

MARYANNE W. KUSAKA  
MAYOR



MATILDA A. YOSHIOKA  
HOUSING ADMINISTRATOR

KENNETH N. RAINFORTH  
EXECUTIVE ASSISTANT

RECEIVED

COUNTY OF KAUAI  
HOUSING AGENCY

4193 Hardy Street  
Lihue, Hawaii 96766  
Development (808) 241-6444  
CDBG/V-TDD (808) 241-6455  
Section 8 (HUD) (808) 241-6440  
FAX (808) 241-6456

'97 MAR 17 P2:49

OFFICE OF ENVIRONMENTAL  
QUALITY CONTROL

March 6, 1997

Gary Gill, Director  
State of Hawaii  
Office of Environmental Quality Control  
220 South King Street, Suite 400  
Honolulu, Hawaii 96813

Dear Mr. Gill:

SUBJECT: FINAL ENVIRONMENTAL ASSESSMENT (EA) FOR THE KAPAA  
SELF-HELP PROJECT, KAPAA, KAUAI

Reference is made to your correspondence of December 17, 1997,  
requesting more information from the Kauai County Housing Agency  
regarding the above-referenced project prior to final publication  
of an environmental assessment. As requested, enclosed please  
find a Final Report prepared for the Self-Help Housing  
Corporation of Hawaii which addresses your comments.

The County Housing Agency concurs with the conclusion in the  
Final Report that the proposed action will not create cumulative  
environmental impacts and will not have a significant negative  
effect upon the natural resources of the area. We therefore  
request publication of a final environmental assessment (negative  
declaration) in the March 23, 1997 OEQC Bulletin.

Also enclosed is a completed OEQC Bulletin Publication Form and  
four copies of the Final Report. If you have any questions,  
please contact Gary Mackler of our office at 241-6865.

Sincerely yours,

Matilda A. Yoshioka  
Housing Administrator  
enc.

  
Gary A. Mackler  
Development Coordinator

cc: Claudia Shay

PER GARY MACKLER.

FEA & DEA TO BE  
COMBINED.



AN EQUAL OPPORTUNITY EMPLOYER

28

1997-04-08-KA-PEA-Kapaa **FILE COPY**

4-8-97

Self-Help

**FINAL**

ENVIRONMENTAL ASSESSMENT

for

KAPAA SELF-HELP PROJECT

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TMK: (4) 4-6-15: 12, 126, 127, 128, 129  
Kapaa, Kawaihau, Kauai, Hawaii

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Submitted by:  
Applied Planning Services  
3116 Hoolako St., Bay B  
Lihue, Kauai, Hawaii 96766

For:  
Self-Help Housing Corporation of Hawaii  
1427 Dillingham Boulevard, Suite 305  
Honolulu, Hawaii 96817  
**ATTN: CLAUDIA SHAY, EXECUTIVE DIRECTOR**

VOLUME 1  
(VOLUME II IS DEA)

**FINAL**  
**ENVIRONMENTAL ASSESSMENT**  
**FOR**  
**KAPAA SELF-HELP PROJECT**

**SELF-HELP HOUSING CORPORATION OF HAWAII**  
**1427 DILLINGHAM BOULEVARD, SUITE 305**  
**HONOLULU, HAWAII 96817**

HONOLULU

**FEBRUARY 1997**

REPORT DOCUMENTATION PAGE

TITLE of PROPOSED ACTION: KAPAA SELF-HELP PROJECT

TMK: (4) 4-6-15: 12, 126, 127, 128, 129

DISTRICT: Kapaa, Kawaihau, Kauai

APPLICANT: Self-Help Housing Corporation of  
Hawaii  
1427 Dillingham Boulevard  
Honolulu, Hawaii 96817  
PH: (808) 842-7111  
FAX: (808) 842-7896  
ATTN: Claudia Shay

APPROVING AGENCY: Kauai County, State of Hawaii

DEADLINE: February 1997

ABSTRACT: This Environmental Assessment  
represents a record of results after  
scientific analysis of the potential and  
magnitude of impacts resulting from  
the Kapaa Self-Help Project.

The Final Report serves to address  
and mitigate any concerns or impacts  
which may have arisen during the  
review period of the EA.

## EXECUTIVE SUMMARY

This final Environmental Assessment (EA) report for the Kapaa Self-Help Project (KSHP) was prepared in accordance with the State of Hawaii Environmental Quality Control Laws. These include Chapter 343 Hawaii Revised Statutes (HRS), Chapter 200 of Title 11, Hawaii Administrative Rules and the National Environmental Policy Act (NEPA).

The preparation of an EA is a statutory requirement prior to or in anticipation of the expenditure of State and Federal funds. Its purpose is to assess the environmental impacts that a project may have should the action be implemented and to serve as a focal point for collection and dissemination of information. This review process is also a mechanism to evaluate a project's consistency and compliance with State and Federal environmental programs and to propose where possible, appropriate mitigation measures.

The environmental review of KSHP consists of a draft followed by a Final Report. The Draft EA was released for public and agency review in December 1996. Comments received during the 30 day review period have been incorporated into this report. The Final EA is set for release in March 1997. The comments contained herein were received through the OEQC Bulletin, as well as direct solicitation, in order to obtain a representative response from the public sector. Based on the information provided in the Draft EA and followed by the responses provided herein, it can now be concluded that a Findings Of No Significant Impact (FONSI) is justified and appropriate.

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| A. OEQC LTR dated Dec. 17, 1996                     |    |
| 1. SHHCH Ltr dated March 21, 1997                   |    |
| 2. Transmittal From DPW to Kodani<br>dated 2-25-97  |    |
| 3. Memorandum From Kodani to DPW<br>dated 2-20-97   |    |
| 4. Transmittal From Kodani to DPW<br>dated 2-20-97  |    |
| 5. Transmittal From DOW to Kodani<br>dated 2-13-97  |    |
| 6. Transmittal From Kodani to DPW<br>dated 2-12-97  |    |
| 7. DLNR LTR dated 12-31-96                          |    |
| 8. Transmittal From DOW to Kodani<br>dated 12-11-96 |    |
| 9. DPW Ltr dated 12-02-96                           |    |
| 10. SHHCH Ltr dated 10-29-96                        |    |
| 11. DOW Ltr dated 07-09-96                          |    |

KAPAA SELF-HELP PROJECT

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- B. Kapaa Business Association Meeting  
Agenda and minutes dated Aug. 6 1996
- C. Kauai County Council Meeting Agenda dated  
Sept. 11, 1996
- D. Garden Island Newspaper article
- E. Constraint District Map
- F. Plot Plan
- G. Section 106 Compliance Ltr.

## 1.0 BACKGROUND

The Self-Help Housing Corporation of Hawaii (SHHCH), a non-profit Hawaii corporation organized under Section 501 (c)(3) of the IRS Code and Chapter 415B HRS, is committed to developing affordable housing units to families who build their own homes through the Self-Help method. SHHCH has engaged local government leaders on issues which have hindered home construction for "gap group" families. In addition, they have created a public/private initiative which has been successful in developing affordable homes in smaller numbers. In the 12 year history of this organization, approximately 188 families, on all islands, have benefited from the Self-Help method.

At KSHP the SHHCH proposes to develop 10 residential units on 5 existing parcels of record. To separate the liability and fee simple interest of each unit, each of the 5 lots will be registered under a Condominium Property Regime (CPR). The CPR units will have limited common elements ranging in size from 4,770 square feet to approximately 8,722 square feet. To promote traffic safety along Kawaihau Road, vehicular access to all of the units will be provided from Nunu Road.

Two (2) different model offerings will be made available for selection, these are:

- a. Model 864 - 864 square foot unit featuring two bedrooms and one bath. Total costs are \$50,000.00 inclusive of a septic tank system.
- b. Model 1104 - Three bedroom and one and one-half bath unit with 1104 square feet of living space. Total costs are \$50,000.00 including a septic tank system.

Homes are customized through a choice of roofing colors, exterior and interior paint, flooring, etc.

2.0 RESPONSES TO COMMENTS

This chapter provides responses to comments gathered from public sources and government agency review. This section is organized with the comment listed first, followed by the response and/or mitigation.

1. OEQC letter dated December 17, 1996 (exhibit A)

**QUESTION:** List State and County agencies contacted, notify the nearest neighbors or neighboring landowners of the proposed project and document all contacts in the final EA. Include copies of any correspondence. (exhibit A-1 through A-11).

**RESPONSE:** According to Ms. Claudia Shay, Executive Director of SHHCH, the following community meetings were made:

- A. July 17, 1996 to Mr. Gary Hooser, Realtor and publisher of the Kauai Real Estate Magazine. He was informed of the project and recommended that Mr. Tad Muira, Jr. Board Chairman of the Kauai Chamber of Commerce be consulted.
- B. July 17, 1996 to Mr. Tad Miura, Jr. Board Chairman of the Kauai Chamber of Commerce. He was introduced to the project and the Self-Help method. He was supportive and recommended that Ms. Ann Leighton and Mr. Paul Endo be contacted.
- C. July 18, 1996 met with Ms. Ann Leighton, President of the Kapaa Business Association. She was supportive of the project and invited SHHCH to present the project to the entire association. A presentation was held before the Kapaa Business Association

KAPAA SELF-HELP HOUSING

on August 6, 1996. Approximately 30 members attended. The members were very supportive of the project realizing that this housing would be affordable to Kauai residents. (exhibit B)

- D. September 11, 1996 the KSHP was presented to the Kauai County Council for funding. (exhibit C)
- E. December 30, 1996 Garden Island Newspaper. (exhibit D)
- F. Mr. Cliff Bailey, Principal of Kapaa Elementary School. He was very optimistic about the project and supports it. Suggests that a divider be constructed between the schools parking lot and KSHP to provide residents with more privacy. He said that he has observed students hanging around the existing storage buildings.
- G. Sheri Kuioka, nearby resident, was concerned that the project was a "low-income" housing venture. She was assured that this was an affordable housing project.
- H. Lawrence Fernandez, member of the Kapaa School PTSA. He was informed of the Self-Help principles and assured that this was not a "low-income" project. He did not have an opinion either in support or against.
- I. Gabe Swinburnson, employee at Aloha Pizza in Kapaa Town. He thinks that it is a good idea because it is an opportunity for residents to own a home. He thinks that since residents would put a lot of effort into building the home, that they will likewise put more effort in maintaining the property.
- J. Mark Tanaka, Kauai Realty, was in favor of the project. Believes that its in a good location and that the Self-Help approach is good.

KAPAA SELF-HELP PROJECT

2. OEQC letter dated December 17, 1996  
**QUESTION:** Please include a legend in the constraints map that explains the notations on the map.  
  
**RESPONSE:** See exhibit E
3. OEQC letter dated December 17, 1996  
**QUESTION:** Include drawings or diagrams of the proposed buildings and a site plan which shows how the buildings will be situated on the five parcels of land.  
  
**RESPONSE:** See exhibit E
4. OEQC letter dated December 17, 1996  
**QUESTION:** Consult with the Department of Health regarding conditions required for the use of septic systems.  
  
**RESPONSE:** Mr. Clyde Kodani and Associates has met with the State Department of Health, Sanitation Branch. The project conforms to Chapter 62 HRS and DOH development standards. The project intends to construct a private wastewater disposal system in the form of a septic system on each of the lots of record. There will be no more than five (5) bedrooms per system.
5. OEQC letter dated December 17, 1996  
**QUESTION:** What is the total amount of County funding for this project?  
  
**RESPONSE:** The total amount of County funding is \$525,000.00.
6. OEQC letter dated December 17, 1996  
**QUESTION:** A discussion of findings and reasons, according to the significance criteria listed in HRS Title 11-200-12, that support the anticipated Finding Of No Significant Impact (FONSI) determination.  
  
**RESPONSE:** See section 3.0.

3.0 DETERMINATION AND REASONS SUPPORTING THE  
DETERMINATION OF FONSI

It can be concluded that the proposed KSHP's development and use will not have a significant negative effect on the affected environment, therefore the preparation of an Environmental Impact Statement (EIS) has not been triggered. To assist in this determination, the "significance criteria", Section 12 of the Hawaii Administrative Rules, Title 11, Chapter 200, were reviewed within the context of the project. After careful analysis, the following was concluded:

1. No irrevocable commitment to loss or destruction of any natural or cultural resource.

**RESPONSE:** The project site was previously used for residential purposes. The site has been cleared and subsurface disturbed during the previous residential activities and subsequent demolition and clearing work. The site is not known to contain significant cultural resources or be the habitat for endangered species (flora and fauna). A 106 compliance letter has been received from the Department of Land and Natural Resources, State Historic Preservation Division. (exhibit G)

2. The action would not curtail the range of beneficial uses of the environment.

**RESPONSE:** Construction of KSHP is consistent with the general plan and zoning of the property. Infilling of existing residential inventory is among the most important of land use principles.

3. Does not conflict with the State's long term environmental policies.

**RESPONSE:** The proposed activity does not impact or degrade significant natural resources. Upon build out, the project will contribute to improving the areas appearance, discourage loitering, and minimize erosion, run-off, and non-point source of pollution.

KAPAA SELF-HELP PROJECT

4. The economic or social welfare of the community or State would not be substantially affected.

**RESPONSE:** KSHP increases the inventory of affordable housing units in the Kapaa area. Not to be confused with low-income housing, KSHP improves the economic and social welfare of the community by:

1. Infilling on existing zoned lands many of which are either vacant, overgrown, or abandoned.
2. Providing clean, safe and aesthetic designed units.
3. Improving the opportunity for "gap-group" families to qualify and participate in fee title home ownership.

5. The proposed action does not substantially affect public health.

**RESPONSE:** The proposal does not involve hazardous wastes or noxious materials. Waste water will be disposed through a septic system which is constructed to Department of Health standards.

6. No substantial secondary impacts, such as population changes or effects on public facilities, are anticipated.

**RESPONSE:** KSHP goals seek to increase the inventory of affordable housing units throughout the State of Hawaii. SHHCH policies give priority to residents currently residing in the area.

KSHP is located within an existing service area for schools, police, fire and emergency services. The proposal does not create further pressures to increase public services.

7. No substantial degradation of environmental quality is anticipated.

**RESPONSE:** The project area is not situated within or adjacent to areas of significant natural resources. Construction program elements (lot coverage, building codes, wastewater disposal, etc.) should adequately protect current environmental quality and protect low-lying areas from non-point source pollution.

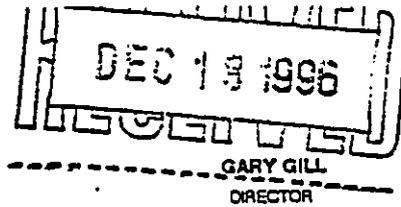
4.0 CONCLUSION

Having examined all of the evidence gathered for the Draft EA and Final Report, it can be concluded that the proposed action will not create cumulative environmental impacts and will not have a significant negative effect upon the natural resources of the area. All cultural concerns have been mitigated with the issuance of a 106 compliance letter from the DLNR-SHPD. The facilitation of a pre-construction meeting will inform all participants of the importance and process for treating cultural material discoveries uncovered during construction. Inadvertent burials will be treated under Chapter 6E HRS procedures in conjunction with DLNR-SHPD programs.

It can be further concluded that the release of County funds will not constitute an action negatively affecting the quality of the human environment, therefore a Finding of No Significant Impact (FONSI) determination is appropriate.

# EXHIBITS

BENJAMIN J. CAYETANO  
GOVERNOR



STATE OF HAWAII  
OFFICE OF ENVIRONMENTAL QUALITY CONTROL

235 SOUTH BERETANIA STREET  
ROOM 702  
HONOLULU, HAWAII 96813  
TELEPHONE (808) 586-4185  
FACSIMILE (808) 586-4186

December 17, 1996

Matilda Yoshioka  
Kauai Housing Agency  
4493 Hardy Street  
Lihue HI 96766

Attn: Gary Mackler

Dear Ms. Yoshioka:

Subject: Draft Environmental Assessment (EA) for Kapaa Self-Help Housing  
Project, Kapaa

Please include the following in the final EA:

1. List state and county agencies contacted, notify the nearest neighbors or neighboring landowners of the proposed project and document all contacts in the final EA. Include copies of any correspondence.
2. Please include a legend in the Constraints Map (Exhibit G) that explains the notations on the map.
3. Include drawings or diagrams of the proposed buildings and a site plan which shows how the buildings will be situated on the five parcels of land.
4. Consult with the Department of Health regarding conditions required for the use of septic systems.
5. What is the total amount of County funding for this project?

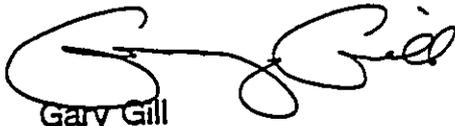
EXHIBIT A

December 17, 1996  
Matilda Yoshioka  
Page 2

6. A discussion of findings and reasons, according to the significance criteria listed in HRS Title 11-200-12, that support the anticipated Finding of No Significant Impact (FONSI) determination. You may use the enclosed sample as a guideline.

If you have any questions, call Nancy Heinrich at 586-4185.

Sincerely,



Gary Gill  
Director

enc.

c: Claudia Shay  
Applied Planning Services



## SELF-HELP HOUSING CORPORATION OF HAWAII

1427 Dillingham Blvd., Suite 305  
Honolulu, Hawaii 96817  
Telephone (808) 842-7111  
Toll-Free 1-800-336-4035

March 21, 1997

Gary Gill, Director  
Office of Environmental Quality Control  
State of Hawaii  
235 So. Beretania St., Rm. 702  
Honolulu, Hawaii 96813  
Attn: Nancy Heinrich

Dear Mr. Gill:

The Self-Help Housing Corporation of Hawaii, as the applicant submitting the environmental assessment for the Kapaa Self-Help Housing Project (TMK (4)4-6-15:12,126,127,128,129), is responding to your letter of December 17, 1996 to Matilda Yoshioka of the Kauai County Housing Agency.

In response to your inquiries please review the following:

1. Various state and county agencies contacted about the Kapaa Self-Help Project included:
  - Department of Water, County of Kauai
  - Department of Public Works, County of Kauai
  - Department of Planning, County of Kauai
  - Department of Land and Natural Resources, State of Hawaii

Correspondence to and from these agencies are included in the final EA.

Community groups were notified through a presentation to the Kapaa Business Association on August 6, 1996. The agenda and meeting minutes are included in the final EA.

Other community contacts include phone calls to:

July 17, 1996, discussion with Gary Hooser, Kapaa realtor, active in community groups, to explain the project. He referred me to Tad Miura, Jr., Board Chairman of the Kauai County Chamber of Commerce.

July 17, 1997 discussion with Tad Miura on the project. He referred me to Ann Leighton of the Kapaa Business Association, and Paul Endo of the Kapaa Branch of Bank of Hawaii.

July 17, 1997 discussion with Paul Endo of Bank of Hawaii on the project who suggested a presentation to the Kapaa Business Association.

July 18, 1997 Claudia Shay met with Ann Leighton, President of the Kapaa Business Association, who was very interested, and scheduled a presentation to the Kapaa Business Association.

EXHIBIT A-1

Gary Gill, Director  
Office of Environmental Quality Control  
State of Hawaii  
Page Two

On Wednesday, September 11, 1996 the Kapaa Self-Help Project was discussed with the Kauai County Council. The agenda is included in the final EA.

