



July, 1981



JORGENSEN METAL ROOFING

- · Custom rolled in Hawaii for immediate delivery
- Available in 8 colors and 4 profiles
- Installed easily without specialty trades
- Proven durability in Hawaii
- Competitively priced

For more information and specifications call 836-1611





EARLE M. JORGENSEN CO.

STEEL • CULVERT • FASTENERS • GALVANIZING • ROLL FORMING 2655 Waiwai Loop • Honolulu, Hawaii 96820 • (808) 836-1611

HAWAII ARCHITECT

Volume 10, No. 7

Hawaii Architect is a monthly journal of the Hawaii Society/American Institute of Architects. Subscriptions are 10 per year. Opinions expressed are those of the editors and writers and do not necessarily reflect those of either the Hawaii Society or the AIA. All correspondence should be directed to:

All correspondence should be directed to: Hawaii Society/AIA 233 Merchant Street, Suite 200 Honolulu, Hawaii 96813

Beverly McKeague Executive Secretary Phone (808) 538-7276

HS/AIA Officers: President Donald D. Chapman, AIA

Vice President/President-Elect Francis Oda, AIA

Secretary Gordon Ogata, AIA

Treasurer Ted Garduque, AIA

Directors

Tom Culbertson, AIA Rosalina Burian, AIA Charles A. Ehrhorn, AIA Dwight C. Lowrey, AIA

Associate Director Ann Thompson

Hawaii Architect Personnel Co-Editors Shannon McMonagle Glenn E. Mason, AIA

Staff Rob Hale, AIA Michael J. Leineweber, AIA Curtis Miyamura Mary Alice Sinton Mike Chu

Art Director Jan Olin Nakamura

Published monthly by:

Crossroads Press, Inc.

863 Halekauwila Street P.O. Box 833 Honolulu, Hawaii 96808 Phone (808) 521-0021

Stephen S. Lent, Publisher William B. Roberts, Advertising Director

POSTMASTER: Send address changes to the Hawaii Architect, 233 Merchant Street, Suite 200, Honolulu, Hawaii 96813

HAWAII ARCHITECT (USPS063170) controlled circulation postage paid at Honolulu, Hawaii

July, 1981

Contents:		
Headlines:	Hawaii '82 By Donald D. Chapman, AIA President, Hawaii Society/AIA	4
Index:	The Waianae Potential By A. Lono Lyman	6
Laurels:	HS/AIA 1981 Awards Program	12
Laurels:	They Got Theirs at the Awards Banquet	19
A/E Liabilities:	A/E Liabilities	20
New Members:	Richard S. McGerrow, Bryce Klug, Judith Jones Lebar, Joseph L. Coggan, Robert L. Jacobowitz, William J. Laffan, Sheila Hixenbaugh, Ronald J. Dean, Richard L. Katz, George T. Fujiwara, Ann Hind, Patricia L. Eidson, Walter H.T. Leong, Ronald K. Lau, Lisa Porter- Fox, Clemson Lam, Edward R. Haysom	22
Ballpoint:	Letter to the Editors By Edward Sullam, FAIA	25
Photo Feature:	Douglas Peebles Architectural Photographer	26
Headlines:	From: Ke Kaha Ki'i To: Hawaii Architect By Glenn E. Mason, AIA	28
Planning & Zoning:	Involving Citizens in Fiscal Planning By Councilman George Akahane Chairman, Planning and Zoning Committee	30
Cover:	Photo Montage of Past Covers By Glenn E. Mason, AIA	

COME TO THE SOURCE for QUALITY distributors of GARMENT RACKS SHOW CASES HARDWARE TEMPERED GLASS **CUBE SYSTEMS** 1x1 CHROME SQ. **TUBE SYSTEMS DISPLAY FIXTURES** HARDWARE SAVE TIME & MONEY CALL US FIRST Representatives for Custom Fixtures Manufacturers STORE PLANNING 526-0623 570 Auahi Street

Honolulu, Hawaii 96813

Headlines

Hawaii '82

by DONALD D. CHAPMAN, AIA President, Hawaii Society/AIA

Time marches on! The most successful "A Line on Design and Energy" in Minneapolis has passed the baton to "A Quest in Time," our time. HS/AIA and the 1982 National Convention in Hawaii just one short



Chapman

year away. Where, how, and what will be the demands? Rest assured the demands will be many, as National is predicting a record turnout of 7,000-plus.

How does HS/AIA stand? Like the Roman Army. Our generals under the leadership of Caesar Lipman, Mark Anthony Hara, Cleopatra Sakata and their command staff have been strategizing and organizing the logistics of the coming campaign for over one year. And it is OUR campaign, yours and mine, with a great deal of dollars at stake. We have a real opportunity to put the chapter in a sound financial position, if we all perform. If we don't all jump in, well ...

When you receive your draft notice, remember HS/AIA is not a democratic society. You do not have a choice, as all conscientious objectors will be promptly fed to the mongooses. Seriously, it will take the dedicated efforts of the entire membership. Kokua.

The HS/AIA promotion at Minneapolis for Hawaii '82 was a tremendous success. A sizable contingent of members, wives, girlfriends and secretaries put in many long hours extending a warm aloha spirit to thousands at the convention and are entitled to the May Mahalo Award. However, to Bob Hartman and Ernie Hara go special awards.

Bob receives the coveted Maha-

Io Award with Oak Leaf Clusters for his brilliantly conceived promotion booth, consisting of colorful Hawaiian fabric banners and travel posters. Eye-catching, inexpensive, easily transported, reusable and definitely Hawaiian. Also a mahalo to Bruce Hopper for turning Bob's design into the final product.

Now about Ernie. Ernie truly endeared himself to me by cockroaching (to cockroach means to get manuahi - for free, in the new "Plain Language") 300 dozen anthuriums and 12 cases of pineapple, which he then had delivered to my office with the note, "Don, hapai to Minneapolis as part of your personal baggage; do not refrigerate." Any of you know what 3,600 carefully packaged anthuriums and 12 cases of pineapple look like? It's one standard-size stationwagon completely filled, with your luggage tied on the roof outside

That's not all. He also arranged for two appearances of Aloha Airlines musicians and dancers, cockroached and helped transport untold thousands of vanda orchids, leis, exotic flowers (from which Clare Hara made the main rostrum centerpiece), macadamia nuts, etc. For three days the flowers were given away freely, and were seen all over Minneapolis. They were spectacular, and combined with Hartman's booth design, made our selling of Alohaland a pleasure. Ernest Hara, from a grateful HS/AIA. a very special Mahalo Award with Distinguished Cockroach Clusters.

Speaking of awards, to those who won design awards this year, congratulations! Enjoy! To us others, no shame. Try next year.

Lastly, manini detail. In looking at the March and May issues of Hawaii Architect, I'm not sure which profile of Don Chapman I like best — the right side, or the wrong side, or which is which. Aloha.

The newest name in copiers in Hawaii is one of the oldest names in the business **RICOH**

FT6200

FT4700

Ricoh. The name may be unfamiliar locally. But nationally and internationally, Ricoh copying machines have been successfully distributed and sold for the last 25 years. But oftentimes not under the Ricoh name. Now Ricoh has improved their copiers, and is selling them under their own name HERE IN HAWAII! See the new Ricoh copiers FT4700 and FT6200.



Available at Film Services of Hawaii. PHONE 847-4474 • A DIVISION OF SERVCO PACIFIC INC.





The Waianae Potential

by A. LONO LYMAN

This article summarizes a study exemplifying the role that economic analysis has in regional planning. The study focuses on the economic development opportunities in the Waianae District and sets forth a proposal for county support. Completed in 1980, the study was conducted on behalf of the City and County of Honolulu.

