MARINE CORPS BASE HAWAII

INSTALLATION MASTER PLAN

Installation Master Plan

Final | September 2017

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The estimated cost of this report or study for the Department of Defense is approximately $924,000 in Fiscal Years 2014-2017. This includes $827,000 in expenses and $97,000 in DoD labor.
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Final | September 2017

Prepared for:

Marine Corps Base Hawaii

Prepared by:

HHF Planners

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Acronyms and Abbreviations

III MEF	III Marine Expeditionary Force
1/12	1st Battalion, 12th Marines
4th Recon	4th Force Reconnaissance Company
AAV	Assault Amphibious Vehicle
ac	Acre/Acres
ADP	Area Development Plan
AE	Asset Evaluation
AICUZ	Air Installation Compatibility Use Zones
AT/FP	Antiterrorism/Force Protection
BEAP	Base Exterior Architectural Plan
BEQ	Bachelor Enlisted Quarters
BES	Building Envelope Standards
BFE	Base Floor Elevation
BFR	Basic Facility Requirement
BN	Battalion
BQ	Bachelor Quarters
BWS	Board of Water Supply
C-20G	C-20G Gulfstream IV Aircraft
CAC	Combat Assault Company
CCD	Contract Completion Date
CCH	City and County of Honolulu
CCTV	Closed-circuit Television
CH-53K	CH-53K King Stallion Aircraft
CIP	Capital Improvement Program
CISD	Communications Information Systems Directorate
CLB-3	Combat Logistics Battalion 3
CLC-35	Combat Logistics Company 35
CMSA	Cruise Missile Support Activity
COA	Course of Action
Comm/Elec	Communications/Electronics
CP	Command Post
CP	Comprehensive Plan
CPRFP	Commander Patrol Reconnaissance Force Pacific
CPRW	Commander Patrol and Reconnaissance Wing
DCIP	Defense Critical Infrastructure Program
Det	Detachment
DDESB	Department of Defense Explosives Safety Board
DoD	Department of Defense
DOE	Department of Education
EA	Environmental Assessment
EAD	Estimated Award Date
ECP	Entry Control Point
EFS	Exterior Finish Systems
EIFS	Exterior Insulation & Finish System
EIS	Environmental Impact Statement
EOD	Explosive Ordnance Disposal
EUL	Enhanced Use Lease
FONSI	Finding of No Significant Impact
FPD	Facility Planning Document
FRP	Fiberglass Reinforced Plastic
FSP	Facility Site Plan
FSR	Facilities Support Requirements
ft	Feet/Foot
FY	Fiscal Year
GCE	Ground Combat Element
GIS	Geographic Information System
HECO	Hawaiian Electric Company
HI	Hawaii
HMH	Marine Heavy Helicopter Squadron

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HMLA	Marine Light Attack Helicopter Squadron
HSM	Helicopter Maritime Strike Squadron
HSV	High-Speed Vessel
Hz	Hertz
ICRMP	Integrated Cultural Resources Management Plan
ID	Identification
IMP	Installation Master Plan
in	Inch/Inches
iNFADS	Internet Navy Facilities Asset Data Store
INRMP	Integrated Natural Resources Management Plan
IPAC	Installation Personnel Administration Center
IPB	Installation Planning Board
IPL	Integrated Priority List
JBPHH	Joint Base Pearl Harbor-Hickam
KBRTF	Kaneohe Bay Range Training Facility
kV	Kilovolt
LEED	Leadership in Energy & Environmental Design
LHA	Landing Helicopter Assault
LHD	Landing Helicopter Dock
LZ	Landing Zone
MAG	Marine Aircraft Group
MALS	Marine Aviation Logistics Squadron
MARFORPAC	U.S. Marine Corps Forces Pacific
MCAS	Marine Corps Air Station
MCB	Marine Corps Base
MCCS	Marine Corps Community Services
MCFPPS	Marine Corps Facilities Planning and Programming System
MCO	Marine Corps Order
MCTAB	Marine Corps Training Area Bellows
MCX	Marine Corps Exchange
mgd	Million Gallons per Day
MH-60R	MH-60R Seahawk Aircraft
MITSC	MAGTF Information Technology Support Center
MILCON	Military Construction
MMF	Mobile Maintenance Facility
MV-22	Marine V-22 Osprey Aircraft
MVA	Megavolt Ampere
MW	Megawatt
MWSD	Marine Wing Support Detachment
NAF	Non-Appropriated Funds
NAS	Naval Air Station
NAVAIR	Naval Air System Command
NAVFAC	Naval Facilities Engineering Command
NCPAC	National Security Agency (NSA) Central Security Service (CSS) Pacific
NEPA	National Environmental Policy Act
NRHP	National Register of Historic Places
NSD	Naval Support Detachment
PAC	Pacific
PCA	Pearl City Annex
PERT	Program Evaluation and Review
PES	Potential Explosion Sites
PMO	Provost Marshal's Office
PN	Personnel
POA&M	Plan of Action and Milestones

POM	Program Objective Memorandum
POV	Privately-Owned Vehicle
PPV	Public Private Venture
psi	Pounds per Square Inch
PTA	Pohakuloa Training Area
PV	Photovoltaic
PVA	Project Valuation Assessment
PVC	Polyvinyl Chloride
QOL	Quality of Life
RBL	Required Build-to Line
REG	Regiment
ROM	Rough Order of Magnitude
ROW	Right of Way
RTF	Range Training Facility
SCADA	Supervisory Control and Data Acquisition
SCIF	Sensitive Compartmented Information Facility
SDZ	Surface Danger Zone
sf	Square feet
SOCPAC	Special Operations Command Pacific
SRI	Solar Reflectance Index
SWOT	Strengths, Weaknesses, Opportunities, and Threats
TSF	Training Support Facility
UDP	Unit Deployed Program
UFC	Unified Facilities Criteria
UM	Unit of Measure
USGBC	U.S. Green Building Council
USPACOM	U.S. Pacific Command
VMM	Marine Medium Tiltrotor Squadron
VMU	Marine Unmanned Aerial Vehicle Squadron
VP	Patrol Reconnaissance Squadron
VPS	Visual Preference Survey
VPU	Special Project Patrol Squadron
VR	Fleet Logistic Support Squadron
WAAF	Wheeler Army Airfield
WMA	Wildlife Management Area
WRF	Water Reclamation Facility
WVIA	Waikane Valley Impact Area
WWII	World War II
WWBN	Wounded Warrior Battalion
WWTP	Wastewater Treatment Plant

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1

PLAN SUMMARY

Photo by HHF Planners

1 Plan Summary

The Marine Corps Base (MCB) Hawaii Installation Master Plan (IMP) is a 20-year comprehensive planning document for all Marine Corps land holdings in the State of Hawai'i. The primary mission of MCB Hawaii is to provide facilities and services to support the military readiness and global force projection of the III Marine Expeditionary Force (III MEF). To support this mission, MCB Hawaii has landholdings at seven separate locations on the island of O'ahu and one on the island of Moloka'i, as shown on Figure 1-1. Since 1994, the Marine Corps installation at Kāne'ohe Bay has been the headquarters for MCB Hawaii, with other outlaying locations designated as "Special Areas". The *MCB Hawaii IMP* covers all of these locations and includes the following.

- MCB Hawaii Kaneohe Bay
- Camp H.M. Smith (Camp Smith)
- Puuloa Range Training Facility (Puuloa RTF)
- Marine Corps Training Area Bellows (MCTAB)
- Pearl City Annex (PCA)
- Manana Housing Area
- Waikane Valley Impact Area (WVIA)
- Molokai Training Support Facility (Molokai TSF)

The IMP evaluates existing conditions at each site—including but not limited to security, mission support, base support, utilities, circulation and parking, community support, and open space— and recommends improvements regarding future development, policies, projects, and investments based on the existing conditions evaluations. This effort involves consolidating existing plans and studies in order to prioritize significant capital improvement projects, and are categorized by the following planning horizons:

- Short-term (0–5 years)
- Mid-term (5–10 years)
- Long-term (10–20 years)

The IMP was developed in accordance with the master planning guidance outlined in the *Unified Facilities Criteria (UFC) 2-100-01 Installation Master Planning* (May 2012) and the *Marine Corps Order (MCO) 11000.12, Real Property Facilities Manual, Facilities Planning and Programming* (September 2014).

1.1 Vision Action Plan

A vision action plan provides a strategy for "how do we get there" with steps for monitoring progress. A plan of actions and milestones (POA&M) is a management tool that provides benchmarks for timing of funding and construction of projects identified within the planning horizons, and helps to ensure that the desired end state is reached within the 20-year span.

At the beginning of the planning process, stakeholders participated in a multiday collaborative visioning workshop to define installation and district-level planning vision statements, goals, and objectives; identify design

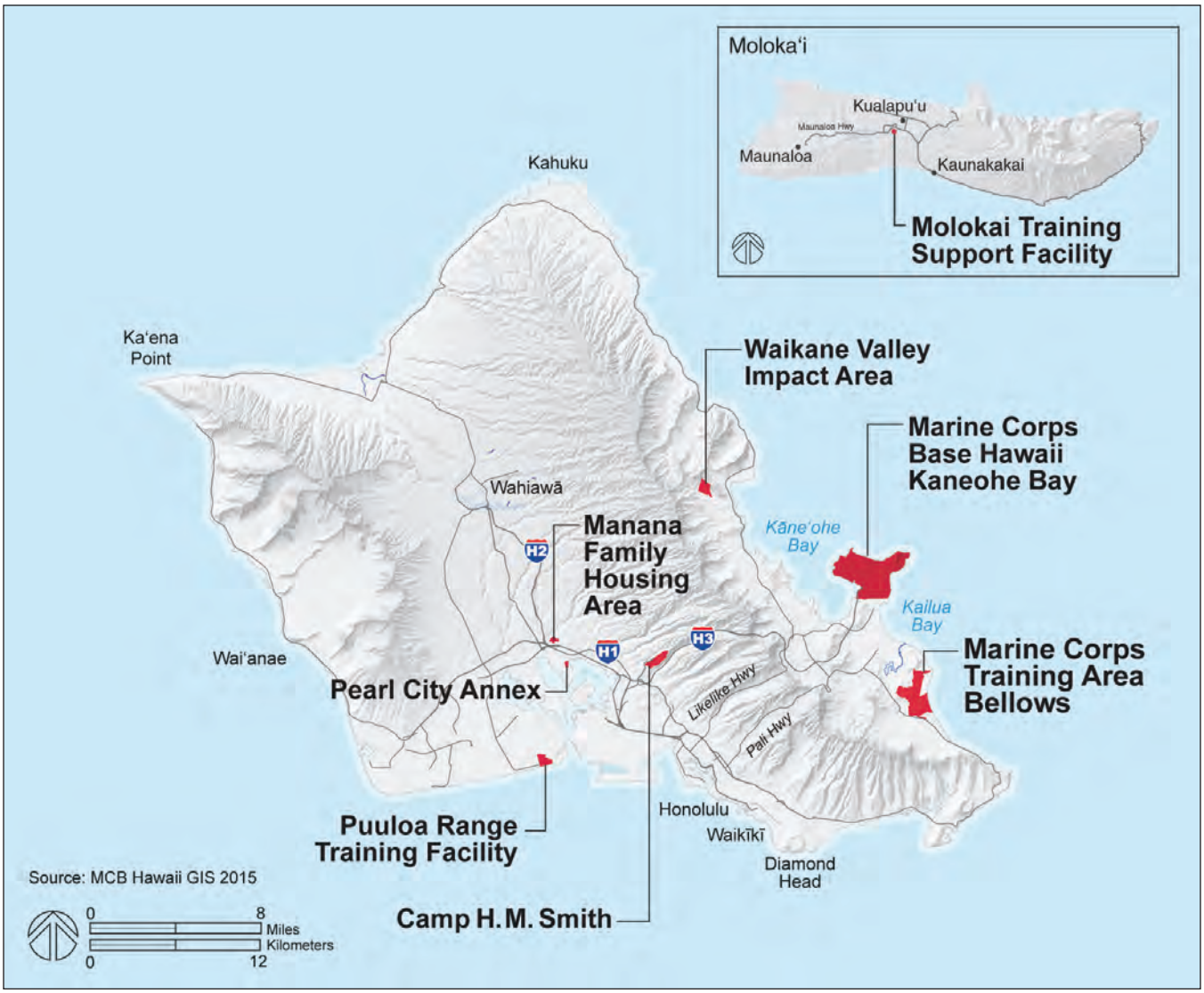

Figure 1-1 **MCB Hawaii Landholdings**

principles; and, develop preliminary planning concepts. The process included the use of a visual preference survey to identify important aspects and qualities of the built environment, and an analysis of the strengths, weaknesses, opportunities, and threats that may help or hinder achieving the MCB Hawaii planning vision. The following installation-wide vision statement was created by MCB Hawaii stakeholders during this process.

Planning Vision Statement

Marine Corps Base Hawaii is committed to meeting mission readiness goals and operational requirements by providing modern, efficient, and sustainable facilities. To achieve this, we will consolidate facilities and collocate command elements, and

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we will retain and optimize training capabilities while creating safe campuses and neighborhoods connected by greenspace networks.

Planning Goals

Planning goals were also identified by stakeholders to guide current and future base development initiatives.

MCB Hawaii Kaneohe Bay Planning Goals

- Modern, Efficient, and Sustainable Facilities
- Consolidated Functions
- Optimize Training Capabilities
- Safe Campuses and Neighborhoods
- Greenspace Networks

Camp Smith Planning Goals

- Architecturally Coherent
- Functionally Efficient
- Walkable Campus
- Natural Setting

Specific vision statements, goals, and objects for individual planning districts are presented in the Area Development Plans (ADP) and Facility Site Plans (FSP).

1.1.1 Vision End State and Quality of Life POA&M

The vision end state is realized after successfully executing the planning goals and objectives that were identified to implement the installation's vision. Table 1-1 lists the projects presented in the IMP by priority and indicates which planning goals they satisfy. The rank in Table 1-1 serves as a key to the location of the projects shown on Figures 1-2 to 1-4. Some projects have multiple locations.

Table 1-1 **Planning Vision Goals and Objectives** (Rank 1–5)

RANK	DISTRICT	TIME FRAME	MCB HAWAII PROJECT #	PROJECT TITLE & DESCRIPTION	PLANNING GOALS
1	Aviation	FY13	P-904	MV-22 Hangar & Infrastructure	• Modern, Efficient, and Sustainable Facilities • Consolidated Functions
2	Aviation	FY13	P-905	MV-22 Aircraft Staging Area	• Modern, Efficient, and Sustainable Facilities • Consolidated Functions
3	Aviation	FY14	P-907/908	MV-22 Hangar (2nd Squadron)	• Modern, Efficient, and Sustainable Facilities • Consolidated Functions
4	Multiple	FY14	P-884	Aviation Simulator Modernization/Addition	• Modern, Efficient, and Sustainable Facilities • Consolidated Functions • Optimize Training Capabilities
5	Aviation	FY14	P-864	MALS-24 Aircraft Maintenance Expansion	• Modern, Efficient, and Sustainable Facilities • Consolidated Functions

Table 1-1 **Planning Goals and Objectives** (Rank 6–27)

RANK	DISTRICT	TIME FRAME	MCB HAWAII PROJECT #	PROJECT TITLE & DESCRIPTION	PLANNING GOALS
6	Ground Support	FY14	P-778	(b) (7)(F)	• Modern, Efficient, and Sustainable Facilities • Consolidated Functions
7	Ground Support	FY14	P-852	3d Radio Battalion Maintenance/Operations Complex	• Modern, Efficient, and Sustainable Facilities • Consolidated Functions
8	Aviation	FY14	P-863	HMLA Hangar Renovation	• Modern, Efficient, and Sustainable Facilities
9	Multiple	FY15	P-861	VMU, MWSD, and HMH Upgrades	• Modern, Efficient, and Sustainable Facilities • Consolidated Functions
10	Multiple	FY15	P-924	MV-22 EIS Traffic Improvements	• Safe Campuses and Neighborhoods
11	Aviation	FY16	P-116	P-8A Detachment Support Facilities	• Modern, Efficient, and Sustainable Facilities
12	Base Support	FY16	P-910	Bachelor Enlisted Quarters	• Modern, Efficient, and Sustainable Facilities • Quality of Live Improvement
13	Aviation	FY16	P-902	Airfield Lighting Improvements	• Modern, Efficient, and Sustainable Facilities
14	Ground Support	FY16	P-78150	Medical/Dental Clinic Replacement	• Modern, Efficient, and Sustainable Facilities • Consolidated Functions • Quality of Live Improvement
15	Community Support	FY16	Proposed	PPV Phase 6 Family Housing	• Modern, Efficient, and Sustainable Facilities • Safe Campuses and Neighborhoods • Greenspace Networks • Quality of Live Improvement
16	Base Support	Short-term	N-248	Wave Attenuator and Finger Piers	• Modern, Efficient, and Sustainable Facilities • Quality of Live Improvement
17	Ground Support	FY17	P-923	(b) (7)(F)	• Modern, Efficient, and Sustainable Facilities • Consolidated Functions
18	Ground Support	FY17	Proposed	Wiki Wiki Marine Mart	• Modern, Efficient, and Sustainable Facilities • Quality of Live Improvement
19	Multiple	FY18	P-887	LHD Pad Conversion & MV-22 Landing Zones	• Optimize Training Capabilities
20	Multiple	Short-term	P-877	(b) (7)(F)	• Modern, Efficient, and Sustainable Facilities • Safe Campuses and Neighborhoods
21	Aviation	Short-term	Proposed	MAG-24 Headquarters	• Modern, Efficient, and Sustainable Facilities
22	Base Support	Short-term	P-915*	MCCS Self-Storage Facility	• Modern, Efficient, and Sustainable Facilities • Quality of Live Improvement
23	Aviation	Short-term	P-946	Corrosion Control Hangar	• Modern, Efficient, and Sustainable Facilities
24	WAAF	Short-term	P-929	VMU Operations Support Facility	• Modern, Efficient, and Sustainable Facilities
25	Base Support	Short-term	P-875	Water Reclamation Facility Regulatory Upgrades	• Modern, Efficient, and Sustainable Facilities
26	Ulupau	Short-term	P-879	(b) (7)(F)	• Modern, Efficient, and Sustainable Facilities
27	MCTAB	Short-term	P-947		• Safe Campuses and Neighborhoods

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Table 1-1 **Planning Goals and Objectives** (Rank 28–47)

RANK	DISTRICT	TIME FRAME	MCB HAWAII PROJECT #	PROJECT TITLE & DESCRIPTION	PLANNING GOALS
28	Base Support	Short-term	Proposed	Reinterment Site	• Greenspace Networks • Quality of Live Improvement
29	Puuloa	Short-term	P-931*	(b) (7)(F)	• Modern, Efficient, and Sustainable Facilities
30	Ground Support	Short-term	P-373*	AAV Maintenance Facility	• Modern, Efficient, and Sustainable Facilities
31	Base Support	Short-term	Proposed	Medical Clinic Conversion for MCCS and IPAC	• Modern, Efficient, and Sustainable Facilities • Consolidated Functions
32	Aviation	Short-term	P-936	Van Pad Modernization & Support Equipment Storage	• Modern, Efficient, and Sustainable Facilities
33	Ulupau	Short-term	Proposed	Ulupau Range Training Facility Soil Stabilization	• Optimize Training Capabilities
34	Ground Support	Mid-term	P-843	Multi-Purpose Training Complex	• Modern, Efficient, and Sustainable Facilities • Consolidated Functions • Optimize Training Capabilities
35	Base Support	Mid-term	P-935	(b) (7)(F)	• Modern, Efficient, and Sustainable Facilities
36	Multiple	Mid-term	P-930	Fire Station	• Modern, Efficient, and Sustainable Facilities • Safe Campuses and Neighborhoods
37	Aviation	Mid-term	P-913	(b) (7)(F)	• Modern, Efficient, and Sustainable Facilities • Consolidated Functions
38	Base Support	Mid-term	P-943	(b) (3) (A), (b) (7)(F)	• Modern, Efficient, and Sustainable Facilities
39	Ground Support	Mid-term	P-847	(b) (7)(F)	• Modern, Efficient, and Sustainable Facilities
40	Camp Smith	Mid-term	P-818*	MARFORPAC Operations Facility Phase 1	• Architecturally Coherent • Functionally Efficient • Walkable Campus
41	Base Support	Mid-term	P-881	CISD and MITSC Facilities	• Modern, Efficient, and Sustainable Facilities
42	Camp Smith	Mid-term	P-878*	(b) (7)(F)	• Functionally Efficient
43	Aviation	Mid-term	Proposed	MALS-24 Headquarters	• Modern, Efficient, and Sustainable Facilities
44	PTA	Mid-term	P-774	Equipment Storage at PTA	• Optimize Training Capabilities
45	Camp Smith	Mid-term	P-809*	Camp Smith Parking Upgrades	• Architecturally Coherent • Functionally Efficient • Walkable Campus • Quality of Live Improvement
46	Aviation	Mid-term	P-876	(b) (7)(F)	• Safe Campuses and Neighborhoods
47	Ground Support	Mid-term	P-944	Consolidated Classroom Facility	• Modern, Efficient, and Sustainable Facilities • Consolidated Functions • Optimize Training Capabilities

Table 1-1 **Planning Goals and Objectives** (Rank 48–66)

RANK	DISTRICT	TIME FRAME	MCB HAWAII PROJECT #	PROJECT TITLE & DESCRIPTION	PLANNING GOALS
48	Ground Support	Mid-term	P-945	Combat Training Tank	• Modern, Efficient, and Sustainable Facilities • Consolidated Functions • Optimize Training Capabilities
49	Ground Support	Mid-term	Proposed	3d Marines Headquarters Phase I	• Modern, Efficient, and Sustainable Facilities • Consolidated Functions
50	Ground Support	Mid-term	P-880*	3d Marines Headquarters Phase II	• Modern, Efficient, and Sustainable Facilities • Consolidated Functions • Greenspace Networks
51	Aviation	Mid-term	P-882*	Runway Clear Zone Demolition and Airfield Improvements	• Safe Campuses and Neighborhoods
52	Aviation	Mid-term	P-891	Hangar 102 CH-53K Upgrades	• Modern, Efficient, and Sustainable Facilities
53	Base Support	Mid-term	Proposed	Fitness Center Expansion	• Modern, Efficient, and Sustainable Facilities • Quality of Live Improvement
54	Base Support	Mid-term	P-911	Bachelor Enlisted Quarters	• Modern, Efficient, and Sustainable Facilities • Quality of Live Improvement
55	Base Support	Mid-term	P-912	Bachelor Enlisted Quarters	• Modern, Efficient, and Sustainable Facilities • Quality of Live Improvement
56	Aviation	Mid-term	P-926	(b) (7)(F)	• Modern, Efficient, and Sustainable Facilities • Consolidated Functions
57	PTA	Mid-term	P-928		• Optimize Training Capabilities
58	Community Support	Mid-term	Proposed	Mokapu Elementary School	• Modern, Efficient, and Sustainable Facilities • Safe Campuses and Neighborhoods • Greenspace Networks • Quality of Live Improvement
59	Puuloa	Mid-term	Proposed	Range Operations and Support Facility	• Modern, Efficient, and Sustainable Facilities • Consolidated Functions • Optimize Training Capabilities
60	Base Support	Mid-term	Proposed	Third Street Realignment	• Safe Campuses and Neighborhoods • Greenspace Networks
61	Base Support	Mid-term	Proposed	Pless Hall (B212) Renovation	• Modern, Efficient, and Sustainable Facilities • Consolidated Functions
62	Base Support	Mid-term	Proposed	(b) (7)(F)	• Modern, Efficient, and Sustainable Facilities
63	Aviation	Mid-term	Proposed	Pali Kilo Cottage Expansion	• Modern, Efficient, and Sustainable Facilities • Quality of Live Improvement
64	Community Support	Mid-term	P-813	Klipper Villa Expansion	• Modern, Efficient, and Sustainable Facilities • Quality of Live Improvement
65	Ulupau	Mid-term	Proposed	(b) (7)(F)	• Optimize Training Capabilities
66	MCTAB	Mid- term	Proposed	Transfer Air Force Lands to the Marine Corps	• Optimize Training Capabilities

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Table 1-1 **Planning Goals and Objectives** (Rank 67–88)

RANK	DISTRICT	TIME FRAME	MCB HAWAII PROJECT #	PROJECT TITLE & DESCRIPTION	PLANNING GOALS
67	Aviation	Mid-term	Proposed	Pyramid Beach Improvements	• Modern, Efficient, and Sustainable Facilities • Greenspace Networks • Quality of Live Improvement
68	Base Support	Long-term	Proposed	PMO Complex	• Modern, Efficient, and Sustainable Facilities
69	Camp Smith	Long-term	P-819	MARFORPAC Operations Facility Phase II	• Architecturally Coherent • Functionally Efficient • Walkable Campus
70	Molokai	Long-term	P-890	Molokai Forward Air Refueling Points	• Optimize Training Capabilities
71	Waikane Valley	Long-term	Proposed	Waikane Valley Munitions and Explosives Clearing and Fence Line	• Safe Campuses and Neighborhoods
72	Ground Support	Long-term	P-837	Enlisted Dining Facility	• Modern, Efficient, and Sustainable Facilities • Quality of Live Improvement
73	PCA	Long-term	Proposed	Deployment Lot	• Modern, Efficient, and Sustainable Facilities
74	PCA	Long-term	Proposed	(b) (7)(F)	• Modern, Efficient, and Sustainable Facilities
75	Base Support	Long-term	Proposed	Base Motor Transport Complex	• Modern, Efficient, and Sustainable Facilities
76	Base Support	Long-term	Proposed	Boat Storage	• Modern, Efficient, and Sustainable Facilities • Quality of Live Improvement
77	Base Support	Long-term	Proposed	Recycling Center Renovation	• Modern, Efficient, and Sustainable Facilities
78	Aviation	Long-term	Proposed	Aircraft Maintenance Hangar Redevelopment	• Modern, Efficient, and Sustainable Facilities • Consolidated Functions
79	Aviation	Long-term	Proposed	MWSD Organizational Parking	• Modern, Efficient, and Sustainable Facilities
80	Aviation	Long-term	Proposed	The Cabanas	• Modern, Efficient, and Sustainable Facilities • Quality of Live Improvement
81	Aviation	Long-term	P-883	(b) (7)(F)	• Optimize Training Capabilities
82	Ground Support	Long-term	Proposed	Bachelor Enlisted Quarters Redevelopment	• Modern, Efficient, and Sustainable Facilities Consolidated Functions • Safe Campuses and Neighborhoods • Quality of Live Improvement
83	Ground Support	Long-term	P-888*	Wounded Warrior BEQ	• Modern, Efficient, and Sustainable Facilities • Consolidated Functions • Safe Campuses and Neighborhoods
84	Ground Support	Long-term	Proposed	CLB-3 Company Headquarters	• Modern, Efficient, and Sustainable Facilities
85	Ground Support	Long-term	Proposed	(b) (7)(F)	• Modern, Efficient, and Sustainable Facilities
86	Ground Support	Long-term	Proposed	3d Marines and 1/12 Warehouse	• Modern, Efficient, and Sustainable Facilities
87	Ground Support	Long-term	Proposed	Engineering Services Company Complex	• Modern, Efficient, and Sustainable Facilities
88	Ground Support	Long-term	Proposed	3d Marines Vehicle Shelters	• Modern, Efficient, and Sustainable Facilities

Table 1-1 **Planning Goals and Objectives** (Rank 89–103)

RANK	DISTRICT	TIME FRAME	MCB HAWAII PROJECT #	PROJECT TITLE & DESCRIPTION	PLANNING GOALS
89	Base Support	Long-term	Proposed	Warehouse District	• Modern, Efficient, and Sustainable Facilities • Consolidated Functions • Safe Campuses and Neighborhoods
90	Community Support	Long-term	Proposed	MCX Exchange Expansion	• Modern, Efficient, and Sustainable Facilities • Consolidated Functions • Quality of Live Improvement
91	Community Support	Long-term	Proposed	Mokapu Mall Entrance and Traffic Improvements	• Safe Campuses and Neighborhoods • Quality of Live Improvement
92	Ground Support	Long-term	Proposed	Training Open Space	• Optimize Training Capabilities • Greenspace Networks
93	Community Support	Long-term	Proposed	Golf Course Warehouse	• Modern, Efficient, and Sustainable Facilities Consolidated Functions
94	Base Support	Long-term	Proposed	Enlisted Club Site Redevelopment	• Modern, Efficient, and Sustainable Facilities • Quality of Live Improvement
95	Base Support	Long-term	Proposed	Fuel Pier Improvements	• Optimize Training Capabilities
96	Community Support	Long-term	Proposed	Multiuse Path Extension	• Safe Campuses and Neighborhoods • Greenspace Networks • Quality of Live Improvement
97	Base Support	Long-term	Proposed	Recreation and Pedestrian Improvements	• Safe Campuses and Neighborhoods • Greenspace Networks • Quality of Live Improvement
98	Community Support	Long-term	Proposed	Community Library	• Modern, Efficient, and Sustainable Facilities Consolidated Functions • Quality of Live Improvement
99	Ground Support	Long-term	Proposed	MCCS Exchange Distribution Warehouse	• Modern, Efficient, and Sustainable Facilities Consolidated Functions
100	Community Support	Long-term	Proposed	Community Theater	• Modern, Efficient, and Sustainable Facilities Consolidated Functions • Quality of Live Improvement
101	Community Support	Long-term	Proposed	Fort Hase Beach Improvements	• Safe Campuses and Neighborhoods • Greenspace Networks • Quality of Live Improvement
102	Community Support	Long-term	Proposed	North Beach Improvements	• Safe Campuses and Neighborhoods • Greenspace Networks • Quality of Live Improvement
103	Camp Smith	Long-term	Proposed	BEQ Replacement	• Architecturally Coherent • Functionally Efficient • Walkable Campus • Natural Setting • Quality of Live Improvement

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Table 1-1 **Planning Goals and Objectives** (Rank 104–107)

RANK	DISTRICT	TIME FRAME	MCB HAWAII PROJECT #	PROJECT TITLE & DESCRIPTION	PLANNING GOALS
104	Camp Smith	Long-term	Proposed	Elrod Roadway Improvements	• Architecturally Coherent • Functionally Efficient • Walkable Campus • Quality of Live Improvement
105	Puuloa	Long-term	Proposed	Puuloa Bachelor Enlisted Quarters	• Modern, Efficient, and Sustainable Facilities • Optimize Training Capabilities
106	Puuloa	Long-term	Proposed	Roadway and Parking Improvements	• Modern, Efficient, and Sustainable Facilities • Optimize Training Capabilities
107	Aviation	Long-term	Proposed	(b) (7)(F)	• Safe Campuses and Neighborhoods

Table Notes: P indicates a military construction project
N indicates a nonappropriated funded project
* indicates a proposed modification to the original scope of the project

The *Marine Corps Service Campaign Plan for 2014-2022* (2014) considers improving quality of life (QOL) critical to the overall resiliency of Marines. QOL improvements are proposed in each planning district and for each planning horizon, and are noted in the Planning Goals column of Table 1-1. Highlights of QOL improvements at MCB Hawaii include the following.

- Bachelor enlisted quarters (BEQ)
- Medical and dental clinic
- Elementary school and library
- Wiki Wiki Mart
- Self-storage rentals
- Indoor fitness center addition
- Mokapu Mall expansion
- Temporary lodging facility redevelopment and expansion
- Berthing slips and boat storage at the marina
- Enlisted club
- Beach park amenities
- Multiuse pathway network

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Figure 1-2 **MCB Hawaii Installation Development Program**

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Figure 1-3 **Camp Smith Installation Development Program**

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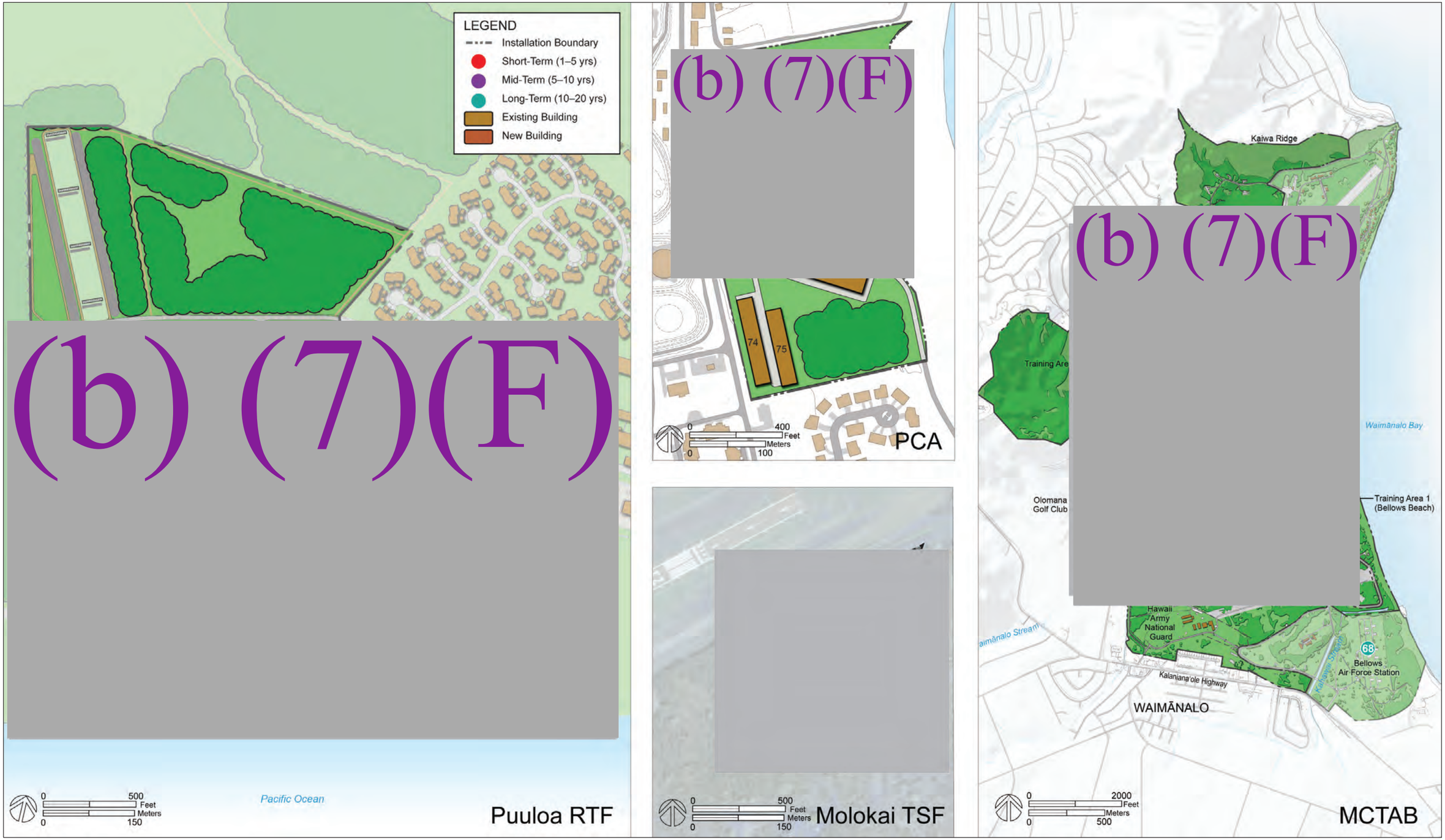

Figure 1-4 **Puuloa RTF and Special Areas Installation Development Program**

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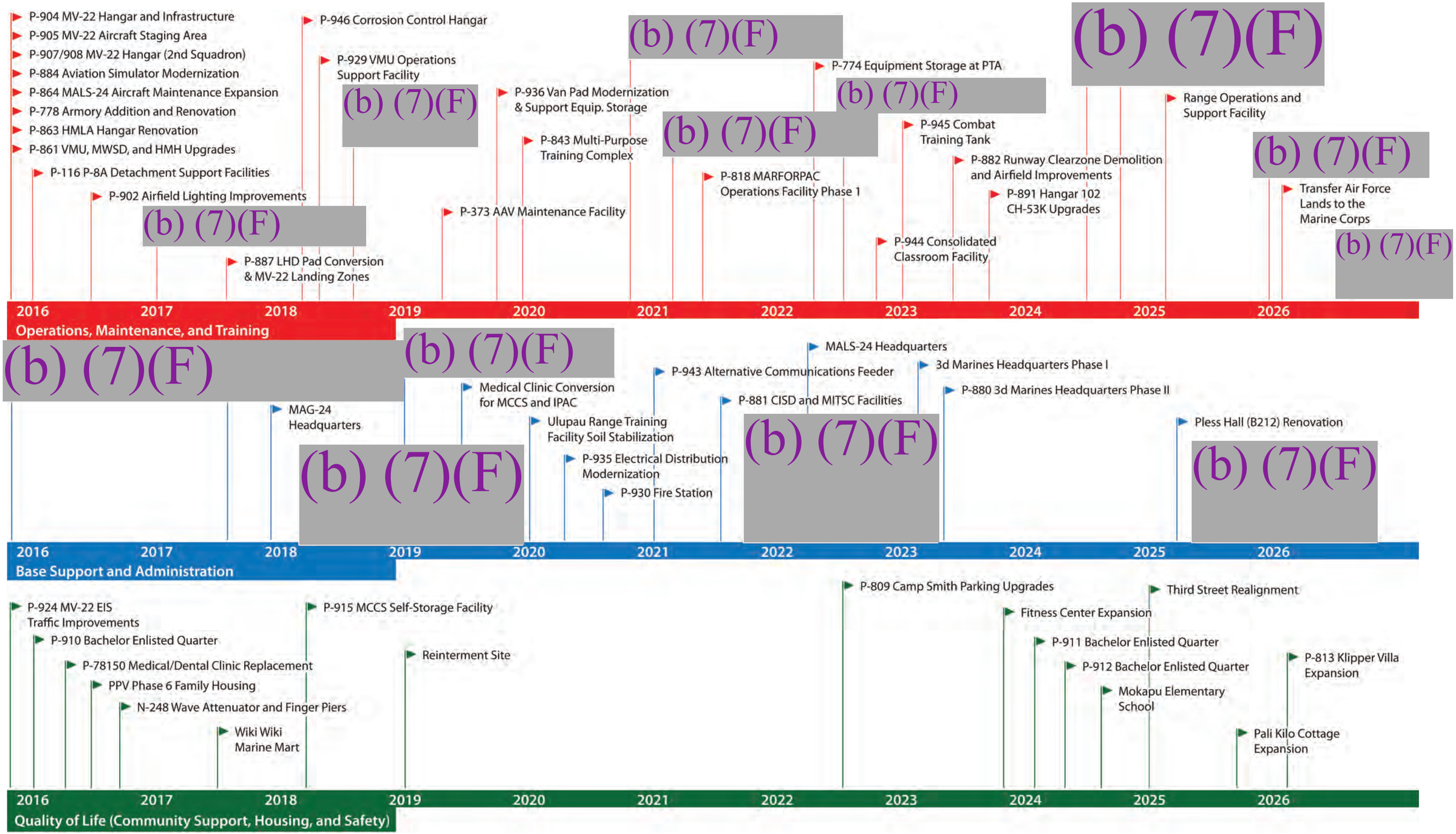

Figure 1-5 **Project Timeline**

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POA&M is used to monitor the development, funding, and implementation of the projects recommended by the IMP. A timeline for the execution of short- and mid-term projects, by function, is presented on Figure 1-5.

1.2 Area Development Plan Summaries

The following sections present an overview of development objectives for each planning district ADP and special area FSP.

1.2.1 Aviation District ADP

In the Aviation District, proposed development actions construct new hangars and maintenance shops to support MV-22 operations; renovate and reuse existing headquarters buildings; improve the security and safety around the airfield; construct parking structures to address a shortfall of stalls; develop a network of pedestrian and bicycle pathways; and redevelop and expand popular recreational facilities.

Over the next two decades, the *Aviation District ADP* proposes to build more than 342,000 sf of new facilities, demolish nearly 254,000 sf of aging facilities, and renovate or reuse of almost 252,000 sf of existing space. Through the reutilization of land at higher densities, the plan identifies 12.6 ac of infill area and adds 131 net parking spaces to help accommodate future mission.

1.2.2 Base Support District ADP

In the Base Support District, proposed development actions prioritize building reuse and appropriately sites functions to maximize the potential of centrally located land while preserving the character of the proposed historic district. Important plan features include renovating Pless Hall (Building 212) and the medical clinic (Building 3089) to support administrative consolidation; expanding the fitness center to address a significant requirement deficiency; developing a new Provost Marshal's Office (PMO) complex; and utilizing the Salvage Yard to relocate Base motor transport facilities out of the Aviation District and expand the number of berthing slips and boat storage near the marina.

Over the next two decades, the *Base Support District ADP* proposes to build over 448,000 sf of new facilities, demolish nearly 280,000 sf of aging and underutilized facilities, and renovate or reuse nearly 137,000 sf of existing space. Through the reutilization of land at higher densities, the plan identifies 15.2 ac of infill area, and adds 348 net parking spaces and 384 net bed spaces to help accommodate future mission.

1.2.3 Ground Support District ADP

In the Ground Support District, proposed recommendations increase density through the redevelopment of aging facilities while preserving training areas and maximizing the amount of land available for future development in the district. Major development actions include constructing new 3d

Marine headquarters and organic unit storage facilities, a new dining hall, a multi-facility training complex adjacent to the Boondocker training area, and intensive BEQ redevelopment. Three parking structures are proposed to meet district requirements while ensuring a more efficient use of land for existing and future ground unit activities and training.

Over the next two decades, the *Ground Support District ADP* proposes to build nearly 930,000 sf of new facilities, to demolish over 593,000 sf of aging facilities, and to renovate or reuse of over 35,000 sf of existing space. Through the reutilization of land at higher densities, the plan identifies 17.2 ac of infill area—the most in any district—and adds 233 net parking spaces and 93 net bed spaces to help accommodate future mission.

1.2.4 Community Support District ADP

In the Community Support District, proposed development actions expand Mokapu Mall to create a destination retail experience, and to improve community support facilities such as the library, the base theater, and the beach parks. In the near-term, the State of Hawai'i Department of Education (DOE) is pursuing the redevelopment of Mokapu Elementary School, and Hunt Companies, a public-private venture family housing contractor, is planning to redevelop the Hana Like neighborhood.

Over the next two decades, the *Community Support District ADP* proposes to build over 715,000 sf of new construction, to demolish nearly 570,000 sf of aging facilities, and to renovate or reuse of nearly 80,000 sf of existing space. Through the reutilization of land at higher densities, the plan identifies 13.2 ac of infill area to help accommodate future mission.

1.2.5 Ulupau District ADP

(b) (7)(F)

1.2.6 Camp Smith ADP

At Camp Smith, proposed actions redevelop the U.S. Marine Corps Forces Pacific (MARFORPAC) headquarters and operations command center, realign the entry control point to meet security requirements, demolish aging facilities that do not meet security standards, construct parking structures to address a significant parking deficiency, and redevelop the BEQ.

Over the next two decades, the *Camp Smith ADP* proposes to build more than 308,000 sf of new facilities, to demolish over 154,000 sf of aging facilities, and to renovate or reuse of over 181,000 sf of existing space. Through the reutilization of land at higher densities, the plan identifies 3 ac of infill area, and adds 793 net parking spaces and 30 net bed spaces to help accommodate existing mission.

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1.2.7 Puuloa RTF ADP

(b) (7)(F)

1.2.8 MCTAB FSP

(b) (7)(F)

1.2.9 PCA FSP

Proposed long-term warehouse redevelopment at MCB Hawaii Kaneohe Bay will decrease storage demand at PCA. A paved deployment lot underneath a photovoltaic-covered shade canopy for long-term personal vehicle storage is proposed.

1.2.10 Manana Family Housing Area FSP

No development has been identified for the Marine Corps land at Manana Family Housing Area. However, if new family housing requirements are identified, the adjacent Navy land could be redeveloped to support additional demand.

1.2.11 WVIA FSP

WVIA is a former artillery and mortar firing range now managed under the Military Munitions Range Program to minimize exposure to and prevent the migration of unexploded ordnance, restore areas to agricultural use or a natural state, and provide access to significant cultural sites.

1.2.12 Molokai TSF FSP

Now inactive, Molokai TSF was used to support Marine Corps exercises at the former Molokai Training Area. If Molokai TSF is needed as a forward refueling point in the future, a perimeter fence should be installed to secure the area for equipment and personnel.

1.3 Network Plans

(b) (7)(F)

(b) (7)(F)

1.4 Development Program Summary

Efforts to update the MCB Hawaii master plan began in 2013 with the validation and revision of basic facility requirements (BFR) for current and anticipated future missions. A subsequent analysis evaluated all facility category codes to compare future requirements against existing assets and identify facility surpluses or deficiencies. The analysis also identified opportunities for the conversion and reuse, or demolition of excess or underutilized facilities. Other types of requirements—such as compliance with safety and security regulations associated with airfield, live-fire training, ordnance storage, and entry control operations—were evaluated based on stakeholder interviews and site visits during the planning process. The findings of this evaluation re-enforced many long-standing facility planning issues at MCB Hawaii. Some of these issues are actively being addressed by military construction (MILCON) projects or are being reviewed as part of the on-going MCB Hawaii Program Objective Memorandum (POM) program. Planning and facility issues not currently being addressed by existing efforts were a major focus of the district ADPs.

Chapter 5, Installation Development Program, presents an Integrated Priority List (IPL) of projects to address key requirement shortfalls, improve perimeter and airfield security, recapitalize aging facilities, and improve the Quality of Life (QOL) for personnel who live or work at MCB Hawaii installations. A summary of the IPL is presented in Table 1-1.

Overall, the IMP proposes to construct more than 2.77 million sf of new facilities, demolish nearly 1.74 million sf of aging and underutilized facilities, and renovate or reuse over 508,000 sf of existing space over the next two decades. Through the redevelopment of land at greater densities, the plan also identifies 61.2 ac of infill area to accommodate future mission requirements.

1.5 Plan Administration

The Installation Planning Board (IPB) is the action proponent of the IMP and is responsible for implementing the development plans in accordance with the regulating plans. The IPB is tasked with executing the base commander's highest priorities to address key program shortfalls that adversely affect the capability of the installation to accomplish its assigned missions. Every five years, the IPB will update the master plan to accommodate changes to mission, update facility requirements, and reprioritize infrastructure needs. The composition, role, and responsibilities of the IPB are further defined in Appendix B of *UFC 2-100-01, Installation Master Planning* (May 2012).

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1.5.1 POA&M Management and Execution

The IPB can track the progress of the development program with POA&M and other management tools such as the Program Evaluation and Review Technique (PERT) and Gantt charts. PERT illustrates tasks with diverging arrows for parallel events and task dependencies. A Gantt chart is a horizontal bar chart that illustrates only the tasks in an incremental time span. Both are typically used as complementary project management tools. Use of these management tools ensures better tracking of progress towards the desired vision end-state.

1.5.2 Siting / Standards Variances

Variances in the siting of facilities or structures from those shown on the Illustrative Plans, as well as the design standards prescribed in Chapter 4.0, Installation Development Standards, require approval by the IPB.

1.5.3 Space Utilization

The IPB ensures maximum use of existing facilities, oversees the assignment or reassignment of facility space, monitors land use compliance, and resolves conflicts in assigned facility and land uses.

1.5.4 iNFADS Update

All real property assets—defined as Class 1 for land and Class 2 for buildings, structures, and utilities—must be reported in the real property inventory. The internet Navy Facility Assets Data Store (iNFADS) is a management system that collects, processes, and stores Navy and Marine Corps property data, and is the official record of real property assets. All assets acquired by the Department of the Navy must be reported for accountability and financial tracking. The placed-in-service date for new or improved facilities initiates the capitalization and depreciation of an asset. When an asset leaves the custody of the Department of the Navy, supporting documentation must be provided showing its disposal. The Installation Commanders, Regional Commanders, and Installation Management Claimants are responsible for managing, reporting and accounting for Navy real property. They are ultimately responsible for ensuring the quality of the data and for reporting real property data up the chain of command.

1.5.5 Changes/New Master Plan

MCB Hawaii's mission as the supporting establishment for Marine Corps forces and their families in the central Pacific region remains unchanged since the previous master plan was written in 2006. That plan focused on accommodating changes to Marine Corps and Navy aviation missions. A major focus of this update is the recapitalization of facilities constructed prior to the 1970s to improve the quality of work and living environments, improve land use and transportation infrastructure, and ultimately increase the development density to accommodate additional, future missions on MCB Hawaii's finite land base.

A key driver of this plan is *UFC 2-100-01, Installation Master Planning* (May 2012), which contains new planning processes, products, tools, and strategies that are being implemented across the Department of Defense (DoD). Guidance that now shapes installation master planning also places a greater emphasis on sustainable development. *UFC 2-100-01* establishes key performance indicators or metrics for tracking compliance within three areas: Tier 1 Product Compliance; Tier 2 Strategy Compliance; and Tier 3 Principle Compliance. Appendix E, Plan Compliance, specifies how this master plans meets the performance indicators.

1.6 Report Structure

The *MCB Hawaii Installation Master Plan* consists of three separate documents: this volume, which contains the IMP; a second volume which contains the component plans, including seven ADPs and six FSPs; and a Comprehensive Plan, which is intended to be publicly releasable. All of these plans are based on the suggested outlines put forth in *MCO 11000.12* (September 2014).

This first volume, titled *MCB Hawaii Installation Master Plan*, contains an integrated master plan for all MCB Hawaii installations, and is comprised of Chapters 1 through 5 and Appendices A through E, as described below.

Chapter 1, Plan Summary, provides a summary of the recommended development actions and includes a plan of action and milestones and a 10-year implementation timeline.

Chapter 2, Vision Plan, presents the project scope, planning process, and assumptions; a brief history of MCB Hawaii and its mission; the outcomes of the visioning charrette; a developable lands analysis; an installation planning framework; and planning strategies and preliminary concepts.

Chapter 3, Installation Development Plan, presents how the district-level plans—such as facility development, transportation improvements, green infrastructure corridors, and utility systems—connect and integrate across the installation.

Chapter 4, Installation Development Standards, provides guidance for the development and site planning of individual projects, and includes building standards, street standards, and landscape standards.

Chapter 5, Installation Development Program, incorporates the district-level recommendations plans with existing programmed development at MCB Hawaii into a comprehensive and prioritized IPL.

Appendix A contains the *Charrette Summary Report*, which documents the participants, presentations, process, and work products created at this four-day stakeholder workshop.

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Appendix B contains the *Concept Workshop Report,* which documents the participants, presentations, process, and work products created at this three-day stakeholder workshop.

Appendix C contains the *Community Open House Summary*, which documents the two community engagement events.

Appendix D contains background information about the rough order of magnitude cost estimates developed for the proposed planning actions.

Appendix E specifies how this master plan complies with the performance indicators established in *UFC 2-100-01, Installation Master Planning* (May 2012).

The second volume, *MCB Hawaii Installation Master Plan: Component Plans* contains the ADP and FSP for the MCB Hawaii Kaneohe Bay planning districts and all other Special Areas, and includes the following.

Area Development Plans

- MCB Hawaii Kaneohe Bay Aviation District
- MCB Hawaii Kaneohe Bay Base Support District
- MCB Hawaii Kaneohe Bay Ground Support District
- MCB Hawaii Kaneohe Bay Community Support District
- MCB Hawaii Kaneohe Bay Ulupau District
- Camp H.M. Smith
- Puuloa RTF

Facility Site Plans

- Marine Corps Training Area Bellows
- Pearl City Annex
- Manana Housing Area
- Waikane Valley Impact Area
- Molokai Training Support Facility

The third plan, *MCB Hawaii Installation Master Plan: Comprehensive Plan*, is a publicly releasable document intended for the general community.

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VISION PLAN

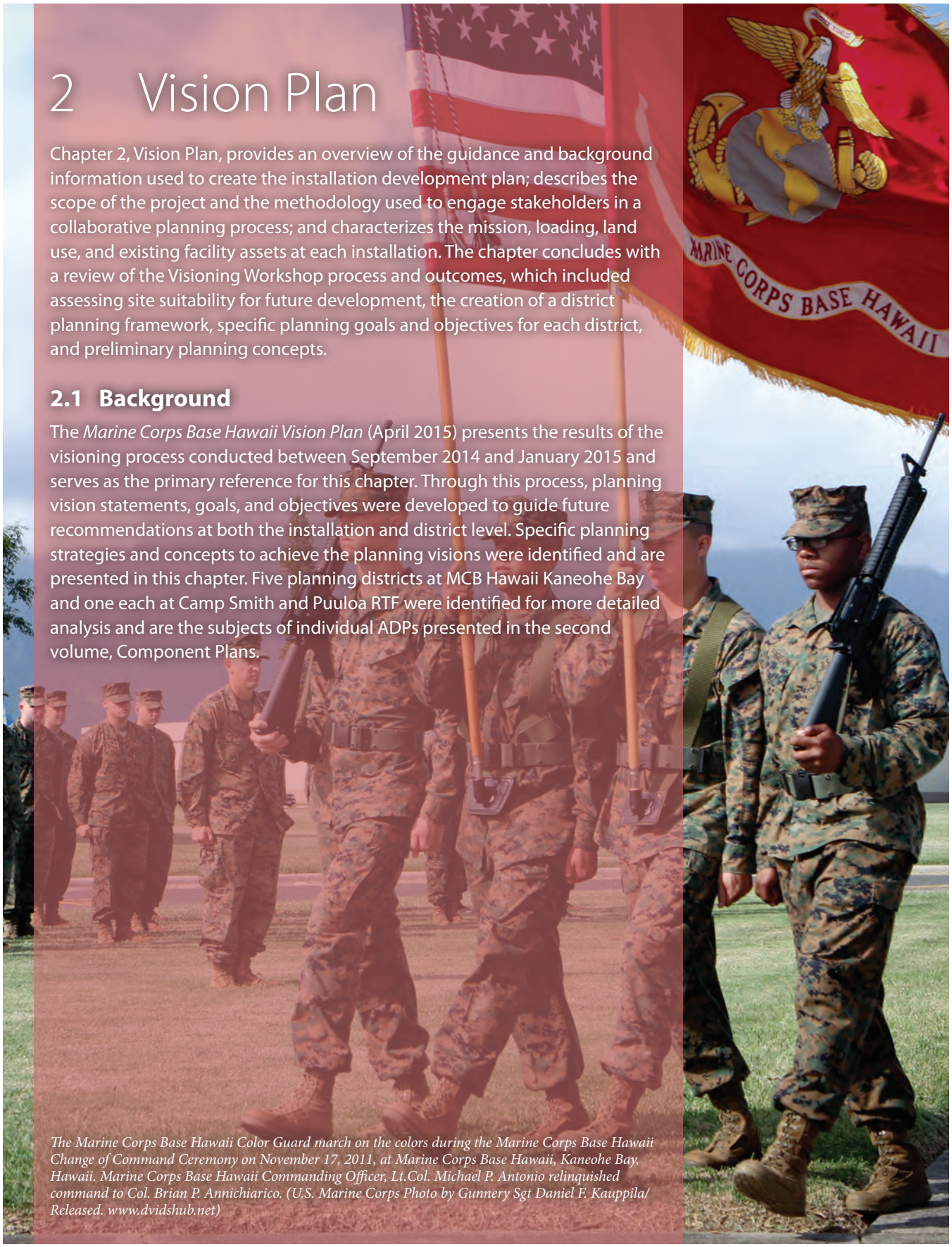
Photo by HHF Planners

2 Vision Plan

Chapter 2, Vision Plan, provides an overview of the guidance and background information used to create the installation development plan; describes the scope of the project and the methodology used to engage stakeholders in a collaborative planning process; and characterizes the mission, loading, land use, and existing facility assets at each installation. The chapter concludes with a review of the Visioning Workshop process and outcomes, which included assessing site suitability for future development, the creation of a district planning framework, specific planning goals and objectives for each district, and preliminary planning concepts.

2.1 Background

The *Marine Corps Base Hawaii Vision Plan* (April 2015) presents the results of the visioning process conducted between September 2014 and January 2015 and serves as the primary reference for this chapter. Through this process, planning vision statements, goals, and objectives were developed to guide future recommendations at both the installation and district level. Specific planning strategies and concepts to achieve the planning visions were identified and are presented in this chapter. Five planning districts at MCB Hawaii Kaneohe Bay and one each at Camp Smith and Puuloa RTF were identified for more detailed analysis and are the subjects of individual ADPs presented in the second volume, Component Plans.



The Marine Corps Base Hawaii Color Guard march on the colors during the Marine Corps Base Hawaii Change of Command Ceremony on November 17, 2011, at Marine Corps Base Hawaii, Kaneohe Bay, Hawaii. Marine Corps Base Hawaii Commanding Officer, Lt.Col. Michael P. Antonio relinquished command to Col. Brian P. Annichiarico. (U.S. Marine Corps Photo by Gunnery Sgt Daniel F. Kauppila/ Released. www.dvidshub.net)

2.1.1 Commander's Guidance

The *MCB Hawaii Vision Plan* summarizes guidance received from MCB Hawaii leadership at the beginning of the visioning process. Guidance stated in the plan includes:

- Stakeholder participation and presence throughout the master planning process are key to the success of the IMP.
- The value of the plan is not in the final document alone, but also in the planning process; when unforeseen problems arise, we will be wiser to make decisions in the future.
- The master plan will be the key planning document for the next 10 years, and will provide the vision and guiding the evolution of the physical development.
- Transportation planning needs to permit vehicular, bicycling, and pedestrian networks to work together.
- Sustainability is very important. Strengthen the environment through appropriate management of infrastructure and energy.

2.1.2 Project Scope

The IMP provides an overarching framework for the future physical development of MCB Hawaii by integrating mission, the environment, history, and QOL (quality of life) into a comprehensive, long-range plan for the next 20 years. The plan provides a vision, a detailed development plan, recommended development and land use standards, and a prioritized implementation strategy. Development actions proposed by the IMP originate from the more detailed ADPs and FSPs contained in a second volume, Component Plans.

2.1.3 Planning Process and Assumptions

2.1.3.1 Planning Guidance

The *U.S. Under Secretary of Defense's Memorandum on Installation Master Planning* (28 May 2013) directs all service components to develop or update all installation master plans no later than 1 October 2018. Since the last comprehensive master plan for MCB Hawaii was completed in December 2006, the DoD and Marine Corps have published updated installation planning guidance in *UFC 2-100-01, Installation Master Planning* (May 2012) and *MCO11000.12, Real Property Facilities Manual, Facilities Planning and Programming* (November 2014).

UFC 2-100-01, Installation Master Planning

UFC 2-100-1, Installation Master Planning (May 2012) prescribes the minimum requirements for the DoD master planning process and products in accordance with *DoD Instruction 4165.70*. The guidance establishes the following 10 master planning strategies, which have been incorporated into the IMP.

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1. Sustainable Planning
Sustainable planning leads to lasting development by meeting present mission requirements without compromising the ability of future missions to meet their needs. The goal is to make the most effective and efficient use of limited resources (e.g., land), increase the use of alternative fuels, and reduce fossil fuel use by creating more compact and sustainable communities that still meet security, safety, and mission requirements.

2. Natural, Historic, and Cultural Resources Management
Installations have natural, historic, and cultural resources that must be considered during the planning process. Natural resources include threatened and endangered species, wetlands, habitat areas, forests, undisturbed land, and important viewsheds. Historic and cultural resources may include historic buildings, structures, objects, districts, landscapes, and archaeological sites.

3. Healthy Community Planning
Regular physical activity is critical to the health and well being of people. Physical fitness is also key to military readiness. Planners will incorporate health considerations and opportunities for physical activity based on input from installation stakeholders.

4. Defensible Planning
Military installations must be safe and secure in order to operate efficiently and effectively. Defensible planning is driven by the Defense Critical Infrastructure Program (DCIP) and Antiterrorism/Force Protection (AT/FP) standards. DCIP guides the protection of critical infrastructure through a capability-focused risk management program that seeks to manage the risk to installation assets and infrastructure. AT/FP guidelines provide design standards to minimize mass casualties in the event of an attack.

5. Capacity Planning
Capacity planning allows planners to determine an installation's maximum development capacity in conformance with prescribed building and land use standards. Capacity is defined as the difference between existing conditions and a maximum future build-out.

6. Area Development Planning
As part of the master planning process, installations are divided into identifiable and connected districts based on geographical features, land use patterns, building types, and/or transportation networks. An ADP should then be prepared for each district. The development of ADPs creates a master plan in logical and manageable increments.

7. Network Planning

(b) (7)(F)

UFC 2-100-01, Installation Master Planning, sets forth 10 strategies to support the DoD-wide overarching installation planning philosophy, which is to "develop a sustainable platform to support the effective execution of assigned military missions as efficiently as possible."

1. Sustainable Planning
2. Natural, Historic and Cultural Resource Management
3. Healthy Community Planning
4. Defensible Planning
5. Capacity Planning
6. Area Development Planning
7. Network Planning
8. Form-Based Planning
9. Facility Standardization
10. Plan-Based Programming

8. Form-Based Planning
Form-based planning guides construction by identifying the form for installation development (e.g., building types, heights, setbacks, circulation patterns, landscaping, and land use) and translating that form into a set of specific planning directives. The directives take the form of illustrative plans, land use regulating plans, and street, building, and landscape standards that allow development to proceed in a flexible manner.

9. Facility Standardization
Service-developed standard area requirements recognize the need for consistency in building types repeated across installations. These area requirements can be maintained within a variety of building designs that are consistent with the installation's regulating plans and planning standards.

10. Plan-Based Programming
Plan-based programming ensures that facilities and projects that are programmed fulfill the overall planning vision and goals. Programming requirements—including all the facilities needed to support mission— cannot be accomplished in the absence of a master plan. Facilities and projects need to be validated by the IMP and incorporate these master planning strategies before they are programmed.

MCO 11000.12, Real Property Facilities Manual, Facilities Planning and Programming
MCO 11000.12 establishes Marine Corps requirements for sustainable planning and facilities master planning. The order is consistent with other DoD master planning guidance, including *UFC 2-100-01* described above, and establishes the Marine Corps Facilities Planning and Programming System (MCFPPS), a five-step planning process, which is illustrated on Figure 2-1. This IMP is the final product of Step 3, which involves comparing requirements to assets, assessing facilities to support the requirements, identifying facility surpluses or deficiencies, and creating a planning document that comprehensively addresses the results of that analysis.

2.1.3.2 Planning Process and Schedule

Figure 2-2 illustrates the overall visioning and planning process that was followed during the development of the IMP. The planning process can be divided into four major phases: a project scoping phase, a visioning phase, a plan development phase, and a report preparation phase. The planning team worked closely with MCB Hawaii stakeholders in each of these major phases.

Phase 1: Project Scoping
The project scoping phase consisted of the initial research and data gathering that set the stage for the visioning and plan development phases, and is described in more detail in Section 2.4, Project Scoping.

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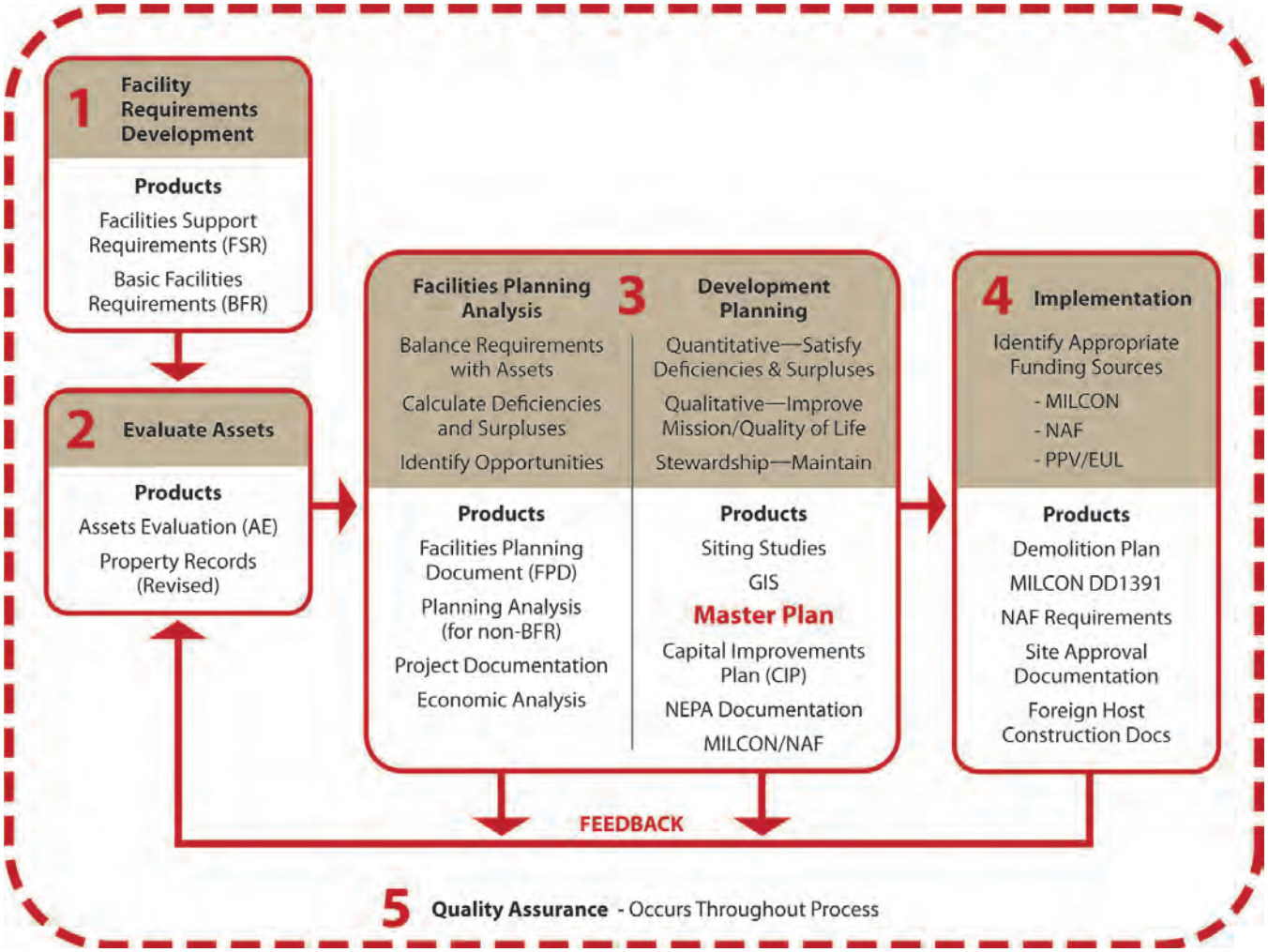

Figure 2-1 **Marine Corps Facilities Planning and Programming System**

Phase 2: Visioning Phase

The visioning phase commenced with a four-day Visioning Workshop conducted at MCB Hawaii Kaneohe Bay in September 2014. The Visioning Workshop established the installation's high level vision for the future, general design principles, and planning concepts for the development of real property at MCB Hawaii Kaneohe Bay and Camp Smith. The visioning phase is described in Section 2.5, Installation Visioning Charrette Workshop.

Phase 3: Planning and Concept Development Phase

The plan development phase followed the vision phase and commenced with a four-day Planning Charrette held at the end of January 2015. This workshop allowed participants to use the planning concepts to create alternatives to

PROJECT SCOPING	Sept 2014	• **Data Gathering** • **Site Investigation** • **GIS Analysis**
VISIONING PHASE	Sept 2014	• **Kick-off Brief with Leadership** • **Visioning Workshop (*MCB Hawaii Vision Plan*, April 2015)**
	Oct 2014–Jan 2015	• **Additional Site Investigation, Stakeholder Interview, and GIS Analysis**
PLANNING AND CONCEPT DEVELOPMENT PHASE	Jan–March 2015	• **Stakeholder Charrette Workshop** • **Community Open House Meeting #1**
	Feb–June 2015	• **Refine Concepts** • **Additional Interviews** • **Develop Alternatives**
	July–Aug 2015	• **Concept Workshop** • **Working Group Meeting #1** • **Present Final Concepts to Base Leadership**
REPORT PREPARATION PHASE	Aug–October 2015	• **Prepare Draft IMP, ADPs, and CP**
	Oct–Dec 2015	• **Review of Draft IMP, ADPs, and CP**
	Jan–March 2016	• **Community Open House Meeting #2** • **Working Group Meeting #2** • **Pre-final IMP, ADPs, and CP**
	June 2016	• **Final IMP, ADPs, and CP**

Figure 2-2 **Planning Process and Schedule**

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address identified land use and facility planning issues, and served as the basis upon which the detailed ADPs are based. The Charrette Workshop is summarized in a report in Appendix A.

Following the Charrette Workshop, select community members and public agencies were invited to participate in a Community Open House Meeting held in March 2015. Proposed concepts of general development were presented and community members had an opportunity to comment on the master plan.

The plans were refined and presented to stakeholders again at a three-day Concept Workshop, held at the end of July 2015. Participants at this workshop evaluated the planning alternatives and provided direction on the proposals to be presented to base leadership and included in the Draft IMP. The Concept Workshop is summarized in a report in Appendix B.

Phase 4: Report Preparation
This phase included the preparation and review of the Draft IMP. The draft was reviewed by stakeholders, and their suggestions and comments were incorporated into a Final IMP. Prior to the completion of the IMP, select community members were invited to provide comments during a second Community Open House Meeting held in February 2016. The participants and focus of each Community Open House Meeting are documented in Appendix C.

In addition to the IMP and the component plans, a Comprehensive Plan (CP) provides a publicly releasable overview of the IMP process and development plans. The CP was prepared as a tool for collaboration with community stakeholders, and as such, has had all sensitive information and analysis removed. The CP also provides an overview of the installation's plans for incomming unit commanders, special visitors, and other DoD personnel or agencies.

2.2 Installation Overview and History

2.2.1 Overview

MCB Hawaii is comprised of eight separate real property holdings that collectively cover 4,698 ac of land, as shown on Figure 1-1. The primary function(s) of each installation are briefly described in Table 2-1. Each area is described in greater detail as the focus of an ADP or FSP in a separate volume, Component Plans.

MCB Hawaii Kaneohe Bay is the largest of these installations, and is located on the windward side of O'ahu, approximately 12 miles northeast of downtown Honolulu. The installation covers the entirety of the 2,951-ac Mōkapu Peninsula, which separates Kāne'ohe Bay from Kailua Bay, and is the Marine Corps' primary aviation and operational site in the state.

Camp Smith encompasses 220 ac on the upper slopes of Hālawa overlooking Joint Base Pearl Harbor-Hickam (JBPHH), and is approximately six miles north-northwest from downtown Honolulu. It is headquarters for MARFORPAC,

U.S. Pacific Command (USPACOM), Special Operations Command Pacific (SOCPAC), and other tenant commands.

Puuloa RTF is located on the south shore of O'ahu, just west of the Pearl Harbor entrance channel, and provides live-fire ranges for small arms training, qualification, and requalification. It is regularly used by the Marine Corps as well as other DoD services and local law enforcement groups.

MCTAB encompasses 1,074 ac along the eastern O'ahu shoreline between the communities of Kailua and Waimānalo. MCTAB is the primary and largest Marine Corps training area on O'ahu, and provides maneuvering space for amphibious, aviation, and motorized training activities.

Located on Pearl City Peninsula, PCA is situated along the coast of the East Loch of Pearl Harbor and encompasses 27 ac of the Pearl Harbor Naval Complex. PCA is primarily used for long-term warehouse storage.

The Manana Family Housing Area encompasses 62 ac in the town of Pearl City and provides 168 family housing units and community support facilities.

Located in Waikane Valley approximately one mile inland from Kāne'ohe Bay, the 187-ac WVIA is a former live-fire training range. The area is currently closed due to unexploded ordnance hazards, although efforts are currently underway to remediate the area.

Located on the island of Moloka'i, Molokai TSF encompasses 12 ac near the Molokai Airport. The facility is currently inactive and overgrown with vegetation.

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Table 2-1 **MCB Hawaii Installation Areas**

Site	Area (ac)	Primary Functions
MCB Hawaii Kaneohe Bay	2,951	Administration: headquarters of MCB Hawaii and command tenants Mission Support: airfield, air operations, and aircraft maintenance; motorpools and vehicle maintenance; (b) (7)(F) (b) (7)(F) warehousing and logistics support; (b) (7)(F) Training: (b) (7)(F) ; active aviation training; simulated training; small unit and command post training activities Community Support: medical and dental clinics; elementary school; exchange, commissary, outlet shops, and gas stations; restaurants; fitness center, playing fields, swimming pool, play courts, and playgrounds; temporary/ recreational lodging facilities Housing: bachelor enlisted and officer housing; family housing Recreation: golf course; marina, beach and ocean activities; outdoor recreation and camping sites; youth and teen centers
Camp H.M. Smith	220	Administration: headquarters for MARFOPAC, USPACOM, and other command tenants; MCB Hawaii administrative functions Community support: medical and dental; exchange; library; fitness center, playing fields and courts, swimming pool Housing: bachelor enlisted housing and family housing
Puuloa Range Training Facility (Puuloa RTF)	165	Training: (b) (7)(F) Housing: bachelor enlisted housing Community support: mess hall, fitness center, and playing courts
Marine Corps Training Area Bellows (MCTAB)	1,074	Training: (b) (7)(F) (b) (7)(F) Recreation: a portion of the beach is open to the public on the weekends and federal holidays
Pearl City Annex (PCA)	27	Warehouse/Storage: long-term and overflow storage for MCB Hawaii departments and command tenants
Manana Family Housing Area	62	Housing: family housing Community support: exchange and gas station; playing fields and courts, swimming pool, and playgrounds
Waikane Valley Impact Area (WVIA)	187	Former live fire and ordnance range; conservation management and remediation activities currently underway
Molokai Training Support Facility (Molokai TSF)	12	Former training support area for aircraft; not currently in use

2.2.2 History

The Marine Corps' presence in Hawai'i began in 1904 with the first permanent garrison at Pearl Harbor known as the Marine Barracks. The original function of the garrison was to provide security for the Navy installation at Pearl Harbor.

In 1915, the Marine Corps was granted use of property in Pu'uloa by the War Department for weapons qualification ranges. A 40-target rifle range at distances from 200 to 1,000 yards, an 80-target pistol range, and associated camp and messing areas were developed on land under control of the Navy. By 1934, it was commonly known as the Marine Corps Rifle Range, and today as Puuloa RTF.

In 1939, the Marines began to strengthen their forces in response to the war in Europe. This included an increase in the number of Marines to be based at or to pass through Hawai'i for fleet exercises. It was during this time that the Fleet Marine Forces, Pacific was established. Approximately 3,000 Marines, not including Marines aboard ships, were based at Pearl Harbor during the attack on December 7, 1941. As the number of Marines being trained for forward duty in the Pacific continued to grow during World War II (WWII), a new cantonment area east of Pearl Harbor, called Camp Catlin, was set aside for the Marines; work was completed on the Marine Corps Air Station 'Ewa; and a training camp for Marine Forces was set up in Nānākuli, on the leeward coast of O'ahu. However, the Marine Barracks at Pearl Harbor continued to be the center for Marine Corps activities in the Pacific.

Prior to the war and during the early years of the war, the military completed major construction projects on O'ahu. In 1933, the Army constructed Bellows Field at the Waimanalo Military Reservation, which is now called MCTAB. In 1939, the Navy constructed a small seaplane base next to the Army's existing Fort Hase at Mōkapu Peninsula, which was called Naval Air Station Kaneohe Bay. During the early 1940s, the Navy constructed the Aiea Heights Naval Hospital. After the December 7th attack, the Navy expanded warehousing and storage around Pearl Harbor including the areas now known as PCA and Manana Family Housing Area. Airport support facilities were needed by the military, and the federal government obtained land for the Molokai Airport Naval Reservation in 1941, which is now the Molokai TSF. During this time, a portion of Waikāne Valley, including the WVIA lands, was leased by the Army for live-fire and jungle training.

In the years following WWII, Hawai'i saw a reduction in military operations. At the same time, organizational changes to the military separated the Marine Corps from the Navy. Navy aviation activities moved to the Barbers Point Naval Air Station in west O'ahu, and the Marine Corps assumed control of activities at the Naval Air Station Kaneohe Bay. The Marine Corps Air Station 'Ewa was closed and the aviation assets were absorbed into the Barbers Point Naval Air Station. Marine Corps Air Station (MCAS) Kaneohe Bay was commissioned in 1952 to encompass all of the Naval Air Station Kaneohe Bay and Fort Hase. In 1956, the Fleet Marine Forces, Pacific moved from the Marine Barracks at Pearl Harbor to the facilities at the Aiea Heights Naval Hospital, and the installation was named Camp H.M. Smith.

On April 15, 1994, MCB Hawaii was formally established when all Marine Corps installations and landholdings in Hawai'i were consolidated under a single command. With the redesignation, the Marine Corps installation at Kaneohe became the headquarters for MCB Hawaii. Other Marine Corps areas in the state were designated as "Special Areas" under MCB Hawaii.

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2.3 Installation and Community Profiles

The following sections describe mission and workforce trends at MCB Hawaii and other governance and land use trends in the neighboring local communities that may affect or limit future Marine Corps mission or activities.

2.3.1 Mission Profile and Trends

MCB Hawaii provides facilities and services to support III MEF and other activities and units. The Navy is a major user of the MCB Hawaii Kaneohe Bay airfield and headquarters facilities at Camp Smith. Facilities, programs, and services in direct support of units, individuals, and families are essential to sustain combat readiness and a high quality of life for all operating forces and tenant organizations under the cognizance of MCB Hawaii.

2.3.1.1 Current and Future Mission Requirements

The Marine Corps aviation units have undergone a recent realignment, including the addition of a light attack helicopter squadron (HMLA-367), an unmanned aerial vehicle squadron (VMU-3), a Marine Wing Support Detachment (MWSD), and deactivation of two aviation squadrons. Within the next few years, two new squadrons of MV-22B tiltrotor aircraft will become fully operational at MCB Hawaii Kaneohe Bay. Also within the near-term, three Navy patrol and reconnaissance squadrons will relocate outside of Hawai'i and be replaced by a detachment of two P-8A aircraft. This action will decrease the number of P-3 aircraft stationed at MCAS Kaneohe Bay by 18 aircraft and reduce the total population, including dependents, by approximately 1,700 personnel.

Additional III MEF units are anticipated to relocate from Okinawa, Japan to MCB Hawaii as part of the DoD's Defense Policy Review Initiative. Preliminary planning studies, including the *Marine Corps Base Hawaii Optimization Study* (2013) and the *O'ahu Land Use Study* (2013), analyzed the addition of seven units bring approximately 2,630 active duty and 1,840 dependants to O'ahu between 2026 and 2031. However, the specific units and timing of the relocation have not been finalized, are not included in the future loading detailed in the following section, and are not directly accommodated in the ADPs.

2.3.1.2 Installation Workforce and Residents

Estimated personnel loading data for Fiscal Year (FY) 2018 indicate MCB Hawaii will have a daily, working population over 22,000 people (Table 2-2), the majority of which report to MCB Hawaii Kaneohe Bay. This loading reflects the near-term changes in Marine Corps and Navy aviation squadrons described above. The residential population is smaller as many active duty and most civilian personnel live off base. However, the installation—particularly the community support facilities—is also well used by retirees and transient personnel.

Table 2-2 **MCB Hawaii Personnel Loading**

	OFFICER[1]	ENLISTED[1]	CIVILIAN[1]	DEPENDENT[2]	TOTAL
MCB Hawaii Kaneohe Bay	746	7,288	682	9,871	18,587
Camp Smith	1,189	1,092	918	613	3,812
Total	**1,935**	**8,380**	**1,600**	**10,484**	**22,399**

[1] Officer, Enlisted, and Civilian personnel numbers are from MCB Hawaii's FY12 Facilities Support Requirements document, FY12 Navy Manpower Report, FY13 and FY18 projected Tables of Organization, and 2009 Strength Report. Civilian contractors and Nonappropriated Funds personnel are not accounted in the loading. Unit Deployed Program (UDP) personnel have been subtracted from these numbers.

[2] Dependent personnel numbers have been derived using Dec 2012 Defense Manpower Data Center reports. Includes dependents of UDP personnel.

The workforce at MCB Hawaii consists of installation personnel and tenant commands based at MCB Hawaii Kaneohe Bay, Camp Smith, and Puuloa RTF. A description of the existing and future tenant commands, the installation supporting establishment, and assigned personnel is provided in Table 2-3. No personnel are permanently assigned to work or live at PCA, MCTAB, WVIA, or Molokai TSF.

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Table 2-3 **Current and Future Workforce**

UNIT NAME	MILITARY PN	CIVILIAN PN	DESCRIPTION
Marine Corps Units			
MARFORPAC	499	171	Commander, U.S. Marine Corps Forces, Pacific commands all U.S. Marine Corps forces assigned to the U.S. Pacific Command.
3d Radio BN	445	0	Subordinate to the III MEF Headquarters Group, 3d Radio Battalion conducts signals intelligence and electronic warfare, limited cyberspace operations, and special intelligence communications in support of III MEF.
3d Marines Regiment	3,318	0	The 3d Marine Regiment consists of a headquarters company and three infantry battalions (1st, 2nd, and 3rd BNs). The Combat Assault Company (CAC), administratively under the Regiment, provides combat assault support to the 3d Marine Regiment during amphibious operations.
1st BN, 12th Marines	672	0	The 1/12 provides organic and attached indirect fire assets to suppress, neutralize, or destroy the enemy. The Battalion consists of a Headquarters Battery and firing batteries Alpha, Bravo, and Charlie.
MAG-24	1,996	0	The Marine Aircraft Group 24 provides aviation support forces to the 3d Marine Regiment. The group consists of the aviation logistics squadron (MALS-24), one marine wing support detachment (MWSD-24), one attack helicopter squadron (HMLA-367), one heavy helicopter squadron (HMH-463), and one unmanned aerial vehicle squadron (VMU-3). In the near future, two tiltrotor-wing, medium lift squadrons (VMM-363 and VMM-268) will be stationed at MCB Hawaii Kaneohe Bay.
CLB-3	590	0	Combat Logistics Battalion 3 consists of a headquarters and service company, maintenance services company, transportation services company, and an engineers services company. CLB-3 provides the six functions of logistics for an infantry regiment: supply, maintenance, health services, transportation, services, and general engineering.
CLC-35	175	0	Combat Logistics Company 35 provides MAG-24 with intermediate ground logistics support, to include supply and maintenance functions that are beyond MAG-24's organic capabilities.
21st Dental Co	44	0	21st Dental Company provides dental services to tenant units and supporting establishment military personnel while in garrison.
WWBN Det	14	0	Wounded Warrior Battalion Detachment provides and facilitates assistance to wounded, ill, and injured Marines, Sailors, and their family members.
4th Recon	5	0	4th Force Reconnaissance Company provides deep and amphibious reconnaissance support to III MEF. This organization's manpower structure consists of approximately 50 Reserve Marines who drill on various weekends and other drill periods.

Table 2-3 **Current and Future Workforce** (cont.)

UNIT NAME	MILITARY PN	CIVILIAN PN	DESCRIPTION
Navy Units			
USPACOM	564	239	Headquarters, U.S. Pacific Command oversees four component commands (U.S. Pacific Fleet, U.S. Pacific Air Force, U.S. Army Pacific, and U.S. Marine Forces, Pacific) assigned to the Pacific Area of Responsibility which stretches from the waters off the west coast of the U.S. to the western boarder of India, and from Antarctica to the North Pole.
CPRFP NSD	87	17	Command Patrol Reconnaissance Force Pacific, Naval Support Detachment supports the Maritime Patrol and Reconnaissance Forces in support of the Third, Fifth, and Seventh Fleet operations.
VP Det	102	0	Detachment of a Patrol Reconnaissance Squadron that supports CPRFP.
VPU-2	401	0	Special Project Patrol Squadron is a special project patrol unit.
HSM-37	261	0	Helicopter Maritime Strike Squadron 37 provides expeditionary MH-60R detachments as an integral part of an air capable surface combatant.
VR-51 Det	34	0	Fleet Logistics Support Squadron 51 provides long-range, medium airlift logistics support for the U.S. Pacific Fleet Battle Groups via C-20G aircraft.
Navy Health Clinic	64	13	The Navy provides medical and dental service to military personnel at the Kaneohe Bay Branch Health Clinic.
Installation Support Establishment			
MCB Hawaii Kaneohe Bay	449	593	In addition to supporting the tenant commands, MCB Hawaii Kaneohe Bay provides logistics, garrison support, mobilization and deployment support, security, explosive ordnance disposal, dental care, family services, off duty services and recreation to Marines and Sailors stationed on MCB Hawaii.
MCAS	136	24	Marine Corps Air Station maintains and operates the airfield facilities of MCB Hawaii in support of the readiness and global projection of DoD and military operating forces.

2.3.2 Region and Local Area Governance/Liaison and Trends

In Hawai'i, there are three levels of government—federal, state, and county. The entire island of O'ahu is under the jurisdiction of the City and County of Honolulu (CCH) for municipal governance. All MCB Hawaii landholdings on O'ahu are federally-owned and zoned as F-1 Military and Federal by the CCH, which permits the full range of military or federal government activities.

MCB Hawaii Kaneohe Bay interfaces with local utility companies, including Hawaiian Electric Company (HECO), the Board of Water Supply (BWS), CCH Department of Environmental Services, and various telecommunication providers. The Navy provides utilities for Camp Smith and Puuloa RTF, although power is purchased from HECO via Naval Facilities Engineering Command (NAVFAC) Hawaii (HI). Mokapu Elementary School is located on MCB Hawaii Kaneohe Bay, but is operated and maintained by the DOE. The MCB Hawaii School Liaison serves as a conduit between the school and installation.

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2.3.3 Region and Local Area Profile

MCB Hawaii Kaneohe Bay

MCB Hawaii Kaneohe Bay is located on the island of O'ahu, in the Ko'olaupoko District, and next in the towns of Kailua and Kāne'ohe. At the time of the 2010 census, Kailua had a population of 38,635 and Kāne'ohe had a population of 34,597. Both Kailua and Kāne'ohe are primarily residential communities that include regional commercial, civil, and medical services. The area immediately adjacent to MCB Hawaii is comprised of single family homes, an elementary school, a wastewater treatment plant, and a local shopping center.

Kailua and Kāne'ohe are both desirable suburban communities which have historically hosted many military families based at MCB Hawaii Kaneohe Bay. The growing popularity of Kailua as a residential and vacation destination in recent years is a trend that has impacted the DoD community. Various social media sites have increasingly touted Kailua as an alternative and less crowded vacation destination on O'ahu. The combined media attention has contributed to a marked increase in visitors, traffic congestion, and complaints from some residents. Kailua's growing popularity among local residents has also resulted in higher rents and home prices. Rising rents and home prices, as well as the growth in transient vacation rentals, have impacted MCB Hawaii Kaneohe Bay personnel, 40 percent of whom typically choose to live off-base.

Camp Smith

Camp Smith is located on the upper slopes of Hālawa Heights, which lies within the 'Ewa District of O'ahu. At the time of the 2010 census, Hālawa had a population of 14,014. Most of Hālawa Valley is undeveloped, but the lower portion closer to Pearl Harbor contains light industrial and commercial properties, as well as residential neighborhoods. Camp Smith is adjacent to a stable residential community that has seen less than one percent growth in population between the 2000 to 2010 census.

Puuloa RTF

Puuloa RTF divides two towns—'Ewa Beach to the west and Iroquois Point to the east. At the time of the 2010 census, Iroquois Point had a population of 3,374. Once a military housing community, the housing area is now known as Kapilina and is leased to a private operator. A Navy Exchange shoppette, gas station, and Iroquois Point Elementary School (DOE operated) are located within this area. In 2012, about half of the housing units were leased to military personnel and families.

'Ewa Beach is predominately a residential community with four elementary, one intermediate, and one high school. There were 14,955 residents as of the 2010 census. Directly west of Puuloa RTF is a private golf course and 'Ewa Beach Park, a public recreation area where residents frequently enjoy boating, fishing, and diving.

2.3.4 Mission Limiting Factors and Assets

From a DoD perspective, a mission limiting factor is a situation or condition that either temporarily or permanently impedes the accomplishment of a mission. The mission at MCB Hawaii is inherently limited by the real property assets under DoD control and available for use. The following discussion presents an overview of real property assets including land, buildings, and structures at MCB Hawaii Kaneohe Bay, Camp Smith, and Puuloa RTF.

2.3.4.1 Assets and Resources

The following provides a brief description of the assets at MCB Hawaii Kaneohe, Camp Smith, and Puuloa RTF. Figures 2-3, 2-4, and 2-5 illustrate the overall installation areas and highlight major landmarks or structures.

MCB Hawaii Kaneohe Bay

There are many assets at MCB Hawaii Kaneohe Bay. In terms of military operations and training, the major assets are the airfield and associated hangars and maintenance shops; the training range, open training areas, and simulators; the motor pools and maintenance facilities; and the ordnance storage magazines. For the community, the major assets are the family and unaccompanied housing, the golf course and recreation areas, and the retail and community centers.

In terms of natural resources, MCB Hawaii Kaneohe Bay is home to two wildlife management areas (WMA), which provide habitat for waterfowl and resident and migratory birds. Many historic military and architectural resources exist, and concentrations showing high levels of integrity are identified as proposed historic districts. The northern coastline is a major pre-Contact archaeological site known as the Mōkapu Burial Area.

Camp Smith

Camp Smith is home to the MARFORPAC and USPACOM headquarters. The primary assets at Camp Smith are the operational command centers for these commands. Other assets include Bordelon Field—used for training and ceremonies—and a helicopter landing pad.

Puuloa RTF

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Figure 2-3 **MCB Hawaii Kaneohe Bay Installation Map**

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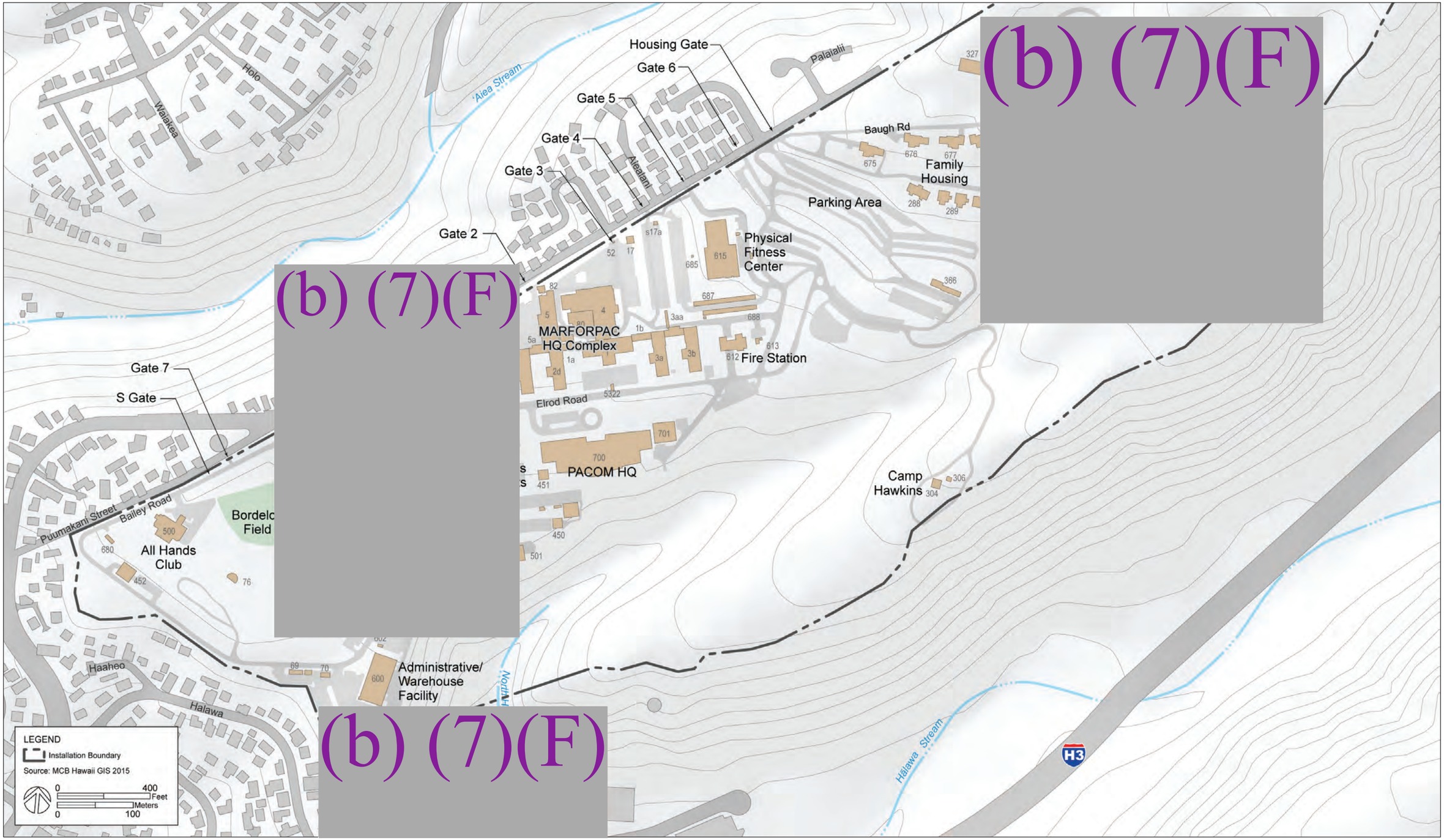

Figure 2-4 **Camp Smith Installation Map**

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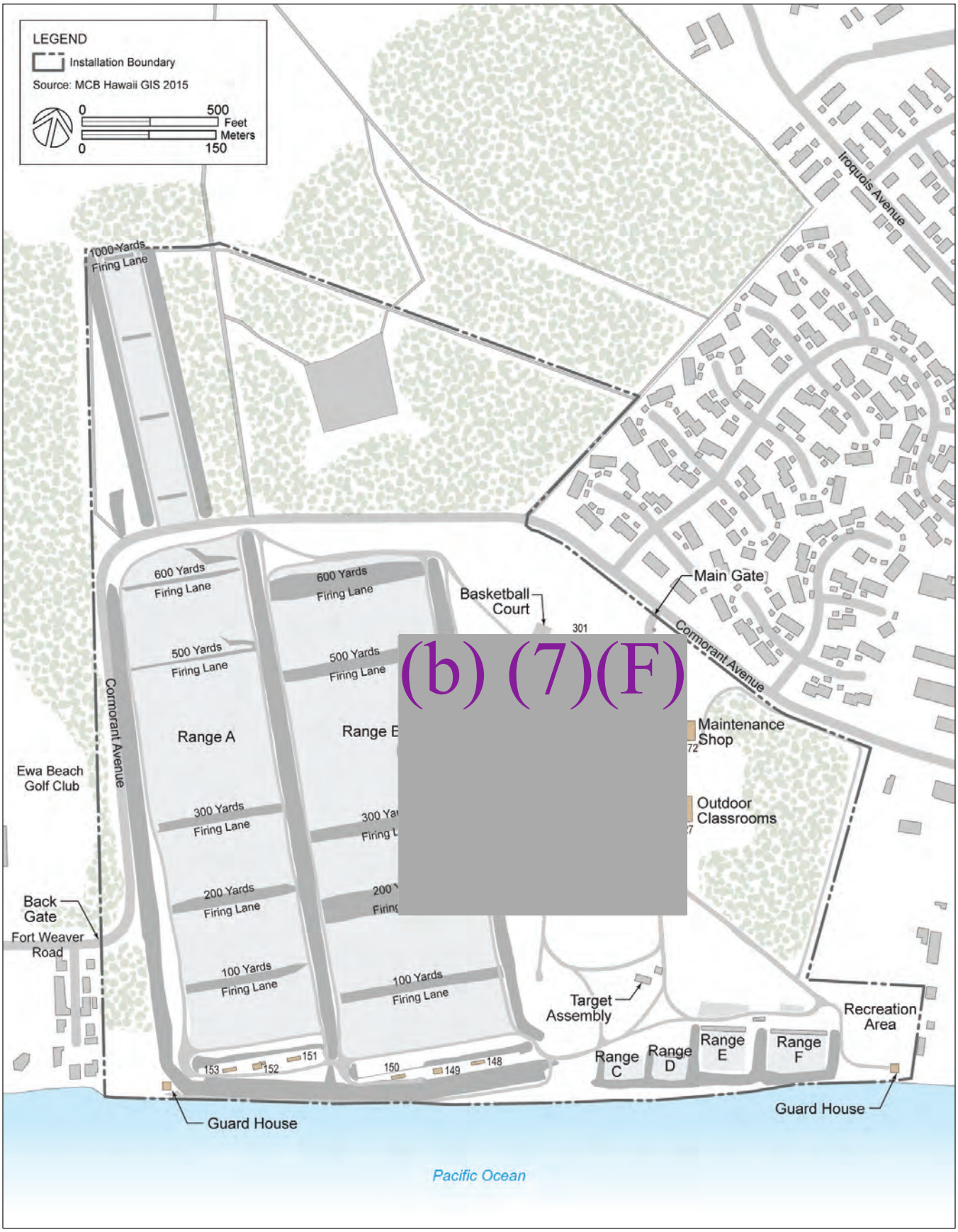

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Figure 2-5 **Puuloa RTF Installation Map**

The Marine Corps' only C20G, named "The Ghost," drives through a "welcome home" water shower supplied by a pair of Aircraft, Rescue and Firefighting vehicles during its homecoming flight at Marine Corps Air Station Kaneohe Bay, June 13, 2013. The aircraft was welcomed with a homecoming party provided by the unit to celebrate the jet's return. Service members and their families were able to board "The Ghost" to view its interior. (U.S. Marine Corps photo by Lance Cpl. Matthew Bragg. www.mcbhawaii.marines.mil)

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2.3.4.2 Existing Land Use

MCB Hawaii Kaneohe Bay

MCB Hawaii Kaneohe Bay encompasses 2,951 ac of land, which includes 750 ac of wetlands and ponds. Excluding family housing, MCB Hawaii Kaneohe Bay consists of nearly 600 buildings encompassing almost 5 million sf of space and nearly 300 structures or other facilities. Land use at MCB Hawaii Kaneohe Bay is clearly defined by the presence of major facilities such as the airfield, family housing neighborhoods, the Kaneohe Klipper Golf Course, and topographic features such as Pu'u Hawai'i Loa and Ulupa'u Crater. Major land uses are shown on Figure 2-6.

Airfield operations dominate the western side of the base, with aviation-related operation, training, and mission support facilities. Mokapu Road serves as a major land use divide separating aviation and ground unit operations, billeting, and base support functions from most of the installation's community support functions. There are approximately 2,400 family housing units at MCB Hawaii Kaneohe Bay, which include a mix of single family, duplexes, and four-plex houses.

The eastern side of the base supports ground unit operations, maintenance, and training. (b) (7)(F) (b) (7)(F) Other areas used for training include the Boondocker training area and West Field. In practice, most open areas around the base are used for some type of unit level training. Ordnance storage and a solid waste landfill are located on the outer slopes of the crater. Mokapu Mall is the center of commercial activity. Major recreation areas include four athletic field complexes, Pyramid Rock beach, North Beach, Fort Hase beach, the Pali Kilo Cottages, and the 18-hole Kaneohe Klipper Golf Course, which occupies much of the oceanfront in the central portion of the base.

There are two WMAs at MCB Hawaii Kaneohe Bay—Nu'upia Ponds to the south, and Ulupa'u Head to the northeast. No development is allowed in these areas and access is restricted. The Nu'upia Ponds WMA provides a buffer between the operational activities on the installation and the adjacent civilian community in Kailua.

Camp Smith

Almost all development at Camp Smith is concentrated on the western ridge and is predominantly administrative. Within this developed area, officer family housing is located on a slope above the central built up area. Bachelor quarters and personnel support uses, such as recreation and club facilities, are located on the lower southwestern area. The maintenance and storage area is located at the southernmost portion of the ridge. Surrounding areas that are constrained by steep slopes are undeveloped or used for passive recreation. The eastern ridge includes an operational area with a helicopter landing pad. Major land uses at Camp Smith are shown on Figure 2-7.

Puuloa RTF

(b) (7)(F)

2.3.4.3 Real Property Inventory

A real property inventory and BFRs were updated by a NAVFAC Pacific (PAC) asset evaluation in 2013, and are presented in ADPs.

2.3.4.4 Facility and Infrastructure Condition

Figure 2-9 illustrates the facility condition rating from iNFADS. The condition rating is based on inspection data entered into NAVFAC's asset management system, called BUILDER, that tracks facility improvements and maintenance orders. The ratings represents a facility's general physical condition independent of its mission as it deteriorates due to routine aging, excess wear and tear, or insufficient maintenance.

Overall, most facilities at MCB Hawaii Kaneohe Bay are in fair to good condition. Facilities that are in poor condition should be addressed by a Facilities Sustainment, Restoration and Modernization project, a MILCON project, or be demolished.

2.3.5 Challenges and Opportunities

Challenges for MCB Hawaii within the communities surrounding the installation areas include an increasing civilian population, growing and denser urbanization, higher real estate values, and greater awareness of and increased sensitivity to Hawaiian history and related cultural issues. As such, the installation has ongoing programs to maintain good relations with the broader community and to be responsible steward of the land and its resources.

In terms of facility planning, the primary mission limiting factors are the proximity to neighboring communities, aging infrastructure, and the presence of environmentally and culturally sensitive areas. MCB Hawaii Kaneohe Bay, Camp Smith, and Puuloa RTF are largely developed with little to no adjacent land for expansion. Due to the neighboring land uses, which are predominately residential, training and operations are restricted to specific areas and times of day due to noise. For example, flights to and from MCB Hawaii Kaneohe Bay are conducted from 0700 to 2200 and restricted to specified flight patterns.

