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Summer 2008

Official Journal of the Florida Association of the American Institute of Architects

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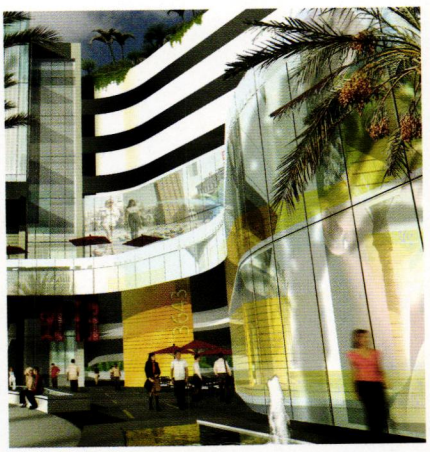

14

26

contents, summer 2008

In This Issue:

Features in Brief **14**

Currie Sowards Aguila Architects **20**

Hammond Design Group **24**

Helmuth, Obata & Kassabaum, Inc. **26**

FLA/Florida Architects, Inc. **28**

STH Architectural Group, Inc. **32**

2008 Legislative Wrap Up **38**
Vicki Long, CAE/EVP

Paradigm Shift from 2D to 5D **46**
Michael Lingerfelt, AIA

On the cover: Humanities Building, Palm Beach Community College, Boca Raton campus, STH Architectural Group. Photo by NY Focus.

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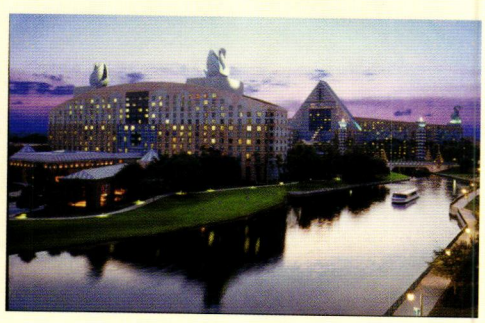

Editorial / diane d. greer

Florida Association of the
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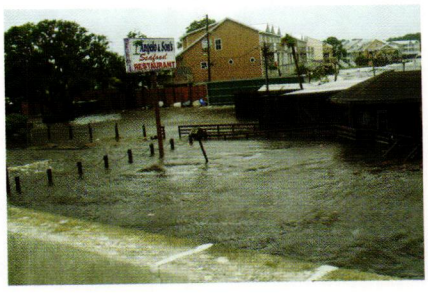
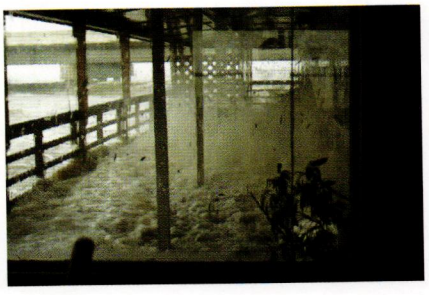
Lest we forget the damage that is frequently wrought by seasonal hurricanes, I've included a couple of photographs, below, of a Panhandle building that was destroyed by Hurricane Dennis in 2005. Dennis wasn't even a particularly famous storm, at least not by Katrina or Kate or Andrew's standards. But, it was big enough and bad enough to do a whole lot of damage. (See the article on page 24) As you read this, the 2008 hurricane season is underway. At this writing, I have no idea if it will be a reasonably calm year like 2007 or a bad one. I'm hoping for the latter.

This issue of *Florida/Caribbean Architect* is a very diverse one. There are many different kinds of projects – both built and unbuilt – some designed by firms whose work hasn't previously graced the pages of this magazine. I am very pleased by the number of submissions that I've been receiving recently because it shows a lot of interest among the membership. You may have noticed that the magazine has increased the number of pages in each issue to include more of your work and particularly, more unbuilt designs. So keep sending me your best projects and help me get the word out that Florida is producing excellent architecture.

Also in this issue is Executive Vice President Vicki Long's Legislative Wrap Up. Many of you took an active role in this year's session or worked hard at the local level to get things accomplished. No matter the outcome, your participation in the process is always welcome and much appreciated.





President's Message / Donald T. Yoshino, FAIA

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Florida Caribbean Architect, Official Journal of the Florida Association of the American Institute of Architects, is owned by the Association, a Florida corporation, not for profit. ISSN-001 5-3907. It is published four times a year and distributed through the office of the Association, 104 E. Jefferson Street, Tallahassee, Florida 32301. Telephone 850.222.7590.

I've just returned from this year's AIA National Convention in Boston and I wanted to update you on what's been going on the past few months. First, on behalf of the Board and all AIA Florida members, I would like to extend my congratulations to Lawrence Maxwell, AIA, Chair of the Commission on the Environment, for his much-deserved recognition by the United States Department of Energy and the United States Environmental Protection Agency (EPA) for his design of an energy-efficient charter school in Brevard County. Larry is showing us how to walk the walk! I also want to recognize Miguel Rodriguez, AIA, and Enrique Woodroffe, FAIA, for their great campaign efforts for President-elect and Secretary (respectively) at AIA National. I hope they continue to pursue their leadership goals as they strive to represent Florida.

The AIA National Convention in Boston has made me even more excited about our upcoming state Convention at the Breakers Hotel in Palm Beach, July 30th through August 3rd. The Breakers is a fantastic venue and I hope that all of you will be able to bring your families with you. The Convention theme, "Step it Up: Moving Toward Our Vision," is aligned with this year's goal of creating a five-year strategic plan, including five bold steps that will allow the incoming leadership to have a shared vision to follow. I believe you'll find the lineup of seminars diverse and interesting and I hope you will enjoy the special guest speakers, including keynote speaker, visionary Paolo Soleri. Our esteemed team of design award jurors from Argentina has selected some great projects and we hope to see you at the awards ceremony.

The Executive Committee retreat in Tampa was a success and for the first time Steve Jernigan, AIA (President 2009), Rick Logan, AIA (presumably President 2010) and I met in the same room to discuss the strategic planning goals for AIA Florida's future. That's three continuous years of leadership and staff putting our heads together towards a common goal for the Association!

As we move forward, it is even more important for us to unite as a group of knowledgeable, experienced, respected professionals and business leaders to make a change. I would like to urge you to familiarize yourselves with the proposed tax reduction amendment. If the amendment passes, it may require a tax on services that will greatly impact our personal businesses and the businesses of our consultants. The AIA Florida website is an excellent source of information on this topic and other architecturally relevant issues.

Last, as we try to further engage our associate architects and emerging professionals, the Florida Foundation for Architecture is hosting a design competition geared toward them. The Florida Cottage Design Competition is asking for submittals that provide solutions for affordability, sustainability and structural durability for the Florida region. To learn more about this competition or to enter, visit the AIA Florida website.

Thank you again for your continued support and I hope to see you at our Annual Convention!

Work-in-Progress

16: flat, a condominium project, was designed by 13 Minute Productions.

Promenade at Universal Studios was designed by Architecture, Inc. as two units flanking an open courtyard.

13 Minute Productions, Jacksonville, designed 16: flat, a boutique condominium conceived and developed by a collaborative group of five Jacksonville architects and designers. The architects, Mike Kleinschmidt and Logan Rink, formerly of Rink Design, created the project to provide a unique and environmentally conscious living experience. The urban infill project was designed for a challenging .19-acre abandoned lot and is the architect's interpretation of a multi-family urban residence.

The AIM Office Building in Fort Myers, designed by Architecture, Inc.

Architecture, Inc., Orlando, has been commissioned to design Promenade at Universal Plaza, a mixed-use project in Orlando on the back lot of Universal Studios. Split between two buildings, the project consists of 120,000 square feet of building area with retail on the ground floor and Class "A" professional office space on the upper floors. The ground floor retail component was designed around an open courtyard featuring covered walkways and a central fountain. Construction will begin this fall.

Architecture, Inc. has also designed the 60,000-square-foot AIM office building that will serve as the transition between I-75 and the nature preserve the building backs

up to. An exterior lobby that slices through the middle of the building frames views in both directions and serves as an entry piece and public plaza. Exterior porches are a prominent feature on the building which has a materials palette consisting of galvanized steel, wood, concrete and stucco.

BCArchitects AIA, Inc., Celebration, Florida, has been named project architect for the St. Cloud Medical Arts and Technology Park, anticipated to be the first LEED® certified building in St. Cloud. To serve as a forum for the advancement of medical and technology research and development, the 100,000-square-foot center at Stevens Plantation Corporate Campus will consist of an imaging center, surgical center and an incubator space to be occupied by the University of Central Florida Technology Incubation Program. The center will also include 50,000 square feet of medical office leasing.

The proposed sustainable design incorporates open air circulation to

Southwest entry to the St. Cloud Medical Arts and Technology Park and interior courtyard. Renderings courtesy of BCArchitects AIA, Inc.

Site plan and renderings of Deerfield Station courtesy of Dorsky Hodgson Parrish Yue.

reduce heating and cooling loads, tensile fabric roof in selected areas to reduce lighting load, the collection of condensation for reclaimed water, photovoltaic cells to reduce energy requirements and low e-glass to reduce heat gain while increasing natural light.

Dorsky Hodgson Parrish Yue, Fort Lauderdale, won final site plan approval for a $180 million Transit-Oriented Development located in the City of Deerfield Beach. The project, Deerfield Station, includes 549 residential units in three buildings, a 140-key hotel, 36,000 square feet of offices, 15,000 square feet of retail space and two parking garages totaling 1,150 parking spaces. The proposed development is directly connected to the Tri-rail Station in Deerfield Beach.

The architecture of the buildings is designed to reflect individual identity for each building and its use within the context of a planned development. The massing of each building is broken down with shifting of volumes enhanced by height variation and color differentiation. Common design elements such as horizontal bandings and vertical fins are used to subtly tie the different buildings in the development back together.

RLC Architects' design for the headquarters of the Orange Bowl Committee.

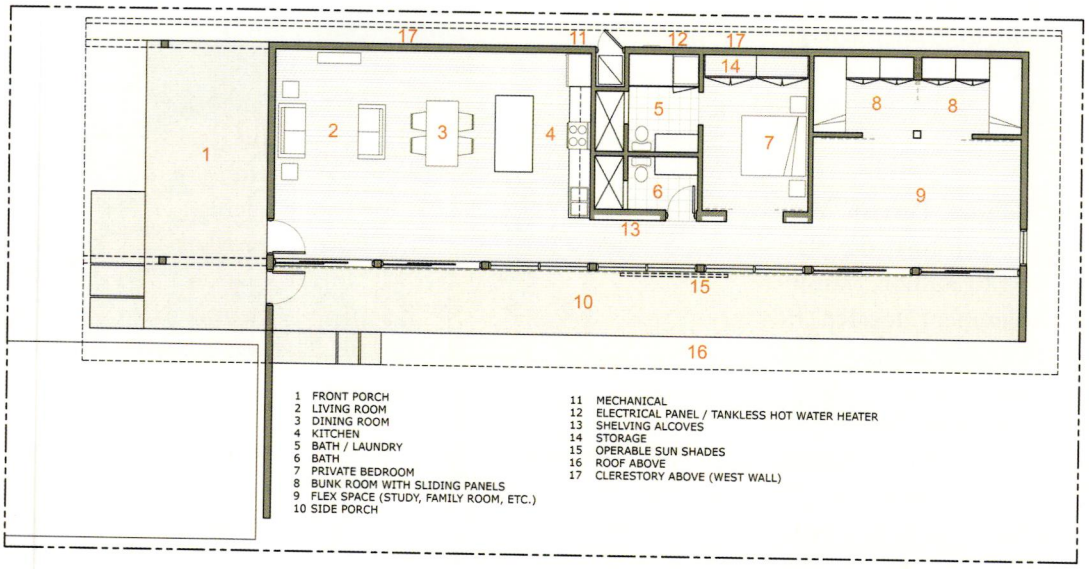
RLC Architects, Boca Raton, has been retained to design a signature headquarters building for the Orange Bowl Committee. The two-story building will provide 20,224 square feet of space on a 2.5-acre site in Miami Lakes. A main feature of the building will be a landmark tower with the familiar Orange Bowl Committee logo.

BSB Design, Orlando, recently collaborated with ICI Homes to design a feature home for the 2008 Volusia County Parade of Homes in Ormond Beach. The Emerald at Plantation Bay Golf & Country Club, features the latest green construction technologies, receiving one of the highest Home Energy Rating System (HERS) ratings in Florida. The home nearly achieves the "net zero energy" designation based on the Florida Building Energy Efficiency Rating System.

The 3,200-square-foot home includes over 900 square feet of covered outdoor living space and utilizes a floor plan that combines living, dining and kitchen areas into a single living space.

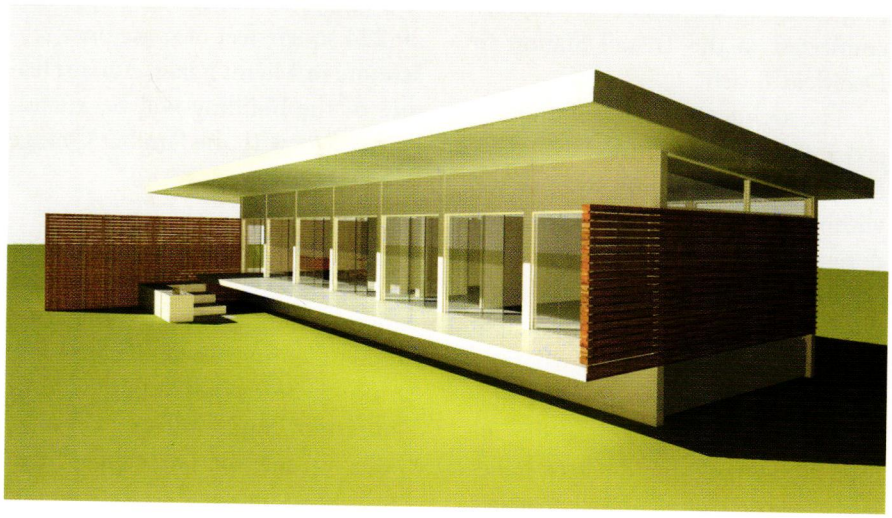
The Emerald show house, main façade and pool, designed by BSB Design for ICI Homes. Photography of Front elevation © Tony Giese, Pool image © Ten United

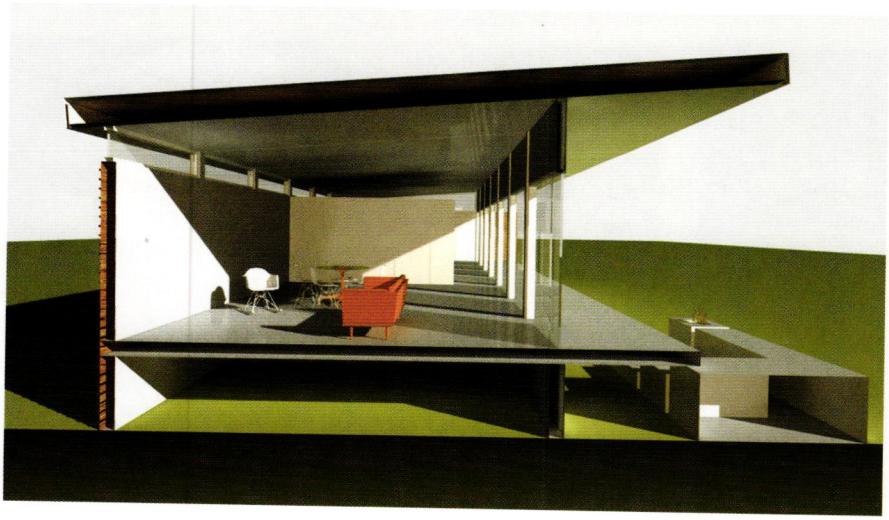
Awards



Wilder's BARhouse Gets International Recognition

WILDERARCHITECTURE, INC. was recognized in the international 99k House Competition with an Honorable Mention Award. Five finalists and seven honorable mentions were selected from over 180 entries proposing a sustainable, affordable house that addresses the needs of a low-income family in the Gulf Coast region. The entries in the Rice Design Alliance / AIA Houston-sponsored competition represented 29 states and 16 countries. All winning entries will be featured at the Houston Architecture Center later this year.





