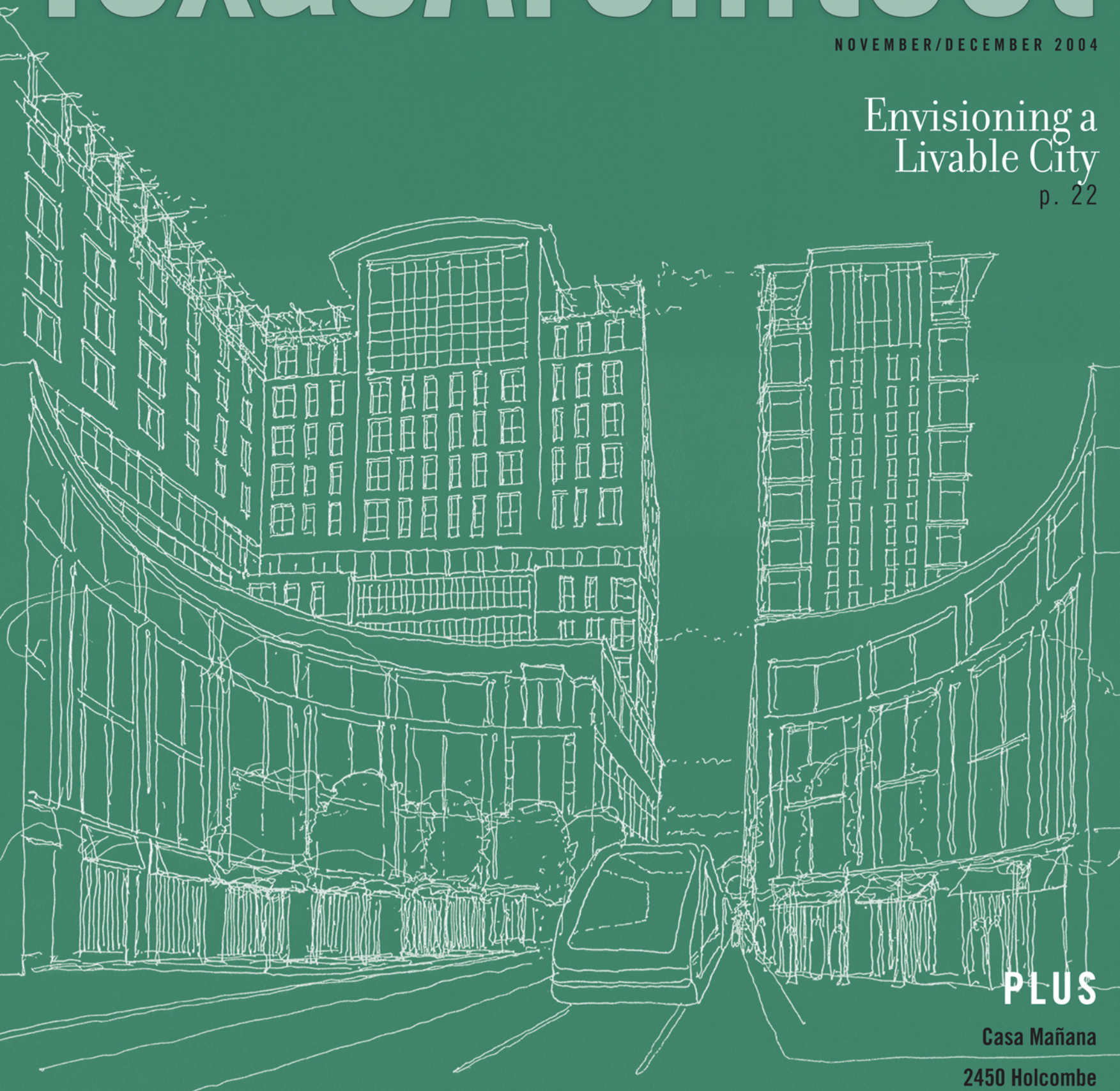
TexasArchitect

NOVEMBER/DECEMBER 2004

Envisioning a Livable City

p. 22



PLUS

Casa Mañana

2450 Holcombe

San Fernando Cathedral

Tegola Prestige:

a unique high-tech copper clad tile with the flexibility to realize any roof you can envision.

Weber Music Hall
Owner: University of Minnesota Duluth
Architect of Record: SLS Architects
Design Architect: Gruen Pell & Associates Architects
Roofing Contractor: Zenner Company
Roofing Material: Prestige Elite

American Aluminum Corporation is a national distributor for the Tegola Canadese line of copper and zinc titanium look roofing tiles. Each produced in America, only Tegola Canadese is the leading manufacturer of aluminum shingles in Europe.

PAC-CLAD
Petersen Aluminum

Circle 83 on the reader service card

Discover the world's most inspiring windows and doors at www.loewen.com

CENTRAL HARDWOODS™
Fine Hardwoods and Architectural Products

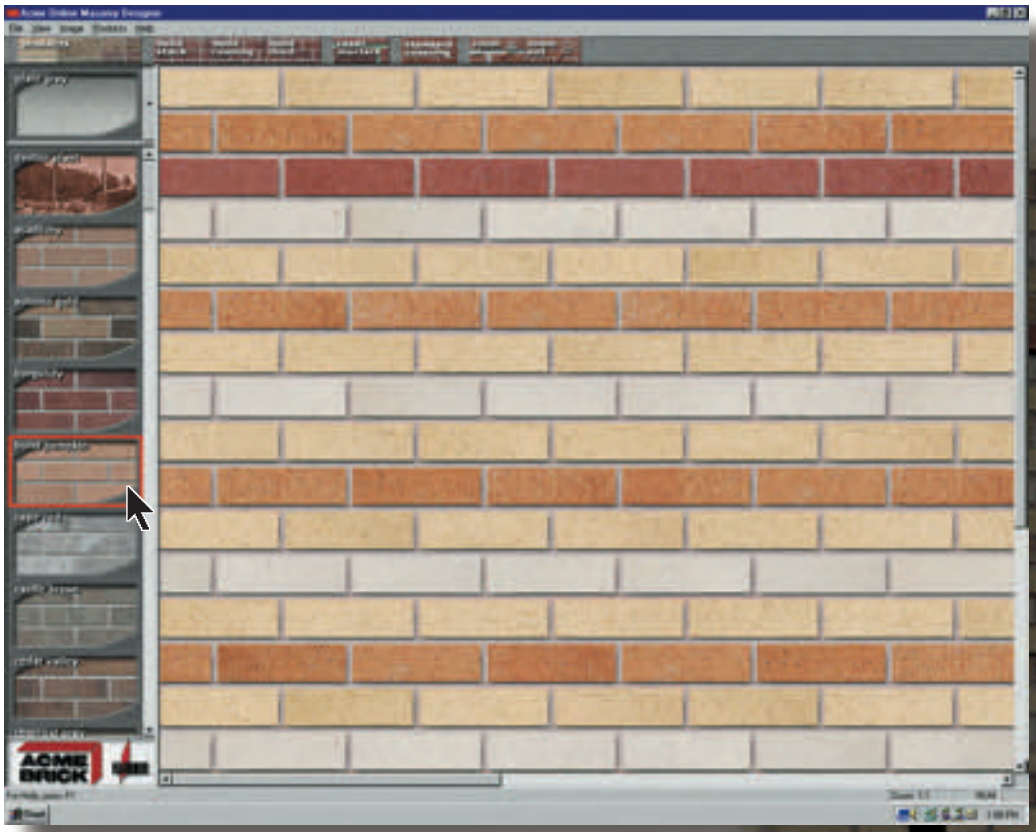
Authorized Loewen Dealer

Since 1946 Central Hardwoods has specialized in providing the finest selection of hardwoods and high-end architectural millwork in the Southwest. And now we offer another industry leader in quality – elegant windows and doors by Loewen. Visit our showroom coming soon to the Dallas Design District.

2605 Rodney Lane, Dallas, Texas 75229 • 800.460.2030 • info@centralhardwoods.com • www.centralhardwoods.com

Circle 156 on the reader service card

Pick, click, design with brick



Acme Brick introduces Masonry Designer, a powerful new tool for designing with brick and block. Now you can render your concepts with lifelike clarity using only a few clicks of your mouse. You can create an endless variety of wall patterns, freely mixing from the Acme Brick collection, Featherlite Burnished and Custom concrete masonry units, and dozens of mortar colors. Your imaginative artwork can then be printed, or even exported to AutoCAD.

Click to download Masonry Designer at acmebrick.com

Getting Started.
After you launch Masonry Designer, please select the Help option for a quick guide to making the best use of this versatile program.

The release of Masonry Designer preceded this exciting building's design, but its façade exemplifies the almost infinite range of patterns that this easy-to-use program allows.

Fort Worth Convention Center Expansion
architect Carter & Burgess, Fort Worth
design architect HOK, Dallas
general contractor Walker General Contractors, Fort Worth
masonry contractor ROC, Dallas

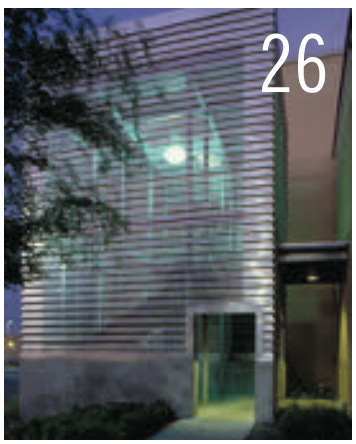
ACME BRICK
Since 1891

Please visit us on the internet: www.acmebrick.com or check the phone directory to contact your local Acme Brick Company sales office. Or please call 1-800-792-1234.

Circle 16 on the reader service card

TexasArchitect

NOVEMBER/DECEMBER 2004



ON THE COVER

An imagined residential development along Main Street in downtown Houston is part of Powers Brown Architecture's "High/Low-Rise, High-Density Housing Master Plan"; courtesy Powers Brown Architecture.

TexasArchitect

November/December 2004 **Volume 54, Number 6**

The Official Publication of the Texas Society of Architects

Texas Architect (ISSN: 0040-4179) is published seven times per year (bimonthly and in April) by the Texas Society of Architects (TSA), 816 Congress Ave., Suite 970, Austin, Texas 78701, *www.texasarchitect.org*. TSA is the official Texas state organization of the American Institute of Architects (AIA). Copyright 2004 by the Texas Society of Architects.

Periodicals Postage Paid at Austin, TX, and additional mailing offices. POSTMASTER: Send address changes to *Texas Architect*, 816 Congress Ave., Suite 970, Austin, Texas 78701-2443. Phone: (512) 478-7386. Printed in the U.S.A.

Subscription price is $20 per year for TSA members, $25 for nonmembers with addresses in the continental U.S. Reproduction of editorial content without written permission is prohibited. Use of names and images of products and services in either editorial or advertising does not constitute an endorsement by TSA or AIA, nor does comment necessarily reflect an official opinion of either organization. *TA* is indexed by the Avery Index of Architectural Periodicals, available in major libraries.

POSTCARD COURTESY 3D/I

Return to Vitality

The redevelopment of Houston Street in San Antonio brings life back to the streetscape

LOOKING back across a half-century with the aid of an old postcard, San Antonio's Houston Street in the 1950s was a remarkable place. A bit gaudy and no doubt noisy, the postcard shows that the downtown avenue was nothing if not lively. Its vitality practically reverberates over those 50 years to make you wonder what could have happened to drive the people away? Of course, as we all know, suburbia beckoned and San Antonio's downtown rapidly began to decay, just like in every other American city.

San Antonio, again, like just about every other American city, is enjoying an urban renaissance, with many residents choosing to live downtown. Houston Street is among the sectors of downtown that has undergone an extensive redevelopment program that has included renovation of existing buildings and construction of new ones. The San Antonio office of 3D/I has played a leading role in the effort. The firm's client was Federal Realty Investment Trust, a real estate investment trust based in Maryland. Federal Realty officials contacted 3D/I in the late 1990s as it began buying buildings within a four-block area of Houston Street where it crosses over the Paseo del Rio. 3D/I's Suzan O'Connor, Assoc. AIA, says Federal Realty was looking for a site for investment that their officials believed would reach a "critical mass" with a financial boost from the REIT. The area already had benefited from the Houston Streetscape Improvement Project, which added colonnades of palm trees, new street paving patterns, and a linkage to the Paseo del Rio. The Presa Street Linkage (designed by Beaty & Partners) was beginning to bring Riverwalk patrons to street level, and Houston Street at that time didn't offer much in the way of amenities.

Today's Houston Street is better equipped to accommodate the conventioneers and other visitors who wander up from river level. Recently completed work includes the new 12-story, 213-room Hotel Valencia Riverwalk that opened in January 2003. Among the historic buildings that were renovated or restored is the two-story Giles Building, known as such because it was designed by Alfred Giles and dates from the 1920s. Other reclaimed buildings are the Bennett Building, also designed by Giles, which now houses 3D/I's offices. One of the most interesting elements salvaged from the razed buildings is the "Chinese Balcony." The balcony originally overlooked the San Antonio River in the days when George H.H. Hugman was first overseeing improvements to the river channel that would eventually become the Paseo del Rio. 3D/I managed to save the balcony when the Capri Building was torn down. The ornate balcony was restored and set on the patio of a restaurant in the Hotel Valencia.

The redeveloped Houston Street is missing one element that stands out in the 1950s postcard—gaudy signage. O'Connor says the "blade" signs that were hung vertically over the sidewalks are slowly returning to Houston Street. But there's doubt that the signage will ever achieve such a level as in mid-twentieth century when the intensity of nightlife on Houston Street reached its zenith. "It was a happening place," says O'Connor. "It was the place to see and be seen in San Antonio."

STEPHEN SHARPE

mar zi pan (mar'zi pan') *n.* [Ger < It *marzapane*] a confection of ground almonds, sugar, and egg white

mas masc. or mas. masculine

mas car a (mas kar'e) *n.* [< It *maschera*, mask] a cosmetic for coloring the eyelashes —*vt.* -car'aed, -car'aing to put mascara on

mas cot (mas'kat') *n.* [< Prov *masco*, sorcerer] any person, animal, or thing supposed to bring good luck

mas cu line (mas kyoo lin, -kye-) *adj.* [L *mas*, male] 1 male; of men or boys 2 suitable to or having qualities regarded as characteristic of men, strong, vigorous, manly, etc. 3 mannish; said of women 4 Gram. Designating or of the gender of words referring to male... words to which... —mas'cu lin ity...

mash (mash) ... 1 crushed malt... for making wo... bean, meal etc. ... soft mass —*vt.* ... by beating, crus... ...ixture —mash'er *n.*

mask (mask) *n.* ... covering to conc... anything that con... querade 4 *a)* a mod... a grotesque repres... amuse or frighten ... with or as a mask ...

ma son (ma'sən) *n.* ... whose work is build... etc. 2 [*M-*] FREEMA...

Ma son-Dix on line ... C. Mason & J. Dixon, who surveyed it, 1763-67] boundary line between Pa. & Md. ... regarded as separating the ...

ma son ry (ma'sən re) *n.* 1 a mason's trade 2 *pl.* -ries something built, as by a mason, of stone, brick, etc. 3 [usually *M-*] FREEMASONRY

masque (mask) *n.* 1 see MASK] 1 MASQUERADE (*n.* 1) 2 a former kind of dramatic entertainment, with a mythical or allegorical theme —masqu'er *n.*

mas quer ade (mas'kər ad') *n.* [see MASK] 1 a ball or party at which masks and fancy costumes are worn 2 *a)* a disguise *b)* an acting under false pretenses —*vi.* -ad'ed, -ad'ing 1 to take part in a masquerade 2 to act under false pretenses

mass (mas) *n.* [< GR ... cake] 1 a ...hape and ...umber /a ...the main ...tter in a ...dj. of or ...-vt., vi. ...masses ...

...New ...mt.; ...Mass. ...a, to ...rt of ...-vt. ...an ...se

...forming or consisting of a large mass; big and solid 2 large and imposing —mas'sive-ly *adv.* mas'-sive-ness *n.*

Stacell Still Inspires

Patrick Winn's article "Tower for Stacell" (*TA* September/October 2004, p. 108) brought back some of my warmest remembrances of architecture school at Texas A&M. My first encounter with Alan Stacell was at freshman orientation. I sat in Stacell's office in the "new" Architecture Building after the program moved out of the Academic Building in 1963. Stacell quizzed me about why I wanted to study architecture. I guess he decided all was in order. I spent five busy and challenging years growing in that building.

I sat under his leadership and training as a freshman in art class. Perhaps the greatest reward I got out of my years in the program was when Stacell took one of my projects home. I eventually begged him to let me have it back. Now I wish I had left it with him. I am convinced that he appreciated that project more than my mom and dad did! Stacell is sorely missed.

Gordon E. Landreth, AIA
Corpus Christi

Models: Never a Lost Art

I would like to commend you and particularly Canan Yetmen on the article "In Defense of the Model" (*TA* September/October 2004, p. 18).

As president of the Association of Professional Model Makers (*www.modelmakers.org*), it was refreshing to read how architects are still turning to the model as a significant tool for both in-house and client communications. When Max Levy stated "Real models have a primitive power," he touched on the heart of what makes models intrinsically enchanting to the human spirit.

Today, professional model makers are much more than just craftsmen, having to coordinate an array of new technologies, including CAD softwares, laser cutters, CAD/CAM software, CNC milling, and rapid prototyping. We are able to provide a level of detail and accuracy unheard of even a decade ago. But the craft of model makering involves so much more than that. While the number of architectural model shops have decreased, model makers are hardly facing extinction. As long as schools such as Bemidji State University in Minnesota (the only four-year program in the country), Northeast Wisconsin Technical College in Green Bay, and the Art Institute of Seattle continue to attract and train fresh, young talent we will be here to provide our services to the design industry.

Richard Coleman
Houston

A Trip Down "Poverty Row"

I have noticed several references to O'Neil Ford in recent issues of Texas Architect. It occurred to me that many of your readers might not know of the earlier days.

When I was a young draftsman I worked for William Raymond Allen Jr. on Cedar Springs Avenue in Dallas. His office was one of several residences used as offices by beginning architects. This was in the late 1930s, and as I recall the lineup on "Poverty Row" as it was known was Ford, Arch Swank, Ray Allen, and Allan Dow. These offices were all in the first block west of Maple Avenue. Further down Cedar Springs was a fruit stand and a small café. Across the street was a manufacturer of aluminum windows and a rep for Monumental center-hinged windows. The plant was owned by J.P. Travis. (I worked there briefly doing shop drawings.) Also in this same area was a small second-story hotel.