On December 30, 1996, a newspaper article discussing the Kapaa Self-Help Project was published in "The Garden Island". This article is included in the final EA.

On February 25, 1997, Roland Sagum of Applied Planning Services who prepared the EA, discussed the project with Cliff Baily, Principal of Kapaa Elementary school. Mr. Baily was in support of the project and requested that a divider be constructed between the site and the school parking lot.

On February 25, 1997, Roland Sagum talked with Sheri Kuioka, a nearby resident, who expressed concerns about a "low income housing" project. She was assured that the housing was quality, affordable units.

On February 25, 1997, Roland Sagum discussed the project with Lawrence Fernandez, President of the Kapaa Elementary School PTSA. Mr. Fernandez was assured that the project was not poor quality low income housing.

On February 25, 1997, Roland Sagum discussed the project with Gabe Swinburnson, a Kapaa resident, who thought it was an excellent opportunity for residents to own a home.

On February 28, 1997, Roland Sagum discussed the project with Mark Tanaka of Kauai Realty who was in support of the project.

SHHCH staff made a presentation on the project to the Kapaa Elementary School PTSA on March 11, 1997. About 20 members were in attendance. After several questions were answered, members were supportive of the project.

2. A legend is included in the Constraints Map to explain the notations. This map is Exhibit D in the final EA.

3. The site plan showing how the houses will be located on the lots is included in Exhibit E in the final EA.

4. The project engineer Clyde Kodani of Kodani & Associates, Inc. is drafting a design of the septic tank systems. The septic tank systems will be designed in accordance with

Gary Gill, Director  
Office of Environmental Quality Control  
State of Hawaii  
Page Three

Chapter 62 and would therefore have no special conditions. Upon completion of the design, it will be submitted to the Department of Health. The septic tank systems would also be subject to the Department of Health approval when building permits were obtained.

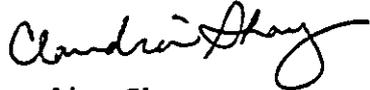
5. The total amount of County of Kauai funding for the project is \$525,000.

6. A discussion of the findings and reasons according to the significance criteria in Title 11-200-12(HRS) is included in the final EA.

The final EA has a full discussion of these aforementioned issues and concerns.

Thank you.

Sincerely,



Claudia Shay  
Executive Director

cc: Matilda Yoshioka, Director  
Kauai County Housing Agency  
Attn: Gary Mackler

LETTER OF TRANSMITTAL

DEPARTMENT OF PUBLIC WORKS  
 COUNTY OF KAUAI  
 4444 RICE STREET  
 MOIKEHA BLDG., SUITE 275  
 LIHUE, HAWAII 96766

|                                    |            |
|------------------------------------|------------|
| DATE: 2/25/97                      | CONTR. NO. |
| ATTENTION: MR. STANFORD IWAMOTO    |            |
| RE: KAPAA SELF HELP PROJECT S-94-7 |            |
|                                    |            |
|                                    |            |

TO: KODANI & ASSOCIATES, INC.  
 3145 AKAHI STREET  
 LIHUE, HAWAII 96766

GENTLEMEN:

WE ARE SENDING YOU:  Attached  Under separate cover the following items:

Shop Drawings  Prints  Plans  Samples  Specifications

Copy of Letter  Change Order  \_\_\_\_\_

| ITEM | NUMBER | DESCRIPTION               |
|------|--------|---------------------------|
| 1    | 1      | Title sheet and sheet 2/2 |
|      |        |                           |
|      |        |                           |
|      |        |                           |
|      |        |                           |
|      |        |                           |

These are transmitted as checked below:

For approval  Approved as submitted  Resubmit \_\_\_ copies for approval

For your use  Approved as noted  Submit \_\_\_ copies for distribution

As requested  Returned for corrections  Return \_\_\_ Corrected Prints

For review & comment \_\_\_\_\_

REMARKS:

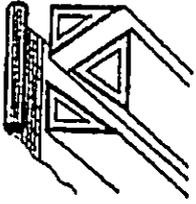
Please have your selected contractor obtain a roadway permit from my office. Please have your selected contractor submit three (3) sets of the approved plans when applying for a roadway permit.

*Kenneth Kitabayashi*  
 KENNETH KITABAYASHI  
 Acting County Engineer

WK/cu

cc: Construction Inspection

EXHIBIT A-2



# KODANI & ASSOCIATES, INC.

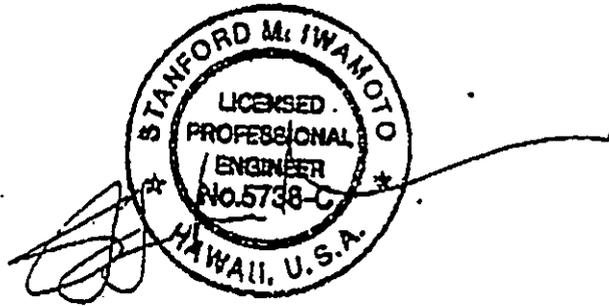
CIVIL ENGINEERING & SURVEYING  
3145 AKAHI STREET LIHUE, KAUAI, HAWAII 96766  
PHONE (808) 245-9591 FAX (808) 246-6368

MEMORANDUM TO: Department of Public Works  
County of Kauai

FROM: KODANI AND ASSOCIATES, INC. (Stanford Iwamoto)  
2-20-97

SUBJECT: KAPAA SELF HELP HOUSING SUBDIVISION, S-94-7

The shed located on Unit F, TMK 4-6-15:127 and the shed on Unit G, TMK 4-6-15:129 have been relocated to positions outside of the sight distance zone. This was verified by a field survey conducted on February 7, 1997.



Stanford M. Iwamoto, P.E.  
February 20, 1997

EXHIBIT A-3



**KODANI  
& ASSOCIATES, INC.**  
3145 Akahi Street  
LIHUE, KAUAI, HAWAII 96766

**LETTER OF TRANSMITTAL**

Phone (808) 245-9591 FAX (808) 246-6358

TO DEPT. OF PUBLIC WORKS  
COUNTY OF KAUAI

|           |                       |         |
|-----------|-----------------------|---------|
| DATE      | Z-20-97               | JOB NO. |
| ATTENTION | WALLACE KUDO          |         |
| RE:       | SERVICE LATERAL       |         |
|           | CONNECTIONS FOR KAPAA |         |
|           | SELF HELP PROJECT     |         |
|           | S-94-7                |         |
|           |                       |         |
|           |                       |         |

WE ARE SENDING YOU  Attached  Under separate cover via \_\_\_\_\_ the following items:

- Shop drawings     Prints     Plans     Samples     Specifications  
 Copy of letter     Change order     \_\_\_\_\_

| COPIES | DATE    | NO. | DESCRIPTION                              |
|--------|---------|-----|--|
| 1      | 2-19-97 |     | CONSTRUCTION PLANS (TRACINGS)            |
|        |         |     | DPW CHECK SET                            |
| 1      |         |     | ENGINEERS CERTIFICATION OF SHED LOCATION |
|        |         |     |  |
|        |         |     |  |
|        |         |     |  |
|        |         |     |  |

THESE ARE TRANSMITTED as checked below:

- For approval     Approved as submitted     Resubmit \_\_\_\_\_ copies for approval  
 For your use     Approved as noted     Submit \_\_\_\_\_ copies for distribution  
 As requested     Returned for corrections     Return \_\_\_\_\_ corrected prints  
 For review and comment     SIGNATURE \_\_\_\_\_  
 FOR BIDS DUE \_\_\_\_\_ 19 \_\_\_\_\_  PRINTS RETURNED AFTER LOAN TO US

REMARKS CONSTRUCTION PLANS ARE PROVIDED FOR APPROVAL.  
TO WORK W/IN COUNTY R-O-W. SHEDS HAVE BEEN  
MOVED OUT OF SIGHT DISTANCE ZONE.

COPY TO \_\_\_\_\_

SIGNED:

STANFORD M.

EXHIBIT A-4

DEPARTMENT OF WATER  
COUNTY OF KAUAI  
4398 PUA LOKE STREET  
P. O. BOX 1706  
LIHUE, KAUAI, HAWAII 96766  
PHONE: 808-245-5400 FAX: 808-245-5813

PLAN REVIEW TRANSMITTAL

DATE: February 13, 1997

|  |   |
|--|---|
| TO:<br><br>Kodani & Associates, Inc.<br>3145 Akahi Street<br>Lihue, HI 96766 | JOB NO.:<br><br>RE: Service Lateral Connections for<br>Kapaa Self-Help Project (S-94-7) |
|--|---|

The attached

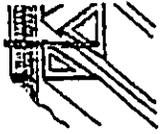
1. Advance Plan Review
2. Preliminary Plan Review
3. Pre-Final Plan Review
4. Final Plan Review
5. Final Plan Approval
6. Cover Sheet Approval
7. Bid Proposal Schedule Review
8. Specification Review
9. Instructions to Subdividers
10. General Provisions for Waterworks Construction
11. Others:

is (are) returned herewith

Please submit 4 sets of approved construction drawings.

  
Ernest Y. W. Lau, Manager & Chief Engineer  
C:\winword\lynn\planrev.doc

EXHIBIT A-5



**ENGINEERING & ASSOCIATES, INC.**  
 3145 Akahi Street  
 LIHUE, KAUAI, HAWAII 96766

Phone (808) 245-9591 FAX (808) 246-6368

**LETTER OF TRANSMITTAL**

TO DEPT. OF WATER  
COUNTY OF KAUAI

|           |                            |         |
|-----------|----------------------------|---------|
| DATE      | 2-12-97                    | JOB NO. |
| ATTENTION | MEL MATSUMURA              |         |
| RE:       | SERVICE LATERAL CONNECTION |         |
|           | FOR KAPAA SELF HELP        |         |
|           | PROJECT                    |         |
|           | S-94-7                     |         |
|           |                            |         |
|           |                            |         |

WE ARE SENDING YOU  Attached  Under separate cover via \_\_\_\_\_ the following items:

Shop drawings     Prints     Plans     Samples     Specifications  
 Copy of letter     Change order    = \_\_\_\_\_

| COPIES | DATE    | NO. | DESCRIPTION                   |
|--------|---------|-----|-------------------------------|
| 1      | 2-12-97 |     | CONSTRUCTION PLANS (TRACINGS) |
| 1      |         |     | DOW CHECK SET                 |
|        |         |     |                               |
|        |         |     |                               |
|        |         |     |                               |
|        |         |     |                               |
|        |         |     |                               |

THESE ARE TRANSMITTED as checked below:

- For approval                       Approved as submitted                       Resubmit \_\_\_\_\_ copies for approval
- For your use                               Approved as noted                               Submit \_\_\_\_\_ copies for distribution
- As requested                               Returned for corrections                       Return \_\_\_\_\_ corrected prints
- For review and comment                       FOR SIGNATURE
- FOR BIDS DUE \_\_\_\_\_ 19 \_\_\_\_\_                       PRINTS RETURNED AFTER LOAN TO US

REMARKS \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

COPY TO \_\_\_\_\_

SIGNED: STANFORD M. MATSUMURA EXHIBIT A-6

*If enclosures are not as noted, kindly notify us at once.*

BENJAMIN J. CAYETANO  
GOVERNOR OF HAWAII



COPY

STATE OF HAWAII

DEPARTMENT OF LAND AND NATURAL RESOURCES

STATE HISTORIC PRESERVATION DIVISION  
33 SOUTH KING STREET, 8TH FLOOR  
HONOLULU, HAWAII 96813

MICHAEL D. WILSON, CHAIRPERSON  
BOARD OF LAND AND NATURAL RESOURCES

DEPUTIES

GILBERT COLOMA-AGARAN

AQUACULTURE DEVELOPMENT  
PROGRAM

AQUATIC RESOURCES  
CONSERVATION AND

RESOURCES ENFORCEMENT  
CONVEYANCES

FORESTRY AND WILDLIFE  
HISTORIC PRESERVATION

DIVISION

LAND DIVISION

STATE PARKS

WATER AND LAND DEVELOPMENT

December 31, 1996

Mr. Dee Crowell, Director  
Planning Department  
County of Kauai  
4444 Rice Street, Suite 473  
Lihue, Kaua'i, Hawaii 96766

LOG NO: 18700 ✓  
DOC NO: 9612NM08

and

Mr. Steve Oliver  
Department of Public Works  
County of Kauai  
4444 Rice Street,  
Lihue, Kaua'i, Hawaii 96766

Dear Mr. Crowell and Mr. Oliver:

SUBJECT: Chapter 6E-42, Historic Preservation Review  
CL- 97-5 Grading Plans  
TMK: 4-6-15: 12, 126-129 (Kapa'a Self-Help) c/o Kodani & Assoc.  
Kapaa, Kawaihau, Kauai

Our review is based on historic reports, maps and aerial photographs maintained in our office; no field inspection was made of the subject parcel. A review of our records show that there are no known historic sites at the project location. Since the parcel had two houses on the property, it is highly unlikely significant historic sites still exist. We concur with your determination that this project will have "no effect" significant historic sites.

If you have any questions, please call Nancy McMahon 742-7033.

Aloha,

DON HIBBARD, Administrator  
State Historic Preservation Division

NM:amk

c. Mr. Clyde Kodani

EXHIBIT A-7

DEPARTMENT OF WATER  
COUNTY OF KAUAI  
4398 PUA LOKE STREET  
P. O. BOX 1706  
LIHUE, KAUAI, HAWAII 96766  
PHONE: 808-245-5400 FAX: 808-245-5813

PLAN REVIEW TRANSMITTAL

DATE: December 11, 1996

|  |   |
|--|---|
| TO:<br><br>Kodani & Associates, Inc.<br>3145 Akahi Street<br>Lihue, HI 96766 | JOB NO.:<br><br>RE: Kapaa Self-Help Project, (S-94-7) |
|--|---|

The attached

- |  |                                     |
|--|-------------------------------------|
| 1. Advance Plan Review                             | <input type="checkbox"/>            |
| 2. Preliminary Plan Review                         | <input type="checkbox"/>            |
| 3. Pre-Final Plan Review                           | <input type="checkbox"/>            |
| 4. Final Plan Review                               | <input checked="" type="checkbox"/> |
| 5. Final Plan Approval                             | <input type="checkbox"/>            |
| 6. Cover Sheet Approval                            | <input type="checkbox"/>            |
| 7. Bid Proposal Schedule Review                    | <input type="checkbox"/>            |
| 8. Specification Review                            | <input type="checkbox"/>            |
| 9. Instructions to Subdividers                     | <input type="checkbox"/>            |
| 10. General Provisions for Waterworks Construction | <input type="checkbox"/>            |
| 11. Others:  | <input type="checkbox"/>            |

is (are) returned herewith

please make corrections and submit tracings for approval signature.

*Ernest Y. W. Lau*  
for Ernest Y. W. Lau, Manager & Chief Engineer  
C:\winword\lynn\planrev.dot

EXHIBIT A-8

MEARYANNE W. KUSAKA  
MAYOR



STEVE OLIVER  
COUNTY ENGINEER  
TELEPHONE 241-6600

EDMOND P.K. RENAUD  
DEPUTY COUNTY ENGINEER  
TELEPHONE 241-6600

AN EQUAL OPPORTUNITY EMPLOYER  
COUNTY OF KAUAI

PW11.325

DEPARTMENT OF PUBLIC WORKS  
444 RICE STREET  
MO'IKEHA BUILDING, SUITE 275  
LIHUE, KAUAI, HAWAII 96766

December 2, 1996

Kodani & Associates, Inc.  
3145 Akahi Street  
Lihue, HI 96766

Attention: Mr. Standford Iwamoto

Gentlemen:

Subject: Preliminary Construction Plans For Service  
Laterals For Kapaa Self Help Project  
TMK: 4-6-15-12, 126 to 129

We have completed our construction plan review for the subject project and we offer the following comments:

A. Plans

1. The plans show the existing 6'x 8' storage sheds on unit F and G to be encroaching within the restrictive sight distance area. The location of these sheds are contrary to the building plans approved by the Division of Engineering. For your convenience and use, we are enclosing copies of the approved building shed locations. We are requesting that sheds F and G be relocated out of the establish sight distance area prior to our approval of your tracings. We believe a building permit will need to be obtained for the relocation of the sheds. In addition, we will also insist when the sheds are relocated, a professional engineer or surveyor provide certification to us that the relocated shed are not encroaching within the established sight distance area.
2. Please obtain the approvals from the Department of Water first before submitting your tracings for our approval.

EXHIBIT A-9

Kodani & Associates, Inc  
December 2, 1996  
Page 2

Enclosed is a marked set of the plans with our red-marked comments. Please make your revisions and resubmit the marked set along with your revised plans.

Should you have any question, please feel free to contact Mr. Wallace Kudo of my staff at 241-6620.

Very truly yours,

*Kenneth Kitabayashi*

Kenneth Kitabayashi  
Chief, Division of Engineering

WK/cu

Attachment



## SELF-HELP HOUSING CORPORATION OF HAWAII

1427 Dillingham Blvd., Suite 305

Honolulu, Hawaii 96817

Telephone (808) 842-7111

Toll-Free 1-800-336-4035

October 29, 1996

Don Hibbard, Administrator  
State Historic Preservation Division  
Department of Land and Natural Resources  
33 So. King St., 6th Floor  
Honolulu, Hawaii 96813

Dear Mr. Hibbard:

The Self-Help Housing Corporation of Hawaii has an option to purchase 1.329 acres of land in Kapaa, Kauai (TMK (4)-4-6-15: 12, 126, 127, 128, 129,) old lot # 7. Please find enclosed the tax map.

SHHCH intends to develop this site and implement a 10 unit self-help housing project.

Presently, the land is vacant and zoned R-4. Formerly, there were two houses on the property. One house burned down. The other house was demolished and removed from the property.

As SHHCH will be developing the property with federal funds, I would appreciate a clearance from DLNR declaring the property as having no significant historical or cultural value.

If you would like additional information, please let me know.

Thank you.

Sincerely,

Claudia Shay  
Executive Director

EXHIBIT A-10

00824003001# 1  
**FAXED**  
7/10/96

**DEPARTMENT OF WATER**

County of Kauai  
P. O. Box 1706  
Lihue, HI 96766-5706  
Phone No. (808) 245-5400 — FAX No. (808) 245-5813

July 9, 1996

Kodani & Associates, Inc.  
3145 Akahi Street  
Lihue, HI 96766

Dear Sirs:

RE: Department of Water's requirements for the proposed five(5) additional water meters to TMK: 4-6-15:12 (subdivided into five(5) lots - new parcel numbers are: 12, 126, 127, 128 and 129); S-94-7; Kapaa, Kauai.

Any actual subdivision or development will be dependent on the adequacy of the source, storage and transmission facilities existing at that time. At the present time, the existing source and transmission facilities are adequate for the proposed use. The existing storage facilities are nearing capacity. Prior to approval of the five(5) additional water meters, the applicant will be required to:

1. Prepare and receive DOW approval of construction drawings for necessary water system facilities and construct said facilities. These facilities shall include but not be limited to:
  - a. The domestic service connections.
  - b. The interior plumbing plans with the appropriate backflow preventers if applicable.
2. Pay the applicable charges in effect at the time of receipt. At the present time, these charges include the Facilities Reserve Charge of \$2,600 per unit/meter, or \$13,000 for five(5) 5/8-inch water meters.

If you have any questions, please call Keith Aoki at 245-5418.

