TexasArchitect

MAY/JUNE 2010

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BEACON OF HOPE
FKP Architects
KURT NEUBEK, FAIA

RESOLUTE LANDMARK
CamargoCopeland w/ Overland Partners
EURICO R. FRANCISCO, AIA

REFIT FOR FITNESS
Good Fulton & Farrell Architects
BRIAN MCLAREN, AIA

IMPROVED MODEL
5G Studio Collaborative
NESTOR INFANZÓN, AIA

ARCHITECTURAL WORKOUT
Fitzpatrick Butler Architects
STEVE MCELHANY

POWERFUL HOMAGE
SmithGroup/F&S
MICHAEL E. ALLEX, AIA

DEPARTMENTS

COVER PHOTO BY CHARLES DAVIS SMITH, AIA

Healing with Architecture

A blacklist of harmful chemicals further extends the profession's influence on society

IMAGE COURTESY PERKINS+WILL

BY BROADENING THE THEME for this edition to encompass wellness, *TA*'s staff expanded the range of feature projects beyond medical facilities. That allowed us to include The Bridge, a new homeless assistance center on the southern edge of downtown Dallas that addresses the well-being of that community's neediest residents. The Bridge, recognized for design excellence by the AIA and other national organizations, is a collaborative effort between CamargoCopeland Architects in Dallas and Overland Partners Architects in San Antonio.

The Bridge provides more than meals, shelter, and healthcare to hundreds of people every day. In his profile of the project that begins on p. 42, Eurico Francisco, AIA, describes the architects' sensitive approach to designing a place of refuge from the street. The Bridge illustrates the powerful influence architects have on the full spectrum of humankind.

The breadth of an architect's influence cannot be overstated. More than designing work that is durable, useful, and beautiful, architects can help create a more healthful society. That message gives some hope to a world in which manmade contaminants are a real – and often hidden – threat regardless of one's social status.

In an extraordinary effort to protect people from harmful pollutants in the built environment, Perkins+Will is asking architects worldwide to avoid using products that contain any of 25 common chemicals considered to be dangerous to human health. The international design firm posted its precautionary list online last November, and since then has drawn the attention of environmentalists, news media, and many like-minded architects. The information is available at *http://transparency.perkinswill.com/* as a database searchable by categories (such as chemical compounds, indoor air quality, ozone depleting gases, etc.), health effects (carcinogen, immunotoxicant, etc.), and specification divisions. The list's 25 chemicals range from arsenic (commonly used in wood additives and treatments) to volatile organic compounds (VOCs; commonly used in paints, sealants, and adhesives).

"Rather than use harmful products, we will seek out alternatives that protect our health and the health of future generations," states the introduction to the Web portal. In announcing the online resource at last year's Greenbuild conference in Phoenix, Perkins+Will used the logo shown above.

The precautionary list represents five years of research by Peter Syrett, AIA, an associate principal, and Chris Youssef, an interior designer. Both work in the firm's New York office. As Syrett has said, "Our goal is a simple one: that we should not specify products that are harmful to humans, animals, and the environment."

"When designers, architects, and interior designers look at materials, typically we look at criteria like aesthetics, durability, construction assembly issues, cost, things like that," Syrett told me in a telephone interview. "We're saying that there should be one other layer to that, and that is the environmental health impact, and so in order to do that you need to be armed with certain information."

Youssef conceived the idea of a precautionary list while working on a cancer center and realizing that its future occupants needed the utmost protection from hazardous chemicals. For that project, he cross-referenced entries in various government databases to weed out materials containing known carcinogens.

The two colleagues are continuing their research and plan to update the list by the end of this year, possibly including chemicals that are known to be asthma triggers.

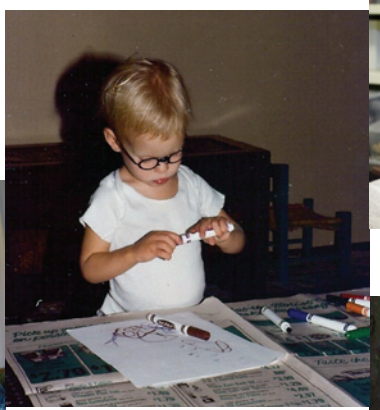
"It's an ongoing, living document and we hope it will evolve and grow," says Syrett, adding that rigorous research is needed to ensure accuracy. "Even incrementally adding to the list requires an inordinate effort. We want to make sure that what we put out there is correct."

And how has the precautionary list been received? "On the whole, we've had a pretty positive reaction from our peers in the architectural community, as well as people in the construction industry," Syrett says. "I think there's a thirst for this kind of knowledge and this kind of insight into building materials."

"For the industry to transform, we would like a chorus of voices to join us," he says, "so we've made a conscious decision to share this information that we hope ultimately will be a catalyst for change. We hope that more and more people will look at it, and that it has more and more of an impact on how people think about their buildings and the materials that go into them."

STEPHEN SHARPE


Michael E. Allex, AIA


Jesse Hagar


Brian McLaren, AIA


Nestor Infanzón, FAIA


Steve McElhany


Jim Atkins, FAIA


Eurico R. Francisco, AIA


Grant A. Simpson, FAIA

MICHAEL E. ALLEX, AIA is a third generation "Valley Rat"…Rio Grande Valley Rat, that is. After graduating from Texas Tech, Allex interned in Dallas for three years. He returned to his native Harlingen, where he has practiced architecture for nearly 20 years. Mike enjoys the best of the Valley; fishing the flats and hunting the ranch country. His article on UT Pan-Am's Wellness and Recreational Sports Complex in Edinburg is on page 60.

JIM ATKINS, FAIA has been a subcontractor, general contractor, and senior principal at HKS Architects throughout his 40-plus-year career. Today, he provides litigation support services and project management when he is not writing about architecture or working with the AIA or the Korean Institute of Architects. His article on risk management, co-authored by Grant Simpson, FAIA, can be found on page 70.

EURICO R. FRANCISCO, AIA likes old houses, old cars, nice spring weather, honest architecture, and elegant thinkers, and has managed to find some of each in the dozen years he's lived in Texas. Read his article on The Bridge homeless assistance center in Dallas on page 42.

JESSE HAGAR was raised in the Pacific Northwest by a city planner and landscape designer. He transplanted from Seattle to Houston after obtaining a Master of Architecture from the University of Texas. He is a designer at Content and hopes to be an architect when he grows up. Hagar's interview with the authors of *Evidence-Based Design* is on page 34.

NESTOR INFANZÓN, FAIA is a longtime contributing editor of *Texas Architect.* When he's not at work, you can find him either at the soccer field, watching movies, playing with his herd of dachshunds, or most likely catching up with his reading on his favorite chair. Read his article, page 52, on Legacy ER, a distinctive design achieved through "a lot of convincing and educating."

STEVE MCELHANY will celebrate 30 years at Red Dot Building Systems in June, where as a district manager he works with architects and general contractors to incorporate metal buildings into all type of construction projects. McElhany spends his leisure time serving on the Athens ISD School Board and wakeboarding with his family. Read his article on Balance Pilates Studio in Tyler on page 56.

BRIAN MCLAREN, AIA is a founding principal at Ware Architecture, the editor of the AIA Dallas magazine *Columns*, and a CNU North Texas board member. On the weekends, he can be found exploring inner-city neighborhoods, looking for cool buildings, and taking his dog to the park. He's also addicted to urban design blogs, live music, and food you can only buy from street vendors. His article on Equinox Health Club in Dallas is found on page 48.

GRANT A. SIMPSON, FAIA is an old-style Southern cook, avid tropical plant collector, and connoisseur of Hawaiian music. His career has focused on project management for very large projects. Simpson now divides his interests between writing about practice and service as a standard of care consultant. He and co-author Jim Atkins, FAIA, discuss risk management in their article on page 70.

As Military Consolidates Operations, San Antonio Sees $3 Billion in Work

SAN ANTONIO A total of $3 billion in new construction and renovation at San Antonio's largest military installations – Fort Sam Houston, Lackland Air Force Base, and Randolph Air Force Base – is currently underway, funded mostly by a federal program that consolidates military facilities that are being closed in other parts of the country. Congress passed the Base Realignment and Closure Act (BRAC) in 2005 to streamline military operations nationwide and also merge training programs and medical services for the Army, Navy, and Air Force. The work began in 2007 and is being managed by the U.S. Joint Program Management Office, which is overseeing $2.3 billion of BRAC-related projects in San Antonio. While the city regularly receives between $65 million and $100 million annually for military construction, the amount is currently closer to $600 million.

Figures vary, but between seven and 11 percent of BRAC's nationwide expenditure is being spent in San Antonio, adding six million square feet of space. According to Randy Holman, Deputy Director for the Joint Program Management Office at Fort Sam Houston, the city's history of being exceptionally military-friendly figured into the decision to direct so much BRAC money to San Antonio, as did the 30,000 acres of field training space available at Camp Bullis and the existence of two large and internationally recognized hospitals, Brooke Army Medical Center at Fort Sam Houston and Wilford Hall at Lackland Air Force Base.

Not all of the work in San Antonio is new construction; because Fort Sam Houston has more historic structures than any other military installation in the United States, buildings in need of renovation are receiving special attention. Holman explained that while the exteriors of the historic buildings are meticulously restored to preserve culture, history, and heritage, most interior renovations are more functional than historical. Many of the renovated structures now contain administration spaces, but the Spanish Colonial Revival Post Theatre will remain true to its past entertainments and will host musical and theatrical productions.

Approximately three-fourths of San Antonio's BRAC expenditures represent work on medical facilities that range from research labs and clinics to medical training facilities and hospital space. The Medical Education and Training Campus (METC) at Fort Sam Houston consolidates the enlisted medical training programs and facilities for all branches of the military. METC's new 1.9 million-sf complex includes dormitories, classrooms, laboratories, administration, a fitness center, a student activity center, and the nation's largest military dining hall. With a daily enrollment of more than 9,000 students, METC will train every enlisted medical personnel in the military.

Among the largest of the medical projects is the $556 million expansion and renovation of Brooke Army Medical Center (BAMC). By its completion in September 2011 (the deadline mandated by Congress for BRAC projects nationwide), the expanded BAMC will change its name to San Antonio Military Medical Center North (SAMMC North) where all of the city's military trauma and in-patient care will be consolidated. At the same time, Lackland's Wilford Hall will become strictly an out-patient facility. For the expansion at SAMMC North, the Army Corps of Engineers hired RTKL of Dallas to design two hospital towers totaling 760,000 square feet, two parking garages with 5,000 spaces, a central energy plant, and the renovation of 288,000 square feet in the existing hospital at Fort Sam Houston.

The ongoing expansion of Brooke Army Medical Center at Fort Sam Houston will more than double the size of the facility. Designed by RTKL as part of a consolidation of military operations nationwide, the project is scheduled for completion in September 2011.

RENDERINGS COURTESY RTKL

When the architects at RTKL examined the U.S. Army Garrison's site plan for the hospital, they realized that the placement of buildings didn't easily allow for future expansions and that it would be difficult to maintain hospital operations during construction. RTKL's final design consolidated the two hospital towers as well as the two parking garages, creating a more flexible site plan.

According to RTKL principal Alan Sneed, AIA, placing a similarly sized hospital tower in relation to the existing tower (designed by HKS/Wingler and Sharp) was challenging. Eurico Francisco, AIA, a vice president at RTKL, described the original building as a "symmetrical, stand-alone object," noting that a primary design goal for the new building was a "respectful but assertive" presence. For example, to relate to the existing tower's brick cladding the team specified terra cotta, which Francisco calls the "new brick" because its appearance is cleaner and more precise. The same material is used for a shading system that mediates between the desire for daylighting and reaching energy goals. While the project team felt that natural light and views to the outdoors were important to the healing process, the required amount of glass counteracted overall energy efficiency. The exterior sunscreen achieves both goals simultaneously.

A photo taken in March illustrates the progress at Brooke Army Medical Center, which represents just one component of $3 billion in military projects underway in San Antonio.

In addition to daylighting, other examples of Evidence-Based Design included creating an environment that feels comfortable and focused on patients instead of clinical and doctor-centered. RTKL also examined the efficiency and safety of healthcare delivery, including the distance that a nurse must walk to check on patients and convenient placement of handwashing stations. Such considerations, Sneed explained, "may not be glamorous, but they have a big impact on wellness."

SAMMC North was designed to achieve a LEED for New Construction Silver rating. (While LEED served the team as a guideline to design a greener building, Holman at the Joint Program Management Office said the military has no intent to certify the building with the U.S. Green Building Council.) Sneed noted that LEED is challenging for a hospital because of a hospital's intense energy and water usage but that the military's new stringent energy requirements helped them meet LEED energy-efficiency targets. In addition, RTKL's team reduced the use of potable water by collecting the thousands of gallons used daily by the cooling towers to feed an on-site pond, which also supplies irrigation for the site's landscaping.

In many ways, agreed RTKL's Sneed and Francisco, working with the military is easier than working on a typical healthcare project. The firm did encounter some organizational complexity, Francisco said, but the Army Corps of Engineers had a well established set of rules and the client's expectations were "clear and logical with no hidden agendas." Although RTKL was given clear guidelines to follow, he said, military personnel "respected the architects and designers as experts" and were open to changes in the original program and suggestions throughout the design process.

RTKL has designed and documented complex buildings in shorter timeframes, but the design schedule for SAMMC North was challenging due to the military's review process. From June 2007 to November 2009, RTKL submitted 92 separate design packages, and each design package triggered a series of reviews and review conferences. While these reviews took time out of the design schedule, they did mitigate problems during the fast-tracked construction.

BIM has been instrumental in keeping the existing hospital fully functional during renovation and construction. Over 300 departmental moves into flexible "swing" spaces were coordinated using a 5D model (three-dimensional space plus a fourth dimension of timing and a fifth dimension of resources). Holman explained that by using the BIM model as a visual tool, the construction team effectively communicated with hospital administration about how renovation will affect operations, including how much space will be affected and for how long, as well as how many construction workers are expected in the area. Not only does such information help departments understand when and where they will be moved, but it also notifies patients where they will find their doctors as they book future appointments.

SAMMC North is on schedule to be completed by the September 2011 deadline, as are the 78 other major facilities under BRAC-funded construction in San Antonio. Yet, BRAC's impacts on the city are likely to continue for several years. According to the Joint Program Management Office, the construction work is generating an estimated yearly $10.9 million sales tax revenue as well as 90,000 direct and spin-off jobs. In addition, after the BRAC construction is complete, new military operations are expected to generate an additional $5 million in annual municipal sales tax revenue. Curiously, while so much money is being poured into the city, neither the architect nor the general contractors of SAMMC North have offices in San Antonio.

By September 2011, an additional 12,000 positions will be located at Fort Sam Houston, a 40-percent increase in personnel. Of those, 4,300 new personnel and their families will live off-base. The U.S. Department of Defense, through the City of San Antonio's Office of Military Affairs, funded a growth management plan to help the city respond to BRAC-related growth. With a focus on neighborhoods surrounding the base, the plan encourages rehabilitation of existing building stock as well as infill mixed-use development and also proposes a land-banking program to consolidate existing vacant properties for larger developments.

RAINA TILDEN

PHOTO COURTESY JOINT PROGRAM MANAGEMENT OFFICE, FORT SAM HOUSTON

Options Approved for Governor's Mansion

AUSTIN Plans to build an addition – albeit much smaller than one proposed earlier this year that sparked outcries of protest from some preservationists – to the Governor's Mansion appeared to be moving forward at press time. As this edition was being prepared for the press, state officials approved two proposals that would be built on the northwest side of the 153-year-old residence. The ultimate decision on which plan would be built was left to the Texas Historical Commission (THC), which planned to convene in late April to make its selection.

On April 13, the State Preservation Board (SPB) approved the two plans, one that would add 1,555 square feet and another that would add 744 square feet. Both plans call for moving an existing porte-cochere for a two-story addition.

The SPB's approval followed an April 9 meeting of the leadership of the Texas Society of Architects/AIA with officials overseeing the project. The meeting was requested by TSA leaders to discuss the process for establishing program criteria and to review the current options for the mansion addition. TSA was represented by President Heather McKinney, FAIA; Larry Speck, FAIA, vice president for its Advocacy Commission; James Nader, FAIA, chair of the Historic Resources Committee; and Emily Little, FAIA, who has extensive knowledge of Austin's historic architectural landmarks. They met with Dealey Herndon, the SPB's project manager for the mansion addition; THC Executive Director Mark Wolfe; and contracted architects from Ford Powell & Carson, Carolyn Peterson, FAIA, and Jeff Fetzer, AIA.

One option adds 1,555 square feet and includes a new bedroom, storage areas, a disability-accessible bathroom, and space for a home office. A second option adds 744 square feet to the structure and includes an exit stairway, kitchen expansion, and other minor changes.

Both proposals represent a scaled-down approach from a 3,000-sf plan originally considered by the State Preservation Board, which was released in January and was publicly criticized for being insensitive to the historic property. Protests came from state officials, historians, and preservationists, all who decried the secrecy under which the project was being handled.

Additionally, on Jan. 23, the TSA Board of Directors passed a resolution calling for more transparency in procedures by state officials tasked with protecting historic structures.