Frequently in the mornings those of us on Poverty Row would meet in the café for breakfast and coffee. One morning the conversation turned to the hotel and someone said something as to the ladies of doubtful reputation. O'Neil looked up from his coffee and remarked, "What do you mean 'doubtful'?"

One morning O'Neil came rushing in the back door of Ray Allen's office and said, "Come see what I have." It was an older Rolls-Royce Roadster. He drove it for a short time, until he broke a spring and couldn't afford a repair.

Lee R. Greenfield
Dallas

Corrections

A description of the September/October edition's cover was inadvertently omitted. The photograph shows an interior view of Richard Serra's *Vortex, 2002* viewed upward from the ground. Suzy Lau, a designer with Z PROJECTS, LLC in Dallas was the photographer.

Also in the September/October edition, the credit was incomplete for the article on the Lester E. Palmer Events Center. The project was the work of Barnes Taniguchi Centerbrook Joint Venture. In addition the name of Brandi Rickels of Lake/Flato Architects, was misspelled in the credits for the LSU Hilltop Arboretum.

There were two errors in the comprehensive list of firms that have received six or more TSA Design Awards. Ford Powell & Carson has a total of 26 awards. Good Fulton & Farrell Architects has collected six TSA Design Awards. Contact Dan Hart, AIA, chair of the TSA Design Awards Committee, *dhart@team-psc.com* for further information.

An etching by O'Neil Ford from 1930 depicting the Dallas neighborhood near Cedar Springs Road and Pearl Street where Ford and several other architects kept offices; reprinted from *O'Neil Ford, Architect* (1992) by Mary Carolyn Hollers George with permission from Linda Ford.

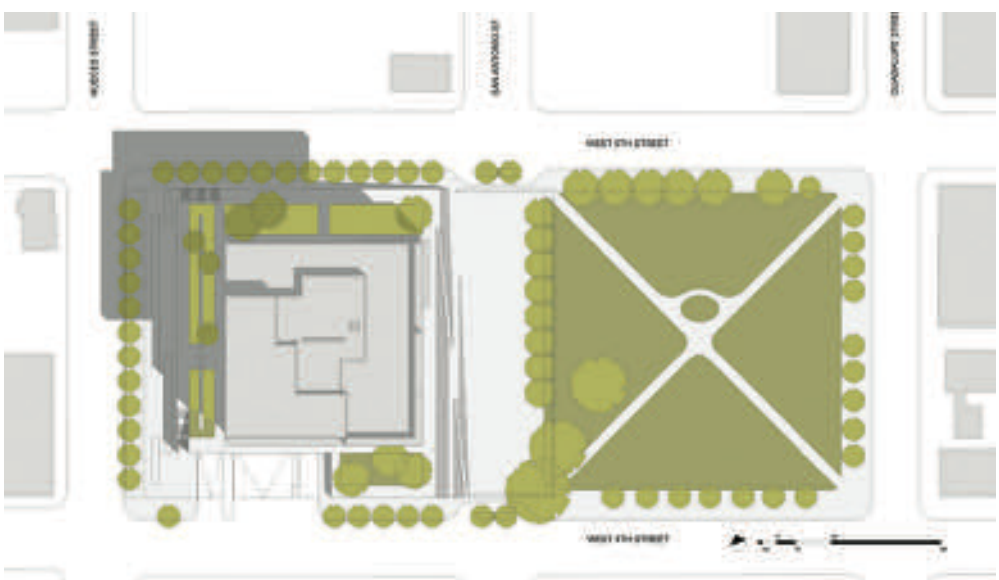
TEXAS SOCIETY OF ARCHITECTS

THANKS!

The members of TSA and the entire design community of Texas enjoyed a superb 65th Annual TSA Convention in Houston, October 21-23. If you attended the convention, you will recognize the names below, for as the convention's major sponsors, they played a vital role in the success of the three-day event. We thank them again for their generous support.

A&E - The Graphics Complex	Attendee Brochure
CADVisions, Inc.	AIA Fellows' Luncheon
Communications Plus	Presidents' Gala Reception
Constructors & Associates	Annual TSA Awards Luncheon
Hanscomb Faithful & Gould	Host Chapter Party
Haynes Whaley Associates	Host Chapter Party
Houston Architecture Foundation	Pocket Planner
I.A. Naman + Associates, Inc.	Presidents' Gala Dinner & Entertainment
Lyda Swinerton Builders	Host Chapter Party
McGinnis Lochridge & Kilgore	Presidents' Gala Dinner & Entertainment
Metzger Construction Company	AIA/COTE Top Ten Green Projects Display
O'Donnell/Snider Construction, Inc.	Presidents' Gala Dinner & Entertainment
Rosenberger Construction	Student Design Competition
SpawGlass	Opening Session Keynote Speaker
Tellepsen	Lunch with Exhibitors
Texas Architectural Foundation	General Session and New Architects' Convocation
Texas EIFS Wall Systems	Registration Portfolios
USI Southwest	Morning Coffee Break with Exhibitors

DARING TO LEAD
OUR LAND – OUR PRACTICE



Interlocking Spaces Key to Proposed Design of Federal Courthouse in Austin

AUSTIN Recently exhibited renderings of the proposed U.S. Courthouse in Austin hardly depict the locked-down fortress many might expect in our post-9/11 world. Instead, the images illustrate the architect's bold concept for creating a series of interlocking interior spaces illuminated by natural light. The surprisingly open scheme faces an existing public park, which at least from the renderings appears to further add to the sense of unrestricted freedom. According to those familiar with the project, the proposed facility's interior areas (including the eight courtrooms) are designed in an interlocking scheme that minimizes wasted space while allowing for abundant daylighting.

But the design has yet to receive final approval, according to C. Roger Curtis, the project manager for the General Services Administration's regional office in Fort Worth. However, Curtis said, the fact that several renderings have been included in an exhibit of designs for recent GSA projects bodes well for the design by Mack Scogin Merrill Elam Architects in Atlanta. "Ed Feiner thinks so much of it that he has allowed that showing although the design has not been approved," Curtis said.

"We're still working with the design, so it could change a little. But the general design is still going to be a valid impression of the building, unless we have to start over," Curtis said, referring to unforeseen problems, such as budget issues. Originally expected to be included in the 2005 federal budget, the GSA is looking toward the 2006 budget for the project's estimated $55 million construction cost.

The renderings of the Austin courthouse are on display through Nov. 10 at the AIA New York Chapter's Center for Architecture in "Civic Spirit: Changing the Course of Federal Design." Curated with the GSA's assistance, the exhibit spotlights 19 federal projects.

The text accompanying the renderings for the Austin project states: "The courtroom floors are innovatively configured to minimize wasted volume. By 'sandwiching' and rotating the courtrooms, judges' chambers, public spaces, jury rooms and lobbies according to ceiling heights, the overall volume is reduced. The courtrooms, judges' chambers, public spaces and jury rooms are located on the exterior to allow natural light to enter."

STEPHEN SHARPE

San Antonio Adopts 5,000 sf Threshold

SAN ANTONIO The third largest city in Texas recently amended its building codes to require an architect's participation for buildings 5,000 square feet or larger. That threshold represents the minimum size of buildings intended for public use that must be designed by a registered architect, rather than the much higher threshold found in state law.

State law currently does not require an architect to design privately funded buildings that do not exceed two stories in height or 20,000 square feet [§1051.056(a)(4) Occupations Code]. A person with no architectural education, training or proficiency may design spaces or structures that may be larger than the typical church, office space or museum. If an architect is not required, there is no regulatory oversight of those who design this type of structure except local code officials, and then only if the structure is within an incorporated area.

In July the San Antonio City Council was considering the adoption of International Building Codes. A local architect met the building officials to suggest they consider adopting an amendment to require the 5,000 sf threshold. They agreed, saying they believed the measure would save them a great deal of time because submittals from architects are consistently of much better quality than those from others who may not have had formal training. Building officials say their greatest problems stem from having to provide the lengthy and detailed explanations necessary for an untrained individual to understand the drawing requirements for a building permit. The recommendation to include the amendment was made during a public hearing of the City Council to review all new codes. There was no opposition. Shortly thereafter, the Council adopted both the codes, including recommended amendments.

Similar adoptions have been recently approved in Wichita Falls, Beaumont and El Paso. Building officials in those cities were adamant that the provision be included because they believed that architects have a firm understanding of the code, and that the adoption of the threshold would help them enforce necessary requirements for public safety. Municipal governments have the authority to require that architects become involved in the design of privately-funded structures greater than 5,000 sf to maintain our standards for public health, safety, and welfare in a fair and efficient manner. In addition to maintaining design and construction standards, architects streamline the process, keep efforts focused, and promote a sensible, straightforward, and speedy delivery of city services. The attention that architects devote to code issues is of great benefit to owners, as well as the public. Efficient buildings that protect the health, safety and welfare of the public, are economically suitable to the owner, and make the best use of city resources is the design goal of architects. AIA chapters can take leadership roles in their communities to ensure that city codes mandate the inclusion of architects in the development process at an appropriate level.

MARY BARTLETT, AIA

Austin Plans 'Zero Energy' Community

AUSTIN The future begins as early as next spring for an impoverished Austin neighborhood as three municipal departments team up to design and build 90 to 100 affordable single-family "zero energy" houses on 13 undeveloped acres. The program, designed in response to the need to invest in renewable energy resources, is being undertaken by the city's public utility, its community development department, and the Austin Housing Finance Corporation.

"We're essentially building a small power plant," says Rich MacMath, AIA, of Austin Energy's Green Building Program (GBP). The ambitious initiative is part of Austin Energy's aggressive new strategy to achieve a 20-percent renewable-energy portfolio by 2020.

According to the U.S. Energy Information Administration, residential energy consumption across the nation is predicted to increase by 25 percent by 2025. Austin Energy doesn't plan to approach that day with a "business as usual" attitude. At the end of 2003, the community owned electric utility company issued a 40-page document recognizing a changing electric utility industry and new technologies on the horizon, and outlining its strategy for the next 10 years. Aggressive in nature, the strategy includes instigating the highest photovoltaic (PV) rebate program in the country, as well as the creation of the zero-energy subdivision.

According to MacMath, the strategy is a big experiment, and one that will assist in providing economic stimulus for the development, recruitment, and retention of "clean" energy businesses to Austin, as well as the creation of a neighborhood of homes that will incorporate green-building principles and renewable-energy sources such as solar power to minimize the neighborhood's environmental impact.

The three partners make a logical team for the effort. Austin Housing Finance Corporation (AHFC), a public, nonprofit corporation, is the housing production arm of the City of Austin, and owns the land where the subdivision will be located. The Neighborhood Housing and Community Development (NHCD) Department provides housing, community outreach, and small-business development services to help eligible residents have access to livable neighborhoods. The two city departments will use federal funds to develop the subdivision. Austin Energy's commitment includes subsidies for oversight of each dwelling's design, along with the materials and labor for installation of 4kW PV systems in all the homes. The PV systems – each priced around $30,000 each for a project total of about $3 million – will be owned by Austin Energy, which will assume responsibility for their maintenance. All the homes will be connected to the city's energy grid, with the hope that within a few years electrical power will flow from the homes back into the grid. At the very least, according to MacMath, each residence is expected to generate enough energy to meet its own needs.

"The design for these homes will be simple, and smart," says MacMath, who is skeptical that anything but a small, well-designed house is likely to achieve the zero-energy goal. At 800 to 1,300 square feet in size and sited on lots approximately 40 (street frontage) by 90 feet, the dwellings will have between one and four bedrooms with air-conditioning equipment and duct work located within the home's thermal barrier—a "starter home" option with a pre-designed plan for major remodeling or additions over time.

The homes will meet the AHFC's S.M.A.R.T. Housing Initiative, a voluntary program adopted by the Austin City Council in 2000 to stimulate production of houses that are safe, mixed-income, accessible, reasonably priced, transit-oriented, and meet Green Builder standards. With the homes expected to sell for between $90,000 and $120,000, homeowners will be getting a lot for their money.

"We want to make sure that these homes are affordable," says Julie Beggs, City of Austin manager of public affairs. According to Beggs, the dwellings will only be available to households earning 80 percent or less of the Area Median Family income. In Austin, a family of four earning no more than $56,000 per year would be eligible to purchase one of the homes. [Currently, one-third of Montopolis' residents live in poverty. Located about halfway between downtown and Austin Bergstrom Airport, it was one of the last sectors of Austin to be developed.] Other than income level, there are no other eligibility requirements, although Beggs says people now living in the Montopolis neighborhood or those affiliated with the community will be encouraged to buy. "This has been a very inclusive process," says Beggs. "Although the tract of land on which the homes will be built is very raw, it is surrounded by a thriving, existing community. We've had several meetings with them, and will continue to keep the neighborhood involved in the process."Keeping the Montopolis community involved means designing a house that fits into existing neighborhood guidelines.

With infrastructure development to begin before the end of this year, and the first spec homes are scheduled to be ready next year by late spring/early summer 2005.

INGRID SPENCER

Preservation Dallas Enlists Neighborhoods To Document Their Architectural Heritage

DALLAS So how did conducting a historic preservation survey become a favored leisure time activity for a small army of volunteers drawn from all walks of life? Because of Discover Dallas!, an ambitious plan to document the architectural heritage of an entire city, while simultaneously educating and energizing a cadre of new devotees to its treasures.

Preservation Dallas has long been the city's preeminent custodian of its architectural heritage. In 2000, it embarked on a program of breathtaking ambition and clarity: to survey, document and classify every pre-1965 neighborhood in the Dallas; to do so with volunteers from across the city, who would be trained by Discover Dallas! and asked to begin with their own neighborhoods; then put the results on the web in the most dynamic, graphic way possible. Compelled by this vision, the Dallas Architectural Foundation provided the initial underwriting, doing so with its largest grant ever.

Fast-forward four years. Much has been accomplished. A training program has been created to school volunteers in survey methods, architectural styles and other necessary knowledge. Five hundred fifty volunteers have been through this program then returned to their neighborhoods to photograph, survey and classify over 10,400 buildings. Over sixty high school students have gravitated to it as a meaningful way to achieving their community service goals. Critical property history has been documented and preserved in 29 neighborhoods. And perhaps, most importantly, the results of these efforts have begun to be compiled in a database that uses Geographical Information Systems (GIS) technology, allowing it to be linked with other property databases and mapping programs, geometrically increasing the content available and permitting advanced queries by criteria such as builder, style, neighborhood, date and other preservation-centric attributes.

Even given these impressive accomplishments, Discover Dallas! remains a work in progress. The survey work continues at a vigorous pace, supported by an ever-growing legion of enthusiasts. The GIS database is well underway and a demo website created that has proven the technology selected to power it. It also provides an exciting preview of end product, arming Discover Dallas! with a compelling marketing tool to pursue funding for a full-scale, online version.

Discover Dallas! it is beginning to be seen as a new model for community based historic preservation and word of is success is spreading across the country. Increasingly it is fielding inquiries from venerable institutions such as the Getty Conservation Institute in Los Angeles and the Cambridge Historical Society in Massachusetts who hope to replicate its success. As such it appears this homegrown initiative, initially intended to preserve a city's legacy may ultimate create its own.

DUNCAN T. FULTON, FAIA

For more information, contact Katherine Seale, Director of Discover Dallas! by e-mail at kseale@preservationdallas.org *or by phone at (214) 821-3290.*

The Look of Luxury, the Ease of Brick.™

Hanson's elegant Ashlar Series gives you the look of stone with painless and affordable installation. This unique man-made product is available in ten colors, 4 sizes and 2 shapes (straight and tumbled edge) - offering endless design combinations. Durable Ashlar meets ASTM C55 specs for severe weather, and it's backed by Hanson's exclusive 101-year warranty.

The Ashlar Series

We're exhibiting at the TSA 2004 Design Products & Ideas Expo, October 21-23 - come see us at Booth 103!

Call us today for information and literature at 888-872-7425, or view the Ashlar Series on-line at www.hansonbrick.com.

Circle 94 on the reader service card






THERMA-TRU® DOORS

The Most Preferred Brand in the Business.™

- The recognized leader in entry door systems
- Architectural elegance with energy efficiency and lasting beauty

You can't buy experience like Mike's. He shares it freely with all of our customers.

Texas builders turn first to Mike Marino and his team for expertise and rock-steady support. With an entire career of service to professional homebuilders, Mike represents the depth of leadership of BMC West, and our commitment to building your success.

Mike Marino – Manager, Coppell BMC Millwork

BMC BUILDING MATERIALS A BMC WEST COMPANY
BMC Millwork A BMC WEST COMPANY
BMC Truss & Components A BMC WEST COMPANY
LONE STAR A BMC WEST COMPANY
MARVIN WINDOWS PLANNING CENTER A BMC WEST COMPANY

Serving All Major Markets in Texas
Dallas-Fort Worth • Houston • Austin-San Antonio
El Paso • Killeen • Abilene

Circle 28 on the reader service card

Stern Praises Trinity's New Northrup Hall On the Campus Designed by O'Neil Ford

SAN ANTONIO At the Sept. 16 dedication of the newly completed Northrup Hall on the campus of Trinity University, architect Robert A.M. Stern praising the design by his office as a "collaboration among many."

"The design of a building is not a singular act," Stern said as he thanked his design team who were charged with task of replacing one of O'Neil Ford's original campus buildings. That structure, built in 1951, was razed to make way for the new Northrup Hall, which will house classrooms and administrative offices. "This design best complemented the existing campus architecture," Trinity University President John Brazil said of Stern's design "It fit the site well, and did a superior job of integrating the academic and administrative areas."

It was on the Trinity campus that Ford gained notoriety for pioneering the Youtz-Slick lift-slab method of construction, which was developed concurrently in San Antonio and in New York in 1948. The original structure, named after the prominent San Antonio rancher and oilman Preston Gaines Northrup for his gift of Trinity's first major endowment, had grown in height and length by an addition and modifications that over time created an edifice that had become an extended wall, effectively splitting the campus bi-laterally into north and south.

In prepared remarks, Stern expressed pride in the energy-responsive features of new Northrup, such as sun-shading devices, covered walkways, and its climate-sensitive landscape. "Carrying on O'Neil Ford's legacy was not merely a matter of aesthetics, but also one of environmentalism," he said.