Sincerely,

  
Wayne H. Hinazumi  
Acting Manager and Chief Engineer

KA:ls

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**Kapaa Business Association**

**Board of Directors Meeting**

**Tuesday, August 6, 1996**

**Kauai Resort Hotel**

Call To Order *Ann Leighton, President*

Treasurer's Report

Secretary's Report

Introduction of Guests

Old Business

- \*Kapaa Triangle (Homer) Park Update
- \*Shirts and KBA Logo Update
- \*Veterans' Day Parade
- \*Membership and Dues
- \*Department of Transportation Update
- \*Relocation of Japanese Lantern Statue Update
- \*Committee Reports
- \*Kapaa on the Internet
- \*Reopening of Coco Palms
- \*Candidate forums

New Business

- \*Hawaii Self-Help Housing Corporation
- \*Membership Incentive Proposals

Other Business

Scheduling of Next Meeting: Tuesday, September 10, 1996, 7:30 AM, Kauai Resort Hotel Niihau Room.

Adjournment

EXHIBIT B

MINUTES  
KAPAA BUSINESS ASSOCIATION  
Board of Directors Meeting  
Kauai Resort Hotel, August 6, 1996

President Annie Leighton called the meeting to order at 7:45 a.m.

**Treasurer's Report**

Treasurer Rene Tokuda reported a bank balance of \$6,800.04, transferred from books from the previous year. New receipts have not been accounted for. Annie promised to check the box more regularly.

**Secretary's Minutes**

Due to a misunderstanding, the secretary's minutes were not reproduced for distribution. Minutes were read, moved, and approved as read.

**Hawaii Self-Help Housing Corporation**

This New Business agenda item was moved ahead to accommodate Presenter Claudia's schedule. The 1.5 acre lot located across Kapaa High School has already been sub-divided and with CPR will provide 10 house lots, each valued at \$60,000.00 at market price. The completed house and lot will cost about \$110,000 each, with a monthly mortgage of about \$800. In addition to qualifying for the loan, each family must provide 32 hours of labor a week, and have income less than 80% of median. KBA was asked to endorse the project and refer employees as potential applicants. For more information, call Tracy Hosaka at 246-9002, M-F, 8a.m.-5p.m.

**Introduction of Guests**

John Lydgate is the Kawaihau area representative on the County Historic Preservation committee, and is also serving on the Board of Kauai Historic Society. He will assist KBA in the relocation of Japanese Lantern Statue. Paul Endo has historic materials on the Lantern Statue which Amy will pick up at Paul's office.

Bruce Horka from Custom Landscaping attended the meeting to report on Horner Park progress.

Phil Fudge invited Rennie O'Brien, owner of the new Jurassic Park Cafe, to share some of his ideas. Rennie would like to organize Kapaa businesses to form a promotional group that would initiate a project to make Kapaa a tourist destination, similar to the project underway in Hanapepe. He wanted KBA to serve as the political arm to convince Mayor Kusaka that Kapaa needs help, such as turning all street lights back on so the town looks open after dark. Rennie had invited some Kapaa merchants to meet at his cafe at 7 p.m., and several board members agreed to meet with Rennie's group since Rennie had to rush off and couldn't hear KBA's response to his remarks. John Lydgate suggested we look again at the Masterplan for Kapaa.

**Old Business**

Horner Park Update: Bruce Horka clarified Custom Landscaping's role. They drew up the preliminary plans and will work to see this project through to completion for no payment. The \$5000 from the County will have to be matched with contributions of an equal amount to complete the project and have some funds left over for replacement plants and maintenance. Because times are tough, Annie said KBA would welcome any contribution, no matter how small. Electricity and benches will be needed, as well as labor. John Lydgate suggested working through Ho'olokahi. Publicity about the project and a solicitation flyer with information were suggested ways to help the fundraising effort. Another canvassing walk is scheduled for the 13th, to begin at 8 a.m. in front of Pono Market. The last walk was successful.

- C-448-96. Communication (8/21/96) from Ronald Kouchi, Council Chair; Jerome Hew, County Clerk; and Bunji Shimomura, Deputy County Clerk to Councilmembers transmitting the Annual Report of the Legislative Branch.
- C-449-96. Communication (8/12/96) from Gordon Kiyabu, Hawaii Golf Promotions, transmitting the 1996 Second Quarter Report of the Kauai Golf Program.
- C-450-96. Communication (8/28/96) from Steve Oliver, County Engineer, transmitting a letter from the State Department of Hawaiian Home Lands requesting County maintenance and refuse service for the Anahola Residence Lots, 5th increment.
- C-451-96. Communication (8/15/96) from Steve Oliver, County Engineer, requesting approval to enter into formal negotiations with Grove Farm Company, Inc. to lease, with option to purchase, a site in Puhi for the County's "Auto Recycling Center."
- C-452-96. Communication (8/22/96) from Police Chief George Freitas requesting approval to expend a balance of \$6,000 in grant funds received from the Criminal Justice Division of the Attorney General's Office in 1994 and to be used to purchase a laser printer and uniforms for officers participating in the KPD's Bicycle Patrol Program.
- ~~C-453-96~~ Communication (8/23/96) from Kenneth Rainforth, Housing Executive Assistant, requesting funding approval for the 1995 and 1996 HOME projects as follows:
- |                                 |              |
|---------------------------------|--------------|
| 1. Homebuyer Loan Program       |              |
| Kauai County Housing Agency     | \$ . 975,000 |
| Kapaa Self-Help Housing Project |              |
| Self Help Housing Corporation   |              |
| of Hawaii                       | \$ 1,500,000 |
- ~~C-454-96~~ Communication (8/23/96) from Kenneth Rainforth, Housing Executive Assistant, requesting approval of the Rental Assistance Program for the Paanau Village and authorize the County Clerk to execute the applicable documents. [Regulatory Agreement and Rental Assistance Contract on file in County Clerk's Office.]
- C-455-96. Communication (8/29/96) from Ellie Lloyd, County Executive on Aging, requesting approval to receive and expend \$5,000 in federal funds for education and training purposes for the period July 1, 1996 to September 30, 1997.
- C-456-96. Communication (8/21/96) from Police Chief George Freitas requesting approval to accept a gift of six (6) decals for use on police marked vehicles donated by Browning-Ferris Industries.

Bruce expressed concern that the new landscaping might be damaged during the Veterans' Parade. It was suggested that volunteers be posted around Horner Park in a positive PR effort to welcome guests to Kapaa rather than roping the area, putting up signs, and policing the corner.

Shirts and KBA Logo Update: No report.

Veterans' Day Parade: No report.

Membership and Dues: The incentive for stepping up recruitment efforts is this: Annie promises to get all dressed up in a dress!

Department of Transportation Update: Annie talked to Steve Kyono about the funds allocated to widening Kuhio Highway. According to Steve, on-going plans will be completed but put on the shelf, and emphasis will be shifted to the permanent by-pass road. The new bridge will require sensitive discussions with residents whose homes will be impacted.

Relocation of Japanese Lantern Statue Update: Committee will be working with the County and the Kauai Historical Society. There is \$1,000.00 in a bank account at First Hawaiian Bank donated by Kanvaku Imin, the Japanese Immigrant Hundred Year Celebration Committee.

Committee Reports: Some KBA board members, including President Annie, will be "locked up in jail" to support the Muscular Dystrophy Association.

Rene Tokuda reported a request to have the Family Volleyball Tournament again at Kapaa Beach Park. There will be six courts and the games are scheduled all day. KBA will help with prizes, insurance, banners, and sound system, and it was suggested that entry fees and food booths income be used in the Kapaa town beautification project.

KBA on the Internet: Annie and Janis are working with Pete Martini on a page at a cost of \$40 a month.

Reopening of Coco Palms: Governor Cayetano will be on Kauai on August 9 for the Chamber of Commerce's Pau Hana meeting. Annie will ask about the reopening of Coco Palms at that meeting.

Candidate Forums: KBA plans to invite candidates to board meetings.

Next Board Meeting: Tuesday, September 10, 1996 at 7:30 a.m., Kaula Resort Hotel Niihau Room.

The meeting was adjourned at 10:45 a.m.

Respectfully Submitted,

*Amy E. Awtrey*  
Amy E. Awtrey, Recording Secretary

COUNCIL MEETING AGENDA  
WEDNESDAY, SEPTEMBER 11, 1996  
1:00 p.m.  
Council Chambers  
Lihue, Kauai, Hawaii

MEETING CALLED TO ORDER.

ROLL CALL.

96 SEP -5 11:07

APPROVAL OF AGENDA.

MINUTES of the following meetings of the Council:

Mid-Month Meeting of July 31, 1996  
Public Hearings of July 31, 1996 re Bills Nos. 1773 and 1792  
Public Hearings of August 14, 1996 re Bills Nos. 1791, 1794,  
1793 and 1795  
Public Hearing of August 27, 1996 re Bill No. 1796

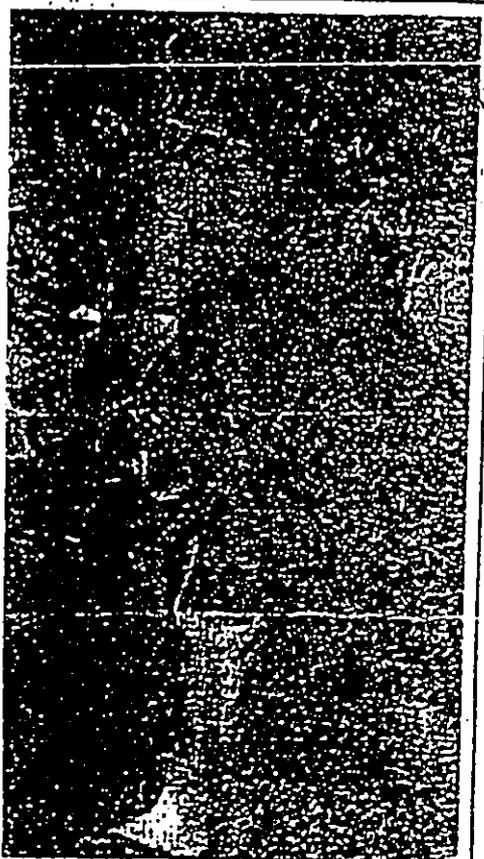
COMMUNICATIONS:

- C-441-96. Communication (8/15/96) from Councilmember Jesse Fukushima submitting written follow-up to his oral declaration of a possible conflict of interest on C-410-96 (Eugene A. Shinno claim) at the August 14, 1996 Council meeting.
- C-442-96. Communication (8/28/96) from Councilmember Richard Minatoya, submitting written follow-up to his oral declaration of a possible conflict of interest on the Greenwaste Litigation at the August 27, 1996 Executive Session.
- C-443-96. Communication (8/27/96) from Councilmember Randal Valenciano, submitting written follow-up to his oral declaration of a possible conflict of interest on C-424-96 (Police Salaries) and C-426-96 (Kauai Police Department Bicycle donation) at the August 27, 1996 Council meeting.
- C-444-96. Communication (8/30/96) from Councilmember Randal Valenciano declaring a possible conflict of interest relating to Bill No. 1800 (Kauai Investment Associates) on the September 11, 1996 Council agenda for reasons stated therein.
- C-445-96. Communication (8/21/96) from Councilmember Jesse Fukushima requesting approval of a resolution establishing a 15 mph speed limit on Mcalepe Road (Kapaa Heights). [See Resolution No. 113-96.]
- C-446-96. Communication (8/27/96) from Wallace Rezentes, Jr., Finance Director, requesting approval of a resolution for funding a performance contract through a municipal lease. [See Resolution No. 114-96.]
- C-447-96. Statement of the Condition of the County Treasury as of July 9, 1996 submitted by the Finance Department.

EXHIBIT C

# Urban Island

Urban Community Newspaper Home Delivery Price 30¢ Newsstand 50¢



## Sweat-equity homebuilders on the rise

By WILLIAM LeGRO  
Staff Writer

LIHU'E—It says something about changing times on Kauai when sweat-equity contractors are among the biggest homebuilders on the island.

Take Honolulu-based Self-Help Housing Corp. of Hawaii. It has about a dozen projects going in various stages around the state, has spearheaded construction of 44 self-built houses on Kauai so far, and has plans in the works for 52 more single-family homes from Hanalei to Kapa'a.

The developer is still taking applications for all of them.

The final price tag for the self-builders is about half what they would have to pay if they didn't pitch in. That probably has something to do with why SHHC has more than 300 Kauai families on its waiting list.

SHHC Executive Director Claudia Shay said that more than half of them want to live in Kapa'a.

That's plenty of competition for the 10 single-family homes planned for the 1.4-acre site at the intersection of Kawaihau and Nunu roads near Kapa'a School.

SHHC plans to buy the five-lot parcel, use CPR to create 10 lots, and help buyers put up two- and three-bedroom, two-bath houses of 864 to 1,104 square feet.

At about \$110,000, it's a deal for self-builders, who put out sweat instead of cash for about half that price.

"The lenders look at that and say, 'Well, the house is worth twice the loan I'm giving you,' so there's no down payment, which is the big obstacle you have to overcome in Hawaii because who's got that kind of savings?" Shay said.

Lenders like the fact that soon as buyers move in, they have tens of thousands of dollars in equity, Shay said. "And that's how I'm able to target low-income people."

The buyers build more than houses. They build a small community.

In Kapa'a, for example, the 10 families will build their own and each other's houses over the 10-

"They all build as a team together. It's a team self-help project. Each family puts in about 32 hours a week of labor," Shay said, after work and on weekends.

"We do all the excavation for all 10 houses first, we pour the footings for all 10 houses, then we do all the framing, and so on until all 10 houses are finished."

And at the end of 10 months, the 10 families move in and become instant neighbors—neighbors who have pounded nails and poured concrete together, and together

(See Homebuilders on Page 2)

### Public input sought for economic plan

LIHU'E—The USDA Rural Development agency will hold a meeting in Kauai Community College on Tuesday, Jan. 7, to gather public input into the development of a five-year strategic plan. Rural Development is an economic development agency of the U.S. Department of Agriculture. With multiple local, state and federal partners, it has compiled a survey response to be used to develop a draft plan that will address the complexity of rural needs in Hawaii.

Targeted needs include business development, health care, education, infrastructure, cultural resources, the environment and housing.

In partnership with the local community, strategies will be discussed to address the special needs of Kauai communities for rural development assistance.

The meeting will be held in the college dining room at 7 p.m.

Information about the meeting and the agency's business and industrial guaranteed loan program is available from the Rural Development office in Hilo at (808) 933-3001 or (808)

THE GARDEN ISLAND MONDAY, DECEMBER 24, 1944

## Homebuilders

(Continued from Page 1)

learned not only how to build but how to work as a team. She said she's aiming for a May start-up in Kapa'a. That's when she hopes construction

will be a 23-unit subdivision, plus with cut-off and sewer

tops. Right now it's a blighted area," said, full of weeds and junk and hurricane debris. Twelve sites lying there had to move to enable site preparation, and

they will be coming back as team self-builders, along with 11 new families—upon completion, another instant neighborhood.

The Hanapepe subdivision is somewhat different than the one in Kapa'a. It will have returning residents, and because of larger lots, larger homes, more infrastructure, and site work cleaning up the debris, it will have higher prices.

Still, three- and four-bedroom lots measuring 5,000 to 6,000 square feet yet costing less than \$140,000 are bargains.

Another difference is that the Hanapepe development will have two teams of self-builders.

As in all the self-builder projects, a paid construction supervisor with plenty of experience teaches the buyers the building skills they need. SHHCH uses this type of multi-team effort in larger projects such as Hanapepe so all the houses can go up at once in the same amount of time as the smaller projects, and all the families move in at the same time.

"That is a beautiful project," Shay said.

The Kalabco project is a little different still, she said—five acres, 19 lots, each 10,000 square feet.

These big lots will hold three- and four-bedroom houses for prices averaging about \$150,000. In Kalabco, that's unheard of in recent

years.

"This project is still in its infancy," Shay said, still in design thanks to a grant from the Federal Home Loan Bank of Seattle. She declined to reveal the exact location of the project because negotiations for the site purchase are ongoing and she's still raising money.

But again, the seven self-help practice will rule, and the 19 families could begin building as soon as the latter part of 1947.

Applications for all of these projects are still available, Shay said. How does SHHCH decide who among the hundreds of applicants get the chance to build?

"We take the applications, and we also put out a notice to

everybody on our waiting list. Then we go out and interview every family who's interested in the project. We look at their employment, their credit history, their income."

A family can earn no more than 80 percent of the Kauai median income (\$31,500 for a family of four), and can't have any excessive debts, judgments against them or bankruptcies.

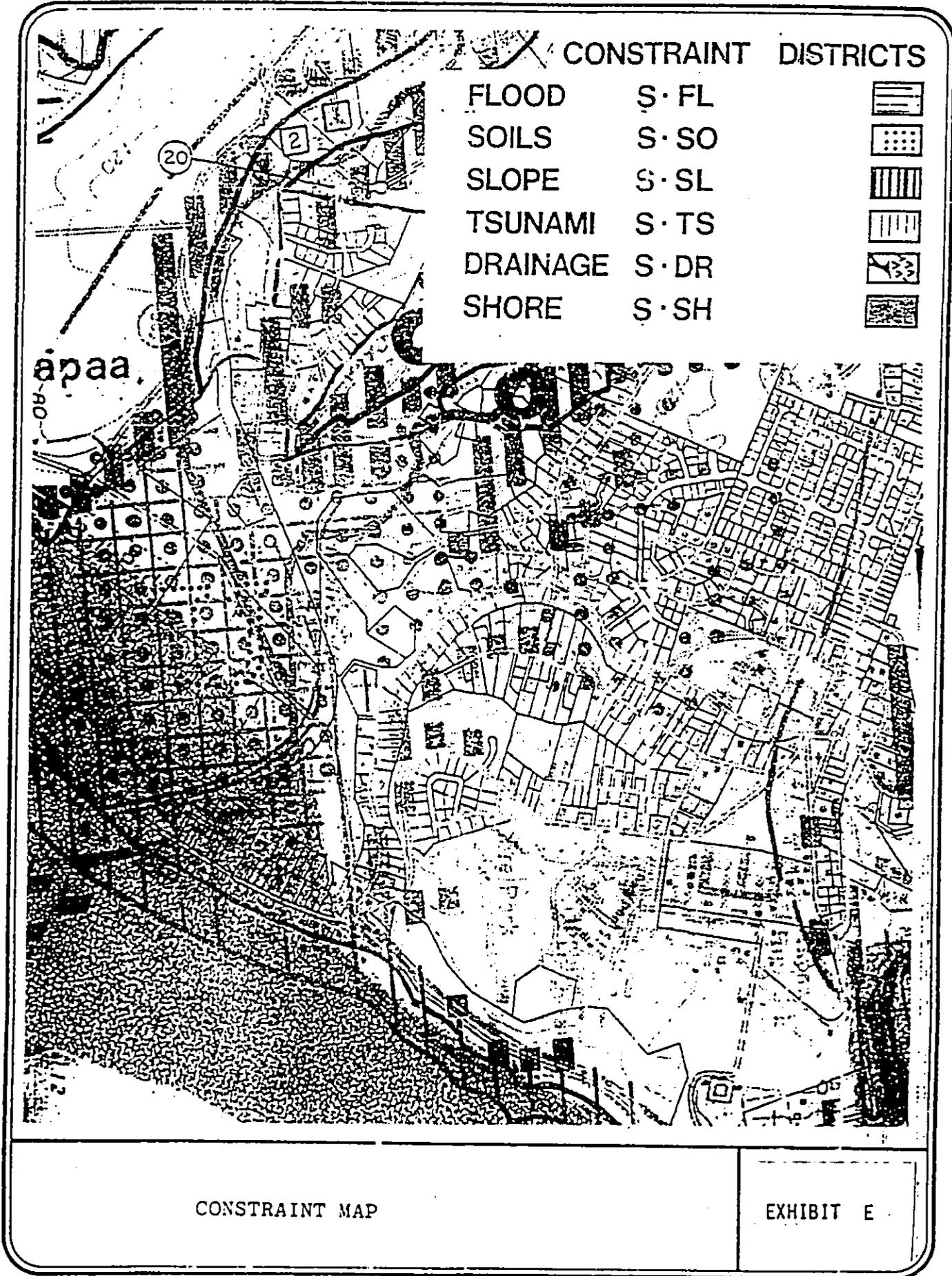
SHHCH then sends a list of all the people who qualify by these criteria and to a screening committee for further winnowing. This time based on need. The committee members come from the leader, the SHHCH board and the community.

