United States Department of the Interior
National Park Service

National Register of Historic Places Registration Form

This form is for use in nominating or requesting determinations for individual properties and districts. See instructions in National Register Bulletin, How to Complete the National Register of Historic Places Registration Form. If any item does not apply to the property being documented, enter "N/A" for "not applicable." For functions, architectural classification, materials, and areas of significance, enter only categories and subcategories from the instructions.

1. Name of Property
   Historic name: Little Makalapa Navy Housing Historic District
   Other names/site number: Naval Housing Area No. 5, Makalapa Naval Housing
   Name of related multiple property listing:
   N/A
   (Enter "N/A" if property is not part of a multiple property listing)

2. Location
   Street & number: Palmyra Street and Tarawa Drive
   City or town: Honolulu
   State: Hawaii
   County: Honolulu
   Not For Publication: [ ]
   Vicinity: [ ]

3. State/Federal Agency Certification
   As the designated authority under the National Historic Preservation Act, as amended, I hereby certify that this nomination ___ request for determination of eligibility meets the documentation standards for registering properties in the National Register of Historic Places and meets the procedural and professional requirements set forth in 36 CFR Part 60.
   In my opinion, the property ___ meets ___ does not meet the National Register Criteria. I recommend that this property be considered significant at the following level(s) of significance:
   _ national    x statewide    ___ local
   Applicable National Register Criteria:
   _x_a    _x_b    _x_c    ___d

Signature of certifying official/Title: __________________________ Date: __________________________
State or Federal agency/bureau or Tribal Government: __________________________

In my opinion, the property meets does not meet the National Register criteria.

Signature of commenting official: __________________________ Date: __________________________
Deputy State Historic Preservation Officer: __________________________
Title: __________________________
State or Federal agency/bureau or Tribal Government: __________________________
4. National Park Service Certification
I hereby certify that this property is:

☐ entered in the National Register
☐ determined eligible for the National Register
☐ determined not eligible for the National Register
☐ removed from the National Register
☐ other (explain:)

Signature of the Keeper  Date of Action

5. Classification
Ownership of Property
(Check as many boxes as apply.)

Private:  
Public – Local  
Public – State  
Public – Federal  

Category of Property
(Check only one box.)

Building(s)  
District  
Site  
Structure  
Object
Little Makalapa Navy Housing Historic District
Honolulu County, Hawaii
County and State

Number of Resources within Property
(Do not include previously listed resources in the count)

<table>
<thead>
<tr>
<th>Contributing</th>
<th>Noncontributing</th>
</tr>
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<tbody>
<tr>
<td>15</td>
<td>N/A</td>
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<td>N/A</td>
</tr>
<tr>
<td>15</td>
<td>N/A</td>
</tr>
</tbody>
</table>

buildings
sites
structures
objects
Total

Number of contributing resources previously listed in the National Register 0

6. Function or Use

Historic Functions
(Enter categories from instructions.)
DOMESTIC
Institutional housing

Current Functions
(Enter categories from instructions.)
VACANT/NOT IN USE
Little Makalapa Navy Housing Historic District

Name of Property

Honolulu County, Hawaii
County and State

7. Description

Architectural Classification
(Enter categories from instructions.)
Modern Movement
Ranch Style

Materials: (enter categories from instructions.)
Principal exterior materials of the property: CONCRETE and WOOD

Narrative Description
(Describe the historic and current physical appearance and condition of the property. Describe contributing and noncontributing resources if applicable. Begin with a summary paragraph that briefly describes the general characteristics of the property, such as its location, type, style, method of construction, setting, size, and significant features. Indicate whether the property has historic integrity.)

Summary Paragraph

Little Makalapa Navy Housing Historic District (Little Makalapa Historic District) is a residential neighborhood that is located on the island of Oahu in the Hawaiian island chain. Little Makalapa Historic District is situated on the western exterior slope of the extinct Makalapa Crater, overlooking the waters and shore-based facilities of the Pearl Harbor naval installation, now known as Joint Base Pearl Harbor-Hickam (JBPHH). Little Makalapa Historic District is loosely bounded by Center Drive to the east, Kamehameha Highway to the south and west, and a naturally formed escarpment to the north. The 5.8-acre development consists of 15 wood framed, duplex buildings with attached carports, divided into 30 housing units. The homes were designed in the offices of locally renowned architect Charles William (C. W.) Dickey and constructed by Contractors Pacific Naval Air Bases (CPNAB) from 1941–42. The buildings combined architectural influences of the Modern movement and the Ranch Style. They are two-stories in height, feature double hipped and side-gabled roofs, covered lanais that extend the length of their front façades, and asymmetrical fenestration patterns. The buildings are sited along two internal roads, Palmyra Street and Tarawa Drive, which form a reverse D-shaped circulation network that loops through the property. The proposed historic district boundaries are shown in Figure 7-1a. The neighborhood’s perimeter is fenced and heavily vegetated. The vegetation has created a natural buffer from the busy thoroughfares and commercial districts nearby. Relatively minor architectural changes have been made to the duplexes since their construction, and few non-historic intrusions have been constructed within the boundaries of the district. The overall condition of the buildings is fair, although they have been vacant and under closure since 2006. The district maintains a high degree of integrity of location, design, setting, materials, workmanship, feeling, and association.
Little Makalapa Navy Housing Historic District

Narrative Description

SETTING
Little Makalapa Navy Housing Historic District is located in the middle of a highly developed commercial, residential, and military area (Figures 7-a thru 7-3b). To the northwest, an escarpment (Figures. 7-5 thru 7-7) creates a natural topographical boundary with a gulley, depressed approximately 30 feet lower than the district, to the northeast. Radford Drive, a primary east-west access route, bisects the gully from Kamehameha Highway, across the H-1 freeway, to Bouganville Drive (Figure 7-8). The larger Makalapa Navy Housing Historic District and CINPAC Headquarters are located further to the north. The eastern landscape is relatively flat and was once used for sugar planting, prior to acquisition by the Navy (Figure. 7-5). The Honolulu Sugar Plantation railway once crossed Kamehameha Highway and led northeast to cane fields in Hālawa Valley. By 1942, naval construction was underway on this adjacent site, including civilian dormitories, an amphitheater, and a pool. Today, the east boarder parcel is vacant with all previous development removed. The H-1 freeway is located just beyond this vacant lot further to the east. The Federal Fire Department complex is located to the south, with the H-1-Kamehameha Highway intersection shortly beyond. To the west, across Kamehameha Highway, Joint Base Pearl Harbor-Hickam spreads to the north and south along Southwest Loch (Figure 7-1b).

GEOGRAPHY AND TOPOGRAPHY
The layout of Little Makalapa Historic District was determined by topography and transportation. The district is roughly a triangle in shape, pointing south, and part of a rise created by Makalapa Crater (Figure 7-1a thru 7-7). This crater is one of Oahu’s late-stage volcanic eruptions, termed tuff cones, which result from the cementing of volcanic ash. (Geographical Maps, Section 9 Continuation Sheets, Page 1 & 2.) Over eons, erosion from the Makalapa Crater bowl created a drainage gulley and escarpment on the north side of Little Makalapa Historic District, which physically separates the district from other adjacent Navy properties. While the natural access to the property was from the east, the existence of the plantation railroad discouraged pedestrian and even vehicular movement in that direction. Instead, access was initially restricted to the west off Kamehameha Highway. An aerial photo shows the relationship between the neighborhood and Kamehameha Highway before the Radford Drive extension was completed ca. 1976 (fig. 7-5).

CIRCULATION PATTERNS: EXTERNAL
Kamehameha Highway, a major traffic arterial, separates the Little Makalapa Navy Housing Historic District from the rest of JBPBH. The highway was under construction when the neighborhood was planned and constructed. The circulation pattern design within the neighborhood intended to shield inhabitants from traffic and highway noise as much as possible. A report by Contractors Pacific Naval Bases (CPNAB) from the 1940s notes that, “The one unusual characteristic common to all these housing sites was their proximity to highly congested traffic arteries, namely Dillingham Boulevard and Kamehameha Highway. The development was planned to provide housing accommodations for families—women and children—and school facilities; it was a complex problem in community planning to make the areas safe for their occupants – free from direct contact with, or even encroachment by, these major highways.” As discussed in the Geography and Topography section, the layout of the neighborhood incorporated natural features to create barriers between the houses and the highway. (See Section 7 Continuation Sheets)

1 U.S. Navy, Fourteenth Naval District, “CPNAB Makalapa Housing Contract Technical Report,” Fourteenth Naval District Contracts Noy3550-Noy4173 Housing Recreation (n.p., n.d.): Xxvi a-917, provided by the archives of NAVFAC Hawaii, Joint Base Pearl Harbor-Hickam, Honolulu, Hawaii. Note that the use of the term “unusual” probably was not accurate; in retrospect, it is clear that a number of housing development projects across the United States intentionally were located near highways during this period.
8. Statement of Significance

Applicable National Register Criteria
(Mark “x” in one or more boxes for the criteria qualifying the property for National Register listing.)

☐ A. Property is associated with events that have made a significant contribution to the broad patterns of our history.

☐ B. Property is associated with the lives of persons significant in our past.

x C. Property embodies the distinctive characteristics of a type, period, or method of construction or represents the work of a master, or possesses high artistic values, or represents a significant and distinguishable entity whose components lack individual distinction.

☐ D. Property has yielded, or is likely to yield, information important in prehistory or history.

Criteria Considerations
(Mark “x” in all the boxes that apply.)

☐ A. Owned by a religious institution or used for religious purposes

☐ B. Removed from its original location

☐ C. A birthplace or grave

☐ D. A cemetery

☐ E. A reconstructed building, object, or structure

☐ F. A commemorative property

☐ G. Less than 50 years old or achieving significance within the past 50 years

Section 8 page 6
Little Makalapa Navy Housing Historic District
Honolulu County, Hawaii

Name of Property

Areas of Significance
(Enter categories from instructions.)
COMMUNITY PLANNING and DEVELOPMENT
ARCHITECTURE
MILITARY

Period of Significance
1940 - 45

Significant Dates
December 7, 1941

Significant Person
(Complete only if Criterion B is marked above.)
N/A

Cultural Affiliation
N/A

Architect/Builder
Dickey, Charles William (Architect)
Pacific Naval Air Bases (Contractors)
Little Makalapa Navy Housing Historic District

Statement of Significance Summary Paragraph (Provide a summary paragraph that includes level of significance, applicable criteria, justification for the period of significance, and any applicable criteria considerations.)

The Little Makalapa Navy Housing Historic District is a small and cohesive grouping of residences at Joint Base Pearl Harbor-Hickam that date from the World War II era. The district qualifies for inclusion in the National Register of Historic Places under Criteria A and C in the areas of Military, Community Planning and Development, and Architecture, at the state level of significance. Designed by master architect Charles W. Dickey, the district was part of the Navy’s expansive housing program implemented during military mobilization efforts in the early 1940s. The design of the residences embraced new planning philosophies from the era and combined regional architectural elements while utilizing new technologies and innovative assembly-line construction techniques. The district’s period of significance starts with its construction in 1940 and ends with the close of WWII in 1945. The neighborhood retains a high degree of integrity of location, design, setting, materials, workmanship, feeling, and association.

Narrative Statement of Significance (Provide at least one paragraph for each area of significance.)

The following narrative provides additional detail on the National Register criteria and areas of significance associated with the Little Makalapa Navy Housing Historic District. The narrative is organized first by criterion, and then by the associated area of significance, as outlined below:

- Criterion A
  - Military
- Criterion C
  - Community Planning and Development
  - Architecture

Within each of these sections, the narratives are arranged chronologically. Section 8 concludes with a series of figures that supplement the text of the narrative.