Wilder's entry, entitled "**BAR**house," is a modern version of the shotgun house that is typically found in the Gulf Coast Region. Conceived of as a 20' x 70' wide bar divided into a 10' structural module, the plan allows for a maximum amount of interior flexibility and the ease of off-site, pre-fabrication if desired.

East wall, section and floor plan courtesy of the architect.

Pictured with Basham & Lucas' winning "Canstruction" entry is the design team: Felipe Aspillaga, Vanessa Haynes (team captain), Ryan Blackmann, Chris Commins and Eric Lanehart. Not pictured are team members Carol Dodd, Paul Jacobs and Linda Wyble.

Basham & Lucas Design *Can*averal with Can Labels

Basham & Lucas Design Group, Jacksonville, was honored for Best Use of Labels in the 7th Annual Jacksonville "Canstruction" design/build competition, a charity event benefiting Second Harvest Food Bank.

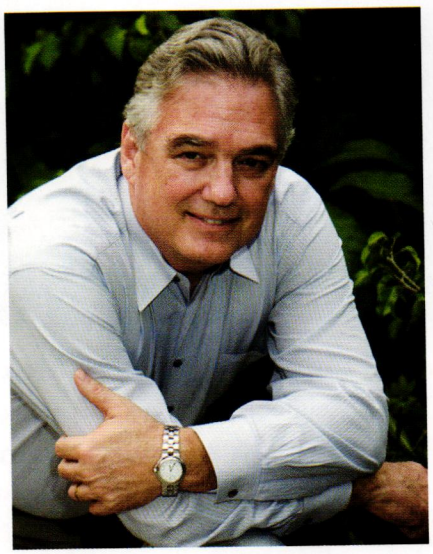
Using the space program as its inspiration, the firm designed "Blasting Away Hunger at Cape ***Can***averal," a giant eight-foot structure illustrating a space shuttle about to take flight. As the Jacksonville Best Use of Labels winner, the firm will compete in the International Canstruction Competition in Boston.

Basham & Lucas designed and built the art sculpture using nearly 1,000 cans with labels reflecting a spectrum of colors. The work was made entirely of canned and packaged food without any structural support or props. The jurors commented that the structure demonstrated the team's "outside the box" creative thinking.

RLC Founder Bruce Retzsch, AIA, Honored

Bruce Retzsch, AIA, founder and president of RLC Architects in Boca Raton, was honored with the 2008 Palm Beach Ultimate CEO Award from the *South Florida Business Journal.* Retzsch was one of nine Palm Beach County leaders to be honored this year. The award recognizes CEO's for their commitment to excellence and corporate and community leadership.

Since founding RLC Architects in 1990, Retzsch has worked with fellow principals Luis Lanao, AIA, and Juan Caycedo, AIA, to expand the firm's portfolio to include award-winning commercial, industrial, residential, mixed-use and educational projects throughout Florida and the Caribbean. The firm tripled in size between 2002 and 2004 and in 2006 was named Architects of the Year by *Builder/Architect Magazine.* Recently, RLC was listed among "Top Design Firms" in *Southeast Construction*, as well as one of the "Top 25 Design Firms" in *South Florida Business Journal.*



Bruce Retzsch, AIA, RLC Architects

A longtime proponent of sustainable design and a member of the US Green Building Council, Retzsch moderated the NAIOP South Florida Chapter's first Green Program. He has served as Principal-in-Charge for many of the firm's landmark projects including Lynn Insurance Corporate Headquarters and Office Depot Corporate Headquarters as well as several of the firm's LEED® projects.

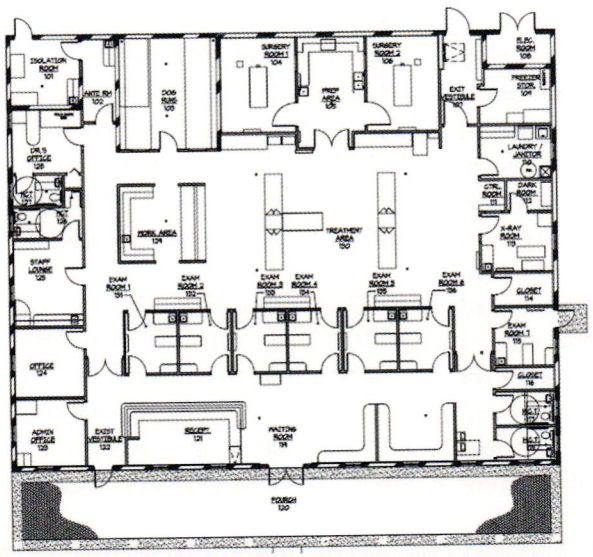
Features in Brief

Andras Allen Starr Architects, Inc., Columbus, Georgia, in collaboration with **Melton Architects, Inc.,** Lakeland, is designing Granite Commercial Center in Tampa for National Properties Trust. The site is easily accessible from Interstate 4 and the Crosstown Expressway, thereby connecting the project to downtown Tampa while creating easy access from St. Petersburg, Clearwater, Bradenton and Lakeland. The 380,000-square-foot development includes 40,000 square feet of retail space and 340,000 square feet of office space. The developer wanted a design that would express Tampa's progressiveness while maximizing views from the site to both the waterway and downtown. The building is intended to act as a catalyst for the transformation of the site's current industrial development.

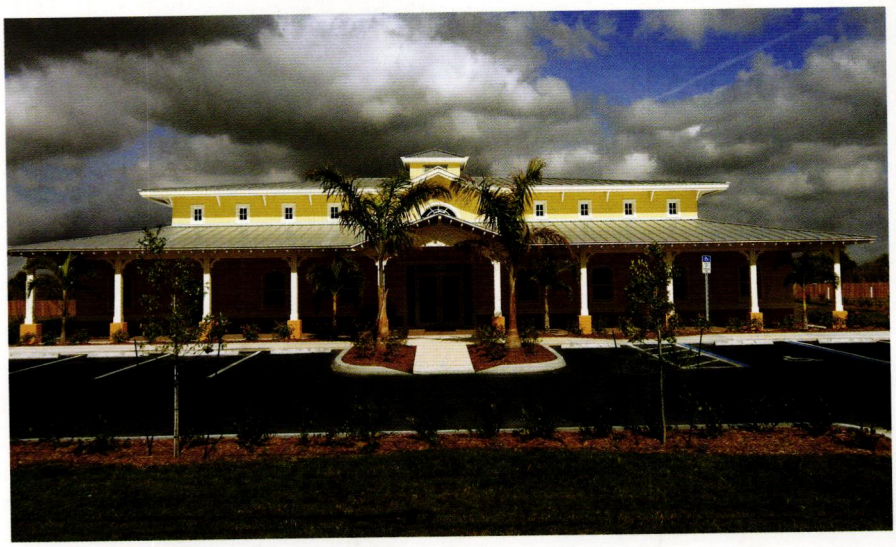
Overview of the project and courtyard perspective courtesy of the architects.

Architecture, Inc., Fort Myers, is designer of a new emergency veterinary clinic that provides comfort for both animals and their owners. The vernacular façade and broad porch provide a familiar and welcoming appeal while the scale and character of the building create the impression of a well-established and familiar institution.

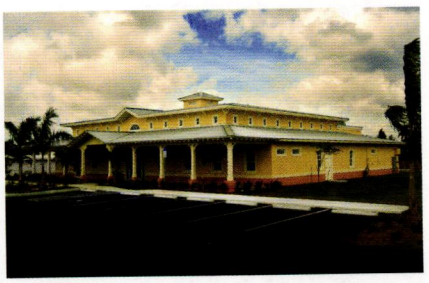
The lobby/waiting room is light-filled and colorful and provides immediate access to the examination rooms. One exam room is accessible from the exterior for times when an owner prefers not to bring an animal through the waiting room.



Photos of main façade and clinic interior by Donald Solins II of Don Leeman Studios, Inc. 2008. Floorplan courtesy of the architect.



The placement of the exam rooms provides separation between the waiting area and the clinic, an internal space lit naturally from high clerestory windows. The clinic space is sized to handle a high level of activity and the need to move large and often-sedated pets is well accommodated.



The 7,000-square-foot facility is equipped with two surgical rooms, dog runs, an isolation room and an x-ray room. All finishes are durable including tile floors and epoxy-painted walls and floor drains are located throughout the entire facility for easy cleaning.

The clinic was constructed at a cost of $1,200,000.

RS&H, Jacksonville, has designed new airport concourses for one of the fastest growing cities in the South. Jacksonville is modernizing its airport to keep up with growing passenger demands.The replacing of Jacksonville International Airport's Concourses A, B and C, which were built in 1968, began in 2005 with Concourses A and C. The concourse replacement was part of an overall airport improvement plan that began in 2000 and was designed with the intention of providing a gateway to the city, expressive of Jacksonville's economic, cultural and community life. The project includes a 2,400-space daily parking garage, modification of the existing garage to an hourly facility with a state-of-the-art space locator system, a pedestrian accessway with power walks and escalators, roadway and surface parking expansion, a fully integrated, thoroughly checked baggage explosive detection system (the first of its kind in the nation), a centralized security checkpoint expansion area and three new 10-gate concourses.

When completed, the new concourses, highlighted by their barrel-vaulted ceilings, will total 225,000 square feet, providing an increase of 70 percent more space than the older ones. They are designed to be wider, taller and brighter than the previous ones and will feature more concessions and amenities. Concourses A and C will be completed in November 2008 with Concourse B completed in May of 2009. Collectively, they will hold 30 gates.

Jacksonville International Airport accommodates over six million passengers per year. It returned to its pre-911 passenger volume two years ago, proving to be one of the most resilient airports in the country. The new facility will be roomier and brighter with an 80-foot skylight that traverses the length of the concourse. It will also be more energy-efficient.

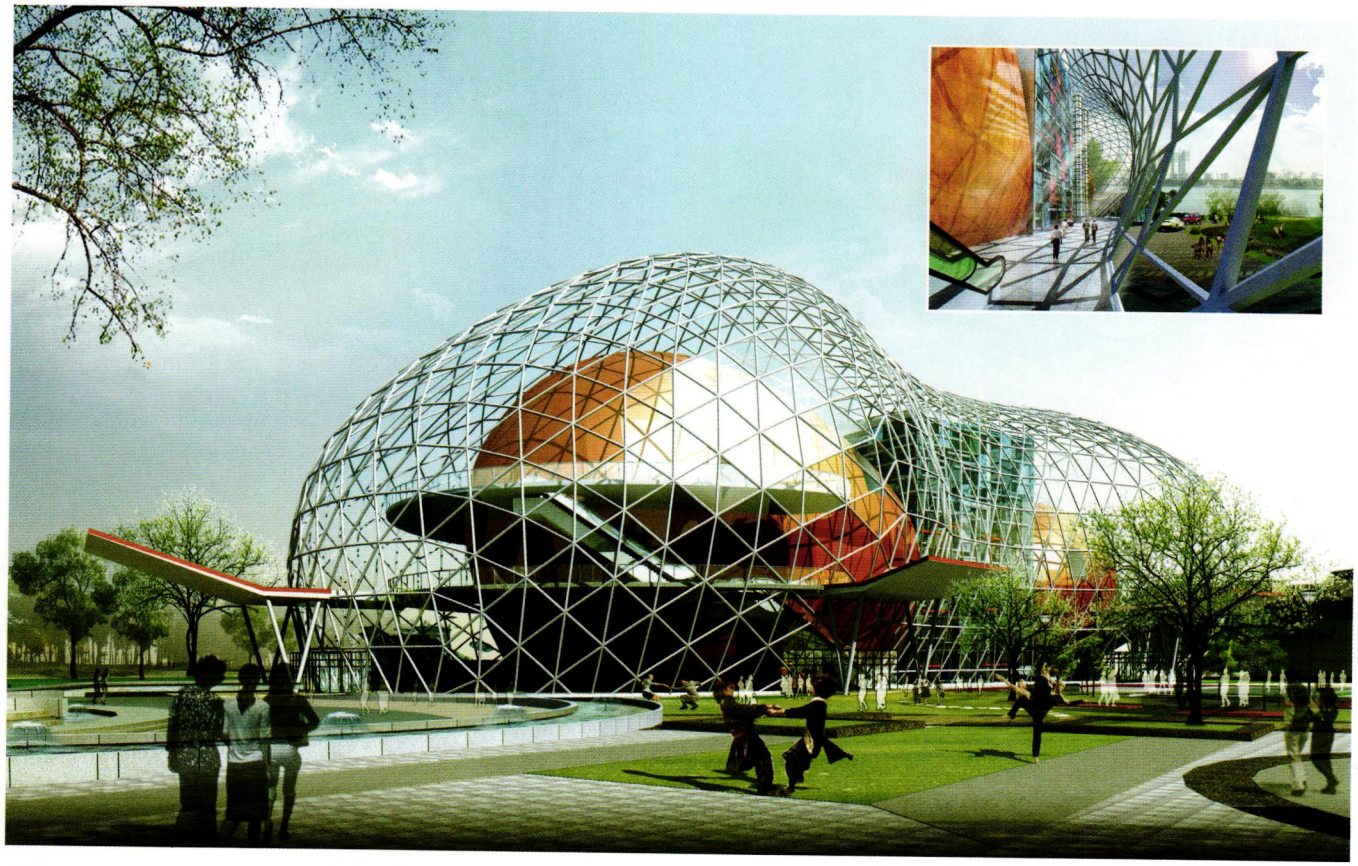
Aerial view of the new concourses courtesy of the architect.

Luis Revuelta, AIA, RVL Architects, Miami, is designer of Regatta 2, the second phase of an earlier Miami Beach development. Located in the now trendy North Beach (NoBe) section of Miami Beach, Regatta 2 sits right on the Intracoastal Waterway, one block from the Atlantic Ocean. Sited in an area that is hailed for the architectural renaissance it is undergoing, Regatta 2 is a condominium that is being hailed for its fusing of contemporary design with historic Miami Modern (MiMo) architecture. The façade of the Queen Elizabeth, designed by architect Melvin Grossman (whose work includes Caesar's Palace in Las Vegas), will be retained and incorporated into a recreation room for the new facility. The seven-story, $45 million project is slated for completion in March 2010.

With its sweeping curvilinear design, the building takes its direction from the MiMo structures that have become Miami Beach's architectural legacy. Architect Luis Revuelta, who was recently named "Architect of the Year" by the AIA Miami Chapter, took inspiration from the past and updated it. Inspired by the concept of a vessel at sea, the building features marine elements, clean geometric lines and curves that soften the aesthetic and mimic the movement of the water.

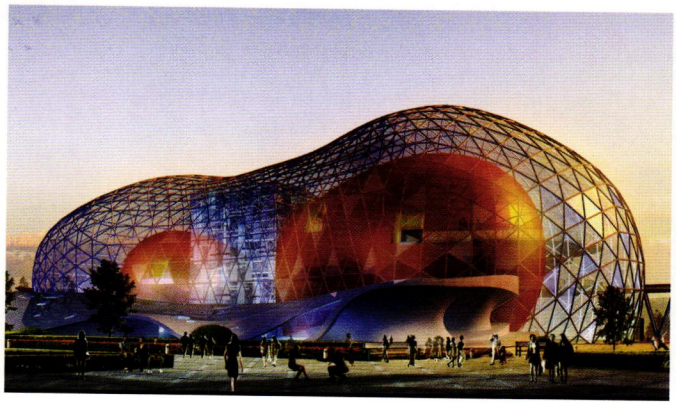
Marina, street facades and plan for Regatta 2 supplied by RVL Architects.