The age of many structures is a limiting factor, as most of the existing base was constructed between the 1940s and 1960s. While historic structures are valuable resources, the use or reuse of these facilities can be challenging and not always economically feasible. The presence of the WMAs, archaeological sites,

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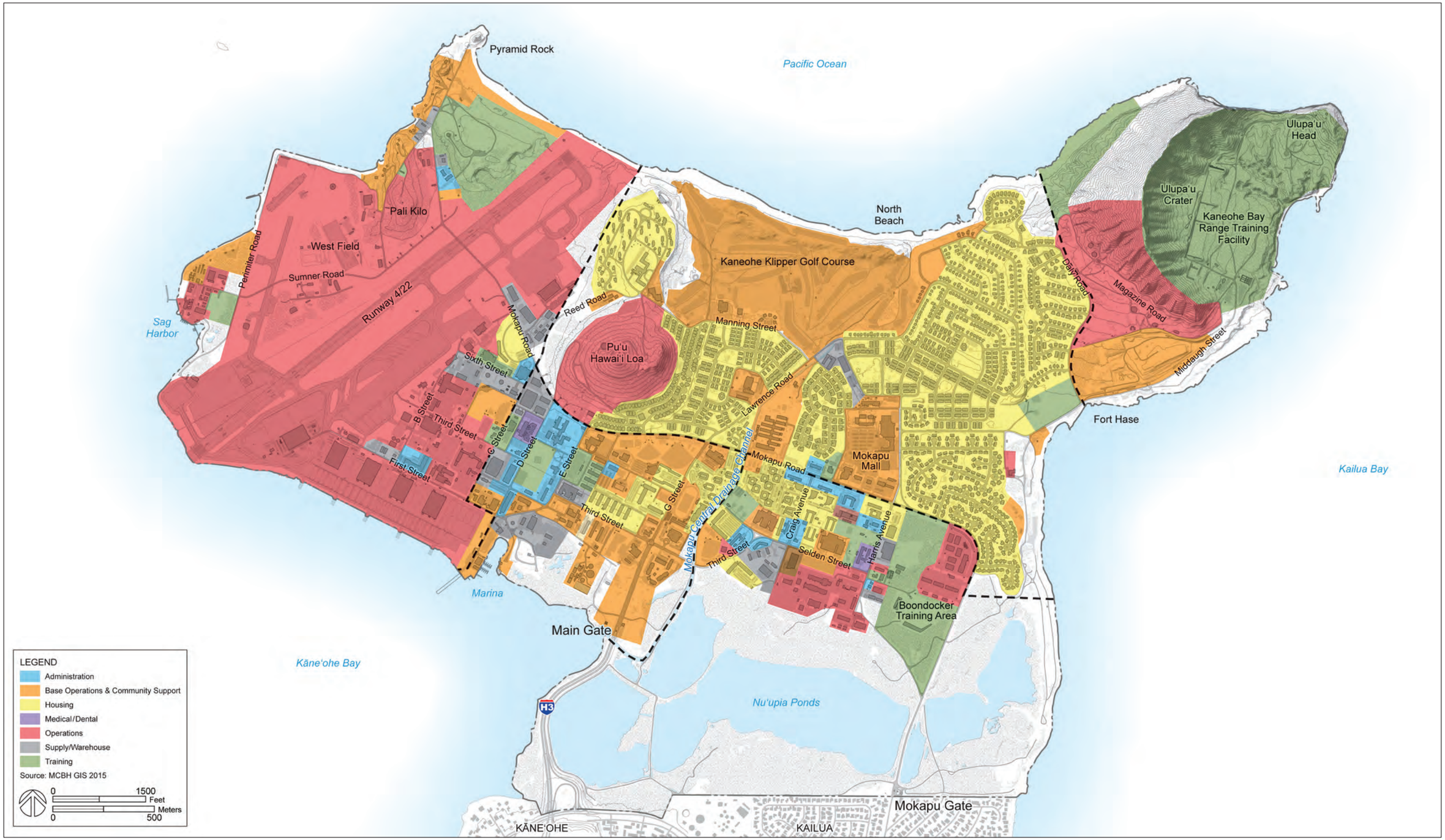

Figure 2-6 **MCB Hawaii Kaneohe Bay Land Use Map**

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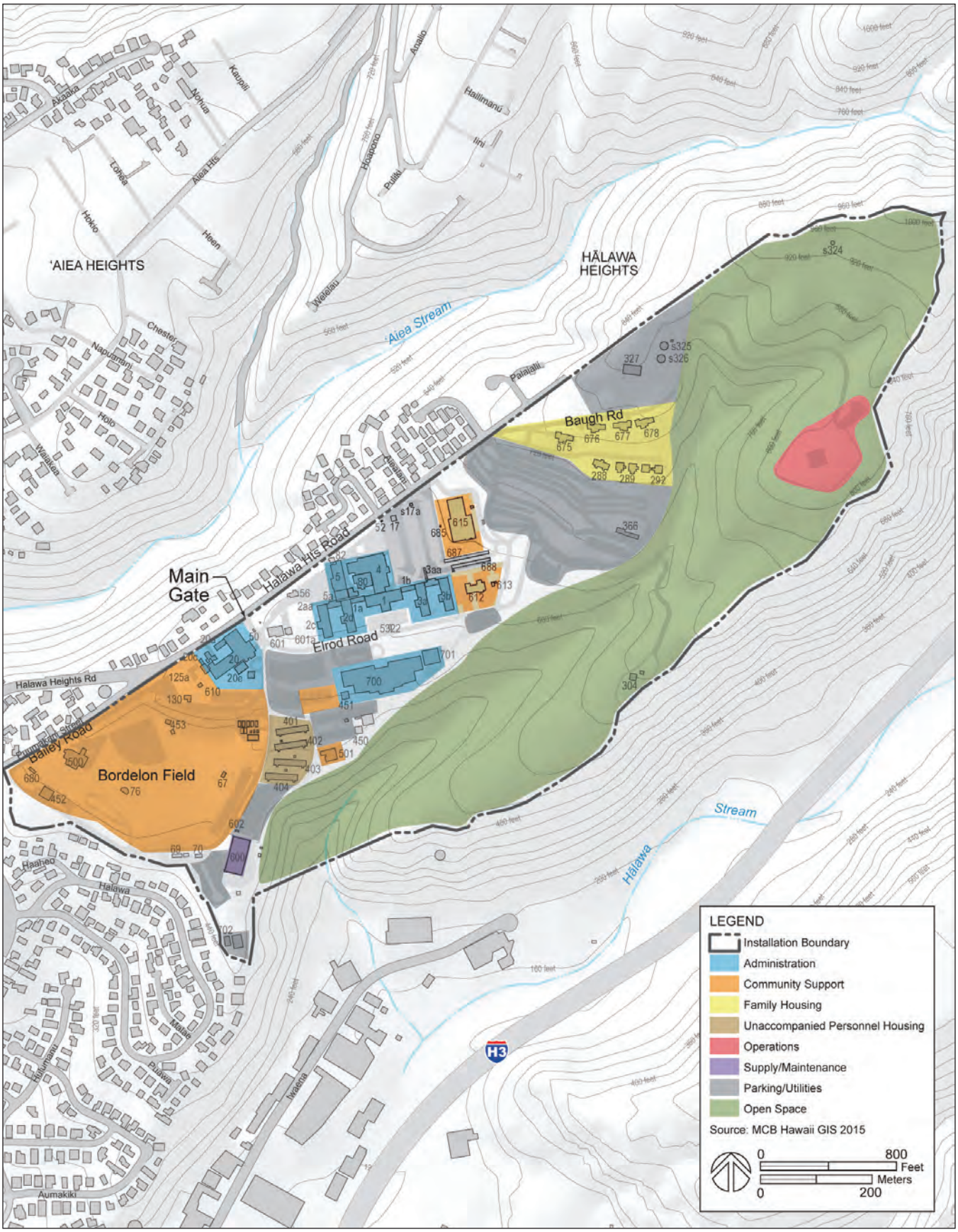

Figure 2-7 **Camp Smith Land Use Map**

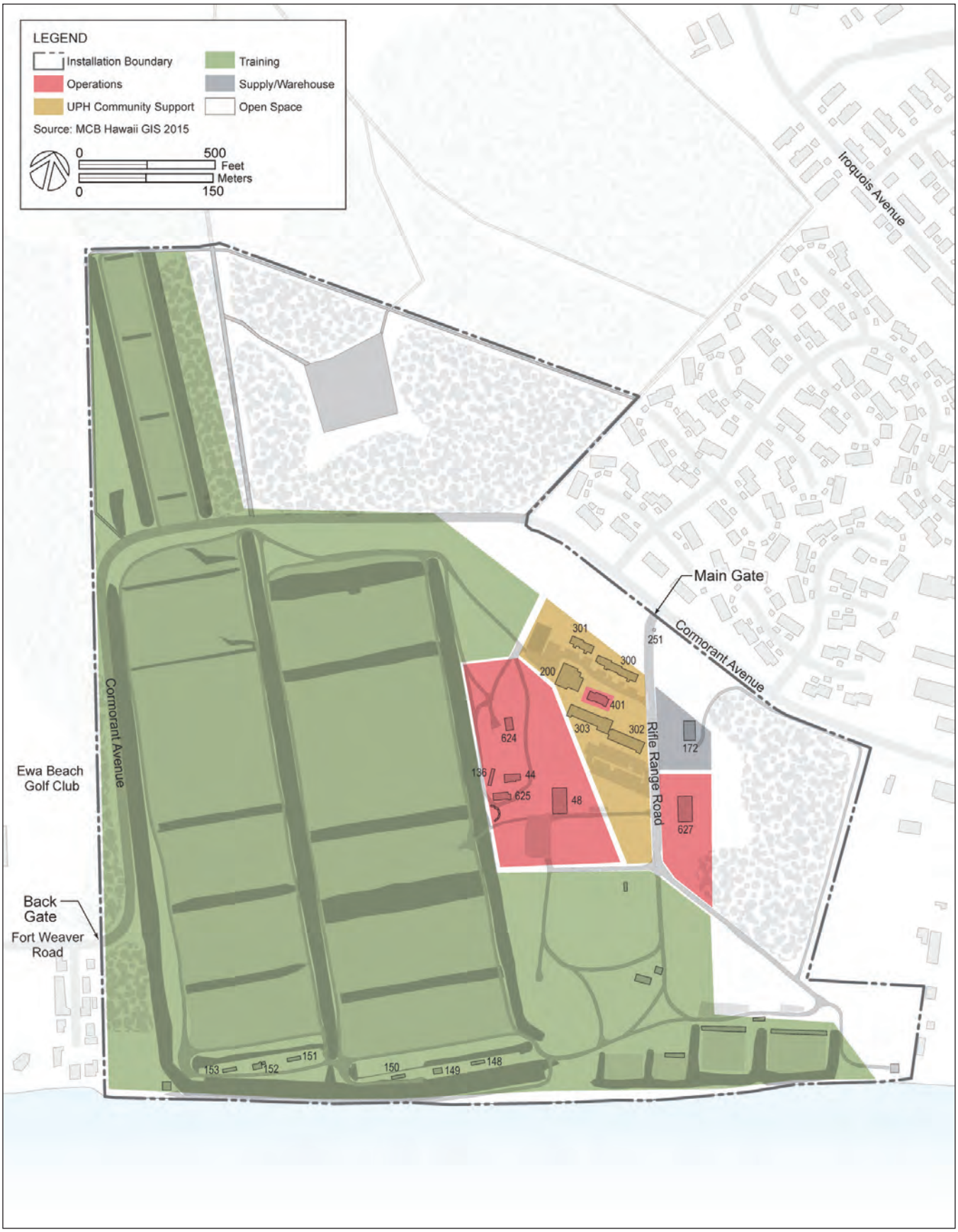

Figure 2-8 **Puuloa RTF Land Use Map**

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and historic resources all present mission limiting factors since development is restricted in those areas.

2.4 Project Scoping

The overall planning methodology was presented in Section 2.1.3, Planning Process and Assumptions, and is illustrated on Figure 2-2. Project scoping is the initial step in the overall planning process and involved gathering both objective and subjective data about MCB Hawaii—physical and environmental conditions, an understanding of operations and user needs, and identifying any issues of concern—and was conducted through field investigation, stakeholder interviews, and geographic information system (GIS) and facility database analysis.

2.4.1 Field Visits

Site visits to all major facilities and Special Areas were combined with stakeholder interviews and focused on understanding mission, requirements, and any issues with existing facilities; validating operational constraints; and documenting any facilities or infrastructure requiring further evaluation during the planning process.

2.4.2 Stakeholder Interviews

The planning process involved site visits during which the planning team toured the study areas, collected available data from source documents, and interviewed stakeholders. Stakeholder interviews were conducted with personnel from major departments and tenant commands to discuss current and future facility requirements and any issues of concern.

2.4.3 Geographic Information System Analyses

The planning team worked with the MCB Hawaii installation staff to gather existing maps and GIS data and to obtain the most current plans for proposed future development at the installation. The data was used to identify existing land use, facility conditions, manmade and natural constraints, and the development potential of specific land areas.

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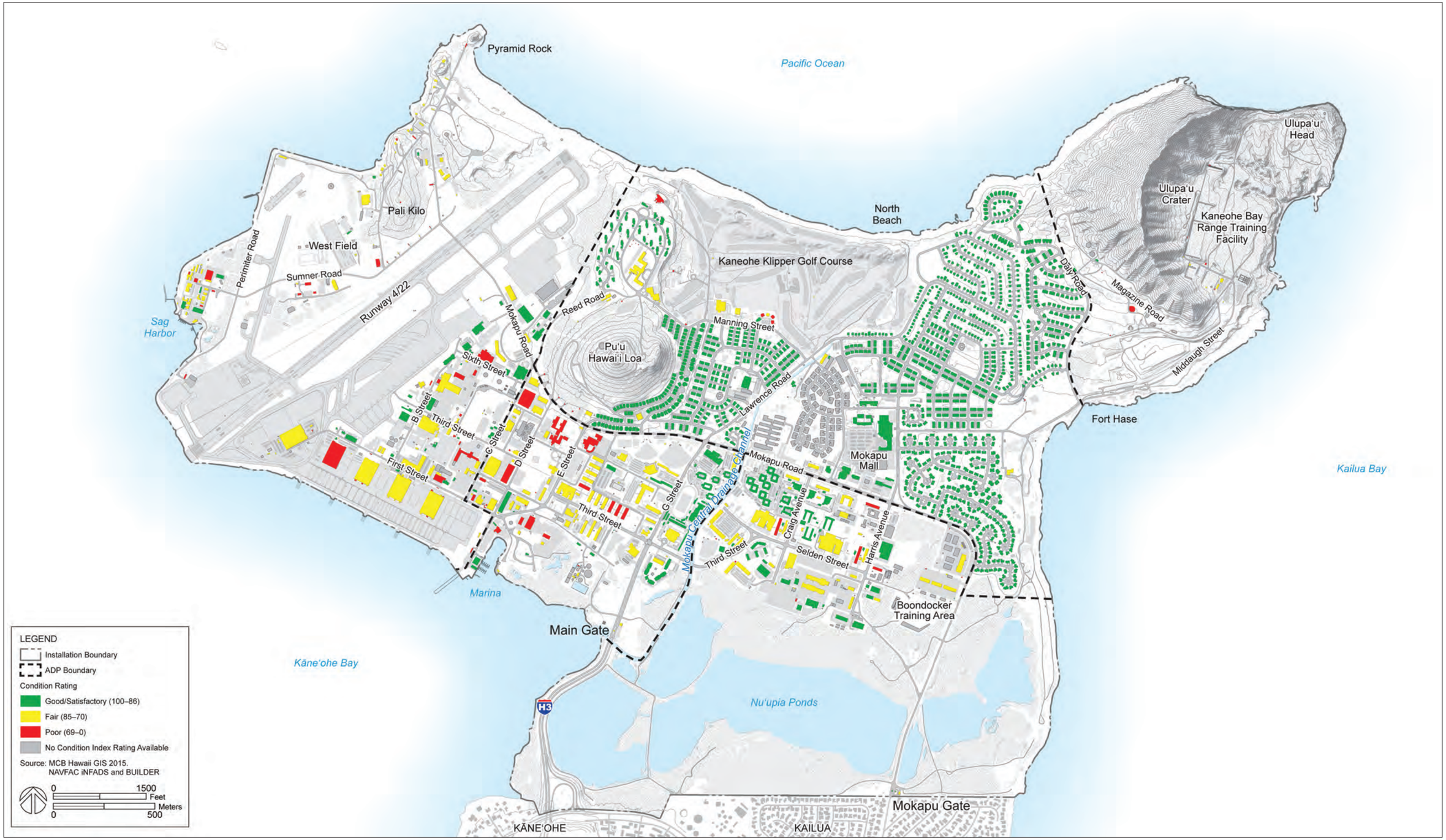

Figure 2-9 **MCB Hawaii Kaneohe Bay Building Condition**

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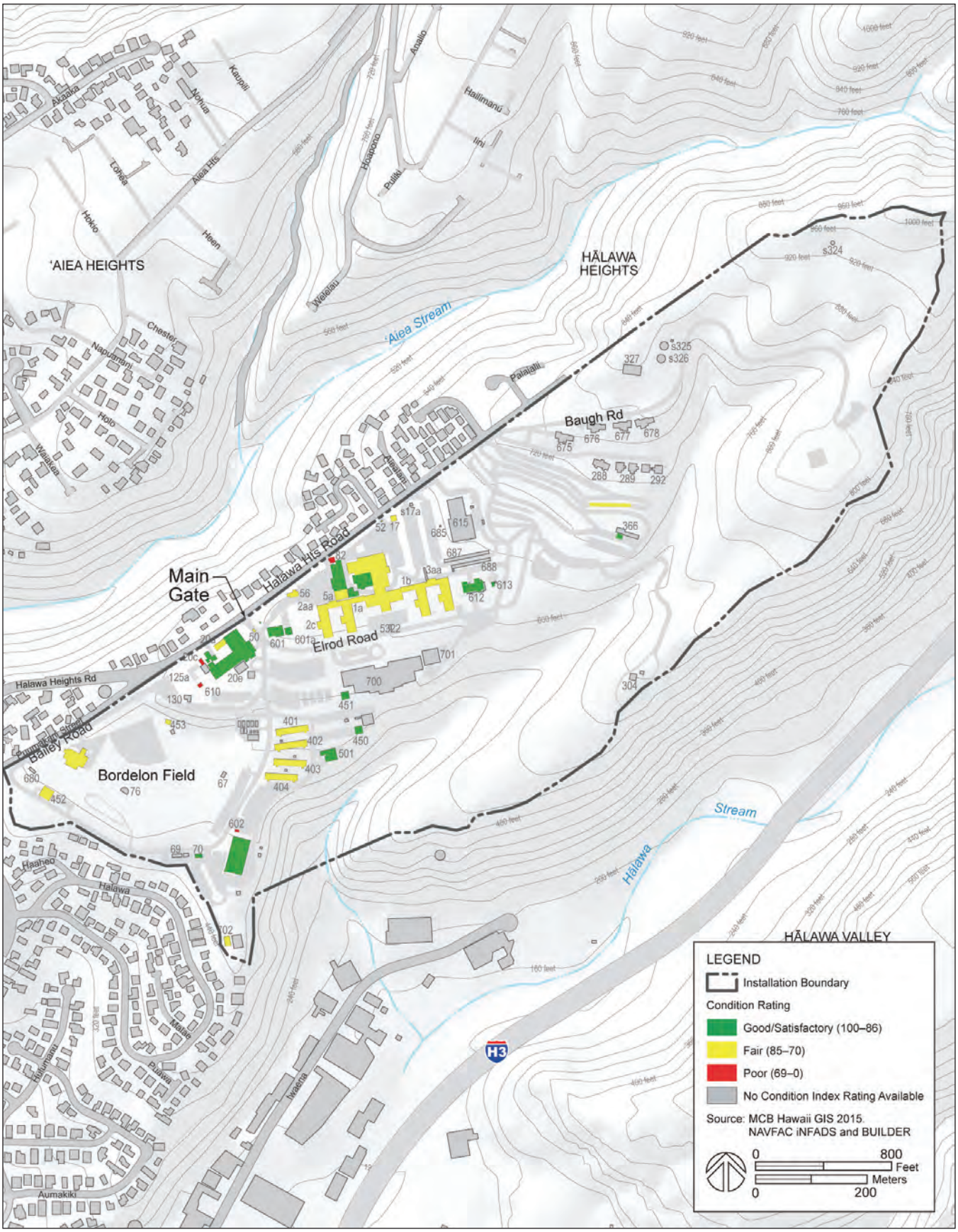

Figure 2-10 **Camp Smith Building Condition**

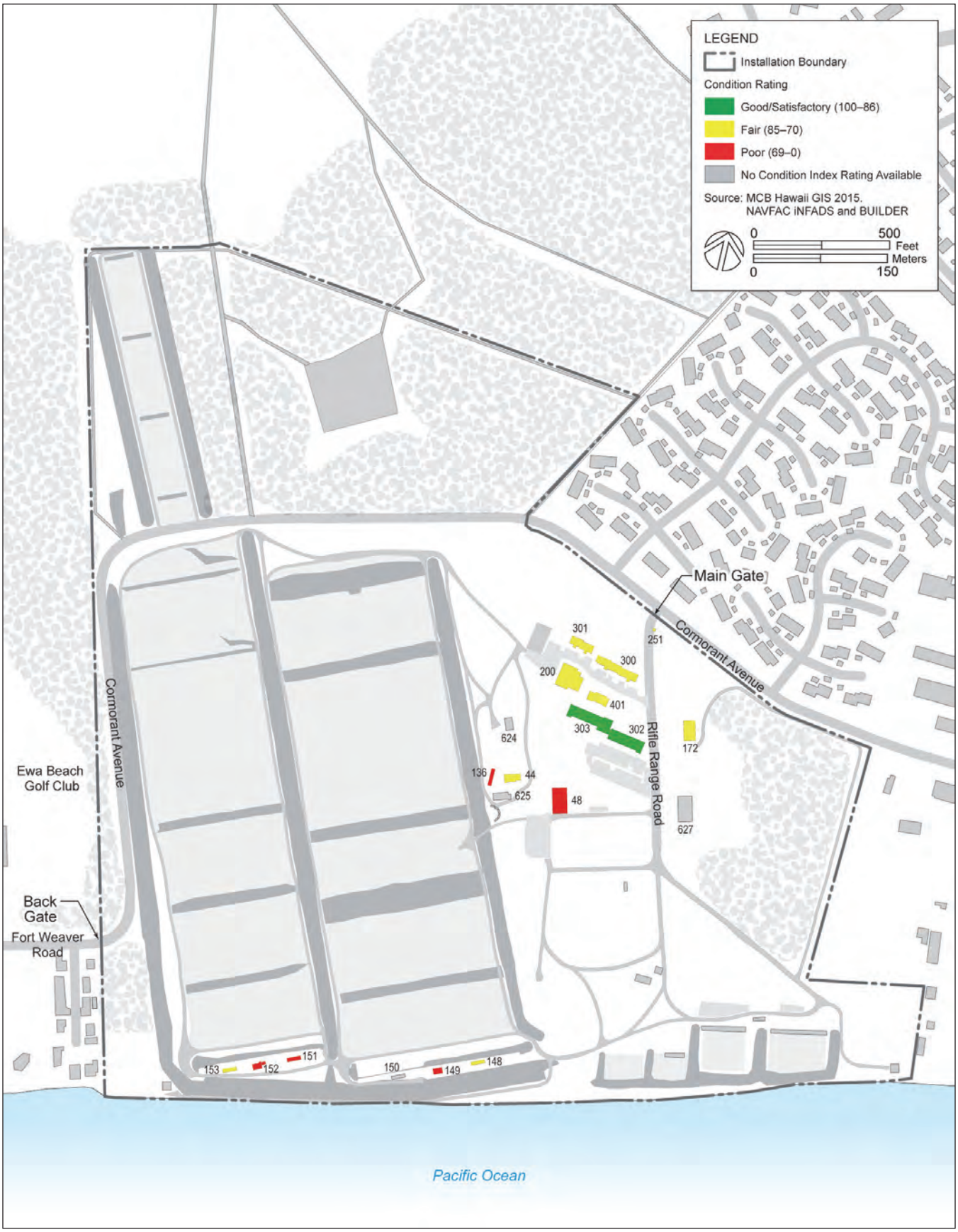

Figure 2-11 **Puuloa RTF Building Condition**

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2.5 Installation Visioning Charrette Workshop

After the initial Project Scoping phase, the next phase in the IMP process was to create a long-range planning vision for MCB Hawaii landholdings. The creation of a long-range vision was accomplished through a Visioning Workshop, an intensive series of meetings, which brought stakeholders together to brainstorm ideas, map solutions, and to resolve planning conflicts during the development of the IMP.

A Visioning Workshop was held in September 2014 and was attended by over 60 participants representing all departments and tenants of MCB Hawaii. Through a collaborative process, stakeholders defined the vision, goals, and objectives; identified design principles; and developed preliminary planning concepts. During the workshop, a Framework Plan was developed to subdivide MCB Hawaii Kaneohe Bay into five planning districts, each of which is the subject of a separate and detailed ADP. The following sections describe the analysis and activities conducted over the four-day workshop that focused on MCB Hawaii Kaneohe Bay and Camp Smith.

2.5.1 Visual Preference Survey

A visual preference survey (VPS) was conducted during the Visioning Workshop to identify the design aspects and qualities of different built environments that stakeholders considered the most important or aesthetically pleasing. The results from the VPS and design standards from existing documents formed the basis of the design principles presented in Chapter 4, Installation Development Standards. The major design principles of the *MCB Hawaii Vision Plan* are listed in Table 2-4.

Table 2-4 **Design Principles**

Built Environments		
Districts		
Morphology		
Horizontal Mixed-Use	Consolidated Campuses	Compact Development
Training Land Preservation	10-Minute Walk	Town Center
Focal Points	Diverse Dining Options	Link to Public Transportation
Accessible Gates	Covered Walkways	Secured Communication Network
Renewable Energy	Resilient Infrastructure	Underground Utilities
Streets		
Street Trees	Public Transportation	Wide and Connected Sidewalks
Bike Network	Safe and Efficient Streets	Landscape Buffers
Safe Pedestrian Connections		
Parking		
On-Street Parking	Appropriate Parking Structures	Centralized Parking
Accessible Parking		
Open Space		
Shade Trees	Sustainable Landscaping	Greenspace Preservation
Greenspace Network	Connected Indoor/Outdoor Spaces	Low-Maintenance Landscaping
Recreation Areas	Preserve Viewsheds	
Buildings		
Adaptive Reuse	Front Porches	Appropriate Stand-Off
Vertical Mixed-Use	Tropical Architecture	Narrow Wing Buildings
Multi-Story Buildings	Operable Windows	Energy-Efficient Design
Streetfront Buildings	Natural Lighting	Demolish or Renovate Aging Facilities
Modern Buildings	Durable Construction	Visible Entries

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2.5.2 Strengths, Weaknesses, Opportunities, and Threats

An analysis by the stakeholders of their perception of the strengths, weaknesses, opportunities, and threats (SWOT) of MCB Hawaii was conducted to identify specific internal and external characteristics that may help or hinder the installation in achieving its planning objectives. During this exercise, participants were asked to respond to a series of questions about MCB Hawaii Kaneohe Bay and Camp Smith. The responses were compiled and categorized by small groups, and the results of the exercise are summarized on Figures 2-12 and 2-13.

2.5.2.1 MCB Hawaii Kaneohe Bay

Strengths are current assets that should be preserved and replicated. The greatest strength at MCB Hawaii Kaneohe Bay was identified as its livability, followed by its geographic location on the island.

Weaknesses are liabilities that should be fixed or removed. Poor traffic management, outdated facilities, and base operations were noted as the greatest weaknesses at MCB Hawaii Kaneohe Bay.

Opportunities are elements that can be capitalized upon in the future. Repairing and reusing existing facilities were identified as the best opportunities, followed by improving base operations.

Threats are elements that stand in the way of future goals. Funding, encroachment, and environmental threats were identified the most likely to impact the installation.

2.5.2.2 Camp Smith

Strengths are current assets that should be preserved and replicated. The greatest strength at Camp Smith is its location, followed by its compact development.

Weaknesses are liabilities that should to be fixed or removed. Outdated infrastructure, lack of parking, and poor walkability were commonly acknowledged weaknesses.

Opportunities are elements that Camp Smith can capitalize on in the future. New facilities and increased parking were two of the largest identified opportunities.

Threats are elements that stand in the way of future development at Camp Smith, and included environmental constraints, administrative cooperation, and adjacent civilian communities.

Figure 2-12 **MCB Hawaii Kaneohe Bay SWOT Analysis**

Figure 2-13 **Camp Smith SWOT Analysis**

2.5.3 Vision Statement

According to *UFC 2-100-01, Installation Master Planning* (May 2012) an installation's vision statement is a clear and concise description of a desired end state and should capture the essence of the entire planning effort. The vision creates a mental picture of what the installation will look like once the planning goals are achieved.

The MCB Hawaii vision statement was developed by the stakeholders during the Visioning Workshop. The following overall vision statement was developed for all of MCB Hawaii, including facilities at Kaneohe Bay and the Special Areas.

> *Marine Corps Base Hawaii is committed to meeting mission readiness goals and operational requirements by providing modern, efficient, and sustainable facilities. To achieve this, we will consolidate facilities and collocate command elements and we will retain and optimize training capabilities while creating safe campuses and neighborhoods connected by greenspace networks.*

2.5.4 Goals

Planning goals flow directly from the vision and focus on long-term facility and infrastructure projects needed to fulfill mission requirements and reshape the installation. Plan objectives define how the goals in the vision can be achieved, and are specific and measurable.

2.5.4.1 MCB Hawaii Kaneohe Bay

The following goals were developed during the Visioning Workshop for MCB Hawaii Kaneohe Bay as a whole.

Goal 1. Modern, Efficient, and Sustainable Facilities

Replace inadequate facilities and modernize retained facilities. Incorporate sustainable practices and maximize functional efficiencies by employing renewable energy and conservation technologies in new and existing facilities.

Goal 2. Consolidated Functions

Consolidate and collocate work and live functions into the same building or complex by command element to promote efficient use of time, resources, and manpower.

Goal 3. Optimize Training Capabilities

Develop and maintain state-of-the-art, joint-use multipurpose ranges and training areas that support tenant requirements. Use appropriate modeling and simulations to provide additional training capacity. Retain valuable range and training spaces by monitoring surrounding land use and maintaining an active encroachment control program.

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Goal 4. Safe Campuses and Neighborhoods

Create safe campuses and neighborhoods by utilizing a town center concept with complete streets, wide and connected sidewalks, on-street parking, and bike-friendly and connected communities.

Goal 5. Greenspace Networks

Incorporate recreation areas, parks, quads, and open greenspaces that are accessible for service members and their families. Incorporate pedestrian pathways and connected sidewalks. Incorporate landscape buffers and enhancements along walkways and roadways. Utilize native plants and trees in landscaping.

2.5.4.2 Camp Smith

The following goals were developed during the Visioning Workshop for Camp Smith.

Goal 1. Architecturally Coherent

Promote a sense of importance that reflects the stature of the major commands. Maintain key historic buildings that define the character of the installation.

Goal 2. Functionally Efficient

Modernize aging facilities and infrastructure to increase energy efficiency.

Goal 3. Walkable Campus

Design campus-like environments that are safe, convenient, and comfortable. Interconnect buildings with well-connected pedestrian networks to enhance walkability and improve wayfinding. Provide adequate parking close to work centers.

Goal 4. Natural Setting

Redevelop on previously disturbed lands while leaving the gulch areas forested.

2.5.5 Measurable, Actionable Objectives

Planning objectives support an installation's goals and vision, and define how each of the goals can be achieved. Each objective is actionable, meaning that it can be done or acted upon. The objectives are also measurable, which enables the installation to determine whether it has been achieved (*UFC 2-100-01*).

Measurable objectives align with each of the major planning goals. Details can be found in the district ADPs.

2.5.5.1 MCB Hawaii Kaneohe Bay

Goal 1. Modern, Efficient, and Sustainable Facilities

Objectives:

- Redevelop aging warehouses with modern and efficient facilities
- Construct permanent 3d Marine vehicle shelters
- Redevelop The Cabanas
- Redevelop PMO Complex with a parking structure and storage facility
- Redevelop the Recycling Center
- Redevelop the Enlisted Club site
- Resite a new Mokapu Elementary School
- Redevelop BEQs
- Redevelop Engineering Services Company compound

Goal 2. Consolidated Functions

Objectives:

- Identify space for the redevelopment and expansion of future operations
- Reuse adequate facilities
- Provide district parking structure
- Construct new facilities with like functions
  - Locate 3d Marines boat storage facility close to the water
  - Locate MWSD organizational parking lot close to existing motorpool.
  - Locate Motor Transportation Complex at the Salvage Yard close to Public Works Complex
  - Locate Marine Corps Community Services (MCCS) self-storage facility with other warehouse and storage facilities
  - Expand private boat storage at the marina
  - Relocate golf course maintenance and cart storage
  - Consolidate ground unit headquarters around a parade ground
  - Expand Combat Assault Company (CAC) compound
- Consolidate fitness center, theater, and library around Mokapu Mall community core area
- Identify land for family housing infill development

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Goal 3. Optimize Training Capabilities

Objectives:

- Ensure there is not net loss of training areas or capabilities
- Expand indoor fitness facility
- Upgrade fuel pier to support high-speed vessel roll-on/roll-off operations
- Retain and expand open field training area
- (b) (7)(F)
- (b) (7)(F)
- (b) (7)(F)

Goal 4. Safe Campuses and Neighborhoods

Objectives:

- Relocate operations outside of the runway primary surface
- (b) (7)(F)
- (b) (7)(F)

Goal 5. Greenspace Networks

Objectives:

- Provide sidewalks and multi-use paths
- Develop beach park amenities

2.5.5.2 Camp Smith

Goal 1. Architecturally Coherent

Objectives:

- Construct new Joint Forces headquarters and demolish Building 20

Goal 2. Functionally Efficient

Objectives:

- Redevelop the aging and inefficient MARFORPAC headquarters
- (b) (7)(F)
- Redevelop BEQ into a campus with adequate parking

Goal 3. Walkable Campus

Objectives:

- Consolidate parking in close proximity to work centers
- Redevelop Elrod Road into a boulevard to improve pedestrian safety

Goal 4. Natural Setting

Objectives:

- Redevelop on previous developed lands

2.5.6 Action Plan & Installation Planning Board

The IPB is the action proponent of the master plan and is responsible for implementing the development plan in accordance with the regulating plan presented in Chapter 3, Installation Development Plan, and the Installation Development Standards in Chapter 4. The IPB is tasked with executing the base commander's highest priorities to address key program shortfalls that adversely affect the capability of the installation to accomplish its assigned missions. The IPB will update the IMP every five years to accommodate mission changes, update facility requirements, and reprioritize infrastructure needs.

2.6 Developable Land

A comprehensive site analysis of constraints was conducted during the preparation of the MCB Hawaii vision and further refined throughout the planning process. Figures 2-14, 2-15, and 2-16 are composite maps of manmade and natural constraints at MCB Hawaii Kaneohe Bay, Camp Smith, and Puuloa RTF. Along with the analysis of building condition and age, this information provides the basis for the Developable Area Maps shown on Figures 2-17, 2-18, and 2-19. The urban growth boundary, which defines the limits of existing and future development, is also shown. Specific environmental conditions, opportunities, and constraints that impact various areas are discussed in more detail in the ADPs.

The intent of this site analysis was to identify areas that are most appropriate for future development or redevelopment. Developable land is often land that is vacant or underutilized. If the land is currently developed, buildings may be in poor condition or of a certain age making them appropriate candidates for replacement or redevelopment. Areas were classified into four categories.

- **Developable:** Minimal natural and cultural constraints and free of buildings, roads, or parking
- **Potentially Developable:** Some existing horizontal infrastructure such as roads, parking, or playing fields
- **Developable with Constraints:** Relocatable facilities, infrastructure, or tenant functions; other manmade and/or natural/cultural resource constraints
- **Not Developable:** Mission-critical, newly constructed, or not relocatable facilities or infrastructure; natural, cultural, or environmental constraints

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Figure 2-14 **MCB Hawaii Kaneohe Bay Constraints Map**

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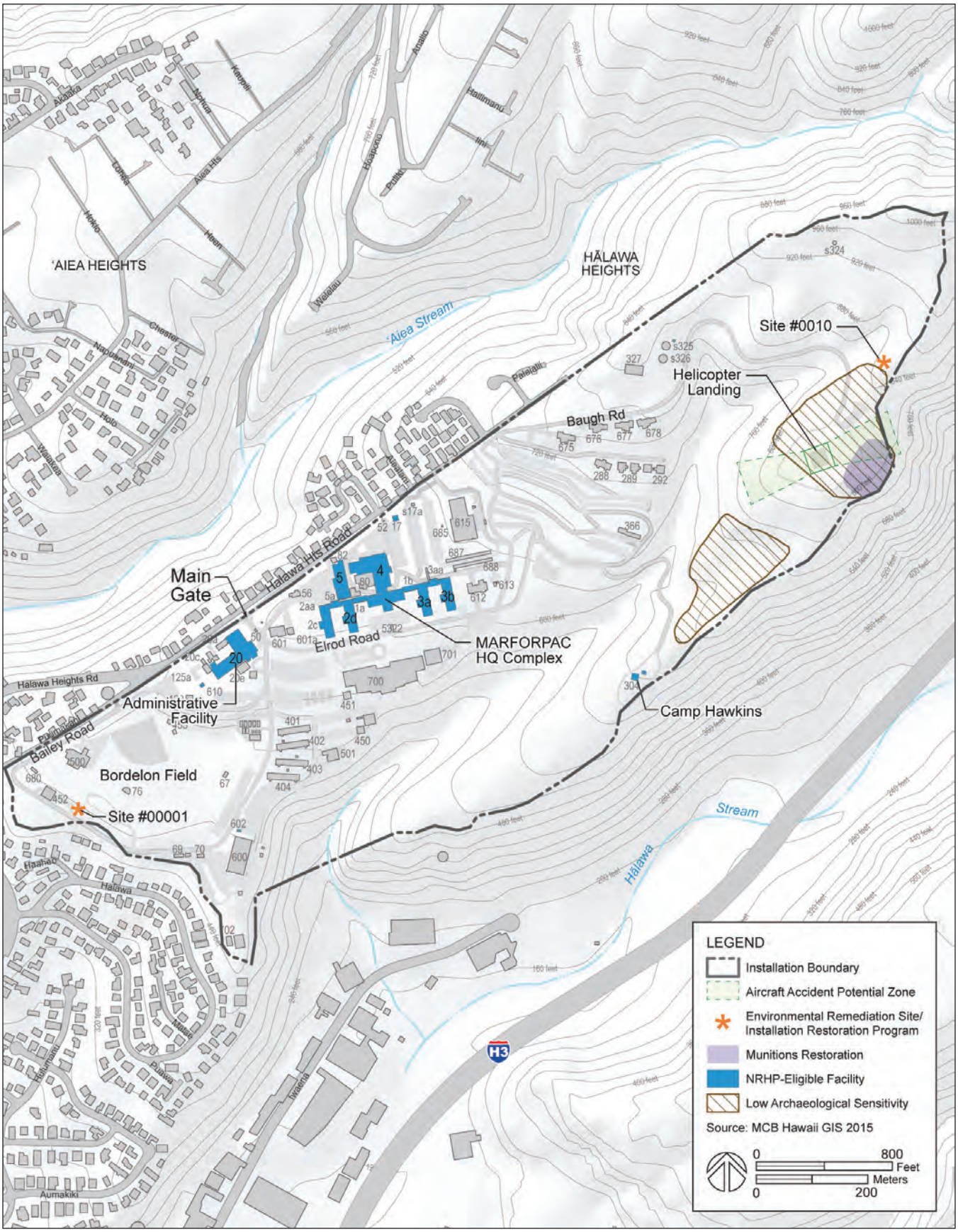

Figure 2-15 **Camp Smith Constraints Map**

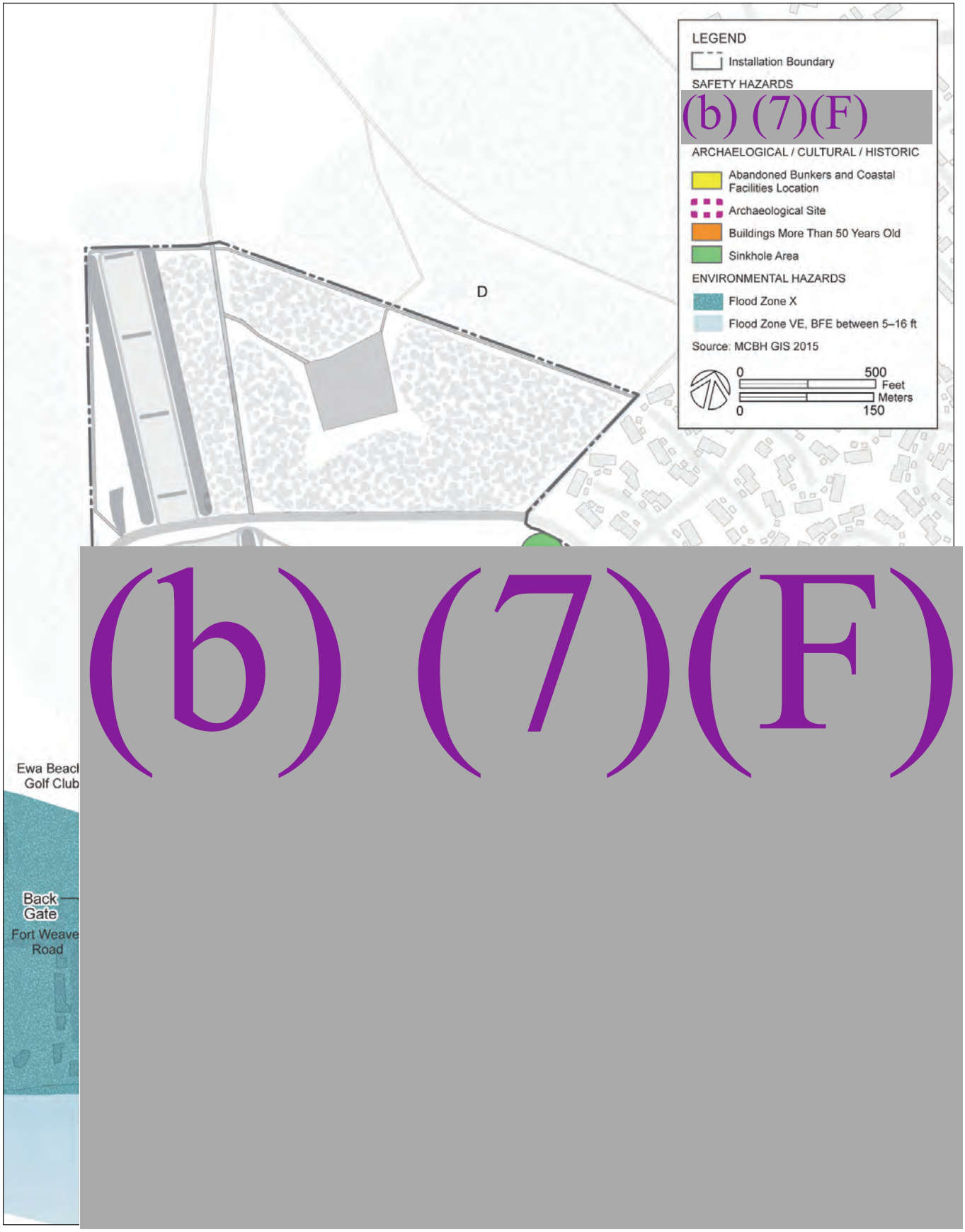

Figure 2-16 **Puuloa RTF Constraints Map**

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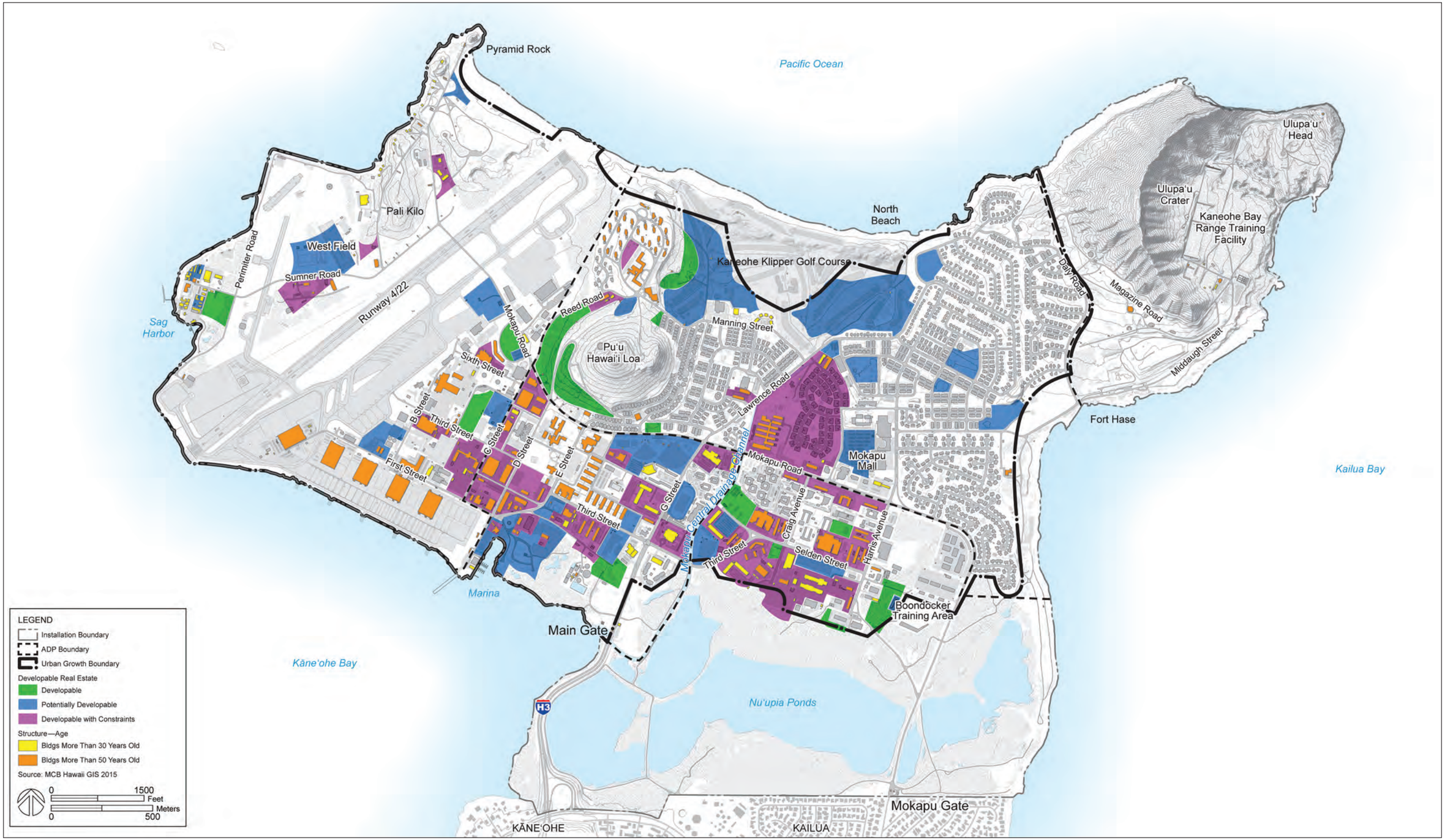

Figure 2-17 **MCB Hawaii Kaneohe Bay Developable Area Map**

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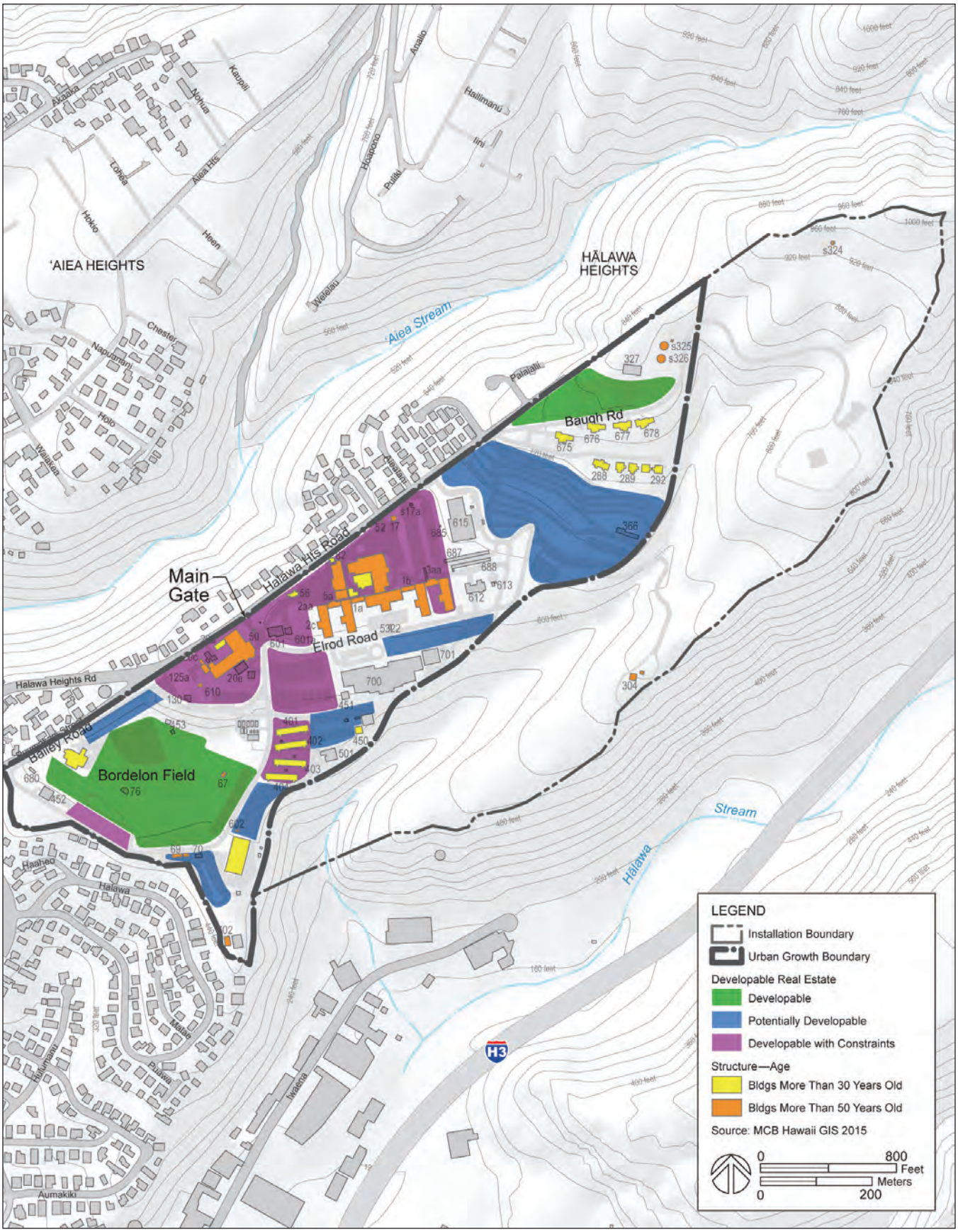

Figure 2-18 **Camp Smith Developable Area Map**

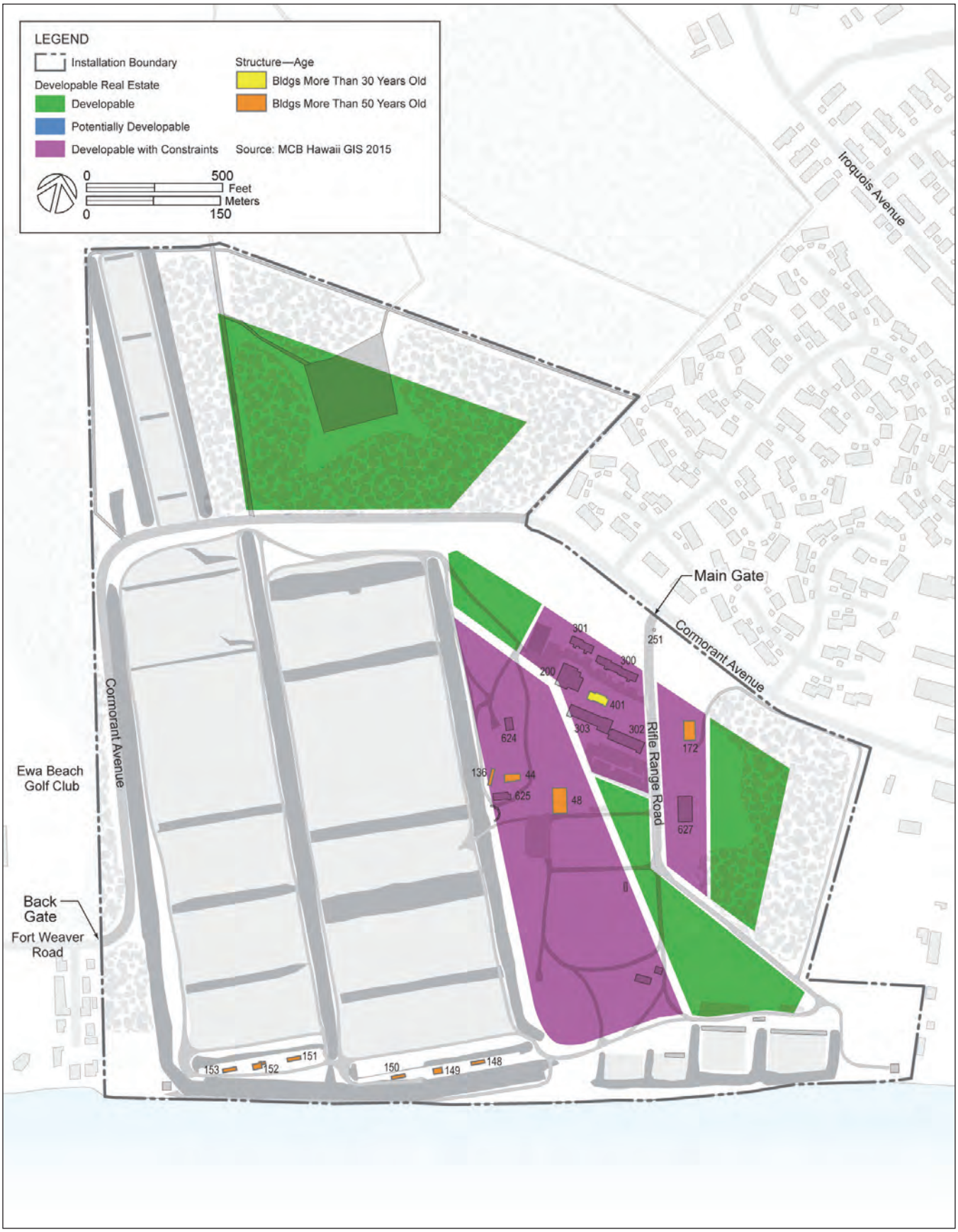

Figure 2-19 **Puuloa RTF Developable Area Map**

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2.7 Installation Framework Plan

A Framework Plan is created as part of the visioning process to identify specific planning districts to be developed as ADPs. Planning districts are areas within an installation that have defining characteristics such as mission type, land use, architectural style or other unifying themes. They can also be defined by geographic elements such as the physical landscape, circulation patterns, landmarks, nodes, paths, or boundaries.

2.7.1 District Framing Criteria

Planning districts are subareas within the installation that share some type of common identity, as described above. A district is often defined by its primary function but typically includes multiple uses. It is identifiable by features that distinguish it from its neighboring districts and is often delineated by natural or manmade boundaries such as topographical features and major roadways.

Five planning districts at MCB Hawaii Kaneohe Bay and one at Camp Smith were defined during the Visioning Workshop. Puuloa RTF was later determined to be treated as a planning district since it includes multiple land uses that support its primary function as a training range. Each of these districts are the subject of a separate and detailed ADP. At MCB Hawaii Kaneohe Bay the districts are the Aviation District, the Base Support District, the Ground Support District, the Community Support District, and the Ulupau District. Each district at MCB Hawaii Kaneohe Bay is described in the following section and is delineated on Figure 2-20.

2.7.2 Installation Districts

The Aviation District includes the runways and surrounding area and is defined by the presence of facilities and activities that directly support aircraft operations. Aircraft operations within the Aviation District generate various safety and noise constraints and impacts on surrounding areas. C Street and Reed Road generally define the eastern boundary of the district.

The Base Support District is adjacent to Aviation District and is bound by C Street, Mokapu Road, the Central Mokapu Drainage Channel, and the southern installation boundary. A major function of the district is to provide the administrative, public works, utility, supply, and medical facilities that support the overall operation of MCB Hawaii. The district also includes BEQ and a wide range of recreational facilities, including playing fields and courts, a marine, a bowling alley, a swimming pool, a skate park, an indoor fitness center, and the Enlisted Club. The main gate is located within this district.

The Ground Support District is located east of the Base Support District and is also delineated by the Central Mokapu Drainage Channel, Mokapu Road, and the southern and eastern installation boundary. The district provides administrative, medical, training, supply, and maintenance facilities to Marine Corps ground and logistics units, in particular the 3d Marines, 3d Radio BN,

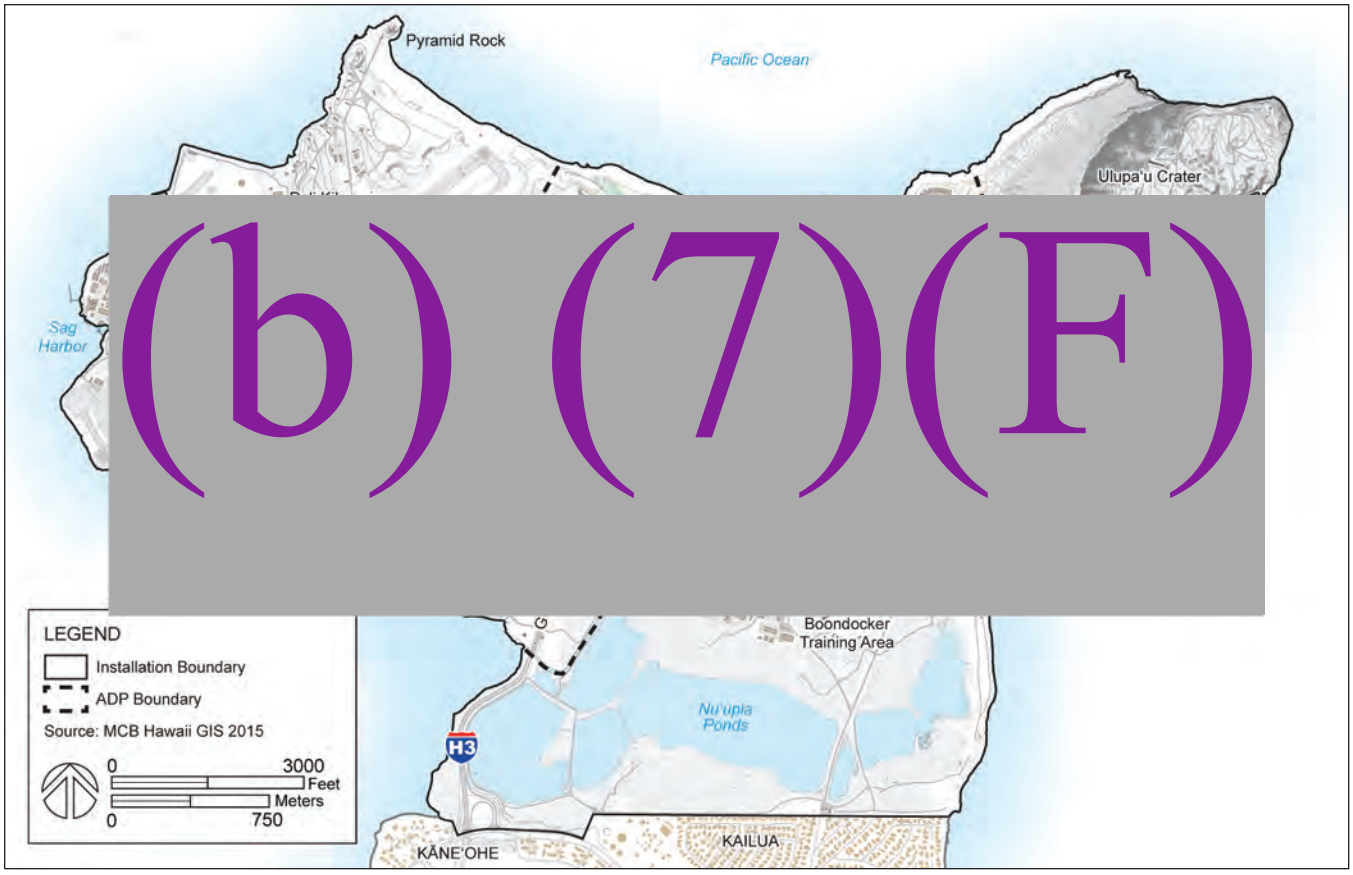

Figure 2-20 **MCB Hawaii Kaneohe Bay Districts**

and CLB-3. A majority of the district is covered by the Nu'upia Ponds WMA, a protected natural habitat where development is prohibited.

The Community Support District is the primary recreation and community support area at MCB Hawaii Kaneohe Bay. It encompasses the area north of Mokapu Road and includes the 18-hole Kaneohe Klipper Golf Course, the Mokapu Mall, family housing neighborhoods, and recreation areas.

The Ulupau District comprises the large, undeveloped area which extends out on the northeastern side of MCB Hawaii Kaneohe Bay. The district is dominated by a prominent volcanic feature known as Ulupa'u Crater. The Kaneohe Bay (b) (7)(F) landfill are within this district.

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2.7.3 Significant Features Influencing Development

During the vision and planning workshops, a detailed site analysis was prepared to identify features that influence future development. The site analysis assessed a building's physical condition (structural condition, height, use); landscape components such as topography, vegetation, and geographic features; areas with sensitive natural and cultural resources, and a "rights and blights" discussion in which stakeholders identified desirable and undesirable features around the installation. The results of the analysis assisted in developing the planning principles and preliminary planning concepts.

2.7.4 Planning Concepts

The *MCB Hawaii Vision Plan* identified preliminary planning concepts for MCB Hawaii Kaneohe Bay and Camp Smith. The plan noted that planning precepts "are concepts to be studied in more detail during the next planning phase of the process, which should result in detailed Area Development Plans for each district.... As the master plan evolves, precepts provide a template against which the effectiveness of design decisions can be measured. Precepts are diagrammatic in nature and are not prescriptive measures."

2.7.4.1 MCB Hawaii Kaneohe Bay

The following are planning concepts were used to develop more detailed plans for MCB Hawaii Kaneohe Bay.

Connected Pedestrian/Bike Ways

Encourage diverse transportation by creating a network of usable pedestrian and bicycle paths connecting destinations on the installation. Pedestrian and bike paths should be functional and pleasant to use, incorporating the planting of trees, a few feet of green buffer from roadways, and occasional benches.

Transit Network

Support effective transit across the installation, focus development around nodes along the transit network. These nodes can support a variety of compatible uses from shops to homes to offices. Transit stops should be placed at distances that allow for a maximum walk of 5 to 10 minutes.

Safe Routes to School

Create safe pedestrian and bicycle routes between family housing and schools. This will encourage children to use these transportation methods providing opportunities for outdoor exercise and socializing, and potentially reducing vehicular traffic.

Accommodate Future Unit Expansion

Plan for future operational needs through efficient use of existing land—including use of multistory buildings, pedestrian-oriented districts with few building setbacks, and mixed-use development, which limits the necessity of cars and, by default, the space they require.

Town Center
Develop at least one communal outdoor gathering place where people can congregate, shop, meet, and socialize. This community-forming element is largely missing at MCB Hawaii. The intent is to draw people together, increase foot traffic, support a retail presence, and contribute to both physical and mental health.

Wide Sidewalks
Create generously wide places for people to walk and bike, particularly in high-density, pedestrian-oriented districts.

Tree-Lined Streets
Where possible, plant shade trees at 15-ft intervals on streets 20 ft or wider to create shade, reduce heat, protect paved surfaces, reduce vehicle speeding, and generally improve the quality of the outdoor environment.

Waterfront Amenities
In order to optimize MCB Hawaii Kaneohe Bay's oceanfront location and improve personnel quality of life, amenities and new projects should seek to take advantage of natural breezes and viewsheds, and be positioned along the waterfront as appropriate.

Buildings Defining Open Space
Incorporate usable indoor and outdoor space in building design to create a sense of cohesiveness and organization in the context of the larger installation. Buildings situated around a common open space can foster a sense of community and common purpose.

(b) (7)(F)

Secure Flightline
As one of the key features of the installation, MCB Hawaii Kaneohe Bay's flightline must be guarded under a high level of physical security and surveillance. [redacted] are needed to protect the flightline and its resources.

Currently, privately-owned vehicles (POVs) are parked next to hangars on the flightline. For maximum efficiency and safety, POV parking and traffic should be removed from the flightline and separated airfield operations.

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Traffic Circles and Boulevards
Traffic circles and boulevards work together to manage traffic and reduce congestion. Because most congestion problems occur at sign- or light-controlled intersections, circles eliminate back-ups at these intersections as traffic can flow smoothly. Hence, lanes can be eliminated or converted to medians as part of an upgrade of streets to boulevards that carry the same amount of traffic on fewer lanes. Boulevards can handle significant traffic. Their medians accommodate protected left turn lanes, and the landscaping can reduce impervious surfaces across the installation.

District Parking
Reduce vehicular dependency and create a more walkable installation by consolidating parking for each district in one area, rather than multiple individual parking lots. The intent is to encourage people to walk from the parking structure to various buildings within a district. Consolidation of parking areas will also result in a more efficient use of land and promote a healthier lifestyle.

Flightline Amenities
The goal of creating a walkable and engaging base begins with addressing user needs at a pedestrian scale. Currently, the flightline district lacks the daily amenities that keep personnel engaged apart from their work. In order to eat out, exercise, or run errands, they must leave the district entirely. Instead of this divisive pattern, the downtown flightline district has the potential to support a diverse mix of uses that engage personnel, adding value, multi-dimensionality, and life to the area.

"Canal" Walk
The drainage channel that intersects with Mokapu Road east of G Street plays an important role in stormwater management. With enhancements, the drainage channel could also provide a pleasant and attractive outdoor environment. Improvements could include a walking path and trees along its length; attractive bridges; and a low, wide wall upon which passers-by can sit.

Co-Use Greenspace
Utilize public greenspace for multiple users and shared use. A well-designed greenspace can support ceremonies and processions, training activities, and recreation.

Community Gardens
Explore the possibility of establishing community gardens within the Community Support District of the installation. Community gardens provide outdoor areas where residents can gather and socialize, exercise, and grow healthful food. They contribute to community health, reduce the installation's carbon footprint, and are less expensive to maintain than parks or vacant lots.

Hidden Parking
In its efforts to become a base of diverse transportation, MCB Hawaii Kaneohe Bay must make conscious efforts to reduce the car-dominant atmosphere that is prevalent. By concealing parking behind or to the side of buildings, the street front can be used for pedestrian engagement. This precept does not imply that parking will be eradicated; it merely shifts the preferential treatment of urban design from vehicles to people themselves.

Consolidated Units
To the extent possible, consolidate compatible units in one building. Consolidation of compatible functions promotes better in-house communication, multi-disciplinary collaboration and allows shared use of amenities and services. Physical consolidation also promotes greater land use efficiency, as one multi-use building takes up less land area and is more energy efficient than many small structures.

Mokapu Main Street
Invest in developing Mokapu Road as the installation's main street, or primary corridor. Mokapu Road is already well used by vehicular traffic and is the principal route from place to place on the installation.

Connected Greenspace and Walkability
Connect greenspaces throughout the installation to create a functional and usable pedestrian and bike network, which can be utilized as a main transportation corridor. Providing desirable pedestrian or bike opportunities encourages multi-transportation modes, healthier living habits, and reducing vehicle use.

2.7.4.2 Camp Smith

The following are planning concepts used to develop more detailed plans for the Camp Smith ADP.

Connected Pathways
As a base that encourages pedestrian mobility, it is essential that Camp Smith be connected with a network of walkable paths that tie the buildings together. This transition away from automobile-dependent development will improve health on the installation, encourage outdoor activity, and reduce emissions.

Connected Transportation Network
While it is acknowledged that a universal vehicular approach is no longer recognized as desirable, an integrated transportation solution shall be implemented with the use of paved pathways, bicycle access, and a hierarchy of various road types. Consideration must be given to the pedestrian environment first.

Enhanced Traffic Flow
One of the ways that Camp Smith struggles is in its overabundance of vehicular activity. In order to better accommodate traffic and preserve the interior pedestrian environment, make improvements to Julian Street and Bailey Road

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so that they can act as a spine of vehicular traffic for the installation. As cars move further into the installation, there will be immediate opportunities to park, thereby eliminating trips to individual buildings and increased paved area.

Mission Campus

For maximum command efficiency, develop a cluster of headquarters buildings in campus form with functional adjacencies, walkability, and architectural relationship. These buildings will house the various departments of USPACOM and MARFORPAC, creating a unified center of command for the Pacific theater. With this precept employed, personnel, intelligence, operations, logistics, and communications branches will be able to work together seamlessly, share common spaces, and enjoy commonality that extends beyond their mission and into their physical environment.

Vehicle-Free Core

In the most densely built central area of Camp Smith, building users will be able to travel most efficiently between buildings by walking. By eliminating cars from the center of the installation, setback requirements are a thing of the past, space is used more efficiently, and offices can be closer together. This creates a unified complex of buildings that can profit from shared outdoor space, enjoy close and functional proximity, and act as a cohesive whole.

Central Quad

A principal element of the development language is the quad, a central lawn between the primary buildings that acts as a common green space. Quadrangles create beauty, structure, and ceremony among a group of buildings. The Quad at Camp Smith will be the epicenter of life and ceremony on the installation, and will be a pleasant alternative to the parking lots that coat the center today.

Secure Access Entry Control Point

(b) (7)(F)

Multi-level Parking

Because of the limited space on Camp Smith, it is important to use every square foot carefully. The lower cost of surface parking cannot be justified when land is at such a premium. In order to create a better pedestrian environment, reduce surface runoff, and consolidate development, build condensed multi-level parking. With that, space can be more efficiently used by cars, and will be free for more training areas, other buildings, or greenspace that filters stormwater runoff.

Perimeter Parking

Part of having a walkable installation core is the exclusion of parking in its center, which has an effect of spreading out development. Instead, build

parking along the less active edges of a property so that people in the center can enjoy a car-free, healthful environment, with the ability to walk to their destination from their cars.

2.8 Future Project Plan

During the Visioning Workshop, participants developed a preliminary programming list consisting of short term Facility Sustainment, Restoration, and Modernization projects and existing and desired MILCON projects and tied them to a location on MCB Hawaii Kaneohe Bay and Camp Smith. Figures 2-21 and 2-22 display the results of this process. These maps were the starting point for project validation conducted for the ADPs. Note that project numbering does not reflect priority.

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Figure 2-21 **MCB Hawaii Kaneohe Bay Future Project Plan**

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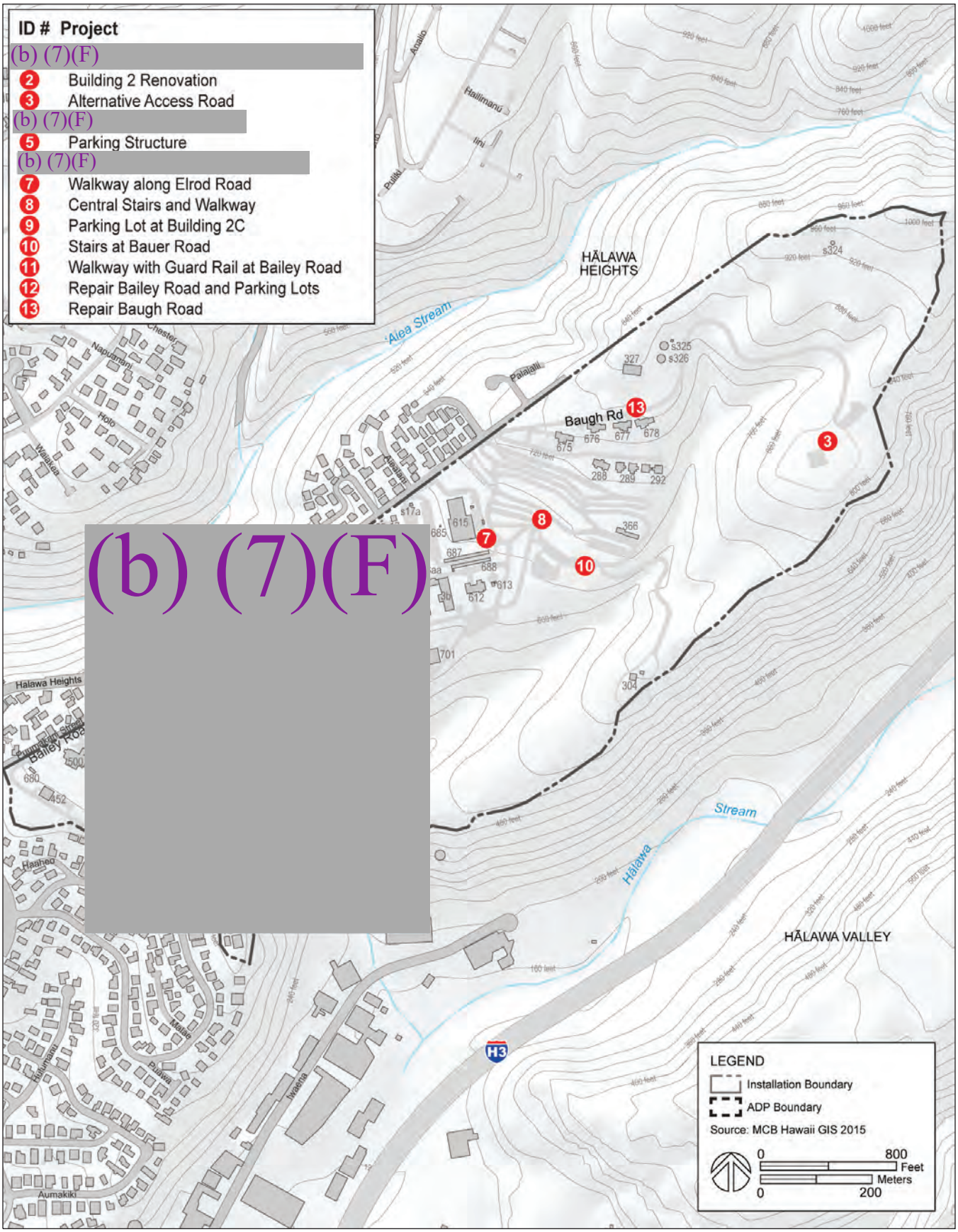

Figure 2-22 **Camp Smith Future Project Plan**

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3

INSTALLATION DEVELOPMENT PLAN

Photo by HHF Planners

3 Installation Development Plan

Chapter 3, Installation Development Plan, presents a long-term plan to provide mission capabilities, promote compact development, efficiently reuse existing structures, protect historic character, and enhance pedestrian mobility and safety. The plan shows how district-level planning—such as facility development, transportation improvements, green infrastructure corridors, and utility systems presented in the ADPs — connects and integrates across the installation. Development actions at Special Areas are also summarized. ADPs and FSPs contained in the *MCB Hawaii Installation Master Plan: Component Plans* provide detailed plans. No development is planned for Manana Family Housing or WVIA.

Since the last master plan—*Marine Corps Base Hawaii Master Plan* (May 2006)—there has been a shift in DoD strategy to build-up forces in the Pacific Region. Many of the studies and assessments that have analyzed these future changes, as well as other environmental, cultural, and operational plans, have been integrated into this master planning effort. Recent and anticipated changes at MCB Hawaii with regard to the regional realignment of forces is discussed in Chapter 2, Vision Plan.

(b) (6) an automatic rifleman with India Company, 3rd Battalion, 3rd Marine Regiment, and Lubbock, Texas, native, patrols Boondocker Training Area with his squad while practicing various signals, tactics and maneuvers aboard Marine Corps Base Hawaii, August 2015. (U.S. Marine Corps photo by (b) (6) Released)

Source: www.mcbhawaii.marines.mil

3.1 Integration of Planning Documents

The IMP integrates information from environmental documents, management plans, engineering studies, site surveys, and other subject-specific studies. The following sections describe the documents and how they influence future development at MCB Hawaii.

3.1.1 ADP Summaries

MCB Hawaii Kaneohe Bay

Each of the five districts at MCB Hawaii Kaneohe Bay has its own defining functions, setting, and geographic features. Collectively, they provide the facilities and infrastructure to support the MCB Hawaii mission.

The *Aviation District ADP* proposes to construct new hangars and support (b) (7)(F) structures, and reserve land for future mission growth. Recreational facilities will be upgraded and expanded.

The *Base Support District ADP* recommends redevelopment of the PMO and Motor Transportation complex, modernization of inefficient warehouses, reuse of existing buildings for the consolidation of administrative functions, and expansion of community support facilities. Upgrades to the water reclamation facility and (b) (3) (A), (b) (7)(F)

The *Ground Support District ADP* proposes to increase density through redevelopment of aging facilities while preserving training areas and maximizing land for future mission growth. Bachelor housings, headquarters, warehouses, and training facilities will be will be redeveloped into distinct complexes.

The *Community Support District ADP*—dominated by family housing and the Kaneohe Klipper Golf Course—proposes to expand retail operations at Mokapu Mall, relocate the library and theater into the district, continue the base-wide multiuse path network, and redevelop Mokapu Elementary School.

(b) (7)(F)

Camp Smith

The *Camp Smith ADP* proposes redevelopment of the MARFORPAC and other tenant commands facilities, (b) (7)(F) (b) (7)(F) and construction of parking structures to meet the parking demand.

Puuloa RTF

(b) (7)(F)

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3.1.2 Environmental Documents and Management Plans

The following environmental documents and management plans were used as resources to prepare the IMP.

3.1.2.1 NEPA Documents

National Environmental Policy Act (NEPA) documents are prepared to assess the environmental and related social and economic effects of a proposed action by a federal agency. Relevant documents to MCB Hawaii include the following.

Final Environmental Assessment (EA) for Hawaii Joint Services Solar Power Generation. Naval Facilities Engineering Command, Pacific for Commander Navy Region Hawaii. May 2013.
The EA evaluates a proposal to provide suitable sites on DoD installations in Hawai'i to a private entity for the installation and operation of photovoltaic (PV) systems in order to reduce the installations' reliance on non-renewable energy. The EA identifies 28 buildings, eight parking areas or structures, and three ground sites at MCB Hawaii Kaneohe Bay, Camp Smith, Puuloa RTF, and PCA.

Environmental Impact Statement (EIS) for the Basing of MV-22 and H-1 Aircraft in Support of III MEF Elements in Hawai'i, Volumes I and II. Department of the Navy. June 2012.
The EIS assessed potential environmental impacts associated with the proposed basing of MV-22 Osprey tiltrotor aircraft and H-1 Cobra and Huey attack and utility helicopters in Hawai'i. The introduction of these aircraft in Hawai'i is part of the Marine Corps' plan to restructure its forces in the Pacific over the next 10 years. The EIS identifies the necessary facility needs to support the basing and training of the squadrons.

Final Supplemental Environmental Impact Statement for the Introduction of the P-8A Multi-Mission Maritime Aircraft into the U.S. Navy Fleet. Department of the Navy. April 2014.
This EIS supplements and incorporates the *Final Environmental Impact Statement for Introduction of the P-8A Multi-Mission Maritime Aircraft into the U.S. Navy Fleet* completed in 2008. The proposed alternatives presented in the Supplemental EIS consider a permanent, rotating squadron detachment of two P-8A at MCB Hawaii Kaneohe Bay to support USPACOM requirements. The Supplemental EIS identifies facilities requirements for the permanent detachment.

3.1.2.2 Integrated Natural Resources Management Plan

As a responsible steward of land, MCB Hawaii is responsible to follow established guidelines for the management, conservation, and protection of natural resources.

Marine Corps Base Hawaii, Integrated Natural Resources Management Plan (INRMP) Update, 2012–2016. November 2011.
MCB Hawaii is required to prepare, implement, and regularly review plans to manage their natural resources. The INRMP updates the original *2001 MCB*

Hawaii INRMP/EA and *2006 INRMP Update*. The main purpose is to guide the implementation of MCB Hawaii's natural resources management program. The INRMP identifies sensitive habitat, wetlands, and other natural resource areas where development should be avoided.

3.1.2.3 Integrated Cultural Resources Management Plan

In support of Marine Corps policy to responsibly manage and maintain cultural resources, the Integrated Cultural Resources Management Plan (ICRMP) is a comprehensive program that considers the preservation of historic, archaeological, architectural, and cultural values and resources.

Update to the Integrated Cultural Resources Management Plan, Marine Corps Base Hawaii, 2014–2019. Department of the Navy, Naval Facilities Engineering Command, Pacific. June 2014.
The goal of the ICRMP is to preserve and protect significant cultural resources on lands that are administered by MCB Hawaii. The ICRMP is a multi-year plan that supports the military mission by identifying compliance actions required by applicable federal laws and regulations concerning cultural resources management. The ICRMP is consulted when land uses changes are made or new facilities are sited to identify any impacts to cultural resources that may occur from development.

3.1.2.4 Range Control Management/Airfield Plan/Harbor Plan

Existing and proposed construction at MCB Hawaii supports mission requirements defined in the latest guidance from Marine Corps Headquarters.

The *Marine Aviation Plan 2015* was prepared under the authority of Marine Corps Deputy Commandant for Aviation and covers the topics of the Marine Corps Operational Landscape, Expeditionary Aviation Program and Concepts, and the Marine Aviation Organization and Enterprise. The *Aviation Plan* maps where and when Marine Corps aviation assets will be located. As discussed in Chapter 2, aviation units at MCB Hawaii Kaneohe Bay will continue to undergo realignment.

The *Ground Combat Element (GCE) 2013 Roadmap* outlines the organizational and operational transition of the Marine Corps due to the draw down in Afghanistan. The document presents the current and proposed laydown of GEC forces in Hawai'i through 2017. However, no changes in the ground units at MCB Hawaii are expected.

3.1.2.5 Defense Logistics Agency Energy

Not applicable to MCB Hawaii.

3.1.2.6 Department of Defense Explosive Safety Board Explosives Safety Site Plans

The Department of Defense Explosive Safety Board (DDESB) has an explosives safety site approval process that is mandatory for validating requirements

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before issuing design contracts. Entire facilities and/or areas must go through the process and be validated by Naval Ordnance Safety and Security Activity and Marine Corps Systems Command. All potential explosion sites (PES) and exposed sites within 110 percent of inhabited building distance from any PES must be tracked along with explosives limits, site approvals, deviations (such as waivers and exemptions), engineer analyses, and compensating measures.

3.1.2.7 Department of Defense Education Activity

Not applicable to MCB Hawaii.

3.1.2.8 Other Plans

The *Marine Corps Base Hawaii Strategic Plan* (2015) outlines the mission, vision, priorities, guiding principles, and core competencies of the installation. The plan provides the mission priorities of MCB Hawaii which include security and safety of people and property; readiness of forces through effective training venues; and responsible resource management of people, funding, and property.

3.1.3 Engineering Studies & Site Surveys

No engineering studies or site surveys were conducted for the IMP, but previous studies were used to understand the existing utilities networks at MCB Hawaii.

The *Utility System Capacity Study, Marine Corps Base Hawaii Kaneohe Bay* (2013) provides an overview of the existing water and wastewater systems at the installation and presents recommendations to improve to these systems.

3.1.3.1 Intermodal Transportation Plan

Although there is no intermodal transportation plan for MCB Hawaii, the *Bicycle Route Planning Study for MCB Hawaii Kaneohe Bay* (2012) provides recommendations for implementation of a bikeway system across the base.

3.1.4 Other Subject-Specific Studies

The *Marine Corps Base Hawaii Optimization Study* (2013) and the *O'ahu Land Use Study* (2013) were prepared in response to an ongoing DoD process to evaluate the realignment of forces in the Pacific Region. The study identifies development opportunities that may be used to satisfy long-term requirements associated with relocation of units from Okinawa, Japan under the Defense Policy Review Initiative.

The *United States Marine Corps Hawaiian Island Range and Training Requirements, Capability Analysis, and Alternatives Feasibility Study* (2014) documents that Marines require a variety of physical spaces—land, sea, and air—to conduct realistic and meaningful training exercises at different unit levels to maintain their required operational readiness. These spaces include fields to practice small unit formations or command posts, live-fire and demolition training ranges, and extensive areas for large unit maneuvering supported by aircraft and amphibious vehicle landings. O'ahu has very limited areas to support

these types of activities, therefore maintaining and enhancing the capabilities of current training areas are a major priority to ensure that operations may continue unimpeded in the future.

The *Camp H.M. Smith Historic Landscape Reports, Pre-Final* (December 2015) documents and recommends treatment for the long-term management of historic landscape resources. A separate historic landscape report is currently underway for MCB Hawaii Kaneohe Bay.

The *Air Installation Compatibility Use Zones (AICUZ) Study Update, Marine Corps Base Hawaii Kaneohe Bay* (2009) addresses land use compatibility around the airfield by establishing safety zones, height restrictions, and permitted noise exposure impacts to ensure the continued safety of both airfield operators and the surrounding military and civilian communities.

3.2 Network Plan

Network plans presented in this chapter provide an installation-wide perspective of future development at MCB Hawaii Kaneohe Bay, Camp Smith, and Puuloa RTF. The plans incorporate information from the planning districts into an Illustrative Plan, a Circulation Plan, a Green Infrastructure Plan, and Utility Plans.

3.2.1 Illustrative Plan

The Illustrative Plan graphically portrays recommended future development that supports the overarching planning vision and goals. Illustrative Plans for MCB Hawaii Kaneohe Bay, Camp Smith, Puuloa RTF, and the other Special Areas are shown on Figures 3-1 to 3-3.

MCB Hawaii Kaneohe Bay

Overall, the Illustrative Plan for MCB Hawaii Kaneohe Bay shows new construction, road realignments, consolidation of facilities by functions, additional open areas for training, and lands reserved for future development.

Camp Smith

The Camp Smith Illustrative Plan shows an improved circulation network, new construction to replace inefficient and aging facilities, and areas reserved for future development.

Puuloa RTF

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Figure 3-1 **MCB Hawaii Kaneohe Bay Illustrative Plan**

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Figure 3-2 **Camp Smith Illustrative Plan**

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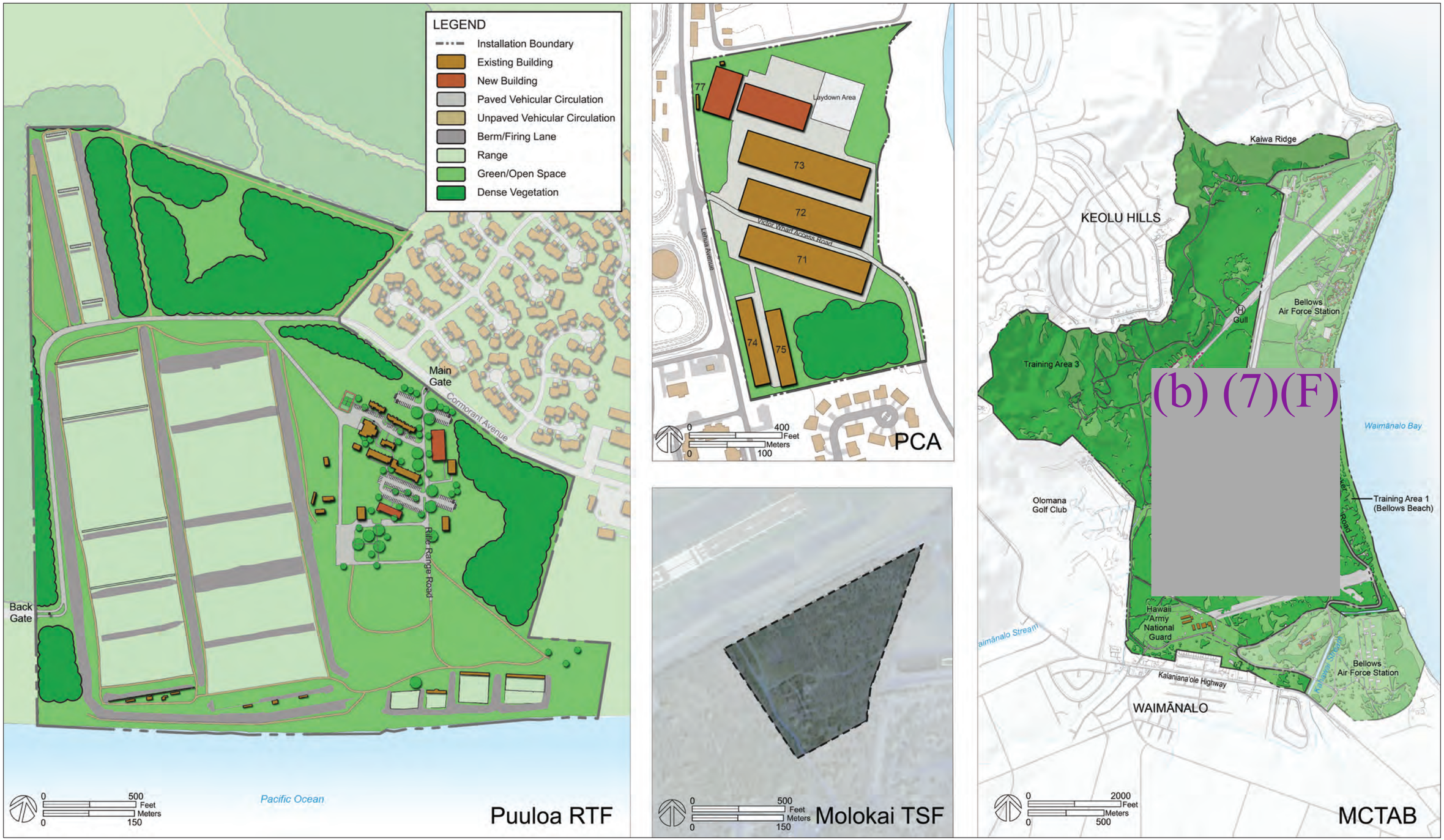

Figure 3-3 **Puuloa RTF and Special Areas Illustrative Plans**

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Special Areas

Proposed improvements for MCTAB, PCA, and Molokai TSF are also shown on Figure 3-3. Landing zones at MCTAB will be improved and (b) (7)(F) (b) (7)(F) At PCA, storage will remain the primary function and will incorporate a long-term deployment lot with PV shade covers. If Molokai TSF is reactivated as a refueling point, a fence is needed to secure the area for equipment and personnel. No development actions are proposed for Manana Family Housing Area and WVIA.

3.2.2 Circulation Plan

The Circulation Plan incorporates a network of roadway types, public transit routes, and bicycle and pedestrian paths to provide an efficient, logical, and multi-modal circulation network. The various circulation elements link existing and proposed parking lots and structures to primary live, work, and play areas on the base.

MCB Hawaii Kaneohe Bay

The Circulation Plan for MCB Hawaii Kaneohe Bay is shown on Figure 3-4. The plan largely maintains and enhances the existing circulation pattern at the installation. The realignment of the Third and E Streets intersection is proposed provide the necessary AT/FP setbacks to reuse Building 212 as an administrative office and to improve the vehicular traffic flow to and from First Street.

In the Aviation District, existing sidewalks and bike facilities are minimal and do not connect to other pedestrian or bicycling networks. However, factors such as relatively short distances from work centers to housing areas, low vehicular speed limits, consistently mild weather, and generally flat terrain make walking and bicycling ideal at MCB Hawaii Kaneohe Bay. In order to increase walkability and bicycling, an east–west multipurpose pathway alignment has been planned. This corridor provides pedestrians and bicyclists a dedicated route from the family housing areas to work areas throughout the installation. Planned bike storage shelters at housing areas and work centers will also promote bike usage.

District parking structures are proposed to reduce the surface parking requirement. Centrally located within each district, parking structures can be shared among multiple facilities or buildings. Most work centers are located within a 10-minute walking radius from a parking structure. Along with a complete pedestrian network, this will help to decrease the number of vehicular trips at the installation.

Camp Smith

The Circulation Plan for Camp Smith, shown on Figure 3-5, improves vehicular traffic and pedestrian safety, provides for the required number of parking stalls, and increases walkability. The realignment and extension of Julian Road provides direct access to a proposed parking structure north of the Building 1 Complex. A second parking structure is proposed southeast of the Bailey Road and Elrod Road intersection. With parking consolidated in these structures and other proposed surface lots, fewer vehicles will need to travel on Elrod Road, which will improve safety for pedestrians.

Puuloa RTF

(b) (7)(F)

3.2.3 Green Infrastructure Plan

A Green Infrastructure Plan was developed for MCB Hawaii Kaneohe Bay and is shown on Figure 3-7. The plan identifies existing and proposed parks, open spaces, the golf course, recreation fields, and significant bodies of water, including wetlands and ponds. Green, open spaces provide physical and visual relief to the built environment, as well as a natural setting for recreation and training. The Nu'upia Ponds, shoreline areas, and waterways provide wildlife habitat for waterfowl and migratory birds.

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Figure 3-4 **MCB Hawaii Kaneohe Bay Circulation Plan**

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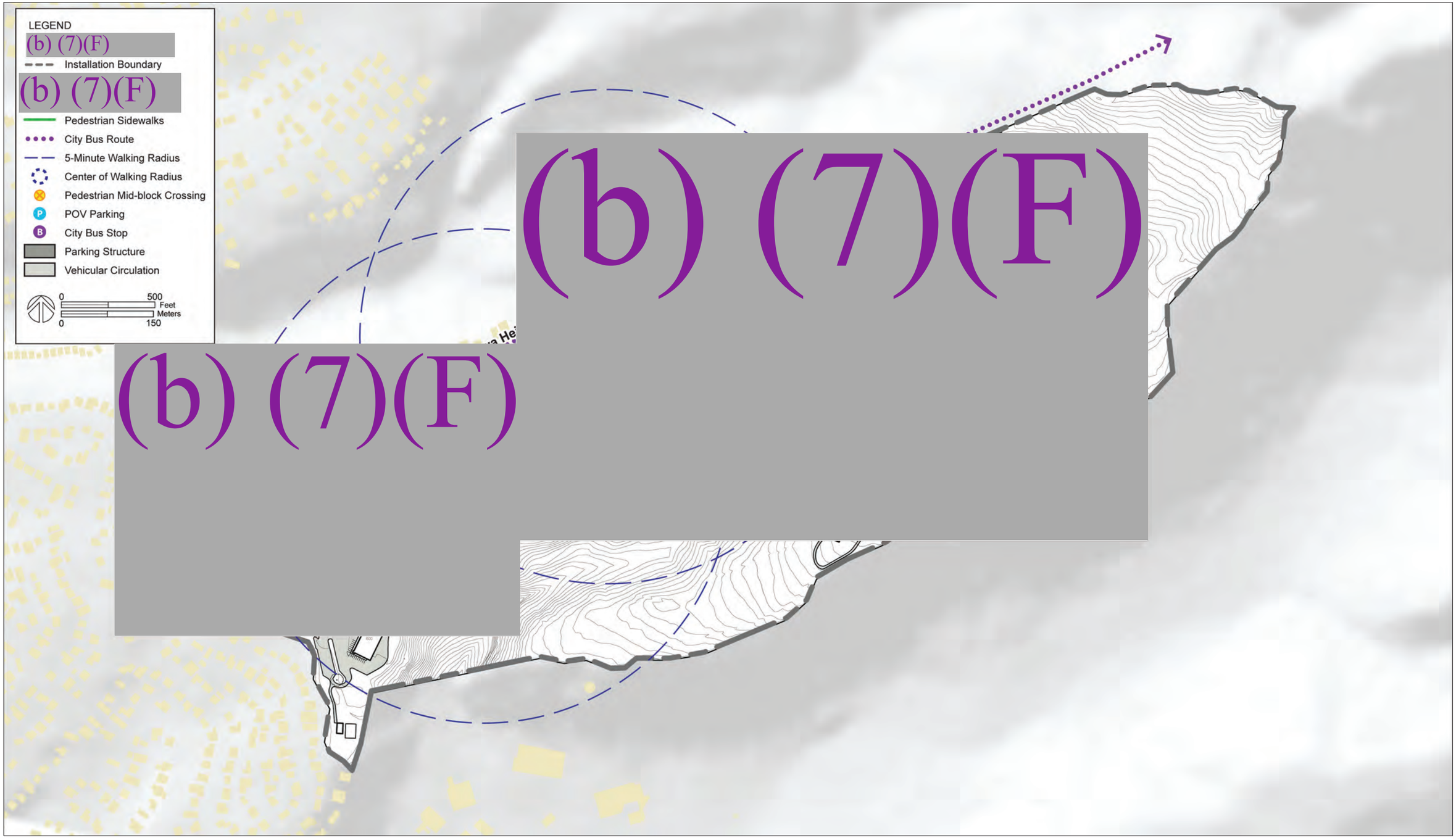

Figure 3-5 **Camp Smith Circulation Plan**

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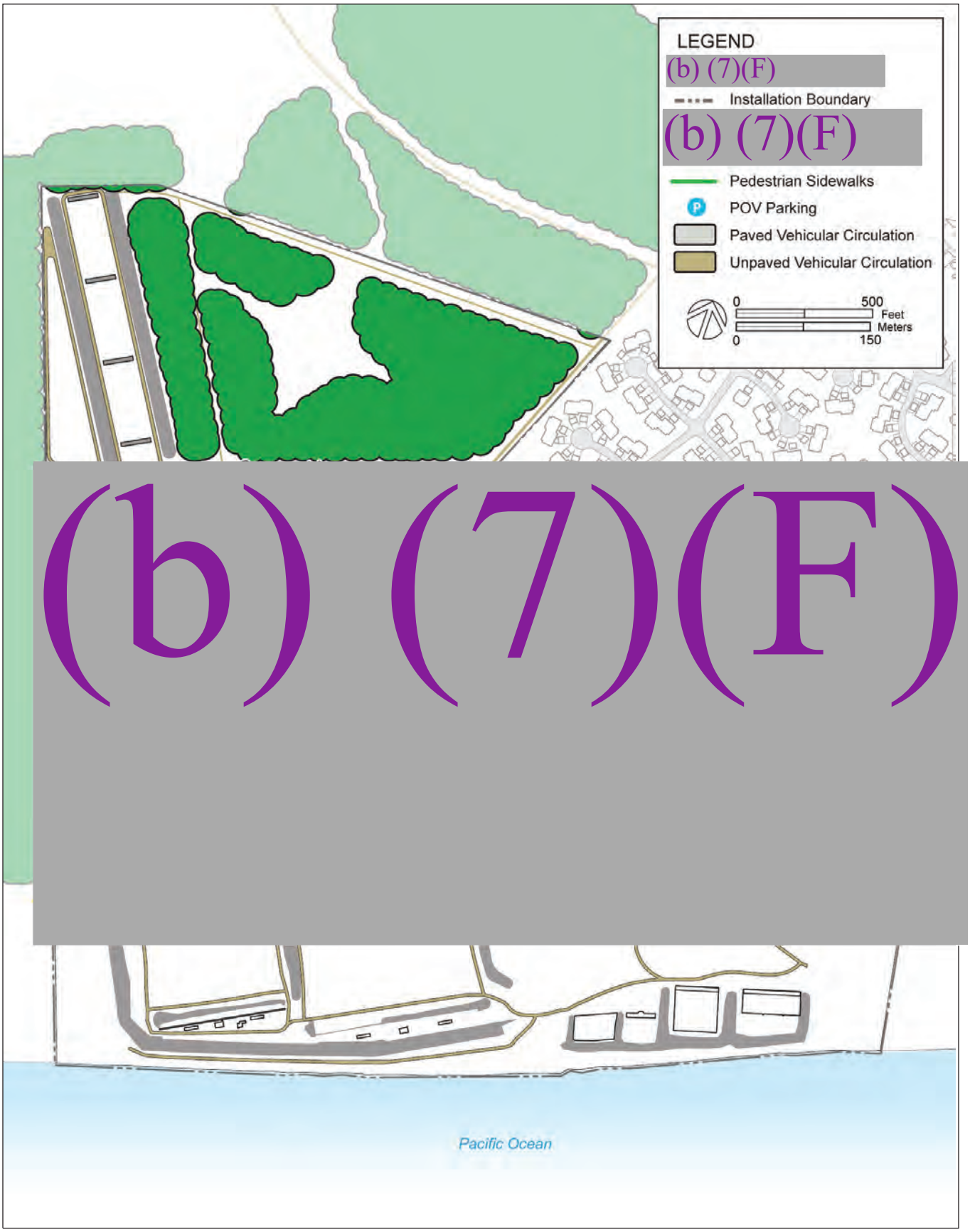

Figure 3-6 **Puuloa RTF Circulation Plan**

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Figure 3-7 **MCB Hawaii Kaneohe Bay Green Infrastructure Plan**

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3.2.4 Primary Utility Plan

The following sections provide an overview of the water, electrical, wastewater, stormwater, and communication systems at MCB Hawaii Kaneohe Bay, Camp Smith, and Puuloa RTF.

3.2.4.1 Water System

Figure 3-8 illustrates the MCB Hawaii Kaneohe Bay water distribution system that is operated and maintained by the Facilities Department. The potable water distribution system includes approximately 240,000 ft of water lines, two pump stations, five reservoirs tanks, altitude valves, sectional valves, service valves, pressure regulating valves, fire hydrants, water meters, and a chlorination and fluoridation facility. Water comes from the BWS to the installation via a 20-in transmission main at the Mokapu Gate and connects to Building 5014, where the water is chlorinated and fluoridated. In general, the water supply, distribution, and storage capacity at MCB Hawaii Kaneohe Bay is adequate for existing and future needs.