CRITERION A: MILITARY

The Little Makalapa Navy Housing Historic District is significant under Criterion A for its association with military events connected with the U.S. Navy’s preparations for World War II and its subsequent response to the Japanese attack of December 7, 1941, on Oahu military installations. The district is within a larger residential development originally known as Naval Housing Area No. 5. This and other parts of the base were part of a massive and unprecedented construction program at Pearl Harbor. Planned and built in anticipation of the influx of military and civilian personnel during the late 1930s and early 1940s. This build up and expansion demonstrated Hawaii’s and Pearl Harbor’s growing military and strategic significance, occurring at a time of great instability and upheaval in Asia and the Pacific region. The expanded mission of Pearl Harbor’s naval base, and the creation and relocation of other commands, created an acute housing shortage by the late 1930s and early 1940s. The Little Makalapa Navy Housing Historic District is a physical representation of the tremendous monies and energies focused upon construction projects at Pearl Harbor before official U.S. involvement in World War II that continued throughout the U.S.’s involvement in the war. The district filled critical wartime housing needs in and around the naval base at Pearl Harbor, the Navy’s largest installation within the Pacific-wide Fourteenth Naval District, helping to contribute to the overall war effort. (See Section 8 Continuation Sheet)
9. Major Bibliographical References

Bibliography (Cite the books, articles, and other sources used in preparing this form.)


Army and Navy Register. May 16, 1942.


“Fifty Plywood-Panel Houses Built at the Rate of One a Day.” Architectural Record (March 1939): 38-40.

Garner, John S. World War II Temporary Military Buildings: A Brief History of the Architecture and

Sections 9-end page 9


Hawaii Department of Land and Natural Resources, Bureau of Conveyances. Liber 83. No publisher, no date.


Little Makalapa Navy Housing Historic District
Name of Property


Little Makalapa Navy Housing Historic District

Name of Property

Honolulu County, Hawaii

County and State

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“Navy Starts its Big Oahu Housing Project.” *Honolulu Star-Bulletin*. November 2, 1940.


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Pare Lorentz Center at the FDR Presidential Library. “Franklin D. Roosevelt, Day by Day: July 29, 1944.” Accessed March 27, 2015. [Link](http://www.fdliblibrary.marist.edu/daybyday/daylog/july-29th-1944/)


Little Makalapa Navy Housing Historic District


...... *CINCPAC Administration Area, Makalapa Naval Housing Area, Halawa Civilian Dormitories, Naval Radio Station & District Public Works Maintenance Area, Halawa, Oahu, T.H., Showing Conditions on June 30, 1948 [map, # OA-NI-1672]*. From the Naval Facilities Engineering Command Archives, Port Hueneme, California, Fourteenth Naval District.


...... *CINCPAC Admin Area & CINCPACFLT/COMSERVPAC COM Area...N.H.A. Makalapa & N.H.A. IV, ...Makalapa, Oahu, T.H., Showing Conditions on June 30, 1953 [map]. Y&D #584882. From microfilm in former PACDIV Plan Files.*
Little Makalapa Navy Housing Historic District__________  Honolulu County, Hawaii

Name of Property


________. *General Development Map: Master Plan for Pearl Harbor Complex, Makalapa*, 1967 (with updates through 1970 and through 1972) [map, # 1160143]. From the archives of NAVFAC Hawaii, Joint Base Pearl Harbor-Hickam, Honolulu, Hawaii.


________. Navy Yard, Pearl Harbor, T.H., Makalapa Crater Area, showing Conditions as of June 30, 1944 [map, #OA-N1-1013]. From National Archives and Records Administration, San Bruno, California, in RG 181, 14th Naval District, District Staff Headquarters, General Correspondence 1936-1944, Box 2, Folder A1-1, FF12, Shore HQ to CINCPAC, 1944.


________. Pearl Harbor, T.H., Makalapa Area, Oahu, T.H., Recreation Area and Officers’ Quarters, Showing Conditions on June 30, 1941 [map]. Record Group 71, Cartographic Section, National Archives II, College Park, Maryland.

________. "Principal PNAB Projects in the Hawaiian Islands" [map]. Provided by NAV FACILITY(IES)


Sections 9-end page 14


Verhofstadt, F. LCDR. "History of 37 Makalapa." 1990. Typescript in binder found in quarters at 37 Makalapa Drive.


Little Makalapa Navy Housing Historic District  
Honolulu County, Hawaii  

Name of Property

Previous documentation on file (NPS):

- preliminary determination of individual listing (36 CFR 67) has been requested
- previously listed in the National Register
- previously determined eligible by the National Register
- designated a National Historic Landmark
- recorded by Historic American Buildings Survey #
- recorded by Historic American Engineering Record #
- recorded by Historic American Landscape Survey #

Primary location of additional data:

- State Historic Preservation Office
- Other State agency
- Federal agency
- Local government
- University
- Other

Name of repository: Library of Congress

Historic Resources Survey Number (if assigned): ____________

10. Geographical Data

Acreage of Property 5.88 Acres

Use either the UTM system or latitude/longitude coordinates

Latitude/Longitude Coordinates (decimal degrees)
Datum if other than WGS84: ____________
(enter coordinates to 6 decimal places)
2. Latitude: N/A Longitude: N/A
3. Latitude: N/A Longitude: N/A
4. Latitude: N/A Longitude: N/A

Or

UTM References
Datum (indicated on USGS map):

☐ NAD 1927 or ☑ NAD 1983

1. Zone: 4Q Easting: 610491 Northing: 2361441
2. Zone: N/A Easting: N/A Northing: N/A
3. Zone: N/A Easting: N/A Northing: N/A
4. Zone: N/A Easting: N/A Northing: N/A
Verbal Boundary Description (Describe the boundaries of the property.)

The boundary for the Little Makalapa Navy Housing Historic District is illustrated by the accompanying base map (Figure 1a). The boundary includes a roughly triangle-shaped area that is set within a fenced and secured residential compound generally bounded on the west by Kamehameha Highway, on the north by a natural escarpment, and on the east by Center Drive. Beginning at the south end of a lava stone retaining wall where it intersects with a chain-link fence behind Facility 1, the boundary extends in a northwesterly direction along the lava stone retaining wall that parallels Kamehameha Highway until it reaches the northwest corner of the rear yard of Facility 15. The boundary continues in a northeasterly direction along the chain-link fence and continues along the top of an escarpment until Tarawa Drive intersects with Palmyra Drive. The boundary continues to the southeast at an almost 90-degree angle, following the chain-link fence that crosses Tarawa Drive until it reaches a chain-link fence that defines the southeast limits of the rear yard of Facility 7. The boundary continues in a southwesterly direction along the chain link fence until it reaches the lava stone retaining wall at Kamehameha Highway, the point of beginning.

Boundary Justification (Explain why the boundaries were selected.)

The boundaries encompass a small yet intact neighborhood that includes mostly officers' duplexes that date to 1941. Topographic features, roadways, fence lines, and integrity of the district are used to guide boundaries. The district is distinguished from its surroundings by both topographical features and historic and non-historic transportation corridors that set the neighborhood apart from adjoining areas. Kamehameha Highway defines the western/southwestern boundary. The highway served as the west boundary of the neighborhood since its establishment in 1941, and functioned as a physical barrier that separated the neighborhood from the main Navy base. To the north/northwest, an escarpment and lava stone outcropping physically separates the neighborhood from the adjacent triangular-shaped open space that is roughly bound by Kamehameha Highway, Radford Drive, and Tarawa Drive. This triangular parcel of land northwest of the residential area has been excluded from the district's boundaries because it lacks historic integrity and has undergone significant changes after the period of significance (see Section 7 and Section 8); in accordance with National Register guidance presented in Bulletin 16a that recommends to "leave out peripheral areas of the property that no longer retain integrity, due to subdivision, development, or other changes." As discussed in Section 7, this triangle of land once included an extension of Palmyra Drive, with accompanying bollards and landscaping, which no longer remain (Figures. 7-3b, 7-6, 7-7, 7-8 and 7-9). To the east/southeast, the Little Makalapa Historic District’s boundary is defined by the fence line that separated this district from the civilian dormitory area that formerly abutted the district during the period of significance. During the period of significance Little Makalapa Historic District was distinct from the development and physical qualities of the dormitory to the east. No streets or roadways extended between or connected the two areas. A railroad corridor once ran between the two areas. Although it is no longer extant, the railroad functioned as a physical barrier that separated the two areas. Moreover, none of the resources associated with the civilian dormitory area that was present during the period of significance survive today.
11. Form Prepared By

Name/Title: Stanley Solamilo/Architectural Historian
Organization: Honolulu Authority for Rapid Transportation
Street & Number: 1099 Alakea Street, 23rd Floor
City or Town: Honolulu State: HI Zip Code: 96813
E-mail: ssolamilo@honolulu.gov
Telephone: (808) 768-6187
Date: August 14, 2015

Name/Title: Emily Thompson Payne/Architectural Historian
Organization: Hardy-Heck Moore, Inc.
Street & Number: 3500 Jefferson Street, Suite 330
City or Town: Austin State: TX Zip Code: 78731-6202
E-mail: epayne@hhminc.com
Telephone: (808) 768-6187
Date: August 14, 2015

Additional Documentation

Submit the following items with the completed form:

- **Maps**: A USGS map or equivalent (7.5 or 15 minute series) indicating the property’s location.
  - See Additional Documentation continuation sheets.

- **Sketch map** for historic districts and properties having large acreage or numerous resources. Key all photographs to this map.
  - See Additional Documentation continuation sheets.

- **Additional items**: (Check with the SHPO, TPO, or FPO for any additional items.)
  - See Additional Documentation continuation sheets.

Photographs

Submit clear and descriptive photographs. The size of each image must be 1600x1200 pixels (minimum), 3000x2000 preferred, at 300 ppi (pixels per inch) or larger. Key all photographs to the sketch map. Each photograph must be numbered and that number must correspond to the photograph number on the photo log. For simplicity, the name of the photographer, photo date, etc. may be listed once on the photograph log and doesn’t need to be labeled on every photograph.

Name of Property: Little Makalapa Navy Housing Historic District
City or Vicinity: Pearl Harbor
County: Honolulu County
State: Hawaii
Name of Photographer: Tony Martie
Date of Photographs: March 27, 2015

Sections 9-end page 18
Photo Log

Photo 1 of 49 (HI_Honolulu County_Little Makalapa Navy Housing Historic District_0001.tif)
View to west southwest. Little Makalapa sign.

Photo 2 of 49 (HI_Honolulu County_Little Makalapa Navy Housing Historic District_0002.tif)
View to south southwest. Natural berm and retaining wall.

Photo 3 of 49 (HI_Honolulu County_Little Makalapa Navy Housing Historic District_0003.tif)
View to southeast. Natural berm and retaining wall.

Photo 4 of 49 (HI_Honolulu County_Little Makalapa Navy Housing Historic District_0004.tif)
View to southeast. Rock retaining wall along Kamehameha Highway.

Photo 5 of 49 (HI_Honolulu County_Little Makalapa Navy Housing Historic District_0005.tif)
View to east southeast. Rock retaining wall along Kamehameha Highway.

Photo 6 of 49 (HI_Honolulu County_Little Makalapa Navy Housing Historic District_0006.tif)
View to northeast. View of Little Makalapa from across Kamehameha Highway.

Photo 7 of 49 (HI_Honolulu County_Little Makalapa Navy Housing Historic District_0007.tif)
View to northwest. Partial view of Little Makalapa from Center Drive.

Photo 8 of 49 (HI_Honolulu County_Little Makalapa Navy Housing Historic District_0008.tif)
View to southwest. Facilities 7 and 10 from entrance of Little Makalapa.

Photo 9 of 49 (HI_Honolulu County_Little Makalapa Navy Housing Historic District_0009.tif)
View to south southwest. View down Palmyra Drive and partial view of Tarawa Drive.

Photo 10 of 49 (HI_Honolulu County_Little Makalapa Navy Housing Historic District_0010.tif)
View to southwest. Tarawa Drive, Facilities 10, 12, and 15.

