

Exhibit H: Urban Land Institute Articles (see attached)

Report Card

Developers are seeing an increasingly familiar face in development deals around the country—that of the school official. In major U.S. cities, colleges and universities have gained the economic and political clout to reshape not only their own campuses, but also the communities that surround them. Schools are becoming savvy about the rewards of proactiveness with regard to the planning and design not only of their own facilities, but also of those for their communities—many of which are being built on school property in joint partnerships with local government and private developers. The entrance of educational institutions into development on this scale—in some cases, as an actual anchor for other projects—is affecting both municipal planning efforts and private development.

Yale, for example, has become a major player in the New Haven real estate market, as have universities in Boston, Hartford, and Providence, where university officials are actively entering into partnerships to stimulate growth. In California, the passage this past March of Proposition 55 provides bonds to finance \$12.3 billion for state school facilities. California's department of education estimates that 19 new classrooms a day will be needed between now and 2008. The Los Angeles Unified School District, the nation's second-largest public school system, has initiated a vigorous discussion on the role schools play in the successful redevelopment of mixed-use communities.

The community benefits are enormous. Institutional expansion can provide a real opportunity for place making in the surrounding area. As more universities are compelled to seek more cost-effective ways to spend capital funds, they are intensifying uses on a dwindling number of developable sites. A number of colleges are creating and sharing resources and facilities with their communities more extensively



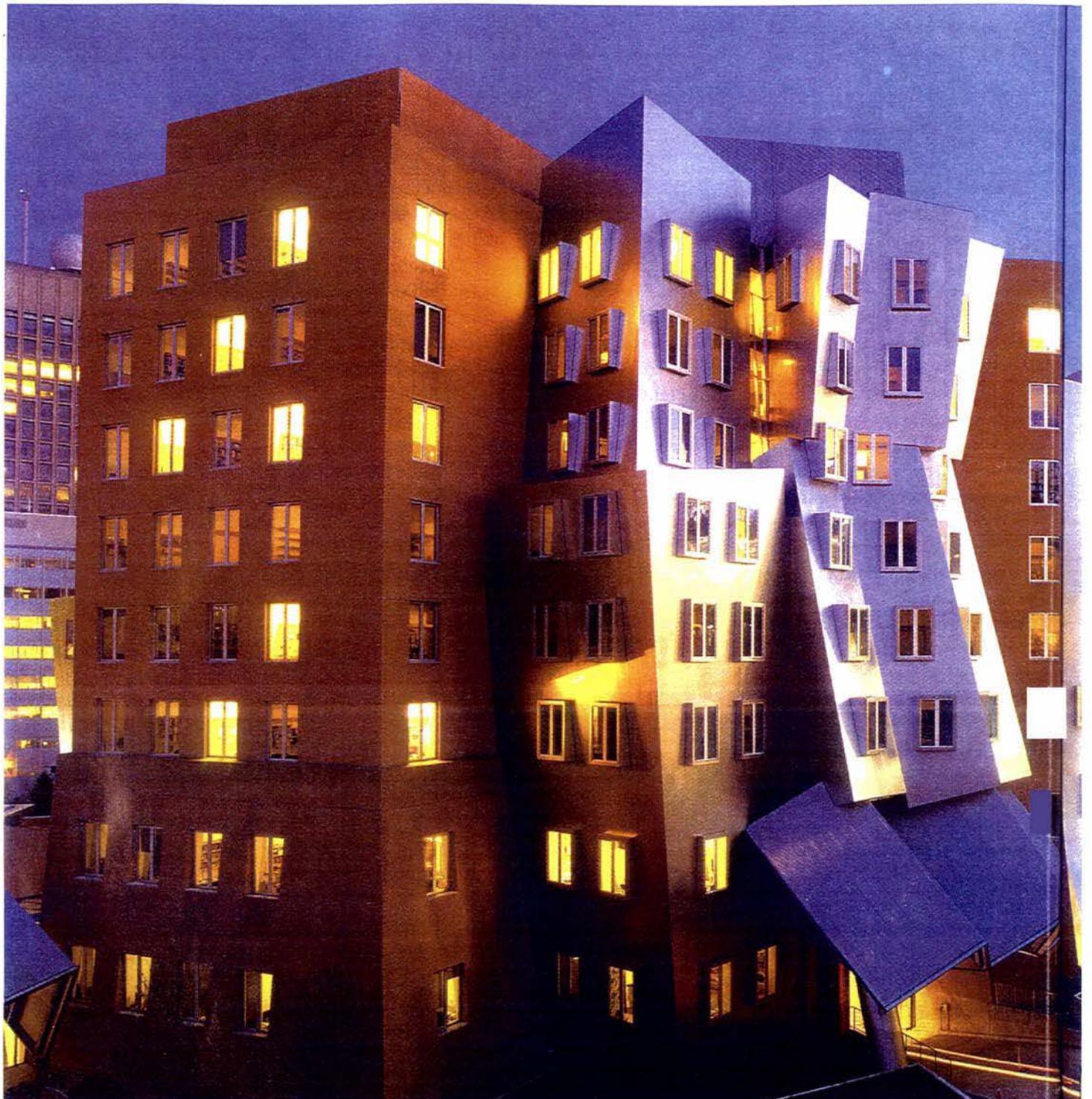
RICHARD BARNES (INCORPORATION) TREASURE CAMPUS CENTER (M)

than ever before. Through creative financing, states, cities, redevelopment agencies, and colleges are together developing mixed-use master-planned communities that integrate both town and gown. Good candidates for shared uses are fitness and recreational facilities, student centers, conference centers, high-tech corporate meeting rooms, technology centers, firefighting training centers, performing arts facilities, arenas, auditoriums, recording studios, libraries, bookstores, town centers, retail space, housing, and parks.

In school design, there has been nothing short of a sea change in the approach to education. Like cities, schools can improve quality of life by harnessing existing infrastructure, preserving green space, and becoming more walkable. Schools are becoming smaller, offering greater safety and security, and creating a strong sense of place that students can buy into. An agreement between the Philadelphia school district and Microsoft, for example, is earmarking \$50 million for a School of the Future to create a paperless educational environment. Technology will be embedded at every level, not just instructional, but operational. European and Asian schools are watching the plan's progress with interest.

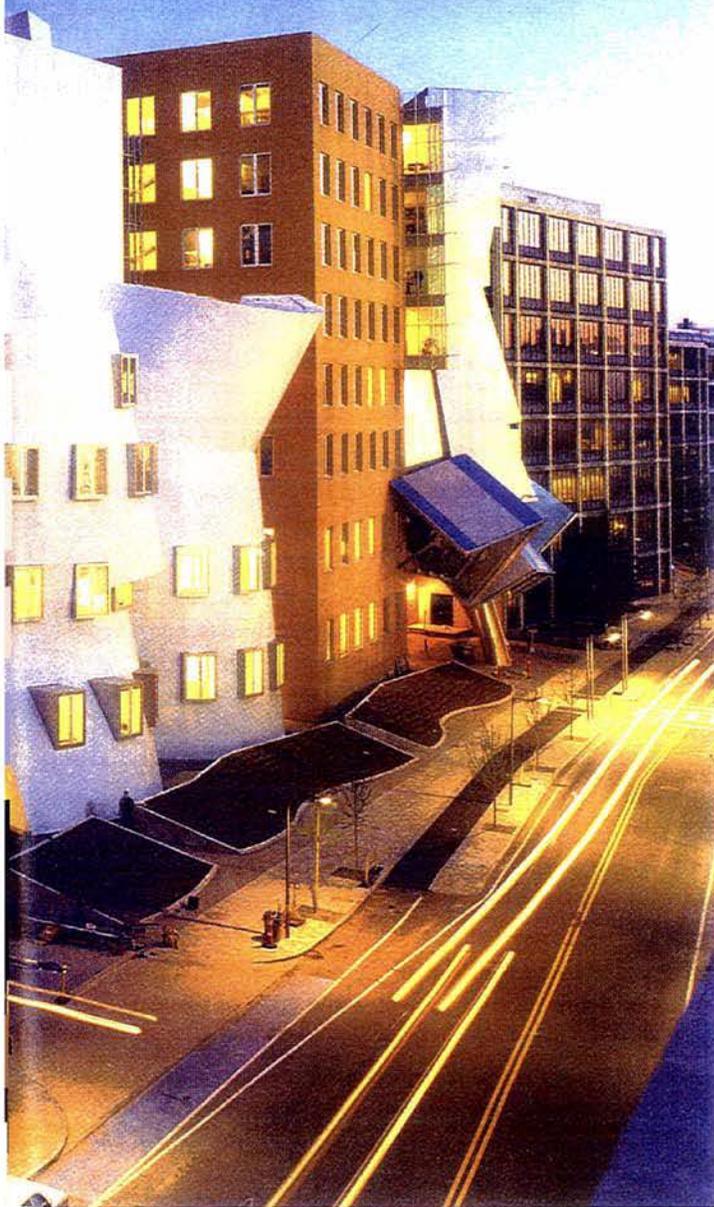
Communities that have experienced economic decline and commercial vacancies also are being targeted by schools, in particular by the concept of the educational village, which is turning around abandoned big-box retail centers with the hopes of raising a sustainable community. Dynamic schools can bring diverse families together around a common goal: interest in the physical well-being of their neighborhood. The bottom line is that good schools affect real estate values.