The new 99,355 sf structure, clad in Texas limestone and Ford's signature "Trinity Red" brick, strives to reconstitute the original 117-acre campus plan (also designed by Ford) by rising vertically above the other campus buildings and San Antonio's skyline, reemphasizing Trinity's reputation as the "skyline campus."

"I am proud of what we have achieved in designing new Northrup—but it is my hope that students, alumni, and faculty will adopt this as their own, both as a day-to-day place of learning and as a symbol for Trinity University as it enters its second 50 years on this great skyline campus," Stern said.

Trinity University's continued reputation as one of the nation's top liberal arts colleges means that growth and change are inevitable. Northrup Hall is representative of the college's part to not only develop the architecture of its campus to the level of other top institutions by using nationally recognized architects, but also to ensure its connection to its past and remembering Ford's original plan for the campus.

MICHAEL G. IMBER, AIA

Trinity University's newly completed Northrup Hall by Robert A.M. Stern. The building replaces the original Northrup Hall designed by O'Neil Ford; Photo by Peter Aaron/Esto courtesy Trinity University.

Herman Miller Exec to Speak

Paul Murray, Herman Miller's corporate environmental affairs manager, will speak on environmental awareness at the Hotel Valencia, 150 East Houston St., in San Antonio. Sponsored by the Texas/Oklahoma Chapter of the IIDA, "The Power of One" is scheduled to begin at 6 p.m. The event is free and open to interior design, architecture, engineering, and construction professions. For more information, contact Linda Mastaglio at (903) 963-8923. NOVEMBER 18

UT Austin Hosts Conference

"SITE::OFFSITE: Architecture and the Factory-built House" will bring together architects whose groundbreaking residential work has generated a cross-disciplinary dialogue. More information is available at *www.ar.utexas.edu*. NOVEMBER 19-20

Austin Artists Unite for Studio Tours

East Austin Studio Tours will demonstrate the group's mission is to encourage creative dialogue between artists, their peers, and the city. For times and participants see *www.eastaustinstudiotour.com*. NOVEMBER 20-21

RDA Sponsors Third Civic Forum

The final forum in the "Earth, Fire and Wind" series will address economic, environmental and social conditions. Visit *www.rice.edu/projects/RDA*. DECEMBER 1

Gonzales Opens Historic Homes

Winterfest is a tour of the city's historic homes. To date, over 80 historic properties have been documented in Gonzales. Large homes and buildings have been preserved for over 100 years. For information contact the Gonzales Chamber of Commerce & Agriculture (830) 672-6532 or visit *www.gonzalestexas.com*. DECEMBER 4-5

DAF Sponsors Panel Discussions

"Idea to Assimilation: Design Reproduction," moderated by Katie Newman, will be held at the office of Gary Cunningham, 918 Dragon St. in the Design District of Dallas. Admission to the panel discussion is free. Call (214) 764-2406 for information or visit *www.dallasarchitectureforum.org*. DECEMBER 7

DAF Lecture Features Evans Joseph

Wendy Evans Joseph, architect of Dallas' Women's Museum and the boutique hotel in Frank Loyd Wright's Price Tower in Bartlesville, Okla., will lecture at Horchow auditorium. For more information visit *www.dallasarchitectureforum.org*. DECEMBER 16

Dallas Animal Shelter

Scheduled to begin construction in Spring 2005, the 63,000-sf Dallas Animal Shelter is setting new standards for animal care. The client is the City of Dallas Department of Public Works, led by David Dybala. The building is designed in association with Animal Arts/Gates Hafen Cochrane from Boulder, Colorado. The design combines the complexities of adoption display areas, lost and found holding areas, administrative services, an education center, and a veterinary clinic, along with a mechanical system capable of providing 100 percent fresh air at extremely high circulation rates to all the animal areas. An on-site water treatment system, called a "Living Machine," will reduce the use of city water by recycling water used for kennel washdown. The main gallery opens entirely to the densely vegetated hillside with a north facing glass wall. Upstairs, the Dog Adoption Commons features 30 "real life" rooms displaying adoptable dogs.

St. Stephen's Episcopal School

Construction begins in January 2005 for the expansion of St. Stephen's Episcopal School, an independent college preparatory boarding and day school in rural Austin. The expansion includes a 13,500-sf upper-classroom building, a 3,600-sf student and faculty commons, and the renovation of a 12,000-sf middle school classroom and office building. The design by Andersson Wise Architects is scheduled for completion in February 2006. The structures form a courtyard around an existing live oak grove. The buildings have large roof canopies with broad overhangs to create shelter and shade. All circulation is outdoors, under the canopy. Materials include limestone exterior, fiber cement panels on the internal walls, aluminum-framed insulated windows, and metal roof. AWA is renovating Gunn Hall to provide six new classrooms, two new science labs, an art room, and an administrative area. The architects will strip off several layers of accretions to reveal the original concrete structure and fireplace.

Midland National Guard Armory

By early 2006 the Midland National Guard is expected to have a new 37,000-sf armory to replace outdated bases in Odessa and Midland. The $5.5 million project is designed by Parkhill Smith & Cooper in Odessa, with groundbreaking scheduled in February. Exterior cladding will consist of two colors of brick, cream and terra cotta, that will create bands of color. The two-tone color scheme is similar to the Midland International Airport located about half-mile away and designed by the same firm. While the future facility will exhibit similarities to the airport, the armory will have its own architectural identify. Other materials include aluminum and glass curtainwall and architectural precast concrete. The project will begin after the Federal Aviation Commission approves the sale of surplus airport land. Construction is expected to take approximately 12 to 15 months.

Religious Architecture Along the Rio Grande

Visits to the borderland's houses of worship highlights how design enriches communities

by STEPHEN FOX

IN conjunction with its annual continuing education conference, the AIA Lower Rio Grande Valley chapter organized an architectural tour in September that focused on houses of worship and cemeteries in the border cities of Brownsville and Matamoros, Tamaulipas. The tour highlighted the extraordinary range of architecture in the two cities, the differences visible in similar building types on either side of the Rio Grande, as well as the strong cultural connections between the two communities.

Brownsville city officials Peter L. Goodman, manager of the downtown development district, and heritage officer José A. Gavito Jr., organized the Brownsville portion of the tour. This highlighted Brownsville's architectural legacy with visits to the city's oldest religious building, Immaculate Conception Catholic Cathedral of 1854-1859, a brick Gothic Revival church designed by a French immigrant architect-turned-priest, Father Pierre Yves Kéralum; the Spanish Colonial Revival style Church of the Advent, Episcopal, of 1926; and an important modernist site, the impeccably maintained brothers' chapel at St. Joseph Academy, a Progressive Architecture award winning private school built in 1960 and designed by Caudill Rowlett Scott (amusingly, the tour coincided with a 1950s costume day for students). Brownsville native Eugene Fernández punctuated the church and chapel visits with a lively walking tour of Brownsville's brick-walled City Cemetery, dedicated in 1868 and bordered by a palm tree-lined resaca. As Fernández observed, the brick burial vaults of City Cemetery are a reminder of New Orleans influence on the building cultures of Brownsville and Matamoros in the nineteenth century. The most architecturally distinct vault, built by the family of the grocer Lucio Bouis in 1886, is in the style of the Roma architect-builder and brick maker Enrique Portscheller, although Portscheller's authorship has never been verified. McAllen architect Manuel Hinojosa, AIA, spoke at several stops about the ways that building practices visitors were experiencing reflected the lifestyles and material culture of the lower Rio Grande in the nineteenth century.

In the afternoon, engineer Clemente Rendón de la Garza, former city historian of Matamoros and immediate past president of the bi-national heritage group, Los Caminos del Río, and preservation architect Carlos Rugerio Cázares, director of field operations for Los Caminos, guided the group on a walking tour through the narrow streets of Matamoros from Plaza Hidalgo to Plaza Allende, each public square anchored by an imposing church building. The twin-towered, neoclassical Cathedral of Our Lady of Refuge on Plaza Hidalgo traces its origin to 1814, but, as Clemente Rendón explained, it was reconstructed twice in the nineteenth century and a third time in the 1940s after suffering extensive damage from hurricanes. Sacred Heart Catholic Church on Plaza Allende of 1952 is a mid-twentieth-century modern landmark. Its parabolic profile was especially identified with modern church architecture in Mexico, a point underscored by a visit to the similarly-shaped Anglican Church of the Ascension in Matamoros, built in 1962. Clemente Rendón and Eugene Fernández narrated a walking tour of Matamoros's densely-packed Panteón Viejo (Old Cemetery) of 1832.

(above) Church of the Advent, Brownsville, 1927 by architects Thomas MacLaren and Stanley W. Bliss. (opposite page, clockwise from top left) Nave of Immaculate Conception Catholic Cathedral. Detail of Lucio Bouis Family Vault, 1886, City Cemetery, Brownsville. Sagrado Corazón de Jesús Catholic Church, Matamoros, Tamaulipas, 1952. Nave of Sagrado Corazón de Jesús Catholic Church; photos by Craig D. Blackmon, FAIA

The tour concluded with drive-bys of Brownsville's twentieth century houses of worship: the site of the first known African-American congregation in Brownsville, the oldest Jewish temple in the Lower Rio Grande Valley (1932; now occupied by a Spanish-language Pentecostal congregation), and churches, chapels, and religious schools of the 1950s, 60s, and 70s by Bowman Swanson Hiester, Ruth Young McGonigle, Robert E. Velten, and Wilhite & Winans.

Popular with chapter members, session presenters, architects from other chapters, and interested locals, the LRGV annual conference tour has proved to be a valuable tool in constructing consensus on how communities are enriched by their architecture.

TA Contributing Editor Stephen Fox is a Fellow of the Anchorage Foundation of Texas and teaches architectural history at Rice University.

TexasArchitect's Education Issue

It's school time again! In the upcoming January/February 2005 education issue, TexasArchitect presents four diverse education projects, plus winners from the 2004 TASB School Design competition.

FEATURED PROJECTS: EDUCATION

- Austin Waldorf School PAC
- Hackberry Elementary, Frisco ISD
- Northrup Hall/Trinity University, San Antonio
- University of Texas School of Nursing at Houston

PORTFOLIO: SCHOOLS

- Jesse Marie Riddle Elementary, Frisco ISD
- Norma J. Paschal Elementary, Schertz-Cibolo-Universal City ISD
- Tomball High School, Tomball ISD

INSIGHT: MASONRY AND CONCRETE

Masonry and concrete have long been the major building blocks in school construction—durable, cost-effective, and readily available. This section will highlight the versatility of these basic construction components.

The idea of living in downtown Houston is no longer a joke.

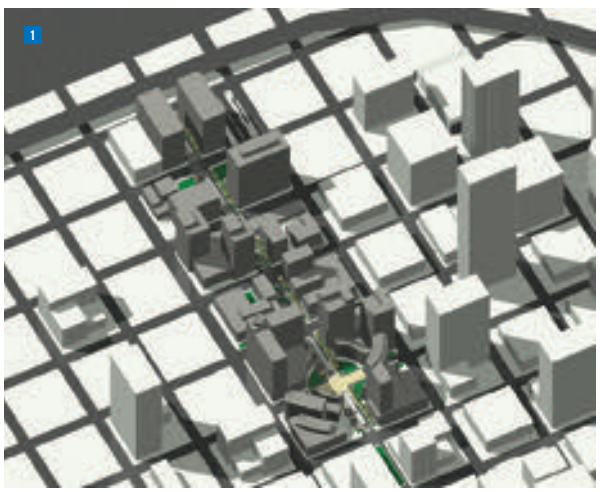
In fact, the potential for residential development in the Central Business District has completely altered predictions for downtown over the next 20 years.

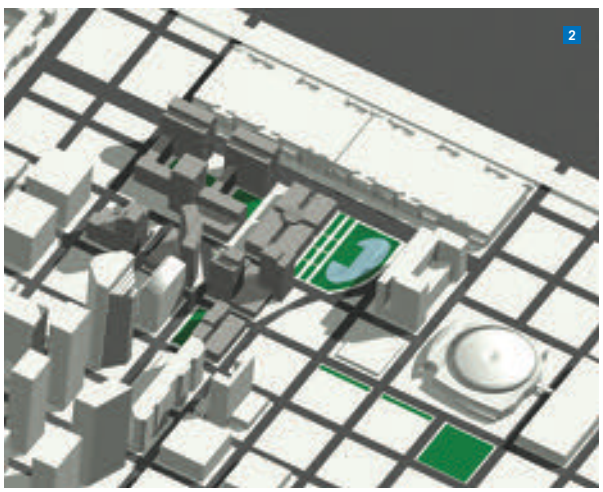
This much is clear: the era of newer, taller office towers is over.

The new vision for downtown foresees high-density pockets of high-rise and mid-rise housing developments occupied by 20,000 residents by 2025.

Envisioning a Livable City

by STEPHEN SHARPE

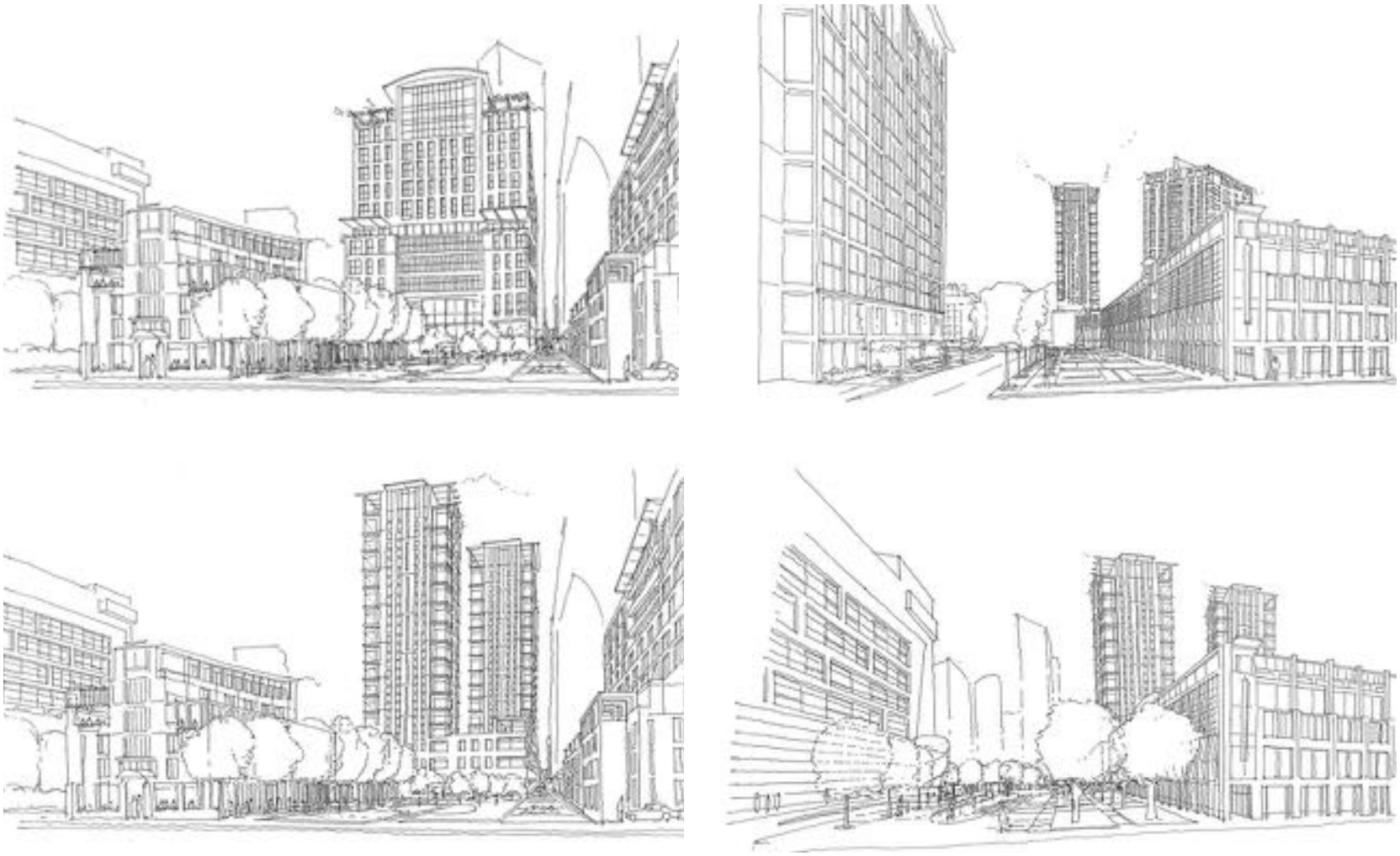




The study by Powers Brown Architecture took three groupings of downtown land and investigated several models for configuration of high-density housing. The High-Rise, Mixed-Use Development (1) is centered around Main Street. The High-Rise, High-Density Development (2) is just west of the George R. Brown Convention Center. The Low-Rise, High-Density Development (3) is clustered on the south side of the Toyota Center.

THE 2000 U.S. Census brought the future into focus. For the first time, as demonstrated by the latest federal statistics, the population inside Loop 610 grew at a higher percentage rate than the population outside the loop during the 1990s. Though surprising to many, those figures verified a trend that Houston's development community already was following. Release of the 2000 Census prompted the Houston Downtown Management District (better known as the Downtown District) to commission a survey in 2003 to update statistics from 1993 and 1998 on how Houstonians perceived the downtown area. The 2003 survey indicated that 16,400 housing units could be sold or leased in downtown and the area just to the south called Midtown. While that represented the potential for a significant upswing from the current population of 2,500 residents, the survey's findings also sent a clear message to stakeholders that the inner city was unprepared for what appeared to be Houston's next chapter.

Despite the many recent improvements and additions to downtown – including the initial 7.5-mile line of a sleek light rail transit system, a $62 million streetscape project, a 40,000-seat baseball stadium, a 1,200-room convention center hotel, and a two-venue performing arts center – much



The elevations show different schemes for structures in the High-Rise, High-Density Development adjacent to the George R. Brown Convention Center.

more work remained before Houston's inner city could be truly livable. (Many of those projects, completed in the last two years, grew out of ideas that emerged a decade ago from the "Designing for Change" program that teamed AIA Houston with the Downtown District.) Houston's expected evolution would require infrastructure upgrades to handle high-density residential development, as well as quality-of-life enhancements such as parks, schools, retail, and services. And with the downtown's extremely limited stock of historic buildings already converted for residential use, the need for new residential buildings was obvious.