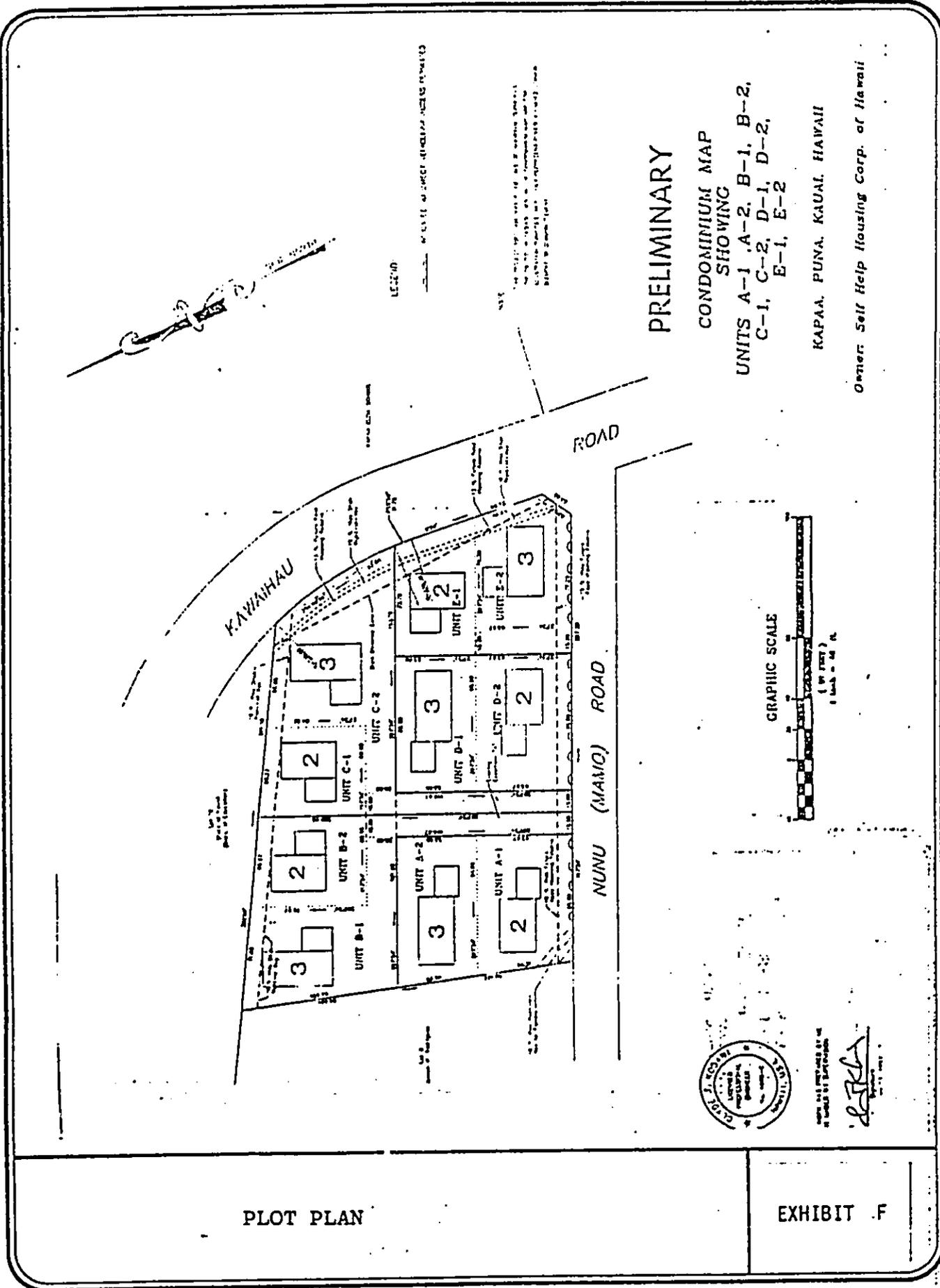
"The screening committee makes

the final choice based on which families are most in need," Shay said. "So of those eligible by the leader's criteria, we would take, for example, those of the lowest income, those living in substandard housing, or those who are home-less."

The team self-building concept has a compelling logic. From the beginning, families are selected for things they have in common: income, reliability. Each family has a stake in each house. "You build a community that bonds together," Shay said.

It's not easy, but it pays off, in a house, pride of accomplishment and ownership, and security of community.





BENJAMIN F. FOSTER  
GOVERNOR OF HAWAII



NOV 20 1996

MICHAEL D. WILSON, CHAIRPERSON  
DEPARTMENT OF LAND AND NATURAL RESOURCES  
DEPUTY  
Gilbert Coloma-Agaran

STATE OF HAWAII  
DEPARTMENT OF LAND AND NATURAL RESOURCES

STATE HISTORIC PRESERVATION DIVISION  
33 SOUTH KING STREET, 8TH FLOOR  
HONOLULU, HAWAII 96813

REF:HP-AMK

NOV 18 1996

AQUACULTURE DEVELOPMENT PROGRAM  
AQUATIC RESOURCES CONSERVATION AND ENVIRONMENTAL AFFAIRS CONSERVATION AND RESOURCES ENFORCEMENT CONVEYANCES FORESTRY AND WILDLIFE HISTORIC PRESERVATION DIVISION LAND MANAGEMENT STATE PARKS WATER AND LAND DEVELOPMENT

Ms. Claudia Shay, Executive Director  
Self-Help Housing Corp. of Hawaii  
1427 Dillingham Blvd., Suite 305  
Honolulu, Hawaii 96817

LOG NO: 18487 ✓  
DOC NO: 9611NM03

Dear Ms. Shay:

SUBJECT: National Historic Preservation Act Review, Section 106 Compliance -  
TMK: 4-6-15: 12, 126, 127, 128, 129  
Kapaa, Kawaihau, Kauai

Our review is based on historic reports, maps and aerial photographs maintained in our office; no field inspection was made of the subject parcel. A review of our records show that there are no known historic sites at the project location. Since the parcel had two houses on the property, it is highly unlikely significant historic sites still exist. We concur with your determination that this project will have "no effect" significant historic sites.

If you have any questions, please call Nancy McMahon 742-7033.

Aloha,

*Michael D. Wilson*  
MICHAEL D. WILSON, Chairperson and  
State Historic Preservation Officer

NM:amk

SECTION 106 COMPLIANCE LETTER

EXHIBIT G

**FILE COPY** DEC 8 1996  
**DRAFT**

**ENVIRONMENTAL ASSESSMENT**

for

**KAPAA SELF-HELP PROJECT**

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TMK: (4) 4-6-15: 12, 126, 127, 128, 129  
Kapaa, Kawaihau, Kauai, Hawaii

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QUALITY CONTROL

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Submitted by:  
Applied Planning Services  
3116 Hoolako Street, Bay B  
Lihue, Kauai, Hawaii 96766

For:  
Self-Help Housing Corporation of Hawaii  
1427 Dillingham Boulevard, Suite 305  
Honolulu, Hawaii 96817  
ATTN: CLAUDIA SHAY, EXECUTIVE DIRECTOR

October 1996

(VOL 11)

*DRAFT*  
ENVIRONMENTAL ASSESSMENT  
FOR  
KAPAA SELF-HELP PROJECT

SELF-HELP HOUSING CORPORATION OF HAWAII  
1427 DILLINGHAM BOULEVARD, SUITE 305  
HONOLULU, HAWAII 96817

OCTOBER 1996

REPORT DOCUMENTATION PAGE

TITLE of PROPOSED ACTION: Kapaa Self-Help Project

TAX MAP KEY: (4) 4-6-15:12, 126, 127, 128, 129

DISTRICT: Kapaa, Kawaihau, Kauai

APPLICANT: Self-Help Housing Corporation of Hawaii  
1427 Dillingham Boulevard  
Suite 305  
Honolulu, Oahu, Hawaii 96817

CONSULTANT: Applied Planning Services  
3116 Hoolako Street  
Bay B  
Lihue, Kauai, Hawaii 96766

APPROVING AGENCY: Kauai County, State of Hawaii

DEADLINE: October 1996

ABSTRACT: This Environmental Assessment represents a record of results after scientific analysis of the potential and magnitude of impacts resulting from the Kapaa Self- Help Project.

## EXECUTIVE SUMMARY

This Environmental Assessment (EA) was prepared for the KAPAA SELF-HELP PROJECT for submittal to the County of Kaua'i and other appropriate agencies. A detailed search of existing records were made to examine the impacts the project may have on the Hawaiian environment.

The Kapaa Self-Help Project will be developed by the Self-Help Housing Corporation of Hawaii (SHHCH) as an affordable housing venture featuring 10 single family CPR units. This project is an example of a public-private partnership, or in other words a union between government and private interests together striving to attain a common goal.

Specifically, the County of Kauai is providing funding from the Home Investment Partnership (HOME) funds. The Federal Home Loan Bank of Seattle is committed to provide startup funds. SHHCH, as developers brings a wealth of experience to the relationship - including planning, design and implementation.

The SHHCH is a Hawaii Corporation organized under Section 501(c)(3) of the IRS Code and Chapter 415B HRS. The activities of SHHCH involve the organization and development of affordable housing units for island residents who typically fall within 50% and 80%, or below, the median family income. Qualified families are required to contribute 32 hours each week to the program until all of the homes in the project are complete. The concept of "sweat equity" results in reduced construction costs and in a real sense is traded in lieu of a cash down payment. This is a very important feature since it has been shown time and again that the greatest barrier to home ownership on Kauai is coming up with the down payment versus making the monthly mortgage.

The success of this organization to date is the result of relentless efforts to engage government agencies and private parties to pool resources and make "things" happen.

Prior to construction of the homes, the physical preparation of the property will include excavation for utilities, and minor grading for building foundations, driveways, drainage and landscaping. Anticipated project impacts include interim noise disturbances and fugitive dust associated with the construction phase of the project, both of which will temporarily reduce the air quality of the area. Conversely, the long-term impacts of the project will yield positive results with the creation of affordable homes - which may be considered as an endangered specie.

An Environmental Assessment (EA) is a statutory requirement for the expenditure of State and Federal monies. The purpose of an EA is to inventory and assess the environmental consequences pursuant to Chapter 343 HRS and Chapter 200 of Title 11, Department of Health Administrative Rules and the National Environmental Policy Act (NEPA). This review process is a mechanism to evaluate a project's consistency and compliance with State and Federal environmental programs, and to propose where possible, appropriate mitigation measures. A 30-day comment period commences from the first date of publishing in the OEQC's The Environmental Notice. No further environmental review of the project is anticipated prior to the request for release of County funds.

After examining all of the evidence gathered for the EA, it can be concluded that the proposed actions to design, build and operate the Kapaa Self-Help Project at Kawaihau, Kauai, will not create

EXECUTIVE SUMMARY

substantial cumulative environmental impacts and does not have a significant negative effect upon the resources of the area. It can also be concluded that the release of HOME funds will constitute a positive action significantly affecting the quality of the human environment and therefore, a Finding of No Significant Impact (FONSI) determination is appropriate and necessary.

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1.0

DESCRIPTION of PROPOSED ACTION  
and  
ALTERNATIVE

## 1.0 DESCRIPTION of PROPOSED ACTION and ALTERNATIVE

This Environmental Assessment (EA) has been prepared in accordance with Chapter 343 HRS. These environmental laws were adopted by the Hawaii State Legislature and are administered by the Environmental Council through the State Office of Environmental Quality Control (OEQC),

The proposal to expend State and Federal funds on the Kapaa Self-Help Project triggers the need for an EA. A draft EA is allowed under Chapter 343 rules, for those projects for which a Finding of No Significant Impact (FONSI) determination is expected by the approving agency.

Section 1.0 describes the background, purpose and need for the action, and alternatives including the no-action alternative. Section 2.0 describes the affected environment, and Section 3.0 assesses the potential environmental consequences of the proposed activity on the environmental components studies, as well as the measures that would be taken to mitigate any potential impacts.

### 1.1 BACKGROUND

The Self-Help Housing Corporation of Hawaii (SHHCH) is a nonprofit Hawaii Corporation concerned with the need to provide affordable housing units. They are committed to ensure that present and future generations enjoy the same home ownership opportunities as their parents before.

To meet this challenge, SHHCH has engaged local government leaders on issues which have hindered home construction for lower income families. As a result, they have developed a public/private initiative which has been successful in developing affordable homes in smaller numbers. In the 12 year history of this organization, approximately 188 families, on all islands, have benefited from the Self-Help method.

### 1.2 PROPOSED ACTION

The SHHCH proposed to develop 10 residential units on 5 existing parcels of record. In order to separate the liability and fee simple interest of each unit, each of the 5 lots will be condominiumized or registered under a condominium Property Regime (CPR).

The CPR units will have limited common elements ranging in size from 4,770 square feet to approximately 8,722 square feet (Exhibit A). To promote traffic safety along Kawaihau Road, vehicular access to each of the units will be obtained off of Nunu Road.

## KAPAA SELF-HELP PROJECT

The pole sections of Lot 7-B and Lot 7-C have been designated as common elements which facilitate utilities and access. But they also, via an access easement, provide for access to Lot 7-A and Lot 7-D. A total of 8 CPR units will use this common element for access.

### 1.2.1 DESIGN

Participating families will be able to select the floor plan suited to their needs from two (2) different model offerings. According to SHHCH representatives, the two (2) model selections are:

- a. Model 864 - 864 square foot unit featuring two bedrooms and one bath. Total costs are \$50,000.00 including a septic tank system.
- b. Model 1104 - Three bedroom and one and one-half bath unit with 1,104 square feet of living space. Total costs are \$50,000.00 including a septic tank system.

Homes are customized through a choice of colors for roofing, exterior and interior painting, floor tiles, etc.

### 1.2.2 CONSTRUCTION

All of the units utilize 2 X 4 wood studs for double wall construction. In addition, all units come with a single vehicle carport measuring 320 square feet. These models employ tailored designs and construction methods to minimize material waste. Floor plans maximize living quarters, create privacy, and emphasize energy conservation.

Each of the homes employ the latest engineering and construction techniques to resist hurricane strength winds. The use of metal straps and connectors provide the building with vertical stability from uplifting pressures created during periods of intense winds.

A typical home will consist of a Douglas Fir wooden frame built over a post and beam construction. All lumber on the project will be pressure treated and end coated with wolmanizing solution. In addition, each building will be treated for subterranean termites prior to pouring the concrete pad. Pressure treated lumber carries a twenty (20) year warranty, whereas ground termite treatment only carries a three (3) year warranty. The walls are covered with 5/8-inch wood siding on the exterior, and 1/2-inch sheet rock on the interior. The roof will be covered with 30 pound felt and composition mineral roofing shingles over a 5/8-inch plywood sheathing. The final painting scheme will be done in earth colors.

1.2.3 TIMELINE

|               |   |
|---------------|---|
| October 1996  | • Submittal of the Draft Environmental Assessment                     |
| November 1996 | • Submittal of the Final Environmental Assessment                     |
| December 1996 | • SHHCH acquire property<br>• CPR registration                        |
| January 1997  | • Construction plans routed for review by County agencies             |
| February 1997 | • Applicant interview begin<br>• RFP for infrastructure construction  |
| March 1997    | • Construction of on-site infrastructure<br>• Loan counseling begins  |
| April 1997    | • Home ownership courses commence                                     |
| May 1997      | • Interim loan closing<br>• Completion of infrastructure improvements |
| June 1997     | • Construction of residential units begin                             |
| June 1998     | • Construction of all units complete<br>• Owners occupy homes         |

1.3 PURPOSE and NEED for the ACTION

As with most Counties in Hawaii, practically no inventory exists for families which fall within 50% and 80%, or below, the median family income. The Kapaa Self-Help Project serves to fill the needs of that target group offering many families the opportunity of home ownership that might not otherwise be possible. SHHCH advocates know that home ownership cultivates self-esteem, stimulates pride and builds economic growth and stability for the family unit.

According to the U.S. Department of Housing and Urban Development, "Homeownership increases neighborhood stability". Apparently, owners develop a greater sense of pride in their living conditions and therefore tend to invest more time and money into their community.

Based on the County of Kauai's Post-Iniki Housing study which was published in the Spring of 1994, approximately 1,121 affordable housing

## KAPAA SELF-HELP PROJECT

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units are needed on Kauai. All applicants are subject to a pre-qualification review by a screening committee to determine consistency with the Home Investment Partnership (HOME) Program. The Kapaa Self-Help Project will be made available primarily to qualified candidates who currently reside in the Kapaa-Wailua area.

Those fortunate for selection into the program are required to participate in a mandatory home ownership course which explains the Self-Help principles, informs of the legal and financial responsibilities, and educates on both the short- and long-term rewards of owning a home.

### 1.4 ALTERNATIVE CONSIDERED but not CARRIED FORWARD

In effort to maximize the residential density on the site, up-zoning was considered. Upon closer examination it was determined that the deficiencies in physical infrastructure, such as drainage, wastewater disposal and potable water systems, would require upgrading and in turn, drive the development cost of the project up. SHHCH prefers to develop single family detached units. The nearest multifamily complex is the Kawaihau Sports Villas which consists of 42 condominium units.

Up-zoning would require approximately 12 to 18 months from application to approval. The petition would be subjected to a public hearing before the Planning Commission and then referred to the County Council for a second round of public hearings. If approved by the County Council, the ordinance would then be transmitted to the Mayor for signature. Throughout the process, conditions may become attached to the final approval - which could completely alter the original complexion of the project, or make it too costly. In short, the up-zoning alternative would be burdensomely costly in terms to time and finances.

Multifamily buildings at this location might detract from the low scale appearance of the surrounding residential community. Multifamily projects carry with them regulatory baggage which traditionally drive up long-term maintenance costs.

### 1.5 NO-ACTION ALTERNATIVE

Portions of the Kapaa Urban Core area are designated as a "bedroom" community. Its proximity to the Northshore Lihue town large commercial centers, together with adequate government services, makes this area prime for affordable housing programs.

## KAPAA SELF-HELP PROJECT

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The project site has been zoned for many years, yet left vacant. As such, as the demand for housing increases, the existence of "theoretical" density erodes the arguments or justifications to add more zoning. Implementation of the Kapaa Self-Help Project will in-fill existing zoned inventory. Furthermore, this proposal is consistent with the County's Comprehensive Affordability Strategy (CHAS) and the National Housing Policy.