KRISTINA KESSLER
Editor in Chief



INTELLECTUAL CAPITAL

In Cambridge, Massachusetts, the newly opened, Frank O. Gehry-designed State Center for Computer, Information, and Intelligence at MIT is part of a \$1 billion construction program aimed at improving the quality of campus life and creating a new sense of community.



Powerful urban universities are reshaping metropolitan culture and character.

NANCY EGAN AND PAUL NAKAZAWA

Colleges and universities in major cities are becoming increasingly influential in urban development circles. With valuable real estate assets, research-related businesses, endowments significantly augmented by ambitious capital campaigns, and growing student populations, these institutions have the economic and political clout to reshape not only their own campuses but the surrounding communities as well. As the traditional divide between town and gown becomes less apparent, the programs and physical development of colleges and universities have both direct and indirect effects on municipal planning efforts and private development in unprecedented ways that can contribute to the reshaping of metropolitan culture and character.

Ever since the Middle Ages, universities have been powerful institutions that have enjoyed considerable civil and spatial privileges even as they exerted significant influence on other realms of society. The notion of the university as a place apart dedicated to the pure pursuit of knowledge persisted through much of the 20th century. That image has changed in recent decades, however, as the intellectual capital of universities, particularly in the sciences, has become a critical component in global economies driven by high-tech and biotechnology interests.

Today, universities are top-tier players in the creation of “economic superclusters” that bring together the resources of major medical institutions, corporate research and development, the government (often in the form of funding from the National Institutes of Health [NIH]), and venture capital. The emergence of this model has moved schools—especially those with urban campuses—to the front and center in discussions of regional and local economic development and its corollary in infrastructure development.

Effects produced by these developments can be seen in the surrounding communities at a number of levels, from escalation of salaries for professors and researchers, to the increased demand for a limited supply of housing to accommodate students, faculty, employees in the new technology businesses, and residents of the old neighborhoods. There also is pressure on traditional commercial districts near campuses as real estate developers recognize the opportunity to capture this evolving market with speculative and build-to-

In Philadelphia, the Science Center will be housed in an urban technology park (right) that comprises more than 2 million square feet that is expected to act as the synergistic hub of the academic and research institutions in west Philadelphia's University City area. The Gateway building (below) opens to Gateway Plaza, a large outdoor space for informal meetings, dining, and other events.



THE JERDE PARTNERSHIP



THE JERDE PARTNERSHIP

suit laboratories, offices, retail, and housing. These new developments threaten to displace older, less-generative businesses that nonetheless are important contributors to community life.

For their part, colleges and universities are faced with an unprecedented demand for transparency in their transactions and

permeability in access and communications that challenge the kind of private decision making that schools have long employed. As the need to expand in order to meet demand generated by an increasingly diversified curriculum and the need for a competitive array of high-quality amenities pushes university administrators to look beyond the confines of their campuses, they often are confronted by community leaders who oppose these expansion plans, even though the local economy may experience significant gains as a result of them. On the one hand, a university can bring vitality to the surrounding community as well as economic benefits in the form of jobs, rents, and retail expenditures on the part of students and faculty. On the other hand, the institutions are able to exercise control over the area's prime real estate. However, in spite of the university's presence in the community, it generally has little control over the behavior of its students living off campus or over other aspects of community life including the delivery of services, infrastructure, and housing. And add to this the fact that the higher-education institutions are largely exempt from property taxes.

The potential for conflict exists not only at the large, technology-rich campuses, but also at urban schools across the country. Boundaries have blurred as businesses seek the innovation and intellectual resources of the university for competitive advantage, and the institutions, in turn, recognize increased political and economic leverage through their affiliations with related businesses. Pragmatic self-interest on both sides has led to a wide range of planning initiatives on and off campus that are redefining social and physical relations. The campus and the community are forging partnerships, some more fragile than others, that are remaking entire urban districts where it is increasingly difficult to tell exactly where the fine line divides the two.



In the heart of New York City's Astor Place neighborhood, Cooper Union has a multiyear, three-building master plan for the Cooper Square campus (left) that includes a 22-story residential building, a new nine-story, full-block academic facility (below), and a mixed-use, primarily commercial building with space for some Cooper Union uses.

The big-name technology powerhouses have spurred some of the most aggressive development, with loyal donors funding state-of-the-art facilities—often designed by architectural superstars—on university campuses while private companies and the development community have moved with equal vigor to create complementary campuses just outside the gates. Cities like Boston, Cambridge, Philadelphia, and San Francisco have acknowledged the benefits of large concentrations of universities and have worked to encourage these kinds of collaborations.

Cambridge, for example, established a mayor's committee on university/community relationships in 1991 to study the interaction between the community and the educational institutions that play an important role in the city's landscape and economy. The four primary postsecondary educational institutions located in Cambridge—Cambridge College, Harvard University, Lesley University, and the Massachusetts Institute of Technology (MIT)—all participated in discussions that ultimately led to the issuance of a town/gown report. The goal was to improve university/community relations through mutually beneficial activities that include an annual joint review of university and community needs and plans.

At MIT, a \$1 billion construction program designed to improve the quality of campus life and to help create a new sense of community includes the newly opened Stata Center for Computer, Information, and Intelligence Sciences designed by Los Angeles-based Frank O. Gehry; Simmons Hall, the student residence designed by Stephen Holl of New York City; the Albert and Barrie Zesinger Sports and Fitness Center, designed by Kevin Roche of John Dinkeloo & Associates of Hamden, Connecticut; and the brain and cognitive science project scheduled to open next year, designed by Goody Clancy & Associates of Boston. In addition to introducing



a bold new architectural identity for MIT, the new buildings also address the issue of openness. "We realize that it is crucial to have a permeable campus, a welcoming environment without security guards everywhere," emphasizes William J. Mitchell, former dean of the architecture school and architectural adviser to MIT. In the Stata Center, there are public zones as well as private zones with sophisticated card-key access. Another dimension is physical transparency of the buildings themselves, a real switch in laboratory design that makes life in the scientific community visible and provides unexpected rewards in vistas and observations," he adds. "As the institution seeks increasing public support, it has to take the concept of transparency literally."

The architectural renaissance on the campus has also played a role in attracting top scholars to MIT, which is mirrored by corporations and private developments in the near neighborhood that have created headquarters for a number of leading biotech companies, including Novartis, Biogen, and Gynzyme. The Cambridge

In Chicago's Near South Side, the one-story McCormick Tribune Campus Center (below) at the Illinois Institute of Technology is topped by a 530-foot stainless-steel-clad tube (right) that helps buffer the sound and vibration of the commuter rail tracks.



RICHARD BARNES/ILLINOIS INSTITUTE OF TECHNOLOGY



DARTMOUTH

community also benefits from new housing facilities on campus that have helped to bring students who were renting off campus back to the MIT campus, freeing up affordable housing in a tight metropolitan market.

Further down the Charles River from MIT, Harvard University has been running out of space on its Cambridge campus for years. In fact, the institution currently owns more land in Boston—over 200 acres in Allston—than it does in Cambridge where it is a major landholder. Harvard has owned and used land in Allston—home to the Soldiers Field athletic complex and the Harvard Business School—for more than a century. During the late 1980s and 1990s, it quietly acquired significantly more land in Allston. When the land acquisition finally was announced to the public in 1997, it was not well received. In a move to show its good intentions, the university then donated land and \$25,000 for a new branch of the Boston Public Library in Allston.