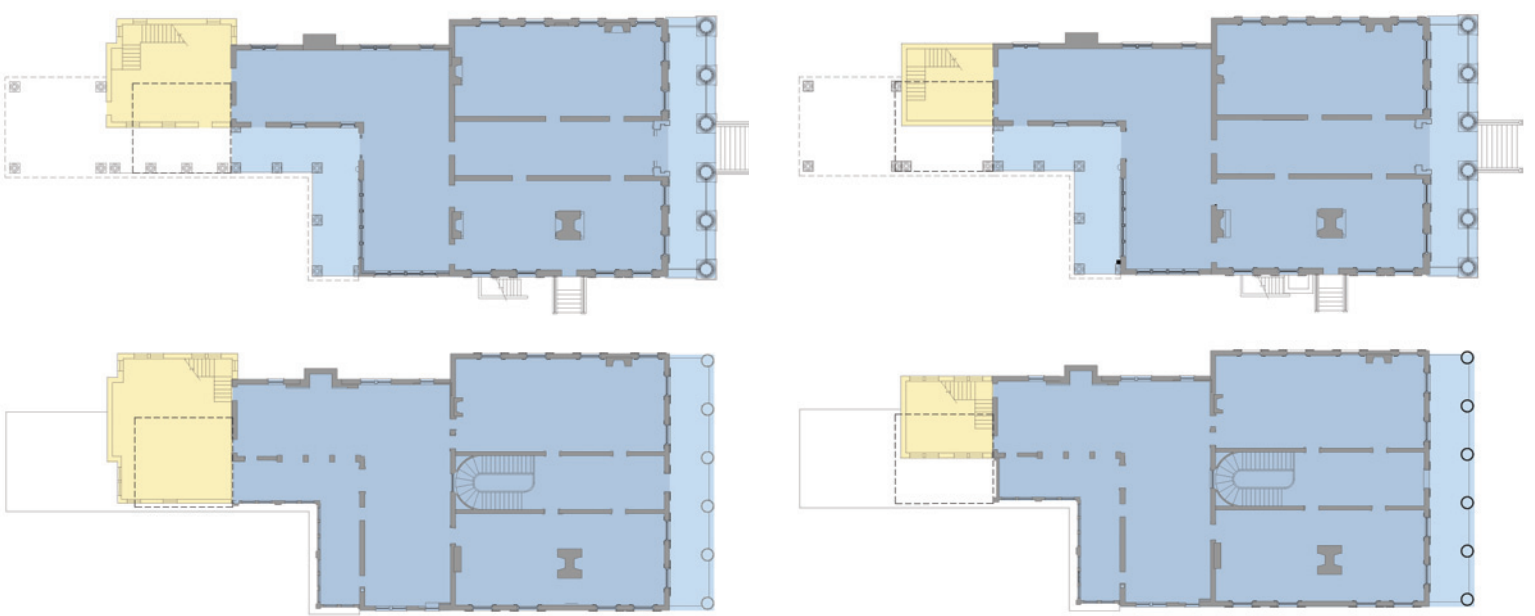
In response to SPB's April 13 announcement, TSA President McKinney said, "It is clear that the Preservation Board and their highly qualified architects heard the comments from the architectural and preservation community. We are gratified that the process engaged the broader stakeholder groups, including TSA and its more than 6,000 members. We are also impressed by the thorough and scholarly Historic Structures Report prepared by Tere O'Connell, AIA, of Volz and Associates. This document will be a valuable tool for future stewards of the Governor's Mansion."

TSA Historic Resources Committee Chair Nader echoed McKinney's sentiments, pointing out the project team's response to the concerns of many preservation-oriented constituencies and its willingness to now exhibit the key documents describing its plans. "It gives us confidence that they realize the importance of transparency of process. We stand with our collegial organizations in their call on those responsible for stewardship of the State's significant properties to proceed with a public process of open meetings with ample opportunity for written and oral public comments on plans," he said.

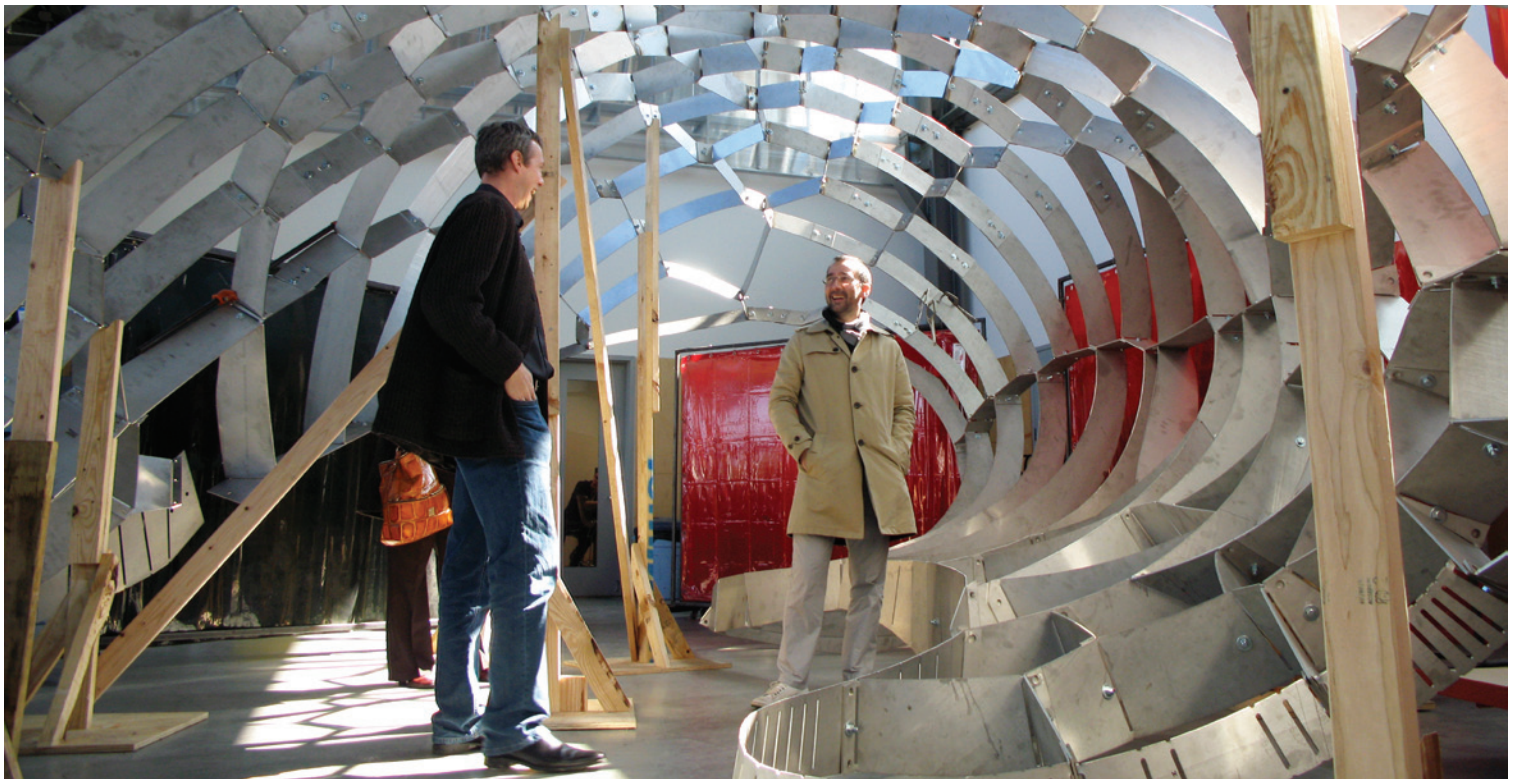
Nader also stated that an open and periodic appraisal of the several phases of a project including the earliest programming goals and objectives as well as key milestone reports during the duration of the design phase are of interest to "those preservation-minded constituencies to whom the language of the project is that in which they converse on a daily basis."

The Governor's Mansion addition will be the first significant change since 1914 to the footprint of the Greek Revival-style landmark, which was being restored when an unknown arsonist attacked on June 8, 2008.

TA STAFF



The stacked set of plans on the left show a 1,555-sf addition to the rear of the Governor's Mansion. The plans on the right show an alternate version of 744 square feet.



TEX-FAB Advances Digital Fabrication

ARLINGTON With advancements in parametric design technology and digital fabrication reshaping the way designers think and create, a group of educators from Texas architectural schools have organized to sponsor activities for local professionals and the academic community. TEX-FAB held its inaugural event in February, a four-day symposium that included lectures and workshops.

Highlights of the symposium, held Feb. 3-6, included presentations by Axel Paredes, a professor at Universidad Francisco Marroquín in Guatemala City, and Scott Marble, AIA, director of fabrication research at Columbia University's Graduate School of Architecture, Planning, and Preservation.

In his Feb. 3 lecture, "Design Rules," Paredes presented work at UT Arlington that illustrated the use of digital fabrication technologies in the local cultural practices of Guatemala and Central America. The following evening's address by Marble, a principal of Marble + Fairbanks in New York, was part of a co-sponsored lecture with the Dallas Architecture Forum in held Magnolia Theater in Dallas. Marble presented work illustrating how the architectural design process is changing as a result of new technological possibilities. Several aspects of fabrication – including project delivery and even the transformation of construction document information – were clearly examined through some of the innovative work done by his firm over the past several years.

Over the next two days, nearly 100 attendees participated in eight workshops held on the UTA campus. The events were sold out, with participants representing 12 states and six academic institutions. The sessions – taught by leading software developers, designers, and instructors in the field, including Marc Fornes, Andy Payne, Rajaa Issa, Andrew Vrana, and Brad Bell – focused on the use of the NURBS modeling software Rhino. The sessions ranged from an introduction to a more advanced lesson that addressed issues of scripting, paneling, and the new parametric plug-in "Grasshopper." Participants had a unique opportunity to learn about some of the most exciting developments in digital design process happening today.

As a new initiative seeking to create a network between allied Texas designers, academics, and practitioners, TEX-FAB will continue to host future events and activities centered on the application of digital design and fabrication. Of particular interest will be the potential to establish a more intentional dialogue between the light industrial manufacturing sector, professional offices, and academic institutions throughout Texas. In this regard, TEX-FAB seeks to become a model for how a more integrated and collaborative network can facilitate the implementation of digital fabrication into design, manufacturing, and construction industry.

TEX-FAB was established by Brad Bell, a designer who teaches at UT Arlington's School of Architecture; Kevin Patrick McClellan, a designer who teaches at UT San Antonio's College of Architecture; and Andrew Vrana, an architect who teaches at the University of Houston's College of Architecture.

In the fall, TEX-FAB expects to launch an open competition focused on the use of parametric design. The winning entry will result in a small built commission. Also, another series of workshops in Houston is being planned for early next year. Updates on future events are posted at *www.tex-fab.net*.

BRAD BELL

Digital fabrication is part of the curriculum in several architectural schools in Texas, including the University of Houston where work is produced in the Burdette Keeland Design Exploration Center. This project, *Cave of the New Being*, is a collaboration by students in the UH College of Architecture's digital fabrication seminar taught by Andrew Vrana, AIA, and Joe Mappelink.

PHOTO COURTESY ANDREW VRANA, AIA

AIA Houston Awards 13 Projects

HOUSTON Thirteen projects were selected for 2010 AIA Houston Design Awards. The jury – Brian Johnsen of Johnsen Schmaling Architects in Milwaukee, Wis.; Juan Miró, AIA, of Miró Rivera Architects in Austin; and Amanda Kolson Hurley, executive editor of Washington, D.C.-based *Architect* magazine – met Feb. 26 at the Architecture Center Houston to review 132 entries from 59 local firms. Awards were presented March 25 at the Rice Hotel in Houston.

Identified by category, the following projects were awarded:

Meredith Long Gallery Carport and Parking Plaza (Architecture under 50,000 SF) by Dillon Kyle Architecture – Located on a busy Houston street, this whimsical carport establishes a heightened street presence for Long Gallery.

General Services Administration Regional Field Office (Architecture over 50,000 SF) by Leo A Daly/LAN + Page Southerland Page – Generated by careful integration of concerns for security, sustainability, and image, the building features a lightweight metal frame hung from concrete walls, creating a "second skin."

Gulf South (Interior Architecture) by Rottet Studio — A comfortable, inexpensive space for employees of a 100-year-old Houston gas pipeline firm. Office walls, interior walls, and furniture are pulled away from the perimeter giving a city view to employees.

Artis, San Francisco, Calif., (Interior Architecture) by Rottet Studio — A relaxing work space tailored to the company's culture, the office was conceived as a "white box."

Caddell/Chapman Apartment (Interior Architecture) by Stern and Bucek Architects — Configured as a series of linked spaces along an outside window wall, four top-floor apartments in Houston's Four Seasons Hotel were converted to one 4,900-sf apartment.

House 2X (Residential Architecture) by Collaborative Designworks — The building's contemporary aesthetic makes use of commercial materials and technologies for a live-work scheme.

Courtyard House (Residential Architecture) by MC2 Architects — Sited in one of Houston's progressive, residential neighborhoods, the house's austere outer shell and perimeter walls enclose a luxurious interior organized around a central courtyard with pools and waterfalls.

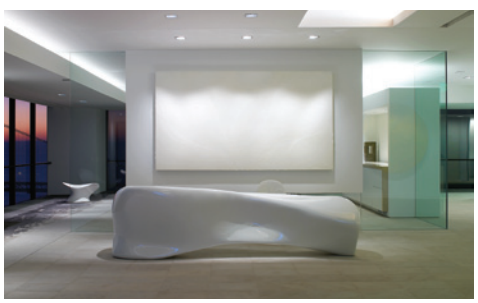
Blossom Street Houses (Residential Architecture) by Nonya Grenader, FAIA, Architect — Set in a mixed-use neighborhood containing a large inventory of metal buildings, two houses filled with natural light offer a backdrop for a varied collection of art and artifacts and frame a communal outdoor area.

Milford Live/Work (Residential Architecture) by StudioMET Architects — A project

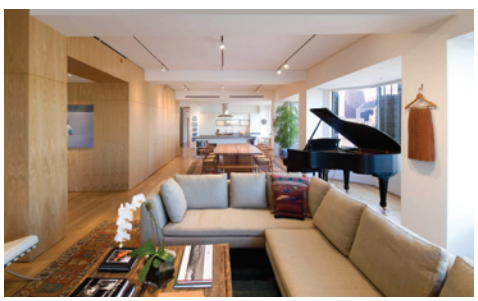
Meredith Long Gallery Carport and Parking Plaza

General Services Administration Regional Field Office

Gulf South

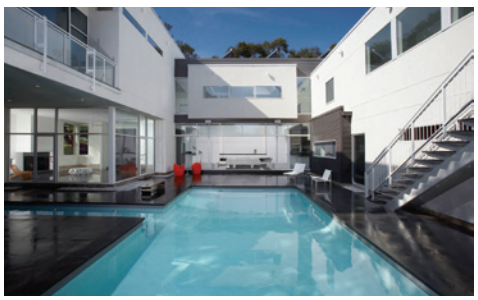


Artis



Caddell/Chapman Apartment

House 2X



Courtyard House

Blossom Street Houses

Milford Live/Work

that explores design possibilities of mixed-use spaces on a small scale. The client's program included an office space, guest quarters, and private residence.

The African American Library at the Gregory School (Renovation/Restoration) by Smith and Company Architects — Located in Houston's historic Freedmen's Town, the Gregory School was transformed into a research library that profoundly connects the school with the surrounding community.

Sengelmann Hall, Schulenberg, (Renovation/Restoration) by Stern and Bucek Architects — One of only two, two-story masonry dance halls constructed in Texas, the 1894 hall and the adjacent 1894 City Meat Market Building were restored to preserve the original character of both buildings, which are listed on the National Register of Historic Places.

Lake Houston Park (On the Boards) by MC2 Architects — The City of Houston's newest regional park comprises almost 5,000 acres and is situated at the confluence of two tributaries to Lake Houston, a major source of municipal drinking water.

Urban Re-Vision Dallas (Conceptual Projects) by Morris Architects — The challenge was to draw up plans and designs for a self-sustaining inner-city block — located in downtown Dallas, across from City Hall — to run "off the grid," using advanced technologies to capture wind, solar, water, and geothermal resources.

TA STAFF

African American Library at the Gregory School

Sengelmann Hall

Lake Houston Park

Urban Re-Vision Dallas

Gail Thomas Named Honorary AIA

The American Institute of Architects (AIA) has awarded honorary membership to Gail Thomas, Ph.D., president and CEO of the Trinity Trust Foundation. Honorary membership is one of the highest honors the AIA can bestow on any person outside the profession of architecture. Thomas, a Dallas resident, was recognized for her efforts to improve cities and for her support of the arts and architecture.

"This honor recognizes what Dallas and Texas architectural communities have known for years. Gail's vision and leadership on many initiatives have made a difference, not only for architects but for all of Dallas," said AIA Dallas President C. Joe Buskuhl, FAIA.

One juror noted, "Every city wishes they had someone like Thomas supporting the arts; she is passionate about architecture and has enough guts and moxie to get things done."

After teaching at the University of Dallas, where she directed the Center for Civic Leadership, Thomas co-founded the Dallas Institute of Humanities and Culture in 1980 and served as its director for 17 years. She continues as director of its Center for the City. A prolific author, Thomas recently released *Healing Pandora: The Restoration of Hope and Abundance*. Her other books include *Stirrings of Culture*; *Imagining Dallas* and *Pegasus: The Spirit of Cities*. In Dallas, her efforts were instrumental in the creation of Pegasus Plaza, the first new park in the central city in many years. She also chaired the Dallas Millennium Project, which restored the landmark illuminated statue of the winged horse to the city's skyline.

Thomas

Thomas was one of three to lead the development of the Balanced Vision Plan for the Trinity River Corridor Project. The Trinity Trust Foundation currently endeavors to implement the ambitious plan for the Trinity project that winds through 20 miles of Dallas. The Standing Wave, a whitewater feature for kayakers, breaks ground in May, and the Santiago Calatrava-designed Margaret Hunt Hill Bridge is now under construction just west of downtown.

Active within the AIA community, Thomas' leadership skills have been used by AIA Dallas, the Dallas Architectural Foundation, and the Texas Society of Architects, where she just completed a two-year term as the public member on the Board of Directors.

TA STAFF

Jury Selected for Design Awards

AUSTIN With the deadline having passed on April 23 for the 2010 TSA Design Awards, three jurors have been selected to review this year's entries on May 21 at the TSA offices. The jurors are Adèle Naudé Santos, FAIA, dean of MIT's School of Architecture and Planning and a principal of Santos Prescott and Associates in San Francisco; Tom Phifer, FAIA, of Thomas Phifer and Partners in New York; and Edward Bosley, director of the Gamble House in Pasadena, Calif., and an art historian on the faculty of the USC's School of Architecture. They were chosen by the TSA Design Awards Committee, chaired by Michael Malone, AIA.

This year's TSA Studio Awards will be judged by a separate panel not selected at press time. Those entries are due May 18. Instructions and criteria are posted online at *texasarchitect.org* in the "Design Awards" area of the Web site.

Adele Santos, FAIA a native of South Africa, was awarded master's degrees in both architecture and city planning from the University of Pennsylvania in 1968, as well as a Master of Architecture in Urban Design from Harvard in 1963. Adèle Naudé Santos was appointed dean of MIT's School of Architecture and Planning in 2004, having previously been a professor at the University of California, Berkeley, College of Environmental Design where her academic focus was the design of housing environments. She has won numerous competitions for projects including the Affordable Prototypical Multi-Family Housing for Franklin/LaBrea in Los Angeles and Penn Children's Center in Philadelphia.