Background

The Waianae District encompasses the southwestern coastline of Oahu. It includes the area from Kaena Point to Kahe Point and between the ocean and ridge line of the Waianae mountain range.

During the past 20 years, the Waianae District has not realized the benefits derived from economic development that most of the county has enjoyed. This is reflected in the district's higher-than-average unemployment rate and lowerthan-average income level.

Waianae District's lower-thanaverage income and chronic unemployment are attributable to several factors that limit the district's current economic base. These include the following factors:

• Water—The availability of an adequate and predictable supply of water has historically been a deterrent to the district's economic development. Limitations in the water supply are cited as one of the significant factors constraining the expansion of diversified agriculture. Reportedly, other economic activities and housing development have been deterred by water supply-related problems.

• Physical distance—The physical distance that separates the district from other parts of the county is another constraint on economic development. The greater cost and time involved in travel effectively reduces the district's economic opportunities. For instance, the district is not as attractive a site for light industrial uses as Waipahu and the Campbell Industrial Park due to the greater distance between the district and major transportation facilities and users of light industrial products. The cost and time factors also can deter district residents from seeking employment opportunities located outside the district.

• Age—The relatively younger median age of the Waianae District residents contributes to the unemployment levels, since a youthful population has fewer job-related skills. Interviews with individuals involved in Waianae District social service programs substantiate this and indicate that unemployment is most significant among the residents between the ages of 18 and 25 years.

• Education—The lower proportion of residents who have completed high school also contributes to the level of unemployment in the Waianae District. As a result, these Waianae District residents tend to be at a disadvantage in competing for jobs that are also available to residents of other areas, such as jobs located at Campbell Industrial Park, Waipahu, and Pearl Harbor.

Economic Opportunity Assessment

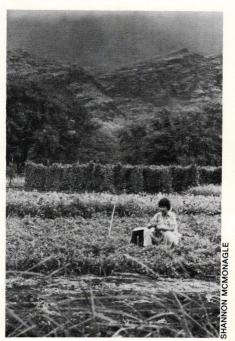
Selected economic activities were reviewed to assess their potential for further development in the Waianae District. Significant findings are summarized below:

• Light industrial use—It is concluded that the Waianae District is a less attractive location for most light industrial operations relative to alternate locations such as those available in the Waipahu area. Uses that could be potentially supported in the Waianae District are those that are supported by the district's population such as auto and miscellaneous repair. Support may also exist for boat building or boat engine repairs.

• Diversified agriculture—In the Waianae District, the technical fea-

siblity of expanding specific diversified agriculture activities is reflected by the concentration of these activities in the district. These activities include: vegetable and melon farming; livestock, particularly hog farming, chicken fryerbroiler and egg production; and ornamental nursery production. Constraints to increasing production include the availability of water at reasonable rates; the availability of suitable sites on a long-term lease basis and at reasonable lease rents; and the availability of financing to initiate or expand diversified agriculture activities.

• Aquaculture—According to a DPED aquaculture study, almost all the land in Maili and significant parts of Nanakuli, Waianae, and Makaha is identified as primary or secondary aquaculture land. Given the state's projection that the production acreage, exclusive of supporting land, could potentially increase from 350 acres in 1978 to 28,100 acres in the year 2000, there appears to be a basis for considering aquaculture development in the Waianae District.



HAWAII ARCHITECT

A. Lono Lyman conducted the original study while at Peat, Marwick, Mitchell & Co., where he was a consultant in the firm's Honolulu office for eight years. He now is with Daly & Associates, a Honolulu-based planning and management consulting firm.



Two steps that will facilitate pursuing this potential in the district are: identifying suitable sites and stimulating the interest of qualified aquaculture developers. For aquaculture products requiring potable quality water, another constraint would be the availability of water.

• Commercial fishing—The significant fishing resources that are found off the district's coastline and the state's assessment that Hawaii's commercial fishing industry has the potential to expand its production fivefold by 1990 suggest that commercial fishing based in the district could be developed.

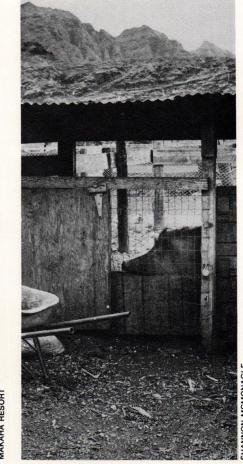
Presently the constraints to developing commercial fishing in the district are related to the availability of mooring for large vessels and the need for an icehouse. The mooring problem may be resolved, at least partially, by the inclusion of nine 50-foot berths in the Waianae boat harbor, scheduled for completion in mid-1981.

 Tourism—Presently the owner of the Makaha Resort located at Makaha has undertaken a major renovation program of the 193room hotel. Additional visitor facility development could occur near the district at West Beach on land owned by Campbell Estate. The developer's plan for West Beach indicates a proposal to build 10 hotel sites with a total of 8,000 rooms, a recreational boat marina, and 3,000 to 3,500 residential units.

• Retail-commercial—Given the existing vacant retail-commercial space, and the estimate that about half of retail expenditures made by district residents are in establishments located within the district, it is concluded that there is very limited support for major new retail-commercial development in the Waianae District.

Retail-commercial development in the district would at this time benefit from upgrading the existing facilities and tenant mix. Most new tenants could be accommodated in existing vacant or underutilized space. Generally, new developments should be limited to providing space for major "anchor" tenants that could attract sales which are presently lost to establishments located outside the district.

· Housing-Relative to other parts of Oahu, the supply of newly developed housing in the Waianae District exceeds the present level of demand for new housing in the area. A second conclusion is that a significant proportion of the district's housing needs relate to minor or major repairs. A third conclusion is that the youthful population and prevailing cultural patterns result in young people in the district deciding not to continue living with their families. Consequently, it is recommended that rather than increase the existing supply of housing units, efforts should be made to upgrade the quality of the existing residential inventory and provide a



7



FEE Simple 2-ACRE lots in the country at MOKULEIA



Beach access, excellent water supply, power and public roads. Zoned Agricultural-1, guaranteeing the preservation of the relaxed, rural lifestyle of this beautiful oceanfront area.

Terms at 12%. \$153,000-\$198,000

HONOLULU	HOWARD	
MANAGEMENT	BILKISS	
CO., INC.	LTD.	
536-7091	524-4024	



but the cement base plaster mix will stay as maintenance free as the day it was applied.

Plaster Information – Don Morganella PACIFIC BUREAU for LATHING & PLASTERING 905 Umi St. – Rm. 303 Ph. 847-4321

Waianae

means for extended families to add living space to existing homes. **Proposed Economic Development Plan**

An economic development plan was prepared detailing the support that the county could provide to stimulate economic development in the Waianae District. The plan was comprised of programs, projects, and other relevant activities.

Programs

The proposed plan recommends that the county either expand or develop three general programs to stimulate economic development in the district. They are:

1—Job training—Comprehensive Employment Training Act (CETA), other federal programs, and state DOE programs should be used to expand job training for Waianae District residents. The proposed expansion of the county's job training program in the Waianae District is intended to develop residents' employment skills and to upgrade residents' jobs.

2—Financial and technical assistance—Financial assistance refers to business loan programs such as those offered by the federal Small Business Administration (SBA). Technical assistance is defined as third-party business or technical expertise intended to assist in identifying, diagnosing, and resolving business problems that either jeopardize a business continuing or inhibit growth.

