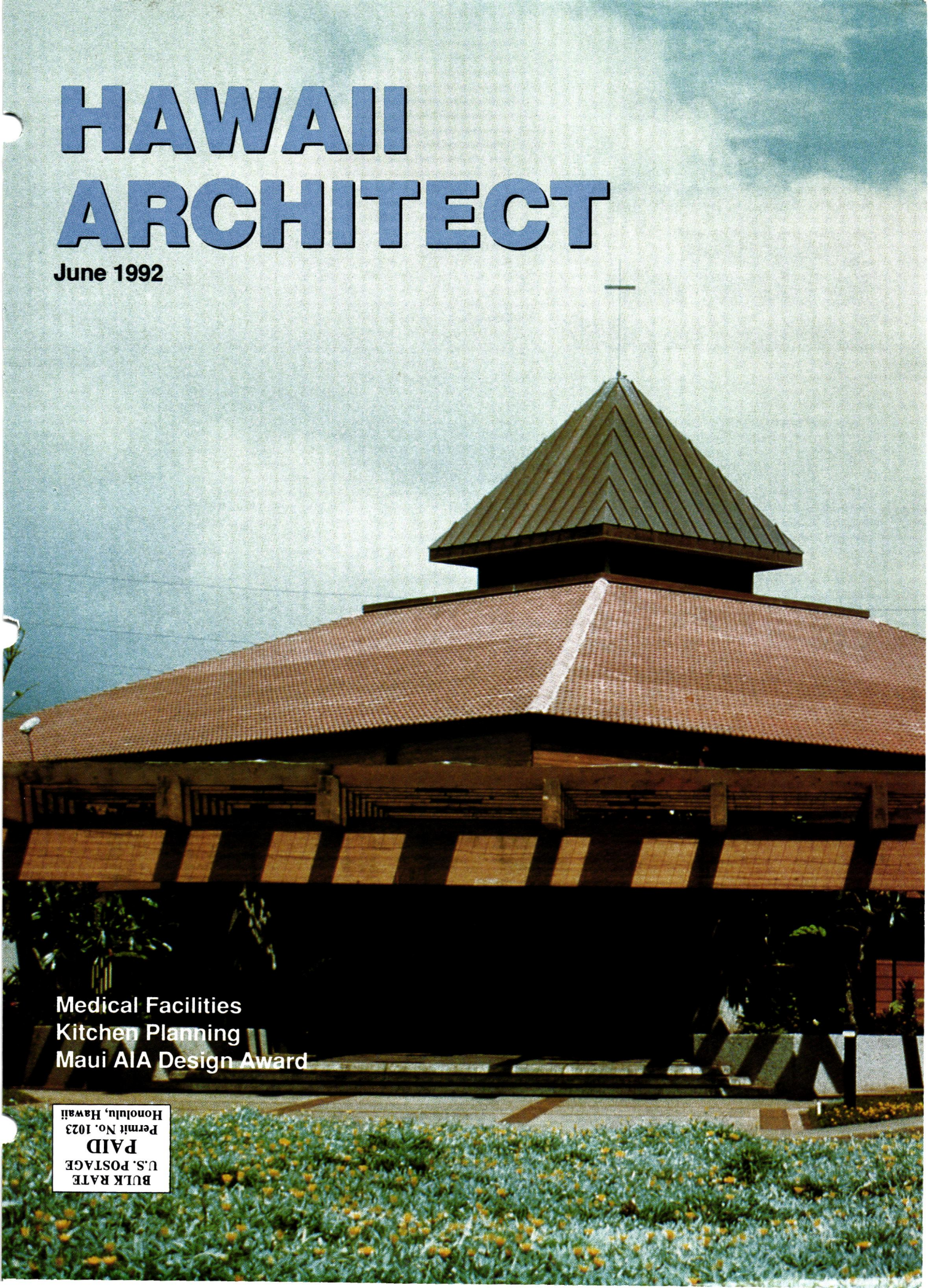
HAWAII ARCHITECT

June 1992



Medical Facilities
Kitchen Planning
Maui AIA Design Award

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Construction challenges included creating a Grand Gallery via basement-to-ceiling reconfiguration, bisected by a bridge suspended from two smaller galleries; rebuilding the roof to conform to its original missionary style; matching detailed wood flooring, ceilings and wall panels; and carefully eradicating termite damage.

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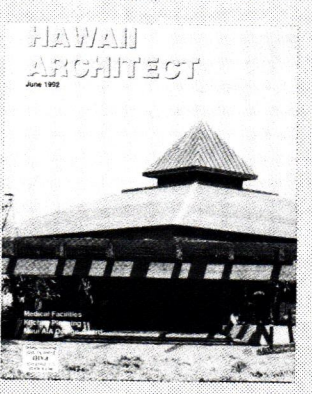

The St. Anthony Church in Wailuku earned Riecke Sunnland Kono Architects, Ltd. a 1991 Maui AIA Design Award of Excellence.

Specialization and geographical dispersion are trends that have shaped Hawaii's architectural community. A generation ago, Hawaii had only a handful of architectural firms concentrated in Honolulu. Today there are many firms seeded on all major islands of the state.

Specialization in project types has become common as today's clients demand higher levels of experience. These firms usually compete in only few selected types of projects. The new Pediatric Intensive Care Unit at Kapiolani Medical Center, designed by Architects Hawaii, demonstrates strong expertise in the design of medical facilities.

Chuck Ehrhorn, AIA, is involved in many aspects of health care facilities on Oahu, serving as president of the board of directors of the Kahuku Hospital on Oahu's North Shore. He shares his experiences and viewpoints in this issue. An interview with Patrick Boland, chief of the regulatory branch of the State Health Planning and Development Agency explains the criteria and process used when issuing a Certificate of Need.

Looking at the medical facility project from a different point of view, contractor Mel Izumi sheds some new light. And the proposed Kalihi-Palama Health Clinic represents a most basic type of medical facility.

Geographical dispersion of Hawaii's architectural firms is well illustrated by the 1991 Maui Chapter/AIA Design Awards that have appeared in recent issues. Architects now work and live across this state, creating real benefits in that professional career opportunities are widely available and architects can serve as a resource for local community issues.

Everything about Restaurant Row exudes pizazz—whimsical design and ultra-mod ambiance to the shops and restaurants housed there. To complete the look of sophisticated fun, multi-colored porcelain tile is used throughout the walk areas. This 6″ × 6″ Paddy Stone is ideal for outdoor use since it's non-skid and non-absorbent. Indoors or out, row on Row, our tile is functional art.

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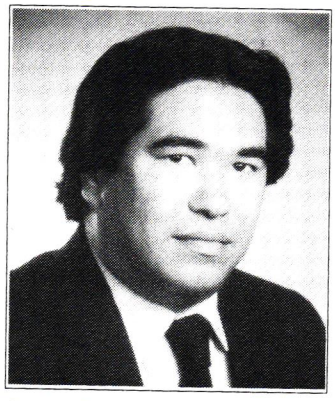
Preparing for 1993

by Kurt Mitchell, AIA
Vice President/President-elect,
AIA Honolulu



Kurt Mitchell

I can't believe it's June. Before I consented to take on this position, I wanted to know what it entailed. After asking several past presidents their thoughts, I decided to talk to the most current president-elect, Rob Hale, this year's Honolulu AIA president. He told me that the first six months will be spent getting used to the position. The next six months will be spent getting ready for the next year.

So, what has the Honolulu AIA been doing this year? We based our budget on minimal growth. Well, that didn't go as planned as there's been about a 20 percent increase. We will surpass the 1,000-member mark. Close behind Seattle, Honolulu is the second largest chapter in the region.

Most of you know that our committees have been hard at work. As an organization, our concerns have received attention. Media organizations have offered the AIA an opportunity to present and discuss a wide range of issues.

Housing and energy are continuing to be pursued with vigor. There is interest by governmental agencies on our perspective on affordable housing and our housing policy. Along with AIA Maui, the Hawaii Island Section and the State Council, we are making housing a statewide issue. All the components working with various government agencies show how we as an organization can help.

A very important aspect within the Honolulu AIA is the Energy Grant with the state DBED. Several of our members currently, and in the past, have put in a lot of hard work to obtain and keep this grant. All this valuable time is volunteered. We have already seen the great work that has been done and the intensity level continues. Soon we'll be able to "strut our stuff." The Honolulu AIA Design Awards will show off the best of our membership. The Awards Committee has been working to make this year's program even better than last year's.

Similar to last year, piggybacking the awards ceremony will be a TV program about the awards. Our Publicity Committee works hard all year on events such as this.

There are other committees who are working equally as hard within the organization. With just over 10 percent of our membership participating, it takes a lot of effort and time in putting together the program.

Past presidents have laid a good foundation for our future. I see no reason to change. Consistency, hard work and participation lead to a great organization. So, I urge all of you to get involved. In the end, this makes for a better profession and a better AIA. **HA**

MICHAEL FRENCH PHOTOGRAPHY

The rainbow of colors in Kapiolani's new Pediatric Intensive Care Unit creates a subtle mood. The units are supplied with the latest medical equipment and bedside electrical outlets that are color-coded for different machines.

MICHAEL FRENCH PHOTOGRAPHY

The nurses' station, centrally located, provides maximum visibility of the 12 bed alcoves and two isolation rooms.

Intensive Care Unit for Keikis

by Walter H. Muraoka, AIA

Parents who bring their critically ill children to a medical facility care about nothing other than the well-being of their children. However, the atmosphere of the facility can be important to that well-being. The design of the facility can be comforting and thus reassuring to children and their parents.

