Designing for the Handicapped—Designing for Everyone

Physical Education Facilities at Punahou School
Features

Doo, A Champion of Independent Living  
by Daniel G. Chun, AIA  

Barrier-Free Design  

Designing for the Handicapped—Designing for Everyone  

Retrofitting for Accessibility  
by Glenn E. Mason, AIA  

Unique Interior Designs for the Deaf  
by Wayne Wiram, ASID

HS/AIA 1983 Design Awards  

City Bank, Makiki Branch  
James K. Tsugawa, AIA & Associates  
Award of Merit

Headlines

Challenges Facing the Handicapped  
by Chris J. Smith, President, HS/AIA

Tax Update

IRA Contributions Due April 15

Notes

New associates  
at Phillips, Brandt, Reddick

Kailua-Kona Medical Complex

Cover: Physical education facilities at Punahou School feature ramps designed by John Hara, AIA and Ernest Hara, FAIA. Large crowds of people, both students and visitors, including the handicapped, can be moved easily. Ramps also allow easy access to the school's Health Care Center which is located in the physical education complex at the top of the entrance ramp. A golf cart can transport injured students to the health center, and an ambulance can drive up the ramp in an emergency. Photo by Lee Ann Bowman.
Challenges Facing The Handicapped
by Chris J. Smith, President, HS/AIA

Having just completed my own "renewal" program which included crutches, etc., I can fully appreciate the difficulties encountered by our handicapped citizenry. While my case was only temporary and much less debilitating than many, I did obtain a glimpse into the world of the disabled. I became especially aware of the varying reactions one receives when hobbling up and down the Mall. Not all of our fellow pedestrians had the pleasant Boy Scout attitude. Most chose to ignore the "cripple" when it came time to allow for space or assistance.

It was quite unique looking at our built environment as a disabled person. Brief as my visit in this world was, I can say quite frankly that we as architects have a long, long way to go before equality of consideration for the handicapped occurs. It was challenging to maneuver through the pedestrian walkways and curbs. As expected, I got all kinds of chances to test our code requirements. I can rank the swinging commercial door as one of my least favorite obstacles. It was a real trick trying to push open the door with one hand and use the crutches to avoid the back swing all in one motion. I ended up with a real sore nose before mastering this one—not to mention my bruised ego. I must also complain about the pedestrian surfaces we designers use without consideration for our wet climate and definitely not for the handicapped.

Changing subjects somewhat, I want to discuss the medical problems that are appearing in our built environment. The topic is building pollution. We have known for some time that products built by man are not always the safest or healthiest. Scientists like Alex Schauss from The American Institute for Biosocial Research have studied countless situations where individuals are dramatically affected by products we install in our buildings. We are just now beginning to realize that carpets and synthetics placed in homes where air exchange does not readily occur can be potentially dangerous. Many of the symptoms that we believed to be allergic reactions are in fact caused by gases emitted from the synthetic family.

Following the energy concern in the late '70s, it was necessary to "seal up" our homes in an attempt to prevent heat loss. In the process we also prevented our houses from "breathing" and the result was a dramatic increase in allergic and respiratory ailments. In the last 15 years, scientists have created more than 59,000 new products spawned from the 6,000 chemicals that have been newly created. We've thrust upon ourselves all kinds of chemical substances that we are now recognizing as being potentially dangerous. Fluorocarbons are known to be emitted from polyurethane and epoxies when heat is applied. An example is the film observed on car mirrors.

We are continually learning how our environment affects us all. We are recognizing that color has a tremendous effect on our behavior. An example of this is the so-called "hospital green." Most color theorists will tell you that it's a color that does not encourage wellness, in fact it tends to depress people. Alex Schauss, mentioned earlier, has helped establish the use of a color called Miller-Baker Pink. I personally saw this "delicate" color tested on a burly prison guard and it turned him into a pussycat! The color has now been employed in places such as hospitals and prison areas where acute trauma and hyperactivity occur. The result was, amazingly, that all individuals calmed down and could then be handled in a proper manner. I tried the color on several staff members and lost a few billable hours.
Leigh-Wai Doo represents City Council District Four (Kaimuki/Palolo/McCully) and is the chair of the Planning and Zoning Committee. He recently received the Outstanding Professional Award from the Hawaii Chapter for Independent Living.

The underlying concept of independent living is to emphasize not disabilities but possibilities. All people face life with different abilities.

Doo feels that Honolulu has the potential to become the ideal environment for independent living. He cites the concern for the individual that already characterizes our society as well as the small size and scale of our Island. On the practical side, no ice or snow falls here and heat is not excessive enough to present problems for prosthetic devices.