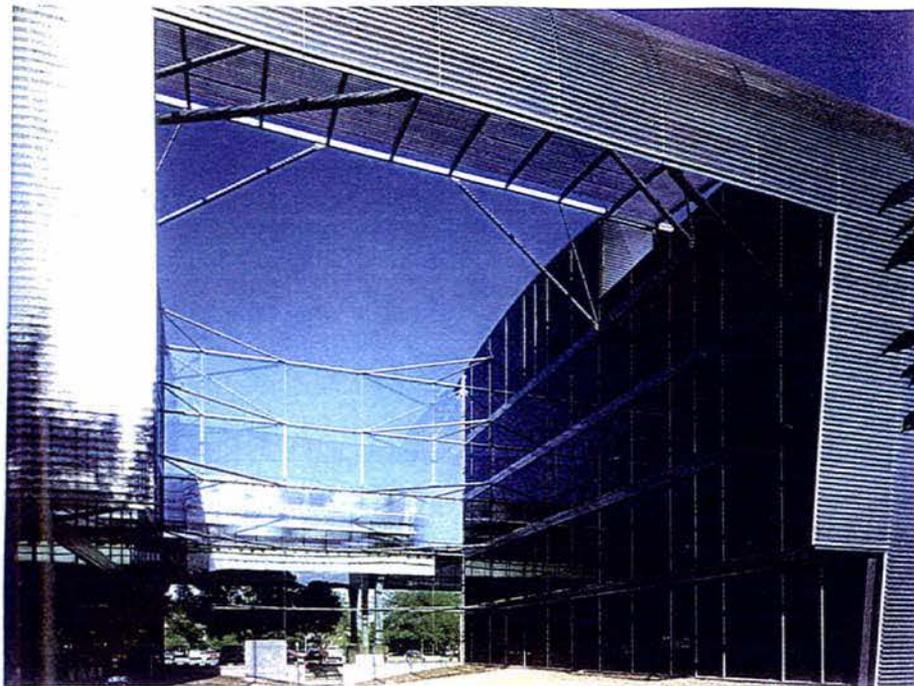
While there is still concern over Harvard's expansion plans on the part of the Allston community, it was largely mitigated in fall 2003 by the unveiling of a conceptual plan for the property. In an open letter, Lawrence H. Summers, the university's president, described long-term plans to move the school of public health from the Longwood medical area and the graduate school of education from Cambridge to Allston. The plan also calls for the construction of science and engineering labs and graduate student housing on the new campus. The ultimate goal, according to Summers, is

to create "a robust critical mass of scientific activities" in Allston that would serve as the foundation for a much stronger profile for Harvard in the dynamic bioscience economy. When plans were announced for the Harvard Stem Cell Institute this past spring, speculation suggested an Allston location.

An ongoing dialogue with the Allston community and the development of specific plans are needed with these future expansion plans. Task forces composed primarily of Harvard faculty have been studying how best to move schools and departments in ways that will maintain connection to the Cambridge and Longwood campuses and encourage collaboration. This spring, Harvard announced a shortlist of design firms for the master planning of the new campus: London-based Foster and Partners, and Cooper Robertson & Partners, Skidmore Owings & Merrill, and Rafael Viñoly, all of New York City. Questions persist about many aspects of the campus development—from escalating real estate costs in the neighborhoods to the new architectural image of venerable Harvard.

In Philadelphia, which is home to the nation's highest percentage of physicians engaged in research and which educates more than 20 percent of the country's physicians, the Science Center, a consortium of 30 academic and scientific institutions, recently announced the completion of a revised master plan. Located in west Philadelphia's University City district, the Science Center incubates businesses in an urban technology park comprising more than 2 million square feet where relatively inexpensive rents are offered, along with access to nearby universities, hospitals, and other research entities.

The Jerde Partnership, a master-planning firm based in Venice, California, conducted workshops to incorporate feedback from the University of Pennsylvania, Drexel University, Children's Hospital of Philadelphia, and other private and public agencies in an effort to develop a master plan that will satisfy the demand for high-quality office and research space and the need to create a sense of campus community that reinforces the Science Center's role as the synergistic hub of the academic and research institutions in the area. The plan introduces housing, retail, and other community



State Street Village, housing 367 students, is another new structure built as part of the Illinois Institute of Technology's campus redevelopment plan. It uses glass and sound panels to muffle the roar of the nearby El tracks, while allowing views of the campus.

uses into what had been a primarily research environment. The mix of uses underscores the need for the university-linked scientific community to participate in the social life of the neighborhood that surrounds and supports it.

"There is a real opportunity for place making in the neighborhoods surrounding campuses," notes Tim Magill, senior vice president and principal designer at Jerde. "The university provides an anchor for other development that benefits the institution and the community. More livable environments make economic and social sense," he adds. "We capitalized on the Science Center's location at the hinge of the Penn and Drexel campuses to create an inviting, identifiable public space."

Officials at the Cooper Union, located at the heart of New York's resurgent Astor Place neighborhood, recognized that the changing fortunes of the area presented a prime opportunity to realize several long-term goals. As a major landowner, the institution acted on the opportunity to leverage its real estate holdings so that it will be able to substantially renew its endowment and, at the same time, provide modern facilities for academic programs. The redevelopment—part urban design, part real estate venture—reflects the entrepreneurial spirit of Peter Cooper, the philanthropist who established the school in 1859. Cooper's legacy, a free education for working-class men and women, has long been linked to the properties at Astor Place. Symbolically, the historic great hall has come to represent open access to higher education in the city. The school's real estate literally supports the Cooper Union's endowment with monies raised in rent and property taxes that are rebated to the school by the city.

The multiyear, three-building master plan for the Cooper Square campus includes a 22-story residential building currently being developed by the Related Companies and designed by Gwathmey Siegel & Associates, both of New York City, on the site of the former Astor Place parking lot owned by the school. Future steps, outlined in a development study by Ehrenkrantz Eckstut & Kuhn Architects of New York, include the replacement of the existing

two-story Abram S. Hewitt Memorial Building, located at 41 Cooper Square, with a new engineering building. The college's new academic facility, a nine-story, full-block structure on the site owned by the city, is to be designed by Thom Mayne, founder and creative force at Morphosis, a Santa Monica, California-based architecture firm. Once the academic building is occupied, Cooper Union will lease its current engineering building site, which it also owns, at 51 Astor Place to a developer for design and construction of a mixed-use, primarily commercial facility—with space for some Cooper Union uses. The college intends the latter building to attract companies that have synergy with its academic programs and provide opportunities for research and creative ventures in collaboration with faculty and students.

While officials at Cooper Union believe that the new plan, which includes an improved streetscape, is an enhancement to the entire area, it is recognized that the introduction of new buildings, however necessary for the continued health of the school, has implications for the community. A lengthy public review process has provided a forum for discussion about the bulk and height of the proposed structures and other changes. "Since the beginning, we've convened numerous meetings with local groups, neighborhood associations, and city officials," points out Ronni Denes, vice president of external affairs. "We've also invited them to join us in looking at opportunities for streetscape improvements in the area."

Almost ten years ago, the Illinois Institute of Technology (IIT) concluded that its modernist campus with a collection of buildings by Mies van der Rohe, who once headed IIT's architecture school, had lost its drawing power. The facilities were in disrepair and the surrounding neighborhoods on Chicago's Near South Side were suffering. IIT convened a planning group to discuss the options. "Everything was on the table," explains Lew Collins, president of IIT, "even a move from the city." The decision was made to stay in its current location and to capitalize on its assets, which meant renovating a core group of the van der Rohe buildings to create "a state-of-the-art Mies museum" and updating the campus plan.



The Southern California Institute of Architecture (SCI-Arc), which relocated four years ago from Santa Monica to a 97-year-old freight depot (left and below) in downtown Los Angeles, has served as a living laboratory in urban issues for the architecture students as SCI-Arc helped to stabilize the neighborhood, and continues to play an active role in what happens to the area in terms of future development.

one-story building's roof, buffering the sound and vibration. At the same time, IIT also added the new State Street Village student residence hall, designed by Chicago-based Helmut Jahn, an IIT alumnus.

In Los Angeles, the Southern California Institute of Architecture (SCI-Arc) was enticed to relocate in 2000 from Santa Monica

to a 97-year old freight depot in the downtown area by then-mayor Richard J. Riordan with a \$1 million subsidy. The move, to a somewhat questionable part of downtown that was beginning to redefine itself, not only provided a living laboratory in urban issues for the architecture students, but the presence of the school also helped to encourage the fledgling artist colony in nearby studio lofts while helping to stabilize the neighborhood. Since its move, SCI-Arc has shown interest in the vacant lot adjacent to the campus, measuring some 15 acres in size, as a potential mixed-use environment with affordable lofts, a restaurant, and student housing. However, the improved fortunes of the neighborhood helped to drive up the price of the lot and the land was sold to developers before the nonprofit architecture school could raise the funds to buy it. Adding to the disappointment was the discovery that the new owners wanted to develop luxury high rises.

With strong support from the community and the local city council representative, SCI-Arc currently is working with the developer in order to have a say about what happens to the site. "We see an opportunity to accommodate a range of interests: students and teachers, artists, neighbors, and potential newcomers," maintains Eric Owen Moss, director of SCI-Arc. "It is as important to construct a sociology here as it is to create architecture. In the long run, the discussion of the site is a discussion about a redefinition of Los Angeles, about the eastern edge of downtown, and its future," he stresses. "We believe we have a role to play."

And, so it is with the immediate issues surrounding urban campus plans everywhere, the discussion in the larger context is about the coevolution of the university and the city—and their shared futures. This convergence of interests has taken generations to occur; its continued success will depend on sustained commitment and collaboration. ■

NANCY EGAN HEADS NEW VOODOO, A CONSULTING PRACTICE THAT PROVIDES IMAGE/CONTENT DEVELOPMENT TO THE REAL ESTATE AND DESIGN COMMUNITIES FROM OFFICES IN SANTA MONICA, CALIFORNIA, AND CAMBRIDGE, MASSACHUSETTS.