BWS is under contract to provide 5,200 gallons per minute at 60 pounds per square inch (psi); however, actual service since 1999 has ranged from 100 to 110 psi. Daily water use measures approximately two million gallons per day (mgd) with adequate pressure for all existing general uses.(b) (7)(F) (b) (7)(F) However, the capacity of the transformer supporting this facility limits the number of pumps that can operate at the same time, thereby limiting the amount of water pressure the installation can organically generate. There are no potable water wells on MCB Hawaii Kaneohe Bay.

The Camp Smith water system, illustrated on Figure 3-9, is owned and operated by NAVFAC HI. The system includes one 400,000-gallon tank and two 200,000-gallon tanks.(b) (7)(F) (b) (7)(F)

(b) (7)(F)

3.2.4.2 Wastewater System

Figure 3-11 illustrates the wastewater collection system at MCB Hawaii Kaneohe Bay that is operated and maintained by the Facilities Department. The system is comprised of approximately 920 manholes, 171,800 ft of gravity sewers and force mains, and 20 pump stations. Wastewater is collected and conveyed to the Water Reclamation Facility (WRF) located west of the main gate in the Base Support District. The WRF is a secondary biological treatment plant. MCB Hawaii plans to upgrade the treatment and electrical systems of the plant in the near-term to provide redundancy for critical systems. Some treated R2-quality effluent is pumped to the Kaneohe Klipper Golf Course for irrigation while the rest is routed to the CCH's Kailua Wastewater Treatment Plant (WWTP) for discharge through the Mōkapu deep ocean outfall. The wastewater collection system is generally adequate to support any anticipated increase in population.

Camp Smith and Puuloa RTF wastewater systems are owned, operated, and maintained by NAVFAC HI and are shown on Figures 3-12 and 3-13. Camp Smith's system consists of a series of gravity lines that convey domestic sewage to the Navy's Pearl Harbor system.

The Puuloa RTF system consists of gravity lines and force mains that convey sewage to the CCH's 'Ewa interceptor sewer system, which, in turn, conveys the flow to the Hono'uli'uli WWTP located near Barbers Point. The treated effluent is discharged through the Barbers Point Ocean Outfall.

3.2.4.3 Stormwater System

The MCB Hawaii Kaneohe Bay storm drainage system includes box culverts, drainage pipelines and ditches, as shown on Figure 3-14. Over 20 storm drain outlets discharge into Kāne'ohe Bay, Kailua Bay, and Nu'upia Ponds.

Camp Smith contributes stormwater runoff to two separate streams and drainage basins. The majority of stormwater flows south via drainage intakes that lead to the ravine and eventually feed the North Hālawa Stream. Select areas adjacent to Halawa Heights Road discharge to a utility easement maintained by NAVFAC HI and owned by the CCH. Surface drainage from the utility easement discharges to a CCH municipal stormwater system and eventually to 'Aiea Stream. The existing stormwater drainage system has been developed and fixed unsystematically over time—with some sections over 70 years old—leading to a growing number of deficiencies. The Camp Smith stormwater system is shown on Figure 3-15.

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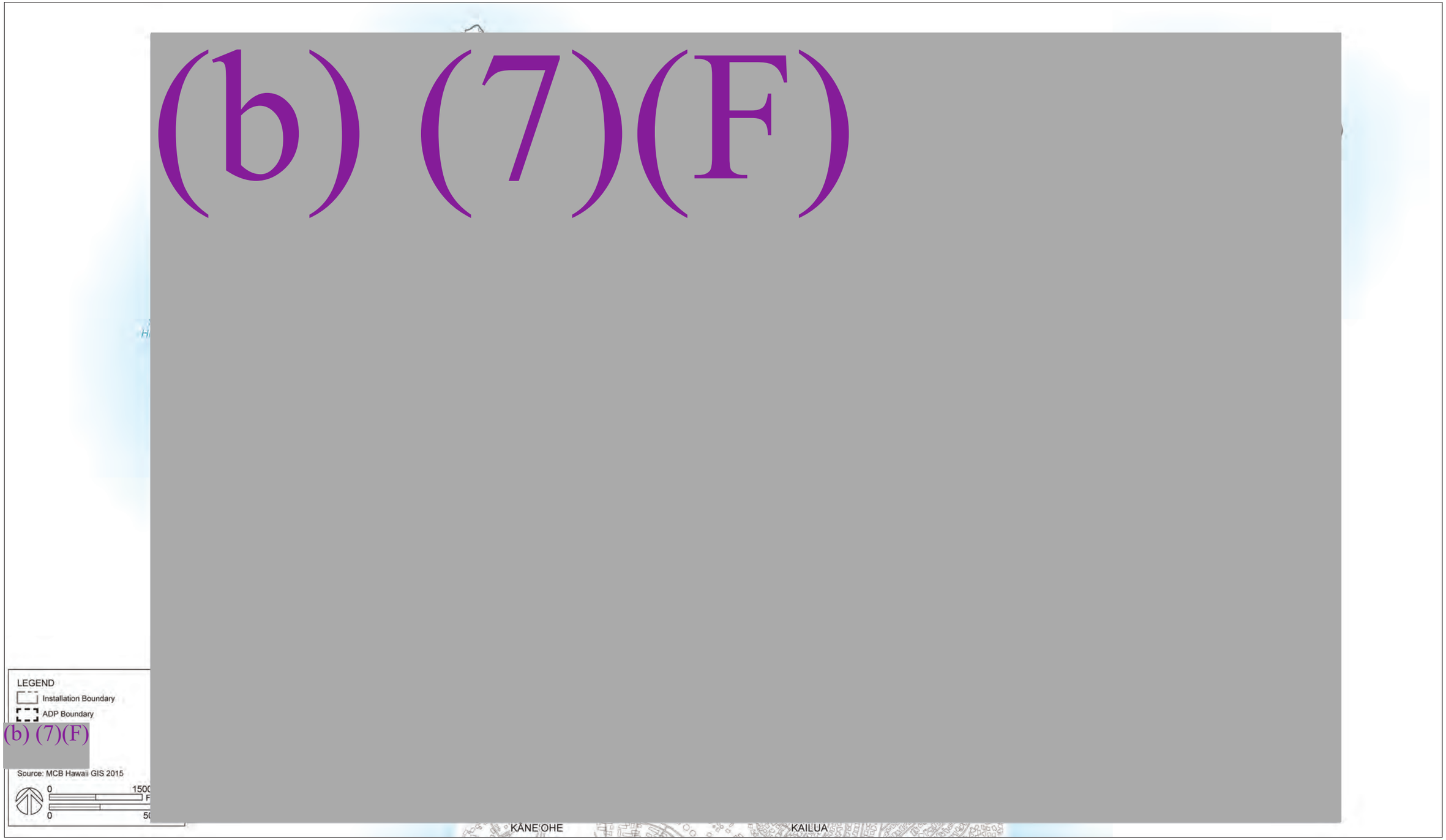

Figure 3-8 **MCB Hawaii Kaneohe Bay Water System Plan**

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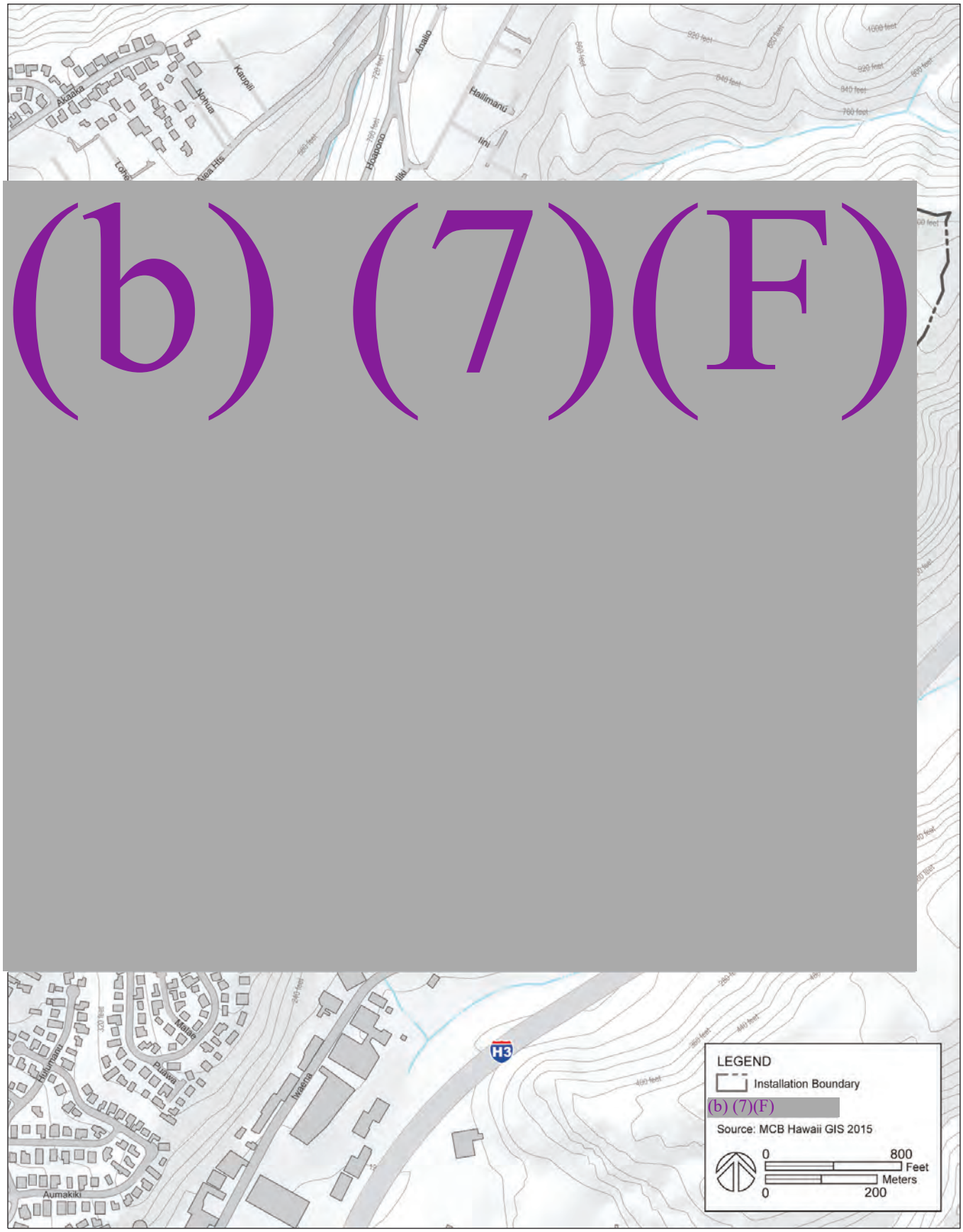

Figure 3-9 **Camp Smith Water System Plan**

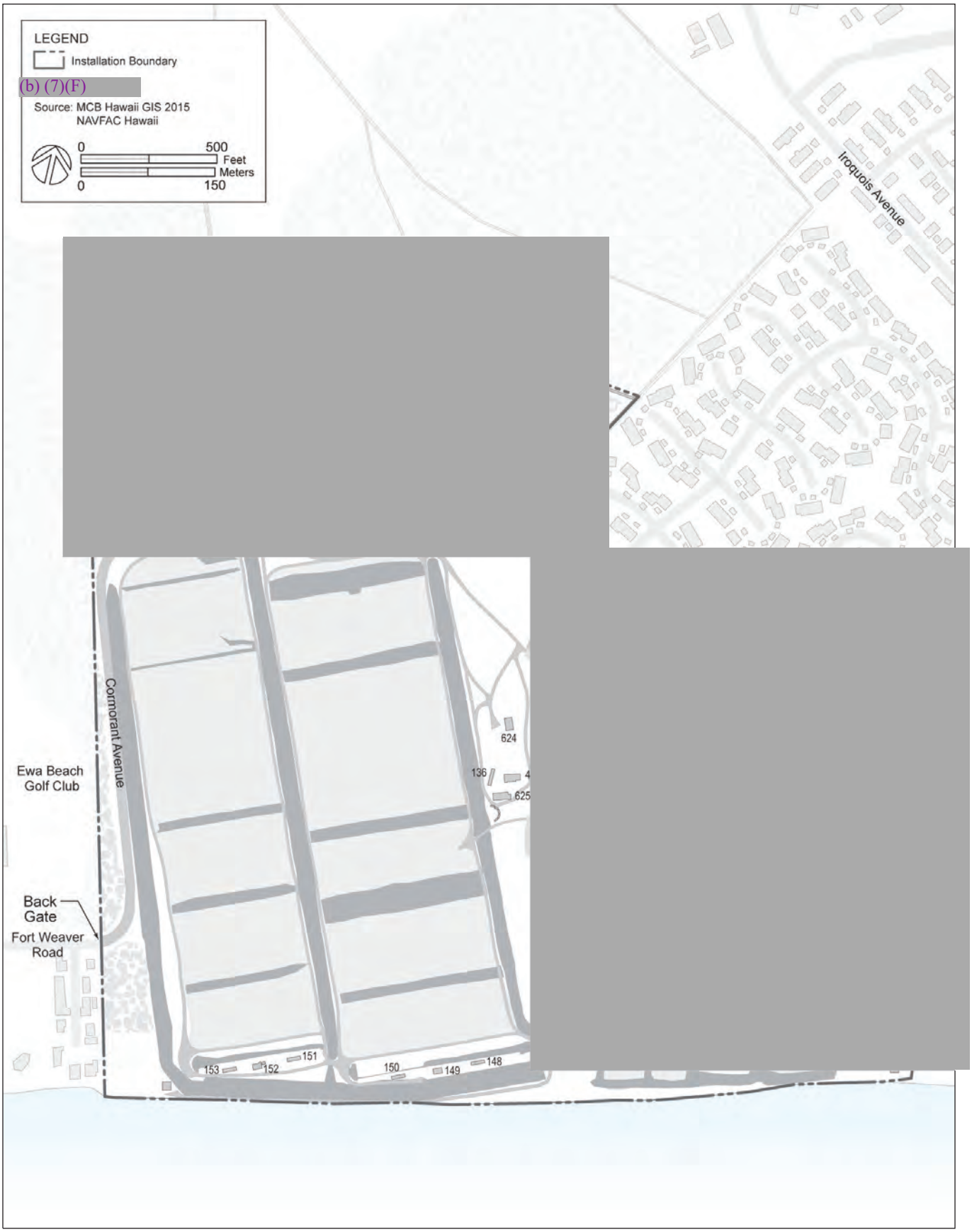

Figure 3-10 **Puuloa RTF Water System Plan**

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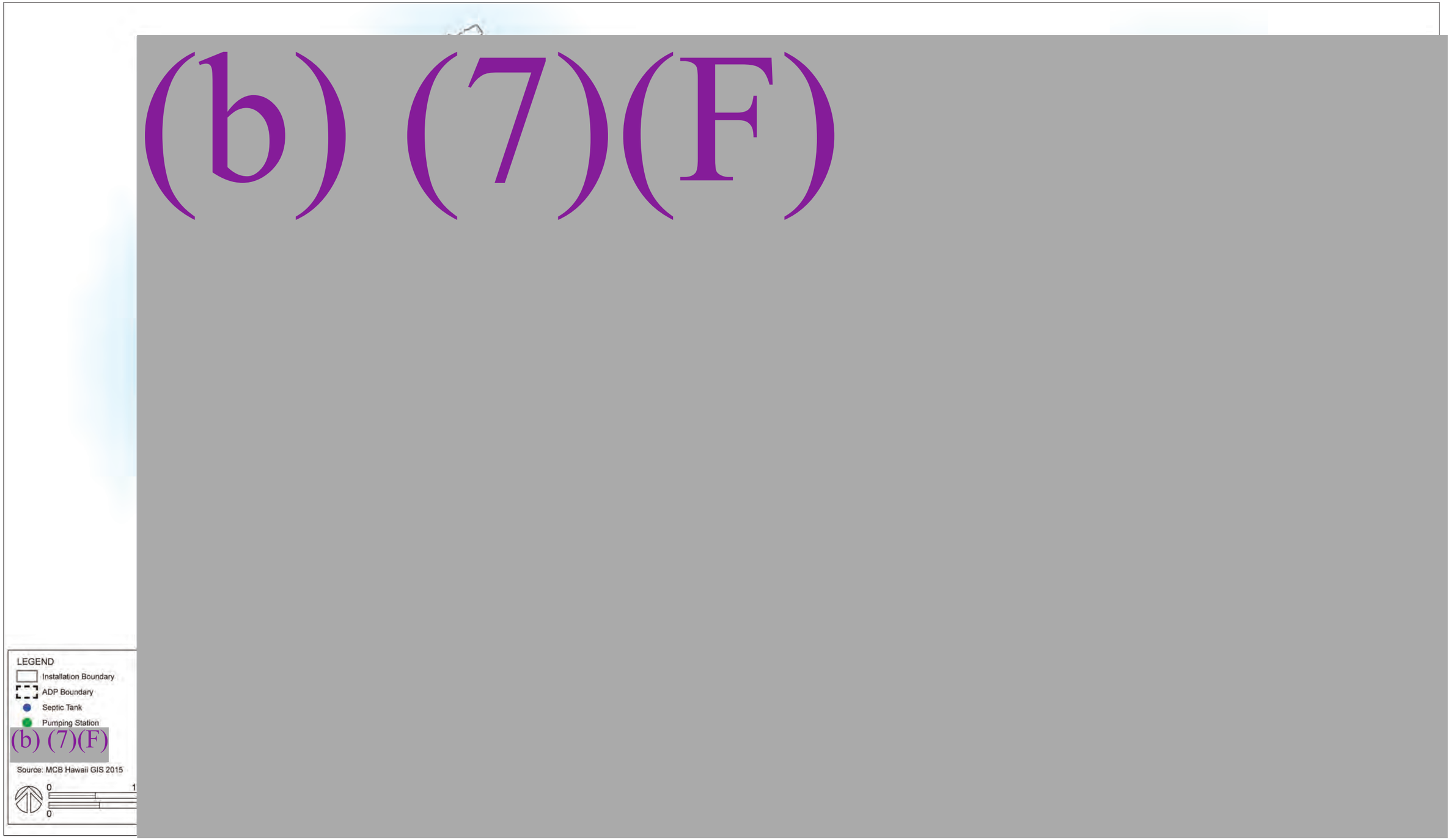

Figure 3-11 **MCB Hawaii Kaneohe Bay Wastewater System Plan**

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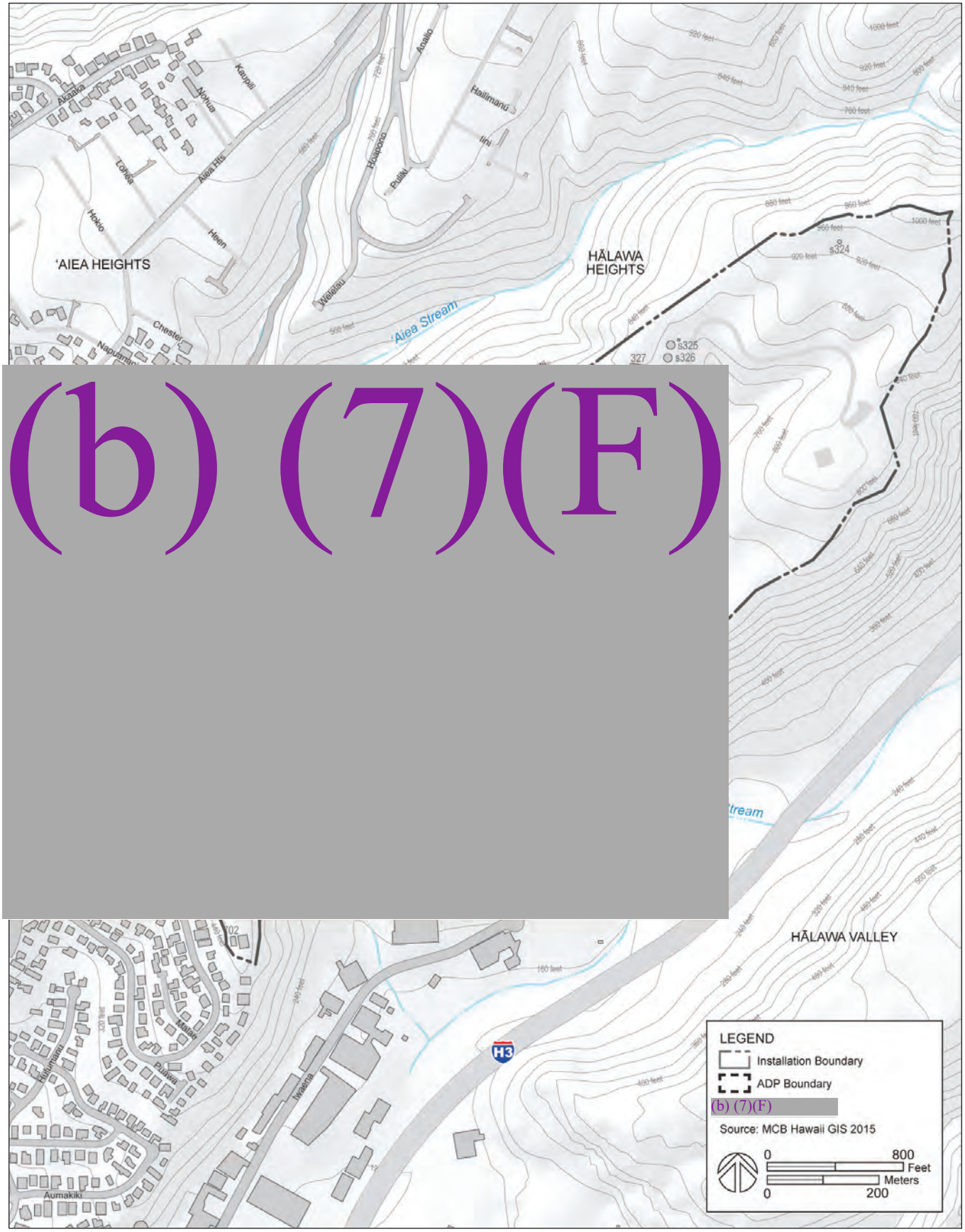

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Figure 3-12 **Camp Smith Wastewater System Plan**

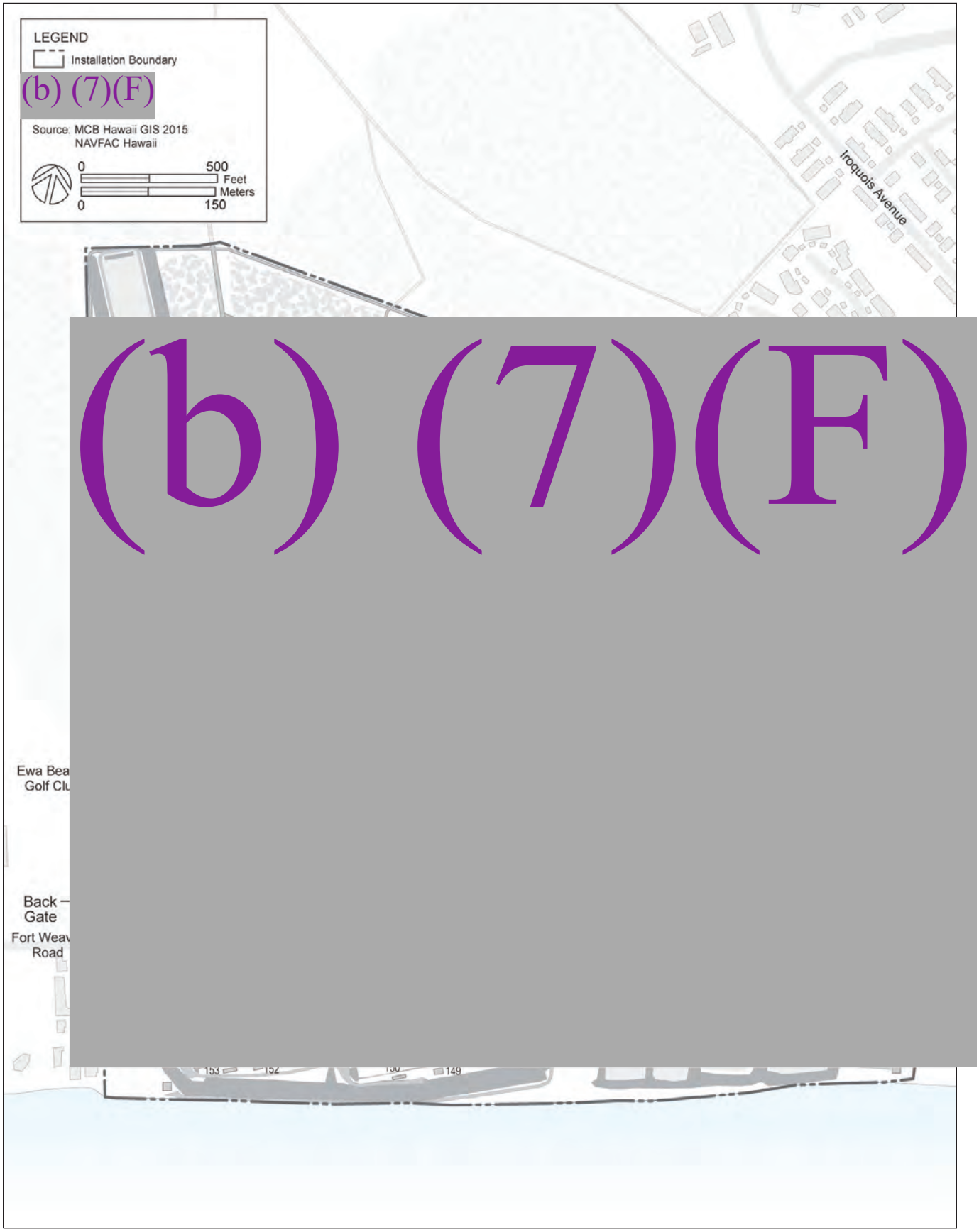

Figure 3-13 **Puuloa RTF Wastewater System Plan**

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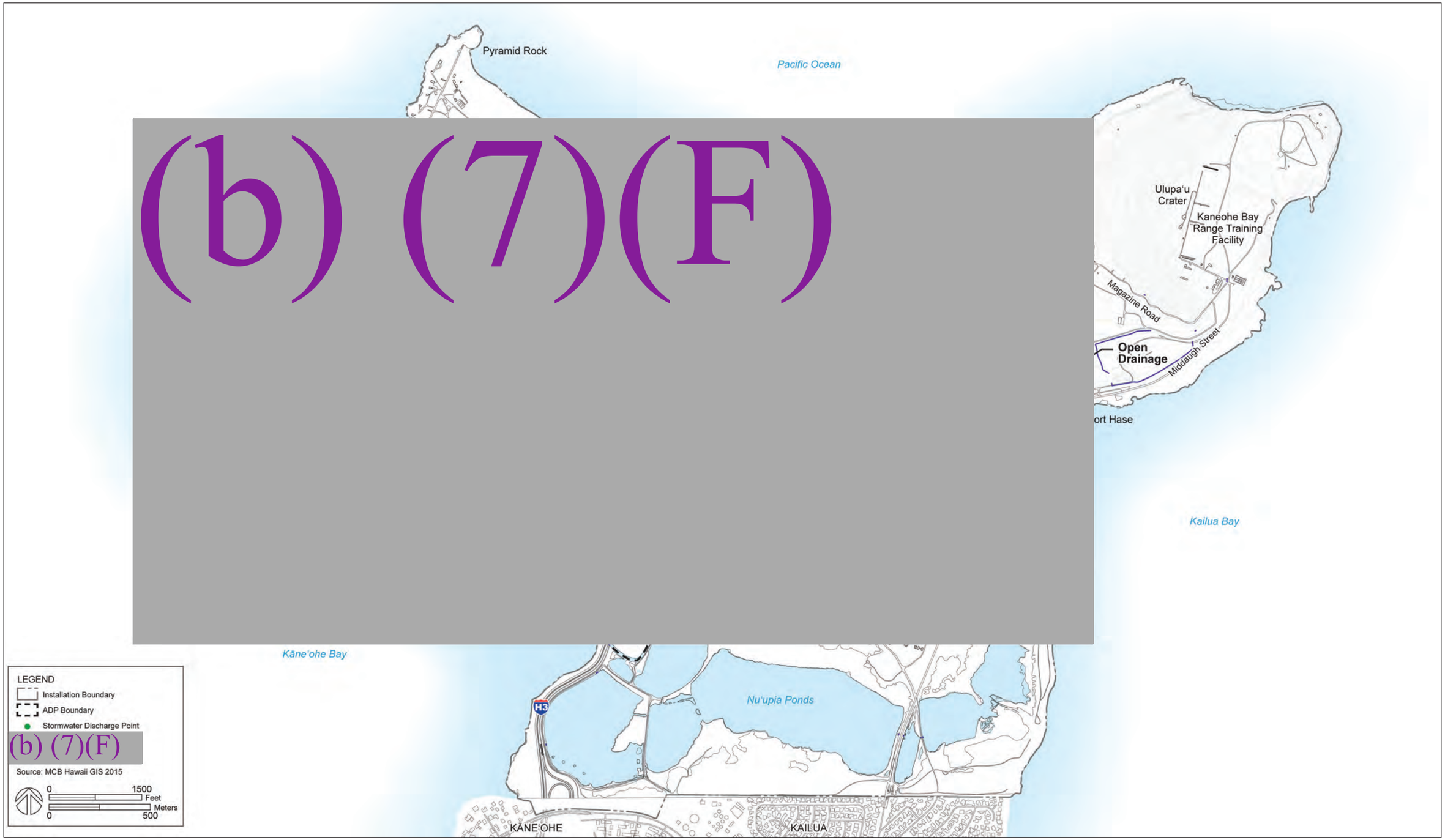

Figure 3-14 **MCB Hawaii Kaneohe Bay Stormwater System Plan**

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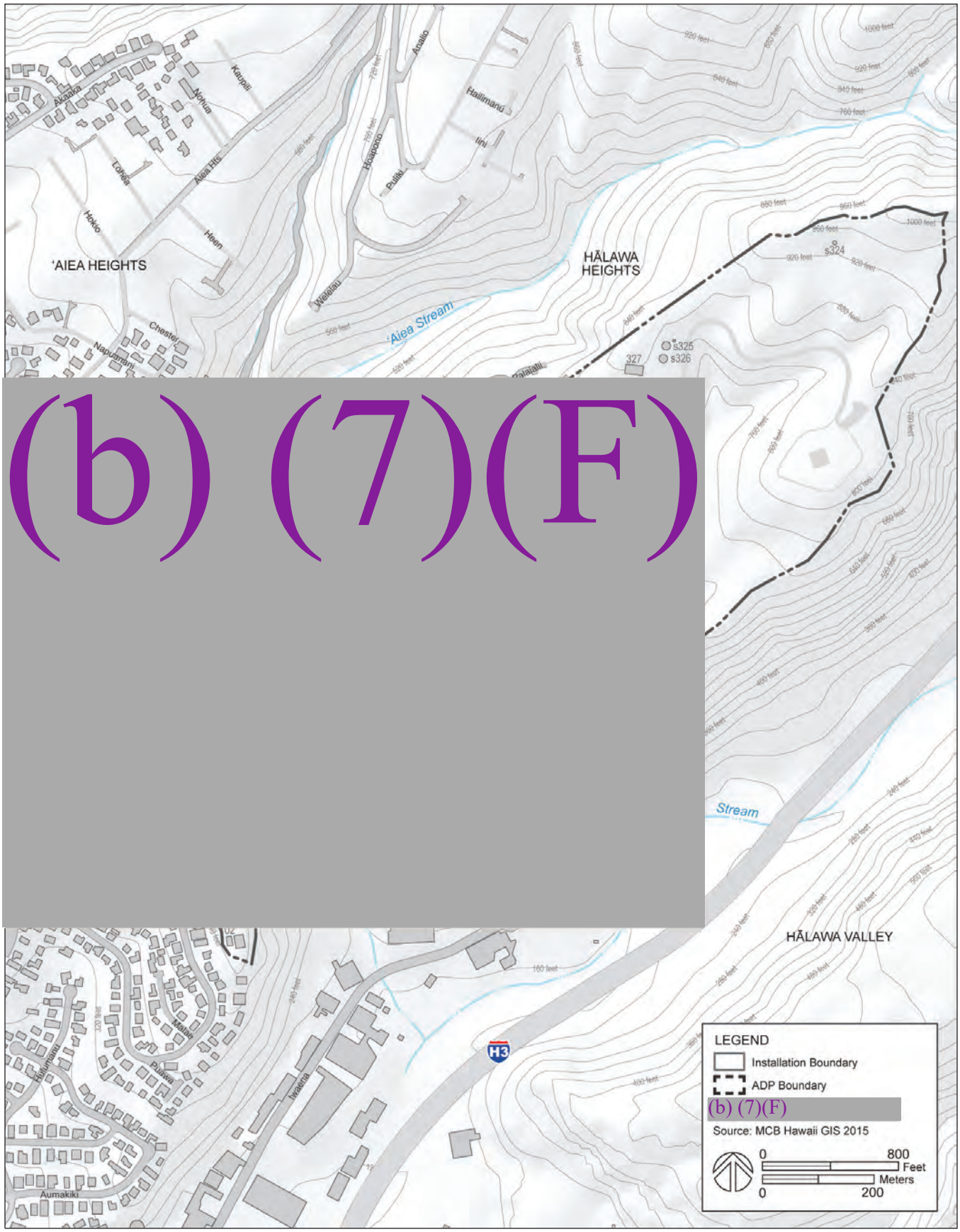

Figure 3-15 **Camp Smith Stormwater System Plan**

3.2.4.4 Electrical System

Figure 3-16 illustrates the electrical distribution system at MCB Hawaii Kaneohe Bay. The system is served from the 37.5 megavolt amperes (MVA) HECO Mokapu Substation located near the main gate and is connected to both the Koolau-Aikahi (46 kV) and Koolau-Kailua (46 kV) HECO circuits. The Mokapu Substation steps down the incoming voltage to 11.5 kV, which is then fed to the MCB

(b) (3) (A), (b) (7)(F)

A 2013 electrical system analysis concluded Substation 1 had approximately 1.7 MVA of capacity available out of a total capacity 12.5 MVA (HHF Planners 2013). Additional electrical system capacity will be required to support the proposed development projects in the district. (b) (3) (A), (b) (7)(F)

(b) (3) (A), (b) (7)(F)

Camp Smith purchases commercial power from HECO via NAVFAC HI. Power is

(b) (3) (A), (b) (7)(F)

The electrical system at Puuloa RTF is shown on Figure 3-18. It is owned and maintained by NAVFAC HI. The 12 kV incoming line from HECO is stepped down

(b) (3) (A), (b) (7)(F)

In 2013, a final EA and finding of no significant impact (FONSI) were issued for MCB Hawaii to expand ground and rooftop-mounted PV in non-family housing areas in partnership with NAVFAC HI. Sites approved for PV installation at MCB Hawaii Kaneohe Bay and Camp Smith are shown on Figures 3-16 and 3-17.

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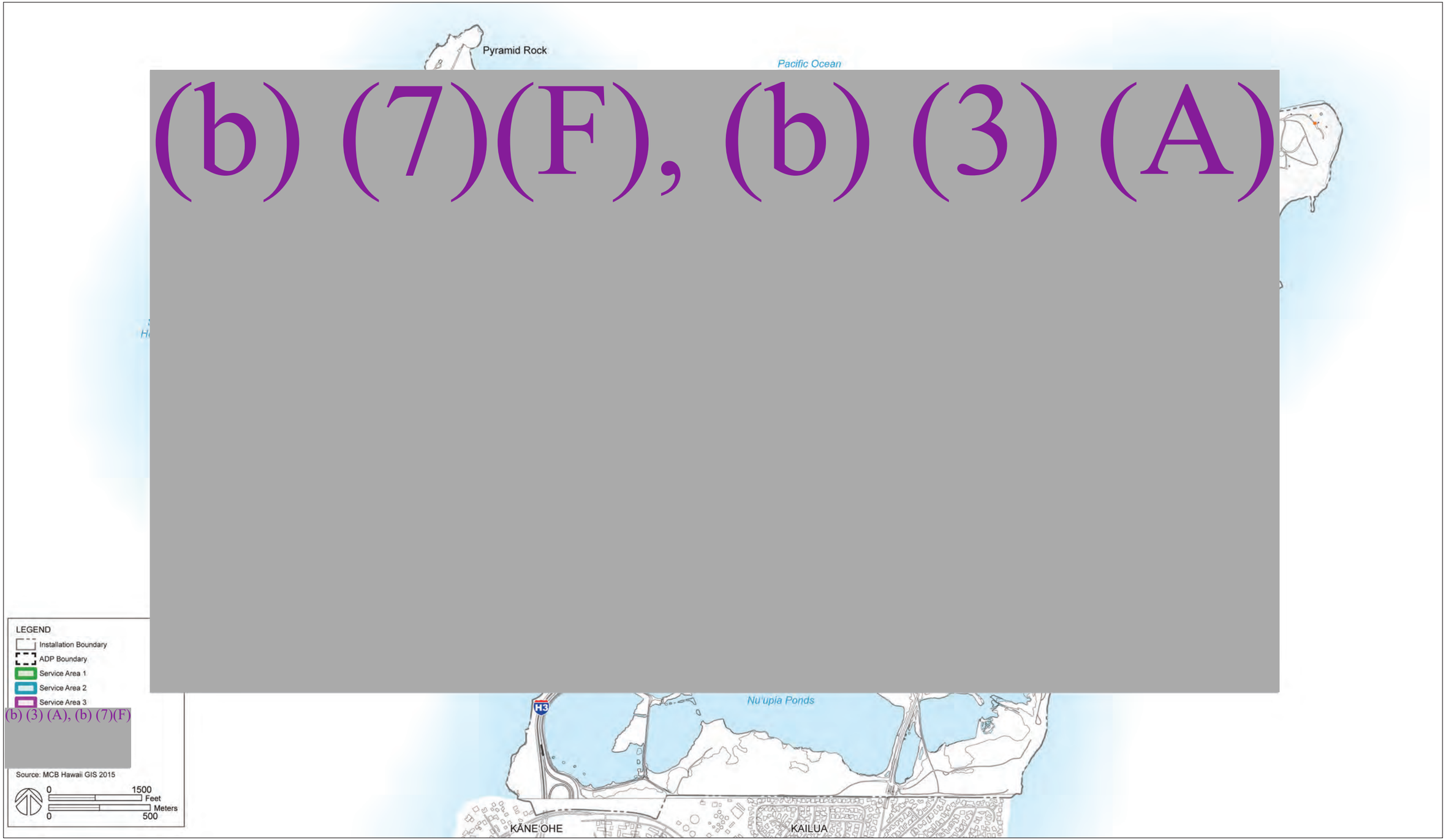

Figure 3-16 **MCB Hawaii Kaneohe Bay Electrical System Plan**

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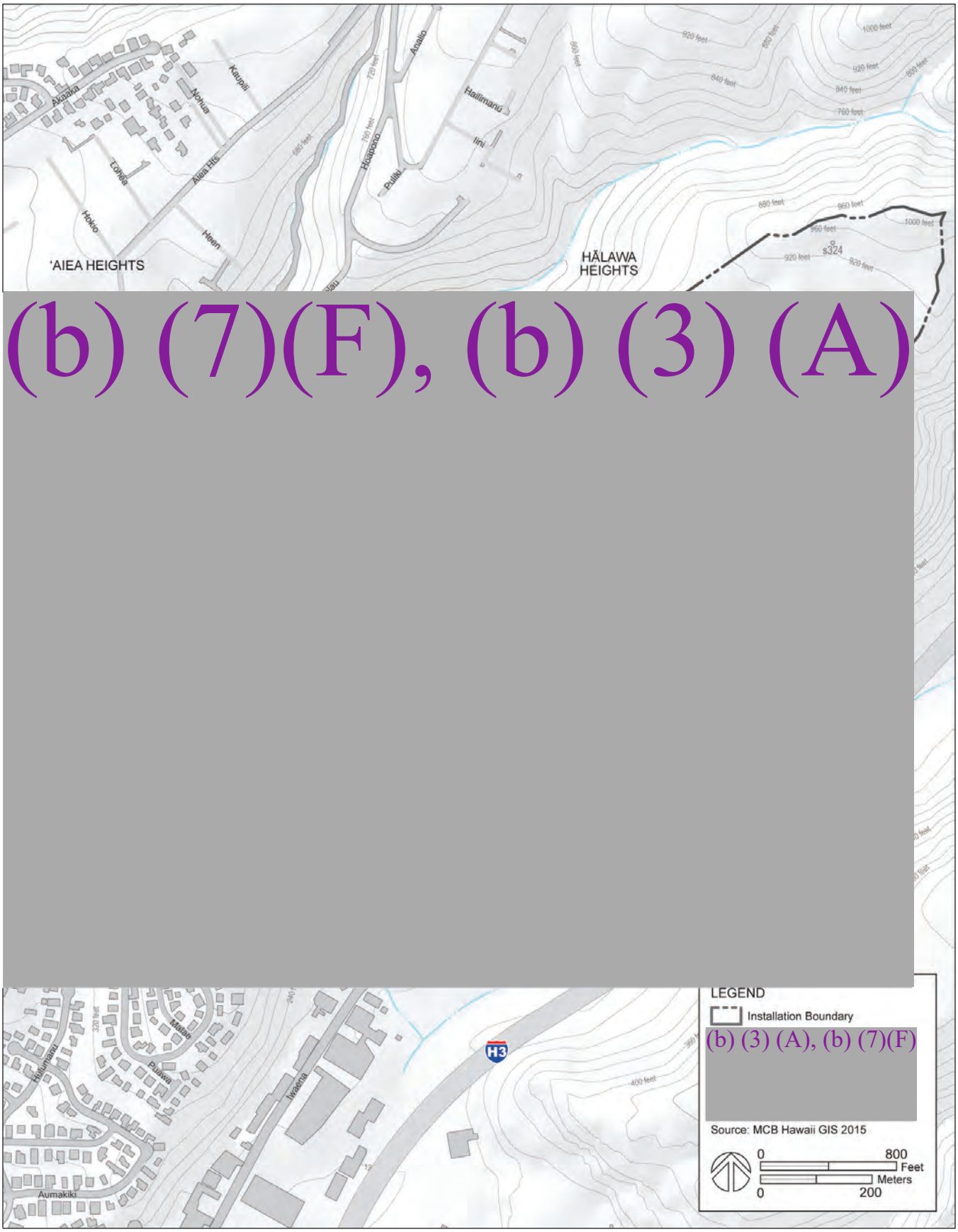

Figure 3-17 **Camp Smith Electrical System Plan**

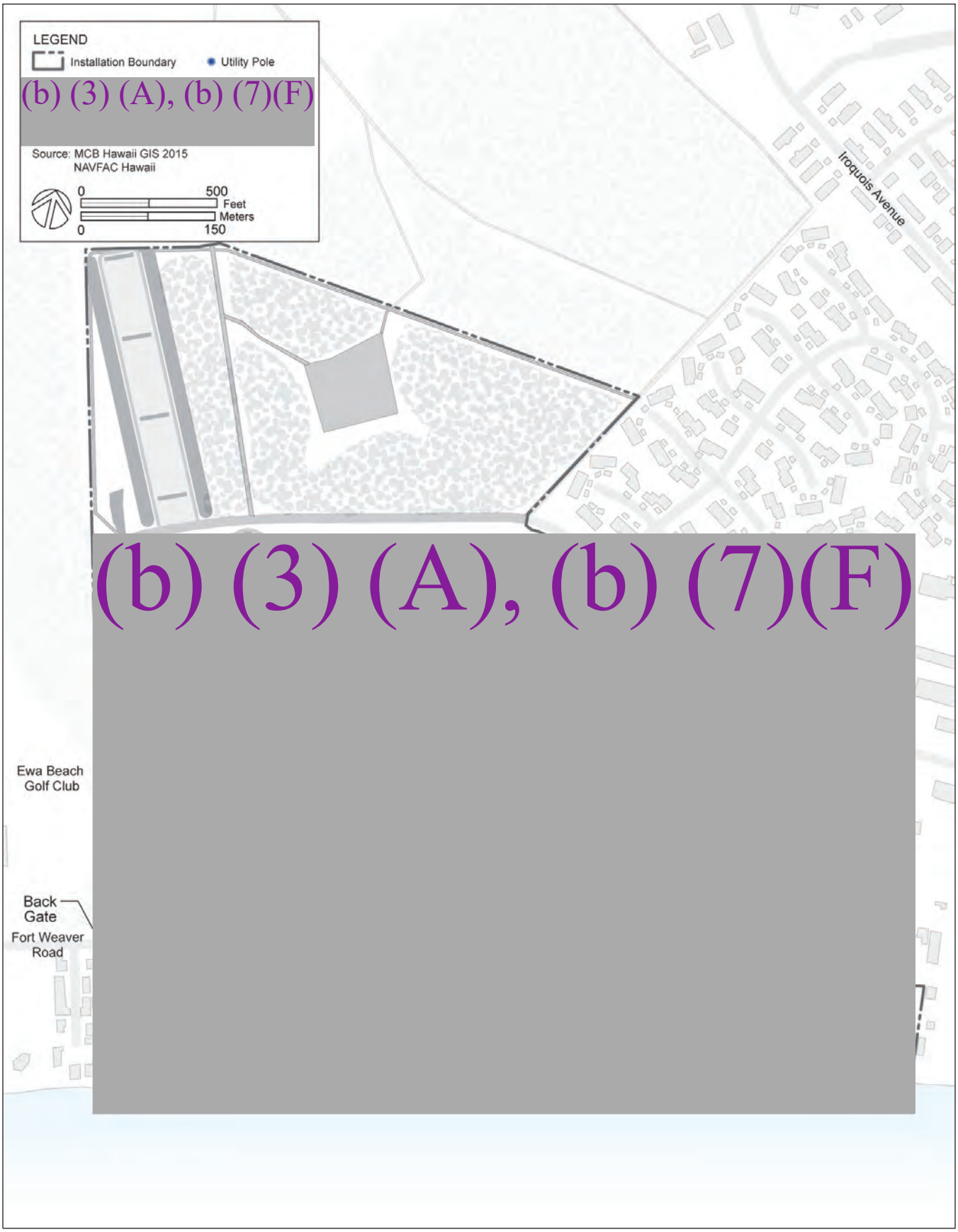

Figure 3-18 **Puuloa RTF Electrical System Plan**

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3.2.4.5 Communications

The communication infrastructure at MCB Hawaii Kaneohe Bay is located in underground conduits throughout the installation. (b) (3) (A), (b) (7)(F)

(b) (3) (A), (b) (7)(F)

3.2.4.6 Central Heating and Cooling

Due to its moderate climate, a central heating system is not required at MCB Hawaii. Air conditioning is provided for individual buildings, or group of buildings, as appropriate.

3.2.4.7 Fuels

(b) (7)(F)

3.2.4.8 Solid Waste/Recycling

MCB Hawaii provides solid waste collection and disposal for administrative, industrial, military, commercial, and bachelor quarters areas of MCB Hawaii Kaneohe Bay. Solid waste is disposed of in the MCB Hawaii Kaneohe Bay sanitary landfill located on the south slope of Ulupa'u Crater. Approximately 5,000 tons of waste per year is placed in the landfill. At the present rate, the landfill site should accommodate MCB Hawaii Kaneohe Bay requirements for another 10–20 years, provided there are no changes in current regulations and cover material is readily available. However, the Environmental Department is currently conducting a study to evaluate permanently closing the landfill prior to it reaching capacity. A commercial contract service collects solid waste from family housing areas for disposal at an off-base facility.

The Environmental Department operates a recycling center in Building 132 next to the marina. Traditional recyclables, wood pallets, and reusable items from operational, maintenance, administrative, bachelor quarters, and community support areas are accumulated and processed for sale or reuse on base.

3.2.5 Antiterrorism/Force Protection

AT/FP measures are intended to protect personnel, infrastructure, and critical resources from attack. The AT/FP planning guidance mandates measures are taken in both site selection and building design, which can have an appreciable impact on construction cost. For master planning purposes, applicable standoff distances are listed in *UFC 2-100-1, Installation Master Planning* (May 2012).

Figures 3-19, 3-20, and 3-21 depict standoff distances from roads, parking lots, and the installation perimeter. The figures show the minimum standoff of 33 ft from roadways/parking and 66 ft standoff from the controlled perimeter to illustrate the land required for minimum AT/FP compliance. For structures that are light construction, standoff distances increase. MCB Hawaii has areas where (b) (7)(F) Throughout the bases, uncontrolled parking lots and on-street parking occur too close to occupied buildings.

At MCB Hawaii Kaneohe Bay, access within a 500-yard buffer surrounding the installation is restricted due to its designation as a Naval Defense Sea Area.

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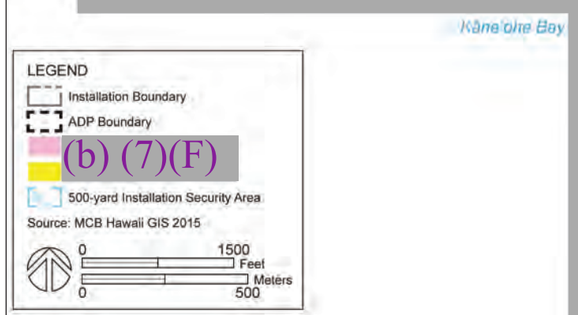
(b) (7)(F)



(b) (7)(F)

Figure 3-19 **MCB Hawaii Kaneohe Bay AT/FP Map**

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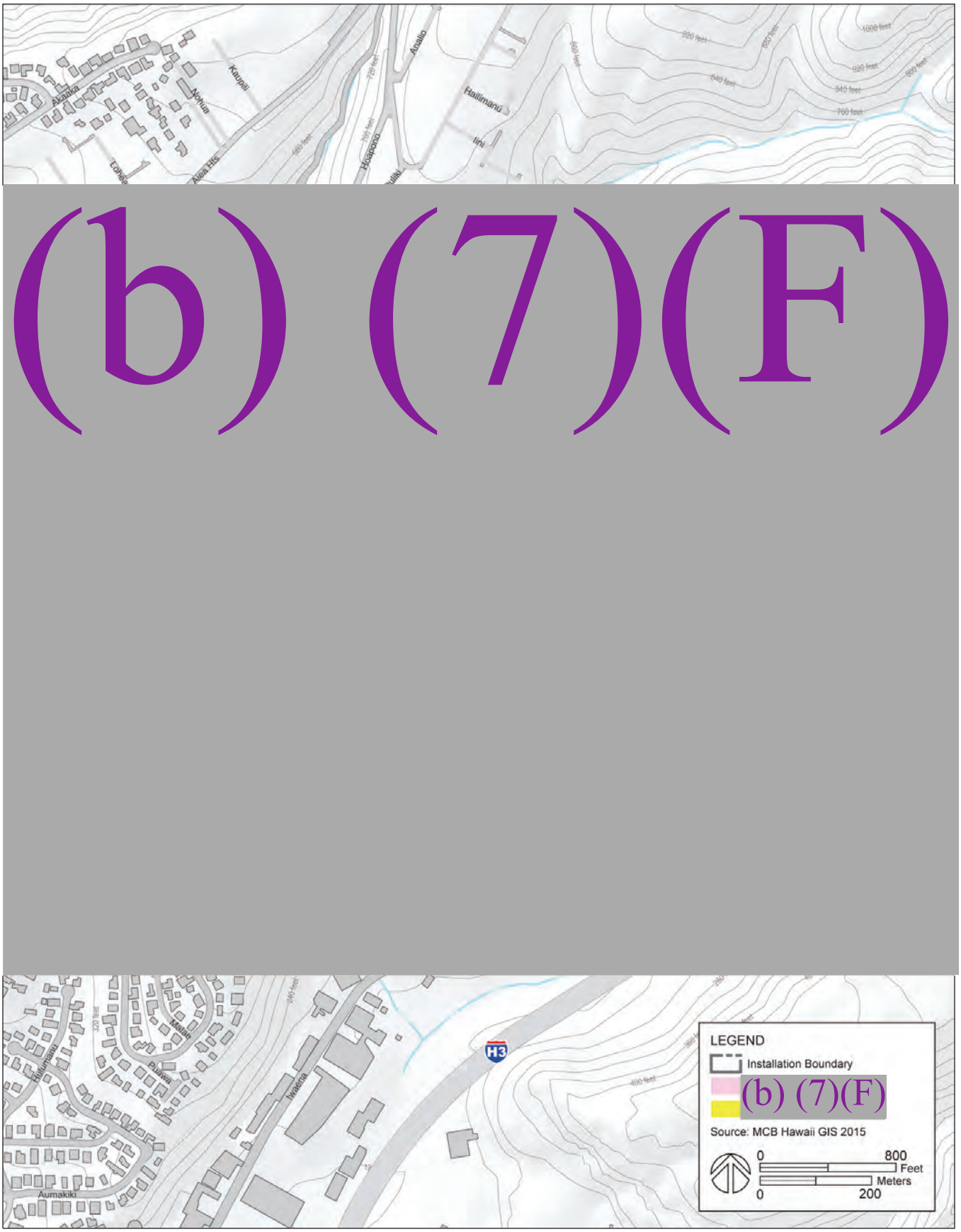

Figure 3-20 **Camp Smith AT/FP Map**

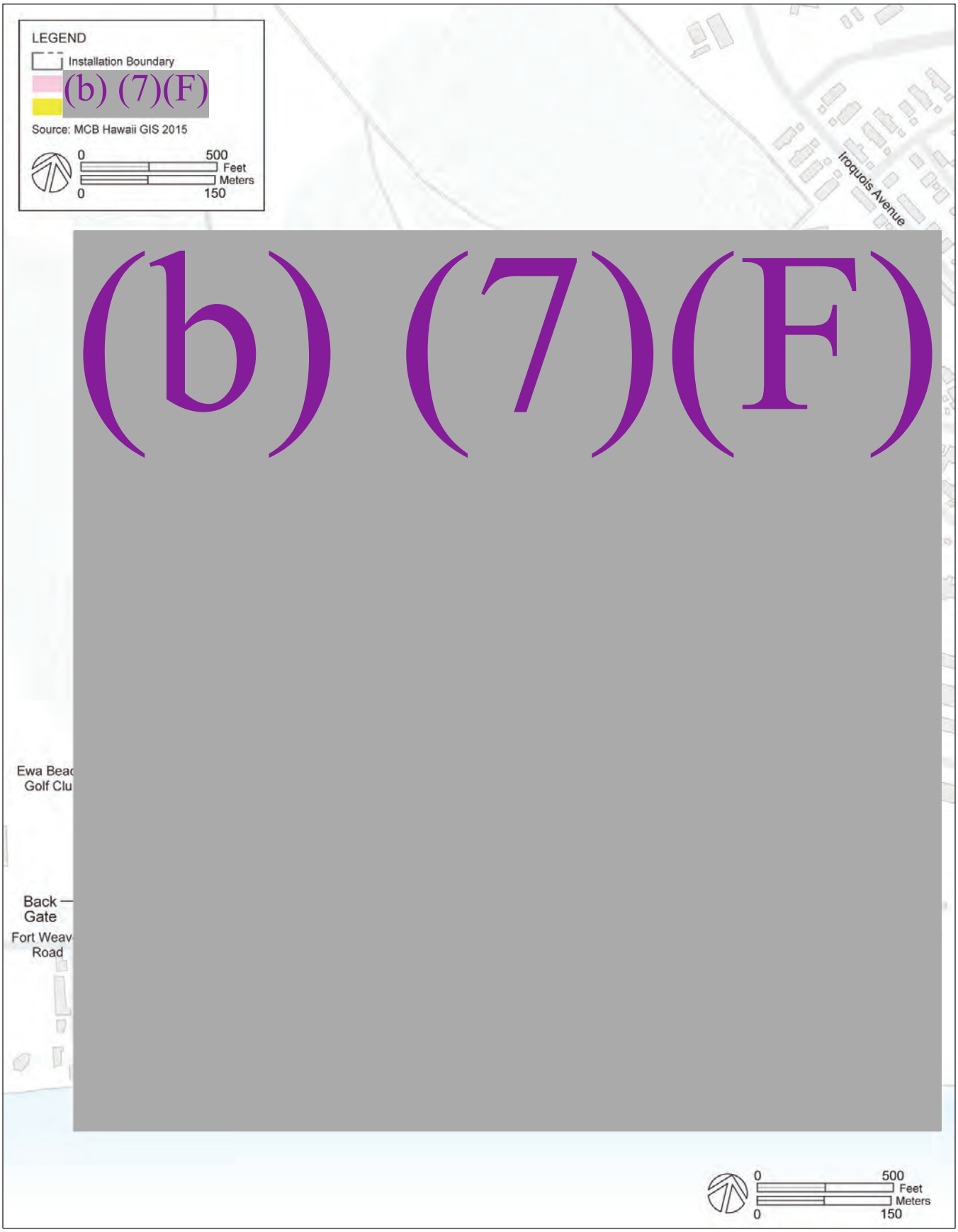

Figure 3-21 **Puuloa RTF AT/FP Map**

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3.2.6 Quality-of-Life

As a mature, highly developed installation that supports Marine Corps aviation, ground, and logistic operations, MCB Hawaii provides a full range of QOL facilities and opportunities for unaccompanied, permanent party, and transient Marines and Sailors, and their family members. Key QOL infrastructure include family and bachelor housing, playing fields and courts, a golf course, physical fitness centers, and entertainment and retail establishments.

MCB Hawaii Kaneohe Bay is surrounded by the Pacific Ocean and the surrounding waters and shoreline areas provide many opportunities for recreational activities—swimming, surfing, fishing, and boating. Designated camping areas and beach cottages along the Pali Kilo coast provide retreat areas for service members and their families. Jogging paths throughout the installation and around Nu'upia Ponds offer natural settings for physical activity.

QOL infrastructure on Camp Smith includes family and bachelor housing, retail outlets, Bordelon field, tennis courts, and a physical fitness center. Situated in Hālawa Heights, the scenic views of O'ahu's south shores from Diamond Head to 'Ewa provide visual relief for personnel at Camp Smith.

To support the permanent and transient personnel that live and/or work on Puuloa RTF, the base provides an oceanside recreation areas, play courts, and a physical fitness center.

3.3 High Performance Facilities and Sustainability/ LEED Practices

The *Energy Policy Act of 2005* and *Executive Orders 13423, 13514*, and *13693* mandate federal agencies to lead by example by promoting sustainable infrastructure through environmentally-sound and economically-sound design, construction, and operating decisions. Per *UFC 1-200-02, High Performance and Sustainable Buildings* (2014), "every opportunity should be taken to transform DoD installations into more livable, resource-efficient communities."

MCB Hawaii is committed to sustainability by reducing energy use, increasing renewable and alternative energy sources, and constructing healthy buildings and communities.

Energy Initiatives

Per *Executive Order 13693, Planning for Federal Sustainability in the Next Decade* (19 March 2015), federal agencies "shall increase efficiency and improve their environmental performance. To improve environmental performance and federal sustainability, priority should first be placed on reducing energy use and cost, then on finding renewable or alternative energy solutions."

MCB Hawaii strives to meet the federal goals to reduce energy use and costs and increase the use of renewable and alternative energy sources. Through the Family Housing Resident Energy Conservation Program, where residents

receive rebates for consuming less or pay for excess consumption, MCB Hawaii has been able to reduce electrical consumption by 15 percent. Existing hangars and warehouses use daylight harvesting, such as skylights and solar tubes, and lighting controls to lessen the use of electricity to light large spaces. Environmental cooling systems, that automatically control the room temperature when occupied or unoccupied, have been installed in lodging facilities and bachelor quarters. Through metering and monitoring, MCB Hawaii will continue to identify energy savings opportunities.

MCB Hawaii currently uses PV and solar hot water systems—renewable energy source that lessen the demand for electricity produced by fossil fuels. The Energy Savings Performance Contract will expand the use of PV accross the installation. Other renewable energy systems being explored include wave energy technology, ocean thermal energy conversion, and (b) (7)(F), (b) (3) (A)

MCB Hawaii plans to continue the use of alternative energy vehicles to lessen the use of gasoline driven cars. The installation uses a fleet of low-speed electric, hybrids, and hydrogen fuel cell vehicles. The Marine Corps, along with other branches of the military, is exploring the use of biofuels for tactical vehicles.

Healthy Buildings and Communities

Per *UFC 1-200-02*, "a collaborative, integrated planning and design team, composed of user, government support staff, and appropriate professionals should be used to identify requirements and to establish performance goals for siting, energy, water, materials, indoor environmental quality, and other comprehensive design goals." This integrated design process is an important requirement in achieving high performance buildings and should utilize the following sequential approach.

- Analyze potential sites and associated climate, including local and regional context.
- Select a sustainable site.
- Design building with a focus on orientation, configuration, and massing.
- Select and integrate into the design high performance and sustainable building envelope strategies and components (e.g., roofs, walls, and fenestrations).
- Select, design, and integrate into the overall design high performance and sustainable systems—e.g., heating, ventilation, and air conditioning, plumbing, water heating systems, lighting systems, control systems, elevators, and fire protection systems.

New buildings constructed at MCB Hawaii are required to meet U.S. Green Building Council (USGBC) Leadership in Energy and Environmental Design (LEED) silver certification requirements. Through appropriate design—such as the elements presented in Chapter 4, Installation Development Standards—and consideration to building materials and systems, new construction will be able to save energy, water, resources, and money, while amplifying human health and well-being.

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Effective planning will create conditions that encourage physical activity, connect land uses and facilities, and provide safe, protected pathways for physical fitness activities for service members and their families. With an emphasis on compact building layouts, increased connectivity, and well-designed pedestrian and bicycle infrastructure, MCB Hawaii will decrease auto dependency and increase levels of walking, running, and cycling—striving towards a healthier community.

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4

INSTALLATION DEVELOPMENT STANDARDS

Photo by HHF Planners

4 Installation Development Standards

The Installation Development Standards establish a holistic framework where design elements—functional use, form and style, location, circulation, and context—will contribute to efficiency, functionality, and an overall positive quality of life for those who live and work at MCB Hawaii. The objective of Chapter 4, Installation Development Standards, is to build upon existing guidance and improve the installation's visual and physical environment for pedestrians and drivers, personnel and visitors, and families alike. This chapter provides guidance for building envelopes, street envelopes, and landscaping, and presents the Regulating Plan.

The standards presented herein are largely derived from the following documents, and, as such, the source documents should be reviewed if additional detail is required.

Marine Corps Base Hawaii Landscape Manual, July 2014
This manual provides guidelines and requirements for general landscape design at MCB Hawaii Kaneohe Bay, Camp Smith, and the Special Areas. The guidance in the manual supports present and future mission requirements; preserves ecosystem integrity at a scale and timeline compatible with natural and budgetary processes; recognizes the influence on social and economic well-being of the communities affected, both military and host civilian communities; and promotes a sustainable and healthy landscape environment. The manual is developed in conformity with and in accordance with the conventions of the INRMP goals, objectives, and management actions that incorporate Ecosystem Management principles. The manual provides both approved and prohibited plant lists, as well as detailed requirements on irrigation and maintenance.

Repair and Maintenance Management Guidelines, U.S. Marine Corps Base Hawaii, March 2015
These guidelines provide direction for projects involving historic facilities and structures built prior to World War II through the Cold War at MCB Hawaii Kaneohe Bay, Camp Smith, Marine Corps Training Area Bellows, Pearl City Annex, and Puuloa Range Training Facility.

MCB Hawaii Kaneohe Bay Base Exterior Architectural Plan (BEAP), December 2013
This document analyzes the existing base conditions and presents design requirements and guidelines on site planning, landscape design, roadway design, architecture, and signage. The BEAP is limited to areas under cognizance of the MCB Hawaii Kaneohe Bay Facilities Department and does not include the Family Housing area. In addition, historic districts at Kaneohe are primarily dictated by the Repair and Maintenance Management Guidelines—however, this BEAP provides some guidelines for structures within historic districts.

MCB Hawaii Kaneohe Bay Facility Enhancement Plan, 1999
This plan includes recommendations for various exterior elements that compose the base's outdoor environment including landscape and open space, exterior color, signage and graphics, and site furnishings.

Bicycle Route Planning Study for MCB Hawaii Kaneohe Bay, December 2012
This study provides recommendations for the implementation of a bikeway system across the base. Cross sections of primary roadways are presented with proposed bicycle infrastructure improvements.

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4.1 Installation Regulating Plan

The Installation Regulating Plan provides specific guidance that shapes development to conform to the installation's planning vision. It depicts the regulating elements that shape the Illustrative Plan, such as required build-to lines (RBL), required entry and/or parking locations, minimum and maximum building heights, and acceptable uses. In addition, it defines land uses and building form together on a single plan. The Regulating Plan serves as a guide to organize facilities, open spaces, and circulation in a way that establishes clear connections between places. Regulating Plans for MCB Hawaii Kaneohe Bay and Camp Smith are shown on Figures 4-1 and 4-2. For further details, see the Regulating Plans contained in each district's ADP.

Site design elements and guidelines presented in this section help to establish a stronger relationship between land uses and place through the use of visual and physical organization, sustainability, and form. Existing features of site design that enhance the image, environmental quality, sustainability, or quality of life of MCB Hawaii should be preserved, enhanced, and replicated, while existing site design features that detract from the visual environment should be improved or eliminated.

While the guidelines provide the framework for new construction, improvements to existing site design, should be undertaken when feasible. Specific sites may have characteristics that require modification of these guidelines to allow for maximizing land use, sustainable concepts, and visual aesthetics. Coordination between parties involved with the proposed design and/or development project should ensure appropriate and consistent application of the guidelines. Alternative applications to these guidelines should be routed through the proper channels and ultimately approved by the MCB Hawaii Facilities Department.

4.1.1 Visual Environment

Land, water, vegetation, buildings, and other physical features shape the visual environment. Perception of the visual environment is influenced by elements that form the framework for site design. These elements include the following.

- **Natural Influences:** Natural influences include landforms, the presence and characteristics of vegetation, water, and climate and other natural elements, which affect the character of an installation.
- **Dominant Features and Views:** These inform building siting and provide opportunities for the formulation of a visual theme or image.
- **Circulation Characteristics:** Circulation characteristics include the arrangement of vehicular, pedestrian, and bicycle circulation networks. The layout of these networks plays a significant role in how individuals perceive an area.

- **Land Use and Facility Siting:** Siting refers to the way that land is used, and the relationship of those uses affects the overall form, visual, and spatial character of a site.
- **Open Space Development:** The development of open spaces defines spaces, buffers uses, mitigates large expanses of paving, reinforces vehicular and/or pedestrian circulation, and enhances the settings of buildings.
- **Historical and Cultural Features:** The presence of historical and cultural features may form a visual theme or image for the base.
- **Urban Design and Development Form:** Density, the expression of building form, height, massing, and scale gives character and form to the space.
- **Architectural Style, Building Materials, and Colors:** The consistent application and use of building style, materials, and colors complements the principles of building form, mass, and scale, and creates a sense of place
- **Hardscape and Paving Materials:** Hardscape and paving materials provide an opportunity to create consistency and continuity on the ground plane and denotes areas of special function.
- **Site Amenities:** Site amenities include furniture and lighting. They provide an opportunity to create visual design continuity and compatibility while providing for increased comfort.

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Figure 4-1 **MCB Hawaii Kaneohe Bay Regulating Plan**

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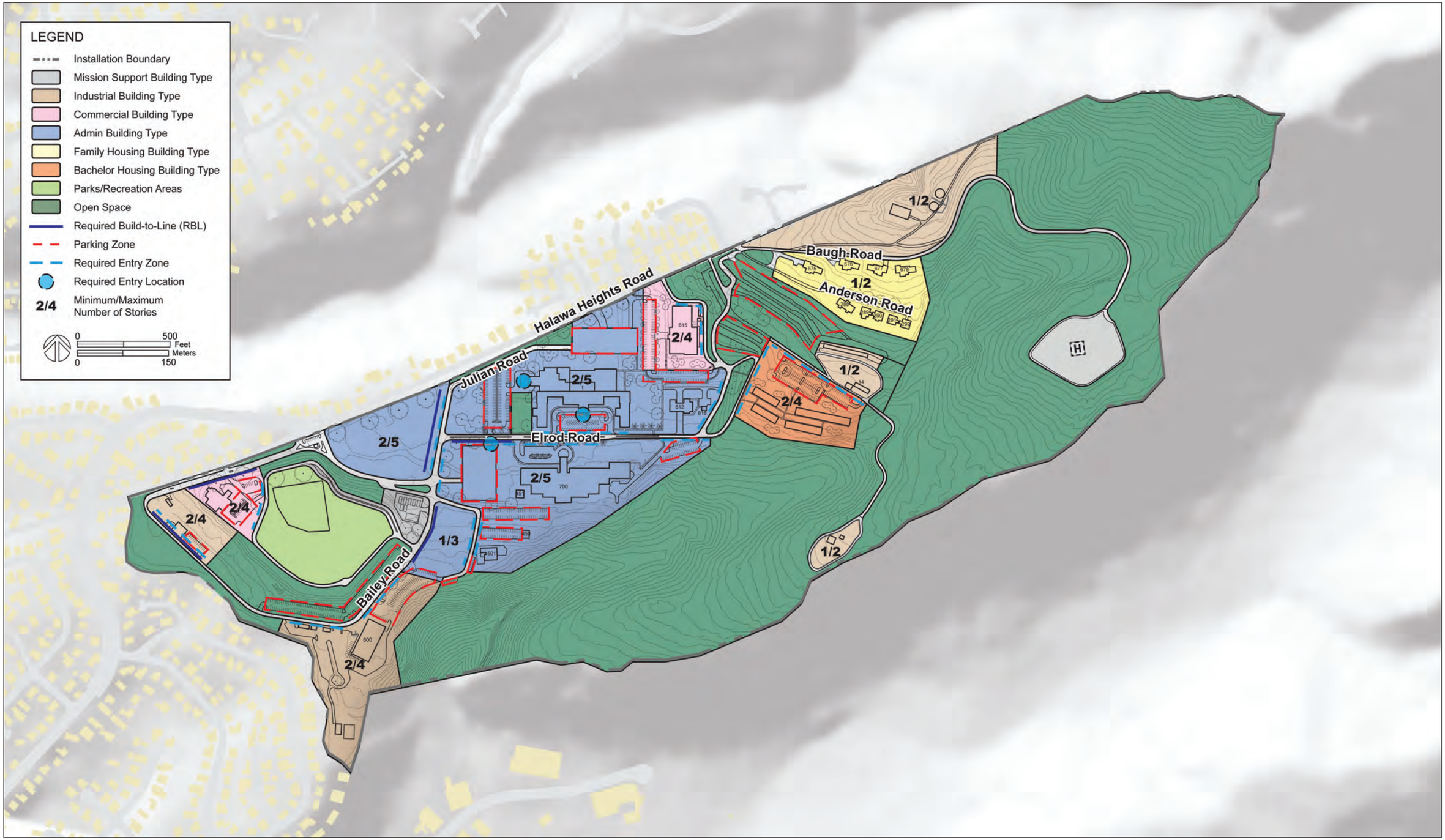

Figure 4-2 **Camp Smith Regulating Plan**

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4.1.2 Building Envelope Standards

Per *UFC 2-100-01, Installation Master Planning* (May 2012), "The intent of building standards is to shape and detail public space that is safe, comfortable, and functional through placement and envelope controls for each building type. The standards aim for the minimum level of control necessary to meet the planning goals, and include building standards, site planning standards, and building-related force protection standards."

Building Envelope Standards (BES) include siting/placement, massing, height, setbacks, allowed parking, and use. Each BES is coded to the Regulating Plan's building types, including the following.

- Mission Building Types (airfield, flight line facilities, hangars, and armories)
- Industrial Building Types (warehouses, maintenance facilities/shops, and motorpools)
- Administrative Building Types (headquarters facilities and general offices)
- Educational and Training Building Type (classrooms and trainers)
- Medical Building Types (medical centers and clinics)
- Commercial Community Support Building Types (retail stores, restaurants, religious buildings, recreation facilities, a bowling alley, and clubs)
- Family Housing Building Types (single-family homes and row houses)
- Unaccompanied Personnel Housing Building Types (bachelor enlisted and bachelor officer quarters)

The following sections provide building design guidelines for siting/placement, orientation, scale, massing, form, proportion, and rhythm. BES summary tables (Tables 4-1 to 4-8) are included at the end of this section.

4.1.2.1 Siting/Placement

The location and layout of buildings is important at the district level as well as the site level. At the district level, buildings should be sited to consolidate similar functions. For example, all community support buildings should be located in the same area. At the individual site level, a building must be well-situated with regard to its location within the landscape and contribute to environmental and social objectives.

As a military installation, formal arrangement of buildings should be paramount, but MCB Hawaii Kaneohe Bay's development patterns and evolution from the early 1900s through recent history have been more organic than uniform. Areas within the historic districts, such as the 200-series barracks along 3rd Street and Hangars 101 to 104, demonstrate a strong uniformity in building placement.

All new building development shall arrange buildings in a formal linear and/or symmetrical pattern; both within a collection or cluster of buildings, as well as to formally address the neighboring buildings. The alignment of building frontages, sides, building entries, plazas and open spaces, and sidewalks and

walkways should correspond to major roadways and the axes of these elements of adjacent buildings.

Ancillary buildings or support structures such as mechanical equipment yards, pump stations, force mains, emergency generators, chiller plants, and switch gear stations, will also have a greater role in building arrangement or placement rather than being an afterthought. Place such utility appendages in clusters or consolidate them to allow for open yards within the building grounds.

New facilities must be sited using the standards of *UFC 4-010-01, DoD Minimum Antiterrorism Standards* (October 2013). Existing facilities also need to meet the required AT/FP standoff if there is a major renovation investment made to the facility, if the occupancy increases, or if the primary use changes. These standoffs may limit the repurposing of facilities along existing roads, parking areas, and installation boundaries. In some cases, realignment or closing of roads and parking areas might be recommended to provide the required standoff and to optimize new construction and reuse opportunities.

When new construction is proposed within or adjacent to a historic district, refer to the *Repair and Maintenance Management Guidelines* (March 2015) in order to preserve the district's historic character.

Design Guidelines

- Site buildings harmoniously with natural terrain and reduce cut and fill.
- Site buildings to minimize stormwater runoff and the need for drainage infrastructure.
- Vary the setback of buildings from the roadway. If new construction is proposed within a historic district, match the setback with the historic buildings.
- Cluster buildings with similar uses to form common areas such a plazas and courtyards.
- Orient the main entrances of buildings toward the primary avenues of approach so that entries are clearly visible.
- Maximize the separation distance between inhabited buildings and areas with large visitor populations.
- All new billeting, high-occupancy family housing, and primary gathering buildings should be located a minimum of 33 ft from adjacent inhabited buildings, per *UFC 4-010-01, DoD Minimum Antiterrorism Standards*.

4.1.2.2 Orientation

The orientation of a building's mass impacts the energy efficiency of the structure and the amount of solar gain the building receives. Solar gain (also known as solar heat gain or passive solar gain) refers to the increase in temperature in a space, object, or structure that results from solar radiation. The amount of solar gain increases with the strength of the sunlight and with the ability of any intervening material to transmit or resist the radiation.

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The ideal solar orientation of a building's mass is for the short sides of a rectangular building to face east and west and for the long sides to face north and south. This orientation allows the building's long south side to maximize its exposure to natural daylight. Orienting a building in this manner also prevents excessive solar heat gain on the east and west ends during sunrise and sunset when the sun has the most direct angle into a building.

As feasible, situate buildings in an east–west orientation to minimize westerly sun exposure and maximize daylight along south and north elevations. Incorporate energy conservation methods such as natural lighting, solar or PV panels, and ventilation utilizing the tradewind direction and flows.

4.1.2.3 Scale

Scale is how we perceive the size of a building element or space relative to other forms. The term human scale is often used in design and refers to the size of an object in relation to the proportions and size of the average human figure. Simply, a building's exterior composition and massing shall relate to human scale.

There are typical building elements that people perceive and recognize as a certain size and scale such as steps, handrails, and doorway heights. These building elements are understood relative to each other as well as relative to the individual. Many building element sizes and proportions are often standardized in architecture, typically according to building codes.

The scale of the building can reflect the use. A grander scale might be more appropriate for a headquarters facility or more monumental structure, while a more modest scale would be appropriate for residential or everyday administrative buildings. In addition to the aesthetics of scale, smaller buildings with fewer floors are less susceptible to progressive collapse issues. Scale should take into consideration local wind and seismic structural design standards.

Design Guidelines

- The scale of the building will be composed such that the approach to the entrance is not a shear vertical face of building facade but will have a gradual transition through a covered entrance or similar architectural element.
- Break up the verticality of a multi-story building by utilizing a horizontal break across the main plane of the building's facade; with a wainscot trim; or with a horizontal break at the building facade as in a decorative frieze or, though less effective, through a paint color scheme that could lessen its visual impact.
- The few building types that may be exceptions to the above requirements are religious facilities such as the chapel and large utilitarian structures such as aircraft hangars and motor/heavy equipment maintenance facilities.

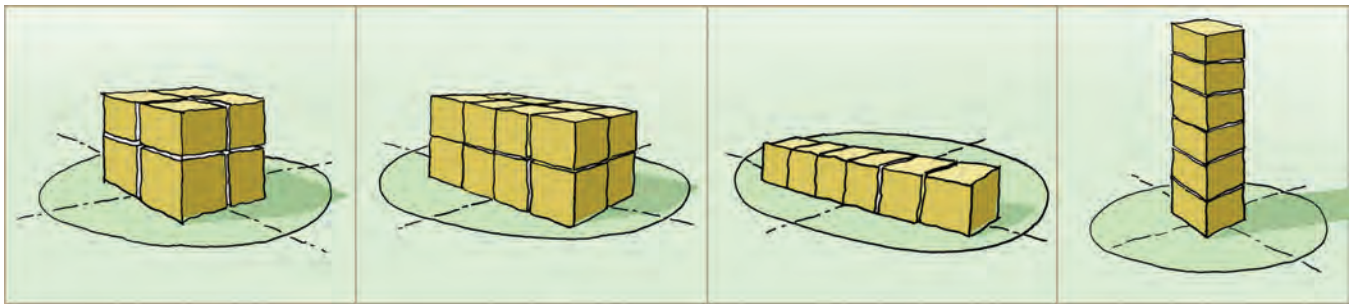
The Air Terminal building is an example of building form with appropriate scale and variation in massing, texture, and rhythm.

4.1.2.4 Massing

Massing is the perceived scale of a building based on its size, proportion, facade, composition, and volume. The mass of a building should relate to human scale and exterior spaces. Massing that is "broken up" to reduce bulkiness is preferred over large, monolithic building facades, which can appear oppressive or overly bulky as a single solid mass. Within and adjacent to historic districts, any new develop should follow the massing of the historic buildings.

Design Guidelines

- Design the building footprint to maintain greenspace on the site.
- Break up the building's exterior envelope instead of designing a single, monolithic shell. Articulation of a building's envelope will help create visual interest.
- Use building massing to reflect the interior functions of the building. For example, a centralized lobby and circulation volume may be apparent from the exterior as a form that projects higher than office wings on either side of the circulation area.
- Consider separate structures connected by walkways or courtyards to break up the building mass. Courtyards and structural separation allow for natural daylighting to enter the building, reducing energy requirements.
- Use projections and recesses to break up single planes and provide passive daylight control through shading/exposure.
- Design building entryways as single-story features.
- Use variation in building color, texture, and accents—such as trim—to visually break up large building massing.



Ideal massing is created through appropriate proportion of building height and width. The 2:6 ratio illustrated above is a successful relationship for most building types found at MCB Hawaii Kaneohe Bay.

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4.1.2.5 Form

Form is defined as a building's shape and volume. Building form should respond to the natural terrain and qualities of the site, such as solar orientation. Articulation of building form can bring natural daylighting into interior spaces or provide shading, a strategy that creates a more energy-efficient structure. Courtyard forms can bring outdoor space and light into larger facilities without compromising the perimeter security of the building.

Design Guidelines

- Use the building form to enhance security of key assets by considering lines of sight, exposure, and orientation to roads, parking areas, and perimeter fences.
- Use a building form that does not inhibit the natural stormwater drainage patterns of a site.
- Vary building forms to create visual interest.
- Articulate corners or emphasize vertical elements at edges to visually define a form by varying texture, material, shading, lighting, or other architectural elements.

The division of bays, pattern of window placement, and scale of architectural elements of new barracks is an example of preferred form and proportion for this type of large, multi-story structure.

4.1.2.6 Proportion

Proportion is the relationship of a building's parts to the whole. Proportioning systems can visually unify the multiplicity of elements in an architectural design by having all of its parts belong to the same family of proportions. They can provide a sense of order in, and heighten the continuity of, a sequence of spaces. They can establish relationships between the exterior and interior elements of a building.

Design Guidelines

- A building's proportion will be designed as a harmonious relationship between length, width, and height.
- When designing a building, use a proportion compatible with that of surrounding structures.
- Use symmetry to balance similar building forms in relation to a central element; for example, a central lobby or plaza can help to balance building wings.
- Size and appropriately slope pitched roofs for the building volume. Refer to the section on building roofing materials in this chapter.
- Size windows, fenestrations, bays, and exterior building elements must be proportional to each other and to the overall building.

The Air Terminal is a good example of preferred building rhythm with horizontal and vertical elements that align, repeat at consistent intervals, and are of a consistent style.

4.1.2.7 Rhythm

Rhythm is the patterned repetition of architectural elements such as fenestrations, bays, or columns. A regular rhythm is visually unifying and contributes to an overall sense of harmony. Within and adjacent to historic districts, any new develop should follow the rhythm of the historic buildings.

Design Guidelines

- Coordinate the rhythms of newly constructed buildings with rhythms of surrounding buildings. Facades should not be duplicated but a similar rhythm of elements such as trim, columns, windows, and entry overhangs contributes to a pleasing and consistent visual appearance.
- Coordinate the pattern of exterior elements (such as windows) with interior spaces while also considering placement of openings for optimal daylighting.
- Design structural bays at regular intervals.
- Fenestration, trim, and structural elements should be aligned both horizontally and vertically. Refer to the section on fenestration in Section 4.1.3.2 Exterior Materials.
- Express vertical structural elements on the facade such as pilasters or columns.

The following tables correspond to building envelope standards.

Table 4-1 **Mission Building Envelope Standards**

MISSION BUILDING STANDARDS	
USE	
Ground Floor	Admin, Operations
Upper Floor(s)	Admin, Operations
SHAPE	
Primary street frontage built to RBL	70% minimum
Building width	No maximum
HEIGHT	
Minimum number of floors	Refer to Regulating Plan
Maximum number of floors	Refer to Regulating Plan
Finish ground floor level	18 in minimum above sidewalk
First floor ceiling height	12 ft minimum, clear, 20 ft maximum
Floor-to-floor height	14 ft maximum
FENESTRATION	
Percent of facade area	No minimum

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Table 4-2 **Industrial Building Envelope Standards**

INDUSTRIAL BUILDING STANDARDS	
USE	
Ground Floor	Admin, Industrial
Upper Floor(s)	Admin, Industrial
SHAPE	
Primary street frontage built to RBL	70% minimum
Building width	No maximum
HEIGHT	
Minimum number of floors	Refer to Regulating Plan
Maximum number of floors	Refer to Regulating Plan
First floor ceiling height	No maximum
Floor-to-floor height	No maximum

Table 4-3 **Administrative Building Envelope Standards**

ADMINISTRATIVE BUILDING STANDARDS	
USE	
Ground Floor	Admin
Upper Floor(s)	Admin
SHAPE	
Primary street frontage built to RBL	70% minimum
Building width	50 ft maximum
HEIGHT	
Minimum number of floors	Refer to Regulating Plan
Maximum number of floors	Refer to Regulating Plan
Finish ground floor level	18 in minimum above sidewalk
First floor ceiling height	12 ft minimum, clear, 20 ft maximum
Floor-to-floor height	14 ft maximum
FENESTRATION	
Percent of facade area	40–90%

Table 4-4 **Educational and Training Building Envelope Standards**

EDUCATIONAL AND TRAINING BUILDING STANDARDS	
USE	
Ground Floor	Admin, Educational, Training
Upper Floor(s)	Admin, Educational, Training
SHAPE	
Primary street frontage built to RBL	70% minimum
Building width	50 ft maximum
HEIGHT	
Minimum number of floors	Refer to Regulating Plan
Maximum number of floors	Refer to Regulating Plan
Finish ground floor level	18 in minimum above sidewalk
First floor ceiling height	12 ft minimum, clear, 20 ft maximum
Floor-to-floor height	14 ft maximum
FENESTRATION	
Percent of facade area	No minimum

Table 4-5 **Medical Building Envelope Standards**

MEDICAL BUILDING STANDARDS	
USE	
Ground Floor	Admin, Medical
Upper Floor(s)	Admin, Medical
SHAPE	
Primary street frontage built to RBL	70% minimum
Building width	50 ft maximum
HEIGHT	
Minimum number of floors	Refer to Regulating Plan
Maximum number of floors	Refer to Regulating Plan
Finish ground floor level	18 in minimum above sidewalk
First floor ceiling height	12 ft minimum, clear, 20 ft maximum
Floor-to-floor height	14 ft maximum
FENESTRATION	
Percent of facade area	40–90%

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Table 4-6 **Commercial and Community Support Building Envelope Standards**

COMMERCIAL AND COMMUNITY SUPPORT BUILDING STANDARDS	
USE	
Ground Floor	Commercial, Community Support
Upper Floor(s)	Admin, Commercial, Community Support
SHAPE	
Primary street frontage built to RBL	70% minimum
Building width	No maximum
HEIGHT	
Minimum number of floors	Refer to Regulating Plan
Maximum number of floors	Refer to Regulating Plan
Finish ground floor level	18 in minimum above sidewalk
First floor ceiling height	12 ft minimum, clear, 20 ft maximum
Floor-to-floor height	14 ft maximum
FENESTRATION	
Percent of facade area	No minimum

Table 4-7 **Family Housing Building Envelope Standards**

FAMILY HOUSING BUILDING STANDARDS	
USE	
Ground Floor	Housing
Upper Floor(s)	Housing
SHAPE	
Primary street frontage built to RBL	70% minimum
Building width	30 ft maximum
HEIGHT	
Minimum number of floors	Refer to Regulating Plan
Maximum number of floors	Refer to Regulating Plan
Finish ground floor level	18 in minimum above sidewalk
First floor ceiling height	8 ft minimum, clear, 10 ft maximum
Floor-to-floor height	10 ft maximum
FENESTRATION	
Percent of facade area	40–90%

Table 4-8 **Unaccompanied Personnel Building Envelope Standards**

UNACCOMPANIED PERSONNEL HOUSING BUILDING STANDARDS	
USE	
Ground Floor	Admin, Housing
Upper Floor(s)	Housing
SHAPE	
Primary street frontage built to RBL	70% minimum
Building width	50 ft maximum
HEIGHT	
Minimum number of floors	Refer to Regulating Plan
Maximum number of floors	Refer to Regulating Plan
Finish ground floor level	18 in minimum above sidewalk
First floor ceiling height	8 ft minimum, clear, 10 ft maximum
Floor-to-floor height	10 ft maximum
FENESTRATION	
Percent of facade area	40–90%

4.1.3 Architectural Standards

The architecture of MCB Hawaii gives the impression of strength and uniformity. The goal is to implement a framework for both consistent and flexible architectural design throughout the installation to improve appearance and sustainability. The architectural language for the installation should be both functional and professional as a reflection of the profession of arms.

Solid design and regular maintenance of facilities creates an atmosphere of pride. It is a reflection of the investment in facilities for troops and their families and contributes to improving the overall quality of life for those who live and work at MCB Hawaii.

The architecture of MCB Hawaii will do the following.

- Produce facilities that are cost effective to operate and maintain in the long-term.
- Employ energy efficient strategies by maximizing passive design opportunities on the site.
- Organize pedestrian and traffic flow through the installation through clear, cohesive design using building typologies appropriate to the function.
- Create campus-like spaces where possible to enhance the walkability and sense of community on the installation.

The architecture design guidelines in this section apply to all facilities at MCB Hawaii. Architecture guidelines should be coordinated with other guidance to

minimize possible conflicts, including the *Camp H.M. Smith Historic Landscape Report, Pre-final* (December 2015) and the ongoing *MCB Hawaii Kaneohe Bay Historic Landscape Study*. Specific sites may have characteristics that require modification of the guidelines. New facility design should include design of the surrounding site and address landscape design requirements. Alternative application of these guidelines should be routed through the proper channels and ultimately be approved by the MCB Hawaii Facilities Department.

4.1.3.1 Architectural Themes

Existing buildings at MCB Hawaii range from historic facilities constructed in the 1940s to contemporary administrative, operations, and housing facilities.

Historic Architecture and Districts

A historic district has a significant concentration, linkage, or continuity of sites, buildings, structures, or objects united historically or aesthetically by plan or physical development. At MCB Hawaii Kaneohe Bay, there are three proposed historic architectural districts; Naval Air Station (NAS) Kaneohe Administration District; NAS Kaneohe Aviation District; and NAS Kaneohe Hilltop Officers' Housing District. See Figure 2-15, MCB Hawaii Kaneohe Bay Constraints Map for delineation of proposed historic district boundaries.

The architecture style for most of the historic buildings at MCB Hawaii Kaneohe Bay is a transition between the International and American Modern styles. Most, if not all, key historic buildings at MCB Hawaii Kaneohe Bay have been designed by Albert Kahn, a renowned industrial American architect. Any repairs and renovations to historic buildings 50 years old or older will follow the *Repair and Maintenance Management Guidelines (March 2015),* which align with *The Secretary of the Interior's Standard for the Treatment of Historic Properties* (July, 1995). Buildings adjacent to significant historic buildings will compliment the historic structures in massing, style, color and material. New structures need not replicate the exact International style, but will use similar design elements or components to characterize the new structures in their own way.

NAS Kaneohe Administration District

The NAS Kaneohe Administration District comprises several major facilities original to the base, plus an open parade ground, Dewey Square. The major contributing resources include the original base dispensary (Building 216), the administration building (Building 215), the telephone exchange building (Building 213), 11 barracks buildings (Buildings 220-230), a mess hall (Building 212), a small brig (Building 211), the command center (Building 217), the gate house (Building 218), and a recreation facility (Building 219), all of which are configured around the Dewey Square parade grounds, and the oval open space around the flagpole. The *Repair and Maintenance Management Guidelines (March 2015)* recommend retaining the shape and overall massing of the historic buildings and open spaces. The street configuration and the monkeypod trees lining Dewey Square should also be retained.

The Administration District's buildings fronting Dewey Square at MCB Hawaii Kaneohe Bay.

The Aviation District's administrative buildings are in the same style as other administration buildings throughout MCB Hawaii Kaneohe Bay.

NAS Kaneohe Aviation District

The NAS Kaneohe Aviation District is comprised of several major facilities original to the base, including an airstrip and many small support facilities. The major contributing facilities include aircraft hangars (Buildings 101–105), five seaplane ramps, an office building (Building 301), utilities shops, torpedo storage buildings and workshop, and a bombsight workshop. Hangar 1 (Building 101), the five seaplane ramps, the seaplane parking area to the east of Hangar 1, and the seaplane parking area between the hangars and Kāneʻohe Bay were designated a National Historic Landmark on May 28, 1987. The *Repair and Maintenance Management Guidelines* (March 2015) recommend retaining the shape and overall massing of the historic buildings, the runway, and street and sidewalk configuration.

NAS Kaneohe Hilltop Officers' Housing District

The major contributing facilities in the Officer Housing District are the 23 single-family houses (Buildings 511–528 and 530–534), an underground shelter (Building 535), and the Bachelor Officer's Quarters (Building 503). All the housing units are managed by a public-private venture. The *Repair and Maintenance Management Guidelines* (March 2015) recommend the overall shape and massing of the Bachelor Officer's Quarters should not be altered and the building should remain highly visible within an open setting.

Existing Contemporary Architecture

Successful architecture should be designed to be recognizable regarding its function and use and be conducive to its climate and physical environment, and should also reflect the cultural landscape and the community. Contemporary architecture in Hawaiʻi draws on mainland U.S. and international architectural styles and, importantly, on a unique Hawaiʻi regional architectural style. Today, this Hawaiʻi style typically draws on the classic "Dickey" roof—a hip roof with a "double-pitch" that is a shallower pitch at the eaves—and California mission style, which includes tile roofs and stucco walls.

Per the *BEAP*, new MCB Hawaii buildings will match the historic architecture style in a modern approach with regard to current construction materials and methods, and incorporate decorative elements or building components that relate to Hawaiiana. The style may range from a conservative design approach to a bit more artistic approach, such as the Finn Building (building 6468), the post office (Building 6644), and the chapel (Building 6677) with their decorative elements. The Child Development Center and the Air Terminal are examples of contemporary Hawaiʻi architecture with Hawaiiana components at MCB Hawaii.

The barracks are examples of MCB Hawaii Kaneohe Bay's existing contemporary architecture.

Bachelor Quarter/Quarters

The Bachelor Quarters (BQ) have developed a distinct building type and design that meets current requirements in function and aesthetics. BQ shall encompass a single-loaded corridor scheme where the corridor is an open-air hall overlooking an open interior courtyard. The common BQ building type is a U-shape configuration where a single-story recreation/gathering room is at the

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"open" end of the "U." Above this single-story recreation room is a recreational roof patio, which is also a bridge connection to the two opposite 'legs' of the U-configuration.

Industrial Buildings (Warehouse and Storage)
Industrial buildings are usually massive but simple buildings as they are purely functional. Most new warehouses are pre-fabricated with metal siding. A gable roof with no or minimal overhangs would hold up metal panel roofing. Warehouses and storage facilities need not adhere to strict architectural styles unless attached to or in close proximity to administrative buildings or historic districts.

Parking Structures
Similar to industrial buildings, parking structure are usually massive and purely functional. Since parking structures would be located near administrative buildings, bachelor quarters, or other buildings with high occupancy, they should be influenced by the architectural styles of adjacent buildings or historic districts.

4.1.3.2 Exterior Materials

Materials are determined by the structural and AT/FP requirements for each building and site. The primary building material throughout MCB Hawaii Kaneohe Bay is reinforced concrete. Types and colors of materials should be selected to reduce the surface heat gain of building exteriors. Materials should be of neutral tones and sourced locally whenever possible. Consistency in material type, color, and form provides a consistent visual appearance.

Exterior materials must be durable and able to withstand the salt-laden air conditions of MCB Hawaii Kaneohe Bay while requiring minimal maintenance. Salt rapidly accelerates wood deterioration, promotes galvanic action between metals, the rusting of ferrous metals (including inadequately protected reinforcing steel) and alloys, and the pitting of many aluminum sealants. Salt-laden air also adversely effects the application of paints, elastomeric coatings, and asphalt roofing applications.

For new construction adjacent or within the historic districts, exterior materials should match those of the historic buildings, such as concrete within the NAS Kaneohe Administrative District. The *Repair and Maintenance Management Guidelines* (March 2015) outlines acceptable materials.

The following provides design guidelines for exterior materials for roofs and facades.

Roofs
Roofing is a critical element of the building envelope. Roofs can be used to reduce the heat island effect and therefore reduce the energy needed to cool buildings.

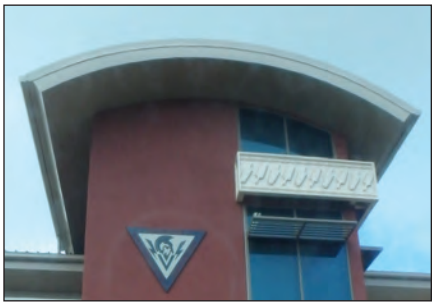
Gable roof at MCB Hawaii Kaneohe Bay's barracks.

Design Guidelines

- Large sections of pitched roof areas shall be broken up with roof dormers, vertical breaks, undulations in wall and roof composition, and/or staggered or stepped niches along the perimeter wall and roof overhang.
- Clusters of two or more buildings within a single development will have the same roofing material and, in some cases, may need to match the surrounding roofing (e.g., Mokapu Mall).
- Roof dormers will match the overall roof design with a hip or gable roof type. If possible, such dormers should be used as louvered roof exhausts or something similar so they can be both aesthetic and functional.
- All new roofs will have copper flashing, gutters, leaders, and downspouts, unless otherwise allowed by the MCB Hawaii Kaneohe Bay Facilities Department. Avoid or minimize roof crickets, which will match the main roof slope.

Shed, Hip, and Gable Roofs

Shed, hip, and gable roofs should be used for all buildings unless impractical, as in large warehouses, hangars, or other large-scale maintenance facilities.



Eyebrow overhang at MCB Hawaii Kaneohe Bay's Air Terminal.

Design Guidelines

- Barracks roofing will be S-shaped concrete tile or an aluminum sheet panel system that has the similar appearance as concrete tile.
- Roofing other than barracks will have S-shaped concrete tile or an aluminum sheet panel system that has the similar appearance as concrete tile or a standing-seam metal roof panel system.

Flat Roofs

Flat roofs will be used within historic districts and for industrial buildings.

Design Guidelines

- Roofing may be built-up or single-ply roofing systems, as approved by the MCB Hawaii Facilities Department.
- Parapets are allowed.

Curved Roofs

Curved roofs, or similar forms, will be utilized at new facilities serving Air Operations as an entry roof feature, accent dormer, or as the main roof. This signature curved roof represents the motif of flight and provides The Aviation District a visual identity.

Carports with PV at MCB Hawaii Kaneohe Bay's Air Terminal.

Eyebrow Overhangs

Eyebrow overhangs will be used within historic districts, at industrial buildings, and where appropriate in new buildings as reviewed and approved by the MCB Hawaii Facilities Department.

Design Guidelines

- Overhangs will be concrete poured-in-place with a minimum 6 in depth and shall be fully waterproofed with the appropriate coating system.

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Carports with PV System Roofs

Carport structures with PV systems serving as roof structures and PV systems applied to roof structures will match the architecture of the buildings they serve in style, color, and finish.

Gutters and Downspouts

Design Guidelines

- Gutters, leaders, downspouts, and flashing for all new buildings will be copper.
- There will be no concealed downspout pipes unless for a warehouse or large expansive building, such as a commissary or exchange.
- Downspout sections at grade will be of polyvinyl chloride (PVC) for industrial use buildings.

Copper downspout at MCB Hawaii Kaneohe Bay.

Facades

This section describes the design intent for building facade elements, including entryways, fenestration (windows and doors), texture, paints and coatings, and miscellaneous decorative elements.

Design Guidelines

- Large and long wall areas or planes will be broken up with vertical elements, such as columns or pilasters, so the structure can be expressed on the exterior and the interior rooms are free from interruption by these structural elements.
- Long planes of exterior wall will also be broken up with differing wall planes such as with the main or secondary entry masses, by bay projections from the main building face, and/or by shifts in the floor plan.
- Single and two-story buildings will have a wainscot at the building's base or at the window sill.
- Buildings with three or more stories will have a horizontal break at the top or upper floors to break up the verticality.
- Avoid Exterior Insulation and Finish System (EIFS) as the foam insulation is prone to damage. Exterior Finish Systems (EFS) without a layer insulation over concrete or masonry is acceptable. Minimize control joints and open wall areas where concrete and masonry meet, and strategize how to compose and locate such control joints to a more aesthetic appearance rather than random placement and locations with little thought.

The Air Terminal's facade is a successful example of preferred entryway and facade articulation, texture, paint palette, and decorative elements. Horizontal elements break-up the building's verticality, which allows the large structure to feel more pedestrian in scale.

Entryways

Clear articulation of a building's entrance provides direction and order for building users. The entrance is the introduction to a facility and states the importance of a place and its function. In addition to serving as a wayfinding feature, entries also add visual interest to building facades and break up massing.

The entryway at the MCX Mall is scaled appropriately to that particular type of facility.

The entryway at the airfield shoppette clearly indicates the point of entry for the user and shelters facility users from the elements.

The entryway should be designed in coordination with force protection measures outside of the facility. It is important to have observable space around the entryway while also preventing direct line of sight from the entry into work areas. This improves security, safety, and privacy for workers. The entryway should open into circulation space, such as a lobby, that can be used to orient facility users and provide a buffer area between the entry and waiting areas or work spaces.

Appropriate entryway design can also enhance security. Having a clear front entrance can make it more obvious when someone is trying to circumvent the typical entry pattern. For example, a person trying to gain entry into a facility through a side fire exit seems more "out of place" when the entryway is obvious. If a facility has security requirements such as ID checks at the front door, having a clear consolidated entry allows for streamlined checks. A proper entry allows for such measures to be implemented when the threat level increases.

Design Guidelines

- Every building will have a distinct main entry that is easily recognized from the street, parking lots, and pedestrian walkways.
- Every building's main entry structural mass will project out from the main building frontage/facade or building plane.
- The main entry will be well protected from inclement weather.
- The main entry will be composed such that it relates to human scale (see Section 4.1.2.3.
- When buildings require an elevated first floor (usually to address flood zone requirements), the main entry staircases will have monumental stair stringers that flank the staircases and match existing historic entry staircases in size and scale.
- Where wheelchair access is required at entries, devise a ramp/walkway system that will raise the surrounding finish grade and will minimize or eliminate a guardrail. If railings cannot be avoided, provide solid concrete guardrails with mounted hand rails in lieu of an all-metal rail system. Integrate landscape design to focus the attention at the main entry rather than the ramp.

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Fenestration (Doors and Windows)

Fenestration refers to the arrangement, proportioning, and design of windows and doors in a building.

Design Guidelines

- Window frames will be anodized aluminum or a high-quality coating equal to Kynar 500.
- Windows will not have any decorative shutters or keystone trims. All windows will have minimal embellishment and will have concrete sills with a projected drip edge.
- Depending on the AT/FP blast design, windows may be individual units, several combined units, or numerous units to create a "ribbon" window composition.
- All glazing will be clear and not tinted. Refer to the MCB Hawaii Facilities Department for energy design requirements.
- All exterior door hardware will be stainless steel.
- All exterior doors will be of fiberglass reinforced plastic (FRP) material with a smooth, non-textured finish, painted to match the adjacent exterior colors or chosen color scheme.
- When wide, main entry doors are a necessity for building use, and those doors require AT/FP blast-resistance, provide a 4-ft wide door in lieu of a pair of 3-ft doors to avoid the hindrance of a center vertical door stop between the two 3-ft doors.
- Historic buildings or new buildings in historic districts will match existing, adjacent historic windows and/or doors. Assure compliance with *The Secretary of the Interior's Standards for the Treatment of Historic Properties* (July 1995).