Photo 11 of 49 (HI_Honolulu County_Little Makalapa Navy Housing Historic District_0011.tif)
View to northeast. Tarawa Drive, Facility 10.

Photo 12 of 49 (HI_Honolulu County_Little Makalapa Navy Housing Historic District_0012.tif)
View to south southwest. Tarawa Drive, Facilities 12 (part of), 11, 12, 14, and 15.

Photo 13 of 49 (HI_Honolulu County_Little Makalapa Navy Housing Historic District_0013.tif)
View to south southwest. Tarawa Drive, Facilities 12, 11, 12, 14, and 15.

Photo 14 of 49 (HI_Honolulu County_Little Makalapa Navy Housing Historic District_0014.tif)
View to southeast. Tarawa Drive, Facilities 10, 9, and 12.

Photo 15 of 49 (HI_Honolulu County_Little Makalapa Navy Housing Historic District_0015.tif)
View to north northwest. Tarawa Drive, Facilities 13, 14, 15, 11, and 8.

Photo 16 of 49 (HI_Honolulu County_Little Makalapa Navy Housing Historic District_0016.tif)
View to northwest. Tarawa Drive, Facilities 13, 14, 15.

Photo 17 of 49 (HI_Honolulu County_Little Makalapa Navy Housing Historic District_0017.tif)
View to north northwest. Palmyra Drive (right) and Tarawa Drive (left), Facilities 8, 13, 14, and 15.
Little Makalapa Navy Housing Historic District

Honolulu County, Hawaii

Name of Property

Photo 18 of 49 (HI_Honolulu County_Little Makalapa Navy Housing Historic District_0018.tif)
View to east northeast. Palmyra Drive, Facilities 1, 2, and 8.

Photo 19 of 49 (HI_Honolulu County_Little Makalapa Navy Housing Historic District_0019.tif)
View to north northeast. Palmyra Drive, Facilities 2, 8, and 13.

Photo 20 of 49 (HI_Honolulu County_Little Makalapa Navy Housing Historic District_0020.tif)
View to north northwest. Facilities 8 (bounded by Palmyra Drive and Tarawa Drive), 14, and 15.

Photo 21 of 49 (HI_Honolulu County_Little Makalapa Navy Housing Historic District_0021.tif)
View to south southwest. Palmyra Drive, Facilities 10, 9, 5 and part of 6 on the left.

Photo 22 of 49 (HI_Honolulu County_Little Makalapa Navy Housing Historic District_0022.tif)
View to south. Palmyra Drive, Facilities 6, 5, and 10.

Photo 23 of 49 (HI_Honolulu County_Little Makalapa Navy Housing Historic District_0023.tif)
View to south. Facilities 10, 9, and 12.

Photo 24 of 49 (HI_Honolulu County_Little Makalapa Navy Housing Historic District_0024.tif)
View to west northwest. Facility 15.

Photo 25 of 49 (HI_Honolulu County_Little Makalapa Navy Housing Historic District_0025.tif)
View to east. Facility 11.

Photo 26 of 49 (HI_Honolulu County_Little Makalapa Navy Housing Historic District_0026.tif)
View to southeast. Facility 12.

Photo 27 of 49 (HI_Honolulu County_Little Makalapa Navy Housing Historic District_0027.tif)
View to north. Facility 11.

Photo 28 of 49 (HI_Honolulu County_Little Makalapa Navy Housing Historic District_0028.tif)
View to east southeast. Facility 8.

Photo 29 of 49 (HI_Honolulu County_Little Makalapa Navy Housing Historic District_0029.tif)
View to west southwest. Facility 14.

Photo 30 of 49 (HI_Honolulu County_Little Makalapa Navy Housing Historic District_0030.tif)
View to west southwest. Facility 13.

Photo 31 of 49 (HI_Honolulu County_Little Makalapa Navy Housing Historic District_0031.tif)
View to north northeast. Facility 3.

Photo 32 of 49 (HI_Honolulu County_Little Makalapa Navy Housing Historic District_0032.tif)
View to southeast. Facility 1.

Photo 33 of 49 (HI_Honolulu County_Little Makalapa Navy Housing Historic District_0033.tif)
View to southeast. Facility 2.

Photo 34 of 49 (HI_Honolulu County_Little Makalapa Navy Housing Historic District_0034.tif)
View to east southeast. Facility 3.

Photo 35 of 49 (HI_Honolulu County_Little Makalapa Navy Housing Historic District_0035.tif)
View to southeast. Facility 4.

Sections 9-end page 20
Little Makalapa Navy Housing Historic District
Honolulu County, Hawaii

Name of Property

Photo 36 of 49 (HI_Honolulu County_Little Makalapa Navy Housing Historic District_0036.tif)
View to southeast. Facility 5.

Photo 37 of 49 (HI_Honolulu County_Little Makalapa Navy Housing Historic District_0037.tif)
View to west southwest. Facility 5.

Photo 38 of 49 (HI_Honolulu County_Little Makalapa Navy Housing Historic District_0038.tif)
View to southeast. Facility 6.

Photo 39 of 49 (HI_Honolulu County_Little Makalapa Navy Housing Historic District_0039.tif)
View to north northwest. Facility 6.

Photo 40 of 49 (HI_Honolulu County_Little Makalapa Navy Housing Historic District_0040.tif)
View to southeast. Facility 7.

Photo 41 of 49 (HI_Honolulu County_Little Makalapa Navy Housing Historic District_0041.tif)
View to west southwest. Facility 7.

Photo 42 of 49 (HI_Honolulu County_Little Makalapa Navy Housing Historic District_0042.tif)
View to southeast. Facility 7.

Photo 43 of 49 (HI_Honolulu County_Little Makalapa Navy Housing Historic District_0043.tif)
View to south southwest. Facility 7.

Photo 44 of 49 (HI_Honolulu County_Little Makalapa Navy Housing Historic District_0044.tif)
View to west northwest. Facility 10.

Photo 45 of 49 (HI_Honolulu County_Little Makalapa Navy Housing Historic District_0045.tif)
View to south southeast. Facility 10.

Photo 46 of 49 (HI_Honolulu County_Little Makalapa Navy Housing Historic District_0046.tif)
View to west northwest. Facility 9.

Photo 47 of 49 (HI_Honolulu County_Little Makalapa Navy Housing Historic District_0047.tif)
View to southeast. Facility 9.

Photo 48 of 49 (HI_Honolulu County_Little Makalapa Navy Housing Historic District_0048.tif)
View to west northwest. Facility 8.

Photo 49 of 49 (HI_Honolulu County_Little Makalapa Navy Housing Historic District_0049.tif)
View to west. Facility 12.

Paperwork Reduction Act Statement: This information is being collected for applications to the National Register of Historic Places to nominate properties for listing or determine eligibility for listing, to list properties, and to amend existing listings. Response to this request is required to obtain a benefit in accordance with the National Historic Preservation Act, as amended (16 U.S.C.460 et seq.).

Estimated Burden Statement: Public reporting burden for this form is estimated to average 100 hours per response including time for reviewing instructions, gathering and maintaining data, and completing and reviewing the form. Direct comments regarding this burden estimate or any aspect of this form to the Office of Planning and Performance Management. U.S. Dept. of the Interior, 1849 C. Street, NW, Washington, DC.
(Continued from Top Sheet)

The small size of Little Makalapa Historic District helped limit traffic, as did the design of the neighborhood's streets. Because there were only 15 duplexes (30 housing units), the neighborhood was initially designed to have a single entrance (Figure 7-2a and 7-2b). The original 1940s entrance was located off of Kamehameha Highway on the southwest side of Palmyra Drive. An unpaved extension was later made available from the northeast side of Palmyra Drive, looping down-slope and connecting with Kamehameha Highway (Figure 7-3a). The curvilinear road was landscaped with trees and vegetation to further create a sense of separation and privacy from the busy roadways and naval properties nearby. A 1942 site plan (Figure 7-3b) identifies a plan the Navy had at one time to expand Little Makalapa Historic District and build additional duplexes along the Palmyra Drive extension, but was never realized. Around 1944, Palmyra Drive was altered a second time to connect with Makalapa Drive, instead of Kamehameha Highway, when Makalapa Gate was constructed. Makalapa Gate was designed to provide access to Pearl Harbor from Kamehameha Highway at Makalapa Drive (Figure 7-6). This alteration changed Makalapa Drive from a secondary access drive to a busy primary access route and entry point to Pearl Harbor and the Navy residential neighborhoods across the street. In 1946, the Navy paved the Palmyra Drive extension and closed the original southwest Kamehameha Highway access point. The Makalapa Gate intersection was altered again with the development of the H-1 Interstate Highway and the Radford Drive extension in 1976 (Figure 7-8). At that time, the northeast Palmyra Drive extension was removed and access to the neighborhood was reworked. Instead of looping down and around to meet with Makalapa Drive, Palmyra Drive was changed back to its original 1941 plan. A short, curving, spur was added to the end of the Palmyra Drive to intersect with Center Drive to the east, near the Center Drive/Radford Drive intersection (Figure 7-9).

Had the Palmyra Drive extension been retained and preserved, the Palmyra Drive extension, the triangular portion of land below the escarpment drop-off (at the corner of Radford Drive and Kamehameha Highway), and the extension's landscape features would have been considered contributing to the historic district. However, it is considered to be non-contributing to the historic district because of its alteration and lack of integrity of design, materials, workmanship, feeling and association. The parcel has been completely cut off from Little Makalapa Historic District and most of its historic landscape features have been removed (Photo 42-46).

CIRCULATION PATTERNS: INTERNAL

Within Little Makalapa Historic District, the streets do not form a grid or geometrical pattern. Instead, the road patterns reflect the site's organic topography (Figure 7-5; Photos 42-46). Beyond the boundaries of the neighborhood, residents would have easily been able to drive, walk, or ride a bike to other portions of the base and surrounding businesses along the busy Kamehameha Highway. However, Tarawa and Palmyra Drives are tucked away from the main thoroughfare, and form a reversed D-shaped loop from which only one entrance/exit is available. The complex has an inward focus, away from the perimeter. This design was intended to create a safe, scenic, insulated

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2 Mason Architects and Belt Collins Hawaii, Historic Context Study of Historic Military Family Housing in Hawaii (Washington, D.C.: Department of Defense Legacy Resources Management Program, 2003): 5-120. This study sets forth the organization of types that is adopted herein.

3 Mason Architects, Historic Context Study of Historic Military Family Housing in Hawaii, 5-120.
environment within the neighborhood and a buffer from the busy military and commercials services surrounding it. Its location was chosen for mobility, accessibility, convenience, and privacy.

LANDSCAPE PATTERNS
Landscaping incorporated into the initial planning of the Little Makalapa Navy Housing Historic District is one of the key elements that create a unique sense of place within the neighborhood. Immediately after the neighborhood was constructed, trees were planted around the houses, as well as along the site’s border with surrounding roadways to the west, south, and east (Figure 7-9). The trees planted along the site’s western boundary, along Kamehameha Highway, create an important natural barrier between the busy roadway and the neighborhood and enhance the buffers inherently established by the topography of the landscape. These buffers contribute to the feeling of separation, seclusion, and privacy first developed by the neighborhood’s circulation patterns and roadways. Major trees and palms planted include Monkeypod, Banyan, Klaue, and Coconut; other foliage includes Plumeria, Brassia, Kalona, Shower Trees, Royal Poinciana and Areca and Manila Palms. Many of the trees are overgrown and have not been trimmed or maintained by Navy landscaping crews. There are no sidewalks in the neighborhood. (Refer to Photos 14 and 35.) Historically, bollards lined the eastern edge of Tarawa Drive (Figure 7-7), they remain intact today and are considered a contributing feature to the historic district (Photo 40).

RELATIONSHIP OF BUILDINGS TO ONE ANOTHER
Little Makalapa Navy Housing Historic District occupies a plateau adjacent to Makalapa Crater. Unlike other Navy residential neighborhoods constructed at the time, Little Makalapa Historic District has no planned public amenities inside the community for the benefit of occupants. The long-established foliage, internal road pattern, and the residential housing units provide the historic character of the neighborhood (refer to Table 1 for a full list of contributing buildings).