PAUL NAKAZAWA IS AN INTERNATIONAL BUSINESS CONSULTANT BASED IN BOSTON, AND A MEMBER OF THE FACULTY OF THE SOUTHERN CALIFORNIA INSTITUTE OF ARCHITECTURE.



Selected for the master planning effort was Dirk Lohan of Lohan & Associates, a Chicago architect and van der Rohe's grandson. Lohan recommended that the long, empty strip bisected by the Chicago Transit Authority's elevated train tracks be the site for a new campus center and proposed holding an international design competition to choose the architect. Given the challenges inherent in the site—from the speed and noise of the commuter trains to the need to preserve the legacy buildings—the solution needed to be "out of the ordinary."

Rotterdam-based, Pritzker Prize winner Rem Koolhaas was selected with his one-of-a-kind design for the McCormick Tribune Campus Center, a campus crossroads that has made the enclosure of the disruptive commuter rail tracks an integral part of the structure. The 530-foot stainless-steel-clad tube sits directly above the

University-Related Development in Chicago Invests Billions

Over the last ten years or so, university development has been changing the landscape of large swaths of Chicago, including the downtown area. In some cases, the universities there are replacing outmoded facilities; in others, the intent is to create a greater sense of community or to reinforce their identities through new development efforts. Along the way, they have given new life to old buildings, addressed land use conflicts and historical and architectural preservation issues, turned outward to remake neighborhoods, and forged innovative partnerships.

A number of major downtown buildings have been redeveloped by Chicago's universities in the last decade. In 1993, DePaul University completed a \$70 million redevelopment of the former Goldblatt's department store at the southeast corner of State and Jackson in the Loop, converting it into the DePaul Center with classrooms, offices, and retail space. The expanding university plans over the next few years to replace ground- and second-floor retail tenants with additional office and classroom space. Robert Morris College occupies large portions of a former Sears department store a block south along State Street. The School of the Art Institute of Chicago rehabilitated a half dozen buildings in the Loop into office and classroom space, including two dormitories that opened in 1997 and 2000. Roosevelt University has occupied the historic Auditorium Building, a National Historic Landmark that was designed by Dankmar Adler and Louis Sullivan, since 1947, and rehabbed the Gage Building on South Michigan Avenue for the Center for Professional Advancement opening in 2001. In September, the Spertus Institute of Jewish Studies announced plans for a ten-story, \$49 million building at 600 South Michigan Avenue to house its college, library, museum, and other facilities.

More than 52,000 students and over 12,000 university employees were estimated in the 21 institutions of higher education in Chicago's Loop and near south side (an area bounded by Lake Michigan, Wacker Drive, the Chicago River, and Roosevelt Road) in 2002—a number that probably is greater today than when the estimate was made based on a study led by Robert Fechtman, DePaul University's executive director of government and community relations. Increasingly, these students are residing downtown, not only adding to the downtown population, but also creating a 24/7 environment.

The newest downtown project is the University Center of Chicago (UCC), a \$150 million student resi-



University Center of Chicago (left), a joint venture of Columbia College Chicago, DePaul University, and Roosevelt University, houses more than 1,700 students in Chicago's South Loop.

dence built jointly by Columbia College Chicago, DePaul University, and Roosevelt University at the southeast corner of State Street and Congress Parkway in the south Loop, replacing a city-owned parking garage. Opened in August, the 18-story structure, designed by Chicago-based Antunovich Associates, houses 1,680 students and 43 staff in apartment-style units and contains 31,000 square feet of ground-floor retail space.

The three universities formed a not-for-profit entity, the Educational Advancement Fund (EAF), to develop UCC, which is governed by a board consisting of the university presidents and directors of facilities. Columbia and DePaul each own 40 percent of the beds, Roosevelt 20 percent. The joint ownership structure faced the challenge of blending different institutional cultures and decision-making processes, a task made easier, say the participants, by focusing on common business needs and related issues.

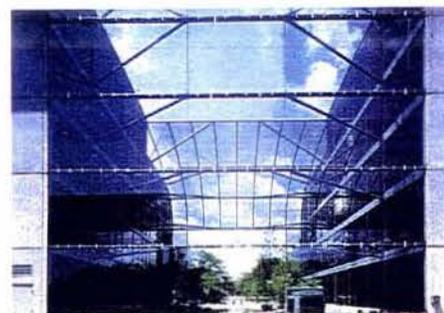
Columbia College bought its first building in 1972, and became a major anchor in the then-stagnant south Loop. With 13 buildings totaling about 1.2 million square feet, it is now the largest property owner in the south Loop. University Center is its first residential building. The center's nearly 1,700 residents will "bring life to one of the more isolated parcels downtown," says Alicia Berg, Columbia's vice president of campus environment and former commissioner of the city of Chicago department of planning and development.

Private developers have responded to the demand for student housing, according to Reverend Mark Pranaitis, associate vice president for special projects at DePaul University and one of the board members of the EAF, who points to a former office building at State and Eighth streets that was redeveloped into student residences by Newtown Square, Pennsylvania-based College Park Communities, national developers and managers of student housing. Two additional proposed redevelopments in the area are considering student housing for all or part of their projects.

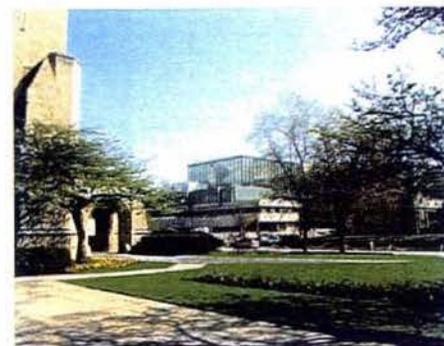
Less than four miles south of the University Center of Chicago on State Street, stand the McCormick Tribune Campus Center and State Street Village (SSV)—the centerpieces of the Illinois Institute of Technology's (IIT) redevelopment of its main campus. After taking a strategic look at its future, IIT in 1995 committed to remaining at its mid-south location at



The new McCormick Tribune Campus Center (above) on the Illinois Institute of Technology's main campus hides El tracks in a roof-top tube.



The \$28 million State Street Village (above) houses 367 students in apartment-style units.



The University of Chicago Graduate School of Business (above) consolidates school facilities previously scattered among four buildings.



Gateway Plaza, a large outdoor space, provides a public space and entry to the University of Illinois at Chicago's South Campus development.



At the University of Illinois at Chicago, two apartment-style residences for 750 students have been built.

State and 33rd streets and to remaking its campus. The goals were to have "high-quality programs attracting high-quality students to a high-quality campus and to have them all work together," says David Baker, vice president of external relations for IIT.

IIT faced the challenges inherent in remaking a modernist masterpiece: the campus was designed by Ludwig Mies van der Rohe, who once led IIT's architecture school, and in 1976, it was named as one of the 200 most important works of architecture in the United States. IIT also hoped to help revive its surrounding neighborhood dominated by dilapidated high-rise housing projects south of 35th Street and had to work around the elevated (EI) transit tracks that run north/south through the campus, dividing student housing on the east from classrooms and offices on the west.

A vision to renew the campus while respecting its history was articulated in a new main campus master plan completed in 1996—and updated in 2001—by Dirk Lohan (Mies van der Rohe's grandson), of Chicago-based Lohan and Associates. In September 2003, IIT opened the \$48 million, 110,000-square-foot Rem Koolhaas-designed McCormick Tribune Campus Center, built in the middle of campus underneath the EI tracks. One goal was to "reenergize campus life by unifying the residential east and office west," explains Baker, and to do that the EI train track structure had

to "disappear," in this case into a 530-foot-long tube set atop the McCormick Center, which both muffles the noise of passing trains and hides them.

State Street Village, a student residence hall designed by Helmut Jahn, principal of Chicago-based Murphy/Jahn, who studied at IIT under Mies van der Rohe, also opened in fall 2003 across 33rd Street, south of the McCormick Center. The \$28 million structure, composed of three five-story buildings, houses 367 students in apartment-style units that face State Street. The EI, located in the back of State Street Village, is separated by concrete and glass sound walls that allow for views of the EI from the courtyards.

Looking beyond its campus, with the intent, according to institution officials, of fostering a greater sense of community, in 1996 IIT began building a 120-unit townhouse and condominium development for faculty and staff on university-owned land located east of campus at Michigan Avenue and 31st Street. As a partner in the neighborhood redevelopment efforts, the city of Chicago has provided the landscaping on State Street and built the new Chicago police headquarters at 35th Street and Wabash Avenue, one block east of campus. The Stateway Gardens public housing high rises south of 35th Street have been demolished and construction of Park Boulevard, a mixed-income condominium, townhouse, and single-family housing project, is expected to start later this year or early in 2005.