Texture

Texture is the combination of materials, architectural features, and color. Texture can provide visual interest to building facades and moderate the appearance of building scale and massing. Buildings should have a textural quality that is comfortable and pleasing to the eye and not be overly tactile, uneven, or irregular.

Contemporary MCB Hawaii Kaneohe Bay buildings incorporate decorative architectural elements with a Hawaiiana theme.

Decorative Elements

Decorative architectural elements can include concrete friezes, metal grillework, and other architectural features applied to building facades to enhance the facility's visual aesthetic.

Design Guidelines

- Graphics and symbols of Hawaiiana will be placed on columns or pilasters along the shafts, decorative emblems, or motifs placed at strategic and proper places along the exterior wall such as entries and visible facades of the building.
- Buildings will include horizontal decorative band(s) or frieze(s) with a Hawaiian tapa design or patterns of a similar nature.
- Medallions or tiles with decorative Hawaiiana graphics will be placed on walls or columns, will be made of cast concrete, stone, or higher quality EIFS type material.
- Such Hawaiian motifs will fit the use of a building type.
  - Hawaiian warrior petroglyph designs or graphic symbols of traditional war weaponry graphic designs will be reserved for Marine Corps tenant commands.
  - The Hawaiian hawk or *'Io* will be reserved for the Air Operations buildings.
  - Hawaiian flora or marine fauna graphic designs would be reserved for recreational and family-orientated facilities.
- Such Hawaiiana designs incorporated into the architecture will be reviewed and approved by the MCB Hawaii Facilities Department.

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Paint and Coatings

Building painting is an economical investment in facility appearance that can revive the building exterior, instilling a sense of pride in those who live and work at MCB Hawaii Kaneohe Bay. Facilities with a professional appearance improve the image of the installation and the quality of life for those working and residing there. Color selection can impact the amount of building heat gain since darker colors absorb heat and lighter colors reflect light/heat. The coordination of base, accent, and trim colors is an economical and efficient way to create visual interest and building identity. Painting color, pattern, and texture can establish visual continuity between old and new facilities.

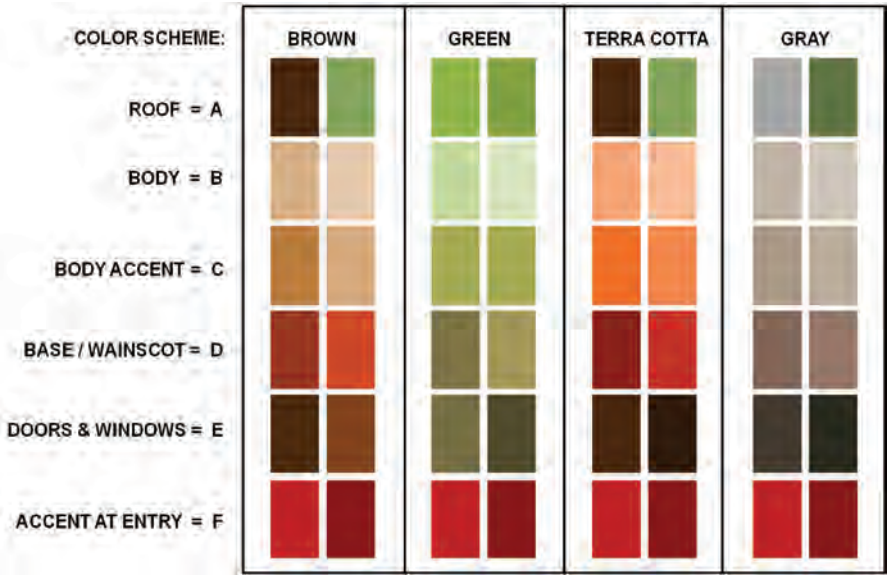
Solar Reflectance Index (SRI) is a measure of a surface's ability to reflect heat. SRI is calculated according to a material's reflectance and emmittence values. The scale is based on black as a "0" value and white as a "100" value. The amount of solar reflectance is based on color in a combination with the type of material and angle relative to the sun. USGBC LEED requirements give SRI standards for both nonroof and roof surfaces per Sustainable Sites Credits 7.1 and 7.2 addressing the heat island effect. The more level an exposed surface is, such as a flat roof, the more potential heat gain. Therefore, flat roof surfaces or low-sloped roof surfaces should be painted with a light color. Per USGBC LEED requirements, the SRI for a low-sloped roof less than or equal to a 2:12 ratio should have an SRI value of at least 78, and for a steep-sloped roof greater than 2:12 an SRI value of at least 29. Achieving an SRI value of 78 for low-sloped roofs requires using a white color in most cases.

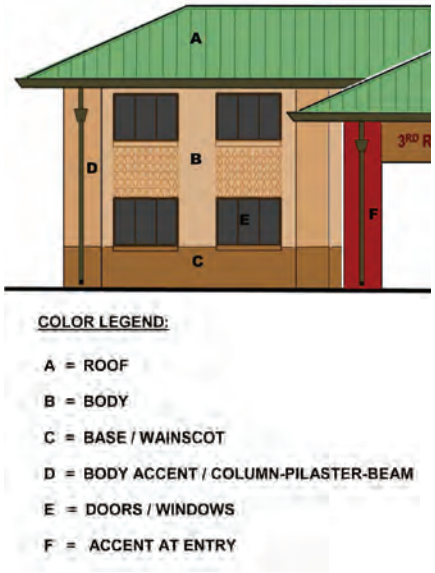
Color should be applied selectively to specific building elements as described in the *BEAP*. Color selection and placement should be submitted per project to the MCB Hawaii Facilities Department for approval.

Design Guidelines

The following exterior color schemes will be applied to all base buildings per the *BEAP*.

- Utilize at least five colors within the same color palette to accentuate the building facade.
- There will be separate colors for the main wall; the wainscot or base; structural components such as columns, pilasters, and projected beams; trimwork; and roofing.
- The main entry will have a distinct accent color at the trim, columns, a wall section or building mass component such as an entry stair or elevator tower.
- Present a minimum of three color schemes for approval by the MCB Hawaii Facilities Department.





The four color palettes (brown, green, terra cotta and gray) are to be used consistently within a district. Coordinate with the MCB Hawaii project manager on the color palette selection. Source: MCB Hawaii Base Exterior Architectural Plan (BEAP), December 2013.

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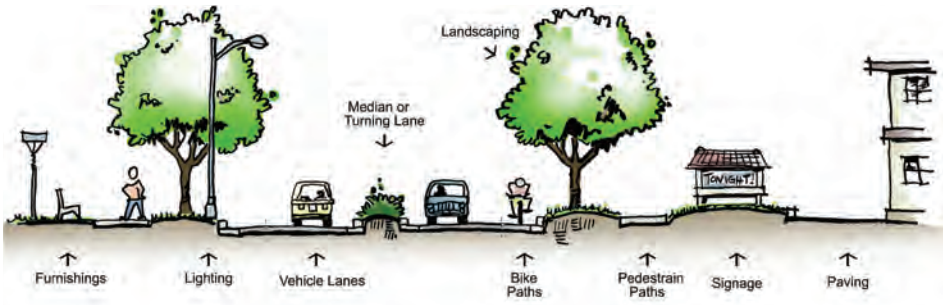
4.1.4 Street Envelope Standards

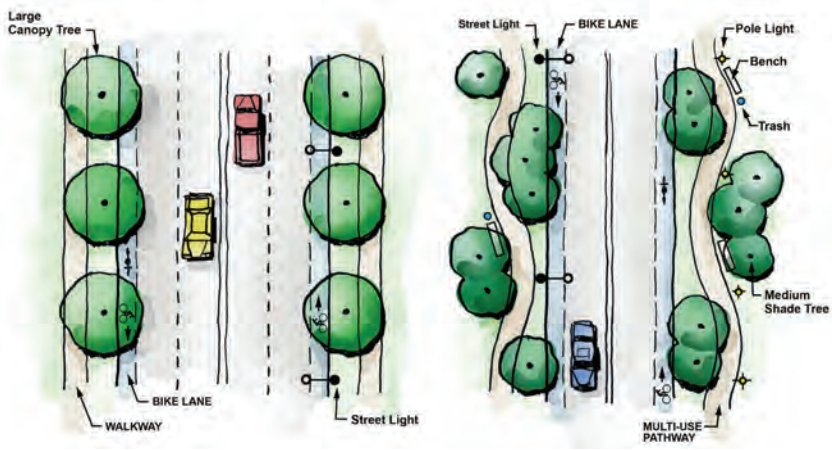
The Circulation Plan is presented and discussed in Chapter 3, Section 3.2.2. The following sections address hierarchy and streetscape for roadways, and design elements for parking lots, passenger drop-off areas, pedestrian roadway crossings, and major intersections.

Roadways, the main circulation network at MCB Hawaii, provide not only the primary means of circulation but also the major vantage points from which the installation is seen and comprehended. The hierarchy of roadways at MCB Hawaii is defined by the volume and type of traffic traveling within the installation. Based on this hierarchy, the roadway network is comprised of three classes: primary roadways-major, primary roadways-minor, and secondary roadways.

Streetscapes are comprised of circulation elements—roadways, pedestrian pathways, and bikeways—and landscaping and lighting elements. A well-planned streetscape establishes the roadway hierarchy, minimizes potential safety hazards, and enhances the visual image of the installation. Importantly, traffic safety should be a major consideration in the design of streetscapes.



A street's envelope is comprised of roadways pedestrian pathways, bikeways, landscaping, and lighting. In some locations, a street envelope may include a median, signage, and other site amenities.



Space permitting, pedestrian and bicycle circulation along a street envelope may vary from a typical straight, linear layout. In community support areas, a meandering multi-use pathway set back from the roadway is preferable to a linear sidewalk immediately adjacent to the roadway.

4.1.4.1 Primary Roadways—Major and Minor

Primary roadways carry the greatest volumes of traffic and provide the means by which most people observe the visual environment of the installation. At MCB Hawaii, there are two levels of primary roadways: major and minor. Major primary roadways include all roads and streets that serve as the main distribution arteries for traffic originating from within or outside of the installation. Minor primary roadways generally connect primary and secondary roads and provide access to individual use areas. The smaller volume of traffic carried by these roads permits slower design speeds to accommodate stop-and-go traffic.

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Primary roadway street standards are listed in Table 4-9. Ideally, the streetscapes of primary roadways should include the following.

- Large-canopy shade trees planted at regular intervals on both sides of major primary roadways and medium-canopy trees along minor primary roadways
- Pedestrian-scale street lighting, where appropriate
- 6-ft-wide pedestrian pathways on both sides of the roadway
- 4-ft-wide bike lanes on both sides of the roadway
- Crosswalks
- Site amenities, including benches and trash receptacles where appropriate
- Landscaped medians and special paving utilized to convey the route as a primary roadway and incorporated when feasible

Important intersections along major primary roadways may be designated for "major intersection treatments." Refer to Major Intersection Treatments in Section 4.1.4.6.

Primary roadways carry the greatest volumes of traffic and provide the means by which most people observe the visual environment of the installation. Primary roadway streetscapes include large-canopy shade trees, pedestrian pathways and bikeways, lighting, and site amenities.

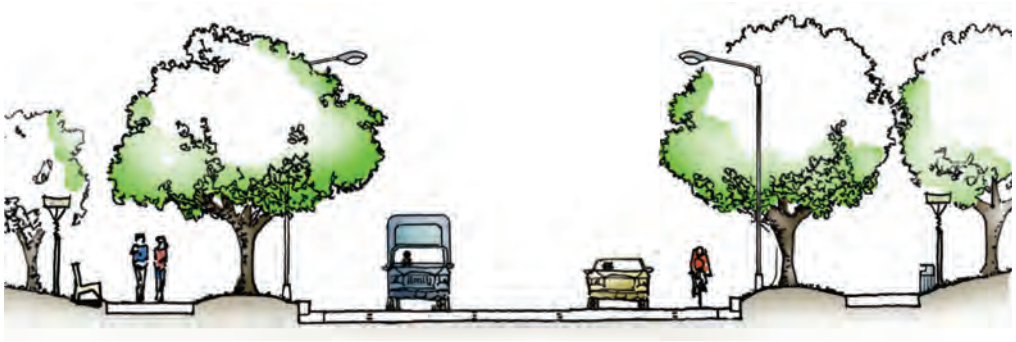

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Table 4-9 **Primary Roadway Street Standards**

PRIMARY ROADWAY STREET STANDARD	MIN.	MAX.	RECOMMENDED
Overall Widths			
Right-of-Way (ROW) Width	64 ft	Unlimited	78 ft: 2 lanes of traffic and 1 bike lane in either direction
Verge Width	10 ft	Unlimited	14 ft: 6 ft planting strip, 8 ft walkway or multimodal path
One-Way Curb to Curb Width	24 ft	Unlimited	25 ft
Lane and Edges			
Medians	As appropriate		
Walkways and Multimodal Paths	6 ft	8 ft	8 ft: 4 ft in either direction
Planting Strips	4 ft	Unlimited	6 ft
Parallel Parking	Not recommended		
Bicycle Lanes	4 ft	6 ft	4 ft
Traffic Lanes	10 ft	12 ft	10.5 ft
Protected Turn Lane	10 ft	12 ft	10.5 ft

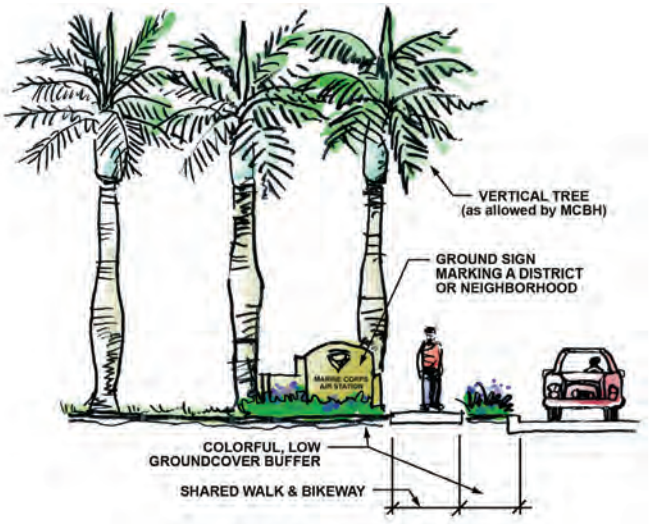
Main Gate and Entry Road

The streetscape at the main gate and entry road should create a visually prominent experience appropriate to the importance of the entrance, and establish a sense of the overall landscape character and quality of MCB Hawaii Kaneohe Bay. Per the *Facility Enhancement Plan* (1999), a sense of entry should be developed through the use of earth mounds and monkeypod or *kamani* trees, with colorful foliage or accent palms at the gate.

G Street

The streetscape of G Street should be developed as a continuation of the main entry with landscape treatments that recognize pedestrian and bicycle use. The design should continue the theme of earth berms and monkeypod or *kamani* trees and include appropriate signage, pedestrian paths and bikeways, and rest areas (e.g., areas with seating, drinking fountains, trash receptacles, and exercise stations).

Special treatments at important intersections may include signage and landscaping.



Mokapu Road

The streetscape of Mokapu Road should reinforce the thoroughfare's hierarchy as a primary roadway for the installation. The design should reinforce the existing theme of monkeypod and *kou* trees and include appropriate signage, pedestrian paths, bikeways, and amenities. Operational and family areas should be screened through the use of landscaping and/or fencing.

3rd Street and E Street

The streetscape of 3rd Street and E Street should reinforce the existing landscape character and visual approach to the headquarters area. These streets are on the edge of the historic administrative district. The *Area Development Plan 200 BEQ Area* (November 2014) was prepared specifically for the 200-series bachelor enlisted quarters. Proposed changes to this street should consider the design of the adjacent BEQ development.

3rd Street, one of MCB Hawaii Kaneohe Bay's primary roadways, could be improved through the installation of additional Monkeypod trees, pedestrian pathways and bikeways, landscaping, lighting, and site amenities such as benches and trash receptacles.

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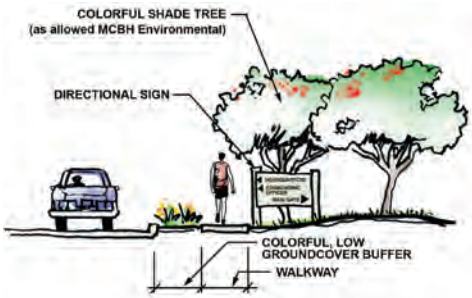
4.1.4.2 Secondary Roadways

Secondary roadways are primarily located in housing areas and handle a lower volume of localized traffic and on-street parking when necessary. Their main function is to provide vehicular access to community support facilities and residential parking areas. It is especially important to consider the pedestrian experience along secondary roadways, since pathways along these roadways are frequently used for recreation, by children walking or biking to school, and at night. The streetscape of secondary roadways should include a consistent palette of appropriate street trees, bikeways, pedestrian paths and amenities, lighting, and safety markings.



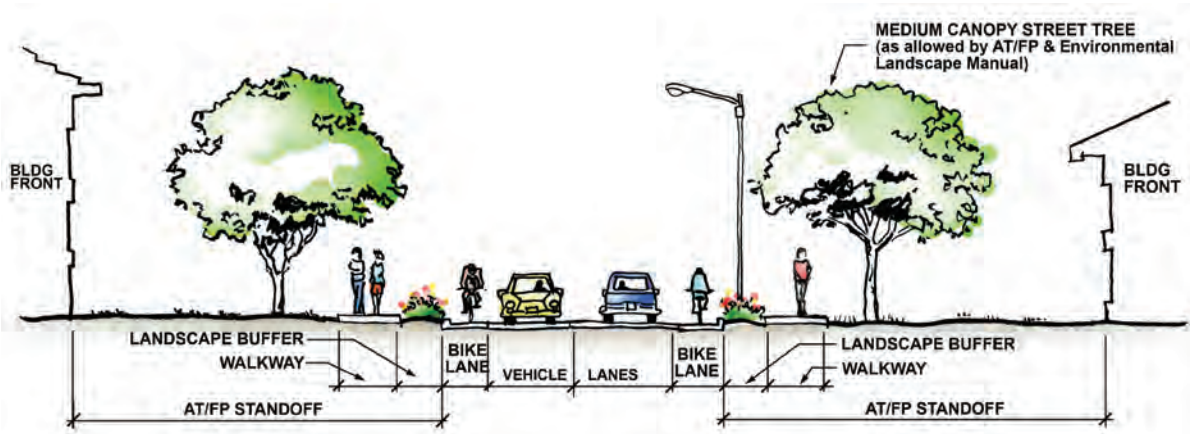
Special treatments at important intersections may include signage and landscaping.

Secondary roadway street standards are listed in Table 4-10. Ideally, the streetscapes of secondary roadways should include the following.

- Medium- or small-canopy shade trees planted at regular intervals on both sides of the roadway
- Pedestrian-scale street lighting, where appropriate
- 6-ft-wide walkways or multimodal paths on both sides of the roadway (for family housing areas, allow children to use bikes on walkways)
- 4-ft-wide bike lanes on both sides of the roadway
- Crosswalks
- Site amenities, including benches and trash receptacles, where appropriate

Table 4-10 **Secondary Roadway Street Standards**

SECONDARY ROADWAY STREET STANDARD	MIN.	MAX.	RECOMMENDED
Overall Widths			
Right-of-Way (ROW) Width	48 ft	Unlimited	57 ft: 1 lane of traffic and 1 bike lane in either direction
Verge Width	10 ft	Unlimited	14 ft: 6 ft planting strip, 6′ ft walkway or multimodal path
One-Way Curb to Curb Width	14 ft	18 ft	14.5 ft
Lane and Edges			
Medians	Not recommended		
Walkways and Multimodal Paths	6 ft	8 ft	8 ft: 4 ft in either direction
Planting Strips	4 ft	Unlimited	6 ft
Parallel Parking	Not recommended		
Bicycle Lanes	4 ft	6 ft	4 ft
Traffic Lanes	10 ft	12 ft	10.5 ft
Protected Turn Lane	10 ft	12 ft	10.5 ft



Secondary roadways handle a lower volume of localized traffic and on-street parking when necessary. Secondary roadway streetscapes include medium-canopy shade trees, pedestrian pathways and bikeways, lighting, and site amenities.

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4.1.4.3 Parking Lots and Structures

Parking lots and structures should be safe and easy to use for both vehicles and pedestrians. MCB Hawaii has areas where historic or other older buildings have parking lots that are not compliant with current AT/FP standards, which were developed after these areas were built. Examples include uncontrolled parking lots and on-street parking located too close to occupied buildings.

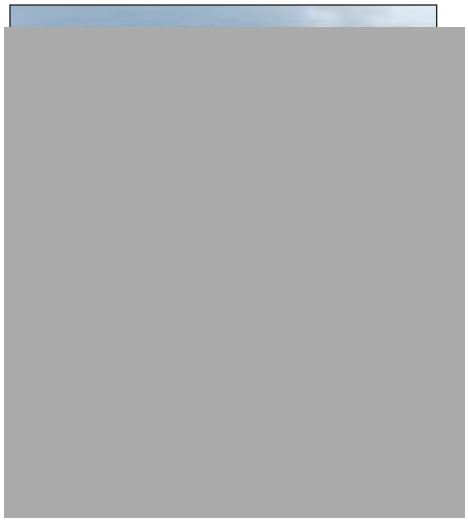
Parking areas that are developed concurrently with facilities are more efficient and less costly than stand-alone parking projects. When designing parking lots, stall requirements should be scrutinized, as lots may not need to be designed for peak use. Designing a single parking lot or structure for shared use by multiple facilities should be considered for areas of new construction. Shared parking lots reduce the number and impact of multiple driveways along roadways, providing a safer and more pleasant pedestrian and driving experience.

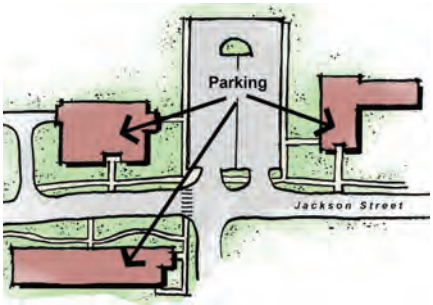
Parking lot standards are listed in Table 4-11. Ideally, parking lots should include the following.

- Visible parking easily accessible from the street
- 90-degree angle parking stalls with two-way aisles, whenever possible
- At open parking lots, canopy trees planted for shade and glare control (such trees can be planted on raised islands with minimum width of six ft or at grade to serve as stormwater drainage areas)
- Parking structures will match the adjacent architecture in style, color, and finish. All staircases will be protected from inclement weather, and entrances shall be easily recognizable.

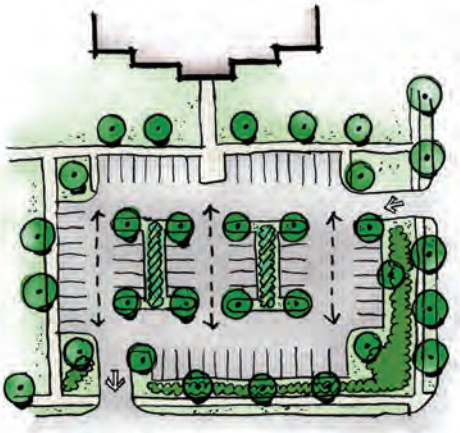
Table 4-11 **Parking Lot Standards**

90-DEGREE PARKING LOT STANDARD	MIN.	MAX.
Parking Stall Width	9 ft	
Parking Stall Length	18 ft	
Two-Way Vehicle Aisle Width	24 ft	
Minimum Lot Setback from Buildings	33 ft	
Tree Spacing	1 per 6 stalls	
Landscaping	10% of paved area	Unlimited





Whenever possible, design parking lots that can be shared by multiple buildings and facilities.



Align parking aisles perpendicular to buildings and facilities and install pedestrian pathways to facilitate safer and efficient pedestrian circulation. Install bioswales as feasible to mitigate stormwater runoff.

The one-way passenger drop-off loop at the clinic should be redesigned to prohibit parking closer than 33 ft to the building. Otherwise, the drop-off's design—one-way, located away from the parking area, and well-integrated into the building's architecture—is an appropriate example of a passenger drop-off area.

4.1.4.4 Passenger Drop-off Areas

Drop-off areas should be provided for office, commercial, educational, and community support facilities with high traffic volumes and passenger loading/unloading. Passenger drop-off zones and parking should be provided near visitor entrances, but still must meet AT/FP requirements.

Ideally, the passenger drop-off areas should be designed as follows.

- Locate drive-up/drop-off areas away from large glazed areas of buildings to minimize the potential for hazardous flying glass fragments in the event of an explosion.
- Provide a separate drop-off area located away from the building for buses and shuttles.
- Design drop-off areas as one-way loops to maximize pedestrian safety.
- Design drop-off areas to be sufficient in size to avoid vehicular conflicts and impediments to traffic flow.
- Integrate covered drop-off areas/porte cocheres with building entry design.

4.1.4.5 Pedestrian Roadway Crossings

Crosswalks provide designated areas for pedestrian transit across roadways. Crosswalks should be located for increased safety of pedestrians, vehicles, and bicyclists and may be raised, when feasible.

Crosswalks should connect to pedestrian pathways via curb-cut ramps, which allow for safe, accessible crossing.

Ideally, pedestrian roadway crossings should be designed as follows.

- Include crosswalks at all street intersections where there is pedestrian traffic.
- Install crosswalks where appropriate between intersections. Crosswalks encourage pedestrian use and increase safety for pedestrians and vehicles.
- Heat-applied thermoplastic crosswalk markings should be used. The practice of painting crosswalk markings is discouraged as they are less durable.
- Provide curb-cut ramps at both ends of a crossing. Apply a textured finish or detection strip to the ramp to indicate the vehicle roadway.

4.1.4.6 Major Intersections

Major intersections are critical to wayfinding and reinforcing roadway hierarchy. Examples include the intersection of the installation's main entry drive and a primary roadway and intersections adjacent to high traffic areas. Where primary streets intersect or important combinations of primary and secondary streets intersect, visual highlights such as landscape plantings, street lighting, special paving treatments, monuments, and signage should be installed to reinforce the intersection's significance as a vehicular node.

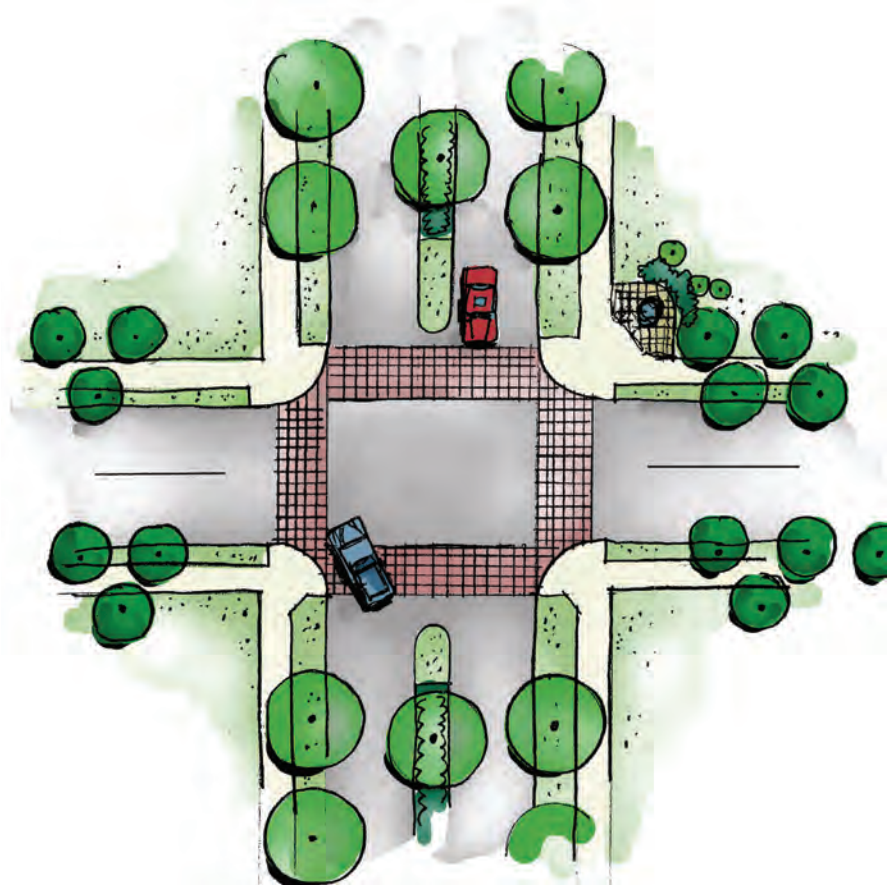
(b) (7)(F)

Ideally, major intersections should be designed to include the following.

- Special paving materials (e.g., pavers and stamped concrete or asphalt) at crosswalks and monuments
- Medians, where feasible
- Landscaping
- Lighting
- Signage

Major intersections should comply with the following design guidelines.

- Develop a standard design and palette of materials for major intersections that is consistent throughout the installation.
- Maintain sight lines to provide both pedestrians and drivers with unobstructed views. Do not plant trees closer than 15 ft to corners.
- Utilize paving bands to identify crosswalks at major intersections.
- Provide curb-cut ramps at each crossing.
- Monuments may be incorporated into paved pedestrian areas at intersection corners.
- Where feasible, include shrub and groundcover landscaping to highlight signage and/or monuments.



Major intersections may be designed to include special paving for pedestrian crossings and monuments, signage, or static displays installed at corners.

4.1.5 Landscaping Standards

Landscape design utilizes planting, land forms, and site amenities to create open spaces and areas around buildings that are safe, aesthetically pleasing, and functional. It is the goal of MCB Hawaii to implement landscape design throughout the installation to improve appearance and sustainability. While changes and improvements to existing architecture will take time, landscape design treatments can be implemented relatively quickly at a low cost.

Notably, landscape design should be utilized to achieve desired environmental and ecological objectives beyond improvements to the visual environment. Per the *MCB Hawaii Landscape Manual* (Landscape Manual), MCB Hawaii is committed to restoring some sense of balance to the landscape and ecological communities through ecosystem management principles at all of its installations. One of the strategic objectives of MCB Hawaii is to remain a leader in environmental protection and enhancement of its facilities and their settings. Ensuring such an objective requires that the developed and natural landscape under MCB Hawaii's authority sustain the rich natural and cultural resources of Hawai'i.

Therefore, landscape design will be used to achieve the following.

- Maintain and improve the ecological environment
- Improve consistency and provide better organization of the visual environment
- Link facilities with efficient and aesthetically pleasing pedestrian connections
- Meet environmental mitigation requirements and improve sustainability
- Enhance architecture
- Screen incompatible land use or visually unattractive elements

The landscape design guidelines apply to landscaping, site amenities, materials and finishes throughout MCB Hawaii. Landscape design and site amenities guidelines should be coordinated with other guiding documents to minimize possible conflicts, including the *Landscape Manual*. The objective of the manual is to ensure a "no net loss of trees", to reaffirm the policy of a one-for-one replacement of removed trees and the use of at least 50 percent native plants as a part of all landscape projects to the greatest extent practicable. Specific sites may have characteristics that require modification of these guidelines to allow for the maximization of land use, sustainable concepts, and visual aesthetics.

Include landscape design in the initial construction or renovation scope of work of all projects. Landscape design should comply with either the USGBC LEED rating system. Coordination between parties involved with the proposed design and/or development project should ensure appropriate and consistent application of the guidelines. Alternative applications to these guidelines should be routed through the proper channels and ultimately approved by the MCB Hawaii Facilities Department.

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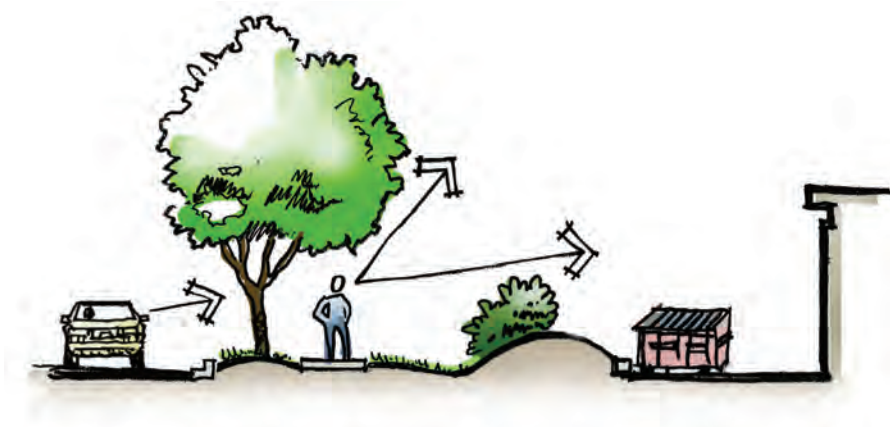
4.1.5.1 Landscape Character

Landscape character is defined as a distinct and recognizable pattern of elements that occur consistently in a particular type of landscape. Character makes each part of the landscape distinct and gives each site its particular sense of place. The landscape character for MCB Hawaii is intended to be consistent throughout the installation while providing flexibility for addressing unique site conditions.

The landscape guidelines herein should be applied in conjunction with the guidelines included in the *Landscape Manual* to reinforce a landscape character that is aesthetically pleasing, cost-effective, and sustainable.

The existing landscape at MCB Hawaii comprises expansive areas of manicured lawn, minimal areas of shrubs and street trees, and sporadic trees and palms. While expansive manicured lawns are an established landscape characteristic of the installation, maintaining these large lawn areas are an inefficient use of resources.

Various locations throughout the installation have not been landscaped and consist of natural vegetation, including Pu‘u Hawai‘i Loa, Ulupa‘u Crater, Nu‘upia Ponds, and the undeveloped gulch at Camp Smith. As such, there is wide range of existing vegetation within the installation boundaries—from decorative planting to areas of native plant restoration. These plant varieties include wetland and marsh plants within the Nu‘upia Ponds complex and drainage canals, coastal strand flora in the beach dune areas, and various native, Polynesian introduced and nonnative species in the semideveloped and urban areas of the installation.



Site elements such as earthen berms, stands of trees, and vegetation groupings can help screen sensitive facilities from unwanted surveillance consistent with AT/FP standards.

4.1.5.2 Landscape Design

Landscape design involves the selection and proper installation of appropriate landscape materials as well as a comprehensive maintenance plan. The overall objective of landscaping is to enhance the visual character and environmental quality of the installation. This objective can be achieved by using plant material and other site furnishings to do the following.

- Reinforcing installation identity and sense of place.
- Blend the built environment with the natural environment.
- Aid in wayfinding by accenting key places or elements.
- Provide scale and comfort to the pedestrian environment.
- Screen unsightly views or elements.
- Buffer incompatible land uses.
- Reduce heat in parking lots and other large paved areas.

Landscape design guidelines in this section promote energy conservation, direct circulation, reinforce AT/FP, minimize maintenance and irrigation requirements, and recommend plantings that will provide a sense of permanence and regional context for the installation.

AT/FP Considerations

AT/FP requirements provide unique opportunities in landscape planning and design. Within the framework of AT/FP planning standards, landscaping and site amenities should be designed to create efficient and cohesive solutions to enhance security. Refer to *UFC 4-010-01, DoD Minimum Antiterrorism Standards for Buildings* (October 2013) for information on landscape setbacks and basic AT/FP requirements.

New projects should incorporate landscape design elements to enhance security in an attractive and unapparent manner. Landscape features, including planting, land forms, hardscape, and site amenities, can all be integrated

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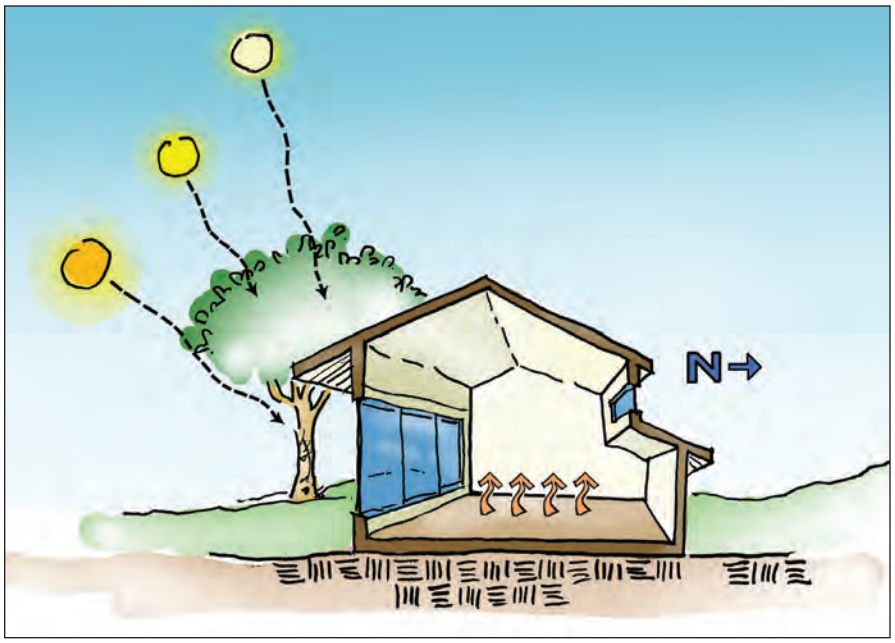
unobtrusively in the overall site design to help protect buildings and their occupants. Site elements such as earthen berms, stands of trees, and vegetation groupings can help screen sensitive facilities from unwanted surveillance. They can also block access to unauthorized areas and shield facilities from blast forces. Additional elements such as bollards and fences can provide perimeter force protection setbacks.

Because landscaping and site amenities can also detract from safety and security, they should be carefully selected and designed in consultation with AT/FP specialists to meet the unique requirements of the project. High visibility and redundant barriers such as planters, bollards, and concrete barricades might be appropriate in certain applications.



Trees planted to shade the portions of buildings that receive the most sun can reduce the energy required to cool buildings.

Whenever possible, native plants (shown above) shall be given priority over non-native plants. Once established, native plants often require less water, care, and maintenance than tropical ornamentals.

Sustainable Landscape Strategies

Sustainable landscapes can contribute significantly to reducing the Marine Corps' environmental footprint. Plant materials and landscape maintenance regimes should be designed for and should consider sustainability in addition to appearance. Sustainable planting design maximizes operational efficiency, contributes to the overall visual quality of the installation, and requires less maintenance.

Many of the environments on MCB Hawaii installations are ecologically sensitive systems, and how the adjacent areas of the installation are handled may cause impacts to other areas of the landscape. MCB Hawaii is continuing to perform ground maintenance and landscape management in a way that provides sustainable, realistic landscapes for training, is responsive to conservation concerns, and improves quality of life. Since the early 1980s, MCB Hawaii has invested in sustainable landscaping projects that plant more trees, shrubs, and ground cover, emphasizing use of native and regionally indigenous species that also provide pyrophytic tolerances, and remove high-maintenance and invasive plant species in protected wildlife and military training areas, thus reducing fire, flood, and/or erosion risks.

Sustainable planting design achieves the following functions.

- **Energy Conservation:** Trees planted to shade the portions of buildings that receive the most sun can reduce the energy required to cool buildings.
- **Temperature Modification:** Plant materials reduce ambient air temperatures and stabilize temperatures, thus decreasing extremes.
- **Wind Control:** Plant massings can divert the direction and change the velocity of the wind.
- **Glare Control:** Plant materials placed in strategic locations near large paved areas, such as parking lots and maintenance areas, reduce the unpleasant effects of glare and reflection and reduce the heat island effect.
- **Erosion Control:** Plant materials reduce splash and stormwater runoff or sheet flow erosion.
- **Water Usage Reduction and Maintenance Cost Savings:** A significant amount of water is used outdoors for irrigation of grass and heavily landscaped areas. Xeriscaping is a tool to reduce water consumption while maintaining quality landscaping; it is a concept of water conservation that can be applied to landscapes of all styles and in all regions.

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Plant Selection

Inappropriate plant materials are those that require excessive maintenance, are unduly susceptible to wind damage, or are known invasive plants that can threaten native ecosystems. MCB Hawaii has developed both Approved and Prohibited Plant Lists that are regularly revised and updated. Per the *Landscape Manual*, if a tree is not on the Approved Plant List and the designer/landscape architect would like to use the plant, it shall be evaluated by the MCB Hawaii Natural Resources staff, the Base Arborist, or a NAVFAC HI Landscape Architect as to whether it may be planted on the installation. Conversely, any plant on the Prohibited Plant List shall not be installed on the installation. In addition, if a plant is not on the Prohibited Plant List, it does not infer it is an approved plant.

The appropriate use/goal of each plant material can have positive effects on shade/glare, erosion control, wind or noise control; visually screen unattractive structures; provide visual accents, physical barriers, and delineate boundaries, and provide privacy/area separation; and minimize maintenance requirements and water conservation. One long range goal for the managed landscape is to replace many of the aggressive nonnative invasive ornamental plant materials with native species, Polynesian introduced/culturally significant species, or nonnative species that are drought tolerant, nonaggressive, and appropriate for the specific environment.

Native Plants

Native plants are those that arrived at a location on their own, typically by "wind, water, or wing." Endemic native plants are those plants that evolved into species unique to a single location. Indigenous plants are those found naturally in an area, but are also found in multiple locations. Hawai'i's native, endemic and many indigenous plants are preferred for landscaping because they have adapted to survive in harsh and often inhospitable conditions. Once established, these plants often require less water, care, and maintenance. These plants are also an important part of a region's biological and cultural heritage. In Hawai'i's case, native plants were used for food, cordage, medicine, clothing, and construction.

In support of *Executive Order 13148, Environmentally and Economically Beneficial Landscaping Practices*, it is the policy of the federal government to "use regionally native plants for landscaping." Further, the order states that "...the federal government has the opportunity to choose plants which are aesthetically pleasing, require minimal care, and reflect a 'sense of place', thereby promoting sustainable landscapes."

A plant palette heavy in the use of native and Polynesian introduced plants has been developed for MCB Hawaii. It is no accident that these materials also tend to be better adapted to the conditions that exist on each installation. This plant palette is critical to the success of this landscape policy as these plants must not only be hardy and able to withstand and thrive in the challenging climatic and environmental conditions of each installation, but also need to embody

the spirit and sense of place specific to each site. By increasing the use of native, indigenous, and endemic plant materials in the landscapes within MCB Hawaii installations, the following effects will be realized.

- Creation of a healthier, sustainable landscape
- Maintenance of natural diversity of plants and the gene pool of those native plant species to promote evolutionary hardiness, disease resistance and adaptability
- Creation of an elevated awareness of residents and guests of MCB Hawaii
- Creation of lower maintenance landscapes and a reduction in water usage

The following policies relate to invasive species control and landscaping that promotes native plants.

- *Executive Order 13112, Invasive Species*
- *60 FR 40837, Environmentally Beneficial Landscape Practices on Federal Landscaped Grounds*
- *Executive Order 13423, Strengthening Federal Environmental, Energy, and Transportation Management,* Sections 2(d) and 3(a)
- *MCO P5090.2A Chapter 1 Section 11201.2, Use of Native Plants in Landscaping*

Whenever possible, native plants shall be given priority over nonnative plants. Care must be taken to select the appropriate native plant for the right condition and location. Some native plants are more suited for use as specimens or accent rather than in mass plantings.

Invasive plant species

Invasive plant species are plants that are nonnative to Hawai'i and threaten the unique native flora and ecosystems within the Hawaiian Islands. These plants smother native vegetation, displace native species or prevent their reestablishment, and can be a pest in cultivated landscapes. Federal agencies are required, to the extent practicable and permitted by law, to prevent the introduction of invasive species, to control their populations, to monitor invasive species populations, to restore native species and habitat in ecosystems that have been invaded, and to promote public education and awareness of invasive species.

To comply with federal regulations and Marine Corps directives, MCB Hawaii has established a base-wide master plant list that identifies native and nonnative plants suitable for landscaping and invasive, poisonous, or high maintenance plants that are prohibited for any use on the installations. Many plants listed as a threat to ecosystems or agriculture by the U.S. Department of Agriculture and the State of Hawai'i Department of Land and Natural Resources have also been added to the prohibited list.

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4.2 Multimodal Transportation, Accessibility, and Circulation

Driving is often the fastest and most comfortable mode of travel in the United States, and military installations are no exception. While private vehicles are expensive to own (considering fixed costs such as depreciation, insurance, registration fees, scheduled maintenance, and residential parking expenses), they are relatively cheap to drive, typically costing just a few cents per mile in operating expenses. As such, vehicles continue to be the transportation mode of choice at MCB Hawaii.

The Green Transportation Hierarchy is the basic concept behind transportation reform groups all over the world. The hierarchy puts city-friendly cyclists and pedestrians first, rewarding their low cost, space efficiency, and zero environmental impact.

While vehicles are the most popular mode of transportation, providing safe, efficient, and comfortable alternative modes of transportation is important for various reasons, including the following.[1]

- Not all individuals can drive. In a typical community, a percentage of adolescents and adults cannot drive due to disability, economic, age constraints, or vehicle failures. Inadequate transport options reduce access to work, school, activities, and services for this population.
- Some individuals should not drive due to inebriation, disability, or economic constraints.
- Some individuals prefer using alternative modes, such as walking or cycling, because they are enjoyable and provide exercise.

In an effort to provide greater accessibility to people of all ages, economic statuses, and physical abilities, and to reduce environmental impacts, current transportation planning strategies include a greater emphasis on nonautomobile modes. Multimodal transportation refers to the creation of a circulation network that considers various transportation modes (e.g., walking, cycling, automobile, and public transit) and connections among modes. This emphasis on low-impact transportation modes is reflected in a diagram known as the "Green Transportation Hierarchy," which illustrates ideal transportation prioritization—a greater emphasis on walking and biking and a decreased emphasis on the use of single-occupancy vehicle travel. While this method of transportation prioritization is often used to support public mobility management objectives, it can also be used to support mobility management objectives at military installations that include improving the attractiveness of modes of alternative transportation.

GREEN TRANSPORTATION HIERARCHY

In order to attract multimodal users and achieve successful utilization of alternative transportation modes, safe, efficient, and adequate infrastructure must be in place. With regard to pedestrians, this user group includes people standing, walking alone or in groups, using canes and walkers, jogging or

1 Litman, Todd, *Introduction to Multi-Modal Transportation Planning: Principles and Practices,* Victoria Transport Policy Institute, 22 May 2014.

running, playing, walking pets, carrying loads, and pushing hand carts and, as such, their actual needs, abilities, and impacts vary widely. While the Centers for Disease Control and Prevention identifies a lack of physical inactivity as a "major contributor to the steady rise in rates of obesity, diabetes, heart disease, stroke, and other chronic health conditions in the United States, they also cite poor pedestrian and bicycle infrastructure as a barrier to the use of these modes, and note that "many Americans view walking and bicycling within their communities as unsafe due to heavy traffic and a scarcity of sidewalks, crosswalks, and bicycle facilities."

The *MCB Hawaii Kaneohe Bay Bicycle Route Planning Study* (Bicycle Route Study) (December 2012) identified similar infrastructure concerns by bicycle users at MCB Hawaii Kaneohe Bay, with riders reporting that riding too close to cars, high traffic speeds, debris on roads, and poor lighting contributing to difficult riding conditions. Nonusers in the study noted the top reason for not cycling at MCB Hawaii Kaneohe Bay (37.7%) is a lack of bikeways. When recognizable paths link to distinct places and key destinations, it makes for a walkable, bike-friendly community. When the built environment is easy to understand and negotiate through, military personnel and their families will feel more at ease.

To increase the access and use of nonautomobile, low environmental impact modes of transportation, improvements to infrastructure must be undertaken. As such, MCB Hawaii shall strive to do the following.

- Develop a system of pedestrian and bicycle pathways and trails that is easy to navigate.
- Develop multi-modal corridors.
- Provide amenities and install infrastructure that support alternative transportation modes.

4.2.1 Developing Pedestrian and Bicycle Systems

Pedestrian pathways and bikeways provide convenient, efficient, and aesthetically pleasing pedestrian circulation routes and create opportunities for recreation. They should be designed as a network to connect roads, sites, and facilities; to provide safe, efficient, and comfortable circulation; and to encourage walking and biking over the use of automobiles. Most of the roadways at MCB Hawaii are relatively flat with vehicle speeds limited to 25 mph or slower, making the installation appropriate for cycling. With an anticipated increase in military personnel and dependents, improvements to MCB Hawaii's existing bicycle infrastructure is highly desirable. As such, MCB Hawaii should develop a system of pedestrian and bicycle pathways and trails within a public open space network that connects all major areas of the base.

Per the *Bicycle Route Study*, on-base connectivity, especially from family housing areas to work destinations, and connectivity to the surrounding community should be improved. Per the *BEAP*, primary destinations (to/from) include housing and community support areas, the Nu'upia Ponds area, recreation

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facilities, and beaches. Routes to Mokapu Elementary School, the Youth Activities Center, recreation parks and facilities, Mokapu Mall, and the beaches should strive toward such parkways and greenbelts. Where feasible, integrate the open space network with natural systems such as Nu'upia Ponds, Mokapu Central Drainage Channel, and shoreline zones. A network of pedestrian paths to and from family housing areas and schools should be created. The network should connect to parkways and greenbelts and minimize the number of street crossings for safety.

Refer to the *Bicycle Route Study* for details on the planning and design of bikeways.

Design Guidelines

- Separate pathways where possible.
- Vehicle and pedestrian paths should be distinct, with the appropriate paving, landscaping, signage, setbacks, separation, clear direction and sensible connections to make mobilizing by vehicle, bicycle, or foot, easy to navigate.

4.2.2 Develop Multimodal Corridors

A multimodal corridor is generally a linear area that is defined by multiple modes of transportation that share a common course. Unlike a pedestrian pathway or bikeway network, which—provide a single- or double-use corridor for these activities—a multimodal corridor incorporates all primary modes of transportation. At MCB Hawaii Kaneohe Bay, this includes roadways, bus routes, pedestrian pathways, and bikeways. A multimodal corridor should be designated on Mokapu Road and G Street.

4.2.3 Provide Amenities and Infrastructure

Amenities, such as shade trees, rest areas, and bike facilities, promote multiple modes of transportation.

Design Guidelines

- Per the *Bicycle Route Study*, existing bike facilities along high-use corridors should be improved.
- Install shade trees and rest areas—including seating and drinking fountains—where appropriate.
- Install bicycle racks in efficient, well-lit areas across the installation.
- Install ramps at sidewalk curb cuts for safe and comfortable use of pathways by users with physical limitations and wheeled devices such as strollers.

4.3 Utility Accessibility & Capacity

Utility systems include basic commodity services (electricity, water, and gas); communication lines (telephone and radio); and sewage and stormwater runoff infrastructure. Utility structures include telephone poles, power stanchions, pump houses, transformer substations, storage tanks, and above-ground

steam lines. While utilities are critical to the installation's operations, often the presence of utility structures can negatively impact the visual appearance. Function, cost, and aesthetics should all be considered in determining the location of utility structures. The visual and environmental impacts of these facilities should be minimized and mitigated through appropriate location, screening, and detailing of utility structures.

4.3.1 Service Areas

Buildings and facilities should be sited and designed with the location and functionality of utility service areas in mind. Service areas facilitate access to buildings and sites by service personnel and equipment and include service yards, loading docks, trash bins, and recycling containers. While critical to the functioning of many facilities, they are often unattractive and detract from the visual appearance of the installation. Service areas should facilitate use but be screened from public thoroughfares and gathering places.

4.3.2 Utility Structures

All utility structures should be carefully sited to take advantage of the screening by variations in topography, existing and new vegetation, walls, and fences. Camouflaged colorings (dark brown for low objects and light grey for objects usually seen against the sky such as utility poles) may also be used to minimize their appearance.

4.3.3 Trash Enclosures

Enclosures should be provided for trash receptacles and dumpsters.

4.3.4 Fire Access

Fire truck access must be provided between buildings. In addition to the design of a paved lane for fire truck use, access may be provided on pathways and/or turf areas designed specifically for fire trucks. The use of grass-crete pavers or grass-cell palettes as a fire access lane in a turf area minimizes the construction of paved surfaces.

4.4 Growth Boundary

The urban growth boundary defines the core area where development is focused, while the periphery is preserved for range and training, buffer areas, and natural settings. Figures 2-18 and 2-19 in Chapter 2, Vision plan, show the urban growth boundaries for MCB Hawaii Kaneohe Bay and Camp Smith.

The boundaries preserve open areas, natural and cultural resources, and scenic views. Development within the boundary should follow strategies for efficient land and facility utilization as shown on the Regulating Plan and the development standards contained in this chapter. Development proposed outside the urban growth boundary should be carefully considered by the IPB.

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5

INSTALLATION DEVELOPMENT PROGRAM

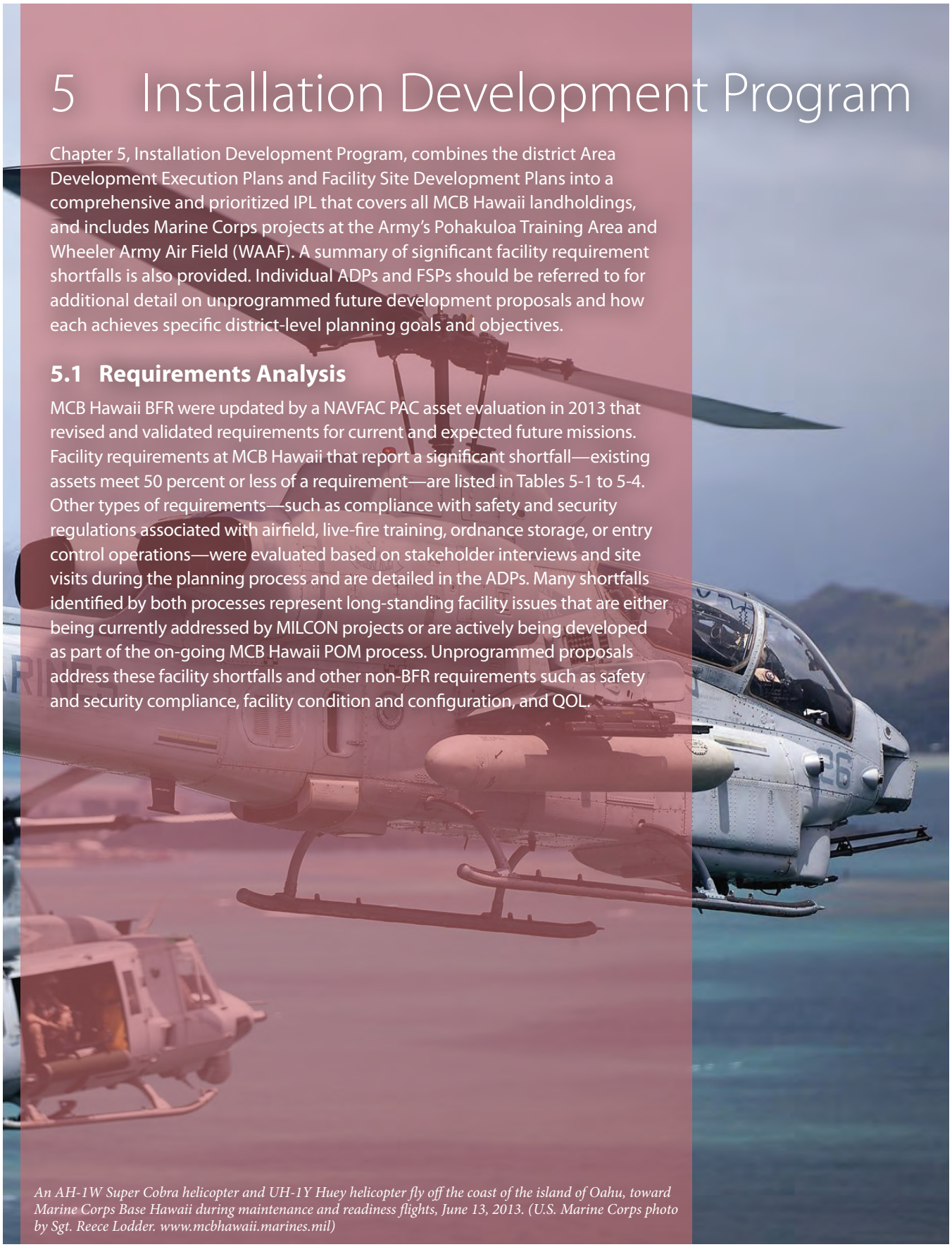
Photo by HHF Planners

5 Installation Development Program

Chapter 5, Installation Development Program, combines the district Area Development Execution Plans and Facility Site Development Plans into a comprehensive and prioritized IPL that covers all MCB Hawaii landholdings, and includes Marine Corps projects at the Army's Pohakuloa Training Area and Wheeler Army Air Field (WAAF). A summary of significant facility requirement shortfalls is also provided. Individual ADPs and FSPs should be referred to for additional detail on unprogrammed future development proposals and how each achieves specific district-level planning goals and objectives.

5.1 Requirements Analysis

MCB Hawaii BFR were updated by a NAVFAC PAC asset evaluation in 2013 that revised and validated requirements for current and expected future missions. Facility requirements at MCB Hawaii that report a significant shortfall—existing assets meet 50 percent or less of a requirement—are listed in Tables 5-1 to 5-4. Other types of requirements—such as compliance with safety and security regulations associated with airfield, live-fire training, ordnance storage, or entry control operations—were evaluated based on stakeholder interviews and site visits during the planning process and are detailed in the ADPs. Many shortfalls identified by both processes represent long-standing facility issues that are either being currently addressed by MILCON projects or are actively being developed as part of the on-going MCB Hawaii POM process. Unprogrammed proposals address these facility shortfalls and other non-BFR requirements such as safety and security compliance, facility condition and configuration, and QOL.



An AH-1W Super Cobra helicopter and UH-1Y Huey helicopter fly off the coast of the island of Oahu, toward Marine Corps Base Hawaii during maintenance and readiness flights, June 13, 2013. (U.S. Marine Corps photo by Sgt. Reece Lodder. www.mcbhawaii.marines.mil)

Table 5-1 **MCB Hawaii Kaneohe Bay Significant Basic Facility Requirement Deficiencies**

CCN	DESCRIPTION	UM	REQUIREMENT	ASSETS	(DEFICIENCY)	PERCENT DEFICIENT
14324	(b) (7)(F)					
14345						
21103						
21108						
21110						
21145						
21210						
21440						
21455						
21456						
21530						
21820						
21880						
44135						
72121	Transient Quarters - Mission Essential	PN	181	73	(108)	63%
72147	Unaccompanied Housing For Wounded Warriors	SF	26,461	9,910	(16,551)	65%
73010	Fire Station	SF	24,310	7,224	(17,086)	72%
73025	(b) (7)(F)					
73082	Recycling Center	SF	19,740	7,764	(11,976)	64%
74016	Exchange Maintenance Shop	SF	29,425	9,063	(20,362)	71%
74032	Exchange Car Wash	SF	4,660	1,800	(2,860)	64%
74040	Bowling Center	SF	35,224	17,040	(18,184)	55%
74044	Indoor Physical Fitness Center	SF	96,856	20,320	(76,536)	81%
74076	Library	SF	20,640	8,572	(12,068)	62%
74078	Recreation Pavilion	SF	4,000	1,088	(2,912)	75%
74087	Marina Support Building	SF	15,600	4,704	(10,896)	72%
74089	Bathhouse	SF	6,590	3,278	(3,312)	64%

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Table 5-2 **Camp Smith Significant Basic Facility Requirement Deficiencies**

CCN	DESCRIPTION	UM	REQUIREMENT	ASSETS	(DEFICIENCY)	PERCENT DEFICIENT
14377	(b) (7)(F)					
21175						
61074						
74030						
74078						

Table 5-3 **Puuloa RTF Significant Basic Facility Requirement Deficiencies**

CCN	DESCRIPTION	UM	REQUIREMENT	ASSETS	(DEFICIENCY)	PERCENT DEFICIENT
17310	(b) (7)(F)					
17311						
17903	Hand To Hand Combat Pit	EA	1	0	(1)	100%
72210	Enlisted Dining Facility	PN	123	40	(83)	67%
73025	(b) (7)(F)					
73066						
74044	Indoor Physical Fitness Center (Gym)	SF	8,762	3,100	(5,662)	65%

Table 5-4 **MCTAB Significant Basic Facility Requirement Deficiencies**

CCN	DESCRIPTION	UM	REQUIREMENT	ASSETS	(DEFICIENCY)	PERCENT DEFICIENT
11120	(b) (7)(F)					
17906						
17907						
17908						
17950						
72115						

5.2 Integrated Priority List

The IPL balances the Commander's development priorities for the installation, operational tenant units, and functional areas. Projects that address key program shortfalls that adversely affect mission are ranked higher. The planning actions are classified into three time frames—short-term, mid-term, or long-term—to reflect the 20-year planning horizon of the Installation Master Plan. Short-term actions consist primarily of existing projects developed as part of the installation's five-year POM program. Mid-term actions are those targeted for development between 5 and 10 years, while long-term actions are those targeted for development between 10 and 20 years. Proposed modifications to the scope of existing MILCON projects are noted. Funding availability, project competitiveness, reprioritization, and future mission requirements will ultimately drive the execution order of these development projects.

The IPL for MCB Hawaii is detailed in Table 5-5 with a description of major project elements and rough order of magnitude (ROM) cost. The IPL Rank in the table serves as a key to the location of the projects shown on Figures 5-1 to 5-3. Some projects have multiple locations.

5.3 Project Phasing

The IPL ranking reflects an order of execution that accounts for projects that need to be phased with other actions. Facility planners will ensure projects that require prior, dependent actions before their execution are coordinated and phased appropriately.

5.4 Potential Infill Development

An important goal of the MCB Hawaii IMP is to redevelop areas with deteriorating facilities or underutilized land at greater densities to accommodate future missions. Figures 5-4 and 5-5 show land potentially available for infill development based on the IPL projects. If the IMP was fully implemented, a total of 61.2 ac at MCB Hawaii would be available for new development. This includes 31.3 ac for industrial and mission functions; 15.2 ac for administrative functions, 2.6 ac for commercial or community support functions, 10.6 ac for family housing, and 1.5 ac for bachelor housing. The potential capacity of facility square footage developed on the infill sites varies depending on the BES, the Regulating Plan, and the eventual site plan.

5.5 Program Summary

Over the next 20 years, the IMP proposes to build more than 2.77 million square feet of new facilities, demolish nearly 1.74 million square feet of aging facilities, and renovate or reuse almost 508,000 square feet of existing facilities. New parking structures and lots will provide a net gain of 1,600 parking stalls, and new BEQs will add 1,742 new bed spaces, for a net gain of 527 bed spaces.

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Table 5-5 **MCB Hawaii Integrated Priority List** (IPL Rank 1–12)

IPL RANK	DISTRICT	TIME FRAME	MCB HAWAII PROJECT #	PROJECT TITLE & DESCRIPTION	ROM COST ($K)
1	Aviation	Short-term FY13 CCD 3/16	P-904	MV-22 Hangar and Infrastructure	(b) (5)
2	Aviation	Short-term FY13 CCD 3/16	P-905	MV-22 Aircraft Staging Area	
3	Aviation	Short-term FY14 CCD 2/17	P-907/908	MV-22 Hangar • Hangar for 2nd Squadron • Aircraft Parking Apron and Infrastructure • Demolish B1278 and B1279	
4	Multiple	Short-term FY14 CCD 12/16	P-884	Aviation Simulator Modernization/Addition • Supports training for existing and planned squadrons base at MCB Hawaii • Demolish and Relocate B6182 and B6510 • Baseball fields relocated to Community Support District	
5	Aviation	Short-term FY14 CCD 9/15	P-864	MALS-24 Aircraft Maintenance Expansion • Construct new composite shop • Construct new ground support equipment holding shed	
6	Ground Support	Short-term FY14 CCD 8/17	P-778	(b) (7)(F)	
7	Ground Support	Short-term FY14 CCD 10/16	P-852	3d Radio Battalion Maintenance/Operations Complex • Headquarters, classroom, and training space	
8	Aviation	Short-term FY14 EAD 3/16	P-863	HMLA Hangar Renovation • Renovate HMLA administrative and shop spaces in Hangar 101	
9	Multiple	Short-term FY15 CCD 8/18	P-861	VMU, MWSD, and HMH Upgrades • New MWSD construction and weight handling equipment shop in B373 • Modernized administrative spaces and construct SCIF in Hangar 102 • New 3d Radio BN auto organizational shop in Ground Support District	
10	Multiple	Short-term FY15 EAD 9/15	P-924	MV-22 EIS Traffic Improvements • Install right turn lane at Mokapu and Reed Roads intersection • Reconfigure Third and Selden Streets intersection • Improvements to Mokapu Road	
11	Aviation	Short-term FY16	P-116	P-8A Detachment Support Facilities • Modify Hangar 104 and B6470 • Enlarge and realign aircraft rinse facility	
12	Base Support	Short-term FY16 EAD 5/16	P-910	Bachelor Enlisted Quarters • 102 room, 204-bed BEQ • Supports MAG-24 unit expansion • Demolish B229 and B230	

Table 5-5 **MCB Hawaii Integrated Priority List** (IPL Rank 13–25)

IPL RANK	DISTRICT	TIME FRAME	MCB HAWAII PROJECT #	PROJECT TITLE & DESCRIPTION	ROM COST ($K)
13	Aviation	Short-term FY16	P-902	Airfield Lighting Improvements • Replace and modernize various lighting system components • New standby generator and lighting vault • Demo B138 and B1674	(b) (5)
14	Ground Support	Short-term FY16 EAD 4/16	P-78150	Medical/Dental Clinic Replacement • Consolidates all unit garrison aid stations in multi-story clinic	
15	Community Support	Short-term FY16	Proposed	PPV Phase 6 Family Housing • Demolish 276 Hana Like family housing units • Construct 182 units at Hana Like, 66 units at Mololani, and 12 units at Waikulu neighborhoods	
16	Base Support	Short-term	N-248	Wave Attenuator and Finger Piers	
17	Ground Support	Short-term FY17	P-923	(b) (3) (A), (b) (7)(F)	
18	Ground Support	Short-term FY17	Proposed	Wiki Wiki Marine Mart • Relocates retail tenants in B1090	
19	Multiple	Short-term FY18	P-887	(b) (7)(F)	
20	Multiple	Short-term	P-877	(b) (7)(F)	
21	Aviation	Short-term	Proposed	MAG-24 Headquarters • Relocate to B6468 (Finn Building) • CPRW-2 Decommissioned April 2017	
22	Aviation	Short-term	P-915 Modified	MCCS Self-Storage Facility • Construct 438 new self-storage units • Based on "full build" option from PVA study • New location from Pali Kilo Road site	
23	Aviation	Short-term	P-946	Corrosion Control Hangar • Construct new strip/paint hangar (COA 3) • Support Integrated Maintenance Plan event for H-1, MV-22, and H-60 aircraft • Construct three-story 396-stall parking structure at corner of First and C Street • Demolish B5096 and B1631	
24	WAAF	Short-term	P-929	VMU Operations Support Facility	
25	Base Support	Short-term	P-875	Water Reclamation Facility Regulatory Upgrades • Provides redundant treatment systems • Adds automated motor control center with SCADA system	

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Table 5-5 **MCB Hawaii Integrated Priority List** (IPL Rank 26–35)

IPL RANK	DISTRICT	TIME FRAME	MCB HAWAII PROJECT #	PROJECT TITLE & DESCRIPTION	ROM COST ($K)
26	Ulupau	Short-term	P-879	(b) (7)(F)	(b) (5)
27	MCTAB	Short-term	P-947		
28	Base Support	Short-term	Proposed	Reinterment Site • Construct rock structure and walls • Includes landscaping, sidewalks, and lighting	
29	Puuloa	Short-term	P-931 Modified	(b) (7)(F)	
30	Ground Support	Short-term	P-373 Modified	AAV Maintenance Facility • Replace headquarters demolished by P-78150 • Existing facility inadequately supports mission and equipment maintenance • Realign access road to CLB motor pool	
31	Base Support	Short-term	Proposed	Medical Clinic Conversion for MCCS and IPAC • Convert medical clinic to support new tenants • Demolish B1043	
32	Aviation	Short-term	P-936	(b) (7)(F) (b) (7)(F) lighting, restrooms, and additional POV parking	
33	Ulupau	Short-term	Proposed	Ulupau Range Training Facility Soil Stabilization • Plan and program preferred mitigation alternative	
34	Ground Support	Mid-term	P-843	Multi-Purpose Training Complex • Support individual and small unit training • Includes combat simulator facility, rappelling tower, and gas chamber	
35	Base Support	Mid-term	P-935	(b) (3) (A), (b) (7)(F)	

Table 5-5 **MCB Hawaii Integrated Priority List** (IPL Rank 36–47)

IPL RANK	DISTRICT	TIME FRAME	MCB HAWAII PROJECT #	PROJECT TITLE & DESCRIPTION	ROM COST ($K)
36	Multiple	Mid-term	P-930	Fire Station • New Station on existing site • Existing facility undersized approximately 17,000 sf • MCCS dance studio rebuilt in Community Support District	(b) (5)
37	Aviation	Mid-term	P-913	(b) (7)(F)	
38	Base Support	Mid-term	P-943	(b) (3) (A), (b) (7)(F)	
39	Ground Support	Mid-term	P-847	(b) (7)(F)	
40	Camp Smith	Mid-term	P-818 Modified	MARFORPAC Operations Facility Phase 1 • Construct new headquarters and operations facility (80,000-sf) • Scope and cost modified to include 4-story, 496-stall parking structure	
41	Base Support	Mid-term	P-881	CISD and MITSC Facilities • Convert warehouse/storage area in B208 to office space • Convert adjacent storage facility B214 to communications vehicle maintenance shop	
42	Camp Smith	Mid-term	P-878 Modified	(b) (7)(F)	
43	Aviation	Mid-term	Proposed	MALS-24 Headquarters • Renovate B301 for admin, classrooms, and indoor fitness room • (b) (7)(F) • Multiuse path and bike shelters along First Street	
44	PTA	Mid-term	P-774	Equipment Storage at PTA	
45	Camp Smith	Mid-term	P-809 Modified	Camp Smith Parking Upgrades • 7-story, 710 stall parking structure • 80-stall surface parking lot • Location and size per 2016 Camp Smith Parking Study analysis	
46	Aviation	Mid-term	P-876	(b) (7)(F)	
47	Ground Support	Mid-term	P-944	Consolidated Classroom Facility • Dedicated operations and training classroom • Demolish B6709C3	

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Table 5-5 **MCB Hawaii Integrated Priority List** (IPL Rank 48–59)

IPL RANK	DISTRICT	TIME FRAME	MCB HAWAII PROJECT #	PROJECT TITLE & DESCRIPTION	ROM COST ($K)
48	Ground Support	Mid-term	P-945	Combat Training Tank • Dedicated combat training tank • Existing facility co-operated as community pool	(b) (5)
49	Ground Support	Mid-term	Proposed	3d Marines Headquarters Phase I • Construct two 2-story BN Headquarters facility (22,700-sf each) • Demolish B1027, B1033, B1034, B1064, B1069, B1087, and B4028	
50	Ground Support	Mid-term	P-880 Modified	3d Marines Headquarters Phase II • Construct two-story REG Headquarters facility (14,800-sf) • Construct three-story 200-stall parking structure • New location proposed south of Mokapu Road	
51	Aviation	Mid-term	P-882 Modified	(b) (7)(F)	
52	Aviation	Mid-term	P-891	Hangar 102 CH-53K Upgrades	
53	Base Support	Mid-term	Proposed	Fitness Center Expansion • Construct new 64,000-sf two-story addition • Construct 330-stall three-story parking structure	
54	Base Support	Mid-term	P-911	Bachelor Enlisted Quarters • 102 room, 204-bed BEQ • Includes parking structure • Demolish B227 and B228	
55	Base Support	Mid-term	P-912	Bachelor Enlisted Quarters • 102 room, 204-bed BEQ	
56	Aviation	Mid-term	P-926	(b) (7)(F)	
57	PTA	Mid-term	P-928		
58	Community Support	Mid-term	Proposed	Mokapu Elementary School • Redevelop school • Connect through Hana Like housing neighborhood	
59	Puuloa	Mid-term	Proposed	Range Operations and Support Facility • Construct 9,900-sf ops facility • Relocate target construction outside of SDZ • 20-stall surface parking lot	

Table 5-5 **MCB Hawaii Integrated Priority List** (IPL Rank 60–70)

IPL RANK	DISTRICT	TIME FRAME	MCB HAWAII PROJECT #	PROJECT TITLE & DESCRIPTION	ROM COST ($K)
60	Base Support	Mid-term	Proposed	Third Street Realignment (b) (7)(F) • Improves traffic flow and safety • Multiuse path from First Street to G Street	(b) (5)
61	Base Support	Mid-term	Proposed	Pless Hall (B212) Renovation • Multipurpose facility • Reuse of historic building • Demolish B272 and B279	
62	Base Support	Mid-term	Proposed	(b) (3) (A), (b) (7)(F)	
63	Multiple	Mid-term	Proposed	Pali Kilo Cottage Expansion • Construct 12 additional cottages • New 10-room lodge • Demolish B1180, reconstruct in Base Support District	
64	Community Support	Mid-term	P-813	Klipper Villa Expansion • Construct new 24-unit temporary lodging facility on site of Tiki-Tiki Putt-Putt golf course	
65	Ulupau	Mid-term	Proposed	(b) (7)(F)	
66	MCTAB	Mid- to Long-term	Proposed	Transfer Air Force Lands to the Marine Corps • Obtain approximately 136 acres of the southern portion of Bellows Air Force Station for a training area and community buffer	
67	Aviation	Long-term	Proposed	Pyramid Beach Improvements • Formal entry with improved permeable parking lot • New picnic pavilions • Restroom and shower facility • Dune boardwalks • Sand Volleyball courts	
68	Base Support	Long-term	Proposed	PMO Complex • Construct 31,300-sf two-story administration building and 180-stall two-story parking structure • Construct 5,770-sf storage shed • (b) (7)(F) • Pave 50-stall impound lot • Demolish B1095, B1096, B1126, and B5090	
69	Camp Smith	Long-term	P-819 Modified	MARFORPAC Operations Facility Phase II • Scope modified to include relocation of NCPAC and CMSA • Cost modified to include demolition of B20, B20C, B20E, B125A, B601, and B610	
70	Molokai TSF	Long-term	P-890	(b) (7)(F)	

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Table 5-5 **MCB Hawaii Integrated Priority List** (IPL Rank 71–83)

IPL RANK	DISTRICT	TIME FRAME	MCB HAWAII PROJECT #	PROJECT TITLE & DESCRIPTION	ROM COST ($K)
71	WVIA	Long-term	Proposed	(b) (7)(F)	(b) (5)
72	Ground Support	Long-term	P-837	Enlisted Dining Facility • Construct 48,300-sf facility • Widen canal bridge to accommodate multiuse path • Demolish B1089	
73	PCA	Long-term	Proposed	Deployment Lot • Construct covered parking lots for deployed units	
74	PCA	Long-term	Proposed	Renewable Energy Production • Install PV on covered parking lots	
75	Base Support	Long-term	Proposed	Base Motor Transport Complex • Construct new complex in salvage yard • Demolish 16 facilities • 5.6-ac infill site in Aviation District	
76	Base Support	Long-term	Proposed	Boat Storage • Expand and improve boat storage yard east of marina • 100 total stalls	
77	Base Support	Long-term	Proposed	Recycling Center Renovation • Based on 2013 planning study • Demolish storage tank B125	
78	Aviation	Mid- and Long-term	Proposed	Aircraft Maintenance Hangar Redevelopment • Demolish Hangar 105 • Redevelop Hangars 102, 103, and 104	
79	Aviation	Long-term	Proposed	MWSD Organizational Parking • Construct 2-ac organizational parking lot • (b) (7)(F)	
80	Aviation	Long-term	Proposed	The Cabanas • Redevelop MCCS temporary lodging facility onsite • Four buildings/40 rooms with 8-ft base flood elevation • 100-ft shoreline setback • 28-stall overflow parking lot • Demolish existing structures	
81	Aviation	Long-term	P-883	(b) (7)(F)	
82	Ground Support	Long-term	Proposed	Bachelor Enlisted Quarters Redevelopment • Construct four five-story bachelor enlisted quarters (800 bed spaces) • Construct five-story 560-stall parking structure • Reuse B4034 as Company CPs or fitness room as needed • Demolish B1634, B1635, B1655, B1656	
83	Ground Support	Long-term	P-888 Modified	Wounded Warrior BEQ • Multistory facility • Site in BEQ complex central to medical and mess facilities	

Table 5-5 **MCB Hawaii Integrated Priority List** (IPL Rank 84–95)

IPL RANK	DISTRICT	TIME FRAME	MCB HAWAII PROJECT #	PROJECT TITLE & DESCRIPTION	ROM COST ($K)
84	Ground Support	Long-term	Proposed	CLB-3 Company Headquarters • Construct two-story facility (4,020-sf) • Demolish B1044, B1074, B1108, B4015, and B4030	(b) (5)
85	Ground Support	Long-term	Proposed	(b) (7)(F)	
86	Ground Support	Long-term	Proposed	3d Marines and 1/12 Warehouse • Construct 32,000-sf warehouse • Demolish B1092, B1416, and B5099	
87	Ground Support	Long-term	Proposed	Engineering Services Company Complex • Construct carpentry shop, weight handling shop, and grease and wash rack • Demolish B1565, B1677, B4079, and B6716C3	
88	Ground Support	Long-term	Proposed	3d Marines Vehicle Shelters • Construct three 20,000-sf vehicle storage sheds • Demolish temporary structures	
89	Base Support	Long-term	Proposed	Warehouse District • Retain and renovate B250 • Construct two 27,500-sf warehouses • Construct 37,500-sf warehouse • Demolish B266, B269, B270, B271, B277 B367, and B3096	
90	Community Support	Long-term	Proposed	MCX Exchange Expansion • Renovate and expand Mokapu Mall	
91	Community Support	Long-term	Proposed	Mokapu Mall Entrance and Traffic Improvements • Widen southern portion of Cushman Avenue fronting Mokapu Mall to 36-ft • New Harris Avenue driveway to commissary parking lot • Close existing commissary parking entry via McDonald's lot	
92	Ground Support	Long-term	Proposed	Training Open Space • Demolish B1090 after functions relocate • Grub and grade area east of B4088	
93	Community Support	Long-term	Proposed	Golf Course Warehouse • Construct new 8,400-sf warehouse • Convert existing site for PPV family housing • May require asbestos abatement for buried tennis court mastic	
94	Base Support	Long-term	Proposed	Enlisted Club Site Redevelopment • Underutilized but prominent commercial site • Construct 68,000-sf two-story structure • Demolish B1629	
95	Base Support	Long-term	Proposed	(b) (7)(F)	

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Table 5-5 **MCB Hawaii Integrated Priority List** (IPL Rank 96–107)

IPL RANK	DISTRICT	TIME FRAME	MCB HAWAII PROJECT #	PROJECT TITLE & DESCRIPTION	ROM COST ($K)
96	Community Support	Long-term	Proposed	Multiuse Path Extension • Segment extends G Street path to Hana Like neighborhood (west end of Malabey Street	(b) (5)
97	Base Support	Long-term	Proposed	Recreation and Pedestrian Improvements • Construct two new basketball courts, BBQ pavilion and bicycle shed • G Street multiuse path • Demolish roller rink	
98	Community Support	Long-term	Proposed	Community Library • Construct two-story, 20,000-sf community library adjacent to new elementary school and family housing	
99	Ground Support	Long-term	Proposed	MCCS Exchange Distribution Warehouse • Construct 31,500-sf warehouse • Relocate material from PCA	
100	Community Support	Long-term	Proposed	Community Theater • Construct new 1,000-seat multipurpose theater • Construct 420-stall two-story parking structure	
101	Community Support	Long-term	Proposed	Fort Hase Beach Improvements • Formal entry with improved permeable parking lot • New picnic pavilions	
102	Community Support	Long-term	Proposed	North Beach Improvements • Restroom and shower facility	
103	Camp Smith	Long-term	Proposed	BEQ Replacement • Construct four multistory BEQ and 126-stall surface parking lot	
104	Camp Smith	Long-term	Proposed	Elrod Roadway Improvements • From Bailey Road to east of Building 1	
105	Puuloa	Long-term	Proposed	Puuloa Bachelor Enlisted Quarters • Two-story, 10,300-sf transient BEQ • 20-stall surface parking lot	
106	Puuloa	Long-term	Proposed	Roadway and Parking Improvements	
107	Aviation	Long-term	Proposed	(b) (7)(F)	

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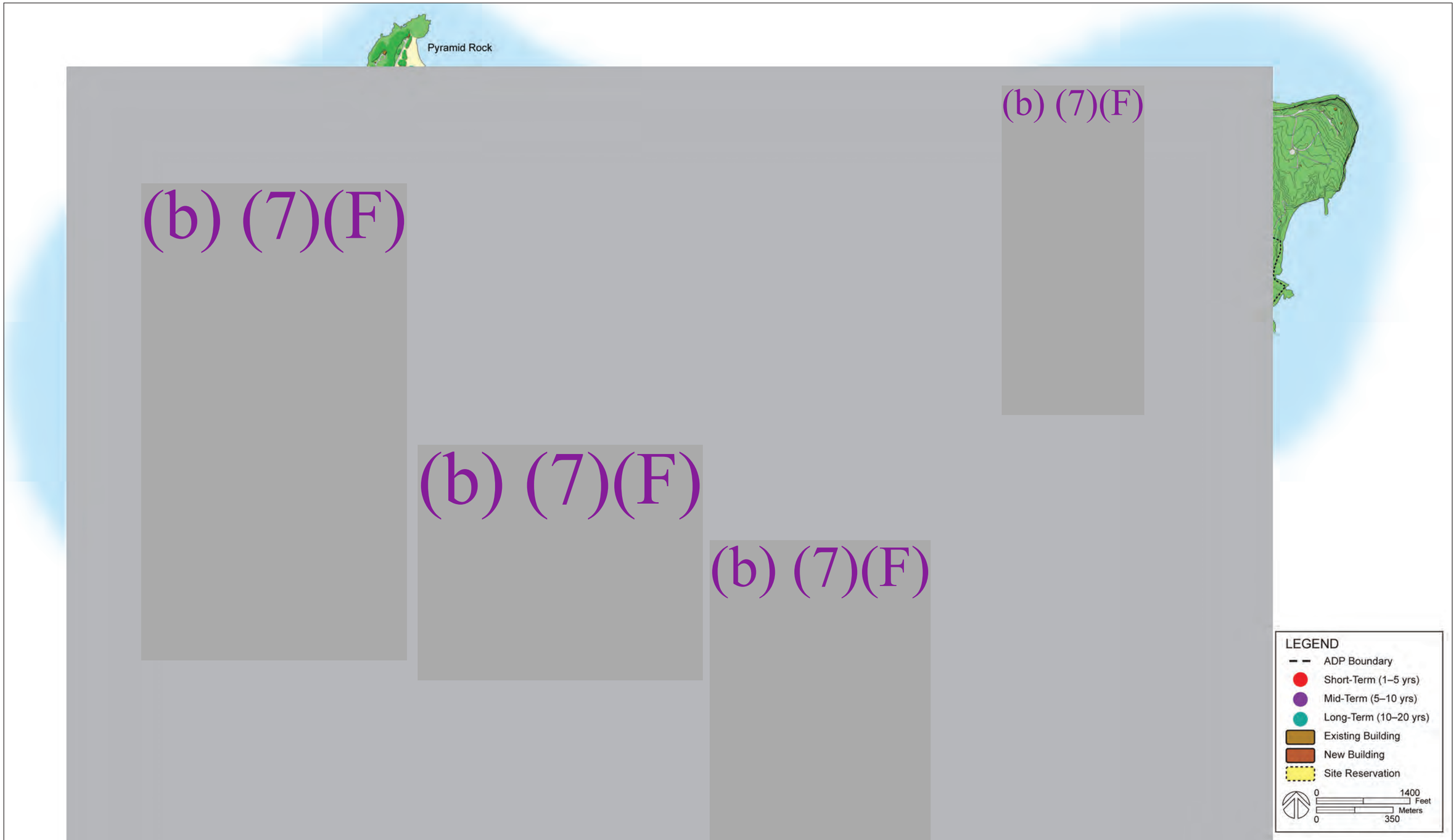

Figure 5-1 **MCB Hawaii Kaneohe Bay Installation Development Program**

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Figure 5-2 **Camp Smith Installation Development Program**

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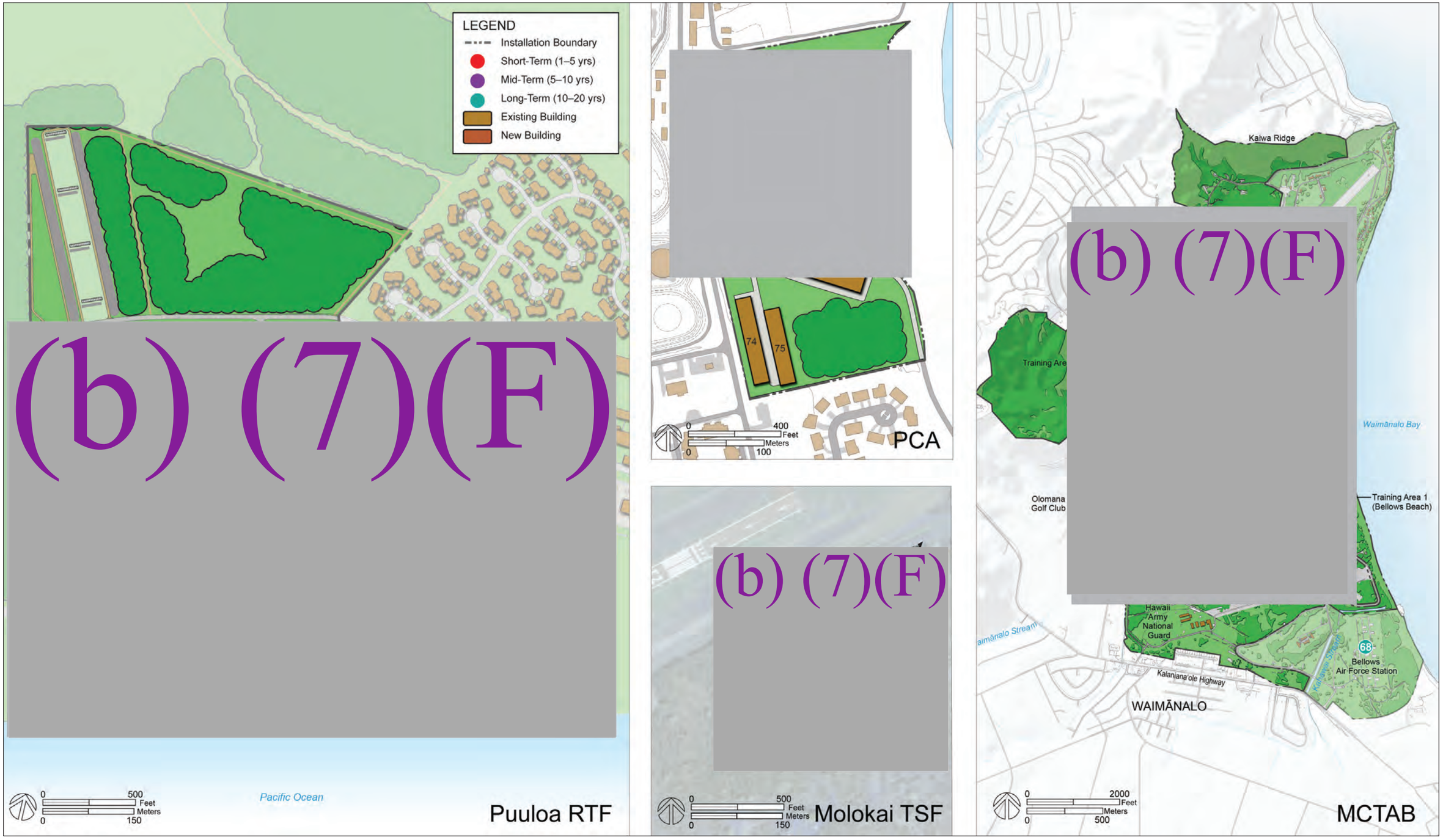

Figure 5-3 **Puuloa RTF and Special Areas Installation Development Program**

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Figure 5-4 **MCB Hawaii Kaneohe Bay Infill Development**

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Figure 5-5 **Camp Smith Infill Development**

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APPENDICES

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A

CHARRETTE WORKSHOP REPORT SUMMARY

Sgt. Joshua Flores, the training noncommissioned officer of Combat Logistics Battalion 3, briefs his squad before they set out to start the first scenario of the day aboard Marine Corps Base Hawaii Aug. 19, 2015. The day's events consisted of patrolling across the base while taking on various situations. Sergeants Course is a vital part of professional military education for any Marine and helps to maintain the standards amongst the NCOs of the Marine Corps. (U.S. Marine Corps photo by Cpl. Khalil Ross/Released. www.mcbhawaii.marines.mil)

Marine Corps Base Hawaii
INSTALLATION MASTER PLAN
Charrette Summary

January 27–30, 2015

NAVFAC Naval Facilities Engineering Command NAVFAC HAWAII

HHF PLANNERS places for people

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General Information

Date/Time	0800–1200, Tuesday, 27 January 2015 0800–1200, Wednesday, 28 January 2015 0800–1200, Thursday, 29 January 2015 1030–1200, Friday, 30 January 2015
Location	MCB Hawaii Kaneohe Bay Officer's Club Ballroom, Building 502
Purpose	Collaboratively develop Area Development Plan (ADP) alternatives with stakeholders to guide future growth.
MCB Hawaii Leadership	(b) (6)
MCB Hawaii Stakeholders	Approximately 50 attendees; see attached sign-in sheet
NAVFAC Pacific	(b) (6)
HHF Planners	(b) (6)

A planning Charratte Workshop was conducted as part of the MCB Hawaii Installation Master Plan (IMP) planning process between 27 January 2015 and 30 January 2015 at MCB Hawaii Kaneohe Bay.

The purpose of the Charrette Workshop was to engage stakeholders in the master planning process to collaboratively develop alternative concept maps for each Area Development Plan (ADP).

This Charrette Summary Report contains the invitation, flyer, meeting records, attendance sheets, presentation slides, handouts, and concept maps presented during the Charrette Workshop.

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(b) (6)

From: (b) (6)
Sent: Wednesday, November 26, 2014 3:03 PM
To:

(b) (6)

Cc:

Subject: MCBH Installation Master Plan Charrette Workshop and Agenda (27 - 30 January 2015)
Attachments: MCBH CO letter for Master Plan Charrette and Agenda 27 - 30 January 2015.pdf

Follow Up Flag: Follow up
Flag Status: Flagged

Ladies and Gentlemen,

1. The MCB Hawaii Installation Master Plan (IMP) is in the process of being updated. An IMP is an integrated series of documents which present, in graphic, narrative, and tabular form, an analysis of the present composition and functions of MCB Hawaii, and the optimum plan for orderly and comprehensive development. Some of the main functions of the Master Plan:
   a. Be the instrument to maintain continuity in future facilities planning, development, and siting.
   b. Specify needed changes to facility assets and recommend phasing for such changes.
   c. Present the Marine Corps position on land and facility use.

A key element of the master planning process is to conduct charrettes and a concept workshop. The charrettes will provide a forum for stakeholders to map solutions, ideas, and resolve issues in development of the MCB IMP. Activities during the charrette will facilitate development goals and ensure that they flow directly from the vision to the IMP end state. Delivery of the final MCB IMP will occur December 2015. To accomplish this task, a 4-day stakeholder charrette/workshop will be held 27-30 January 2015, 0800-1630 at the MCB Hawaii Officer's Club ballroom. The attachment provides an agenda.

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2. Additionally, site investigations, data collection, and stakeholder interviews will occur during the next two months in preparation for this charrette. MCB Hawaii Facilities, Naval Facilities Engineering Command Pacific (NAVFAC Pacific) and Helber Hastert and Fee (HHF) planners will be contacting key stakeholders and tenant commands for interviews over this time period.

3. Stakeholder participation at the 4 day charrette/workshop is important for the preparation and success of the MCB Hawaii IMP. Tenant and staff participation is greatly encouraged. Please RSVP by 15 January 2015 to confirm charrette attendance.

4. POC for the charrette is (b) (6) at (808) 457-3173 or email: (b) (6) MCB Hawaii Facilities Planning point of contact for questions concerning the MCB Hawaii IMP is (b) (6) at 257-3687 or email: (b) (6)

RS
(b) (6)
257-0924

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MARINE CORPS BASE HAWAII MASTER PLAN CHARRETTE WORKSHOP

27-30 January 2015

Location: Kaneohe Bay Officer's Club Ballroom, MCBH Building 502
Sponsor: Marine Corps Base Hawaii Facilities Department

DOD Instruction 4165.70 mandates that all Department of Defense (DoD) installations have an approved installation master plan. Unified Facilities Criteria (UFC) 2-100-01, issued 15 May 2012, and USMC Order 11000.12, Real Property Facilities Manual, Facilities Planning and Programming of 8 Sep 2014 provide guidance regarding consistency in planning strategies, processes, and products. A key element of the master planning process is to conduct a Charrette and Concept Workshop. Based on the Vision Report to be finalized by the end of the year, activities during the Workshop will facilitate development of the goals for the Installation Master Plan and ensure they flow directly from the vision to end state. Stakeholders will focus on incorporating concepts to optimize future land use, short and long-term redevelopment and construction projects essential to fulfill mission requirements, and reshaping key locations to meet future capacity increases if required at MCBH.

	TUESDAY 27 January 2015 MCB Hawaii	WEDNESDAY 28 January 2015 MCB Hawaii	THURSDAY 29 January 2015 MCB Hawaii	FRIDAY 30 January 2015 MCB Hawaii
0800	REGISTRATION	AREA DEVELOPMENT PLAN --Aviation Support District	AREA DEVELOPMENT PLAN --Base Support District	PRESENTATION/ EVALUATION OF ALT PLAN CONCEPTS PREPARE FOR CO BRIEF CO BRIEF (Tentative)
0830	WELCOME / REVIEW VISION REPORT AND PLANNING PROCESS			
0930	AREA DEVELOPMENT PLAN --Community Support District			
		AREA DEVELOPMENT PLAN --Ground Support District	AREA DEVELOPMENT PLAN --Camp Smith District	
1030				
1130				
	LUNCH	LUNCH	LUNCH	LUNCH
1230				
	ADP ASSESSMENT --Planning Team Members and MCBH Facilities staff	ADP ASSESSMENT --Planning Team Members and MCBH Facilities staff	ADP ASSESSMENT --Planning Team Members and MCBH Facilities staff	PROJECT WRAP UP --Planning Team Members and MCBH Facilities staff
1330				
1430				
1530				

A-H

MCBH Installation Master Plan
Charrette Workshop
27-30 January 2015

Last Name	First Name	Rank	Organization	Tuesday	Wednesday	Thursday	Friday
(b) (6)			3d MAR Regiment S4	(b) (6)			
			PMO				(b) (6)
			ROICC				
			Base Inspector				
			Environmental	(b) (6)			
			WWBN Det				
			MCCS				
			NAVFAC Pacific	(b) (6)			
			PWD, APWO				
			Environmental				
			MARFORPAC				
			JIATFW J4				
			MAG-24 SgtMaj				
			MALS-24				
			MCCS	(b) (6)			
			HHF Planners	X			

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MCBH Installation Master Plan
Charrette Workshop
27-30 January 2015

Last Name	First Name	Rank	Organization	Tuesday	Wednesday	Thursday	Friday
(b) (6)			21st Dental	X			
			MCAS				
			O&T				
			CPRW-2				
			3D RAD BN				
			General Counsel Office				
			O&T				
			CLB-3	X	X		
			PWD, PWO	X	X		
			PACOM				
			Facilities	X	X	X	X
			MCBH SgtMaj				
			HHF Planners	X			
			MCICOM	X (b) (6)			
			NAVFAC Pacific	(b) (6)			
			NAVFAC Pacific		(b) (6)		
			MPA				
			CISD				

H-D

MCBH Installation Master Plan
Charrette Workshop
27-30 January 2015

Last Name	First Name	Rank	Organization	Tuesday	Wednesday	Thursday	Friday
(b) (6)			SJA				
			Environmental				
			PWD				
			Facilities				
			CLB-3				
			HHF Planners	X			
			PMO				X
			MALS-24		X		
			3D RAD BN	X	X	X	X
			MCCS				
			ROICC				
			HQ&SVC BN				
			WWBN Det	(b) (6)			
			IE&L				
			3d MAR Regiment S4				
			IE&L				
			Deputy Supply	X	X	X	
			Facilities	X	X		

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MCBH Installation Master Plan
Charrette Workshop
27-30 January 2015

Last Name	First Name	Rank	Organization	Tuesday	Wednesday	Thursday	Friday
(b) (6)			Safety				
			IE&L	X			
			PMO				
			NAVFAC Pacific	(b) (6)			
			MPA				
			HQBN				
			MCBH SSEC				
			CISD	X (b) (6)			
			3D RAD BN				
			Facilities			(b) (6)	
			Facilities (Camp Smith)				
				(b) (6)			
			Facilities				
			Facilities (Camp Smith)	(b) (6)			
				(b) (6)			
			MCAS				
			Facilities (Camp Smith)				
			VR-51				
			MARFORPAC G4				

P - Z

MCBH Installation Master Plan
Charrette Workshop
27-30 January 2015

Last Name	First Name	Rank	Organization	Tuesday	Wednesday	Thursday	Friday
(b) (6)			Comptroller				
			Strategic Plans & Engagement		(b) (6)		
			Facilities				
			HQBN				
				(b) (6)			
			CPRW-2				
			Environmental		(b) (6)		
			UPH				
			RCO, MCIPAC RCO-H	(b) (6)			
			NAVFAC Pacific	(b) (6)			
			Chaplain				
			Strategic Plans & Engagement				
			Environmental	(b) (6)			
			CISD				
			NAVFAC Pacific				
			3d MAR Regiment Sgt Maj				
			ICO				
			Urban Collaborative	(b) (6)			

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Charrette Workshop
27-30 January 2015

Last Name	First Name	Rank	Organization	Tuesday	Wednesday	Thursday	Friday
(b) (6)			CPRW-2				
			1/12 MAR BN				
			MAG-24 S4	(b) (6)			
			3d MAR Regiment XO				
			4th Force Recon				
			MPA				
			HQ&SVC BN				
			Facilities (Camp Smith)				
			MCAS	(b) (6)			
			HQ&SVC BN				
			NCPAC (NSA/CSS)				
			Facilities	(b) (6)			
			BPO				
			CLB-3				
			NAVFAC Pacific	(b) (6)			(b) (6)
			NAVFAC Pac				
			Facilities		(b) (6)		
			PACOM				
			Base Inspector				

MCBH Installation Master Plan
Charrette Workshop
27-30 January 2015

Last Name	First Name	Rank	Organization	Tuesday	Wednesday	Thursday	Friday
(b) (6)							
			MCBH Chief of Staff				
			NAVFAC Pacific	X (b) (6)			(b) (6)
			Comptroller				
			MAG-24				
			Safety				
			3d MAR Regiment				
			HRO				
			Facilities	(b) (6)			
			Facilities				
			Facilities	(b) (6)			
			NAVFAC Pacific				
			3d MAR Regiment				
			CISD	(b) (6)			

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MCBH Installation Master Plan
Charrette Workshop
27-30 January 2015

Last Name	First Name	Rank	Organization	Tuesday	Wednesday	Thursday	Friday
(b) (6)			MCBH OPT	(b) (6)			
			MCBH FH				
			CPRW2	(b) (6)			
			NAVFAC PAC	(b) (6)			(b) (6)
			NAVFAC PAC		(b) (6)		
			NFP		X		
			CPRW2		X		
			Supply Fuel		X		
			Supply Fuels		X		
			IEFL, SUPPLY, DMD OIC			X	
			IEFL Supply ~~Supply~~			(b) (6)	
			MCBH BPCO			X	
			MCBH PPM			(b) (6)	
			MWSD-24			X	

1/27/2015

Charrette Workshop

MCBH Installation Master Plan
27-30 January 2015

MARINE CORPS BASE HAWAII INSTALLATION MASTER PLAN
Charrette . January 27, 2015

Planning Team

MCBH Kaneohe Bay	
(b) (6)	Project Activity Lead
	Project Activity Lead
NAVFAC Pacific	
(b) (6)	Contract Officer Representative
A/E Planning Team	
(b) (6)	Principal
	Principal
	Project Manager/ Sr. Planner
	Senior Associate
	Senior Associate
	Planner

MARINE CORPS BASE HAWAII INSTALLATION MASTER PLAN
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Installation Master Plan

- Present comprehensive analysis of physical planning and infrastructure issues
- Provide guidance for capital improvements
- Address near-term, mid-term, and long-term needs
- Be the link between sustainable planning and requirements
- Engage stakeholders throughout process

Objective:

Develop a comprehensive 20 year plan intended to be a framework for physical development which integrates mission, environment, history, and quality of life.

MARINE CORPS BASE HAWAII INSTALLATION MASTER PLAN
Charrette . January 27, 2015

Charrette Workshop

Objective:

- Continue the Master Plan process
- Build upon the work completed
- Stakeholders create concept alternatives to inform detailed plans
- Stakeholders present concept alternatives to leadership

Sep 2014	• Kick off Brief with Leadership
Sep 2014	• MCICOM Visioning Workshop
Oct 2014 - Jan 2015	• Site Investigation and Stakeholder Interview
Jan 27 – 30	• Stakeholder Charrette Workshop
March	• Concept Workshop
March-Dec	• Plan Development
Jan 2016	• Final IMP

MARINE CORPS BASE HAWAII INSTALLATION MASTER PLAN
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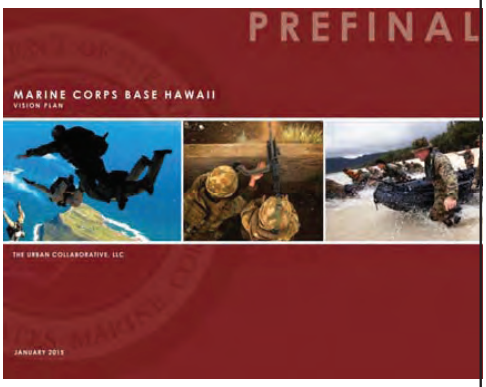
Vision Plan

- Vision Statement & Goals
- Design Principles and Precepts
- Framework Plan
- Developable Areas



MARINE CORPS BASE HAWAII INSTALLATION MASTER PLAN
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Vision Statement

Marine Corps Base Hawaii is committed to meeting mission readiness goals and operational requirement by providing **modern, efficient, and sustainable facilities**.