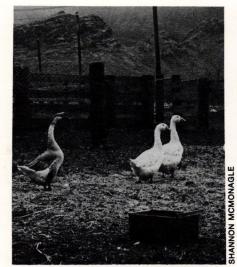
It was recommended that the county establish a business loan program that is integrated with a technical assistance program for a wide range of Waianae District businesses including retail, commercial, agriculture, fishing, and the like.

The proposed county-sponsored business loan program could be funded by Community Development Block Grant funds and possibly other federal funding programs. The program could provide financial assistance to Waianae District businesses through two channels. The first channel would be established lenders and the second a newly established local development corporation serving the district.

3-Residential and retail-commercial rehabilitation-A program



A model home at Makaha Meadows, a new development with homes on two-acre lots.



of residential and retail-commercial rehabilitation is also proposed for the Waianae District. The proposed program is discussed below.

• Residential rehabilitation could be complemented with a program to provide district residents with construction-related job skills. Additionally, it may be possible to stimulate business opportunities in the district through the rehab program. Specific rehabilita-



tion-related business opportunities could include general and specialty (electric, plumbing, and roofing) contractors, as well as solar heating contractors if the latter is eligible for rehab funding.

• Retail-commercial rehabilitation possibly could be funded to improve existing retail-commercial facilities in order to make them more attractive to retail-commercial users. If this can be accomplished, then the district's retailcommercial mix may be improved and a larger proportion of the district residents' retail-commercial expenditures retained in the district. As with the residential rehab component, job training and business opportunities could be secondary benefits of the retail-commercial rehab program.

Projects

During the latter half of the 1970s, federal funding programs were developed to encourage economic development projects in depressed areas. Several of these programs have had their funding either reduced or eliminated by the Reagan administration subsequent to the completion of the study. Eco-

PHOTOGRAPHIC ART IS GOOD FOR BUSINESS

and a pleasure to live with!

Fine quality color prints and enlargements are now fully processed in Hawaii on the newest equipment at COLORPRINTS. Renderings, interior design ideas, sales office murals, restaurant decor, presentation or display enlargements and copies of color art are ALL now quickly obtainable.

EKTACHROME PROCESSING IN THREE HOURS.

COLORPRINTS specializes in large scana murals, on fabrics; mural size photographic prints in color or b/w; large transparencies for light box; custom color prints for portfolios or sales manuals; and 35mm slide duplicates for presentations.



Photo by Jerry Chong (Pagoda Floating Restaurant)

IF YOU'RE AN ARTIST, ARCHITECT, DRAFTSMAN, ENGINEER OR DESIGNER...



then you should see the new drafting tables and chairs we are now carrying.

The famous Mayline Futur-Matic offers the ultimate

- in drafting conveniences.
 SINGLE PEDAL HEIGHT CONTROL. One convenient toe operated switch raises and lowers the top through its 20" travel range.
- ONE HAND TILT CONTROL. No awkward lever to search for. Handy fingertip control allows effortless tilt angle changes with just one hand
- ELECTRICAL OUTLETS. Two, 3-wire grounded electrical outlets enable draftsmen to make use of calculators, lamps, erasers and other drafting aids.
- SURFACE. Non-warping Maycore top with steel end cleats and pencil trough.
- FOUR STANDARD BASE COLORS. Desert Sage, Cordovan and Blond Tan. All coordinated with attractive front and rear decorative panels.

We also carry a selection of the Mayline Light Tables and Light Boxes, with many of the same features as the Futur-Matic.

CHARVOZ... The Ultimate in drafting chairs. With one flick of the wrist, you can adjust the Charvoz pneumatic gas drafting chair to any height you want. The comfortable foot rest adjusts with the height of the chair. Convenient hand knobs adjust the back rest and vertical tilt. It's the ultimate in comfort and convenience for any type of drafting work.

Visit our showroom today or call us and we will send one of our representatives to see you. We're the specialists in the business of office interiors.



CERAMIC TILE

1000	

RETAIL • WHOLESALE RESIDENTIAL & COMMERCIAL

(4x8 and 8x8)





SKID-resistant surfaces. HIGH abrasion resistant glazes. VITREOUS body—flat, plugless anchor back for easy installation.

MINIMUM maintenance. EXTERIOR and interior uses. EXCELLENT for commercial and residential use.

INTERCERAMIC glazes are resistant to wear under heavy traffic conditions. INTERCERAMIC has a hard body, capable of withstanding abuse and rough usage.

SEE US NOW FOR YOUR REQUIREMENTS

Moreira, Inc. **CERAMIC TILE CENTER**

845-6461 1297 Kaumualii Street (Back of Times Kapalama)

Mon.-Fri. 7:30-4 / Sat. 9-1



Waianae

nomic development projects identified by the study are summarized below:

1—Diversified agriculture—All categories of diversified agriculture (crop, livestock and ornamental nursery production) are presently established activities in the Waianae District and, based on a review of local market supply relative to local production, there appears to be considerable potential to expand certain components of these activities in the district.

In addition to expanding diversified agriculture, there also appears to be a potential to develop agricultural production facilities in the district. These could include slaughter and/or processing facilities for hogs, chickens and beef and dairy cattle. If there is sufficient support from district farmers and nursery operators, production facilities may be developed for vegetable products and nursery-ornamental products.

2—Commercial fishing—Commercial fishing appears to have potential for expansion in the state and county. Presently the development of commercial fishing in the Waianae District is limited by facility-related constraints including limited mooring and on-shore facilities such as an icehouse. Distribution problems also are a constraint faced by those who presently participate in commercial fishing activity in the district.

3—Aquaculture—Aquaculture is a third activity identified as having a potential to stimulate the Waianae District's economy. However, aquaculture is a relatively new industry in the state and is not presently established in the district. Furthermore, there are currently technical and marketing problems that are not yet completely resolved. Consequently, relative to diversified agriculture and fishing, aquaculture is an activity that should be considered as having a medium- to long-term potential in the district.

Other Relevant Activities

Two other activities that the county could undertake, which are related to economic development in the Waianae District, are identified below:

1-Employment counseling and placement is a service that could facilitate the reduction of employment among the Waianae District resident base and the upgrading of employment for underemployed residents. These programs should be closely coordinated with any job training program sponsored by the county. Potentially, it could seek out employers located in or near the district (for instance, Hawaiian Electric, Kaiser Cement Corp. and companies located in the Campbell Industrial Park and in Waipahu) and promote the employment of qualified Waianae District residents.

ISI

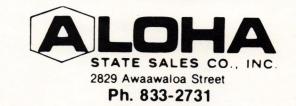
2-Bus service is also relevant to economic development due to the dependence of Waianae District residents on the bus as a means of transportation to work sites outside the district and for shopping both within and outside the district. The county should review the bus service currently provided for the district. A survey of district residents conducted by SMS Research, Inc., in conjunction with the preparation of the Development Plan indicated that respondents wanted the frequency of bus service increased both within the district and to destinations outside the district. The survey indicated that 32 percent of the 400 respondents wanted express service to Honolulu. Peat, Marwick, Mitchell & Co.'s interviews with Waianae District residents substantiated these sentiments and indicated that the county's bus service into the Campbell Industrial Park and to Waipahu should be reviewed. HA



You come out on top when you consider new Woodruf, designed to:

- Lower your installation cost.
- Reroof over existing shingles.
- Provide guality and guarantees.
- Withstand the vigorous Hawaiian weather.

Woodruf premium wood fiber roofing is brought to you by Masonite Corporation.