The Little Makalapa Historic District consists of 15 duplexes that contain 30 individual housing units. Ten of the duplexes are located along the perimeter of the neighborhood while five duplexes occupy the center of the neighborhood on an island created by the looping roads of Palmyra and Tarawa Drives. The duplexes are evenly spaced, with small front and rear yards. There are no public open green spaces or other recreational spaces within the neighborhood (Photos 57-61). Wood slat and chain-link fences, in various conditions, demarcate many of the yards (see Photos 58-54). There are seven units along Palmyra Street. They are lined in a row with the buildings’ lengths facing the street. The five units within the Tarawa Drive ring are placed irregularly. Three units located on Tarawa Drive, along the edge of Kamehameha Highway, are also irregularly arranged to follow the curve of the drive.

Each duplex unit has two floors, with an attached carport along the exterior sidewall. Architect C. W. Dickey used hipped roofs on the main part of each building. The attached one-story carports and covered lanais across the front façades feature flat roofs and are elements normally associated with single-family dwellings, not institutional housing. These architectural elements are one of the only decorative features incorporated within the residences’ designs. They do much to soften the impact of the dense development and buildings’ proximity to other dwellings throughout the district.

Little Makalapa Historic District originally contained two splinter-proof bomb shelters. One shelter was located near Facility 12, on the east side of Tarawa Drive. The other shelter was located near Facility
15, on the west side of Tarawa Drive. After the war, both were used for storage purposes before being demolished in 1972 and 1966, respectively. The sites where these structures once stood are now open.

The only planned recreational open space in the vicinity of Little Makalapa Historic District is a recent addition located outside of the neighborhood. A “Tot Lot,” complete with playground equipment, was installed by the Navy on a portion of the old Honolulu Plantation Company railroad right-of-way, adjacent to Center Drive and to the southwest of the Palmyra Drive entrance. Access to and from the lot and the neighborhood was created behind Facility 6. Neither the “Tot Lot” nor the access route are contributing features to the district.

ARCHITECTURAL DESCRIPTIONS

The 15 duplexes in Little Makalapa Historic District display a consistency of materials and design details. They were all designed by architect C. W. Dickey in a style influenced by the Modern movement with some Ranch Style influences (Photos 1-35). The simple, unadorned wall surfaces, corner windows, and flat-roofed carports and porches are characteristic of these stylistic influences. The housing units were constructed under the same project from 1941–42. There are two building types—a two-bedroom and three-bedroom unit—originally designated “Type 2C” and “Type 3C” on Dickey’s plans in 1941. They were re-assigned as “Type H” and “Type E,” and recorded on a Navy map in 1948. Their monikers were later changed at an indeterminate date by the Navy to “Type 6” and “Type 7,” respectively.

Contractors Pacific Naval Air Bases (CPNAB) reported in 1941 that the duplexes in Little Makalapa Historic District were constructed as “Civilian quarters,” however, upon completion, they were used instead to house officers. As discussed in Section 8, a personnel roster printed in November 1941 stated that there were 12 officers listed as living in the Little Makalapa quarters; they included intelligence and communications officers as well as chief petty officers and the ensigns for mine sweepers and net layers that operated in near shore waters.

In addition to the consistent use of standardized designs, the duplexes utilize a uniformity of building materials and color that enhances a sense of cohesiveness and visually ties the neighborhood together. The dominant building materials are horizontal wood siding and concrete brick. Historic photographs indicated that the exterior wall colors in 1945 were very dark with white or light-toned trim at the second stories and a white or light-toned base color with a dark trim on the first-stories. It is not known when the present color scheme—which has the duplexes painted either beige or pale blue with contrasting white trim—was introduced in the neighborhood.

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4 U.S. Navy, CINCPAC Administration Area, Makalapa Naval Housing Area, Halawa Civilian Dormitories, Naval Radio Station & District Public Works Maintenance Area, Halawa, Oahu, T.H., Showing Conditions on June 30, 1948 [map, # OA-NI-1672], from the Naval Facilities Engineering Command Archives, Port Hueneme, California, Fourteenth Naval District.

5 Mason Architects, Historic Context Study of Historic Military Family Housing in Hawaii, 5-125.


The duplex units in the district are two stories in height with designs that have a horizontal emphasis and proportions that are roughly four times as wide as they are tall, typical of Dickey's work. The incorporation of hipped roof designs with wide eaves and exposed rafters further contributes to the horizontality of the buildings. Pent roofs also cast shade over first-floor windows, creating a line of shadow that adds to the horizontal emphasis. Most porches have flat or low-sloped shed roofs, supported by square posts. Other similar characteristics shared amongst most residences include wood-sash, one-over-one, double-hung windows, many of which are original. Since the houses are vacant and currently unoccupied, many windows are currently boarded with plywood. Many duplexes feature a fenestration pattern with corner windows on the upper floor, a hallmark of design influenced by the Modern movement. Original wood-sash sliding windows and hopper windows also are common throughout the district, and all of the duplexes consistently have single door entrances. All of the duplexes have attached carports. Little Makalapa Historic District housing units are the only World War II-era quarters at Pearl Harbor designed in that manner. The incorporation of the carports as part of the duplex designs suggests the anticipated reliance on automobiles as a means of transportation for the occupants.

OFFICERS' QUARTERS

Facility Nos. 1, 3, 5, 7-8, 11-15 (Type 6)

Ten of the 15 Officers' Quarters in Little Makalapa Historic District are Type 6 units. Five of them are located along Palmyra Drive while the remaining five flank Tarawa Drive. These dwellings are two-bedroom units and contain 1,480 square feet of usable space. The units have concrete slab foundations that extend slightly beyond the plane of the exterior walls. The first story and duplex party walls are of double-wall construction, clad in horizontal wood drop siding, while the second story walls are of single-wall construction and clad in vertical tongue-and-groove wood siding. All of the units are fenestrated with one-over-one, double-hung, wood-sash sash windows. Most of these windows are paired. There are continuous flat pent roofs that extend across the building fronts and over the carports on the sides that are supported by wood posts and beams. The buildings' main roofs are hipped and covered in asphalt shingles, with gables that are fenestrated with wood louvered vents. The eaves are wide, with exposed rafters trimmed at their ends with narrow fascia boards. There are screened vent holes in the eave blocking for attic ventilation.

Figure 7-10 shows floor plans for the Type 6 duplexes. The first floor includes living room, dining room, kitchen, coat/broom closet, and stair to the second floor, as well as an exterior utility room and attached carport. The second floor contains two bedrooms, bathroom, and linen and trunk-storage closets. The units are arranged symmetrically with floor plans mirrored about a common party wall.

OFFICERS' QUARTERS

Facility Nos. 2, 4, 6, 9-10 (Type 7)

Five of the 15 Officers' Quarters in Little Makalapa are Type 7 units. All five buildings are located along Palmyra Drive. These dwellings are three-bedroom units and contain 1,832 square feet of livable space. Like the Type 6 units, these dwellings have concrete slab foundations that extend slightly beyond the plane of the exterior walls. The first story and duplex party walls are of double-wall construction, clad in horizontal wood drop siding while the second story walls are of single-wall construction and clad in vertical tongue-and-groove wood siding. All of the units are fenestrated with one-over-one light, double-hung wood sashes. Most of these windows are paired, but they have been
tripped on the front façades. Flat roofs extend across the first floor of the front façade of each home and continue over the carports, located at the side of each home, which are supported by wood posts and beams. The buildings feature hipped roofs covered in asphalt shingles, with gables fenestrated with wood louvered vents. The eaves are wide, with exposed rafters, and have been trimmed at their ends with narrow fascia boards. There are screened vent holes in the eave blocking for attic ventilation.

Figure 7-11 shows floor plans for the Type 7 duplexes. Although similar in configuration to the Type 6 units, the Type 7 floor plans are substantially larger. The first floor includes a living/dining room, family room, kitchen, coat/broom closet, and stair to the second floor, as well as an enclosed utility room with half-bath, and attached carport. The second floor contains three bedrooms, a bathroom, and large linen and trunk-storage closets. The units are arranged symmetrically with floor plans mirrored about a common party wall.

INTEGRITY

INTEGRITY OF SETTING AND FEELING
Within the boundaries of the historic district, the overall setting and feeling of the Little Makalapa Historic District retains a significant level of integrity. The maturing of the neighborhood's original landscaping has developed into a protective buffer that insulates the neighborhood from the development occurring around it. This protective buffer allows the neighborhood to retain its historic feeling of separation and seclusion. Regardless of being loosely bounded by the H-1 freeway, the heavily traversed Radford Drive, and the overly developed Kamehameha Highway. However, the setting and feeling surrounding the district has changed significantly since the period of significance. To the north, the open space that had been present during the period of significance (Figure 7-2a and b) has been bisected by the Radford Drive extension (Figure 7-8). To the east, the H-1 freeway has been constructed. To the south, a major intersection of the H-1 freeway and Kamehameha Highway has been developed. And, to the east, Joint Base Pearl Harbor-Hickam has gone through major modernization developments and expansion. The mature landscaping almost completely shields these changes from the district. So much so, that the Little Makalapa Historic District maintains its overall integrity of setting and feeling.

INTEGRITY OF ASSOCIATION AND LOCATION
All of the original duplex buildings within Little Makalapa Historic District are still extant and retain their integrity of association and location. The buildings remain sited in their original locations and are still owned by the United States Navy. No new development or infill has occurred within or adjacent to the historic district. Though vacant, the homes retain their association with Joint Base Pearl Harbor-Hickam, the military activities associated there, and the history of the base.

INTEGRITY OF DESIGN, MATERIALS, AND WORKMANSHIP
The Little Makalapa Historic District retains its integrity of design, materials, and workmanship to a noteworthy degree. The design of the street pattern remains intact within the district boundaries, and the bollards lining the eastern side of Tarawa Drive retain the same appearance as during the period of

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8 U.S. Navy, General Development Map: Master Plan for Pearl Harbor Complex, Makalapa, 1967 (with updates through 1970 and through 1972) [map, # 1160143], from the archives of NAVFAC Hawaii, Joint Base Pearl Harbor-Hickam, Honolulu, Hawaii.
significance. Alterations to the design, materials, and workmanship of the buildings vary, as discussed under each building type and further detailed in Table 1. However, the most visible exterior changes are primarily limited to the application of protective plywood panels covering first-floor windows (Facilities 1–15), replacement of the original wood shingles with asphalt shingles (Facilities 1–15), modification of storage for half-baths, and replacement of sliding wood sash windows with jalousie windows on two duplexes (Facilities 12–13). Other alterations have been confined to the buildings' interiors.

Type 6 units generally retain their historic plans and unique features. They typically retain exterior finishes that date to the period of significance. Common changes that have occurred have been primarily limited to the interior of each residence and include: replacement of canec ceilings with plywood or gypsum board; and, new bathroom and kitchen surfaces, fixtures, and hardware. Facilities 3 and 5 have new interior doors to connect the duplex units at the top and bottom of the interior staircases. Similarly, Type 7 units retain much of their historic plans and unique features. They largely retain exterior finishes dating to the period of significance. Most changes have been completed in the interior. Common alterations include replacement of canec ceilings with plywood or gypsum board; and, new bathroom and kitchen surfaces, fixtures, and hardware.