Tom Phifer, FAIA is a native of Columbia, S.C., and graduated from Clemson University with a Master of Architecture in 1977. A 1995-96 Fellow of the American Academy in Rome, he has worked in the offices of Gwathmey Siegel and Associates Architects (1979-1985) and Richard Meier & Partners Architects (1986-1996). He is best known in Texas for the design of the Rachofsky House in Dallas while working with Meier, and for the Brochstein Pavilion at Rice University. That latter project has been recognized by the AIA with a 2010 Institute Honor Award for Architecture. Phifer established his eponymously named firm in 1996.

Edward "Ted" Bosley is the author of *Greene and Greene* (published in 2000 by Phaidon) and two other books on the work of Charles and Henry Greene, whose seminal early-twentieth-century architectural firm helped establish the American Arts and Crafts movement. As the director of the Gamble House, Bosley's responsibilities include directing and managing the programs and preservation of the National Historic Landmark designed in 1908, and for linking the programs to the mission of the USC School of Architecture. He holds a BA in the History of Art from the University of California, Berkeley, and a Masters degree in management from UCLA.

TA STAFF

Santos

Phifer

Bosley

UT Student Retrospective

The UT Austin Graduate Program in Historic Preservation presents "Student Retrospective 2008-09." More information about the exhibit is available online at *www.soa.utexas.edu.* THRU MAY 24

Deadlines for TSA Awards

Three deadlines fall in June for the Texas Society of ArchitectslAIA awards programs. Nominations must be received by 5 p.m. on the following dates:

- JUNE 4: Honor Awards – TSA members may forward nominations to the Honor Awards Committee. Nomination forms are posted on *texasarchitect.org*. Look under "About TSA" for the "Awards" section.
- JUNE 4: 25-Year Award – TSA members may forward nominations to TSA. More information is posted online in the "Awards" section.
- JUNE 18: Studio Awards – The annual program recognizes excellence in unbuilt projects by students, faculty, and practitioners. More information is posted online in the "Awards" section under "Design Awards."

AIA Convenes in Miami

The American Institute of Architects 2010 Convention in Miami will explore the theme of "Design for the New Decade." See *www.aia.org/convention* for more information. JUNE 10-12

'Architecture of Tatiana Bilbao' at UTSA

The UT San Antonio College of Architecture sponsors the exhibit "Concrete, Steel, Brick, Aluminum, Wood, and Paint: The Architecture of Tatiana Bilbao 2004-10," curated by Patrick Charpenel. For more information, visit *www.utsa.edu*. THRU JUNE 20

THC Grant Writing Workshop

The Texas Historical Commission and the Regional Foundation Library host their annual Grant Writing Workshops in June. More information is available at *www.thc.state.tx.us*. JUNE 21-25

'Playhouses and Forts' in San Antonio

The San Antonio Botanical Garden's exhibit "Playhouses and Forts" will showcase up to 10 playhouses and forts created by members of the local design community. More information is available online at *www.sabot.org*. OPENS JUNE 26

Exhibit and Sale: 'Art x Architects'

AIA Austin's "Art x Architects" is a juried exhibition and sale of art created by AIA Austin members. Austin Center for Architecture. For more information, visit *www.aiaaustin.org*. THRU JUNE 30

'Looking into the Distance'

The conceptual project by UT Austin architecture students Brian Bedrosian and William Huie received first-place recognition in the Association of Collegiate Schools of Architecture International Student Design Competition. The competition, "Preservation as Provocation: Re-thinking Kahn's Salk Institute," sponsored by the AIA Historic Resources Committee, challenged students to envision the preservation of Louis H. Kahn's Salk Institute while rethinking current conventions about composition, construction, and building performance. Advised by instructor David Heymann, the students' three-phase plan includes a science center (with a long stoa) placed north of Kahn's building, apartments bermed into a small canyon, and a hotel to draw visitors down the stoa onto the plaza (designed by Kahn and Luis Barragan) to meeting facilities at the east end. Subsequent phases reorient the campus' relationship with UC San Diego and a new research center to the north. "Looking into the Distance" and others from the ACSA competition will be displayed at the AIA convention in June.

City Bank Auditorium

Originally built in the mid-1950s, City Bank Auditorium in Lubbock is about to undergo its first major update since opening 60 years ago. Kirkpatrick Architecture Studio in Denton and Westlake Reed Leskosky in Cleveland, Ohio, have partnered to complete renovations and additions to the auditorium located adjacent to the northeast corner of the Texas Tech campus. Renovations will enhance the lobby, seating area, and restrooms, as well as bring the mid-century facility up to twenty-first-century code. Also being added are a "green" room and a load-in shop. In addition, the project will expand the auditorium by more than 15,000 square feet, including a new entry on the north side. The more accessible entrance will be clad in zinc panels, an ecologically friendly material selected for its resistance to Lubbock's intense and often unpredictable weather. On the south side, a second zinc-clad addition will house new mechanical systems and patron facilities. When renovations are completed next year, the auditorium will have improved acoustics and an audience capacity of approximately 2,500.

Autism Treatment Center

The San Antonio Autism Treatment Center's new outpatient clinic is designed by SHW Group as a learning tool for understanding the complex developmental disorder. Containing six therapy rooms and a sensory lab, the 6,000-sf project encourages sensory and social interaction skills through active group and one-on-one therapy. Working with autism specialists, the architects used six principles – acoustics; spatial sequencing; natural light; color, texture, and pattern; therapeutic horticulture; and rhythms – that help clients identify the spaces and anticipate a functional change. Material choices promote the notion of movement, orientation, and mobility. Color, texture, pattern, and light are used alternately within the therapy rooms to provide each with a different sense of place. Outdoor gardens double as learning areas and help clients transition from the clinic back to their homes. Scheduled to be completed late next year, the diagnostic and therapy clinic is the first of its kind to extensively incorporate architecture as a treatment aid.

Architecture as Art

Le Corbusier's Firminy Church illuminates his singular genius

by RICHARD PAYNE, FAIA

OVER THE LAST FEW YEARS MY WIFE, AMY LADNER, and I have photographed several of Corbusier's buildings in France. Before these trips together I had been to India to see his work at Chandigarh, and I can honestly say after photographing architecture for over 40 years, Corbu's buildings are among the most powerful structures I have seen. St. Pierre in Firminy is typical. It is not only an example of Corbu's genius, but a wonderful story of the persistence of those who understand and love great architecture, and are willing to preserve it.

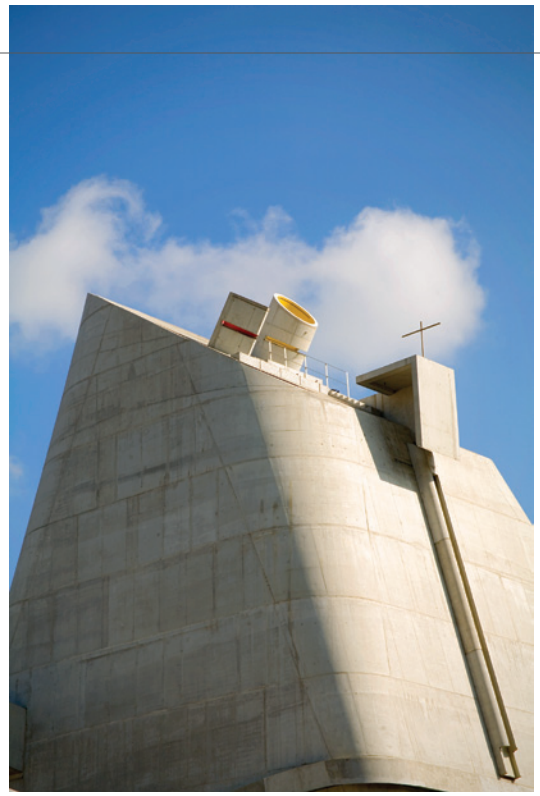
Corbu designed the church in the early 1960s toward the end of his life, but construction did not begin until several years after his death in 1965. It sat unfinished for 30 years, but was finally completed in 2006—as much a tribute to him as for any need of another religious structure. In fact, the building is now used not as a church but as a sort of Corbu museum with drawings and models on display.

Amy and I have traveled twice to Firminy, once during the construction of its final completion and then last year when these photographs were made. While at the site, we spoke to the structural engineer who described the difficulty of building the very thin, cast-in-place, curved exterior walls. The interior spaces of the church are absolutely magical, illuminated by sunshine streaming from "light cannons" in the sloping roof. Colored light also shines through windows placed along the lower section of the exterior walls and shielded from rain by por-

(above) Completed 41 years after Le Corbusier's death, the project was supervised by José Oubrerie, who respected the original project design. I took this photo of the southwest corner to show the large light 'cannon' and the random placement of colored windows.

PHOTOS COURTESY RICHARD PAYNE, FAIA

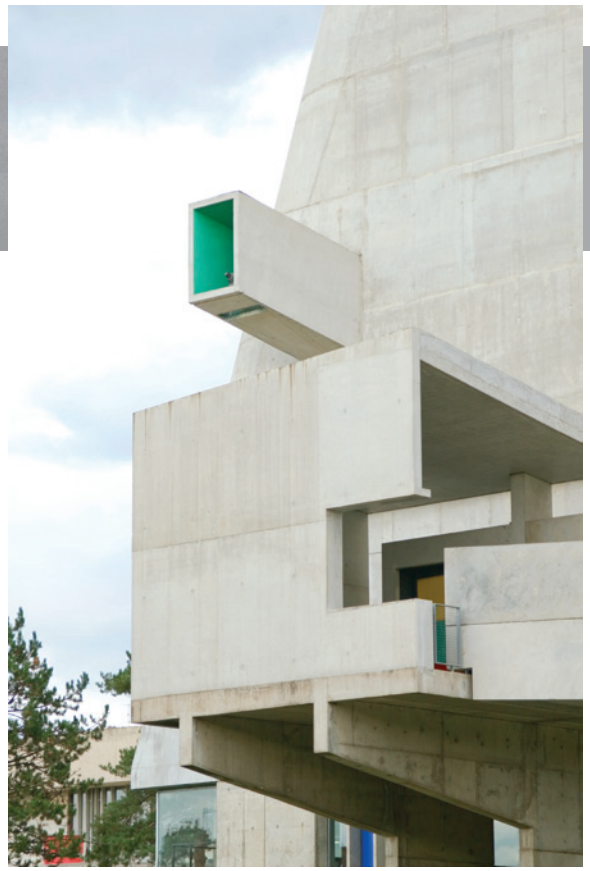
(above) This overall exterior photo is a view looking west showing the entrance walkway from the street. This is the most comprehensive view of the building, with the 'constellation' openings visible under the 'eyebrow' on the north wall.



(top left) My photo inside the sanctuary looking north shows the 'constellation' of Orion and colored windows protected by exterior concrete gutters. The horizontal strip of windows behind the chancel suggest, at least to me, a distant horizon.

(above) A detail of the roof shows the 'light cannons' and the stylized steeple with its minimal iron bar cross and the vertical gutter. Sketches by Corbu indicate that he planned a taller structure than was built and with slightly different proportions. Cost may have been a factor or perhaps the difficulty of pouring concrete in such thin ribbons of curved wall sections.

(left) This photo of the multilevel classroom and gallery spaces illustrates Corbusier's color scheme for the interior. A film shown to visitors at the church documents the construction process, which involved completely filling the interior of the building with scaffolding—the most complex I've ever seen.



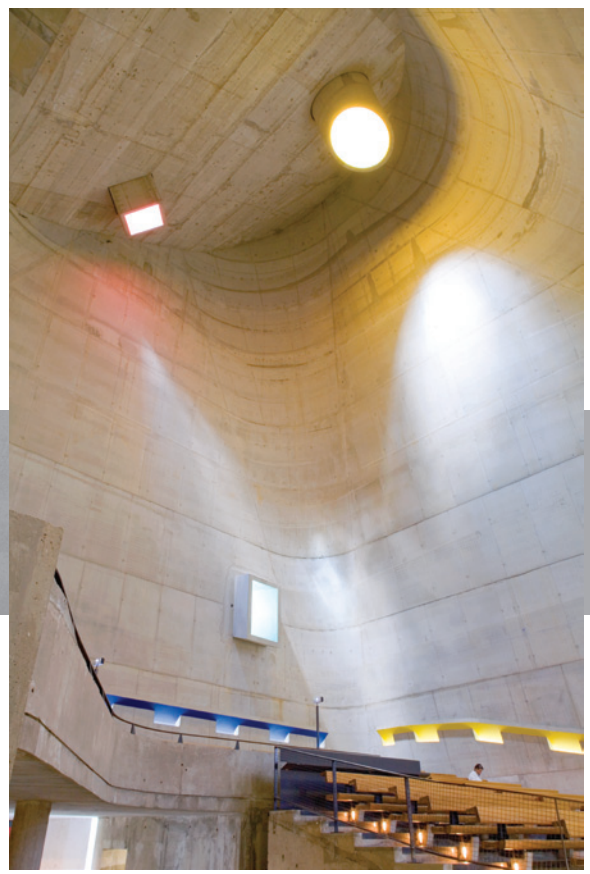
(left) The ramp to the third-level sanctuary and (right) a detail of the entrance platform. One of three used in the design of the church, the 'light cannon' is a device specific to Le Corbusier's architecture .

tions of the concrete gutters. The emotion one feels is similar to the experience of seeing Corbu's chapel at Ronchamp.

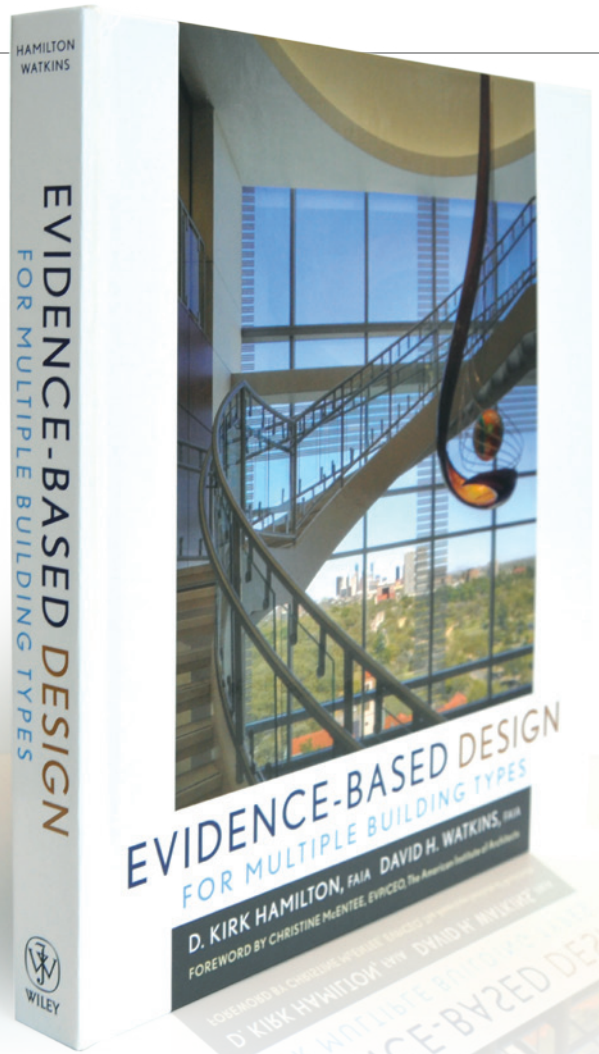
Corbusier is both relative and inspirational to us today because he practiced architecture as an art form, and he lived his life as an artist. He has much to teach us. His architectural work demonstrates that our dreams of creating great architecture with similar aesthetic and spiritual qualities can be achieved. Corbusier built 57 buildings in 12 countries and designed several urban planning projects, but he also created over 400 paintings, dozens of sculptures and tapestries, as well as wrote books and articles, and lectured widely. Architecture was just one of his artistic enterprises.

One of the reasons I admire Corbusier is the fact that he was an idealist, as are all great architects. During the 1950s he was the most famous architect in the world primarily because he refused to apologize for sculptural form, proportion, and simplicity. He insisted that all architects have not only the right but the obligation to respond to the needs of their client and the public through artistic means, going beyond architectural craft to resolve issues such as function, cost, etc. He had the power, the ego, the reputation, the intensity, and the talent to best serve his clients by pressing his own personal artistic agenda, and thereby giving his clients and the public more than what was expected. At the same time, he was fulfilling architecture's potential and promise.

Richard Payne, FAIA, is an architectural photographer in Houston.



(right) This photo shows the three roof openings at the rear of the sanctuary. There are two chapels in the church, one used during the week and this one that is used for Sunday services. The church also contains an interpretation center dedicated to Le Corbusier's works.



Making a Case for Research

Authors of *Evidence-Based Design* explain the importance of measured results

by JESSE HAGER

IN THEIR RECENT BOOK, *Evidence-Based Design for Multiple Building Types*, David Watkins, FAIA, and Kirk Hamilton, FAIA, offer case studies involving several built projects that illustrate the importance of empirical research for the benefit of architects and owners. Though often associated with healthcare design, the authors state that evidence-based design is a methodology that can be used in any sort of architectural practice.

Watkins and Hamilton are two of the founding principals of WHR Architects in Houston. Their book was published last year by John Wiley & Sons.

Much of the discussion of the need for evidence-based design is phrased in language re-asserting the limited role of the architect. Is evidence-based design about the value of architecture and a reclaiming of lost territory and market share taken over by consultants focused on one aspect of building?

[DW] I think it is directly tied to the architect's relevance.

[KH] If it is true that the architect's role is eroding, then the use of data is certainly a way to reinforce the validity of the profession. Until architects stop expressing themselves in the realm of subjective judgment, until we can point with confidence to credible material with which to reinforce design decisions we will continue to see our roles diminishing.

[DW] Unlike medicine, architecture is not a profession with a long history of research, yet both are directly concerned with the health and well-being of people. The amount of information that an architect is required to know is increasing exponentially. The decisions of architects need to be defensible and based on more than an opinion or that of a consultant.

How do you respond to criticisms that evidence-based design will increase specialization?

[KH] A client wants to know that you have the expertise in their particular type of facility. It is a fantasy that firms are truly diverse: they may have a range of skills among their employees which permits this perception but a client will demand the team with the most experience in their type of project.

[DW] Specialization is already a given. The qualifier is that every practice consists of a multitude of specialists. When a firm states that it specializes in a typology what they are saying is that they have

> One of the giant fallacies of current architectural practice is to treat [research] as proprietary. I see this as toxic to the profession and very short-sighted…A willingness to share results, lessons learned, not only advances the profession but shows prospective clients that you can be trusted to be candid. – KIRK HAMILTON, FAIA

employees with experience in that building type. With buildings becoming more specific to client needs, the odds of a practitioner without the experience getting a specialized project are pretty slim.