HS/AIA 1981 Awards Program



Laurels

The Hawaii Society/American Institute of Architects has announced three special awards: one for outstanding craftsmanship, two for civic enrichment, as well as five Awards for Excellence in Architecture and three Awards for Excellence in Architecture for Extended Use.

Recipients of Awards for Excellence in Architecture are: American Security Bank, Pearlridge Branch, Franklin Gray & Associates/Architects, Inc.; a residence in Aspen, Colorado, Norman Lacayo, AIA, Inc.; a residence on the Mauna Kea Fairways, Hawaii, Heneghan & Leucht Architects, Inc.; a residence on Waialae Iki Ridge, Edward Sullam, FAIA & Associates; and Bowlen's Lath House, Diamond Head, Norman Lacayo, AIA, Inc.

Awards for Excellence in Architecture for Extended Use were presented to: Credit Union in Honokaa, Hawaii, Heneghan & Leucht Architects, Inc.; a Makiki Heights residence, Architect Tom Fanning, AIA; and The Stangenwald Building, James K. Tsugawa, AIA & Associates with Design Consultant Paul Kamada & Associates, Inc.

The Special Award for Outstanding Craftsmanship was presented to Project Superintendent Michael J. Aglia, Hawaii/Western Construction, Inc., for renovations at Eden at Haiku Woods.

Pacific Division, Naval Facilities Engineering Command and First

Woods Residence, Aspen, Colorado — Norman Lacayo, Inc.

Federal Savings & Loan Association received Civic Enrichment Awards for their contributions to the enhancement of Hawaii's built environment.

Jurors for the Architectural Excellence program were: John Dreyfuss, architectural editor for the Los Angeles Times; Val Ossipoff, FAIA; E. Alan Holl, AIA; A. Kimball Thompson, AIA; and architectural student, Donald Botsai. The jury for the Special Awards program were: Aaron Levine, president of the Oahu Development Council; Elmer E. Botsai, FAIA, Dean, University of Hawaii School of Architecture; and Jerry Tune, Honolulu Star-Bulletin architectural writer.



American Security Bank, Pearlridge, Franklin Gray Assoc.; Bowlen Lath House - Norman Lacayo, Inc.





HAWAII ARCHITECT



Above: Waialae Iki Ridge, Edward Sullam & Associates. Lower left: Private residence, Mauna Kea Fairways, Hawaii, Heneghan & Leucht Architects, Inc. Lower right: The Stangenwald Building, James K. Tsugawa, AIA & Associates.



HS/AIA 1981 Awards Program



Honokaa Community Federal Credit Union, Heneghan & Leucht Architects, Inc.



Makiki Heights Residence Remodeling by Tom Fanning

Craftsmanship Award

Imagine removing all the exterior finish from your house; roofing, walls and not the paint but the siding. Then replacing sizable portions of the structural framing; roof decking, studs, beams, floor joists and even in some cases the subflooring itself. Then imagine that this work is being done during the rainy season on the windward side of the Island. Finally, imagine that you are still living in your house while all this is going on.

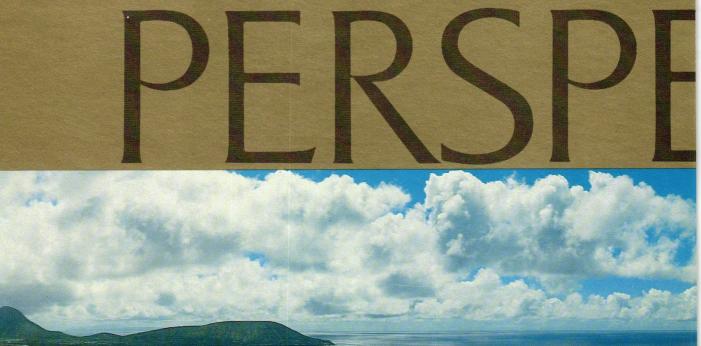
Multiply this by eighty-seven times and you have some idea of what's going on at Eden at Haiku Woods. The man on the point is Michael Aglia, superintendent for Hawaii/Western Construction, Inc. Not only is Aglia coordinating this \$3.5 million restoration, he is doing it without the benefits of normal contract documents as there is no way to determine what work is necessary and how it is to be done until the buildings are opened up. Accordingly, he is to a large extent working on verbal instructions and sketches drawn on 2x4's by the architect to furnish his guidance. This is capped off by a home owner association that loves him - a truly unusual feat in its own right.

The jury believes that while this year's craftsmanship award is a deviation from the traditional aspects of finely worked materials, we have here a remarkable balancing act of job and owners coordination that truly represents the highest values of craftsmanship in the construction industry. Congratulations, Mike Aglia! IA Michael Aglia 45-342 Kuauli Street Kaneohe, Hawaii

HAWAII ARCHITECT



THE QUALITY OF OUR WORLD IS RELATIVE TO THE PERSPECTIVE FROM WHICH WE VIEW IT. Hawaii Loa Ridge is destined to become one of the world's most luxurious neighborhoods. And Hawaii's architects will have an opportunity to create wonderful homes to match the incomparable site. Each lot has been shaped to provide stunning views of the ocean, Diamond Head, Molokai and Koko Head. These exclusive, fee simple lots are just minutes from downtown Honolulu. This just may be the spot you've been looking for to design, finally, that dream home for your own family. It may be the last of its kind.

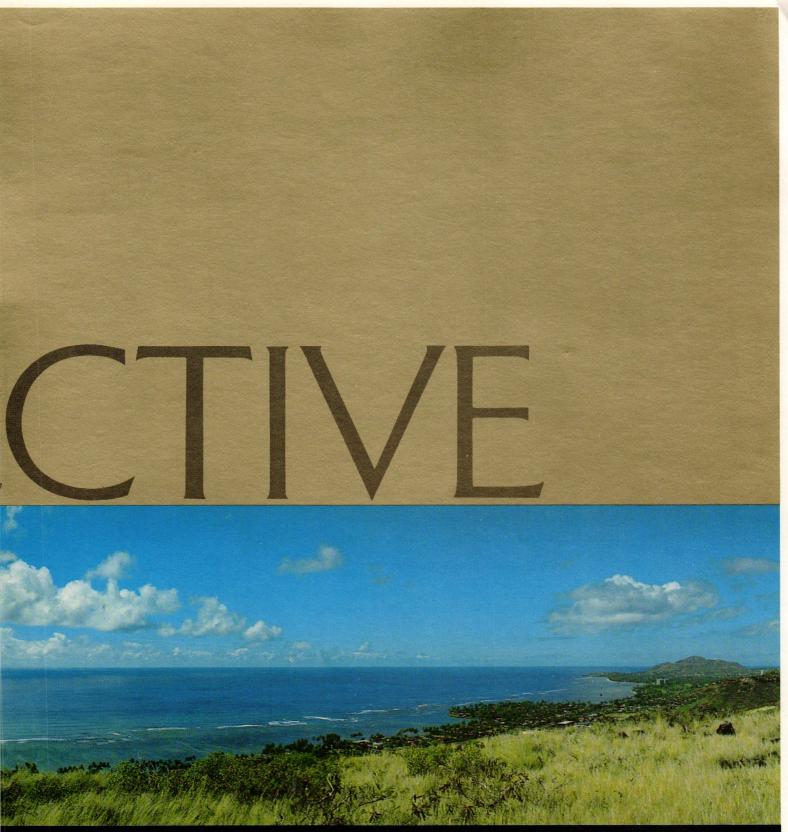


FOR INFORMATION REGARDING THIS PRESTIGIOUS DEVELOPMENT WRITE OR CALL STARK REALTY, LTD. P.O. BO





It may be the last of its kind.