To begin envisioning how residential development could fit into the existing urban matrix, the development community (under the auspices of Central Houston, a nonprofit coalition of businesses interested in maintaining a thriving downtown) put together six task forces and a steering committee to plot a course for the future. Guy Hagstette, AIA, an executive with Central Houston, coordinated the effort, which included the Urban Form and Urban Design Task Force. One of the members of that task force is Jeffrey Brown, AIA, a principal with Powers Brown Architecture. Brown's firm eventually was hired by Central Houston and three associated groups to undertake a series of studies to determine possible configurations for high-density, multi-structure residential developments in three areas within the CBD. Parameters varied widely for each of the three developments, but all shared some of the same requirements, such as access to public spaces, adequate parking, and proximity to mass transit. Of course, development costs would have to be minimized to ensure that those Houstonians who wanted to live downtown could afford the rent or the mortgage. As Hagstette said recently, "The challenge is getting the right product at the right price."

The study by Powers Brown is divided into three residential developments, with each responding to unique sets of criteria.

High-Rise, High-Density

The study of the nine-block area west of the George R. Brown Convention Center explores different land uses, including how to incorporate an existing, privately owned greenspace located directly in front of the convention center. Brown's firm developed several potential configurations, with each preserving views west toward the center of downtown. This aspect of the project is anticipated to create 3,000 to 5,000 residential units (about 1,100 sf, with two bedrooms) in several high-rise buildings, perhaps some as tall as 40 stories. This segment of downtown is expected to be linked to other parts of downtown , as well as to the rest of the city, by a future light rail line.

Low-Rise, High-Density

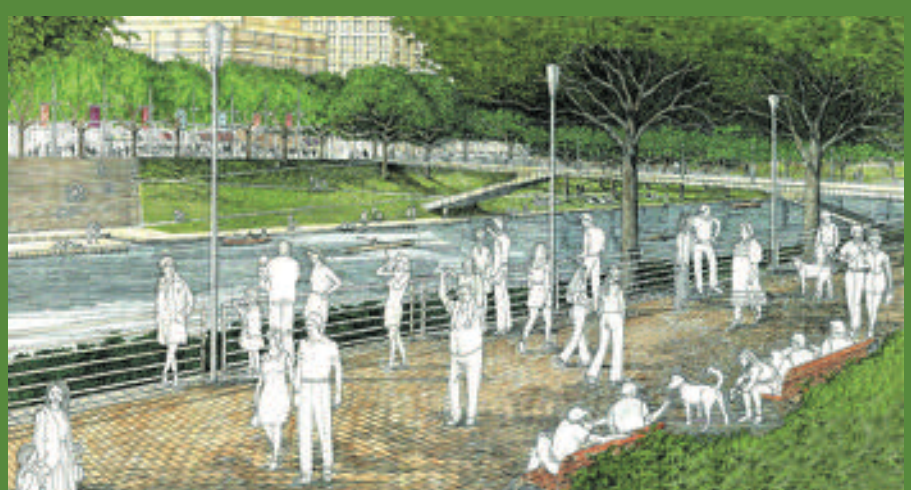
Located south of the convention center and the Toyota Center basketball arena, the architects have amassed eight blocks on either side of Pease Street. The biggest challenge to residential developers is the relatively remote site, which is not included in any future plans for light rail. The low-rise structures would be limited a height of 75 feet, allowing for buildings as tall as eight floors. The number of potential residential units is 2,500 (also about 1,100 sf).

High-Rise, Multi-Use

The 12-blocks on either side of Main Street at the southern end of downtown is different in that it mixes residential with offices and other types of spaces. The proposed scheme includes three or four high-rise buildings along with other mid-rise structures. The total number of residential units is 3,500. The light rail link already is in place and the neighborhood is served by two existing Metro Light Rail stations.

Rather than calling his firm's project a master plan, Brown prefers the term "a framework of development scenarios" to describe the study of aggregating blocks of private and public land into three distinct areas with specific uses. "For us the real issue became the ability of each pattern to stimulate or accommodate the variability of real market conditions," says Brown, underscoring that the study had less to do with aesthetics than efficient land us and incentives for development. The main consideration, he says, is the long-term economic viability of the future developments and the residual effects on downtown as an interconnected community.

The overarching objective of the work of the six task forces, according to Hagstette, is to plan far enough ahead for Houston – with the fourth largest population in the U.S. – to remain competitive in the international marketplace. "For Houston as a whole it has to have an urban lifestyle to compete globally," Hagstette says. The new paradigm for all U.S. cities is urban residential, he says, and Houston has set its 2050 goal at 20,000 urban residents, which city leaders consider the necessary number to sustain retail and other downtown amenities. The work so far has produced critical results – light rail, a thriving theater district, two sports arenas, the convention center hotel – that allows Houston to take the next step forward. "The vision is more exciting than what we've already done, " Hagstette says. "Now we're creating a city."



Focus on Quality of Life

Creating a livable city involves more than developing residential blocks. The future inhabitants of downtown Houston will desire a quality of life much the same as their neighbors enjoy beyond Loop 610. Recent improvements and plans for more improvements in the near future to enhance to the downtown experience.

A $62 million streetscape project in a 90-block area stretching across the north end of downtown was completed last year that altered sidewalks to make them more pedestrian friendly, as well as adding many new on-street parking spaces. The Cotswold Project, designed by Rey de la Reza Architects, also added numerous landscaping and public art features to the street scheme that extends from Buffalo Bayou to Minute Maid Park. With water as one of the project's themes, artists created 12 fountains—eight along Preston Avenue and four on Congress Street. Sidewalks were widened to make room for the fountains, with the largest measuring 14 feet tall. Another major improvement project is intended to make Buffalo Bayou into an urban amenity. In 2002, the nonprofit Buffalo Bayou Partnership produced a master plan for 10 miles of the neglected urban waterway that is hoped to help achieve that goal.

The master plan envisions a mixed-use neighborhood at downtown's East End. Richardson Place (shown in a rendering at top left) is planned to provide opportunities for varying densities of low-impact residential development flanking a wide, tree-lined pedestrian mall.

Gable Street Landing (shown at bottom left) is planned as a major new entertainment district center and northern terminus to the Crawford Street "Super Boulevard." The project provides an inviting link between Buffalo Bayou's waterfront and the district around the George R. Brown Convention Center.

Another downtown project is the North Canal, which will be designed to accommodate cafés, places for watching new water-based events, and other pedestrian activities.

Industrial Makeover

by STEPHEN JOVICICH, AIA

PROJECT 2450 Holcombe Boulevard, Houston
CLIENT Texas Medical Center
ARCHITECT W.O. Neuhaus Associates, Architects
CONTRACTOR Spaw Maxwell Company
CONSULTANTS E&C Engineers & Consultants (MEP); Ashkar Engineering Corportion (structrual); Walter P. Moore & Associates (civil); The Office of James Burnett (landscape); Bos Lighting Design (lighting); FD2S (graphics); Rolf Jensen & Associates (Fire Protection); Hal Caton Consulting (codes)
PHOTOGRAPHER Richard Payne, FAIA

THE new renovation of the Nabisco plant on Holcombe Boulevard in Houston is an excellent example of adaptive reuse, giving new life to an architectural icon and providing additional space for the ever-expanding Texas Medical Center. Converting the existing structure to meet an evolving and largely unknown program proved to be no small challenge. The client's objectives included redesigning the space for a variety of tenants, developing a coherent design principle that would integrate the entire facility, maintaining its industrial character, and of course, designing for the least possible construction cost.

Chosen by TMC for the work, the offices of W.O. Neuhaus and Associates rose to the challenge. The firm approached the project not as a renovation, but as a "re-creation" that takes advantage of the wide array of volumes, light conditions, infrastructure, and existing materials found in the original plant. The sheer size of the facility – capable of sheltering five Boeing 747s aligned end to end – has been mastered by applying street-like organizing principles to the exterior as well as the interior.

Exterior changes build upon the existing structure and serve well to celebrate the industrial heritage of the plant. Masonry changes were effected with new terra cotta bricks made from the same California clays as the original. Clear metal elements (rails, canopies, sun shades, and panels) used on the exterior enhance the industrial motif and yet serve to soften the structure. New open expanses of storefront and metal cladding on the existing four-story eastern tower adds visual interest and brings the otherwise massive box down to a more human scale. The improvement sparked TMC to make changes to the water tower in the distance, further integrating the building with its surroundings. New, strategically placed open-air exit towers serve to break up the massive structure. Clad with perforated metal panels, the towers provide a delightful dichotomy—reading as opaque panels in daylight, they transform at night into transparent, illuminated beacons.

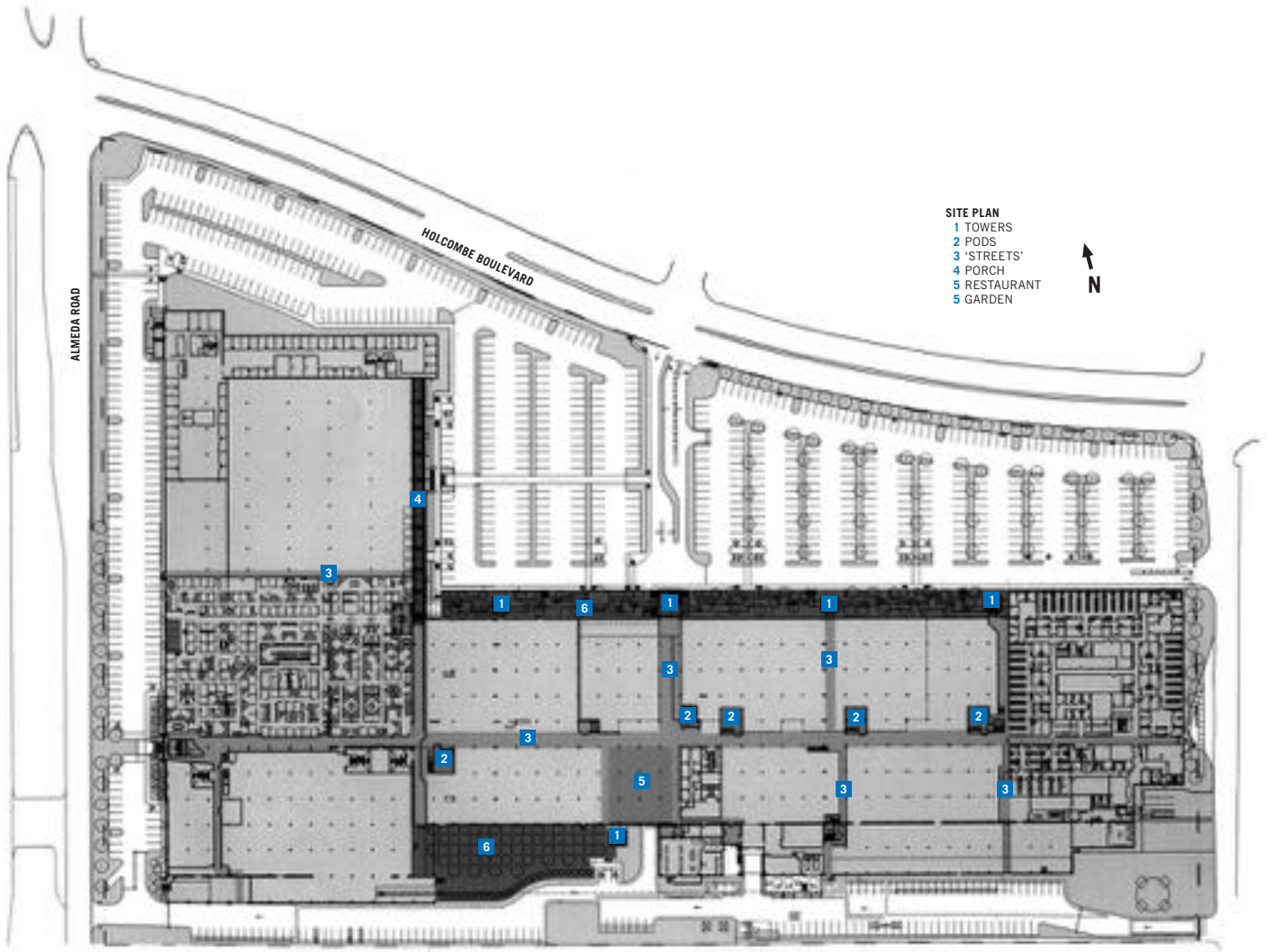
The long stretch of loading dock on the northwestern façade was outfitted with new overhead metal canopy that created a continuous outdoor breezeway with direct outside access for tenants. Another loading dock area was enclosed with new brick and glass block to create new conference/office areas identified by their original loading dock numbers above. Existing, high bay windows were lengthened to improve light into and provide views out of the office spaces along the perimeter. An interesting dialogue in transparency is created through their novel approach in fenestration. Transparent glass-block window walls were fit with small (2 x 3-foot) tinted plate glass set into its clear metal frame thereby permitting considerable light and privacy yet allowing a direct visual connection to the outside.

A well-conceived landscape plan, devised by the Office of James Burnett, further minimizes the building mass, softens its edges, and creates a number of welcoming garden spaces. The blend of formal and informal landscape concepts differentiates facades and defines views of the big box. Trees are placed to provide future summer shade for the new fenestration. Where integrated with traditional rows of shrubs, the trees enhance the sense that one is passing along a street of separate buildings. Less structured casual gardens entice visitors and occupants to pause in these private "backyard" spaces planted with a wide variety of grasses and flowering plants.

Interior design criteria encourage open ceilings, allowing the original structure and mechanical systems to be expressed throughout; no doubt, at significant cost savings as well. The multistory open volumes demonstrate the radical change from enclosed single stories that responded to the specific needs of the original food processing plant. Large expanses of sawtooth clerestory and light wells created by the multilevel atria create an ever-changing level of daylight. The changes in light and volume allow the eye to create a multitude of spaces within. Embracing the use of light and transpar-

COURTESY W.O. NEUHAUS ASSOCIATES, ARCHITECTS

(opposite page) The "re-creation" of the former Nabisco plant celebrates the structure's industrial character. (top and above) The interiors also retain the original industrial aesthetic.



ency, the majority of the tenants' lease space designs allows for light infiltration and views between public and private space. The visual interplay between public and private space develops a complex layering much like one finds while window-shopping at a retail center. The criteria of openness was largely met by the various design firms hired to create the individual tenant spaces.

Other interior design schemes make effective use of existing conditions, such as the forest of structural columns that remains. (Original labels stenciled high on the masonry are used as tenant "addresses" and serve as an easily understood wayfinding device.) Wide expanses of the original maple flooring stretch through the facility and the design criteria encourage their reuse. Furthering the concept are four new office "pods" placed along the interior "street" which act as brightly colored landmarks that denote the different uses of spaces set sequentially along the well-worn path. The mechanical system also integrates well within the organizing concept. Mechanical systems and utilities are racked vertically against the top of the hallways, thereby celebrating the industrial aesthetic and adding visual interest.

Old buildings have tales to tell and the former Nabisco plant must have many. A hint of one of its untold stories lies buried deep within. Inside one particular lobby, next to one particular elevator, a recent visitor found himself transported into the building's bygone days by the rich, sweet scent of vanilla that conjured up the "ghost of cookies past." Infusing new life into old structures helps us retain our cultural heritage while meeting today's needs, and undoubtedly sets a new stage for more stories to unfold over the many years to come.

Stephen Jovicich, AIA, is CEO of Heights Venture Architects LLP.

(opposite page) Exterior changes enhance the industrial motif while serving to soften the original structure.

RESOURCES ACOUSTICAL CEILINGS: Acoustical Concepts, Inc.; ARCHITECTURAL METAL WORK: Advanced Metals; PLASTIC LAMINATE CASEWORK/SOLID STRUCTURE: American Fixtures Cabinet Company; MEMBRANE ROOFING: Koppers; PRECAST BENCHES: Flint Concrete Construction; GRAPHICS: GraphTec, Inc.; ORNAMENTAL FENCING: Iron Access; TERRAZZO: National Terrazzo Tile & Marble; CONCRETE PAVERS: Pavestone; CONCRETE COLORING: L.M. Scofield; STRUCTRUAL CLAY TILE: Elgin-Butler; GLASS BLOCK: Pittsburgh Corning; SPLITFACE BLOCK: Eagle-Cordell Concrete Products; MASONRY RESTORATION AND CLEANING: ProSo Co.; ENTRANCES AND STOREFRONTS: Kawneer; GLAZED CURTAINWALL: Kawneer; METAL CLADDING: Centria; TILE: DalTile, Armstrong

Flanked on the left by the new Cathedral Centre, the refurbished San Fernando Cathedral stands at the center of San Antonio.

Faithful Restoration

by BEN HEIMSATH, AIA

"IT all started with some cracks in the arches that hold up the dome," says the Rev. David Garcia, the rector of San Antonio's San Fernando Cathedral. "We had just finished celebrating our first really successful fund drive when one of the finance committee members pointed out the cracks and told me it was time to do something to the building." That something turned out to be a nearly $20 million effort to restore the historic cathedral in the heart of downtown , as well as to design and build two other buildings. While the additional facilities were considered important to the congregation, the main focus was the preservation of the cathedral, which due to decades of improper maintenance was literally crumbling. Another significant aspect of the cathedral project was the long-overdue reconfiguration of the floor plan to accommodate the needs of modern liturgy.

There was no clear guide to restoring and adapting a building considered by some to be the oldest extant cathedral in the United States, the spiritual home of the nation's longest continuously active Catholic parish. Most of the original sanctuary, completed in 1755 for the Canary Islander colonists, remains and forms the domed space at the rear of the building. By monitoring the cracks in the arches, it was soon determined that the integrity of the all-stone structure was failing. The Spanish Colonial-era church was greatly expanded in the 1870s under the direction of French architect Francis Geraud who introduced a new nave and major facade in a French Gothic style. Geraud razed the front third of the old church, but spared the dome and arches to house the altar area in the expanded building. Eventually, two towers were completed to grace the entrance.