There are to be 115 waterfront residences with unit size ranging from 651 to 2,267 square feet. The penthouses have private rooftop terraces. Beyond the luxurious amenities of heated swimming pool, interior courtyard with reflecting pools and waterfalls and state-of-the-art fitness center, the building is being fitted with floor-to-ceiling hurricane-proof windows, high efficiency heat and air-conditioning systems and fire protection system.



Perspectives and interior view courtesy of Beijing HHCP Consulting, Inc.

Beijing HHCP Consulting, Inc., Beijing, China, has created a design for the new Shenyang Cultural Arts Center in Shenyang, China. In 2003, Helman Hurley Charvat Peaock/ Architects, Inc. established an office in Beijing to better accommodate the firm's growing list of Chinese clients and projects. In addition to extending the firm's global reach, China's Design Institute is working under HHCP's direction, a first for an American design company and one that enables the firm to maintain a high level of quality control over its China projects.



The Center's two large concert halls, with a combined seating capacity of 1,750, were designed in a back-to-back arrangement with the two stages sharing a central backstage service spine. In addition to establishing a new trend in functionality, this strategy gives each concert hall it own specific lobby at opposite ends of the building, resulting in an organized separation of the audiences and a unique identity for each performance venue.

The HHCP architects approached the design of the Center in much the same way that one would craft a fine musical instrument. The polished wood finishes of the paired concert halls were inspired by the wooden acoustical chamber of a mandolin. Those fundamental contours also influenced the performance halls' distinctive forms. An undulating glass case encapsulates the halls, forming the lobbies and circulation spaces while providing splendid views of the City of Beijing across the river.

The artistic composition of a solid mass within a transparent shell becomes a dramatic architectural feature both day and night, coupling beautiful aesthetics with magnificent acoustics.

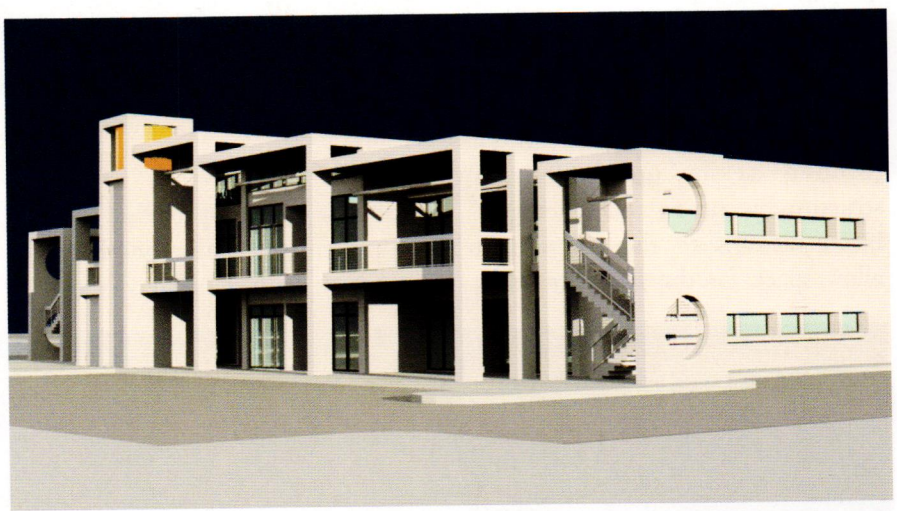
Skirball Group, Inc., Sarasota, is designer of the Sterling Park Office Building in Sarasota. The design goal for this new office building was to get abundant natural light into the work environment. Designed to be leased as general and medical office space for up to eight tenants, the building totals about 14,000 square feet. The office space can be combined and configured in multiple ways because there are no structural walls inside the office areas.

Originally conceptualized as a simple glass wall closing off the space created by the concrete end walls and roof, the building was modified to include offsets between the tenant spaces. As finalized, the building steps in and out at the points dividing the tenant spaces, thus clearly defining them on the exterior.

Architects Philip Skirball, AIA, and James Piachuk, Associate AIA, capitalized on the north-facing frontage by making the wall entirely glass. In order to maximize the delivery of natural light to interior spaces on the second floor, the roof over those spaces was raised to allow for clerestory windows between the various roof planes. The east, west and south-facing windows are protected from direct sun penetration by concrete eyebrow sunshades. These shades are part of the structure of the building and using concrete turned out to very cost-effective.

The top of the elevator shaft will have a cylindrical etched glass enclosure that will be internally lit by a programmable, energy-efficient, light-emitting diode system that is able to create limitless combinations of colors. This colored "light sculpture" will add some decoration to the otherwise minimalist building and make it easily recognizable from the road.

All glass in the building will be treated with a metallic coating that will allow 75 percent of the natural light to enter, but will keep most of the radiant energy out. Glass is also impact and hurricane-resistant. Other energy-efficient/sustainable features include building orientation to reduce the cooling load, a white roof to reflect sunlight and individually controlled air-conditioning systems. Driveway and parking spaces were sited to save trees and provide shade for west-facing glass.



North elevation and northwest corner. Renderings courtesy of the architect. Construction photos courtesy of the architect.

Courtenay House *delray beach*

Currie Sowards Aguila Architects, Delray Beach, Florida

In 1955, Architect Paul Rudolph designed a vacation home that is now listed on the National Register of Historic Places. In 1980, the house underwent its first major change under the direction of architect Robert G. Currie, FAIA. Because of Rudolph's prominence, it's worthy of noting that the addition was made with Rudolph's blessing. It's also of interest that the two architects already had a connection in that Rudolph was a student of Bob Currie's late father, Leonard J. Currie, FAIA, when he taught at Harvard Graduate School.

The 1980 addition to the house involved jacking up the original structure by cutting and splicing "I" beam sections to the columns to allow space for the addition below.

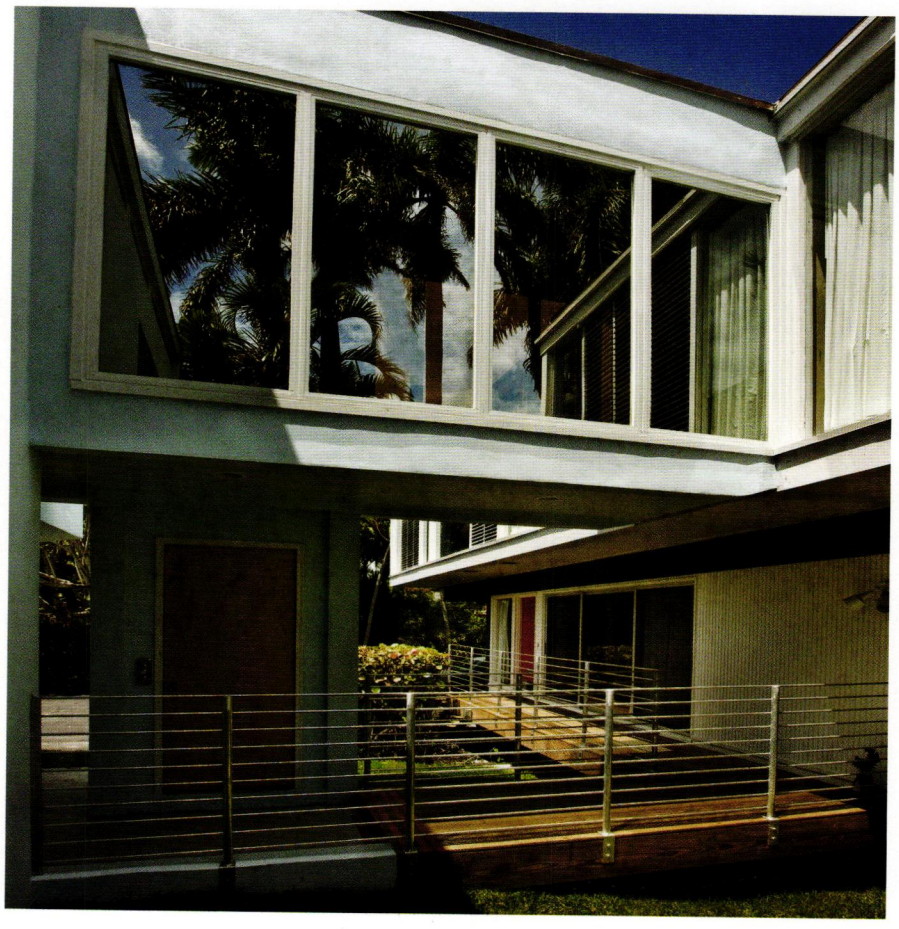
The original vacation house designed by Paul Rudolph in 1955. Photographer unknown. Opposite page: View of the north elevation. Photo by C.J. Walker.

The new portion provided a sitting room and an additional bedroom and bath with a balcony above on the north side.

In 2008, Bob Currie made a second addition of 1,200 square feet to

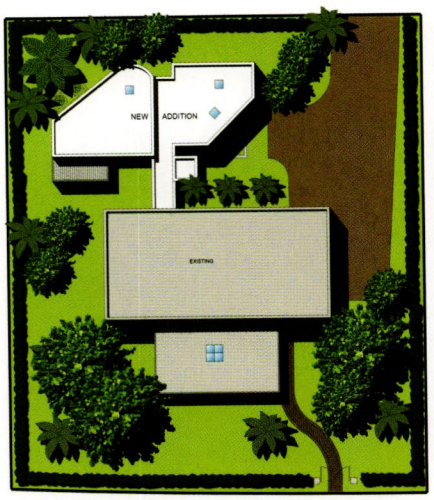
The first addition designed by Robert G. Currie in 1980. Photo by Robert G.Currie.

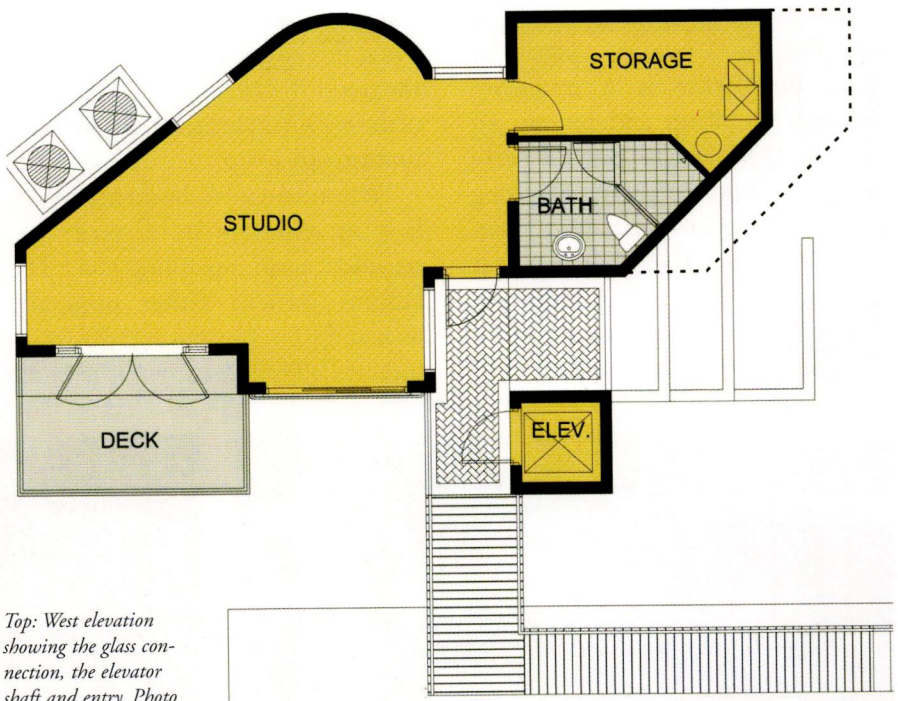
the house. Located at the rear of the site, the intent of the new addition was to be unobtrusive and non-impacting, respecting Rudolph's original structure. The geometry of the latest design provides for open views from both the addition and the existing house. The addition is comprised of a master suite, artist's studio and elevator. It offers a clear contrast to the original Rudolph design and is connected only by a transparent pedestrian bridge. Natural lighting illuminates the interior through clerestory windows and operable windows were provided for cross ventilation.



Interior gallery, above. Right: Detail of the bridge connection viewed from the east. Photos by C.J. Walker.

Project Credits: Robert G. Currie, FAIA: Architect; **McCarthy & Associates, Inc.:** Structural Engineers; **Thompson Youngross Engineering Consultants**: MEP Engineers; **Moraca Builders Inc.**: Contractor; **Virginia W. Courtenay, FASID**: Interior Designer and Owner.





Top: West elevation showing the glass connection, the elevator shaft and entry. Photo by Robert G. Currie. Bottom: Site plan and first floor plan courtesy of the architect.

Angelo & Son's Restaurant *panacea*
Hammond Design Group, Tallahassee, Florida

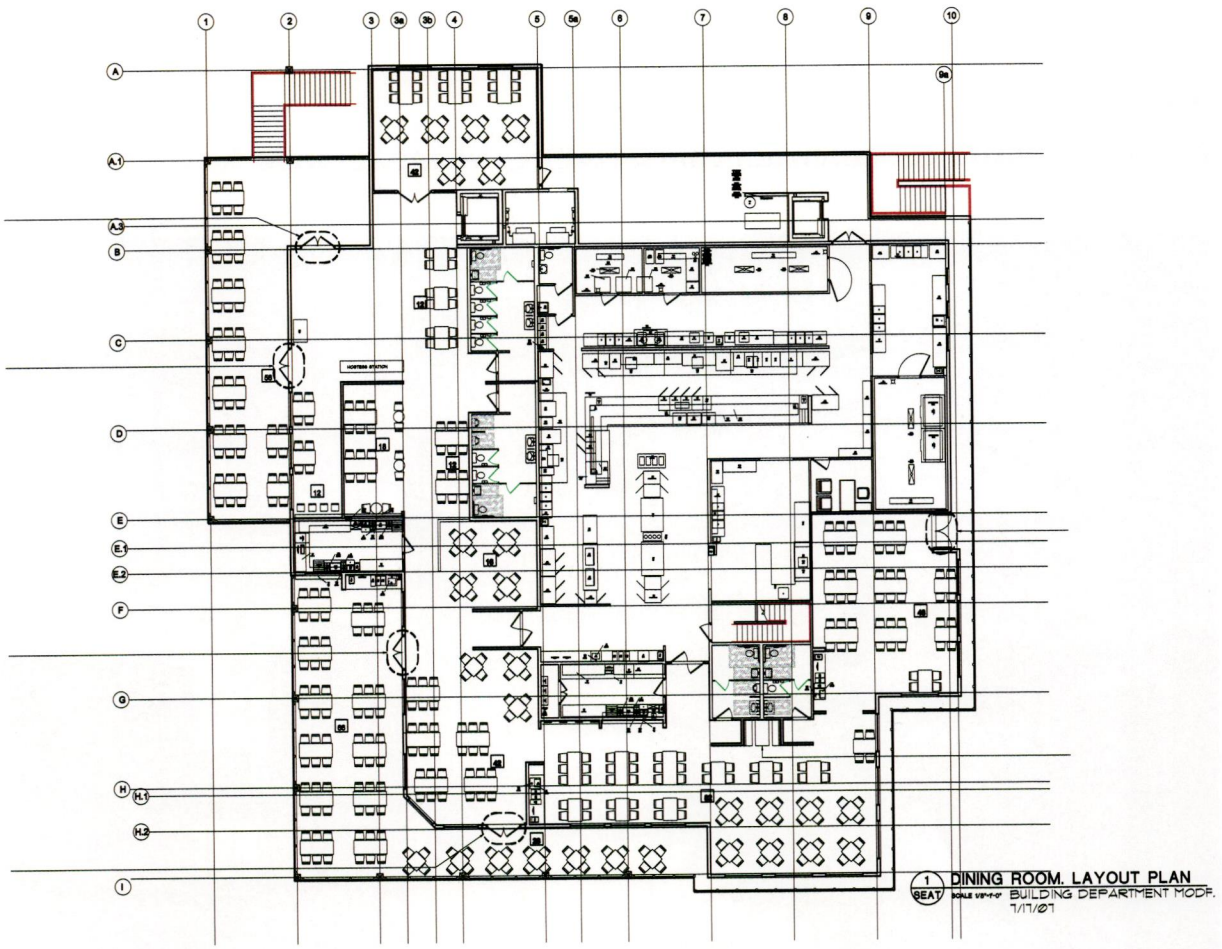
The newly redesigned Angelo & Son's Restaurant sits over the Ochlockonee Bay. Photographed from the Panacea Bridge by Betsy Barfield.