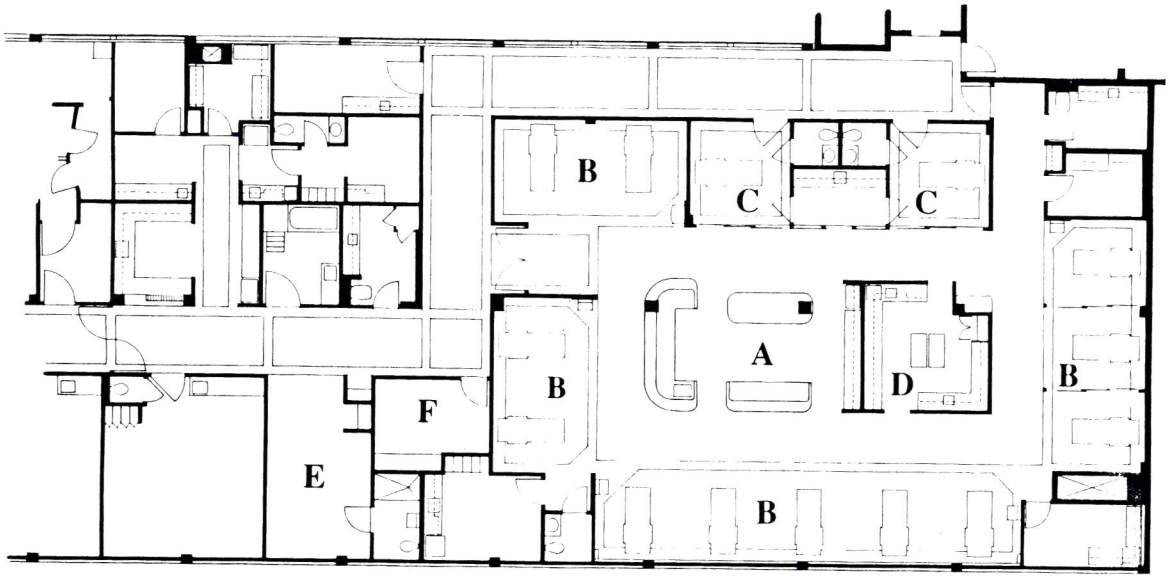
The new Pediatric Intensive Care Unit (PICU) at Kapiolani Medical Center represents the response of Architects Hawaii to this design challenge. At 7,000 square feet, it is twice the size of the former facility, and provides for maximum visibility of patients with the nurses' station centrally located. Twelve of the bed alcoves are in an open-ward configuration, allowing for easy access and visibility. Two isolation rooms are provided to separate and protect children with contagious diseases.

A rainbow of color is incorporated in the interior design. The colors of the cubicle curtains, window blinds, wall covering, countertops and floors create a subtle mood spectrum. Lighting has been carefully designed to provide needed illumination without an institutional look.

The new PICU also features up-to-date equipment for the treatment of critically ill children, such as physiological monitoring equipment and respiratory equipment.

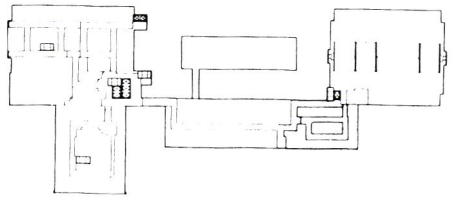
"From design to planning to construction, Architects Hawaii has created an excellent facility" says Walter Behn, the Kapiolani Medical Center CEO. "We have a very high expectation of our architects, and that expectation was met."

John Schleif, the senior vice president, concurs. "I've never seen a unit come out like this. This does not feel like intensive care to me." Schleif supervised all phases of the project for Kapiolani with an eye toward the need to provide for everyone who uses the facility. "The new unit was designed with



Pediatric Intensive Care Unit (PICU) Floor Plan

A Nurse Station
B Patient Room
C Isolation Room
D Medication
E Family Waiting
F Family Counseling



A central nurses' station allows visual access to all the little patients at Kapiolani Medical Center's new Pediatric Intensive Care Unit.

the well-being of the families, the children and the care-givers in mind. I think the architects and the contractors developed a really good feeling of what it takes to create an environment that's as positive as it can be."

Fourteen children at a time can be treated in the PICU. "We see the worst of everything" says Dr. Byron Aoki, the PICU's medical director. Patients are treated for lung problems, brain injuries and illnesses, motor vehicle accidents, near-drownings, burns and falls.

Aoki emphasizes the way the design team from Architects Hawaii addressed the specific needs of pediatric intensive care. He's particularly enthusiastic about the open-unit concept. "The structure had to be designed in such a way that the nurses and physicians could see the kids and reach them very easily. Often, we need two or three people working together to perform a procedure and the open-unit concept allows us to do that very easily."

"I think the architects and the contractors developed a really good feeling of what it takes to create an environment that's as positive as it can be."

The common denominator for all? The patients, and the parents, are scared. It becomes the architect's function to create a design that is cheering without being frivolous — where the accent is placed on the competence and efficiency of men and women doing a vital job, and on children and their parents making the best of a difficult situation.

Aoki says the quality of care available to critically ill children has advanced dramatically in recent years. He's confident Kapiolani's PICU represents the most advanced facilities in critical care for children, and is very much aware of the way the facility's design complements his work and that of his staff.

The design also is tailored to the needs of the medical personnel in attendance. The new design helps the medical personnel perform their tasks efficiently but in a cheerful environment. Bedside electrical outlets are color-coded for different machines. Monitoring equipment that measures vital life signs is visible at a glance.

The facility also includes family waiting rooms, with adjoining bathroom and shower facilities, and special rooms for consultations between care-givers and parents.

The new design also successfully responds to new program requirements, including improved efficiency and the need for pleasant surroundings and a caring environment.

Kapiolani's new Pediatric Intensive Care Unit was dedicated on April 21. In addition to the work completed by Architects Hawaii, Daniel Design, Benjamin S. Notkin, Constructors Hawaii and Syntech Limited made contributions to the new unit. According to senior associate Arturo M. Lucio, AIA, the project architect/designer, "Architects Hawaii is proud of the part we played in creating an environment suited to the demanding and difficult work of saving children's lives." **HA**

Walter H. Muraoka, AIA, is a principal at Architects Hawaii specializing in health care Muraoka, who has over 20 years of experience is a member of the Hawaii Council AIA and serves on the committee on Architecture of Health, the America Association of Hospital Planning, the American Hospital Association and the Hawaii Long Term Care Association.

DAVID FRANZEN PHOTO

As a means of providing increased services to the island-wide community, the Bobby Benson Center at Kahuku Hospital, designed by Spencer Mason Architects, opened in late 1990.

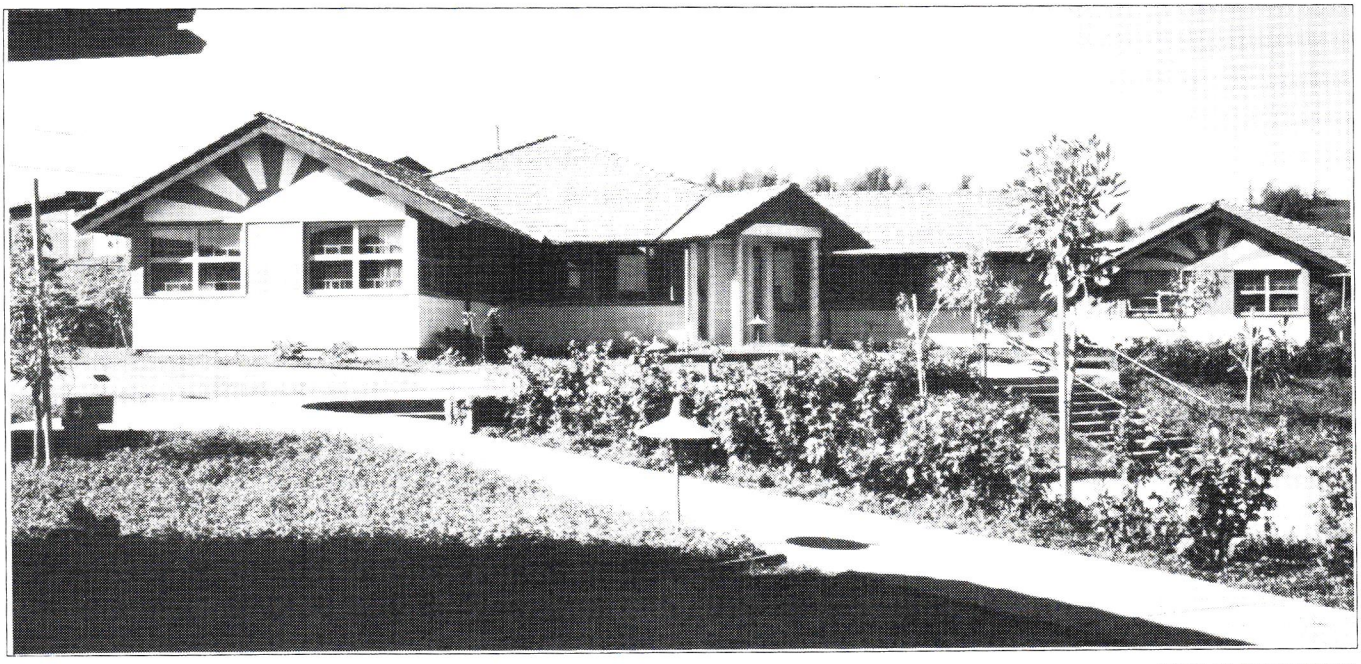
Caring for Oahu's North Shore

by Chuck Ehrhorn, AIA

As president of the board of directors of the Kahuku Community Hospital, I have had the opportunity to become actively involved in the affairs of an important North Shore organization. My participation on the Kahuku Hospital Foundation Board, and very active participation on the Hospital Board, comes at a time when both the hospital and communities are realizing that hospitals must provide an attractive and physical environment as a means of supporting the medical mission. Toward this end, we are beginning a program to develop a new lobby, landscaping improvements, painting and interior renovations, all intended to ease the hospital experience for the community residents it serves.

Being a community-based hospital relying on volunteer support, many of these improvements are not moving as fast as some would like. However, we fully expect that within the next couple of years, we will have a new face for Kahuku Hospital.