### 1.6 REQUIRED ACTIONS

The preparation of an Environmental Assessment (EA) is a technical requirement prior to the appropriation and expenditure of State and Federal funds. Upon acceptance of the EA and the issuance of Findings Of No Significant Impact (FONSI) by the accepting agency, the SHHCH will complete the acquisition of the property.

Each of the five (5) lots of record will be subject to the Condominium Property Regime or registration process in order to separate the liability and equity interest in each of the newly created units. CPR's are registered by the Department of Commerce and Consumer Affairs (DCCA) in Honolulu. Registration is a matter of disclosing to prospective buyers the physical and legal condition of the property.

2.0

AFFECTED ENVIRONMENT

## 2.0 AFFECTED ENVIRONMENT

Any project, regardless of magnitude, carries a degree of impact upon its environment. This section reviews the physical and operational characteristics of the project, and studies any available environmental documentation.

The subject parcel is located within the Kawaihau area of the District of Kapa'a, along the *mauka* side of Kawaihau Road, at the corner of its intersection with Nunu Road. The site is adjacent to the Kapaa High and Elementary School and the Samuel H. Mahelona Hospital.

### 2.1 CLIMATE

The average annual rainfall near the site is approximately 53 inches. The period of greatest rainfall are the winter months of January through March, where the average temperature is 65 degrees Fahrenheit. June through August are typically the driest months, where the average temperature is 80 degrees Fahrenheit.

### 2.2 SOILS

According to the United States Department of Agriculture Soil Conservation Service, Soil Survey of the Island of Kaua'i, soils on the subject property are classified as Lihue silty clay (Exhibit B). This soil is on the tops of broad interfluves in the uplands. These soils developed in material weathered from basic igneous rock. The mean annual soil temperature is 73 degrees Fahrenheit.

These soils are used for irrigated sugarcane, pineapple, pasture, truck crops, orchards, wildlife habitat, woodland, and home sites. The natural vegetation consists of lantana, guava, koa haole, joe, kikuyugrass, molassesgrass, guineagrass, bermudagrass, and Java plum.

In a representative profile the surface layer is dusky-red silty clay about 12 inches thick. The subsoil, more than 48 inches thick, is dark-red and dark-reddish brown, compact silty clay that has sub angular blocky structure. The substratum is soft, weathered rock. The surface layer is strongly acid. The subsoil is slightly acid to neutral. Permeability is moderately rapid. Runoff is slow, and the erosion hazard is no more than slight. The available water capacity is about 1.5 inches per foot of soil.

2.3 AIR QUALITY

The ambient air quality in the vicinity of the Kapaa Self-Help Project is generally high. There are periods when the quality is reduced during periods of high traffic when vehicles are stacked up, dropping off and picking up children from school. Air quality may be further reduced during agricultural burning of sugar cane. This activity is cyclical occurring once every two years, but is known to produce periods of heavy smoke and ash.

2.4 BIOLOGICAL RESOURCES

The project site is not situated within an area there contains endangered species of plants and animals. Most of the project site consists of grass which is being maintained by mowing. A site inspection observed an avocado tree, with grasses and common weed species at the perimeter of the property. Mature Norfolk Pines are located outside the project.

2.5 CULTURAL RESOURCES

According to the County of Kauai Inventory of Historic Resources, the affected site is not situated within an area that has been designated for preservation, or known to contain historic resources. Furthermore, the property is not listed on the Hawaii Register of Important Places or the National Historic Register.

2.6 WATER QUALITY

The project site is not situated along a stream or near to the ocean and therefore is not expected to affect the water quality for inland and marine environments.

2.7 LAND USE

The subject property is classified "Urban" by the State Land Use Commission LUC (Exhibit C), General Planned "Urban Residential" (Exhibit D), and zoned "Residential (R-6)" by the County of Kauai (Exhibit E). Based solely on zoning, the property qualifies for eight (8) residential units. Residential (R-6) zoning refers to single-family density which translates into 6 residential units per acre.

## KAPAA SELF-HELP PROJECT

The Kaua'i County Planning Commission approved Subdivision Permit S-94-7 for the creation of five (5) lots (Exhibit F). The land division are as follows:

|         |                    |
|---------|--------------------|
| Lot 7-A | 10,576 square feet |
| Lot 7-B | 12,332 square feet |
| Lot 7-C | 12,665 square feet |
| Lot 7-D | 10,500 square feet |
| Lot 7-E | 9,604 square feet  |

Based on density, each lot qualifies for one (1) single family dwelling. All lots may qualify for an Additional Dwelling Unit.

### 2.7.1 HAWAII STATE PLAN

The Hawaii State Plan was designed to serve as a guide for future developments of the State. It is a long-range comprehensive plan including the overall theme, goals objectives, policies, priority guidelines, and implementation mechanisms. The Kapaa Self-Help Project is consistent with the Hawaii State Plan's Affordable Housing Priority Guidelines in that:

**OBJECTIVE:** Section 226-19(b)(3)  
Increase home ownership and rental opportunities and choices in terms of quality, location, cost, densities, style, and size of housing.

**RESPONSE:** The Kapaa Self-Help Project, as with many of the SHHCH projects, serves to increase home ownership opportunities to those families who have incomes in the lower spectrum of the income scale. Using the SHHCH methods and principles, these housing units breakaway from traditional housing attitudes. SHHCH homes offer diversity in house designs and variations in roof designs, building colors and finish treatments. But, they all come with an affordable price tag.

### 2.7.2 KAUA'I GENERAL PLAN

Established in 1971, and subsequently updated in 1985, the Kaua'i General Plan was designed to govern organized growth for the island. Kapaa Self-Help Project is consistent with the goals and objectives of the General Plan in that:

**GOAL:** To provide opportunities for suitable living quarters for all residents in all income levels.

## KAPAA SELF-HELP PROJECT

**RESPONSE:** Kapaa Self-Help Project will provide affordable housing to the segment of the community that needs the assistance. These families fall within 50 to 80 percent, or below, the median family income, and do not have the resources to plan, finance, and implement a project of this nature.

With assistance from SHHCH and the County of Kauai, the Kapaa Self-Help Project will be financed and developed until each qualified family can secure their own mortgage. The Self-Help effort and process allows for savings, on average, of about 50 percent on the cost to build the home.

### 2.7.3 KAPA'A-WAILUA DEVELOPMENT PLAN

The Kapaa-Wailua Development Plan is one of the six (6) regional development plans which functions as a basis by which all future growth is organized. This plan recognizes and considers all of the environmental, social and economic needs, and arranges them within the framework of community goal and objectives to insure orderly and harmonious growth. The Kapaa Self-Help Project is in consonance with the Kapaa-Wailua community objectives in that:

1. Provides affordable housing opportunities for families with incomes at the lower end of the income scale. Without programs like this, persons with lower incomes may never have the opportunity to realize the benefits of home ownership and equity growth.
2. These residential units are proposed within an existing zoned property and are conveniently oriented to places of employment, schools, shops, and other government services.

### 2.7.4 URBAN DESIGN PLAN

The project site falls outside of the boundaries of the Kauai Urban Design Plan, and is therefore not subject to its development criteria.

### 2.7.5 SPECIAL MANAGEMENT AREA (SMA)

The SMA Rules and Regulations are administered by the Kaua'i County Planning Department. Authority of the SMA is provided through the Federal Coastal Zone Management Act of 1972, as amended, and the Hawai'i State Coastal Zone Management Act of 1977, as defined in Section 205A of the Hawai'i Revised Statutes (HRS).

## KAPAA SELF-HELP PROJECT

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The SMA seeks to protect the coastal ecosystems, near shore water, and to preserve the natural resources of the coastal zone. Its boundaries generally extend 100 yards land ward of the shoreline, at a minimum, around the entire island, and may extend up to several miles in some areas. According to the Kaua'i Planning Department, the property is not located within these boundaries, and therefore not subject to its rules or the rules and regulations set forth by the Coastal Zone Management Program for the State.

However, the proposal will not:

- a. Involve dredging, filling or otherwise altering any bay, estuary, salt marsh, river mouth, sloughs, or lagoon.
- b. Reduce the size of any beach or other area usable for public recreation.
- c. Reduce or impose restrictions upon public access to tidal or submerged lands, beaches, portions of rivers and streams within the Special Management Area and the mean high tide line where there is no beach.
- d. Interfere or detract from the line of sight towards the sea from the State highway nearest the coast, or from existing public views to and along the shoreline.
- e. Adversely affect water quality, existing area of open water free of visible structures, existing and potential fisheries and fishing grounds, wildlife habitats, estuarine sanctuaries, potential or existing agricultural uses of land.

In addition, the proposed development and use will not have any substantial adverse environmental or ecological effects, and will not adversely affect any wetland, submerged lands, tidal basin, or navigable waters.

### 2.7.6 AGRICULTURE

The proposed development and use will not displace any active agricultural pursuits. Nor does the proposal reduce or eliminate the inventory of important agricultural lands to the State of Hawaii.

### 2.7.7 OPEN SPACE and RECREATIONAL

The proposed development will not reduce the scenic qualities of the immediate area. In general, views to the ocean and mountains are not affected when observed from the public spaces.

2.7.8 TRAFFIC

The project site is within an existing zoned area. The proposal for 10 residential units can be expected to bring approximately 15 additional vehicles to the area. It is unlikely that these families can afford 2 vehicles.

2.7.9 HOUSING

The proposal will not cause a displacement of island residents as the property is presently vacant. The Kapaa Self-Help Project will increase the inventory of fee simple affordable housing units in the area by 10.

2.7.10 SCHOOLS

Residents of the Kapaa Self-Help Project will be selected from an existing island residential pool. This being the case, there will be no further pressures to build additional schools. Kapa'a High, Intermediate, and Elementary Schools are located diagonally north of the project site. A new campus for Kapaa Intermediate school is expected to open in the Fall of 1997. This campus is located approximately 7 miles away, on Olohena Road. Buildings left vacant by this move will be dedicated to either Kapaa High School or Kapaa Elementary School, or both, depending on which institution produces the greater need.

2.7.11 PARKS

The proposed project will not create a demand for additional parks, as it does not meet the County's guideline of the "Need Evaluation Criteria" as stated in the Parks and Recreation Master Plan. In addition, residents will be able to enjoy recreational opportunities provided by Kealia Beach, Kapa'a Ball Park, and Kapa'a Armory Park - all located approximately 3 miles south of the Village.

2.7.12 EMPLOYMENT

The Kapaa Self-Help Project will offer excellent opportunities for short-term employment for the construction and landscape industries. Suppliers for these industries will also experience short-term benefits.

2.7.13 WASTEWATER

The project site is not currently within an existing County wastewater disposal service area. Therefore, individual wastewater disposal units will be required for the homes.

2.7.14 DRAINAGE

The subject property is generally flat. An existing ditch runs along the Kawaihau Road (west) end of the property.

2.7.15 UTILITIES

Existing County water and telephone lines will be extended into the subdivision.

2.7.16 POLICE and FIRE

The proposed project is not expected to increase the demand for Police and Fire services as it is within an existing service area. The nearest fire station is located at the Kuhio Highway and Waipouli Road intersection which is approximately 2.5 miles away. There are 3 crews, each consisting 8 personnel working 24-hour shifts. Equipment includes a twenty (20) foot Seagrave Fire Engine 6 truck and a Fire Resue truck.

2.8 CONSTRAINTS

According to Article 10 of Chapter 8, Kaua'i County Code (KCC), the purpose of the Constraint Districts is for establishing special standards of development to assure public health, safety, and welfare in areas containing unusual and unstable conditions. The following are the Constraint Districts for the County of Kaua'i, and as they exist on the subject property (Exhibit G):

|           |      |
|-----------|------|
| SLOPE:    | None |
| SOIL:     | None |
| TSUNAMI:  | None |
| DRAINAGE: | None |
| SHORE:    | None |
| FLOOD:    | None |

2.9 FEDERAL INSURANCE RATE MAP (FIRM)

According to the Federal Insurance Rate Maps (FIRM), the subject property is located within the Zone X-unshaded area (Exhibit H). These areas are determined to be outside the 500-year flood plain.

3.0

ENVIRONMENTAL CONSEQUENCES  
and  
MITIGATIONS

### 3.0 ENVIRONMENTAL CONSEQUENCES and MITIGATIONS

Section 3.0 describes the anticipated significance of potential environmental consequences relating to the development and use of the Kapaa Self-Help Project, and assigns appropriate mitigation measures. Consequences range in significance criteria from not significant, significant but mitigable, to potentially significant.

#### 3.1 DESIGN

The homes are designed to minimize visual impacts when viewed from public spaces. To reduce the effects of massing the homes are single-story in design and detached.

MITIGATION: No significance.

#### 3.2 CONSTRUCTION

The required construction for this project is expected to last approximately 12 to 18 months. During this time, nuisances associated with masonry and lumber fabrication will be experienced by neighboring properties.

MITIGATION: Significant, but mitigable.  
Regular watering of the project will minimize fugitive dust impacts to neighboring properties. Restricting the days and hours of operation can also alleviate conflicts between neighbors and the Kapaa Self-Help Project's residents. The construction related impacts will be temporary, lasting only for the duration of home building.

#### 3.3 USE

The proposal is consistent with Chapter 8 of the Kauai County Code (KCC). All structures shall meet zoning code requirements relative to building envelopes, spatial relationships, and development standards in the Residential District. As with any neighborhood, social conflicts may arise from time to time.

MITIGATION: Significant, but mitigable.  
The preparation of Covenants, Conditions, and Restrictions (CC&R) which govern the activities of all families of the Kapaa Self-Help Project

serves to define all the rules of conduct for residents and visitors - to assure an atmosphere of safety, harmony, and cooperation. CC&R's will establish the parameters for development, appropriate behavior, and outlines the process for penalty.

### 3.4 AIR QUALITY

The greatest ambient air quality impacts will very likely be the result of short-term construction activities. Fugitive dust generation will result in an increase of airborne pollutants from machinery exhaust emission and site grading activities.

**MITIGATION:**

Significant, but mitigable.

The project site is located adjacent to existing residential settlements. Protective measures must be taken to reduce fugitive dust migration. Watering of the soil twice daily (7 days a week) will greatly reduce airborne dust particles. On windy (winds 15 to 25 mph or greater) days, more frequent watering may be necessary. Should fugitive dust continue to pose a management problem, the erection of dust screens and overhead sprinklers may be necessary. The timely grassing of exposed soil areas can greatly reduce dust and soil erosion problems.

The earth excavation contractor shall be required to perform equipment service and maintenance to reduce equipment exhaust emissions. The prevailing trade winds are expected to atomize and disperse hydrocarbon particles and residual gases created from incomplete combustion.

### 3.5 BIOLOGICAL RESOURCES

The project will have no adverse consequences on native or endangered plants or animals, since none inhabit the site.

**MITIGATION:**

No significance.

3.6 CULTURAL RESOURCES

An Archaeological Inventory Survey is not required for this project. However, there is always the possibility of discovering inadvertent human burials.

MITIGATION: Significant, but mitigable.  
A pre-construction meeting would inform all personnel of the significance of protecting cultural sites, as well as the legal obligation found under Chapter 6E HRS.

Upon discovery of a cultural site of human burial, the law requires all construction work in the area to cease until DLNR-SHPD officials are notified and a determination is made as to the appropriate steps that must be taken for protection.

3.7 LAND USE

The proposed program is consistent with all land use plans, including the Hawaii State Plan, the General Plan, the Kapaa-Wailua Development Plan, and Chapter 8, Kauai County Code.

MITIGATION: No significance.

3.8 HOUSING

Implementation of the Kapaa Self-Help Project will not cause the displacement of other tenants.

MITIGATION: No significance.

3.9 CUMULATIVE IMPACTS SUMMARY

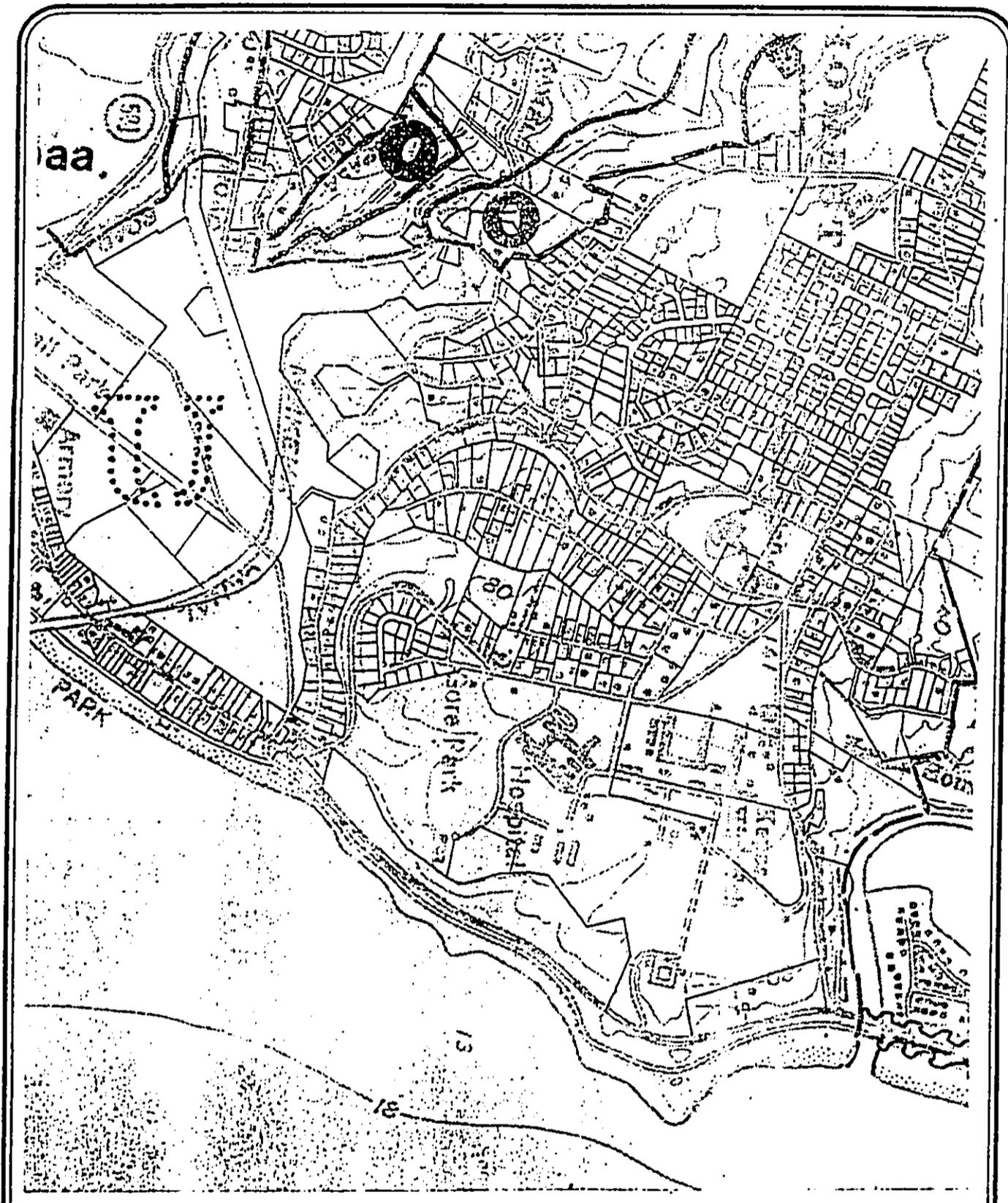
Urban activities, regardless of its degree of impact, disrupts the delicate ecological balance of an environment. Program impacts which affect the social, biological, and cultural resources in Kapaa have been identified. However, all available information and data indicates that these impacts, individually or together, would not significantly affect the natural resources in the area.