For the residents of Leon, Wakulla and Franklin Counties, Angelo & Son's Restaurant is a tradition. Perched on pilings and jutting out into the Ochlockonee Bay, this well-known seafood restaurant has long been a favorite Gulf Coast dining spot. At least it was a favorite dining spot until July 10, 2005, when Hurricane Dennis hit the Florida Panhandle as a Category 3 storm, causing $2.23 billion in damages. The photos accompanying this article tell the story. When the storm was over, there was nothing of the restaurant left standing but a few timbers and a sign.

The restaurant's history, particularly as relates to its original construction, is an interesting one. The current owner's father originally owned the bay bottom and the structure was built over the water to elude early alcohol restrictions. In the 1950s, the State of Florida enacted the Butler Act in which it reclaimed the submerged land, but the State returned the land immediately beneath the building to its owners.

When the current owners of the restaurant, Angelo and Arlene Petrandis, decided to rebuild after Hurricane Dennis, they knew that building over water was fraught with

Left: Waves crashing against the back deck during Hurricane Dennis. The deck, which was part of the dining area, was completely destroyed. Right: The photo of the Angelo's parking lot was taken during Hurricane Dennis. Photos by Angelo Petrandis.



problems, not the least of which is getting flood insurance.

The new Angelo's has the same footprint as the original. It is constructed on concrete pilings buried approximately 30 feet deep. The building has a hollow core precast floor slab and a wall system of precast concrete with a 3-inch Styrofoam sandwich panel. The precast wall panels support steel frame trusses and a standard metal pan roof deck. The building is designed to tolerate winds of approximately 160 miles per hour and it was raised an additional three feet above the federal flood elevation for that location.

In late August 2007, the 18,000-square-foot restaurant reopened with a new interior that boasts 28,000 board feet of pecky cypress.

Above: Photo of interior reception area by Rhonda Hammond. All interior walls are pecky cypress as they were in the original restaurant. Below: Restaurant seating plan courtesy of the architect.

Project Credits: Hammond Design Group, Bret Hammond, AIA, ASLA: Architect; **Dimitri Company**: General Contractor; **Sound Structures Engineering, Inc.**: Structural Engineer; **Winton Engineering, Inc.**: Mechanical/Plumbing Engineer; **Applied Research & Design:** Electrical Engineer.

Alliance Française Village *miami*

Helmuth, Obata & Kassabaum, Inc., (HOK) Miami, Florida

The Alliance Française Village project encompassed the renovation and conversion of two pre-existing buildings – a 5,000-square-foot, one-story warehouse and a 6,000-square-foot, two-story industrial building. The project included construction of a new 5,000-square-foot addition and related site work.

The facility is the new home for a not-for-profit organization whose mission is to promote the French language and culture through the operation of a language school and other educational activities. This renovation project transformed the two existing buildings into an educational center that houses 14 classrooms, a reception area/lobby atrium, a library, bookstore, multi-purpose/event space, meeting rooms, a catering kitchen and a retail component for six tenants. The facility features new and reinforced structural support systems, a custom storefront, new MEPS systems, a hydraulic elevator, zinc cabinetry and shelving and an energy recovery HVAC system.

The design challenge was to economically rehabilitate two old industrial structures in order to accommodate new uses and create an exciting, fresh image for the Center. This was accomplished by housing the entry between two bold towers, red and blue, transected by the strong diagonal slope of the new white metal roof. The entrance, reception and sidewalk café are situated in the new addition. This design approach was employed to avoid having the equipment, infrastructure, elevator and stairs intersecting the floors of the pre-existing structures. The new elevator and restrooms are housed in the towers. The iconic power of the towers and the new roof echo the blue, white and red of the flags flying in the forecourt.

According to HOK, "maximizing the use of natural light was important in the design concept." The existing clerestory windows in the classrooms were replaced with impact windows of the same configuration. The glass doors to the classrooms allow borrowed light to

Opposite page: The forecourt and main entry to the new cultural center. All photos ©Wilk Marketing Communications. Images courtesy of McGowan Builders, Inc. Above: The atrium features sealed concrete floors and walls painted in the colors of the French flag. The space houses a zinc-clad reception desk, a small conference room and a French café.

spill out into the corridor. The interior glass walls and doors of the classrooms and offices allow views and light from the corridors. When budget constraints required that some exterior storefront windows be omitted from the lobby space, individual eight-inch by eight-inch glass blocks were installed instead. The north-facing, two-story storefront of the entrance lobby also allows much natural light into the café and reception areas with minimal glare and heat gain.

Project Credits: Hellmuth, Obata & Kassabaum, Inc.: Architect, Interior Designer; **McGowan Builders, Inc.**: General Contractor; **Bliss & Nyitray, Inc.**: Structural Engineer; **SDM Consulting Engineers**: MEP Engineer; **EAC Consulting, Inc.**: Civil Engineer.

The mezzanine balcony overlooks the entrance atrium, photo top, and café, bottom.

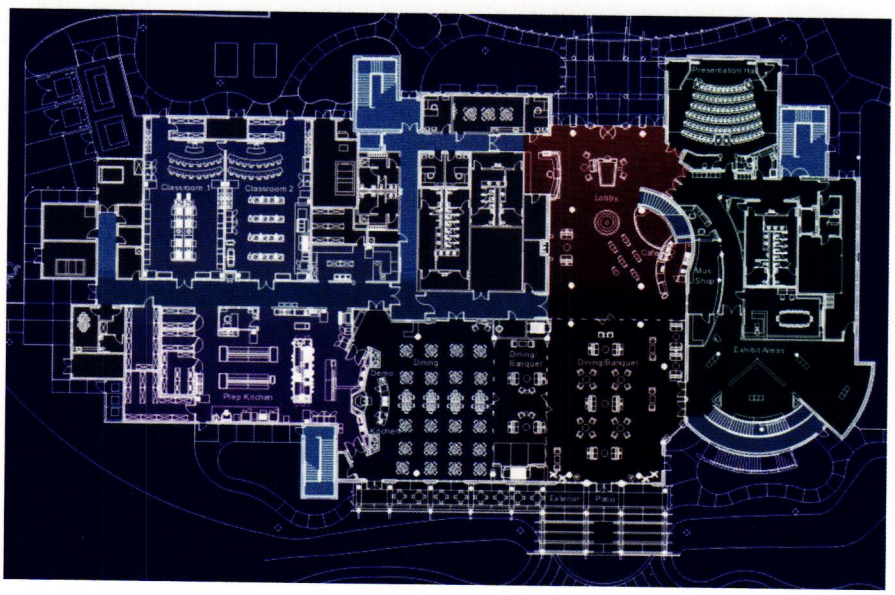
Mori Hosseini College of Hospitality Management, Daytona Beach College (DBC) *daytona beach*

FLA/Florida Architects, Inc., Orlando, Florida

Main façade of the College of Hospitality Management. All photos by Joseph Lapeyra Photography. Opposote page: Lobby and reception area for the hospitality program.

Designing a facility to house three separate academic programs and a world-class photography museum in one building was the imperative that drove the design of the new Mori Hosseini College of Hospitality Management at DBC. The new 70,590-square-foot, $23 million building goes a long way toward establishing DBC's programs as a major educational force in the area.

Critical to the success of the project was that it create an environment that accurately reflects the hospitality workplace. To that end, the building façade is articulated in curved forms of sandy-toned stucco capped with a tile roof and presenting the appearance of an updated Mediterranean Revival design. Signature details, including oversized corbels, concrete balustrades and an outdoor loggia, help define the building's Mediterranean theme. An additional accent is the man-made water feature that is prominently sited near the main entrance to the campus.



Plan courtesy of the architects.

Kitchen and adjacent classroom for Hospitality and Culinary programs.

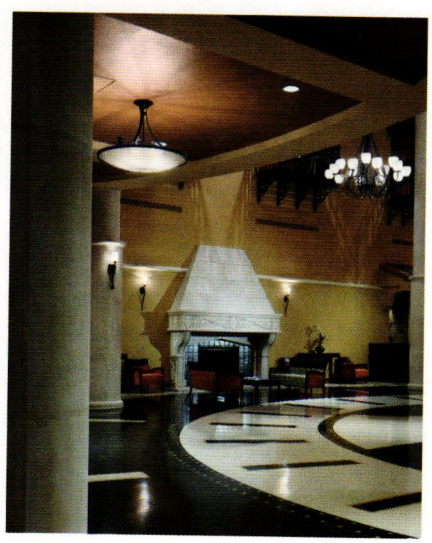
The main entry to the building opens into the Grand Lobby of the facility's hotel component, a training facility that houses multiple conference areas and guest rooms that function exactly like actual accommodations in a resort setting, but are utilized for training purposes only. Throughout the interior of the ground floor lobby, ballroom and dining spaces, an iconic palette of Mediterranean-inspired materials was used, including ceramic tile, cast stone, rusticated wood and wrought iron, all of which is countered by furnishings with clean lines. An interior stone fountain, a working fireplace with stone surround, wrought iron chandeliers and a curved, cast stone staircase add to the overall feeling of elegance in the lobby.

To serve the Hospitality and Culinary Programs, the lobby connects to 6,200 square feet of general classroom space, including two dual-purpose lab spaces. A proscenium-style theatre off the lobby provides a multi-functional space that serves as a teaching venue as well as a screening room for museum exhibitions and cinema events. The far end of the lobby contains the Grand Ballroom which opens onto a terrace that can be used for *al fresco* dining. The ballroom connects to nearly 11,260 square feet of dining and cooking/teaching space dedicated to the Culinary Management Program.

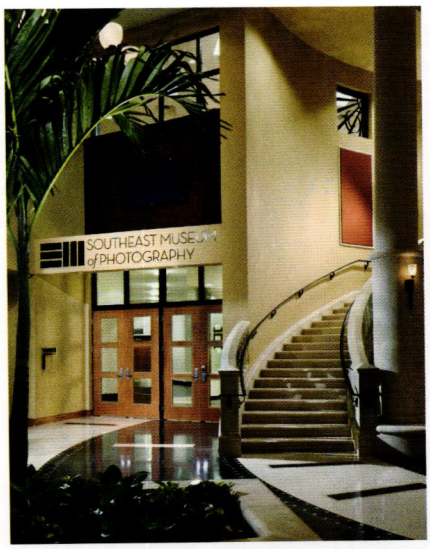
The Culinary Program is served by two teaching kitchens/food laboratories that are located behind the dining space. Additionally, a demonstration kitchen features full broadcast capabilities.

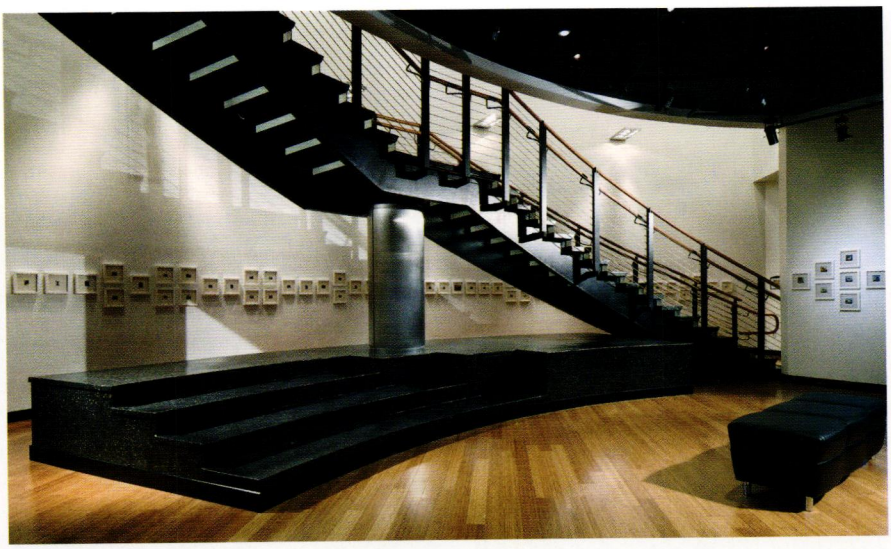
The main entrance to the Mori Hosseini Center Southeast Museum of Photography is located in the rear façade and identified by a *porte cochere* that is illuminated by an interchangeable LED signage panel. Here the Center's signature icon, a stylized camera shutter/ribbon of film, appears as a window design. This motif is repeated in flooring and wrought irons details throughout the space.

In a departure from the rest of the building, the Museum features a contemporary décor that mirrors the contemporary nature of the exhibitions. An overall neutral palette provided continuity with the surrounding space, while materials like glass tile, wood floors and white painted



Lobby fireplace.





Above: Entry to the Southeast Museum of Photography and gallery seating and stair in museum. Below: Grand Staircase in lobby.

walls lend an industrial edge. The main components of the space include expanded single and two-story display areas, including a designated permanent collection area and faculty offices. The second floor of the Museum is accessed via a sculptural steel staircase with terrazzo treads and glass risers accented with retro-style pendant lights. There is also ample "back of the house" space for use in exhibit preparation. The theatre space that is connected to the hotel lobby also provides a multi-functional teaching/gathering area for presenting exhibit openings, gala fundraising and special events.

Project Credits: FLA/Florida Architects, Inc.: Architecture, Interior Design; **Cape Design Engineering:** MEP, Structural Engineers**; Zev Cohen & Associates, Inc.:** Civil Engineers; **Nodarse & Associates**: Geotechnical/Testing; **PPI:** Contractor; **Designs, Furnishings & Equipment, Inc.:** Kitchen Contractor.

STH Architectural Group, Inc.
Celebrating 40 Years of Good Design

STH Architectural Group, Standing L to R: Jim Guerriero, Associate; Ignacio Reyes, AIA, Senior Associate; Mark Ugowski, AIA, Senior Associate; Robert Thomas, AIA, LEED, Senior Associate; Michael Gotwalt, Senior Associate; Fernando Del Dago, AIA, LEED Senior Associate; John Mezzetta, Senior Associate . Seated L to R: Brenda Morgan, Controller; Ron Wiendl, AIA, Design Director and Senior Associate; William A. Hanser,AIA, Principal; Paul M. Twitty, AIA, Principal; Carson Wright, AIA Vice President. Photo by Hayes Photography.

Though its name has changed several times in the past 40 years, STH Architectural Group, Inc. has remained true to its founding philosophy of creating environments, not structures.

The cornerstone of the practice that Paul M. Twitty, AIA, and Ronald D.Schwab, AIA, founded in West Palm Beach in 1968, was, and has always been, client service. The two young architects combined their talents to form Schwab & Twitty Architects, Inc. Recognized for its innovative design of private residences, condominium towers, clubhouses, public buildings and office towers, the firm's work had a strong influence on the South Florida skyline.