The communities served by Kahuku Hospital lie along the 35-mile coast between Waialua and Kaaawa. The population of this large physical area is about 18,000. The lifestyle is rural/commuter, with farming, fishing, golf and ocean sports as the main things to do. Perhaps more artists live here (per capita) than in any area of comparable size in the state,



DAVID FRANZEN PHOTO

The Bobby Benson Center, managed by Castle Hospital, is a residential treatment center for young adults experiencing drug problems. The design reflects a transition between surrounding residential and institutional land use.

drawn by the sublime beauty of Koolauloa and the North Shore.

This part of Oahu is about an hour's drive from town when traffic is lightest. If you don't drive, the bus takes you there in about an hour and a half. Fortunately for the residents out here, the Kahuku Hospital provides primary care and 24-hour emergency services.

A first aid station on the old A&B Sugar Plantation was probably the earliest western health care establishment in Koolauloa. Eventually, in 1928, the company established a dispensary for its plantation and sugar mill employees. Over the years, dispensary services grew, and the population of the area increased as well. By 1949, the small clinic was serving as many outsiders as plantation people, and A&B decided that the time had come to convert the dispensary into a community hospital.

The physical plant at that time, now known as the Plantation Wing, was turned over to the newly created Kahuku Hospital Association, organized by residents of Kahuku. From 1949, the Kahuku Hospital has been run by an active and interested community, which elects a 15-member board of directors.

The Kahuku Hospital Association was reorganized in 1987, becoming the Kahuku Foundation. The Foundation Board, elected by the general membership, selects the boards of Kahuku Hospital and Kahuku Hospital Service Corporation, which has the responsibility of developing profit-making ventures to support the hospital.

With 26 beds, Kahuku's is the smallest hospital on Oahu. It provides city and county ambulance facilities, and helicopter transport for critical transfers to larger urban hospitals. The hospital is used in a number of ways — simple surgeries, such as tonsillectomies and appendectomies; OB/GYN procedures; X-rays and mammographies; blood bank; laboratory; physical therapy; respiratory therapy; home health; and long-term skilled nursing care.

The plight of rural hospitals in the U.S. is a story that has been buried under the generally overwhelming national crisis in health care. Briefly, rural hospitals have serious problems. Between 1980 and 1990, about 280 rural hospitals closed down. Why? The major difficulties have been shortage of physicians, shortfalls in Medicare reimbursements, emphasis on inpatient services, health maintenance organizations and rising costs due to modern medical technology.

While sharing many of the nation's rural hospital problems, Kahuku Hospital has managed to survive the '80s, and is now gearing up with optimism for the 21st century. With over $44 million from its 1990–91 capital campaign, the hospital has started capital improvements aimed at upgrading health care services for North Shore/ Koolauloa residents.

Present facilities are in dire need of refurbishment. The initial dispensary, the Plantation Wing, is a long wood frame structure with a central hallway and rooms on either side. The 64-year-old plantation building is still in use. In 1956, the Rothwell Wing, actually three concrete block sections, was attached to the Plantation Wing to form a somewhat uneven cross. This addition more than doubled the size of the original hospital.

Surgery and obstetrics presently occupy the Rothwell Wing, and

other services such as ambulance, Ke Ola Mamo, and medical records are located in the Plantation Wing.

In 1976, the Campbell Wing was added, accommodating 21 acute medical/surgical and skilled nursing beds. Designed by Systems West Inc., the Campbell Wing is the predominant structure of the hospital. It also houses the lobby, emergency room, X-ray, laboratory and business offices, which were installed in 1982.

The next major capital project, expected to be completed this month, will be the Weinberg Birthing Center. The Birthing Center will feature facilities for labor, delivery, postpartum and recovery in a central location. A portion of the Rothwell Wing is being renovated for this purpose.

Over the next three years, capital improvements will focus on the Campbell Wing. Immediate plans are for a badly needed facelift of the lobby, and construction of an Ambulatory Services Center. The latter will house outpatient services such as an orthopedic clinic, ear-nose-throat surgery, urology clinic, gastroenterology clinic, cardiology and other clinics.

Kahuku Hospital's new emphasis on outpatient services responds to the increasing demand for surgical procedures that can be done on an outpatient basis, such as arthroscopy, biopsies, cataract removal, ligament repair and various types of plastic surgery. Health economists predict that within the next 10 years, over 70 percent of all health care services will be performed on an ambulatory or outpatient basis.

Development of the hospital campus is another opportunity to ensure longevity. Situated on 30 acres of Campbell Estate land, the hospital has incorporated a variety of health and social service organizations on its grounds — Ke Ola Mamo, the Oahu agency implementing the Native Hawaiian Health Care Act of 1988; Kupulani, the Kamehameha Schools program for pre-kindergarten children; and the North Shore Health Center.

While the future looks promising, Kahuku Hospital is under a constant challenge to find new sources of funding. The hospital's accounting firm noted that other hospitals are trying to find their way through the health care crisis by developing non-patient revenue. For example, one hospital on the mainland bought a supermarket.

But, before Kahuku goes into the business of selling shoes, it is hoped that survival and growth will come from a renewed and strengthened relationship with the Koolauloa/North Shore communities. **HA**

Chuck Ehrhorn, AIA, is the planning coordinator for the Estate of James Campbell and past officer and board member of the Hawaii Society/AIA.

A Contractor's Point of View ...

by Mel Izumi

Constructing and improving medical facilities is one of the most critical arenas within which anyone in the building industry will ever labor.

After more than a dozen years in hospital work, executing contracts ranging in size from $20,000 to $3 million, we believe one can never be *too* well prepared. The variables are so many, virtually every assumption bears scrutiny.

First, one must not forget that the delivery of institutional medicine can mean having to deal with *life and death* situations — essential, critical and adjunctive support services must be available at all times. Doctors and nurses have little, if any, latitude for error. And here, neither do we. It, thus, behooves designer and contractor alike to develop a working rapport with those who are among the hospital or clinic's primary care providers.

Many times it is the so-called "little simple stuff" that daily or dramatically affects staff performance — such as the depth of a surgical equipment drawer or its particular placement in an operating room.

On the other hand, today's medical technology — the "big complicated stuff" — is equally tricky. Systems for magnetic resonance imaging, computerized axial tomography ("cat scans"), neonatal monitoring, to name a few, require us to expand our

AUGIE SALBOSA PHOTO

The Kaiser Hawaii Kai Clinic, located in the Kuapa Kai Shopping Center, was constructed in 112 days. Allied Builders did all the interior construction working under stringent deadlines.

working knowledge of medical delivery. The contractor who is also an engineer has an advantage here, but will admit, if he's honest, that one can never know enough!

When we take on a hospital or clinic job, whether it's a new facility or one to be expanded and/or improved, we in effect build that project *three* times: first, on paper for the purposes of the bid or negotiation; second, in our conference room for development of the critical path schedule; and

AUGIE SALBOSA PHOTO

Allied Builders performed interior renovation work at the Kaiser Windward Clinic, which included the addition of a porte cochere and conference room.

third, in the field for real. This rehearsal or visualization process enables us to be cost efficient and optimally coordinated. It also eliminates budget-breaking delays, and means fewer "surprises" occur on site, because we have a high degree of control over tasks and activities.

Over the years, we have found that medical projects go better if the architect, engineers, contractor, subs and technical suppliers understand and support the evolving effort. This team methodology means meeting often and communicating fully with each other. Then when problems do occur — and invariably some difficulty arises — solutions emerge quickly and creatively. Further, contributors in this consensual process learn to take the "what if?" position rather than the "what now?" — meaning, they pro-act to on-site obstacles, sometimes preventing them from occurring altogether.

We believe that the "craftsman" contractor is somewhat limited in today's complex commercial construction jobs. The successful tradesmen of the '90s, however, are competent and confident in many related endeavors. They welcome the opportunity to work with people in many disciplines. They're better educated, more inquiring. They're part engineer, part communicator, part student (learning overviews of various client and architectural specialties), even part magician — about timely material procurement, staff scheduling, value engineering, problem-resolution and budget protection.

Construction of medical facilities, although complex and challenging, offers tremendous satisfaction when completed, especially when you envision the lifesaving aid and comfort the facility will provide. **HA**

Mel Izumi is the executive vice president of Allied Builders System.

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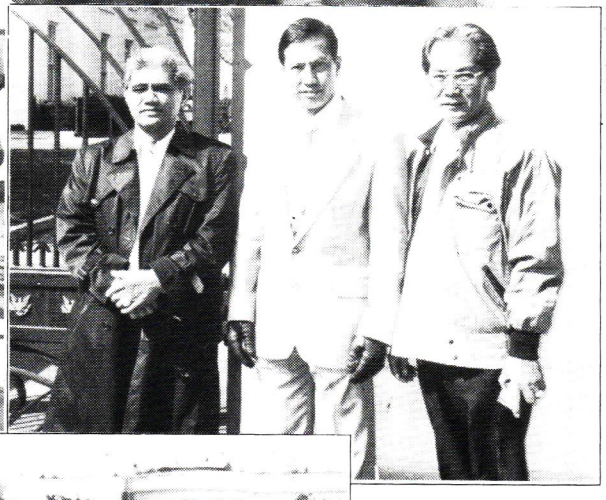

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CON Ensures Quality, Affordability

by Joni Ketter

New long-term health care programs are needed on Oahu. An existing physician's office wishes to add additional services. A health care facility on a neighbor island desires to purchase additional equipment and add beds.

Before any of these scenarios can come to fruition, the State Health Planning and Development Agency (SHPDA) must approve a certificate of need (CON) application.

The CON program is one way to ensure that every person has accessible quality health care services available at reasonable cost. The cost containment issue was first emphasized in the early '70s throughout the country when it became apparent that duplicated health care facilities and services were underutilized and partially responsible for the increase in health care costs. Some areas, however, were still without any type of adequate health care services. The CON program prevents duplication of unnecessary services and facilities and encourages the development of these same facilities and services where they are needed.