**EXHIBITS**

EXHIBIT "A" (Pending)

Site Plan

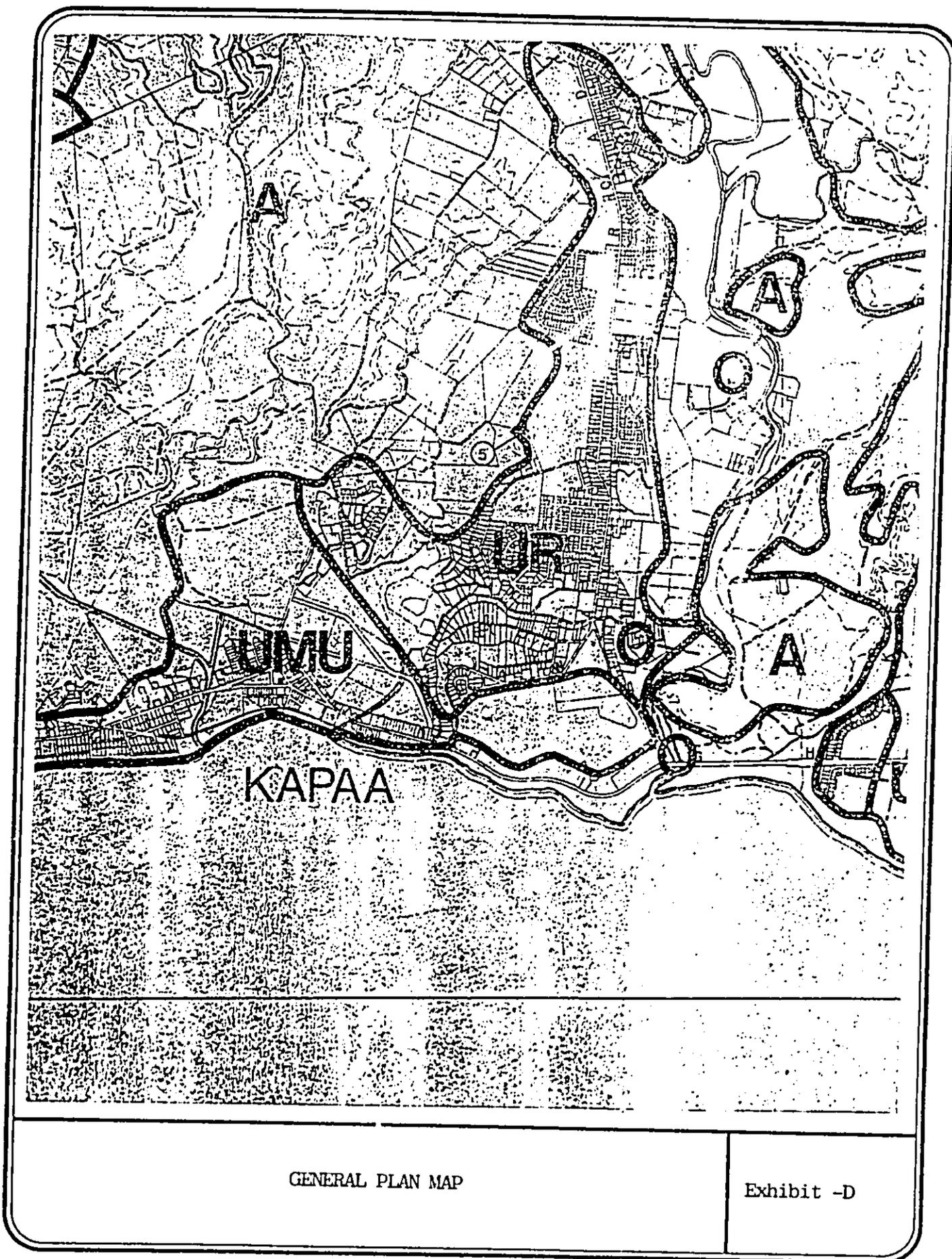




STATE LAND USE DISTRICT MAP

Exhibit -C

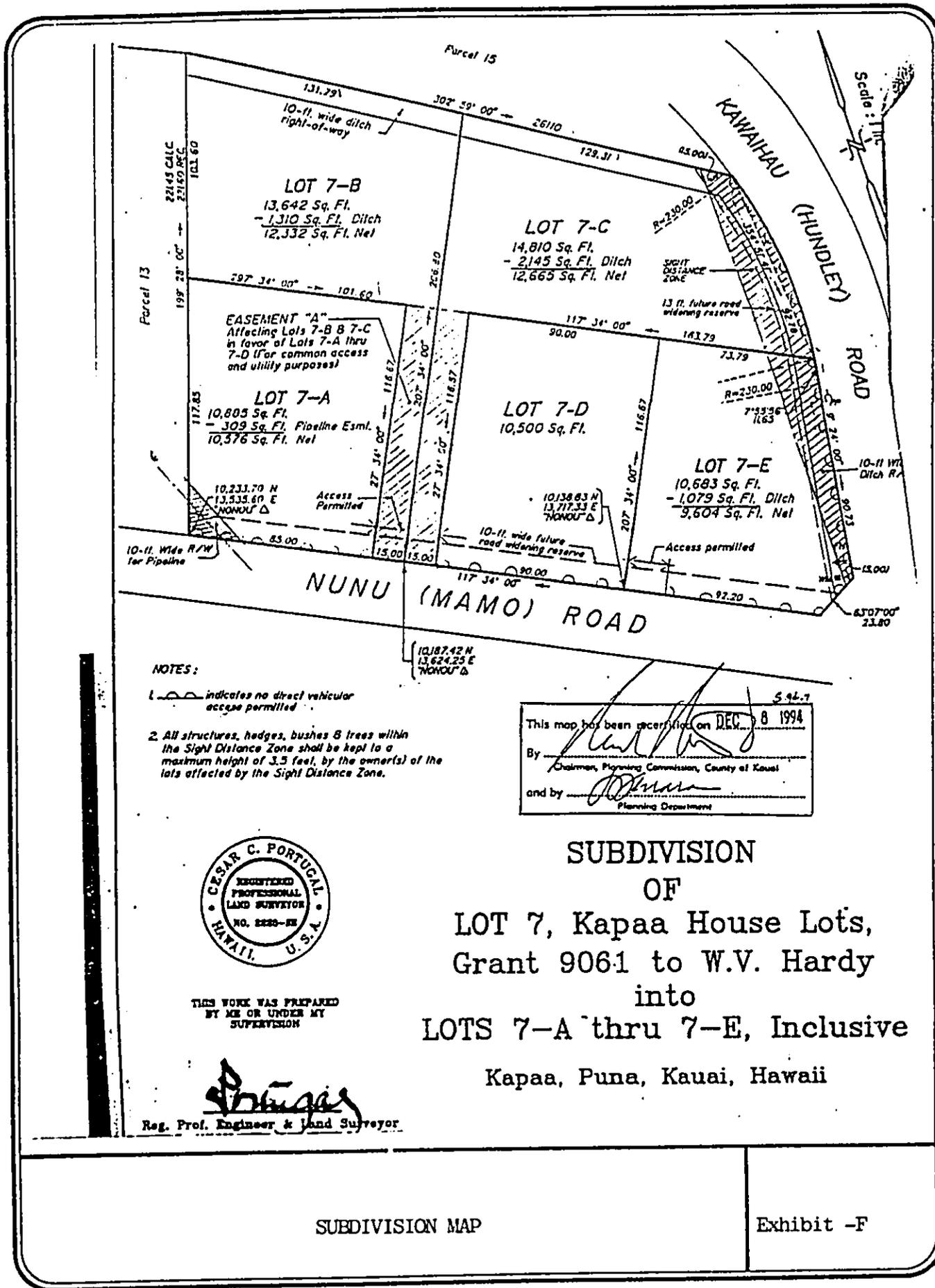
DOCUMENT CAPTURED AS RECEIVED



GENERAL PLAN MAP

Exhibit -D





NOTES:

1. indicates no direct vehicular access permitted.
2. All structures, hedges, bushes & trees within the Sight Distance Zone shall be kept to a maximum height of 3.5 feet, by the owner(s) of the lots affected by the Sight Distance Zone.

This map has been accepted on DEC 8 1994  
 By [Signature]  
 Chairman, Planning Commission, County of Kauai  
 and by [Signature]  
 Planning Department



THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION

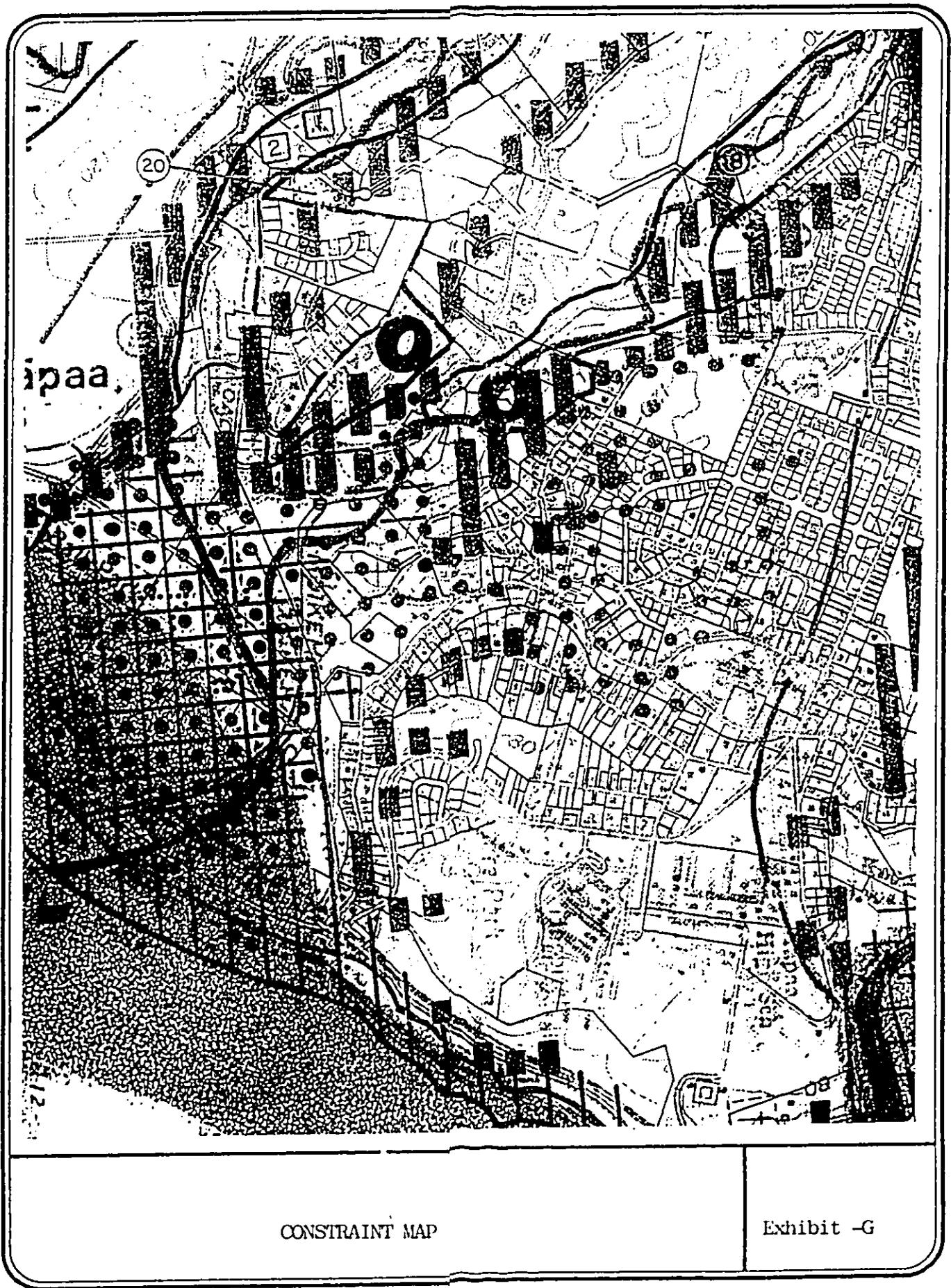
[Signature]  
 Reg. Prof. Engineer & Land Surveyor

SUBDIVISION OF LOT 7, Kapaa House Lots, Grant 9061 to W.V. Hardy into LOTS 7-A thru 7-E, Inclusive Kapaa, Puna, Kauai, Hawaii

SUBDIVISION MAP

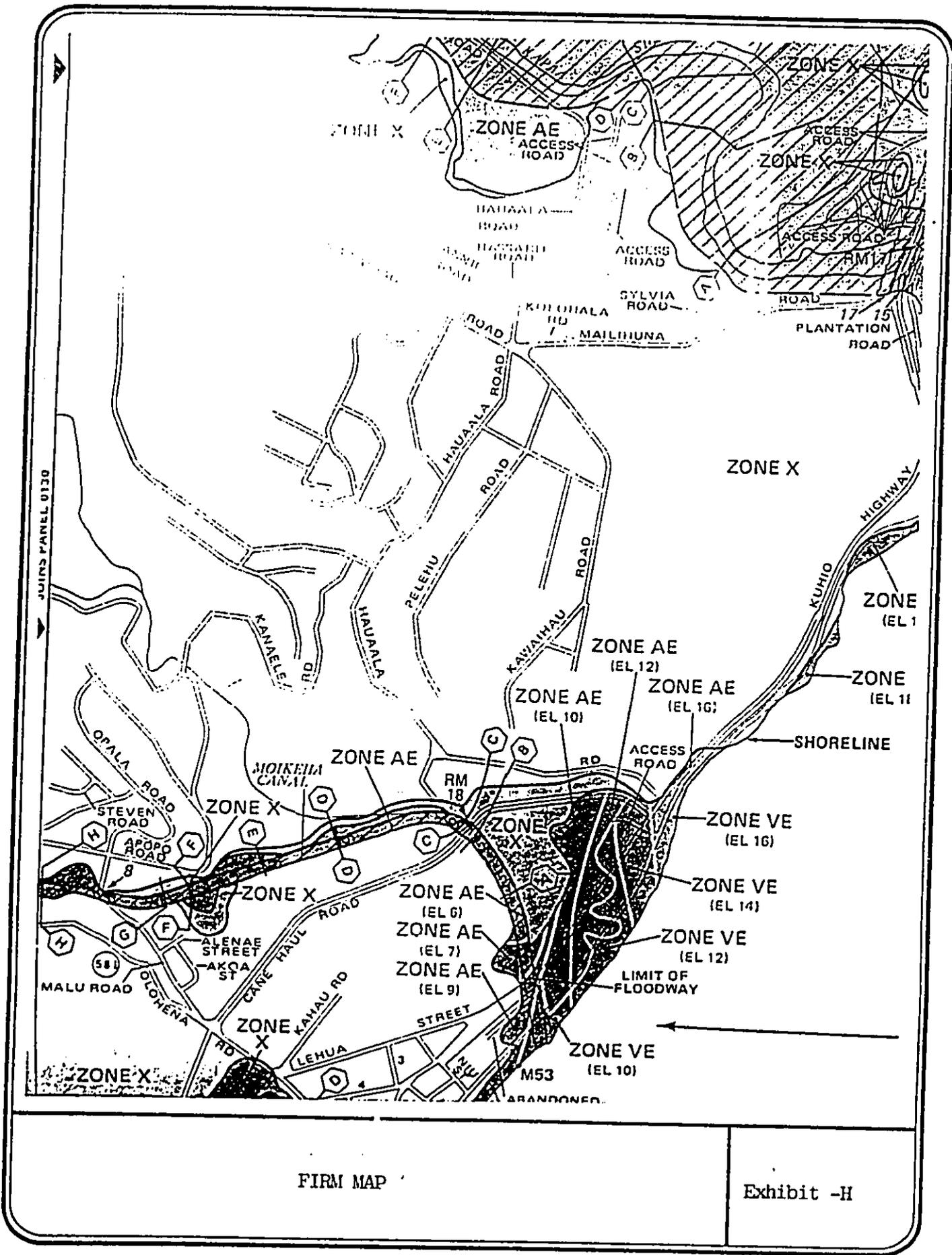
Exhibit -F

DOCUMENT CAPTURED AS RECEIVED



CONSTRAINT MAP

Exhibit -G



APPENDICES

COUNTY OF KAUAI  
PLANNING DEPARTMENT  
4444 Rice Street, Suite 473, Lihue, Hawaii 96766

INQUIRY RESPONSE FORM

TO: Roland D. Sagum, III  
Applied Planning Services  
P.O. Box 1724  
Lihue, Hawaii 96766

DATE: July 1, 1996

RE: TMK: 4-6-015:12, Lot 7-A

For the subject property, or a portion thereof:

1. The zoning is Residential District (R-6) District(s).
2. The property contains approximately 10,885 square feet of land area.
3. General Plan designation is Urban Residential.
4. State Land Use District classification is Urban District.
5. The property is not within the Special Management Area of the County of Kauai.
6. Property is not within the Constraint District.
7. Permits issued for the property:

In response to your inquiry, the subject property (containing approximately 10,885 sq. ft. of land area) is part of a 5 lot subdivision that was created via Subivision Permit No. S-94-7. As further requested, attached is a copy of the Tentative Subdivision approval with conditions and also the Final Subdivision Approval letter.

Be further advised that a Class I Zoning Permit (Z-572-95) has been issued by the Planning Department for the construction of two storage sheds on the subject property.

8. Additional Information: (Violations, Density, Allowable Uses, Historic Dist./Structure)  
Our records show that there are no known zoning violations or pending land use changes for the subject property.