To achieve this, we will **consolidate facilities and collocate command elements** and we will **retain and optimize training capabilities** while creating **safe campuses and neighborhoods** connected by **greenspace networks**.

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Planning Goals

MARINE CORPS BASE HAWAII INSTALLATION MASTER PLAN
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SWOT Analysis

Key Mission Support Issues:

- Aging facilities
- Limited training areas
- Lack of physical and functional unit integrity
- Poor traffic flow and lack of parking

MARINE CORPS BASE HAWAII INSTALLATION MASTER PLAN
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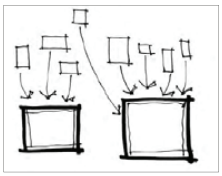
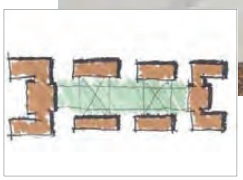
1/27/2015

Planning Precepts

- Consolidate units
- Buildings define open space

Photo by KPBS





Marine Corps Base Hawaii Vision Plan, Prefinal, Jan 2015

MARINE CORPS BASE HAWAII INSTALLATION MASTER PLAN
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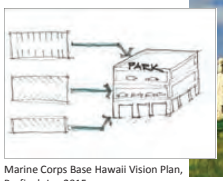
Planning Precepts

- Accommodate future expansion
- Consolidate into district parking



Marine Corps Base Hawaii Vision Plan, Prefinal, Jan 2015

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Charrette . January 27, 2015

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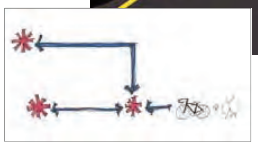
Planning Precepts

- Connected pedestrian and bike ways
- Wide sidewalks
- Tree lined streets
- Transit network
- Connected greenspace and walkability

MCBH Kanoehe Bike Route Study, Final, Dec 2012



Marine Corps Base Hawaii Vision Plan, Prefinal, Jan 2015

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Framework Plan

Planning Districts

- Klipper
- Aviation
- Mokapu
- Base Support
- Camp Smith

Marine Corps Base Hawaii Vision Plan, Prefinal, Jan 2015

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Charrette . January 27, 2015

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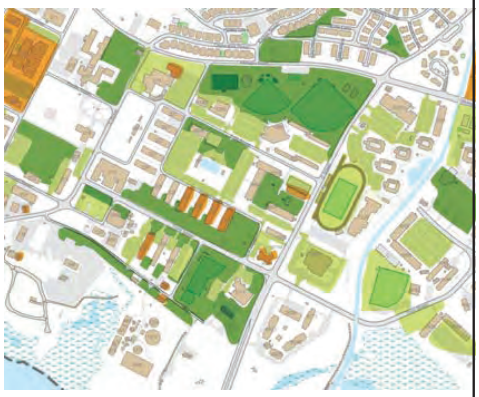
Developable Area Map

- Developable Area 1: Zones that are currently **ready to be developed** with little to **no impact**
- Developable Area 2: Zones that are **ready to be developed** after **minor mitigation**
- Developable Area 3: Zones that are in need of **significant alternations in order to be developed**



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Break

10 minutes

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Rules of Engagement

- Speak freely
- Work collaboratively
- Be considerate
- Disagree respectfully
- Practice listening
- All voices are important
- Talk with the pen

MARINE CORPS BASE HAWAII INSTALLATION MASTER PLAN
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Design Game

Objective:

- Get your ideas of development
- Develop alternatives through a variety of approaches

- Implement the requirements on the matrix
- Achieve the Planning Goals and Vision
- Incorporate the planning precepts
- Find new locations/solutions for displaced functions

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Charrette . January 27, 2015

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Klipper District

Mission:
To provide housing, recreation, services and amenities for the well-being, morale and safety of the military personnel, their families and the civilian workforce at MCB Hawaii.

Vision:
We will create safe, people-friendly neighborhoods connected by tree-lined streets, wide sidewalks and great open spaces that link housing to services and amenities.

	Group 1	Group 2	Group 3
Reuse Hana Like Housing Area for Community Support	x		x
Identify space and use for future infill	x	x	x
Site 100 Housing Units (requires 10 ac)	x		x
Improve vehicular and pedestrian network connections	x	x	x
Site new elementry school		x	x
Reuse Youth Center	x		x
Site Furniture Shop (35k SF)	x	x	
Site MCCS Warehouse (30k SF)	x	x	
Site 20,000 SF Fitness Center		x	x
Site 40K SF parking structure (Footprint)		x	x
Site transient quarters/facility	x	x	
Improve waterfront amenities	x		x
Site community garden	x	x	
Incorporate pedestrian walkway along canal		x	x

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End of slides

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Charrette Workshop

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Design Game

Objective:

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- Achieve the Planning Goals and Vision
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Aviation District

Mission:
Provide airfield operations, training, and support to tenant and transient aircraft in order to enhance mission readiness, support resilience, and unit cohesion while providing community amenities to Marines, Sailors and their families.

Vision:
Enhance the Marine Corps and partners service mission by providing 24/7 secure operations, training, and support while utilizing the natural Hawaiian landscape for service members and their families.

Aviation District	1	2	3
Improve vehicular and pedestrian network connections	x	x	x
Identify space for future aviation operations	x	x	x
Reuse B301 (assume MAG HQ relocates to Finn Bldg)	x	x	x
Site 20K SF satellite fitness center	x	x	
(b) (7)(F)	x		x
Site new Marine Reserve Training Facility (26K SF)	x		x
Site new 4th Force BN boat shop (2,400 SF)	x		x
Site parking structure 40K SF (footprint)	x	x	
Reuse Environmental Department site		x	x
Site 7K SF EOD facility		x	x
Demolish Hangar 105	x	x	
Site 7 ac apron	x	x	
Site MALS Corrosion Control (60K SF)		x	x
Expand fuel pit capacity	x	x	
Site helo wash rack			x
Site 3d Marines boat storage facility (25k SF)	x		x
Improve waterfront amenities		x	x

MARINE CORPS BASE HAWAII INSTALLATION MASTER PLAN
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Ground Support Mokapu District

Mission:
Our mission is to provide administrative, medical, training, supply and maintenance services to ground units in order to enable ready and deployable forces in support of real world operations, contingencies and theater security cooperation exercise.

Vision:
Our vision is to crate an environment that promotes unit cohesion and space efficiency. Marines will be housed near their work areas in facilities that promote walkability and consolidate unit functions onto contiguous real estate. The district will utilized mixed vertical and horizontal development to combine common functions into single building and maximize open green space for basic field training and physical fitness.

Ground Support Mokapu District	Group 1	Group 2	Group 3
Consolidate/colocate units	x	x	x
Improve vehicular and pedestian network connections	x	x	x
Demolish 1090	x	x	
Site New BQs (higher density)		x	x
Site Dining Hall (48K SF)	x		x
Site satellite Fitness Center (20K SF)	x	x	
Site parade ground/open space		x	x
Site AAV maintenance shop and Co HQ (15K SF)	x	x	
Site boat storage for 3rd Marines (25K SF)	x		x
Site West-end parking structure (40k SF footprint)		x	x
Incorporate pedestrian walkway along canal	x		x

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End of slides

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1/29/2015

Charrette Workshop

MCBH Installation Master Plan
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Rules of Engagement

- Speak freely
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Design Game

Objective:

- Get your ideas of development
- Develop alternatives through a variety of approaches

- Implement the requirements on the matrix
- Achieve the Planning Goals and Vision
- Incorporate the planning precepts
- Find new locations/solutions for displaced functions

MARINE CORPS BASE HAWAII INSTALLATION MASTER PLAN
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Base Support District

Mission:
The District will provide facilities, maintenance, quality of life, and administrative services to support Marines, Sailors and civilians.

Vision:
Or vision for the District is to create a walkable community with multi-story and energy-efficient facilities and a network of green spaces while preserving the district historic fabric.

Base Support District	1	2	3
Improve vehicular and pedestrian network connections	x	x	x
Identify space and use for future infill	x	x	x
Reuse Pless Hall	x	x	x
Maximize utilization of Enlisted Club site	x	x	x
Redevelop south of 3rd St.; Retain PMO function (35K SF) and Auto Skills Shop (14K SF)	x	x	
Redevelop existing gym/fitness center site (72K SF)	x		x
Reuse/Redevelop Medical Clinic (B3089)		x	x
Site Motor Transportation Complex (35K SF)	x		x
Site satellite Fitness Center (20K SF)		x	
(b) (3) (A), (b) (7)(F)	x		x
Reserve land for future BQs		x	x
Reuse Bank of HI building	x		x
Redevelop outdoor roller rink site	x	x	
Site transient quarters/facility	x	x	
Site 3d Marines Boat Storage Facility (25K SF)		x	x

MARINE CORPS BASE HAWAII INSTALLATION MASTER PLAN
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Camp Smith

Vision:
In support of the mission, Camp Smith's vision is to create a 21st century **architecturally coherent**, **functionally efficient**, and **walkable campus** encompassed by its unique **natural setting**.

Goals:
1. Architecturally Coherent
2. Functionally Efficient
3. Walkable Campus
4. Natural Setting

Camp Smith ADP
Assume MARFORPAC ops/admin building redevelopment
Improve vehicular and pedestrian network connections
Site optional locations for parking structure
Site optional locations for ops/admin building (100K SF)
Site optional locations for BQs
Identify options for Bldg. 20
(b) (7)(F)

MARINE CORPS BASE HAWAII INSTALLATION MASTER PLAN
Charrette . January 27, 2015

End of slides

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1/30/2015

Charrette Workshop Outbrief

(Chief of Staff)

MCBH Installation Master Plan

27-30 January 2015

MARINE CORPS BASE HAWAII INSTALLATION MASTER PLAN
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Charrette Workshop

Objective:

- Continue the Master Plan process
- Build upon the work completed
- Stakeholders create concept alternatives to inform future detailed plans
- Stakeholders present concept alternatives to leadership

Sep 2014	• Kick off Brief with Leadership
Sep 2014	• MCICOM Visioning Workshop
Oct 2014 - Jan 2015	• Site Investigation and Stakeholder Interview
Jan 27 – 30	• Stakeholder Charrette Workshop
March	• Concept Workshop
March-Dec	• Plan Development
Jan 2016	• Final IMP

MARINE CORPS BASE HAWAII INSTALLATION MASTER PLAN
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1/30/2015

Planning Districts

- Klipper (Community Support)
- Aviation Support
- Mokapu (Ground Support)
- Base Support
- Camp Smith
- Other Districts—to be completed

Marine Corps Base Hawaii Vision Plan, Prefinal, Jan 2015

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Klipper District
(Community Support)

Mission Statement:
To provide housing, recreation, services and amenities for the well-being, morale and safety of the military personnel, their families and the civilian workforce at MCB Hawaii.

Vision Statement:
We will create safe, people-friendly neighborhoods connected by tree-lined streets, wide sidewalks and great open spaces that link housing to services and amenities.

	Group 1	Group 2	Group 3
Reuse Hana Like Housing Area for Community Support	x		x
Identify space and use for future infill	x	x	x
Site 100 Housing Units (requires 10 ac)	x		x
Improve vehicular and pedestrian network connections	x	x	x
Site new elementry school		x	x
Reuse Youth Center	x		x
Site Furniture Shop (35k SF)	x	x	
Site MCCS Warehouse (30k SF)	x	x	
Site 20,000 SF Fitness Center		x	x
Site 40K SF parking structure (Footprint)		x	x
Site transient quarters/facility	x	x	
Improve waterfront amenities	x		x
Site community garden	x	x	
Incorporate pedestrian walkway along canal		x	x

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Aviation District

Mission Statement:
Provide airfield operations, training, and support to tenant and transient aircraft in order to enhance mission readiness, support resilience, and unit cohesion while providing community amenities to Marines, Sailors and their families.

Vision Statement:
Enhance the Marine Corps and partners service mission by providing 24/7 secure operations, training, and support while utilizing the natural Hawaiian landscape for service members and their families.

	1	2	3
Improve vehicular and pedestrian network connections	x	x	x
Identify space for future aviation operations	x	x	x
Reuse B301 (assume MAG HQ relocates to Finn Bldg)	x	x	x
Site 20K SF satellite fitness center	x	x	
(b) (7)(F)	x		x
Site new Marine Reserve Training Facility (26K SF)	x		x
Site new 4th Force BN boat shop (2,400 SF)	x		x
Site parking structure 40K SF (footprint)	x	x	
Reuse Environmental Department site		x	x
Site 7K SF EOD facility		x	x
Demolish Hangar 105	x	x	
Site 7 acre apron	x	x	
Site MALS Corrosion Control (60K SF)		x	x
(b) (7)(F)	x	x	
Site helo wash rack	x		x
Site 3d Marines boat storage facility (25k SF)	x		x
Improve waterfront amenities		x	x

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Mokapu District
(Ground Support)

Mission Statement:
Our mission is to provide administrative, medical, training, supply and maintenance services to ground units in order to enable ready and deployable forces in support of real world operations, contingencies and theater security cooperation exercise.

Vision Statement:
Our vision is to crate an environment that promotes unit cohesion and space efficiency. Marines will be housed near their work areas in facilities that promote walkability and consolidate unit functions onto contiguous real estate. The district will utilized mixed vertical and horizontal development to combine common functions into single building and maximize open green space for basic field training and physical fitness.

	Group 1	Group 2	Group 3
Consolidate/colocate units	x	x	x
Improve vehicular and pedestian network connections	x	x	x
Demolish 1090	x	x	
Site New BQs (higher density)		x	x
Site Dining Hall (48K SF)	x		x
Site satellite Fitness Center (20K SF)	x	x	
Site parade ground/open space		x	x
Site AAV maintenance shop and Co HQ (15K SF)	x	x	
Site boat storage for 3rd Marines (25K SF)	x		x
Site West-end parking structure (40k SF footprint)		x	x
Incorporate pedestrian walkway along canal	x		x

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Base Support District

Mission Statement:
The District will provide facilities, maintenance, quality of life, and administrative services to support Marines, Sailors and civilians.

Vision Statement:
Or vision for the District is to create a walkable community with multi-story and energy-efficient facilities and a network of green spaces while preserving the district historic fabric.

	1	2	3
Improve vehicular and pedestrian network connections	x	x	x
Identify space and use for future infill	x	x	x
Reuse Pless Hall	x	x	x
Maximize utilization of Enlisted Club site	x	x	x
Redevelop south of 3rd St.; Retain PMO function (35K SF) and Auto Skills Shop (14K SF)	x	x	
Redevelop existing gym/fitness center site (72K SF)	x		x
Reuse/Redevelop Medical Clinic (B3089)		x	x
Site Motor Transportation Complex (35K SF)	x		x
Site satellite Fitness Center (20K SF)		x	
(b) (3) (A), (b) (7)(F)	x		x
Reserve land for future BQs		x	x
Reuse Bank of HI building	x		x
Redevelop outdoor roller rink site	x	x	
Site transient quarters/facility	x	x	
Site 3d Marines Boat Storage Facility (25K SF)		x	x

MARINE CORPS BASE HAWAII INSTALLATION MASTER PLAN
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Camp Smith

Planning Vision:
In support of the mission, Camp Smith's vision is to create a 21st century **architecturally coherent**, **functionally efficient**, and **walkable campus** encompassed by its unique **natural setting**.

Goals:
1. Architecturally Coherent
2. Functionally Efficient
3. Walkable Campus
4. Natural Setting

Camp Smith ADP
Assume MARFORPAC ops/admin building redevelopment
Improve vehicular and pedestrian network connections
Site optional locations for parking structure
Site optional locations for ops/admin building (100K SF)
Site optional locations for BQs
Identify options for Bldg. 20
(b) (7)(F)

MARINE CORPS BASE HAWAII INSTALLATION MASTER PLAN
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1/30/2015

Discussion Items and Next Steps

- 802 Housing
- Elementary School
- Consolidate MCCS Functions
- Hangar 105
- (b) (7)(F)
- West Field Port Ops Area
- Consolidating HQs
- Redevelop BQ areas
- Improve pedestrian networks
- District Parking
- Motor T relocation
- Enlisted Club redevelopment
- Identified future infill areas
- Improve recreation opportunities
- Fitness Center

MARINE CORPS BASE HAWAII INSTALLATION MASTER PLAN
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5

HHF PLANNERS
places for people

MEETING RECORD

Date:	30 January 2015	**Project No.**	2014113
Time:	10:30	**Project Name:**	MCBH Installation Master Plan
Location:	MCBH Kaneohe Bldg. 503, Ballroom	**Recorded by:**	(b) (6)
Attendees:	See sign-in sheets		
Subject:	Charrette Workshop Out-brief		

Presentation to IE&L

The stakeholders presented to (b) (6) IE&L Director for MCBH. Two concepts for each district were presented. The following summarizes the major concepts from each of the District Area Development Plans (ADP) and comments.

Community Support (Klipper) District

Presenter: (b) (6) 3d Marines

- 802 Housing Area redevelopment: reuse for community support, recreation, and relocate the elementary school; relocate housing in other infill areas on base
  - Allows for future infill
  - Locates recreation closer to community areas
- MCX consolidation: relocated MCX functions closer to MCX
  - Opens areas within other districts
  - Allows for functional consolidation
- Build parking structures to open up developable space
- Improve traffic through realignment of roads or shuttles
- Improve waterfront amenities

Comments:

- The school is at capacity and showing age. Originally built on the outskirts of the installation, it is now in the busiest part of the base due to development over time.
- Relocation of the school would be difficult, but funding may be available through the Office of Economic Justice.
- In the near term, funding may also be available for housing, which could impact the 802 Housing area.
- The district is auto-dominated. The area should be more pedestrian friendly with a community feel.
- Traffic issues need to be considered if the parking structure and MCCS warehouse are relocated into this district.

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Aviation District

Presenter: (b) (6) MAG-24

- Consolidate parking facility/structure to open up space
- Add mess, fitness, and amenities to this district
- Reuse B301 for MALS after MAG HQ relocated to Finn Bldg.
- Locate washrack and refuel point close to the current UH/AH-1 hangar to save time/costs and improve operations
- Locate 3d Marines potential boat storage requirement close to WFO area
- Recreational waterfront facilities need improvements
- Improve traffic flow with roundabouts and widen 1st St.
- (b) (7)(F)
- Expand corrosion control hangar in current location
- Relocate EOD and Environmental offices out of West Field
- Retain or demolish Hangar 105 still need evaluation

Comments:

- Although Hangar 105 is within the runway clearzone, the space would still be needed for transient aircraft. With the new cargo and passenger terminal, an increase in use of MCAS may occur.
- A thorough analysis of the main aviation support areas is needed because of the potential and opportunity of that area.
- (b) (7)(F) DLA can upgrade for fuel use, but would not fund for the Joint High Speed Vessels (JHSV)—the platform planned for Marine Corps transportation.

Ground Support (Mokapu) District

Presenter: (b) (6) APWO

- Redevelopment of BQ housing with amenities; potentially along the canal
- Consolidate 3d Marines to B1090 site
- Develop new dining facility with a denser footprint
- Consolidate CLB-3 to gain more efficient use of land
- Designate area for Unit Marshaling Area (UMA)/parade grounds
- Add fitness equipment into pathways for more training/fitness opportunities
- Improve traffic with round-abouts

Comments:

- Training classroom in B1090 is still needed if the building/site is reused for 3d Marines.
- Fitness Centers have a large requirement due to high demand from service members, family members, and civilians.
- Round-abouts are more efficient, but require a large amount of land.

Page 3 of 3

Base Support (Dewey) District

Presenter: (b) (6) Environmental

- Reroute 3rd St. to ease traffic and pull AT/FP setback away from Pless Hall and add traffic circle
- Reuse Pless Hall for chow or admin space
- Reuse medical clinic for admin functions
- Redevelop auto hobby shop
- Redevelop PMO compound
- Add a road south of 3rd St. to alleviate traffic to the ACE
- Consolidate departments/units such as CISD and HQBN
- Accommodate for Motor T and (b) (3) (A), (b) (7)(F)

Comments:

- Historic buildings are the big challenge in this district. Pless Hall does have good architecture features. A use needs to be identified.
- There has been much discussion over the location of Bank of Hawai‘i.
- Increasing pedestrian paths and walkways are needed in this district.
- 3rd Street is underdeveloped as the main road of the installation.

Camp Smith District

Presenter: (b) (6)

- Locate parking structure behind the Building 1 Complex
- (b) (7)(F)
- Redevelop Elrod to a boulevard style street
- Redevelop BQs at the existing tiered parking or in-situ to reuse the existing site

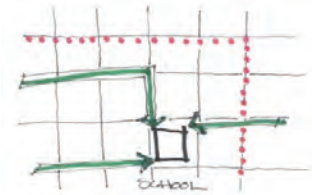
Comments:

- Consider relocating existing units/functions from Kaneohe to Camp Smith such as the MARFORPAC band
- Existing Camp Smith BQs meet current and requirement. There is a potential to increase slightly with new regulations and Camp Smith will be able to meet this. There is opportunity to redevelop the existing site and open space.
- Parking is a safety issue and a structure is needed. The IMP needs to show the parking structure to give the project support.

Planning Precepts

Connected Pedestrian/Bike Ways
To realize the goal of diverse transportation networks across MCB Hawaii, pedestrian and bike paths must be useable by connecting to each other and reaching destinations on the installation. With a cohesive human-powered transit network, personnel will be more able, willing, and likely to leave their cars behind. Make the pedestrian and bike paths not only functional, but pleasant places to be with the planting of trees, a few feet of green buffer from any roadway, and occasional benches.

Transit Network
To support effective transit across the installation, development should be focused around nodes along the transit network. These nodes can support a variety of compatible uses, from shops to homes to offices. Development in the nodes can stretch along a corridor within 10 minutes (2,500 feet) from the center of the node, which is an acceptable walking distance between transit stops. Transit stops should be placed roughly 2,500 feet to 5,000 feet apart, which allows for a maximum walk of 5 to 10 minutes to a stop.

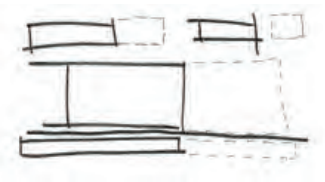


Safe Routes to School
One of the key aspects of a strong and growing family dynamic on base is a student's ability to independently get themselves to school. When a child's route to and from school is long, on dangerous roads and next to fast-moving traffic, parents are loath to let them make the trip to and fro by themselves, and often drive them to speed up the process. Because of this, children miss out on daily socializing before and after school, natural relationships with other children in their vicinity, and much-needed exercise.

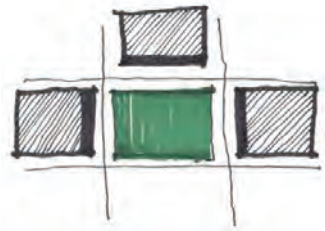
Precepts Overview
Before engaging in the detailed design of a master plan, establishing a set of precepts— preliminary concepts—helps bring order to the process as it unfolds. In their book *Problem Seeking: An Architectural Programming Primer,* William Peña and Steven Parshall post the value of generating programmatic concepts at the outset of a design process as fundamental to the cohesion of a project.

As the master plan evolves, precepts provide a template against which the effectiveness of design decisions can be measured. Precepts are diagrammatic in nature and are not prescriptive measures. Rather, the ideas are intended to accommodate a range of design solutions at a variety of scales. By outlining a series of organizing ideas that serve to guide development patterns, a more cohesive plan may be realized.

Planning Precepts



Accommodate Future Additional Squadron Expansion
As Marine Corps needs and demands develop, wise and efficient use of remaining land may draw the development of future operations to MCBH. In such a situation, MCB Hawaii must be able to accommodate new facilities in their existing land. This is only possible through the efficient use of land – multi-story buildings, pedestrian-oriented districts with few building setbacks, and mixed-use development, which limits the necessity of cars and, by default, the space they require.



Town Center
Healthy cities have at least one communal outdoor gathering place – a public living room where people can congregate, shop, meet, and socialize. In MCB Hawaii, this community-forming element is largely missing, isolating people from a rich and involved public life. The development of such a place will draw people together, increase foot traffic and retail presence, and contribute to public health. It is, as a rule, flanked by multi-story buildings that open out onto the space, providing services, shelter, and shade. It has abundant seating, sunshine, and an identifying landmark.

Wide Sidewalks
Pedestrians and bicyclists often feel like an afterthought when they go from place to place. They too often encounter narrow sidewalks that prevent them from walking in groups and from letting runners and bicycles pass, and are discouraged by dangerous proximities to fast-moving vehicles. Particularly in high-density pedestrian-oriented districts, create generously wide places for people to walk and bike. Consider the pedestrian and bike path as an outdoor room, with an edge of trees, a zone for bicycles, a place to wait for people, and a place to walk.

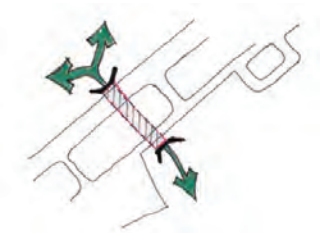
Planning Precepts

Tree Lined Streets
In order to make outdoor places comfortable and inviting for people throughout the day, some thought must be given to their temperature. Trees that provide shade reduce the heat of the sun on people, protect paved surfaces from UV exposure and deterioration, and change the spatial quality of the outdoors to be more human, pleasant, and interesting. In every street that is wiser than 20', plant shade trees at 15' intervals to greatly improve the outdoor environment and experience and reduce speeding traffic.

Waterfront Amenities
At MCB Hawaii, planners need to establish appropriate development patterns that not only match the necessity of the installation but respond to the natural landscape as well. The proximity of the base to the ocean has historically provided various incentives for development and should not limit future possibilities for expansion. Amenities and new projects should aim at taking advantage of natural breezes, ample wildlife, and be positioned along the waterfront to increase exposure and raise military personnel's quality of life.

Buildings Defining Open Space
Effective designs have useable indoor and outdoor space. Equally valuable as well-organized buildings, functional and shaped outdoor space creates a sense of cohesiveness and organization in the context of a larger installation. Buildings around an open space can imply a sense of cohesiveness and a common purpose,

Planning Precepts



(b) (7)(F)

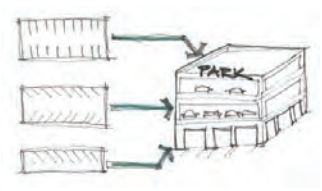
Secure Flightline
As one of the key features of the MCB installation, Kaneohe Bay's flightline must be guarded under a high level of physical security and surveillance. (b) (7)(F)

(b) (7)(F)

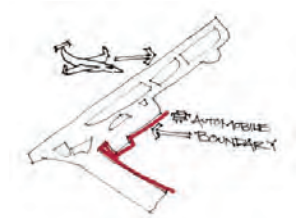
are effective preservation measures that protect the flightline and its resources.

Street Frontage with Access to Flightline
Traffic circles and boulevards work together to manage traffic and reduce congestion. Because most congestion problems occur at sign- or light-controlled intersections, circles eliminate back-ups at these intersections as traffic can flow smoothly. Hence, lanes can be eliminated or converted to medians as part of an upgrade of streets to boulevards that carry the same amount of traffic on fewer lanes. Boulevards can handle significant traffic. Their medians accommodate protected left turn lanes, and the landscaping can reduce impervious surfaces across the installation.

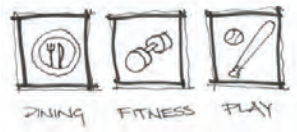
Planning Precepts



District Parking
A priority of the MCB Hawaii master plan is to reduce vehicular dependency and create a more walkable installation. Instead of continuing the practice of building individual parking lots for each structure, which, due to setbacks, automatically creates more sprawl, consolidate parking for each district in one area. With this strategy, people will be able to walk from the parking structure to various buildings in its district. This will in turn lead to a more efficient use of space and a healthier day-to-day lifestyle for on-base personnel.

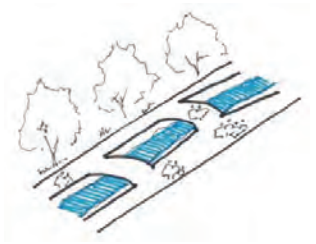


Flightline – No POVs
Currently, cars and planes share a traffic intersection on the MCB Hawaii flightline. For maximum efficiency and safety in MCB Hawaii Kaneohe Bay aviation operations, regular vehicular traffic should not interfere with flightline activity.



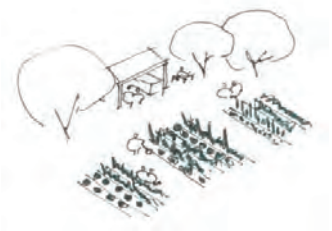
Flightline Downtown Support and Amenities
The goal of creating a walkable and engaging base begins with addressing user needs at a pedestrian scale. Currently, the flightline district of MCB Hawaii Kaneohe Bay lacks the daily amenities that keep personnel engaged apart from their work. In order to eat out, exercise, or run errands, they must leave the district entirely. Instead of this divisive pattern, the downtown flightline district has the potential to support a diverse mix of uses that engage personnel, adding value, multi-dimensionality, and life to the area.

Planning Precepts



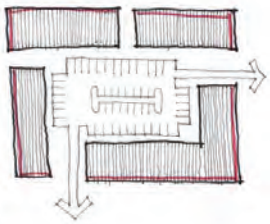
Canal Walk
In addition to its role as a useful tool of sustainable stormwater management, the canal that crosses Mokapu Road east of G Street, if designed properly, can be a pleasant and attractive place. Plant regular street trees along its length, span beautiful bridges across it, and build a low wide wall to for passers-by to sit on its edge, in addition to a wide place for them to walk. Refer to the Canal St. Martin in Paris, a successful precedent of this precept, for implementation strategies.

Co-Use Greenspace
Because space is limited on MCB Hawaii, many different outdoor functions can be consolidated into one common space. A well-designed public green will support ceremonies and processions, family outings, and training activities. Often, hasty planning will make an operations greenspace or a park greenspace unusable for its other potential users. With careful consideration, a greenspace can have enough open space to accommodate a helicopter landing, enough seating to be welcoming to families, and enough trees to provide cover and shade.

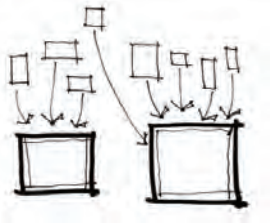


Community Gardens
The advantages of being outdoors, especially in a place as warm and sunny as Kaneohe Bay, are unquestioned. Community Gardens are an excellent way to encourage people to profit from those advantages. They provide places for people to exercise, produce healthful food, and socialize. They promote overall well-being, pride in personal accomplishment, and real self-reliance. They improve the diets of participating families, reduce the installation's carbon footprint, and are less expensive to maintain or police than parks or vacant lots.

Planning Precepts



Hidden Parking
In its efforts to become a base of diverse transportation, MCB Hawaii must make conscious efforts to reduce the car-dominant atmosphere that is prevalent throughout American development. By concealing parking behind or to the side of buildings, planners will liberate the street front for pedestrian engagement. This precept does not imply that parking will be eradicated; it merely shifts the preferential treatment of urban design from vehicles to people themselves.

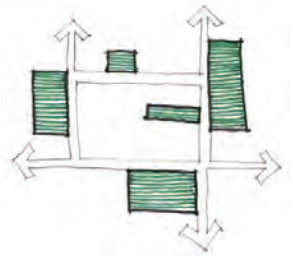


Consolidated Units
One large multi-level building takes up less space than the equivalent area of many small one-story structures. To promote efficiency in land use, base organization and environmental impact, consolidate units into one building. These larger buildings can act as the edges of a network of shared open space, shaping the outdoors while organizing the indoors. Consolidated Units, and even differing units that share a building, benefit from greater in-house communication, multi-disciplinary collaboration, and community over shared amenities and services.

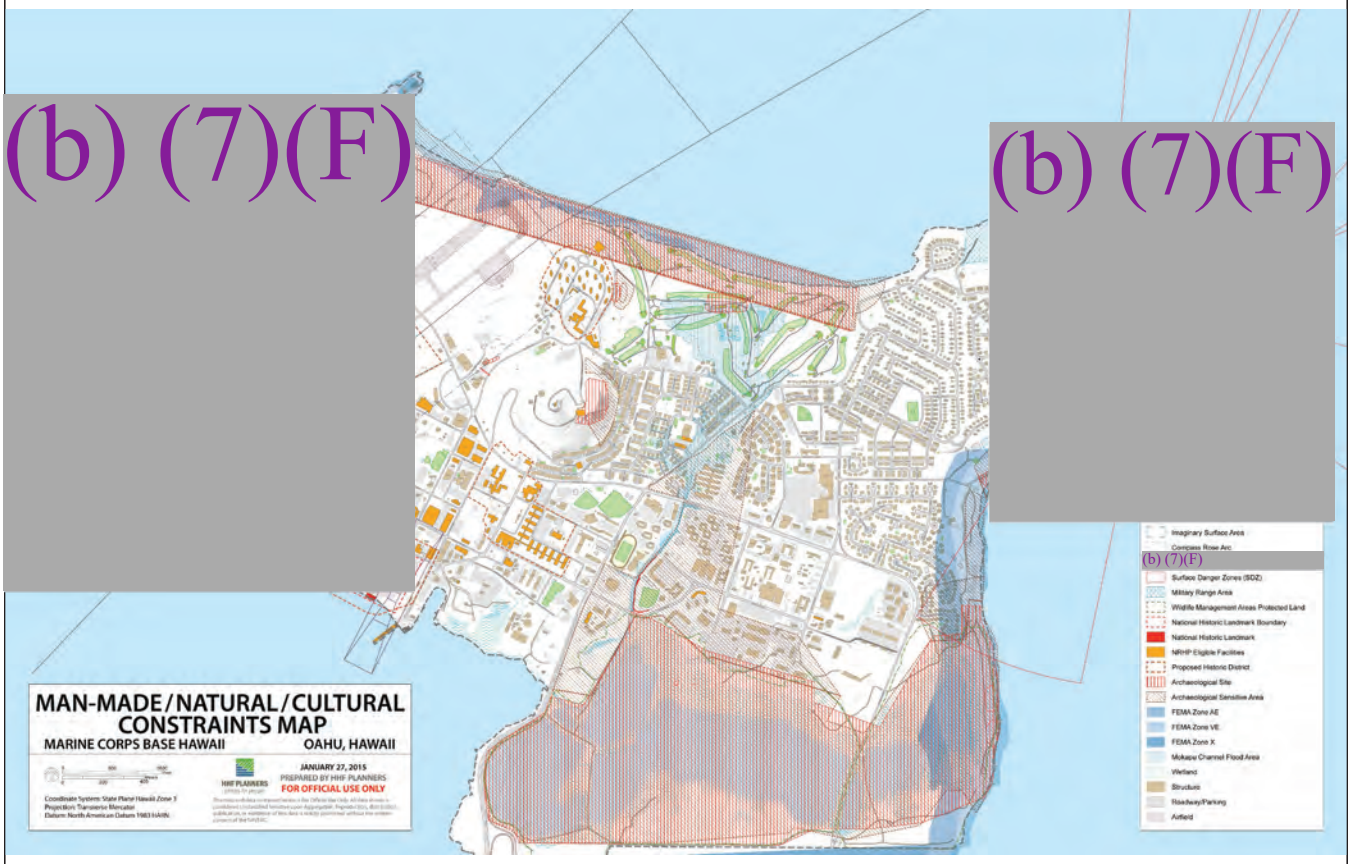
(b) (7)(F)

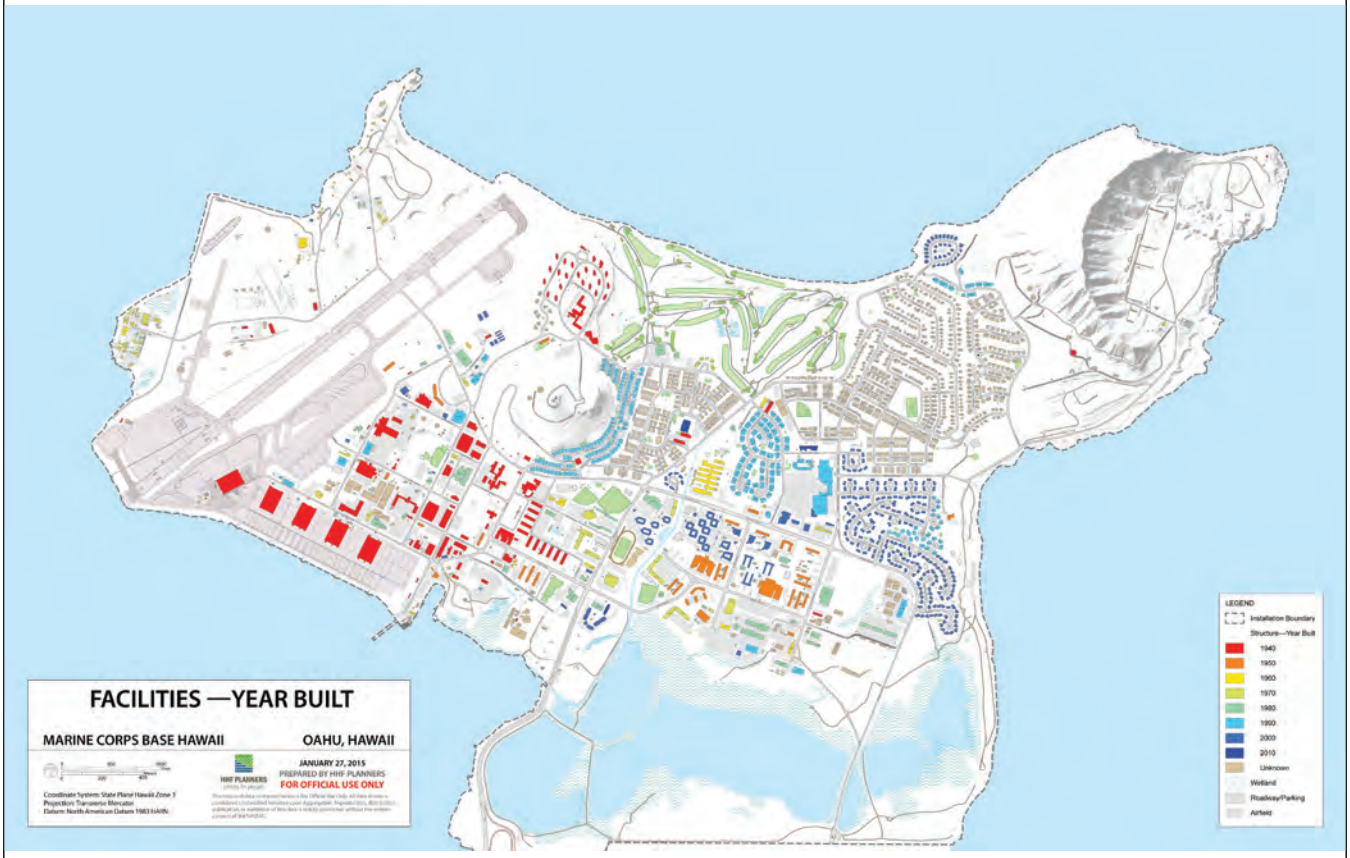
small business owners, and acts as a livable axis and anchor to the rest of the development. It is the principal route from place to place on the installation, providing utility not only in infrastructure, but also in practical everyday activity. In order for its Master Plan and Vision to thrive, (b) (7)(F) (b) (7)(F) . It is already well used by vehicular traffic, and therefore can be a great setting for passers-by in the future.

Planning Precepts

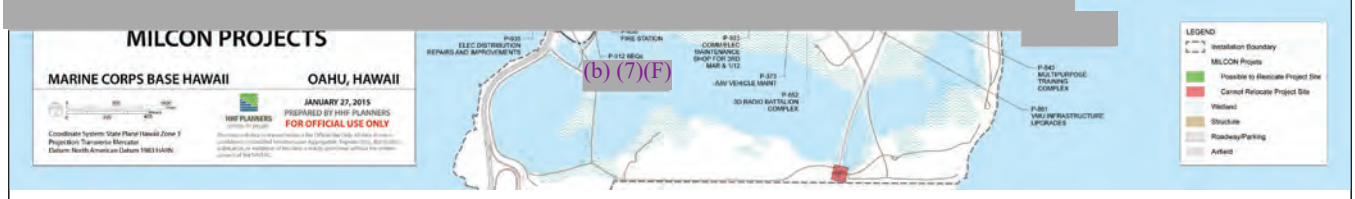


Connected Greenspaces and Walkability
To realize the goal of diverse transportation networks across MCB Hawaii, greenspaces throughout Kaneohe Bay should be connected to create a pedestrian and bike network that can be utilized as a main transportation corridor and create a larger network of connected recreational spaces. Providing desirable pedestrian or bike opportunities would encourage transportation modes other than cars, which would reduce greenhouse gas emissions from vehicular use and encourage healthier living habits.


(b) (7)(F)
(b) (7)(F)
MAN-MADE/NATURAL/CULTURAL
CONSTRAINTS MAP
MARINE CORPS BASE HAWAII
OAHU, HAWAII
JANUARY 27, 2015
PREPARED BY HHF PLANNERS
FOR OFFICIAL USE ONLY
Imaginary Surface Area
Compass Rose Arc
(b) (7)(F)
Surface Danger Zones (SDZ)
Military Range Area
Wildlife Management Areas Protected Land
National Historic Landmark Boundary
National Historic Landmark
NRHP Eligible Facilities
Proposed Historic District
Archaeological Site
Archaeological Sensitive Area
FEMA Zone AE
FEMA Zone VE
FEMA Zone X
Mokapu Channel Flood Area
Wetland
Structure
Roadway/Parking
Airfield


FACILITIES —YEAR BUILT
MARINE CORPS BASE HAWAII
OAHU, HAWAII
JANUARY 27, 2015
PREPARED BY HHF PLANNERS
FOR OFFICIAL USE ONLY
Coordinate System: State Plane Hawaii Zone 3
Projection: Transverse Mercator
Datum: North American Datum 1983 (NAD83)
LEGEND
Installation Boundary
Structure—Year Built
1940
1950
1960
1970
1980
1990
2000
2010
Unknown
Wetland
Roadway/Parking
Airfield

(b) (7)(F)


MILCON PROJECTS
MARINE CORPS BASE HAWAII
OAHU, HAWAII
JANUARY 27, 2015
PREPARED BY HHF PLANNERS
FOR OFFICIAL USE ONLY
(b) (7)(F)
LEGEND
Installation Boundary
MILCON Projects
Possible to Relocate Project Site
Cannot Relocate Project Site
Wetland
Structure
Roadway/Parking
Airfield

DEVELOPABLE LAND
WITH PROJECTS
MARINE CORPS BASE HAWAII
OAHU, HAWAII
JANUARY 27, 2015
PREPARED BY HHF PLANNERS
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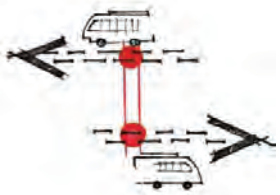
HHF PLANNERS
LEGEND
Installation Boundary
Cannot Relocate Project Site
Developable Area 1
Developable Area 2
Developable Area 3
Wetland
Structure
Roadway/Parking
Airfield

Planning Precepts

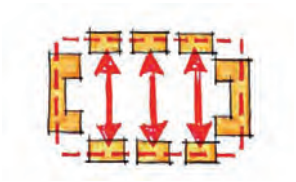
Connected Pathways
As a base that encourages pedestrian mobility, it is essential that Camp Smith be connected with a network of walkable paths that tie the buildings together. This transition away from automobile-dependent development will improve health on the installation, encourage outdoor activity, and reduce emissions. Outdoor paths should be a minimum of 48" wide, paved, and lead from entries to every building to other important destinations on the installation. At times, they should be lined with benches, traverse lawns, and are shaded by leafy trees.



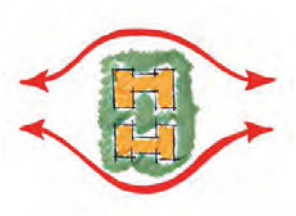
Connected Transportation Network
In order for the installation to be successful, however, all areas must be easily accessible to each other. While it is acknowledged that a universal vehicular approach is no longer recognized as the most desirable outcome, an integrated transportation solution shall be implemented with the use of paved pathways, bicycle access, and a hierarchy of various road types, each addressing the individual traffic loads of their districts. However, all first consideration must be given to the pedestrian environment, & how all other network types affect it.

Enhanced Traffic Flow
One of the ways that Camp Smith struggles is in its overabundance of vehicular activity. In order to better accommodate traffic and preserve the interior pedestrian environment, make improvements to Julian Street and Bailey Road so that they can act as a spine of vehicular traffic for the installation. As cars move further into the installation, there will be immediate opportunities to park, thereby eliminating trips to individual buildings and increased paved area.

Planning Precepts



Mission Campus
For maximum command efficiency, develop a cluster of headquarters buildings in campus form with co-functional adjacencies, walkability, and architectural relationship. These buildings will house the various departments of PACOM and MARFORPAC, creating a unified center of command for the Pacific theater. With this precept employed, personnel, intelligence, operations, logistics, and communications branches will be able to work together seamlessly, share common spaces, and enjoy commonality that extends beyond their mission and into their physical environment.



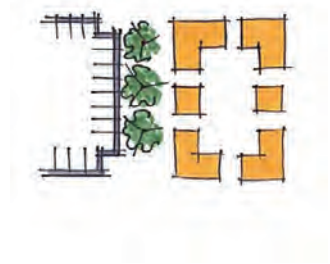
Vehicle Free Core
In the most densely built central area of Camp Smith, building users will be able to travel most efficiently between buildings by walking. By eliminating cars from the center of the installation, setback requirements are a thing of the past, space is used more efficiently, and offices can be closer together. This creates a unified complex of buildings that can profit from shared outdoor space, enjoy close and functional proximities, and act as a cohesive whole.

Central Quad
A principal element of the development language is the quad, a central lawn between the primary buildings that acts as a common green space. Quadrangles create beauty, structure, and ceremony among a group of buildings. The Quad at Camp Smith will be the epicenter of life and ceremony on the installation, and will be a pleasant alternative to the parking lots that coat the center today.

Planning Precepts

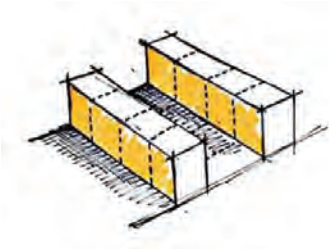
(b) (7)(F)

Multi-Level Parking
Because of the limited space on Camp Smith, it is important to use every square foot carefully. The lower cost of surface parking cannot be justified when land is at such a premium. In order to create a better pedestrian environment, reduce surface runoff, and consolidate development, build condensed multi-level parking. With that, space can be more efficiently used by cars, and will be free for more training areas, other buildings, or greenspace that filters stormwater runoff.



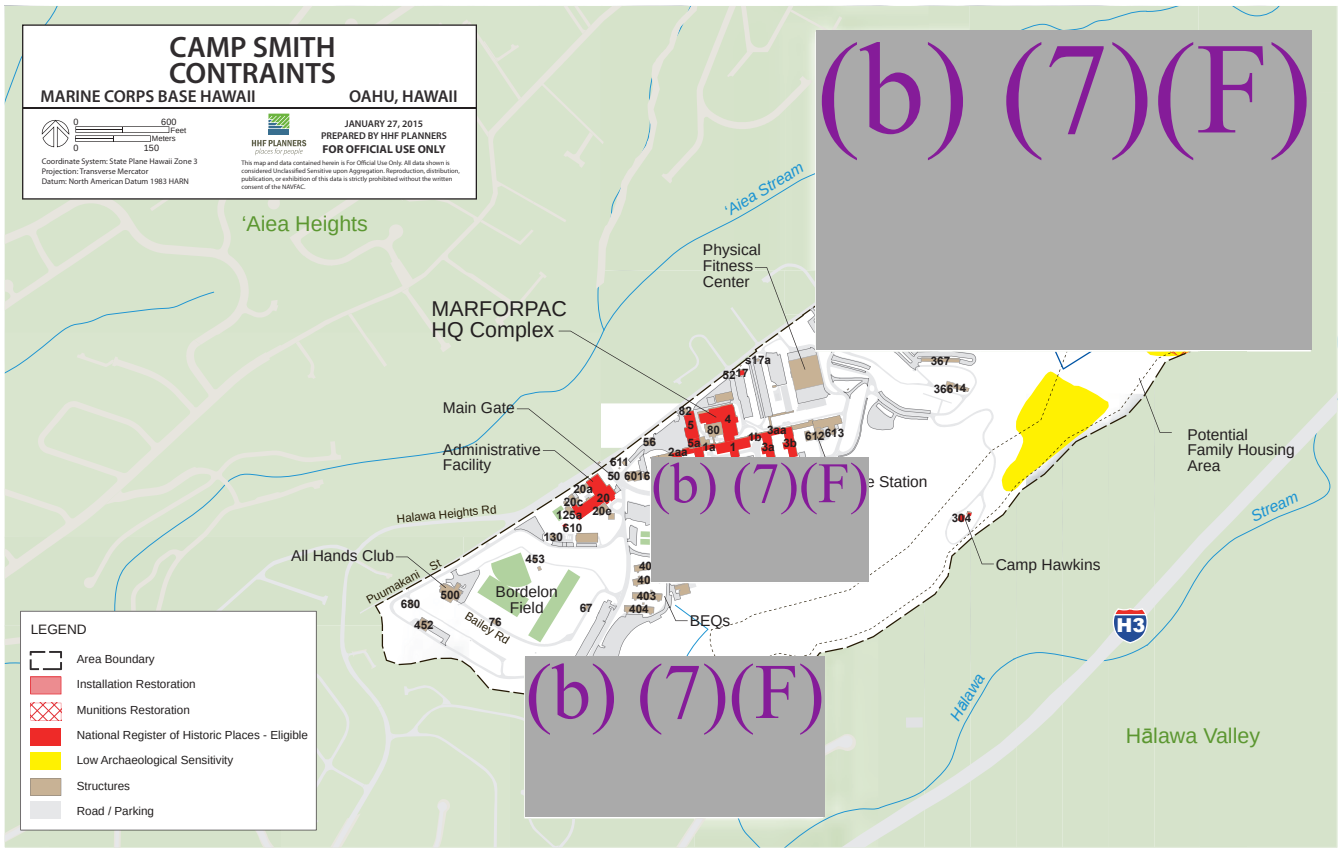
Perimeter Parking
Part of having a walkable installation core is the exclusion of parking in its center, which has an effect of spreading out development. Instead, build parking along the less active edges of a property, so that people in the center can enjoy a car-free, healthful environment, with the ability to walk to their destination from their cars.

Planning Precepts



BEQ Townhomes (Conceptual Concept = Needs Further Development/ Discussion)

While the economic and accessibility benefits of living on an installation are certainly compelling, many young Marines cannot wait to move out of their assigned BEQs. There is little argument that traditional BEQs are rather large and impersonal. They frequently have long, windowless, double-loaded corridors. Access to natural light, natural ventilation and any sense of human scale is largely missing. To complicate matters, these big buildings require extensive antiterrorism setbacks and construction standards, including progressive collapse, standoff distances and expensive glazing systems anchored into the structural members. All of this comes at a steep price. First, the psychological toll associated with living in an impersonal dormitory-like building has been well documented by researchers on college and university campuses. Crime, violence and a general disregard for maintenance and upkeep are not uncommon. This toll is one reason why universities are moving away from the dormitory model to one that embraces smaller scale townhome units where fewer people share common areas. Second, the added construction costs associated with antiterrorism measures make large buildings more expensive than smaller buildings, and barracks are no exception. Third, and perhaps most important from a planning perspective, the extensive setbacks needed for larger barracks complicate infill and compact development goals. Given the costs associated with the larger barracks model and the incompatibility such a model has with the installation's planning vision, a new model is needed. Planners initially turned to the townhome barracks prototype at NSA Hampton Roads and Fort Leonard Wood, MO. The townhouse barracks use the DoD standard "1+1" floor plan configured into five-unit buildings. Each two-person unit has its own exterior entrance, individual bedrooms and lavatories, full kitchen with appliances and a shared bathroom. Proponents of the model argue that the smaller typology increases morale and retention, minimizes common circulation area to maximize individual space, reduces construction costs (wood frame construction is less expensive), accommodates a wide variety of project sites and construction types, and easily adapts to fit local character. Given these benefits, it is hard to overlook the potential for this new model. At Fort Hunter Liggett, planners and designers are taking the model to the next level. Since these buildings have no more than ten occupants, they do not need standoff distances or progressive collapse designs. Hence, they can fit on much smaller sites and be used to infill already developed areas. They can also be used to help frame connections between developed areas of an installation. At Fort Hunter Liggett, the initial plan is to build four of these small barracks directly along a new main street and close to the new town square. Porches and stoops will face the street and parking will be behind.


CAMP SMITH
CONTRAINTS
MARINE CORPS BASE HAWAII
OAHU, HAWAII
0 600 Feet
0 150 Meters
Coordinate System: State Plane Hawaii Zone 3
Projection: Transverse Mercator
Datum: North American Datum 1983 HARN
HHF PLANNERS
places for people
JANUARY 27, 2015
PREPARED BY HHF PLANNERS
FOR OFFICIAL USE ONLY
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(b) (7)(F)
'Aiea Heights
'Aiea Stream
Physical Fitness Center
MARFORPAC HQ Complex
Main Gate
Administrative Facility
Station
Potential Family Housing Area
Halawa Heights Rd
All Hands Club
Puumakani St
Bordelon Field
Bailey Rd
BEQs
Camp Hawkins
Stream
Hālawa
Hālawa Valley
H3
LEGEND
Area Boundary
Installation Restoration
Munitions Restoration
National Register of Historic Places - Eligible
Low Archaeological Sensitivity
Structures
Road / Parking

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CRATER
CANAL
GREEN
group 1·A

54 **Stakeholder Concept Map 1B – Klipper District**

GROUP 1B

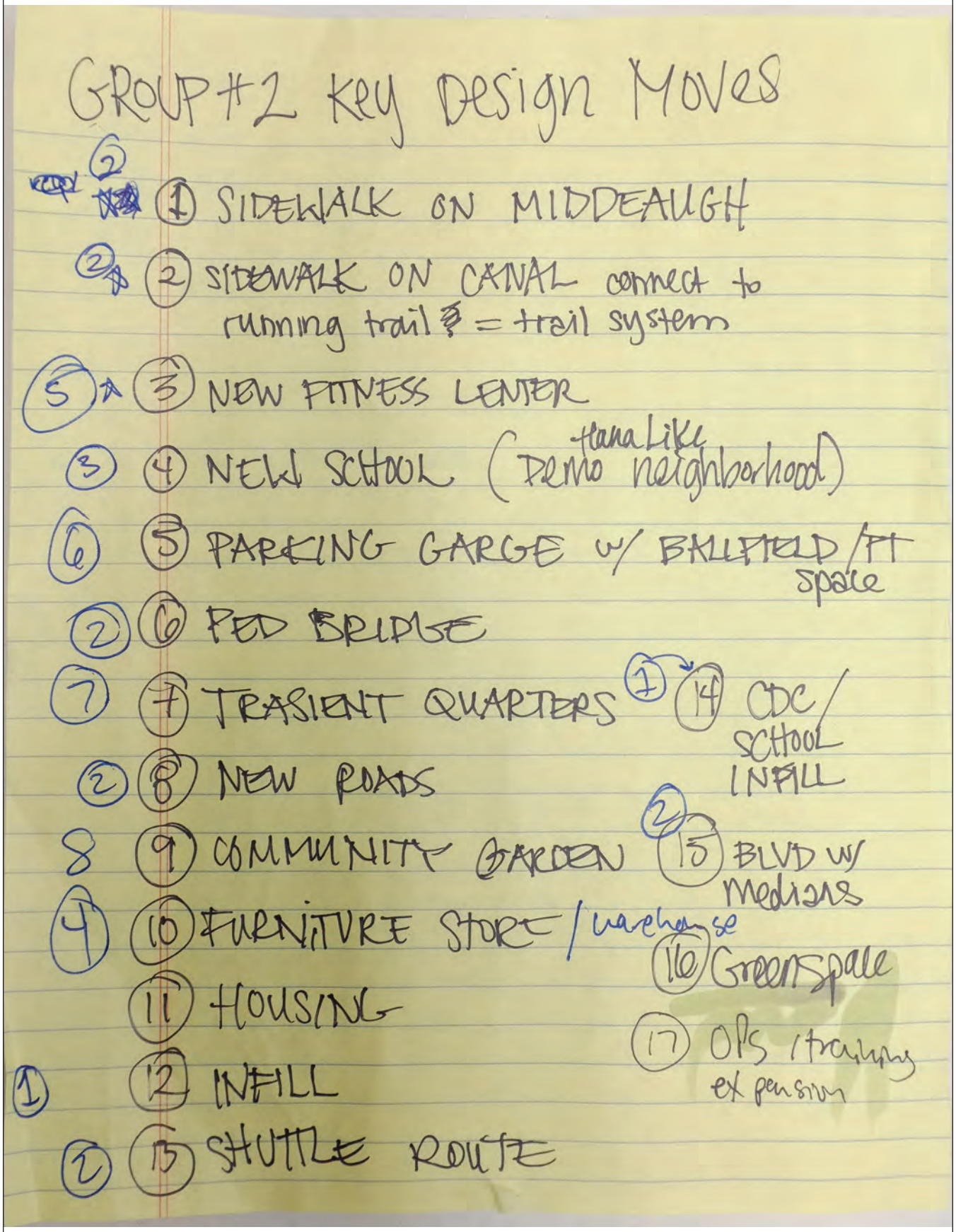
(b) (6)

3D Marines

= Reused Hana like

1. ↳ Addition of Swimming Pool
2. ↳ Relocate Tennis Courts
3. ↳ Relocate school
   ↳ Save existing school for fill ins
4. ↳ Relocate Furniture shop (annex)
5. ↳ Locate Transient Lodging
   ↳ Parking extras for school
   ↳ Youth teen center
6. ↳ Addition of Community Garden
   ↳ Replacement / Reuse unknown
7. ↳ Relocate MCCS warehouse
8. ↳ Addition of Pedestrian Bridges / Bike path
9. ↳ Improved Beach Access
10. ↳ Housing in two Green Spaces
    ↳ Day Park + Infill open field area
11. Relocate Golf Maintenance Warehouses
    ↳ Green Space

GROUP 2A
1 SIDEWALK ON MIDDEMUCH
2 SIDEWALK ON CANAL CONNECT to running trail (TRAIL DESIGN)
3 NEW FITNESS CENTER X2
4 NEW SCHOOL (Como Hana Like Neighborhood)
5 PARKING GARAGE X2 W/ BALLFIELD/PT SPACE ON TOP
6 PEDESTRIAN BRIDGE
7 TRANSIENT QUARTERS X3
8 NEW ROADS
9 COMMUNITY GARDENS
10 FURNITURE STORE / WAREHOUSE
11 HOUSING - HIGHER DENSITY
12 INFILL X3
13 SHUTTLE ROUTE
14 CBC/SCHOOL INFILL
15 BLVD W/ MEDIANS
16 GREENSPACE/QUAD
17 OPS EXPANSION



GROUP #2 Key Design Moves

2 1 SIDEWALK ON MIDDEAUGH

2 2 SIDEWALK ON CANAL connect to running trail = trail system

5 3 NEW FITNESS CENTER

3 4 NEW SCHOOL (Demo Hana Like neighborhood)

6 5 PARKING GARGE w/ BALLFIELD / PT space

2 6 PED BRIDGE

7 7 TRASIENT QUARTERS

2 8 NEW ROADS

8 9 COMMUNITY GARDEN

4 10 FURNITURE STORE / warehouse

11 HOUSING

1 12 INFILL

2 13 SHUTTLE ROUTE

1 14 CDC / SCHOOL INFILL

2 15 BLVD w/ medians

16 Greenspace

17 OPS / training ex pension

58 **Stakeholder Concept Map 2B – Klipper District**

GROUP 2B

- Reuse Youth Center / Fitness Center
- Site Garden Plots
- Redesign Existing School - reduce footprint
- Develop Canal Walk
- Site new Parking Structure -
- Site Transient Qtrs / new PPV Hsg
- Improve Vehicular Traffic - related to Elem School
- Relocate Furniture shop - MCCS consolidation
- Relocate oceanside fairways (#13-16) inland
- Relocate 3RD MAR HQ/Trng Bldg into GCE

#3

1. Relocate 802 → KT AREA + 10 Acre Housing
2. Gym/Pool Adj to MCX + Parking structure
3. CDC Relocate to Youth CTR
4. Furniture adj to MCX
5. Base Beach Improvements
6. Future Infill
7. Elem School Relocate to 802 AREA
8. Added Green Space/Walkway/Bike Paths
9. Added Road adj to infill
10. Widened Road adj to MCX Area
11. Add Road access to 10 Acre Housing
12. Improve Street lighting (Mokapu)

62 **Stakeholder Concept Map 3B – Klipper District**

Community Support #3B

1. HANA LIKE HOUSING → COMMUNITY PARK / PARADE DECK

SITE 100 HOUSING UNITS → BASE OF HILL. ALONG GOLF COURSE

IMPROVE VEHICULAR + PEDISTRIAN NETWORK → PATH THROUGH PARK

SITE NEW ELEMENTARY SCHOOL → INSIDE FOREST CITY AREA, OR OFF BASE.

SITE 20K SF FITNESS CENTER - 1. ON TOP OF OLD SCHOOL
2. WITHIN HOUSING AREA
3. INSIDE PX PARKING LOT RECLAIMED BY STRUCTURE

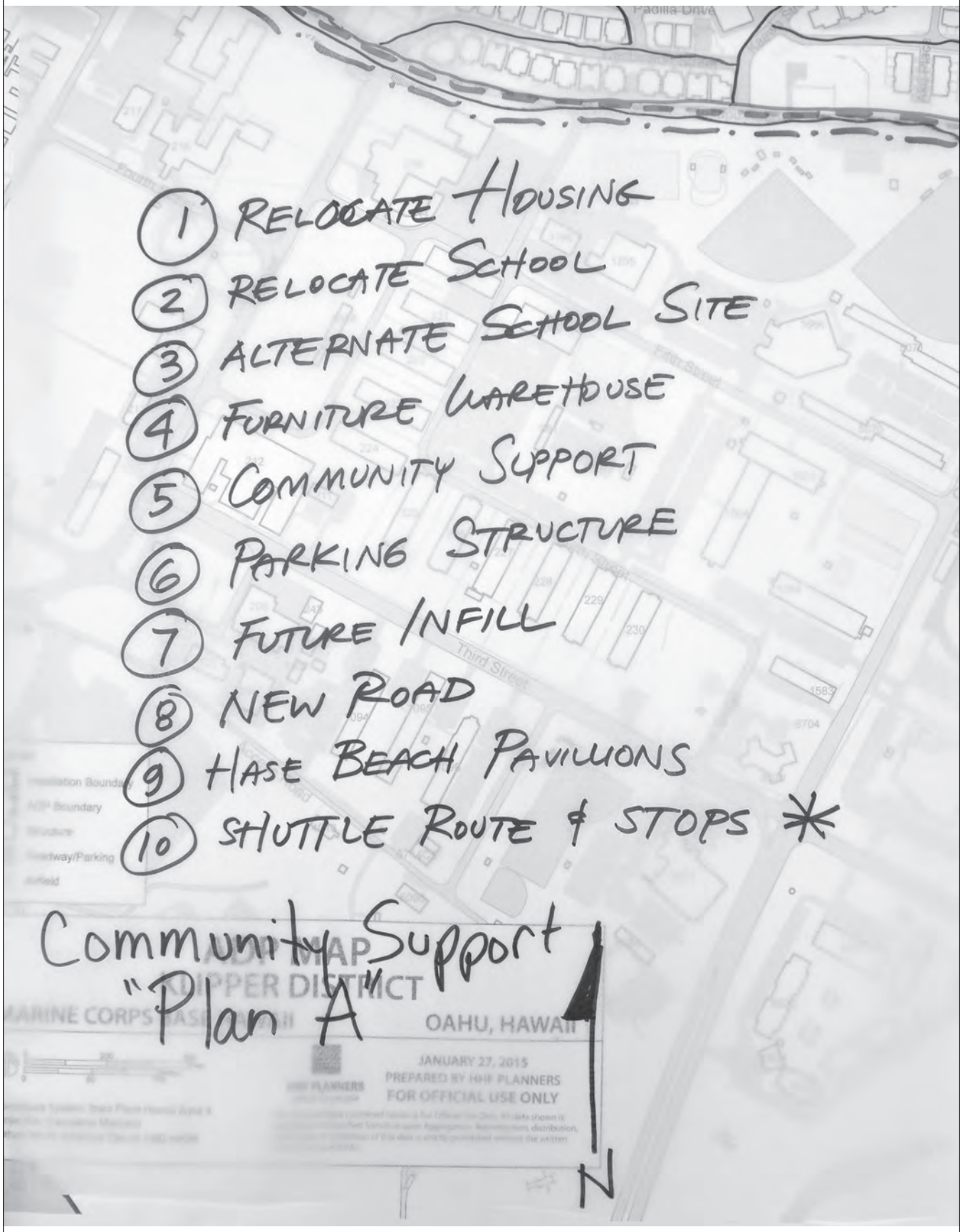
SITE 40K SF PARKING
↳ WITHIN PX LOT, MULTI-STORY

IMPROVE WATERFRONT FACILITIES - 1. NORTH BEACH ACCESS IMPROVEMENT
2. FORT HASE BEACH PAVILIONS + RESTROOMS

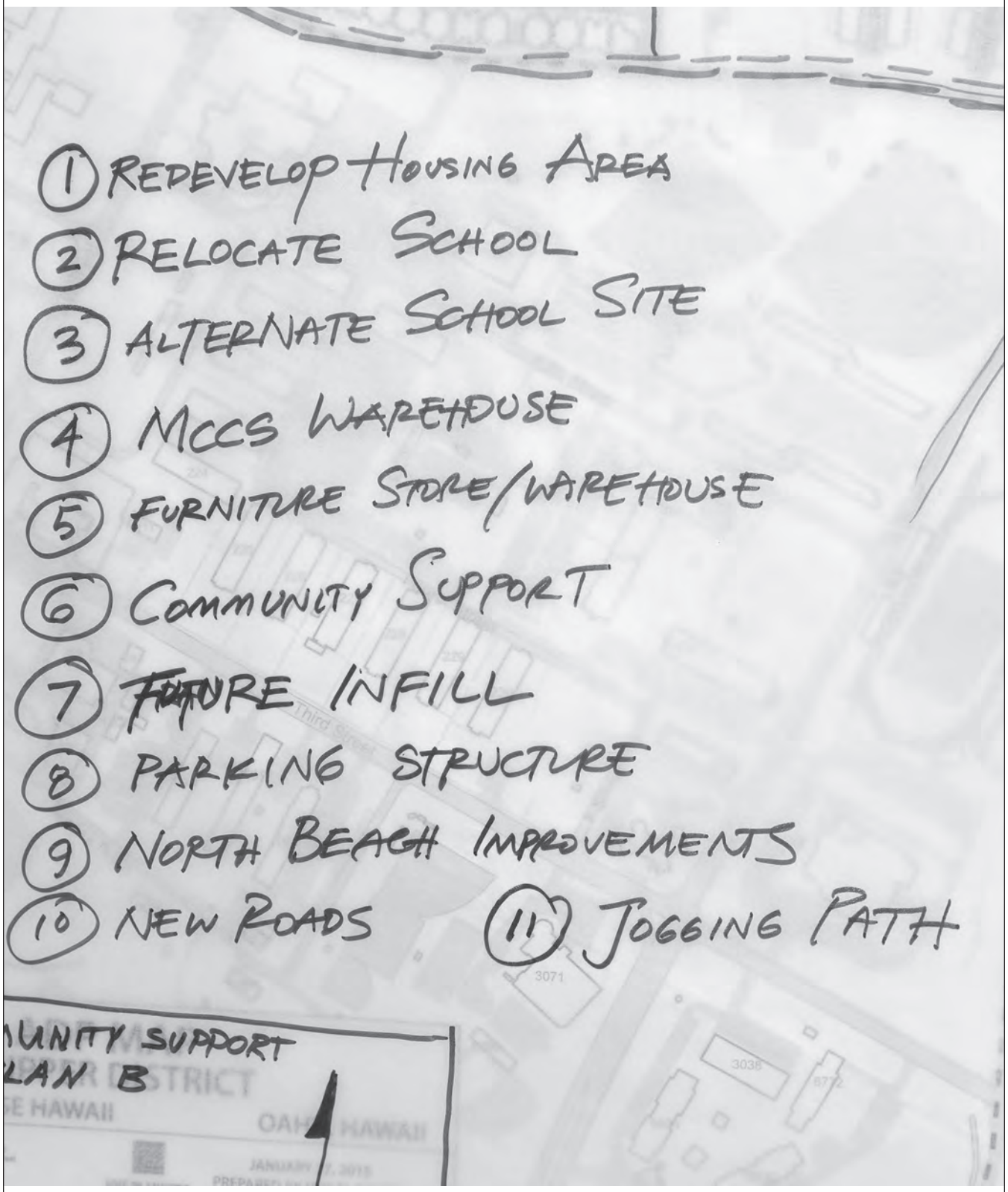
COMMUNITY GARDEN - 3 IN PLAN.

INCORPORATE PEDESTRIAN WALKWAY ALONG CANAL.
↳ PATHS LEAD TO PARK.
↳ BRIDGES OVER CANAL FOR FITNESS CTR ACCESS

1 RELOCATE HOUSING
2 RELOCATE SCHOOL
3 ALTERNATE SCHOOL SITE
4 FURNITURE WAREHOUSE
5 COMMUNITY SUPPORT
6 PARKING STRUCTURE
7 FUTURE INFILL
8 NEW ROAD
9 HASE BEACH PAVILIONS
10 SHUTTLE ROUTE + STOPS
Community Support "Plan A"
N


1 RELOCATE HOUSING
2 RELOCATE SCHOOL
3 ALTERNATE SCHOOL SITE
4 FURNITURE WAREHOUSE
5 COMMUNITY SUPPORT
6 PARKING STRUCTURE
7 FUTURE INFILL
8 NEW ROAD
9 HASE BEACH PAVILLIONS
10 SHUTTLE ROUTE & STOPS *
Community Support
"Plan A"
OAHU, HAWAII
JANUARY 27, 2015
PREPARED BY HHF PLANNERS
FOR OFFICIAL USE ONLY
N

1 REDEVELOP HOUSING AREA
2 RELOCATE SCHOOL
3 ALTERNATE SCHOOL SITE
4 MCCS WAREHOUSE
5 FURNITURE STORE/WAREHOUSE
6 COMMUNITY SUPPORT
7 FUTURE INFILL
8 PARKING STRUCTURE
9 NORTH BEACH IMPROVEMENTS
10 NEW ROADS
11 JOGGING PATH
COMMUNITY SUPPORT
PLAN B
N


1 REDEVELOP HOUSING AREA
2 RELOCATE SCHOOL
3 ALTERNATE SCHOOL SITE
4 MCCS WAREHOUSE
5 FURNITURE STORE/WAREHOUSE
6 COMMUNITY SUPPORT
7 FUTURE INFILL
8 PARKING STRUCTURE
9 NORTH BEACH IMPROVEMENTS
10 NEW ROADS
11 JOGGING PATH
UNITY SUPPORT
LAN B
3071
3038

68 **Stakeholder Concept Map 1A – Aviation District** ~~FOR OFFICIAL USE ONLY~~

1A AVIATION

1) Increase Vehicular Ingress + Egress routes
-Walking/Running trail to North Beach
2) Extend 11 taxiway for holdshort A/C
3) Add 3d Marines boat storage facility adjacent to waterfront ops take advantage of existing boat ramp
4) Expand CC facility
5) Reuse B301 footprint for gym + Parking structure
6) Washrack – share P8 Washrack
7) ~~[illegible]~~

70 **Stakeholder Concept Map 1B – Aviation District**

ADP MAP
AVIATION DISTRICT
MARINE CORPS BASE HAWAII
LEGEND
2A

Av. Dist.
#2B
IMPROVED PEDESTRIAN + BIKE PATHS
FUTURE AVIATION OPERATIONS
RELOCATE BASE MOTOR POOL
MAG 24 HQ (301) BECOMES MALS HQ
SATELLITE GYM ON OLD MOTOR POOL
NEW PARKING STRUCTURE
EOD FACILITY NEXT TO PREVIOUS FACILITY
EXPAND MALS CORROSION FACILITY
DEMOLISH 105 RELOCATE TO 103 B.S.
IMPROVE PYRAMID ROCK AND HALE KOA FACILITIES
ADD CHOW HALL TO DISTRICT
RELOCATE TAXIAL APRON
TO 103 BS
NEW ENHANCEMENT
BASE MOTOR POOL

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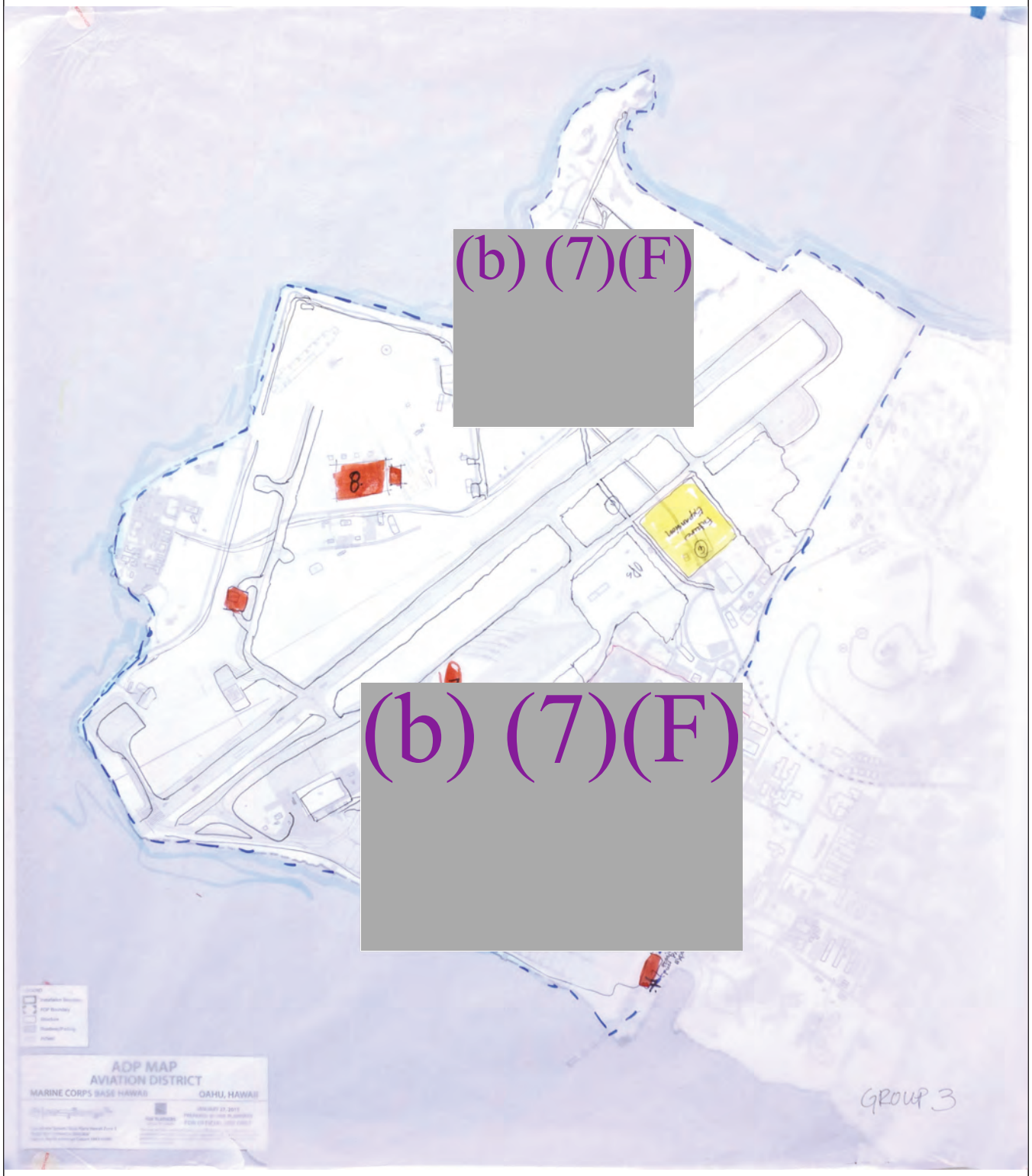
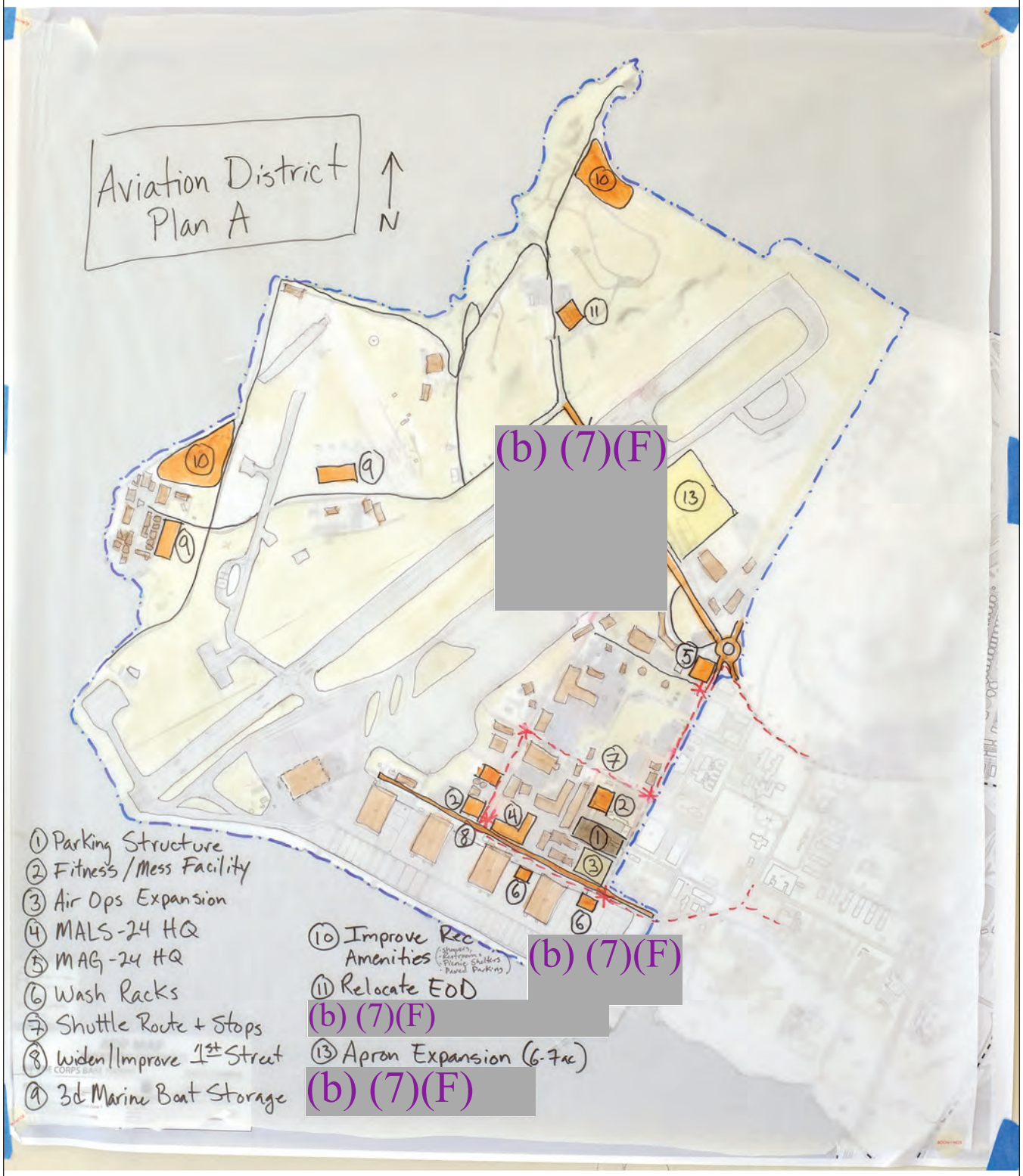
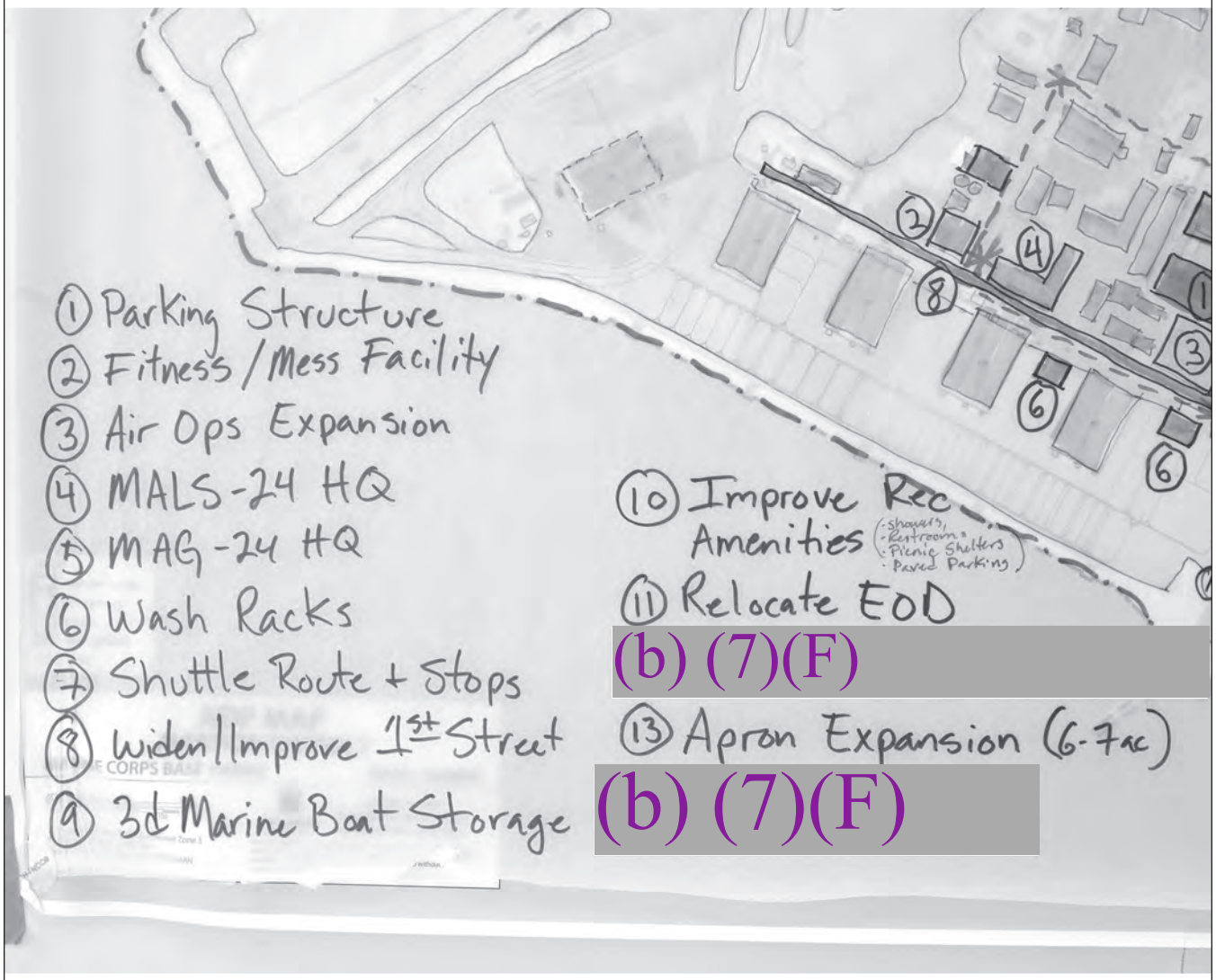


74 **Stakeholder Concept Map 3 – Aviation District**

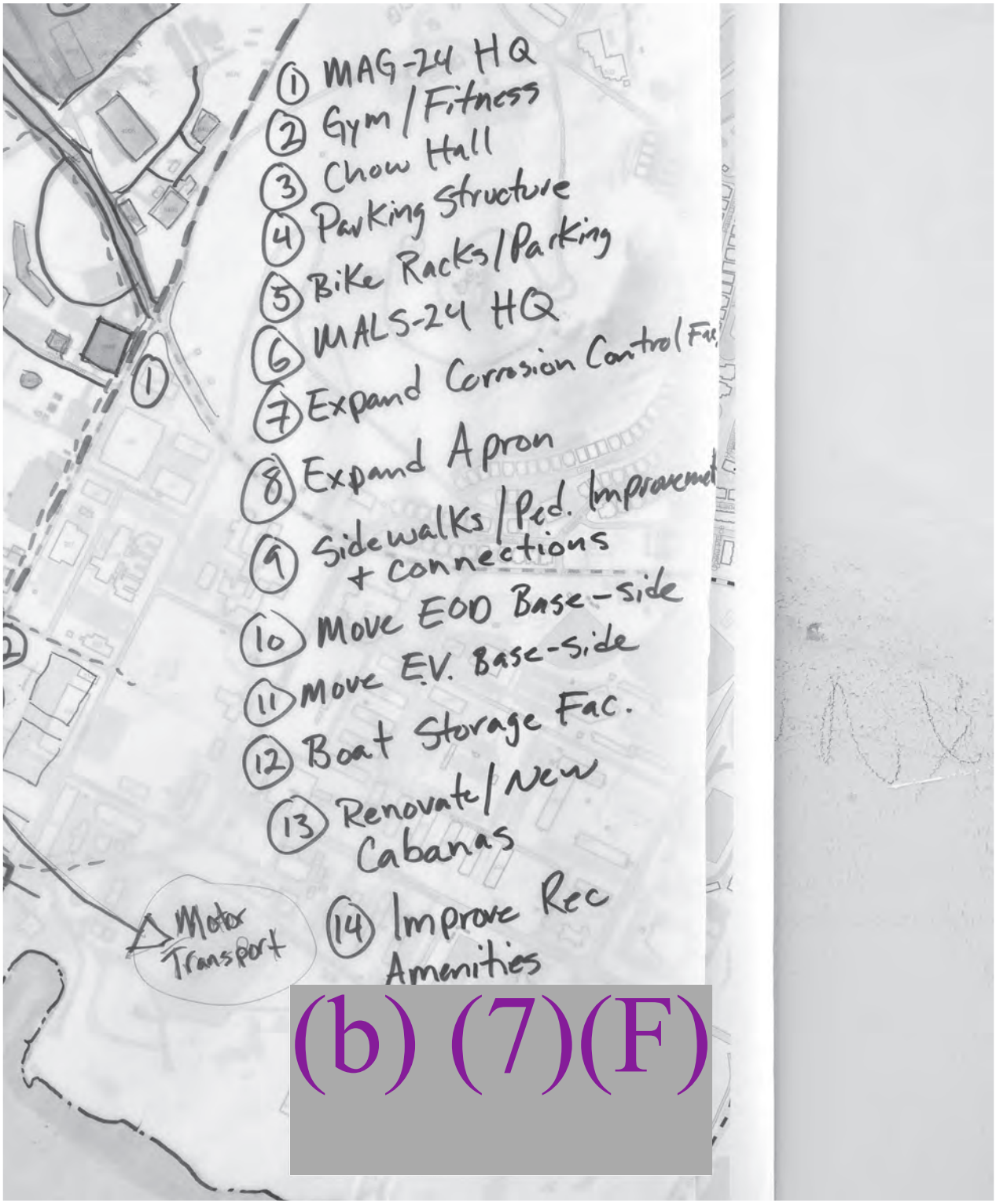
Group 3

1. Parking structure - near hangar 101 & 103
2. (b) (7)(F) & Satellite Fitness center
3. New Hangar - over Mokapu road
4. Widen 1st street - limited traffic
5. Shuttle service
6. Aviation Operations expansion
(b) (7)(F)
8. Boat storage / shop
9. EOD Relocation
10. MALS Corrosion Control Hangar Expansion
11. Parallel parking structure


Aviation District
Plan A
N
(b) (7)(F)
(b) (7)(F)
(b) (7)(F)
(b) (7)(F)
(1) Parking Structure
(2) Fitness / Mess Facility
(3) Air Ops Expansion
(4) MALS-24 HQ
(5) MAG-24 HQ
(6) Wash Racks
(7) Shuttle Route + Stops
(8) Widen/Improve 1st Street
(9) 3d Marine Boat Storage
(10) Improve Rec Amenities
(11) Relocate EOD
(13) Apron Expansion (6-7ac)


① Parking Structure
② Fitness / Mess Facility
③ Air Ops Expansion
④ MALS-24 HQ
⑤ MAG-24 HQ
⑥ Wash Racks
⑦ Shuttle Route + Stops
⑧ Widen/Improve 1st Street
⑨ 3d Marine Boat Storage
⑩ Improve Rec Amenities (·Showers, ·Restroom, ·Picnic Shelters ·Paved Parking)
⑪ Relocate EOD
(b) (7)(F)
⑬ Apron Expansion (6-7ac)
(b) (7)(F)

(b) (7)(F)
(b) (7)(F)
(b) (7)(F)
① MAG-24 HQ
② Gym / Fitness
③ Chow Hall
④ Parking Structure
⑤ Bike Racks / Parking
⑥ MALS-24 HQ
⑦ Expand Corrosion Control Fac
⑧ Expand Apron
⑨ Sidewalks / Ped. Improvements + connections
⑩ Move EOD Base-side
⑪ Move EV. Base-side
⑫ Boat Storage Fac.
⑬ Renovate / New Cabanas
⑭ Improve Rec Amenities
Motor Transport
AVIATION DISTRICT
PLAN B
N


1 MAG-24 HQ
2 Gym / Fitness
3 Chow Hall
4 Parking Structure
5 Bike Racks / Parking
6 MALS-24 HQ
7 Expand Corrosion Control / Fac.
8 Expand Apron
9 Sidewalks / Ped. Improvement + connections
10 Move EOD Base-side
11 Move E.V. Base-side
12 Boat Storage Fac.
13 Renovate / New Cabanas
14 Improve Rec Amenities
Motor Transport
(b) (7)(F)

1A
N

1A

1. Consolidate Reg / BN Hdqtrs w/ parking + relocate Staff trainer on 1090 site
2. Improve bridge and sidewalk where new mess hall - Expand Seldon Street. + Harris
3. Demo 1090
4. Satellite Fitness Center Wounded Warriors get relocated
5. 3rd Marines at Waterfront Ops Area.
6. Pedestrian walkways along the canal
7. BEQ Redevelopment area. - greater density possible open training area

ADP MAP
MOKAPU DISTRICT
MARINE CORPS BASE HAWAII
OAHU, HAWAII

GROUP 2B

1. CONSOLIDATE UNITS
   - ↳ 3D MARINES HQ
   - ↳ 3D RADIO BN MOVE (MILCON)

2. IMPROVE VEHICULAR + PEDESTRIAN NETWORK
   - ↳ MORE / ADEQUATE SIDEWALKS
   - ↳ BIKE PATHS ON BOTH SIDES OF ROAD

3 DEMOLISH 1090
   - ↳ USE SPACE AS 3D MARINES HQ

4. SITE NEW BQS
   - ↳ HIGH RISE BUILDINGS
   - ↳ CENTRAL QUAD

5. SITE DINING HALL
   - ↳ WEST OF CURRENT CHOW HALL
   - ↳ ALREADY A MILCON

6 SITE SATELLITE FITNESS
   - ↳ @ CURRENT OLD GYM SITE

7 SITE PARADE GROUND - N OF BOONDOCKER

8. SITE AAV SHOP + HQ - OVER CLB BARRACKS

9. SITE DISTRICT PARKING ⇒ NEAR QUAD / TFAC

10. Fitness Gazebos (Covered fixed equipment)

ADP MAP
MOKAPU DISTRICT
MARINE CORPS BASE HAWAII
OAHU, HAWAII
FOR OFFICIAL USE ONLY

2B Ground Spt.