[KH] I don't see a change in the use of numerous experts, and I don't want to. Take the example of a structural engineer. No matter how much research is done on the part of the architect, I would never advocate replacing the qualified structural engineer. Yet that research-informed capability will lead to more positive and collaborative decisions during the design process. Further, adopting evidence-based design to increase the credible outcomes associated with design will help to develop areas where architects can take back some responsibility.

The phrase "evidence-based design" implies quantification, a measured result. How do you respond to those practitioners that argue architecture is both science and art, that while some aspects of architecture may be measurable, others are immeasurable and an aggregate of the many qualities of a building?

[DW] That is the allure of architecture. If it were only about form and aesthetics, then it would be no different than large-scale sculpture. This doesn't mean that the three-dimensional qualities of a building are not important, but that in conjunction with the functional criteria of a working building these constitute the challenge of architecture.

[KH] Architecture has always been both an art and a science, and delightfully so. The current practice of architecture is insufficiently rigorous in regard to the science. There is too much art.

How does one filter the relevant information from all of the data that can now be gathered? Wouldn't even the sorting of priorities – such as, user comfort over efficiency – affect the final result? How does one find the "right mix" of information within all that data?

[DW] This is best driven by the client and how the client defines success. Any project is a partnership with your client and finding the right mix of priorities is the challenge. I've never had a situation where there weren't priorities in conflict with each other. Yet certain aspects cannot be compromised, the safety of users for example. It is helpful to use an empathetic approach. Seeing the project from the perspective of the client and end user helps to determine what information is most appropriate to focus on.

How does a small practitioner justify the resources and time for evidence-based design? Is it possible to adopt at a small scale, and is evidence-based design a replacement for experience and "gut-feelings"?

[KH] No matter what the size is of the firm, you can't make the mistake of tackling all the issues at once. We advocate beginning with the project on your desk at the moment. Start with the key issues for your current project and accumulate data over time. This is certainly possible at any scale.

[DW] It is also important to keep up with the literature in your field and that of your clients. There is a time cost associated with these methods but that can be offset through partnerships among like-minded colleagues or with local universities. There are always a number of graduate students looking for research topics to explore.

Evidence-based design is currently most often identified with healthcare design. Is this a hindrance to the adoption of evidence-based design practices?

[DW] It unfairly could be. Evidence-based design has found a home within healthcare design because the terminology and practices already exist in medicine. Yet, as we discuss in our book, it is just as relevant to any area of practice.

[KH] We are not as concerned with the adoption of the language, whether the term "evidence-based design" is used, rather the adoption of the practice.

The numerical aspect of evidence-based design most closely translates to sustainable design practices and building science. Do you see this as the avenue through which these evidence-based design principals will gain traction in most firms?

[KH] Sustainable design already most visibly and powerfully focuses on evidence-based design. The criteria of sustainability are often directly related to evidence.

[DW] They both utilize quantifiable predictions. Unfortunately when it comes to more general design questions there is more data needed. Layers of observation are required to see how people behave in various environments.

Isn't there an obvious tie-in between evidence-based design and BIM? Won't this collection of data support the possibility of information-based design?

[DW] Exactly. BIM (building information modeling) is about much more than merely clash detection. If we were to write an addendum to

continued on page 75


Texas Children's

Beacon of Hope

by KURT NEUBEK, FAIA

PROJECT Texas Children's Hospital Feigin Center, Houston
CLIENT Texas Children's Hospital
ARCHITECT FKP Architects
DESIGN TEAM Michael Shirley, AIA; Cynthia Walston, AIA; Jon Franklin, AIA; Daniel Huynh, AIA; Daniel Gaitan, Assoc. AIA; John Goodman; Paul Asteris; Deon Hoang
CONTRACTOR W.S. Bellows Construction
CONSULTANTS Inventure Design (interiors); Walter P Moore (structural, civil); Burns Delatte McCoy (MEP); White Oak Studio (landscape); Peter M. Muller (curtainwall); Persohn/Hahn Assoc. (elevator); MJS Lighting Consultants (lighting); Kroll (security)
PHOTOGRAPHY Aker/Zvonkovic Photography

Located in the Texas Medical Center in Houston, Texas Children's Hospital (TCH) is the largest pediatric hospital in the U.S. and is widely recognized as one of the best in the world.

In late 2006 the hospital announced its Vision 2010, a $1.5 billion investment in four facilities—"the largest investment and program expansion ever by a single pediatric organization," according to Texas Children's Hospital. The first completed of the four projects is the $120 million, eight-story vertical expansion of the Feigin Center, designed by FKP Architects and encompassing 206,000 square feet. The building is named for the late Dr. Ralph Feigin (pronounced *FI gin*, with a long "i" and a hard "g"), the hospital's influential and well respected physician-in-chief, the position he held until his death in 2008.

Originally a 12-story clinical building designed by Kenneth Bentsen & Associates and completed in 1991, the base structure was built to accommodate future vertical expansion. In 2002, an FKP-designed renovation converted the building to a research facility. That conversion required in the installation of a large exhaust manifold, in addition to 80 exhaust fans on the roof. The cluttered rooftop, above an occupied research floor, thus became "the site" for the eight-story expansion. When construction began in January 2007, it was dubbed "raising the roof."

The program for the expansion included five floors of research space plus a new pediatric simulation center and information technology space.

Though the perimeter and elevator core were fixed by the structure below and the new laboratories were intended to be fundamentally similar to the existing, the architects did not simply duplicate the existing exterior or floor plan. Inside the labs, reprised from the lower

floors, is full-height glass at the end of each lab and corridor because great views and extensive natural light "are now an expectation in labs to compete for the best talent," notes Cynthia Walston, AIA, an FKP principal and senior laboratory planner. As a way to tie the building together and allow occupants of the lower floors to benefit from the expansion, all existing elevator lobbies were renovated to match the upper floors. "We didn't want to split the building functionally, aesthetically, or philosophically," says Allison Muth, AIA, assisitant director of Texas Children's facilities planning and development. "We wanted it to feel and function as one building."

Outside the labs, the new floor plans have two significant changes compared to the lower floors. First is the creation of a visually open zone running through the elevator lobbies to the exterior, which brings light deep into the building and provides areas for staff interaction at either side of each floor. This subtle change markedly improves the quality of the space in the building's core on the upper floors. The second change responds to requests for more space dedicated to collaboration among researchers. These stacked two-story spaces along the glass wall are filled with daylight and equipped with a variety of movable furniture and tackable surfaces to foster the exchange of ideas. An adjacent kitchen is enclosed to contain food odors. Open to everyone in the building, the collaboration areas have been very popular and are an excellent example of how architecture can genuinely contribute to medical breakthroughs.

A significant factor in the building expansion was the exhaust system. All the equipment on the original roof caused the thirteenth floor to be a mechanical floor. The exhaust system on each new floor was then arranged around two major vertical stainless steel ducts that run along the inside of the exterior wall. On each floor near the collaboration spaces, ducts are set behind clear glass and lit so it's a visible expression from the outside of the technology within.

Research labs typically require up to 10 air changes per hour, which uses an enormous amount of energy, but is standard practice to protect occupants in case of accidental contamination. To reduce energy consumption without affecting safety, the project design team specified an air-monitoring system that continually "sniffs" for dangerous particulates in the air. If detected, the system automatically increases exhaust and make-up air volumes to flush any contaminated air. Since spills are actually quite rare, the system normally supplies just four air changes per hour but increases to 15 air changes in case of an accident.

Notably, despite building eight floors atop an operating research building, Texas Children's Hospital did not evacuate the top floor during construction. Though many people were concerned that the construction would adversely affect the scientists' work, Texas Children's installed sound and vibration

RESOURCES POROUS PAVING: Gibsons Landscape; IRRIGATION: Hall Sprinkler; CONCRETE MATERIALS: Southern Star Concrete; PRECAST ARCHITECTURAL CONCRETE: Redondo Manufacturing; GRANITE: Cold Spring Granite; METAL DECKING AND RAILINGS: Steel Designs; ARCHITECTURAL WOODWORK AND LAMINATES: Woodcraft Studios Inc.; METAL DOORS AND FRAMES: Pearland Industries; PLASTIC LAMINATE DOORS AND ALUMINUM FRAMES: Versatrac; GLASS DOORS AND SIDELITES, GLASS STAIRS, WAVE PATTERN COMPOSITE, MISCELLANEOUS GLASS: Vision Products; STRUCTURAL GLASS CURTAINWALL: Arrowall; DOOR HARDWARE: Houston Builders Hardware; ACOUSTICAL AND LAB CEILINGS: Clunn Acoustical; CARPET AND RESILIENT FLOORING: ACS Flooring Group; WALL COVERINGS, DRY ERASE, TACKABLE AND PROTECTIVE WALL COVERINGS: Wall-coverings International; ACOUSTICAL TREATMENTS AND **AV** DESIGN: HFP Acoustical Consultants; MANUFACTURED AND LAB CASEWORK: Thermo Scientific-Hamilton Lab Furniture (MGC); FLOOR MATS AND FRAMES: Dycem; LAB SEATING, OFFICE FURNITURE, WORKSTATION FURNITURE, CONFERENCE ROOM FURNITURE: McCoy Workplace Solutions; STERILIZERS: Getinge USA; **MRI**: Bruker BioSpin Corp.; SIMULATORS AND MANIKINS: Laerdal Medical Corp.; BIOSAFETY CABINETS AND LIQUID NITROGEN DELIVERY SYSTEM: Scientific Resources Southwest; DOOR HARDWARE AND SECURITY: Assa Abloy; STAINLESS STEEL WIRE SHELVING AND HIGH DENSITY STORAGE SYSTEMS: Intermetro Industries; DESIGN SOFTWARE: Autodesk 3D Max; CONSTRUCTION DOCUMENT SOFTWARE: Autodesk Architectural Desktop, Autodesk Navisworks

(preceding spread) The vertical expansion of the Feigin Center represents the first built component of $1.5 billion in capital improvements planned for Texas Children's Hospital in Houston.

(opposite page) Floor-to-floor vision glass offers expansive views from the labs.

(top left) New floors include collaboration areas meant to encourage informal meetings among researchers.

(above) Two-story "jewel box" spaces at the window wall on the new floors open to unobstructed vistas to the south and foster the intellectual collision of ideas.

(left) Located on Texas Children's compact campus in one of the world's largest medical centers, the Feigin expansion added eight floors to the existing 12-story building.

(below) Feigin's pediatric simulation center, unique to Texas and among the largest in the nation, provides the highest level of virtual multi-disciplinary medical training.

PARTIAL BUILDING SECTION OF A TWO-STORY COLLABORATION SPACE, LOOKING WEST

monitors. Based on the data, the construction had very little impact on the occupants. In fact, nearby roadwork had a greater impact.

The exterior expression offered its own challenges, according to FKP's Michael Shirley, AIA, principal and senior project designer. While Texas Children's is proud of its long-established campus identity based on horizontal bands of reflective Champagne-colored glass and Texas Sunset Red granite, the owner also wanted this building to serve as a landmark. The design team responded by selecting a highly transparent, high-performance glass with a ceramic frit (after experimenting with 10 different types of glazing installed in the existing building). To match the granite, the contractor saved 14 full-size panels from the existing building and shipped some of them to the original quarry in Marble Falls. Quarry workers went back to the same part of the quarry where the original panels had been extracted nearly 20 years earlier and obtained enough granite for a seamless match.

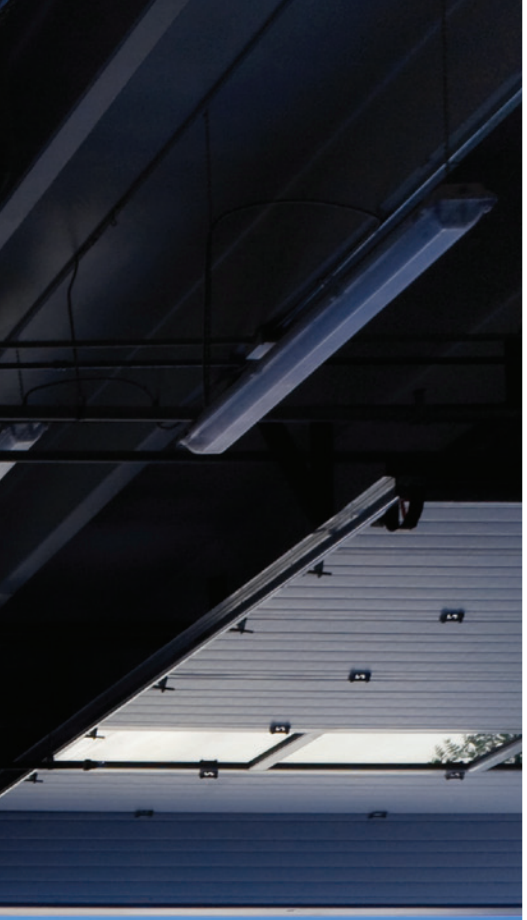
Another significant aspect to the project was the client's request that the new building represent a metaphorical beacon of hope. That was achieved by the addition of a blue glow around the building's top three floors. After reviewing computer renderings of 15 different lighting effects and building a full-size mock-up of the light cove in the existing building, the design team and client agreed on a combination of cold cathode, incandescent, and LED lighting.

When asked how the building design has been perceived by the community, Texas Children's Allison Muth says, "Everyone is pleased. The expansion has brought more attention to the building; it increased the visibility. People tell us, 'We can see Texas Children's now' and 'It has a lot more presence.'"

A highlight of the building is the 8,000-sf pediatric simulation training center, one of the few in the country and the first in Texas. The center includes typical exam rooms where trainees are videotaped interacting with mock patients, then their performance is reviewed on a large screen in an adjacent debriefing room. Nearby, a central control room is flanked by two large simulation theaters that can model different rooms such as emergency room, operating room, or neonatal intensive care.

The Feigin Center expansion is an excellent example of a fundamentally difficult task that was accomplished through the thoughtful teamwork of the owner, architect, structural and mechanical engineers, many consultants, and contractor. The building is a technical triumph, yet it's also filled with many thoughtful design elements that together set the new architectural standard for the Texas Children's campus.

Kurt Neubek, FAIA, is an associate principal of Page Southerland Page in Houston.



Resolute Landmark

by EURICO R. FRANCISCO, AIA

PROJECT The Bridge, Dallas

CLIENT City of Dallas

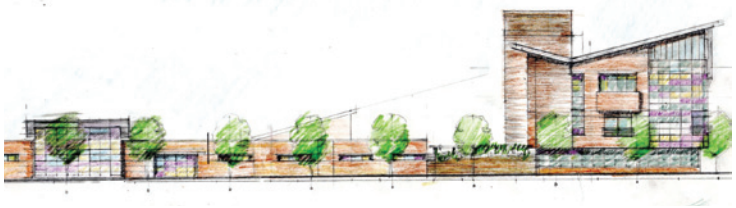
ARCHITECT CamargoCopeland Architects and Overland Partners

DESIGN TEAM Myriam Camargo, AIA; Rick Archer, FAIA; E.N. Copeland, AIA; Roberto Diaz, AIA; James Andrews, AIA Int'l Assoc.; Melissa Hanson, IIDA; Hozefa Haidery, Indian Institute of Architects

CONTRACTOR Satterfield & Pontikes

CONSULTANTS Charles Gojer & Associates (structural, civil); Blum Consulting Engineers (MEP); Air Engineering & Testing (commissioning); Kendall + Landscape Architecture (landscape); Cedrick Frank Associates (AV, security); HILL International (cost); Master Code (code); Worrell Design Group (food service)

PHOTOGRAPHER Charles Davis Smith, AIA



The area just south of downtown Dallas, once vibrant with businesses, workshops, and civic buildings, is now a loose collection of parking lots, vacant buildings, and a few stubborn merchants and residents who refuse to leave.

Also dotting the landscape are landmarks from a grander but almost forgotten earlier era—including the Masonic Temple (1941; Flint & Broad), the Weisfeld Center (1912; Hubbell & Greene; originally the First Church of Christ, Scientist), and the Scottish Rite Cathedral (1913; Hubbell & Greene). Dallas City Hall, designed in 1977 by I.M. Pei with the mission of awakening Dallas from its post-JFK assassination slump, mediates between this neglected corner of downtown and the inner city's robust commercial district. There is hope, however, for this neighborhood's renewal since the opening in 2008 of The Bridge, a homeless assistance center funded by the City of Dallas.

When "homeless" and "neighborhood" are mentioned in the same sentence, it is usually under the precept that neighborhoods are negatively impacted by the homeless, and it is difficult to argue against this notion. In this case, the situation may be somewhat different. The Bridge makes a convincing argument that it can simultaneously support the homeless and assist in the re-creation of a stable urban fabric. How is that possible?

Occupying a full city block—bounded by Park Avenue, Corsicana Street, St. Paul Street, and Interstate 30 – The Bridge's campus design resulted in a compressed building footprint to minimize the impact to the site. As such, The Bridge's program is organized around three courtyards of different shapes and sizes, and it relies as much on the strength of what is built as what is left open. The

strategy of making The Bridge a self-contained and self-referencing campus environment is driven by its own program needs (shelter, protection, safety, etc.) as well as by the lack of any strong physical reference in the immediate context. In a way, The Bridge stands alone, surrounded by open lots, warehouses, and truck depots. And this is exactly what allows it to be so resolute in its making, and to become the physical – and social – landmark that the area needs.

The Bridge's program is based on similar facilities in Atlanta and Los Angeles, which the architects and clients visited during the programming phase. Being the result of a complex arrangement involving the public sector, charitable organizations, and service providers, the building needed to be flexible in its organization. Accordingly, The Bridge is designed to house 325 people every night (or up to 400 under critical circumstances) and to offer up to 500 meals a day, every day. The residents' wing, so called because people are welcome to stay in the facility for up to one year, has 100 beds organized in individual modules that afford both privacy and expansive views of city. The sleeping pavilion, an existing one-story building at the eastern end of the site that was integrated into the overall master plan and rehabilitated as a multi-functional space, now sleeps around 225 "non-residents" every night.

The Bridge also serves as a clearinghouse for other organizations and hospitals in town: some of its clients need healthcare, some need behavioral care, some need job training, and others may simply need a safe shelter following an episode of domestic violence. The Bridge, therefore, handles clients' transfers to the county hospital and to other facilities, but it also is equipped with its own basic healthcare clinic and a job counseling center. Dining hall, kitchen, administrative offices, library, barbershop, security center, and laundry complete the unusual building program. With so much going on, one might say that The Bridge is the ultimate mixed-use complex—part hotel, part office building, part assistance center.