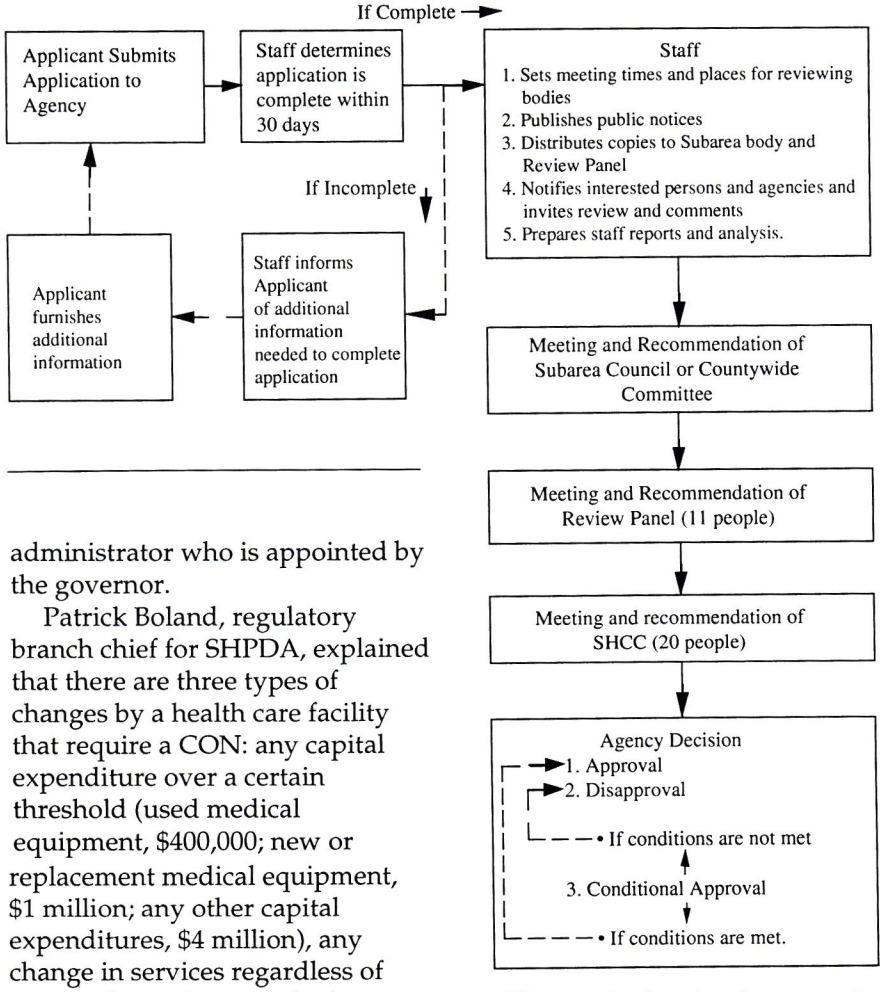
Hawaii's first CON program went into effect in 1973. Since that time, there have been many changes in structure, laws and authorities. Currently, SHPDA has the authority to approve or disapprove any proposed change by a health facility which requires a CON. The agency is attached to the state Department of Health for administrative purposes but is managed independently by an administrator who is appointed by the governor.

Patrick Boland, regulatory branch chief for SHPDA, explained that there are three types of changes by a health care facility that require a CON: any capital expenditure over a certain threshold (used medical equipment, $400,000; new or replacement medical equipment, $1 million; any other capital expenditures, $4 million), any change in services regardless of cost, and any change in beds regardless of cost and regardless of the number of beds involved.

Oftentimes a medical provider will contact SHPDA to discuss a preliminary finding of need. If SHPDA advises the applicant there is definitely no need, the CON would probably not be issued. If SHPDA says there may be a need, the provider can continue the process, the first step of which is filing an application with the agency.

There are three types of applications, Boland said. The emergency application is used only in situations involving an

Standard CON Review Process



The standard review is reserved for major projects with the approval process taking 90 to 150 days.

actual or substantial injury to public health and, Boland said, is seldom used.

"The administrative review is used for projects that are smaller and not controversial," he explained. These could include service changes with total expenditures of $1 million or less, for example.

The administrative review goes through a shorter, less complicated review process, he added.

The standard review is reserved for major projects, Boland said.

The process for each review begins the same way. An applicant has 30 days to complete the application. "A public information meeting is held to inform the public and give them a chance to voice an opinion," Boland said. After the meeting, the agency makes a decision in an administrative review. In a standard review process, reviewing bodies at the subarea level meet and make a recommendation as does a state review panel and the Statewide Health Coordinating Council (SHCC). After these meetings take place, the agency makes its final decision.

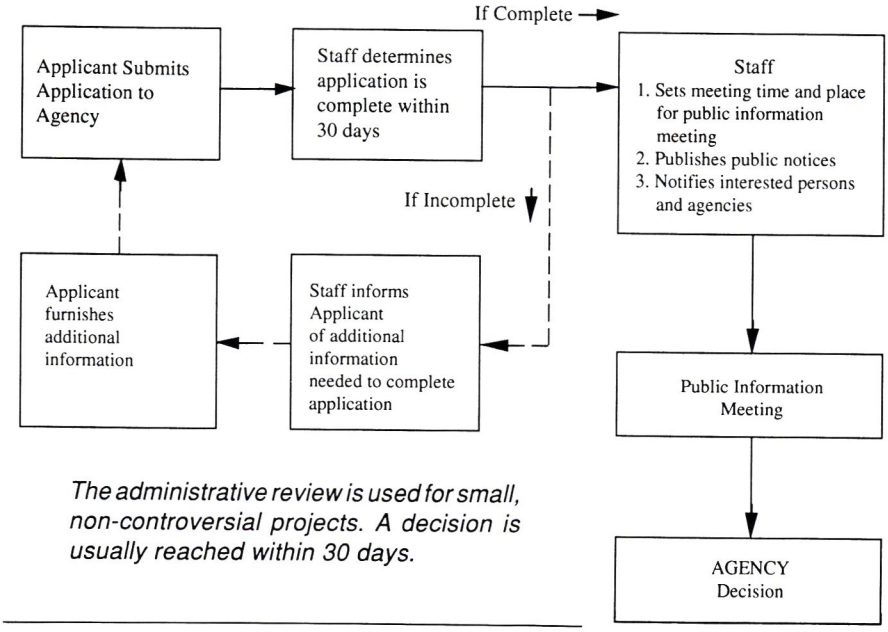
An administrative review usually takes about 30 days to complete, Boland said. A standard review can take 90 to 150 days, depending on the complexity of the request.

Law-mandated criteria are used in determining whether a CON will be issued or denied. In a nutshell, these criteria are: need and accessibility, cost and financial impact, quality of health care services provided, relationship of the proposal to the state health services and facilities plan and annual implementation plan, relationship of the proposal to the existing health care plan, and the availability of resources.

Boland says Hawaii is one of 39 states which currently utilizes some sort of CON program. "I think it's a good system," he said.

HA

Administrative CON Review Process



The administrative review is used for small, non-controversial projects. A decision is usually reached within 30 days.

MAUI CHAPTER/AIA 1991 DESIGN AWARDS

Award of Excellence

Riecke Sunnland Kono Architects, Ltd.
St. Anthony Church

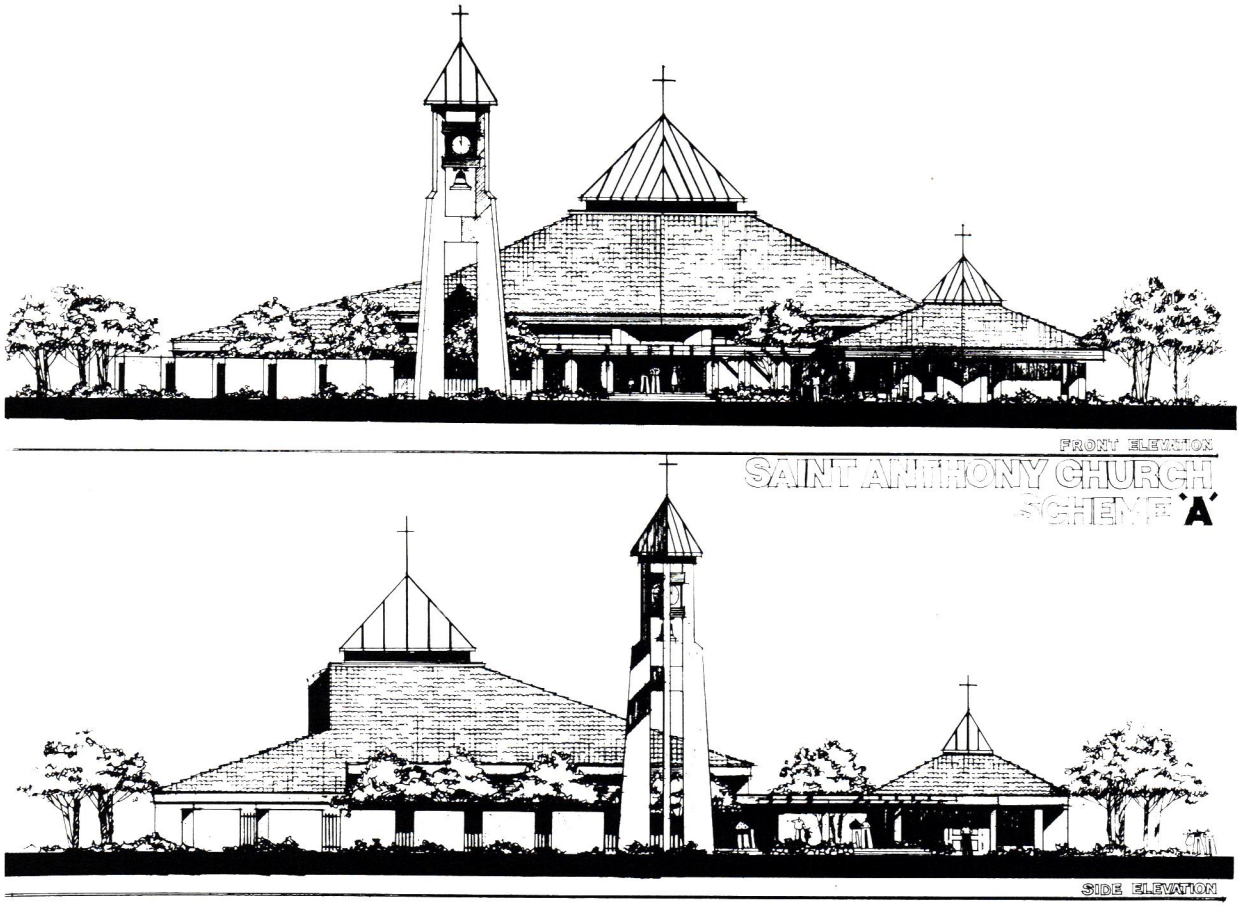
After the original St. Anthony Church in Wailuku burned down in 1977 in a fire set by an arsonist, it was determined that the remaining structure was unsafe and that an entirely new church had to be built.