**TABLE 1. LIST OF BUILDINGS AND STRUCTURES**

<table>
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<tr>
<th>Facility No.</th>
<th>Address or Location</th>
<th>Category</th>
<th>Housing/Facility Type</th>
<th>Additions/Alteration</th>
<th>Recent Renovations</th>
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### National Register of Historic Places Continuation Sheet

#### Section number 7  Page 7

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<th>Housing/Facility Type</th>
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#### Notes for Recent Renovations Column

- **Note 1:** Roof replacement (n.d.)
- **Note 2:** Interior finish (canec to gyp. board), bathroom and kitchen finish and fixture modification, minor repairs and painting (n.d.)
- **Note 3:** Interior doors added to connect duplex units at top and bottom of stairs (n.d.)
- **Note 4:** Sliding wood sash replaced with jalousie windows (n.d.)
Little Makalapa Navy Housing Historic District
Name of Property
Honolulu County, Hawaii
County and State
Name of multiple listing (if applicable)

Section number 7  Page 8

Figure 7-1a. Little Makalapa Historic District Boundary. Google, Imagery © 2015 Digital Globe, U.S. Geological Survey, USGS
Figure 7-1b. Little Makalapa Historic District Boundary. Google, Imagery © 2015 Digital Globe, U.S. Geological Survey, USGS
Figure 7-2a. Map Showing Development of Recreation Area Officer's Quarters in Makalapa Area [NARA-MD, RG 71] Source: NAVFAC Hawaii Archives, Joint Base Pearl Harbor-Hickam, Honolulu, Hawaii.
Figure 7-2b. Map Showing Development of Recreation Area Officer's Quarters in Makalapa Area [NARA-MD, RG 71] Source: NAVFAC Hawaii Archives, Joint Base Pearl Harbor-Hickam, Honolulu, Hawaii.
Figure 7-3a. 1942 Map of Navy Housing Areas 1 to 5 showing future development plans for Area 5. Source: NAVFAC Hawaii Archives, Joint Base Pearl Harbor-Hickam, Honolulu, Hawaii.
Figure 7-3b. 1942 Map of Navy Housing Areas 1 to 5 showing future development plans for Area 5. Source: NAVFAC Hawaii Archives, Joint Base Pearl Harbor-Hickam, Honolulu, Hawaii.
Figure 7-4. Map showing the area north of the Little Makalapa Navy Housing Historic District, including the hairpin curve of Palmyra Drive required to navigate the steep slope. Map entitled Makalapa Radio Station, 14th Naval District-Pearl Harbor, T.H., Showing Conditions on June 30, 1942. Source: Archives of NAVFAC Hawaii, Joint Base Pearl Harbor-Hickam, Honolulu, Hawaii, Map. No. OA-NA-555.
Figure 7-5. Detail of aerial photograph from ca. 1940, facing south/southwest, showing the Makalapa Naval Housing Area under construction, and the land beyond to the east undeveloped. The Little Makalapa Navy Housing Historic District is shown in red. Source: Archives of NAVFAC Hawaii, Joint Base Pearl Harbor-Hickam, Honolulu, Hawaii.
Figure 7-6. Enlargement of Map of CINCPAC Administration Area, Makalapa Naval Housing Area, Halawa Civilian Dormitories, Naval Radio Station & District Public Works Maintenance Area, Halawa, Oahu, T.H. Fourteenth Naval District, Showing Conditions on June 30, 1948. Source: Archives of NAVFAC Hawaii, Joint Base Pearl Harbor-Hickam, Honolulu, Hawaii, Map. No. OA-NA-1672.
Figure 7-7. Undated aerial photo showing the relationship of the Little Makalapa Navy Housing Historic District to the Radio Station and Kamehameha Highway prior to the construction of the Radford Drive extension ca. 1976. Source: Archives of NAVFAC Hawaii, Joint Base Pearl Harbor-Hickam, Honolulu, Hawaii.
Figure 7-8. Photograph of the Makalapa Gate intersection, with hand-drawn overlay showing the future Radford Drive extension. Source: Archives of NAVFAC Hawaii, Joint Base Pearl Harbor-Hickam, Honolulu, Hawaii.
Figure 7-10. Floor plan for Type 6 duplexes in the Little Makalapa Navy Housing Historic District. Source: Mason Architects, ca. 2013.
Figure 7-11. Floor plan for Type 7 duplexes in the Little Makalapa Navy Housing Historic District. Source: Mason Architects, ca. 2013.
Figure 7-12. Photograph from ca. 2014 with overlay showing the former alignment of Palmyra Drive, as well as the extant street drain. Note the differences in landscaping as compared with Figure 7-4. Source: Archives of NAVFAC Hawaii, Joint Base Pearl Harbor-Hickam, Honolulu, Hawaii.
U.S. military interest in the waters of Pearl Harbor and the surrounding lands began around 1840, when Commander Charles Wilkes of the U.S. Navy took soundings to measure the depth of the “Pearl River”. Wilkes reported that, “if the water upon the bar [entrance] should be deepened, which I doubt not can be effected, it would afford the best and most capacious harbor in the Pacific.” As international trade across the Pacific grew over the course of the nineteenth century, the strategic importance of Hawaii and the potential naval importance of Pearl Harbor also grew.

The U.S. military began scouting locations for a potential naval installation in Hawaii as early as 1873. The USS California landed an American military commission at Honolulu, led by two high ranking officers of the U.S. Army, General John M. Schofield and Brevet Brigadier General B. S. Alexander. They were given secret instructions by U.S. Secretary of War William Belknap to conduct a survey of the Hawaiian Islands for potential military and commercial facilities. That same year, Hawaiian agricultural investors proposed a reciprocity treaty that would make “Pearl Lagoon” available to the U.S. military in return for reduced tariffs on Hawaiian exports. Most of the Native Hawaiian population opposed the plan. King Lunalilo supported the agreement, but passed away in 1874 and negotiations were abandoned for the time. In 1875, a new proposal was passed by the Hawaiian Legislature and approved by Lunalilo’s successor, King Kalakaua. The U.S. Congress agreed to allow the Kingdom of Hawaii’s sugar and rice to enter into the United States tax-free for seven years, without the controversial cessation of Ke-Awakau-o-Puuloa (Pearl Harbor) for the U.S. Navy. The 1875 Reciprocity Treaty proved highly profitable for the sugar plantations, and the sugar interests soon sought an extension. Opposition within the United States delayed any new agreement until January 20, 1887, when the U.S. Senate secretly agreed to a new treaty, with the proviso that granted the United States exclusive military access to Pearl Harbor.11

The United States government did not actually begin any construction activities at Pearl Harbor until after the annexation of Hawaii in 1898. In 1900, a decision-making board was convened to further examine the best location for the base within the Pearl Harbor estuary. The government of the United States of America ultimately decided to acquire 719 acres beside the Southeast Loch that included Kuahua Island and the south side of Mokuumume (Ford) Island.12 The initial acquisition was located adjacent to the Makalapa crater, which would later become the Little Makalapa Navy Housing Historic District. Based upon past opposition to land purchases by land owners, condemnation was undertaken in 1902. Once lands were acquired, the Navy denied Native Hawaiians access to resources including shoreline loko ia (fishponds) and the freshwater pond of Makalapa Crater.13 Refer to Appendix A for additional information regarding Native Hawaiian use of the area.

Development of the naval installation at Pearl Harbor occurred slowly during the early twentieth century. After World War I the balance of power in the Pacific shifted as postwar treaties led to the

13 Louis Berger Group, Draft Final Historic Context Report: Pearl Harbor National Historic Landmark (Honolulu, Hawai’i: Submitted to NAVFAC-Hawaii, 2014), 4-19. Note that this history is somewhat controversial and contested by different sources.
redistribution of European colonial possessions in the region. In this environment, Japan embarked on a program of colonial expansion in China and the Pacific islands to the south. The Japanese adopted such policies, in part, because of a worldwide economic depression after the war as well as the country's need to gain access to additional natural resources. Sensing that Japan was a growing threat and that a war in the Pacific was becoming more probable, the United States government improved and expanded the base at Pearl Harbor in the early to mid-1920s, despite the prevailing isolationist political sentiment after World War I. The facilities construction programs for the post WWI era focused almost exclusively on land that the U.S. government initially had acquired in 1902. All of these developments aimed to provide the facilities that the U.S. Pacific fleet would need if berthed at Pearl Harbor during a war. This work necessitated an increase in the labor force, and an accompanying increase in labor housing. As early as 1926, a study published by a naval board known as the McKay Board estimated that the workforce in the Navy Yard could reach over 12,000 mechanics and helpers, most of whom would be transplanted from the mainland and would require new housing.

The impact of the Great Depression became apparent in 1930, and the federal government adopted conservative fiscal policies and cut federal spending in response to dwindling revenues. This affected all departments and agencies, including the Department of War and the U.S. Navy. For example, President Herbert Hoover implemented a cost-savings program by rotating the naval fleet into reserve status on a three-year cycle. These and other cuts that directly affected the Navy were related to a series of disarmament treaties signed after World War I. These agreements effectively limited militarization among the world's developed countries. However, Pearl Harbor actually benefitted from those treaties. Since these agreements stated that no new military bases could be established in the Pacific, the Navy focused most of what few resources it could devote to the region on improving and developing Pearl Harbor to maintain and consolidate a U.S. presence in the Pacific.

In 1938, Pearl Harbor's strategic significance was further enhanced following the designation of Hawaii as the westernmost point on a strategic defensive line stretching from the Panama Canal westward to American Samoa, then northward to Hawaii and Alaska beyond (see Figure 8-1). Pearl Harbor managed to thrive and expand because of its key role in this defensive scheme, in an era when both economics and political sentiment limited expansion elsewhere.

The Main Base was pressed for space due to the increased demand for facilities to service the fleet. It became clear that the Navy needed additional lands at Pearl Harbor to meet these needs and to accommodate further expansion and development. Most of the area surrounding Pearl Harbor in the

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14 Frederick D. Parker, *United States Cryptologic History: Pearl Harbor Revisited, United States Navy Communications Intelligence, 1924-1941* (Washington, D.C.: Center for Cryptologic History, National Security Agency, 1994), 25-29. From *ibid.: The Public's Library and Digital Archive*, http://ibiblio.org/hyperwar/PTO/Magic/Comint-1924-41/index.html. This resource also details how U.S. naval strategic planning responded to the Japanese threat. From 1905 through 1938, the U.S. began developing "Orange" war plans, with orange representing Japan. In 1939, the U.S. began to develop "Rainbow" war plans, merging their war plans for both the Atlantic and Pacific, preparing for the possibility of war on both fronts. Japan remained "Orange" within these "Rainbow" plans.


16 Ibid., 6-28 through 6-30.

late 1930s was rural, with large tracts devoted to sugarcane cultivation. The land’s prevailing agricultural character and the relative lack of nearby private sector rental housing could not accommodate the projected influx of military and civilian personnel. Even in the urban areas of Honolulu, the amount and quality of housing choices were limited. A newspaper article reported that a Congressional subcommittee had recommended Navy housing construction, at least in part, because “a number of enlisted men with their families are now required to live in Honolulu in unsanitary, dilapidated and unhealthy surroundings.” To address this need, the military began planning for expanded housing facilities adjacent to both Army and Navy installations in the Honolulu area as early as 1938. Construction would begin in 1940. As the Bureau of Yards and Docks described:

“The tremendous expansion of facilities in the Pearl Harbor area gave rise to a concomitant program of housing construction, which began during the fall of 1940 and continued throughout the war period. This housing was built to accommodate civilian employees of the yard, contractors’ employees, and naval personnel on duty in the area or in a transient status.”

Like many contemporaneous residential suburbs developed on the United States mainland, these new neighborhoods centered on access to transportation arteries. At the time, the Kamehameha Highway was under construction, using relief funding from the Works Progress Administration (WPA) (see Figure 8-2). One of the first priorities for this highway construction project was the segment running from Aiea to Pearl Harbor’s main gate. The Navy targeted lands alongside this new highway segment when scoping locations for potential new housing developments so that residents could use the new highway. Among the parcels acquired for development was the future site of Little Makalapa Navy Housing Historic District as well as other housing areas. These developments encompassed land within the Halawa Ahupuaa, owned by the Bishop and Queen Emma Estates, and within the Moanalua Ahupuaa, under the ownership of the Damon Estate (Figure 8-3). Prior to its development for housing, the Makalapa Crater was used for sugar planting. The Honolulu Plantation Company made significant investments to the land to make it usable for agricultural purposes. Together, these parcels totaled 672 acres. The location of this proposed land acquisition relative to the Pearl Harbor military installation as a whole is depicted in figures 8-4 and 8-5.