, 1600 ALA MOANA BLVD., HONOLULU, HAWAII 96815, PHONE (808) 944-8744. COURTESY TO BROKERS .

Allied Builders System did it . . . Susan Chang talks about it . . .

HOW CERAMIC TILE DELIGHTS IN KITCHEN PLUS DINING TABLE



Remodel by: Allied Builders System Project Manager: Ed Sakai

Bright red orange Ceramic Tile stars in a beautiful remodel by Mike Nakahara's Allied Builders System of Hawaii, a project for Ed and Susan Chang out Kalanianaole way. Kitchen counter tops and surfaces above the stove are Ceramic Tile. The crowning touch is the adjoining dining table of Ceramic Tile.

Susan Chang talks about her Ceramic Tile with complete enthusiasm: "It's great on maintenance, always looks good and is so convenient. We put hot pans right on it without a problem."

The Changs and Allied Builders System are happy with the choice. The company calls this job an example of the work that won it honors as "Residential Contractor of the Year" in a recent national Remodelers exposition at Atlantic City.

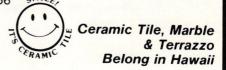
In Hawaii architects, contractors and developers generally have found Ceramic Tile not only beautiful but an enduring material that becomes lowest cost for floors and walls for life of installations. This means consumer value—and growing use of Ceramic Tile in Hawaii year after year.

HAWAII CERAMIC TILE, MARBLE & TERRAZZO PROMOTION PROGRAM

615 Piikoi, Suite 804, Honolulu, Hi. 96814: Att'n: John P. Brack Tel. 526-0469. Ask for "Tile"

Contact anyone of these Promotion Program participants:

A-1 Tile Corp. 845-9945 Allied Floor Corp. 847-0288 Atlas Tile Inc. 839-7403 Bob Pezzani Ceramic Tile 261-1580 Classic Tile Corp. 841-6893 Leo Cecchetto, Inc. 848-2428 Hawaii Tile and Marble 839-5102 Honolulu Roofing Co. Ltd. 941-4451 S. Kunishiga Tile 734-3340 Logan Tile Co. 262-5724 Nan-Cor Tile Company 488-5591 Pacific Terrazzo & Tile Corp. 671-4056 Pacific Tile Co., Inc. 841-8534 Tidy Tile 833-3042 Venture Marble, Inc. 847-2105 W.F. Pence, Kailua-Kona 324-1600 Wichert Tile Ltd. 955-6631



ARCHITECTS, DESIGNERS, BUILDERS, Please Note Every week in advertising in the Honolulu Sunday Star Bulletin & Advertiser Hawaii Tile Contractors call special attention to you with this message:

"Building: Remodeling? Redecorating? Ask your architect, designer or builder about the beauties and values of Ceramic Tile."



They Got Theirs At The Awards Banquet

Laurels

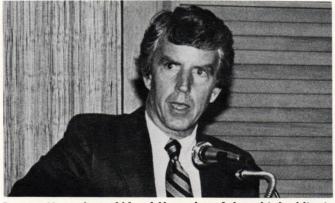


Pacific Division, Naval Facilities Engineering Command, received a Civic Enrichment Award for its contribution to the enhancement of Hawaii's built environment. Receiving the award for the Navy are Warren C. Johnson; Art Weber, AIA; and Captain Thomas Doyle, who are standing first, second, and fourth from the left, respectively.





Above: John Dreyfuss, architectural editor for the Los Angeles Times, was the keynote speaker and a member of the jury. Left: Franklin Gray, AIA, picked up an award for his American Security Bank — Pearlridge Branch.



George Heneghan, AIA, of Heneghan & Leucht Architects, accepted awards for the extended use of the Credit Union in Honokaa and for a residence at Mauna Kea Fairways.



Tom Fanning, AIA, won an award for his remodeling of a Makiki Heights residence.



James K. Tsugawa: awarded for the extended use of the Stangenwald Building.



Norman Lacayo, AIA, left, received awards for a residence in Aspen, Colorado, and a guest house on Diamond Head. Don Chapman, AIA, center, and Vladimir Ossipoff, FAIA, left, presented the awards.



A special Award for Outstanding Craftsmanship was presented to Michael Aglia, project superintendent for the renovations to Eden at Haiku Woods.

When we build what you design,



we'll keep you on time and within budget.

Mark Christopher • Duty Free Shoppers • Mitsukoshi • Warehouse, Hemmeter Center Sandal Shop • Ritz Men's Store • Duty Free, Waikiki, Anchorage • Watumull Bros. The Eye Glass Shoppe • Altogether Hawaii • Liberty House • Ritz Department Stores Elegant Exposer • Elephant Walk • Far Eastern Department Store • Shanghai Kitchen Ironwood Condominium • Kaneohe MCAS Post Exchange • Windsurfer • The Gallery Lloyd and Carver • One-Stop Shop, Kapalua • Trade Wind Tours • Palm Beach Shop Gucci, Hemmeter Center • Dorothy Jackson, Royal Hawaiian Hotel . . & over 500 others



General Contracting • Architectural Woodwork • Store Fixture Manufacturing 638 KAKOI STREET (IN SHAFTER FLATS), HONOLULU • TELEPHONE: 836-2935



WHAT HAPPENED

A general contractor on a project forwarded shop drawings and catalog submittals for materials and assembly details to the architect for review, as required by the contract specifications. The items submitted were large water chilling units, units different from those upon which design was based and by a different manufacturer. The architect and his consultants compared the submittals with the specified material and the contract drawing requirements and found nothing that appeared contrary to the expressed intent of the drawings and specifications.

Later during construction it was discovered that in order to properly install and connect the water chilling units, it was necessary to modify the building structurally because the units occupied more space and weighed much more than the units which were the basis of the design. The contractor was granted permission to enlarge the mechanical equipment spaces and to increase the size of structural members supporting the floor by way of a Change Order. After completion of the work, the contractor billed the owner for the extra cost he incurred by installing large structural beams and related costs. The owner refused to pay the extra amount, contending extra cost was occasioned by the type of water chilling units the contractor chose to use. The contractor sued the owner and named the architect and the consulting engineers as defendants claiming that the units submitted had been "Approved" by the architect and consultants and that, relying upon their approval, he was entitled to the extra cost, since the owner enjoyed the benefit of the change.

RESULT

The court examined the contract documents and rejected the contractor's claim for extras. Two

A/E Liabilities

things were cited by the court as most persuasive: (a) a clause in the specifications which provided that "all additional costs occasioned by installation of equipment or material other than that upon which the design is based shall be borne by the contractor offering the substitution"; and (b) the shop drawing submittal of the substitute equipment bore a stamp imprinted by the architect's consultant that states "Conditionally Approved." Other language in the specification explained that the approval of shop drawing submittals was conditional only and subject to the requirements of the contract documents. The court concluded that it was the responsibility of the contractor to weigh the use of different types and manufacturers of equipment and materials and to compare those specified against those the contractor might desire to offer as a substitute and that the burden of any increase in costs was that of the contractor. The court reasoned that this was fair and reasonable in view of the fact that the reason for offering substitutions is that the contractor anticipates saving money; he cannot hope to enjoy the benefit of a saving on substitute equipment and simultaneously pass the burden of additional expense caused by the use of substitute equipment along to the owner.

LESSON LEARNED

Certain trouble was avoided in this situation by clear and concise specification language and by use of unambiguous words on the shop drawing stamp. In the eyes of the court, the contractor had not been misled. $\mathbf{\bar{H}}$



Selecting the right meal to fit your mood can sometimes be a little tough, especially when the selection is as large as Orson's. If you find yourself fishing for a decision, ask your waiter or waitress. They will be happy to help familiarize you with the many dishes and fresh fish specials of the day. At Orson's if you need help, ask us. We tip you.