Meaningful action is being undertaken toward a goal of independent living. Small residential facilities are planned which will allow mentally retarded persons to reside within our greater society. Studies show that more interaction with daily rhythms of society improves their condition. The cost of maintaining these smaller residences proves to be less than that of larger institutionalized care.

The Honolulu Wheelchair Marathon and increasingly available recreational facilities are small but significant milestones. Doo recently requested that the new Diamond Head Tennis Courts be redesigned for access by the physically handicapped. Only a small effort and cost was involved and these courts are now large enough to host the International Wheelchair Tennis Competition. Through sports the city hopes to help people recognize their potential in life.

As chair of the Planning and Zoning Committee, Doo feels that his perspective must extend beyond planning for the built environment. Another of his goals is to stabilize funding for services such as the Handi-Van. At present service fluctuates with each appropriation. He suggests a reasonable level of service so that people can make long-range plans for their lives with respect to education and employment. This will allow every citizen to secure a job which provides self-sufficiency and an increased tax base. Technological advances are providing more job opportunities for persons once thought of as handicapped.

His message to architects is that as professionals charged with the development of the built environment, an increased awareness and positive attitude must be fostered within the profession and its clients. Architectural barriers represent an impediment to a minority of persons. But when considering the often unchangeable nature of buildings and their economic life which extends into decades, the number of persons affected by building design becomes large.

We hear increasing pronouncements that our Islands have diminished in physical beauty because of man’s activities. Doo would like to see Hawaii emerge as the paradise that man has helped create. H.
Any building or a home can grow in beauty, utility, and value with

Cultured Stone Veneer

With Cultural Stone Veneer you can achieve the appearance and texture of natural stone. A quality manufactured architectural product, it enjoys a 17 year record of outstanding service throughout the U.S. Cultured Stone Veneer is so durable that it is guaranteed for the lifetime of the structure.

Now available in the 80-pound Handi Pak box, it can be carried by one man into those otherwise hard-to-reach areas.

Cultured Stone Veneer can be purchased in several earth tones and textures. It's lightweight and applies easily to wood, metal, wallboard, block, concrete and other prepared surfaces.

For Exhibits, Demonstrations, Literature or Material:
811 Middle Street
6:30 a.m.-3 p.m., Mon.-Fri.
Phone Sales Dept.: 841-0911, Mon.-Fri.
Maui: 877-5068

Hawaiian Moss Rock Veneer used at Century Park Plaza, Pearl City.
Contractor: Pacific Construction
Installation by: Masonry Builders
Barrier-Free Design

Barrier-free, accessible, universal design—by whatever name—means simply that all persons, able-bodied and disabled, young and old, tall and short . . . may move freely, independently, conveniently, and safely in public facilities, stores, theaters, and throughout their communities.

What does accessibility mean?
Accessibility can mean many things to many individuals. When we are referring to a building or an environment, we use the term "barrier-free," which means that all persons (able-bodied, disabled, young, and old) may move freely, independently, conveniently, and safely within the environment.

How can something be "accessible to people in wheelchairs"?
• Make sure that all doors are wide enough for a wheelchair to go through.
• Make sure that people sitting in wheelchairs can see over walls, into mirrors, and through windows.
• Make sure that a person in a wheelchair can see over walls, into mirrors, and through windows.

The Commission on the Handicapped provides information and technical assistance to help make the physical environment more accessible. Technical assistance and site review concerning architectural accessibility are major activities of the staff and individual commissioners.

In Honolulu the commission office is at 335 Merchant Street, Room 215. There are also offices on Maui, Kauai, and Hawaii. A library at the Honolulu office is open between 8 a.m. and 4:30 p.m.
wheelchair can slide under desks, tables, sinks, or basins.
• Make sure a person in a wheelchair can reach all items on the wall—towel racks, soap, lights, etc., or on a bookshelf.
• Make sure there are no bumps or steps in the paths.
• Make sure that if buildings have two floors an elevator or ramp is present.
• Install railings or grab bars in the toilet stalls.
• Remove thick plush carpets that would hinder a wheelchair user.
• Make sure that the drinking fountain can be used by someone in a wheelchair.
• Make sure that a person in a wheelchair could reach the coin slot of machines such as a telephone or restroom dispenser.

How can something be “accessible to people who are blind or visually impaired”?
• Remove “obstacles” (furniture, plants, electrical cords, etc.).
• Have important signs placed and designed so that a person can “feel” them.
• Place railings in areas having steps, turns, etc.
• Make sure that commonly-used pathways are free of any low hanging rafters or things that stick out which someone could bump into.
• Have a warning system that uses a code or certain sounds that the blind person will understand.
• Use contrasting colors to avoid stairway accidents.