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Please be advised that further evaluation, requirements, and approvals from pertinent agencies may also be required prior to development of this property. Further, please be advised that this letter shall not be used as a representation of the County of Kauai's official consent for development of this property, or as part of the sale of this property to a prospective purchaser. Should you have any questions on this matter, please contact \_\_\_\_\_  
Myles Hironaka of our office at (808) 241-6677.

  
for Planning Director

JOANN A. YUKIMURA  
MAYOR



COUNTY OF KAUAI  
PLANNING DEPARTMENT  
4444 RICE STREET, SUITE 473  
BUILDING "A"  
LIHUE, KAUAI, HAWAII 96766

~~XXXXXXXXXXXX~~  
PLANNING DIRECTOR  
DEE M. CROWELL  
~~XXXXXXXX~~ PLANNING DIRECTOR  
TELEPHONE (808) 241-6677  
FAX (808) 241-6699

October 15, 1993

COPY

Cesar C. Portugal  
Portugal & Associates, Inc.  
P. O. Box 807  
Lihue, Hawaii 96766

Subject: Subdivision of Lot 7, Kapaa House Lots, Grant 9061 to  
W. V. Hardy, into Lots 7-A thru 7-E, inclusive, Kapaa,  
Puna, Kauai, Hawaii. (S-94-7, Barlow E. Hardy)

Subject subdivision was granted TENTATIVE APPROVAL by the  
Planning Commission at their meeting held on October 14, 1993.  
Final approval will be granted subject to the following  
conditions:

1. As recommended by the Planning Department:
  - a. The following fees shall be paid to the County of Kauai:
    - i. \$750 Park Dedication Fees; and
    - ii. \$1,000 Environmental Impact Assessment Fees.
  - b. A 10 foot future road widening reserve shall be established along the frontage of Kawaihau Road and a 13 foot road widening reserve shall be established along Nunu Road. There shall be no new structures permitted within the reserves; new structures should be set back from the reserves. The reserves, along with the restrictions, shall be incorporated into the deeds or descriptions of the

- affected lots, of which draft copies shall be submitted to the Planning Department for review and approval.
- c. There shall be no direct access permitted onto Kawaihau and Nunu Roads for all lots except for the designated access ways. This provision shall be incorporated as a restrictive covenant for the subject lots, draft copies of which shall be submitted to the Planning Department for review and approval.
  - d. Semi-circles denoting no direct access permitted shall be shown on the final subdivision map.
  - e. The pole sections of the double flag lots shall be designated as common access/utility easements in favor of each other and shall be incorporated into the deeds of the affected lots (7-A thru 7-D), draft copies of which shall be submitted to the Planning Department for review and approval.
  - f. The subdivider shall remove the structures straddling the property lines or post a bond for the removal prior to final approval.
2. As recommended by the Department of Public Works:
- a. The subdivider shall conduct a drainage study that will address the impacts of the increased storm run-off and its impacts. Mitigation measures shall be proposed and constructed if there are any adverse drainage impacts as a result of the increased runoff.
  - b. The subdivider shall resolve with the Public Works Department a provision of sight distance reserve along the frontage of Lots 7-C and

7-E that abuts Kawaihau Road. The reserve shall be clear of plantings, fences and structures that may obstruct intersection sight distance.

The subdivider shall incorporate the sight distance reserve along with the restrictions into the deeds of the affected lots, draft copies of which shall be submitted to the Planning Department for review and approval.

3. As recommended by the Department of Water, the subdivider shall pay the Department of Water the following charges in effect at the time of receipt:
  - a. \$1,680.00 Facilities Reserve Charge for 4 lots @ \$420/lot.
  - b. Payment to install 4 service connections at a fixed cost of \$480.00 each, totalling \$1,920.00. If the subdivider causes a delay in the service connection installation one year after final map approval, the subdivider shall be charged the increase in the fixed cost, if any.
  
4. As recommended by the State Department of Health:
  - a. The proposed subdivision is situated in an area designated as CRITICAL WASTEWATER DISPOSAL AREA WITH NO EXCEPTION. The type of wastewater systems permitted shall meet the minimum applicable-requirements of Chapter 62, Wastewater Systems, Title 11, Administrative Rules, State of Hawaii.
  - b. Prior to submitting the final subdivision map for review and approval, the following requirements shall be completed.

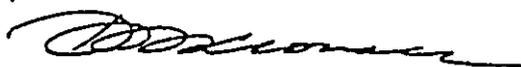
- i. The existing cesspool that is situated on proposed Lot 7-D shall be disconnected from the existing dwellings. The abandoned cesspool shall be rendered safe by backfilling with earth, sand, gravel or similar material so as not to create a nuisance.
  - ii. The two existing dwellings shown on the preliminary subdivision map to be straddling the proposed property lines shall be demolished as stated on the map.
  - iii. The derelict vehicles situated on proposed Lot 7-C and proposed Easement A shall be removed and properly disposed of so as not to be a visual nuisance in accordance with Title 11, Chapter 11-14, Housing, Hawaii Administrative Rules.
- c. The property may harbor rodents which will be dispersed to the surrounding areas when the site is cleared. In accordance with Chapter 26, Vector Control, Title 11, Administrative Rules, State of Hawaii, the applicant shall ascertain the presence or absence of rodents on the property. Should the presence of rodents be determined, the applicant shall eradicate the rodents prior to clearing the site.
- d. In accordance with Chapter 11-60, Air Pollution Control, Title 11, State Administrative Rules, the property owner/developer shall be responsible for ensuring that effective control measures are provided to minimize or prevent any visible dust emission caused by the construction work from impacting the surrounding areas including

Cesar C. Portugal  
Page -5-  
October 15, 1993

the off-site roadways used to enter/exit the project. These measures include but are not limited to the use of water wagons, sprinkler systems, dust fences, etc.

- e. In accordance with Chapter 11-58, Solid Waste Management Control, Title 11, State Administrative Rules, the property owner/developer shall be responsible for ensuring that grub material, demolition waste and construction waste generated by the project are disposed of in a manner or at a site approved by the State Department of Health. Disposal of any of these wastes by burning is prohibited.
  - f. The proposed development shall be provided with potable water from an approved source.
5. The applicant is advised that prior to and/or during construction and use, additional conditions may be imposed by government agencies. Should this occur, the applicant shall resolve those conditions with the respective agency(ies).

You are hereby informed that the final subdivision map must be filed within one year after the tentative approval date in order to obtain final approval. If not filed, the preliminary subdivision map and construction plan, if any, shall become null and void unless an extension of time, not to exceed six months, is granted by the Planning Commission.



DEE M. CROWELL  
Planning Director

cc: Public Works Dept.  
Water Dept.  
Health Dept.

JOANN A. YUKIMURA  
MAYOR



COUNTY OF KAUAI  
PLANNING DEPARTMENT  
4444 RICE STREET, SUITE 473  
LIHUE, KAUAI, HAWAII 96766

DEE M. CROWELL  
PLANNING DIRECTOR  
NEIL L. AALAND  
DEPUTY PLANNING DIRECTOR  
TELEPHONE (808) 241-6677  
FAX (808) 241-6699

October 14, 1994

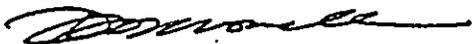
COPY

Cesar C. Portugal  
Portugal & Associates, Inc.  
P. O. Box 807  
Lihue, Hawaii 96766

Subject: Subdivision of Lot 7, Kapaa House Lots, Grant 9061 to  
W. V. Hardy, into Lots 7-A thru 7-E, inclusive, Kapaa,  
Puna, Kauai, Hawaii. (S-94-7, Barlow E. Hardy)

Subject subdivision was granted FINAL APPROVAL by the Planning  
Commission at their meeting held on October 13, 1994.

Be advised that the final subdivision map or a metes and bounds  
description of the subdivision must be recorded prior to or at  
the time of conveyance of interest in any lot or parcel. If no  
such recordation is made, all approvals shall become null and  
void.

  
DEE M. CROWELL  
Planning Director

cc: Public Works Dept.  
Water Dept.  
Health Dept.  
Div. of Tax Maps  
Real Property Div.

AN EQUAL OPPORTUNITY EMPLOYER

FLOOD STUDY AND DRAINAGE REPORT

HARDY SUBDIVISION

S-94-7

OWNER: BARLOW E. HARDY  
KAPAA, KAUAI, HAWAII

TMK:4-6-15: 12



PREPARED BY:

PORTUGAL AND ASSOCIATES, INC.

CIVIL ENGINEERS AND LAND SURVEYORS  
1840 LELEIONA STREET, LIHUE, HI 96766

I N D E X

|                                 |                                |
|---------------------------------|--------------------------------|
| COVER SHEET                     | 1                              |
| PURPOSE                         | 2                              |
| REFERENCES USED                 | 2                              |
| METHODOLOGY AND ASSUMPTIONS     | 2                              |
| FINDINGS AND CONCLUSIONS        | 3                              |
| ATTACHMENTS                     |                                |
| PLATE I SOIL CLASSIFICATION MAP |                                |
| PLATE II HYDROLOGIC SOIL GROUP  |                                |
| PLATE III CURVE NUMBERS         |                                |
| PLATE IV 24-HR RAINFALL DATA    |                                |
| PLATE V SUBDIVISION MAP         |                                |
| CALC PRINTOUTS                  | 1-A, 2-A, 3-A<br>1-B, 2-B, 3-B |

I. PURPOSE: THE PURPOSE OF THIS REPORT IS TO DETERMINE WHETHER THERE IS SIGNIFICANT ADVERSE IMPACT ON THE DOWNSTREAM OR LOWER LANDS DUE TO THE SUBDIVISION OF THE PROPERTY INTO FIVE (5) LOTS.

II. REFERENCES USED:

- A. U.S. GEOLOGICAL SURVEY MAPS, 1983.
- B. DETAILED LAND CLASSIFICATION-ISLAND OF KAUAI.
- C. SOIL SURVEY OF KAUAI, US DEPT OF AGRI., SOIL CONSERVATION SERVICE, IN COOPERATION WITH THE UH AG EXPERIMENT STATION.
- D. DRAINAGE STANDARDS, COUNTY OF KAUAI.
- E. RAINFALL DATA, US WEATHER BUREAU.
- F. HYDROLOGIC SOIL GROUPS, SOIL CONSERVATION SERVICE.
- G. AERIAL TOPO MAPS, R.M. TOWILL CORP, ISLAND OF KAUAI.
- H. COUNTY ZONING AND STATE LAND USE DISTRICT MAPS.
- I. GENERAL PLAN, COUNTY OF KAUAI.

III. EXISTING CONDITIONS:

- A. STATE LAND USE DIST CLASSIFICATION: URBAN
- B. COUNTY GENERAL PLAN AND ZONING: URBAN/RES, R-6.
- C. ELEVATION ABOVE MEAN SEA LEVEL, AND GENERAL SLOPE OF THE PROPERTY: 140 FEET ABOVE MSL; SHEET FLOWS FROM NORTH TO SOUTH AT 0 TO 5 PERCENT SLOPE; NO DEFINED SWALES WITHIN THE PROPERTY.
- D. THERE IS NO EXISTING MUNICIPAL UNDERGROUND DRAINAGE SYSTEM FRONTING THE PROPERTY.

- D. GENERAL SOIL DESCRIPTION: SILTY CLAY, OF THE LIHUE SERIES, LHB. PERMEABILITY IS MODERATELY RAPID. RUN-OFF IS SLOW AND THE EROSION HAZARD IS NO MORE THAN SLIGHT.
- E. HYDROLOGIC SOIL GROUP: B
- F. 10-YEAR 24-HOUR RAINFALL: 11 INCHES
- G. CURVE NUMBER: ALTHOUGH THE PROPERTY IS ZONED R-6, AND THE PARCEL AREA IS 1.29 ACRES, THERE ARE ONLY TWO (2) DWELLINGS. A CN VALUE OF 70 WAS ASSIGNED. (SOIL B).

IV. METHODOLOGY:

- A. THE SCS TR 55 , 10-YR FLOOD, TYPE I DISTRIBUTION RAINFALL (24-HOUR DURATION STORM) WAS USED IN DETERMINING THE APPROXIMATE RUN-OFF FROM THE WATERSHED AREA.
- B. FOR POST DEVELOPED CONDITIONS, A CN VALUE OF 75 (1/4 ACRE AVE. LOTS) WAS ASSIGNED. SOIL CLASS B.
- C. A MINIMUM CONCENTRATION TIME OF 10 MINUTES WAS USED IN DETERMINING THE Q.

V. FINDINGS:

- A. OUR CALCULATIONS (SEE ATTACHED) INDICATE THAT THERE IS NO SIGNIFICANT INCREASE IN THE RUN-OFF DUE TO THE PROJECT DEVELOPMENT.

VI. CONCLUSION:

- A. BASED ON THE FOREGOING FINDINGS, IT IS CONCLUDED THAT NO ADVERSE IMPACT TO THE LOWER LANDS WILL OCCUR AS A RESULT OF THE PROJECT DEVELOPMENT.



PORTUGAL & ASSOCIATES, INC  
 Engineers & Land Surveyors  
 1840 Leleiona St.  
 Lihue, Kauai, HI 98766  
 Phone : (808)245-8749  
 Fax : (808)246-9391

PLATE 1  
**SOIL CLASSIFICATION MAP**

|                |  |
|----------------|--|
| DESIGNED BY:   |  |
| DRAWN BY:      |  |
| CHECKED BY:    |  |
| SHEET _____    |  |
| OF _____ SHEET |  |



Table 2-2a.—Runoff curve numbers for urban areas<sup>1</sup>

| Cover description  |  | Curve numbers for hydrologic soil group— |    |    |    |
|--|--|--|----|----|----|
|  |  | A  | B  | C  | D  |
| Cover type and hydrologic condition  | Average percent impervious area <sup>2</sup> |  |    |    |    |
| <i>Fully developed urban areas (vegetation established)</i>  |  |  |    |    |    |
| Open space (lawns, parks, golf courses, cemeteries, etc.):   |  |  |    |    |    |
| Poor condition (grass cover < 50%) .....   |  | 68                                       | 79 | 86 | 89 |
| Fair condition (grass cover 50% to 75%) .....  |  | 49                                       | 69 | 79 | 84 |
| Good condition (grass cover > 75%) .....   |  | 39                                       | 61 | 74 | 80 |
| Impervious areas:  |  |  |    |    |    |
| Paved parking lots, roofs, driveways, etc. (excluding right-of-way) .....  |  | 98                                       | 98 | 98 | 98 |
| Streets and roads:   |  |  |    |    |    |
| Paved: curbs and storm sewers (excluding right-of-way) .....   |  | 98                                       | 98 | 98 | 98 |
| Paved: open ditches (including right-of-way) .....   |  | 83                                       | 89 | 92 | 93 |
| Gravel (including right-of-way) .....  |  | 76                                       | 85 | 89 | 91 |
| Dirt (including right-of-way) .....  |  | 72                                       | 82 | 87 | 89 |
| Western desert urban areas:  |  |  |    |    |    |
| Natural desert landscaping (pervious areas only) <sup>4</sup> .....  |  | 63                                       | 77 | 85 | 88 |
| Artificial desert landscaping (impervious weed barrier, desert shrub with 1- to 2-inch sand or gravel mulch and basin borders) ..... |  | 96                                       | 96 | 96 | 96 |
| Urban districts:   |  |  |    |    |    |
| Commercial and business .....  | 85   | 89                                       | 92 | 94 | 95 |
| Industrial .....   | 72   | 81                                       | 88 | 91 | 93 |
| Residential districts by average lot size:   |  |  |    |    |    |
| 1/8 acre or less (town houses) .....   | 65   | 77                                       | 85 | 90 | 92 |
| 1/4 acre .....   | 38   | 61                                       | 75 | 83 | 87 |
| 1/3 acre .....   | 30   | 57                                       | 72 | 81 | 86 |
| 1/2 acre .....   | 25   | 54                                       | 70 | 80 | 85 |
| 1 acre .....   | 20   | 51                                       | 68 | 79 | 84 |
| 2 acres .....  | 12   | 46                                       | 65 | 77 | 82 |
| <i>Developing urban areas</i>  |  |  |    |    |    |
| Newly graded areas (pervious areas only, no vegetation) <sup>5</sup> .....   |  | 77                                       | 86 | 91 | 94 |
| Idle lands (CN's are determined using cover types similar to those in table 2-2c).   |  |  |    |    |    |

<sup>1</sup>Average runoff condition, and  $I_p = 0.25$ .

<sup>2</sup>The average percent impervious area shown was used to develop the composite CN's. Other assumptions are as follows: impervious areas are directly connected to the drainage system. Impervious areas have a CN of 98, and pervious areas are considered equivalent to open space in good hydrologic condition. CN's for other combinations of conditions may be computed using figure 2-3 or 2-4.

<sup>3</sup>CN's shown are equivalent to those of pasture. Composite CN's may be computed for other combinations of open space cover type.

<sup>4</sup>Composite CN's for natural desert landscaping should be computed using figures 2-3 or 2-4 based on the impervious area percentage (CN = 98) and the pervious area CN. The pervious area CN's are assumed equivalent to desert shrub in poor hydrologic condition.

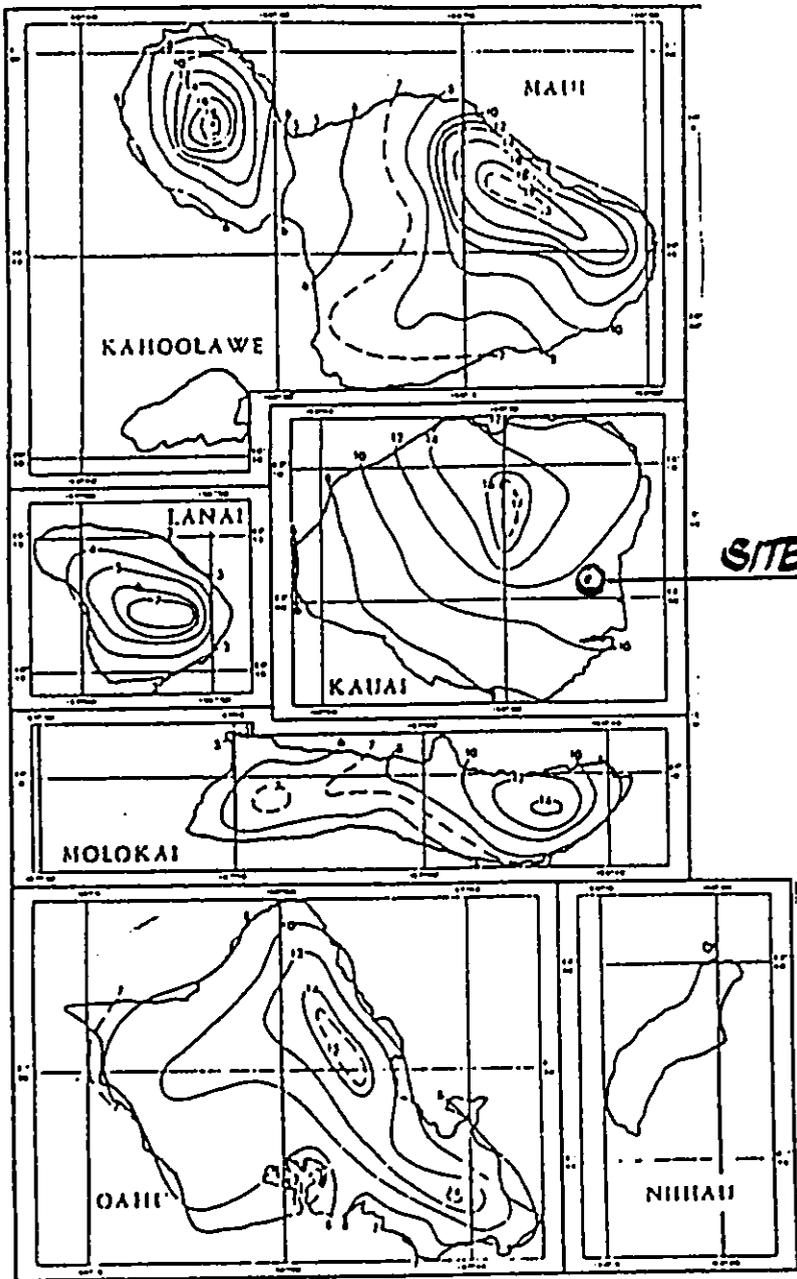
<sup>5</sup>Composite CN's to use for the design of temporary measures during grading and construction should be computed using figure 2-3 or 2-4, based on the degree of development (impervious area percentage) and the CN's for the newly graded pervious areas.