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18 “Navy Seeks Land for $4,214,000 Housing Project” Honolulu Star Bulletin, October 31, 1939, 1.
21 Frank J. Rader, “The Works Progress Administration and Hawaiian Preparedness, 1935-1940,” Military Affairs 43, no. 1 (Feb. 1979), 12-17. Available from JSTOR, http://www.jstor.org/stable/1987382. This resource details the close relationship between military development and the WPA investment in the highway system in Hawaii, stating: “The WPA's extensive highway improvement program in conjunction with the Public Roads Administration offered further proof of the strengthening of ties between work relief and national defense in Hawaii. The Army, Navy and National Guard sponsored several highway projects, for as one military spokesman said, ‘Good roads are important in the movement of modern mechanized troops.’
22 The U.S. government’s taking of these lands proved to be a significant financial hardship for the company, and it would go out of business by 1948. In the 1930s, the company had drilled several wells, developed Makalapa as one of its major reservoirs, planted cane up to the shoreline and reconfigured the shape of the land in both the crater and the natural drainage channel makai toward Pearl Harbor. The Navy created a well-engineered intake and overflow system, parts of which are still visible below the Navy’s Hale Keiki complex on Bougainville Drive, outside of the boundaries of the Little Makalapa Navy Housing Historic District. (The drainage system still enters the Southeast Loch.)
The U.S. Navy began condemnation proceedings for the acquisition of this land by October 31, 1939, as the *Honolulu Star-Bulletin* reported.\(^23\) The planning process divided the land into five separate housing areas south of Halawa Stream. Each planned as an independent entity (see Figures 8-6 and 8-7). As described by the Bureau of Yards and Docks’ publication, *Building the Navy’s Bases in World War II*, “Altogether, five separate housing areas were built, each planned as an independent community, with schools, fire protection, and recreational facilities.”\(^24\) The ahupuaa boundaries, past ownership, topography, existing road/railway patterns and projected use determined the physical shapes of these housing developments. Each of the five housing areas’ physical character and function, depicted in figures 8-6 and 8-7, were designed as follows:

- **Naval Housing Area No. 1** occupied a rectangular parcel consisting of 90 acres of flat land. Located between Kamehameha Highway and Dillingham Boulevard. The development contained 500 housing units in 155 buildings, including some four-plex and six-plex units. C. W. Dickey designed the housing units in this area.\(^25\)

- **Naval Housing Area No. 2** occupied a triangular parcel of 61 acres on flat land. It was also located between Kamehameha Highway and Dillingham Boulevard. Support facilities included a fire station, laundry, mess halls, school, and four recreational structures. Housing units in this area were designed by C. W. Dickey as well.\(^26\)

- **Naval Housing Area No. 3** was planned in the late 1930s, at the same time as the other five housing areas. It was not constructed until after the beginning of World War II, from 1942 to 1946. This was the most heavily populated of all the housing areas. It accommodated a population of 10,000 to 12,000 for most of the war. Single-family units, apartments, and bunk houses were provided. The housing area functioned as a small and mostly self-sustaining community that included service buildings such as a laundry, mess hall, meeting hall, recreational facilities, a post office, and a fire station.\(^27\) The area housed workers in the Shipyard—both civilians and enlisted personnel—who were transported between the Shipyard and the housing area by train or bus.\(^28\)

- **Naval Housing Area No. 4** was rectangular in shape and located makai (seaward) of Kamehameha Highway and Dillingham Boulevard, was located the farthest east. It was constructed as a 2,000-man cantonment for bachelor employees of the contractors. Unlike the other housing areas, the Navy did not manage this complex.\(^29\)

- **Naval Housing Area No. 5 (Makalapa)** consisted of uneven property east of Kamehameha Highway stretching from Halawa Stream to the Halawa/Moanalua Ahupuaa boundary.\(^30\) Unlike the other areas, which were located on the coastal plain, Area No. 5 occupied the rise and

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\(^{26}\) Ibid.


\(^{28}\) Ibid, 9-110.


crater of Makalapa. The uneven topography favored more pocket development than the other sites. C. W. Dickey also designed the housing units here.

During the initial planning phase, the housing developments were located and designed according to the different military functions that they were intended to support. For instance, the Little Makalapa Historic District was initially intended to house civilians, with 30 civilian quarters housed in 15 duplex units. By late 1940, the Honolulu Star-Bulletin began reporting on the progress of the Navy’s housing development plans. A newspaper article published on November 2, 1940, noted that the land, which had been under lease to the Honolulu Plantation Company and contained sugarcane fields, would be cleared to allow for the construction new residential units (see Figure 8-8). The article also noted that a total of $3,675,000 would be spent to house 500 married enlisted men, 43 officers, and 30 key civilian employees. These numbers would increase after the war began. The new housing areas would be located adjacent to the fleet’s largest and most complete recreation complex—the Richardson Recreation Center near Aiea—which would contain three full baseball diamonds, eight softball diamonds, 12 tennis courts, a 50-by-100-foot swimming pool, a football field with bleachers, a canteen and a clubhouse. An arena to seat 5,000 spectators would cost $175,000. The projected completion date was July 1, 1941.

Construction work in the Makalapa area began in July 1940 under the supervision of the private contracting firm known as Contractors, Pacific Naval Air Bases (CPNAB). CPNAB was a consortium of local and mainland construction firms tasked with building Navy facilities during mobilization in the years before direct United States participation in World War II, continuing through the duration of the conflict. The prolific work of the firm stretched across all of Oahu and other Pacific Islands (see Figure 8-9). At Pearl Harbor alone, the CPNAB contract of July 1940 included naval housing (Naval Housing Areas 1, 2, 3, and 5) and the new Naval Receiving Barracks at Aiea. Overall, the housing that CPNAB built under this contract allowed for a capacity of over 20,000 residents.

For the expansion of military housing and recreational facilities east of Pearl Harbor, CPNAB-affiliated companies included Hawaiian Dredging Company, Raymond Concrete Pile Company, Turner Construction and Morrison Knudsen (civil engineers). CPNAB’s staff also featured prominent local architect C. W. Dickey (additional detail on Dickey is provided below under the Criterion C heading).

CPNAB’s initial construction priorities were limited to radio transmission facilities in the outlying areas of Oahu. The impetus to provide housing in 1940 came from an order by President Roosevelt to move the full Pacific fleet from San Diego to Pearl Harbor. The movement of the fleet to Hawaii was presaged on September 8, 1939, when—in response to the war in Europe—President Roosevelt declared a limited National Emergency, and enormous construction projects started at Pearl Harbor to support the fleet. Despite the construction efforts of the 1920s and 1930s, Pearl Harbor remained a relatively small Navy installation (compared to today) and was not yet fully able to accommodate the Navy’s fleet of ships.

32 “Navy Starts its Big Oahu Housing Project,” Honolulu Star-Bulletin, November 2, 1940, 1. From the archives of NAVFAC Hawai’i, Joint Base Pearl Harbor-Hickam, Honolulu, Hawai’i.
33 Research did not indicate whether or not civilians would have access to these recreational amenities.
34 Mason Architects, Historic Context Study of Historic Military Family Housing in Hawaii, 5-97.
much less all of the supporting repair, supply, medical, and housing functions. Pearl Harbor’s capacity needed to double or perhaps even triple to meet the base’s expanded mission. Nonetheless, the fleet began moving to Pearl Harbor soon after the President’s orders, with the full move completed by April 1940.

Originally intended to be temporary, the fleet’s relocation to Hawaii was planned to serve as a deterrent to further Japanese aggressions in the Dutch East Indies. Most of the fleet’s officers maintained quarters afloat due to the lack of available on-shore housing. However, in the summer of 1940, the Chief of Naval Operations announced that the fleet would remain in Hawaii indefinitely. This decision accelerated construction efforts at the Makalapa housing area to provide quarters for the officers assigned to Pearl Harbor in support of Pacific Fleet operations. It also changed plans for the proposed occupants of Little Makalapa Historic District. With such a high demand for officers’ housing, it was decided that the duplexes in Little Makalapa Historic District would serve as officers’ quarters. The final plans used for Little Makalapa Historic District match those used for officers’ quarters in other areas of Pearl Harbor.

A June 1941 plan documents the progress of construction in Little Makalapa Navy Housing Historic District. The plan depicts all 15 duplex units present, but the state of construction is unclear (Figure 8-10). An aerial photograph from November 1941 confirms that all housing units were erected and roofed (Figure 8-11). In addition, a roster of officers dated November 1, 1941 lists 12 officers living in Little Makalapa Historic District, documenting that the units were occupied at the time of the Japanese attack on December 7, 1941. A photo from 1942 shows the Little Makalapa Historic District housing completed, but construction ongoing all around it (Figure 8-12). The CPNAB contracts terminated in 1943.

Amenities that enhanced Little Makalapa Navy Housing Historic District's livability were constructed south of the district's boundaries between June 1943 and June 1944. These included a pool and outdoor theater (see Figure 8-13). When these amenities were first constructed, a rail line separated them from the Little Makalapa Historic District. In 1951, that rail line was removed, making the amenities more accessible to the neighborhood’s residents. At the same time, a new intermediate school was created near the theater by adaptively reusing former civilian dormitories (later junior bachelor officers' quarters), providing additional amenities close to Little Makalapa Historic District. However, those amenities are no longer extant today. The land that they once occupied lies outside of the Little Makalapa Navy Housing Historic District's boundaries.

**CRITERION C**

The Little Makalapa Navy Housing Historic District is significant under Criterion C for its environmentally sensitive and organically planned neighborhood design (area of Community Planning and Development), its association with noted Hawaii architect C. W. Dickey, and its use of innovative and

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time-saving construction techniques that reflected the emergency conditions under which it was
developed (area of Architecture).

COMMUNITY PLANNING AND DEVELOPMENT
Garden City

Much of the thinking behind contemporary neighborhood and community planning traces its origins to
Sir Ebenezer Howard in Great Britain in the late nineteenth and early twentieth centuries. Howard
observed the growth of greater London, which consumed rural landscapes and housed the population
in a morass of inhumane tenements. In response, Howard developed the “Garden City” approach to
community planning, in which he sought to reduce dwellers’ sense of alienation from nature by creating
“satellite” settlements buffered from the urban core by large areas of open space. Each new satellite
city would have its own core and access to the main core by rail. Howard promoted these ideas in his
1898 book *Tomorrow: A Peaceful Path to Social Reform* (the 1902 edition was retitled *Garden Cities of
Tomorrow*). In the late 1920s and 1930s, several American towns and suburbs were developed
following these principles, including Frederick Law Olmstead, Jr.’s Forrest Hills Gardens, designed in
1909. Within Pearl Harbor itself, such suburbs inspired the use of curvilinear street patterns and
integration with the natural topography throughout housing developments in the 1920s and 1930s at
Hale Alii and on Ford Island. With the arrival of automobiles, New York City-based planner Clarence
Perry refined Howard’s approach by designing peripheral roadways that would prevent through-traffic in
the center of communities and focused on providing schools, playgrounds and amenities. This effort, as
well as the “City Beautiful” movement influenced military planning projects by the mid-1930s.

City Beautiful

The City Beautiful movement was derived from classical city plans of Rome and Paris. It focused on
creating social order through beauty by stepping away from the rigid grid plans of modern American
cities like New York and Detroit in favor of a return to grandly designed boulevards and streetscapes.
Daniel Burnham’s plans for the World’s Columbian Exposition of 1893, the White City, is perhaps the
most iconic example of early City Beautiful designs. The movement was translated into suburban areas
at a smaller scale through beautifully landscaped neighborhoods, drives naturally canopied by trees,
and walkable streetscapes.