How can something be “accessible to deaf and hearing impaired”?
• Have a warning system which uses color or lighting signals to alert the deaf.
• Have adequate lighting so that a deaf person can read lips or see the sign language interpreter’s hands.
• Have a TDD device system to allow a deaf person to communicate by telephone.
• Have some sort of amplification system for persons hard of hearing or a section close to the sound source where these people can hear more comfortably.

How can something be “accessible to elderly and disabled citizens”?
• Place railings along long pathways or corridors.
• Have places to sit when an individual becomes tired.
• Have adequate lighting so that one may see where he is going and not be blinded by glare or unable to see because of darkness.

Visually impaired persons can be confused by glare and lack of contrasts, as demonstrated in the lower photo.

• Install railings to hold onto when sitting on the toilet or when having to pull up from a sitting position.
• Have chairs and sofas removed that are so soft that someone frail could not get up or out of them.
• Have alert signs well lighted and easy to read (i.e., large print, bold color contrast, etc.).
• Lessen noise so that a person with a hearing impairment can hear and understand what is being said.

• Make sure that a person can turn the water on and off and operate the towel, soap, and paper dispensers if they have only one strong arm or are weak from a disability like arthritis.
• Remove door barriers such as handles that are difficult to work, doors that close too fast or too hard, doors that are too heavy, etc.

(Adapted from information compiled by Commission on the Handicapped.)
Designing for The Handicapped—Designing For Everyone

The following quotation was taken from an article by Margaret Milner, Director of Programs, National Center for a Barrier-Free Environment.

"The accessible building—one that is usable by people with physical handicaps—is also easier and safer for everyone to use. And, by making commercial and institutional properties accessible to disabled users, the potential market is broadened.

"No one knows precisely how many people suffer handicapping conditions at any given time, but we do know that the number of people with temporary or permanent disabilities is large, and is increasing rapidly. Some current estimates suggest 10 percent of the population is affected. Add to that the growing numbers of elderly citizens, for whom a barrier-free environment provides continued freedom of mobility despite the progressive loss of physical agility.

"Designing usable facilities for this growing population is—to a large extent—a matter of meeting dimensional requirements. But, it also includes some subtle considerations that are not always recognized as accessibility criteria.

"Thus, accessibility means providing ramps or grade level entrances instead of steps, doors with 32-inch clear width, and restrooms with space for turning wheelchairs. It also means selecting densely-woven, low-pile carpet, providing audible and visible warning signals, and installing signs that are easily read by low-vision visitors (with room numbers and elevator floor indicators in raised or incised letters for tactile identification.)"

Specially designed interiors enable those in wheelchairs to handle daily chores. Major appliances and counters are all easily accessible.
There is a particular atmosphere of quality and richness that permeates through the Waikiki Branch of Bank of Hawaii. It distinguishes itself from similar entities. IMUA BUILDERS interpreted the architect's design and IMUA's master craftsmen devotedly gave rise to this grand design of polished koa and gleaming metal.

When you take on a job for the State's leading financial institution, there is an unwritten commitment to excellence, a commitment that distinguishes IMUA BUILDERS role in every project it undertakes. IMUA BUILDERS, the architect's choice in perpetuating life into an aesthetic design, on schedule and within budget.
Retrofitting for Accessibility

Kawaiahaʻo Church and Iolani Palace Remove Barriers

by Glenn E. Mason AIA
Spencer Limited

As a result of modern regulations and a growing awareness of the needs of the handicapped, recently constructed buildings are often designed to be accessible to the handicapped. Unfortunately, most of our existing building stock was constructed when these needs were not considered and retrofitting buildings for accessibility is often desirable and sometimes mandatory. Some of the renovation projects with which our office has been involved have required accessibility improvements. Two cases are discussed here because they are good illustrations of the possible range of solutions available.

The methods for providing accessibility include providing temporary or permanent ramps, stair lifts, mechanical lifts and elevators. Aesthetics, cost and space considerations all enter into the decision as to which solution would be most appropriate.

A good case study of the analysis involved in solving accessibility problems can be found at Kawaiahaʻo Church. During one of the five restoration phases our office has done for the church, it was decided to take action on the long-felt desire of some parishioners to provide some method for church members to surmount the 11 steps into the sanctuary. The first floor toilet rooms were also not completely accessible.

A review of pedestrian patterns indicated that the installation of a simple and inexpensive curb cut and one short ramp made the bathroom easily accessible to those at the ground level.