Assembling such a multifaceted program in a logical way is no easy task. Deploying it with elegance on a difficult site is even more challenging. The Bridge's designers started by setting the massing right: the lowest volumes are one story tall and the highest is an extra tall three-story. The three-story volume faces west to Corsicana Street and beyond, toward the high-rises of downtown. Moving east, the building massing steps down to the lower volumes, again reflecting and reaffirming the general profile of the urban landscape. As with every great campus, the buildings relate to and acknowledge each other, every one of them fulfilling its own individual and collective role. A clear hierarchy is evident in the assemblage: residents atop, multi-functional and support spaces on the periphery, and finally the beautiful and flowing dining building at the center of the block.

RESOURCES CONCRETE PAVEMENT AND STRUCTURAL CONCRETE: Southern Star Concrete; FENCES, GATES AND HARDWARE: King Architectural Metals; SITE, STREET AND MALL FURNISHINGS: Landscape Forms, KI; PLAYGROUND EQUIPMENT: GameTime by SW Parks (Walk in the Park Construction); TREE GRATE AND STEEL FRAME: Neenah Foundry Company; REBAR: Rebar Services & Supply; CLAY MASONRY UNITS: Atlas Structural Clay Masonry Units by Blackson Brick Co. ; LIGHT WEIGHT CMU: Featherlite; CAST STONE: Leito Enterprises; METAL STAIRS: King Architectural Metals (Aaron Ornamental Iron); RAILINGS AND HANDRAILS: Aaron Ornamental Iron; STRUCTURAL STEEL: Ironhorse Ironworks; COUNTERTOPS: Formica, Wilsonart; METAL ROOFING: Berridge Manufacturing Co.; METAL DOORS AND FRAMES: Assa Abloy (Arc One); ENTRANCES AND STOREFRONTS: VistaWall; GLASS: AFG (Grizzly Glass); ACCESS DOORS AND PANELS: Overhead Door Co.; TRANSLUCENT WALL AND ROOF ASSEMBLIES: Skywall; TILE: DalTile (C2 Flooring); VINYL COMPOSITE TILE: Mannington, Armstrong (C2 Flooring); ACOUSTICAL CEILINGS: Armstrong; SHEET LAMINATE FLOORING: Mannington, Johnsonite (C2 Flooring); CUSTOM GRAPHIC WALLCOVERING: MDC Wallcoverings; PAINTS: Sherwin Williams; CARPET: Milliken Contract, Patcraft, Lees (C2 Flooring); INTERIOR WINDOW SILLS: DuPont Corian (Designer Building Solutions); SIGNAGE: Environmental Signage Solutions Inc. dba ASI Signage; CUSTOM SIGNAGE: Chandler Signs; AWNINGS: InPro Fabrication dba Bucks Awnings; MEDICAL/HOSPITAL EQUIPMENT, MANUFACTURED/LAB CASEWORK: Midmark (Business Interiors); FLOOR MATS: Pawling Corp. (ADW Corp.); RESIDENTIAL CUBICLES: Moduform/P.S. Gerry (Business Interiors); BOOTHS AND TABLES: KI (Bart, Turner & Assoc.); RUNNER PLUG & PLAY: Vecta; CHECKERS: FurnitureLab; DESK SYSTEM: KI (Bart, Turner & Assoc.); CHAIRS: KI (Bart, Turner & Assoc.), Coalesse/Brayton (Steelcase), Moduform (P.S. Gerry), Midmark; LATERAL FILES: Lacasse (33parallel); SUPPLY CABINET: United Metal; MEDICAL FILE CABINET: Mayline (Buddy Brown & Assoc.); BOOKCASE: KI (Bart, Turner & Assoc.); SECURITY ACCESS AND SURVEILLANCE: C&N Fire Systems

(preceding spread) Dallas' new homeless assistance center comprises a complex of buildings for administrative offices, healthcare services, and facilities to provide food and temporary shelter for 325 people each day.

(opposite page) Gordon Huether created artwork in the residential wing by superimposing the writings of homeless people over brightly colored glass.

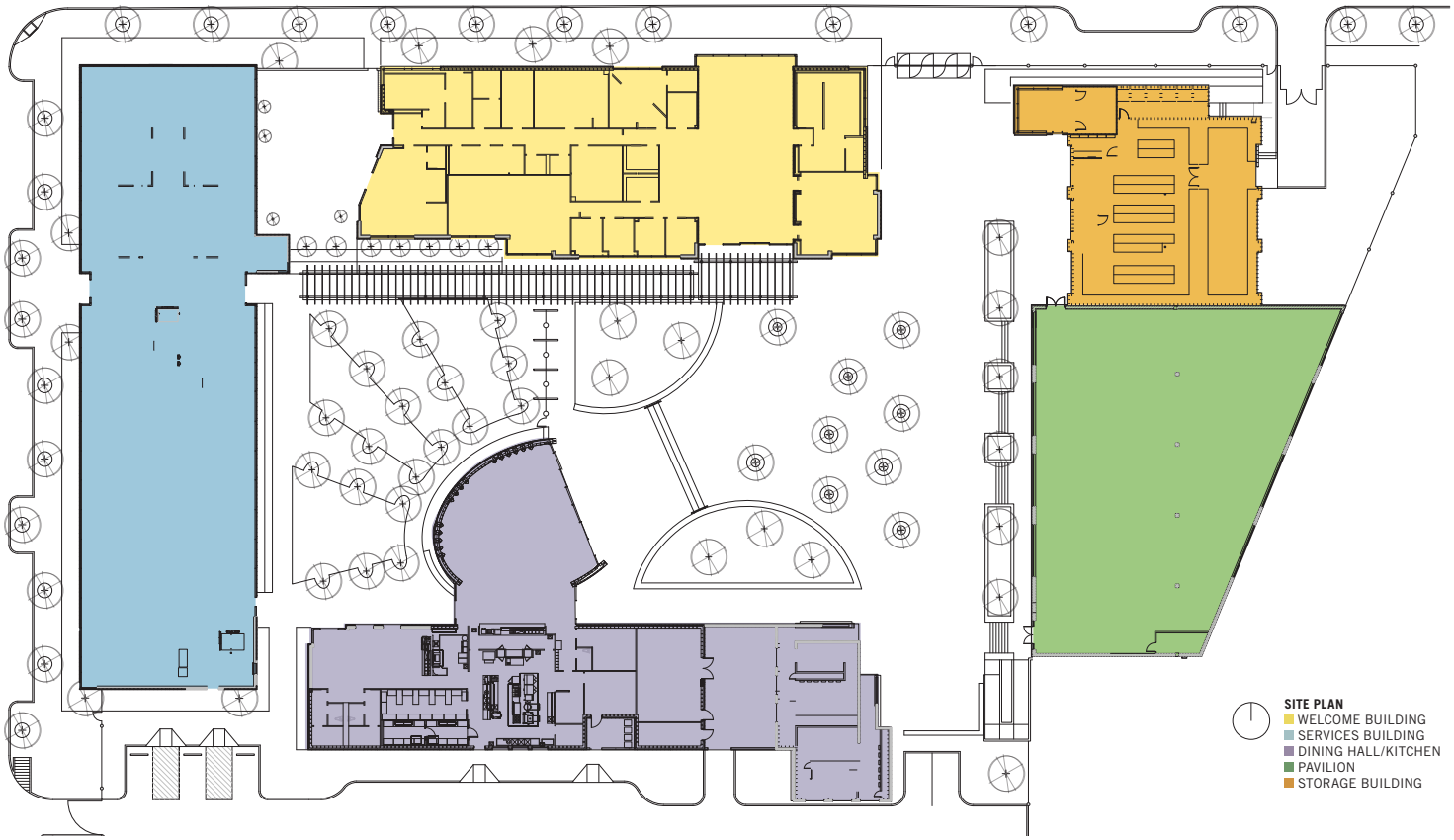
(this page, top left) Opened in 2008, The Bridge also serves as a clearinghouse for other organizations to assist the city's homeless.

(above) Sleeping compartments and small private rooms can accommodate 100 individuals each night.

(top) The dining pavilion opens to the central courtyard with an entry protected by a high canopy.

(middle) The Bridge has received national recognition for its design, including an AIA/HUD Secretary Award, an AIA National Housing Award, and the Chicago Athenaeum's 2009 American Architecture Award.

(bottom) To avoid an institutional look, the design team devised a collection of buildings to surround outdoor spaces at the core. Shade structures in the courtyard offer comfortable places to relax within a secure and controlled environment.



By virtue of its location, geometry, and function, the dining building becomes the very core and symbol of the place. As designed, the oval building opens to the courtyard via a tall storefront, while a generous overhang provides a shaded sitting area out of the Texas sun. The dining facility not only physically articulates the courtyards but also creates a central place where people gather to eat, to interact with each other, and to – why not? – enjoy a lively session of blues or folk music with one's meal. During my recent visit, one of the residents performed a lively and impromptu lunchtime piano solo. It was unpredictable and, needless to say, unforgettable.

The importance of The Bridge's courtyards cannot be overstated. The outdoor areas in this compressed campus (like the quadrangles and commons of great college campuses) are powerful negative spaces. They are interdependent with the buildings that surround and define them. From a design standpoint, one could not function without the other. From a programmatic standpoint, the architects soon learned that courtyards are a necessity: many of The Bridge's users actually come from the streets and, at times, feel more comfortable outdoors than indoors. A safe and controlled open space – i.e., a courtyard – thus becomes a familiar and reassuring place for that population. The notion of refuge via enclosure requires a fine sensibility to be done right. If there is too much enclosure, the space will feel dramatic or worse, overpowering. If there is too little of it, the space will lack order and structure and will fail as a refuge. Here, the proportions feel right with just the right ratio of vertical enclosure to open space.

Brick is generally used as the base exterior building material, consistent with the warehouses and the other few buildings close by. Brick also tends to convey a sense of stability and permanence, which is particularly appropriate under the circumstances. Low maintenance and durability also win points in this case where resources are scarce. Glazing and translucent wall panels used in smart ways bring into the building a serene quality of light, particularly on the residents' upper floor. Bright artwork that is integral to the glazing on this same floor is a true delight; bursts of color shine through from each window and contrast with the otherwise neutral canvas of the interior space. A stair-with-clocktower, strategically placed on a corner of the courtyard, is both an anchoring element of the overall composition as well as a reference to the office towers that rise only a few blocks away. As these neighbors look toward each other and carry on their inaudible dialogue, we can hope for a future where The Bridge becomes less of a necessity within a more just society.

Eurico R. Francisco, AIA, is a lead designer and vice president of RTKL Associates in Dallas.

Equinox
Fitness
Center

Refit for Fitness

by BRIAN MCLAREN, AIA

PROJECT Equinox, Highland Park
CLIENT Eclipse Development
ARCHITECT Good Fulton & Farrell Architects
DESIGN TEAM Jeffrey Good, AIA; Liz Johnson; J. Scott Slagle
CONTRACTOR Hill & Wilkinson General Contractors
CONSULTANTS Studio Arthur Casas (design); GFF Interiors (interior design); Dunaway Associates (civil); SMR Landscape Architects (landscape); Hunt & Joiner (structural); Jordan & Skala Engineers (MEP)
PHOTOGRAPHERS Mark Knight Photography; GFF Media

Things aren't always what they seem. Case in point—Equinox on Oak Lawn Avenue in Dallas. The New York City-based company has built its brand around an urban/hip experience and in the last several years has expanded into other cities. Equinox's approach to fitness is hospitality oriented in contrast to the strictly functional programmed approach of a generic gym.

As designed by Good Fulton & Farrell, the new Dallas facility reflects the idea of working out as if it were fashion and lifestyle more than losing weight and staying fit. Despite the people exercising everywhere and the array of equipment, this is much more about creating a retreat than it is about pumping iron.

Equinox saw Dallas as the beginning of an opportunity to create a series of signature club locations. Each location would be unique with use of materials and be designed by an award-winning architecture team. The Highland Park project began as a collaboration among GFF, Arthur Casas of São Paulo, and Equinox's own internal design department.

The location suits ideally with the company's business strategy, being where the trendy Uptown neighborhood meets wealthy Highland Park. The site, previously a luxury automobile dealership, takes up an entire block and includes an adjacent parking garage. The existing complex of buildings included showrooms, a service building, and a multistory garage bisected by a service alley.

The client wanted a presence that made a bold statement from the street, a modern building that reflects its chic, urban culture. Casas' concept for the exterior was a black box with an illuminated

(opposite page) The entrance corridor of Equinox Fitness Center illustrates the attention to detail taken in materials selection for the deluxe exercise facility and spa.

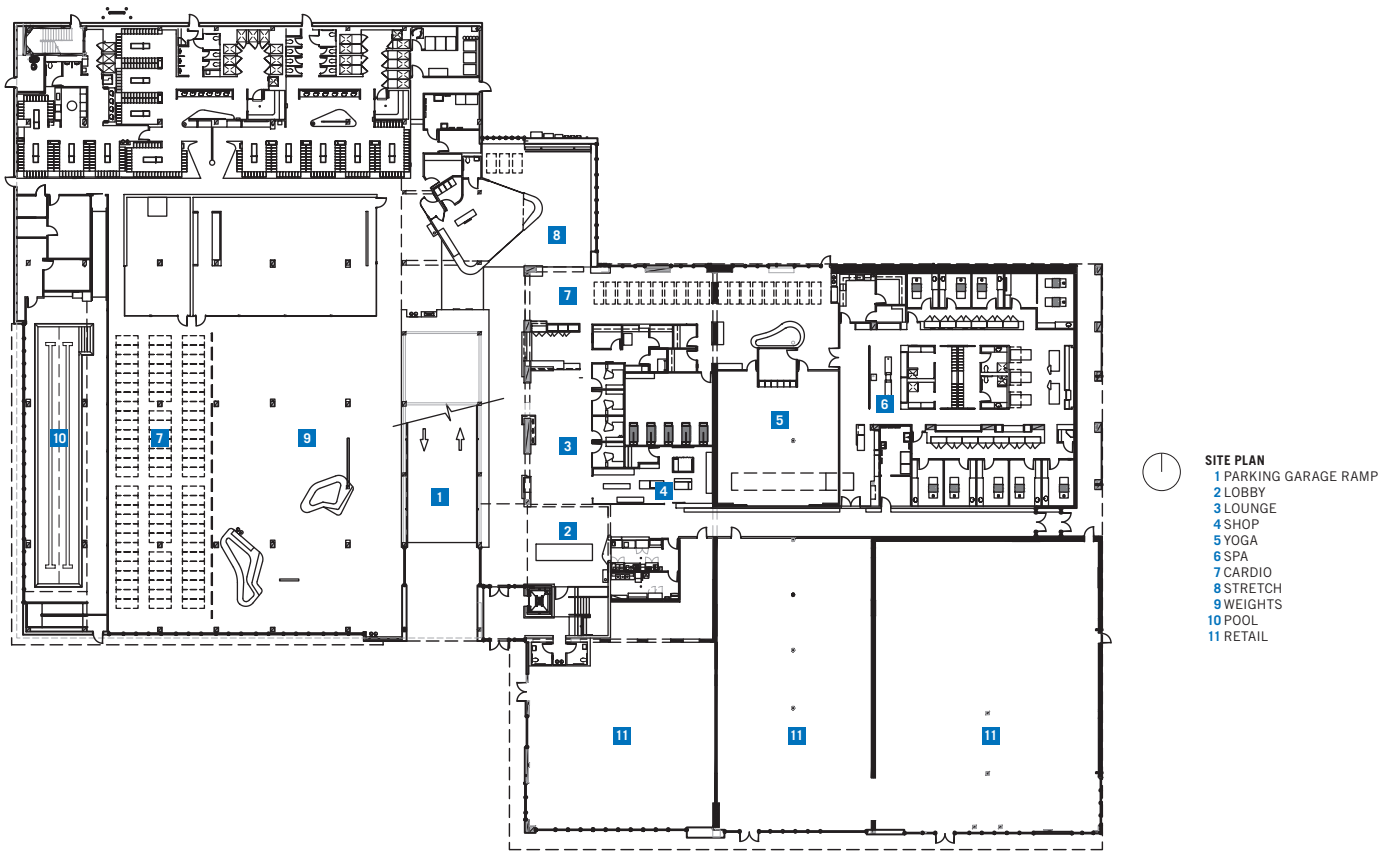
(above) Completed in February 2009, the project renovated a luxury automobile dealership into a 45,000-sf fitness studio that caters to urban professionals in the Highland Park and Uptown neighborhoods of Dallas.

(top) Adjacent to the entrance corridor, the lounge invites members to relax before or after their workout.

(middle) Interior designers brought natural light into the Pilates studio.

(below) Rich materials in the men's locker room are juxtaposed with exposed mechanical elements.

RESOURCES SLATE: Knoxtile; RESIN PANELS AND SPECIAL CEILING SURFACES: 3Form; TRANSLUCENT POLYCARBONATE PANEL SYSTEM: CPI International (Conner-Legrand); SHOWER DOORS AND MIRRORS: M3 Glass Technologies; TILE: Heath Ceramics, DalTile, Crossville, Porcelanosa, Stone Source, Stone & Pewter Accents, Ann Sacks (Concept Surfaces); ACOUSTICAL CEILINGS: Armstrong; ATHLETIC SURFACING INDOORS: Everlast Sports Surfacing/ECORE International, Resilite; WOOD FLOORING: Unico; WALL COVERINGS: WolfGordon, Innovations in Wallcoverings, Lonseal; WIRE MESH CURTAIN: Cascade Coil Drapery



core. In developing the design, the project team produced a series of images representing lifestyle, textures, and products to inspire thoughts on materials and finishes. Through this exercise, an idea evolved that juxtaposed natural and manmade materials. In the next step, GFF and the Equinox design team merged the imagery with Casas' illuminated box to arrive at a final design for the renovated building.

With all traces of the former auto dealership erased, the 45,000-sf Equinox is a glowing box of white polycarbonate that appears to float over alternating sections of glass and cedar. Butt-jointed glass at the ground level provides a strong visual connection between the streetscape and the main workout space. Above, the white acrylic panels that conceal the two levels of parking shine during the day and glow at night with fluorescent backlighting.