Previous attempts at restoration were severely limited in funding, including one undertaken in the 1970s by O'Neil Ford. Finally, with $8.5 million budgeted for the daunting project, the congregation

PROJECT San Fernando Cathedral, San Antonio
CLIENT Archdiocese of San Antonio
ARCHITECT RRT Architects and Fisher Heck Architects
CONTRACTOR SpawGlass Construction
CONSULTANTS Richard S. Vosko (liturgical); Rialto Studio, Inc. (landscape); WSC, Inc. (structural); Lizcano Consulting (mechanical & electrical engineering); Pape-Dawson Engineers, Inc. (civil); Center for Archeological Research UTSA (archeologists); Schuler & Shook (lighting); Robert F. Mahoney & Associates (sound); Wrightson, Johnson, Haddon & Williams, Inc. (tv production); Restoration Associates, Inc. (decorative finishes and historic colors)
PHOTOGRAPHER Fisher Heck Architects (except where noted)

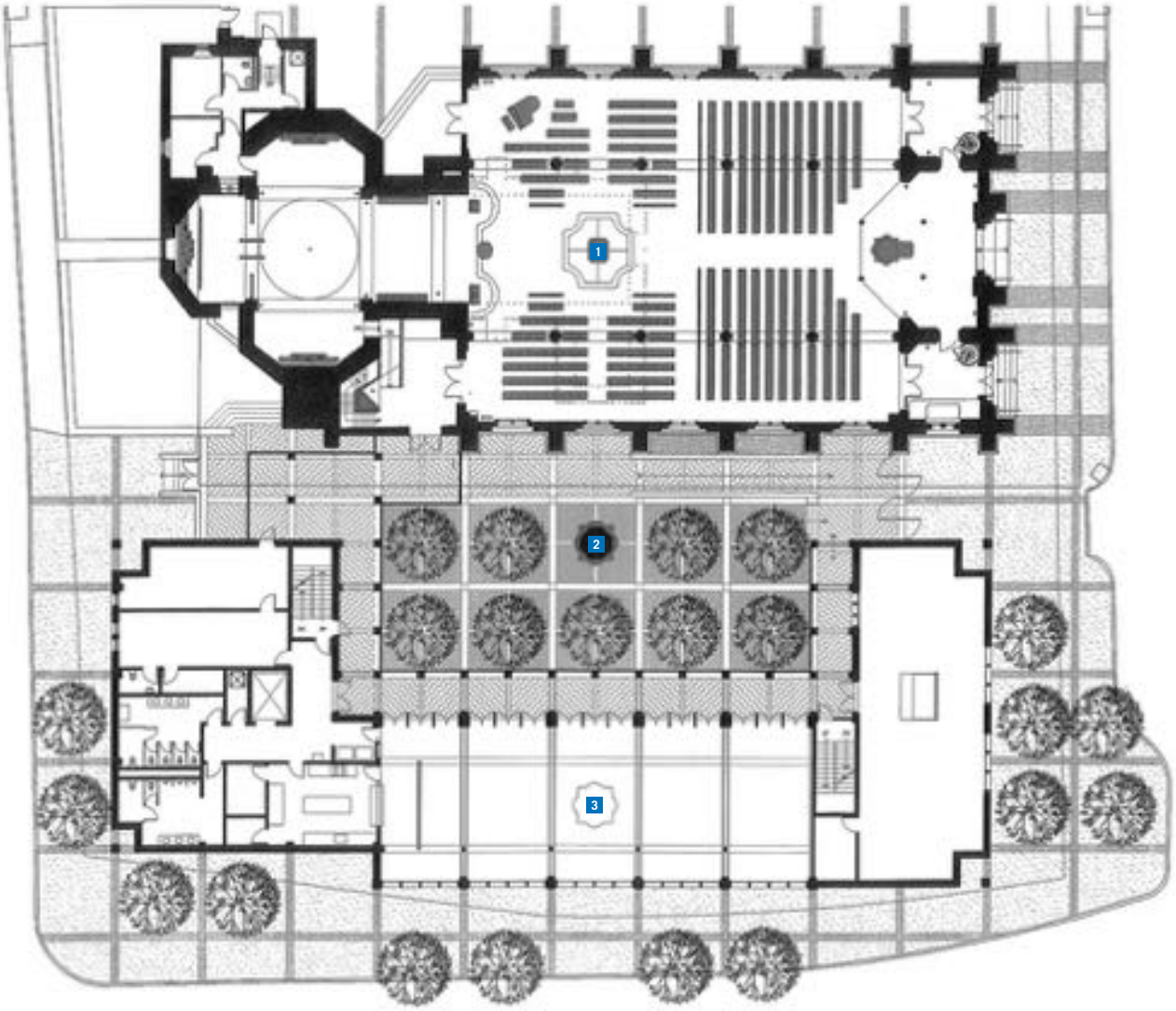
(inset) Artisans replicated ceiling panels in the studio of Restoration Associates. (right) The altar, previously set in the foreground, was repositioned near the center of the renovated nave; photo by Al Rendon. (opposite page) The site plan includes a preliminary configuration for the cathedral interior. See page34 for the finalized floor plan.

hired the Rev. Richard Vosko of Albany, New York. Vosko is a noted liturgical consultant who has been instrumental in organizing other cathedral renewal programs. Issues of improved functionality for the needs of the modern liturgy are his usual focus. Under Vosko's guidance, the congregation followed a program of intensive study and prayer. As part of this process the leadership developed a vision of how work on the building would impact their expanding view of the cathedral serving as the heart of the city. According to Father Garcia, they came to see the restoration as adapting both the historic building and the historic function – both spiritual and secular – to life in the twenty-first century.

While the planning team members all agreed on several key aspects of the San Fernando project, diverging opinions arose in regards to their approach to the program. For example, they agreed that the Colonial (the older, domed space) portion of the building would become the new Reservation Chapel (sacred location for the tabernacle, which holds the consecrated host, or Eucharist, in reserve) and that the Gothic portion would become the main nave through use of a moveable platform and new altar table. However, according to the *San Antonio Express News*, the congregation's leadership initially disagreed with Vosko's plan to reorient the seating and replace old liturgical arts with contemporary interior adornments.

As for the sentiments of San Fernando's largely Hispanic congregation, Father Garcia says the parishioners' strong connection to Catholic tradition caused them to take a different approach, integrating old ways into the updating recommended by Vosko. "For example," he says, pointing to the church's statues of saints, "several were not that great artistically, but they have deep meaning for the people, even today." Eventually, under the leadership of an architectural team, the fixed pews were restored and reconfigured to provide about two-thirds of the seating, while movable seating is provided in the first two rows surrounding the altar area and for overflow seating in the remains of the Colonial nave.

After a national call for proposals, the congregation commissioned Rafferty Rafferty Tollefson, an architecture firm based in St. Paul, Minn., that had worked with Vosko on previous renovations. Local preservation expertise was provided by Fisher Heck Architects of San Antonio. With a wealth of historical documentation, the team took considerable pains to piece together the building's historic evolution from the evidence in the physical structure and its interior ornamentation. Information gleaned from the research led the team to adapt and adjust the program. At the same time, preparations for construction revealed unequivocal evidence that the Colonial-era arches had deteriorated to a critical point. Excessive



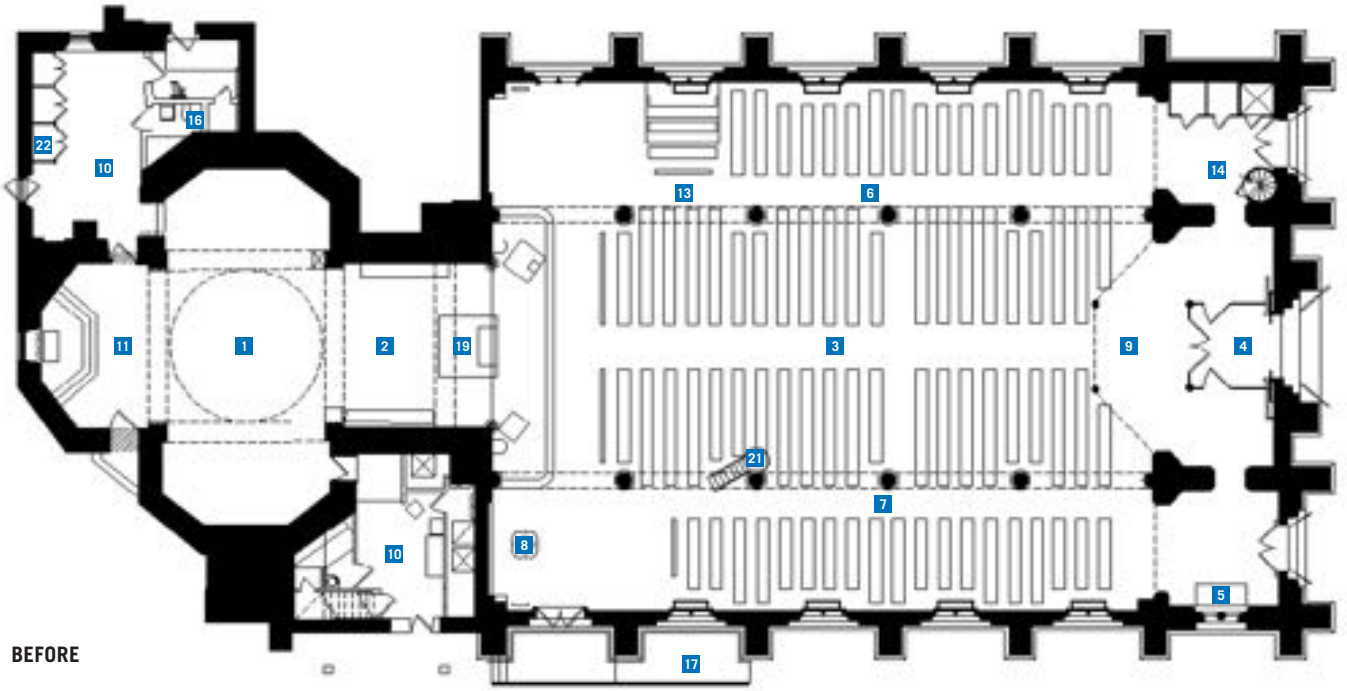
SITE PLAN
1 CATHEDRAL
2 COURTYARD
3 CATHEDRAL CENTRE

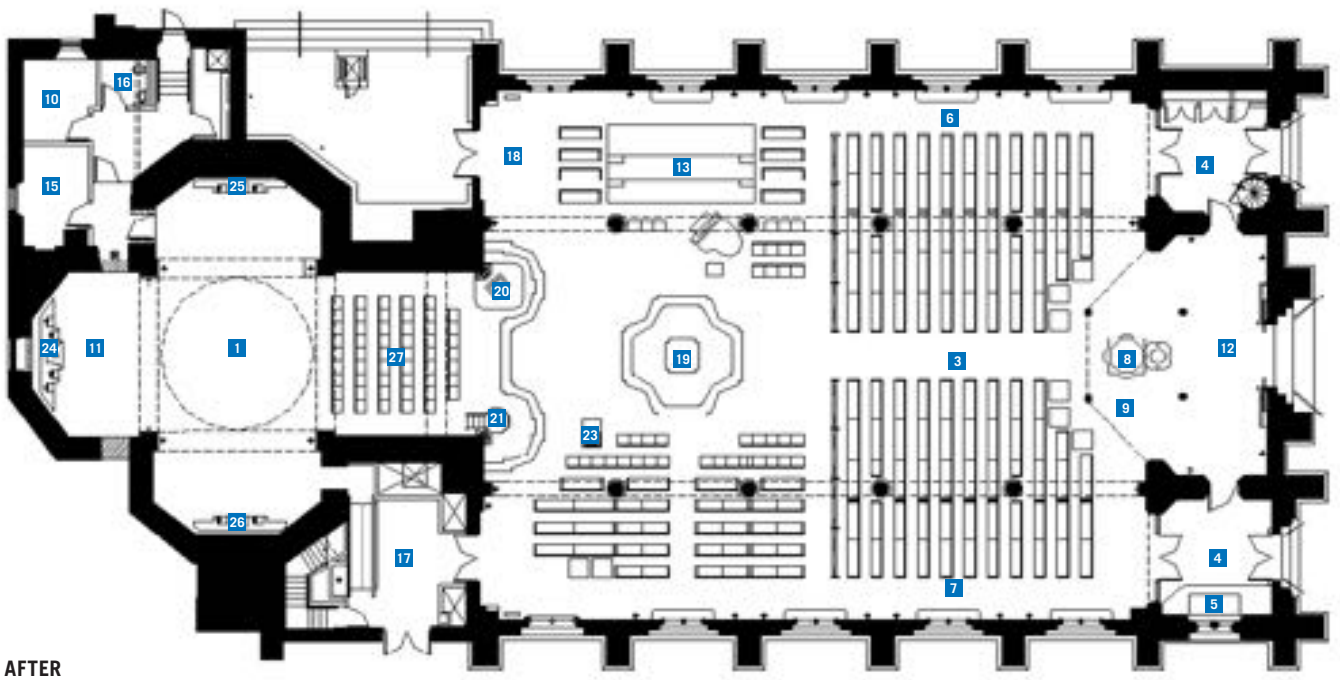
moisture, trapped under layers of Portland cement, along with almost 250 years of stress, had caused major voussoir stones to be crushed nearly to rubble. The architectural team decided that the arches were in danger of collapse and would have to be rebuilt with new stone to preserve the structural integrity of the dome above.

The work on the dome itself proved to be equally as challenging for the architects. After careful replacement of many segments in the arches, the stone was allowed to dry out. A chemical dampproofing course was injected into the base of the Colonial walls to stop or retard rising damp. Nonetheless, these sometimes four-feet-thick walls will continue to dry out above this treatment for several more years. The roof over the Colonial church posed a unique puzzle. Waterproofing of some kind was necessary over the masonry dome and vaults (which had been completely repointed and then covered with an appropriately soft lime plaster) to keep water out while at the same time allowing the moisture to migrate out. This was the problem that caused the crushing of the stones—the very issue that the building program initially set out to remedy. Annie Sauser, the project manager for Fisher Heck, says she sought referrals from many preservation colleagues on a suitable material for the dome but to no avail. Sauser eventually specified a brush-applied polymer system, recommended by a local roofer, which creates a flexible membrane claiming to be impermeable to water but permeable to water vapor so that moisture which inevitably migrates into the stone can escape. Although pleased with the initial application, she says the long-term performance is not yet proven and will need to be carefully monitored.

Meanwhile, as work proceeded on the dome and arches, several unexpected events helped the architectural team and the congregation reach a compromise over updating the church's liturgical arts. Removal of plaster from the interior walls of the Colonial church revealed the burnt ends of timbers inset into the walls in a triangular pattern at all three apses. These were believed to be remnants of ties for old altar screens, or *retablos*, from the Spanish Colonial era. San Fernando's leadership decided to commission three retablos in the eighteenth-century tradition to be mounted in the three apses flanking the dome. To celebrate the congregation's heritage, each of the two side screens would depict the patron saints of the Canary Islands (Nuestra Señora de la Candelaria) and of the New World (Nuestra Señora de Guadalupe).

But it is the dazzling gold retablo, set on axis with the nave, that dominates the domed space. The screen is covered with sheets of 24 karat gold leaf, with a small door at its center to hold the Eucharist. A special art



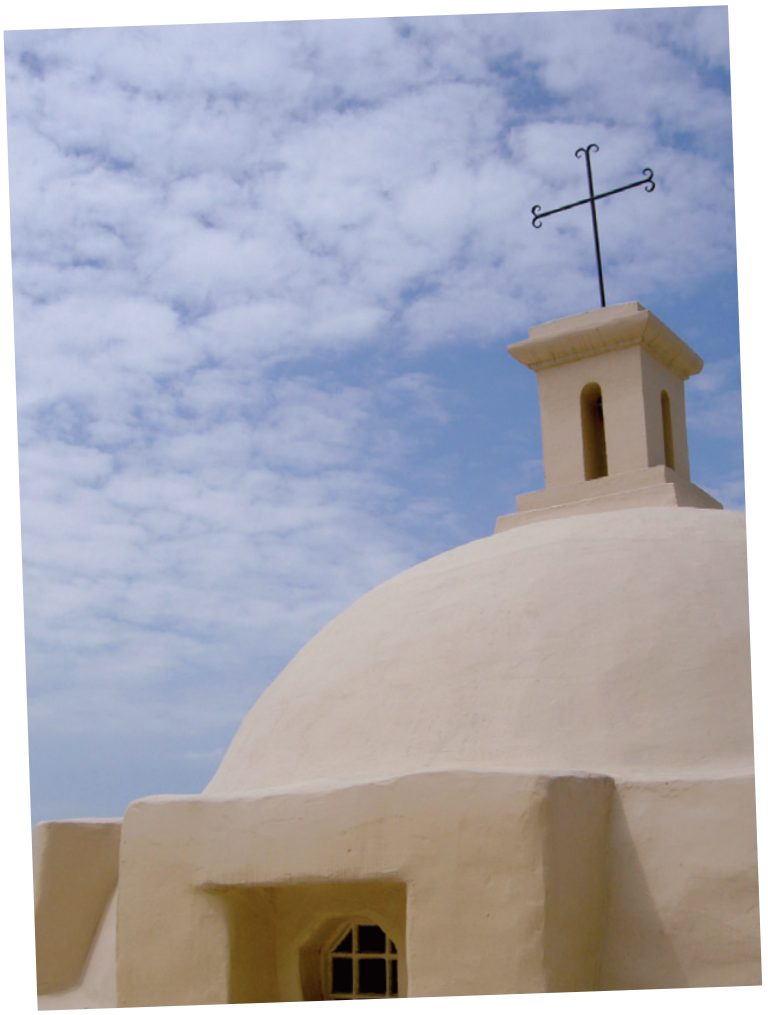


FLOOR PLAN

1 DOME ABOVE
2 COLONIAL NAVE
3 GOTHIC NAVE
4 VESTIBULE
5 CRYPT OF "ALAMO HEROES"
6 NORTH AISLE
7 SOUTH AISLE
8 BAPTISMAL FONT
9 CHOIR LOFT ABOVE
10 SACRISTY
11 RESERVATION CHAPEL
12 NARTHEX
13 CHOIR RISERS
14 CONFESSIONALS
15 RECONCILIATION ROOM
16 RESTROOM
17 SACRISTY
18 HANDICAP RAMP
19 NEW EXIT DOORS
20 CATHEDRA
21 HISTORIC AMBO
22 STORAGE
23 PRESIDER'S CHAIR
24 RETABLO MAYOR
25 CANDELARIA RETABLO
26 GUADALUPE RETABLO
27 OVERFLOW SEATING

A Reconfigured Floor Plan

The restoration work on the interior of the Gothic nave was limited to a three-month period, further challenging the architectural team to plan ahead. Prior to that phase getting underway, the decorative ceiling panels were removed for off-site replication and the pews were sent out for refinishing several weeks before the cathedral closed. The timing proved to be advantageous, particularly in regard to introducing the congregation to accepting planned reconfiguration of the altar and pews. "This really assuaged the fears of any remaining skeptics," says project manager Annie Sauser of Fisher Heck Architects, "because they could see and feel, in real spatial terms, that the changes were not going to be at all uncomfortable." The "After" rendering above illustrates the new configuration, which can be re-organized by moving the altar platform into an interlocking position with the steps to the left.