The University of Chicago, long the anchor in its Hyde Park neighborhood located about six miles south of downtown along Lake Michigan, has completed a number of major projects over the last few years, including an athletics center, a dormitory, and renovation of several buildings. Under construction are a 430,000-square-foot Interdivisional Research Building, scheduled to open next year, and a 242,000-square-foot Comer Children's Hospital, due to open later this year. This past April, the University of Chicago Hospitals approved plans for another \$300 million in new facilities.

The Graduate School of Business's (GSB's) 415,000-square-foot, \$125 million Hyde Park Center, designed by Rafael Viñoly Architects PC of New York City, opened in September at 58th Street and Woodlawn Avenue. The building consolidates classrooms and offices that previously were spread among four buildings. The building's centerpiece is an atrium and winter garden, measuring approximately 90 by 90 feet, and soaring 92 feet high. About half the building is below grade and has stepbacks, making the roofline consistent with that of neighboring buildings on each side.

About a mile west of downtown, the 25,000-student University of Illinois at Chicago is in the midst of its South Campus development, adding student housing, general housing, and retail and university facilities. Two apartment-style residences for 750 students have been built and about 120,000 square feet of retail space for national and local companies, some on the ground floor of the student residences, is under construction. Approximately 900 residential units, 21 percent earmarked for affordable housing, for an estimated 2,000 residents are underway; with over 640 units sold, construction of the final phase is expected to start before year-end.

Echoing the business and residential displacement controversy surrounding the university's initial construction in the 1960s, the South Campus project faced challenges, including lawsuits, from preservationists who wanted to preserve the open-air Maxwell Street Market—a historic immigrant market and a place where blues musicians played in the open air—and nearby structures. In an eventual compromise, 21 buildings or facades on Maxwell and Halsted streets were reused, preserving some of the original architectural flavor of the area, and the market was relocated to Canal Street a few blocks east. A \$115 million additional development east of Halsted Street was approved by university trustees in August, including an 850-bed dormitory, a convocation center, and an additional 20,000 square feet of retail space.

A number of universities in Chicago have served as economic anchors and stabilizing forces in their respective urban neighborhoods, often while the surrounding areas continued to deteriorate for decades. University-related developments in the city of Chicago in the last decade easily amount to more than \$1 billion, perhaps several billions of dollars. The universities made these investments to enhance education and research efforts, and in many cases they also had explicit neighborhood revitalization goals. The results are long-lasting contributions to the vitality of their surroundings and the city of Chicago.—**Jerry Szatan**, a Chicago-based consultant and writer on corporate site selection and economic and real estate development

College Leases to a For-Profit Entity

Times have changed for Boston's Emmanuel College, owing largely to the value unlocked from its 17-acre urban campus. Enrollment is rising, a major overhaul of its campus facilities was completed this past summer, and its endowment has jumped from \$7 million to nearly \$50 million since the 1990s—even though a few years ago the college, which now has 1,000 undergraduates and 800 graduate students, was contending with slumping admissions, outdated campus buildings in need of maintenance, and a scarcity of funds.

What Emmanuel College did possess was a real estate strategy that helped to reverse its fortunes. The idea was to set aside an "endowment campus," a few acres of the main campus not needed for future growth that could be leased on a long-term basis to a for-profit entity. The college's location—in the Longwood Medical Area (LMA), a tightly packed district that is home to Harvard's medical school and its 17 affiliated hospitals, research institutes, and other medical enterprises—was key to this plan. As such, it is also the site of approximately 2 million square feet of health care and biomedical research laboratory projects now underway, with an additional 4 million square feet being planned at a cost that reaches \$900 per square foot.

In the compact city of Boston, however, real estate concepts such as these can languish because development in general is complex, arduous—and costly. For example, it routinely takes at least two to three years to secure all the permits and approvals needed from government agencies and local advocacy groups for projects larger than 50,000 square feet. In the case of Emmanuel College, the partnership it formed with Corcoran Jennison Companies (CJ), a Boston-based real estate firm, helped turn the strategy into a profitable plan.

As the college's development adviser, Corcoran Jennison obtained the government and neighborhood approvals for the college's development plan, directed the survey of the college's land and buildings, as-

essed its growth needs, and found the lessee, the New Jersey-based pharmaceutical firm Merck & Co., Inc., which signed a 75-year ground lease with a 24-year renewal option. Merck agreed to make a \$50 million lease payment on its two-acre site in advance, and with the proceeds the college was able to afford to fortify its endowment and redevelop its campus.

"We've needed cash forever, and there have been many attempts to convert the excess property," explains Sister Anne M. Donovan, the college treasurer and chief negotiator. But Emmanuel's partnership with Corcoran Jennison proved providential. "This deal had a dramatic effect on Emmanuel. It enabled us to do deferred main-

plan of the campus. Boston-based architecture and planning firm Goody Clancy & Associates was hired to survey the college's land and buildings, and to determine how to double the school's capacity while leaving excess land to lease. After considering several possible development scenarios, Emmanuel College agreed that biotechnology should be pursued. CJ's first stop was Merck's New Jersey headquarters. By 1998, CJ had introduced Merck to Emmanuel College and launched negotiations. The college favored Merck's goal of conducting basic biomedical research as long as it was compatible with Catholic precepts. "We wanted to help ourselves and [put] the land to a beneficial use," says Sister Anne, who noted that the

college and the company agreed to exercise design review over each other's new buildings.

For security reasons, Merck does its own facility development; therefore, CJ agreed to change the scope of its work. "We flipped our role from owner/developer of a speculative research lab to development coordinator representing the college, the landowner," notes Corcoran. Merck paid CJ's development fee but understood that the developer's loyalty was to the school. For Corcoran Jennison, the compensation was less but, says its chairman, the satisfaction just as great. "We're pleased that we could bring a Fortune 500 company to Emmanuel and the city of Boston," stresses Corcoran.

By 2001, Merck had designed its research building; Corcoran Jennison had presented it to the city, Mayor Thomas M. Menino, and the

institutional and residential neighbors, and had won approval to build. The city planners and neighbors helped to decide all details, from curb cuts to building materials. After Emmanuel College concluded the deal with Merck and received the \$50 million lease prepayment, it then obtained an "investment-grade credit rating and borrowed \$40.4 million in the tax-exempt financing market to redevelop [the] campus," recalls Sister Anne.

"Collaboration between the college and the for-profits was the name of the game," notes Sister Anne, "and it led to a successful end result."—**Otile McManus**, a former reporter at The Boston Globe, and currently director of special projects at Corcoran Jennison Companies in Boston

Emmanuel College sought out Corcoran Jennison to be the first developer of a two-acre parcel of the endowment property in 1995. In exchange, Corcoran Jennison agreed to produce an institutional master



Emmanuel College Campus Development Plan - Phase I

GOODY CLANCY & ASSOCIATES

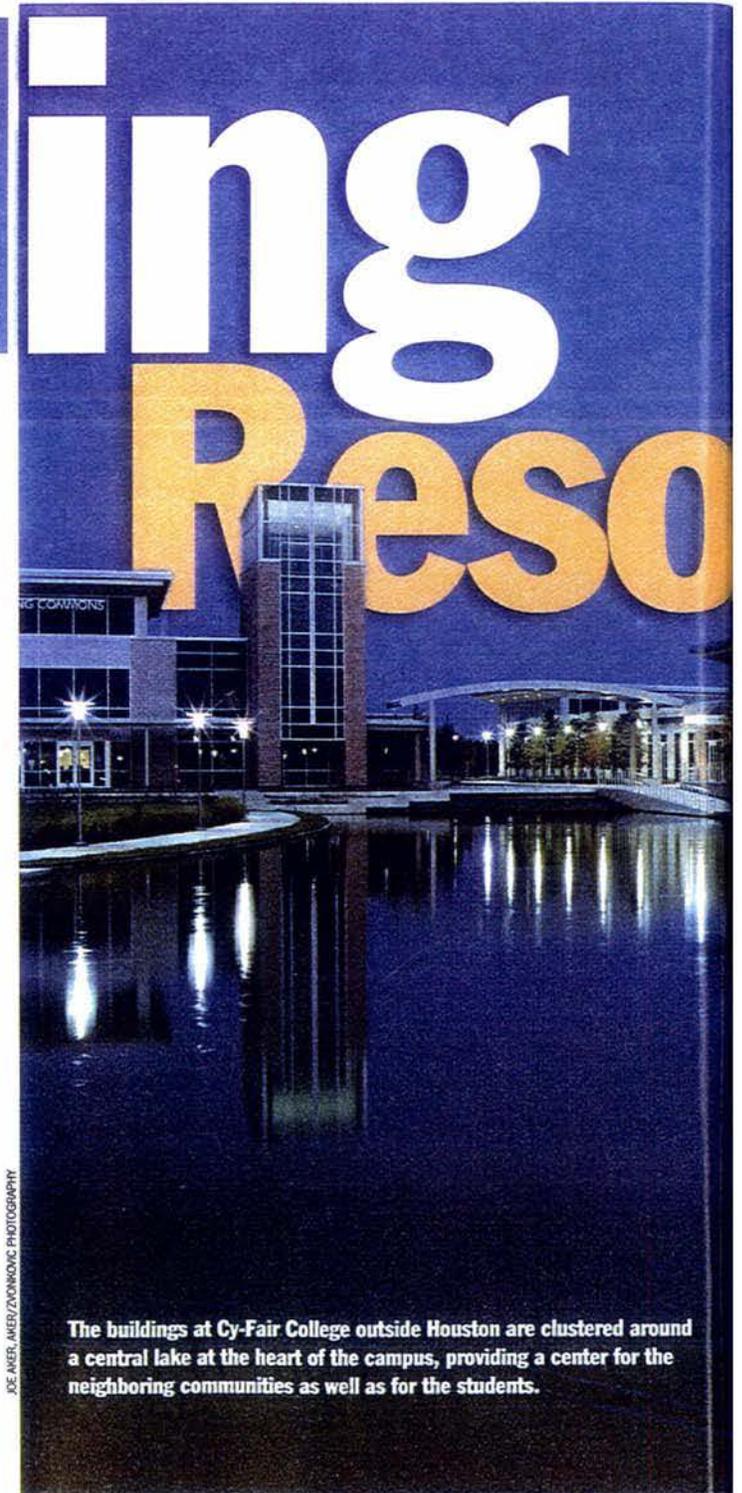
Lessons from new community colleges show