Clients enter through an atrium lobby, the place where the combination of natural and manmade materials begins. Slate and wood mix comfortably with the reception desk's glowing polycarbonate panels. Within this vaulted space are a juice bar and an apparel shop. Sunlight bathes the entire lobby spine through third-story clerestory windows to create a light-filled space complemented by large-format art pieces and contemporary seating. At the far end, a stretching area that features a water wall creates a relaxing ambient environment for before and after workouts. To the right of the stretching area, one passes under the ramp leading to the parking decks above. The compressed space acts as a nice transition between the vaulted sunlit spine and the expansive area dedicated to weights and cardio exercise.

In the main workout area, the design team continued the combination of natural and synthetic materials by insetting wooden paneling into the concrete pans of the cast-in-place garage above. Also in this area, large bench planters seem to be randomly placed in the oversized room. The planters, their curvilinear forms elegantly detailed, bring nature into the workout area in a very literal way, although their presence creates a tension between the equipment and the structural columns.

To the right of the stretching area is the spa, situated on the other half of the former dealership, taking over the remainder of the old showrooms when combined with a retail sub-lease. Here is the crux of the project, devoted to hospitality and pampering. No longer are manmade and natural materials juxtaposed; instead, warm woods and dark stones intermingle with subtle water features to create a soothing environment.

Brian McLaren, AIA, practices with ware architecture and is the editor of AIA Dallas' *Columns* magazine.

Improved Model

by NESTOR INFANZÓN, FAIA

PROJECT Legacy ER, Frisco
CLIENT Legacy ER
ARCHITECT 5G Studio Collaborative
DESIGN TEAM Yen Ong, AIA; Hoang Dang, AIA; James Warton, Assoc. AIA; Alesha Calvert, ASID; Warren Lieu
CONTRACTOR Huffman Builders
CONSULTANTS Helmberger Associates (civil); Armstrong-Douglass Partners (structural); Telios (MEP)
PHOTOGRAPHERS Charles Davis Smith, AIA

Formerly a sleepy small town north of Dallas, Frisco has been transformed into a bustling small city over the last decade. In response to this growth, the municipality adopted a development code.

The earnest attempt by city officials to codify the characteristics of the built environment proved challenging for the architects at 5G Studio Collaborative as they began designing an urgent care and emergency clinic called Legacy ER. Their concept did not fit within the typical stick-and-brick suburban aesthetic as outlined in the city's development code, which called for commercial buildings to look not unlike Frisco's pitched-roof residences. But the client, a group of young physicians, was pleased. According to one of them, Dr. Jay R. Woody, they didn't want their clinic to be "your average care space, your average office, and most definitely not an everyday Frisco building." Still, lengthy negotiations with city officials ensued to win them over to the idea.

"We achieved the final design through a lot of convincing and education," recalls Yen Ong, AIA, a partner with 5G Studio. He says city officials wanted the new building to respect its context, such as the adjacent CVS Pharmacy. The architects eventually persuaded the authorities only after their design for Legacy ER won first place in the conceptual design category of an international competition sponsored by the Center for Health Design.

The physicians had grown restless with some of the aspects of providing healthcare within the confines of a large medical institution. They wanted to devise a new model for outpatient healthcare delivery, a place where patients could be nurtured and staff could enjoy the work environment. Their new model provides the type of care that is a step up from the typical "doc-in-a-box."

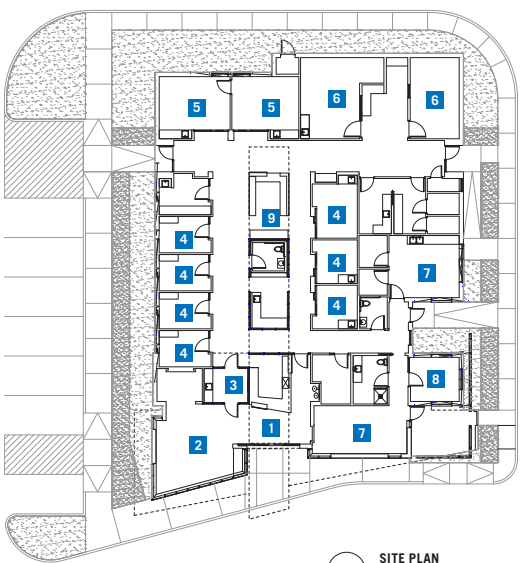
As designed and built, Legacy ER is a free-standing, 6,200-sf modern structure that contrasts with other buildings nearby that adhere strictly to the guidelines specified in the City of Frisco's aforementioned development code. Seen from a distance, its materials and textures appear to be in keeping within the city's guidelines, but the architectural expression is refreshingly distinct. Legacy ER comprises a triage room, five exam rooms, two trauma rooms, one orthopedic room, and two rooms dedicated to OB/GYN and ENT services. Also included are support spaces for imaging services (X-ray and CT scan) and a laboratory equipped for tests related to most conditions except major trauma. An ambulance area allows easy access for transporting patients to a hospital once their conditions are stabilized.

The *parti* is based on two interlocking blocks at which the central axis admits natural daylight that serves as a conceptual thread that ties the pieces together. The front rectangle runs parallel to the main street, which is anchored by two large glass cubes held together by a longitudinal oversize brick. The transverse block returns to the standard brick size, creating an appealing point-counterpoint tension held in balance by a continuous zinc-clad roof plane that angles upward toward the street and downward to shelter a landscape-screened patio.

A cantilevered zinc-clad canopy signifies the public entry into the main lobby, an open space filled with natural light. Glass walls are fritted to create a layering effect and reduce visibility from outside. Materials are chosen with restraint and yet are fresh; the color scheme of white and bright colors enriches the interior spaces. The diamond-polished, integral-color concrete floor adds to the spatial dimension of the interior by reflecting the sunshine streaming through rhythmically spaced skylights above the primary circulation. Immediately upon entering the facility, one becomes aware of the abundant daylight. Every exam room has a window that provides patients with a reassuring visual connection to the outdoors, and other interior spaces open to views of a garden or other landscaped features. The triage station, where the condition of a patient is first assessed, is a cube of aluminum and resin panels providing patients with a sense of being surrounded by light rather than sequestered in a windowless examination room.

Aiming for rigorous simplicity and clarity of the patient flow, spatial qualities are likewise mapped logically through the use of light, reflectivity, and translucence. As an effect, the building achieves an engaging balance between the aggressive, vigilant presence on the exterior and a tranquil interior ambience offering a soothing place of respite for patients seeking emergency care.

A *TA* contributing editor, Nestor Infanzón, FAIA, oversees KAI Texas' education and healthcare studio.



SITE PLAN
1 RECEPTION
2 WAITING AREA
3 TRIAGE
4 EXAMINATION
5 TRAUMA
6 IMAGING
7 LOUNGE
8 OFFICE
9 NURSE STATION

RESOURCES CONCRETE MATERIALS: TXI; **CONCRETE POLISHING:** American Concrete Technologies; **STONE:** DalTile; **MASONRY VENEER ASSEMBLIES:** Interstate Brick by Blackson Brick Co.; **PREFABRICATED TRUSSES:** First Truss and Wall; **RESIN PANELS:** 3Form; **TILE:** DalTile, Ann Sacks; **PAINTS:** Sherwin-Williams; **CARPET TILE:** Interface Flor; **RUBBER FLOORING:** Eco Surfaces (Specialty Products Co.); **LIGHTING:** Architectural Lighting Associates; **DESIGN SOFTWARE:** AutoCAD, Rhino3D, VRay

(preceding spread) Translucent resin panels, layered in hues of green, clad the nurse's station and other primary operational spaces of Legacy ER.

(opposite page) The urgent care clinic opened in August 2008 after a design development phase that required negotiations with the City of Frisco due to its distinctly modern profile set within a suburban context.

(top left) Brick and zinc panels at the northeast corner contrast with the glazing of the public areas.

(above) Diamond-polished concrete floors reflect light throughout the interior spaces.

Architectural Workout

by STEVE McELHANY

Balance Studio

PROJECT Balance Studio, Tyler
CLIENT Michelle Heinz
ARCHITECT Fitzpatrick Butler
DESIGN TEAM Mike Butler, AIA
CONTRACTOR Caliber Associates
PHOTOGRAPHER Mike Butler, AIA

When Joseph Pilates devised a physical fitness regimen early in the twentieth century to help veterans returning World War I, he based his exercise system on several fundamental principles, including balance, flow of movement, breathing, alignment, and flexibility. When twenty-first century architect Mike Bulter, AIA, took on the transformation of an existing department store into a Pilates studio in downtown Tyler, he incorporated some of those same principles into his design.

The project's scope included stabilizing the structure, updating the storefront facade, and converting the front 3,000 square feet of the 5,000-sf building. Butler's careful attention to detail demonstrates his thoughtful research into the fundamental concepts on which Joseph Pilates based his exercise system. So intrigued by what he learned, Butler began taking Pilates classes from Balance Studio owner Michelle Heinz after the work was completed.

In applying Pilates' principle of *balance* to the project, Butler introduced new materials to an existing shell originally designed to house a Kress Department Store. The gray stone of the circa-1946 front facade, for example, blends well with the new storefront's butt-joint glazing set in clear anodized aluminum.

The rehabilitation of the building has done more than create opportunities for Smith County residents to improve their health. The project also has contributed to the well being of Tyler's downtown square. Balance Studio represents one of the initial steps of a comprehensive revitalization program that follows a master plan

(opposite page) The renovation modernized the face of a former Kress Department Store in downtown Tyler, a project that the architect believes may initiate a return of merchants and artisans to the courthouse square.

(above) The transformation of 3,000 square feet divided the ground floor into a large exercise studio and a shallow lobby. Sliding glass panels allow for smooth flow between the two spaces.

for the central business district. Called Tyler 21, the master plan is designed to help guide the city in maintaining a vital urban core in the twenty-first century by addressing issues such as potential impact related to future population growth and preserving the downtown's historic architectural fabric.

Inside the 3,000-sf space, Butler considered the *flow of movement* between the shallow lobby and the exercise studio. He separated the two rooms by inserting a full-width partition with sliding glass panels that provides a variety of opening options. The satin-finish glazing invites natural light to filter into the workout area while affording a sense of privacy. Clients waiting for their sessions to begin are entertained with views to activity on the square before moving to the calmer space inside the exercise studio.

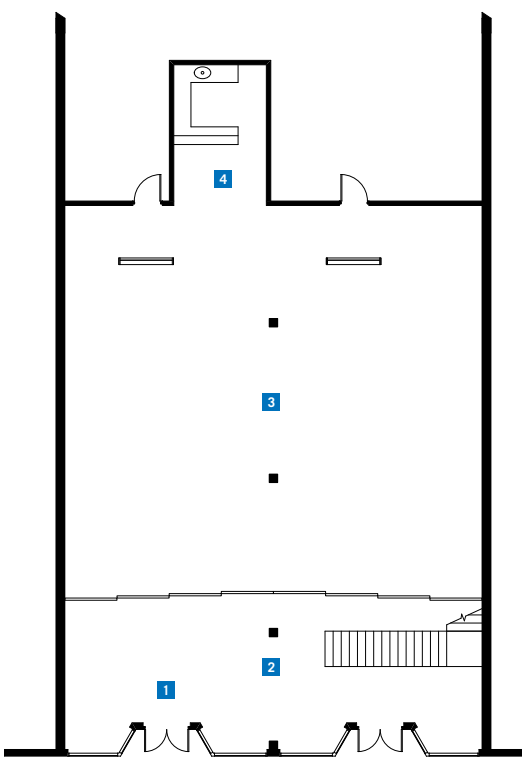
Upon entering the exercise room, clients are reminded of Joseph Pilates' belief that correct *alignment* of the skeletal structure is crucial to the practice of his eponymously named regimen. Accordingly, Butler stripped the inner sanctum to its bare bones exposing the building's steel columns, second-floor bar joists, and brick walls. Simple finishes allow patrons to focus on their workout. The unadorned brick walls at either side emphasize the stability of an athlete's frame of mind. Underfoot, new maple plank floors, stained to a natural finish, visually soften the transition from lobby to studio.

Interior details also harmonize with the Pilates' philosophy, such as the use of duct socks for the HVAC system that correspond with proper breathing—full-force exhalation being one of the cornerstones of the exercise regimen. Although the building's original mechanical design allowed for traditional metal box ductwork, Butler changed to the duct sock system to simplify the openness of the space and minimize the collection of dust. That change contributes to the overall good health of the building's occupants.

Flexibility of the facility is enhanced by the openness of the studio, which has become a sought-after venue for small parties and gatherings. As a result, the owner offers the space for rent and then rearranges the exercise equipment when the need arises. Floor-mounted lighting set just inside of the wall casts a spectacular backlighting of the glass curtainwall to create an inviting ambiance during evening events. The segmented partition wall contributes to the flexibility by sliding open to allow full use of the space.

Those who practice the art of Pilates believe that the discipline will dramatically transform the way their bodies look, feel, and perform. Similarly, Butler has used the same principles to transform the look, feel, and performance of a once-forgotten downtown department store into a serene showcase for achieving the full potential of a healthy body.

Steve McElhany is a senior district manager with Red Dot Buildings in Athens.



FLOOR PLAN
1 MAIN ENTRY
2 LOBBY
3 PILATES STUDIO
4 H_2O BAR

(opposite page) The lobby serves as a transitional space from the outdoor activity to the serenity of the exercise studio.

(top left) In addition to seating, the lobby provides a small merchandising area as well as a reception desk.

(above) Updates to the interior complement the original brick walls of the 1940s-era building. The openness of the space can accommodate social gatherings.

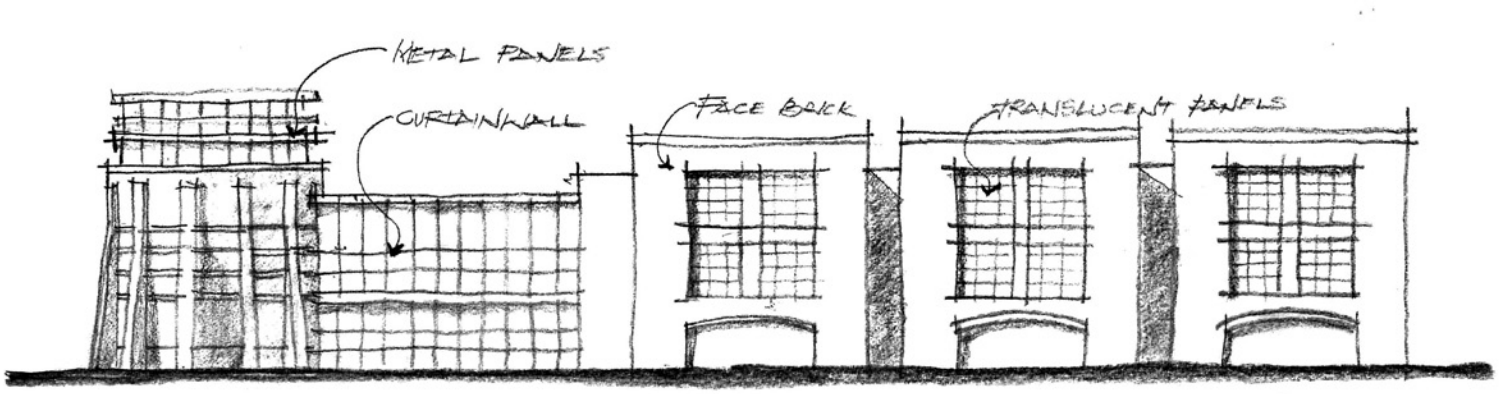
RESOURCES ENTRANCES AND STOREFRONTS: Vistawall (Summit Glass)

Wellness
& Sports
Complex

Powerful Homage

by MICHAEL E. ALLEX, AIA

PROJECT UT Pan-American Wellness & Recreational Sports Complex, Edinburg
CLIENT The University of Texas Pan American
ARCHITECT SmithGroup/F&S
DESIGN TEAM Anita Picozzi Moran, FAIA; David Mills, AIA; Kenda Draper; Nick Back; Hong Fang, AIA; Catherine Wilson, AIA; Jared Filbeck
CONTRACTOR D. Wilson Construction Company
CONSULTANTS JQ-Dallas (structural/civil); The Office of Christopher Miller (landscape); Blum Consulting Engineers (MEP); Aquatic Design Group (aquatics); Appliedtech Group (security/telecom); Nottestad Design (graphics)
PHOTOGRAPHER Craig Blackmon, FAIA



When one thinks of the Lower Rio Grande Valley – with its luxuriant natural landscape and evolving built environment – one conjures up tropical and bicultural imagery. It is doubtful that its Louis Kahn-inspired architecture comes to mind.

Yet over several decades, the University of Texas–Pan American has developed a vernacular that directly flows from his genius. With its most recent addition, Kahn's design principles are explored and allowed to mature in UTPA's Wellness and Recreation Sports Complex designed by Smith Group/F&S (formerly F&S Partners).

From modest beginnings in 1927 as two-year Edinburg College, Pan American University (as its name became in 1971) featured buildings that were frugal by higher-education standards. What gave these buildings an air of dignity and hopefulness were carefully selected Kahn-inspired motifs – grandly proportioned arches, archetypal geometry, and a reverential use of brick and cast-in-place concrete – that garnered a significant bang for a small buck.

UTPA now offers a spectrum of four-year degree programs, and its architecture has accordingly become more sophisticated. In particular, as the campus began to develop its less visible north side, commissioned architects took turns at holding true to the aforementioned Kahn principles while at the same time interjecting regional, cultural, and sometimes whimsical elements—all of which has infused new life into the design scheme of the campus. Where the earlier buildings spoke together in a homogenous language, the new ones establish their own individual identities within the constraints of the Kahn construct.

In the initial planning for the WRSC, says David Mills, AIA, the SmithGroup/F&S lead designer on the project, officials acknowl-

(above) Kahn-inspired elements are recurring motifs on the later buildings comprising the campus of UT Pan-American.

(opposite page) Three cylindrical towers along the east facade of the new complex function as double-height spaces for physical fitness training.

edged that the campus had reached a juncture in its growth and wanted to fill a large gap in the framework. At the same time, he says, existing recreational facilities were woefully inadequate and there were few places for students to gather and socialize. They also knew that a "signature" recreational facility could serve two purposes—encourage physical fitness and promote future enrollment.

The two-story, 97,864-sf Wellness and Recreation Sports Complex is situated on the northwest side of campus. Reached via Sugar Road, the building is intended to help establish a new gateway from the north and therefore its strongest visual elements face this north-south vehicular corridor. The architects were aware that the organizational grid of the campus is angled in contrast to the orthogonal street grid. The new building picks up on these two geometries and reflects that in the building footprint.