As you know, skylights make light airy rooms and adapt almost anywhere. Besides being an additional source of **natural** light, these units provide **free** air conditioning. Therefore, these units are a dual **energy saver**, rescuing interior baths, poorly ventilated bedrooms, and dark stuffy kitchens. These units are also perfect for patios, garages, and any area where natural lighting and ventilation are desired.

Unique and outstanding features of the VENTARAMA SKYLIGHT are: completely assembled with **DOUBLE** acrylic plexiglas domes, tamper proof fasteners, and are hinged and weather-stripped. These units are constructed with 16 oz. **COPPER** for easy installation on any flat or pitched roof. They are operated with either crank, pole, or motor which comes prewired, including wall switch.

The Double-Domed Ventilating Skylight Available in Clear and Bronze Tones Stocked Locally & Distributed Exclusively by

- SKYLIGHTS of HAWAII — P.O. BOX 347 • 239-6277 • KANEOHE, HI

Precast Takes the Floor!



Erection of Tri-Tees at Kotake industrial/office complex on Waiakamilo Road, Honolulu. Walker-Moody Construction Co., Ltd., builder; Gerald Tokuno, AIA, architect; Martin, Early, & Bravo, structural engineers.

The versatility of precast CONCRETE, shown here in a Tri-Tee application for a floor system, is one way the builders of Hawaii have learned to cut costs, save time, and increase the efficiency and life of thousands of structures, large and small.

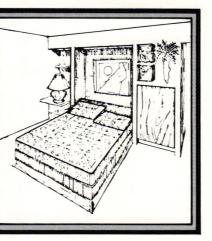
A full range of technical information on innovative use of precast CONCRETE is available at the CCPI Research Library. Call **833-1882.**

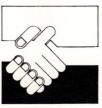
CEMENT AND CONCRETE PRODUCTS INDUSTRY OF HAWAII Suite 1110 / Control Data Building / 2828 Paa Street / Honolulu, Hawaii 96819

The best laid plans include a SICO Wallbed.

SICO's Disappearing Wallbed system is the perfect answer to the problem of limited living space. By day, out of the way. By night, a sleeper's delight. Designed for single, double or queen-size sleep sets. No loss of comfort... a great gain in living area. Get in touch... we'll give you the complete space saving, sound sleeping story.







New Members



RICHARD S. McGERROW; Associate Member; Chapman Cobeen Desai Sakata, Inc.; B.A. Boston University, M. Arch. University of Hawaii. Hobbies: photography, graphic arts, travel.

BRYCE KLUG; Student Affiliate; freshman, School of Architecture, University of Hawaii at Manoa. Hobbies: stamp collecting, camping.



JUDITH JONES LEBAR; Associate Member; Sam Chang Architect; M. Arch. and Certificate in Planning Studies, University of Hawaii. Spouse: Metod. Hobby: photography.

JOSEPH L. COGGAN; AIA Member; Army & Air Force Exchange Service-Pacific; B.S. and B. Arch., Georgia Institute of Technology. Spouse: Bootsie. Children: Madelyn, 24; Sherrie, 22; Sandi, 22; and Eric, 16.



ROBERT L. JACOBOWITZ; AIA Member; Chapman Cobeen Desai Sakata, Inc.; B.S. Arch., City College of City University of New York. Hobbies: skiing, private piloting, scuba diving.

HAWAII ARCHITECT



WILLIAM J. LAFFAN; AIA Member; B. Arch., University of Notre Dame. Children: Teri Ann, Michael, David. Hobbies: tennis, water color.

SHEILA HIXENBAUGH; AIA Member; Wimberly Whisenand Allison Tong & Goo; B.F.A. and M. Arch., University of Hawaii at Manoa. Hobbies: painting, music.



RONALD J. DEAN; AIA Member; Chapman Cobeen Desai Sakata, Inc.; B.S. Arch., Lawrence Institute of Technology. Hobbies: scuba diving, photography, hiking.

RICHARD L. KATZ; Associate Member; U.S. Navy; M.A. Arch., University of Florida. Spouse: Mary Dee. Children: Stephanie, Karynn. Hobbies: woodworking.



GEORGE T. FUJIWARA; AIA Member; Pioneer Contracting Co., Ltd.; Georgia Institute of Technology. Spouse: Florence. Children: Shari Lynn, David, Dean, Kevin. Hobbies: golf, fishing, diving.

ANN HIND; Associate Member; KFC Airport, Inc.; B. Arch., University of Hawaii. Hobbies: tennis, water sports.

Is the cost of hot water a headache? COSCO spells relief!



Scientifically proven effective for all commercial businesses using hot water.

For patients with a functioning a.c. or refrigeration system

Rx DOSAGE:

1 Cosco heat exchange system One time only, complete relief guaranteed

For patients without an a.c. or refrigeration system



1 Cosco heat pump As needed to substantially reduce the source of pain

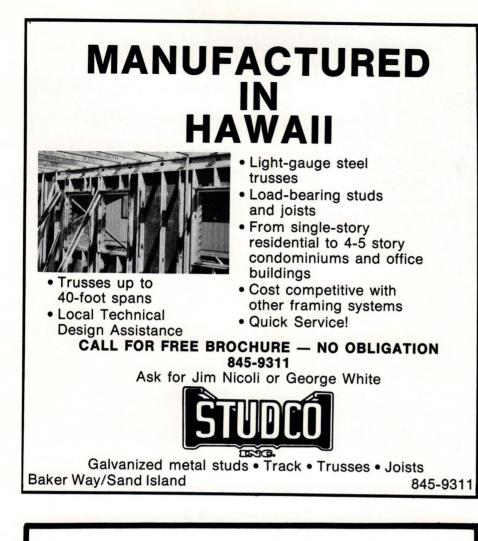
For a no-cost no-obligation evaluation of your condition, call Cosco at 524-5760.

841 Cooke Street, Honolulu, HI 96813 (808) 524-5760

the Out Basket_

SPECIFICATIONS WORD PROCESSING

81 South Hotel, Room 212 - 537-4854



PANEL CONCEPTS SIMPLIFIES THE OPEN PLAN

with systems that are easy to install, easy to change.



YOUR ORDER CAN BE SHIPPED IN 5 DAYS! Turnaround 5 Program is the fastest in the industry. Contact your dealer for further information. DICK VILLARD & ASSOCIATES 875 WAIMANU ST. SUITE 514 524-7211



PATRICIA L. EIDSON; AIA Member; University of Hawaii School of Architecture; B. Arch., Kansas State University. Hobbies: drawing, weaving, reading, gardening.

WALTER H.T. LEONG; AIA Member; W.H.T. Leong & Assoc.; B.F.A., University of Hawaii. Hobbies: sports, travel.



RONALD K. LAU; AIA Member; Design Engineering, Inc.; M.A., University of Hawaii. Hobby: photography.

LISA PORTER-FOX; Associate Member; Fox Hawaii, Inc.; B. Arch., University of Hawaii. Spouse: Robert. Hobbies: piano, collecting hats, sketching, architecture.

CLEMSON LAM; Associate Member; J.G. Phillips, AIA; B. Arch., University of Hawaii. Spouse: J.P. Hobbies: surfing, guitar, woodworking, hiking, water colors, bicycling.