1) CONSOLIDATE BEQs
2) DEVELOP ALONG CANAL (WALKWAYS AND BEQs)
3) DEVELOP 4-5 STORIES
4) DEMOLISH 1 DOC / RSO / MACKAY HALL
5) PARKING STRUCTURES TO SUPPORT BEQs
6) 2-STORY MESS HALL w/ SATTELITE FITNESS CENTER
7) BEQ RESIDENTIAL DESIGN VICE "WAREHOUSE"
8) KEEP CLB HQ
9) MOVE REGIMENTAL HQ ACROSS STREET AND CONSOLIDATE WITH BATTALION HQs
10) CONSTRUCT AAV SHOP

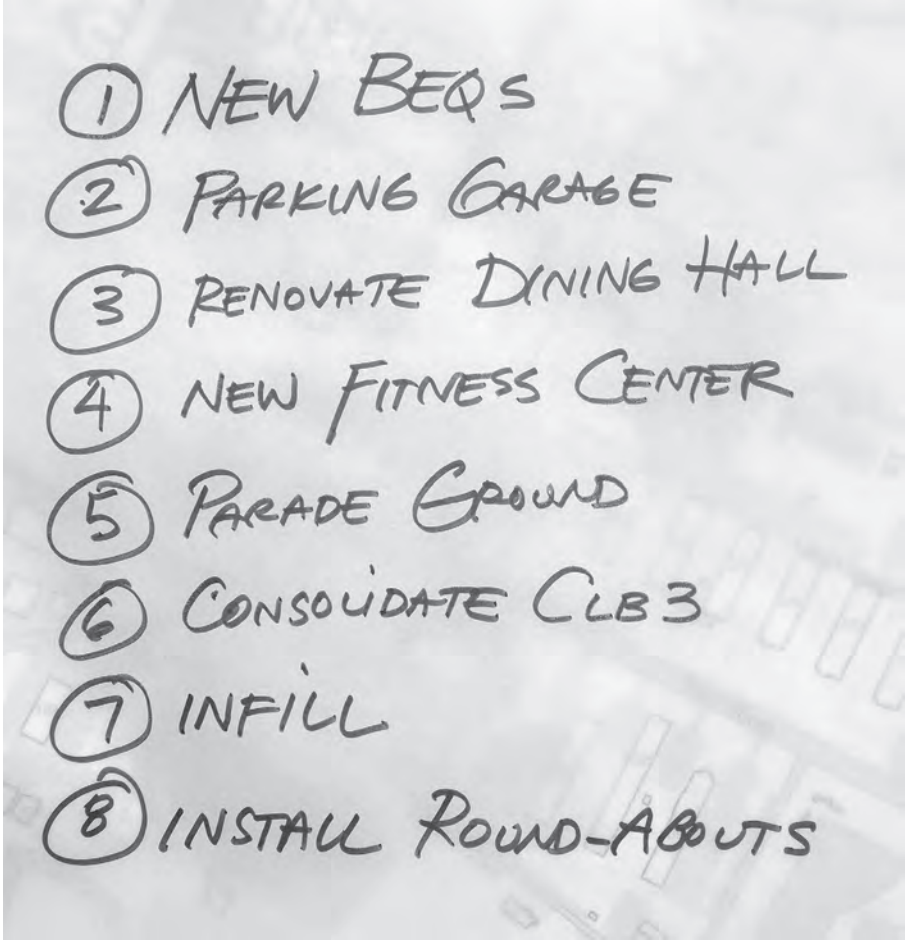
① CONSOLIDATE / COLLOCATE
- REGIMENT & BATTALION HQs
- '

② M

1 REDEVELOP BEQs
2 CONSOLIDATE 3RD MARINES HQ
3 NEW DINING HALL
4 PARKING STRUCTURE
5 CONSOLIDATE CLB 3
6 PARADE GROUND
7 CANAL WALKWAY
8 FITNESS PAVILIONS
9 INFILL
(b) (7)(F)
GROUND SUPPORT PLAN 1
N

1 REDEVELOP BEQs
2 CONSOLIDATE 3RD MARINES HQ
3 NEW DINING HALL
4 PARKING STRUCTURE
5 CONSOLIDATE CLB 3
6 PARADE GROUND
7 CANAL WALKWAY
8 FITNESS PAVILLIONS *
9 INFILL

1 NEW BEQS
2 PARKING GARAGE
3 RENOVATE DINING HALL
4 NEW FITNESS CENTER
5 PARADE GROUND
6 CONSOLIDATE CLB3
7 INFILL
8 INSTALL ROUND-ABOUTS
GROUND SUPPORT
PLAN 2
N


1 NEW BEQS
2 PARKING GARAGE
3 RENOVATE DINING HALL
4 NEW FITNESS CENTER
5 PARADE GROUND
6 CONSOLIDATE CLB 3
7 INFILL
8 INSTALL ROUND-ABOUTS

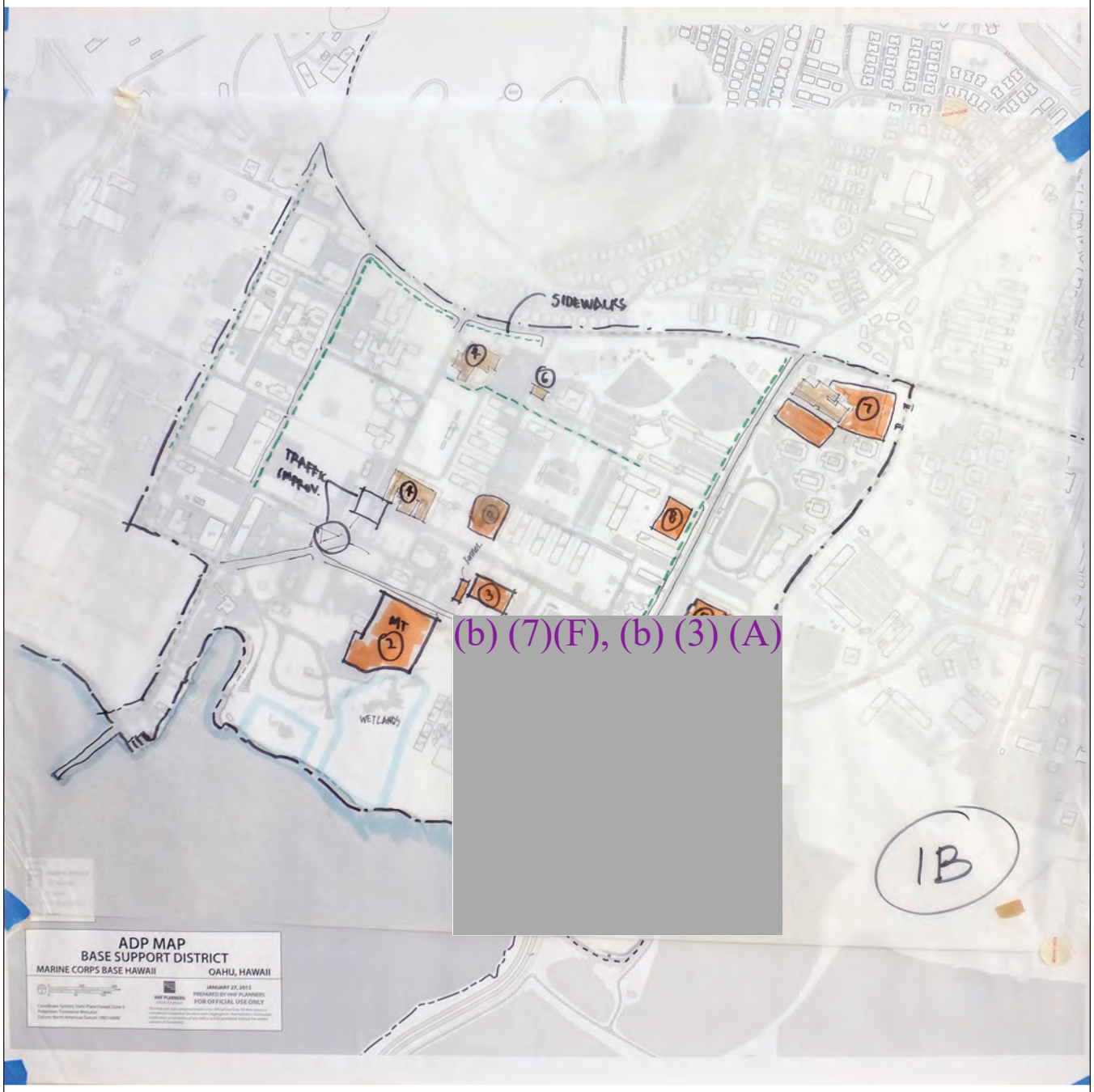
Stakeholder Concept Map 1A – Base Support District

~~FOR OFFICIAL USE ONLY~~

1A BASE SUPPORT DISTRICT

1) (b) (7)(F), (b) (3) (A)

2) Mess Hall → In fill / Museum
3) Bank of Hawaii → Training → Computer Skills
4) Motor T → Leave where is – not in this District
5) Improve/Upgrade the hobby skills center
6) E-Club ⇒ Leave as is
7) Gym – Add another Deck
8) Roller Rink – Green Space/Available for future infill
9) Add a right and left turning lane to 3rd Street
10) MP function should stay ⇒
11) Sidewalks/trees/


SIDEWALKS
TRAFFIC IMPROV.
WETLANDS
MT
(b) (7)(F), (b) (3) (A)
1B
ADP MAP
BASE SUPPORT DISTRICT
MARINE CORPS BASE HAWAII
OAHU, HAWAII
JANUARY 27, 2015
PREPARED BY WHP PLANNERS
FOR OFFICIAL USE ONLY

Base Support 1B

(b) (7)(F), (b) (3) (A)

2. Motor T
3. PMO
4. MCCS Consolidation into Pless & B219
5. Redevelop E-club w/ base theater
6. Reuse for admin
7. Fitness Center Expansion
8. Transient Quarters
9. Traffic Improvements
10. Add Sidewalks

(b) (7)(F), (b) (3) (A)
GROUP 2A
1 IMPROVE VEH + PED CONNECTIONS
2 FUTURE INFILL
3 PHYSICAL FITNESS CENTER (on old roller rink site)
4 SMSP MULTI-PURPOSE
5 REUSE PLESS HALL = ENVIRONMENTAL
6 PMO = 3 stories w/ dog training + parking
7 REUSE MED CLINIC = FUTURE ADMIN
8 FUTURE BQ SITE
9 MOVE HQ BN
(b) (3) (A), (b) (7)(F)
11 GREENSPACE INFILL
12 MOVE LAUNDRY MAT/BANK/CHINA GARDEN OUT
13 WRF EXPANSION
14 EXPAND FIRE STATION
ADP MAP
BASE SUPPORT DISTRICT
MARINE CORPS BASE HAWAII

GROUP 2A

1 IMPROVE VEH. + PED CONNECTIONS
2 FUTURE INFILL
3 PHYSICAL FITNESS CENTER (on old roller rink site)
4 SMSP MULTI-PURPOSE
5 REUSE PLESS HALL = ENVIRONMENTAL
6 PMO = 3 stories w/ dog training + parking
7 REUSE MED CLINIC = FUTURE ADMIN
8 FUTURE BQ SITE
9 MOVE HQ BN
3rd MAR BOATS TO WFO

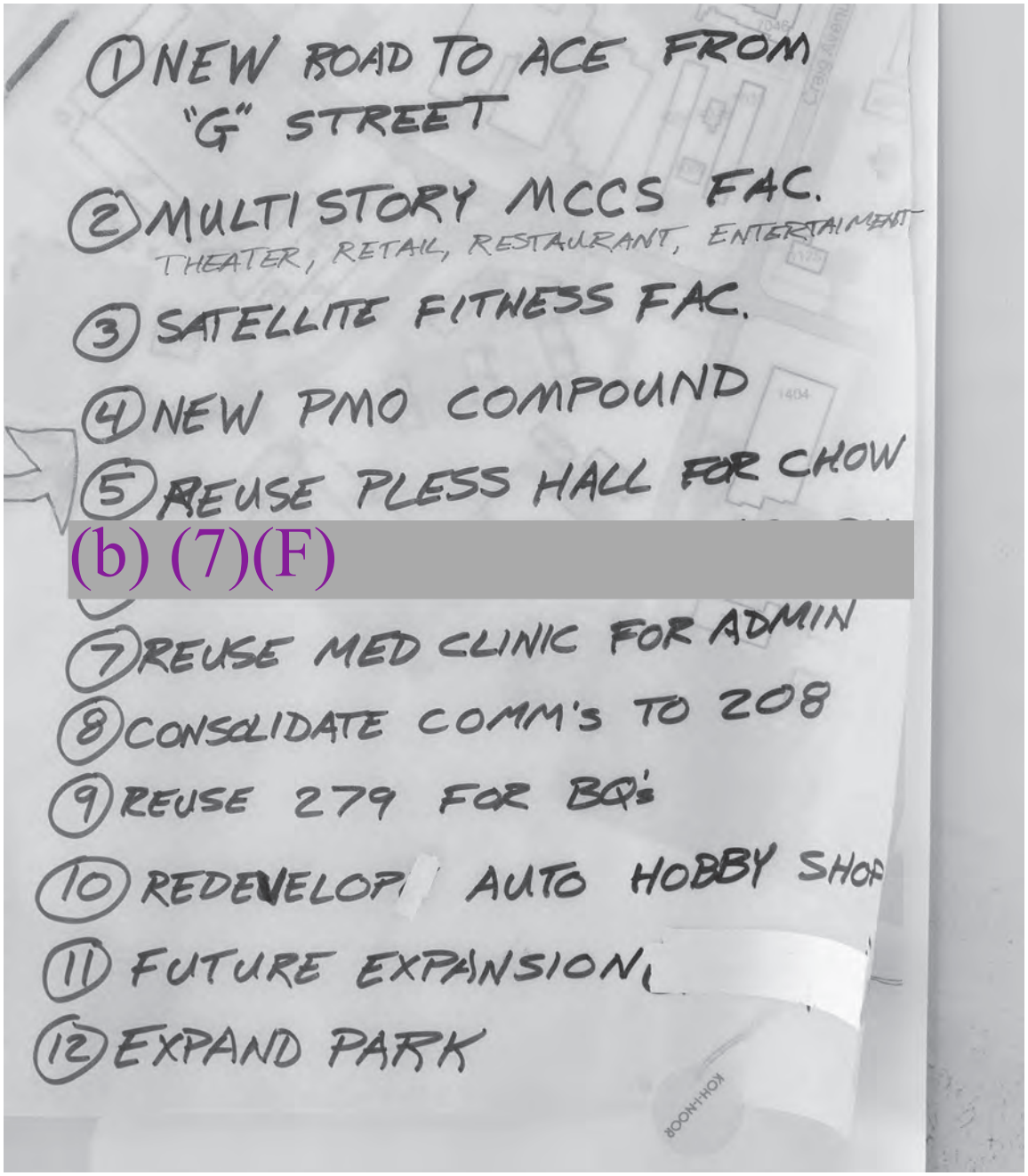
(b) (7)(F), (b) (3) (A)

11 GREENSPACE INFILL
12 MOVE LAUNDRY MAT/BANK/CHINA GARDEN OUT
13 WRF EXPANSION
14 EXPAND FIRE STATION

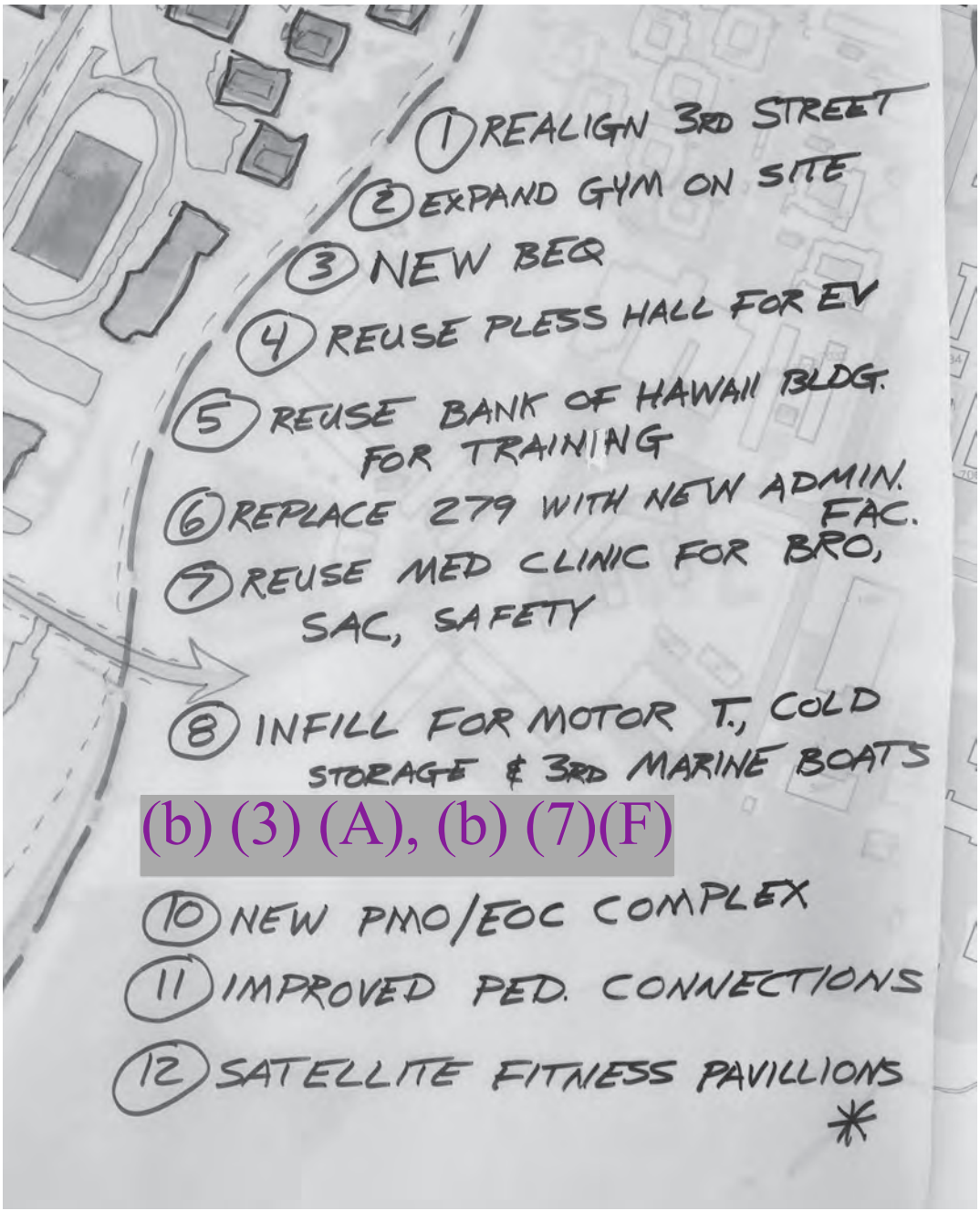
#2B
GREEN
SPORTS COMPLEX
WET LAND
TRAIL/ SIDEWALK
N
1) Sports Complex/Gym Requirement
2) Medical Reuse
3) Pless Hall Chow Hall/ATFP
4) Side walks & Road improvements
5) comm Consolidation/PMO Complex/BEQ complex
6) Curation Building
7) INFILL AREA

#2B
STORAGE
INFILL SITE
WET LAND
1) Sports Complex/GYM Requirement
2) Medical Reuse
3) Pless Hall Chow Hall/ATFP
4) Side Walks & Road improvements
5) Comm Consolidation/PMO Complex/BEQ Complex
6) Curation Building
7) INFILL AREA
JANUARY 27, 2015
PREPARED BY HHF PLANNERS
FOR OFFICIAL USE ONLY
HHF PLANNERS
Coordinate System: State Plane Hawaii Zone 3
Projection: Transverse Mercator
Datum: North American Datum 1983 HARN

(b) (7)(F)
(b) (7)(F)
(b) (7)(F)
① NEW ROAD TO ACE FROM "G" STREET
② MULTI STORY MCCS FAC.
THEATER, RETAIL, RESTAURANT, ENTERTAINMENT
③ SATELLITE FITNESS FAC.
④ NEW PMO COMPOUND
⑤ REUSE PLESS HALL FOR CHOW
⑦ REUSE MED CLINIC FOR ADMIN
⑧ CONSOLIDATE COMM'S TO 208
⑨ REUSE 279 FOR BQ's
⑩ REDEVELOP AUTO HOBBY SHOP
⑪ FUTURE EXPANSION
⑫ EXPAND PARK
BASE Support
GROUP A
N
ADP MAP
BASE SUPPORT DISTRICT
MARINE CORPS BASE HAWAII
OAHU, HAWAII
JANUARY 22, 2015
PREPARED BY HHF PLANNERS
FOR OFFICIAL USE ONLY


1 NEW ROAD TO ACE FROM "G" STREET
2 MULTI STORY MCCS FAC.
THEATER, RETAIL, RESTAURANT, ENTERTAINMENT
3 SATELLITE FITNESS FAC.
4 NEW PMO COMPOUND
5 REUSE PLESS HALL FOR CHOW
(b) (7)(F)
7 REUSE MED CLINIC FOR ADMIN
8 CONSOLIDATE COMM'S TO 208
9 REUSE 279 FOR BQ's
10 REDEVELOP AUTO HOBBY SHOP
11 FUTURE EXPANSION
12 EXPAND PARK

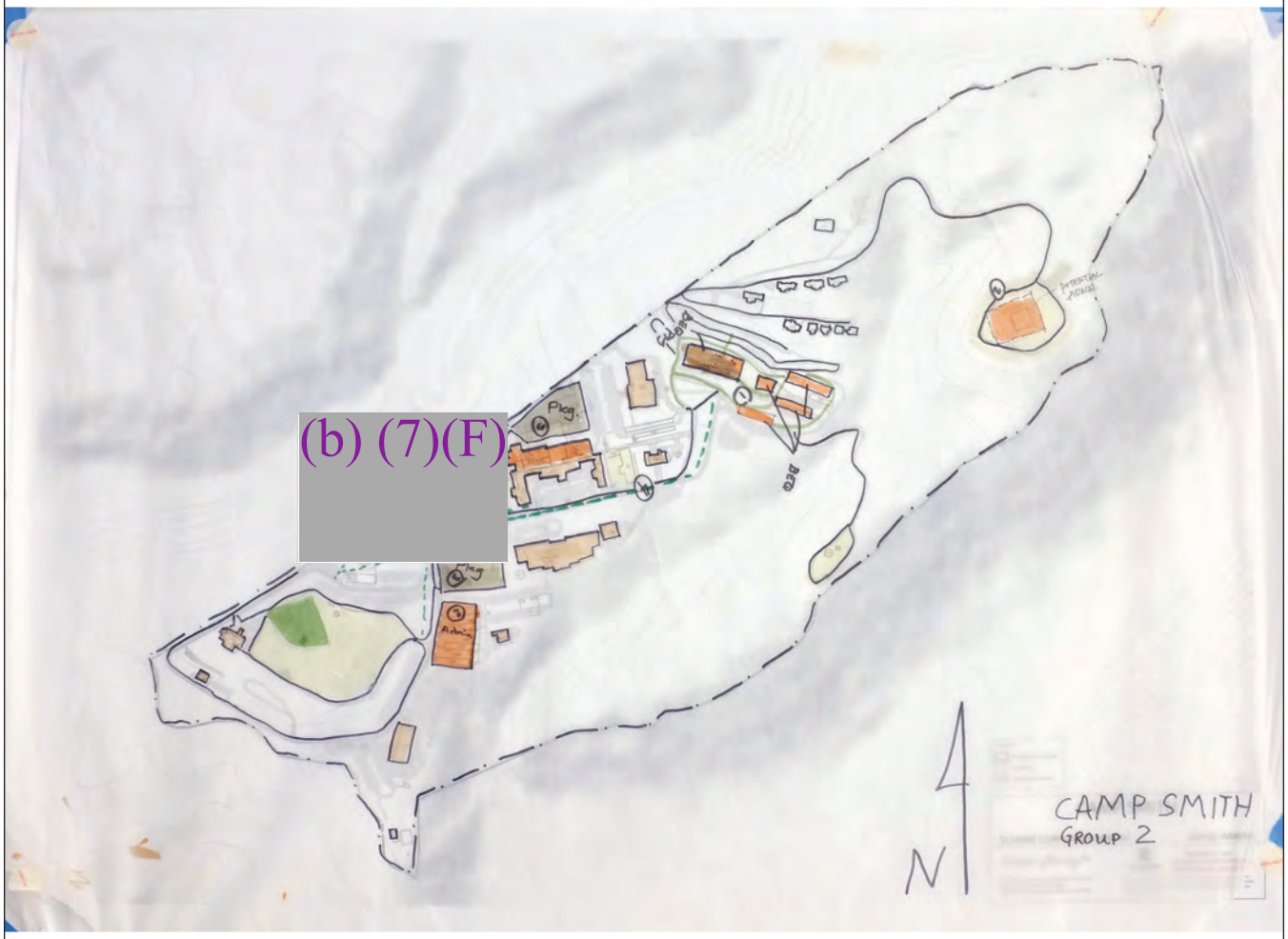
1 REALIGN 3RD STREET
2 EXPAND GYM ON SITE
3 NEW BEQ
4 REUSE PLESS HALL FOR EV
5 REUSE BANK OF HAWAII BLDG. FOR TRAINING
6 REPLACE 279 WITH NEW ADMIN. FAC.
7 REUSE MED CLINIC FOR BRO, SAC, SAFETY
8 INFILL FOR MOTOR T., COLD STORAGE & 3RD MARINE BOATS
(b) (3) (A), (b) (7)(F)
10 NEW PMO/EOC COMPLEX
11 IMPROVED PED. CONNECTIONS
12 SATELLITE FITNESS PAVILLIONS
(b) (3) (A), (b) (7)(F)
Base Support District
"Group B"
N
BASE SUP.
MARINE CORPS BASE HAWAII
OAHU, HAWAII
JANUARY 27, 2015
PREPARED BY HHF PLANNERS
FOR OFFICIAL USE ONLY


1 REALIGN 3RD STREET
2 EXPAND GYM ON SITE
3 NEW BEQ
4 REUSE PLESS HALL FOR EV
5 REUSE BANK OF HAWAII BLDG. FOR TRAINING
6 REPLACE 279 WITH NEW ADMIN. FAC.
7 REUSE MED CLINIC FOR BRO, SAC, SAFETY
8 INFILL FOR MOTOR T., COLD STORAGE & 3RD MARINE BOATS
(b) (3) (A), (b) (7)(F)
10 NEW PMO/EOC COMPLEX
11 IMPROVED PED. CONNECTIONS
12 SATELLITE FITNESS PAVILLIONS
*

1 A
— ECPs — TRAFFIC FLOW
— BEQs — POOL
— PARKING STRUCTURE + SURFACE
— MAIN STREET CONCEPT
— OPS/ADMIN POTENTIAL
2ND ECP #2
2ND ECP #1
MAIN ECP
WIDEN MAIN ROAD/ ELIMINATE STREET PARKING
NEW CEREMONIAL CROSSING
BEQ
N
CAMP SMITH
OAHU, HAWAII

GROUP 1C
IMPROVE VEH & PED NETWORKS
1 ELROD RD = PED FRIENDLY W/ MEDIANS & TREES
2 REMOVE PARKING & ADD GREEN
3 NEW ECP
4 PARKING STRUCTURE
5 BEQ'S = DEMO OLD
6 RELOCATE POOL
7 DEMO 200 = GREENSPACE
8 CREATE 3-TIER PARKING DECKS
(b) (7)(F)
10 SCREEN GENERATORS W/ LANDSCAPE BUFFER
11 PASS & ID
PASS & ID
PED FRIENDLY
CLEAN-UP CONTAMINATION
CAMP SMITH

(b) (7)(F)



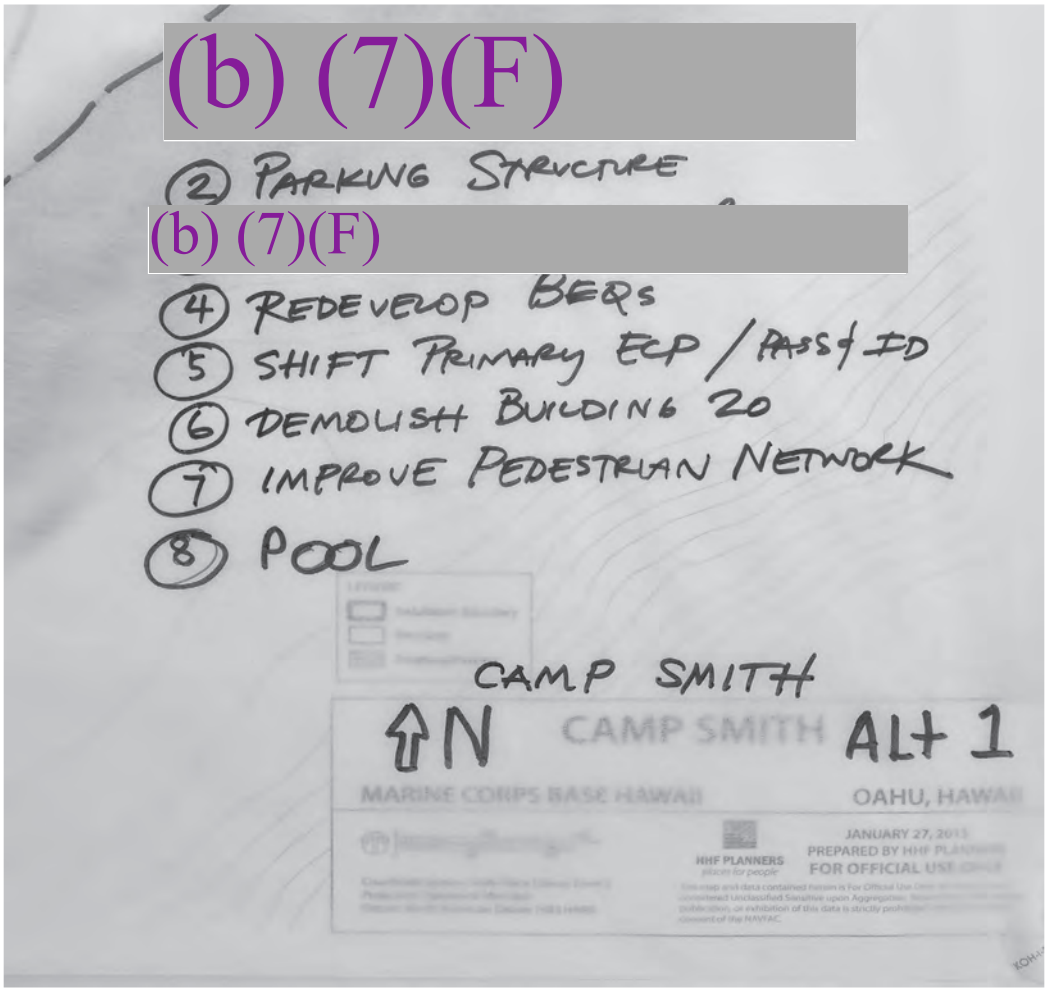
104 **Stakeholder Concept Map 2 – Camp Smith**

GROUP 2

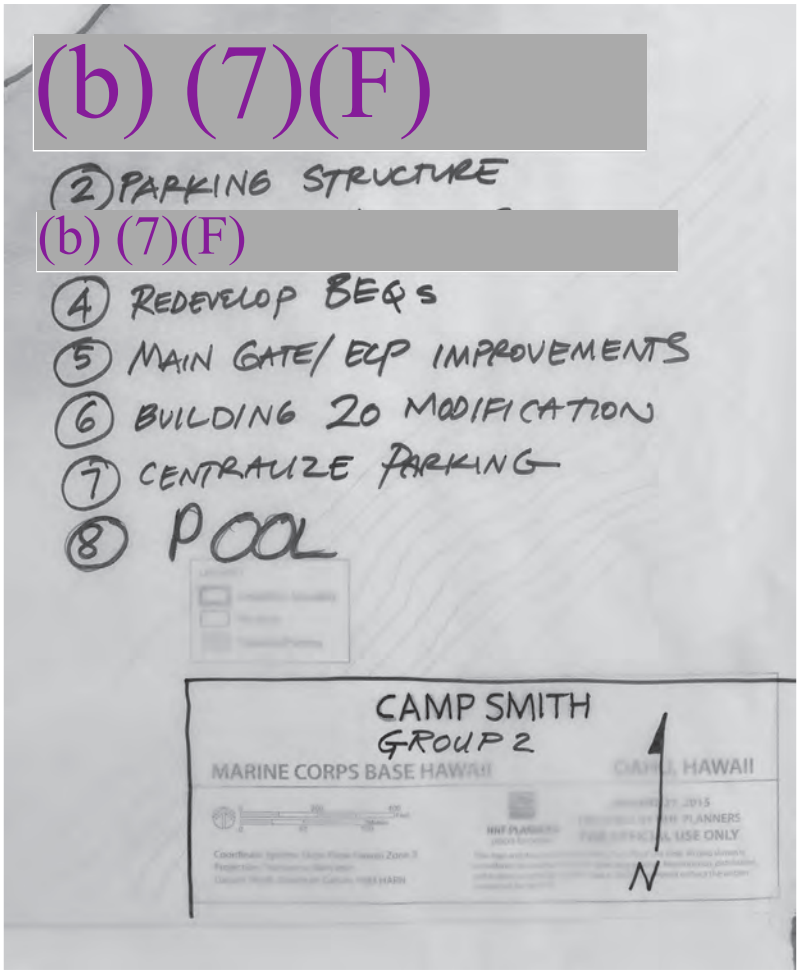
1. Barracks
2. Admin building
3. Parking structure
4. Pedestrian access/sidewalks

(b) (7)(F)

Secondary ECP
Secondary ECP
(b) (7)(F)
Primary ECP
Club
Pool
Alt Parking
(b) (7)(F)
2 PARKING STRUCTURE
(b) (7)(F)
4 REDEVELOP BEQs
5 SHIFT PRIMARY ECP / PASS & ID
6 DEMOLISH BUILDING 20
7 IMPROVE PEDESTRIAN NETWORK
8 POOL
CAMP SMITH
N
CAMP SMITH
ALt 1
OAHU, HAWAII


(b) (7)(F)
2 PARKING STRUCTURE
(b) (7)(F)
4 REDEVELOP BEQs
5 SHIFT PRIMARY ECP / PASS & ID
6 DEMOLISH BUILDING 20
7 IMPROVE PEDESTRIAN NETWORK
8 POOL
CAMP SMITH
N
CAMP SMITH
ALT 1
MARINE CORPS BASE HAWAII
OAHU, HAWAII
HHF PLANNERS
JANUARY 27, 2011
PREPARED BY HHF PLANNERS
FOR OFFICIAL USE ONLY

2ND ECP #2
2ND ECP #1
MAIN ECP
BEQs
(b) (7)(F)
① MARFORPAC OPS FACILITY REDEVELOPMENT
② PARKING STRUCTURE
(b) (7)(F)
④ REDEVELOP BEQs
⑤ MAIN GATE/ ECP IMPROVEMENTS
⑥ BUILDING 20 MODIFICATION
⑦ CENTRALIZE PARKING
⑧ POOL
CAMP SMITH
GROUP 2
MARINE CORPS BASE HAWAII
N


(b) (7)(F)
(2) PARKING STRUCTURE
(b) (7)(F)
(4) REDEVELOP BEQs
(5) MAIN GATE/ ECP IMPROVEMENTS
(6) BUILDING 20 MODIFICATION
(7) CENTRALIZE PARKING
(8) POOL
CAMP SMITH
GROUP 2
MARINE CORPS BASE HAWAII
HAWAII
N

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B

CONCEPT WORKSHOP REPORT

Sgt. Joshua Flores, the training noncommissioned officer of Combat Logistics Battalion 3, briefs his squad before they set out to start the first scenario of the day aboard Marine Corps Base Hawaii Aug. 19, 2015. The day's events consisted of patrolling across the base while taking on various situations. Sergeants Course is a vital part of professional military education for any Marine and helps to maintain the standards amongst the NCOs of the Marine Corps. (U.S. Marine Corps photo by Cpl. Khalil Ross/Released. www.mcbhawaii.marines.mil)

Marine Corps Base Hawaii
INSTALLATION MASTER PLAN
Concept Workshop Report

Concept Workshop: July 22–24, 2015

Working Group Meeting #1: August 5, 2015

CO Outbrief: August 13, 2015

~~For Official Use Only~~

General Information

Date/Time	0800–1200, Wednesday, 22 July 2015 0800–1200, Thursday, 23 July 2015 0800–1200, Friday, 24 July 2015
Location	MCB Hawaii Kaneohe Bay Officer's Club Ballroom, Building 502
Purpose	Collaboratively develop a preferred alternative Area Development Plan (ADP) with stakeholders to guide future growth.
MCB Hawaii Leadership	(b) (6) ICO; (b) (6) IE&L Director; and (b) (6) Facilities Director
MCB Hawaii Stakeholders	Approximately 30 attendees; see attached sign-in sheet
NAVFAC Pacific	(b) (6)
HHF Planners	(b) (6)

Marine Corps Base Hawaii Installation Master Plan (IMP) Concept Workshop was conducted between 22 July and 24 July at MCB Hawaii Kaneohe Bay.

The purpose of the workshop was to reengage stakeholders and develop a preferred plan to address issues and deficiencies identified during the site visits and charrrette, and to reach consensus on major recommendations made in the IMP.

Working Group Meeting #1 was conducted on 5 August at MCB Hawaii Kaneohe Bay and included representatives from Base Facilities and HHF Planners. This meeting revised the Concept Workshop outbrief presentation for Col Killeen.

The Concept Workshop outbrief was presented on 13 August at MCB Hawaii Kaneohe Bay to base leadership. All comments will be reflected in the Draft IMP.

This Concept Workshop Report contains all the presentations, meeting records, attendance sheets, and comments presented and/or captured during the above mentioned events.

Contents

E-mail Invitation 1
Concept Workshop Agenda 3
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Concept Workshop Presentation Slides 6
Concept Workshop Meeting Record 33
Working Group Meeting #1 Sign-in Sheet 39
Working Group Meeting #1 Meeting Record 40
CO Outbrief Sign-in Sheet 42
CO Outbrief Presentation Slides 43
CO Outbrief Meeting Record 53

From: (b) (6)

Sent: Thursday, July 02, 2015 2:07 PM

To: (b) (6)

CC: (b) (6)

Subject: MARINE CORPS BASE HAWAII MASTER PLAN AREA CONCEPT DEVELOPMENT WORKSHOP 22-24 JUL 2015

Ladies and Gentlemen -

We are holding a Master Plan Concept Development Meeting from 22-24 July 2015 at the Officer's Club ballroom. Agenda and meeting times are attached. It is not required to attend the entire meeting--just areas pertinent to your work areas.

We have had a number of RSVPs for the workshop. We are respectfully requesting that your command ensures a leader is present to represent your equities as we develop the various Area Development Plans (ADPs).

This meeting is a follow on to the Master Plan charrette we held in January, and subsequent interviews that our consultant has had with many of you between January and this summer. The purpose of this meeting is to show participants the refined concepts that were developed from the charrette, our community input meeting, and input received by the Master Plan team during the interviews.

This is your opportunity to influence the direction of MCBH and ensure your commands mission is being fully supported.

To participate, please RSVP by 15 July to (b) (6)

V/r,
(b) (6)
CDR, CEC, USN
MCBH Facilities Director
(b) (6)
808-257-0924

MARINE CORPS BASE HAWAII MASTER PLAN

CONCEPT WORKSHOP

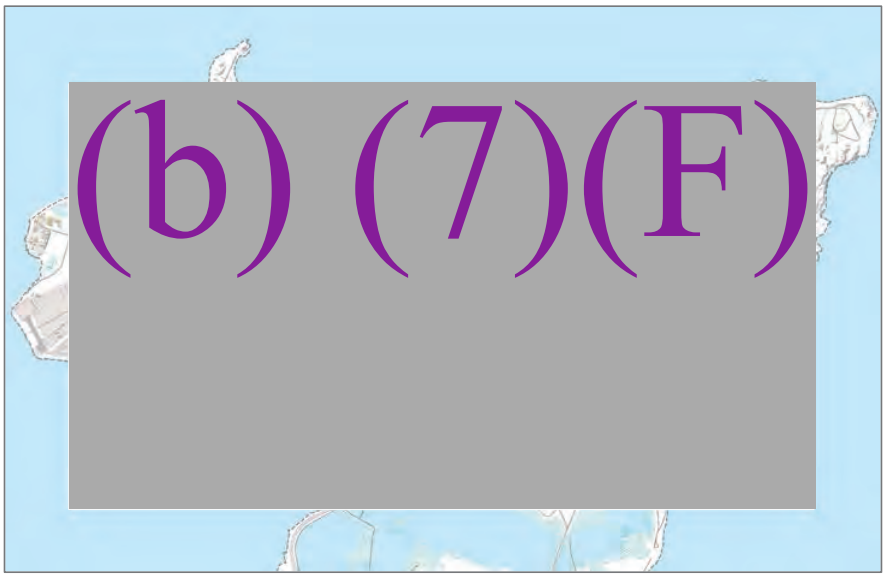
22-24 July 2015

Location: Kaneohe Bay Officer's Club Ballroom, MCBH Building 502
Sponsor: Marine Corps Base Hawaii Facilities Department

MCBH conducted a four-day Planning Charrette earlier in the year with a diverse group of stakeholders to generate development concepts to be included in the ongoing Master Plan update. Since then, the planning consultant has refined the concepts based on actual unit requirements, additional stakeholder interviews, and site surveys. The Concept Workshop is the next step in the Master Planning process. Participants at this workshop will help evaluate the refined planning alternatives and provide direction on the proposals to be presented to Base Leadership and included in the Draft Master Plan.

Please RSVP by July 15, 2015 to: (b) (6) HHF Planners ((b) (6) or 457-3164)

	WEDNESDAY 22 July 2015 MCB Hawaii	THURSDAY 23 July 2015 MCB Hawaii	FRIDAY 24 July 2015 MCB Hawaii
0800	AVIATION DISTRICT	GROUND SUPPORT DISTRICT	CAMP SMITH
0945	WRAP UP		
1000	BASE SUPPORT DISTRICT	COMMUNITY SUPPORT DISTRICT	ULUPAU CRATER MARINE CORPS TRAINING AREA BELLOWS PUULOA TRAINING FACILITY PEARL CITY ANNEX MANANA HOUSING
1145	WRAP UP		



MCBH Installation Master Plan
Concept Workshop
22-Jul-15

Wed	Thur	Fri	Rank	First Name	Last Name	Title	Organization	Phone	Email
(b) (6)			(b) (6)			Direct of Health Services	Naval Health Clinic Hawaii	473-1880 x 92283	(b) (6)
						CSO	CPRW 2	257-0392	
	(b) (6)					Senior Natural Resources Manager	Environmental Dept	257-7000	
						Housing Management Specialist	MCB Hawaii Family Housing Department	257-5933	
						Director	MCCS		
							MCCS		
						3d Marines Facilities	3d Marines	257-9929	
(b) (6)						Deputy Director	Operations & Training	257-8853	
(b) (6)						Aircraft Maintenance Officer	MALS-24	257-1178	
						S-4 Officer	3rd Radio Battalion	257-3503	
							NAVFAC Pacific Architectural Branch	472-1270	
(b) (6)						Director	Facilities Department, IE&L	257-0924	
							CISD		
						Leeward Facilities Officer	MCB Hawaii	477-8801	
						Assistant Chief of Staff, G-F	MCIPAC	DSN 315-645-7676	
		(b) (6)				Civil Engineer, Ctr	Facilities Dept. (Camp Smith)	477-8807	
						Community Plans & Liaison Officer	Marine Corps Base Hawaii	257-8815	
	(b) (6)					Future Plans/DPRI	Marine Corps Installation Command	(b) (6)	
						Battalion Logistics Officer	1st Battalion, 12th Marines		
		(b) (6)				ELECTRICAL ENGINEER	Facilities Dept. (Camp Smith)	477-8809	
							MCAS		
						Explosive Ordnance Disposal Officer	MCB Hawaii EOD	257-2555 x7112	
	(b) (6)					Facilities Planner	Facilities Department	257-3192	
(b) (6)						Installations Operations Officer	CISD	257-1603	
x						Natural Resource Manager	Environmental MCB Hawaii	(b) (6)	
+						LOGISTICS OFFICER	MAG-24	257-1404	
x	X	X				LOGISTICS NCO	WOUNDED WARRIOR	257-2219	
(b) (6)								2573627	
x	X					MARFORPAC CIV ENG	MARFORPAC	477 8475	
(b) (6)						PWO	FAC	257-4060	
						DPWO		257-2851	
						FAC PLANNER	FAC	257-2174	
(b) (6)						Deputy Director Facilities	Facilities Dept	257-0800	
						~~NAVFAC PAC~~ ENGINEER	NAVFAC PAC	473-0857	
(b) (6)	(b) (6)					For Planning	MCB HI	2579935	
						Director, BPO	MISH	257-5865	
						Dir IE&L	MCBH	257-8821	
						Dir Logistics MCCS	MCCS-1	254-7615	

~~FOR OFFICIAL USE ONLY~~

MCBH Installation Master Plan
Concept Workshop
22-Jul-15

Wed	Thur	Fri	Rank	First Name	Last Name	Title	Organization	Phone	Email
	(b) (6)	(b) (6)	(b) (6)			CFD	MCCS	(808) 254-7500	(b) (6)
						S-4	3D RADIO BN	(808) 257-3503	
						MCBH IE&L Dep. Dir	IE&L	(808) 257-7721	
						MCBH Safety	BSD Safety	(808) 286 3983	
						(b) (6) FAC PLANNER	MCICOM GF7 / LF		
						Planner	NAVFAC PAC	(808) 473-0557	
						SLO	SP&E	257-2019	
		(b) (6)				ARCHITECT	NAVFAC PACIFIC	472-1270	
						MCBH SAFETY Specialist	MCBH SAFETY	257-2469	
						CMSA PAC TECH DIR	CMSA PAC (BLDG 20 CAMP SMITH)	477-0298	
						S-4 Alpha	3D RADBN	257 3503	
						Leeward Facilities Officer	MCBH Facilities	(b) (6)	
						MCB HAWAII SAFETY ESO	MCBH SAFETY	257-2096	
						PLANNER	HHF PLANNERS	457-3156	
						SENIOR PLANNER	HHF PLANNERS	457-3164	
						SENIOR ASSOC.	HHF PLANNERS	457-3173	

8/10/2015

MCB Hawaii
Concept Workshop

July 22 - 24, 2015

HHF PLANNERS
places for people

MCB HAWAII CONCEPT WORKSHOP – JULY 2015 – PRE-DECISIONAL

Concept Workshop

- Share Refined Concepts from Charrette
- Additional Opportunity for Stakeholder Input

Sept 2014	• Kickoff Brief with Leadership (HHF Planners, Inc.)
Sept 2014	• MCICOM Visioning Workshop (The Urban Collaborative, LLC)
Oct 2014 - June 2015	• Site Investigation and Stakeholder Interview
Jan 2015	• Stakeholder Charrette Workshop
March 18 2015	• Community Open House
July 22-24 2015	• Concept Workshop
Oct 2015	• Draft IMP and CP
Feb 2015	• Pre-Final IMP and CP
Apr 2016	• Final IMP and CP

MCB HAWAII CONCEPT WORKSHOP – JULY 2015 – PRE-DECISIONAL 2

1

8/10/2015

Workshop Agenda

(b) (7)(F)

	WEDNESDAY 22 July 2015 MCB Hawaii	THURSDAY 23 July 2015 MCB Hawaii	FRIDAY 24 July 2015 MCB Hawaii
0800	AVIATION DISTRICT	GROUND SUPPORT DISTRICT	CAMP SMITH
0945	WRAP UP		
1000	BASE SUPPORT DISTRICT	COMMUNITY SUPPORT DISTRICT	ULUPAU CRATER MARINE CORPS TRAINING AREA BELLOWS PUULOA TRAINING FACILITY PEARL CITY ANNEX MANANA HOUSING
1145	WRAP UP		

MCB HAWAII CONCEPT WORKSHOP – JULY 2015 – PRE-DECISIONAL 3

MCB Hawaii
Concept Workshop
Aviation District

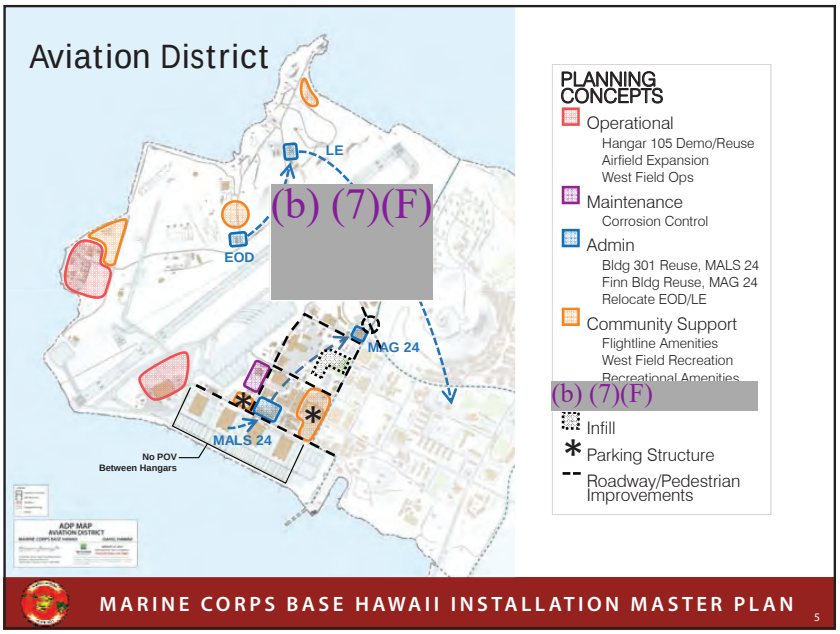
July 22, 2015

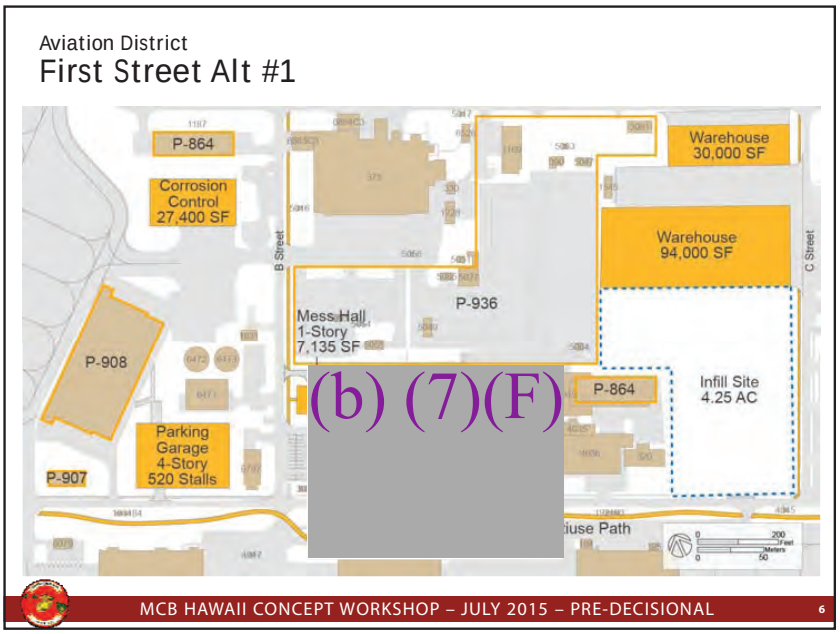
HHF PLANNERS
places for people

MCB HAWAII CONCEPT WORKSHOP – JULY 2015 – PRE-DECISIONAL

2

8/10/2015


Aviation District
LE
EOD
(b) (7)(F)
MAG 24
MALS 24
No POV
Between Hangars
PLANNING CONCEPTS
Operational
Hangar 105 Demo/Reuse
Airfield Expansion
West Field Ops
Maintenance
Corrosion Control
Admin
Bldg 301 Reuse, MALS 24
Finn Bldg Reuse, MAG 24
Relocate EOD/LE
Community Support
Flightline Amenities
West Field Recreation
Recreational Amenities
(b) (7)(F)
Infill
Parking Structure
Roadway/Pedestrian Improvements
MARINE CORPS BASE HAWAII INSTALLATION MASTER PLAN
5

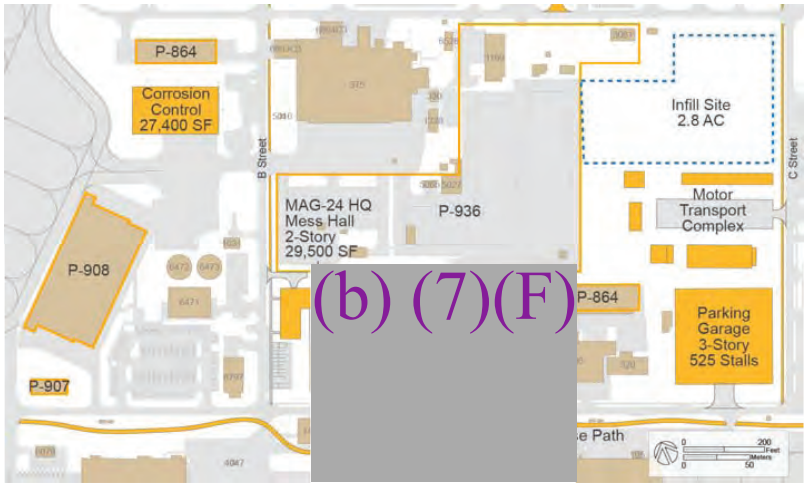

Aviation District
First Street Alt #1
P-864
Corrosion Control 27,400 SF
B Street
Warehouse 30,000 SF
Warehouse 94,000 SF
C Street
P-936
Mess Hall 1-Story 7,135 SF
P-908
(b) (7)(F)
P-864
Infill Site 4.25 AC
Parking Garage 4-Story 520 Stalls
P-907
MCB HAWAII CONCEPT WORKSHOP – JULY 2015 – PRE-DECISIONAL
6

3

8/10/2015

Aviation District

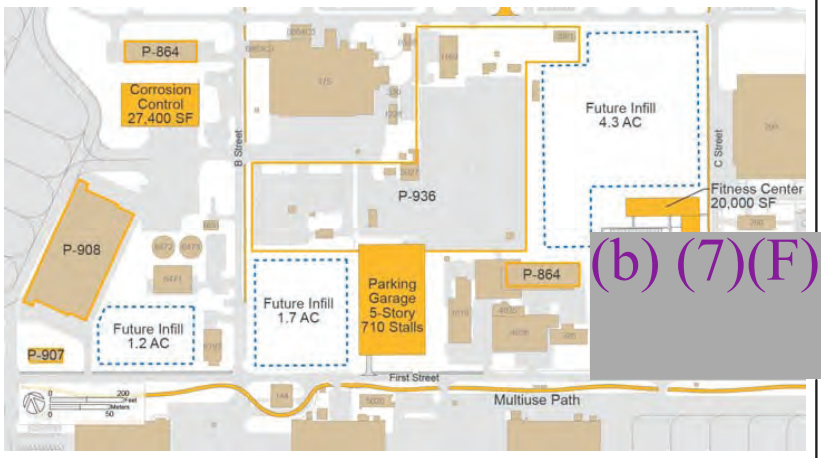
First Street Alt #2



MCB HAWAII CONCEPT WORKSHOP – JULY 2015 – PRE-DECISIONAL 7

Aviation District

First Street Alt #3



MCB HAWAII CONCEPT WORKSHOP – JULY 2015 – PRE-DECISIONAL 8

8/10/2015

Aviation District

First Street Alternatives Summary

Alternative #1

- MAG 24/MWSD Admin Reuse Finn Bldg
- Renovate B301 for MALS 24 / Fitness Center
- New Mess by B301
- Parking Structure by New Hangar
- Warehouse Redevelopment
- Relocate Motor Transport

Alternative #2

- Renovate B301 for MALS 24 / MWSD / Fitness Center
- New MAG 24 HQ & Mess by B301
- Parking Structure corner of 1st & C St.
- Motor Transport Redevelopment Onsite

Alternative #3

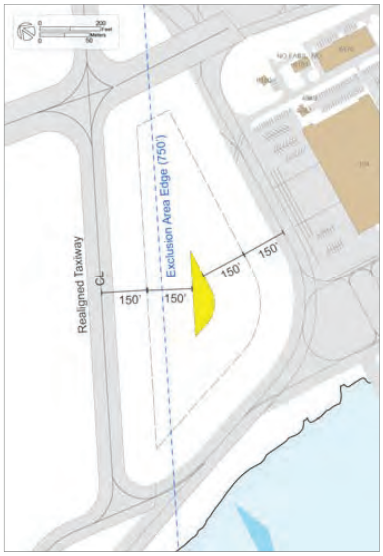
- New HQ Complex corner of 1st & C St
- Central Parking Structure at B301 site
- Relocate Motor Transport
- Maximum Infill

MCB HAWAII CONCEPT WORKSHOP – JULY 2015 – PRE-DECISIONAL 9

Aviation District

Demolish Hangar 105

- Permanent loss of hangar and parking apron (5.5 AC)
- Limited hangar and apron replacement options
- Current lack of future mission drivers



MCB HAWAII CONCEPT WORKSHOP – JULY 2015 – PRE-DECISIONAL 10

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Aviation District

Open Taxiway Tango

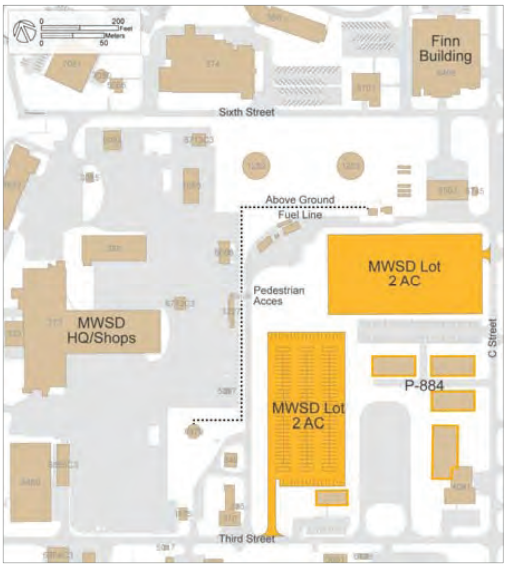
- Partial Near-term Solution
- Allows aircraft to hold short outside of clear zone

MCB HAWAII CONCEPT WORKSHOP – JULY 2015 – PRE-DECISIONAL 11

Aviation District

Base Fuels Field

- MWSD Organizational Parking (2 AC; ~130 Large Vehicles)
  - Access to B375 Shops
  - (b) (7)(F)
  -
- Improve Deployment Parking (2 AC; ~220 POV)



MCB HAWAII CONCEPT WORKSHOP – JULY 2015 – PRE-DECISIONAL 12

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8/10/2015

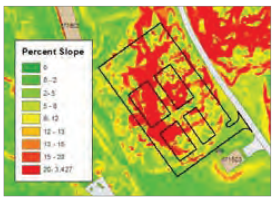
Aviation District

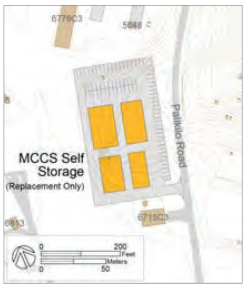
(b) (7)(F)

MCB HAWAII CONCEPT WORKSHOP – JULY 2015 – PRE-DECISIONAL 13

Aviation District

MCCS Self Storage / Cabanas





- 16.5 ft (5m) of relief
- Intersects proposed Pali Kilo NRHP District

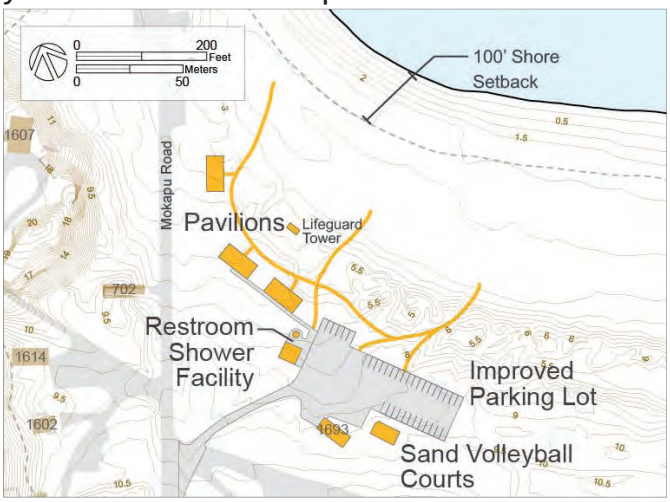
MCB HAWAII CONCEPT WORKSHOP – JULY 2015 – PRE-DECISIONAL 14

7

8/10/2015

Aviation District

Pyramid Rock Beach Improvements



MCB HAWAII CONCEPT WORKSHOP – JULY 2015 – PRE-DECISIONAL 15

Back Up Slides

MCB HAWAII CONCEPT WORKSHOP – JULY 2015 – PRE-DECISIONAL 16

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8/10/2015

Planning Team

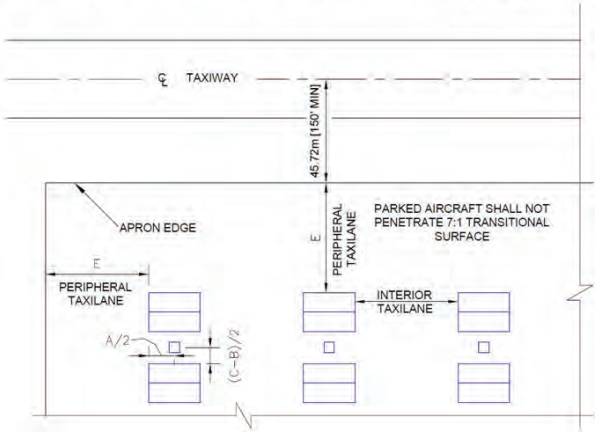
MCBH Kaneohe Bay	
(b) (6)	**Project Activity Lead**
	Project Activity Lead
NAVFAC Pacific	
(b) (6)	**Contract Officer Representative**
A/E Planning Team	
(b) (6)	**Principal**
	Senior Associate
	Senior Planner
	Senior Associate
	Planner

MCB HAWAII CONCEPT WORKSHOP – JULY 2015 – PRE-DECISIONAL 17

Aviation District

UFC Aircraft Parking

Figure 6-40. Navy/Marine Corps, 90-Degree Aircraft Parking Configuration



MCB HAWAII CONCEPT WORKSHOP – JULY 2015 – PRE-DECISIONAL 18

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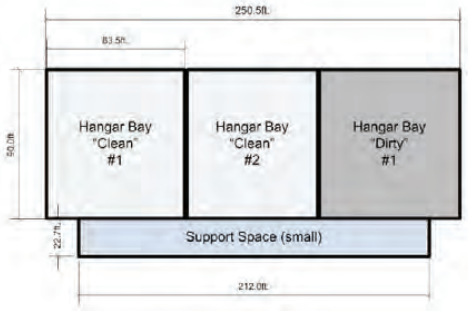
8/10/2015

Aviation District

Corrosion Control Facility

Minus P-8A, P-3, C-20, and C-40



MCB HAWAII CONCEPT WORKSHOP – JULY 2015 – PRE-DECISIONAL 19

Aviation District

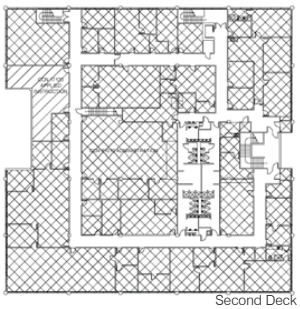
Building Reuse

B6468 (Finn Building)

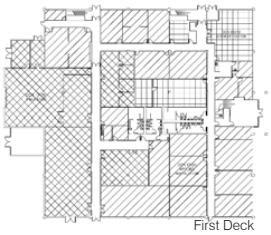
- 28,515 SF Admin
- 13,375 SF Operational Trainer
- 13,290 SF Applied Instruction
- 55,180 SF Total

MAG-24 Requirement

- 17,620 SF MAG-24 Admin
- 6,500 SF MWSD Admin (Anticipated Growth to 40 PN)
- 2,120 SF Academic Classroom (Less MALS-24 Req.)
- 800 SF Applied Instruction
- 27,515 SF Total



Second Deck



First Deck

MCB HAWAII CONCEPT WORKSHOP – JULY 2015 – PRE-DECISIONAL 20

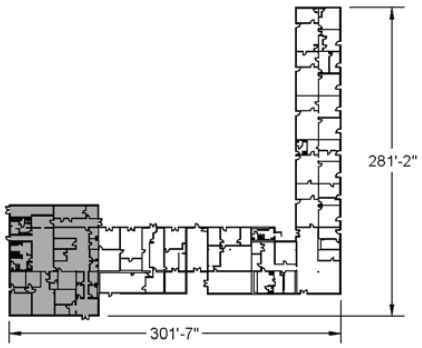
8/10/2015

Aviation District

Building Reuse

B301 Existing Use (36,170 SF)

- 24,805 SF MAG-24 HQ
- 9,315 SF Aid Station
- 1,090 SF Fitness Room
- 960 SF Classroom



Reuse Option #1

- 15,960 SF MALS-24 HQ
- 980 SF MALS-24 Classroom
- 18,000 Indoor Fitness Center

Reuse Option #2

- 15,960 SF MALS-24 HQ
- 980 SF MALS-24 Classroom
- 6,500 SF MWSD Admin
- 12,500 Indoor Fitness Center

MCB HAWAII CONCEPT WORKSHOP – JULY 2015 – PRE-DECISIONAL 21

MCB Hawaii Concept Workshop

Base Support District

July 22, 2015

HHF PLANNERS
places for people

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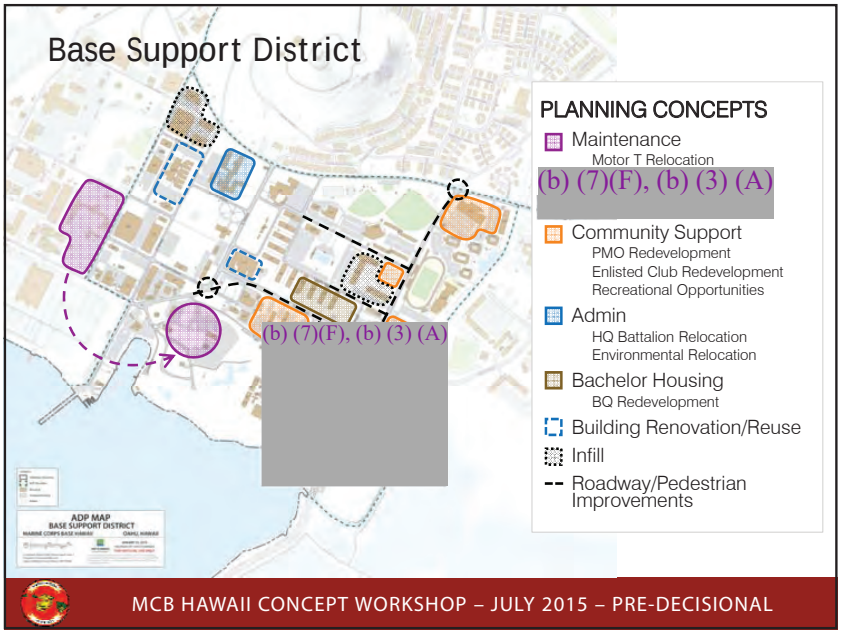
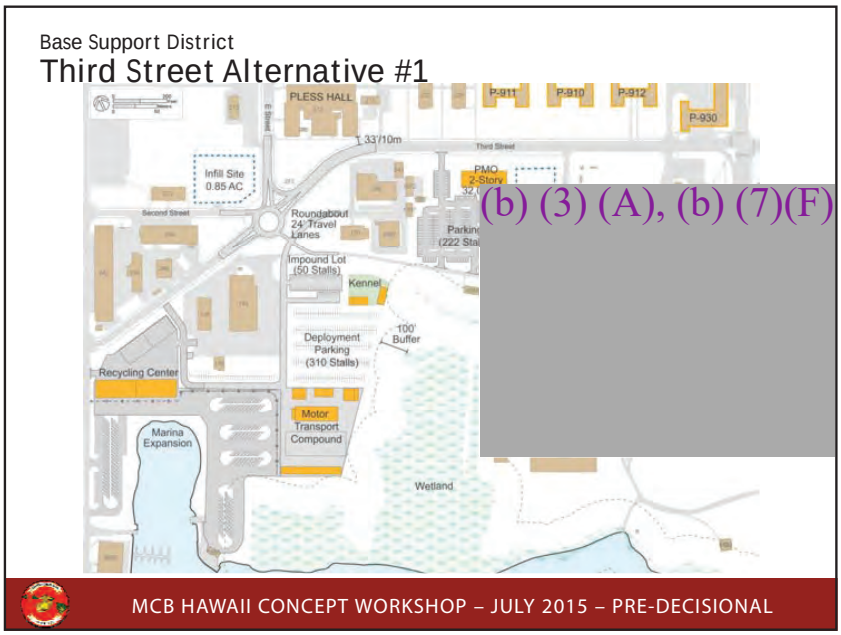
8/10/2015


Base Support District
PLANNING CONCEPTS
Maintenance
Motor T Relocation
(b) (7)(F), (b) (3) (A)
Community Support
PMO Redevelopment
Enlisted Club Redevelopment
Recreational Opportunities
Admin
HQ Battalion Relocation
Environmental Relocation
Bachelor Housing
BQ Redevelopment
Building Renovation/Reuse
Infill
Roadway/Pedestrian Improvements
(b) (7)(F), (b) (3) (A)
ADP MAP
BASE SUPPORT DISTRICT
MCB HAWAII CONCEPT WORKSHOP – JULY 2015 – PRE-DECISIONAL


Base Support District
Third Street Alternative #1
PLESS HALL
P-911
P-910
P-912
P-930
33'/10m
Third Street
Infill Site
0.85 AC
PMO
2-Story
Second Street
Roundabout
24' Travel
Lanes
(b) (3) (A), (b) (7)(F)
Impound Lot
(50 Stalls)
Kennel
Deployment
Parking
(310 Stalls)
100'
Buffer
Recycling Center
Motor
Transport
Compound
Marina
Expansion
Wetland
MCB HAWAII CONCEPT WORKSHOP – JULY 2015 – PRE-DECISIONAL

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8/10/2015

Base Support District

Third Street Alternative #2

MCB HAWAII CONCEPT WORKSHOP – JULY 2015 – PRE-DECISIONAL

Base Support District

Third Street Alternatives Summary

Alternative #1

- Round-about
- Redevelop PMO Complex
  - MWD Kennel at Scrap Yard
  - Impound Lot at Scrap Yard
- Redevelopment of the Scrap yard
  - Recycling Center
  - Boat Storage at Marina
  - Motor Transport
  - Deployment Lot

Alternative #2

- T-intersections
- Redevelop PMO Complex
- Redevelopment of the Scrap yard
  - Recycling Center
  - Boat Storage at Marina
  - Warehouse Complex
- Allow maximum infill

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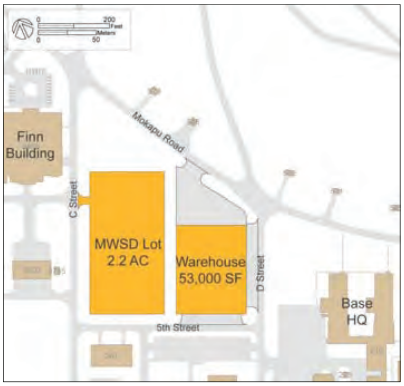
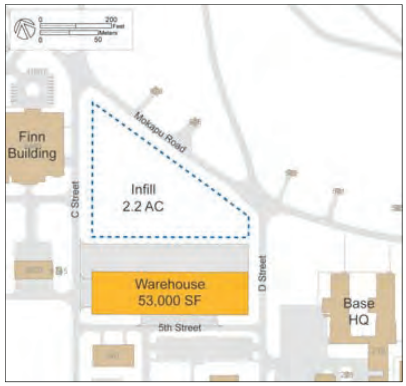
8/10/2015

Base Support District

Warehouse Redevelopment





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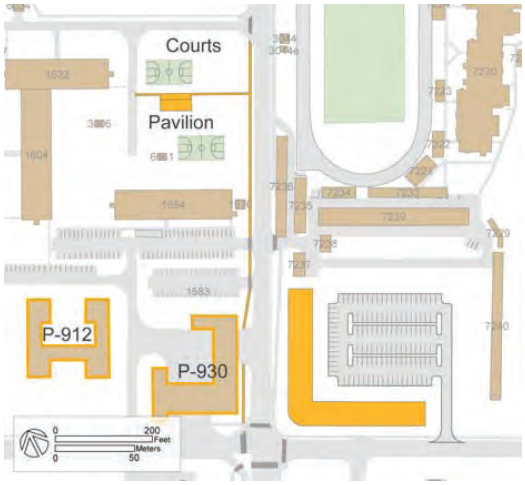
Base Support District

MCCS Improvements



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Base Support District

Pier Improvement

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Base Support District

Administrative Consolidation and Building Reuse

B3089 (Medical Clinic; 42,485 SF)

- MCCS Family Services Center (8,755 SF)
- MCCS Substance Abuse Center (9,155 SF)
- IPAC Administration (23,860 SF)

B216 (MCCS; 10,500 SF)

- HQBN (7,000 SF) or
- Environmental Admin (8,245)

B4009 (HQBN; 9,480 SF)

- Environmental Admin (8,245)
- Environmental Storage (5,800)

B279 (20,700 SF)

- Demolish
- 61 Years Old; Built in 1954

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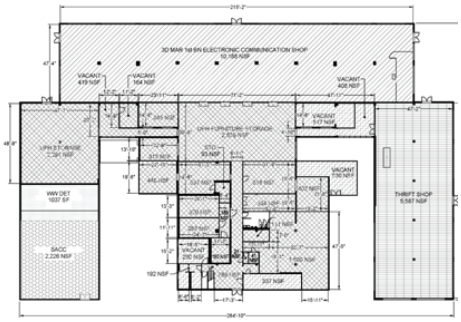
Base Support District

Building Reuse

B212 (Pless Hall; 35,400 SF)

- Headquarters
- Administration
- Consolidated Education Center
- Food / Coffee Vendor Café
- Environmental Admin (8,750 SF)
- Environmental Storage (5,800 SF)
- Base Safety Office (5,300 SF)
- Thrift Store (5,550 East Wing)
- Museum (5,550 SF West Wing)



Reuse Issues:

- Current Lack of Need
- AT/FP Compliance
- HAZMAT
- Parking

MCB HAWAII CONCEPT WORKSHOP – JULY 2015 – PRE-DECISIONAL

MCB Hawaii
Concept Workshop
Ground Support District

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places for people

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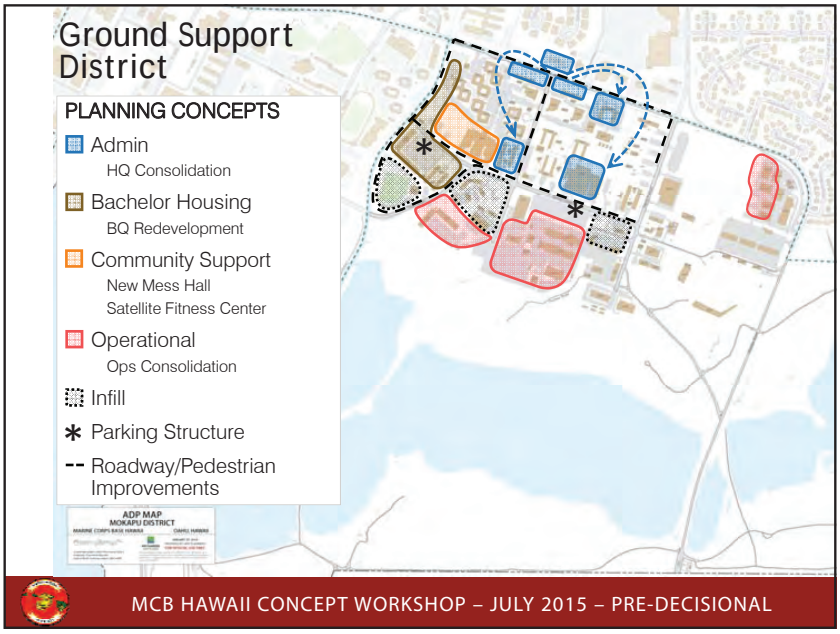
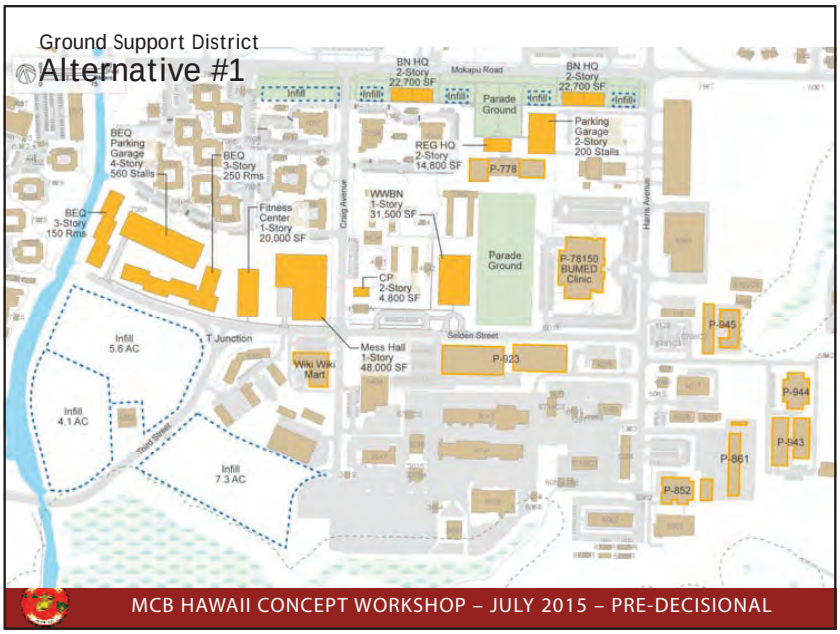

Ground Support District
PLANNING CONCEPTS
Admin
HQ Consolidation
Bachelor Housing
BQ Redevelopment
Community Support
New Mess Hall
Satellite Fitness Center
Operational
Ops Consolidation
Infill
Parking Structure
Roadway/Pedestrian Improvements
ADP MAP
MOKAPU DISTRICT
MCB HAWAII CONCEPT WORKSHOP – JULY 2015 – PRE-DECISIONAL


Ground Support District
Alternative #1
BN HQ 2-Story 22,700 SF
Mokapu Road
BN HQ 2-Story 22,700 SF
Infill
Parade Ground
Parking Garage 2-Story 200 Stalls
BEQ Parking Garage 4-Story 560 Stalls
BEQ 3-Story 250 Rms
REG HQ 2-Story 14,800 SF
P-778
BEQ 3-Story 150 Rms
Fitness Center 1-Story 20,000 SF
Craig Avenue
WWBN 1-Story 31,500 SF
Harris Avenue
Parade Ground
P-78150 BUMED Clinic
CP 2-Story 4,800 SF
Infill 5.6 AC
T Junction
Mess Hall 1-Story 48,000 SF
Selden Street
P-923
P-945
Wiki Wiki Mart
Infill 4.1 AC
Third Street
Infill 7.3 AC
P-944
P-943
P-861
P-852
MCB HAWAII CONCEPT WORKSHOP – JULY 2015 – PRE-DECISIONAL

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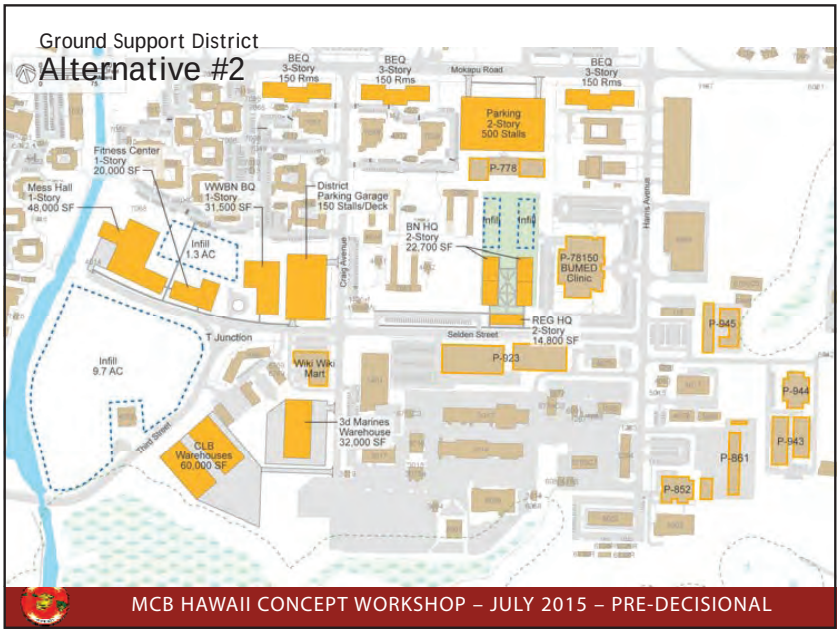
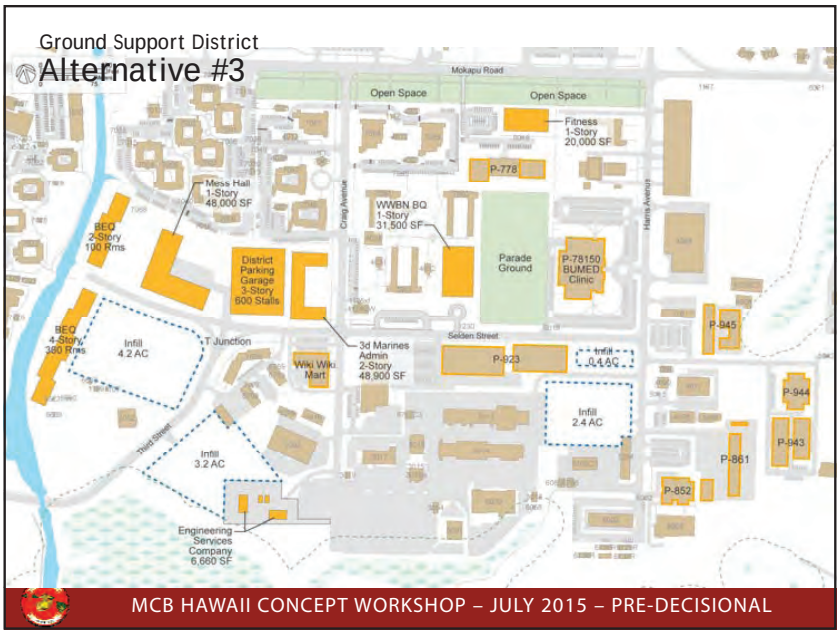
8/10/2015


Ground Support District
Alternative #2
BEQ 3-Story 150 Rms
BEQ 3-Story 150 Rms
Mokapu Road
BEQ 3-Story 150 Rms
Parking 2-Story 500 Stalls
P-778
Fitness Center 1-Story 20,000 SF
Mess Hall 1-Story 48,000 SF
WWBN BQ 1-Story 31,500 SF
District Parking Garage 150 Stalls/Deck
Infill 1.3 AC
Craig Avenue
BN HQ 2-Story 22,700 SF
Infill
Infill
P-78150 BUMED Clinic
Harris Avenue
REG HQ 2-Story 14,800 SF
Selden Street
P-945
T Junction
Infill 9.7 AC
Wiki Wiki Mart
P-923
P-944
3d Marines Warehouse 32,000 SF
Third Street
CLB Warehouses 60,000 SF
P-943
P-861
P-852
MCB HAWAII CONCEPT WORKSHOP – JULY 2015 – PRE-DECISIONAL


Ground Support District
Alternative #3
Mokapu Road
Open Space
Open Space
Fitness 1-Story 20,000 SF
P-778
Mess Hall 1-Story 48,000 SF
Craig Avenue
WWBN BQ 1-Story 31,500 SF
Harris Avenue
BEQ 2-Story 100 Rms
District Parking Garage 3-Story 600 Stalls
Parade Ground
P-78150 BUMED Clinic
P-945
BEQ 4-Story 380 Rms
Infill 4.2 AC
T Junction
3d Marines Admin 2-Story 48,900 SF
Selden Street
Wiki Wiki Mart
P-923
Infill 0.4 AC
P-944
Infill 2.4 AC
Third Street
Infill 3.2 AC
P-943
P-861
P-852
Engineering Services Company 6,660 SF
MCB HAWAII CONCEPT WORKSHOP – JULY 2015 – PRE-DECISIONAL

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Ground Support District

Alternatives Summary

Alternative #1

- HQs along Mokapu Rd.
- Mess and Fitness Center collocated at the corner
- Redevelop BQs near existing

Alternative #2

- HQs central to the operations
- Mess and Fitness Center collocated at existing Mess site
- Redevelop BQs along Mokapu Rd.

Alternative #3

- HQs and parking at the corner
- Mess replaced in situ
- Fitness Center along Mokapu Road with open space
- Redevelop BQs along the canal

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MCB Hawaii Concept Workshop

Community Support District

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Community Support District

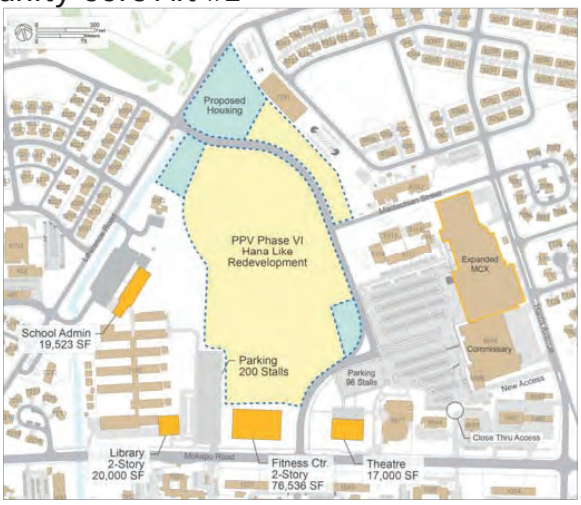
MISSION DRIVERS

- Family Housing
  - PPV Phase VI
  - 802 Housing Redevelopment
  - New Housing Areas
  - End of FY15 Deadline
- Community Facility
  - Consolidate Community Support Functions
- Infill
- * Parking Structure
- -- Roadway/Pedestrian Improvements

MCB HAWAII CONCEPT WORKSHOP – JULY 2015 – PRE-DECISIONAL 39

Community Support District

Community Core Alt #1



MCB HAWAII CONCEPT WORKSHOP – JULY 2015 – PRE-DECISIONAL 40

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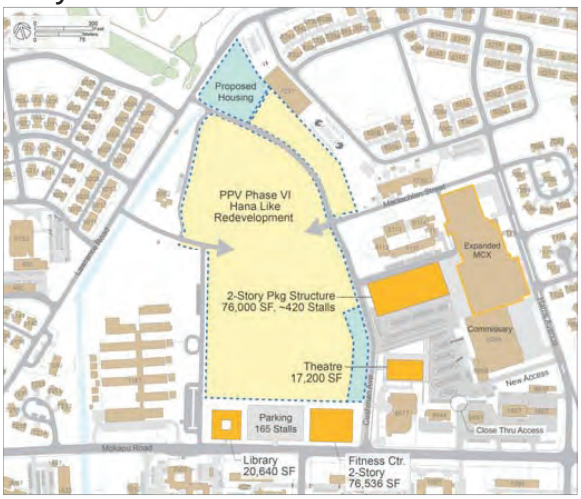
Community Support District

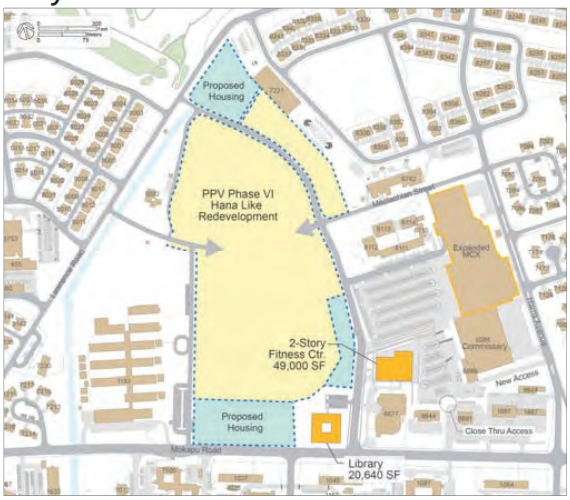
Community Core Alt #2



MCB HAWAII CONCEPT WORKSHOP – JULY 2015 – PRE-DECISIONAL 41

Community Support District

Community Core Alt #3



MCB HAWAII CONCEPT WORKSHOP – JULY 2015 – PRE-DECISIONAL 42

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8/10/2015

Community Support District

Community Core Alternatives Summary

Alternative #1

- Realign Cushman Ave. to Craig St.
- Prominent and well-defined Mall entrance
- All Community Support Bldgs along Mokapu Rd.
- New school Admin building and Lawrence Dr. access

Alternative #2

- New School/Family Housing connection
- Parking Structure
- 76,500 SF Fitness Center
- Library
- Theater

Alternative #3

- New School/Family Housing connection
- Maximum Family Housing
- 49,000 SF Fitness Center
- Library
- No Theater

MCB HAWAII CONCEPT WORKSHOP – JULY 2015 – PRE-DECISIONAL 43

Community Support District

Safe Routes to School

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MCB Hawaii
Concept Workshop
Camp Smith

July 24, 2015

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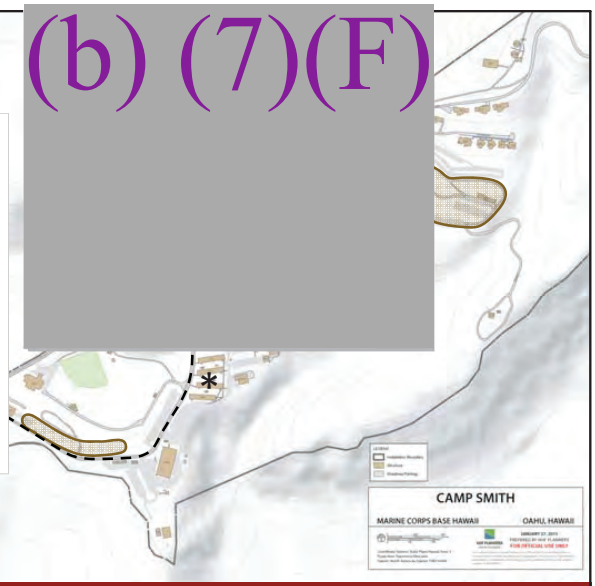
MCB HAWAII CONCEPT WORKSHOP – JULY 2015 – PRE-DECISIONAL

Camp Smith

(b) (7)(F)

MISSION DRIVERS

- Admin
  - Bldg 1 Complex Redevelopment
- Bachelor Housing
  - BQ Redevelopment
- Operational
  - Bldg 20 Options
- (b) (7)(F)
- * Parking Structure
- -- Roadway/Pedestrian Improvements



MCB HAWAII CONCEPT WORKSHOP – JULY 2015 – PRE-DECISIONAL

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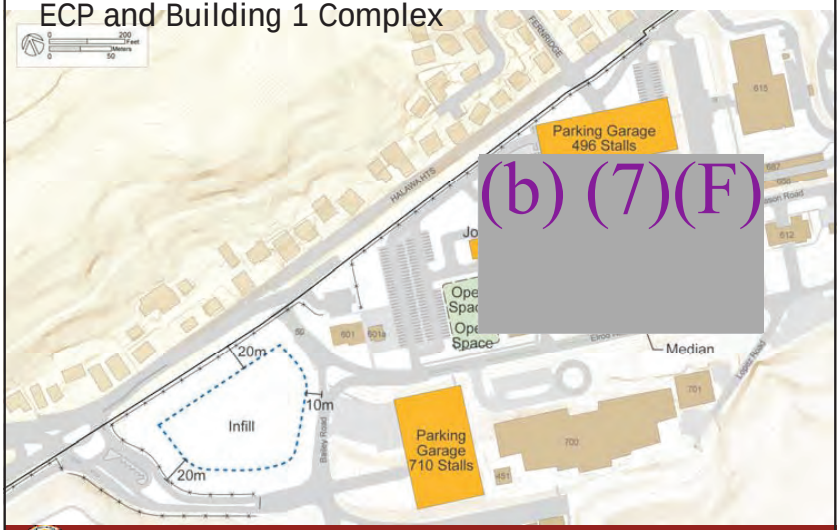
Camp Smith

ECP and Building 1 Complex



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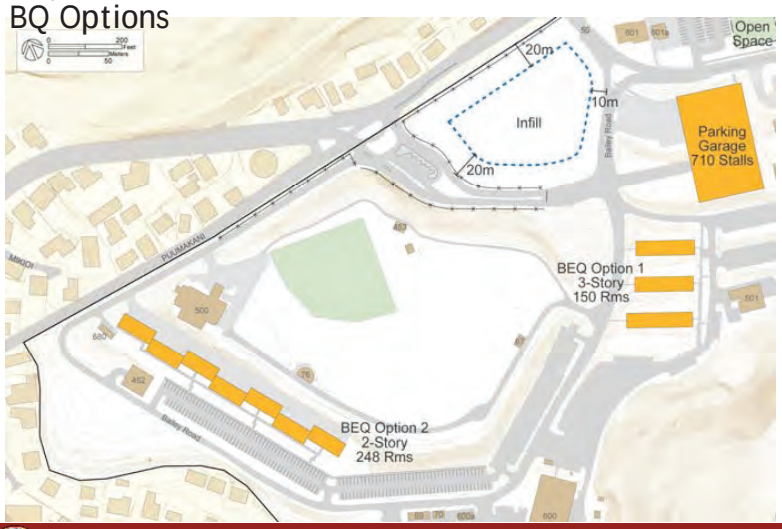
Camp Smith

BQ Options



MCB HAWAII CONCEPT WORKSHOP – JULY 2015 – PRE-DECISIONAL

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MCB Hawaii
Concept Workshop
Outlaying Areas

July 24, 2015

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Outlying Areas
MCTAB

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8/10/2015

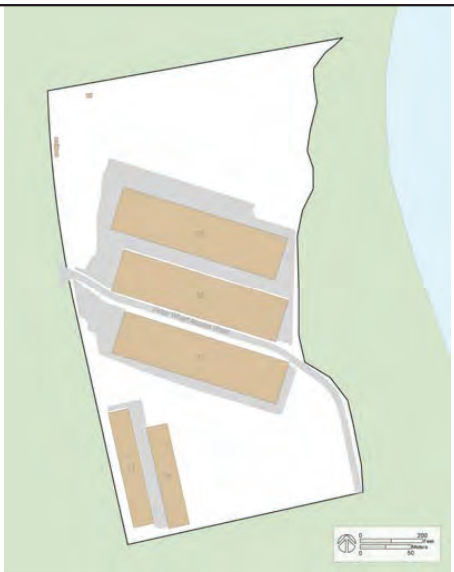
Outlying Areas

Manana Housing

MCB HAWAII CONCEPT WORKSHOP – JULY 2015 – PRE-DECISIONAL 51

Outlying Areas

Pearl City Annex



MCB HAWAII CONCEPT WORKSHOP – JULY 2015 – PRE-DECISIONAL 52

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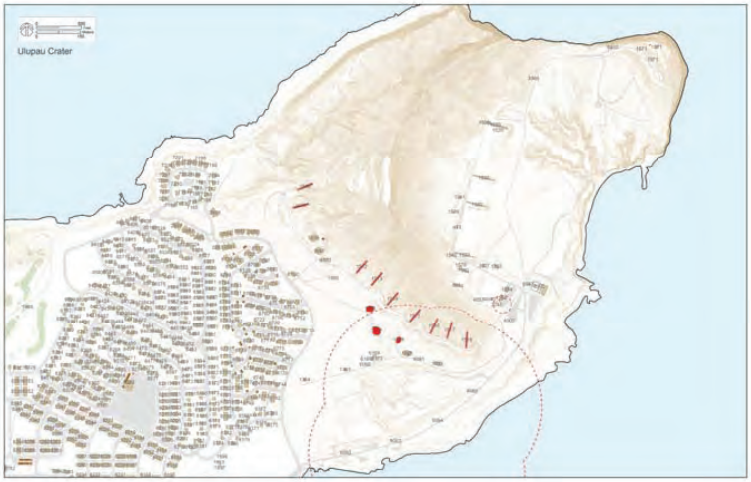
Outlying Areas

Puuloa Training Facility

MCB HAWAII CONCEPT WORKSHOP – JULY 2015 – PRE-DECISIONAL 53

Outlying Areas

Ulupau Crater



MCB HAWAII CONCEPT WORKSHOP – JULY 2015 – PRE-DECISIONAL 54

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HHF PLANNERS
places for people

Concept Workshop MEETING RECORD

Date:	22 July 2015	**Project No.**	2014113
Time:	0800	**Project Name:**	MCBH Installation Master Plan
Location:	MCBH Kaneohe Officer's Club, Lanai	**Recorded by:**	(b) (6)
Attendees:	See attached sign-in sheet		
Subject:	MCBH IMP Concept Workshop		

(b) (6) of HHF Planners gave PowerPoint presentations highlighting different design concepts for the Aviation District Area Development Plan (ADP) and Base Support District ADP to key stakeholders and Base leadership.

Key Comments & Discussion Points

Aviation District ADP

- If available, a portion of the Motor Transport site could be reserved for future van pad expansion.
  - P-936 doesn't include upgrades to van pads A and B
- Both B301 and B375 are historic, but only B301 is in the historic district boundary.
  - Would it be possible to demo B375? What are the implications? Where is the best location for a replacement facility?
- The overall number of personal vehicles utilizing 1st Street needs to be reduced
  - The idea of a multi-use path along 1st Street is a solid concept
  - The addition of a multi-use path along "B" Street should also be explored
  - Building a parking structure at existing base motor T site is most feasible but requires personal to walk further than guidelines suggest (H105 is just further than 1/4 mile)
  - The improvement of walking amenities in the area is needed (shade trees)
- A new, expanded mess hall would have to demonstrate the need for such a new facility
  - Current mess hall has food brought in from Anderson Hall
  - No on site food prep
- Navy confirmed the vacancy of Finn Building on October 1st, 2017
  - 90% will be vacant, including the training simulator space
  - VPU 2 will remain at Kaneohe until 2021
  - To be reused by MAG 24 admin

- The removal of the helo pad by H101 was suggested and may be needed to accommodate an expanded fuel pier and lay down area
- Pyramid beach improvements could be accommodated.
    - The training requirement (AAV tracks) at and around pyramid beach needs to be considered before any improvements are made
    - A new project at pyramid beach would be a good opportunity to improve existing communication lines and utilities in the area
    - The gravity fed lines at the cabins could be used for restroom facilities
- The location of MCCS Self Storage at Westfield was agreed upon but MCAS may have concerns with people crossing the Westfield flightline area
- The reuse of the Motor-T site for warehouses is good, but only if it is aviation related. Alternately, if this is designated an infill site, it should be reserved for aviation related functions such as operations or maintenance.
- The MWSD lot north of the aviation trainers works
- The case needs to be built to keep Hangar 105. Since the new MCAS Operations Center was built, there is less of a need for Hangar 105. If Hangar 105 is demolished, the space for transient units and the grandfathered apron space would be lost.

Base Support District ADP

- Consensus was reached over relocating base motor T compound to current salvage yard
- Deployment parking should not be located by fuels
- Building 1094 is slated to be demolished in the coming months
- Alternative #1 for PMO area is preferred but needs to include a parking garage
- The realignment of 3rd Street was well received. Either the roundabout or T-intersections could be done
    - Realignment of roads may disrupt existing communication lines connected to B213 (~31” subsurface)
    - 3rd Street can be continued across “E” Street in the form of a multi-use path that will give bikers/pedestrians a way to avoid a roundabout area
- B250 is a historic warehouse and should be preserved; other warehouses offer better opportunity for redevelopment
    - MILCON won’t approve the demolition of one warehouse just to rebuild it somewhere else

HHF PLANNERS
places for people

Concept Workshop MEETING RECORD

Date:	23 July 2015	**Project No.**	2014113
Time:	0800	**Project Name:**	MCBH Installation Master Plan
Location:	MCBH Kaneohe Bay, Officers Club, Lanai	**Recorded by:**	(b) (6)
Attendees:	See attached sign-in sheet		
Subject:	MCBH IMP Concept Workshop		

(b) (6) of HHF Planners gave PowerPoint presentations highlighting different design concepts for the Ground Support District Area Development Plan (ADP) and Community Support District ADP to key stakeholders and Base leadership.

Key Comments & Discussion Points

- The plan needs to total the amount of infill space remaining after development.

Ground Support District ADP

- B1090 currently houses a large classroom space that needs to be relocated before the proposed demolition can occur
  - This classroom space is accommodated within P-944
- Are BEQs an appropriate facility to site along the drainage canal?
  - If it is not used for BEQs then what else could that area be used for?
- Consensus was agreed about creating more height and density is needed with new facilities
  - BQs and HQs should be planned as multi-story buildings
- Due to land constraints and functions in the area, siting warehouses in this ADP is not preferred
- (b) (7)(F), (b) (3) (A) and would be difficult and expensive to relocate
- (b) (7)(F), (b) (3) (A) and would need to be relocated before the proposed replacement of a new dining hall

Community Support District ADP

- Newer fitness centers include workout rooms, gyms, and pool in one consolidated location.
- With Forest City's acquisition of the Section 802 housing area (Phase VI) they hold the key to creating better neighborhood connections in the area, including access to the school. A way through Phase VI Housing Area is needed for safe routes to school.
  - Non-motorized routes to school need to be explored and improved where needed

- PPV timeframe is as follows:
  - 2015, Forest City submits proposal, currently in negotiations. The EA is currently being scoped. Area of Potential Effect needs to be defined.
  - 2016, complete the EA for the housing development.
  - 2017, potentially start construction

- Forest City would like to gain control of small infill areas around Phase VI Housing Area by MCX/Mall Complex and golf course warehouses for development
- School administration is seeking a grant to redevelop the school.
  - Reorienting the complex away from Mokapu Road is favorable
  - The school's lease was renewed to 2024. If the school is redeveloped, the lease may need to be modified.
  - For the grant, the school expects the following timeframe:
    - Sept 2015, invited to submit for a grant
    - Sept 2016, write the proposal (approximately 6 months to complete)
    - 2017, grant and plans approved
    - 2018, potentially start construction
  - The school currently has 860 students. There are no plans to accommodate more than 1,000 students.
  - Elementary schools are being built with 2-story buildings and consider 21st Century Learning.
  - There are no intentions to build to DODEA criteria.
- The operational trainer facility in B6036 is not schedule to relocate with MILCON P-944 and would need to be relocated before the proposed demolition
  - This trainer also serves as a COOP for MARFORPAC
- There is no currently demand at Manana Housing Area. On the Navy property, the houses are being demolished. There are no plans to transfer the land to Marine Corps at this time.

HHF PLANNERS
places for people

Concept Workshop
MEETING RECORD

Date:	24 July 2015	**Project No.**	2014113
Time:	0800	**Project Name:**	MCBH Installation Master Plan
Location:	MCBH Kaneohe Bay, Officers Club, Lanai	**Recorded by:**	(b) (6)
Attendees:	See attached sign-in sheet		
Subject:	MCBH IMP Concept Workshop		

(b) (6) of HHF Planners gave PowerPoint presentations highlighting different design concepts for the Camp Smith Area Development Plan (ADP) and Outlying Areas to key stakeholders and Base leadership.

Key Comments & Discussion Points

Camp Smith ADP

- The current preferred plan from the ECP study is good but only as an interim solution
  - Long term, it would be best to relocate the entrance to B20 site
  - Another long term option would be to relocate the Pass & ID office to the new ECP
- The MOU for the Building 1 Complex doesn't show B20 being demolished
  - Consensus was reached that the MC master plan should show B20 being demolished
- In addition to improving parking organization, pedestrian facilities need to be improved for safety and walkability purposes
- The southern BEQ site is preferred with inclusion of MWR recreation facilities
  - Current BEQ site can be reserved as future infill
- Alternately, BEQ site in the uphill parking lot will be explored

Puuloa Training Area

- Buildings are currently being renovated but the long range master plan may need to show new/improved/expanded facilities
- Current renovation includes the addition of a new parking lot that needs to be shown
- The master plan needs to show some type of ECP improvements
  - Addressed in MILCON P-931
- What opportunities does the newly acquired FAA land bring?

Pearl City Annex

- MCX expansion increases furniture selling space, not warehouse space. Need to account for the warehouse requirement at Kaneohe.
- When warehouse functions are moved to K-bay and the warehouses are vacant what should be done with them?
    - MCCS self-storage? New self-storage buildings were recently built in Pearl City which impacts the market
    - Deployed parking inside of the warehouses could pose a fire hazard
- There is a small WWII era bunker on site that may be historic

Manana Family Housing Area

- No comments

Marine Corps Training Area Bellows

- There are some currently pending land transfers
- MILCON P-887 constructs new landing pads
- Area needs improved fencing along pill boxes

Ulupau Crater

- Environmental is currently conducting a study to possible close down the landfill. Facility is expected to operate as usual until then.

MCBH Installation Master Plan

5-Aug-15

Name	Rank	Unit/Department	Phone	Email
(b) (6)		LFP	257-4062	(b) (6)
		LFPP	2573687	
		LFPP	257-9935	
		HHF PLANNERS	457-3156	
		HHF PLANNERS	457-3164	
		HHF PLANNERS	457-3173	

HHF PLANNERS
places for people

Working Group #1
MEETING RECORD

Date:	5 August 2015	**Project No.**	2014113
Time:	1300	**Project Name:**	MCBH Installation Master Plan
Location:	MCBH Kaneohe Bldg. 242	**Recorded by:**	(b) (6)
Attendees:	See attached sign-in sheet		
Subject:	MCBH IMP Concept Workshop		

The HHF Planner's team me with MCBH stakeholders to discuss and further refine Area Development Plans (ADP) and concepts in preparation for the upcoming CO brief.

Key Comments & Discussion Points

Aviation District ADP

- Relocate users in B374, demo building, and show area as possible infill
- Show expanded network of sidewalks along "B" Street, "C" Street, and 6th Street
- Show existing wash rack site by P-908 as possible infill
- Resite HQ BN Armory (B4055) and include in aviation infill area
- Pyramid Beach plan needs to show Mokapu Burial Area

Base Support District ADP

- All plans need to show Historic Boundary Area
- Show multiuse path from intersection of "E" and 3rd Streets to the large sidewalk cutting across the open field between B213 and B215
- Admin Consolidation and Bldg. reuse slide needs a legend that shows where each building is located.
- Base Environmental outdoor storage/laydown area needs to be shown near B216.