It was more difficult to arrive at a solution to the problem of accessibility to the sanctuary. The vertical height to be traversed was nearly 7 feet, which would have required a ramp, with landings, about 90 feet long. This was not desirable because of the effect the ramp would have on the exterior appearance of the church, a building on the National Register of Historic Places. The ramp also would have eliminated landscaping along one side of the building and the cost of a ramp of this length made it only

Solving an accessibility problem is sometimes as easy as installing a short ramp, as was done at Kawaiahaʻo Church.
A wheelchair lift was installed at Kawaiaha'o Church. An opening in the wall was cut to obtain access to an existing stair landing.

slightly less expensive than some other solutions. Further, long ramps are difficult for wheelchair users to negotiate unless they are also blessed with good upper body strength.

Mechanical methods of providing the needed vertical transportation were then evaluated. An elevator was considered but dismissed because the vertical height to be traversed could not justify the approximately $30,000 required to install one, with all of the contingent physical changes required to fit one into the church. The vertical distance allowed consideration of two other mechanical solutions to accessibility.

Stair lifts are mechanisms which are mounted on one side of a stairway. They are equipped with a
special seat or a wheelchair platform and follow, more or less, the slope of the stair. The seat units are primarily for individuals who are ambulatory but who cannot negotiate stairs. Stair lifts require varying amounts of room at the top and bottom of stairs and existing space limitations at the church made this solution difficult.

The installation of a vertical lift was more expensive but it was judged the most flexible, least obtrusive system available. Installation required cutting a hole through the wall of an addition to the church, but allowed the lift to be installed immediately adjacent to a driveway in a visually private area. Total cost, with structural modifications: about $13,000.

Retrofitting an existing structure with an elevator is often difficult and expensive, but the results are often worth the struggle. The Friends of Iolani Palace made the decision early in their planning to somehow install an elevator in the Palace. In the midst of the painstaking restoration of the old, a new elevator was hidden which connected all floors of the palace, from the basement to the attic. The elevator improves accessibility of the floors within the palace and helps in the curatorial functioning of the palace.

The problem of gaining access to the palace has not yet been completely solved. With the first floor and basement both approximately 6 to 7 feet from grade, the building is still inaccessible. During the next phase of their ongoing restoration, The Friends will eliminate this last hurdle through the installation of a platform stair lift.

It is important for all designers to recognize that the term "handicapped" is not an absolute. There is a tendency to think of people who have no sight or no use of one or more of their extremities as handicapped when in fact there are many individuals with partial sight or other physical limitations who would benefit from designing for accessibility. Even under the stringent requirements of a restoration, it is possible to find a way to improve accessibility. Often, the compromises necessary turn out to be so small that the owners are left wondering why it hadn't been done sooner.

---

Six years ago, Audi engineers undertook the task of creating the world's most aerodynamically efficient sedan. The result of their efforts was recently recognized when the new Audi 5000S was named Europe's "Car of the Year."

*Car and Driver* magazine named the Audi 5000S one of the "10 Best Cars for 1984". "The Audi offers the smoothness and isolation of a Cadillac combined with truly worthwhile over-the-road performance."

And they say unabashedly, "It is a uniquely sophisticated car, and right now, the big Audi is about as close as you can get to the car of the future. Truly one of the very best, and very reasonably priced."

---

**ALA MOANA**

**PORSCHE AUDI VOLKSWAGEN**

800 Ala Moana Blvd. Open seven days a week. 537-3386
Talk To The Gas Company Before You Raise The Roof.

The best time to talk to The Gas Company about your gas energy needs is when you're still in the planning stages. By designing fuel-efficient gas appliances into your project, the best is yet to come with years of quality performance, dependable service, and savings ahead for you and your clients.

Gas heats water faster for quicker recovery, and is the number one energy source in commercial and residential kitchens worldwide. The Gas Company will provide complete design assistance to consulting engineers that'll help you make the best possible use of gas energy on your project.

We'll show you how gas energy can add quality to the building you're constructing today, and save you time and energy woes tomorrow. And whether it's Synthetic Natural Gas or Propane, we'll work with you to make sure the gas energy product you choose is the one that meets your project's exact specifications.

Talk to The Gas Company first. Then go ahead and raise the roof.

For assistance call Ed Inouye at 547-3519 or Charlie Bazell at 547-3518. Or write to The Gas Company, P.O. Box 3379, Honolulu, Hawaii 96842.

The Best Is Yet To Come.™
Visual alarms alert the hearing impaired. They can be used to summon help or to announce the arrival of a visitor.