The design called for a main church with a 500-seat narthex and an additional 200-person overflow area (standing room) in the back. The church was to be used by the St. Anthony School as an assembly hall and was also to be offered to the community for chamber music and choir performances. The altar area had to be made large enough to accommodate these various functions.

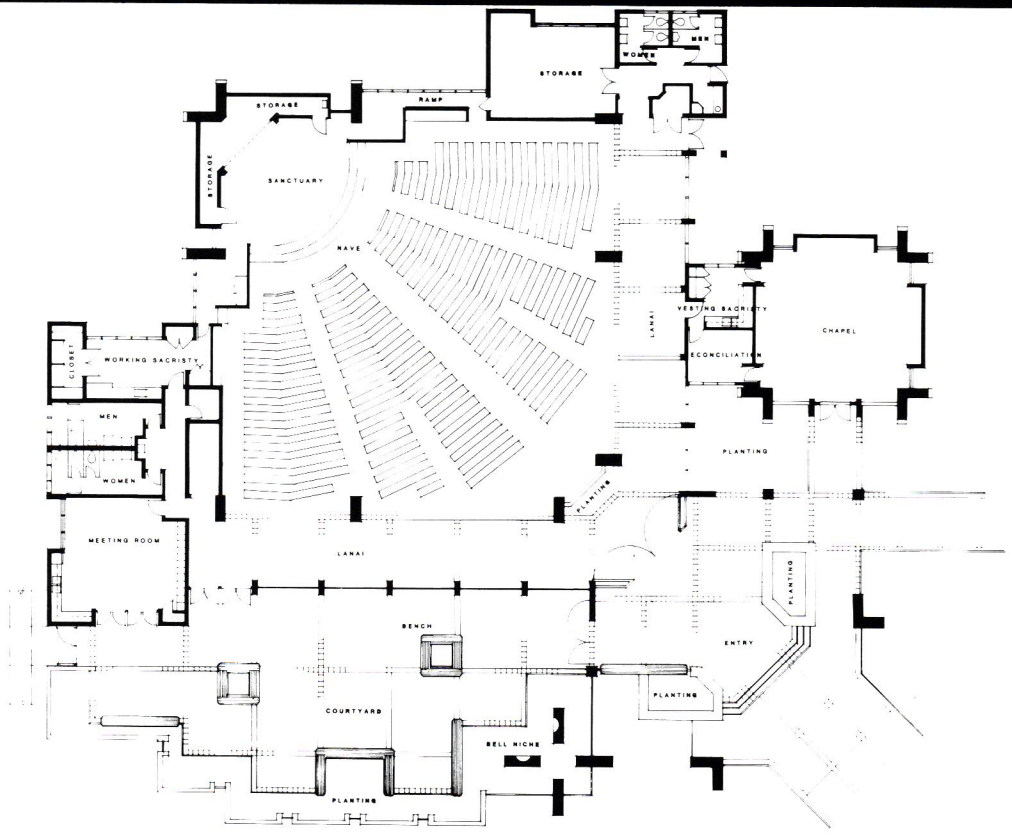
Good acoustics were important as was good natural ventilation. A garden area was to be provided adjacent to the church for weddings and other functions. A smaller chapel for about 50 people was to be designed for daily services and other church services for which a more intimate space was more appropriate. The initial construction budget was $1 million.

The total building area of the church and chapel is approximately 13, 209 square feet and the complex was built by Yamamoto Contractors in 1979 for $1.2 million. A large bell tower was designed but not built due to budget limitations. The owner of the church is the Roman Catholic Diocese of Hawaii.

The main church has a 500-seat narthex which also is used as an assembly hall for the St. Anthony School.



The original design called for a bell tower which was not built due to budget limitations.



FLOOR PLAN

In addition to the main church, the plan provided for a smaller chapel for more intimate occasions.

Neighborhood Clinic Welcomes Patients

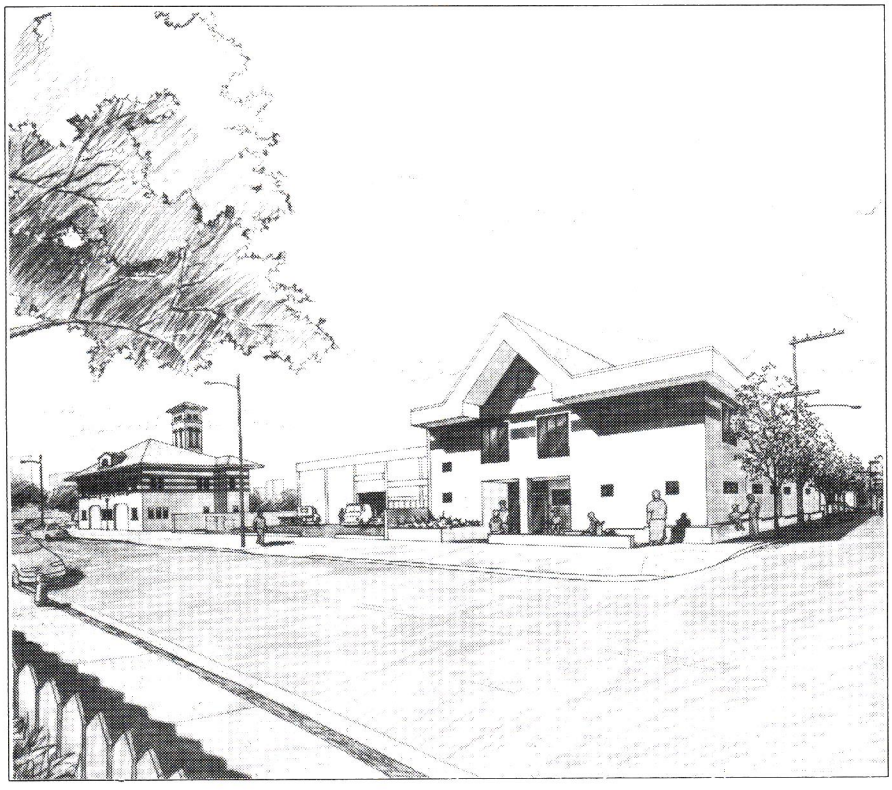
by David B.N. Kaahaaina Jr., AIA

The Kalihi-Palama Health Clinic opened its doors in 1975 with the mission "To deliver health services to the residents of the Kalihi-Palama area and others who would not otherwise receive care..." Dubbed Hale Ho'ola Hou (house of new life), the clinic has, for 16 years, dealt with the challenge of providing quality low-cost health care.

Founded by the United Church of Christ's Kaumakapili Church, the clinic is nestled in and around the church's King Street sanctuary. With patient visits growing from 1,600 in its first year to over 30,000 last year, the clinic had gradually outgrown its 3,000 square feet.

Patients today may choose from optometry, dental, family planning and women and infant care (WIC) programs, as well as the original general medical services. Due to the multi-ethnic demographics of its immediate community, the clinic has become a source of primary health care for many immigrants. By providing low-cost health services, it has also met health needs of many low-income, uninsured patients.

In 1986, the clinic's board of directors recognized the area limitations of the clinic and began to explore options to enlarge the clinic, either through renovation or relocation. At that time, the firm of Kauahikaua & Chun/Architects was approached by board of directors president David Trask Jr. to assist in this endeavor. The architects met with clinic's administrator Beth Giesting and her staff to research the clinic's functions, and through this investigation, the clinic's physical needs were derived. Following this, schemes for on-site renovations were proposed to meet those needs. However, by 1987, the clinic's administration and board of directors began to actively pursue off-site possibilities, having exhausted other on-site options.



This rendering of the new Kalihi-Palama health clinic, drawn by Mark Uesato, shows the structure's gabled roof and refurbished exterior.

By the end of the '80s, no site had been acquired. However, 1990 brought with it a solution.

Through pledges from the Weinberg Foundation, The Kellogg Foundation's "Keola O Hawaii" project at the University of Hawaii-Manoa's Medical School, and various other major contributors, a building was purchased. Previously occupied by "A to Z Rental," this Palama neighbor, at 915 N. King St., (a block away from the Kaunakapili site) provided the clinic with the possibility of a three-fold increase in area, a location within close proximity to its former home, and most importantly, the ability to keep pace with its rapidly increasing number of patients.

The facility is designed to accommodate in its 8,000 square feet of area, all current clinic services. To be named after Harry and Jeanette Weinberg, the Kalihi-Palama health clinic facility will contain in its two stories improved and modern dental, medical and optometry departments, increased administrative and staff areas, the WIC prenatal program, improved laboratory and technical support and substantial areas dedicated to the clinic's new U.H. medical school education and intern program.