Ground Support District ADP

- Armory Expansion (P-778) needs to show vehicular access and have adequate setback from proposed Reg HQ bldg.
- Multipurpose Training Complex (P-843) needs to show gas chamber and repel tower
- Realign CLB-3 access road and show CAC expansion area

Community Support District ADP

- O&T Trainer (B6036) needs to remain in place, slide gym and library to the west and adjust infill area and school playground

Camp Smith ADP

- Show current BEQ area as infill
- Add guard shack to new ECP
- Calculate parking requirement for new BEQs
- Lower BEQ option is not feasible because of contaminated soil

Outlying Areas

- Puuloa Training Facility
  - ECP improvements at back gate (P-931)
  - Show Range Ops Facility w/ parking

HHF PLANNERS
places for people

MCBH Installation Master Plan
2014113

Meeting: MCBH IMP Concept Workshop Outbrief to (b) (6) **Date: 13 August 2015**

Location: MCBH Kaneohe Bay, B216, 2nd Floor conference room **Time: 1500**

Name (First and Last)	Organization	Job Title	Phone	Email
(b) (6)	MCBH LF	DPWO	257-2851	(b) (6)
	MCBH LF	Facilities Director	257-0924	
	NAVFAC Pac	Planner	473-0557	
	NAVFAC Pac	Planner	473-0506	
	MCBH	DEP OPS	257-8853	
	MCBH	Facilities Deputy Director	257-0800	
	MCBH	Deputy IE&L	257-7721	
	MCBH	Planning	257-9935	

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MCB Hawaii
Concept Workshop Outbrief

(b) (6)

August 13, 2015

HHF PLANNERS
places for people

MCB HAWAII CONCEPT WORKSHOP – AUGUST 2015 – PRE-DECISIONAL

Concept Workshop

- Share Refined Concepts from Charrette
- Additional Opportunity for Stakeholder Input
- Identify Preferred Planning Alternatives

Sept 2014	Kickoff Brief with Leadership (HHF Planners, Inc.)
Sept 2014	MCICOM Visioning Workshop (The Urban Collaborative, LLC)
Oct 2014 - June 2015	Site Investigation and Stakeholder Interview
Jan 2015	Stakeholder Charrette Workshop
March 18 2015	Community Open House
July 22-24 2015	Concept Workshop
Oct 2015	Draft IMP and CP
Feb 2016	Pre-Final IMP and CP
Apr 2016	Final IMP and CP

MCB HAWAII CONCEPT WORKSHOP – AUGUST 2015 – PRE-DECISIONAL 2

1

8/18/2015

Planning Goals

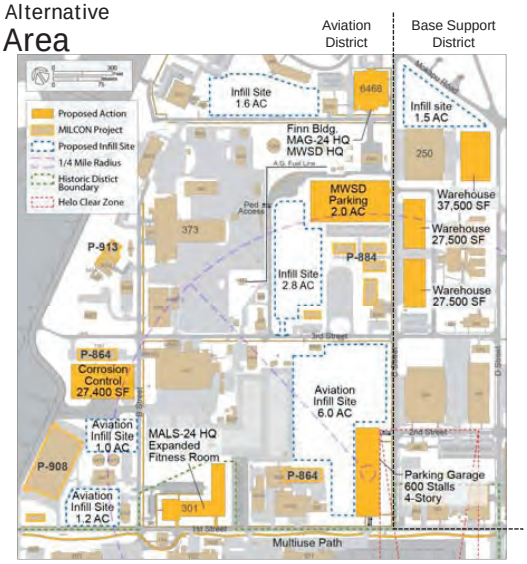
- (b) (7)(F)
- Reuse Existing Buildings
- Replace Aging Infrastructure
- Vacate & Demolish Excess Facilities
- Improve Land Use to Create (Re)Development Opportunities
- Improve Community Support Facilities
- Site Pearl City Annex (PCA) Storage at MCB Hawaii Kaneohe Bay

MCB HAWAII CONCEPT WORKSHOP – AUGUST 2015 – PRE-DECISIONAL 3

Aviation District Preferred Alternative

Aviation Support Area

- Reuse Bldgs 301 & 6468
- MWSD Organizational Parking Lot
- District Parking Structure
- 3-Bay Corrosion Control Facility
- Replace Aging & Inefficient Warehouses
- Relocate Base Motor Transport to Salvage Yard
- Sidewalk/Path Improvements
- ~12 AC of Infill Area; Priority for Aviation-related Operations



MCB HAWAII CONCEPT WORKSHOP – AUGUST 2015 – PRE-DECISIONAL 4

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Aviation District Preferred Alternative

Hangar 105

- Retain Hangar 105
- Improve and Open Taxiway Tango
- Allows aircraft to hold short outside of clear zone

MCB HAWAII CONCEPT WORKSHOP – AUGUST 2015 – PRE-DECISIONAL 5

Aviation District Preferred Alternative

(b) (7)(F)

MCB HAWAII CONCEPT WORKSHOP – AUGUST 2015 – PRE-DECISIONAL 6

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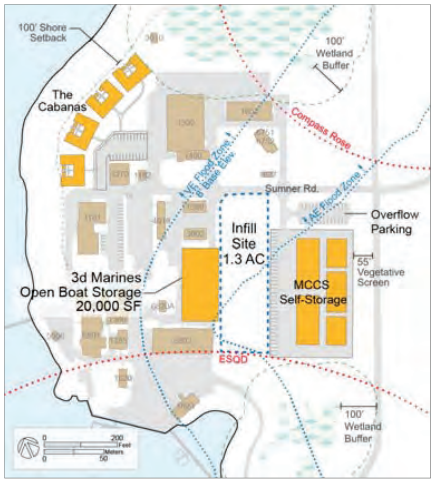
8/18/2015

Aviation District Preferred Alternative

West Field / MCCS



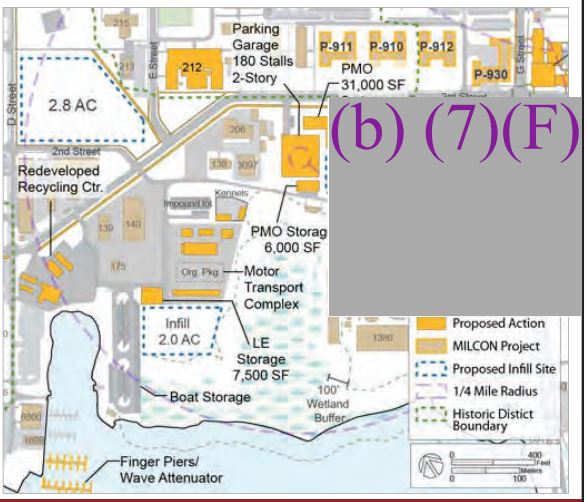
- 3d Marines Boat Storage
- MCCS Self-Storage Replacement
- MCCS Lodging (+10 Rooms; Overflow Lot)
- ~1.3 AC of Infill Area
- Demo 12 Bldgs (All ~40+ Years Old)
- Pyramid Beach Improvements

MCB HAWAII CONCEPT WORKSHOP – AUGUST 2015 – PRE-DECISIONAL 7

Base Support District Preferred Alternative

Third Street

- PMO Buildings & Parking
- Relocated Motor Transport Compound
- Realigned 3rd Street for B212 AT/FP Req.
- Main Gate ECP Improvements
- Sidewalk/Path Improvements
- ~8.4 AC of Infill Area
- Demo 9 Structures (Most 60-70 Years Old)



(b) (7)(F)

MCB HAWAII CONCEPT WORKSHOP – AUGUST 2015 – PRE-DECISIONAL 8

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Base Support District
Preferred Alternative

G Street

- Improve Community Support Facilities
- Expand Fitness Center on Site (Alternative)
- Existing Enlisted Club 1-Story & 41 Years Old
- Sidewalk/Path Improvements

MCB HAWAII CONCEPT WORKSHOP – AUGUST 2015 – PRE-DECISIONAL 9

Base Support District

Administrative Consolidation and Building Reuse

B3089 (Medical Clinic; 42,485 SF)

- MCCS Family Services Center (8,755 SF)
- MCCS Substance Abuse Center (9,155 SF)
- IPAC/DEERS (23,860 SF)

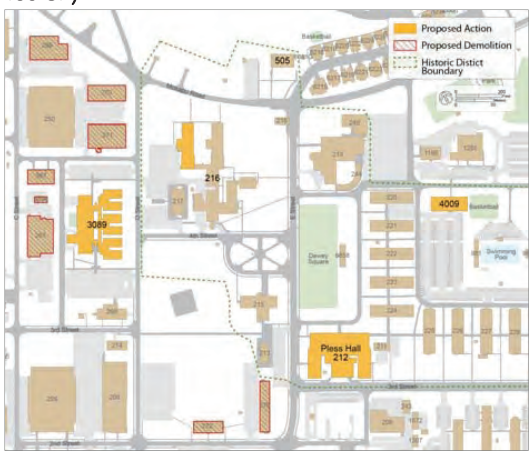
B216 (MCCS; 10,500 SF)

- HQBN (7,000 SF)

B4009 (HQBN; 9,480 SF)

- Environmental Admin (8,245)

Footprint Reduction: 48,500 SF



MCB HAWAII CONCEPT WORKSHOP – AUGUST 2015 – PRE-DECISIONAL 10

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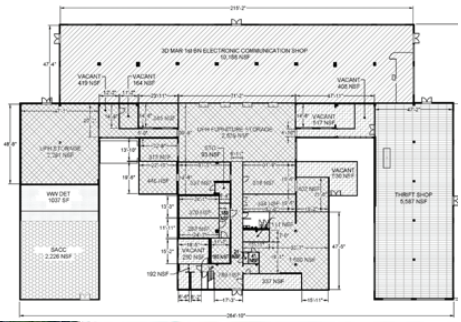
Base Support District Preferred Alternative

Building Reuse

B212 (Pless Hall; 35,400 SF)

- Combat Camera (8,700 SF)
- Base Safety Office (5,300 SF)
- BPO/HRO (3,255 SF)
- Environmental Admin (8,245 SF)
- Museum (5,000 SF)
- Thrift Shop (4,000 SF)
- MCCS Vendor (500 SF)



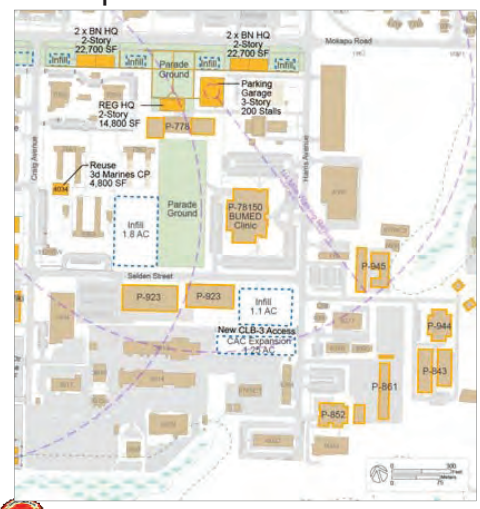
Reuse Issues:

- AT/FP Compliance
- HAZMAT
- Parking

MCB HAWAII CONCEPT WORKSHOP – AUGUST 2015 – PRE-DECISIONAL 11

Ground Support District Preferred Alternative

Headquarters Row



- Consolidated Administrative Headquarters
- Parade Ground
- Realign CLB 3 Motor Pool Access
- CAC Expansion Area
- Permanent 3d Marines Vehicle Shelters
- ~4.5 AC Infill Areas

MCB HAWAII CONCEPT WORKSHOP – AUGUST 2015 – PRE-DECISIONAL 12

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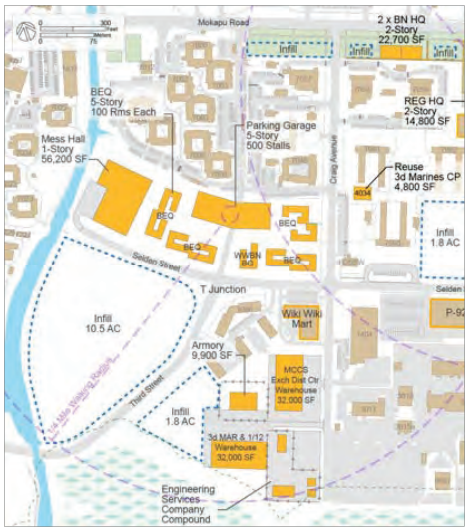
Ground Support District Preferred Alternative

Billeting & Supply

- Central Mess Hall Location
- Replace 1600-Series BEQs
- Replace Aging and Inefficient Warehouse
- Relocate Exchange Distribution Warehouse Functions from PCA
- Roadway Improvements
- ~12.3 AC Infill Area

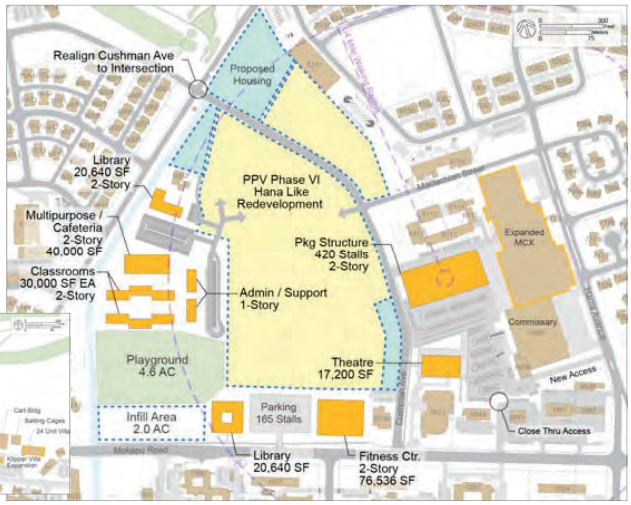


MCB HAWAII CONCEPT WORKSHOP – AUGUST 2015 – PRE-DECISIONAL 13

Community Support District Preferred Alternative

Community Core

- Consolidate Community Support Facilities
- Orient School Access to Hana Like Neighborhood
- New Fitness Center (Alternative)
- New Library (Alternatives)
- ~2.0 AC Community Support-related Infill Area



MCB HAWAII CONCEPT WORKSHOP – AUGUST 2015 – PRE-DECISIONAL 14

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Community Support District

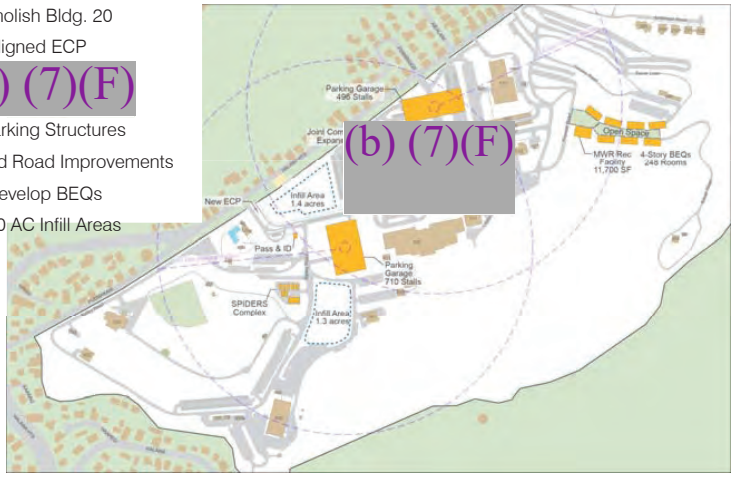
Safe Routes to School

MCB HAWAII CONCEPT WORKSHOP – AUGUST 2015 – PRE-DECISIONAL 15

Camp Smith Preferred Alternative

Camp Smith

- Demolish Bldg. 20
- Realigned ECP
- (b) (7)(F)
- 2 Parking Structures
- Elrod Road Improvements
- Redevelop BEQs
- ~3.0 AC Infill Areas



MCB HAWAII CONCEPT WORKSHOP – AUGUST 2015 – PRE-DECISIONAL 16

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Puuloa Training Facility Preferred Alternative

Puuloa Improvements

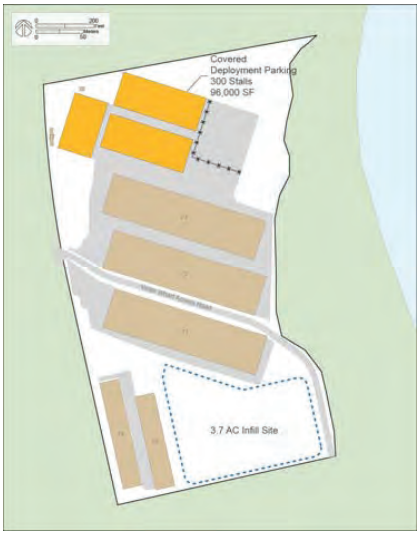
- (b) (7)(F)
- New Range Ops Support Bldg.
- Replace Old Facilities in Place

MCB HAWAII CONCEPT WORKSHOP – AUGUST 2015 – PRE-DECISIONAL 17

Pearl City Annex Preferred Alternative

Deployment Parking

- Covered Deployment Parking
- (b) (3) (A), (b) (7)(F)
- ~3.7 AC Infill Area



MCB HAWAII CONCEPT WORKSHOP – AUGUST 2015 – PRE-DECISIONAL 18

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MCB Hawaii Master Plan

Preferred Plan Summary

Quantitative ADP Summary	Aviation	Base Support	Ground Support	Community Support	Camp Smith	Total	U/M
Buildings							
New Bldgs	16	14	24	4	12	**70**	#
New Bldgs Area	82,736	286,907	568,660	120,376	309,840	**1,368,519**	SF
Renovated/Reused Bldgs	4	6	1	0	0	**11**	#
Renovated/Reused Bldgs Area	95,944	63,150	4,736	0	0	**163,830**	SF
Demo'd Bldgs	24	21	37	14*	12	**94**	#
Demo'd Bldg Area	(63,520)	(194,640)	(476,440)	(126,700)	(436,390)	**(1,297,690)**	SF
Average Age of Demo'd SF	60	60	55	56	69		Avg. Years Old
Net Bldg (New-Demo'd)	19,216	92,267	92,220	-6,324	-126,550	**70,829**	SF
Parking							
Parking Structures	1	3	3	1	2	**10**	#
New Structure Stalls	600	1244	961	420	1206	**4431**	#
New Surface Stalls	284	110	505	299	122	**1320**	#
Demolished Stalls	(721)	(1,082)	(1,232)	(574)	(631)	(4,240)	#
Net Parking Stall Gail/Loss	163	272	234	145	697	**1511**	#
Infill Areas**							
Infill Areas	6	5	10	1	2	**24**	#
Largest Area	6.0	2.8	10.5	2.0	1.4	--	AC
Smallest Area	1.0	1.5	0.15	2.0	1.3	--	AC
Total Area	13.9	9.9	17.5	2.0	2.7	**46.0**	AC

*Includes temporary structures at Mokapu Elementary School.
**Net areas that already account for AT/FP setbacks.

MCB HAWAII CONCEPT WORKSHOP – AUGUST 2015 – PRE-DECISIONAL 19

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HHF PLANNERS
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Concept Workshop Outbrief
MEETING RECORD

Date:	13 August 2015	**Project No.**	2014113
Time:	1500	**Project Name:**	MCBH Installation Master Plan
Location:	MCBH Kaneohe B216, CO Conference Room	**Recorded by:**	(b) (6)
Attendees:	See attached sign-in sheet		
Subject:	MCBH Concept Workshop Outbrief		

(b) (6) presented the MCB Hawaii Concept Workshop Outbrief to (b) (6) Comments by district are listed below.

Aviation District

- One consolidated parking structure would put too much traffic in one location; especially during peak hours. Using multiple parking structure would help disperse the parking. Consider siting an additional parking structure closer to Hangar 104.
- Keep Hangar 105 in order to preserve the parking apron.
- The need for Taxiway Tango is questionable and would not help to secure the flight line. This will not be included in the plan.
- The MCCS self-storage project still needs buy in from MCAS. Other locations should be explored, primarily in the salvage yard.

Base Support District

- The Salvage Yard infill site should be considered for the MCCS self-storage.
- Potential for using Pless Hall as a consolidated education center. The 200-series BQs could be used for Admin.
- There would be a high cost for renovating/remediating Pless Hall.

Community Support District

- In the short-term, the Teen Center may be converted to a fitness center. No preferred location was identified for the fitness center.

Ground Support District

- Consider covered parking structures with PV panels for motor pools. Obtain a PPA to generate electricity and a source of revenues.
- Consider increasing the capacity of the canal pedestrian bridge. Alternately, consider adding another bridge.

Community Support District

- Access through the redeveloped Hana Like PPV Phase IV neighborhood should be designed carefully with to vehicle, bike, and pedestrian traffic.

Camp Smith

- Reconsider the ECP using Bailey Road.
- Consider incorporating the parking structure behind Building 1 into the ECP.

Pearl City Annex

- If this site is used as a deployment lot, security issues need to be addressed. This could be a short-term project.

Follow Up

- Obtain previous MILCON project proposed for Pless Hall to understand remediation costs.

C

COMMUNITY OPEN HOUSE REPORT

Sgt. Joshua Flores, the training noncommissioned officer of Combat Logistics Battalion 3, briefs his squad before they set out to start the first scenario of the day aboard Marine Corps Base Hawaii Aug. 19, 2015. The day's events consisted of patrolling across the base while taking on various situations. Sergeants Course is a vital part of professional military education for any Marine and helps to maintain the standards amongst the NCOs of the Marine Corps. (U.S. Marine Corps photo by Cpl. Khalil Ross/Released. www.mcbhawaii.marines.mil)

Marine Corps Base Hawaii
INSTALLATION MASTER PLAN
Community Open House Summary

Community Open House #1: March 18, 2015

Community Open House #2: February 18, 2016

Naval Facilities Engineering Command
NAVFAC HAWAII

HHF PLANNERS
places for people

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General Information

Date/Time	1330–1630, Wednesday, 18 March 2015 1330–1630, Thursday, 18 February 2016
Location	MCB Hawaii Kaneohe Bay Officer's Club Ballroom, Building 502
Purpose	Engage community stakeholders in an open dialog to receive input and feedback on proposed development at MCB Hawaii.
MCB Hawaii Leadership	(b) (6) ICO; (b) (6) IE&L Director; and (b) (6) Facilities Director
MCB Hawaii Stakeholders	Approximately 30 attendees; see attached sign-in sheet
NAVFAC Pacific	(b) (6)
HHF Planners	(b) (6)

Two community Open Houses were conducted as part of the Marine Corps Base Hawaii Installation Master Plan (IMP) planning process on 18 March 2015 and 18 February 2016 at MCB Hawaii Kaneohe Bay.

The purpose of the open houses was to engage community stakeholders in the master planning process and receive feedback regarding the proposed actions in the IMP.

This Community Open House Report contains the invitation, flyer, meeting records, attendance sheets, presentation slides and boards presented during the Open Houses.

Contents

Open House #1 Invitation Letter 1
Open House #1 Flyer 2
Open House #1 Invite List 3
Open House #1 Sign-in Sheets 6
Open House #1 Presentation Slides 8
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Open House #2 Flyer 29
Open House #2 Invite List 30
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UNITED STATES MARINE CORPS
MARINE CORPS BASE HAWAII
BOX 63002 KANEOHE BAY HAWAII 96863-3002

IN REPLY REFER TO:
11000
LF/025-15j
February 24, 2015

[redacted]

SUBJECT: MARINE CORPS BASE (MCB) HAWAII INSTALLATION MASTER PLAN DEVELOPMENT OPEN HOUSE

Marine Corps Base Hawaii is in the initial phase of updating our Installation Master Plan. This plan will guide future development and space utilization on all Marine Corps Installations in Hawaii including Kaneohe Bay, Camp Smith, Pu'uloa Range Training Facility, and Marine Corps Training Area Bellows. This project is part of a routine update in accordance with Marine Corps instructions. A key element of the master planning process is to obtain input from external government agencies and members of the community that Marine Corps Base Hawaii works with routinely.

To accomplish this, we invite you to participate in an open house which will be held on 18 March 2015, 1:30 pm to 4:30 pm at the MCB Hawaii Officer's Club Ballroom. Displays and information with various proposed ideas and concepts for general development at MCB Hawaii installations will be presented for input and comment. After receiving your comments we will continue to incorporate, develop, and publish the Draft Master Plan. The purpose of this meeting is to solicit input as we develop our draft plan. We anticipate follow on opportunities to solicit external government agency and community input as the final draft of the Installation Master Plan approaches. Enclosed you will find a location map, and instructions on how to gain access to the base.

Your participation is important to the preparation and success of the MCB Hawaii Installation Master Plan. Please RSVP to (b) (6) at (b) (6) or phone at (808)457-3164 or (808)545-2055 by 12 March 2015.

Sincerely,

(b) (6)

Director, Facilities Department
By direction of the Commanding Officer

Enclosure: (1) MCBH Installation Master Plan Flyer

INSTALLATION MASTER PLAN

Marine Corps Base Hawaii

OPEN HOUSE

Your participation is valuable to the preparation and success of the MCB Hawaii Installation Master Plan. Please join us at the Open House to provide your input.

March 18, 2015
1:30 pm to 4:30 pm
MCB Hawaii Officer's Club Ballroom

RSVP by March 11, 2015 to
(b) (6)

RSVP is required with name and organization to provide to Base Security for Base Access.

For base access, go to the Pass and ID office (Building 1637) located at the main gate off of the H-3 freeway. Please have a government-issued form of identification. If you are driving, you will need a current driver's license, safety check, and registration.

Organization	Name	Title	Phone	Email	Address
Honolulu Board of Water Supply	(b) (6)	Manager and Chief Engineer	(b) (6)	contactus@hbws.org	[redacted]
City of Honolulu, Department of Transportation Services		Director			[redacted]
City/County of Honolulu, Department of Environmental Services		Director		(b) (6)	1000 Uluohia Street, Suite 308, Kapolei, Hawaii 96707
City/County of Honolulu		Chair, Ewa Neighborhood Board 23			(b) (6)
City/County of Honolulu		Chair, Kahalu'u Neighborhood Board 29			
City/County of Honolulu		Chair, Kaneohe Neighborhood Board 30		(b) (6)	
City/County of Honolulu		Chair, Kailua Neighborhood Board 31			
City/County of Honolulu		Chair, Waimanalo Neighborhood Board 32			
City/County of Honolulu		Chair, Aiea Neighborhood Board 20			
Kailua Urban Design Taskforce/ Kailua Complete Streets Contractor		Senior Traffic Engineer			
Oahu Metropolitin Planning Organization		Executive Director		(b) (6)	
HECO		Account Manager			Key Account Management Division Hawaiian Electric Company PO Box 2750 Honolulu, HI 96840-0001
Hawaii Institute of Marine Biology (Coconut Island)		UH Marine Mammal Research	(b) (6)		Hawaii Institute of Marine Biology, P.O. Box 1106, Kailua, HI 96734
City and County of Honolulu, Department of Planning and Permitting		Deputy Director		(b) (6)	City and County of Honolulu, 650 S. King St, 7th Floor, Honolulu, HI 96813
State of Hawaii Department of Education, Windward District Office		Complex Superintendent, Kailua-Kalaheo Complex Area			(b) (6)
State of Hawaii Department of Transportation		Interim Director, DOT			[redacted]
State Department of Planning		Interim Director, Dept of Planning			Leiopapa A Kamehameha Building (State Office Tower) 235 South Beretania Street, 6th Floor Honolulu, Hawaii 96813
Hawaii State Energy Office				(b) (6)	(b) (6)
Windward Civilian Military Council		Chair			
Advisory Council on Historic Preservation, Office of Agency Programs					ACHP OFFICE OF AGENCY PROGRAMS, 1100 PENNSYLVANIA AV NW ROOM 80,WASHINGTON DC 20004-2501

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Honolulu Board of Water Supply	(b) (6)	Manager and Chief Engineer	(b) (6)	contactus@hbws.org	[redacted]
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City/County of Honolulu, Department of Environmental Services		Director			[redacted]
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City/County of Honolulu		Chair, Waimanalo Neighborhood Board 32			
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HECO		Account Manager			Key Account Management Division Hawaiian Electric Company PO Box 2750 Honolulu, HI 96840-0001
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State of Hawaii Department of Education, Windward District Office		Complex Superintendent, Kailua-Kalaheo Complex Area			(b) (6)
State of Hawaii Department of Transportation		Interim Director, DOT			Aliiaimoku Building, 869 Punchbowl Street, Honolulu, HI 96813
State Department of Planning		Interim Director, Dept of Planning			Leiopapa A Kamehameha Building (State Office Tower) 235 South Beretania Street, 6th Floor Honolulu, Hawaii 96813
Hawaii State Energy Office				(b) (6)	(b) (6)
Windward Civilian Military Council		Chair			
Advisory Council on Historic Preservation, Office of Agency Programs					ACHP OFFICE OF AGENCY PROGRAMS, 1100 PENNSYLVANIA AV NW ROOM 80,WASHINGTON DC 20004-2501

State Historic Preservation Officer, Department of Land and Natural Resources	(b) (6)				KAKUIHEWA BUILDING ROOM 555, 601 KAMOKILA BOULEVARD, KAPOLEI HI 96707
State Historic Preservation Officer, Department of Land and Natural Resources					KAKUIHEWA BUILDING ROOM 555, 601 KAMOKILA BOULEVARD, KAPOLEI HI 96707
State Historic Preservation Officer, Department of Land and Natural Resources				(b) (6)	KAKUIHEWA BUILDING ROOM 555, 601 KAMOKILA BOULEVARD, KAPOLEI HI 96707
State Historic Preservation Officer, Department of Land and Natural Resources					KAKUIHEWA BUILDING ROOM 555, 601 KAMOKILA BOULEVARD, KAPOLEI HI 96707
Temple of Lono				(b) (6)	Temple of Lono 98-1710 Apt D Kaahumanu St Pearl City, HI 96782
Aloha First					
Hawaiian Civic Club of Waimanalo				(b) (6)	(b) (6)
Hui Malama I Na Kupona O Hawaii Nei					[redacted]
Nation of Hawaii					
Pu'uuhonua O Waimanalo Neighberhood Board					

MCBH Installation Master Plan
Community Open House
March 18, 2015

Initial	First Name	Last Name	Organization	Phone	Email
(b)	(6)		Hawaii State Energy Office / DBEDT	(b) (6)	(b) (6)
			Historic Hawaii Foundation		
			Windward Civilian Military Council		
			Kailua Urban Design Task Force		
			Hawaiian Electric Company		
			Water Resources Division / BWS		
			Oahu Metropolitan Planning Organization		
			Historic Hawaii Foundation		
					(b) (6)
			'Ohana Keohokalole		
			'Ohana Keohokalole		
			'Ohana Keohokalole		
			'Ohana Keohokalole		
			'Ohana Keohokalole		
			Hawaii Dept. of Education	(b) (6)	(b) (6)
			UNIVERSITY OF HAWAII		
			Kahalu'u Neighborhood Board		
				(b) (6)	
			State Historic Preservation Division / DLNR		(b) (6)
			Hawaiian Electric Company		
			Dept. Transportation Services / C&C	(b) (6)	(b) (6)
			State Historic Preservation Division / DLNR		
			Hawaii State Energy Office / DBEDT		

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MCBH Installation Master Plan
Community Open House
March 18, 2015

Initial	First Name	Last Name	Organization	Phone	Email
(b) (6)			MCB Hawaii Env Dept		
			NAVFAC PAC		
			MCBH SLO	257-2019	(b) (6)
			NAVCBH Community Relations	257	
			MCBH	257-9938	
			NAVFAC Pacific	473-0557	
			NAVFAC PAC	473-0520	
			LF	2570824	
			KNB	(b) (6)	
			DOE-FDB		

2/4/2016

MCB Hawaii Installation Master Plan Open House

March 18, 2015

HHF PLANNERS
places for people

MARINE CORPS BASE HAWAII INSTALLATION MASTER PLAN
Open House-- March 18, 2015

1

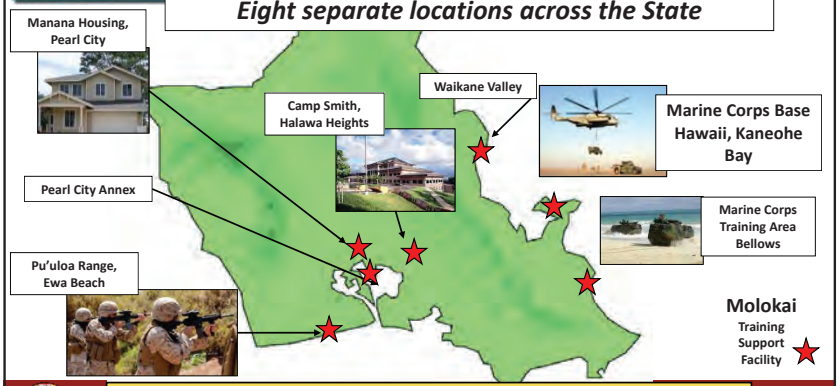
2/4/2016

Our Mission

- Sustain combat readiness for all operating forces and tenant organizations
- Provide facilities, programs and services to units, individuals and families

MARINE CORPS BASE HAWAII INSTALLATION MASTER PLAN
Open House-- March 18, 2015
3

Eight separate locations across the State



Primary Mission = Support to Operating Forces

2

2/4/2016

MCB Hawaii, Kaneohe Bay

- Population:
  - 9,700 Active Duty Military
  - Over 7,000 Family Members
  - 2,100 civilian employees & contractors
- Both U.S. Marine Corps & U.S. Navy tenant commands

MARINE CORPS BASE HAWAII INSTALLATION MASTER PLAN
Open House-- March 18, 2015
5

Tenant Commands

- Marine Corps
  - 3D Marine Regt (Infantry)
  - 1st Bn, 12th Mar Regt (Arty)
  - Combat Logistics Bn-3
  - Marine Aircraft Group-24
  - VMR Detachment (USMC's only C-20 (Gulfstream IV)
  - 3D Radio Battalion
  - 4th Force Reconnaissance
- Navy
  - Four P-3 Squadrons
  - Anti-Submarine Helicopter Squadron
  - C-20 Logistics Support Squadron

MARINE CORPS BASE HAWAII INSTALLATION MASTER PLAN
Open House-- March 18, 2015
6

3

2/4/2016

Camp H. M. Smith

- PACOM
- MARFORPAC
- SOCPAC
- JIATF West

- **More than 3,200 active duty & civilians**

MARINE CORPS BASE HAWAII INSTALLATION MASTER PLAN
Open House-- March 18, 2015
7

Marine Corps Training Area Bellows

- 1,100 acre training area
  (separate from Bellows AFS)
  - Amphibious landings
  - Helicopter operations
  - Combat Vehicle Operators Course

(b) (7)(F), (b) (5)

  - Infantry Immersive Training Environment
  - 4 sites
  - Role-player exercises
  - Completed Jun 11
- Beach and campsites open to the public on weekends & holidays

MARINE CORPS BASE HAWAII INSTALLATION MASTER PLAN
Open House-- March 18, 2015
8

2/4/2016

Pu'uloa and K-Bay Ranges

Rifle/Pistol/Combat firing ranges also used by

- US Navy
- US Army
- FBI
- TSA
- DEA
- Federal Bureau of Prisoners
- National Guard
- US Coast Guard
- Center for Security Forces
- Honolulu Police Department
- US Customs & Border Patrol

Pu'uloa
34,114 range events (FY 09)
52,713 range events (FY 10)
55,518 range events (FY 11)
57,309 range events (FY 12)

Kaneohe Bay
30,699 range events (FY 09)
23,184 range events (FY 10)
18,495 range events (FY 11)
22,134 range events (FY 12)

MARINE CORPS BASE HAWAII INSTALLATION MASTER PLAN
Open House-- March 18, 2015

Mission Changes

- Aviation Plan Added ~1,000 Marines and their families to Marine Corps Base Hawaii (2012)
  - MV-22 "Osprey" Tilt Rotor aircraft
  - Light Attack Helo Squadron (on island)
  - Unmanned Aerial Vehicle (on island)
  - Marine Wing Support Squadron
- The Navy's CPRW-2 will relocate – taking 1,700 sailors
- "2700" Marines from Okinawa – TBD

MARINE CORPS BASE HAWAII INSTALLATION MASTER PLAN
Open House-- March 18, 2015
10

5

2/4/2016

UNCLASSIFIED

Marines Utilize Training Areas Across the Entire State

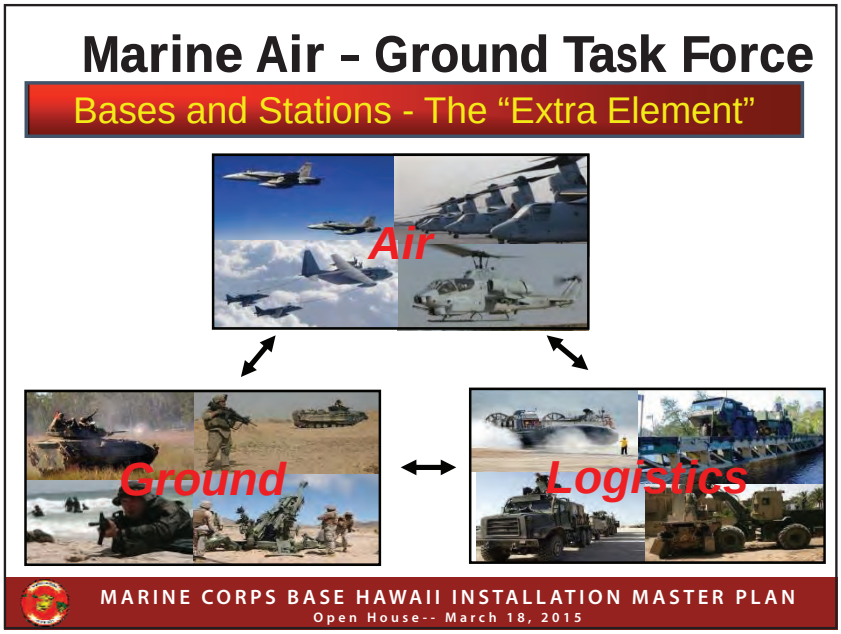
MARINE CORPS BASE HAWAII INSTALLATION MASTER PLAN
Open House-- March 18, 2015
11

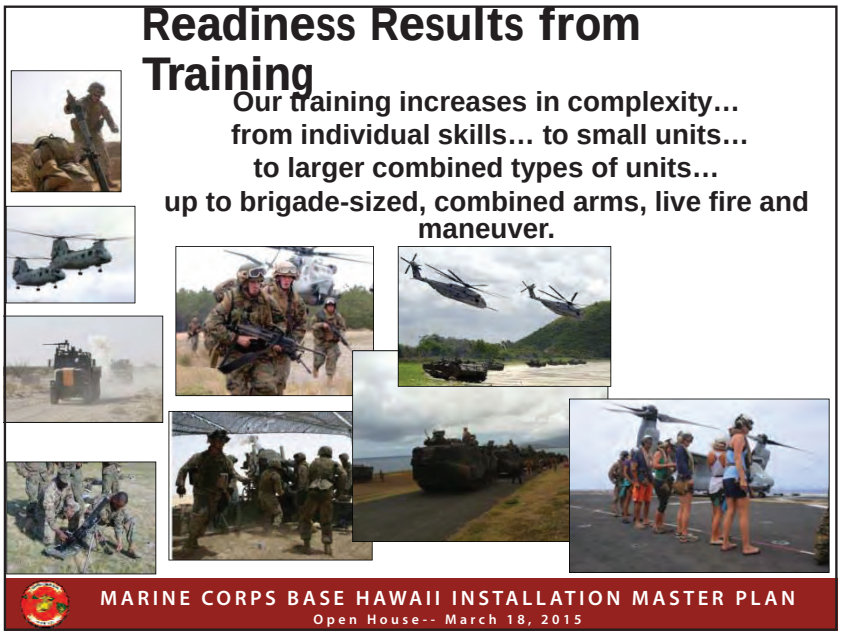
Readiness:
Every Marine is a rifleman…

- Marines are ready to respond because we constantly train
- Live-fire training replicates what Marines must be able to do during crises and is what makes us a small, agile and highly effective force
- Every Marine is first and foremost a rifleman required to maintain live-fire small arms qualifications to be combat ready
- Through decades of training Marines, we have learned to efficiently, effectively, and safely maintain individual and small unit training readiness by locating the required live fire ranges where your Marines are based
- After individual and small unit training, we increase our training in size and complexity, training as part of a Marine Air-Ground Task Force, or MAGTF

MARINE CORPS BASE HAWAII INSTALLATION MASTER PLAN
Open House-- March 18, 2015

2/4/2016


Marine Air – Ground Task Force
Bases and Stations - The "Extra Element"
Air
Ground
Logistics
MARINE CORPS BASE HAWAII INSTALLATION MASTER PLAN
Open House-- March 18, 2015


Readiness Results from Training
Our training increases in complexity…
from individual skills… to small units…
to larger combined types of units…
up to brigade-sized, combined arms, live fire and maneuver.
MARINE CORPS BASE HAWAII INSTALLATION MASTER PLAN
Open House-- March 18, 2015

7

2/4/2016

Importance of Realistic Training

Train as we would fight

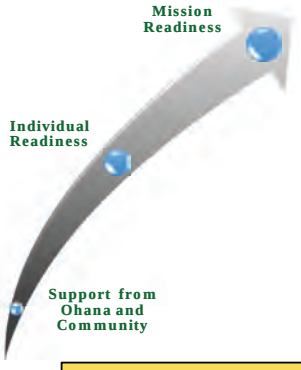
Marines training at the Enhanced MOUT at Bellows

Marines on deployment in Afghanistan

MARINE CORPS BASE HAWAII INSTALLATION MASTER PLAN
Open House-- March 18, 2015

Hawaii is our Home

"…we safeguard the things that are important to us: our families, our freedoms, our environment and our future – because this is our home." – Gov Ige



- **Mission Readiness depends on Individual Readiness**
  - **Our people *live* here**
- **Committed to collective success through innovation and collaboration**
  - **Energy Sustainability and Environmental Protection**
  - **Sharing resources and collaborating on concurrent jurisdictional issues**
  - **Partnering with our Education System to ensure high performance schools and school environments**

Our Ohana makes us Stronger

PLAN

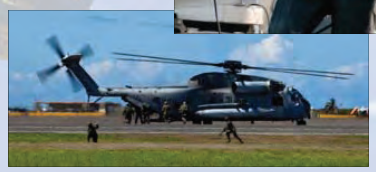
8

2/4/2016

Marine Corps Community Services Community Events

Kaneohe Bay Air Show & BayFest

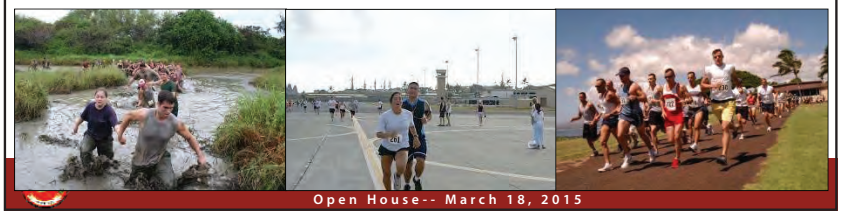
- Blue Angels, civilian & military air performers
- Local musical performers and food vendors
- Games during the day, fireworks at night
- Free to everyone and open to the public
- "Green" air show – promoted recycling
- community transportation



Marine Corps Community Services Community Events

Commanding Officers' Fitness Series

- Annual series of running and bike races
- Open to the public.
- Focuses on healthy lifestyles
- Encourages sportsmanship and esprit-de-corps



Open House-- March 18, 2015

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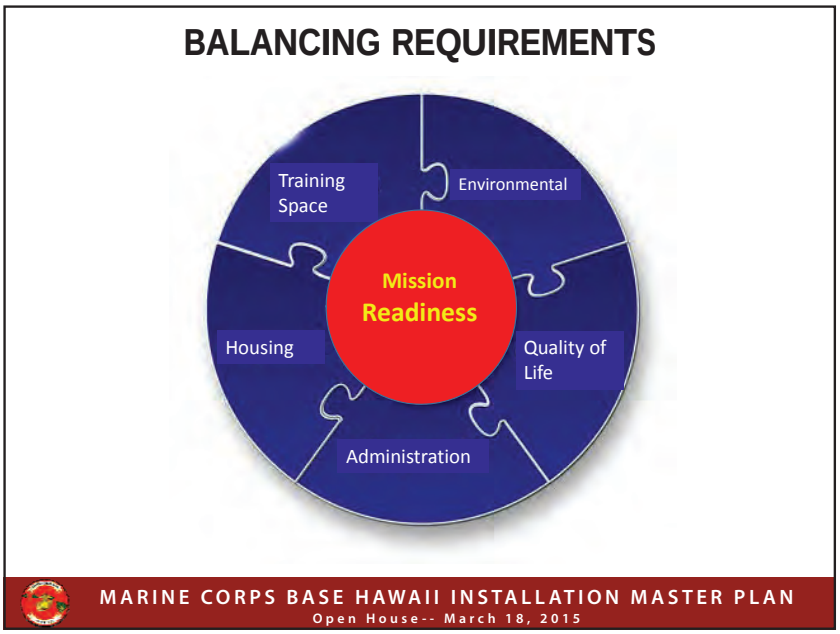
2/4/2016

WE ARE GROWING
NEW GROWTH & MODERNIZATION = JOBS
Air Station Operations Building
MV-22 "Osprey" Hangars
Modernization
Aviation Upgrades
Waterfront Operations
Enlisted Quarters
Public / Private Venture Housing
MARINE CORPS BASE HAWAII INSTALLATION MASTER PLAN
Open House-- March 18, 2015


BALANCING REQUIREMENTS
Training Space
Environmental
Mission Readiness
Housing
Quality of Life
Administration
MARINE CORPS BASE HAWAII INSTALLATION MASTER PLAN
Open House-- March 18, 2015

10

2/4/2016

Real Property Assets

- Real estate / grounds – more than 4,600 acres
- 2,600 family housing units
- 900 Buildings – more than 6 M ft^2
- Roads / pavement – more than 2.8 M yd^2
- Utility Systems – electrical, water, waste water

Total Current Plant Value = $4.3B

MARINE CORPS BASE HAWAII INSTALLATION MASTER PLAN
Open House-- March 18, 2015
21

Master Plan Objective

Develop a comprehensive 20 year plan intended to be a framework for physical development which integrates mission, environment, history, and quality of life.

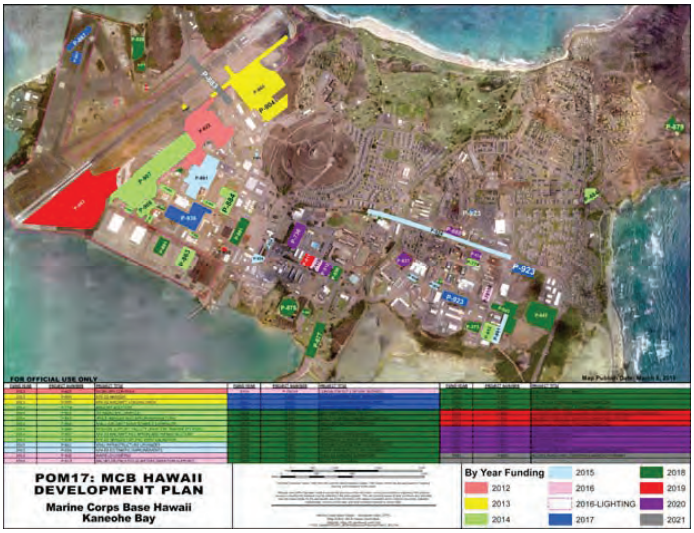
Master Planning Process

- Process recently updated to incorporate best practices
- Plan is an internal management tool
- Ensures efficient and compatible land use and maximizes facility utilization
- Be the link between sustainable planning and requirements
- Promotes cooperative and interactive intergovernmental relationships

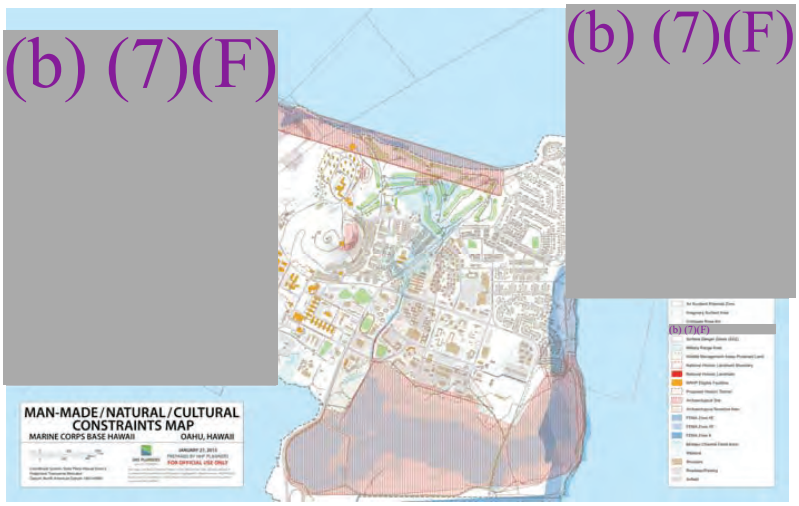
MARINE CORPS BASE HAWAII INSTALLATION MASTER PLAN
Open House-- March 18, 2015

11

2/4/2016



MARINE CORPS BASE HAWAII INSTALLATION MASTER PLAN
Open House-- March 18, 2015



MARINE CORPS BASE HAWAII INSTALLATION MASTER PLAN
Open House-- March 18, 2015

12

2/4/2016

Planning Districts

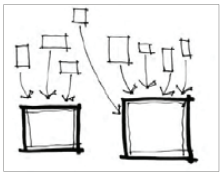
- Klipper (Community Support)
- Aviation Support
- Mokapu (Ground Support)
- Base Support
- Camp Smith
- Other Districts—to be completed

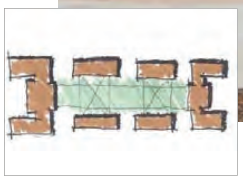
(b) (7)(F)

MARINE CORPS BASE HAWAII INSTALLATION MASTER PLAN
Open House-- March 18, 2015

Planning Precepts

- Consolidate units
- Buildings define open space





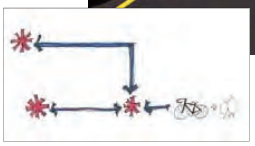
MARINE CORPS BASE HAWAII INSTALLATION MASTER PLAN
Open House-- March 18, 2015

13

2/4/2016

Planning Precepts

- Connected pedestrian and bike ways
- Wide sidewalks
- Tree lined streets
- Transit network
- Connected greenspace and walkability



MARINE CORPS BASE HAWAII INSTALLATION MASTER PLAN
Open House-- March 18, 2015

Key Planning Issues

- Family Housing / 802 Housing
- Future Barracks Development
- Elementary School
- Consolidate HQ Operations
- Airfield Ops / Hangar 105
- (b) (3) (A), (b) (7)(F)
- Building Restoration / Reuse
- Parking Structures (MCBH & Camp Smith)
- Expansion Areas
- Bldg 1 Complex Redevelopment (Camp Smith)

MARINE CORPS BASE HAWAII INSTALLATION MASTER PLAN
Open House-- March 18, 2015

14

2/4/2016

Community Open House

- Share proposed concepts of general development
- Opportunity for community comments on Master Plan
- Comprehensive Plan will be public
- Next Community Open House (Fall 2015)

Sep 2014	• Kickoff Brief with Leadership (HHF Planners, Inc.)
Sep 2014	• MCICOM Visioning Workshop (The Urban Collaborative)
Oct 2014 - Jan 2015	• Site Investigation and Stakeholder Interview
Jan 27 – 30	• Stakeholder Charrette Workshop
March 18	• Community Open House
March-Dec	• Draft Plan Development w/ Periodic Reviews
Jan 2016	• Final Installation Master Plan

MARINE CORPS BASE HAWAII INSTALLATION MASTER PLAN
Open House-- March 18, 2015

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8/10/2015

Ground Support District

Alternatives Summary

Alternative #1

- HQs along Mokapu Rd.
- Mess and Fitness Center collocated at the corner
- Redevelop BQs near existing

Alternative #2

- HQs central to the operations
- Mess and Fitness Center collocated at existing Mess site
- Redevelop BQs along Mokapu Rd.

Alternative #3

- HQs and parking at the corner
- Mess replaced in situ
- Fitness Center along Mokapu Road with open space
- Redevelop BQs along the canal

MCB HAWAII CONCEPT WORKSHOP – JULY 2015 – PRE-DECISIONAL

MCB Hawaii Concept Workshop

Community Support District

July 23, 2015

HHF PLANNERS
places for people

MCB HAWAII CONCEPT WORKSHOP – JULY 2015 – PRE-DECISIONAL

19

8/10/2015

Community Support District

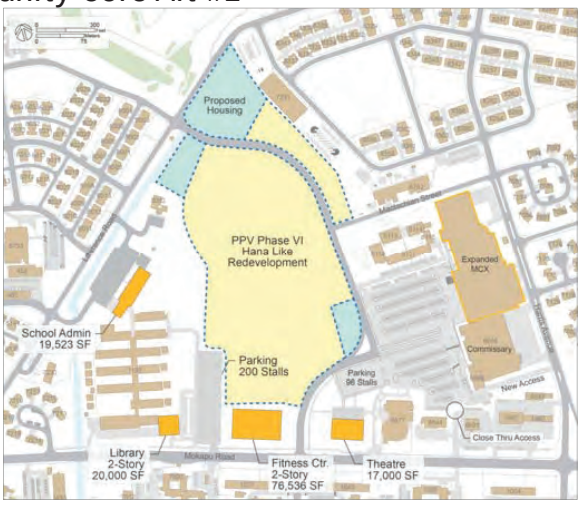
MISSION DRIVERS

- Family Housing
  - PPV Phase VI
  - 802 Housing Redevelopment
  - New Housing Areas
  - End of FY15 Deadline
- Community Facility
  - Consolidate Community Support Functions
- Infill
- * Parking Structure
- -- Roadway/Pedestrian Improvements

MCB HAWAII CONCEPT WORKSHOP – JULY 2015 – PRE-DECISIONAL 39

Community Support District

Community Core Alt #1



MCB HAWAII CONCEPT WORKSHOP – JULY 2015 – PRE-DECISIONAL 40

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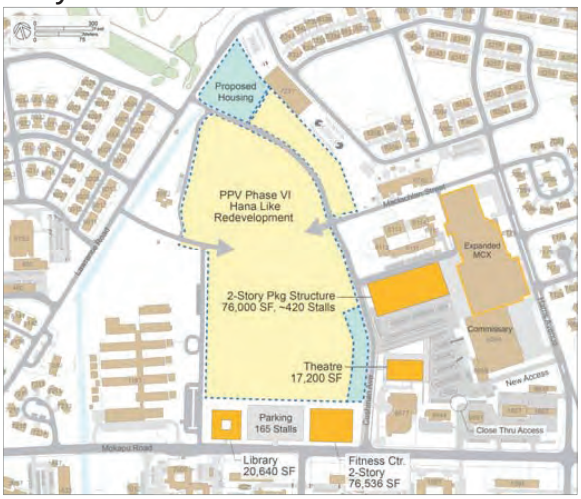
8/10/2015

Community Support District

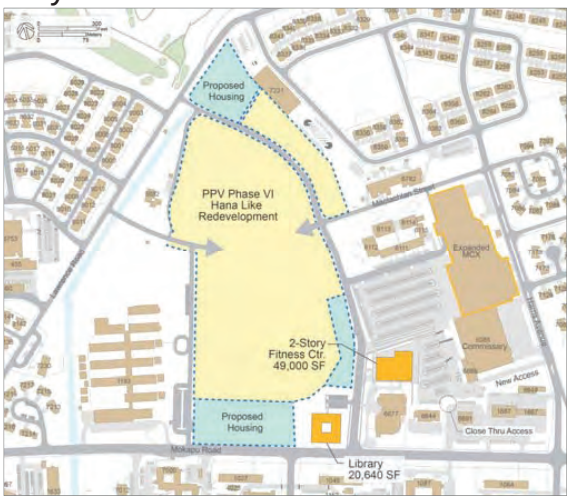
Community Core Alt #2



MCB HAWAII CONCEPT WORKSHOP – JULY 2015 – PRE-DECISIONAL 41

Community Support District

Community Core Alt #3



MCB HAWAII CONCEPT WORKSHOP – JULY 2015 – PRE-DECISIONAL 42

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8/10/2015

Community Support District

Community Core Alternatives Summary

Alternative #1

- Realign Cushman Ave. to Craig St.
- Prominent and well-defined Mall entrance
- All Community Support Bldgs along Mokapu Rd.
- New school Admin building and Lawrence Dr. access

Alternative #2

- New School/Family Housing connection
- Parking Structure
- 76,500 SF Fitness Center
- Library
- Theater

Alternative #3

- New School/Family Housing connection
- Maximum Family Housing
- 49,000 SF Fitness Center
- Library
- No Theater

MCB HAWAII CONCEPT WORKSHOP – JULY 2015 – PRE-DECISIONAL 43

Community Support District

Safe Routes to School

MCB HAWAII CONCEPT WORKSHOP – JULY 2015 – PRE-DECISIONAL 44

22

8/10/2015

MCB Hawaii
Concept Workshop
Camp Smith

July 24, 2015

HHF PLANNERS
places for people

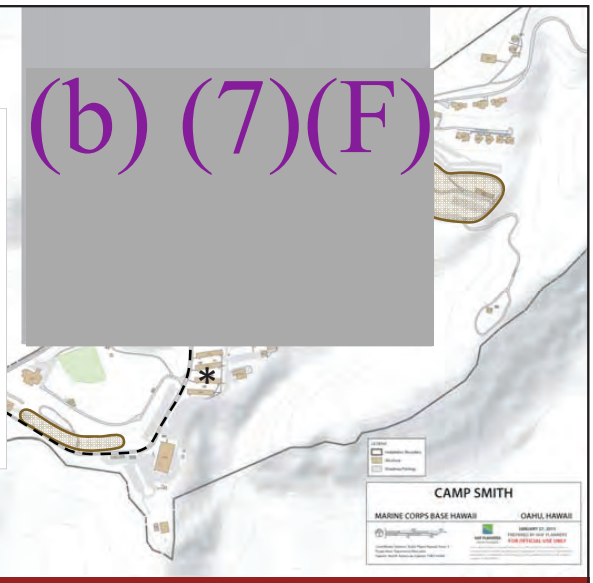
MCB HAWAII CONCEPT WORKSHOP – JULY 2015 – PRE-DECISIONAL

Camp Smith

MISSION DRIVERS

- Admin
  - Bldg 1 Complex Redevelopment
- Bachelor Housing
  - BQ Redevelopment
- Operational
  - Bldg 20 Options
- (b) (7)(F)
- * Parking Structure
- -- Roadway/Pedestrian Improvements

(b) (7)(F)



MCB HAWAII CONCEPT WORKSHOP – JULY 2015 – PRE-DECISIONAL

23

UNITED STATES MARINE CORPS
MARINE CORPS BASE HAWAII
BOX 63002 KANEOHE BAY HAWAII 96863-3002

IN REPLY REFER TO:
11000
LF/013-16j
February 1, 2016

[redacted]

SUBJECT: MARINE B) HAWAII INSTALLATION MASTER PLAN DEVELOPMENT
OPEN HOUSE

Marine Corps Base Hawaii is in the final phase of updating our Installation Master Plan (IMP). This plan will guide future development and space utilization on all Marine Corps Installations in Hawaii including Kaneohe Bay, Camp Smith, Pu'uloa Range Training Facility, and Marine Corps Training Area Bellows. This project is part of a routine update in accordance with Marine Corps instructions. A key element of the master planning process is to obtain input from external government agencies and members of the community that Marine Corps Base Hawaii interfaces and interacts with. This is the second of two Open House meetings held for the MCB Hawaii IMP. Poster boards and information regarding draft plans for development at MCB Hawaii installations will be presented for input and comment by attendees prior to publication of the Final IMP.

To accomplish this task, an Open House will be held on 18 February 2016, 1330-1630 at the MCB Hawaii Officer's Club ballroom. Enclosure (1) provides a location map and instructions on how to get onto base.

Participation by invitees is valuable to the preparation and success of the MCB Hawaii IMP. RSVP for the open house with (b) (6) at (b) (6) by 16 February 2016. MCB Hawaii Facilities Planning point of contact for other questions for the MCB Hawaii IMP is (b) (6) at 257-2174 or email: (b) (6) (b) (6)

(b) (6)

By direction

Enclosure: (1) MCB Hawaii Installation Master Plan Flyer

INSTALLATION MASTER PLAN

Marine Corps Base Hawaii

OPEN HOUSE

Your participation is valuable to the preparation and success of the MCB Hawaii Installation Master Plan. Please join us at the Open House to provide your input.

February 18, 2016
1:30 pm to 4:30 pm
MCB Hawaii Officer's Club Ballroom

RSVP by February 16, 2016 to
(b) (6)

RSVP is required with name and organization to provide to Base Security for Base Access.

Organization	Attn:	Title	Street	City State Zip
Honolulu Board of Water Supply	(b) (6)	Manager and Chief Engineer	630 S. Beretania St.	Honolulu, HI 96843
City and County of Honolulu Department of Transportation Services		Director	650 South King Street, 3rd Floor	Honolulu, Hawaii 96813
City/County of Honolulu, Department of Environmental Services		Director	1000 Uluohia Street, Suite 308	Kapolei, Hawaii 96707
City/County of Honolulu		Chair, Ewa Neighborhood Board 23	(b) (6)	
City/County of Honolulu		Chair, Kahalu'u Neighborhood Board 29		
City/County of Honolulu		Chair, Kaneohe Neighborhood Board 30		
City/County of Honolulu		Chair, Kailua Neighborhood Board 31		
City/County of Honolulu		Chair, Waimanalo Neighborhood Board 32		
City/County of Honolulu		Chair, Aiea Neighborhood Board 20		
Kailua Urban Design Taskforce/ Kailua Complete Streets Contractor		Senior Traffic Engineer		
Oahu Metropolitin Planning Organization		Executive Director		
Hawaiian Electric Company		Account Manager		
Hawaii Institute of Marine Biology		UH Marine Mammal Research		
City and County of Honolulu, Department of Planning and Permitting		Deputy Director	City and County of Honolulu, 650 S. King St, 7th Floor	Honolulu, HI 96813
State of Hawaii Department of Education, Windward District Office		Complex Superintendent, Kailua-Kalaheo Complex Area	(b) (6)	
State of Hawaii Department of Transportation		Interim Director, DOT	Aliiaimoku Building, 869 Punchbowl Street	Honolulu, HI 96813
State Department of Planning		Interim Director, Dept of Planning	Leiopapa A Kamehameha Building (State Office Tower) 235 South Beretania Street, 6th Floor	Honolulu, Hawaii 96813
Hawaii State Energy Office			(b) (6)	

Organization	Attn:	Title	Street	City State Zip
Windward Civilian Military Council	(b) (6)	Chair	(b) (6)	
Advisory Council on Historic Preservation, Office of Agency Programs			1100 PENNSYLVANIA AV	WASHINGTON DC 20004-2501
Advisory Council on Historic Preservation, Office of Agency Programs			1100 PENNSYLVANIA AV	WASHINGTON DC 20004-2501
Boyd 'Ohana			(b) (6)	
Diamond 'Ohana				
Historic Hawaii Foundation				
Kekoolani 'Ohana				
Kekumano 'Ohana				
Keohokalole 'Ohana				
Koolauloa Hawaiian Civic Club				
National Trust for Historic Preservation			The Watergate Office Building 2600 Virginia Ave. NW, Suite 1100	Washington, DC 20037
NHL NPS Pacific West Regional Office		Program Manager	(b) (6)	
Oahu Island Burial Council		Chairperson		
Office of Hawaiian Affiars (OHA)		CEO	560 N. Nimitz Hwy, Suite 200	Honolulu, HI 96817
Office of Hawaiian Affiars (OHA)			560 N. Nimitz Hwy, Suite 200	Honolulu, HI 96817
Office of Hawaiian Affiars (OHA)			560 N. Nimitz Hwy, Suite 200	Honolulu, HI 96817
'Ohana Huihui			(b) (6)	
'Ohana Kaleikini-Kala Waahila Kaelikini				
'Ohana Kapu-Jr. Keoneakapu Williams				
'Ohana Keaweamahi				
'Ohana Keliinoi-Kalahikiola Keliinoi				
'Ohana Naihe				
Olds 'Ohana				

Organization	Attn:	Title	Street	City State Zip
Ortiz 'Ohana	(b) (6)		(b) (6)	(b) (6)
Paguyo 'Ohana				
Paik 'Ohana				
Paoa Kea Lono 'Ohana				
Prince Kuhio Hawaiian CC			(b) (6)	
State Historic Preservation Officer, Department of Land and Natural Resources			KAKUIHEWA BUILDING ROOM 555, 601 KAMOKILA BOULEVARD	KAPOLEI HI 96707
State Historic Preservation Officer, Department of Land and Natural Resources			KAKUIHEWA BUILDING ROOM 555, 601 KAMOKILA BOULEVARD	KAPOLEI HI 96707
State Historic Preservation Officer, Department of Land and Natural Resources			KAKUIHEWA BUILDING ROOM 555, 601 KAMOKILA BOULEVARD	KAPOLEI HI 96707
State Historic Preservation Officer, Department of Land and Natural Resources			KAKUIHEWA BUILDING ROOM 555, 601 KAMOKILA BOULEVARD	KAPOLEI HI 96707
Temple of Lono			Temple of Lono 98-1710 Apt D Kaahumanu St	Pearl City, HI 96782
Aloha First			(b) (6)	
Hawaiian Civic Club of Waimanalo				
Nation of Hawaii				
Pu'uuhonua O Waimanalo Neighberhood Board				

MCBH Installation Master Plan
Community Open House
February 18, 2016

Initial	First Name	Last Name	Organization	Phone	Email
(b)	(6)		Hawaii State Energy Office		(b) (6)
			OahuMPO	(b) (6)	
			Kailua-Kalaheo Complex Area		
			Kailua Neighborhood Board		
			Hawaii State Historic Perservation Division	(b) (6)	
			Kaneohe Neighborhood Board		
			Hawaii State Energy Office		
			Board of Water Supply		
			Hawaii State Energy Office		
			Hawaii State Energy Office		
				(b) (6)	

MCBH Installation Master Plan
Community Open House
February 18, 2016

Initial	First Name	Last Name	Organization	Phone	Email
✓	(b) (6)	(b) (6)	HHF Planners	545-2055	(b) (6)
✓			HHF Planners	545-2055	
✓			AECOM	529-7217	
✓			AECOM	529-7217	
✓			HHF Planners	545-2055	
(b) (6)			Public Works	257-4060	(b) (6)
			MCB Hawaii Environmental Department	257-7126	
			Public Works		
			MCB Hawaii IE&L		
			Public Works		
			MCB Hawaii Facilities Department		(b) (6)
			MCB Hawaii Strategic Plans & Engagement	257-8815	
			MCB Hawaii Facilities Department	257-9935	
			MCB Hawaii Facilities Department	257-0800	
			MCB Hawaii Facilities Department	257-2174	
			NAVFAC Pacific	473-0537	(b) (6)
			NAVFAC Pac	473-0506	
			MCBH FACILITIES	477-8897	
			MCBH IE&L	257-7721	
			Facilities	257-0524	
			MCBH CHIEF OF STAFF	257-7707	

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U.S. MARINE CORPS IN HAWAI'I

MCB Hawaii provides facilities and services to support the readiness and global projection of operating forces of the III Marine Expeditionary Force (III MEF) and other activities and units as designated by the Commandant of the Marine Corps. Major operational units located at MCB Hawaii include the 3d Marine Regiment, Marine Air Group 24, Combat Logistics Battalion 3, and 3d Radio Battalion, plus various Navy aviation units.

Spread over eight separate landholdings that cover 4,695 acres statewide, each MCB Hawaii installation has unique mission support capabilities. All of the installations require reliable, sustainable, and secure facilities and infrastructure.

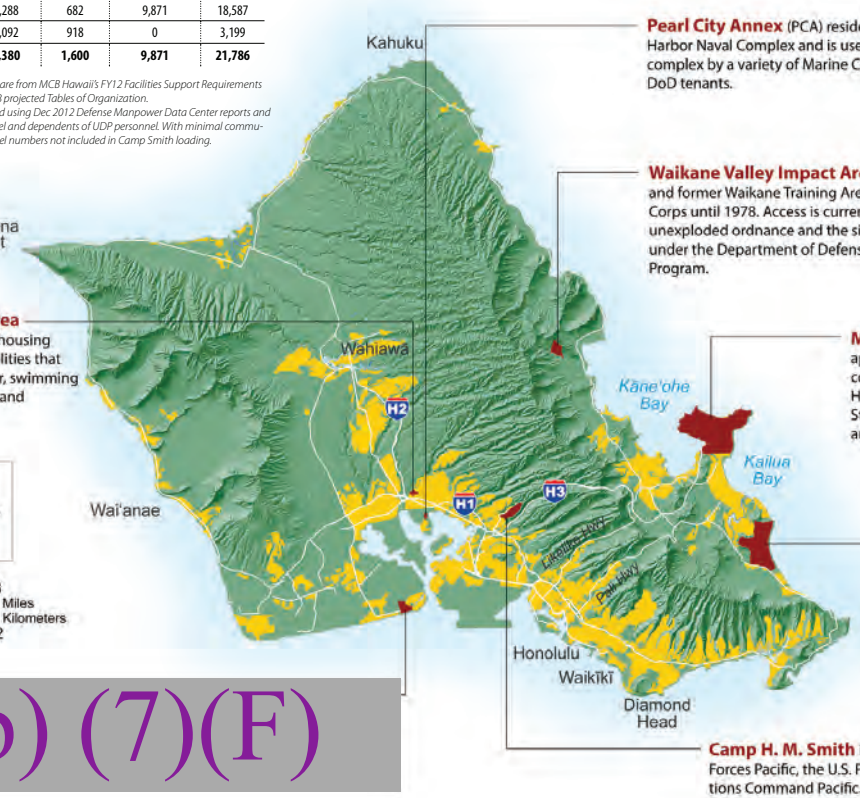
PERSONNEL LOADING AT MCB HAWAII

	Officer[1]	Enlisted[1]	Civilian[1]	Dependent[2]	Total
MCB Hawaii Kaneohe Bay	746	7,288	682	9,871	18,587
Camp Smith	1,189	1,092	918	0	3,199
Total	**1,935**	**8,380**	**1,600**	**9,871**	**21,786**

1. Officer, Enlisted, and Civilian personnel numbers are from MCB Hawaii's FY12 Facilities Support Requirements document, FY12 Navy Manpower Report, and FY18 projected Tables of Organization.
2. Dependent personnel numbers have been derived using Dec 2012 Defense Manpower Data Center reports and includes Unit Deployment Program (UDP) personnel and dependents of UDP personnel. With minimal community support requirements for dependents, personnel numbers not included in Camp Smith loading.

MARINE CORPS REAL ESTATE IN HAWAI'I

MCB Hawaii Kaneohe Bay	2,951 ac
Camp H.M. Smith	220 ac
Marine Corps Training Area Bellows	1,074 ac
Puuloa Range Training Facility	165 ac
Pearl City Annex	27 ac
Manana Family Housing Area	62 ac
Waikane Valley Impact Area	187 ac
Molokai Training Support Facility	12 ac
Total	**4,695 ac**



Pearl City Annex (PCA) resides within the Pearl Harbor Naval Complex and is used as a warehouse complex by a variety of Marine Corps, Navy, and other DoD tenants.

Waikane Valley Impact Area (WVIA) is a portion of the larger and former Waikane Training Area used by the Army and Marine Corps until 1978. Access is currently restricted due to concerns over unexploded ordnance and the site is undergoing clean up operations under the Department of Defense's Military Munitions Response Program.

Manana Family Housing Area has 168 single-family and duplex housing units and community support facilities that include an exchange, youth center, swimming pool, recreation courts and fields, and playgrounds.

Marine Corps Base Hawaii Kaneohe Bay is the largest installation-approximately 2,950 acres—and provides the majority of operational, administrative, community support, and unaccompanied and family housing facilities for Marines in Hawai'i. Major operational facilities include the 7,770-foot runway at Marine Corps Air Station Kaneohe Bay, aircraft and ground vehicle maintenance shops and parking area, and training areas, including live fire ranges in Ulupau Crater.

Marine Corps Training Area Bellows (MCTAB) is a 1,074-acre non-live fire training and maneuver range with three Military Operations in Urban Terrain (MOUT) sites and four aircraft landing zones to support integrated air, land, and sea exercises and amphibious operations for company and battalion-sized units.

(b) (7)(F)

Camp H. M. Smith is headquarters for the U.S. Marine Corps Forces Pacific, the U.S. Pacific Command, and the Special Operations Command Pacific.

Molokai Training Support Facility (MTSF) was used to support Marine Corps exercises at the former Molokai Training Area and may continue to be used as a forward refueling point, but is currently inactive.

MCB HAWAII MASTER PLANNING

In September of 2014, MCB Hawaii stakeholders began a collaborative process of creating an overarching planning vision and goals to guide their master planning process. Design principles and objectives were also defined to ensure the future physical development of the base would adhere to the broader planning vision. As part of the visioning process, stakeholders created a Framework Plan based on characteristics such as geographic features, mission, land use, and circulation patterns that subdivided MCB Hawaii into seven Planning Districts.

In January of 2015, stakeholders reconvened for a four-day planning charrette to develop alternative plans for each district based on mission requirements and a thorough analysis of existing site conditions. These alternative district plans were refined—and eventually combined—through additional workshops, working groups, and meetings with base leadership into the Area Development Plans presented on the following pages.

The MCB Hawaii Installation Master Plan was developed following guidance outlined in the Unified Facilities Criteria (UFC) 2-100-01 *Installation Master Planning* (DOD 2012) and Marine Corps Order (MCO) 11000.12, *Real Property Facilities Manual, Facilities Planning and Programming* (USMC 2014). As stated in the UFC, "One of the primary purposes of the planning process is to apply comprehensive planning strategies through facility and infrastructure development, to include planning, programming, engineering and design, construction, reuse, real estate actions, public-private ventures, operations and maintenance, and disposal."

UNIFIED FACILITY CRITERIA MASTER PLANNING STRATEGIES

- Sustainable Planning
- Natural, Historic and Cultural Resource Management
- Healthy Community Planning
- Defensible Planning
- Capacity Planning
- Area Development Planning
- Network Planning
- Form-Based Planning
- Facility Standardization
- Plan-Based Programming

(b) (7)(F)

Planning Districts at MCB Hawaii Kaneohe Bay.

PROJECT SCOPING

September 2014
- Data Gathering
- Site Investigation
- GIS Analysis

VISIONING PHASE

September 2014
- Kick-off Brief with Leadership
- Visioning Workshop (MCBH Vision Plan, April 2015)

October 2014 - January 2015
- Additional Site Investigation
- Stakeholder Interviews
- GIS Analysis

PLANNING & CONCEPT DEVELOPMENT PHASE

January 2015 - March 2015
- Stakeholder Charrette Workshop
- 1st Community Open House Meeting

February 2015 - June 2015
- Refine Planning Concepts
- Additional Interviews
- Development of Alternatives

July 2015 - August 2015
- Planning Alternatives Evaluated at Concept Workshop
- 1st Working Group Meeting
- Present Final Concepts to Base Leadership

REPORT PREPARATION PHASE

August 2015 - October 2015
- Prepare Draft Plans

October 2015 - December 2015
- Review and Comment Period for Draft Plans

January 2016 - March 2016
- 2nd Community Open House Meeting
- 2nd Working Group Meeting
- Prepare Pre-Final Plans

May 2016
- Prepare Final Plans
- Project Complete

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ILLUSTRATIVE PLAN

The Illustrative Plan graphically portrays the recommended future development that supports the overarching planning goals for MCB Hawaii Kaneohe Bay. District Area Development Plans are presented in more detail in the following pages.

Along the flight line on the west side of the installation, the plan illustrates an optimized aviation support area with new hangar construction, improved airfield security, a parking structure, land reservation for future mission growth, expanded pedestrian and bicycle networks, and redeveloped community support facilities at West Field. Eventually, (b) (7)(F)

(b) (7)(F)

In the Base Support District, Third Street is realigned to improve traffic flow and provide the necessary security separation from Pless Hall (Bldg. 212), which will be renovated and reused as an administrative office. The area south of Third Street will accommodate a variety of future development, including new Provost Marshall Office and Base Motor Transportation complexes, self-storage warehouses, additional marina boat parking, and a renovated recycling center. The medical clinic will also be renovated and reused for additional administrative space.

ILLUSTRATIVE PLAN

LEGEND:

- ADP Boundary
- Existing Building
- New Building
- Vehicular Circulation
- Green/Open Space
- Recreation
- Dense Vegetation
- Site Reservation

Significant new construction is proposed in the Ground Support District. The plan presents a strategy to increase density through the redevelopment of aging facilities while preserving training areas and maximizing the amount of future developable land in the district. Major new facilities include Regimental and Battalion headquarters, barracks and parking structure, a mess hall, a medical clinic, and a training complex. New and efficient warehouses will allow MCB Hawaii to relocate materials currently stored at Pearl City Annex.

Future improvements in the Community Support District include expansion of retail operations, the redevelopment of the elementary school, and construction of a library, movie theater, and parking structure. Live-fire training activities will continue with no major changes being proposed at Ulupau Crater.

AVIATION DISTRICT

DISTRICT VISION

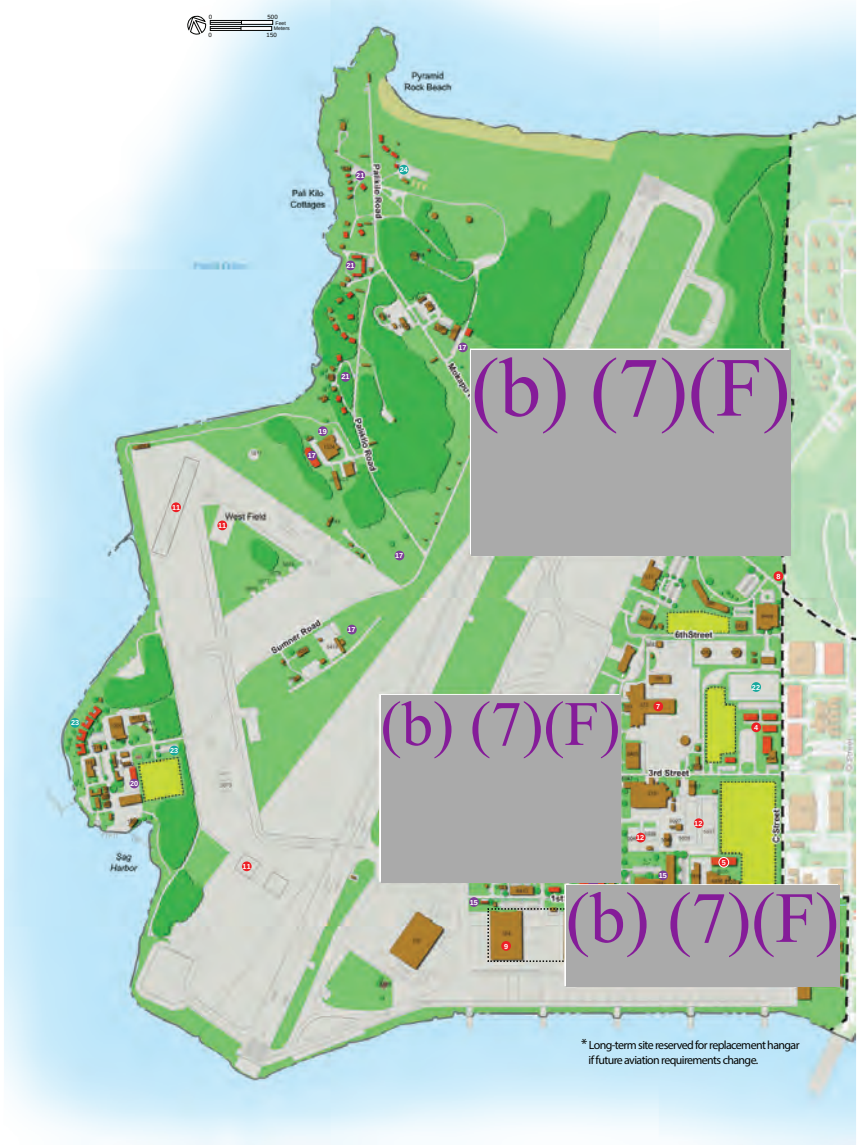
To enhance Marine Corps and partner services mission by providing 24/7 secure operations, training, and support while utilizing the natural Hawaiian landscape for Service members and their families.

The Aviation District is located on the western portion of MCB Hawaii Kaneohe Bay. The majority of facilities in the Aviation District directly support Marine Corps and Navy fixed-wing and helicopter operations. Direct support functions include air traffic control; aircraft crash, fire, and rescue; aircraft refueling; and transient logistics. Administrative and maintenance spaces are provided for base and tenant aviation units. The area west of the runway, known as West Field, includes facilities that support aviation training, ordnance handling, waterfront operations, Explosive Ordnance Disposal, Marine Corps Community Services (MCCS), the 4th Force Reconnaissance Company Detachment, and other small tenants.

DISTRICT PLANNING GOALS

- **IMPROVE LAND USE TO CREATE FUTURE DEVELOPMENT OPPORTUNITIES.** Functions that do not directly support aviation operations and can operate just as efficiently from another location should be relocated to support future aviation-related unit expansion.
- **IMPROVE VEHICULAR AND PEDESTRIAN NETWORK CONNECTIONS.** The District was developed in the 1940s with narrow streets and few connected sidewalks, requiring pedestrians to share roads with vehicles.
- **IMPROVE AIRFIELD SECURITY.** The Marine Corps Air Station airfield lacks a continuous perimeter fence, privately-owned vehicles (POV) park on active aprons to meet the daily parking demand, and POV cross an active runway to access West Field and Pyramid Rock beach.
- **REUSE EXISTING FACILITIES.** Modern and historic buildings can be reused to support administrative functions.
- **REPLACE AGING INFRASTRUCTURE.** Many of the buildings in the District were constructed in the 1940s and are deteriorating and inefficient and should be recapitalized.
- **ENHANCE COMMUNITY SUPPORT FACILITIES.** The District includes desirable beaches and recreation areas but facilities and infrastructure are inadequate to meet the demand.

AVIATION DISTRICT AREA DEVELOPMENT PLAN



* Long-term site reserved for replacement hangar if future aviation requirements change.

- Installation Boundary
- ADP Boundary
- Site Reservation
- Existing Building
- New/Proposed Building

SHORT-RANGE DEVELOPMENT PROGRAM (1 TO 5 YEARS)

[redacted]

4 **P-884** Aviation Simulator Addition

5 **P-864** MALS-24 Aircraft Maintenance Expansion

[redacted]

8 **P-924** Roadway Improvements

9 **P-116** Support Facility

10 **P-902** Airfield Lighting Improvements

11 **P-887** MV-22 Landing Zones Phasing Action

MID-RANGE DEVELOPMENT PROGRAM (5 TO 10 YEARS)

12 **P-936** Van Pad Modernization

[redacted]

14 **P-946** Corrosion Control Hangar Renovation

15 **Proposed** MALS-24 HQ B301 Renovation

[redacted]

17 **P-882** Runway Clear Zone Improvement

[redacted]

19 **P-926** MALS-24 Turret Upgrade

20 **Proposed** 3d Marines Open Boat Storage

21 **Proposed** Pali Kilo Cottage Expansion

LONG-RANGE DEVELOPMENT PROGRAM (15 TO 20 YEARS)

22 **Proposed** MWSD Organizational Parking

23 **Proposed** The Cabanas Redevelopment

24 **Proposed** Pyramid Beach Improvements

(b) (7)(F)

SUMMARY OF DEVELOPMENT

Site Reservation	17 ac
Building Renovation and Reuse	251,769 sf
Building Demolition	112,331 sf
New Building Construction	245,330 sf
Net Parking Stall Gain	131 stalls

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DISTRICT VISION

To create a walkable community with multi-story and energy-efficient facilities, and a network of greenspaces, while preserving the district's historic fabric.

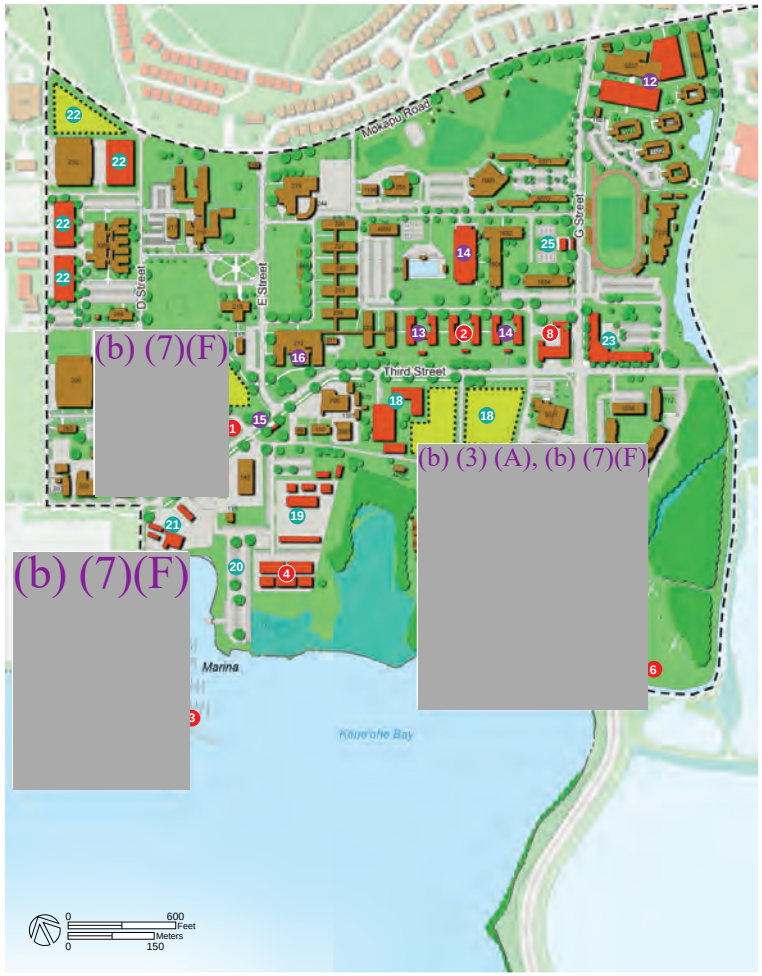
BASE SUPPORT DISTRICT

The Base Support District is located in the central portion of MCB Hawaii Kaneohe Bay. The district is bounded by C Street on the west, Mokapu Road on the north, the Mokapu Central Drainage Channel on the east, and Kāne'ohe Bay on the south. The majority of facilities and activities in this district are associated with administration, public works, and community support. Some of the major uses include headquarters buildings, public works (e.g., wastewater treatment plant, main substation, recycling), Provost Marshal Office, base supply, professional education, active duty and transient billeting, and MCCS support (e.g., Marine and family services, ball fields, and the marina).

DISTRICT PLANNING GOALS

- **REUSE EXISTING FACILITIES:** Consolidate administrative functions from across the installation, as appropriate, into modern and historic buildings to support broader land use planning goals.
- **REPLACE AGING INFRASTRUCTURE:** Many of the buildings in the district were constructed in the 1940s and are deteriorating, inefficient, and should be recapitalized. Non-historic and underutilized facilities should be vacated and demolished to reduce ongoing maintenance costs and provide space for future development, as appropriate.
- **IMPROVE VEHICULAR AND PEDESTRIAN NETWORK CONNECTIONS:** Modify the road infrastructure to alleviate key traffic concerns while improving antiterrorism/force protection measures. Provide pedestrian and bikeway connections to networks outside the district.
- **INCREASE DEVELOPMENT DENSITY:** The Base Support District is centrally located with direct access to other areas of the base. Planning should ensure that (re) development maximizes these prime lands by increasing development density to ensure the highest and best land use over the long-term. Community support functions that would benefit by being in proximity to major billeting and family housing areas should be relocated over the long-term.
- **ENHANCE COMMUNITY SUPPORT FACILITIES:** The District includes unique recreational activities (boating, fitness center, bowling, sports fields and courts, skate park), but some facilities and infrastructure are inadequate to meet the demand.

BASE SUPPORT DISTRICT AREA DEVELOPMENT PLAN



LEGEND

- Installation Boundary
- ADP Boundary
- Site Reservation
- Existing Building
- New/Proposed Building

SHORT-RANGE DEVELOPMENT PROGRAM (1 TO 5 YEARS)

1. **P-924** Roadway Improvements
2. **P-910** Bachelor Enlisted Quarters
3. **N-248** Wave Attenuator
4. **P-915** MCCS Self Storage
5. (b) (7)(F)
6. **Proposed** Reinterment Site
7. (b) (7)(F), (b) (3) (A)
8. **P-930** Fire Station

MID-RANGE DEVELOPMENT PROGRAM (5 TO 10 YEARS)

9. (b) (3) (A), (b) (7)(F)
10. (b) (7)(F)
12. **Proposed** Fitness Center Expansion
13. **P-911** Bachelor Enlisted Quarters
14. **P-912** Bachelor Enlisted Quarters
15. **Proposed** Third Street Realignment
16. **Proposed** Pless Hall Renovation
17. (b) (3) (A), (b) (7)(F)

LONG-RANGE DEVELOPMENT PROGRAM (15 TO 20 YEARS)

18. **Proposed** PMO Complex
19. **Proposed** Base Motor Transportation Complex
20. **Proposed** Boat Storage Facility
21. **Proposed** Recycling Center Renovation
22. **Proposed** Warehouse District Redevelopment
23. **Proposed** Enlisted Club Redevelopment
24. (b) (7)(F)
25. **Proposed** Recreation Pavilion

SUMMARY OF DEVELOPMENT

Site Reservation	9.60 ac
Building Renovation and Reuse	647,991 sf
Building Demolition	233,463 sf
New Building Construction	788,506 sf
Net Parking Stall Gain	382 stalls

GROUND SUPPORT DISTRICT

The Ground Support District is located on the south-eastern portion of MCB Hawaii Kaneohe Bay. The district is bounded by the Mokapu Central Drainage Channel on the west, Kailua Bay on the east, Mokapu Road on the north, and the 'Aikahi Park subdivision of Kailua on the south. The majority of facilities in the Ground Support District directly support Marine Corps ground and logistic unit operations and training. Direct support functions include headquarters administration, vehicle and heavy equipment maintenance and storage, weapon maintenance and storage, training, logistics and supply, garrison aid stations, and bachelor enlisted quarters and support facilities. The Boondocker Training Area, a training auditorium, and some MCCS retail shops are also located within the district. Over half of the land area in the district is wetland and a designated wildlife management area—Nu'upia Ponds Wildlife Management Area.

DISTRICT VISION

To create an environment that promotes unit cohesion and space efficiency. Marines will be housed near their work areas in facilities that promote walkability and consolidate unit functions onto contiguous real estate. The district will utilize mixed vertical and horizontal development to combine common functions into single building and maximize open greenspace for basic field training and physical fitness.

DISTRICT PLANNING GOALS

- **PRESERVE AND EXPAND TRAINING ASSETS:** Ensure there is no net loss of training facilities or open spaces used for unit formations and maneuver training.
- **REPLACE AGING INFRASTRUCTURE:** Many of the buildings in the district were constructed in the early 1950s and are deteriorating, or were not designed for current uses, and should be replaced. Underutilized facilities should be vacated and demolished to reduce ongoing maintenance costs and provide space for future development, as appropriate.
- **INCREASE DEVELOPMENT DENSITY:** To maximize use of the limited, available land in the district, dense, compact vertical (re)development with limited surface parking should be pursued.
- **IMPROVE LAND USE TO CREATE FUTURE DEVELOPMENT OPPORTUNITIES:** Functions that do not directly support ground unit and supply operations and can operate just as efficiently from another location should be relocated to support future ground-related unit expansion.
- **UNIT CONSOLIDATION:** Consolidate ground and logistics unit functions into modern and efficient buildings.

GROUND SUPPORT DISTRICT AREA DEVELOPMENT PLAN

LEGEND

- Installation Boundary
- ADP Boundary
- Site Reservation
- Existing Building
- New/Proposed Building

SHORT-RANGE DEVELOPMENT PROGRAM (1 TO 5 YEARS)

(b) (7)(F)

3	**P-861**	3d Radio Battalion Motorpool
4	**P-924**	Roadway Improvements
5	**P-78150**	Medical/Dental Clinic
(b) (7)(F)		
7	**Proposed**	Wiki Wiki Marine Mart
(b) (7)(F)		
9	**P-843**	Multi-Purpose Training Complex
(b) (7)(F)		

MID-RANGE DEVELOPMENT PROGRAM (5 TO 10 YEARS)

(b) (7)(F)

12	**Proposed**	3d Marines Headquarters Phase 1
13	**P-880**	3d Marines Headquarters Phase 2
14	**P-944**	Consolidated Classroom Facility
15	**P-945**	Combat Training Tank

LONG-RANGE DEVELOPMENT PROGRAM (15 TO 20 YEARS)

16	**P-837**	Enlisted Dining Facility
17	**Proposed**	BEQ Redevelopment
18	**P-888**	Wounded Warrior BEQ
19	**Proposed**	CLB-3 Company Headquarters
(b) (7)(F)		
21	**Proposed**	3d Marines & 1/12 Warehouse
22	**Proposed**	Engineering Services Company Complex
23	**Proposed**	3d Marines Vehicle Shelters
24	**Proposed**	Training Open Space
25	**Proposed**	MCCS Exchange Distribution Warehouse

SUMMARY OF DEVELOPMENT

Site Reservation	17.20 ac
Building Renovation & Reuse	27,710 sf
Building Demolition	450,325 sf
New Building Construction	924,037 sf
Net Parking Stall Gain	293 stalls

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COMMUNITY SUPPORT DISTRICT

DISTRICT VISION

To create safe, people-friendly neighborhoods connected by tree-lined streets, wide sidewalks, and great open spaces that link housing to services and amenities.

The Community Support District occupies the north and central portion of MCBH Kaneohe Bay. The ocean-front Klipper Golf Course occupies nearly one-third of the usable land within the district. Most of the remaining land surrounding the golf course is occupied by family housing units which are clustered in eight communities distinguishable by their period of construction, unit type, and architectural style. Other community support facilities include an elementary school, three child development centers, a chapel, a post office, a youth center, the Officer's Club, and temporary lodging.

Mokapu Mall, the major retail center on the installation, includes the commissary, exchange, retail stores, and a food court. Most community support facilities are located off of Mokapu Road, which forms the southern boundary of the district. A limited number of mission support facilities are in the district, including the 3d Marines Regiment Headquarters, an adjacent operational trainer facility, a telecommunications center, and airfield-related radar atop Pu'u Hawai'i Loa, also referred to as Kansas Tower.

DISTRICT PLANNING GOALS

- **CONSOLIDATE COMMUNITY SUPPORT AND MAJOR RETAIL FUNCTIONS:** Increase community support and retail activity in and around Mokapu Mall to expand the installation's core community support area, improve access to facilities, and provide a destination shopping experience.
- **REPLACE AGING INFRASTRUCTURE:** Facilities in the District that no longer adequately meet current requirements or are deteriorating should be demolished to reduce ongoing maintenance costs and provide space for redevelopment, as appropriate.
- **IMPROVE TRAFFIC CONGESTION:** Mokapu Road is one of the installation's primary thoroughfares and regularly experiences degraded quality of service, especially at peak times in the morning and afternoon.
- **IMPROVE ALTERNATIVE TRANSPORTATION NETWORKS:** Provide safe routes for students to walk and bike to school and for residents to access the community core as an alternative to driving.
- **ENHANCE RECREATION FACILITIES:** The District provides high quality beaches and recreation areas on the installation, but facilities and infrastructure are limited and do not meet the demand.

COMMUNITY SUPPORT DISTRICT AREA DEVELOPMENT PLAN

LEGEND

- Installation Boundary
- ADP Boundary
- Site Reservation
- Existing Building
- New/Proposed Building

SHORT-RANGE DEVELOPMENT PROGRAM (1 TO 5 YEARS)	
1	**P-884** Aviation Simulator Modernization
2	**P-924** Roadway Improvements
3	**Proposed** PPV Phase 6 Family Housing
4	**P-930** Fire Station

MID-RANGE DEVELOPMENT PROGRAM (5 TO 10 YEARS)	
5	**P-813** Klipper Villa Expansion

LONG-RANGE DEVELOPMENT PROGRAM (15 TO 20 YEARS)	
6	**Proposed** MCX Exchange Expansion
7	**Proposed** Mokapu Mall Traffic Improvements
8	**Proposed** Golf Course Warehouse
9	**Proposed** Mokapu Elementary School
10	**Proposed** Multiuse Path
11	**Proposed** Community Library
12	**Proposed** Community Theater
13	**Proposed** Fort Hase Beach Improvements
14	**Proposed** North Beach Improvements

SUMMARY OF DEVELOPMENT	
Site Reservation	25.50 ac
Building Renovation & Reuse	76,600 sf
Building Demolition	475,034 sf
New Building Construction	178,860 sf

ULUPAU DISTRICT AREA DEVELOPMENT PLAN

DISTRICT VISION

In support of current and future missions, the planning vision for the Ulupau District is to provide remediated and sustainably secure training ranges and ammunition storage facilities.

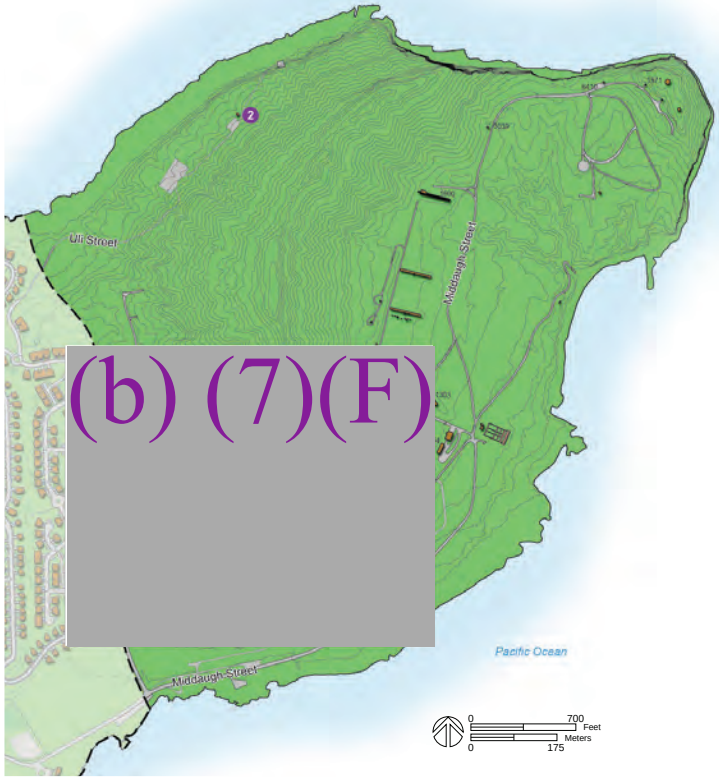
ULUPAU DISTRICT

The Ulupau District is located on the northeastern portion of MCB Hawaii Kaneohe Bay. Land in the district is largely used for the Kaneohe Bay Range Training Facility, commonly referred to as the Ulupau Training Area and located inside the remnants of Ulupa'u Crater. Outside the crater along its western slope are earth-covered magazines and the Ulupau Ammunition Supply Point. Facilities in the district directly support these operations. Due to explosives safety and surface danger zone restrictions, most of the land in the district is undeveloped and remains in a natural state. The base landfill is located in the southern portion of the district.

DISTRICT PLANNING GOALS

- **ENSURE ADEQUATE INFRASTRUCTURE:** Maintain and improve existing facilities for the continuation of safe and secure operations.
- **PREVENT ENCROACHMENT:** Safeguard existing operational areas from activities that would impact mission training and readiness.

Sgt. Scott Hulsizer (left), a team leader with second platoon, Bravo Company, 3rd Reconnaissance Battalion, 3rd Marine Division, fires an M136 AT-4 rocket launcher after breaking away from the firing line as part of a weapons training package on the Kaneohe Bay Range Training Facility, March 4, 2014. (U.S. Marine Corps photo by Lance Cpl. Matthew Bragg) Source: www.mcbhawaii.marines.mil



(b) (7)(F)

LEGEND

- Installation Boundary
- ADP Boundary

SHORT-RANGE DEVELOPMENT PROGRAM (1 TO 5 YEARS)

(b) (7)(F)

MID-RANGE DEVELOPMENT PROGRAM (5 TO 10 YEARS)

2 **Proposed** Explosives Training Range

Marines with Weapons Company, 2nd Battalion, 3rd Marine Regiment fire the M40 sniper rifle and M110 Semi-Automatic Sniper System at varying targets over 800 meters at Ulupau Crater April 2015. (U.S. Marine Corps photo by Cpl. Khalil Ross/Released) Source: www.mcbhawaii.marines.mil

A Marine with Scout Sniper Platoon, Weapons Company, 2nd Battalion, 3rd Marine Regiment, shoots an M4 service rifle down range and Battery Bluff aboard Marine Corps Base Hawaii, March 2015. (U.S. Marine Corps photo by Lance Cpl. Brittney Vella/Released) Source: www.mcbhawaii.marines.mil

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DISTRICT VISION

To create a 21st century, architecturally coherent, functionally efficient, walkable campus, encompassed by its unique natural setting.

CAMP H.M. SMITH

Camp Smith is located approximately 6 miles north-northwest of downtown Honolulu on the slopes of above Pearl Harbor. Camp Smith houses the headquarters of Commander, U.S. Pacific Command, Special Operations Command Pacific, and Marine Forces Pacific. Although the primary function of the installation is an administrative headquarters, supporting uses include warehousing, maintenance, officer family housing, and bachelor housing. Community support facilities include a location exchange, a swimming pool, a fitness center, tennis courts, and an all hands club.

PLANNING GOALS

- **ARCHITECTURALLY COHERENT:** Promote a sense of importance that reflects the stature of the major commands. Maintain key historic buildings that define the character of the installation.
- **DESIGN EFFICIENT FACILITIES:** Modernize aging facilities and infrastructure to increase energy efficiency.
- **WALKABLE CAMPUS:** Design a campus environment that is safe, convenient, and comfortable. Interconnect buildings with well-connected pedestrian networks to enhance walkability and improve wayfinding. Provide adequate parking close to work centers.
- **NATURAL SETTING:** Redevelop on previously disturbed lands to preserve the forested gulches.

Artistic rendering of proposed MARFORPAC headquarters in historic Building 1.

CAMP SMITH ILLUSTRATIVE

LEGEND

- Installation Boundary
- ADP Boundary
- Site Reservation
- Existing Building
- New/Proposed Building

MID-RANGE DEVELOPMENT PROGRAM (5 TO 10 YEARS)

(b) (7)(F)

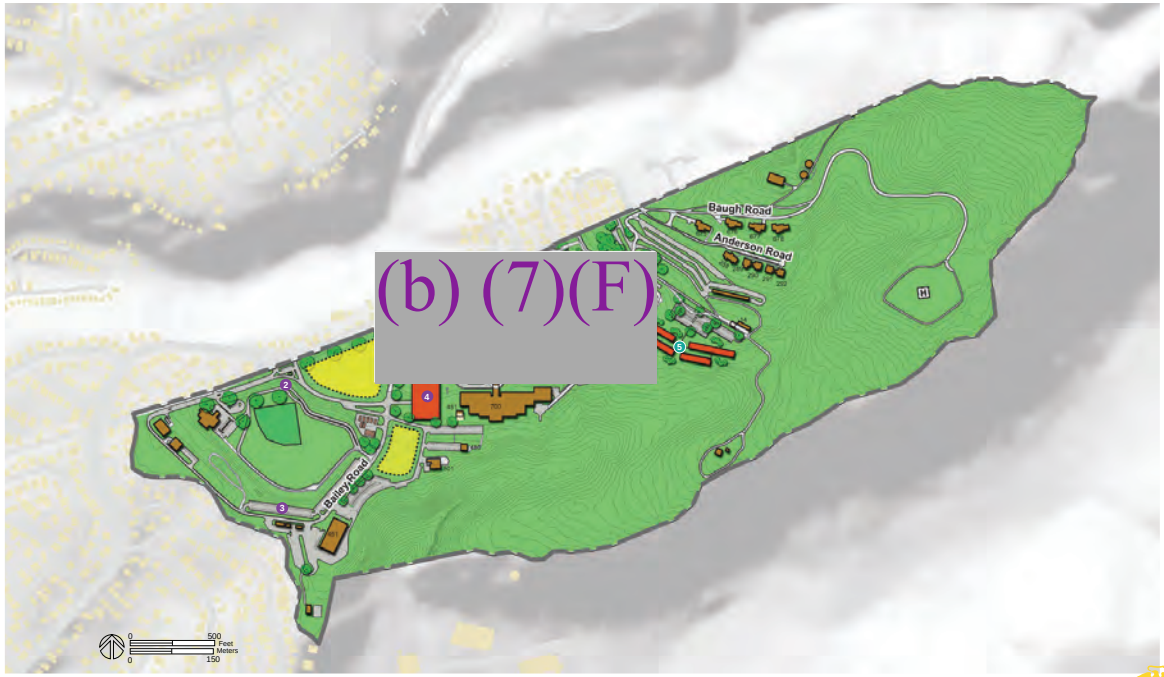
4 **P-809** Parking Structure

LONG-RANGE DEVELOPMENT PROGRAM (15 TO 20 YEARS)

5 **Proposed** BEQ Replacement

6 **Proposed** Roadway Improvements

SUMMARY OF DEVELOPMENT	
Site Reservation	3 ac
Building Renovation & Reuse	181,406 sf
Building Demolition	315,946 sf
New Building Construction	176,320 sf
Net Parking Stall Gain	945 stalls



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PUULOA RANGE TRAINING FACILITY

Puuloa Range Training Facility (PRTF) is a 137-ac U.S. Marine Corps-owned and operated small arms and rifle live-fire range facility on O'ahu's south coast near the entrance to Pearl Harbor. PRTF has six live fire ranges used for small arms marksmanship training, qualification, and requalification. The ranges are also periodically used by the Navy, the Army, Federal, State, and local law enforcement, and local gun clubs.

The primary planning goal for PRTF is to ensure that facilities and infrastructure are improved and maintained to ensure continuing safe and secure operation of the ranges.

DISTRICT VISION

To provide a state-of-the-art pistol and rifle range with flexible and modern training capabilities for the Marine Corps, sister services, and Federal and State organizations on O'ahu.