On the eve of its 20th anniversary in 1987, the founding partners, together with then-Executive Vice President William A. Hanser, AIA, established Schwab, Twitty & Hanser Architectural Group, Inc., and designated Bill Hanser the president.

Proud of its planning and design accomplishments, STH responds enthusiastically to new challenges. The firm's work encompasses the full spectrum of design with projects throughout the U.S. and the Caribbean. Its diverse design capabilities have enabled STH to effectively weather 40 years of economic highs and lows and to maintain its position as one of Florida's leading architectural organizations.

STH has an active staff of 50 employees, some of whom have been with the firm since it was established. Over the years, the principals, associates and a dedicated core of talented individuals have welcomed and mentored creative newcomers who continually provide innovative ideas and modern concepts for each new project.

STH embraces a philosophy of creating spaces that enhance the living environment. The firm's headquarters in West Palm Beach was designed to reflect the dramatic architectural style for which it has become known. The space includes

Palm Beach Atlantic University DeSantis Chapel, West Palm Beach. Photo by TD Photography.

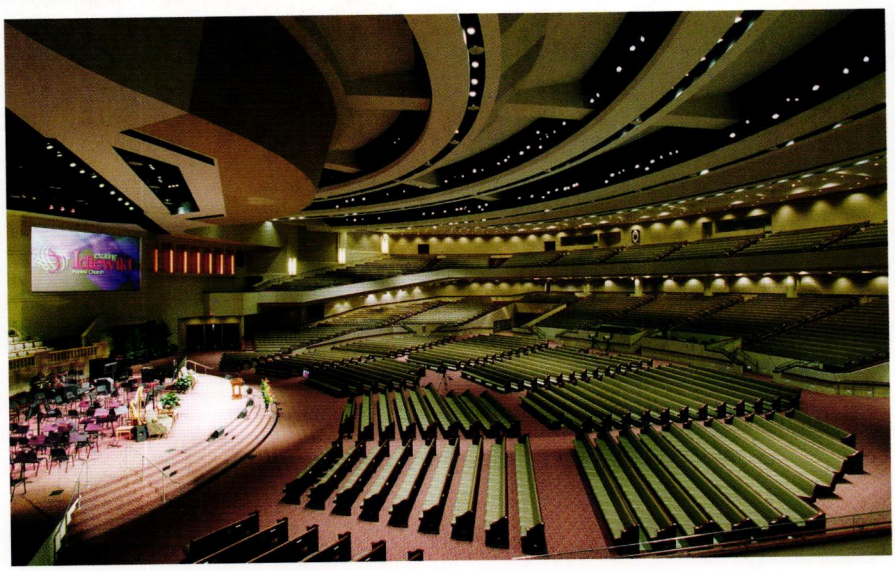
individual glass offices that admit natural light, conference rooms and a full in-house graphics department, a staff training room and state-of-the-art telecommunications. Sustainable principles including using renewable bamboo flooring, low VOC carpet and an energy management lighting system are an important part of the building design.

In addition to its expertise in multi-family residential design, the firm's direction has evolved to include high profile complex structures such as educational, bioscience and religious facilities, as well as master plans for on-going and expanding projects.

Innovative educational facilities designed by STH include the Workforce Training Center at Palm Beach Community College, the Florida Atlantic University Student Center in Boca Raton, the Institute for Public Safety Building at Broward Community College and the Physical Science Building at Florida Institute of Technology in Melbourne, which boasts the state's largest telescope.

STH has expanded its expertise to respond to the needs of the biotech world, including the design of two buildings for the Scripps Research Institute on the campus of Florida Atlantic University in Jupiter and five prototype science laboratory facilities for Florida's Community College system. Currently, the new Florida Atlantic University (FAU) Engineering and Computer Science Building is being designed with the

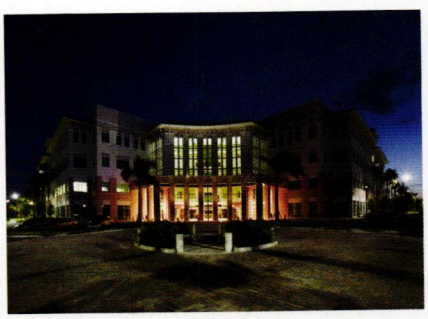
Top, left and right: Palm Beach Community College Workforce Training Center, Lake Worth, Florida. Photos by TD Photography. Above: Northbridge Center, West Palm Beach. Photo by Chuck Wilkins Photography.



goal of being the first university structure in Florida to receive Platinum LEED® certification.

The list of churches and religious facilities designed by STH numbers more than 50 and includes many exceptionally large campuses. At over 460,000 square feet, Idlewild Baptist Church in Lutz, Florida is one of the largest churches in the state with a 5,600-seat worship center.

The recipient of many local, regional and national design awards, STH is particularly honored to be recognized by its peers as it was in 2003 when it was named Firm of the Year by the Palm Beach Chapter of the AIA. In 2005, founding partner and CEO Paul M. Twitty received the AIA Palm Beach Gold Medal. "Our philosophy," he said, "embraces creativity and client service.



Humanities Building, Palm Beach Community College, Boca Raton campus. Photo by NY Focus.

We are in the business of creating environments, not buildings, and these environments respond to, and affect, the way people live, play, learn and conduct business. We want our designs to be our legacy to the communities where we live and everywhere we are privileged to work."

Top: Broward Community College Institute of Public Safety, Davie, Florida. Photo by NY Focus. Middle: Florida Atlantic University Student Center, Boca Raton. Photo by TD Photography. Bottom: Idlewild Baptist Church, Lutz, Florida. Photo by Leffstead Photography All photos used courtesy of STH Architectural Group.

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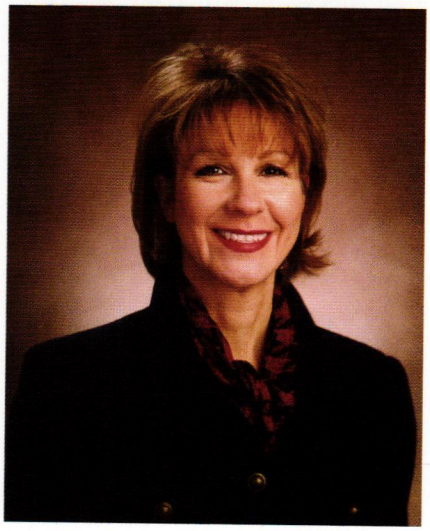
2008 Legislative Wrap Up

Vicki Long, CAE, Executive Vice President



SALES TAX ON SERVICES

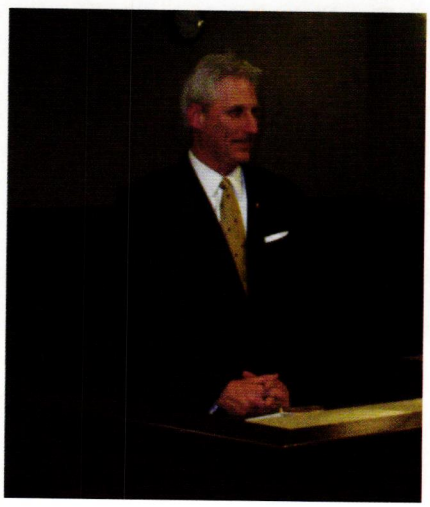
The 2008 legislative season was the tale of at least two concurrent legislative sessions. One consisted of duly elected legislators (with election year jitters) who were forced to struggle with billions of dollars in budget shortfalls and stagnant economic growth. The other session included the obscure but powerful Tax and Budget Reform Commission (TBRC).

The TBRC is composed of 29 appointees tasked with "imagineering" Florida tax policy changes. Of the 29, only 25 can vote. The other four are legislators who may attend meetings, opine on issues and submit proposals, but they do not have a vote. Under Florida's Constitution, the TBRC, which is established every 20 years, has the power to draft and, with 17 affirmative votes, place constitutional amendments relating to Florida tax policy on the ballot for voter approval. Unfortunately, in Florida, we know that once an issue is placed on the ballot, approval is generally assured...witness our constitutional protection of pregnant pigs.

Beginning in 2007, the TBRC met throughout the state in town hall-type meetings. Through that period, commissioners heard public testimony and citizen complaints about Florida's property tax structure. As a result, after months of testimony, CP0002 was proposed by past Senate President and current Commissioner John McKay. As first drafted, CP0002 was unpalatable but straightforward. It called for a constitutional amendment repealing (sun setting) exemptions and exclusions from sales taxes as a replacement for ad valorem taxes. In other words, the proposal would force creation of a sales tax on services.

As many member architects recall, in 1986, the Legislature levied a tax on services that proved disastrous and was repealed in less than six months. Since that time, McKay has attempted to institute a service tax no less than four times.

AIA Florida has a long history of opposing service taxes due to inherent problems and inequities in the concept. To date, concerns with the pyramiding of taxes, duplication of taxes and unfair advantages to out-of-state architects and to larger firms have not been resolved. Consequently, AIA Florida joined forces with the Coalition to Protect Florida's Economy in order to educate members of the TBRC and to fiercely oppose CP0002. Mickey Jacob, AIA, Sen. Charlie Clary, III, FAIA, former Senator Winston E. (Bud) Gardner, Jr., P.E., LEED® AP, General Counsel, J. Michael Huey, Hon. AIA., and Jodie Dodson, AIA, all provided testimony about the harmful impacts a tax on architectural services would have on the profession, the clients it serves and the Florida economy.



Mickey Jacob, AIA

In testimony, Jacob stated that, "This amendment would cause a seven percent decrease in the services architects would provide. It would double -- if not triple -- taxes on the same services. The effect would be on more than business, but also on the employees' daily lives." (see video clip of full testimony at **www.aiafla.org**)

Based on his first-hand experience as a member of the Legislature in 1987, and unfortunate implementor of the ill-fated service tax bill at that time, Gardner warned of the dangerous waters the TBRC was entering (see sidebar). The complexities and intricacies of enacting a service tax could not, in his estimation, be overstated.

The groundswell of opposition and the educational efforts appeared to be making an impact. A battle between economist, Hank Fishkind, Ph.D. and competing economist, Tony Villamil, Ph.D., former head the Office of Tourism, Trade and Economic Development under Governor Jeb Bush, created doubt about the fallout of a service tax with two diametrically opposed economic conclusions.

Fishkind told panel members that a reduction of ad valorem taxes would spur a sluggish economy and flatten the "volatility" of Florida's current sales-based tax reliance. He predicted that by the fifth year of the tax switch, the proposal should create more than 72,000 new jobs and stimulate $7 billion in additional construction. Furthermore, it would attract 56,000 new residents requiring the construction of 20,000 new homes. Villamil, however, stood by his earlier findings and testimony that a service tax would kill over 50,000 jobs in the state and create a $3 billion loss in personal income in just a few years.

The commissioners were shaken. They admitted fear about the negative impact of a service tax but reiterated their desire to provide property tax relief. Finance and Tax Committee Chair Susan Story, President and CEO of Gulf Power, said she believed a service tax would decimate Florida's small businesses, which lack staff to perform, in-house, many of the services on which they rely, but would be taxed under CP0002. "I think more small businesses will fail with the services tax," she said. "I absolutely do. And I think those people will be out of a job."

The plan was sputtering and looked like it just might die when, an amendment proposed by Commissioner Patricia Levesque revived the proposal. Her amendment required the repeal of the required local effort (RLE) for school funding, as did CP0002, however, it also directed the Legislature to replace it with revenues generated by a repeal of sales tax exemptions; by an increase in the sales tax rate of up to one cent; by reductions in state spending; by increased revenues that might result from economic growth attributable to lower property taxes; and by "other revenues identified or created by the Legislature."

At first blush, the proposal that would trim 25-30 percent off property taxes while holding education harmless seemed like a workable resolution. However, upon analysis, it became painfully obvious the proposal would still force taxes on services. Here's the math. For lawmakers to restore the $8-$11 billion RLE for schools, increasing the sales tax by a penny would raise about $3 billion, eliminating some of the state's 246 sales tax exemptions—minus the

Below is the personal plea for restraint provided to the members of the TBRC from Winston "Bud" Gardner on behalf of the architectural and engineering professions.

Dear Commissioner:

As former Chairman of the House Committee on Finance and Taxation and actually the author of the legislation that created the "Tax on Services" in 1987, I have followed the deliberations of the Tax and Budget Reform Commission, Finance and Taxation Committee with regard to the constitutional imposition of a sales tax on services with great interest. I have the greatest respect for Senator John McKay and his dedication to this cause. While I understand the current concerns regarding the state budget and economy, I believe the imposition of a tax on services by constitutional amendment is a dangerous approach to achieve tax reform.

In 1986, Governor Bob Graham signed into law the sunset of all tax exemptions, including services. In 1987, I was given the task of dealing with it. It's an experience I would not want to repeat. There are a number of similarities between the 1986 sunset legislation and CP0002. As in most cases, the devil is in the details. I'm sure Senator McKay will point out that these details will be addressed by the Legislature after passage of the constitutional amendment. I remain skeptical.

The revenue generated by any individual service as presented to the Commission comes directly from the Florida Tax Handbook and does not assume any "Sale for Resale" provision as provided for in the sales tax on tangible personal property (TPP). That creates double and triple taxation which is counterproductive to business development and discriminatory to small service providers who must team to compete with large service providers. If the "Sale for Resale" provision is included, the revenue generated will be substantially reduced from that presented.

- The 1986 sunset legislation had no definition of "services." While some reference is made in CP0002 to the North American Industry Classification System (NAICS), the absence of a specific definition allows broad interpretation by the Department of Revenue, which in turn will allow for taxes to be imposed that were never considered by the Legislature in its

reviews. In 1987, for example, the DOR estimated $30 million would be raised from sources not yet identified.

- Should the tax on services be imposed similarly to the tax on TPP as preferred by the DOR the result will be the same as with the lack of specific definition of "Services." Until this issue was addressed in 1987, for example, the DOR would have imposed the sales tax on interest on loans including home mortgage and pass book savings.
- The absence of an apportionment formula that allocates the tax to out-of-state service providers for services consumed within Florida will place in-state service providers at a substantial competitive disadvantage.
- There are numerous examples of businesses which, by simply changing their business plan, can completely escape the tax.
- There are numerous service providers who cannot pass the tax along to the consumer of the service.
- There are the questions regarding taxing the imputed value of services or barter transactions.
- The last item I'll mention is advertising. There is no question that during the short duration the tax on services was in place, millions of dollars in taxes were lost to the State of Florida and multi-millions of dollars in business revenue was lost. It took several years to recover from conventions being cancelled (by organizations opposed to the service tax).

Associated Press, June 20, 1987
Ad tax
Hotels face cancellations in protest move

The number of organizations pulling conventions and meetings out of Florida hotels is growing as the national business community protests the state's 5 percent on advertising. . . .

. . . "Some areas were disproportionately hard hit, like northeast Florida. The (cancellations) are not just for 1987. They go until 1991."

Unfortunately there is very little institutional knowledge remaining in the Legislature except for business lobbyists and some professional staff. That's who will control the review process resulting from CP0002.

On a more personal note, I am President and Chief Operating Officer of a 400+ person engineering firm headquartered in Orlando. If the "Sale for Resale" provision is not adopted, this proposal will hurt my firm as well as all other engineering firms based in Florida. We will also be put in a substantial competitive disadvantage with firms from outside of Florida if the apportionment formula provision is omitted. Unfortunately, I believe members of the legislature will be inclined to leave the details to professional staff who have little experience in the business world.

I strongly urge you to vote NO for CP0002. It's already been proven to be bad for Florida.