DAVID J. CALKINS

Pooling Resources

Community colleges, lacking the fundraising capabilities of private institutions and the research partnerships available to large public universities, are more dependent on state budgets than their four-year counterparts. With state budget shortfalls around the country leading to slashed education budgets, community colleges are struggling to handle record increases in enrollment. Local governments also are feeling the strain after years of a slowed economy. In addition, as the countryside becomes increasingly built up, developable land grows more scarce. To address these issues, a number of community colleges are creating innovative partnerships with their surrounding communities, sharing resources and facilities more extensively than before. Together, they are developing creative approaches to financing and are working to master plan new campuses and communities that integrate both town and gown. These kinds of projects represent a potential new model for community college planning.

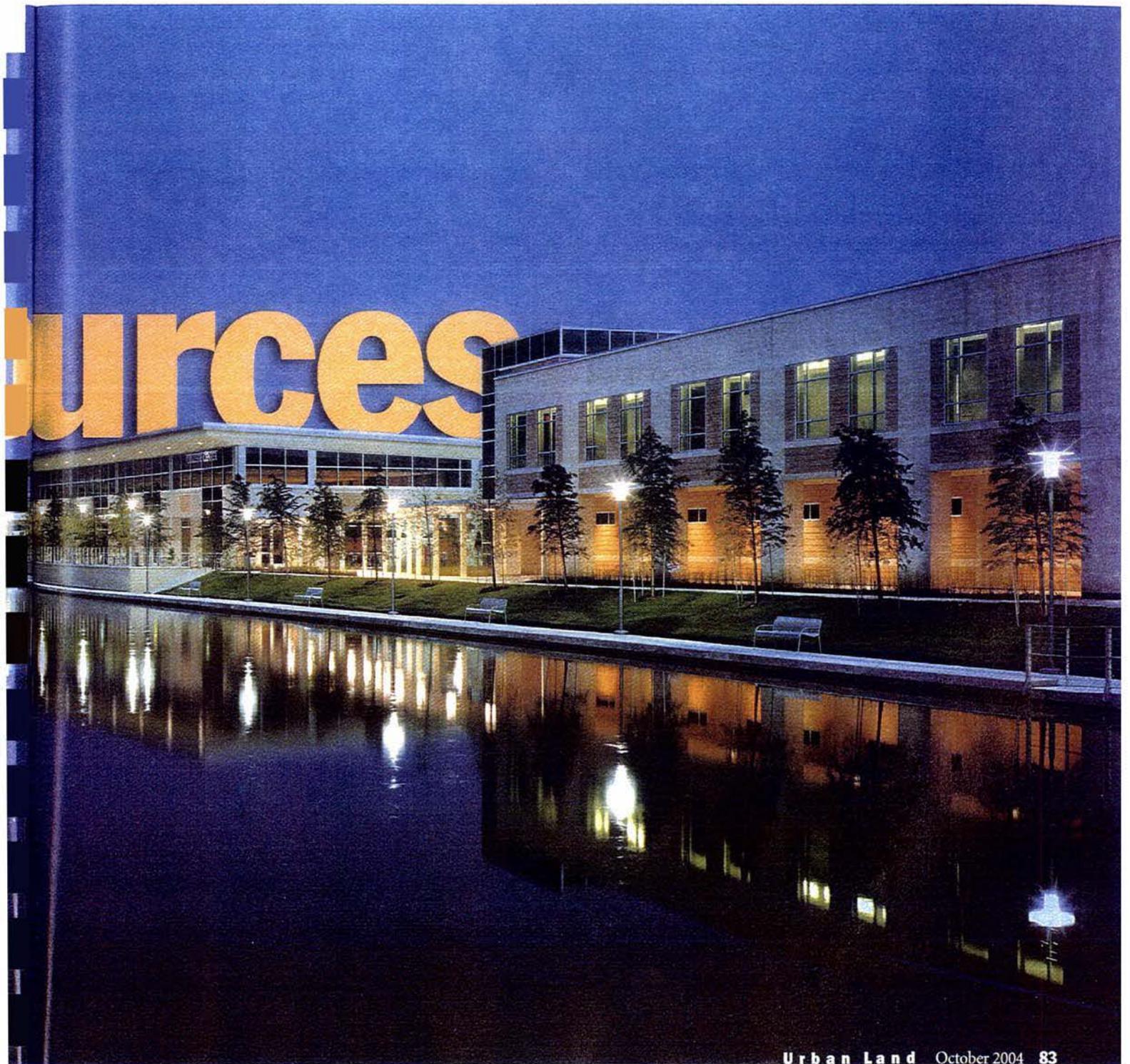
Community colleges have a long history of sharing existing facilities with the communities around them. A 2001 survey of more than 350 community colleges, conducted by the American Association of Community Colleges, found that 96 percent make meeting rooms available to community members, 80 percent permit residents to use the library, 78 percent allow community use of the auditorium, and 61 percent give community residents access to sports facilities. A majority of the community colleges allow local businesses to use meeting and conference spaces, and about one-third lease performance facilities to local community theater companies. But the current trend seems to be toward a new level of cooperation between colleges and their neighbors as both strive to integrate facilities and land use to a greater degree early in the planning process.

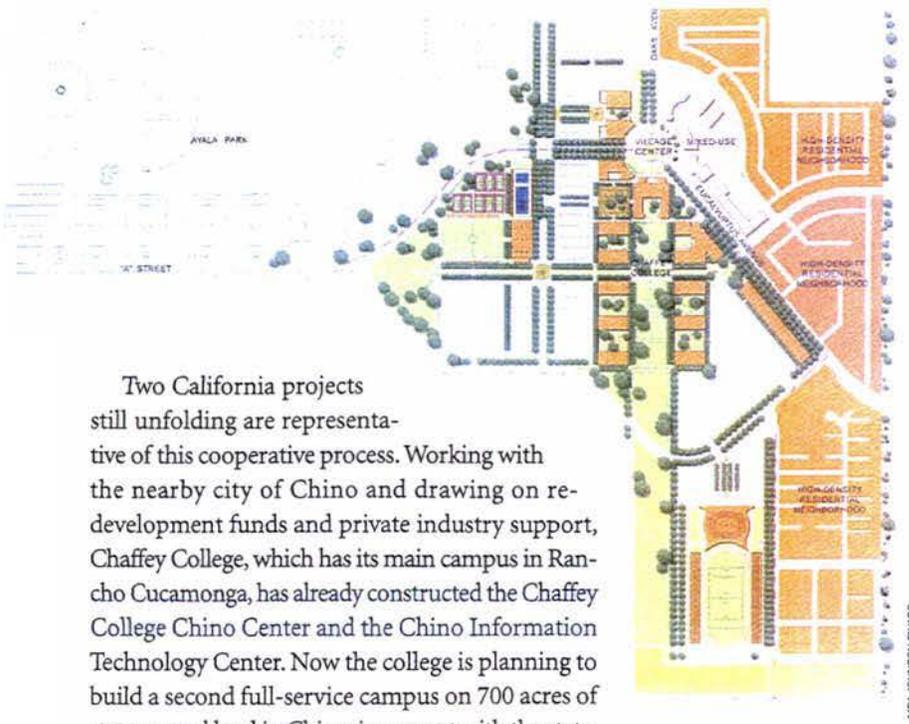


The buildings at Cy-Fair College outside Houston are clustered around a central lake at the heart of the campus, providing a center for the neighboring communities as well as for the students.