(left) The interior of the chapel dome, dating from the Spanish Colonial cathedral of 1755, was where visible cracks in the arches led to the renovation project. (below) A welcoming courtyard now fills the outdoor space between the cathedral and the new addition; photos by Ben Heimsath, AIA.

committee was formed which searched throughout Mexico to find the craftsmen schooled in the ancient arts associated with the glorious altar screens. They chose Leonardo Soto Recendiz, an artisan expert in the restoration and repair of many of the finest screens, including the Mexico City Cathedral. Together with Recendiz, the art committee generated a new design based upon their analysis of many examples from the Colonial era. "Except for the burnt timber ends, there was no record of what the screen looked like—no photographs or sketches, no written description," says Annie Sauser. "So they designed a new one in the Colonial style." The component parts were initiated in Mexico and then shipped to San Antonio where the Mexican workers stayed on site for weeks to accomplish the gilding process.

Sauser explains that the congregation's desire for replications of old retablos at first seemed to run counter to standard preservation guidelines because the new pieces could be confused with the building's original elements. As Father Garcia says, "We had to go with what was right for this building. There are so many layers of history and tradition tied to the Hispanic culture here, it wouldn't be right to impose something new." He continued: "We are in a long line of stewards who have been responsible for this place. Every generation has to take its turn, and, if they are up to it, contribute something. I just feel our turn came, and we had to preserve the structure, but I also hope we've contributed to keep this place alive for the next group we hand it to. As much as we learned from Richard Vosko, I think he learned quite a bit from us as well."

Ben Heimsath, AIA, is a principal of Heimsath Architects in Austin.

RESOURCES RESTORATION OF DECORATIVE CEILING PANELS: Restoration Associates, Inc.; **CROSS CUT TRAVERTINE FLOORS:** Delta Granite & Marble; **STONE:** Garza Masonry Stone, Inc.; **CASEWORK:** Hausmann & Hausmann; **SOUND EQUIPMENT:** Southwest Sound; **WATERPROOFING MEMBRANE:** G C Polymers, Inc.; **WOOD DOORS:** Allen & Allen; **COPPER ROOFING REPAIRS AND WATERPROOFING:** American Roofing and Metal; **MASONRY RESTORATION:** Curtis Hunt Masonry Restorations; **REPAIRS AND RESTORATION OF STAINED GLASS WINDOWS:** Cavallini, Inc.

Restaged Classic

by BRYCE WEIGAND, FAIA

PROJECT Casa Mañana Theatre, Fort Worth
CLIENT Casa Mañana Inc.
ARCHITECT Gideon Toal
CONTRACTOR The DeMoss Company
CONSULTANTS Summit Consultants (MEP); 2c Lighting (lighting); Fisher Dachs Associates (theatrical design); Gideon Toal (structural and landscape)
PHOTOGRAPHER Hester + Hardaway

FOR many visitors to the Fort Worth Cultural District, the approach from Interstate 30, north on University, and to the splendors of the Kimbell Museum, the Amon Carter Museum and now the new Modern Art Museum of Fort Worth, is a destination drive to rival any Sunday cultural outing to that continually maturing and enriching district.

Casa Mañana Theatre was the gatepost to the Cultural District that many us simply drove past on the way to High Renaissance paintings, delightful garden lunches in the Kimbell, or a rough and tumble rodeo at Will Rogers Coliseum. Not much thought was given to the novel aluminum dome other than wondering if Bucky Fuller had a hand in it decades earlier. (Contrary to popular belief, Fuller's involvement was only tangential: he conceived the geodesic prototype in the late 1940s.)

The original Casa Mañana of the mid-1930s grew from Amon G. Carter's dream of a celebration place for Fort Worth after Dallas was selected as the site of the official Texas Centennial Celebration in 1936. And what a place it was: a large outdoor amphitheatre seating 4,000 for dinner and a show. The Amphitheater – featuring a moat, Roman arches, and a fountain that sprayed water and served as the curtain for the stage – was the centerpiece of Carter's vision of 40 acres of Wild West shows, midway attractions, and sideshow exhibits.

The beauty and music of Broadway productions flourished for four years, through 1939 when the high cost of productions and the imminentthreat of World War II led to its being dismantled; the steel recycled to support the war efforts.

In the intervening 20 years, however, the dream continued and was given new life in 1958 by Fort Worth philanthropy and civic leadership. The new Casa Mañana Theatre was constructed in a record-breaking 114 days as an air-conditioned, fully enclosed, theater-in-the-round, with seating

for 1,805. Set under a 120-foot-diameter shiny aluminum dome, the farthest seat away from the center-stage action was a mere 36 feet. This created an intimacy with the players which audiences found very appealing. Unfortunately, due to the theater-in-the-round configuration, productions were limited and set movement was visible with the outer-ring public concourse also doubling as the only backstage.

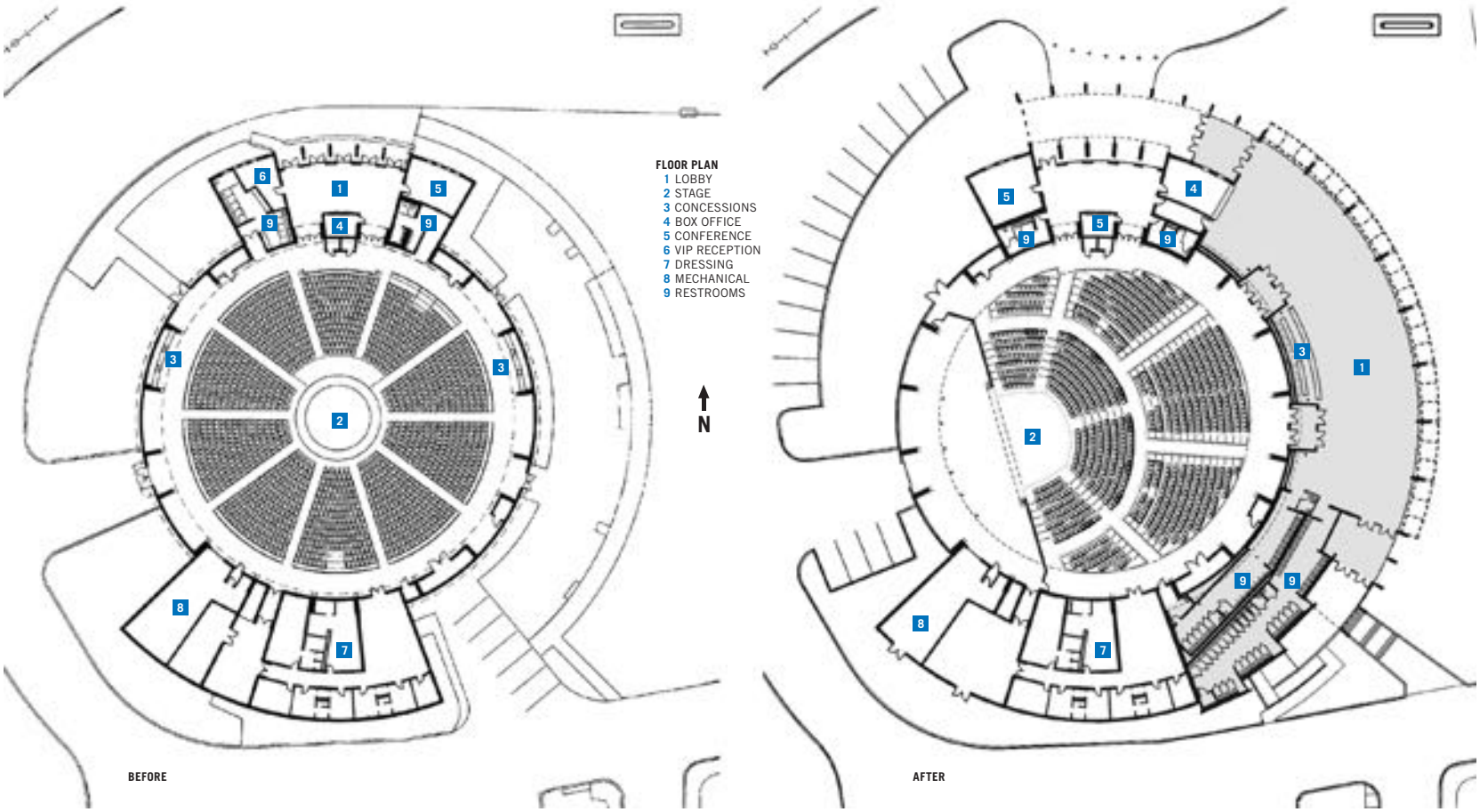
Nevertheless, Casa Mañana continued and prospered with The Children's Playhouse season. Reaching nearly 150,000 parents, teachers, children, and students annually for over 40 years, the Theatre School has become one of the largest acting schools in the country. It was this success, as well as the Casa Mañana Musicals, which created the need for expansion and improvements.

In 1993, planning began to enable the production of all types of theatrical performances, facilitate expanded workshops and outreach programs, and bring live theater to Fort Worth.

GideonToal Architects, along with theatrical consultants Fischer-Dachs Associates, converted the theatre-in-the-round to a modified thrust proscenium setting. By moving the stage action to one side of the dome and creating a sloping floor rake of approximately eight feet, sight lines for the newly configured 1,100 seats are enhanced. With rear seats only 65 feet away, all theatergoers are still able to distinguish the actors' facial expressions. A simple wall flanking the stage frames curtains and the free-floating stage light rigging is suspended overhead.

Retaining the shiny aluminum foil canopy, the performance interior functions with contemporary production amenities. New seating and interiors in tasteful blue, black and gray shades along with the kinetics of the dome structure, the exposed light rigging and all associated safety features lend an air of anticipation to the magic of theatrical performance. In addition, as an extremely successful

(opposite page) The theater's iconic geodesic dome rises above the newly completed addition at the far left. (above) The reconfigured stage reduced seating to 1,100 from the original 1,805, but the modified thrust proscenim setting expands production opportunities.



children's theatre venue, the dark rich colors in the theatre and new durable seating helps mitigate the effect of tiny hand and shoe prints.

In the outer ring of the dome, the architects have dramatically expanded the original miniscule lobby, restrooms, box office, and front office spaces. By layering a slice of space approximately 45 feet wide by 250 feet long, a generous lobby, concession area, box office, and new restrooms were created. With floor-to-ceiling glass 20 feet high, this "window to University Drive" provides a welcoming front door to the complex. Entry access is achieved from both directions (from the north parking lot and from a parking garage to the south) to funnel theatergoers into the bright, spare lobby. The periwinkle blue of the theater entry vestibules adds a spot of color. Stained concrete floor with bronze patron stars and simple, clean ceiling detailing complete the interior palette. The austere décor of the lobby provides just the right backdrop for the display of show posters and excitement of the milling patrons. Windows from the lobby give a glimpse of the dome structure beyond and reveal the "bolt together" nature of the original Alcoa Aluminum Kit structure.

On the window wall side facing downtown, muscular sunscreens (rendered in galvanized steel) recall the character of the 1958 iconic dome. The sunshades provide a transition to the public face amidst landscaping of mature live oak trees. The scale is right for the juxtaposition of the heroic poured-in-place concrete of Farrington Football Field directly east across University Drive.

With this new expansion and much needed improvements, Casa Mañana – "The House of Tomorrow" – will have many more tomorrows. The color and lights of bright evening performances will put a shine on this near west side of Fort Worth and no doubt would make Amon Carter proud these 70 years later.

Bryce Weigand, FAIA, is a principal at Good Fulton & Farrell Architects in Dallas.

(opposite page) The new addition's curvilinear lines literally and figuratively embrace Casa Mañana's original 1958 domed structure.

RESOURCES ENTRANCES AND STOREFRONTS: Vistawall; GLASS: Viracon; GLAZED CURTAINWALL: Vistawall; TILE: Dal Tile; ACOUSTICAL METAL CEILING: Alpro Acoustic Systems; MATERIALS AND RESOURCES: Shaw Commerical (carpet); SIGNAGE AND GRAPHICS: APCO; FIXED THEATRE SEATING: American Seating; ROOFING: GAF (modified bitumen); FLOORS (STAINED CONCRETE): Tim Pulliam; INSULATION: Energy Guard (GAF)

ExxonMobil Upstream Research Company Technical Training Center

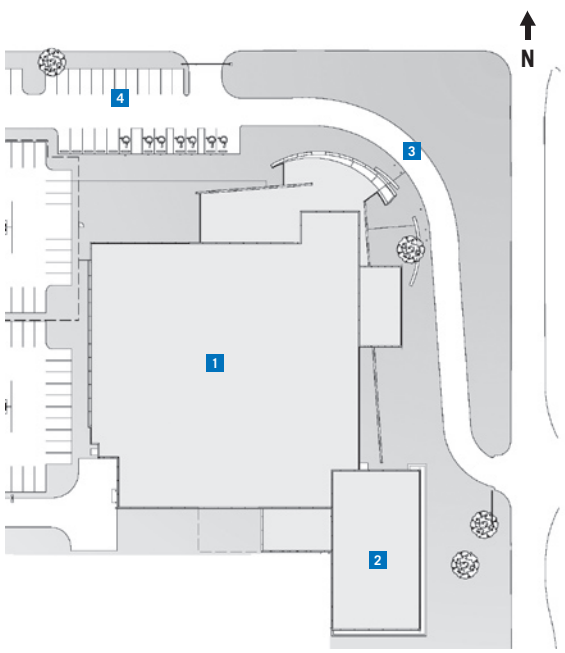
PROJECT ExxonMobil Upstream Research Company Technical Training Center, Houston
CLIENT ExxonMobil Upstream Research Company
ARCHITECT PageSoutherlandPage
CONTRACTOR D.E. Harvey
CONSULTANTS Shen Milsom Wilke (av/acoustics); ASA Consulting Engineers (structrual); ARCADIS (civil); The Office of James Burnett (landscape); Sunland Engineering (traffic); HBC/Terracon (soils); Bridges International (roofing); Moisture Technology Corp. (curtain wall)
PHOTOGRAPHER Tim Griffiths

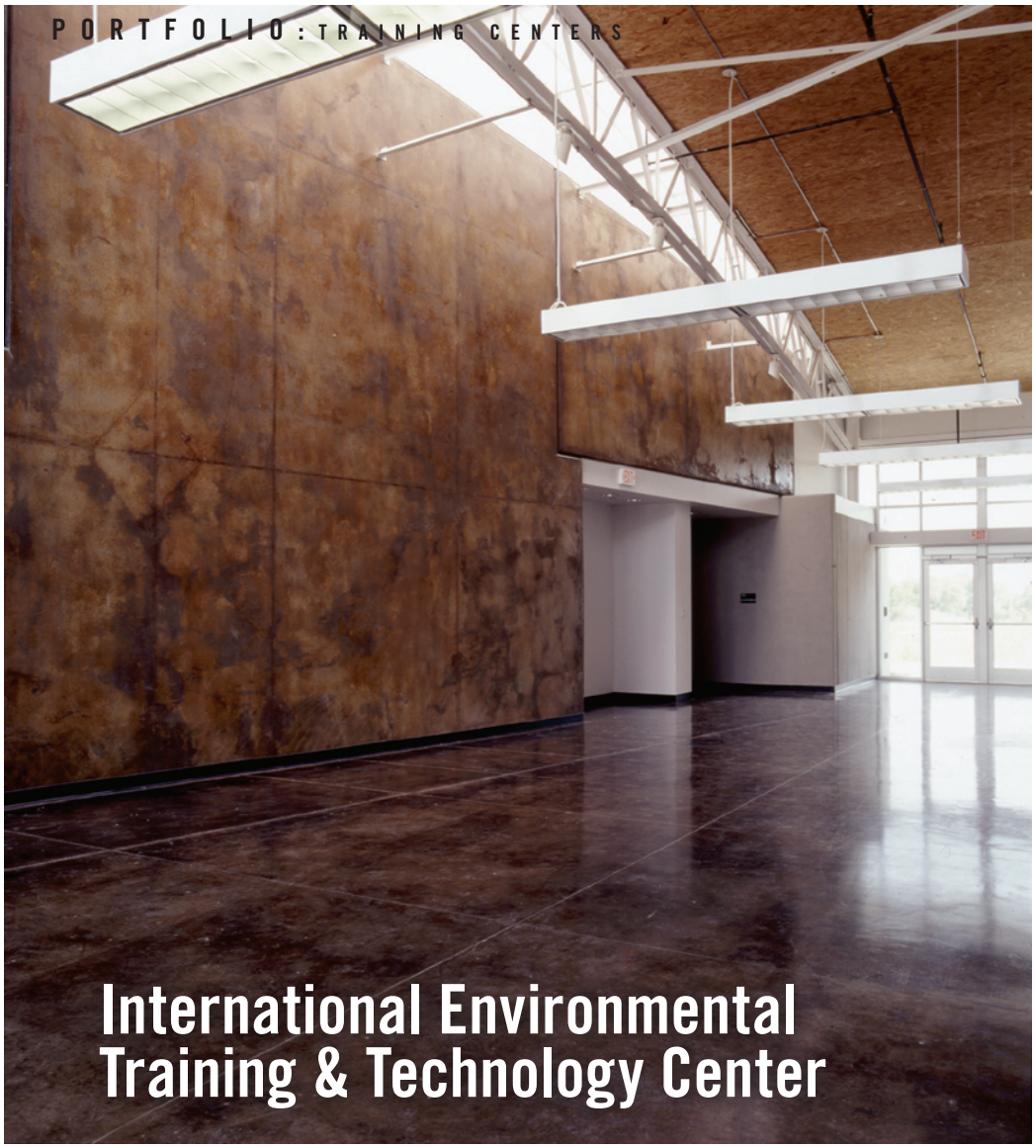
The design of the ExxonMobil Upstream Research Company Technical Training Center, completed in May 2004, blends the old with the new. The two-story 98,000-sf facility responds to the materials and horizontality of the existing Buffalo Speedway campus, but applies a new combination of forms and material relationships. The new building's design becomes more creative as it moves away from its junction with the 1950s-era McKie and Kamrath building, notable for its strips of brick, glass and shading devices. The new facility's facade steps toward the street in a series of layers composed of Central Texas limestone, glass, and brick. Another material - a canted curved metal panel - is introduced to represent ExxonMobil's innovative technology. The facility houses a grand lobby and gallery, classrooms of various sizes, two large areas for breakout sessions, as well as support and office spaces for training staff. The terrazzo floor in the lobby is an abstract pattern representing fluvial systems studied within the training center. Classrooms are equipped for the latest media, and a visualization classroom takes advantage of a large projection screen that can be configured in several ways, including as four sides of a cube. Parking for approximately 458 cars is provided adjacent to the training facility. The project distinguishes itself by covering a wide range of subject matter, from the tactile nature of oil field hardware and geologic material to the virtual world of computer models and simulations. All elements combine to create a training tool which will serve thousands of students annually from around the world who are involved in ExxonMobil's exploration, development, production, and research enterprises.