EDWARD R. HAYSOM; AIA Member; Media Five, Ltd.; B. Arch., University of Auckland. Spouse: Sharyn Cederman. Children: Miles, Timothy. Hobbies: music, photography. H



Ballpoint

If the prime purpose of a professional publication is to enlighten its readers, I feel that too many fail in that objective. They seem inclined to favor glib editorial commentary and superficial discussion of trendy issues over serious, incisive architectural criticism. It seems to me that the March issue of Hawaii Architect contains such a transgression. On page 8 there is a photograph of Hale Manoa, 1963 (the 12-story dormitory at the East-West Center) with the caption, "Proper orientation with effective vertical shading." Being quite familiar with this building, I would question whether the editor has ever examined it in detail. Or has he ever interviewed the manager or the occupants in order to develop his own in-depth professional judgment regarding the fitness of its design for either the specific climatic conditions of Manoa Valley or the general spatial needs of the occupants of a college dormitory?

The author of this building is I.M. Pei, an AIA Gold Medal winner. Certainly, the usual constraints regarding the besmirching of a fellow practitioner's reputation should not apply here. Pei's professional position would seem to be quite secure. Some incisive criticism of this project, however, might have a beneficial effect on both the students of architecture at the University of Hawaii and the locally based professionals.

It seems to me that each month the architectural journals inundate us with an endless flow of words. Precious few of them give us any insight into our numerous professional foibles. Hale Manoa is full of such foibles. Not to discuss them is, perhaps, editorially and professionally irresponsible.

Sincerely, Edward Sullam, FAIA Architect

From the LARGEST "In Stock" INVENTORY in Hawaii



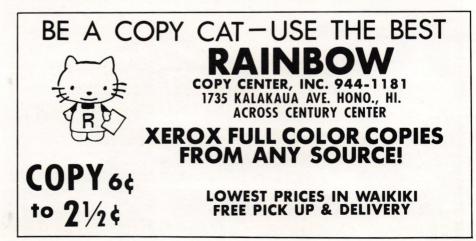
These elegant Franciscan Terra floor tiles in "flash walnut" were selected by Richard Crowell Associates, Inc. for the heavily traversed Waikiki Plaza entrance lobby. The floor was done in the $12'' \times 12''$ non-slip surface tile, while the central seat was in a matching $6'' \times 6''$ size.

The important point to any architect or interior designer is not only a wide selection from which to choose, but availability—for delivery "now."

You and your clients are welcome to visit our showroom to study our complete line of beautiful ceramic tile.

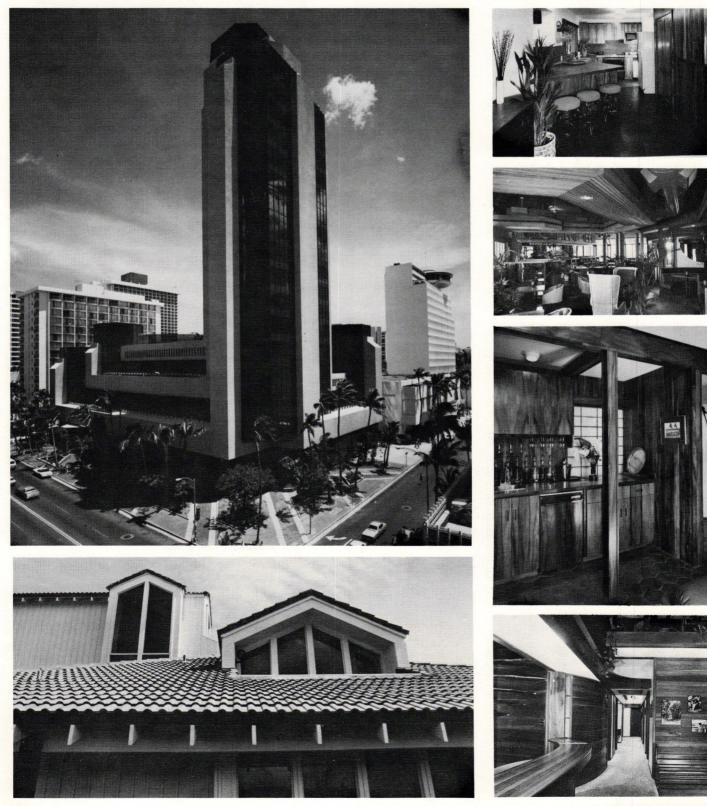
Central Pacific Supply

2855 Kaihikapu Street (Mapunapuna District) Honolulu, Hawaii 96819 • Phone 839-1952





Douglas Peebles Architectural Photographer



HAWAII ARCHITECT

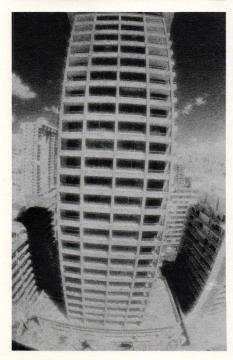
Douglas Peebles has practiced commercial photography in Honolulu for eight years. He became interested in architectural photography in 1979, enjoying the technical challenge of working with a different style of composition and lighting. Peebles graduated from Florida State University in 1973 with a degree in cinematography, photography and video, and moved to Hawaii immediately thereafter.



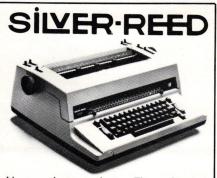












It's an electronic brain. The only electronically controlled single element office typewriter being sold today. Faster. Better print quality. More reliable. Fewer parts, fewer problems. Greater efficiency through increased accuracy and typing speed. We'll arrange a demonstration in your office. Give us a call. No obligation, of course.

FREE DRAWING!

Come, see our new facilities in Honolulu at 2340 Kam Highway during the week of July 13. Register for the Silver-Reed model 8750 Portable Electric Typewriter to be given as the door prize.





Prime office space with space-age technology and professional staff.

Get all the advantages of an ultra-modern corporate environment, plus a trained executive support staff, for a fraction of the usual cost.

Honolulu's Choice Location.

Call today for details. 523-0966





From: Ke Kaha Ki'i

Hawaii Architect slowly but constantly changes in staff, format and concept. It has changed so dramatically in the past eight years, however, that its readers and even its present staff have little remembrance of its origins or the kind of effort this little periodical requires to produce.

Today this magazine utilizes the part-time efforts of eight volunteer staff members, one paid co-editor, and the literary donations of many individuals who have some knowledge or expertise we find valuable. These precious people come from both within and without the architectural profession and none of them gets a penny for their labor.

In addition to the time the staff spends writing, producing graphics, proofreading, and laying out the magazine, a substantial amount of money and patience is spent on this project by Crossroads Press, the publisher. Crossroads is charged wtih procuring ads which pay for typesetting, paste-up, negatives, printing, mailing, and the provision of a scholarship to a University of Hawaii architecture student every year. The bill for this will total approximately \$51,000 in 1981.

The circulation of the magazine today stands at about 2,200 with 550 of those being members of the Hawaii Society/AIA. It is obvious that our readership, which is actually much larger than our total, circulation extends beyond the architectural profession. This was the intent of the Executive Committee when in 1972 it decided that the Society needed to separate the function of member information from the desire to present to the public a more scholarly magazine that dealt with design, or more specifically, design in Hawaii.

From then to the present, it has been the staff's goal to strive to



Ke Kaha Ki'i, January 1970; Hawaii Architect, June 1981.

HAWAII ARCHITECT

To: Hawaii Architect

present articles on architecture, planning, landscape architecture, construction techniques, and law which are thought-provoking and design-sensitizing. The success of the magazine in attaining these goals is not constant but the product has shown marked and continual improvement.