JOE ANER, ANER/ZAVENKOVIC PHOTOGRAPHY

how communities can share resources to produce a sum that is larger than its parts.





Two California projects still unfolding are representative of this cooperative process. Working with the nearby city of Chino and drawing on redevelopment funds and private industry support, Chaffey College, which has its main campus in Rancho Cucamonga, has already constructed the Chaffey College Chino Center and the Chino Information Technology Center. Now the college is planning to build a second full-service campus on 700 acres of state-owned land in Chino, in concert with the state, the city, and Chino's redevelopment agency. The project will expand existing park facilities and include a new master-planned community with residential and mixed-use elements as well as an elementary school. The campus is set to open in late 2005 or 2006.

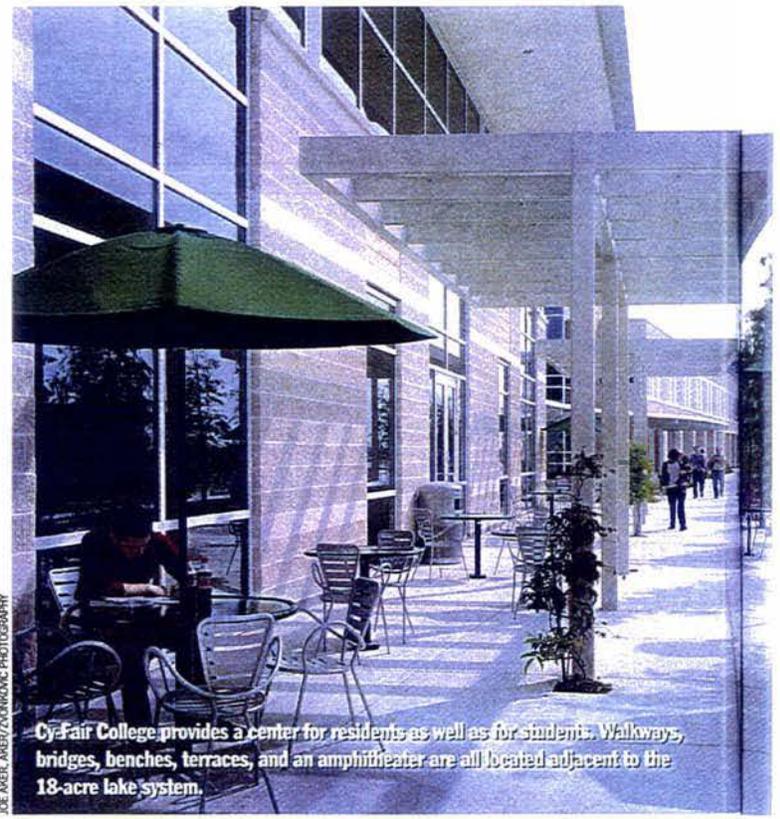
In Sacramento, the new North Natomas Town Center is a joint venture among the Los Rios Community College System, Sacramento, and the Natomas Unified School District. The New Town Center Education Complex will have a new high school, a new campus for American River College (part of the Los Rios system), a new branch of the Sacramento public library that will also serve the college and high school, and shared recreation facilities. Bus and light rail are planned to connect the complex with the town center and downtown Sacramento. The college will use the high school's facilities—which opened this fall—until its own campus is complete.

In Texas, Cy-Fair College opened its new campus northwest of Houston in 2003, providing a center for the neighboring communities. Like many rural communities, this one has shifted from agricultural to suburban residential uses, but has never developed a focal point. With the area's half-million residents still lacking a town center or downtown, the design of the new Cy-Fair College (combining the names of the two neighboring agricultural communities, Cypress and Fairbanks) was developed not only to provide a much-needed academic program, but also to establish a sense of place on 200 acres of previously undeveloped land. From the early stages, the college worked extensively with the community, including the local chamber of commerce and other civic groups, to ensure that the project—the fifth for the North Harris Montgomery Community College District—would address the needs of the growing region. One result is the college's new library and learning center, which also operates as a Harris County public library and includes a children's library.

One of the reasons for these new partnerships is the potential for shared financing. The partners are drawing on a variety of funding sources, often in creative combinations, with local taxes, state bond measures, county funding, and land grants all part of the mix. Chaffey

Chaffey College, which has a main campus in Rancho Cucamonga, California, is planning to build a second full-service campus on 700 acres of state-owned land in Chino that will include a new master-planned community with residential and mixed-use elements as well as an elementary school.

College's Chino campus is funded by Measure L, a \$230 million bond measure passed in 2002 that earmarks \$42 million for the new campus. The project is part of the new master-planned community of College Park, which occupies 700 acres of surplus land owned by California. The state, city, redevelopment agency of Chino, and Chaffey College have entered into a memorandum of understanding to develop the area together. For the North Natomas Town Center, each party is raising its own money: the public library is requesting assistance from the state, the college is building its facility in stages, and the school district is drawing on money from the \$3 billion school bond approved in 2003.



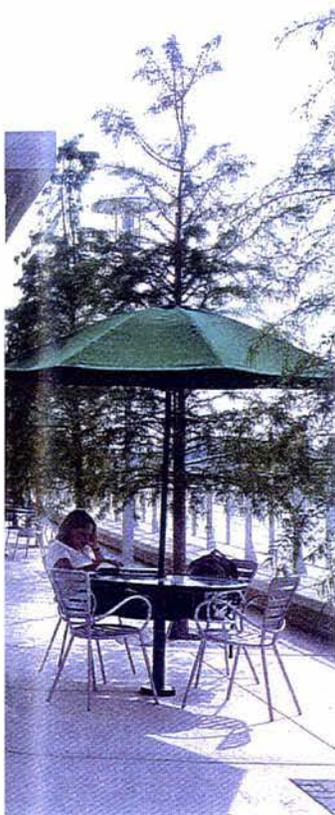
Cy-Fair College provides a center for residents as well as for students. Walkways, bridges, benches, terraces, and an amphitheater are all located adjacent to the 18-acre lake system.

Funding for Cy-Fair College's new campus came from a combination of new local taxes and a bond for the entire district, both approved by area voters; the county contributed funds for library construction, staffing, and books. Texas law allows community college districts to tax locally, while the state is supposed to pay for faculty and operations, but shrinking state support has placed more of the state burden on local taxpayers. In 2000, the community voted to join the North Harris Montgomery Community College District, which meant an increase in property taxes, and subsequently

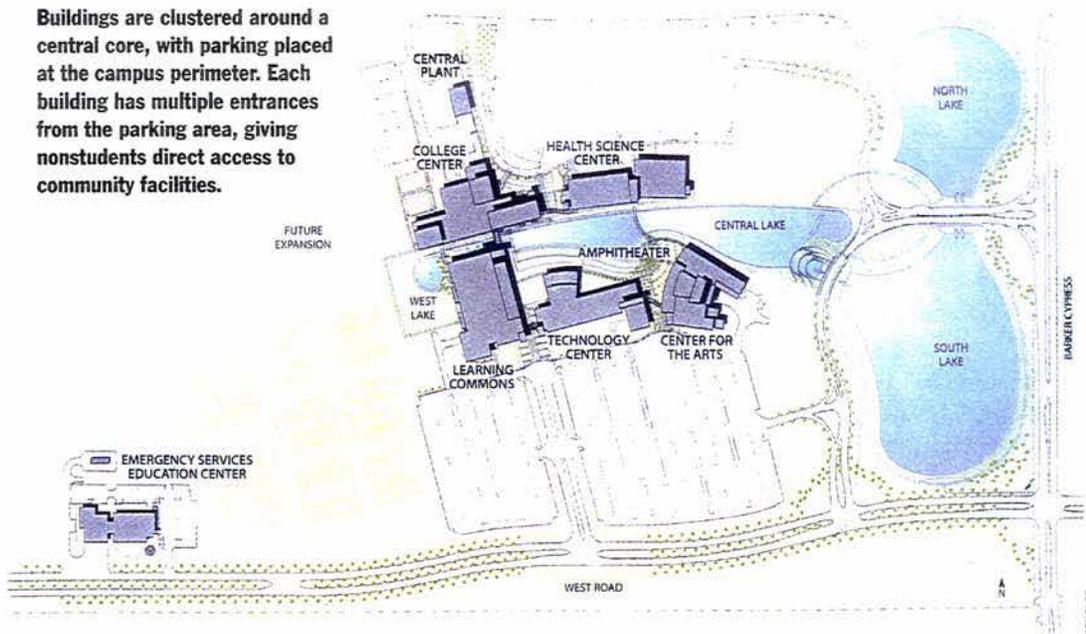
passed the bond for several college construction projects. "The businesses supported increasing their taxes because they understood how important the community college was to our economic vitality and to the lives of people who live here," says Darcy Mingoia, president of the Cy-Fair Chamber of Commerce.