During the course of the research with the clinic's staff, the architects were struck by the sense of nostalgia and camaraderie the clinic's current challenging environment had engendered in its

employees. Although the new facility obviously needs to meet or exceed modern community clinic standards, there was a distinct intent to provide a new clinic which was for the staff and patients, at once new yet familiar; open, yet controlled; efficient, yet personal; above all, the need to provide the patients with a friendly, comforting environment. The staff agreed that the new clinic should still feel as if it belonged to the community and that it should be welcoming at the time when the patients might feel most vulnerable.

To satisfy these needs, the architects designed patient reception areas which are open and airy and naturally well-lit. The second story waiting room will feature a vaulted ceiling recalling the clinic's familiar Kaumakapili sanctuary home. Partitions and transformed doors also will be as open as possible. A large bay window will lend a sense of home. Interior finishes shall be rendered in familiar touches of wood-grained laminates, muted whites and warm-toned carpeting.

The exterior of the building will undergo a significant facelift. Perhaps no other structure exerts as much impact on the stylistically diverse area as the historic Palama Fire Station. Complementing the station's cordovan striping and territorial Spanish style, the clinic's facade will feature striping and coloration of its own, while its gabled roof, arched louvers and plaster finish will pay homage to the clinic's former Ecclesiastical surroundings at the Kaumakapili Church. To improve its Hikina Lane frontage, a generous sidewalk will slope downhill to the rear, shading the pedestrian neighborhood residents with leafy trees.

The Kalihi-Palama health clinic's "spirit of concern for all our patients regardless of language or culture, ethnicity or ability to pay for services" has always been its hallmark. Now with a facility meeting that spirit on the verge of reality, the question arises, "What next?" The clinic's staff and board of directors are already looking to the day when this facility will be obsolete. But in the spring of 1993, the new clinic will be open for business, some 17 years after its birth and the combined efforts of six years will become a reality. **HA**

David Kaahaaina Jr., AIA is a licensed architect with Kauahikaua & Chun/Architects and has been working on this clinic project for six years. A 1987 graduate of the University of Notre Dame, he has studied in Rome, Italy and is the current president of the Notre Dame Club of Hawaii.

Hawaii Architect Magazine Poll

Among the many goals which the newly formed *Hawaii Architect* Editorial Board will strive to achieve this year is greater participation among the AIA membership in the publication's activities. The Board is actively seeking input from members toward better serving the needs of the profession and community. Input in the form of articles, subject topics, ideas, photography, critiques, etc. is welcome.

Feel free to contact any Board member: Gregory Field, Nick Huddleston, Charlene Oka Wong, Andrew Yanoviak, Thomas Cannon/ Stan Gima (Maui), Fritz Harris-Glade (Hawaii Island), or chairman Dan Chun through the AIA Hawaii State Council office, 1128 Nuuanu Avenue, Honolulu 96817, telephone: (808) 545-4242 or via fax at: 537-1463 (Oahu) or 242-4675 (Maui).

Editorial topics through 1992 are:
August – Architecture Around the World •Roofing Concepts
September – Interiors/Space Planning •Applicance Update
October – Retail/commercial Development •Windows & Doors
November – Architectural Trends •Landscape Architecture •CAD Update
December – Remodeling •Reflections on 1992

The *Hawaii Architect* Editorial Board is requesting your assistance in completing this poll to determine topics and issues of importance to you. Please fax your completed poll to: 537-1463 (Oahu) or mail to: AIA Hawaii State Council, Hawaii Architect Magazine, 1128 Nuuanu Avenue, Honolulu, 96817 as soon as possible.

1. Please rank the importance of the publication's usefulness to you as a(n): (1=most useful; 5=least useful)
   _____ Information resource
   _____ Reference for technical information
   _____ Communicative value
   _____ Building products material resource
   _____ Pulse on current issues (professional and community)
   _____ Other

2. What categories of articles would you like to see as regular columns featured throughout the year?
   _____ Practice Management
   _____ Technology
   _____ Letters to the Editor
   _____ Government
   _____ Membership/People
   _____ Professional Development
   _____ Urban Design
   _____ Codes
   _____ Housing
   _____ Education
   _____ Energy
   _____ Environment
   _____ Historic Preservation
   Other _____

3. What would you like to see more of in terms of format (i.e. graphics, floor plans, photography)?
   _____

4. How would you like to get involved?
   _____ Contribute articles/photographs; liaison to other groups
   _____ As a member of a "contributing writer's group"
   _____ Work on collaborative efforts on particular issues of concern to the architectural profession and/or community
   Other _____

5. Comments:

Evolutionary Design Meets Changing Needs

For today's active families, the only constant is change. As a family grows and matures, a well-designed kitchen will adapt to its owner's changing needs and aesthetic tastes. Recently, a group of three mainland designers developed a flexible kitchen floor plan that can be developed into three distinctly different kitchen styles for three life stages: Southwestern styling for a family with small children; contemporary styling for a family with teens; and traditional styling for an empty-nester couple.

The 20-square-foot kitchen is organized into an L-shape work core, a multilevel island, a butler's pantry, a desk and a dining/social alcove. As a result the kitchen can accommodate several cooks and as the needs of the family change, the

Wall stenciling and colorful drapery add a sense of lushness to the traditional kitchen.

kitchen can be outfitted to perform different roles.

The most dramatic lifestyle adaptation occurs in the dining/social alcove. In the contemporary kitchen, this windowed alcove is furnished with cushy seating that invites teens to sprawl out while they talk over the day's events with the cook. Two occasional tables offer landings for after-school snacks and school books. The butler's pantry is turned into a telephone booth, giving teens their own space and freeing up kitchen space for Mom and Dad.

For the family with small children, a desk with a computer is placed in one corner of the kitchen. In addition, railings turn the alcove into a playpen for tots. The little ones can play safely while their parents prepare meals in the kitchen. Toys are conveniently stored on the bottom shelves of a tall Heritage cabinet. A child-high table provides a place to build toy skyscrapers or mold modeling clay. A lift mechanism allows the table to be raised to dining height. Stash the toys, raise the table, and the play area becomes a cozy dining corner.

Because empty-nesters don't always need to accommodate children, the alcove in the traditional kitchen is furnished as an elegant sitting area.

Because empty-nesters don't always need to accommodate children, the alcove in the traditional kitchen is furnished as an elegant sitting area. Beautiful fabrics flow across the windows and grace the cocktail table. Here, the resident couple can sip morning coffee while they read the newspaper. Or, guests can savor cocktails and hors d'oeuvres while their hosts prepare dinner. **HA**

The Southwestern butler's pantry is an ideal spot to store gardening tools and the family pet's food and water dishes.

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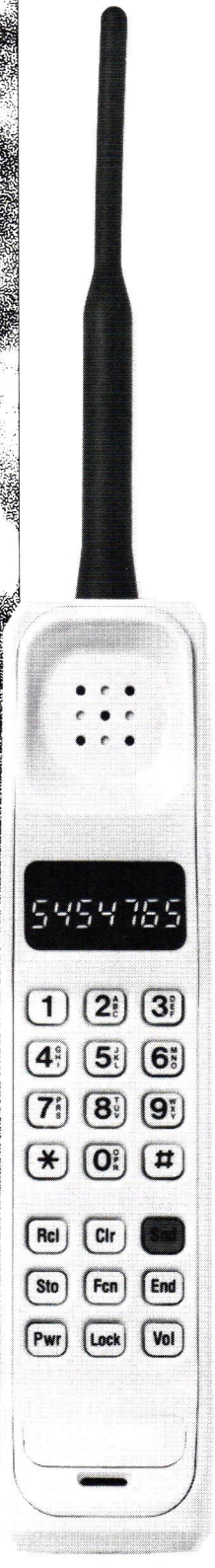

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Model Energy Code Proposal Clarified

by Maurice H. Kaya, P.E.

Dan Chun's article, "Impressions of a Model Energy Code" in the February 1992 issue of *Hawaii Architect* deserves some correction and amplification. Cliff Terry, AIA, answered some of the misconceptions in the March issue. I would like to elaborate.

Contrary to the article's premise, the Model Energy Code is not rigid, and terms like "banned outright" and "highly prescriptive" are inappropriate. The DBED organized numerous public meetings, presentations to county councils and discussions in the AIA Energy Committee, where our code consultant, Charles Eley, FAIA, provided the basis for the code. He clearly stated that the Model Energy Code can be satisfied by using either prescriptive criteria or performance criteria and that design flexibility is considered in its application.

Performance criteria can be used so that the building designer is afforded considerable freedom in design, so long as the resulting energy consumption is less than or equal to the case if the prescriptive formula is followed. The prescriptve criteria provide substantial design freedom. For instance, a roof can be of any color or configuration as long as it keeps the sun's heat from entering the building. That is, a dark-gray roof would require R-19 insulation, while a light-gray roof would comply using R-8 insulation or a radiant barrier.

Fenestration can be of any color or configuration, as long as it minimizes heat gain from the outside and/or maximizes daylighting in order to minimize artificial light. As an example, a commercial building with 30 percent glass area and five foot high windows could comply by using reflective glass and no overhangs or, alternatively, by using standard bronze tinted glazing shaded by three-foot overhangs. The water heating requirements are currently being revised to provide the same sort of

flexibility — a change instituted by the feedback we have obtained from comments received during the review of draft versions of the code.

The performance criteria provide even greater design freedom. On one level, simple trade-offs can be made between wall and fenestration characteristics as long as there is no impact on energy use. On a second level, trade-offs can be made for the entire building; for example, less insulation or more glass area could be used if HVAC or water heating efficiency exceeded the prescriptive criteria.

We would like to emphasize that DBED has made every reasonable effort to involve design professionals, the public and especially the architectural community in the review process. Public meetings were held in the month of September 1991, as were meetings for design professionals. Presentations, which were publicized and open to the public, were given to each of the county councils in November 1991.

The AIA-Hawaii Energy Committee reviewed the code several times at meetings open to the general AIA membership. The Model Energy Code Task Force, which provides periodic technical review of the code, includes two AIA-Hawaii members and a major architectural firm in Honolulu, which is on contract to AIA to assist with code review and implementation.