UNIQUE INTERIOR DESIGNS FOR THE DEAF

by Wayne Wiram, ASID

One is often surprised to arrive at a deaf person's home and find a brightly glowing doorbell. When the button is depressed every light in the house and yard flashes several times giving a visual signal that someone is at the door. This flashing light system can flash once to say "Help me in the kitchen," twice to say "Help me in the family room" as well as act as a burglar and fire alarm. It is also used when the phone rings, but the flashing continues until the phone is answered or the caller hangs up. If the caller and the recipient both have a TDD (Telecommunications Device for the Deaf), they can type messages to each other that will be printed on the opposite end, enabling instant long distance communication.

A home I designed for a deaf couple, both instructors at Gallaudet College for the Deaf in Washington, D.C., had a dance area in the recreation room. Deaf people are often excellent dancers and pick up the beat of the music through floor vibrations. It is important that the floor be of a wood frame construction so that the vibration is enhanced. The phonograph should be placed on a hard-surfaced table or cabinet that stands directly on a bare wood floor. Carpet and other acoustical materials should be avoided. Walls are usually painted, since wallpapers are often acoustical. Wood paneling should be varnished to cut down on its acoustical qualities.

Most deafness in Hawaii is a result of rubella, which may also cause deteriorating vision. This presents a need for considering as much visual access as possible throughout the home. Architectural features should be as open as possible to allow for room-to-room communication. Furniture should be low and room dividers should be as open as possible since a mesh-like divider could play havoc with poor vision.

The completed interior will have a stark quality because of the emphasis on hard and shiny surfaces. Visual warmth is created by colors and the types of woods used. Properly designed, the finished interior will provide a pleasing and functional environment in which the deaf and visually impaired can function efficiently.
We Can Assist You In The Following Areas:

REDUCE INSURANCE COST by reviewing projects for safety and fire prevention needs.

REDUCE ACCIDENT POTENTIAL by understanding accident sequence, human behavior and human factors.

To Identify These and Other Hindrances Which Interfere . . .

Call Frank L. Merritt C.S.P., P.E.—President

737 Bishop St., No. 2930 531-4148

HIGGINS RATTAN

EXCLUSIVE STYLES OF RATTAN & WICKER FURNITURE

• 12 STYLES AVAILABLE
• LEATHER WRAPPINGS
• CHOICE OF CUSHION SOFTNESS
• UNLIMITED FABRIC SELECTION
• CONTRACT SPECIALISTS

536-4531 HIGGINS RATTAN 307 KAMANI ST. HONOLULU, HI 96813

HS/AIA 1983 Design Awards
Award of Merit
James K. Tsugawa, AIA & Associates

City Bank, Makiki Branch

City Bank, Makiki Branch was given an Award of Merit in the Hawaii Society/AIA's 1983 Design Awards Program.

The bank is situated at 1338 S. Beretania Street on a site consisting of two lots fronting Beretania that are separated from each other by a 10-foot-wide roadway. The building is located on the lot Ewa of the existing roadway for better visibility by Beretania Street's one-way traffic. The other lot serves as a landscaped parking area.

James K. Tsugawa, AIA & Associates, the architects, have designed a two-story building in keeping with the low profile of the existing neighborhood. The interior consists of a high ceiling lobby, eight teller stations, a new accounts desk, a vault with safety deposit boxes, bank officers' space and a clerical area. The employee's lounge and rest rooms are located on a mezzanine directly above the teller stations.

The building was designed to counter the dominant silhouette of an existing building Ewa of the site. The rough concrete exterior with its feeling of stability yet low maintenance is softened by the use of curves and circular forms. This bold concrete building represents an ongoing effort toward improving our urban environment.

In variety of products.
In value.
In parts and service support. And in availability and inventory.
And when it comes to water heating equipment, the PRI Energy Products Division has the backing of PRI's 80 years of water heating experience. We're the most knowledgable company in the Pacific Basin when it comes to water heating needs.

Plus we service all the Hawaiian Islands. We're the only wholesale energy products company in Hawaii that can make this claim.

Talk to PRI's Energy Products Division about any of your energy equipment needs.

For information call 547-3522 or write P.O. Box 3379, Honolulu, Hawaii 96842.