LEGEND

- Installation Boundary
- ADP Boundary
- Existing Building
- New/Proposed Building

SHORT-RANGE DEVELOPMENT PROGRAM (1 TO 5 YEARS)

(b) (7)(F)

MID-RANGE DEVELOPMENT PROGRAM (5 TO 10 YEARS)

2 **Proposed** Puuloa Range Operations & Support Facility

LONG-RANGE DEVELOPMENT PROGRAM (15 TO 20 YEARS)

(b) (7)(F)

4 **Proposed** Puuloa Bachelor Enlisted Quarters

5 **Proposed** Roadway Improvements

SUMMARY OF DEVELOPMENT	
Site Reservation	0 ac
Building Renovation & Reuse	0 sf
Building Demolition	0 sf
New Building Construction	25,000 sf
Net Parking Stall Gain	57 stalls

MARINE CORPS TRAINING AREA BELLOWS

Marine Corps Training Area Bellows (MCTAB) encompasses 1,074 acres along the Waimānalo Bay shoreline between the communities of Kailua and Waimānalo. MCTAB accommodates amphibious training; helicopter landing, flight training, and special patrol insertions/extractions; offensive and defensive tactics; land navigation and patrolling; non-firing artillery training; combat vehicle operator course training; and command post exercises.

The planning goal of MCTAB is to sustain a secure and multi-functional training area for forces base in Hawai'i.

DISTRICT VISION

In support of joint forces current and future missions, our planning vision is to create a secure, realistic, and functional training area.

LEGEND

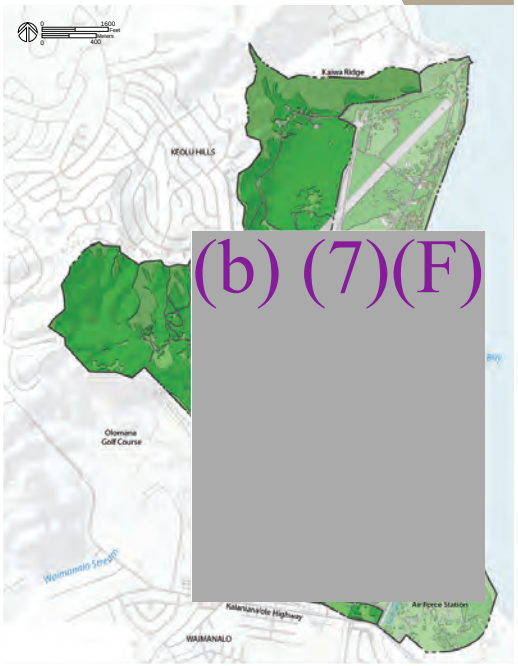
- Installation Boundary
- ADP Boundary
- Existing Building
- New/Proposed Building

SHORT-RANGE DEVELOPMENT PROGRAM (1 TO 5 YEARS)

(b) (7)(F)

LONG-RANGE DEVELOPMENT PROGRAM (15 TO 20 YEARS)

3 Proposed Transfer Lands to Marine Corps



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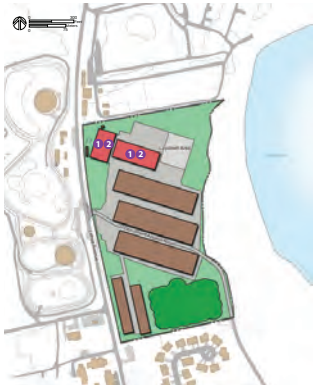
PEARL CITY ANNEX

Pearl City Annex (PCA) encompasses 27 acres on the Pearl City Peninsula located approximately 22 miles from MCB Hawaii Kaneohe Bay. PCA is a warehouse complex used for storage by Marine units, Navy, and other military organizations.



LEGEND

- Installation Boundary
- ADP Boundary
- Existing Building
- New/Proposed Building

MID-RANGE DEVELOPMENT PROGRAM (5 TO 10 YEARS)	
1	**Proposed** Covered Deployment Lot
2	**Proposed** Renewable Energy Production

DISTRICT VISION

In support of current and future missions, our planning vision is to create a walkable community with secure mission areas supported by an operational waterfront, compact development, and sustainable buildings.

WAIKANE VALLEY IMPACT AREA

The 187-acre Waikane Valley Impact Area (WVIA) is located in the center of Waikāne Valley at the northern end of Kāne'ohe Bay. As part of the Waikane Valley Training Area, WVIA was used as a live-fire training range and maneuver area. WVIA was acquired in 1989 through condemnation after it was declared unsafe for use due to unexploded ordnance on the site. Now closed, WVIA is part of the Military Munitions Range Program, which addresses munitions-related concerns including explosive safety, environmental, and health hazards from releases of unexploded ordnance, discarded military munitions, and munitions constituents found at non-operational range locations.

DISTRICT VISION

In support of current and future missions, our planning vision is to create a land reserve that supports cultural and natural resources in support of joint forces.

MANANA FAMILY HOUSING AREA

The Manana Family Housing Area encompasses 62.2 acres in the town of Pearl City. The Marine Corps family housing area includes a total of 168 single-family and duplex housing units with recreation fields and courts, swimming pool, and a small exchange and gas station.

DISTRICT VISION

To provide a safe, walkable community with attractive, energy-efficient homes that maximize views and connect to a variety of community support facilities and gathering spaces through a green space and complete street network.

MOLOKAI TRAINING SUPPORT FACILITY

Molokai Training Support Facility (MTSF) encompasses 12 acres and is located across Maunaloa Highway from Moloka'i Airport. Now inactive, no range capabilities exist at MTSF. There are no structures or buildings, and the property is overgrown with vegetation.

DISTRICT VISION

To provide an environmentally safe refueling and support area to accommodate military flights between MCB Hawaii and other areas within Hawai'i.

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ROM COST ESTIMATES

Sgt. Joshua Flores, the training noncommissioned officer of Combat Logistics Battalion 3, briefs his squad before they set out to start the first scenario of the day aboard Marine Corps Base Hawaii Aug. 19, 2015. The day's events consisted of patrolling across the base while taking on various situations. Sergeants Course is a vital part of professional military education for any Marine and helps to maintain the standards amongst the NCOs of the Marine Corps. (U.S. Marine Corps photo by Cpl. Khalil Ross/Released. www.mcbhawaii.marines.mil)

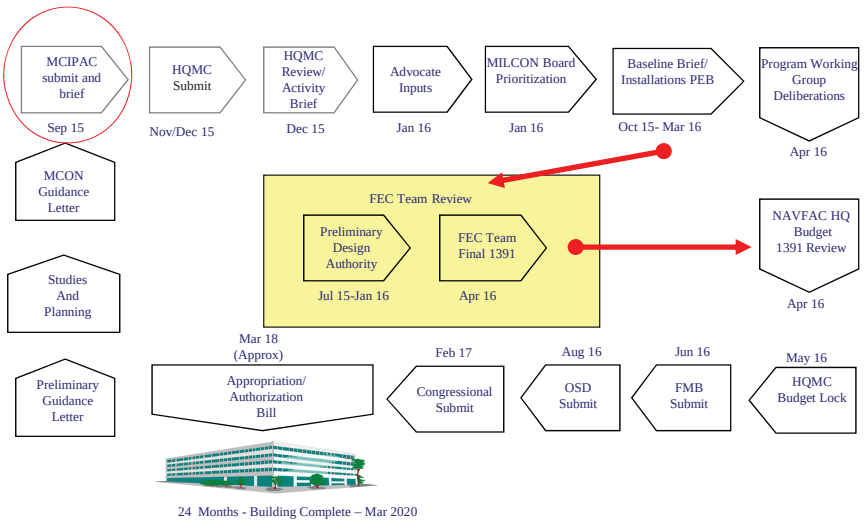
Rough order of magnitude (ROM) costs in the IPL came from four sources.

1. Marine Corps Base Hawaii FY18 Military Construction Brief (11 September 2015). This brief was the primary source for ROM costs and project priority for all currently planned or programmed MILCON projects at MCB Hawaii.
2. DD1391 project documentation that superseded the FY18 Military Construction Brief
3. Engineering or project validation assessments
4. Cost estimator

Marine Corps Base Hawaii
FY18 Military Construction Brief

Presented to
Commanding Officer MCBH
11 September 2015

Military Construction
POM 18 Programming Process



2

FY18 MILCON Submittal Schedule

- MCIPAC
  - Sep 2015: Project list/brief sheets due to MCIPAC
  - Oct/Nov 2015: MCIPAC MILCON Prioritization Board
  - 2015 (TBD): MCIPAC Integrated Project List (IPL) to MCICOM
  - Scoring Criteria
- MCICOM (Fall 2015 -Nov/Dec)
  - Anticipating Nov/Dec brief with board meeting to follow in January
  - Scoring Criteria (to be provided, assuming previous guidance)
- FY18 MILCON Budget Projection for USMC: TBD

3

MCICOM Areas of Focus USMC MILCON Program

- Aviation platform transition – CONUS, OCONUS, Foreign
- Elimination of Q3/Q4 facilities, consolidation, recapitalization
- Force protection and safety posture improvements
- Hawaii Aviation Relocations
- Marine Corps University Expansion
- Marine Corps Security Force Regiment Consolidation
- MARSOC Support
- Other OPFOR/enterprise/regional/installation priorities
- Post-FSRG Requirements
- TBS Recapitalization
- WTBn Recapitalization

4

FY17 MCIPAC Scoring Criteria

Criteria		Weight
Mission Alignment •Critical (5 pts) •Very Important (4 pts) •Important (3 pts)	•Marginal (2 pts) •Minimal (1 pt) •No Contribution (0pts)	20%
Life/Health/Safety •Critical(5 pts) •Significant (4 pts)	•Important (3 pts) •Moderate (2 pts) •Marginal (1 pt) •Contribution (0 pts)	20%
AT/FP •Critical (5 pts) •Significant (4 pts) •Moderate (3 pts)	•Marginal (2 pts) •Minimal (1 pt) •No Contribution (0 pts)	15%
Functional Type •Critical(5 pts) •Important (3 pts)	•No Contribution(0 pts)	10%
Total Ownership Cost •Critical (5 pts) •Very Important (4 pts) •Important (3 pts)	•Marginal (2 pts) •Minimal (1 pt) •No Contribution (0 pts)	10%
Quality of Life •Critical (5 pts) •Significant (4 pts) •Moderate (3 pts)	•Marginal (2 pts) •Minimal (1 pt) •No Contribution (0 pts)	10%
Installation Priority		15%
Total		100 %

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MCBH Criteria for Prioritization

- HQMC Aviation Plan
- Long standing deficiencies in facilities where mission is impacted or could be impacted
- Life/Safety/AT/FP
- MILCON to replace temporary facilities such as modular buildings and tension fabric structures in accordance with DoD Inst and MCOs
- Previous Grow the Force Requirements

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MCBH MILCON Program
Funded Projects

PROG STATUS	FY	P#	PROJECT TITLE	LOCATION	COST ($K)	PROJECT STATUS
FY12	2012	822	MARINE CORPS AIR STATION OPS COMPLEX	KANEOHE BAY	(b) (5)	RIBBON CUTTING OCCURRED FEB 2015
			SUBTOTAL			
FY13	2013	904	MV-22 HANGAR AND INFRASTRUCTURE	KANEOHE BAY		CCD MARCH 2016
	2013	905	AIRCRAFT STAGING AREA	KANEOHE BAY		CCD MARCH 2016
			SUBTOTAL			
FY14	2014	907	MV-22 HANGAR (2ND VMM SQUADRON)	KANEOHE BAY		AWARDED APRIL 2015, CCD JAN 2017
	2014	908	MV-22 AIRCRAFT PARKING APRON AND INFRASTRUCTURE	KANEOHE BAY		COMBINED WITH P-907
	2014	884	AVIATION SIMULATOR MODERNIZATION/ADDITION	KANEOHE BAY		CCD DECEMBER 2016
	2014	864	MALS AIRCRAFT MAINTENANCE EXPANSION	KANEOHE BAY		CCD SEPTEMBER 2015
	2014	778	ARMORY ADDITION AND RENOVATION	KANEOHE BAY		AWARDED MAR 2015, CCD AUGUST 2017
	2014	852	3RD RADIO MAINTENANCE/OPERATIONS COMPLEX	KANEOHE BAY		CCD OCTOBER 2016
	2014	863	HMLA HANGAR RENOVATION	KANEOHE BAY		AWATING ENV. PERMITTING; EAD MAR 2016
			SUBTOTAL			
FY15	2015	861	VMU, MWSD AND CH-53E UPGRADES	KANEOHE BAY		AWARDED SEPTEMBER 2015; CCD AUG 2018
	2015	924	MV-22 EIS TRAFFIC IMPROVEMENTS	KANEOHE BAY		IN DESIGN, EAD SEPTEMBER 2015
			SUBTOTAL			

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FY16/17 MILCON Program
Programmed Projects

PROG STATUS	FY	P#	PROJECT TITLE	LOCATION	COST ($K)	PROJECT STATUS
FY16	2016	116	P-8A DETACHMENT SUPPORT FACILITIES, BLDGS 6107, 6407 & 104 (NAVY)	NAVAL ACTIVITIES AT KANEOHE BAY	(b) (5)	IN DESIGN, EAD MAY 2016
	2016	910	BACHELOR ENLISTED QUARTERS	KANEOHE BAY		IN DESIGN, EAD MAY 2016
	2016	902	AIRFIELD LIGHTING IMPROVEMENTS	KANEOHE BAY		IN DESIGN, EAD AUGUST 2016
	2016	8150	MEDICAL/DENTAL CLINIC REPLACEMENT (DHA)	KANEOHE BAY		IN DESIGN, EAD APRIL 2016
			SUBTOTAL			
FY17	2017	913	(b) (3) (A), (b) (7)(F)	KANEOHE BAY		
	2017	887	(b) (7)(F)	KANEOHE BAY		
			SUBTOTAL			

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FY18 MILCON Recommended Priorities

PRIORITY	FY	P#	PROJECT TITLE	LOCATION	MILCON SCORE	COST ($K)	Briefed (Y or N)
1	2018	877	(b) (7)(F)	KANEOHE BAY	0.36	(b) (5)	Y
2	2018	929	VMU OPERATIONS SUPPORT FACILITY	WHEELER	0.42		Y
3	2018	875	WATER RECLAMATION FACILITY REGULATORY UPGRADES	KANEOHE BAY	0.09		Y
4	2018	931	(b) (7)(F)	PUULOA	0.61		Y
5	2018	843	MULTI PURPOSE TRAINING COMPLEX	KANEOHE BAY	0.55		Y
6	2018	373	AAV MAINTENANCE FACILITY	KANEOHE BAY	0.46		Y
7	2018	936	VAN PAD MODERNIZATION AND SUPPORT EQUIPMENT STORAGE	KANEOHE BAY	0.41		Y
8	2018	935	(b) (3) (A), (b) (7)(F)	KANEOHE BAY	0.17		Y
9	2018	947	(b) (7)(F)	MCTAB	0.7		Y
10	2018	930	FIRE STATION	KANEOHE BAY	0.39		Y
11	2018	913	(b) (7)(F)	KANEOHE BAY	0.24		N
12	2018	879		KANEOHE BAY	0.13		N
13	2018	881	(b) (3) (A), (b) (7)(F)	KANEOHE BAY	0.18		N
14	2018	847	(b) (7)(F)	KANEOHE BAY	0.27		N
15	2018	818	MARFORPAC OPERATIONS FACILITY PHASE 1	CAMP SMITH	0.55		N
16	2018	943	(b) (3) (A), (b) (7)(F)	KANEOHE BAY	0.15		N
			SUBTOTAL				

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Remaining Future (FY19+) MILCON Requirements for MCBH

FY	P#	PROJECT TITLE	LOCATION	COST ($K)
2019+	946	CORROSION CONTROL HANGAR RENOVATION	KANEOHE BAY	(b) (5)
2019+	878	(b) (7)(F)	CAMP SMITH	
2019+	XXX		KANEOHE BAY	
2019+	774	EQUIPMENT STORAGE AT PTA	KANEOHE BAY	
2019+	809	CAMP SMITH PARKING STRUCTURE	KANEOHE BAY	
2019+	819	MARFORPAC OPERATIONS FACILITY PHASE 2	KANEOHE BAY	
2019+	836	MAG-24 OPERATIONS BUILDING	KANEOHE BAY	
2019+	876	(b) (7)(F)	KANEOHE BAY	
2019+	880	REGIMENTAL HQ	KANEOHE BAY	
2019+	882	RUNWAY CLEAR ZONE DEMOLITION AND AIRFIELD IMPROVEMENTS	KANEOHE BAY	
2019+	891	HANGAR 102 CH-53K UPGRADES	KANEOHE BAY	
2019+	911	BACHELOR ENLISTED QUARTERS	KANEOHE BAY	
2019+	912	BACHELOR ENLISTED QUARTERS	KANEOHE BAY	
2019+	926	MALS-24 TURRET MAINTENANCE UPGRADES	KANEOHE BAY	
2019+	928	(b) (7)(F)	KANEOHE BAY	
2019+	944	COSOLIDATED CLASSROOM FACILITY	KANEOHE BAY	
2019+	945	COMBAT TRAINING TANK	KANEOHE BAY	
		SUBTOTAL		

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P877 MCBH Kaneohe Bay

(b) (7)(F)

- Base Priority for FY18: 1 of 16
- Estimated Cost - $5.0M
- Base Location/Area: MCBH Kaneohe Bay
- Project Description:
  - (b) (7)(F)
  -
- Current Situation:
  - At the Mokapu Gate:
    - (b) (7)(F)
    -
    -

	Yes	No	Partial
Site Identified	X		
NEPA Identified	X		
Economic Alternatives Identified in 1391	X		
BFR Completed	NA		
FFE and other Equipment Identified			X
1391 Block 9 and BESS meet Consistency Review Guidelines			X
Environmental Cultural Issues Identified	X		

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P877 MCBH Kaneohe Bay

(b) (7)(F)

- Impact if not Provided:
  - (b) (7)(F)
  -
- Temporary solution:
  - (b) (7)(F)
  -

12

P929
VMU Operations Support Facility

- Base Priority for FY18: 2 of 16
- Estimated Cost - $8.0M
- Base Location/Area: Wheeler Army Airfield (WAAF), Wahiawa, Hawaii
- Project Description:
  - (b) (7)(F)
  - (b) (7)(F)
- Current Situation:
  - VMU-3 relocated to MCB Hawaii in FY14
  - WAAF (31 miles away, 2 hours in traffic roundtrip) is the only location where VMU-3 can conduct flight operations
    - Flight operations required for squadron to maintain qualifications.

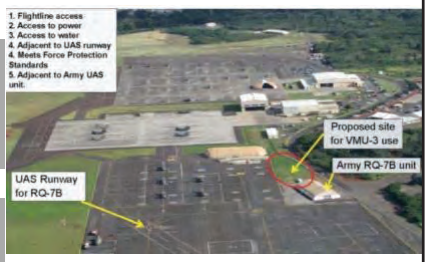
	Yes	No	Partial
Site Identified	X		
NEPA Identified	X		
Economic Alternatives Identified in 1391	X		
BFR Completed	X		
FFE and other Equipment Identified	X		
1391 Block 9 and BESS meet Consistency Review Guidelines	X		
Environmental Cultural Issues Identified	X		

13

P929
VMU Operations Support Facility

- Current Situation (Con't)
  - Tension fabric structure was constructed as a temporary work area in April 2015
    - (b) (7)(F)
    - (b) (7)(F)
    - (b) (7)(F)
- Impact if not Provided:
  - After August 2019, Army may require VMU-3 to remove the structure per agreement
  - (b) (7)(F)
- Temporary solution:
  - (b) (7)(F)

(b) (7)(F)



Aerial View of Wheeler AAF

14

P875 Water Reclamation Facility (WRF) Regulatory Upgrades

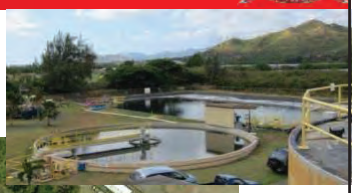
- Base Priority for FY18: 3 of 16
- Estimated Cost - $9.7M
- Base Location/Area: MCBH Kaneohe Bay
- Project Description:
  - Provides redundancy to the existing wastewater treatment system
  - Modernizes the WRF to add automated motor control center with SCADA system (computerized and automated controls)
- Current Situation:
  - State of Hawaii letter dated 3, Sept 2004 cited that a lack of treatment system redundancy is a "long standing deficiency"
  - WRF is required by the facility's NPDES permit to have redundant treatment systems at the plant if we bypass treatment systems for maintenance

	Yes	No	Partial
Site Identified	X		
NEPA Identified	X		
Economic Alternatives Identified in 1391	X		
BFR Completed	X		
FFE and other Equipment Identified			X
1391 Block 9 and BESS meet Consistency Review Guidelines			X
Environmental Cultural Issues Identified	X		

15

P875 Water Reclamation Facility (WRF) Regulatory Upgrades

- Current Situation (cont')
  - Constant monitoring required when treatment units taken down for maintenance
  - High risk for exceeding effluent permit limits and citation/monetary fines
  - Existing control system and monitoring systems are obsolete and outdated
- Impact if not Provided:
  - WRF will continue to operate without functional redundancy
  - May result in Notice of Violation (NOV)
- Temporary solution:
  - During shutdown or maintenance close and detailed monitoring will continue to occur
  - No temporary solution exists, with a potential risk for violation and fines if treatment plant effluent does not meet permit limits



16

P931 Puuloa Comm/Elec & (b) (7)(F)

- Base Priority for FY18: 4 of 16
- Estimated Cost - $11.1M
- Base Location/Area: Puuloa Range Training Facility (Puuloa RTF), Ewa Beach, Hawaii
- Project Description:
  - (b) (7)(F), (b) (3) (A)
  - Upgrades existing electrical utilities and relocates existing overhead power lines to underground conduits
  - (b) (7)(F)
- Current Situation:
  - (b) (3) (A), (b) (7)(F)

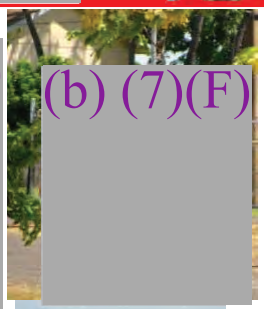
	Yes	No	Partial
Site Identified	X		
NEPA Identified	X		
Economic Alternatives Identified in 1391	X		
BFR Completed	X		
FFE and other Equipment Identified	X		
1391 Block 9 and BESS meet Consistency Review Guidelines	X		
Environmental Cultural Issues Identified	X		

17

P931 Puuloa Comm/Elec & (b) (7)(F)

Current Situation (con't):

- (b) (7)(F), (b) (3) (A)
-
-
-
- (b) (7)(F)
  - (b) (7)(F)
  -
  -
  -
- (b) (3) (A), (b) (7)(F)

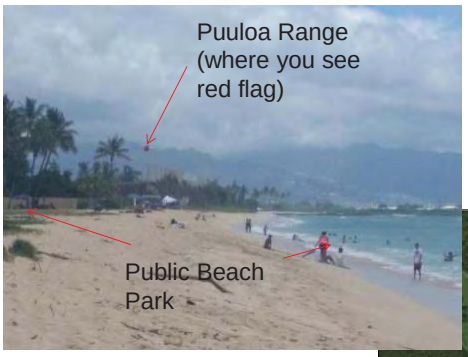


(b) (7)(F)

(b) (7)(F)

8

P931 Puuloa Comm/Elec & (b) (7)(F)



- (b) (7)(F)

19

P843 Multi Purpose Training Complex

- Base Priority for FY18: 5 of 16
- Estimated Cost - $67.8M
- Base Location/Area: MCBH Kaneohe Bay
- Project Description:
  - Construct 35,275 SF combat simulator facility, gas (CS) chamber and rappelling tower
- Current Situation:
  - $13M worth of simulators housed in temporary, semi-permanent or undersized buildings, spread across MCBH
    - Temporary and semi permanent buildings installed by MARCORSYSCOM (Not class II property)
    - Undersized buildings not efficient for training, and lack proper storage, waiting, staging and debrief areas
  - Does not meet MCO3400.3G for CS chamber
    - Existing facility is not "reasonably air tight"; CS chamber vents to open air with no filtering
  - Rappel Tower structurally inadequate, per NAVFAC HI structural certification report of 18, June 2015:
    - Limited to 5 persons at time
    - Cannot be used during 30 mph winds
    - Only one type of rope training can be done at any given time
    - Marines supplement training at Army rappel tower due to limitations

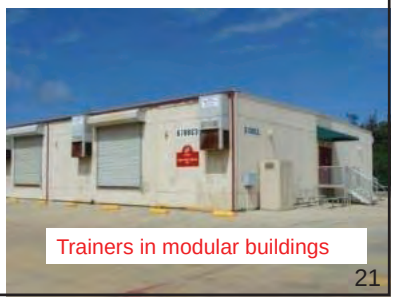
	Yes	No	Partial
Site Identified	X		
NEPA Identified	X		
Economic Alternatives Identified in 1391	X		
BFR Completed	X		
FFE and other Equipment Identified	X		
1391 Block 9 and BESS meet Consistency Review Guidelines	X		
Environmental Cultural Issues Identified	X		

20

P843
Multi Purpose Training Complex

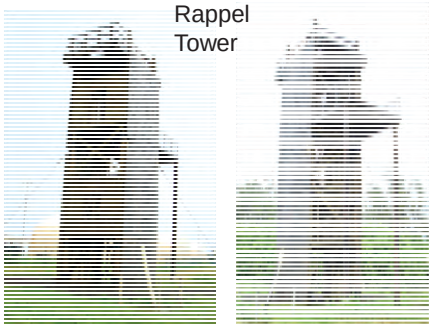
- Current Situation (con't):
- Impact if not Provided:
  - Training will continue to occur in inadequate and ill configured, temporary, semi-permanent or undersized spaces, greatly reducing effectiveness and mission preparedness
    - MCBH O&T estimates throughput could be increased by 30 percent if facilities were properly configured
  - $13M in simulation equipment will continue to be susceptible to damage from inclement weather, vice being housed in a permanent structure, which will directly impact training and readiness if damaged
- Temporary Solution:
  - $13M in simulation equipment will continue to be housed in temporary and semi-permanent structures
  - Training will continue to occur in temporary structures, inadequate and ill configured spaces
  - No temporary solution for gas chamber
  - Use of Army rappel tower as overflow

Vehicle Egress Trainer in Tent


Trainers in modular buildings

21

P843
Multi Purpose Training Complex


Rappel Tower

Gas Chamber

22

P373
AAV Maintenance Facility

- Base Priority for FY18: 6 of 16
- Estimated Cost - $17.2M
- Base Location/Area: MCBH Kaneohe Bay
- Project Description:
  - Construct a new AAV maintenance facility and Company HQ for Combat Assault Company (CAC)
- Current Situation:
  - Existing facility cannot adequately support CAC mission to train and conduct 1st and 2nd echelon maintenance on the AAV affecting the availability of AAVs for training and troop readiness
    - No overhead lift as part of maintenance facility: CAC maintains their AAVs outdoors with the use of a portable crane
    - Building 1284 is too low and narrow for an AAV to fit into any of the building's bays and is undersized by 3,000 SF
    - Maintenance conducted in a MARCORSYSCOM funded "structure" (not Class II property)
    - (b) (7)(F), (b) (3) (A)
    - Restrooms undersized, only a male head, no female head

	Yes	No	Partial
Site Identified	X		
NEPA Identified			X
Economic Alternatives Identified in 1391			X
BFR Completed	X		
FFE and other Equipment Identified		X	
1391 Block 9 and BESS meet Consistency Review Guidelines			X
Environmental Cultural Issues Identified			X

23

P373
AAV Maintenance Facility

- Current Situation (con't):
  - CAC Company HQ building is scheduled to be demolished as part of FY16 MILCON (BUMED for MCMH) and will not be rebuilt
  - Will be housed in temporary trailers until MILCON P373 is executed
  - Compound does not have lighting for night time operations, affecting operations and readiness of the AAV
- Impact if not Provided:
  - CAC will continue to work in inadequate, unsafe, and undersized facilities affecting operations and readiness
  - CAC will continue to have the inability to conduct night work, when training exercises conclude after sundown
  - CAC HQ will work out of temporary trailers
- Temporary solution:
  - There is no temporary solution that would improve current working conditions

Existing Welding area-inadequate ventilation

AAV Dehumidification/ Maintenance Area. No Lights No Crane-Installed by MARCORSYSCOM for corrosion control

24

P936
Van Pad Modernization & Support Equipment Storage

- Base Priority for FY18: 7 of 16
- Estimated Cost - $15.2 M
- Base Location/Area: MCBH Kaneohe Bay
- Project Description:
  - Provides 400 Hz power, new comm infrastructure, and grounding system at MALS-24 MMF (van) pads to support approx 54 additional MMF arriving with the MV-22 squadrons in FY17
  - Provides for a replacement 8,000SF MMF support equipment storage facility that will be demolished as part of FY14 MILCON P907
  - (b) (7)(F) and additional POV parking
  - New restroom facilities, upgrade fire sprinkler system for standby generator and (b) (7)(F)
- Current Situation:
  - Infrastructure does not support mission
    - (b) (7)(F)
    - No 400 Hz power to van pads
    - (b) (7)(F)

	Yes	No	Partial
Site Identified	X		
NEPA Identified	X		
Economic Alternatives Identified in 1391	X		
BFR Completed	X		
FFE and other Equipment Identified	X		
1391 Block 9 and BESS meet Consistency Review Guidelines	X		
Environmental Cultural Issues Identified	X		

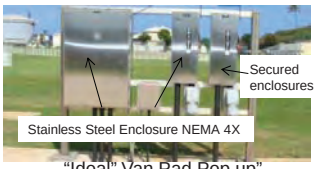
25

P936
Van Pad Modernization & Support Equipment Storage

- Impact if not Provided:
  - Loss of efficiency; Lack of "clean" power results in longer startup times, longer calibration times and potential for damage to sensitive equipment and test benches
    - Decreased efficiency could result in decreased production on parts repair, parts may need to be sent to CONUS for repair with a 30-60 day turnaround time
    - Impact on readiness
  - (b) (7)(F), (b) (3) (A)
    - When moving vans, entire NALCOMIS needs to be shut down on flight line until move is complete
  - (b) (7)(F) in July 2015 alone, there were two rolling black outs where production had to stop until facilities could come out to provide repairs
  - Zero warehouse; lack of support warehouse results in up to 5 people driving 30 minutes roundtrip to move support equipment to and from MALS-24 warehouse facility
  - Restrooms are in inadequate condition
- Temporary solution:
  - (b) (7)(F), (b) (3) (A)
  - Continue operating in an inefficient manner which may result in negative impact to readiness when MV22 arrive in FY17

(b) (7)(F)

Mobile frequency converter (400Hz workaround)



"Ideal" Van Pad Pop up"

(b) (7)(F)

6

(b) (7)(F), (b) (3) (A)

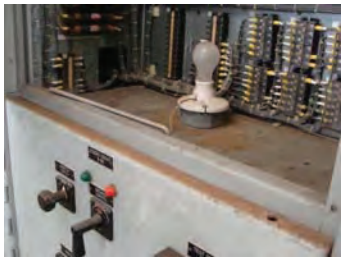
- Base Priority for FY18: 8 of 16
- Estimated Cost - $39.2 M
- Base Location/Area: MCBH Kaneohe Bay
- Project Description:
  - (b) (3) (A), (b) (7)(F)
  -
  -
- Current Situation:
  - Electrical Utilities System Assessment completed in 2011, (b) (7)(F), (b) (3) (A)
    (b) (7)(F), (b) (3) (A)

	Yes	No	Partial
Site Identified	X		
NEPA Identified	X		
Economic Alternatives Identified in 1391	X		
BFR Completed	NA		
FFE and other Equipment Identified	X		
1391 Block 9 and BESS meet Consistency Review Guidelines	X		
Environmental Cultural Issues Identified	X		

27

(b) (7)(F), (b) (3) (A)

- Current Situation (Con't)
  - (b) (7)(F), (b) (3) (A)
    conditions; climate control would prolong life and increase reliability.
  - (b) (7)(F)
    current requirements and future growth at MCBH.
- Impact if not Provided:
  -
  - (b) (7)(F)
  -
- Temporary solution:
  - No temporary solution. (b) (7)(F)
    (b) (7)(F)



(b) (7)(F), (b) (3) (A)

28

P947

(b) (7)(F)

- Base Priority for FY18: 9 of 16
- Estimated Cost - $2.2M
- Base Location/Area: Marine Corps Training Area Bellows (MCTAB)
- Project Description:
  - (b) (7)(F)
- Current Situation:
  - (b) (7)(F)
    - (b) (7)(F)
    - (b) (7)(F)
      to hunt for pigs and other wildlife that live in the training area
    - (b) (7)(F)

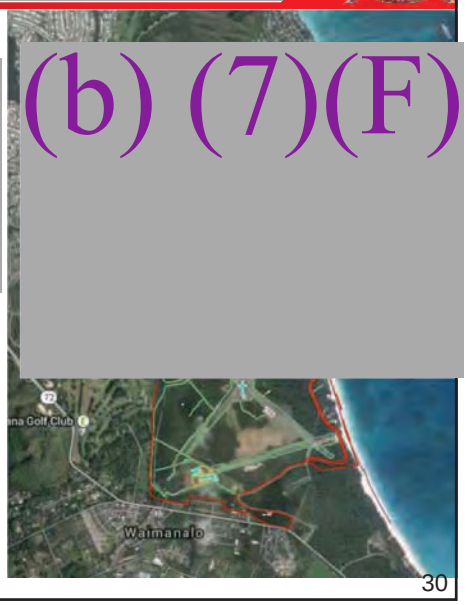
	Yes	No	Partial
Site Identified	X		
NEPA Identified	X		
Economic Alternatives Identified in 1391			X
BFR Completed	NA		
FFE and other Equipment Identified			X
1391 Block 9 and BESS meet Consistency Review Guidelines			X
Environmental Cultural Issues Identified			X

29

P947

(b) (7)(F)

- Impact if not Provided:
  - (b) (7)(F)
  - (b) (7)(F)
- Temporary solution:
  - No acceptable temporary solution



30

P930
Fire Station

- Base Priority for FY18: 10 of 16
- Estimated Cost - $31.8M
- Base Location/Area: MCBH Kaneohe Bay
- Project Description:
  - Constructs new Fire Station and Emergency services building to meet current requirements
- Current Situation:
  - 2012 Fire and Emergency Services Program Management Assessment Prepared by MCICOM determined that existing (b) (7)(F)
    - (b) (7)(F)
  - (b) (7)(F)
    - No Female Restroom/shower facilities to accommodate existing female personnel

	Yes	No	Partial
Site Identified	X		
NEPA Identified	X		
Economic Alternatives Identified in 1391	X		
BFR Completed	X		
FFE and other Equipment Identified	X		
1391 Block 9 and BESS meet Consistency Review Guidelines	X		
Environmental Cultural Issues Identified	X		

31

P930
Fire Station

- Current Situation (con't):
  - Bunk spaces are currently undersized
  - Not enough room for locker/storage for more than one person ,yet spaces need to be used by multiple personnel
  - (b) (7)(F)
  - Other deficiencies:
    - (b) (7)(F)
- Impact if not Provided:
  - (b) (7)(F)
- Temporary solution:
  - NO temporary solution exists

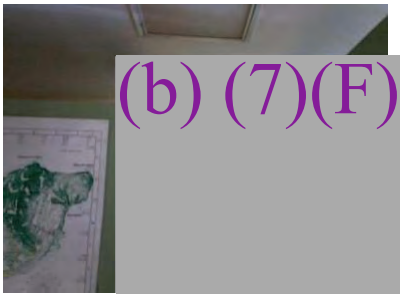
Window AC cooling entire station living and office areas.

(b) (7)(F)

(b) (7)(F)

32

P930
Fire Station



(b) (7)(F)

33

P913
(b) (7)(F)

- Base Priority for FY18: 11 of 16
- Estimated Cost - $12.4M
- Base Location/Area: MCBH Kaneohe Bay
- Project Description:
  - (b) (7)(F)
- Current Situation:
  - (b) (7)(F)
    - No classroom space
    - Undersized cleaning/maintenance area
    - No female head
- Impact if not Provided:
  - (b) (7)(F)
- Temporary solution:
  - (b) (7)(F)

	Yes	No	Partial
Site Identified	X		
NEPA Identified	X		
Economic Alternatives Identified in 1391	X		
BFR Completed	X		
FFE and other Equipment Identified	X		
1391 Block 9 and BESS meet Consistency Review Guidelines	X		
Environmental Cultural Issues Identified	X		

34

P913

(b) (7)(F)

(b) (7)(F)

(b) (7)(F)

(b) (7)(F)

(b) (7)(F)

(b) (7)(F)

35

(b) (7)(F)

- Base Priority for FY18: 12 of 16
- Estimated Cost - $18.62M
- Base Location/Area: MCBH Kaneohe Bay
- Project Description:
  - (b) (7)(F)
- Current Situation:
  - (b) (7)(F)
  -
  -

	Yes	No	Partial
Site Identified	X		
NEPA Identified	X		
Economic Alternatives Identified in 1391	X		
BFR Completed	X		
FFE and other Equipment Identified			X
1391 Block 9 and BESS meet Consistency Review Guidelines			X
Environmental Cultural Issues Identified			X

36

P879 (b) (7)(F)

- Impact if not Provided:
  - (b) (7)(F)
  - (b) (7)(F)
- Temporary solution:
  - (b) (7)(F)

(b) (7)(F)

(b) (7)(F)

37

P881
MCBH MITSC, CISD and BCO Facilities

- Base Priority for FY18: 13 of 16
- Estimated Cost - $12.2 M
- Base Location/Area: MCBH Kaneohe Bay
- Project Description:
  - Renovates Buildings 208 and 214 to accommodate MITSC MIDPAC, CISD and Base Communications growth by converting existing warehouse/former refrigerated storage in 208 to office spaces
  - Converts existing adjacent storage building 214 to communications vehicle maintenance shop
- Current Situation:
  - MITSC MIDPAC and CISD are spread out in three different WWII historic buildings throughout the base that have not received major renovation/modernization
  - MITSC MIDPAC and CISD will be experiencing growth in the coming years to provide IT support at MCB Hawaii and the Pacific

	Yes	No	Partial
Site Identified	X		
NEPA Identified			X
Economic Alternatives Identified in 1391			X
BFR Completed	X		
FFE and other Equipment Identified		X	
1391 Block 9 and BESS meet Consistency Review Guidelines			X
Environmental Cultural Issues Identified			X

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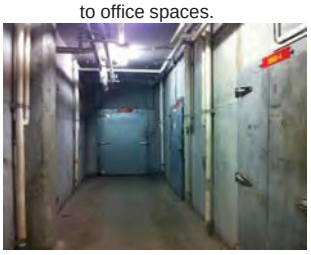
P881
MCBH MITSC, CISD and BCO Facilities

- Current Situation (Con't)
  - Parts of MITSC MIDPAC is currently located in temporary buildings within the (b) (7)(F)
  - (b) (7)(F)
- Impact if not Provided:
  - MITSC MIDPAC and CISD will not have adequate space to efficiently complete their mission
- Temporary solution:
  - (b) (7)(F)

Former refrigerated storage space to convert to office spaces.



Warehouse space to convert into admin space

39

P847
(b) (7)(F)

- Base Priority for FY18: 14 of 18
- Estimated Cost - $30.2M
- Base Location/Area: MCBH Kaneohe Bay
- Project Description:
  - (b) (7)(F)
- Current Situation:
  - Inadequate facilities
    - (b) (7)(F)

	Yes	No	Partial
Site Identified	X		
NEPA Identified	X		
Economic Alternatives Identified in 1391	X		
BFR Completed	X		
FFE and other Equipment Identified	X		
1391 Block 9 and BESS meet Consistency Review Guidelines	X		
Environmental Cultural Issues Identified	X		

40

P847

(b) (7)(F)

- Impact if not Provided:
  - (b) (7)(F)
  - No paved POV Parking
- Temporary solution:
  - Operate under current conditions in temporary structures and inadequate facilities

Tension Fabric Structures in place since 2008.

(b) (7)(F)

No POV parking-parking on grass-pull out to main access road

41

P818 MARFORPAC HQ/OPS Center Phase I

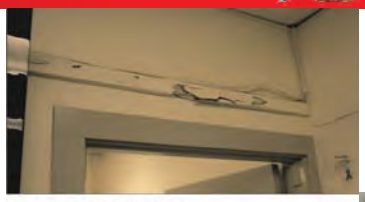
- Base Priority for FY18: 15 of 16
- Estimated Cost - $126.6M
- Base Location/Area: Camp Smith, Aiea, HI
- Project Description:
  - Constructs a new 80,000 sf facility for use by MARFORPAC and other tenant commands.
  - Includes administrative spaces, operational control center, communications area, SCIF areas, and other support functions.
- Current Situation:
  - MARFORPAC HQ currently operating out of a WWII building originally constructed as a hospital; inefficient configuration.
    - (b) (7)(F)
  - (b) (7)(F)

	Yes	No	Partial
Site Identified	X		
NEPA Identified	X		
Economic Alternatives Identified in 1391	X		
BFR Completed	X		
FFE and other Equipment Identified			X
1391 Block 9 and BESS meet Consistency Review Guidelines	X		
Environmental Cultural Issues Identified	X		

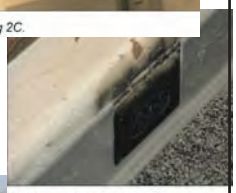
42

P818 MARFORPAC HQ/OPS Center Phase I

- Current Situation (Con't)
  - US MARFORPAC Facility Feasibility Study Phase I (April 2012) deficiencies/concerns were found with existing building complex:
    - Mechanical: inadequate fire protection, plumbing, HVAC (equipment overheating and moisture issues)
    - Electrical: code violations, asbestos, fire alarm deficiencies, lack of mass notification system (MNS)
    - Structural: differential settling, termite damage
- Impact if not Provided:
  - MARFORPAC will continue to operate in an inefficiently configured WWII era building
  - (b) (7)(F)
  - Operational inefficiencies
  - Maintenance costs will continue to increase
  - Working conditions remain substandard
  - Morale and quality of life will suffer
- Temporary solution:
  - Continue to operate in an inefficient building, with (b) (7)(F) structural, electrical and mechanical deficiencies



Termite damage at Building 2C.



Fire damage at an electrical outlet.

Existing Building 1 Complex

43

P943
(b) (3) (A), (b) (7)(F)

- Base Priority for FY18: 16 of 16
- Estimated Cost - $9.6M
- Base Location/Area: MCBH Kaneohe Bay
- Project Description:
  - (b) (7)(F), (b) (3) (A)
- Current Situation:
  - (b) (7)(F), (b) (3) (A)
  -
- Impact if not Provided:
  - (b) (7)(F), (b) (3) (A)
- Temporary solution:
  - NO temporary solution exists

	Yes	No	Partial
Site Identified	X		
NEPA Identified			X
Economic Alternatives Identified in 1391			X
BFR Completed	X		
FFE and other Equipment Identified			X
1391 Block 9 and BESS meet Consistency Review Guidelines			X
Environmental Cultural Issues Identified	X		

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FY18 MILCON
CO's Recommended Priorities

PRIORITY	FY	P#	PROJECT TITLE	LOCATION	MILCON SCORE	COST ($K)	Briefed (Y or N)
1	2018	877	(b) (7)(F)	KANEOHE BAY	0.36	(b) (5)	Y
2	2018	929	VMU OPERATIONS SUPPORT FACILITY	WHEELER	0.42		Y
3	2018	875	WATER RECLAMATION FACILITY REGULATORY UPGRADES	KANEOHE BAY	0.09		Y
4	2018	931	(b) (7)(F)	PUULOA	0.61		Y
5	2018	843	MULTI PURPOSE TRAINING COMPLEX	KANEOHE BAY	0.55		Y
6	2018	373	AAV MAINTENANCE FACILITY	KANEOHE BAY	0.46		Y
7	2018	936	VAN PAD MODERNIZATION AND SUPPORT EQUIPMENT STORAGE	KANEOHE BAY	0.41		Y
8	2018	935	(b) (3) (A), (b) (7)(F)	KANEOHE BAY	0.17		Y
9	2018	947	(b) (7)(F)	MCTAB	0.7		Y
10	2018	930	FIRE STATION	KANEOHE BAY	0.39		Y
11	2018	913	(b) (7)(F)	KANEOHE BAY	0.24		N
12	2018	879		KANEOHE BAY	0.13		N
13	2018	881	(b) (7)(F)	KANEOHE BAY	0.18		N
14	2018	847	(b) (7)(F)	KANEOHE BAY	0.27		N
15	2018	818	MARFORPAC OPERATIONS FACILITY PHASE 1	CAMP SMITH	0.55		N
16	2018	943	(b) (3) (A), (b) (7)(F)	KANEOHE BAY	0.15		N
			SUBTOTAL				

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Questions?

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Back Up Slides

47

P946 Aircraft Corrosion Control Hangar Renovation

- Base Priority for FY19: XX of XX
- Estimated Cost - $21.3M
- Base Location/Area: MCBH Kaneohe Bay
- Project Description: Renovates existing Corrosion Control Hangar Building 5069 to support Integrated Maintenance Plan (IMP) events to support H-1 (arrived in FY13), MV-22 (arrives in FY17) and H-60 (Navy)
- Current Situation:
  - Hangar 5069 was originally designed for use as a F18 corrosion control facility and not as paint stripping facility for depot level maintenance
  - Facilities issues due to existing condition and lack of capability is projected to cost over $235K per year in labor costs (average of 4 days of delay per aircraft)
    - Proper paint stripping equipment not currently installed at hangar
    - Workers are currently using a series of tarps, and manually covering floor drains to keep plastic media blast (PMB) used for paint stripping from inadvertently leaving the hangar
    - No capability to recycle PMB, aircraft utilizes between 8-12 barrels of plastic media per stripping event and has to be captured and disposed of as hazardous waste

	Yes	No	Partial
Site Identified			X
NEPA Identified			X
Economic Alternatives Identified in 1391			X
BFR Completed	X		
FFE and other Equipment Identified		X	
1391 Block 9 and BESS meet Consistency Review Guidelines			X
Environmental Cultural Issues Identified			X

48

P946 Aircraft Corrosion Control Hangar Renovation

- Current Situation (Con't)
  - Existing portable PMB booth constantly in need of repair
  - Various maintenance issues with existing hangar infrastructure to include AFFF failure, water fire suppression system inoperable, inadequate lighting, inoperable breathing ports for use with respirators, inoperable exhaust fans and hangar doors constantly needing repair to operate
- Impact if not Provided:
  - Inefficient stripping/painting process, may lead to backlog of IMP cycles when MV-22 arrives in FY17 and IMP for aircraft set to begin
  - Inefficient depot level corrosion control could result in an impact to aircraft readiness
- Temporary solution:
  - IMP will need to continue in an inefficient manner - There are no other military or commercial aircraft strip/paint facility for use in Hawaii
  - Use of facilities in CONUS (NAS North Island) to conduct IMP would be cost prohibitive
    - 4-H-1/ 2- H-60: $6.1M/year
    - 2 MV-22 per year : $3.4M/year*
      *Note MARFORPAC deemed it not worth the risk to ferry MV22 across Pacific for this purpose

Existing plastic media blast equipment

Tarp sidewalls to "contain" plastic media blast

Plastic media blast "powder all over tarp lined floors

49

P878 Camp Smith

- Base Priority for FY19: XX of XX
- Estimated Cost - $7.3M
- Base Location/Area: Camp Smith
- Project Description:
  - (b) (7)(F)
  - (b) (7)(F)
- Current Situation:
  - (b) (7)(F)
  - (b) (7)(F)
  - (b) (7)(F)
  - (b) (7)(F)
  - (b) (7)(F)
  - (b) (7)(F)

	Yes	No	Partial
Site Identified	X		
NEPA Identified	X		
Economic Alternatives Identified in 1391	X		
BFR Completed	NA		
FFE and other Equipment Identified			X
1391 Block 9 and BESS meet Consistency Review Guidelines			X
Environmental Cultural Issues Identified	X		

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P878 Camp Smith

[redacted]

- Impact if not Provided:
  - [redacted]
  - (b) (7)(F)
- Temporary solution:
  - Continue to operate out of compliance

(b) (7)(F)

51

P915
MCCS Self Storage Replacement

- Base Priority for FY19: XX of XX
- Estimated Cost - $9.45 M
- Base Location/Area: MCBH Kbay
- Project Description:
  - Construct MCCS Self Storage Facilities to replace facilities that have been demolished as a result of MILCON P-904 MV-22 Hangar.
  - Project was originally part of FY12/13 MILCON P-844
- Current Situation: MCCS Self Storage facilities were demolished as part of FY13 MILCON P-904 MV-22 Hangar
- Impact if not Provided: MCBH no longer has self storage facilities on base
- Temporary solution: Marines at MCBH will need to utilize self storage facilities off base

	Yes	No	Partial
Site Identified	X		
NEPA Identified	X		
Economic Alternatives Identified in 1391	X		
BFR Completed	X		
FFE and other Equipment Identified	X		
1391 Block 9 and BESS meet Consistency Review Guidelines	X		
Environmental Cultural Issues Identified	X		

25

P944
Consolidated Classroom Facility

- Base Priority for FY19: XX of XX
- Estimated Cost - $33.7M
- Base Location/Area: MCBH Kaneohe Bay
- Project Description:
  - Provides consolidated classroom facility to support operations and training at MCB Hawaii
- Current Situation:
  - Existing classroom facilities are scattered across base and not equipped with proper audio/visual and information/data systems needed for learning
  - Part of long term Master Plan to consolidate training (ground simulation, combat training tank and classrooms) in one location on base
- Impact if not Provided: Units will continue to train at scattered locations throughout base
- Temporary solution: Utilize existing classrooms

	Yes	No	Partial
Site Identified	X		
NEPA Identified	X		
Economic Alternatives Identified in 1391	X		
BFR Completed	X		
FFE and other Equipment Identified	X		
1391 Block 9 and BESS meet Consistency Review Guidelines	X		
Environmental Cultural Issues Identified	X		

53

P945
Combat Training Tank

- Base Priority for FY19: XX of XX
- Estimated Cost - $26M
- Base Location/Area: MCBH Kaneohe Bay
- Project Description:
  - Provides a dedicated combat training tank to conduct water survival training under controlled simulated combat conditions
- Current Situation:
  - Operations and training conducts training in a pool shared with MCCS
  - MCCS classes have been cancelled or delayed due to conflicts with training requirements
  - Part of long term Master Plan to consolidate training (ground simulation, combat training tank and classrooms) in one location on base
- Impact if not Provided: Units will continue share pool with MCCS
- Temporary solution:Units will continue share pool with MCCS

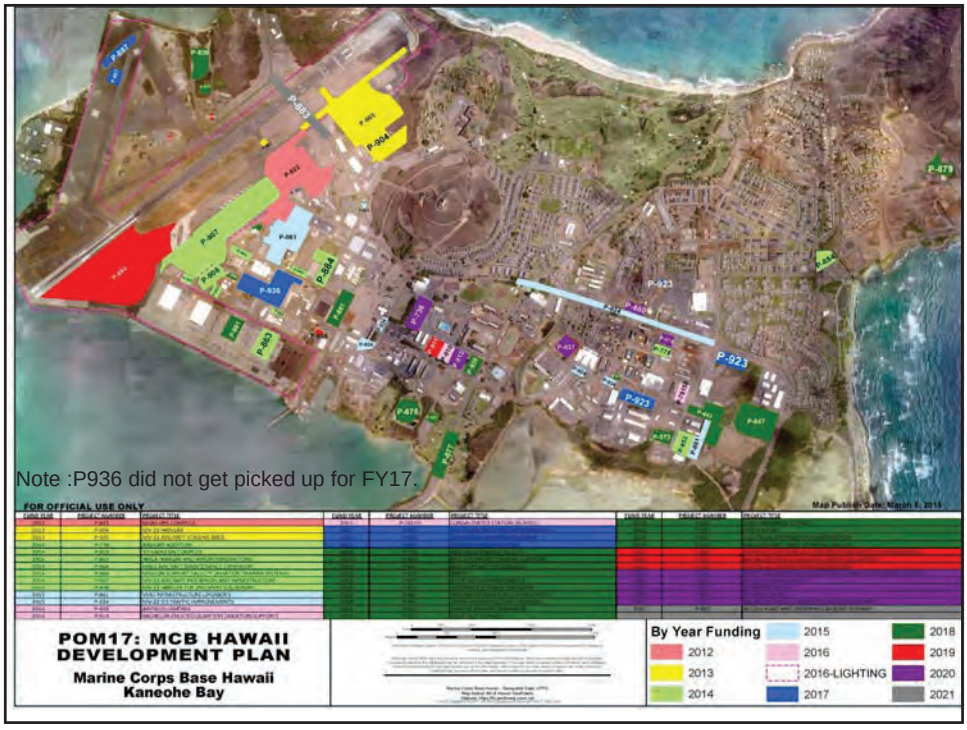
	Yes	No	Partial
Site Identified	X		
NEPA Identified	X		
Economic Alternatives Identified in 1391	X		
BFR Completed	X		
FFE and other Equipment Identified	X		
1391 Block 9 and BESS meet Consistency Review Guidelines	X		
Environmental Cultural Issues Identified	X		

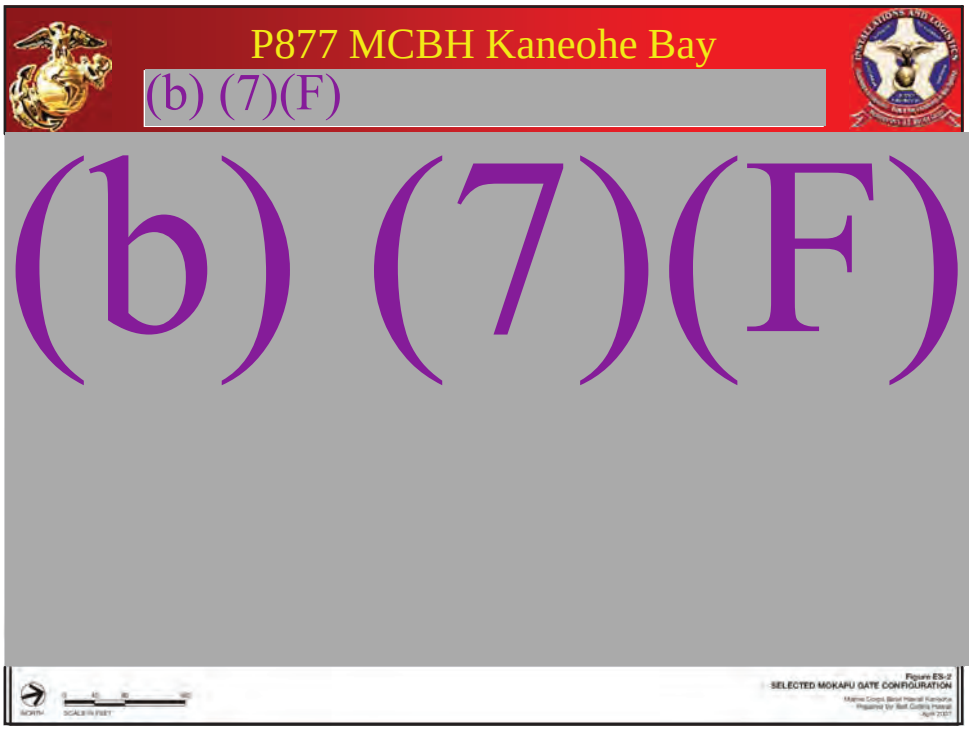
54

P843/P944/P945
Multi Purpose Training Complex

Locations of Existing Training Activities to be Consolidated under P843/P944/P945

55




P877 MCBH Kaneohe Bay
(b) (7)(F)
(b) (7)(F)
Figure ES-2
SELECTED MOKAPU GATE CONFIGURATION

JUNO & ASSOCIATES

CONSTRUCTION COST CONSULTANTS + MANAGERS

January 29, 2016

HHF Planners
733 Bishop Street, Suite 2590
Honolulu, HI 96813

Attn: (b) (6) AICP, GISP
RE: MCBH Installation Master Plan

Dear Rob,
Enclosed find our Programming Level cost estimates for this project. Due to the compressed time given to us to prepare these, we utilized the Guidance Cost Methodology found in UFC 3-701-01, Change 7, March 2015 to calculate the Primary Facility Unit Costs. Using Guidance Costs provided by the DoD, we adjusted for Project Size, Location and Escalation.

We relied on our judgement from other projects to estimate the costs of the Supporting Facilities Improvements including; Site Preparation, Pavements, Site Improvements and Electrical and Mechanical Utilities. Many facilities on MCBH have required Deep Foundations (piles), we have not included these variable costs I our estimates.

The Guidance Unit Costs from the UFC include the following:

1. Minimum antiterrorism design features (reference UFC 4-010-01, "DoD Minimum Antiterrorism Standards for Buildings") inside the building meeting Table B-1 standoff distance requirements
2. An average sales tax on building materials
3. Building information system costs (e.g., conduits, racks, trays, telecommunication rooms) without any specialized communications requirements
4. Installed (built-in) building equipment and furnishings normally funded with MILCON funds.
5. Energy Management Control system (EMCS) connections
6. Intrusion Detection System (IDS) infrastructure, including conduits, racks, and trays
7. Sustainable Design features for criteria in effect from September 2011 thru September 2013.
8. Progressive Collapse.
9. Unit costs include category A and category B equipment, but do not include category E and category F equipment costs.

J. UNO & ASSOCIATES, INC. | 1210 Ward Avenue, Suite 204 | Honolulu, Hawaii 96814 | Telephone: 808.947.6855 | www.J-uno-associates.com

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CONSTRUCTION COST CONSULTANTS + MANAGERS

10. Standard foundation systems (e.g. strip/spread footings, thickened edge slab for slab on grade, etc.)

The unit costs do not include the following:

1. Gross receipt taxes or gross excise taxes.
2. Equipment acquired with other fund sources, including pre-wired workstations or furnishing systems, intrusion detection systems
3. Sustainable design and construction features mandated since September 2013
4. Special foundations (e.g. prestressed concrete piles, caissons, etc.),
5. Intrusion detection system installation, base exterior architectural preservation guidelines
6. Enhanced Anti-Terrorism (AT) standards
7. Supervision, inspection, and overhead (SIOH)
8. Design costs (design-build contracts)
9. Construction cost growth resulting from user changes, unforeseen site conditions, or contract document errors and omissions, unusual market conditions (for example material shortages, labor shortages, or Acts of God)

Sincerely,

Joseph Uno,
LEED AP BD+C

Digitally signed by Joseph Uno, LEED AP BD+C
DN: cn=Joseph Uno, LEED AP BD+C, o=J. Uno & Associates, Inc., ou=Cost Estimator, email=joe@j-uno-associates.com, c=US
Date: 2016.01.29 15:58:55 -10'00'

Joseph P. Uno, President
J. Uno & Associates, Inc.

J. UNO & ASSOCIATES, INC. | 1210 Ward Avenue, Suite 204 | Honolulu, Hawaii 96814 | Telephone: 808.947.6855 | www.j-uno-associates.com

AVIATION DISTRICT

Project #	Project Description	FY	CCN	Type	Quantity	UM	1391?	Unit Cost	ROM Cost ($000)	Notes
P-946	**Corrosion Control Hangar**								(b) (5)	Cost by Others
	Demolish Building XX			Demolish	13,284	SF	No			
	Corrosion Control Hangar			New Construction	27,400	SF	No			
	Demo B1631 General Warehouse		441-12	Demolish	1,145	SF	No			
	Demo B6471 Fire Protection Building		843-50	Demolish	5,200	SF	No			
	Demo B6472 Hangar Fire Pump Water Storage Tank		843-30	Demolish	1,963	SF	No			
	Demo B6473 Hangar Fire Pump Water Storage Tank		843-30	Demolish	1,963	SF	No			
	Parking Garage at Base Motor T		853-10	New Construction	144,000	SF		(b) (5)		4-Story 400-stall parking structure w/ 36,000 SF/floor
	Parking Garage Site Prep			New Construction	2.8	AC				
	Site Preparation			New Construction	1.2	AC	No			Remove any paving and prepare site for future construction
Proposed	(b) (7)(F)	**24**								Similar to MAG 24 Headquarters Relocation
	Building 301 Renovation		610-10	Renovate	17,620	SF	No			
	MALS 24 Classroom		171-10	Renovate	2,120	SF	No			
	Fitness Center		171-20	Renovate	800	SF	No			
	Site Improvements									
	Remove Parking		852-10	Demolish		SF	No			Remove 113 parking stalls and convert to grass/vegetation
	New Parking Area		852-10	New Construction	24,500	SF	No			Create 61 new Surface parking stalls
	Site Prep			New Construction	0.8	AC				
	Multiuse Path along 1st Street		852-20	New Construction	3,000	LF	No			10' wide multiuse paved path
	2 Bike Shelters		852-15	New Construction	2,000	SF	No			2 open air shelters @ 1,000sf/ea
	New Side walks throughout district		852-20	New Construction		LF	No			
	Parking Garage at MV-22 Hangar		853-10	New Construction	72,000	SF	No			2-Story 200-stall parking structure w/ 36,000 SF/floor
	Parking Garage Site Prep			New Construction	1.6	AC				
	Remove Parking at new MV-22 Hangar		852-10	Demolish	42,600	SF	No			Remove 110 parking stalls and prep for parking garage
Proposed	**Base Motor Pool Relocation/Site Reservation**	**31**								
	Demo B300 MCBH Wrecker Section		214-20	Demolish	60	SF	No			
	Demo B322 Grease Rack		214-56	Demolish	875	SF	No			
	Demo B351 Auto Vehicle Shop		214-20	Demolish	6,250	SF	No			
	Demo B352 Office, STN Transport Pool		214-20	Demolish	2,200	SF	No			
	Demo B377 Automotive Repair Garage		214-20	Demolish	8,592	SF	No			
	Demo B385 Gen Warehouse/Auto Parts		214-20	Demolish	2,889	SF	No			
	Demo B399 MCBH Auto Vehicle Shop		214-20	Demolish	10,478	SF	No			
	Demo B1236 Wrecker Section		214-20	Demolish	252	SF	No			
	Demo B1545 Refueler Vehicle Shop		214-40	Demolish	750	SF	No			
	Demo B3081 Hazardous Waste Transfer/Storage		831-41	Demolish	1,200	SF	No			
	Demo B4051 Auto Vehicle Maint Shop		214-20	Demolish	1,485	SF	No			
	Demo B4064 Tanker Hose Shed		214-20	Demolish	25	SF	No			
	Demo B6040		214-20	Demolish	1,940	SF	No			Not in INFADS
	Demo B6128 GME Vehicle Maint Shed		214-20	Demolish	336	SF	No			
	Site remediation			New Construction	8.0	AC	No			Remove paved areas and prep site for future construction

AVIATION DISTRICT

Project #	Project Description	FY	CCN	Type	Quantity	UM	1391?	Unit Cost	ROM Cost ($000)	Notes
P-882	**Runway Clear Zone Improvements**	**24**								
(Modified)	Relocate EOD to Building 1359		143-24	Renovate	5,770	SF	No	(b) (5)	(b) (5)	
	Relocate EOD to Building 1360		143-24	Renovate	4,973	SF	No			
	Ready Storage Locker			New Construction	2,300	SF	No			
	(b) (7)(F)		872-10	New Construction	1,600	LF	No			
			421-32	Demolish	8,320	SF	No			
			143-24	Demolish	6,170	SF	No			
	(b) (7)(F)		421-32	New Construction	8,300	SF	No			
Proposed	**3d Marines Open Boat Storage**	**24**								
	Maintenance Shop			New Construction	5,000	SF	No			
	(b) (7)(F)		872-10	New Construction	620	LF	No			
	Demolish B1374 Exercise Support Building		159-64	Demolish	960	SF	No			
	Demolish B1375 UM MMRP Boat Shop		213-58	Demolish	993	SF	No			
	Demolish B1397 COMPATRECONFORPAC TSC		141-42	Demolish	2,820	SF	No			
	Site Prep			New Construction	0.5	AC				
Proposed	**Pali Kilo Cottage Expansion**	**24**								
	12 Cottages			New Construction	18,650	SF				1 Unit at 1,050sf + 11 Duplexes at 1,600sf ea.
	10 Unit Lodge			New Construction	6,000	SF				10 units at 500sf ea. + 1,000sf admin
	(b) (7)(F)		143-20	Demolish	1,590	SF				
			143-20	New Construction	1,590	SF				
Proposed	**MWSD Org Parking**	**31**								
	Parking Area		852-10	New Construction	84,000	SF	No			
	(b) (7)(F)		872-10	New Construction	1,220	LF	No			
			730-25	New Construction	54	SF	No			
	Site Prep			New Construction	2.0	AC				
Proposed	**Redevelop The Cabanas**	**31**								
	Demo B1368		740-81	Demolish	1,680	SF	No			
	Demo B1369		740-81	Demolish	960	SF	No			
	Demo B1370		740-81	Demolish	960	SF	No			
	Demo B1394		740-81	Demolish	1,960	SF	No			
	Demo B1395		740-81	Demolish	2,400	SF	No			
	Demo B1621		740-81	Demolish	2,400	SF	No			
	Demo B1624		740-81	Demolish	980	SF	No			
	Demo B1651		740-81	Demolish	960	SF	No			
	4 Cabanas w/ 10 rooms ea.		740-81	New Construction	17,600	SF	No			8 FT base flood elevation
	28 stall parking lot		852-10	New Construction	8,800	SF	No			at grade
	Site Prep			New Construction	1.1	AC				

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AVIATION DISTRICT

Project #	Project Description	FY	CCN	Type	Quantity	UM	1391?	Unit Cost	ROM Cost ($000)	Notes
P-883	(b) (7)(F)								$0	Cost by Others
			851-25	New Construction	1,000	LF	No	$0.00	$0	(b) (7)(F)
Proposed	Pyramid Beach Improvements	31								
	Pavilions		740-78	New Construction	4,380	SF	No	(b) (5)	(b) (5)	
	Restroom/Shower		730-75	New Construction	730	SF	No			
	Boardwalk		852-35	New Construction	320	LF	No			
	Volleyball courts		750-10	New Construction	2	EA	No			
	Paved Parking Lot		852-10	New Construction	23,500	SF	No			
	Site Prep			New Construction	1.4	AC				
	TOTAL, AVIATION DISTRICT									

BASE SUPPORT

Project #	Project Description	FY	CCN	Type	Quantity	UM	1391?	Unit Cost	ROM Cost ($000)	Notes
Proposed	**Reinternment Site**	**19**								
	Reinternment Site		760-20	New Construction	2,000	SF	No	(b) (5)	(b) (5)	rock structure 25' x 80', 3 ft tall; excavate 6 ft
	Site Prep			New Construction	1.0	AC				landscape, sidewalks, lights
Proposed	**Fitness Center Expansion**	**24**								
	2 story addition		740-44	New Construction	64,000	SF	No			
	Remove existing parking		852-10	Demolish	275	Stalls	No			Remove 275 surface parking stalls and prep site for new constructio
	Parking Structure		853-10	New Construction	148,500	SF	No			Construct 3 story parking garage with 330 total stalls
	Site Prep			New Construction	3.2	AC				
Proposed	**3rd Street Realignment**	**24**								Realign 3rd Street,
	Demo B272 Civilian Personnel Office		610-10	Demolish	5,160	SF	No			
	Demo B279 Base Safety - SACC		610-10	Demolish	20,706	SF	No			3 story building
	Demo B283 Bus Stop		730-66	Demolish	384	SF	No			
	Remove Existing Pavement		851-10	Demolish	40,000	SF	No			
	Realign 3rd Street		851-10	New Construction	40,000	SF	No			
	Multi-use Path		852-20	New Construction	2,625	LF	No			10' wide multi-use paved sidewalk
	Bike Shelter		852-15	New Construction	1,000	SF	No			
Proposed	**Pless Hall Renovation**	**24**								
	B212 Pless Hall		610-10	Renovation	34,165	SF	No			Historic 2 story structure (Multiple Uses)
Proposed	(b) (7)(F), (b) (7)(A)	**24**								
			811-09	New Construction	30	MW	No			Reserved 4.4 acre site
Proposed	**PMO Complex**	**31**								
	Demo B1094 Vacant BEQ		725-10	Demolish	20,830	SF	No			3 story building
	Demo B1095 Police Station		730-20	Demolish	23,135	SF	No			3 story building
	Demo B1096 Police Station		730-20	Demolish	21,365	SF	No			3 story building
	PMO Admin Building		730-20	New Construction	31,300	SF	No			2 story building
	Parking Structure		853-10	New Construction	81,000	SF	No			180 stall 2-story parking garage
	Storage Shed		730-77	New Construction	5,770	SF	No			
	Impound Lot		852-10	New Construction	11,600	SF	No			
	Site Prep			New Construction	4.7	AC				
	Dog Kennels									
	Demo B1126 Kennels		730-76	Demolish	200	SF	No			
	New Dog Kennels		730-76	New Construction	4,020	SF	No			Vet Clinic, not just Kennels
	(b) (7)(F)		872-10	New Construction	920	LF	No			
	POV Parking Lot		852-10	New Construction	5,500	SF				Surface lot w/ 12 stalls
	Site Prep			New Construction	1.0	AC				
Proposed	**Base Motor Transport Complex**	**31**								
	Automotive Maintenance Shop		214-20	New Construction	12,170	SF	No			

BASE SUPPORT

Project #	Project Description	FY	CCN	Type	Quantity	UM	1391?	Unit Cost	ROM Cost ($000)	Notes
	Purging Fuel Tank Pad		214-30	New Construction	720	SF	No	(b) (5)	(b) (5)	
	Vehicle Holding Shed		214-40	New Construction	6,300	SF	No			
	Grease Rack		214-56	New Construction	900	SF	No			
	Refueling Vehicle Shop		214-30	New Construction	1,800	SF	No			
	Parking Area		852-10	New Construction	2,248	SY	No			
	(b) (7)(F)		872-10	New Construction	1,400	LF	No			
	Site Prep			New Construction	2.6	AC				
Proposed	**Boat Storage**	**31**								
	Parking Area		750-39	New Construction	9,350	SY	No			Formalized/paved boat parking w/ 100 stalls
	(b) (7)(F)		872-10	New Construction	1,500	LF	No			
	Site Prep			New Construction	1.0	AC				
Proposed	**Recycling Center Renovation**	**31**								
	B132 Recycling Center Reuse		730-82	Renovate	6,264	SF	No			
	Demo B125 Hazardous Waste Storage		411-82	Demolish	2,550	SF	No			
	Demo B5073 Haz Waste Transfer Shed		831-41	Demolish	80	SF	No			
	Demo B131 Recycling Canopy		730-82	730-82	1,500	SF	No			
	Recycling Center		730-82	New Construction	3,000	SF	No			
	(b) (7)(F)		872-10	New Construction	1,200	LF	No			
	Site Prep			New Construction	1.0	AC				
Proposed	**Relocate IPAC, CAC, DEERS to B3089**	**19**								Currently located in B1044
	Renovate B3089 (Medical Clinic)		610-73	Renovate	42,485	SF				
	Demo B1043		610-73	Demolish	20,832	SF				
Proposed	**Warehouse District**	**31**								
	B250 (warehouse) Reuse		441-12	Renovate	47,537	SF	No			Historic Structure
	Demolish B266		441-12	Demolish	485	SF	No			Not in iNFADS
	Demolish B269 CLB Supply Warehouse		441-12	Demolish	13,835	SF	No			
	Demolish B270 DMO Warehouse		441-12	Demolish	9,600	SF	No			
	Demolish B271 Warehouse		441-12	Demolish	15,268	SF	No			
	Demolish B367 MCCS Logistics		441-12	Demolish	5,380	SF	No			
	Demolish B3096 Classroom		441-12	Demolish	1,000	SF	No			
	Warehouse		441-12	New Construction	27,500	SF	No			
	Warehouse		441-12	New Construction	27,500	SF	No			
	Warehouse		441-12	New Construction	37,500	SF	No			
	Site Prep			New Construction	5.5	AC				
Proposed	**Enlisted Club Redevelopment**	**31**								
	Demolish B1629 Enlisted Club		740-54	Demolish	32,256	SF	No			
	Remove Parking Stalls		852-10	Demolish	40,000	SF	No			Remove 60 parking stalls and pavement
	New Enlisted Club		740-54	New Construction	68,000	SF	No			2 story Building

BASE SUPPORT

Project #	Project Description	FY	CCN	Type	Quantity	UM	1391?	Unit Cost	ROM Cost ($000)	Notes
	Parking Area		852-10	New Construction	4,445	SY	No	(b) (5)	(b) (5)	Build 74 parking stall lot
Proposed	(b) (7)(F)	**31**								
			151-40	New Construction	39,000	SF	No			Existing Pier is 21,500 sf
	Dredging		165-10	New Construction	5,000	CY	No			
Proposed	**Pavilion, Courts and Bicycle Shed**	**31**								
	Multiuse Path		852-20	New Construction	1,800	LF	No			10' wide multiuse paved pathway
	Basketball Courts		750-10	New Construction	9,400	SF	No			2 courts @ 4,700 sf each
	Recreational pavilion		740-78	New Construction	2,270	SF	No			
	Demolish Roller Rink		740-46	Demolish	7,500	SF	No			
	Bike Shelter		852-15	New Construction	1,000	SF	No			
	TOTAL, BASE SUPPORT									

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GROUND SUPPORT

Project #	Project Description	FY	CCN	Type	Quantity	UM	1391?	Unit Cost	ROM Cost ($000)	Notes
P-373	**AAV Maintenance Facility**	**19**								
(Modified)	Automotive Org Shop		214-51	New Construction	11,250	SF	Yes			
	Combat Assault Company HQ		610-73	New Construction	2,400	SF	Yes			2,400 sf Really?
	Realign access road		851-10	New Construction	10,600	SF	Yes			
	Sidewalks to P-923		852-20	New Construction	675	LF	Yes			5' wide conc. Sidewalk
	Site Prep			New Construction	2.0	AC				
Proposed	**3d Marines Headquarters Phase 1**	**24**								
	Demo B1027 Battalion HQ		610-72	Demolish	13,998	SF	No			
	Demo B1045		217-10	Demolish	13,998	SF	No			
	Demo B1033 Reg/BN CP		610-72	Demolish	14,028	SF	No			
	Demo B1034 Training Barracks		725-10	Demolish	22,516	SF	No			
	(b) (7)(F), (b) (3) (A)		217-10	Demolish	13,990	SF	No			
	Demo B1069 Reg/BN CP		610-72	Demolish	870	SF	No			
	Demo B1087 Battalion HQ		610-72	Demolish	13,073	SF	No			
	Demo B4028 Battalion HQ		610-73	Demolish	2,478	SF	No			
	Battalion Headquarters		610-72	New Construction	22,700	SF	No			2 story structure
	Battalion Headquarters		610-72	New Construction	22,700	SF	No			2 story structure
	Site Prep			New Construction	3.0	AC				
P-880	**3d Marines Headquarters Phase 2**	**24**								
(Modified)	Regimental Headquarters		610-72	New Construction	14,700	SF	No			2 story structure
	Parking Structure		853-10	New Construction	90,000	SF	No			200 stall 3 story parking garage
	Demo B1088 Regimental Headquarters		610-71	Demolish	14,588	SF	No			
	Demo B1642 Training Pavilion		173-30	Demolish	2,000	SF	No			
	Site Prep and Grading			New Construction	6	AC	No			
	Site Prep			New Construction	2.1	AC				
Proposed	**BEQ Redevelopment**	**31**								
	Demo B1634 BEQ		721-24	Demolish	39,228	SF	No			
	Demo B1635		721-24	Demolish	30,663	SF	No			
	Demo B1655		721-24	Demolish	42,924	SF	No			
	Demo B1656		721-24	Demolish	38,709	SF	No			
	Demo B4014		610-73	Demolish	3,263	SF	No			
	Bachelor Enlisted Quarters		721-24	New Construction	252,000	SF	No			4 5-story BEQs
	Parking Garage		853-10	New Construction	180,000	SF	No			5 story 560-stall parking garage
	Sidewalks		852-20	New Construction	2,100	LF	No			
	Site Prep			New Construction	5.5	AC				
P-888	**Wounded Warrior BEQ**	**31**								2 story Building
(Modified)	Housing			New Construction	26,461	SF	No			
	Company HQ			New Construction	3,575	SF	No			
	Storage			New Construction	1,260	SF	No			

(b) (5)

(b) (5)

GROUND SUPPORT

Project #	Project Description	FY	CCN	Type	Quantity	UM	1391?	Unit Cost	ROM Cost ($000)	Notes
	Site Prep			New Construction	0.6	AC		(b) (5)	(b) (5)	
Proposed	**CLB-3 Company Headquarters**	**31**								
	Demo B1044 CO HQ		610-73	Demolish	21,251	SF	No			3 Story Building
	Demo B1108			Demolish	191	SF	No			
	Demo B4030 Base RSO		610-10	Demolish	2,358	SF	No			
	Demo B1074		610-72	Demolish	870	SF	No			
	Demo B4015		610-73	Demolish	3,263	SF	No			
	Company Headquarters		610-73	New Construction	4,020	SF	No			2 story Building
	Site Prep			New Construction	0.3	AC				
Proposed	(b) (7)(F)	**31**								
			143-45	Demolish	6,508	SF	No			
			143-45	New Construction	7,350	SF	No			
			872-10	New Construction	775	LF	No			8' chain link fence
				New Construction	0.8	AC				
Proposed	**3d Marines & 1/12 Warehouse**	**31**								
	Demo B1092 General Warehouse		441-12	Demolish	20,228	SF	No			
	Demo B1416		441-12	Demolish	4,000	SF	No			
	Demo B5099		610-72	Demolish	1,804	SF	No			
	Warehouse		441-12	New Construction	32,000	SF	No			
	(b) (7)(F)		872-10	New Construction	950	LF	No			8' chain link fence
	Site Prep			New Construction	1.4	AC				
Proposed	**Engineering Services Company Complex**	**31**								
	Demo B1677		441-12	Demolish	960	SF	No			
	Demo B6716C3		143-77	Demolish	3,200	SF	No			
	Demo B1565		218-20	Demolish	7,000	SF	No			
	Demo B4079		171-20	Demolish	3,000	SF	No			
	Carpenter shop (training)		219-10	New Construction	3,200	SF	No			
	Construction Weight Handling Shop		218-20	New Construction	5,000	SF	No			
	Grease Rack		214-56	New Construction	600	SF	No			
	Wash Pad		214-55	New Construction	600	SF	No			
	(b) (7)(F)		872-10	New Construction	1,150	LF	No			
	Site Prep			New Construction	1.8	AC				
Proposed	**3d Marine Vehicle Shelters**	**31**								
	Demo temporary shelters		214-51	Demolish	60,000	SF	No			
	Vehicle Shelter		134-11	New Construction	20,000	SF	No			
	Vehicle Shelter		134-11	New Construction	20,000	SF	No			
	Vehicle Shelter		134-11	New Construction	20,000	SF	No			

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GROUND SUPPORT

Project #	Project Description	FY	CCN	Type	Quantity	UM	1391?	Unit Cost	ROM Cost ($000)	Notes
Proposed	**Training Open Space**	**31**								
	Demo B1090 MCX Annex		740-02	Demolish	73,442	SF	No	(b) (5)	(b) (5)	
	Training Open Space		147-10	New Construction	1.5	AC	No			Grub and grade
	Site Prep			New Construction	3.6	AC				
Proposed	**MCCS Exchange Distribution Warehouse**	**31**								
	Warehouse		441-12	New Construction	31,500	SF	No			
	(b) (7)(F)		872-10	New Construction	1,100	LF	No			8' chain link fence
	Site Prep			New Construction	1.7	AC				
	TOTAL, GROUND SUPPORT									

COMMUNITY SUPPORT

Project #	Project Description	FY	CCN	Type	Quantity	UM	1391?	Unit Cost	ROM Cost ($000)	Notes
P-884	**Aviation Simulator Addition**								**0**	by Others
	Baseball Field		750-20	New Construction	2	EA	Yes		0	
	Parking Area		852-10	New Construction	34,000	SF	Yes		0	
Proposed	**PPV Phase 6 Family Housing**								**0**	by Others
	Family Housing			New Construction	19.5	AC	No		0	Contractor Built, assumes 5 units/acre
Proposed	**Mokapu Mall Traffic Improvements**	**31**								
	Widen Cushman Ave		851-10	New Construction	870	LF	No	(b) (5)	(b) (5)	Widen road from 24' to 36'
	Driveway A		851-10	New Construction	20,000	SF	No			4 lane driveway w/ median
	Driveway B		851-10	New Construction	11,200	SF	No			
Proposed	**Golf Course Warehouse**	**31**								
	Demo B1295 Golf Course Maintenance		740-80	Demolish	7,000	SF	No			
	Demo B1505 Housing Warehouse		740-80	Demolish	7,000	SF	No			
	Demo B4004 Pesticide Storage		740-80	Demolish	1,220	SF	No			
	Warehouse		740-80	New Construction	8,400	SF	No			
	Site Prep			New Construction	0.7	AC				
Proposed	**Mokapu Elementary**	**31**								
	Demo B1193 Elementary School		730-55	Demolish	98,842	SF	No			
	Demo Parking Lot		852-10	Demolish	60,000	SF	No			Existing Surface parking lot
	School Admin/Cafeteria Building		730-55	New Construction	20,000	SF	No			
	Classroom Building A		730-55	New Construction	45,000	SF	No			3 story building
	Classroom Building B		730-55	New Construction	45,000	SF	No			3 story building
	Classroom Building C		730-55	New Construction	10,000	SF	No			2 story Building
	Classroom Building D		730-55	New Construction	10,000	SF	No			2 story Building
	Sidewalks		852-20	New Construction	3,000	LF	No			5' wide conc. Sidewalk
	Parking Lot A		852-10	New Construction	35,000	SF	No			surface parking lot
	Parking Lot B		852-10	New Construction	30,000	SF	No			Pickup/drop off and teacher parking area
	Site Prep			New Construction	6.7	AC				
Proposed	**Multi-use Path**	**31**								
	Path from G Street to		852-20	New Construction	1,600	LF	No			10' wide conc. Path that contains 40' bridge
	Bike Shelters		852-15	New Construction	2,000	SF	No			2-1,000sf shelters
Proposed	**Community Library**	**31**								
	Library		740-76	New Construction	20,000	SF	No			2 story Building, SIMILAR TO ELEM SCHOOL
	Parking Lot		852-10	New Construction	7,000	SF	No			16 stall parking lot
	Site Prep			New Construction	0.6	AC				
Proposed	**Community Theater**	**31**								
	Theater		740-60	New Construction	20,000	SF	No			1,000 SEATS

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COMMUNITY SUPPORT

Project #	Project Description	FY	CCN	Type	Quantity	UM	1391?	Unit Cost	ROM Cost ($000)	Notes
	Parking Structure		853-10	New Construction	144,000	SF	No	(b) (5)	(b) (5)	420 STALLS
	Parking Lot		852-10	Demolish	46,500	SF	No			
	Site Prep			New Construction	1.5	AC				
Proposed	**Ft. Hase Beach Improvements**	**31**								
	Pavilions		740-78	New Construction	3,000	SF	No			2-1500sf Pavilions
	Parking Lot		852-10	New Construction	12,000	SF	No			
	Sidewalks		852-20	New Construction	150	LF	No			5' conc. Sidewalk
	Site Prep			New Construction	0.4	AC				
Proposed	**North Beach Improvements**	**31**								
	Bathroom/Shower		730-75	New Construction	750	SF	No			
	Sidewalks		852-20	New Construction	1,250	SF	No			SF of conc. sidewalk and shower area
	Site Prep			New Construction	0.1	AC				
	TOTAL, COMMUNITY SUPPORT									

ULUPAU

Project #	Project Description	FY	CCN	Type	Quantity	UM	1391?	Unit Cost	ROM Cost ($000)	Notes
Proposed	(b) (7)(F)	24							(b) (5)	
				New Construction	2,500	SF		(b) (5)		50' x 50', 3 detonation pits, excavate 7 ft, fill with sand
				New Construction	290	SF				concrete block wall, 10 ft tall
				New Construction	150	LF				20 ft tall, 150 ft (surround 3 sides of the detonation site)
				New Construction	2,450	LF				Unpaved road, assume 20 ft wide
				New Construction	3,200	SY				Grasscrete
				New Construction	2.4	AC				
	TOTAL, ULUPAU									

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CAMP SMITH

Project #	Project Description	FY	CCN	Type	Quantity	UM	1391?	Unit Cost	ROM Cost ($000)	Notes
P-878		24								
(Modified)			872-30	New Construction	4	EA	No			
			730-25	New Construction	1,940	SF	No			Includes 1,400 sf for Pass and ID
			872-20	New Construction	1	EA	No			
			851-10	New Construction	25,618	SF	No			
			851-10	New Construction	22,500	SF	No			
P-818		24								
(Modified)										Cost per MCBH MILCON Brief
			853-10	New Construction	223,200	SF	No			496 Stall 4-story parking garage
P-819		24								
Modified	Construct new operations facility									Cost per MCBH MILCON Brief
	Demolish Surface Parking		852-10	Demolish	80,000	SF	No			
	Demo B20 Operations Center		610-10	Demolish	77,212	SF	No			
	Demo B20c SOCPAC Storage		143-77	Demolish	1,722	SF	No			
	Demo B20e Admin Building		610-10	Demolish	2,361	SF	No			
	Demo B125a Bath House		740-89	Demolish	1,125	SF	No			
	Demo B601 PMO		730-20	Demolish	3,758	SF	No			
	Demo B610 Picnic Pavilion		730-66	Demolish	440	SF	No			
	Site Prep and Grading			New Construction	1.75	AC	No			
P-809	Parking Structure	24								
(Modified)	Demolish Surface Parking		852-10	Demolish	35,000	SF	No			153 surface parking stalls
	Parking Structure		853-10	New Construction	319,500	SF	No			710 stall 7-story parking garage
	Surface Parking Lot		852-10	New Construction	26,700	SF	No			80 stall surface parking lot
	Site Prep and Grading			New Construction	2.10	AC	No			
Proposed	UPH Replacement	31								
	Demo B401 EM Barracks		721-24	Demolish	10,899	SF	No			
	Demo B402 EM Barracks		721-24	Demolish	10,899	SF	No			
	Demo B403 EM Barracks		721-24	Demolish	10,899	SF	No			
	Demo B404 EM Barracks		721-24	Demolish	13,978	SF	No			
	Site Prep and Grading			Demolish	1.25	AC	No			remediate site and prep for future construction
	UPH Building 1		721-24	New Construction	18,000	SF	No			
	UPH Building 2		721-24	New Construction	18,000	SF	No			
	UPH Building 3		721-24	New Construction	24,000	SF	No			
	UPH Building 4		721-24	New Construction	36,000	SF	No			
	Site Prep and Grading			New Construction	4.00	AC	No			
	Sidewalks		852-20	New Construction	1,660	SF	No			
	Parking Lot		852-10	New Construction	43,450	SF	No			126 stall surface parking lot

(b) (7)(F)

(b) (5)

(b) (5)

CAMP SMITH

Project #	Project Description	FY	CCN	Type	Quantity	UM	1391?	Unit Cost	ROM Cost ($000)	Notes
Proposed	**Elrod Road Improvements**	**31**								
	Roadway improvements		851-10	New Construction	30,000	SF	No	(b) (5)	(b) (5)	
	Remove Existing Entry Road		851-10	New Construction	30,000	SF	No			
	TOTAL, CAMP SMITH									

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PUULOA

Project #	Project Description	FY	CCN	Type	Quantity	UM	1391?	Unit Cost	ROM Cost ($000)	Notes
Proposed	**Range Operations & Support Facility**	**24**								
	Range Ops Building		173-10	New Construction	9,900	SF	No	(b) (5)	(b) (5)	
	Sidewalks		852-20	New Construction	108	LF	No			
	Parking Lots		852-10	New Construction	22,200	SF	No			3 surface lots at 7,400sf ea
	Site Prep			New Construction	0.8	AC				
Proposed	**Covered Training Area**	**24**								
	Covered Training Area		173-30	New Construction	3,800	SF				95' x 40' (250 PN using 3 tiers bleachers)
Proposed	(b) (7)(F)	**31**								
			730-25	New Construction	128	SF	No			
			872-10	Renovate	200	LF	No			
				New Construction	2	AC	No			
Proposed	**Bachelor Enlisted Quarters**	**31**								
	Bachelor Enlisted Quarters		721-24	New Construction	5,100	SF	No			2 story Building
	Site Prep			New Construction	0.3	AC				
Proposed	**Roadway Improvements**	**31**								
	Roadway Improvements		851-10	New Construction	14,000	SF	No			
	Site Prep			New Construction	0.7	AC				
	TOTAL, PUULOA									

PCA

Project #	Project Description	FY	CCN	Type	Quantity	UM	1391?	Unit Cost	ROM Cost ($000)	Notes
Proposed	**Deployment Lot**	**31**								
	Parking Lot		852-10	New Construction	36,000	SF	No	(b) (5)	(b) (5)	
	Parking Lot		852-10	New Construction	36,000	SF	No			
	Canopy			New Construction	36,000	SF	No			
	Canopy			New Construction	36,000	SF	No			
	Site Prep			New Construction	2.9	AC				
Proposed	**Renewable Energy Production**	**31**								
	Rooftop Solar Panels		811-50	New Construction	36,000	SF	No			
	Rooftop Solar Panels		811-50	New Construction	36,000	SF	No			
	TOTAL, PCA									

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PLAN COMPLIANCE

Sgt. Joshua Flores, the training noncommissioned officer of Combat Logistics Battalion 3, briefs his squad before they set out to start the first scenario of the day aboard Marine Corps Base Hawaii Aug. 19, 2015. The day's events consisted of patrolling across the base while taking on various situations. Sergeants Course is a vital part of professional military education for any Marine and helps to maintain the standards amongst the NCOs of the Marine Corps. (U.S. Marine Corps photo by Cpl. Khalil Ross/Released. www.mcbhawaii.marines.mil)

Plan Compliance

The purpose of the *UFC 2-100-01, Installation Master Planning* (2012) is to prescribe the DoD minimum requirements for master planning processes and products in accordance with the *DoD Instruction 4165.70, Real Property Management*. Chapter 2 of the UFC describes ten master planning strategies that should be applied to the master planning process. Chapter 3 outlines the prescribed master planning process and products.

The following Tier 1, Product Compliance, and Tier 2, Strategy Compliance, evaluations demonstrate the IMP's alignment with the requirements of the UFC. Discussion on process compliance is also provided.

TIER 1: PRODUCT COMPLIANCE

The IMP fulfills the required planning products as presented in the following color-coded table: green—the product is updated and current; yellow—the product is currently being updated or is funded for an update; red—the product is nonexistent or in need of an update.

Criteria	Compliance	Document Reference
Vision Plan		
Statement of the planning vision, planning goals, and planning objectives	Green	The overall vision and goals for MCB Hawaii are stated in Chapter 2, Vision Plan. Each district's vision, goals, and objectives are contained in the ADPs and FSPs.
Constraints and opportunities map	Green	The overall constraint map for MCB Hawaii Kaneohe Bay is in Chapter 2, Vision Plan. Constraint maps for each district are found in the ADPs and the FSPs as applicable.
Developable Area map	Green	The overall developable area map for MCB Hawaii Kaneohe Bay is in Chapter 2, Vision Plan. Developable area maps for each district are found in the ADPs.
Framework Plan	Green	The Framework Plan for MCB Hawaii Kaneohe Bay is in Chapter 2, Vision Plan. This is the only area that required districting. Area Development Plans were developed for Camp Smith and Puuloa RTF.
Future Development Plan	Green	The Future Development Plans for MCB Hawaii Kaneohe Bay and Camp Smith are in Chapter 2, Vision Plan.

Criteria	Compliance	Document Reference
Installation Development Plan		
Area Development Plans	Green	The *MCB Hawaii Installation Master Plan: Component Plans* contains ADPs for the five districts at MCB Hawaii Kaneohe Bay, Camp Smith, and Puuloa RTF and Facility Site Plans for the other Special Areas.
Constraints and opportunities map	Green	The overall constraint map for MCB Hawaii Kaneohe Bay is in Chapter 2, Vision Plan. Constraint maps for each district or area are found in the ADPs and FSPs.
Regulating Plan	Green	The overall Regulating Plan for MCB Hawaii Kaneohe Bay is in Chapter 4, Installation Development Standards. Regulating Plans for each district or area are found in the ADPs.
Illustrative Plan	Green	The overall Illustrative Plan for MCB Hawaii Kaneohe Bay is in Chapter 3, Installation Development Plan. Illustrative Plans for each district or area are found in the ADPs.
Implementation Plan	Green	The overall Implementation Plan for MCB Hawaii Kaneohe Bay is in Chapter 5, Installation Development Program. Execution Plans for each district or area are found in the ADPs and FSPs.
Capacity Analysis	Green	The overall capacity of MCB Hawaii and Camp Smith and discussed in Chapter 5, Installation Development Program.
Network Plans	Green	The overall Network Plans for MCB Hawaii Kaneohe Bay, Camp Smith, and Puuloa RTF are in Chapter 3, Installation Development Plan. Network Plans for each district or area are found in the ADPs.

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Criteria	Compliance	Document Reference
Installation Development Standards		
Building Envelope Standards	Green	Standards are found in Chapter 4, Installation Development Standards.
Street Envelope Standards	Green	Standards are found in Chapter 4, Installation Development Standards.
Landscape Standards	Green	Standards are found in Chapter 4, Installation Development Standards.
Installation Development Program		
Overall installation strategy	Green	An overall strategy and integrated priority list are found in Chapter 1, Plan Summary, and Chapter 5, Installation Development Program.
List of current known projects	Green	Current known projects are integrated in the Chapter 5, Installation Development Program.
Plan Summary		
Vision Plan Summary	Green	Summary is found in Chapter 1, Plan Summary.
Installation Development Plan Summary	Green	Summary is found in Chapter 1, Plan Summary.
Installation Planning Standards Summary	Green	Summary is found in Chapter 1, Plan Summary.
Development Program Summary	Green	Summary is found in Chapter 1, Plan Summary.

TIER 2: STRATEGY COMPLIANCE

The ten master planning strategies support the DoD-wide overarching installation planning philosophy—to develop a sustainable platform to support the effective execution of assigned military missions as efficiently as possible. The components of the IMP that relate to the ten planning strategies of the UFC are described below.

Sustainable Planning

- Where new construction is proposed, multi-story facilities and parking structures are proposed to increase density, conserve land, and increase walkability across the installation. This strategy opens land for future mission growth.

- Due to the limited land availability, infill development and reuse projects are proposed for more efficient land utilization. With the relocation of the Navy aviation squadrons, the administrative headquarters (Building 6468) can be reused. A new consolidated medical building allows for base administration to relocate into the former clinic (B3089). Renovations of the vacant, historic Pless Hall (Building 212) allow for based department consolidation and buildings within the airfield safety zones to be demolished.
- Vertical and horizontal mixed-use buildings are proposed throughout the installation to consolidate similar functions and to provide convenient amenities within each district. For example, the proposed bachelor housing in the Ground Support District will be developed with company headquarters. The mess hall and convenient store will be central to the barracks and workcenters.
- Expansion of sidewalks linked with the proposed multi-use path will promote more walking and biking throughout the installation. Proposed parking structures will be centrally located in the districts.
- Development standards incorporate low impact design elements and provide guidelines for building orientation. Sustainable landscape guidelines are proposed including shade trees to reduce building and parking lot heat gain.
- Energy conservation efforts include the installation of monitoring systems and implementation of programs to lessen consumption. MCB Hawaii also has a fleet of electric, hybrid, and hydrogen fuel cell vehicles to reduce dependency on fossil fuel.
- Renewable energy projects have been identified and an Energy Savings Performance Contract proposes to install photovoltaic systems across the installation.
- Reuse of treated water (R-2 quality effluent) and monitoring of existing use will continue.
- Current recycle and reuse programs will continue.
- Proposed projects were sited to avoid or account for flood zones, shoreline areas, and wetlands.

Natural, Historic, and Cultural Resource Management

- The latest INRMP and ICRMP were reviewed and natural and cultural constraints were mapped and factored into the master planning process.
- The IMP preserves sensitive natural areas such as the Nuupia Ponds and Ulupau WMA, and established a 100-ft buffer from wetlands within MCB Hawaii Kaneohe Bay. At Camp Smith, no development is proposed in the densely forested gulch.
- Proposed projects reuse historic buildings such as Pless Hall (Building 212) and Building 301 at MCB Hawaii Kaneohe Bay and portions of the Building 1 Complex at Camp Smith.
- Guidelines for development with or near the historic districts at MCB Hawaii Kaneohe Bay were incorporated into the Development Standards.

Healthy Community Planning

- Existing sidewalk networks are expanded and linked with proposed multi-use path.
- Multi-use path links family and bachelor housing areas to workcenters, the elementary school and child development centers, the fitness center, and commercial areas to encourage walking and biking across MCB Hawaii Kaneohe Bay.
- Biking infrastructure added in the form of bike lanes, multi-use path, and bike lockers/racks.

Defensible Planning

- Reconfiguration of entry control points at MCB Hawaii Kaneohe Bay, Camp Smith, and Puuloa RTF better the installation's security to AT/FP standards.
- Existing POV parking on the flightline consolidated into parking structures and lots removes the security and safety issues of access to critical infrastructure and equipment.
- Airfield fence is proposed to prevent access to critical infrastructure—runway, apron, and hangars.
- Master planning standoff distances are incorporated in proposed project site plans, and proposals are included to create appropriate standoffs for existing inhabited and high-occupancy buildings, such as Pless Hall (Building 212) and Hangars 101 to 105.

Capacity Planning

- A total of 61.2 acres, mostly for industrial and administrative functions, have been designated for site reservation and future growth.
- Limit development to the area within the urban growth boundaries. Development outside the boundaries should be carefully considered.

Area Development Planning

Area Development Plans are presented for five districts at MCB Hawaii Kaneohe Bay, one for Camp Smith, and one for Puuloa RTF. The remaining areas are covered by Facility Site Plans—a master planning document that addresses a single facility or area.

Network Planning

- Expansion of sidewalks connected to proposed multi-use path promotes walking and biking throughout the installation.
- Roadway realignment of Third and C Streets will improve traffic flow and safety at existing intersection on MCB Hawaii Kaneohe Bay. On Camp Smith, the realignment of Julian Road to the north of the Building 1 Complex will lessen traffic on Elrod Road.

Form-Based Planning

The IMP includes Illustrative and Regulating Plans for all seven districts and installation-wide building envelope standards, street envelope standards, and landscape standards.

Facility Standardization

Chapter 4, Installation Development Standards, illustrates facility standards defined by type of building. Design guidelines provide the framework for development to ensure consistent form, mass, scale, and proportion across the installation.

Plan-Based Programming

Chapter 5, Installation Development Program, captures necessary projects to meet existing requirements.

PROCESS COMPLIANCE

According to the UFC, an installation's master plan reflects a comprehensive planning process using a standard set of products. The components of the IMP that relate to the planning process listed in the UFC are described below.

Planning Phase

Identification

Through the Vision Workshop (September 2014), MCB Hawaii stakeholders participated in a number of exercises to create a planning vision statement and planning goals, objectives, and concepts. The Vision Plan is presented in Chapter 2 of the IMP.

Evaluation

During a four-day Charrette Workshop (January 2015), stakeholders used planning concepts to develop alternatives that address land use and facility planning issues. The alternatives, specific to the districts, provided a range of solutions to meet facility requirements and capability gaps.

Based on the stakeholders' input from the Charrette Workshop, alternatives were further refined to ensure feasibility and alignment with the planning vision. These alternatives were presented at a Concept Workshop (July 2015) to stakeholders. Attendees evaluated and provided direction on the alternatives to be presented to MCB Hawaii base leadership.

Implementation

The alternatives were refined and presented to the Installation Commanding Officer (August 2015). Subsequent Working Group Sessions with the installation's facility planners resulted in the plans presented in the IMP.

Monitoring and Amending

This phase pertains to the implementation, not the development, of the master plan.

Stakeholder Involvement

MCB Hawaii stakeholders were involved in every stage of the planning process through individual interviews and facility site visits, the Visioning Workshop, the Charrette Workshop, the Concept Workshop, two working group meetings, two community open houses, and draft and pre-final document review. Summaries of the workshops and open house meetings are provided in Appendices A, B, and C.

Stakeholders included the following.

- Marine Corps Installation Command and Marine Corps Installation, Pacific

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- Marine Forces Pacific Command
- NAVFAC Pacific and Hawaii
- **MCB Hawaii Departments:** Business Performance Office; Safety; Communications Information Systems Directorate; Installation, Environment & Logistic; Environmental Department; Facilities Department; Public Works Department; Family Housing Department; Supply; Marine Corps Air Station; Marie Corps Community Services; Operations & Training; Provost Marshal Office; Strategic Plans & Engagement, and School Liaison Office
- **MCB Hawaii Tenants:** 21st Dental Company; 3d Marine Regiment and Battalion; Combat Logistics Battalion 3; Cruise Missile Support Activity PAC; Commander, Patrol Wing TWO; Marine Aircraft Group 24; Marine Aviation Logistics Squadron 24; and Wounded Warrior Battalion
- **Community Members:** ‘Ohana Keohokalole, Board of Water Supply, Department of Land and Natural Resources, City and County of Honolulu Department of Transportation Services, Hawaii State Energy Office, Hawaii State Historic Preservation Division, Hawaiian Electric Company, Historic Hawaii Foundation, Kahalu’u Neighborhood Board, Kaneohe Neighborhood Board, Kailua Neighborhood Board, Hawaii State Department of Education Kailua-Kalaheo Complex Area, O‘ahu Metropolitan Planning Organization, and University of Hawaii

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Cover photos: HHF Planners. MARINE CORPS BASE HAWAII, 141201-D-RT812-218.JPG/Christine Cabalo, Dec 5, 2014. 150204-M-SB674-052.JPG/Pfc. Harley Thomas, Feb 13, 2015

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