Both the City Beautiful movement and Garden City planning sought to combine the best of urban and
rural living by providing housing that was near work yet sited among spacious, beautiful, and healthful
surroundings. Early examples of both the Garden City and City Beautiful movements in Hawaii can be
seen in Lanai City (Lanai, begun in 1922) and Wheeler Air Field (near Wahiawa, Oahu, also 1922).
Adjacent to Pearl Harbor, Hickam Field was developed according to these concepts in 1935.

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For the naval housing developments at Pearl Harbor the topography and geography of the surrounding land, as well as the urgency to address housing shortages and needs, complicated such grand and comprehensive neighborhood designs. Much of the area near the base is highly irregular, with dramatic shifts in elevation and interruptions by waterways. Existing transportation routes cut off the land’s continuity further. The Navy’s 1939 acquisition of 672 acres for naval housing had to be developed as five separate housing areas rather than one cohesive area because of topography, waterways, and transportation routes (Figures 8-6 and 8-7). Considered comprehensively, the grouping of housing areas included many of the neighborhood planning features popular at the time: an axial street grid for Naval Housing Area No. 2, culs-de-sac in Naval Housing Area No. 3, curving streets in Naval Housing Area No. 5 (Makalapa), and recreational amenities provided nearby at the Richardson Recreation Center. However, because the areas were cut off from one another, it was not possible for a single comprehensive scheme to unite the disparate housing areas. As such, the design of the Little Makalapa Historic District employs popular design features compatible with the site’s limitations—such as curvilinear placement of roads according to the topography—while disregarding features not feasible for the site such as axial roadways and grand public spaces.

Documents from CPNAB credit Samuel R. Damon (later Lieutenant Commander) with designing the neighborhood layouts. Damon was a representative of the Damon Estate, the former owner of much of the property acquired by the Navy for housing in the late 1930s, as well as former owner of land acquired by the Army for its new airfield nearby (Hickam Field) in the mid-1930s. Damon was therefore aware of trends in community planning design, and likely influenced his designs for naval housing. He worked, "...[without compensation], with the Public Works Design Division of the Fourteenth Naval District" to establish the layout design for the Navy housing areas. Damon’s most significant contribution lay in how he adapted the design of roadways to provide traffic safety features. As CPNAB reports noted, the government had invested in a series of high-volume and high-speed highways in the housing areas; these threatened pedestrian safety and neighborhood cohesion. Damon advocated the construction of peripheral roads around each of the housing areas. He noted that:

Paralleling the major traffic arteries with tract roads, although costly, was a requirement essential to the safety of residents of the various housing areas, and one that appears (in view of the abnormal accident records of traffic on Oahu’s public highways) to have fully justified the expenditure involved.  

To further control traffic within each housing area, Damon recommended limiting points of access into the site. The result was an inward-focused neighborhood with houses facing away from the perimeter and towards each other.

The historic district’s designed landscape features further enhance its distinctive residential quality and feeling. Decorative plantings include a variety of different tropical species of trees, generally planted near the curb, as well as hedges planted around the neighborhood’s perimeter to enhance privacy. Like the curving streets and the houses’ irregular angles, the plantings add visual interest and variety to the historic district.

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43 Ibid., A-935.
ARCHITECTURE

Prior to the 1940s, the majority of naval housing constructed at Pearl Harbor consisted of one-story bungalows from the Arts and Crafts movement.\(^44\) By the beginning of World War II the utilitarian influences of the Modern movement took root throughout the base's residential housing neighborhoods. Little Makalapa Navy Housing Historic District was composed of residential duplexes designed in the Modern style with Ranch Style influences (Figure 8-14).

Charles William (C.W.) Dickey, Architect

Charles William (C.W.) Dickey was the grandson of William Patterson Alexander, an early missionary to Hawaii. Dickey was born in Alameda, California, but raised on Maui from the age of two until he attended high school in Oakland, California. He obtained an architecture degree at the Massachusetts Institute of Technology in 1894.\(^45\) He practiced in Honolulu with Clinton Briggs Ripley from 1896 to 1900, and then with Edgar Allen Poe Newcomb from 1901 to 1905.\(^46\) Dickey moved to Oakland in 1905 and practiced mainly there for the next 20 years, although he occasionally traveled to Hawaii for commissions for his Maui relatives.\(^47\) Dickey established a Honolulu office with Hart Wood in 1919, while also maintaining his Oakland office before relocating permanently to Honolulu in late 1924.\(^48\)

Dickey was well known for his Hawaiian Style concrete structures; such as the Alexander and Baldwin Building and the Mabel Smyth Memorial Auditorium in downtown Honolulu, as well as his private residential work.\(^49\) Dickey worked in a wide variety of different styles, both historicist and Modern-influenced. Yet, his work in any style took on a signature “Dickey Style” through consistent use of pleasing building proportions, Dutch-gabled roofs, wide porches, large windows that provided cross-ventilation and were shaded by wide eaves or awnings, and features that were adapted to the tropical climate of Hawaii. His philosophy was:

“To be in harmony with the spirit of our people, our architecture should be simple, unpretentious and free from all effort or straining for effect. Any historic style may be modified or used, but after changed to fit our conditions it loses its historic characteristics to such an extent that it might be better called Hawaiian.”\(^60\)

His most notable designs date from the late 1920s and early 1930s, and include the Alexander and Baldwin Building (Figure 8-15), the Halekulani Hotel main building and several cottages, several buildings at Kamehameha Schools hillside campus, the Immigration Station administration building, Central Fire Station, Kodak Hawaii Building, Varsity Theater, and numerous residences. In the late 1930s, Dickey became involved in planning several low-cost urban housing projects, including the 1939 construction of the Kamehameha Homes project on King Street, which was the “first low-cost, federally assisted housing project in Hawaii.”\(^51\)

\(^{44}\) Ibid., 2-10.
\(^{46}\) Ibid., 33-72.
\(^{47}\) Ibid., 102-103.
\(^{48}\) Ibid., 108-111.
\(^{51}\) Ibid., 178.
Dickey's firm was contracted in 1939 by CPNAB to design housing for the rapidly growing Navy population around Pearl Harbor; including Naval Housing Areas 1, 2, and 5. He "saw architectural opportunities here that were far more sophisticated than those offered by the low-cost housing projects."

Dickey’s experience at Pearl Harbor predated the war and extended back to the 1920s with his designs for the housing on Ford Island.

For his naval housing work in 1939, Dickey was constrained by standards developed in the prewar era by the Navy's Bureau of Yards and Docks and the requirements of the CPNAB contract. However, these constraints did not preclude his designs from including his own stylistic signatures as well as his insights and understanding of the Hawaiian climate. Of all the housing designed by Dickey under the 1939 CPNAB contract, Little Makalapa Historic District best exemplified the climactic adaptations and signature stylistic elements for which Dickey became known. Among these features include large windows that provide cross-ventilation, wide eaves, shading elements over first-floor windows, and lanais.

Dickey remained highly involved in the design and construction of his projects despite the heavy workload before and during World War II, and was in frequent communication with the design staff of the Department of Public Works, 14th Naval Division at Pearl Harbor. A colleague remembers Dickey "going from table to table [at the Department of Public Works], treating them as participating architects." Dickey's personal skill was supported by a team of fellow architects with a broad range of experiences. His staff also included a group of Japanese architects: Makoto ("Marco") Sunada, Terue Fujita, and Kenji ("Kenneth") Onodera (see Figure 8-16).

Construction Method

The architecture of the housing units in the Little Makalapa Navy Housing Historic District is further significant because of the assembly-line techniques used in their construction. This method enabled rapid construction of housing despite material shortages, and also provided cost savings that allowed for a higher level of architectural detailing within the available construction budget. The use of partially standardized components in this project illustrates the trend towards the use of manufactured buildings, perhaps best illustrated by the Navy's use of thousands of Quonset huts during World War II.

As described by CPNAB reporting documents, the contractors developed an assembly-line process to handle the highly accelerated construction schedule for the Navy's housing in the early 1940s. The process began by clearing the land (often by burning cane fields), and then grading the future sites of roads and buildings. At least two power shovels were used in the Little Makalapa Historic District development, as well as 50 bulldozers, scrapers, and graders. Underground utilities were installed next. A major expense was rerouting civilian roads, railway spurs, power lines, and water systems to conform to new property configurations and Navy restrictions on public utility operations on military reservations.

Construction of individual buildings followed. As CPNAB described, "Concrete foundations for the reduplicative residence and barracks were installed by three crews, one doing the hand excavation,

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52 Ibid.
54 Ibid.
one placing the prefabricated forms, the other pouring the concrete from mixer trucks.\textsuperscript{55} The system used for wall framing was the most innovative and time-saving part of the process. Each wall unit, floor unit, and roof unit was assembled off the construction site.\textsuperscript{56} CPNAB explained that, "[t]he prefabricated units were typically one wall of a room, except in cases, such as the long wall of a living room, where a complete wall would be too hard to handle."\textsuperscript{57} Off-site assembly occurred in an open-air shed "equipped with full-size assembly tables on which necessary horizontal and vertical modules of measurement were indicated, four-way locking devices installed, and saws of various types mounted."\textsuperscript{58} This building was accessible via railroad, so that lumber and detail materials could be delivered by rail. The lumber used included a large quantity of plywood, which at that time was unusual for residential construction. Experimentation with plywood had begun only recently, in the late 1930s, for construction of depression-era affordable housing projects such as a 1939 Federal Housing Administration project in Fort Wayne, Indiana.\textsuperscript{59}

Once the assembled wall, floor, and roof assemblies were transported to the construction site, "these assemblies were joined by driving spikes; that material choice was due to the shortage of bolts, considered a critical material."\textsuperscript{60} Painting was kept to a minimum to save labor and materials. Within the houses themselves, standardized components included fitted electric panels, pipe assemblies, cabinets, window and door frames, and stairs.

The bolted assemblies used during the war continued to be used post-war as "prefabricated" bolts and later as patented bolt designs. Similar methods of assembly-line housing construction would be widely adopted after World War II for construction of residential suburbs like Levittown in Pennsylvania, and continue to be widely used today. In fact, one of the early companies that fabricated the bolts for assembly of the Little Makalapa Historic District houses, Simpson Connectors, continues to be a large manufacturer of connector assemblies, demonstrating the long-lasting influence of wartime innovations like those used to construct the Little Makalapa Navy Housing Historic District.