We've got it all.
• Hardwick gas ranges, electric ranges and microwaves
• Roper gas ranges, electric ranges and microwaves
• State gas and electric residential and commercial water heaters
• Jetglass commercial gas water heaters
• E-Tech heat pumps, heat recovery units and swimming pool heaters
• Customized commercial heat pumps
• Solar Power Corp. photovoltaic modules
• PRI solar products
• Luau torches
• Manchester propane tanks

The Best Is Yet To Come.®

Energy Products Division
PRI Energy Systems, Inc.
A PRI Company

©PRI 1984
THE PROJECT: The Umaki Dental Building. "ALLIED BUILDERS exceeded my expectation," exclaimed DR. CLYDE UM AKI, to a project that was completed one month ahead of its own schedule. The design of the building required high ceilings, sky-lighting and many curved corners. These usually difficult areas were "managed with excellence" by ALLIED. It was obvious to Dr. Umaki that the Allied Builders team knew their jobs and went out of their way to attend to special needs, making everything "letter perfect."

THE TEAM: Mel Izumi, Executive Vice President of Allied Builders; Dr. Clyde Umaki, Developer of building; Lloyd Sueda, Architect of Wong, Sueda & Associates, Inc.
The mezzanine at City Bank, Makiki, looking toward the employee's lounge.

The Magic of Glass Building Blocks!

The glass building block is back—new, improved, and superior. The "Solaris" from West Germany is exclusive with CPS. A vast variety of designs in several sizes features superior insulation and sound-reduction properties with improved strength and light control characteristics. The architect/designer's dream for both interior and exterior use. A complete line of samples available in our showrooms.

We cordially invite you and your clients to visit our showroom in Mapunapuna or at TILE MART, 404 Piikoi Street.

Central Pacific Supply CORPORATION
2855 Kaihikapu Street
Honolulu, Hawaii 96819 Phone 839-1952
YOU CAN BUILD ON OUR EXPERIENCE.
Chapman Cobeen Desai Sakata, Inc. and Franklin Gray & Associates/Architects Inc. did.

When faced with the job of waterproofing Bishop Square, the architects and the owner turned to Pacific Industrial Distributors. They knew that PID doesn't just sell materials. Each PID product engineer specializes in a specific field and is continually updated on newly developed products in that field. Their advice can help you make informed, economical purchasing decisions. PID recommended a number of Products Research & Chemical Corp. (PRC) products to Chapman Cobeen Desai Sakata because these products offer superior surface protection against moisture, abrasion and weathering. In addition, PRC products are flexible, easy to apply and excellent for remedial applications. PID has helped architects, engineers and industrial buyers throughout the state make innovative applications of materials. Let us make your next job easier.

2139 Kaliawa Street, Honolulu, HI 96819 (808) 847-1977
For industrial materials and practical solutions. Featuring insulation, corrosion control, waterproofing and roofing materials.

TAX UPDATE
IRA Contributions Due April 15
by Francis U. Imada
Ernst & Whinney

Last year the Internal Revenue Service (IRS) took the position that the Individual Retirement Account (IRA) contribution had to be paid on or before the date the taxpayer actually files his income tax return. The IRS announced (Rev. Rul. 84-18) January 13, 1984, that taxpayers may file returns claiming a deduction for IRA contributions that have not yet been made but will be made by the due date of the return.

Under applicable tax law, an IRA contribution is deemed to be made on the last day of the taxable year and therefore deductible for that year as long as it is paid at any time up to the due date for filing the return plus any extensions. Since April 15, 1984, falls on a Sunday, taxpayers have until April 16, 1984, in which to make the IRA contribution even though they file and claim a deduction for an IRA contribution sometime in January, February, March, or early April 1984. If an extension is filed, the due date of the IRA contribution is also extended.

CLASSIFIED NOTICES
Call 621-8200 to place a classified ad. $3.50 per line + 4% tax, 4 line minimum, approximately 5 words per line. Payment must accompany order.

TEAK LOUVERED DOORS

If you do business in Hawaii... and want to keep track of your clients, or need to glance at building permits, tax liens, foreclosures, public hearings, real estate transactions or any of a number of scintillating bits of information... we have news for you.

For information call 521-0021.

HAWAII ARCHITECT
No Need to Dream...

MARBLE HALLS FOR REAL AT DOWNTOWN'S BISHOP SQUARE

ARCHITECTS: Chapman Cobeen Desai & Sakata, Inc.
GENERAL CONTRACTORS: Pacific Construction Co.
OWNER & DEVELOPER: Northwestern Mutual Life Insurance Company of Milwaukee
MANAGEMENT: Bishop Square Management, Inc.

Come in. Enjoy the beauty of genuine marble in Bishop Square's Pauahi Tower and throughout. That's the friendly invitation of Hawaii's newest, beautiful business building complex and park on Bishop Street.