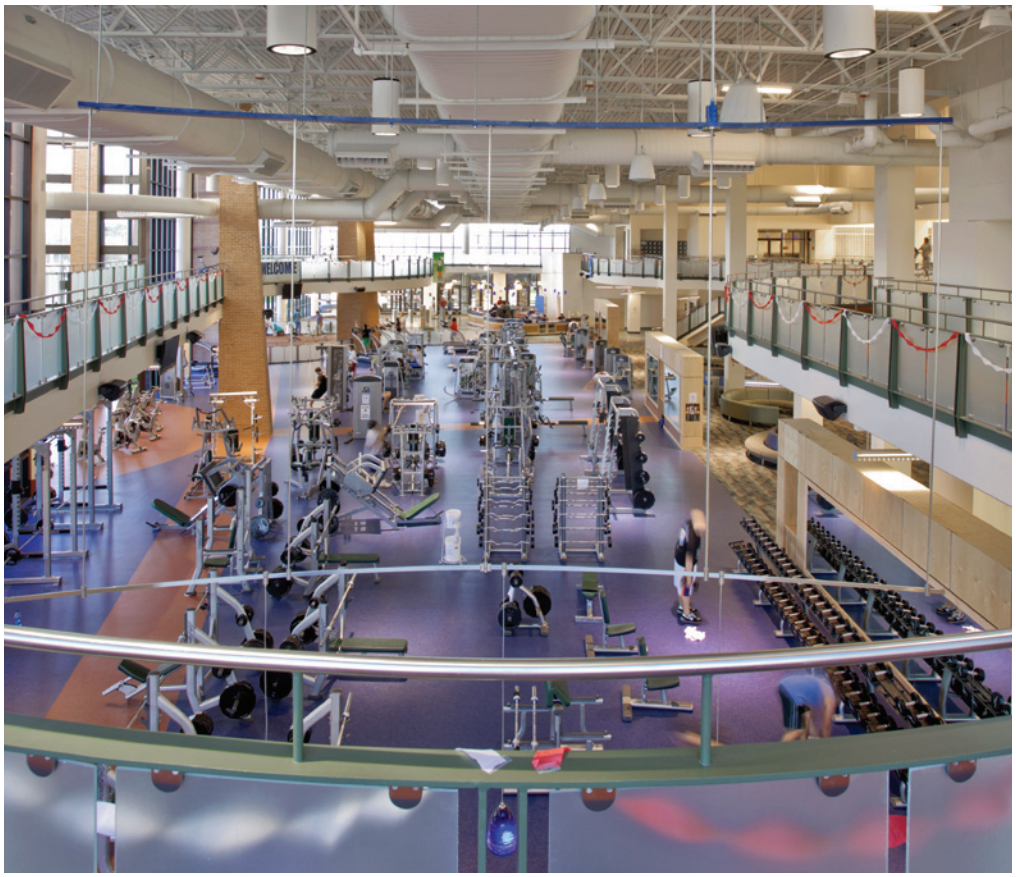
Through the lobby, one enters the largest of the WRSC's interior spaces—a double-height volume dedicated to fitness exercise and weight training. Immediately, the visitor's eye is drawn to a 35-foot-tall climbing wall (with five different routes to the top) installed within a cylindrical space at the right. This two-story tower element is first of three aligned in a sequence along the building's eastern perimeter. The other two cylindrical spaces contain fitness areas purposely tucked away from the main space to afford a degree of privacy.

At the rear of the facility, the architects placed three racquetball courts and one of three gymnasiums. The other two gyms flow directly off of a large lounge/gathering space. Acting as a buffer between the main fitness area and the gymnasiums, the lounge successfully provides for social interaction.

A monumental stair with frosted glass balustrades provides access to the second floor's exercise studios and indoor jogging trail. Also on this level is a large meeting room that opens to a balcony with an impressive view of the outdoor pool below framed by a huge oculus set within a minimally articulated brick wall. Recalling his design for the National Assembly in Dhaka, Bangladesh, among others, the powerfully rendered oculus is the new building's most obvious homage to Louis Kahn.

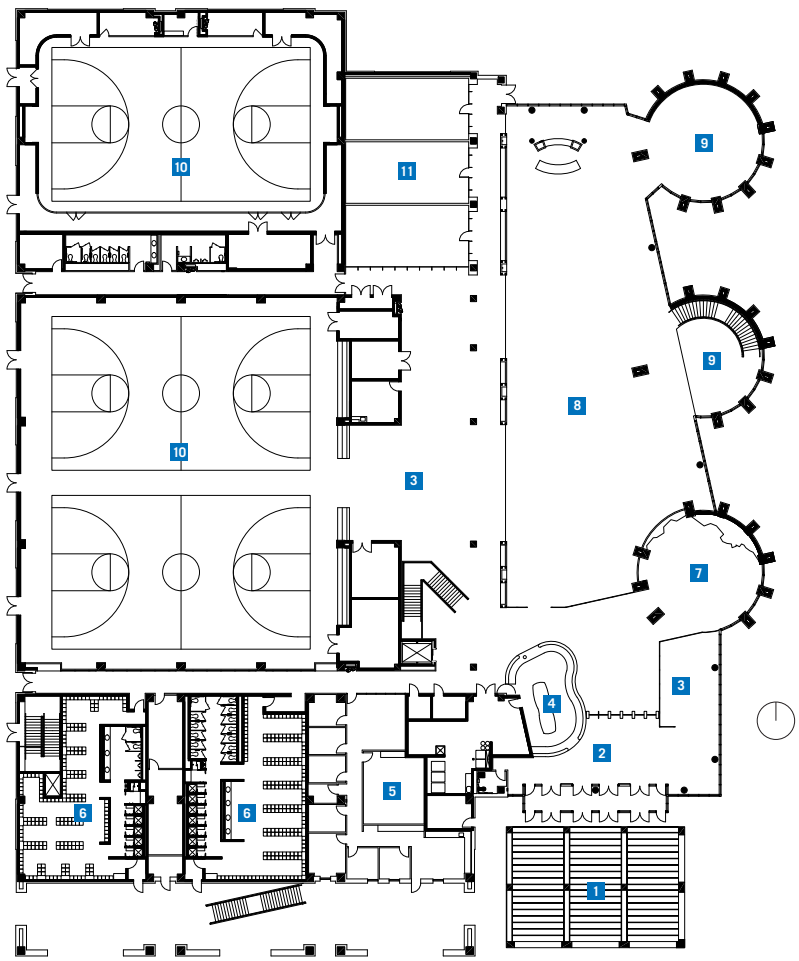
This respectful tribute is fitting for the enigmatic master who once said, "A great building must begin with the unmeasurable, must go through measurable means when it is being designed and in the end must be unmeasurable." Kahn's statement suitably relates to the evolution in the development of the Edinburg campus, a decades-long journey that promises its students a future that also may not be measurable but is nonetheless attainable.

Michael E. Allex, AIA, is a principal of Rike Ogden Figueroa Allex Architects in Harlingen and McAllen.



(far left) Students were invited to participate in programming the project, which was funded through a $75 fee assessment per student each semester.

(above and right) Each week, an average of 446 people practice their skills on the 35-foot-tall climbing wall. In addition to its ground-floor weight room, the Wellness Center also includes three gymnasiums, locker rooms, and administrative offices.



FIRST FLOOR PLAN
1 SHADE STRUCTURE
2 LOBBY
3 LOUNGE
4 CONTROL DESK
5 STAFF OFFICES
6 LOCKER ROOM
7 CLIMBING WALL
8 WEIGHT/FITNESS ROOM
9 CARDIO
10 GYMNASIUM
11 RACQUETBALL COURTS

RESOURCES ATHLETIC AND RECREATIONAL SURFACING: World Class Athletic Surfaces (Teni-Track); **CAST STONE:** Custom Cast Stone of Texas; **RAILINGS, HANDRAILS, STRUCTURAL STEEL, JOIST AND ACOUSTICAL ROOF DECKING:** Southern Steel & Fabricators; **ROOF AND DECK INSULATION:** Johns Manville; **ENTRANCES, STOREFRONT AND GLAZED CURTAINWALL:** Kawneer; **ACOUSTICAL CEILINGS:** Armstrong; **ATHLETIC SURFACING INDOOR:** SAF DEK (No Fault Sport Group); **ATHLETIC WOOD FLOORING:** Robbins Sports Surfaces (NAH); **DESIGN SOFTWARE:** Microstation, SketchUp

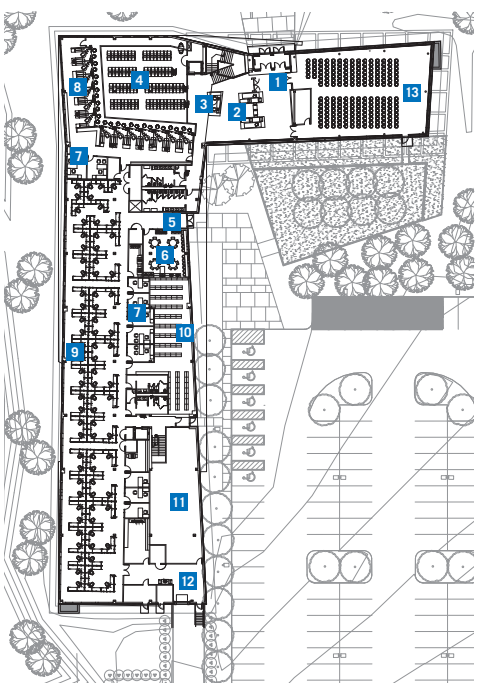
U.S. Citizenship and Immigration Services

PROJECT Department of Homeland Security U.S. Citizenship & Immigration Services, Irving
CLIENT JDL Castle Corporation
ARCHITECT 4240 Architecture
DESIGN TEAM Thomas Brauer, AIA; Robert Benson; Thomas Hanley; Keith Evans
CONTRACTOR Panatonni Construction
CONSULTANTS MESA (landscape); Campbell & Associates Consulting Engineers (structural); Pacheco Koch Consulting Engineers (civil); Purdy McGuire (MEP); Accessibility Resource Specialists (accessibility); Thornton Tomasetti (blast); Charter Sills (lighting); Command Commissioning (commissioning)
PHOTOGRAPHERS Perzel Photography Group

RESOURCES **MASONRY UNITS**: Headwaters Construction Materials; **STONE**: Champion Stone; **UNIT MASONRY WALL ASSEMBLIES**: Blackson Brick Co.; **PORTLAND CEMENT**: Holcim; **MORTAR COLOR**: Blackson Brick Co.; **JOISTS**: CMC Joist & Deck; **STRUCTURAL STEEL**: Chaparral/Gerdau Steel, Nucor Steel; **PLYWOOD/PARTICLE BOARD**: Roseburg Forest Products (Haverda Enterprises); **ADHESIVES**: 3M; **LAMINATES**: Nevamar; **SLIDES**: Grass; **HINGES**: Blum; **BUILDING INSULATION**: Certainteed; **MEMBRANE ROOFING**: Firestone; **FIREPROOFING**: ISOLATEK; **SEALANTS**: Dow Corning; **COMPOSITE METAL PANELS**: Armetco Systems; **METAL DOORS AND FRAMES**: ELCO; **ALUMINUM STOREFRONTS AND CURTAIN WALL SYSTEM**: YKK AP America; **UNIT SKYLIGHTS**: Birdview Skylights; **GLASS**: PPG; **OVERHEAD DOOR**: Overhead Door Corp.; **GYPSUM BOARD FRAMING**: Dietrich Metal Industries; **ACOUSTICAL CEILINGS**: Armstrong; **ATHLETIC SURFACING INDOOR**: EcoSurfaces by Ecore; **PAINTS**: PPG; **CARPET**: Interface; **RUBBER TILE**: Roppe (Resource Flooring Group); **TOILET ACCESSORIES**: Bobrick; **TOILET PARTITIONS**: Ampco; **ELEVATORS**: ThyssenKrupp; **DESIGN SOFTWARE**: AutoCAD

The 56,700-sf Department of Homeland Security U.S. Citizenship and Immigration Services (USCIS) building in Dallas replaces two separate USCIS offices. Completed in 2008 and designed by 4240 Architecture of Chicago, the two-story building includes a waiting room, information counters, a processing office, and a ceremony room on the first floor. An additional waiting room, adjudication offices, and a director's office are located on the second floor. The exterior walls are slightly tilted away from each other in some areas to break up the mass of the simple box design. The ceremony room is dramatically lit with natural light through glazing that also allows views of the surrounding garden. Energy-efficient features include architectural overhangs and sunshades, as well as a pergola with sun-shading louvers around the ceremony room and lobby. Many materials, including brick, are from local manufacturers. Daylighting is achieved by large amounts of glass, a louver product to push light further into the space, and interior glazed partitions. Reflective hardscape materials and a highly reflective roofing membrane decrease the heat-island effect. The design team chose indigenous plants that are highly drought tolerant, along with low-water use irrigation equipment. In addition to water-saving landscaping, high-efficiency/low-flow plumbing fixtures and waterless urinals were specified. The building has achieved LEED Gold certification.

NOELLE HEINZE



FIRST FLOOR PLAN
1 VISITOR ENTRANCE
2 SECURITY
3 RECEPTION
4 WAITING AREA
5 EMPLOYEE ENTRANCE
6 BREAKROOM
7 OFFICE
8 PUBLIC INFORMATION COUNTER AREA
9 OPEN OFFICE
10 FILE ROOM
11 STORAGE
12 LOADING DOCK
13 CEREMONY ROOM

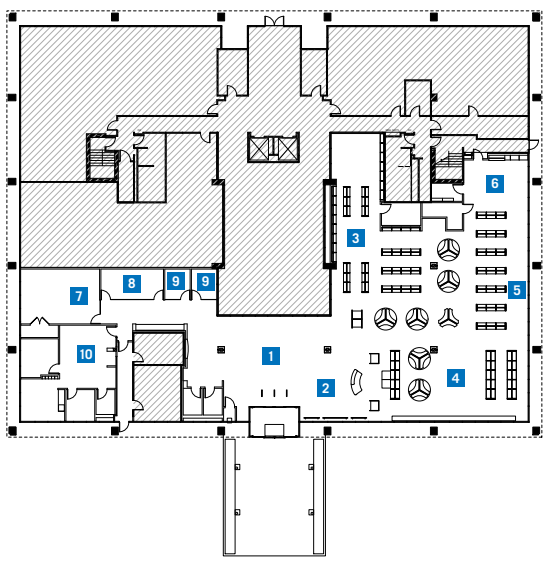
Morris Frank Library

PROJECT Morris Frank Library, Houston
CLIENT Houston Public Library
ARCHITECT m ARCHITECTS
DESIGN TEAM Michael Morton, AIA; Derek Webb, AIA; Mara McCumber, Assoc. AIA
DESIGN BUILDER SpawMaxwell Company, a Balfour Beatty Company
CONSULTANTS HRE (MEP); Garza + McLain (structural); Lauren Griffith Associates (landscape); Infrastructure Associates (civil); Landtech Consultants (survey); Geotest Engineering (geotechnical)
PHOTOGRAPHER G. Lyon Photography

RESOURCES SITE, STREET AND MALL FURNISHINGS: Landscape Forms; **RAILINGS AND HANDRAILS**: Texas Metal Tek; **COMPOSITE ALUMINUM PANEL SYSTEM**: Alucobond (Southern Architectural Systems); **LAMINATES**: Wilsonart; **SOLID SURFACES**: DuPont Corian (Colt Industries); **METAL DOORS AND FRAMES**: CURRIES (Chapman Smidt Hardware); **ENTRANCES AND STOREFRONTS**: Horton Automatics; **PLASTIC GLAZING**: Panelite; **GYPSUM BOARD FRAMING**: Dietrich Metal Framing; **GYPSUM FABRICATIONS**: USG; **TILE**: DalTile; **METAL CEILINGS**: Armstrong, Ceilings Plus; **RUBBER FLOORING**: Nora Systems; **ACOUSTICAL WALL TREATMENTS**: Armstrong; **PAINTS**: Sherwin-Williams; **HIGH PERFORMANCE COATINGS**: TRIARCH Duroplex (Kenmark Architectural Products); **SIGNAGE AND GRAPHICS**: Neiman & Co.; **EXTERIOR SUN CONTROL DEVICES**: Construction Specialties (Wade Architectural Systems); **LIBRARY EQUIPMENT**: Kingsley, 3M, MJ Shelving (Cultural Surroundings); **DESIGN SOFTWARE**: Autodesk AutoCAD (Total CAD Systems)

The Morris Frank Library, designed by m ARCHITECTS of Houston and completed in 2009, represents a new direction in services for the Houston Public Library System. Relocated from its original building, the library now resides on the ground floor of an existing atrium building in a revitalized low-income area of Houston. The primary emphasis for the $2.5 million facility is to provide expanded access to computers and digital media for residents of the local community. The bulk of the program is dedicated to computer workstations and community teaching areas. Reading areas, study rooms, and support spaces round out the 9,000-sf facility. Low-voltage and zoned lighting, efficient mechanical systems, and natural light from full-height perimeter glazing reduce energy usage. Interior glazing was reused. Finishes and furniture were selected for durability, ease of maintenance, recycled content, and low VOC counts. The design is a break from the traditional style evident in Houston's older public libraries. Structure and mechanical lines were left exposed and painted black to provide a sense of openness despite the existing low floor-to-ceiling elevations. The computer workstations and millwork were custom designed by the architects. A strong emphasis on the use of color provides visual excitement and cues to different programmatic areas. A dedicated exterior entrance courtyard and canopy is carved into the existing building's facade.

