticipated to generate any waste, wastewater, or discharge, and will not utilize water resources. The Project area will have minimal ground coverage by concrete and primarily consist of gravel and raw land.

Should you have any further questions, comments, or concerns, I am available by email at gnakaya@centerlinesolutions.com or by phone at (808) 536-7400 x. 7470.

Thank you,

Grant Nakaya
Project Coordinator
Centerline Solutions, Consultant for Blow Up LLC