COURTNEY MAHAFFEY

RESOURCES MASONRY: Yankee Hill Brick & Tile; LIMESTONE: South Texas Stone Co.; CAST STONE: Stone Castle Industries; METAL MATERIALS (CURVED CANTED WALL): Baker Metal Products; RAILINGS AND HANDRAILS (INTERIOR METAL): Metal Concepts Fabricators; GLAZED CURTAINWALL: Accura Systems Inc; METAL CEILINGS: Ceilings Plus; OPERABLE PARTITIONS: Foldoor; INTERIOR METAL COLUMN COVERS: Baker Metal Products; CONCRETE: Hansen Building Materials; ROOFING: Tremco; LAMINATE FLOORING (VCT): Tarkett/Azrock; TILE: Ceramiche Caesar (Stone Marketing International)

FLOOR PLAN
1 CLASSROOM WING
2 OFFICE WING
3 DROP OFF
4 VISITOR PARKING





International Environmental Training & Technology Center

PROJECT International Environmental Training & Technology Center
CLIENT City of Dallas
ARCHITECT Omniplan, Inc.
CONTRACTOR Abstract Construction
CONSULTANTS GGO Architects (consulting engineers); Freese and Nichols (civil); G&S Consulting Engineers (MEP); Charles Gojer and Associates (structural); Caye Cook and Associates (landscape)
PHOTOGRAPHER Carolyn Brown

The City of Dallas received a new addition in the form of a waste-management training facility. The International Environmental Training & Technology Center is the first building of a new 50-acre Eco-Business Park that is expected to promote hundreds of jobs to a regularly underserved area. Completed in December 2001, the IETTC houses classrooms, laboratories, offices, and an auditorium in the 20,000-square-foot floor plan. Although working under a tight budget, the architects managed to produce a facility that attained LEED Silver certification. Recycled materials were used where possible in the eco-friendly IETTC, such as recycled fly-ash in the tilt-wall concrete mix. The plan is also solar efficient since the south side of the building has sunshades to reflect direct sunlight onto the ceiling, and trees shade the east and west sides. An inexpensive fresh air displacement system allows fresh air to enter when weather conditions permit. Due to its design, the building's energy-efficient performance exceeds the code mandated performance by 55 percent. The roof system employs insulation panels creating open spaces for maximum light and air to travel freely throughout the entire building. The IETTC demonstrates how the proper assembly of conventional technology can obtain green results.

AMANDA ABLACK

RESOURCES CONCRETE PAVEMENT AND MATERIALS: Lonestar Industries; MEMBRANE ROOFING: Carlisle Syntec; METAL ROOFING: AEP Span; SPRAYED ON INSULATION: Icynene Inc; WOOD DOORS AND FRAMES: Marshfield Door Systems; METAL WINDOWS: Columbia; UNIT SKYLIGHTING: CPI; ENTRANCE AND STOREFRONT: US Aluminum; PAINTS: PPG/Monarch Paint Co; CARPET: Design Weave; EXTERIOR SUN CONTROL DEVICES: US Aluminum; FLOORS (STAINED CONCRETE): Jagger Concrete; CONCRETE STAIN: Kemiko

FLOOR PLAN
1 CLASSROOMS
2 LOBBY
3 AUDITORIUM
4 LOUNGE
5 CONFERENCE
6 OFFICES

Counting Down to Zero

In Frisco, a homebuilder and architect set out to prove that a luxury home can also be energy efficient

By INGRID SPENCER

WHEN the first "zero energy home" in North Texas won the Overall Favorite House award in the Home Builders Association of Greater Dallas's 2004 Parade of Homes tour in September, no one was more surprised than the builder, Jim Sargent of AndersonSargent Custom Builder, and the architect, Peter Pfeiffer, FAIA, principal of Barley & Pfeiffer Architects in Austin. After all, the 3,800-square-foot, two-story house, located in the North Dallas suburb of Frisco, is no Tuscan villa. Neither ostentatious nor overly extravagant in its design, it has no interior waterfall, no wine cellar, and no butler's pantry. What it does have is enough smart design features, innovative technologies, and energy-saving strategies built in to bring its owners' energy bills pretty close to zero.

Sargent, who has been building high-performance homes since the 1970s, says he only intended the demonstration home to be part of the Energy and Environmental Building Association's (EEBA) conference this October in Dallas. To Sargent and Pfeiffer, the Parade of Homes award was an added bonus for their project—one of about 20 projects across the nation inspired by a federal government initiative called "Moving Toward Zero Energy Homes."

The initiative began in the late 1990s, when the U.S. Department of Energy's National Renewable Energy Laboratory (NREL) brought the concept to U.S. homebuilders. According to Tim Merrigan, program manager for NREL, the lab's Building America/Building Science Consortium program offers homebuilders an incentive – free advice from one of their partner consulting firms – to create homes that combine state-of-the-art, energy-efficient construction and appliances with commercially available renewable energy systems, such as solar-powered water heating and electricity generation. The program's objective is to achieve net-zero energy consumption from utility providers, who cooperate by using "net metering tariffs." (See sidebar on page 48.)

The consultant in this instance was Boston-based Building Science Corporation, a firm that specializes in sustainable-design consulting. Sargent chose Barley & Pfeiffer Architects to complete the team. Pfeiffer has spent the last 28 years advocating sustainable building principles to "mainstream" green design.

Pfeiffer's take on green design is to start with the basics, then move on to technologies and systems that reduce energy consumption. "Ninety-five percent of design screw-ups occur within the first five percent of design," he says. Because the house was designed in an established neighborhood, Pfeiffer faced such obstacles as having to place the home's entrance on the street side rather than choosing its placement to minimize direct exposure to the unrelenting Texas sun. With such restrictions in play, and given Frisco's hot, humid climate, Pfeiffer designed the neo-traditional-style house with the following building program basics:

Orientation and layout

In central Texas, the north side can be considered the coolest. Pfeiffer hugged the house to the north property line, and put the screened-in porch on the south side to take advantage of southern breezes. The central stair tower serves as a "thermal siphon," which pulls breezes through the house and upward. Although Pfeiffer wanted to detach the garage from the rest of the house ("We keep a lot of noxious materials in our garages that are not healthy to breathe," he says.), easier access won out. As a compromise, Pfeiffer positioned the garage to act as a "solar block" on the west side of the house, with screened vents on three sides to ventilate any fumes.

Skylights, windows, and roof

Pfeiffer used a simple tool – a sun-angle calculator – to size windows and overhangs to minimize solar gain. By angling the roof a little more than normal, he was able to use those overhangs to perfectly shade windows when the sun is at its highest point during the day. A north-facing, ventilating skylight above the stair tower works with the thermal siphon and provides maximum daylight to the house's core. In regards to the roof,

The house, designed by Barley & Pfeiffer Architects, was awarded "overall favorite" in the Home Builders Association of Greater Dallas 2004 Parade of Homes; photos courtesy Anderson Sargent Custom Builder.

Pfeiffer advocates using light-colored metal to minimize solar heat gain in the attic. However, for the Frisco demonstration house, Sargent had some manufacturers vying for product placement, which took precedence over Pfeiffer's first choice—an unpainted "galvalume" sheet-metal roof floating on lath strips to create a vented airspace beneath. Still, the completed roof is of an attractive, "spectrally selective" radiant finish. While a typical roof reflects between 10 and 20 percent of the solar radiation at the "near infrared" portion of the light spectrum, this one reflects 50 percent.

Tight design and construction

"Because of humidity you don't want breathable walls," says Pfeiffer. "You want to keep the outdoors out and the indoors in." Pfeiffer says that the design team put a lot of effort into making sure that the air in the house will be healthy and cleansed of particulates to reduce the chances of respiratory illnesses associated with poor indoor air quality. He accomplished that by venting the garage, and also with by specifying a few simple materials. Spray-foam insulation under the roof keeps the attic cool and sealed. The blocks used to build the walls are reconstituted wood and cement fused together to make a lightweight cinderblock. They're stacked, and concrete is poured into them to make them

Photovoltaic panels installed on the roof should generate most of the electricity for the house for nine months of the year.

CONTINUING EDUCATION SCHEDULE

MANUEL LEON PONCE
DESIGN ARTS SEMINARS INC

RENEWAL DEADLINES & MCER

for Texas-licensed Architects
02/28/05 (even #s), 07/31/05 (odd #s)

mandatory continuing education requirements (for Texas):
8 CEPH , which must qualify as health, safety and welfare (HSW) credits and 1 of which must be dedicated to barrier-free design.
AIA-members must earn 18 LU Hrs./ year, 8 of which must qualify as HSW.

SEMINARS

Historical Interiors & Architecture: Preservation, Restoration & Adaptive Reuse (case study) [$195]
8 HSW CEPH/LU
(includes 1 barrier-free design credits)

December 10 2004 - New Orleans, LA

For details or to register:
www.designarts.net/das69.htm
or call 1 800 264 9605

Garden Design [$195]
8 HSW CEPH/LU
(includes 1 barrier-free design credits)

November 4 2004 - Dallas, TX
November 5 2004 - Austin, TX
November 19 2004 - Houston, TX
November 20 2004 - San Antonio, TX

For details or to register:
www.designarts.net/das11.htm
or call 1 800 264 9605

STRUCTURED DISTANCE LEARNING

Building, Barrier-Free Codes [$125]
8 HSW/Barrier-Free Design CEPH/LU

Garden Design [$125]
8 HSW CEPH/LU
(includes 1 barrier-free design credits)

Modern Architecture + Barrier-Free Access Design [$175]
8 HSW CEPH/LU
(includes 2 barrier-free design credits)

For details or to register:
www.designarts.net/home.htm
or call 1 800 264 9605

Design Arts Seminars, Inc.
1.800.264.9605
www.designarts.net
info@designarts.net

Circle 49 on the reader service card

strong, and to keep them sealed. The walls provide thermal mass—once the house is heated or cooled to a desired temperature, it will stay comfortable for long periods of time. Another way the Frisco house maintains IAQ is its high-performance ducting system. Constructed of sealed, unlined sheet metal, the ducts reduce air leakage to levels of less than 10 percent. High-efficiency gaskets also contribute to healthy IAQ and reduce noise.

While smart design sets the stage for this Zero Energy House, innovative systems take it several steps further toward its specified goal. Among the technologies specified for the project were:

Solar electric panels (photovoltaics)

Number one among these are the solar panels installed on the roof to take advantage of the house's solar orientation. Pfeiffer says that 8kW of "active" photovoltaic (PV) panels are installed on the south-facing roof of the house. That's a lot. Pfeiffer should know. His own home in Austin uses only 2kW of PV, and was voted "greenest home in America" in 2003 by *Fine Homebuilding* magazine. At a whopping cost of $80,000 (excluding installation), the PV used in the Frisco house should generate most of the electricity for the house for nine months of the year.

Solar water heater and plumbing

A "drainback" system with two solar collectors is installed on the lower roof above the porch for hot water and space heating. Hot water is heated by an integrated system tank fired by the solar panels, heat pump, and gas boiler backup. The house has a structured plumbing system with demand recirculation that significantly reduces water waste and wait time for hot water in fixtures.

Air conditioner

According to Mac Word, president of Allied Energy Systems in Austin, a water-chilled air-conditioner is the greenest option for a residence, and that's what's installed in the Frisco house. The ideal

We'll change the way you think about Insulation

Rising energy costs. Noise pollution.
Allergies, asthma, and mold.

Architects today face problems that weren't even issues when conventional insulation products were developed. It's reassuring to know that Icynene® is a superior insulation system that protects buildings like no other insulation can.

When sprayed into walls, ceilings, floors and basements, Icynene® softly expands to form a protective barrier. Harmful outside air – including pollutants and noise – stays out. Healthy inside air stays in, ensuring a Healthier, Quieter, More Energy Efficient® structure.

It's the superior insulation system for today's buildings.

The Icynene Insulation System®

Healthier, Quieter, More Energy Efficient®

Contact your local Icynene Licensed Dealer or visit Icynene.com

Austin, Houston, TX
Advanced Insulation of Texas
512-479-8074/713-896-1533
www.aita.net

Houston, Tomball, TX
Commercial & Industrial Applicators, Inc.
281-353-7007
www.ciainctexas.com

Houston, TX
Diversified Thermal, Inc.
713-896-4801

Corpus Christi, TX
Enersave Systems, Inc.
361-561-1112
www.enersavesystems.com

San Antonio, TX
Beicker Building & Remodeling
210-497-5330
www.insulationbeicker.com

Kaufman, TX
Elite Foam Insulation
972-932-3052

Wichita Falls, TX
Callejo & Ross Inc.
940-723-8509

You can't miss Icynene at the 2005 Builders' Show!
This year, Icynene® is the insulation of choice for THE NEW AMERICAN HOME®, NEXTGEN's "Safe & Sound" Demonstration Home, "Behind the Walls" at Reed's Show Village, and The New Urban Challenge Demonstration Home.
You can also see Icynene in action at Booth #W6371 (West Hall).

for superior insulated residential and commercial buildings, specify The Icynene Insulation System®

- **It's environmentally friendly** – non-toxic, formaldehyde free, and odorless.
- **Helps prevent condensation related mold and mildew.** Proven not to be a food source for mold.
- **Adds value to the buildings you design** by reducing energy costs by up to 50%, enhancing sound proofing and improving air quality.
- **Effectively insulates** all types of construction.
- **Simplifies** the job of insulating complicated designs and framing details.
- **Call us for a FREE copy of The Icynene Architect's Tool Kit.** A valuable design resource for the project team (1-800-758-7325).

Icynene is proud to be an AIA Continuing Education Provider. Visit icynene.com for more information about our CEU program.

Circle 186 on the reader service card

Q&A: Net Metering

Q. What is net metering?

A. Net metering is an arrangement where customers generate their own electricity and get a credit on their bill for any excess self-generated electricity that flows back into the utility's distribution system. The customer gets a lower bill in two ways: 1) the self generation displaces electricity the customer would otherwise have purchased from the electric utility (or competitive supplier); and 2) the customer's bill is lowered by the amount of electricity feedback into the system.

Q. How does net metering work?

A. A net metering customer has a qualifying self-generating facility that is connected to the local electric utility's distribution system. Whenever that facility generates more electricity than the customer needs, the excess electricity flows backward through the customer's meter, making it turn in reverse. This reverse metering results in a lowering of the customer's bill.

Q. What if the meter runs backward more than it runs forward?

A. In that case the month-end meter reading will be lower than the beginning meter reading, and there will be a negative (credit) amount on the bill.

Q. Under net metering, are all charges subject to the credit?

A. Any charge that is measured on a kiloWatt hour (kWh) basis will be reduced by the backward movement of the meter. Most residential customers are billed this way. Many commercial customers are billed (at least partially) according to demand, and use demand meters that measure kiloWatts (kW) instead of kWh. Since demand meters do not run backwards, demand charges are not credited under net metering.

Q. What are the requirements to be a qualifying customer-generator?

A. Qualifying facilities include solar, wind, biomass, landfill gas, hydropower, microturbines (with a capacity of 100 kW or less), and fuel cells.

Information courtesy of Public Utilities Commission of Ohio.

humidity levels for a healthy domestic environment is between 40 and 50 percent relative humidity, and maintaining these levels in a hot, humid climate is a difficult task. The system used in the Frisco house is multiple stage 13+ SEER heat pump converted to a water chiller that supplies chilled water to air handlers throughout the house. Working in concert with the house's tightly constructed envelope, the system should minimize need for air conditioner operation during peak hours by storing heat in the mass of the house, and cooling at night or during off-peak hours. Some of that stored heat will also be used to heat the home's water.

The home's green design doesn't end with design and systems. There also are appliances to think about, and a yard.

Inside, appliances and light fixtures are "Energy Star" certified. The Energy Star program is run by the U.S. Environmental Protection Agency as a voluntary labeling program designed to identify and promote energy-efficient products.

Outside, in Texas, xeriscaping is the smartest way to attractively landscape a yard, and the Frisco demonstration home uses xeriscape techniques as well as drip irrigation. The chosen variety of native plants and vegetation requires little water, and sod is drought-tolerant Zoysia. Drip (or "trickle") irrigation applies water slowly and directly where it is needed, which keeps it from evaporating or running off.

Of course, even with the best high-performance design, energy consumption depends on the people who will be doing the consuming, and the house, priced around $950,000, remains on the market. Still, it's been designed to demonstrate that a home can be luxurious, comfortable, and attractive, and also energy efficient. But, will it get down to zero energy consumption? "This home will consume 10 to 20 percent of the energy used by a typical home," says Pfeiffer. "Even if that's as far as it gets, that percentage is pretty darn good." T

Ingrid Spencer is a freelance writer based in Austin.