Marble abounds...installed by our own craftsmen here who are a part of the Hawaii Ceramic Tile, Marble & Terrazzo Industry Promotion Program.

Genuine marble walls outside...genuine marble floors and walls inside...beauty all around.

Northwestern Mutual Life Insurance Company of Milwaukee has well demonstrated its belief in quality building for Hawaii at Bishop Square. Beauty—built to last.

Hawaii's Ceramic Tile, Marble & Terrazzo people salute new Bishop Square.

HAWAII CERAMIC TILE, MARBLE & TERRAZZO PROMOTION PROGRAM
615 Piikoi, Suite 804, Honolulu, Hawaii 96814: Attn: John P. Brack
Tel. 526-0467. 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. Kunishige 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 456-5914
Venture Marble, Inc. 847-2105
W. F. Pence, Kailua-Kona 324-1500
Wichert Tile Ltd. 955-6631

All Ceramic Tile Contractors listed here are licensed by the state. Their installations of Ceramic Tile, Marble, Terrazzo and related products are by skilled union craftsmen, approved as professionals in their trade by International Union of Bricklayers and Allied Craftsmen, Local No. 1, Hawaii. Before you sign, ask these questions: Is your tile contractor licensed? Is your work to be performed by union labor? Be sure!

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

Ceramic Tile, Marble & Terrazzo Belong in Hawaii
Survival of the Fittest.

You build for your family for security, economy, and comfort. When you build for others, you do the same thing.

One basic building material outlasts and outperforms all others. It’s masonry. It has proved again its ability to withstand higher stresses.

Few places on earth boast of better skills in the application of this material than Hawaii. Call the Research Library at 833-1882 for answers.

Construction To Begin on Kailua-Kona Medical Complex

Construction will begin in the spring on the Big Island's first condominium medical office complex—the W.F. Dillingham Medical Center—on an 80,000-square-foot site on Kuakini Highway about two miles south of Kailua-Kona.

The developer is W.F. Dillingham Medical Center, Inc. A spokesman, Byron Fox, vice president and general manager of Dillingham Investment Corp., said the 39-unit, $3.5 million center should be completed about 12 months after construction starts.

The center will have 180 parking stalls in a four-level structure which is flanked by two two-story clusters containing the medical office units. There will be a total of more than 36,000 square feet of office space and common areas, including a conference room.

The architect is Fred N. Sutter and Associates, Inc., of Honolulu, which has designed several medical facilities, including the Honolulu Medical Group Building.

Sutter said the Kailua-Kona center "will look more like a residential development than a medical facility. Each of the two clusters of medical offices will have extensive landscaping, and interior gardens which will provide a pleasant visual experience and an alternative to sterile halls and waiting rooms."

Sutter said the steeped, metal roofs with large overhangs and the use of a lot of wood trim will give the center a "warm, Hawaiian look."
HAWAII ARCHITECT
Services Directory

CERAMIC TILE
Exclusive Distributors
Commercial • Residential
487-9449
WORLD TILE, LTD.

CERAMICHE PIEMME
Commercial • Residential
487-9449

STEEL STRUCTURES OF THE PACIFIC, LTD.
CECO/ANDERSEN
Building Systems
STILE-Steel Roofing
with the look of tile.
682-3657
91-313 A Kauhi St.

World Tile, Ltd.
2006 Kalani Street
Honolulu, Hi 96819
(808) 841-5064

World Tile, Ltd.

Complete Blueprint Service
Architects & Engineers Supplies
Clearprint, Arknights & Tedyne
Drafting Media

The Blue Print Company
1148 Bethel
536-6148

GUAM • HONOLULU

STEEL STRUCTURES OF THE PACIFIC, LTD.
CECO/ANDERSEN
Building Systems
STILE-Steel Roofing
with the look of tile.
682-3657
91-313 A Kauhi St.

Ceramiche Piemme

Commercial • Residential
487-9449

Ceramiche Piemme

Ceramiche Piemme

ROBERT ENCIEKIRN
ULTING STRUCTURAL ENGINEERS, INC.
ENCIEKIRN & HART
CONSULTING ENGINEERS, INC.

Dynamic Earthquake Analysis
Wind Tunnel Studies • Rehabilitation
1314 S. King St., Ste. 714, Hon., Hi. 96814
(808) 521-6958
Idonia • Hawaii • Washington • Italy

MOISTURE SURVEYS
We locate moisture within structural materials non-destructively, using the nuclear method. Helps you solve moisture related problems in flat roofs, concrete decks, and lanais. For information, call 621-8892.