The greatest single leap the magazine has taken was in its jump from Ke Kaha Ki'i to Hawaii Architect. Ke Kaha Ki'i was edited each month by a different member of the Executive Committee and consisted primarily of HS/AIA news. With the change of editorial emphasis came a change in the way the magazine was produced: it gained its first staff. Jim Reinhardt, AIA; Robert Fox, AIA; and shortly thereafter, Eric Engstrom, changed the magazine's name within three issues of what was to be the onset of their four-year tenure.

The format changed dramatically

and through the years has continually been refined. Ted Garduque, AIA, a member of the group which took over the editorial tasks from the original trio, had a great deal of input into those refinements. Others in that group included Wayson Chong, AIA; Ron Holecek, AIA; and three other architects who, five years later, are still with the magazine: Rob Hale, Michael Leineweber, and Glenn Mason.

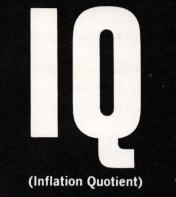
The most recent major change in Hawaii Architect was the addition of its first paid staff member, coeditor Shannon McMonagle. The growth of the magazine finally, as of 1980, had demanded more attention than a wholly voluntary effort could afford. That growth can be seen in comparing any two magazines published two years apart.

The cover of this month's issue presents a selection of covers to represent some of the magazine's history.



The Hawaii Architect staff at the layout session for this month's issue. From left: Curtis Miyamura, Mary Sinton, Jan Olin Nakamura, Glenn Mason, AIA, Shannon McMonagle, Rob Hale, AIA. Missing: Michael Leineweber, AIA, and Mike Chu.

TEST YOUR ENERGY



If you know the correct answer to this question, you can help us fight energy inflation. Remember. Efficient use of electricity keeps costs down for everyone.

The biggest single users of electricity in a home are the lights.



Answer: No. It is usually the water heater. Typically for a family of four, lights will use only 7% of all the energy used, water heaters about 40%. If you have any questions about the efficient use of electric lighting in your home or business, call us at **548-3511**.

lawaiian

ectric 👀



Planning & Zoning

Involving Citizens in Fiscal Planning

by Councilman GEORGE AKAHANE Chairman, Planning and Zoning Committee

One of the most effective tools for implementation of development plans (DPs) is the Capital Improvement Program (CIP). Citizen involvement in Honolulu thus far has been limited to voicing the communities' desires on planning issues without adequate consideration of fiscal feasibility needed for implementing the intended objectives. For a better understanding of the magnitude of problems that government officials and legislators face, the community should be advised of and participate in planning for proper allocation of fiscal resources of the city.

The 1973 revised charter of the city authorized formation of Neighborhood Boards "to increase and assure effective citizen participation in the decisions of the City." Recognizing the charter's intent, the Honolulu general plan adopted in 1977 urged participation and assistance of members of Neighborhood Boards and Oahu's many community associations in preparation of Oahu's development plans. Also, in 1978 the City Council amended the zoning code to mandate Department of Land Utilization's referral of all applications requiring discretionary review by the department to affected Neighborhood Boards for comments and recommendations before the department prepares its report on such applications.

The experience gained in preparation of DPs and processing of the zoning and shoreline management permits within the past few years points to two major deficiencies in the process:

1—The Neighborhood Boards, even if enthusiastic and willing to participate, do not have the time and technical resources to review and comment on all issues and applications.

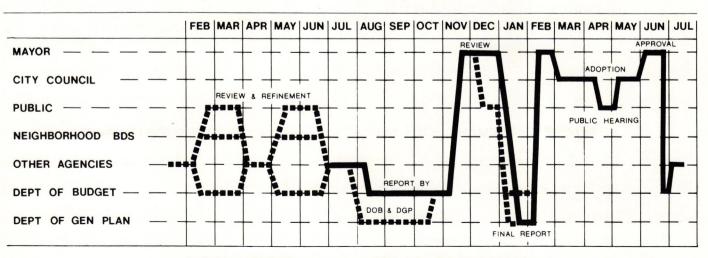
2—As long as the citizens are not involved in the entire growth management system, including planning, budgeting and zoning, their comments and recommendations may be unrealistic.

The intent of the 1973 revised charter of the city on "effective citizen participation in the decisions of the City" has not been pursued on budgetary and fiscal decisions. The procedure for drafting and reviewing the City's annual CIP is conducted in the same manner as it has been in the years before 1973. The only time the citizens are formally given the opportunity to comment on the city budget is at the City Council's public hearing, usually held in April or May of every year. Even then, there is not adequate time for the citizens to comprehend the program and its implications, and prepare their testimonies for the council's consideration before the end of May.

To coordinate the CIP with the DPs annual amendment process, the first step would be to change the CIP preparation cycle from one year to 18 months, starting in January of every year for adoption 18 months later in June. The added six months would be devoted to involving citizens and agencies in the preliminary review and refining of the program before the formal request is prepared by agencies.

The second step for improving the process would be to change the format of the CIP report from a technical document to a publication that is easily understood by the public, preferably one report for each DP area with maps and references to the DP.

Finally, the CIP report must be co-authored by the Department of General Planning and Department of Budget to assure its relevance to the implementation of DP objectives.



EXISTING AND PROPOSED CAPITAL IMPROVEMENT PROGRAM PROCESS



where the focus

is on your needs...

Reproduction leader in efficient innovations using most sophisticated printers, cameras and darkroom procedures available.

Advanced high speed printing machines used for blue prints, direct prints and photostats.

Complete Xerox work services provided in most branches with latest electrostatic copying equipment available today.

Experienced and well-trained personnel, skilled reproduction technicians able to meet your demanding requirements.



REPRODRAFTING ENGINEERING AND ARCHITECTURE

Reprodrafting should be considered before any new drafting is begun. It's as simple as asking: "Does this drawing, or any portion of it, already exist?" If it does, don't draw it over again.

Has the original that you want to work with or that you want to file been damaged or deteriorated? Your reproduction specialist can restore it to top condition.

Will any portions of a new drawing duplicate portions of existing drawings? If so, you can probably save time, effort and money by the use of scissors drafting or paste-up drafting. A photographic view can be used in a new drawing in place of a redrawn view.

Can reproductions of a basic layout drawing be parcelled out to several draftsmen for addition of details on overlays?

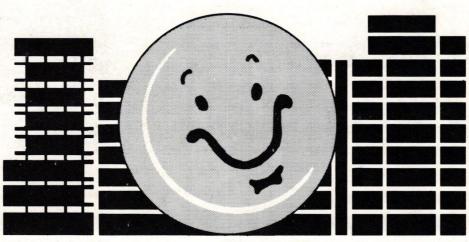
To get the most benefit from reprodrafting you must know the options open to you. Discuss reprodrafting projects with your reproduction specialist at an early stage. He may be able to make time- or money-saving suggestions In order to take full advantage of reprodrafting techniques you should be aware of the capabilities of the reproduction processes.



875 WAIMANU, SUITE 618 HONOLULU, HAWAII 96813 (808) 531-6456

09265 2 6 HAA

NEW JERSEY SOCIETY OF ARCHITECT 1000 ROUTE 9 WOODBRIDGE, NJ 07095



Happiness is immediate elevator service that's both reliable and affordable.

Elevators that are activated by hundreds of hands every day, perhaps every hour, need expert professional **preventive maintenance** service. And, as a user, you want fast **emergency** service whenever you need it.

Amelco Elevator maintenance service includes all of this, and also helps to balance your **operating** budget. Nowadays, that's a very happy thought. Call for a comparison estimate with what you are paying now.

Ready for that Happy Number? It's 845-3291.