(210-VI-TR-55, Second Ed., June 1986)

**PORTUGAL & ASSOCIATES, INC**  
 Engineers & Land Surveyors  
 1840 Leleiona St.  
 Lihue, Kauai, HI 96768  
 Phone : (808)245-8749  
 Fax : (808)248-9391

PLATE III  
  
CURVE NUMBERS

DESIGNED BY: \_\_\_\_\_  
 DRAWN BY: \_\_\_\_\_  
 CHECKED BY: \_\_\_\_\_  
 SHEET \_\_\_\_\_  
 OF \_\_\_\_\_ SHEET



SITE, this PROJ.

10 YEARS

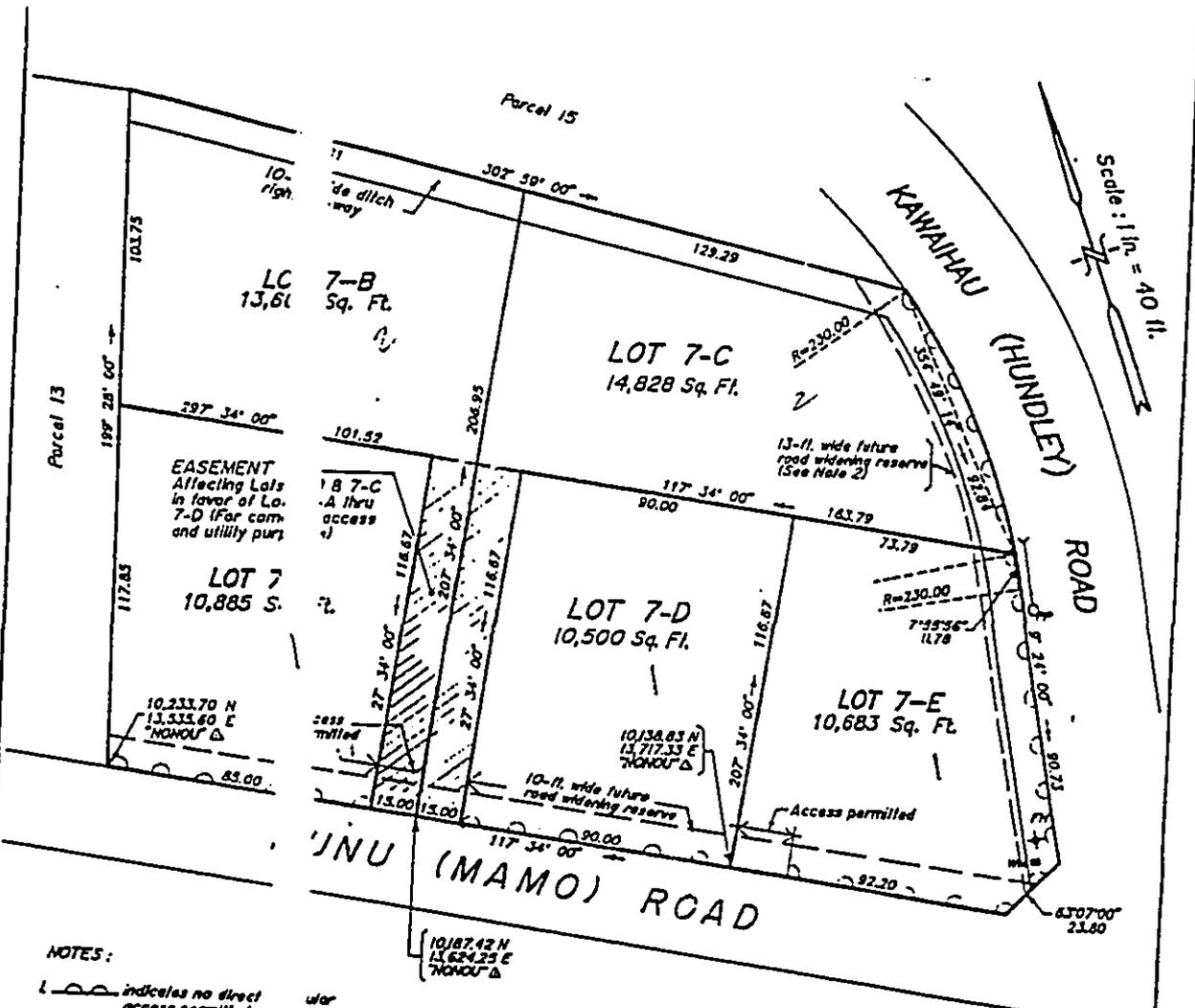


PORTUGAL & ASSOCIATES, INC.  
 Engineers & Land Surveyors  
 1840 Leleiona St.  
 Lihue, Kauai, HI 96766  
 Phone : (808)245-6749  
 Fax : (808)246-9391

PLATE IV

24-HR RAINFALL DATA

DESIGNED BY: \_\_\_\_\_  
 DRAWN BY: \_\_\_\_\_  
 CHECKED BY: \_\_\_\_\_  
 SHEET \_\_\_\_\_  
 OF \_\_\_\_\_ SHEET



**NOTES:**

1. indicates no direct access permitted.
2. This 13-ft. wide Road Res Easement for Sight Dist. when the road is officially improved. All structures be kept to a maximum height by the Easement.

shall also be designated as an interim easement, the life of which shall terminate when the road is officially improved. All structures be kept to a maximum height of 3.5 feet, by the owners of the lots affected.



THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION

*Cesar C. Portugal*  
 Reg. Prof. Engineer & Land Surveyor  
 Certificate Number 22  
 For: PORTUGAL & ASSOCIATES, INC.  
 Lihue, Kauai, Hawaii  
 August 2, 1992  
 Rev. October 26, 1995

**SUBDIVISION OF LOT 7, Kapaa House Lots, Grant 9061 to W.V. Hardy into LOTS 7-A thru 7-E, Inclusive Kapaa, Puna, Kauai, Hawaii**

Tax Map Key : 4-8-15:12

Job No. 93-2600

**PLATE V**

TR-55 TABULAR HYDROGRAPH METHOD  
 Type I Distribution  
 (24 hr. Duration Storm)

Executed: 06-21-1994 12:17:50  
 Watershed file: --> HARDY .WSD  
 Hydrograph file: --> HARDY .HYD

PRE-DEVELOPED CONDITIONS  
 EARLOW E. HARDY SUBDIVISION  
 TMK:4-6-16: 12  
 KAPAA, KAUAI, HAWAII

>>>> Input Parameters Used to Compute Hydrograph <<<<

| Subarea Description | AREA (acres) | CN   | Tc (hrs) | * Tt (hrs) | Precip. (in) | Runoff (in) | Ia/p input/used |
|---------------------|--------------|------|----------|------------|--------------|-------------|-----------------|
| 0-SITE              | 1.29         | 70.0 | 0.20     | 0.00       | 11.00        | 7.13        | .08 .10         |

\* Travel time from subarea outfall to composite watershed outfall point.  
 Total area = 1.29 acres or 0.00202 sq.mi  
 Peak discharge = 6 cfs

>>>> Computer Modifications of Input Parameters <<<<

| Subarea Description | Input Values |           | Rounded Values |           | Ia/p Interpolated (Yes/No) | Ia/p Messages      |
|---------------------|--------------|-----------|----------------|-----------|----------------------------|--------------------|
|                     | Tc (hr)      | * Tt (hr) | Tc (hr)        | * Tt (hr) |                            |                    |
| 0-SITE              | 0.17         | 0.00      | 0.20           | 0.00      | No                         | Computed Ia/p < .1 |

\* Travel time from subarea outfall to composite watershed outfall point.

TR-55 TABULAR HYDROGRAPH METHOD  
Type I Distribution  
(24 hr. Duration Storm)

Executed: 06-21-1994 12:17:50  
Watershed file: --> HARDY .WSD  
Hydrograph file: --> HARDY .HYD

PRE-DEVELOPED CONDITIONS  
BARLOW E. HARDY SUBDIVISION  
TMK:4-6-16: 12  
KAPAA, KAUAI, HAWAII

>>>> Summary of Subarea Times to Peak <<<<

| Subarea             | Peak Discharge at<br>Composite Outfall<br>(cfs) | Time to Peak at<br>Composite Outfall<br>(hrs) |
|---------------------|---|---|
| ON-SITE             | 6   | 10.2  |
| Composite Watershed | 6   | 10.2  |

TR-55 TABULAR HYDROGRAPH METHOD  
 Type I Distribution  
 (24 hr. Duration Storm)

Executed: 06-21-1994 12:17:50  
 Watershed file: --> HARDY .WSD  
 Hydrograph file: --> HARDY .HYD

PRE-DEVELOPED CONDITIONS  
 BARLOW E. HARDY SUBDIVISION  
 TMK:4-6-15: 12  
 KAPAA, KAUAI, HAWAII

Composite Hydrograph Summary (cfs)

| Subarea Description | 9.0 hr | 9.3 hr | 9.6 hr | 9.9 hr | 10.0 hr | 10.1 hr | 10.2 hr | 10.3 hr | 10.4 hr |
|---------------------|--------|--------|--------|--------|---------|---------|---------|---------|---------|
| I-SITE              | 0      | 1      | 1      | 2      | 3       | 5       | 6       | 4       | 2       |
| Total (cfs)         | 0      | 1      | 1      | 2      | 3       | 5       | 6       | 4       | 2       |

| Subarea Description | 10.5 hr | 10.6 hr | 10.7 hr | 10.8 hr | 11.0 hr | 11.2 hr | 11.4 hr | 11.6 hr | 11.8 hr |
|---------------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| I-SITE              | 2       | 2       | 1       | 1       | 1       | 1       | 1       | 1       | 1       |
| Total (cfs)         | 2       | 2       | 1       | 1       | 1       | 1       | 1       | 1       | 1       |

| Subarea Description | 12.0 hr | 12.3 hr | 12.6 hr | 13.0 hr | 13.5 hr | 14.0 hr | 14.5 hr | 15.0 hr | 15.5 hr |
|---------------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| I-SITE              | 1       | 1       | 1       | 1       | 1       | 0       | 0       | 0       | 0       |
| Total (cfs)         | 1       | 1       | 1       | 1       | 1       | 0       | 0       | 0       | 0       |

| Subarea Description | 16.0 hr | 17.0 hr | 18.0 hr | 20.0 hr | 24.0 hr |
|---------------------|---------|---------|---------|---------|---------|
| I-SITE              | 0       | 0       | 0       | 0       | 0       |
| Total (cfs)         | 0       | 0       | 0       | 0       | 0       |

TR-55 TABULAR HYDROGRAPH METHOD  
 Type I Distribution  
 (24 hr. Duration Storm)

Executed: 06-21-1994 12:23:01  
 Watershed file: -> HARDY2 .WSD  
 Hydrograph file: -> HARDY2 .HYD

POST-DEVELOPED CONDITIONS  
 BARLOW E. HARDY SUBDIVISION  
 TMK: 4-6-15: 12  
 KAPAA, KAUAI, HAWAII

>>>> Input Parameters Used to Compute Hydrograph <<<<

| Subarea<br>Description | AREA<br>(acres) | CN   | Tc<br>(hrs) | * Tt<br>(hrs) | Precip.<br>(in) | Runoff<br>(in) | Ia/p<br>input/used |
|------------------------|-----------------|------|-------------|---------------|-----------------|----------------|--------------------|
| N-SITE                 | 1.29            | 75.0 | 0.20        | 0.00          | 11.00           | 7.81           | .06 .10            |

Travel time from subarea outfall to composite watershed outfall point.  
 Total area = 1.29 acres or 0.00202 sq.mi  
 Peak discharge = 6 cfs

>>>> Computer Modifications of Input Parameters <<<<

| Subarea<br>Description | Input Values |              | Rounded Values |              | Ia/p                     | Ia/p<br>Messages   |
|------------------------|--------------|--------------|----------------|--------------|--------------------------|--------------------|
|                        | Tc<br>(hr)   | * Tt<br>(hr) | Tc<br>(hr)     | * Tt<br>(hr) | Interpolated<br>(Yes/No) |                    |
| N-SITE                 | 0.20         | 0.00         | **             | **           | No                       | Computed Ia/p < .1 |

Travel time from subarea outfall to composite watershed outfall point.  
 Tc & Tt are available in the hydrograph tables.

TR-55 TABULAR HYDROGRAPH METHOD  
Type I Distribution  
(24 hr. Duration Storm)

Executed: 06-21-1994 12:23:01  
Watershed file: --> HARDY2 .WSD  
Hydrograph file: --> HARDY2 .HYD

POST-DEVELOPED CONDITIONS  
BARLOW E. HARDY SUBDIVISION  
TMK: 4-6-15: 12  
KAPAA, KAUAI, HAWAII

>>>> Summary of Subarea Times to Peak <<<<

| Subarea             | Peak Discharge at<br>Composite Outfall<br>(cfs) | Time to Peak at<br>Composite Outfall<br>(hrs) |
|---------------------|---|---|
| ON-SITE             | 6   | 10.1  |
| Composite Watershed | 6   | 10.1  |

TR-55 TABULAR HYDROGRAPH METHOD  
 Type I Distribution  
 (24 hr. Duration Storm)

Executed: 06-21-1994 12:23:01  
 Watershed file: --> HARDY2 .WSD  
 Hydrograph file: --> HARDY2 .HYD

POST-DEVELOPED CONDITIONS  
 BARLOW E. HARDY SUBDIVISION  
 TMK: 4-6-15: 12  
 KAFAA, KAUAI, HAWAII

Composite Hydrograph Summary (cfs)

| Duration | 9.0 hr | 9.3 hr | 9.6 hr | 9.9 hr | 10.0 hr | 10.1 hr | 10.2 hr | 10.3 hr | 10.4 hr |
|----------|--------|--------|--------|--------|---------|---------|---------|---------|---------|
| Peak     | 0      | 1      | 1      | 2      | 3       | 6       | 6       | 4       | 3       |
| (cfs)    | 0      | 1      | 1      | 2      | 3       | 6       | 6       | 4       | 3       |

| Duration | 10.5 hr | 10.6 hr | 10.7 hr | 10.8 hr | 11.0 hr | 11.2 hr | 11.4 hr | 11.6 hr | 11.8 hr |
|----------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| Peak     | 2       | 2       | 1       | 1       | 1       | 1       | 1       | 1       | 1       |
| (cfs)    | 2       | 2       | 1       | 1       | 1       | 1       | 1       | 1       | 1       |

| Duration | 12.0 hr | 12.3 hr | 12.6 hr | 13.0 hr | 13.5 hr | 14.0 hr | 14.5 hr | 15.0 hr | 15.5 hr |
|----------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| Peak     | 1       | 1       | 1       | 1       | 1       | 1       | 0       | 0       | 0       |
| (cfs)    | 1       | 1       | 1       | 1       | 1       | 1       | 0       | 0       | 0       |

| Duration | 16.0 hr | 17.0 hr | 18.0 hr | 20.0 hr | 24.0 hr |
|----------|---------|---------|---------|---------|---------|
| Peak     | 0       | 0       | 0       | 0       | 0       |
| (cfs)    | 0       | 0       | 0       | 0       | 0       |

END

CERTIFICATION

I HEREBY CERTIFY THAT THE MICROPHOTOGRAPH APPEARING IN THIS REEL OF  
FILM ARE TRUE COPIES OF THE ORIGINAL DOCUMENTS.

2004

DATE

Johnny Yeshima

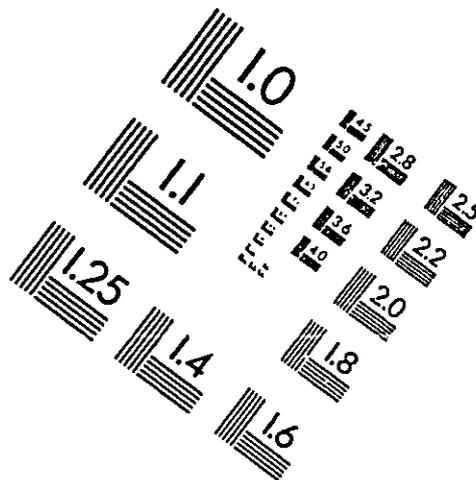
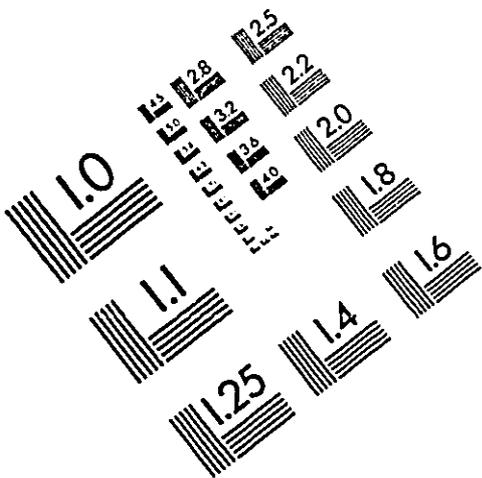
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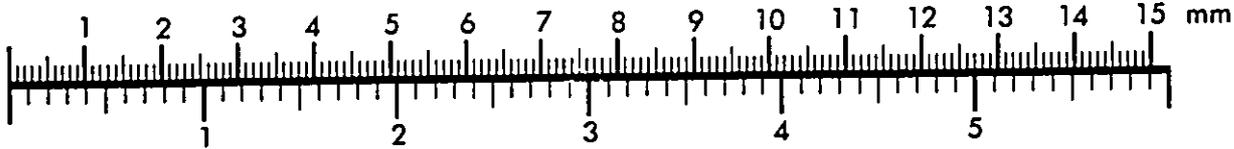
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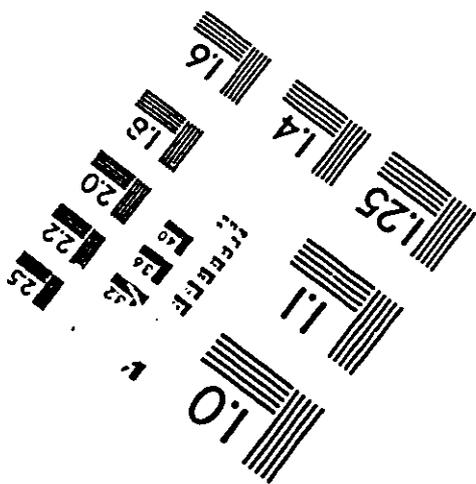
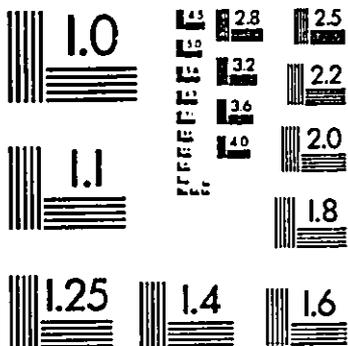
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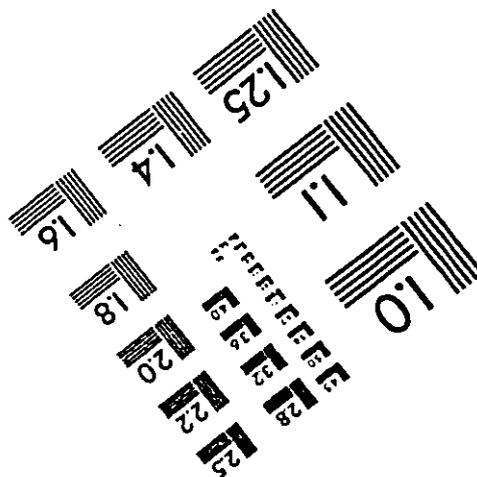
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