GAMMA CORPORATION
641 Kahului St., Suite 5
Honolulu, Hawaii 96814
839-2791

Moisture Surveys

KOA Showroom
KOA LUMBER—All furniture grade and dried CORRECTLY here locally.
CONTRACT MILLING—To your specifications
WE'RE MORE THAN FURNITURE!
834-1003
2722 Wai Wai Loop

Glazing Contracting
955-2231

Kalu Glass

Office, Industrial and Healthcare Systems
medical & business interiors, inc.
839-2791
550 Paiaa St., Honolulu, Hi.

Herman Miller

KatsuCo Cabinet & Fixture
WE WORK FROM YOUR DESIGNS AND SPECIFICATIONS TO ENHANCE YOUR DECOR.
1320 Kualani St.
#301 up the ramp
845-7447
Lic. No. C2955

Energy Systems
YOUR ONE CALL for
ALL RESIDENTIAL ENERGY SYSTEMS
stem Design—Project Interface
945-7884
641 Keeaumoku St., Suite 5,
Honolulu, Hawaii 96814

Herman Miller

KatsuCo Cabinet & Fixture
WE WORK FROM YOUR DESIGNS AND SPECIFICATIONS TO ENHANCE YOUR DECOR.
1320 Kualani St.
#301 up the ramp
845-7447
Lic. No. C2955

Robert Enciekirn
Ultiing Structural Engineers, Inc.
Enciekirn & Hart
Consulting Engineers, Inc.

MOISTURE SURVEYS
We locate moisture within structural materials non-destructively, using the nuclear method. Helps you solve moisture related problems in flat roofs, concrete decks, and lanais. For information, call 621-8892.
Wait. You can still save $1425* with a 1983 IRA even if you don't have the cash for an IRA.

Introducing the IRA Loan from First Hawaiian Bank.

Now there's a way to get all the tax and retirement benefits of an IRA, even if you don't have the cash for a large deposit.

First Hawaiian's IRA Loan is a one-year unsecured loan for opening or adding to an IRA. It enables you to make a big IRA deposit right now and take a big 1983 tax deduction. Your lump-sum deposit in a First Hawaiian IRA ($2,000 maximum for individuals, $4,000 for working couples) immediately starts earning lots of tax-deferred interest. More interest than if you made monthly contributions throughout the year.

And even with your loan payments, you come out way ahead with the IRA Loan. You get tax savings now. Retirement savings later.

Plus, you get this loan at a special interest rate that is significantly lower than regular personal loan rates:

12.72% Annual Percentage Rate

Ask your accountant. Ask your tax adviser. And then ask our IRA loan representative at any branch for more information.

Here are some examples of how much you could possibly save with an IRA Loan.

<table>
<thead>
<tr>
<th></th>
<th>If you are single with 1983 federal taxable income of $20,000</th>
<th>If you are a working couple filing jointly with combined 1983 federal taxable income of $30,000</th>
</tr>
</thead>
<tbody>
<tr>
<td>Your IRA Loan</td>
<td>$ 2,000</td>
<td>$ 4,000</td>
</tr>
<tr>
<td>1983 Tax Savings*</td>
<td>+ 753</td>
<td>+ 1,425</td>
</tr>
<tr>
<td>Interest Earned on IRA**</td>
<td>+ 205</td>
<td>+ 411</td>
</tr>
<tr>
<td>Interest Paid on IRA Loan***</td>
<td>- 141</td>
<td>- 281</td>
</tr>
<tr>
<td><strong>NET SAVINGS FOR FIRST YEAR</strong></td>
<td>$ 817</td>
<td>$ 1,555</td>
</tr>
</tbody>
</table>

NOTE: Your Total Tax Savings, Retirement Savings, and Interest Gain include your 1983 tax savings or refund, PLUS the amount you borrowed and then contributed to your 1-year IRA, PLUS the amount of interest your 1-year IRA earned in excess of the loan interest you paid.

* Tax savings include both Federal and Hawaii State income taxes, and assume both spouses are employed.
** Interest earned on 1-year IRA with effective yield of 10.277%.
*** Monthly payment is $178.37 for a $2,000 ($356.74 for a $4,000) 12-month IRA Loan (12.72% annual percentage rate). You can pay any day of the month; no prepayment charge.

Loan rate and IRA contribution yield are as of February 7, 1984 and are subject to change. Call the First Hawaiian HOTLINE (525-5898; on neighbor Islands dial "0" and ask for Enterprise 5255). Substantial penalty for early withdrawal of an IRA. IRA Loan applicants must meet IRA eligibility requirements. IRA Loan program ends April 10, 1984.