\textsuperscript{55} CPNAB, Technical Report, A-919.
\textsuperscript{56} Research efforts did not locate architectural drawings or construction documents for Little Makalapa. However, architectural drawings depicting Dickey's use of similar techniques for construction of naval housing at Wahiawa are available from the archives of NAVFAC Hawaii, Joint Base Pearl Harbor-Hickam, Honolulu, Hawaii.
\textsuperscript{57} CPNAB, Technical Report, A-923.
\textsuperscript{58} Ibid, A-935.
\textsuperscript{59} Jeff Dodge, AIA (Historical Architect, NAVFAC Hawaii), interview by Lorraine Minatoishi, May 23, 2014.
\textsuperscript{60} CPNAB, Technical Report, A-923.
Figure 8-2. Detail of map of the O'ahu Territorial Highway System, showing the general area of the Makalapa Crater outlined in red, prepared by the Territorial Highway Department in cooperation with the Federal Works Agency, Public Roads Administration, 1944. Source: NAVFAC Hawaii Archives, Joint Base Pearl Harbor-Hickam, Honolulu, Hawaii.
Figure 8-3. 1939 map showing land acquisition by the U.S. Navy, with the Little Makalapa housing area in red. Source: NAVFAC Hawaii Archives, Joint Base Pearl Harbor-Hickam, Honolulu, Hawaii.
Figure 8-4. Detail of the western section of a map depicting the Navy's land ownership in the Pearl Harbor area in 1940. The Makalapa area will appear on the western section, on the following page. Source: National Archives, College Park, Maryland, Cartographic Collection, Record Group 70.
Figure 8-5. Detail of the western section of a map depicting the Navy's land ownership in the Pearl Harbor area in 1940. The general Makalapa area is shown in red. Source: National Archives, College Park, Maryland, Cartographic Collection, Record Group 70.
Figure 8-6. Detail of northern half of map showing how the Navy’s 1939 land acquisition (depicted in figure 8-3) would be platted for housing development by 1942. The general Makalapa area in red. Source: NAVFAC Hawaii Archives, Joint Base Pearl Harbor-Hickam, Honolulu, Hawaii.
Figure 8-7. Detail of southern half of map showing how the Navy's 1939 land acquisition (depicted in figure 8-3) would be platted for housing development by 1942. Source: NAVFAC Hawaii Archives, Joint Base Pearl Harbor-Hickam, Honolulu, Hawaii.
Figure 8-8. Map of Hālawa ahupua’a and the lands of Honolulu Plantation Company. Source: NAVFAC Hawaii Archives, Joint Base Pearl Harbor-Hickam, Honolulu, Hawaii.
Figure 8-9. Map showing the geographic distribution of CPNAB projects in the Hawaiian Islands. Source: NAVFAC Hawaii Archives, Joint Base Pearl Harbor-Hickam, Honolulu, Hawaii.
Figure 8.10. June 30, 1941 map showing the progress of Navy housing construction in Little Makalapa Historic District, to the southeast (upper right). Source: NAVFAC Hawaii Archives, Joint Base Pearl Harbor-Hickam, Honolulu, Hawaii.
Figure 8-11. Aerial photograph dated November 1941, showing the Little Makalapa Navy Housing Historic District under construction, circled in red. All 15 duplex units are visible. Source: National Archives, College Park, Maryland, Still Pictures Collection, Record Group 30, Photo No. 80-G-182874.
Figure 8-12. Aerial photograph showing the Little Makalapa Navy Housing Historic District completed, circled in red, while construction is still ongoing in the Makalapa Navy Housing Historic District, shown in the foreground. Source: National Archives, College Park, Maryland, Still Pictures Collection, Record Group 30.
Figure 8-13. Photograph taken during World War II showing the theater located south of the Little Makalapa Navy Housing Historic District, view facing west. The theater is no longer extant. Source: NAVFAC Hawaii Archives, Joint Base Pearl Harbor-Hickam, Honolulu, Hawaii.
Figure 8-14. Historic photograph showing the utilitarian architecture in Naval Housing Area No. 1, ca. 1942, while the area was still under construction. The simplicity of these houses contrasts to the attention to detail in the Little Makalapa housing. While design features on these houses are minimal, the use of corner windows and the flat and unornamented wall surfaces nod to the influence of Modern architecture. The double-sloped hipped roofs are closely associated with Dickey's signature style. Source: NAVFAC Hawaii Archives, Joint Base Pearl Harbor-Hickam, Honolulu, Hawaii.
Figure 8-15. Photograph of the Alexander and Baldwin Building in downtown Honolulu, designed by C. W. Dickey in 1929. Source: Historic Hawaii Foundation.
From left: Marco Sunada, Doug Freeth, Roger Benezet, Don Taylor, Kay Davenport, Jim Simms, Bill Merrill, Dickey, Tyler Harr, Ken Roehrig, Terue Fujita, and Kenji Onodera in the office c. 1940.

Map showing location of Little Makalapa Navy Housing Historic District, U.S. Naval Base Pearl Harbor, Palmyra and Tarawa Drive. USGS, Pearl Harbor Quadrangle, 2013.
Map showing location of Little Makalapa Navy Housing Historic District, U.S. Naval Base Pearl Harbor. USGS, 1999.
United States Department of the Interior
National Park Service

National Register of Historic Places
Continuation Sheet

Section number 9 Page 3

Photo Key Map/Sketch Map

Photo Key Map/Sketch Map, 1 of 2. Photo numbers 1 to 25. Note that all numbered resources are contributing.
Photo Key Map/Sketch Map, 2 of 2. Photo numbers 26 to 49. Note that all numbered resources are contributing.
APPENDIX A

Narrative Overview of Native Hawaiians and the Pre-Navy Era

Hawaiian Terminology – nouns and place names

Mahele Land Commission Award – LCA 7712, Apana 4
Bureau of Conveyances Liber 83: 155-156 (2 of 2)
Genealogy of high chiefess Ruth Ke'elikōlani
Genealogy of Princess Victoria Kamāmalu Ka'ahumanu IV
Genealogy of Princess Bernice Pauahi Bishop

Narrative Overview of Native Hawaiians and the Pre-Navy Era

Prior to development by the Navy, Makalapa was a part of a larger integrated and self-sustaining system of land management within the ahupua'a of Hālawa. The traditional division of land has four hierarchical levels: mokupuni (island), moku (districts), ahupua'a, and ʻili (parcel). Ahupua'a are traditional subdistricts of the moku, usually with natural boundaries from the summit of mountain ridges to the shorelines. Ahupua'a are not just defined by boundaries; they contain a variety of resources, practiced under laws of stewardship and rituals of harvest, organized to maintain the Native Hawaiian population. The ahupua'a of Hālawa is the most eastern of twelve ahupua'a sub-districts of the largest moku on O'ahu, known as 'Ewa. Hālawa extends from the Maunakapu summit ridge of the Ko'olau mountain range, to the east shoreline of Ke-Awalau-o-Pu'uloa (the traditional name for Pearl Harbor), and towards the harbor mouth located southwest of the ahupua'a.63

Makalapa is located in the ʻili of Kūnānā. Makalapa traditionally referred to the crater of an extinct volcano, which wind and water eroded over eons. The crater of Makalapa contained a loko wai (fresh water pond) in its center.65 This loko wai provided sustenance to ōpae (freshwater shrimp), which in turn supported the Native Hawaiian population. The loko wai of Makalapa was part of the system of coastal fisheries within the self-sustaining structure. Other fishery resources included the Kūnānā loko i'a (shoreline fishpond), harbor waters around Kūhau island, Kailoa fishery, and the banks of Wainek and Muliwai streams66 (see Figure A-1 for locations of fishponds in the Pearl Harbor area). The pond at Makalapa was filled in during the 1930s with spoil from Pearl Harbor.67

In Hawaiian traditions, places are named according to specific topographic features, types of weather conditions, celestial connections, or associations with legendary persons. In this case, the name of the ʻili along with the loko i'a kuapā (walled fishpond) situated northwest to the significance area was named after the mother of the female shark deity of Pu'uloa, Kūnānā or Kū-a-Nānā. She was a chiefess that dwelt in the moku of 'Ewa.68

In traditional Hawaiian thinking, land was not owned but rather stewarded. As foreigners introduced the idea of “ownership,” however, the concept of land tenure changed. This change was called the Māhele, during which lands were divided and titles of “ownership” transferred, changing the traditional social, economic, and political structures. Land became a commodity, which had unfortunate consequences

66 Hawaii Department of Land and Natural Resources, Bureau of Conveyances, Liber 83 (no publisher, no date): 155-156.
67 Discussed in Section 8.
68 Sterling and Summers, 56.
for the traditional way of life.\textsuperscript{69} At the time of the Great Māhele in 1848, definition of land "ownership" in terms of "fee simple" rather than "rights of occupancy" was not well understood by most Native Hawaiians.

The occupational rights to Makalapa were passed through the kinship of Kamehameha I’s foreign advisors. Kamehameha’s British advisor, Isaac Davis, died suddenly in 1810, a victim of court intrigue surrounding negotiations to bring the island of Kauai into Kamehameha I’s kingdom. As Davis’ demise was unanticipated, he left no kaoʻohe (spoken will) or documentation to who would inherit the rights of his lands at Hālawa. In 1812, Kamehameha I gave the rights to another trusted advisor, Oliver Holmes, then in command of foreign trade on O‘ahu.\textsuperscript{70} The mōʻi or unified paramount chief, had the right to withdraw lands from occupants if no kaoʻohe and/or documentation had been created by time of death of the occupant. Holmes died in 1825 and the rights were returned to the then mōʻi: the son of Kamehameha I, Kauikeaouli Kamehameha (Kamehameha III).

By 1848, the Hawaiian traditions of royal land tenure were transformed to a codified western practice of private land ownership\textsuperscript{71} by way of the Organic Acts of 1845 and 1846, which initiated the process of the Great Māhele and Land Commission Awards (LCA). Westerners refer to it as a "division of communal rights into individual portions." Mataio Kekūanʻoʻa, a kaukau aliʻi or secondary chief, made claim to the lands of Isaac Davis in Hālawa.

On his passing on November 24, 1868, Kekūanʻoʻa bequeathed his rights to his daughter from his first marriage, Ruth Keʻelikōlani. Upon Ruth Keʻelikōlani’s death in 1883, she willed the vast lands of the Kamehameha family holdings to her closest living relative, Princess Bernice Pauahi Bishop, who was the last direct descendant of Kamehameha I.\textsuperscript{72}

From 1884 until the 1930s, agriculture dominated the landscape of Makalapa, first in ranching and then sugar (see fig. 0005). Lessees of the Bernice Pauahi Bishop Estate included the Honolulu Sugar Plantation Company and 'Aiea Diary.\textsuperscript{73}

As the last haku‘aina had passed, a prophecy began to be fulfilled that changed the Ke-Awalaou-Pu‘u‘ula landscape (along with Makalapa) and access to resources. It was a revelation communicated by the kahuna nui (high priest), Kaʻōpūlupulu, around 1783.

One of the great traditions of the Pu‘u‘ula area is tied to the period around 1782, when Kahekili (King of Maui) tricked his nephew, Kahahana (King of O‘ahu), into killing his high priest Kaʻōpūlupulu. Kahekili had raised Kahahana, and he desired to control O‘ahu in addition to his own islands of the Maui group. It was the priest Kaʻōpūlupulu who instructed Kahahana and warned him against certain actions proposed by Kahekili. The deceived Kahahana, called for Kaʻōpūlupulu and his son, Kahulupu‘e to be brought before him at Wa‘anae. The call was made from Pu‘ukāhea (Hill of Calling). Upon the summons, Kaʻōpūlupulu prayed to his gods and discerned that he and his son would be killed once in the presence of the chief. Arriving at the place now called Nānākuli, Kaʻōpūlupulu called out to

\textsuperscript{69} Liilikala Kameeleihiwa, Native Land and Foreign desires, Ko Hawaii aina a me Na Koi Puumake a ka Poe Haole: A History of Land Tenure Change in Hawaii from Traditional Times until the 1848 Mahele, including an Analysis of Hawaiian Ali‘i Nui and American Calvinists (Honolulu: Bishop Museum Press, 1992), 8.


\textsuperscript{71} Kameeleihiwa, 1992: 8.

\textsuperscript{72} Kleiger, 81.
Kahahana who looked at him, but made as if he didn't hear the call (nānā kui). Kaʻōpulupulu then knew for certain that he and his son were to be killed, and he told Kahuluiupu'e: "I nui ke aho a moe i ke kai! No ke kai ka hoi ua aina!" Strive to lie down in the ocean! For our revenge will come from other lands across the sea. Kahuluiupu'e ran into the water near Puʻuohulu where he was killed. Kaʻōpulupulu continued his flight across the Honouliuli plain to the shore of Puʻuloa, where he was then killed.

It has been understood by kupuna (elders) that Ke-Awalau-o-Puʻuloa, including the lands around the harbor such as Makalapa, would be in the hands of another; later understood to be the hands of the US Military.74

74 Kumu Pono Associates, He Moecelo Aina-Traditions and Storied Places in the District of Ewa and Moanalua (In the District of Kona), Island of Oahu and Traditional Cultural Properties Study (Kaneoce, Hawaii, April 21, 2012), 70.
Figure A-1. Map of fisheries of the Halawa ahupuaa. Source: Ava Konohiki