RESOURCES INTERIOR DESIGN: Cedar Hill Design Center; EXTERIOR WALLS: Durisol Concrete Wall Forming System; SIDING: James Hardie; INSULATION: Icynene (spray on), Integrity Gasket; HEATING AND COOLING: Allied Energy Systems; FOUNDATION, PIERS, SIDEWALKS, DRIVEWAY AND WALL FILL: Lattimore Concrete; FLY ASH: ISG Resources; WINDOWS, SKYLIGHTS AND EXTERIOR DOORS: Pella of Texas; BUILDING MATERIALS AND MILLWORK: BMC West; CONCRETE STAINING AND PATTERNING: Designer Concrete; ARTWORK AND STENCIL FOR CUSTOM ENGRAVING IN FOYER FLOOR: Surface GelTek; TILE: American Tile; ROOFING: Integris Metals; LANDSCAPE DESIGN: Feldman Design Studios; TERMITE PROTECTION: Impasse; STONE: Stone Station, Stone Impressions; BLINDS AND SHADES: Texton; PAINT: Sherwin-Williams

2004 Issue Index

Issue	Project
January/February	Bluebonnet Elementary School
	Bransom Elementary
	Cy-Fair College
	Eugenia Porter Rayzor Elementary School
	Franco Middle School
	Sabine Pass K-12 School
	Trustee Hall at St. Edward's University
	UT El Paso Student Housing
March/April	5A Farms
	Daniel Ruiz Branch Library
	Harry Ransom Center
	Hockaday School: Academic Research Center
	Nasher Sculpture Center
May/June	Allen City Hall
	Dallas Convention Center
	Lester E. Palmer Events Center
	Whitestones at 25th
	Willow Stream Spa at the Fairmont Princess
July/August	22nd Street Lofts
	Anadarko Tower
	Chicago Bridge & Iron
	King William Lofts
	Studio H & L
	Price Residence
	White Rock Lake House
September/October	Christus St. Elizabeth Outpatient Center
	Lantern Bend Professional Office Building
	Lester E. Palmer Events Center
	LSU Hilltop Arboretum
	Lucky Boy Ranch
	Martin Boathouse and Bridge
	Prototype Infill Housing-Throckmorton Site
	Ramp House
	Saturn V Temporary Shelter
	TAMU Campus Master Plan
	Texas Travel Information Center
	VIA Kel-Las Transit Center
	Yoakum Street Townhouses
November/December	2450 Holcombe Boulevard
	Casa Mañana Theatre
	ExxonMobil Upstream Research Co Technical Training Center
	Hi/Low-Rise, High-Density Housing
	International Environmental Training & Technology Center
	San Fernando Cathedral Renovation/Expansion

2004 Alphabetical Index

Index to Advertisers

TRENDS OF THE TRADE

Ceramic Glazed Masonry Institute Offers New Resources

The Ceramic Glazed Masonry Institute (CGMI) is offering two new user-friendly resources for architects, designers, specifiers, and masons interested in working with ceramic glazed brick and tile products. The first, a new updated Web site serves as an online source for specification guidelines, material handling instructions, planning tips, and much more.

A full-color brochure featuring project and product photos, as well as design guidelines and comprehensive sizing information, is available free of charge from CGMI.

Facts you may not know about ceramic glazed masonry, including those listed below, can be found in both resources:

- It won't burn and emits no toxic fumes.
- It is resistant to graffiti, stains, impacts, abrasions, and weather.
- It is environmentally sound – its impervious glazed surface cleans with soap and water, never requiring refinishing.
- It is cost competitive for the life of the building.

These facts and others in CGMI's new materials will be of particular interest to those involved in the design or specification of materials for high-use, long-life buildings like educational, transportation or correctional facilities. Visit their Web site at *www.cgmi.org*.

Updated Database Assists Building Industry to Reduce Waste

The U.S. General Services Administration (GSA) has recently updated its online Construction Waste Management Database to assist the building industry in reducing construction and demolition waste. Recyclers of construction and demolition waste may advertise their services free on this site. Access the database at *http://cwm.wbdg.org* to include your company's information.

The U.S. EPA estimates that each year 136 million tons of construction material and demolition waste are generated in the United States. GSA's Construction Waste Management program promotes the responsible disposal of this waste, including concrete, asphalt, masonry, wood, and other materials, much of which can be recycled or processed for reuse if handled properly.

Created in 2002 by GSA's Environmental Strategies and Safety Division, the Construction Waste Management Database is a free online service for those seeking information on companies that haul, collect and process debris from construction projects. Visit the Whole Building Design Guide at *www.wbdg.org* to learn more.

TRENDS OF THE TRADE

Comprehensive Design Guide for Structural Wood Systems Available

The Engineered Wood Association recently updated and published *Fire Rated Systems*, a comprehensive design and construction guide for structural wood systems. This publication is designed to give architects, builders and specifiers the latest information regarding cost-effective, fire-rated construction systems.

The 28-page guide contains new details for both one and two-hour fire-rated assemblies including load-bearing interior wall systems, combustible floor/ceiling and roof/ceiling systems, and rim board assemblies. Updated tables include flame spread classification requirements for interior finish, fire-resistive requirements for structural components, and allowable height and building areas based on the type of construction.

The publication is available online at *www.apawood.org/pdfs/managed/W305.pdf.*

Residential Design Symposium Scheduled Jan 12, 2005

The fourth annual Residential Design Symposium is scheduled for Jan 12, 2005, one day in advance of the opening of the National Association of Home Builders (NAHB) International Builders Show (IBS) in Orlando, Florida. Last year's attendance at the IBS show in Las Vegas drew a record -breaking 104,000 attendees and NAHB expects another record in Orlando. The one-day residential design symposium will be held at the Marriott Downtown in Orlando.

Adding to the synergy, the Residential Design Symposium will take place the day after the National Concrete Masonry Association (NCMA) State and Province Association Alliance meetings, also being held in Orlando. This will provide the opportunity for attendance by state and province leaders to sponsor and bring builders from their local markets along to the symposium and show. NCMA also encourages its members to support the symposium by sponsoring a builder to the symposium from their local market. In most cases, these builders already will be attending the IBS in Orlando.

The preliminary agenda includes a tour of some of the concrete masonry IBS Show Homes in Baldwin Park and presentations by David Weekly Homes, a company ranked 23rd out of the 100 largest volume builders list in the United States and the most recognized builder in America.

For more information contact Harry Junk at (703) 713-1900 or *hjunk@ncma.org.*

United States Postal Service

Statement of Ownership, Management, and Circulation

1. Publication Title	2. Publication Number	3. Filing Date
Texas Architect	0 0 4 0 - 4 1 7 9	09-15-04
4. Issue Frequency	5. Number of Issues Published Annually	6. Annual Subscription Price
Bimonthly (+1 April Supplement)	6 Regular + 1 Supplement	$25.00

7. Complete Mailing Address of Known Office of Publication *(Not printer) (Street, city, county, state, and ZIP+4)*
816 Congress Avenue, Ste. 970, Austin, Texas 78701-2443
Contact Person: Linda V. Trinh
Telephone: 512/478-7386

8. Complete Mailing Address of Headquarters or General Business Office of Publisher *(Not printer)*
816 Congress Avenue, Ste. 970, Austin, Texas 78701-2443

9. Full Names and Complete Mailing Addresses of Publisher, Editor, and Managing Editor *(Do not leave blank)*
Publisher *(Name and complete mailing address)*
Linda V. Trinh/ 816 Congress Avenue, Ste. 970, Austin, Texas 78701-2443

Editor *(Name and complete mailing address)*
Stephen Sharpe/ 816 Congress Avenue, Ste. 970, Austin, Texas 78701-2443

Managing Editor *(Name and complete mailing address)*
N/A

10. Owner *(Do not leave blank. If the publication is owned by a corporation, give the name and address of the corporation immediately followed by the names and addresses of all stockholders owning or holding 1 percent or more of the total amount of stock. If not owned by a corporation, give the names and addresses of the individual owners. If owned by a partnership or other unincorporated firm, give its name and address as well as those of each individual owner. If the publication is published by a nonprofit organization, give its name and address.)*

Full Name	Complete Mailing Address
Texas Society of Architects	816 Congress Avenue, Ste. 970, Austin, Texas 78701-244

11. Known Bondholders, Mortgagees, and Other Security Holders Owning or Holding 1 Percent or More of Total Amount of Bonds, Mortgages, or Other Securities. If none, check box → ☑ None

Full Name	Complete Mailing Address

13. Publication Title: Texas Architect	14. Issue Date for Circulation Data Below: Sept/Oct 2004 Volume 54, Issue 5	
15. Extent and Nature of Circulation	Average No. Copies Each Issue During Preceding 12 Months	No. Copies of Single Issue Published Nearest to Filing Date
a. Total Number of Copies *(Net press run)*	14,293	15,244
b. Paid and/or Requested Circulation (1) Paid/Requested Outside-County Mail Subscriptions Stated on Form 3541. *(Include advertiser's proof and exchange copies)*	7,858	8,292
(2) Paid In-County Subscriptions Stated on Form 3541 *(Include advertiser's proof and exchange copies)*	0	0
(3) Sales Through Dealers and Carriers, Street Vendors, Counter Sales, and Other Non-USPS Paid Distribution	675	834
(4) Other Classes Mailed Through the USPS	0	0
c. Total Paid and/or Requested Circulation *[Sum of 15b. (1), (2),(3),and (4)]*	8,553	9,126
d. Free Distribution by Mail *(Samples, complimentary, and other free)* (1) Outside-County as Stated on Form 3541	4,079	4,721
(2) In-County as Stated on Form 3541	0	0
(3) Other Classes Mailed Through the USPS	0	0
e. Free Distribution Outside the Mail *(Carriers or other means)*	1,542	764
f. Total Free Distribution *(Sum of 15d. and 15e.)*	5,621	5,485
g. Total Distribution *(Sum of 15c. and 15f)*	14,154	14,601
h. Copies not Distributed	139	643
i. Total *(Sum of 15g. and h.)*	14,293	15,244
j. Percent Paid and/or Requested Circulation *(15c. divided by 15g. times 100)*	60%	63%

16. Publication of Statement of Ownership
☑ Publication required. Will be printed in the Nov/Dec 2005 issue of this publication. ☐ Publication not required.

17. Signature and Title of Editor, Publisher, Business Manager, or Owner — Date: 09-15-04

I certify that all information furnished on this form is true and complete. I understand that anyone who furnishes false or misleading information on this form or who omits material or information requested on the form may be subject to criminal sanctions (including fines and imprisonment) and/or civil sanctions (including civil penalties).

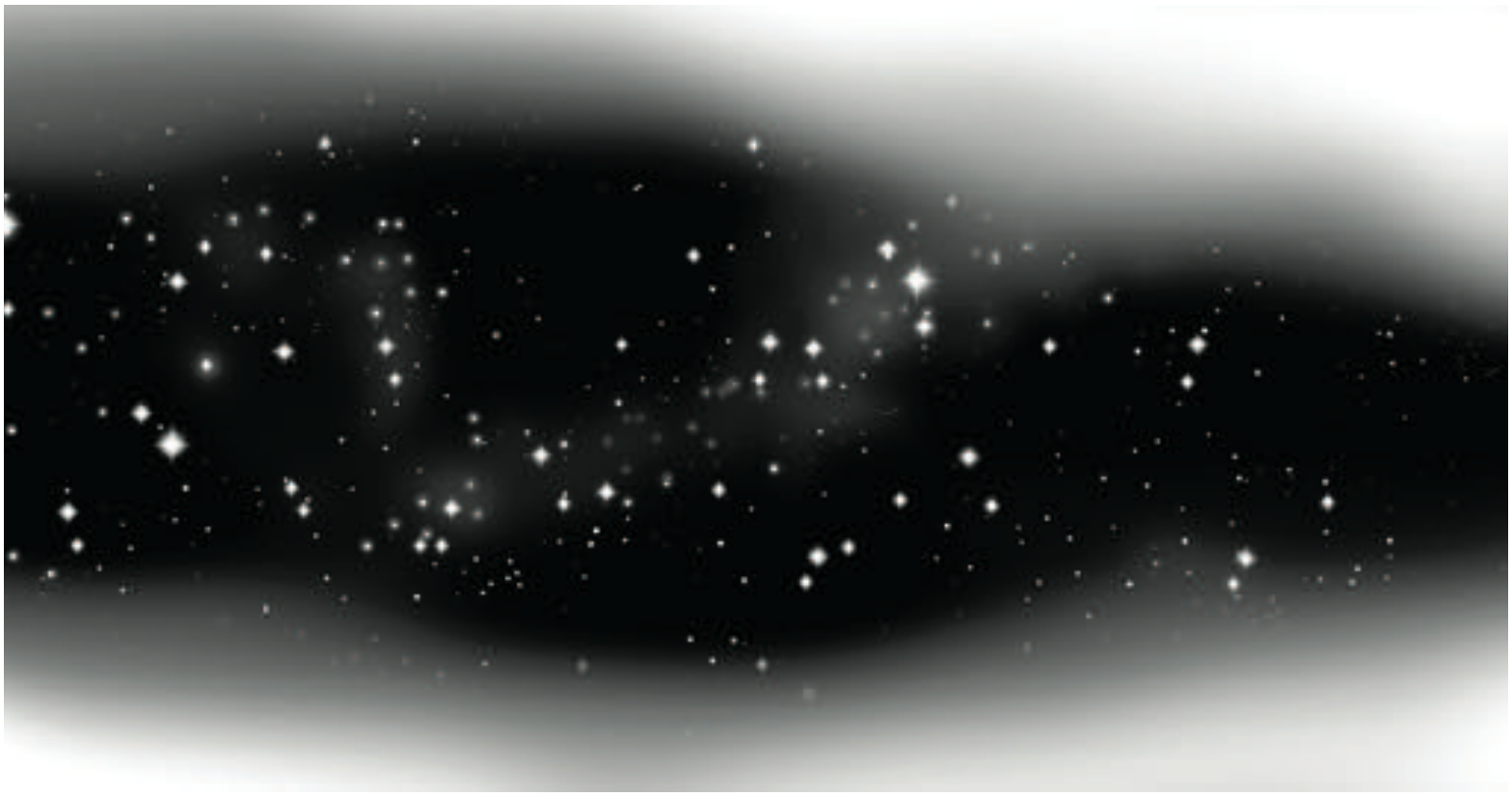


ILLUSTRATION BY PHOTODISC/GETTY IMAGES

Cosmic Loss

Misdirected lighting and glare threatens to obscure our view of the heavens

When I heard the learn'd astronomer;
When the proofs, the figures, were ranged in columns before me;
When I was shown the charts and the diagrams, to add, divide, and measure them;
When I, sitting, heard the astronomer where he lectured with much applause in the lecture-room,
How soon, unaccountable, I became tired and sick;
Till rising and gliding out, I wandered off by myself,
In the mystical moist night-air, and from time to time,
Look'd up in perfect silence at the stars.

—Walt Whitman

OUR eyes have never witnessed anything more distant than a star. At the moment starlight reaches our eyes, we are experiencing the end of a cosmic odyssey that began before human beings existed. Stars are windows into distant worlds; but as a result of poorly designed lighting, we are drawing the shades over these windows. The International Astronomical Union warns that if our current lighting trends continue, the Earth could soon lose its view of the stars completely.

Visibility of the starry sky should be regarded as a basic human right. Viewing the stars connects us to the multitude of generations that preceded us. We see and experience the same starry configurations as our grandparents and their grandparents before them. Our children's right to enjoy this heavenly presence is being stripped from them by our current lifestyle and the light pollution that it creates.

Misdirected (unshielded) light and glare are two forms of poorly designed lighting that have a negative impact on star visibility. More than 30 percent of the light from an average street light never hits the street. Instead, the wasted light spills upward and reflects off the atmosphere causing what is known as "sky glow," which obscures views of the heavens. Glare – the result of excess wattage – from building lighting adjacent to highways can negatively affect driver visibility and is a major cause of traffic accidents. In the United States alone, the cost of over-lighting is estimated at more than $1 billion each year.

The ecological affects of over-lighting are disastrous as well. Oftentimes, because of the use of coal to generate energy and the resultant carbon dioxide that is produced, lighting can be more of a pollutant than cars. Because of the nature of energy production, wasted and ineffective lighting results each year in the emission of more than one million tons of carbon dioxide – a major contributor to global warming, according to many scientists – into the Earth's atmosphere.

While increased lighting is considered critical to security, the U.S. Department of Justice reports no correlation between levels of brightness and levels of crime. In fact, many studies suggest the opposite—our natural visual acuity is actually hindered by excess lighting and glare tricks the human eye into perceiving adjacent areas to be darker than they are.

By following four elementary lighting concepts, we can preserve the night skies for future generations: shield it, point it down, don't use more than you need, and turn it off when you're done.

FRANK JACOBUS, ASSOC. AIA

For more information, contact the International Dark-Sky Association at www.darksky.org

Frank Jacobus, Assoc. AIA, works with Nader Design Group in Fort Worth.

Welcome home to our range

The multicolored layers of Palo Duro Canyon enliven the open range of Texas. Striations in the canyon walls inspired the design of a nearby visitors' center. Here, vibrant masonry hues recall a familiar feature of the state's landscape: the distinctive colors of Acme Brick. Texans have built with Acme more than with any other brick, since 1891. Today, more than ever, selecting Acme means coming home to trusted quality and style.

"For this design, we found brick to be the perfect material to help us capture the spirit of the nearby Palo Duro Canyon. Acme Brick provided the large palette necessary to create the subtle striations and sculptural qualities."
—Elizabeth Chu Richter, AIA, Richter Architects

Winner, 2003 Brick in Architecture Award

Texas Travel Information Center, Amarillo
Owner: Texas Department of Transportation
Architect: Richter Architects, Corpus Christi
General Contractor: Plains Builders, Inc., Amarillo
Masonry Contractor: Broadus Masonry, Inc., Amarillo
Photographers: Craig Blackmon, AIA, BlackInk; David Richter, FAIA (snow)

Please visit us on the internet: www.acmebrick.com or check the phone directory to contact your local Acme Brick Company sales office. Or please call 1-800-792-1234.

ACME BRICK
Since 1891

Circle 16 on the reader service card

turning corners like a champ

Arriscraft offers the tradition and beauty of natural stone in a material that performs better, weathers more gracefully, and soothes a budget. No other material matches the smooth elegance and rugged intensity of Arriscraft stone. Its design flexibility and material consistency are the envy of Nature itself.

Champions School of Real Estate, Coppell, TX

ARCHITECT
Jacobs & Associates, Dallas

GENERAL CONTRACTOR
Smith Commercial Contracting Inc., Houston

MASONRY CONTRACTOR
R.O.C. Construction, Dallas

twenty standard colors
four textures
installs like brick
sealing not required
guaranteed for life of building
custom colors available

Blackson Brick Co.

214-855-5051 www.blacksonbrick.com
info@blacksonbrick.com

Circle 06 on the reader service card