Yours truly,

Winston E. Gardner, Jr., P.E., LEED® AP
President/Chief Operating Officer
Florida House of Representatives 1978-88
Florida Senate 1988-92

exemptions of food, medicine, health services, residential rents, electricity and heating fuel—would raise about $1.6 billion. The only way to make up the necessary $4 to $6 billion would be to tax currently untaxed services.

AIA Florida sent an electronic call to action to the membership which resulted in AIA members inundating the TBRC commissioners' e-mail boxes and phone lines asking the commissioners to re-think the proposal and its potential catastrophic consequences. Editorials penned by President Don Yoshino, FAIA, were circulated to all the major media outlets and appeared in markets from Miami to Tallahassee.

At the end of the day on April 24, the TBRC voted 18 to 7 to approve CP0002 for inclusion on the 2008 ballot. AIA Florida will be working with its partners to fight the issue in the courts, where appropriate, and to educate voters about the consequences of voter approval of the measure.

2008 Legislative Wrap Up (con't)

BOAID

On Tuesday, March 25, HB 5047 was first published as a proposed committee bill at approximately 4:30 p.m., with no fanfare or previous discussions. In its original form, the bill deleted authorization for the Board of Architecture and Interior Design (BOAID) to privately contract for investigatory and disciplinary services. As a result, those functions would fall back into the purview of the Department of Business and Professional Regulation (DBPR). The one sentence bill was scheduled to be heard before the Jobs and Entrepreneurial Council in less than 48 hours!

AIA Florida members were immediately galvanized into action via an urgent call-to-action e-mail blast to the membership. Calls began pouring in and letters were e-mailed and faxed to members of the Council in opposition to the bill. By the next morning, every member of the Council had been contacted and lobbied by concerned practitioners.

Legislators were reminded that, after many years of support from AIA Florida, in 2002, CS/HB 1301 had been approved and delegated the investigatory and enforcement functions of both licensed and unlicensed activities to a private provider and since that time, the program has been a huge success. Consequently, HB 5047 just didn't make financial sense. Here's why. Within the first 56 months under contract, the vendor providing these services collected $1,395,902.08 in fines and costs. Therefore, the net cost to the Board for the services averages $191,240.76 a year. DBPR, however, estimated it would cost the state approximately $300,000 to provide the same service.

Since privatization, the number of complaints filed each year has nearly doubled, and the average number of cases in which legal sufficiency was found has risen three times. Probable cause findings have also risen six fold, and fines collected have risen from $50,280 to $676,927.

Architects and interior designers regulated under BOAID asked for this privatized system in order to facilitate faster response rates to complaints of unethical and/or unlicensed activities. Under the current system, the phones are answered and complaints are investigated and vigorously prosecuted.

According to AIA Florida President Donald T. Yoshino, FAIA, "We were sympathetic to Legislators struggling with the difficult economy and we understood that BOAID might have to weather a budget cut. Certainly, budget cuts in the billions were taking place across the board due to the harsh economic times. We were willing to pay our fair share in budget reductions too. We just felt it was imperative that the good system developed over the past few years remain in place."

Eventually, the sponsor, Representative Ron Reagan (R-Sarasota), agreed to keep the program intact but was firm that the program would face a budget cut. On the House floor, Reagan said he had heard from architects loud and clear and that he was "waiving the white flag" in surrender on the issue.

On April 22, BOAID was finally funded at $425,000, a $100,000 cut to its budget, and was replaced with conforming language requiring additional financial reporting. Finally, the language repealing BOAID's authority to outsource the investigations and prosecutions died on the vine.

ENERGY

Last year's energy legislation (CS/HB 7123), as readers will recall, included, among myriad other issues, a tax holiday for the purchase of energy-efficient appliances, a

Left to Right: Dan Kirby, AIA; Rep. David Simmons (R-Altamonte Springs); Rebecca Talbert, Assoc. AIA; Michael Lingerfelt, AIA; and Nathan Butler, AIA.

mandate to build energy efficient state-owned buildings that meet environmental standards from sustainable materials, requirements that all county municipal and public community college buildings be constructed to meet the USGBC LEED® rating system, Green Building Initiative's Green Globes rating system or a nationally recognized high-performance green building rating system as approved by the Department of Management Services (DMS), and finally, was amended to include the Green Schools Pilot Project. Unfortunately, the bill was vetoed by Governor Crist for "not going far enough."

This year, Representative Stan Mayfield (R-Vero Beach), an engineer and a school facilities Assistant Superintendent, and the powerful Chairman of the House Environment and Natural Resources Council, again took the lead on the omnibus energy bill that was approved in the final week of Session. The bill amends the "Florida Energy Conservation and Sustainability in Buildings Act of 1974" and states that "operating and maintenance expenditures associated with energy equipment and with energy consumed in state-financed and leased buildings represent a significant cost over the life of a building. Energy conserved by appropriate building design not only reduces the demand for energy but also reduces costs for building operation."

The bill requires that buildings constructed and financed by the state are to be designed and constructed in compliance with the United States Green Building Council (USGBC), Leadership in Energy and Environmental Design (LEED) rating system, the Green Building Initiative's Green Globes rating system, the Florida Green Building Coalition standards, or a nationally-recognized, high-performance green building rating system approved by the Department of Environmental Protection (DEP) that minimizes energy consumption for the operation and maintenance of these buildings. The bill also specifies that, by policy and when economically feasible, state-owned buildings should be retrofitted to reduce energy consumption.

For those state agencies housed in buildings owned or managed by DMS, the bill requires them to identify and compile a list of appropriate projects suitable for guaranteed energy, water, and wastewater performance savings contracts. The lists must be submitted to DMS by December 31, 2008, and from there, and in consultation with the head of each state agency, by July 1, 2009, the DEP will prioritize all projects deemed suitable by each state agency and develop an energy efficiency project schedule based on factors such as project magnitude, efficiency and effectiveness of energy conservation measures to be implemented, and other factors that may prove to be advantageous to pursue.

The legislation defines "sustainable building" as a rating established by the USGBC LEED® rating system, GBI Green Globes, FGBC standards, or nationally recognized, high-performance rating system approved by DMS.

The Legislature declared that "there is an important state interest in promoting the construction of energy-efficient and sustainable buildings. Government leadership in promoting these standards is vital to demonstrate the state's commitment to energy conservation, saving taxpayers' money, and raising public awareness of energy-rating systems." As such, the legislation requires all county, municipal, school district, water management district, state university, community college, and Florida state court buildings to be constructed to meet the United States Green Building Council (USGBC), Leadership in Energy and Environ- mental Design (LEED) rating system, the Green Building Initiative's Green Globes rating system, the Florida Green Building Coalition standards, or a nationally recognized, high-performance green building rating system as approved by DMS. That includes all county, municipal, school district, water management district, state university, community college, and Florida state court buildings, the

Other Bills of Interest

HB 697 by Rep. Aubuchon - Building Standards - *PASSED*
SB 560 by Sen. Constantine
This legislation addresses a wide range of building construction issues including the Florida Building Commission, and energy efficiency standards relating to planning and construction.

• Florida Building Commission
Currently, the Commission is comprised of 23 members. The bill encourages identified professional associations, including AIA Florida, to recommend a list of candidates for consideration by the Governor in the appointment of Commissioners, and adds a 24th and 25th Commissioner to represent the swimming pool industry and green-building industry. The intention is to give stakeholder groups input in the selection process. The bill also limits the term of the Commission Chairman to 4 years.

• Energy Planning and Conservation Practices
○ The bill revises requirements relating to the installation of energy devices based on renewable resources on buildings.
○ Requires that the Florida Building Code must facilitate and promote the use of cost-effective energy conserving technologies, energy demand-management technologies, and renewable energy technologies in buildings.
○ The bill integrates energy efficiency issues into several components of the local government comprehensive plan, which will be due at the next evaluation and appraisal update of each local government's comprehensive plan:

- The future land use element must address reduction in urban sprawl and energy efficient land use patterns in relation to existing and future electric power generation and transmission systems, as well as greenhouse gas reduction strategies
- The traffic circulation element must address strategies to reduce greenhouse gases
- The conservation element must address factors that affect energy conservation
- The housing element must contain standards and principals for energy efficiency in new houses

○ Allows the Florida Building Commission to select the most current version of the International Energy Conservation Code as a foundation code.
○ Creates s. 553.9061, Florida Statutes, to establish the following schedule of required increases in the energy efficiency performance of buildings subject to the Florida Energy Efficiency Code. These increases are relative to the 2004 Florida Building Code, as amended on May 22, 2007:

By 2010, efficiency increases of at least 20 percent.
By 2013, efficiency increases of at least 30 percent.
By 2016, efficiency increases of at least 40 percent.
By 2019, efficiency increases of at least 50 percent.

○ Adds declarations to the list of deed restrictions, covenants, or other binding agreements which may not prohibit the installation of energy devices based on renewable resources. The bill specifies that condominium units are residential dwellings for purposes of installation of solar collectors or other energy devices, and removes the three-story height restriction for installation of solar collectors or other energy devices on such residential dwellings.
○ Directs the DCA, in consultation with the Florida Energy Affordability Coalition, to identify and review issues relating to improving the effectiveness of the Low-Income Home Energy Assistance Program and the Weatherization Assistance Program.

HB 7103 by Rep. Reagan - Mitigation Enhancement – *PASSED*
SB 644 by Sen. Justice
The legislation makes several changes to the My Safe Florida Home (MSFH) program administered by the Department of Financial Services (DFS) that provides hurricane mitigation inspections and grants for specified improvements. The bill requires that, to qualify for selection by the DFS as a wind certification entity to provide hurricane mitigation inspections, an entity must use mitigation inspectors who are certified or licensed building inspectors, general or residential contractors, professional engineers or architects, or individuals who have at least two years prior experience in residential building inspection or residential construction and have received specialized training in hurricane mitigation procedures.

The bill requires DFS to adopt a quality assurance program that includes a statistically valid number of re-inspections. It also allows DFS to verify that mitigation

improvements have been made to all openings, including exterior doors and garage doors, prior to issuing a reimbursement grant check to the homeowner. The bill further allows DFS to contract with third parties for the provision of information technology and contractor services for low-income homeowners, which shall be considered direct program costs, rather than administrative costs for purposes of administrative cost limitations.

Finally, the bill mandates that insurers accept as valid a uniform mitigation verification form signed by an approved MSFH inspector or certified by the DFS so that homeowners can access insurance discounts or credits for which they are eligible.

HB 7129 by Rep. Cannon - Growth Management - *FAILED*
SB 474 by Sen. Garcia
The bill would have made a number of revisions to the Growth Management Act, including enhanced participation by citizens in the plan amendment process, limitations on the frequency of plan amendments, incentives for the development of additional affordable housing units, designation of certain urban areas as transportation concurrency exception areas, and the creation of a process for studying and developing a mobility fee as a more effective means to mitigate traffic impacts.

SB 482 by Sen. Garcia - Affordable Housing - *FAILED*
The bill would have revised certain definitions relating to the state's affordable housing program to allow the use of State Apartment Incentive Loans for moderate rehabilitation efforts, modified the distribution of funds from the Local Government Housing Trust Fund by authorizing set-asides for specific purposes, revised requirements relating to local housing assistance plans, extended an exemption for Monroe County relating to income-restrictions for persons qualified to receive assistance under a local housing assistance plan, authorized counties and eligible cities to award grants using funds distributed under the local housing assistance program, and revised appointments to a local affordable housing advisory committee

architectural plans of which are commenced after July 1, 2008.

St. Petersburg College has been designated to work with the Florida Community College System and may consult with the University of Florida to provide training and education to ensure that green building rating system certifying agents (accredited professionals who possess a knowledge and understanding of green building processes, practices, and principles) are available as they construct public buildings to meet green building rating system standards.

The provisions are part of a plan to help Governor Charlie Crist reach his ambitious goals outlined in a series of executive orders last year to reduce Florida's greenhouse gas emissions to 80 percent of the state's 1990 levels by 2050.

"This is a comprehensive energy package that will ensure Florida serves as a leader on any policies that may be considered at the national level," said Senator Burt Saunders, (R-Naples), one of the key authors of the Senate bill. Saying Crist was "way out front on this issue," Saunders said the bill gives the governor "what he needs in order to carry out his objectives in terms of energy efficiency and independence."

HOMETOWN DEMOCRACY CONSTITUTIONAL AMENDMENT

On yet a third front, over the past year, AIA Florida was actively engaged in fighting a proposed constitutional amendment quaintly titled "Hometown Democracy." AIA Florida partnered with the Save Our Constitution Coalition as well as the Floridians for Smarter Growth to educate voters and AIA members about the proposal and the dangers to be aware of whenever signing petitions. AIA Florida covered the proposed amendment in *Friday Facts* and has documented its opposition to the amendment as well as the methods employed to gather signatures. (see **www.aiafla.org on the government affairs page**)

Hometown Democracy's amendment is deceptively simple. It requires that all local comprehensive land use plan changes meet voter approval. Citizens, rather than the representatives they elected, would be forced to regularly decide thousands of intricate land-use planning issues. Former Department of Community Affairs (DCA) Secretary Linda Loomis Shelley has called the amendment "the worst idea I ever heard," and said that the amendment would allow local voters to nullify state decisions, such as 2005 mandates on school concurrency. Additionally, the proposal would require voters to approve comprehensive plan changes, which can run to hundreds of pages of data and analysis, without the information regarding the changes in the ballot.

The AIA Florida board supports a smart, well-considered

approach to growth management that includes livable communities and environmentally-responsible planning. However, it has determined this particular proposal is not workable and would be extremely detrimental to the state. The board voted unanimously to oppose the proposed constitutional amendment when it approved the 2008 legislative policy statement. Additionally, most board members have agreed that legislating via constitutional amendment is really not in the best interest of the Constitution or Florida citizens.

According to President-Elect Steve Jernigan, AIA, LEED AP, "As citizens of Florida and as design professionals, our concern at the board level was that requiring all comprehensive plan and land use plan amendments to go before the citizens for a vote, would bring development (which also means architectural work) to a complete halt. Is it good government to have a vote on any and all issues before our local and state governments? That is why we have elective and appointed governing bodies, as well as professional staff, to analyze proposed changes to land use issues."

He continued, "I sat as a member of a county Board of Adjustments for five years – our task was (in a quasi-judicial hearing) to analyze proposed land use changes – and the burden of proof rested on the proposer. We relied on testimony of experts, staff, and affected nearby property owners to determine whether a land use change was a positive outcome for the community in general, while protecting private property rights. One hearing lasted over 40 hours! I can't imagine a situation where the voters, when faced with dozens of land use changes on a ballot, could have the information required to make an informed decision. Our position should be as advocates for a smart-growth scenario which involves a grassroots effort by an informed electorate, along with professionals such as AIA members, to provide a truly sustainable Florida for the generations to come."

As the deadline approached for obtaining and filing the 611,009 signatures needed to make the ballot, Hometown Democracy organizers appeared to become more and more desperate. Interviews with citizens who had been convinced to sign petitions indicated the paid staff misrepresented the content of the petition in order to get a signature. Some paid signature gatherers, who were paid $5 per signature, went over the top to obtain signatures in order to increase their paychecks.

A 2007 law allowed voters to revoke their signatures on such petitions. The Save Our Constitution coalition contacted petition signers to educate them about the true text of the amendment and what it would mean to growth management. Consequently hundreds of petition signers wrote to the Secretary of State to rescind their signatures. Fortunately, Hometown Democracy failed, even without counting the rescinded signatures. That law has recently been found unconstitutional in the appellate courts but there may be further challenges to that ruling.

Hometown Democracy failed to meet the number of signatures needed and had also failed to get enough signatures in 13 of the states congressional districts. However, the battle over Hometown Democracy continues and the group has until January 31, 2010 to obtain the remaining signatures needed to get on the ballot. To be sure, you'll see the petition gatherers in your local parking lots.