NOELLE HEINZE



FLOOR PLAN
1 ENTRANCE/LOBBY
2 CIRCULATION/EXHIBIT
3 ADULT READING AREA
4 CHILDREN'S READING AREA
5 TEEN'S READING AREA
6 TEEN'S GAMING LOUNGE
7 MEETING ROOM
8 CONFERENCE ROOM
9 STUDY ROOM
10 STAFF WORK AREA

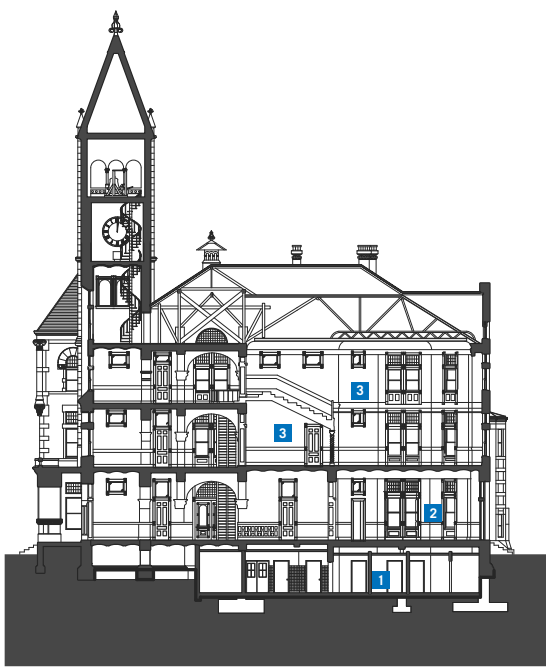
DeWitt County Courthouse

PROJECT DeWitt County Courthouse and Annex, Cuero
CLIENT DeWitt County
ARCHITECT TWC Architects
DESIGN TEAM Kim A. Williams, AIA; H. Glenn Reed, AIA; Patrick Sparks, PE; Tom Green, PE
CONTRACTOR JT Michel Construction
CONSULTANTS Tom Green and Company Engineers (MEP); Sparks Engineering (structural); Source (paint/finish analyst and consultant)

RESOURCES SLATE: North Country Slate (American Roofing & Metal Co.); **RECONSTRUCTED STONE AND MASONRY RESTORATION:** Curtis Hunt Restorations; **METAL CASTINGS AND HANDRAILS:** Garces Metal Specialties; **ARCHITECTURAL METAL WORK, ROOF TILES, ROOFING:** American Roofing & Metal Co.; **ARCHITECTURAL WOODWORK AND SPECIALTY DOORS:** Lancaster Industries; **TILE:** Maw & Company (Tile Source); **PAINTS:** Sherwin-Williams; **SIGNAGE:** Design Center Signs; **BLINDS, SHUTTERS AND SHADES:** Hunter Douglas (Window Fashions of Texas)

Located in Cuero's downtown historic district, DeWitt County Courthouse (1896) is a Recorded Texas Historic Landmark, State Archeological Landmark, and is listed in the National Register of Historic Places. Having undergone a total interior "modernization" in 1953, the courthouse was restored in 2008 by TWC Architects of Austin as part of the Texas Historic Courthouse Preservation Program administered by the Texas Historical Commission. The architects restored the exterior and primary public spaces to their 1896 appearance while sensitively addressing functional use of the building in the 21st century. Major challenges included interior historic reconstruction, exterior masonry deterioration, asbestos, outdated MEP systems, an incomplete fire sprinkler system, outdated fire/smoke detection systems, non-historic roof materials, gutter and downspout deterioration, and site-drainage problems. The $7.4 million restoration incorporates a slate roof, Victorian floor tile from England, hundreds of square feet of pine woodwork recreated to match the original, complex exterior masonry restoration, and new MEP systems. County volunteers, trained and supervised by a paint conservator, painted hundreds of new ceiling tiles that were custom-made to match an original piece of pressed metal cornice. Dedications and inscriptions were marked on the backside of each tile for posterity. Most county services previously housed in the building remain located within the historic structure.

NOELLE HEINZE



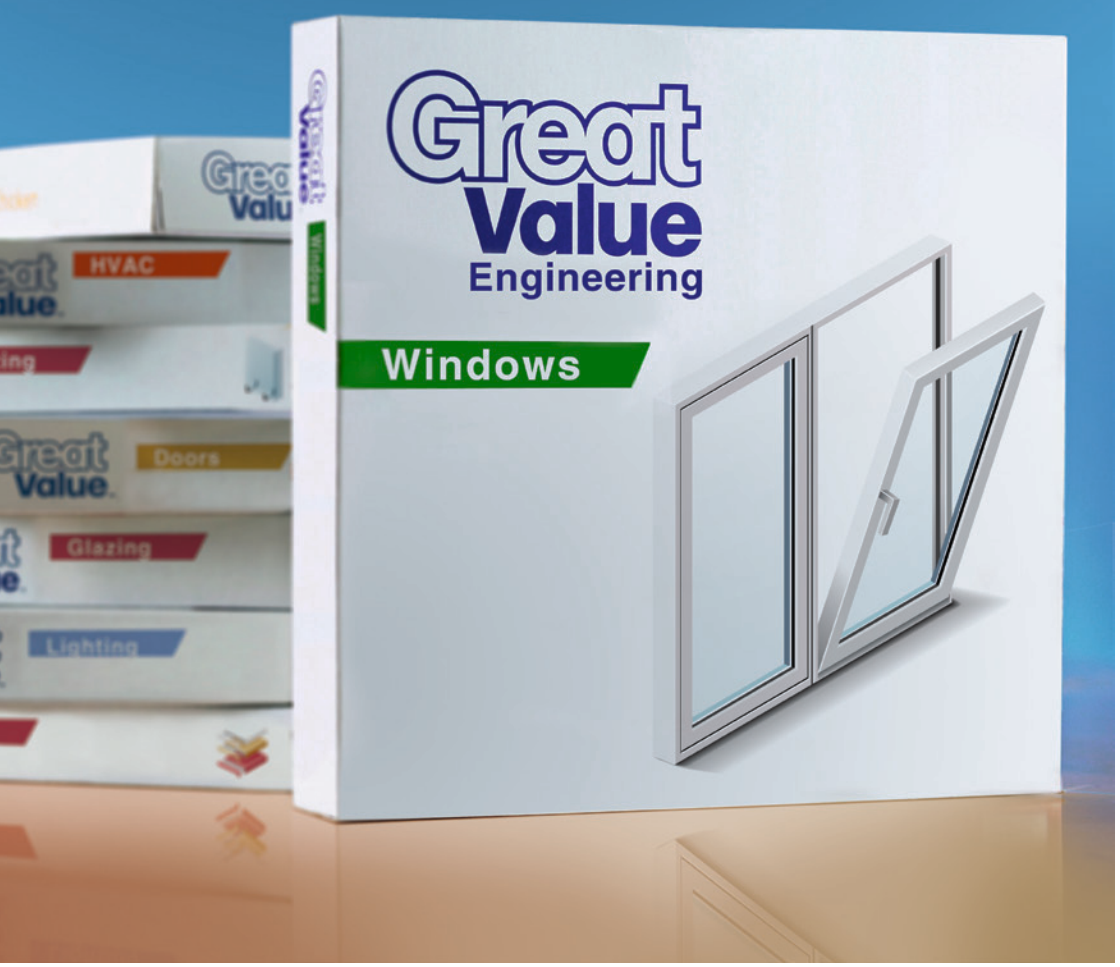
SECTION
1 COUNTY CLERK OFFICES
2 COUNTY COURTROOM
3 DISTRICT COURTROOM

The Perils of Substitutions

When value engineering goes wrong, architects are usually – but unfairly – blamed

by JIM ATKINS, FAIA, AND GRANT A. SIMPSON, FAIA

This is the first of a two-part series on the potential risks to architects when substitutions ordered by other members of the project team result in failure. The information is intended for general purposes only and does not constitute legal advice. The authors recommend that readers consult with legal counsel to determine how laws apply to specific situations.



SUBSTITUTIONS OF PRODUCTS and systems different from the architect's original design are an ongoing reality in the construction industry today. In fact, it is rare when alternate products and building systems are not proposed by the owner, the contractor, or other parties. These substitutions, which can be new and untested, sometimes do not perform as the original specification intended or as the owner expects. Unfortunately, the result often leads to discontent, accusations, and a search for the guilty. The primary accused is usually the architect, who did not choose the product, did not originally specify it, and did not intend for it to be included in the project scope.

This article will address the great imbalance of risk and reward associated with value engineering (VE) and substitutions. These changes are typically downplayed in the delivery process yet they carry potential for immense risk and damages for the architect when they go wrong. By definition all VE changes are substitutions because they are not originally specified by the architect.

Why Substitute?

Substitutions are popular for several reasons beyond the idealistic expectation of higher quality or better performance for a lower cost. Contractors are most often the prime originators of substitutions, sometimes to reduce the cost of the work without having to return all of the associated money, a way of deferring cost risk. For owners, substitutions also can mean a reduction in the cost of the work, resulting in money returned to their pockets.

While substitutions often appear benign and insignificant on the surface, the lower-cost

alternative may have a shorter life span than the original and may not perform as efficiently. It also may not be compatible with adjacent products and systems. Due to the expectation by owners and contractors that the architect is responsible for coordinating the published drawings and specifications, should problems arise with the performance of the substitution, there is a tendency to blame the architect for not anticipating the shortcomings or providing the required coordination or verification of the product. It is seldom acknowledged or respected that the architect spent a significant amount of time and experience developing the specifications and system selections based on proven performance, while the architect may have been allotted only a few days to research and evaluate the "improvement."

Moreover, the incorporation of substitutions can materially affect the design development of the overall project. This is particularly troublesome in cases where the owner and contractor "play architect," while the real architect is expected to "clean up" any discrepancies that may arise from often un-researched and unvetted changes proposed by other parties.

Despite the risks, substitutions are not completely without merit, especially when the project is over the budget. It must be clearly understood, however, that cost reductions through VE and substitutions almost always result in quantity or quality reductions. If substitutions were equal, but less expensive, it is more likely they would have been in the architect's design originally.

Substitutions will continue to be sought by owners because the act of placing spent money back in one's pocket will always be popular. The underlying expectation by owners is that their project is just as complete and durable after the substitution as it was before, and they have been financially enriched in the process. This tends to make clients happy, one of the primary goals of all design professionals. With this degree of success and ever optimistic owner expectations, it is not practical to think substitutions will go away. Substitutions are so engrained in the design and construction industry, resisting them will likely lead only to the perception that you are not being cooperative and do not have the owner's best interests at heart.

Self-Preservation

Viewed from multiple perspectives, substitutions generate diverse approaches and expectations from all participants. Owners want a design and construction process that is responsive to their budget. Contractors want a process that allows them to respond to budget needs while enabling them greater control over what they build. The architect, on the other hand, may view the process as a loss of design influence which carries increased liabilities stemming from loss of control over the finished design, initiated by others.

In the interest of self-preservation, the architect is faced with concerns about who will be responsible for the ultimate success or failure of a proposed VE or substitution change. More and more often when a failure occurs, the owner and contractor deny any culpability and look critically upon the architect. This occurs regardless of who proposed (or perhaps forced) the change, who had the most experience with the issues involved with the change, and how much or how little time the architect had to research, understand and detail the change.

Although the VE process and resulting substitutions may remain a part of the design process, architects can be proactive and take action to reduce or manage their risks and increase opportunities for a more positive experience.

Concerns increase when the architect is coerced into making a VE or substitution change. When an architect is pressured to accept a VE change, relationships with owners and contractors can be challenged, and the architect may be inclined to resist. Nonetheless, if an owner perceives an opportunity to "save" money by making a proposed change, they are likely to question an architect's priorities and dedication to the project if the architect does not agree. If a contractor needs to make a substitution to accommodate the project schedule or material availability, although the substitution may have been precipitated by the contractor's untimely preparation or execution of his work plan, the architect may be exposed to more intensified pressure to make the change. Architects are service-oriented professionals, and more often than not the architect will tend to acquiesce to a requested change in response to pressure from owners or contractors.

Although the VE process and resulting substitutions may remain a part of the design process, architects can be proactive and take action to reduce or manage their risks and increase opportunities for a more positive experience.

For example, in-depth discussions with both the owner and contractor explaining the potential negative collateral affects of VE changes is a good start, and the sooner the subject is brought up, the better. Discussing issues such as the value of proven and tested products, anticipating their affect on adjacent products and systems, and the absolute need for adequate time to research the product's performance history can help owners and contractors better understand the gravity of these eleventh-hour changes.

More aggressive steps could include requiring a documented acceptance of responsibility by the party initiating the substitution for its performance and affect on other products and systems. This may be met with resistance, but it will also serve to bring the perception of the VE change into its appropriate level of importance on the project.

A Substitution Request Form can be an effective tool for managing substitutions. The form can require beneficial research information as well as an acceptance of accountability for the substitution's performance. Few forms have been published in the industry, but the process is sorely in need of such a control. You as the architect can prepare and require the form on your project. An in-depth review and discussion of an example form will be addressed in Part 2 of this series.

Fortunately, most substitutions do not affect life safety, and should they fail the impact is usually only monetary. However, when a substitution does affect life safety, the implications and the results can be much more serious. Proposed substitutions that can affect life safety must receive appropriate scrutiny regardless of time constraints or influential pressures. A perplexing problem with substitutions is that there is no definitive "standard of care" for management and accountability of these changes. When substitution failures result in a legal battle, it comes down to the plaintiff's

continued on page 73

continued from page 71

expert against the defendant's expert. The plaintiff's expert, who usually second-guesses the architect's actions, will typically assert that the architect should have anticipated the failure, while the defending architect's expert will likely be concerned about the issues and constraints that we are describing in this article.

So who is the winner in this dichotomy? Defending architects may ultimately prevail in the argument if architects as a group aggressively manage and defend themselves during the substitution process. If the architects' process for defensively dealing with substitutions were to become common and cohesive, a more definitive standard of care could emerge, and the expectations by owners and contractors of architects during the VE process could become more tempered. Ways of accomplishing this will be addressed in the second part of this series.

VE and substitutions can be seriously problematic for design professionals when things go wrong, yet the process will continue as an integral part of the design development process because of its popularity. Success in administering these treacherous waters will depend on judicious control and realistic expectations. Stay tuned for the next article where management and accountability for VE substitutions will be explored in detail. The more the process is discussed and transparently administered by the project team, the more successful it will be for everyone. Only when the problems of the process are embraced, analyzed, and, to the best extent possible, controlled, can improvements and more balanced risk be realized.

Until next time, be careful out there.

James B. Atkins, FAIA, is an independent project management and litigation support consultant. He was a senior principal at HKS Architects for over 30 years, and he has served on the AIA Documents Committee, the AIA Risk Management Committee, and he chaired The Architect's Handbook of Professional Practice 14th edition revision group. For more information, go to *www.atkinscs.com*.

Grant A. Simpson, FAIA, an independent standard of care consultant, has served as a project delivery leader for several large international firms where his responsibilities included construction documentation, project management, and loss prevention. He has served on the AIA Practice Management Advisory Group and currently serves on the AIA Risk Management Committee.

"Evidence-Based Design' continued from page 35

the book it would focus on how these tools can be used for capturing and cataloging data. We've recently utilized it in our practice to assist with early programming and stacking to achieve a greater level of satisfaction with our clients. It helps to manage the scope of the project and track attributes at an individual level.

An important concept to evidence-based design is that of the sharing of results. How does a practice get client buy-in to this idea, especially the publication of "failures"?

[DW] This is a big venture on the part of any client; yet all clients, especially institutional, have incentives to learn over a period of time. It is not a failure, merely learning something that you didn't think you would learn should not be considered a failure. Most clients aren't asked by their architects about post-occupancy evaluation, though most would be interested in the results. There is a flaw in the profession in that we tend to walk away after occupancy, when that is a period in which there is much to learn. Most successful architects have repeat clients and it is important to understand what is working for them and what is not. It is not like it would be a secret to the client anyway. They typically already know the truth, whether there was failure or success. It is a value to the profession to publish the results for others to learn.

[KH] One of the giant fallacies of current architectural practice is to treat this sort of knowledge as proprietary. I see this as toxic to the profession and very short-sighted. Employees move among firms, clients speak with each other, even the users of the building can be privy to the results. The ethical and moral stance of this position is untenable. A willingness to share results, lessons learned, not only advances the profession but shows prospective clients that you can be trusted to be candid. If a practice goes through the process of citing research and attempting to design based upon the best available data, they are faultless for their process.

[DW] Currently there is a foolish notion of competitive edge based on hoarding. Any sort of scientific discipline doesn't work unless there is sharing among its practitioners. This leads to higher standards for everyone and a higher quality of work.

Jesse Hager is a designer at Content in Houston.

Index to Advertisers

Exhibits tell the story of DeBakey's illustrious career. The architects designed the project with elements symbolic of DeBakey's work, such as the 'valves' (top) in the perimeter wall that refer to the inner workings of the heart.

Legacy of Care

DeBakey Library and Museum honors 60 years of life-saving innovation

by STEPHEN SHARPE

RENOWNED INTERNATIONALLY FOR HIS BREAKTHROUGHS in medical techniques, legendary heart surgeon Michael E. DeBakey, M.D., spent 60 years on the staff of Methodist Hospital and the faculty of Baylor College of Medicine at the Texas Medical Center in Houston. It is fitting that a new museum dedicated to his innovations and achievements sits at the heart of the medical center. Along with his life-saving advancements in the operating room, DeBakey also was a visionary who helped position the institutions as among the best in the world. In honor of his esteemed career, the Michael E. DeBakey Library and Museum is scheduled to open in May. DeBakey, who died in 2008 at age 99, did not live long enough to see the opening, but he was around to celebrate the announcement that it would be built.

The DeBakey Library and Museum, designed by Bailey Architects, is housed on the ground floor of the DeBakey Center for Biomedical Education and Research. The design achieves two main goals: first, to serve as a resource center devoted to the preservation and exhibition of materials and medical instruments belonging to DeBakey; and second, to enhance efforts by Baylor College of Medicine to recruit top-notch students and world-class teaching and research faculty.

Bailey Architects worked with BCM Chairman Emeritus William Butler, M.D., and other leaders of the college to design the 8,100-sf project, which included the renovation of existing space and an expansion that added 3,100 square feet to the existing DeBakey Center for Biomedical Education and Research. The ground-floor museum features a mock operating suite and a replica of DeBakey's conference room, known as the "Green Room." Exhibits will highlight some of the medical instruments and apparatus he invented, as well as select documents from his career and the Congressional Gold Medal he received shortly before his death. Videos of DeBakey performing surgical procedures will be shown via monitors in the museum's exhibition space so medical students and scholars can study his groundbreaking techniques.

The architects' design metaphorically refers to DeBakey's professional realm, with elements such as overlapping wall segments that represent heart valves which pull away from the building's exterior to allow diffused, natural light to enter the exhibit area. Also, the stainless steel panels that clad the wall segments recall the material common to the instruments and equipment of the operating room where DeBakey and his colleagues performed near-miraculous surgical feats.

While honoring the legacy of an extraordinary individual, the new DeBakey Library and Museum also supports Baylor College of Medicine's imperative of educating the next generation of men and women who will follow his example in making future advancements in medical procedures and biomedical research.

Stephen Sharpe is the editor of *Texas Architect*.

PHOTOS BY GERALD MOORHEAD, FAIA