Further, DBED has developed the Model Energy Code for consideration by the counties, whose responsibilities include building code enforcement. There is no proposed legislation that would mandate adoption by the counties.

In summary, the proposed Model Energy Code offers the architect a performance-based approach which allows the professional design freedom, as long as the result is an energy-efficient building. This freedom includes opportunities to achieve efficiency in highly creative and innovative ways. We have involved AIA-Hawaii in the entire process of code creation, review and revision. We hope that all architects will take a closer look at the code, and see it as an opportunity to substantially reduce energy use in buildings rather than as an obstacle to design freedom. We maintain that energy saving investments to reduce life cycle building costs represent a prudent strategy for all design professionals. Our clients deserve no less. **HA**

Maurice H. Kaya, P.E., is the energy program administrator for the Energy Division of the Department of Business, Economic Development & Tourism.

Pressure-treated Wood in Hawaii

by Elmer E. Botsai, FAIA

Historically, CCA (a copper, chromium, arsenic compound commonly called "wolmanize") has been the mainstay of the wood pressure treating industry in Hawaii. When combined with other past conditions, it provided a tolerable level of protection against the termite. However, we are beginning to see results of the loss of "chlordane" as a soil treatment, coupled with the ever-increasing population of termites. It is obvious to many that these conditions will require a greater reliance on wood treatment for protection against termites.

More recently, ACZA (an anomical, copper, zinc, arsenic compound known as "Chemonite") was introduced to Hawaii and provides a higher level of performance in many conditions.

Most recently, a new wood treatment arrived in the state. It is a borate product called "Hi-Bor."

There is much confusion about these three pressure treatment products and what they will do, as well as how to get the best performance from each of them. Accordingly, I would like to offer my views and opinions on these three products.

1. All currently available soil treatments against the termite are generally useless over the long haul. They have a short life and constant re-treatment is required. That's not too difficult with suspended floors and a crawl space, but very difficult for concealed or slab on grade work. Except for remedial work, the cost effectiveness of soil treatments must be questioned.

2. CCA is a permanent material. Once placed in the wood it becomes chemically bound to the wood and is not basically affected by moisture, soil or longevity. CCA's basic problem is that current treatment procedures will not provide penetration into most construction grade heartwoods.

Unfortunately, Douglas Fir is mostly heartwood. CCA does a great job of penetrating sap wood and, therefore, provides generally excellent penetration into most of the pines. CCA's kill rate does not appear as good as ACZA and therefore the retention should be kept relatively high, .4#/cu.ft. or more.

On the good side, it's easily stained or painted.

Even with incising, I do not believe CCA should be used in Douglas Fir or other species of wood that have a high percentage of heartwood. In our pines or the Radiata, I would be quite comfortable with .4# retention or more, with an assay zone of 1/32" to 3/4" deep from the surface of the wood in 2x material or .6# retention or more, with an assay zone of 1/32" to 1" in 4x material. CCA is quite good in most plywood with a .4# retention. In plywood, the normal treatment process should achieve full depth penetration.

I do not believe AWPB LP-2 and LP-22 provide adequate protection for Hawaii's termite problem.

3. ACZA is also a permanent material. Again, once placed in the wood it becomes chemically bound to the wood and is not basically affected by moisture, soil or longevity. ACZA will give considerably better penetration in most construction grade heartwoods than CCA when properly done.

It provides good results in coast region Douglas Fir. It does not provide adequate penetration in inland region Douglas Fir. Naturally, it also provides excellent penetration in all sap woods.

ACZA has problems, too. For heartwood protection, the manufacturer requires incising, an often unsightly condition for exposed wood. It also has a rather splotchy dark green color that does not take light stains well. ACZA's kill rate appears quite high, much higher than CCA's. With adequate penetration .25#/cu.ft. retention should provide quite good protection against the termite. I am quite comfortable with ACZA in most construction grade wood in Hawaii with either .25# retention above grade or .4# retention any place, both with an assay zone of 1/32" to 3/4" in 2x material and 1/32" to

1" in 4x material. Also, no problem in plywood with normal treatment.

4. Hi-Bor, on the other hand, is not a permanent product. Hi-Bor does not bond to the wood but is dispersed though the presence of moisture in the wood. This unusual condition is both good and bad. On the good side is that the natural moisture in the wood causes the Hi-Bor to continue dispersing long after the treatment process is over so that depending on the moisture in the wood, one could get 100 percent penetration of the borate. On the bad side, when exposed to frequent rain, irrigation water or soil contact, the material's normal properties could, over time, reduce the retention level of the Hi-Bor to below that needed for adequate protection of the treated material.

Again on the good side, the penetration of our construction grade heartwood (except inland region Douglas Fir) is exceptional, by far superior to ether CCA or ACZA and requires no incising. It is clear and takes finishes very well. In my opinion it does require enough loading of material in the outer shell to accommodate dispersal and still maintain a good kill rate for termites. Accordingly, I recommend .3#/cu.ft. retention with an assay zone of 1/32" to 3/4" for 2x lumber and a .4# retention with an assay zone of 1/32" to 1" for 4x material.

With the growing risk of termite attack, our profession must become increasingly alert to performance options if we are to keep wood a viable material in Hawaii. **HA**

Correction

Deltev Wolske, president of HMK Stone Care Products wrote an article titled "Maintaining Exterior Masonry" for the March issue of *Hawaii Architect*. ABC Corporation is Hawaii's exclusive distributor of HMK Stone Care Products.

Elements Critical to Waikiki's Future

by Joni Ketter

This is the third in a five-part series explaining the Vision for Waikiki 2020 master planning program.

Even though the five consulting teams chosen to devise master plans for the Vision for Waikiki 2020 project worked independently and developed unique proposals, there were several common elements the teams agreed were essential for the future of Waikiki.

Increasing the amount of open space, bringing Hawaii back into Waikiki and earmarking Fort DeRussy for public use were among the ideas generated by each of the teams. This article will concentrate on areas the teams collectively felt are crucial to the success of Waikiki as a future resort destination.

Major Public Improvements

There were three specific public areas the teams felt should be improved: the Ala Wai Canal, Waikiki Beach and the Ala Wai Boat Harbor. Visions of the Ala Wai Canal were universal: improve the water quality and develop its banks with promenades and picnic areas. The teams also suggested that Waikiki could be linked to the rest of Honolulu with pedestrian and bicycle bridges over the canal.

Widening Waikiki Beach was a resounding proposal throughout every team's report. "If there's one thing that makes Waikiki special, it's the beach," said Kenneth Cobb, team leader of Johnson Johnson & Roy/Inc. Cobb's team, along with the other four, proposed widening the beach and incorporating a system of promenades for

strolling. "The hotels have crowded the beach and the scale is all wrong," Cobb continued. "We propose creating a promenade with groves of palms and other vegetation to create a foreground for these buildings."

Adam Krivatsy, AIA, principal of INTRA — International Tourism and Resort Advisors, agreed and also suggested opening up the beach to Kalakaua Avenue and constructing a pier into the ocean near the Outrigger Waikiki Hotel.

Although Robert Hart, team leader of Robert Lamb Hart/ Planners and Architects, agreed with the promenade idea at first, he later changed his mind. "One unique thing about Waikiki is the direct access from some hotels to the beach," he said. "That is extraordinary, almost a one-of-a-kind situation. I can't think of another place like that in an urban area. The promenade would destroy that unique feature of Waikiki."

All five teams agreed the Ala Wai Boat Harbor could be better utilized and should be reconfigured to obtain more boat slips and serve as a water taxi terminal. JJR also proposed it as a festival-type gathering place for entertainment and other public events.

Open Space

Increasing and controlling the open space in Waikiki is critical to the future of Waikiki. This was the message given by all five teams in various specific proposals.

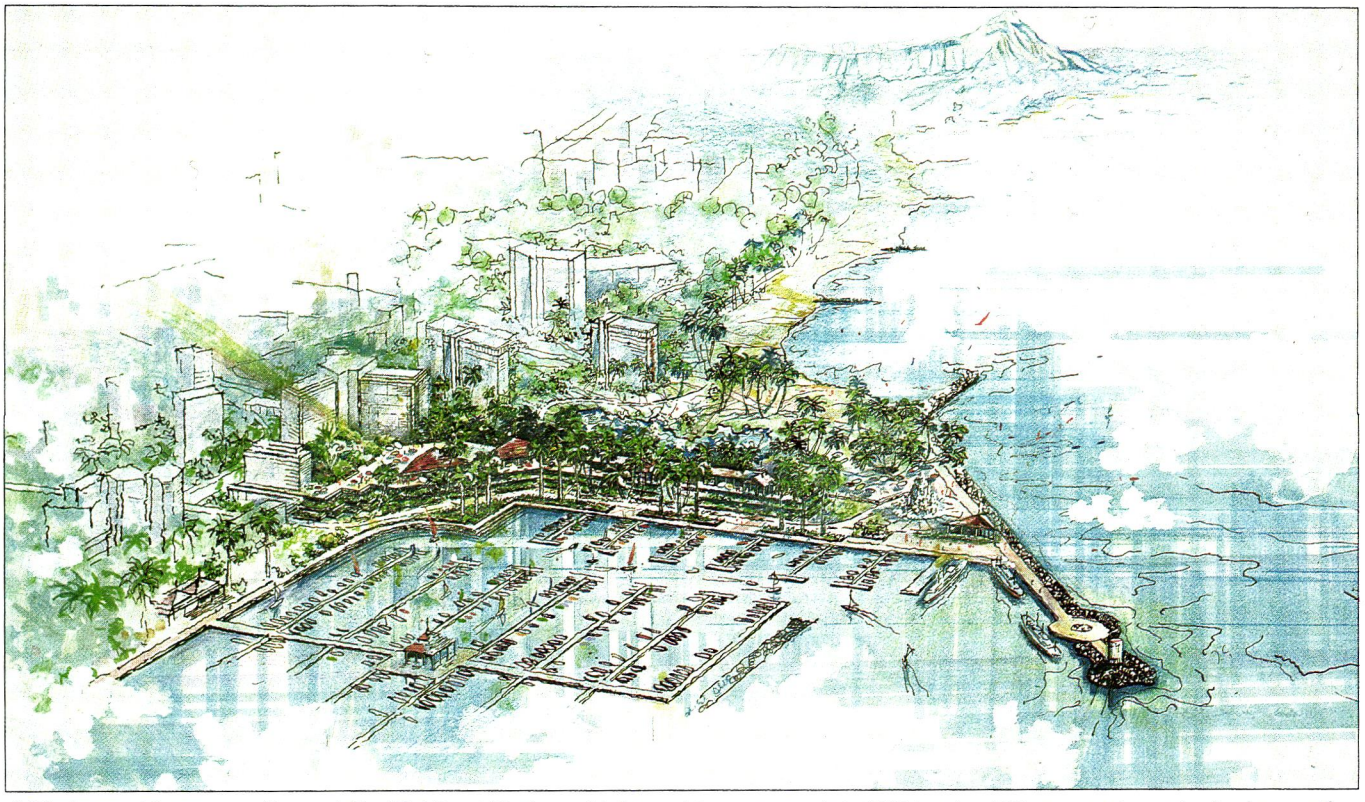
ELS - Elbasani & Logan Architects, offered the Public Garden Concept — a major open space in the central core of Waikiki containing water features, a civic center, museum, shopping, plazas, relaxation and recreation.