The lesson to be learned? Be cautious when approached by signature gatherers and be sure you know what you are signing... check twice, sign once. And, if you happen to support a proposed constitutional amendment, so be it. This organization is made up of many different positions and, in it, there is room for all.

To earn one AIA learning unit credit, turn to page 51 and follow the instructions.

Use the following learning objectives to focus your study while reading this month's *Florida/Caribbean Architect* AIA Continuing Education article.

Learning Objectives

After reading this article, you should be able to:

1. How BIM and VDC are related.
2. The risks and benefits of virtual design and modeling.
3. 10 levels of a model, and how each level relates to design.

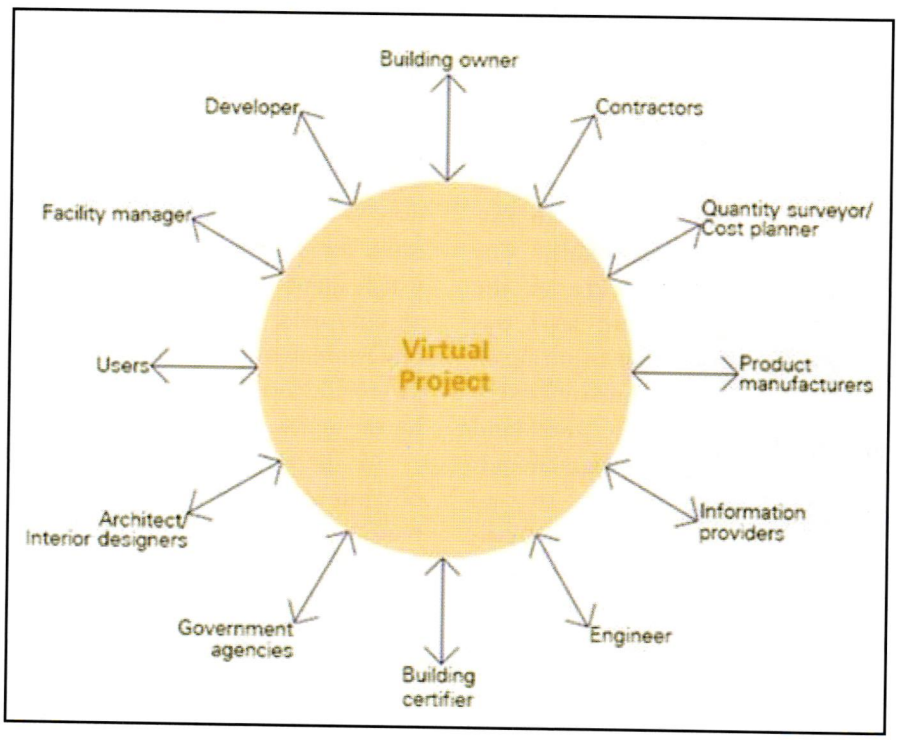
Paradigm Shift from 2D to 5D

By *Michael Lingerfelt, AIA*

The need for better outcomes in the A/E/C industry has challenged conventional wisdom and time-honored project delivery methodologies. The status quo has not kept pace with ever more compressed schedules and tighter budgets; emerging project constraint trends have caused a convergence of design practices, construction processes, and project management systems typically hamstrung by contractual language; and as a practical matter, participants have moved toward integration—first tentatively and now more actively. Many practitioners are motivated to consider concurrent design and construction processes—narrowing the gap between what is design and what is construction.

Traditionally, architects have created construction documents using the tried and true 2D methods such as mechanical drafting using a T-square and triangle, which evolved into either a drafting arm or parallel bar. Then the revolutionary process of creating individual layers (which created a composite set of documents that employed a Pin Bar System) eventually evolved into Computer Aided Design and Drafting. All of these systems basically were an evolutionary progression of the same delivery system.

It is important to understand that this new process is a paradigm shift in the way that projects are designed, documented and constructed. BIM is not simply a drafting tool like the 2D computer drafting systems mentioned above; it is, more precisely, a design tool with the added benefit that it can create byproducts of the design process without losing knowledge. Do not think of BIM as "3D drafting;" if you do, you will miss its significant, culture-changing benefits.



As mentioned previously, architects are being challenged more today than at any other time in our careers. Fewer projects are being authorized, buildings are becoming more complex, time to completion is being shortened and companies in America are facing more pressure to deliver with less time and less capital.

One solution is to add virtual design and construction (VDC) to our toolbox. Stanford University's Center for Integrated Facilities Engineering (CIFE) (http://cife.stanford.edu) defines VDC as "the use of multi-disciplinary performance models of design-construction projects, including the Product (i.e., facilities), Work Processes and Organization of the design-construction-operation team in order to support business objectives."

It is important to note that while VDC is a significant trend, it is not the panacea for what ails the industry. The full potential remains hostage to dated notions of risk and a software market dominated by narrow points of view. Nonetheless the talent, tools, and training are available for any firm to start reaping the benefits today.

BIM and the Use of VDC

With VDC, we can now virtually design our projects and provide the necessary information to help our clients make the most intelligent decisions with regard to their proposed built environment. We can create models to answer just about any question that needs an answer to support the project. Also, the life-cycle, economic and environmental performances of buildings can be modeled to help determine the return on investment as well as how the facility will perform with regards to sustainability. Currently, calculations are often completed much later in the design process with little impact on the facilities being placed on the site and its orientation, overall design, as well as, the exterior envelope composition. Today, an integrated model can provide early stage design alternatives by providing the rapid generation and analysis of alternatives.

To support integration, or VDC, BIM uses multidisciplinary performance models of design and construction input such as building information models (3D) which are interoperable. Interoperability is defined as, "...the ability to manage and communicate electronic product and project data between collaborating firms and within individual companies' design, construction, maintenance, and business process systems." These virtual models not only contain the 3D information but also include CPM schedules (4D) and cost estimates (5D) to simulate and validate project objectives and give a complete model of the project. Research has proven that 75 percent of the project's cost is determined within the first 25 percent of the design phase.

Benefits and Risks of Using VDC

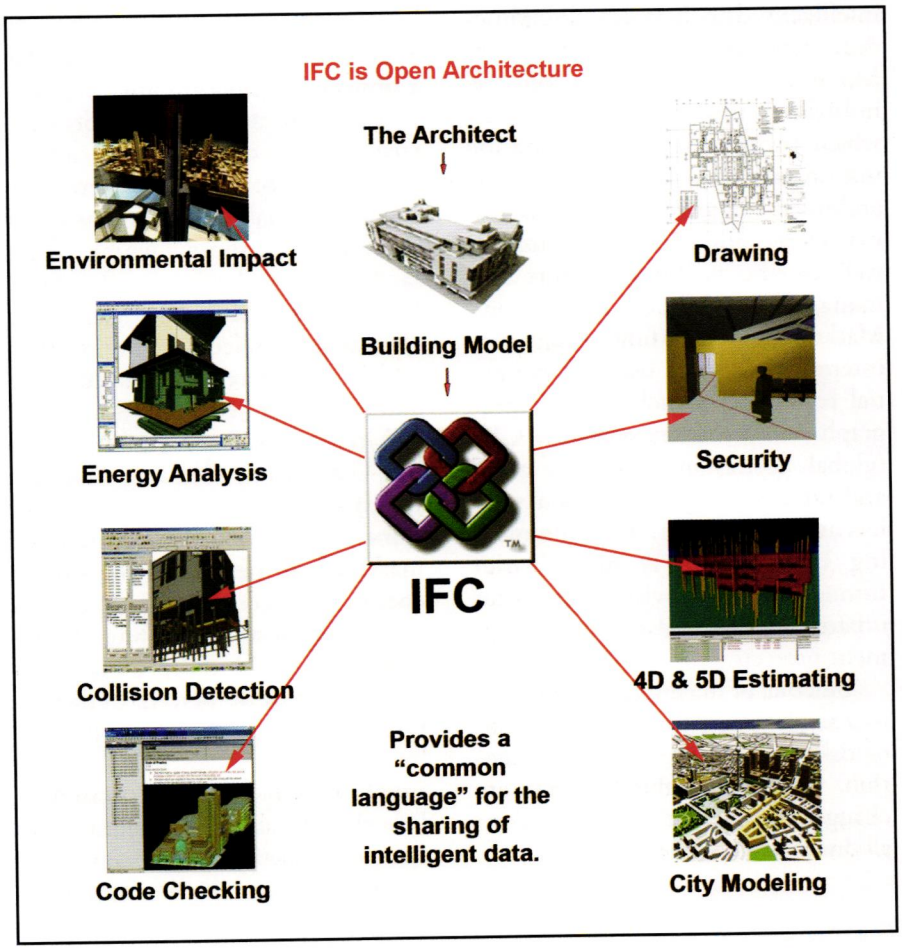
Virtual design and construction validates risk and offers these other benefits:

- Virtual detection of spatial conflicts
- Alignment of design, procurement, and construction strategies
- Integration of project control for scope, schedule and budget
- Visualization of operations and maintenance activities
- Sensitivity analysis of alternate construction sequences based on:
  - Production rates
  - Crew sizes
  - Preassembly of building components which can minimize construction waste
  - Equipment and material lay-down placement.

At the core of this virtual world is the "backbone model" of the facility. This model can contain any or all of the different elements of this paradigm shift in the design of buildings. An architectural firm should make a conscience decision to do a project using BIM and determine to what level. Firms must also remember that BIM, interoperability and collaboration are not an "all or nothing" proposition. There can be as many as 10 levels that are contained within a model, which are outlined below:

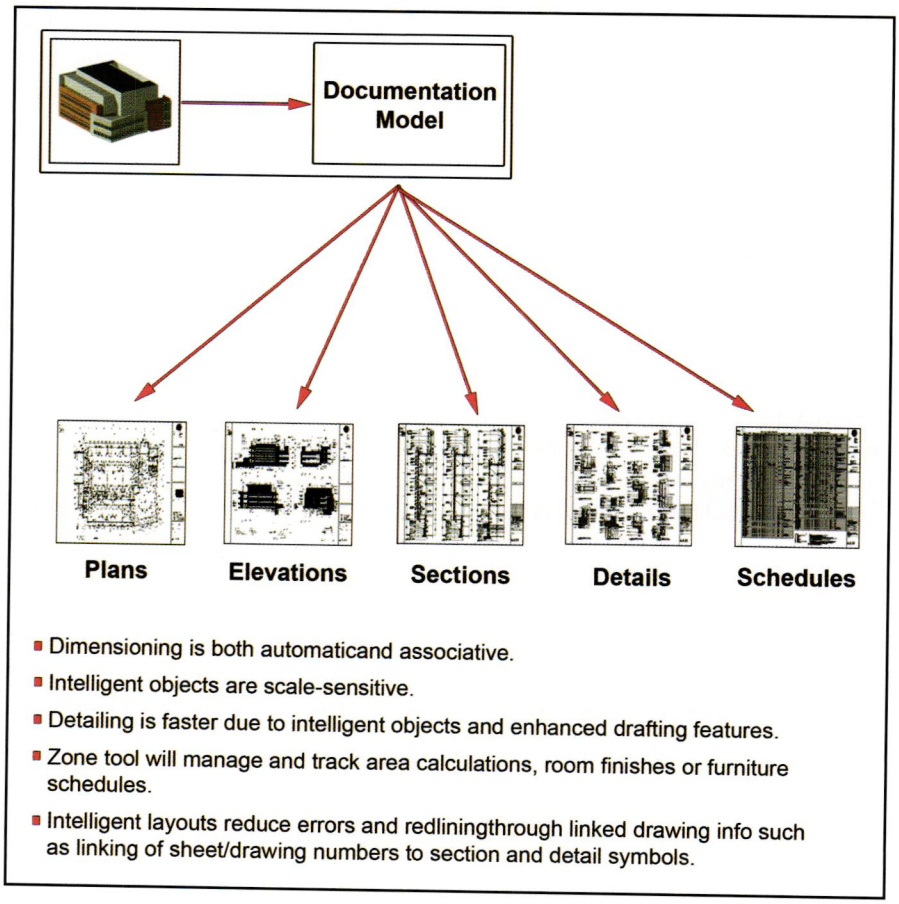
Level 1: Visualization: This is basic 3D, which creates renderings and environmental simulations that can easily be done in-house, and can be used in presentations to the client and building officials to foster better communication and input into the design. Architects must communicate a lot of information to clients that are experts in their respective industry but cannot read a set of drawings. Concepts are conveyed more swiftly and clearly when simulation and 3D imaging techniques are used and where good decisions can be made quickly.

Level 2: Coordinated Documents with Increased Productivity: With everyone adding to the same model, it can now be checked for interferences and possible construction phasing challenges can be highlight-



ed. Like any good CADD standard layer convention, BIM should follow a National naming convention. The National Institute of Building Sciences' (NIBS) Facility Information Council (FIC) has released the National BIM Standard Version 1 – Part 1: Overview, Principles and Methodologies (http://www.facilityinformationcouncil.org/bim/publications.php) for public use, which enables the accumulation and management of facility information. The US General Services Administration has set a goal to have Industry Foundation Classes (IFC) bases BIM in support of all national office concept reviews on projects receiving design funding. IFC is to the Documentation Model exchange (wall, door, window) what DWG is to graphic entity exchange (line, arc, circle) and is available to all to use globally and throughout the industry including other software vendors. IFC offers a higher-level common language for sharing intelligent data between disciplines during the entire building lifecycle. Manufacturer's information is imbedded into the 3D element, which includes its product specific information that is available to the architect, engineers, construction managers, contractors, estimators, as well as, the facility operators and managers. OGC's Geography Markup Language (GML) facilitates interoperability for users of geospatial technologies such as GIS (geographic information systems), GPS (global positioning systems), aerial and satellite imaging, location services and sensor webs. Decision making by Officials is made easier through the use of visualizations for urban planning and major development projects.

Since all of the information resides in a single model there is a reduction of risks through improved coordination. The inevitable last minute changes are automatically updated on all drawings and schedules.



Level 3: Construction and Sustainable Construction Opportunities: Supports construction activities and provides snapshots to convey design intent. Subcontractors can review the model and make hard copy prints of the screen shots which help facilitate installation in the field. Components can be fabricated in a climate controlled, off-site facility, which can maximize productivity and minimize construction waste. We have all read the statistics from the U.S. Green Building Council, which state that U.S. buildings consume 40 percent of the world's raw materials, 40 percent of the world's energy, 65.2 percent of U.S. electrical consumption, a startling 20 percent of material waste to landfills, and contribute 40 percent of the carbon emissions to the atmosphere!

Level 4: 4D Planning Activities: Provides the ability to identify each element in the facility and coordinate with the construction schedule to maximize productivity by minimizing handling of information manually during the procurement phase. The contractor can manipulate fabrication, delivery schedules, field crew sizing and analyze many different possible scenarios in an effort to mitigate construction delays.

Level 5: Estimating: Material quantities and their specifications are exported automatically into the estimating programs in order to get more accurate estimate and change anytime there is a change in the model.

Level 6: Life Cycle Decision Support: Architects can leverage accurate quantities with first cost versus life cycle costs analysis or energy analysis early in the design process or maintenance issues. Most of the costs associated with a facility are determined in the design and construction phase. Sophisticated owners can use the model after project completion for minor renovations, space planning and maintenance. Carnegie-Mellon University

research has indicated that improvements of 3.8 percent in productivity within a building would pay for the design, construction and operations.

Level 7: Bidding, Coordinating Subcontractor Shop Drawings and Submittals: Subcontractor information is added to the model, which facilitates approval and accuracy. Contractors are adding their specific specialty to the model so that all of them are able to see what is being proposed and are working off of a single source of information.