The Great Park was envisioned by Goody Clancy & Associates/ David Dixon & Associates. It would include Kapiolani Park, the zoo, aquarium and the Ala Wai Golf Course and would be interconnected by a series of open spaces to the Waikiki Beach promenade and the Ala Wai Canal esplanades.

JJR suggested utilizing the golf course as a cultural and recreational amenity —a Polynesian version of the Tivoli Gardens in Copenhagen. Lush foliage, water features and appropriate wildlife would be at home in this park which would also include entertainment pavilions, garden restaurants, walking paths and features for every age. "We're pretty strong in saying the golf course is a waste of land," Cobb said.

Residential areas

All five consulting teams looked at the residential areas in Waikiki



JJR planned for a reconfigured Ala Wai Boat Harbor which would accommodate 700 boats, 400 cars and a water taxi operation offering service at the airport, downtown Honolulu and other terminals on Oahu and neighbor islands. In addition, JJR developed plans for a multi-purpose gathering, entertainment and festival place at the harbor with restaurants, shops and special gathering places.

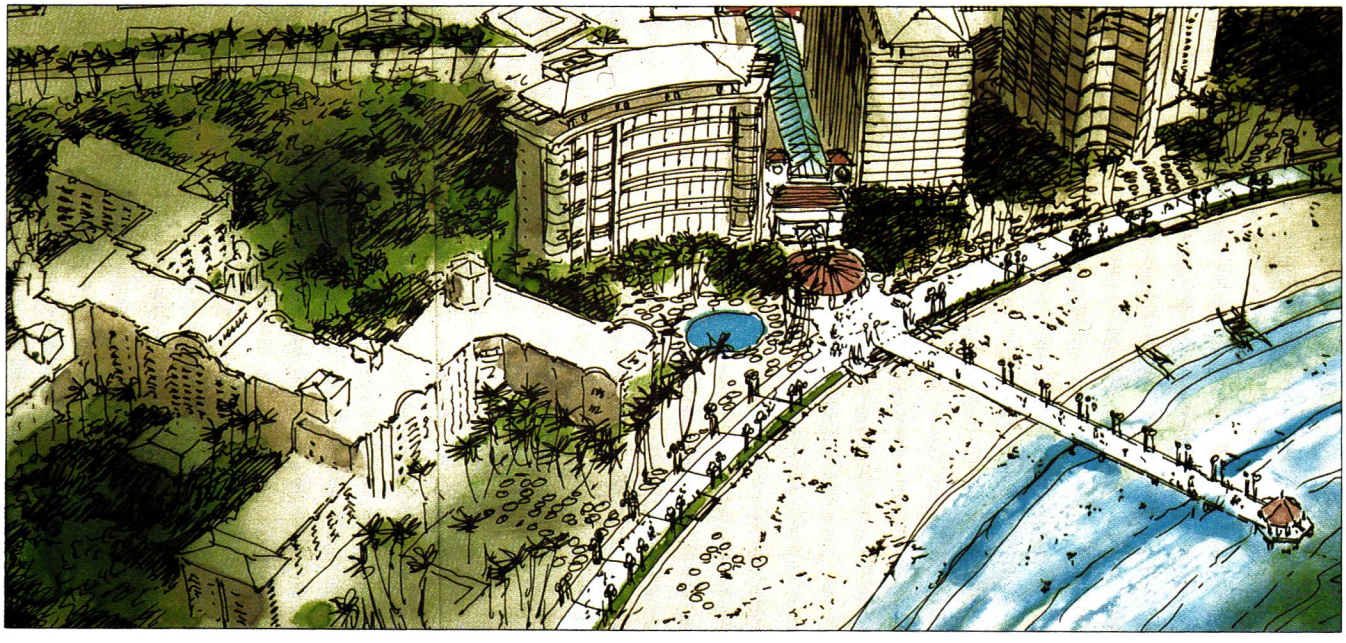
and offered possible solutions. All maintained their existence was important to the total picture of Waikiki. GC & A tackled the issue from the standpoint of intermingling housing. "Something Waikiki has to do is preserve what residential is left," said John Clancy, FAIA, principal of GC & A. He suggested retaining the existing residential community, enhancing and improving it and providing affordable and mixed-income housing. "We cited the residential preservation as being a part of the essence of Waikiki," he added.

INTRA also suggested affordable housing, as well as three neighborhoods along the new Ala Wai Canal, serviced by three neighborhood centers. JJR encouraged superblock developments.

Convention Center

All the teams were adamantly opposed to building a convention center at the present location of the International Market Place,

All five teams agreed the Ala Wai Boat Harbor could be better utilized and should be reconfigured to obtain more slips and serve as a water taxi terminal.



INTRA proposed redeveloping the International Market Place and opening up Waikiki through a mauka-makai corridor terminating in a 300-foot-long public beach promenade at the ocean.

although they did offer alternative locations. INTRA suggested a small conference center at Kuhio and Kaiulani; GC & A proposed an international conference center at Fort DeRussy. Both ELS and Robert Lamb Hart suggested a conference center be placed below ground under the Ala Wai Golf Course.

Fort DeRussy

All five teams felt Fort DeRussy as currently used breaks up the continuity of Waikiki and proposed its use for the community as well as the military. "We proposed Fort DeRussy as an element which could make revitalization of Waikiki very possible," said Clancy.

The planners felt that increased public open space would enable Fort DeRussy to be integrated with the rest of Waikiki. **HA**

Next month, how the teams' proposals differ.

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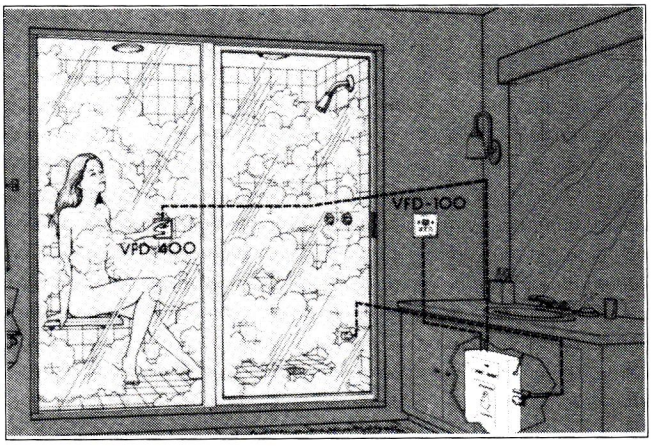

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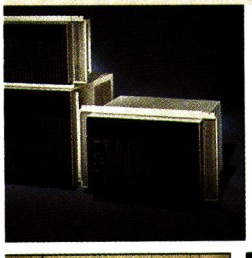

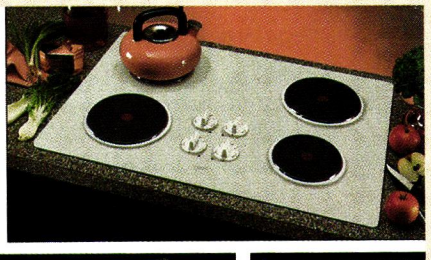

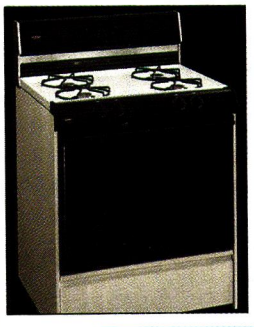

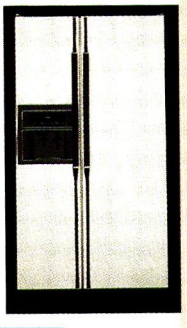

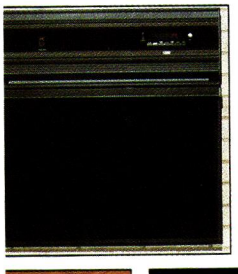

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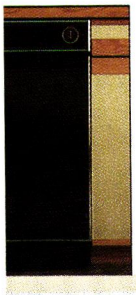

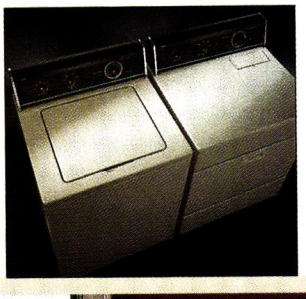

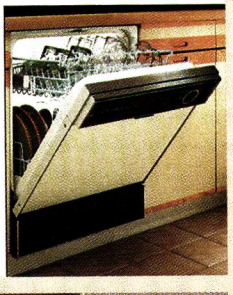

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