Level 8: Fabrication: Information contained within the model can be used in the creation of the "shop drawings" which is actually just an evolution of the model itself. This model can be used to describe the product's design, detailed analysis and construction support. The entire process builds on itself and the model is used to generate files that control the computer numerical control (CNC) machines which reduces the chance for errors and at the same time automating the process. And entire article in how BIM enables a digital design-to fabrication workflow can be found at: http://aec.cadalyst.com/aec/Column:+1-2-3+Revit/BIM-and-Digital-Fabrication-1-2-3-Revit-Tutorial/ArticleStandard/Article/detail/488086

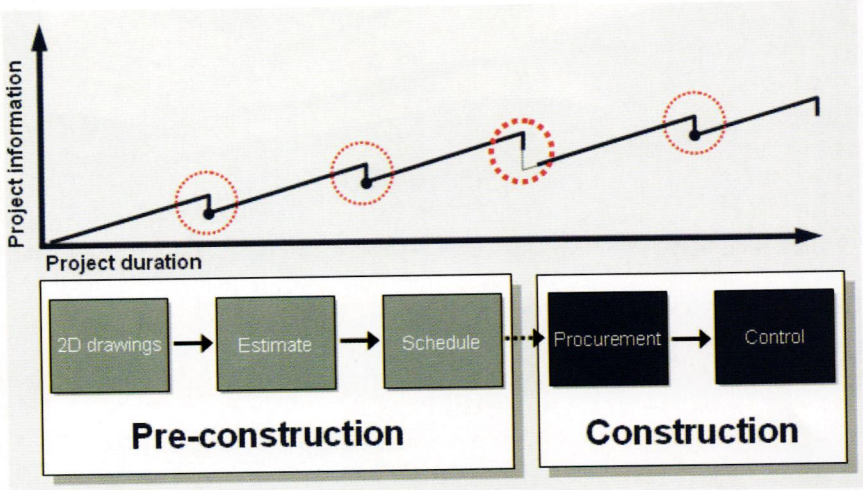
Level 9: Field: Allows for accurate progress and maximize scheduling. More and more contractors are making a strategic decision to build their own models in house. The new AIA Document C106-2007 Digital Data Licensing Agreement and E201-2007 Digital Data Protocol Exhibit have established the protocol for protecting all parties in the design can set restrictions for use, payment arrangements for the different parties and construction process so this initiative by the Contractors is an unnecessary step and potentially disastrous trend. What they have determined is that the benefits of this cost can easily be recouped in construction savings.

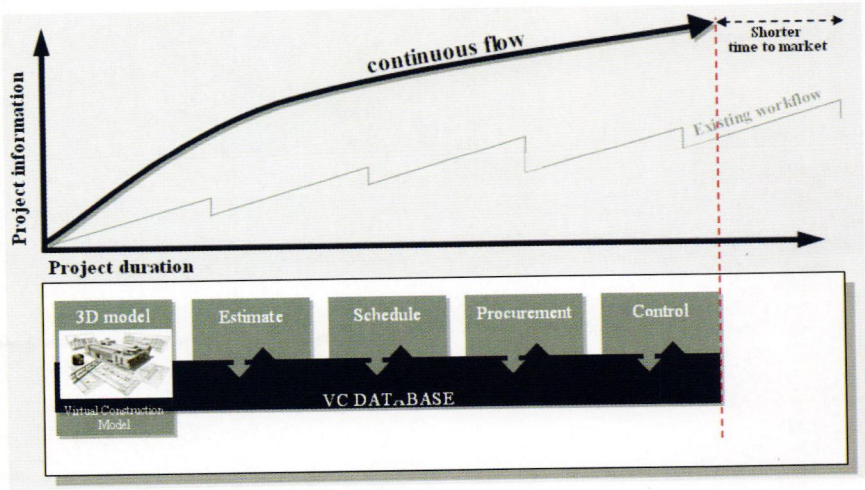
Level 10: As-Built: These are actual field conditions, which are accurate and are reflected in the electronic model and can be verified using laser scanning equipment. Complex field installations such as hospitals can be documented accurately and cost effectively.

Design Professionals Develop the 3D Model

Different disciplines can communicate and coordinate the design using existing software and can detect interferences, publish reports of the clash, track interferences, and provide a 3D image of the condition. This model can (if necessary for permitting reasons, for example) extract a traditional 2D set of bid documents. Caution needs to be taken to ensure that the links with all of the BIM elements are not broken during this 2D creation so that when the as-built documents are required, there is not a lot of expensive rework to reestablish the original links. The idea is to not recreate the wheel, but to manage the process. In fact, more and more building and fire departments are requesting a BIM model before issuing a building permit. An even better method is to make the model the actual bid document and provide it to the successful contractor, who can add more detailed information to the backbone during the shop-drawing phase so that when the project is complete, the "as-built" documentation is, in fact, "as-built."

Another advantage to this virtual model is that critical information about the project is never lost. Traditionally, the design team increases their knowledge about the project





up until bid time. The successful contractor receives the drawings and specifications, but some of the information is lost and has to be relearned. The same process is duplicated with every subcontractor for every trade. This "lost information" costs money and time and creates mistakes.

If the project is a renovation of an existing facility, we can now electronically scan the entire facility and transfer that data into the computer model.

Gone are the days of trying to survey the faculty and never having the data close at hand; finding that information has been omitted or missed; and the inevitable "unforeseen field conditions" that create changes in the field, costing both time and money. The scanning technology is so precise that we can read the labels on the equipment!

Standard equipment used throughout an entire corporation can be modeled and object-enabled to quickly identify changes in dimensions and costs. Most equipment manufacturers already have their equipment modeled and will provide the model to the design professional. These object-enabled models can extract their information directly into estimating software.

Real-time estimates are accurate and can be standardized throughout the corporation. With the unavoidable value engineering, or VE, (a misleading term since typically "value engineering" adds very little value, and cutting costs is the main objective), the effects in both costs and physical properties can be measured by each suggestion. During this VE process, many errors and omissions occur. As an example, perhaps careful investigation in the traditional process accepts a revision to the air handling equipment. Clearances are checked and the substitution is accepted. However, one unit is missed and a portion of the facility has to be redesigned and rebuilt. This equals time and money!

By keeping the model current, another benefit can be realized by the following example. During the construction there is an unavoidable interruption in the work. With this virtual model, the element of time can be introduced so that many different alternatives can be explored, not just the "gut" feeling of what would be the best course of action. The design and construction professionals can develop different strategies and analyze the outcomes, while the computer can do what it does best - process information. The result is the best solution, which can be explained empirically to projects' leadership.

While we as architects are always dealing with change, using BIM and VCD creates a paradigm shift in the way we develop our projects. Corporations, contractors and even government agencies are all developing components of this new virtual-construction world, as an article in the July 11, 2005 edition of *Engineering News-Record* made clear ("Maturing Visualization Tools Make Ideas Look Real" http://enr.ecnext.com/coms2/article_fetear050711-1). The next genera-

tions of professionals are already learning about this virtual world in universities across the nation, and competition internationally is becoming more intense. As noted in the Introduction of the National Building Information Modeling Standard™ Version 1 - Part 1: Overview, Principles, and Methodologies, "BIM stands for new concepts and practices that are so greatly improved by innovative information technologies and business structures that they will dramatically reduce the multiple forms of waste and inefficiency in the building industry. Whether used to refer to a product – Building Information Model (a structured dataset describing a building), an activity – Building Information Modeling (the act of creating a Building Information Model), or a system – Building Information Management (business structures of work and communication that increase quality and efficiency), BIM is a critical element in reducing industry waste, adding value to industry products, decreasing environmental damage, and increasing the functional performance of occupants." Having another tool in our toolbox is never bad business.

Michael Lingerfelt, AIA, is Vice President of Architecture and Design for McGillivray Consulting Group and is a 2008-2009 AIA Florida Vice President.

Program Title: "Paradigm Shift from 2D to 5D," *Florida/Caribbean Architect* (Summer 2008, page 46)
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Questions:

1. BIM is an advanced form of 3D computer aided design:
a. true
b. false

2. The Center for Integrated Facility Engineering does not have a program that addresses:
a. research in visualization
b. product and process modeling
c. internet collaboration
d. design management
e. facility management
f. supply chain management

3. A production BIM can contain information from all but one of the following:
a. architects
b. engineers
c. government agencies
d. software providers

4. Life cycle costs analysis or energy analysis can be only completed after:
a. schematic design
b. design development
c. 60% construction documentation
d. 100% construction documentation

5. AIA Documents C106-2007 Digital Data Licensing Agreement and E201-2007 Digital Data Protocol Exhibit:
a. can protect all parties in the design
b. can set restrictions for use, payment arrangements for the different parties and construction process
c. can be established between parties that are not part of the Owner-Architect or Contractor's Agreements
d. needs to be added to the Owner-Contractor Agreement

6. Different disciplines can communicate and coordinate the design documents using existing software and can:
a. detect interferences and publish reports of the clash, track interferences, and provide a 3D image of the condition
b. extract a traditional 2D set of bid documents
c. retain critical information about the project is never lost
d. needs to be reformatted once all of the contractor's information has been added

7.In the article *BIM and Digital Fabrication* there is a discussion regarding the structural supply chain. In the past that cost has been equally distributed between raw material, fabrication and erection. What element of BIM was not mentioned in the article as a way to reduce overall costs?
a. considering simplicity of fabrication during design
b. providing the designer available member sizes
c. provide consistent steel tonnages during bidding process
d. provide clash detection reports with regards to the coordination between fabricated steel and other building components

8. In the ENR article, *Maturing Visualization Tools Make Ideas Look Real* it was mentioned that construction professionals were able to:
a. visualize
b. validate
c. explore complex sequences
d. cost estimates

9. Interoperability is the ability to manage an communicate electronic product and project data between all but:
a. collaborating design firms
b. contracting firms
c. maintenance
d. building officials

10. Virtual design and construction validates risk and offers these other benefits:
a. virtual detection of spatial conflicts
b. alignment of design, procurement, and construction strategies
c. integration of project control for scope, schedule and budget
d. a detailed report of operations and maintenance activities
e. sensitivity analysis of alternate construction sequences based on production rates, crew sizes, preassembly of building components, equipment and material lay-down placement

Categorical Index to Advertisers

Air Seal
Demilec 2

Architectural & Engineering Malpractice Claims
Daniels, Kashtan, Downs, Robertson & McGirney 8

Architectural & Millwork
Woodmode Custom Cabinetry 1

Architectural References
International Code Council 8

Architectural Staffing
ArchiPro Staff Agency Inc. 45

Attorneys
Bush Ross 45

AutoCADD Software
Digital Drafting Systems 56

Building Codes
International Code Council 8

Cabinetry
Woodmode Custom Cabinetry 1

CADD
Digital Drafting Systems 56

CADD Services
Digital Drafting Systems 56

Cast Stone
South Florida Masonry 56

Construction Litigation
Daniels, Kashtan, Downs, Robertson & McGirney 8

Continuing Education
International Code Council 8

Countertops
Real Stone & Granite 50

Cultured Stone
South Florida Masonry 56

Decorative Stone
Real Stone & Granite 50

Design - Parking & Mixed Use
Tim Haahs & Associates 6

Doors
Custom Window Systems, Inc. 53
TRACO . . . . . .OBC

Employment Services
ArchiPro Staff Agency Inc. 45

Engineering - Parking & Mixed Use
Tim Haahs & Associates 6

Entry Doors
E.F. San Juan, Inc. 36-37
HBS Inc. 36-37
S & P Architectural Products 36-37
S & S Craftsmen Inc. 36-37

Finishes/Ceramic Tile
Custom Building Products 56

Flooring
Real Stone & Granite 50

General Contractors
Creative Contractors 54

Glass Block
South Florida Masonry 56

Hurricane Protection
WinDoor, Inc. 8

Hurricane Resistant Windows & Doors
Windoworld Industries, Inc. . . . . .IBC

Hurricane Solutions
E.F. San Juan, Inc. 36-37
HBS Inc. 36-37
S & P Architectural Products 36-37
S & S Craftsmen Inc. 36-37

Impact Windows
Windoworld Industries, Inc. . . . . .IBC

Insulation
Demilec 2

Insurance
Collinsworth Alter Fowler Dowling & French Group 55
Lykes Insurance, Inc. 53
Nolen Insurance Services 56
Suncoast Insurance Associates, Inc. . . . .IFC
XL Specialty Insurance Company . . . . .IFC

Kitchens
Woodmode Custom Cabinetry 1

Legal Services
Bush Ross 45

Master Planning - Parking
Tim Haahs & Associates 6

Parking Planning & Design
Tim Haahs & Associates 6

Porch Enclosures
Custom Window Systems, Inc. 53

Professional Liability
Collinsworth Alter Fowler Dowling & French Group 55
Lykes Insurance, Inc. 53
Nolen Insurance Services 56
Suncoast Insurance Associates, Inc. . . . .IFC
XL Specialty Insurance Company . . . . .IFC

Propane Gas
Florida Propane Gas Association 6

Risk Management
Collinsworth Alter Fowler Dowling & French Group 55
Lykes Insurance, Inc. 53
Nolen Insurance Services 56
Suncoast Insurance Associates, Inc. . . . .IFC
XL Specialty Insurance Company . . . . .IFC

Sliding Glass Doors
WinDoor, Inc. 8

Software
Standards Design Group, Inc. 55

Staffing Services
ArchiPro Staff Agency Inc. 45

Surety Law
Daniels, Kashtan, Downs, Robertson & McGirney 8

Tile
Custom Building Products 56

Tile Setting Materials
Custom Building Products 56

Window Glass Design (ASTME 1300)
Standards Design Group, Inc. 55

Window Loads (ASCE7)
Standards Design Group, Inc. 55

Windows
Custom Window Systems, Inc. 53
TRACO . . . . . .OBC

Windows & Doors
E.F. San Juan, Inc. 36-37
HBS Inc. 36-37
S & P Architectural Products 36-37
S & S Craftsmen Inc. 36-37
WinDoor, Inc. 8
Windoworld Industries, Inc. . . . . .IBC

Wood Council
Florida Wood Council 4

Alphabetical Index to Advertisers

ArchiPro Staff Agency Inc. ....www.archipro.com 45
Bush Ross .....www.bushross.com 45
Collinsworth Alter Fowler Dowling & French Group 55
Creative Contractors .....www.creativecontractors.com 54
Custom Building Products ....www.custombuildingproducts.com ..56
Custom Window Systems, Inc. ..www.cws.cc 53
Daniels, Kashtan, Downs, Robertson & McGirney .....www.dkdr.com 8
Demilec .....www.demilecusa.com 2
Digital Drafting Systems .....www.ddscad.com 56
E.F. San Juan, Inc. 36-37
Florida Propane Gas Association .....www.propanefl.com 6
Florida Wood Council .....www.fbma.org 4
HBS Inc. 36-37
International Code Council ....www.iccsafe.org 8
Lykes Insurance, Inc. 53
Nolen Insurance Services .....www.nolenins.com 56
Real Stone & Granite .....www.granitops.com 50
S & P Architectural Products 36-37
S & S Craftsmen Inc. 36-37
South Florida Masonry .....www.sfmacaststone.com 56
Standards Design Group, Inc. ...www.standardsdesign.com 55
Suncoast Insurance Associates, Inc. .....www.suncoastins.com .....IFC
Tim Haahs & Associates .....www.timhaahs.com 6
TRACO .....www.traco.com .....OBC
WinDoor, Inc. .....www.windoorinc.com 8
Windoworld Industries, Inc. ....www.windoworld.com .....IBC
Woodmode Custom Cabinetry ..www.woodmode.com 1
XL Specialty Insurance Company .....www.suncoastins.com .....IFC