Because the Cy-Fair area had no county library and the local school district was growing rapidly, a Harris County commissioner approached the college about the possibility of creating a joint facility on college property, which would cut costs for both entities. The completed 78,500-square-foot project includes a 7,000-square-foot children's library, a career center, an Internet café, and community meeting rooms. "We could have never provided the same quality and level of service in the 30,000-square-foot public library branch that was originally proposed [without the partnership with Cy-Fair]," says

Kathryn S. Park, director of the Harris County Public Library. "The benefits to the user are substantial: a larger building, open longer hours, with more computers." Already, after



Buildings are clustered around a central core, with parking placed at the campus perimeter. Each building has multiple entrances from the parking area, giving nonstudents direct access to community facilities.



one year of operation, the Cy-Fair branch ranks third in circulation among the 26 libraries in the system.

In addition to libraries, good candidates for shared uses between communities and community colleges are fitness centers and other recreational facilities, student centers, conference centers, performing arts theaters, and technology centers. This means that master planning and the design of individual buildings need to take into account how local residents will get access to the shared facilities. For daily-use facilities such as libraries, technology centers, and fit-

ness centers, having defined hours for community use ensures that students have dedicated access during the times they are most likely to be on campus. With conference centers, student centers, and performing arts theaters, it is essential to have a centralized entity that leases the space for community needs and tracks overall use. Cy-Fair's 435-seat conference center is used by the local school district, businesses, and public organizations, but because the facilities were built with bond money for educational purposes, academic activities are given priority. An in-house event coordinator receives requests from the public and works with community members to schedule nonacademic events. Under district policy, the college is required to offer discounted rental fees to nonprofit organizations.

Chaffey College's technology center in Chino, opened in 2002, hosts classes, but also offers high-tech corporate meeting rooms where local people or businesses can evaluate hardware and software or demonstrate equipment to clients. Chaffey College's plan for its new full-service campus includes shared recreational facilities, performing arts spaces and programs, and a culinary studies/ community center. The college and Chino intend to build and manage the community center coop-

eratively; students in the culinary studies program will receive instruction there, and community members will be able to rent it for events.

Community input is essential to matching college design to the area's specific needs. Well-publicized public workshops or community design charrettes, open to both college and community members, can help engage everyone in discussion and build a sense of ownership. Civic groups, area employers, and college and school district administrators, faculty, and students should all be involved, and online and newspaper surveys can be used to gather supple-



In Sacramento, the new North Natomas Town Center will include a high school, a campus for American River College, a branch of the Sacramento public library that will also serve the college and high school, shared recreation facilities, and a mixed-use retail center.

EDWARDS, INC.

mental input from those who cannot attend the meetings. For Cy-Fair College, four months of visioning sessions with the design team were followed by six months of community input, with the community involved even in site selection. During the needs assessment process, the college surveyed hundreds of employers, civic groups, and high school and college students about their expectations for the college in terms of its curriculum, community services, and image.

The local chamber of commerce worked closely with the newly formed college to develop the campus and its programs. In 1999, the chamber convened a number of focus groups and asked the participants what was holding them back in terms of developing their businesses. Across the board, the groups said that the top issue was workforce development. The chamber of commerce's economic development committee identified local gaps in workforce training, especially for high-demand and new occupations. Cy-Fair College's planning shows that the most effective curriculum responds to the needs of the community. Workforce development components need both to build on local strengths and to bolster areas of employee shortages. Cy-Fair's registered nurse and licensed practical nurse programs respond to the community's critical shortage of nurses; allied health care programs include training in radiology technology, mammography, and sonography. Creation of a deaf interpreter program was inspired by a local magnet school for the deaf, and, given the strength of Houston's high-tech and manufacturing industries, it made sense to emphasize those areas in developing the technology center and advanced manufacturing center programs. The college's new programs include global information system/global positioning system training, metal building drafting, logistics, teacher education, and industrial welding. The college has equally strong transfer curriculums in the arts and sciences.

Planning for some training programs can directly benefit the community in security and life safety. For example, fire stations and fire-fighting training centers represent a natural dovetailing of community and community college needs. In the Cypress-Fairbanks region, the local volunteer fire department lacked a nearby training facility: the clos-

est one required a one- to two-hour commute from the station. By pooling resources, Cy-Fair College and the fire department were able to create a training center that neither entity could have afforded on its own. The college provided instructors and leased five acres of land to the department for \$10 a year. Tax dollars from the local emergency services district supplied funds to construct and equip a new community fire station, a four-story drill/burn tower, and an emergency services training center. As part of

their training, students go out on call with firefighters and emergency medical technicians. "The college classrooms are spacious enough to allow everything from small group training to larger district and combined department training," notes Joe R. Davis, fire chief of the Cy-Fair Volunteer Fire Department. "We have used the media training areas for countywide training and meetings. This fall, a statewide emergency service districts organization will be hosted by our department with the cooperation of Cy-Fair College and its facilities."

The college's curriculum also reflects a growing nationwide trend toward lifelong learning. "Cy-Fair College is an educational institution designed to reach a broad demographic," says Cy-Fair College president Diane Troyer. "Whether it's related to academics, leisure, career development, or family activities, there's something here to help people enrich their lives and meet their goals."

Even with considerable community input and planning, local concerns sometimes can threaten the viability of a project. Although Chino conducted public workshops to gather input for the College Park project, some community members are still dissatisfied with the project's density; in addition to the community college and expanded park, the project includes 2,200 homes by Orange County-based developer SunCal Companies. In August, a group of residents began working to gather signatures on a petition seeking to reverse the city council's approval of the project. The developer has already reduced the number of units from 2,500 in response to community requests; 2,200 units is the minimum number that it believes would be economically feasible. SunCal plans to pull out of the project if more reductions are mandated, a move that would put an end to the college and park portions of the project as well.

Concerned about the impact such developments will have on the quality of life, communities are also looking to campuses to help provide a missing town center, a gathering place, and, they hope, a local identity. The North Natomas Town Center plans include creation of a 96-acre regional park, while the College Park project in Chino entails 120 acres for enhancements to the existing Ayala Park.

Master Planning for Multiple Campus Institutions

o be effective, a master plan needs to put forth a vision for an institution compelling enough to galvanize its constituents, project its aspirations, and attract funding. When a master plan is for an educational institution with multiple campuses, specific issues and challenges come into play: how to balance the institutional image with individual campus identities, what the best process is for identifying issues and opportunities, how to resolve conflicting needs and goals, and how to meet the expectations of all constituents.

Unique as an institution's individual campuses may be, each affects the others, and all affect the institution as a whole. A multiple-campus master plan needs to ensure that a synergy among campuses is reached, with each campus being strong and making a contribution to the whole.

Montgomery College Overview. Since its founding in 1946, Montgomery College has grown into a multiple-campus institution with more than 20,000 for-credit students and 15,000 workforce development/continuing education students. The college recently completed a master-planning effort that encompasses its three Maryland campuses—Takoma Park, Rockville, and Germantown.

The planning process encouraged participation within structured limits and was broken into five phases:

- **Kickoff.** Meetings were held with college representatives and the design team to review the project scope and schedule.
- **Discovery.** Information was collected regarding enrollment, existing facility conditions, zoning regulations, utility infrastructure, environmental characteristics, previous studies, and other relevant information.
- **Analysis.** A design charrette was held with the college to share the design team's understanding of the information collected during the discovery phase, to discuss preliminary design ideas generated from analysis of this information, and to pose key questions to the college regarding various design challenges and opportunities.

- **Refinement.** Design concepts were developed in response to college feedback.

- **Report.** Resulting ideas, recommendations for review, and requests for funding were documented.

Using this organization and structure, the team explored each campus, listening for unique issues and striving to find commonalities and balance.

Takoma Park Campus. The Takoma Park campus, founded in 1950, is the oldest of the three campuses. It is also the smallest, with 13 acres and 241,000

gross square feet of built space. The campus is unusual in that residential communities border it on three sides, with the one to the east designated as a historic resource. The campus straddles the jurisdictional areas of Takoma Park and Silver Spring.

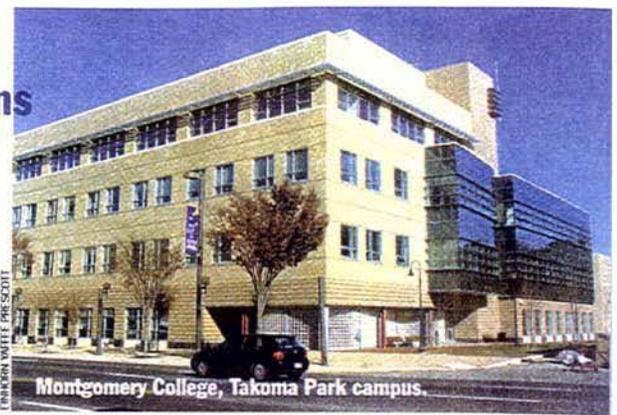
Major issues affecting this campus are:

- joining physically separate campuses into a single campus;
- garnering support for the master plan from the Montgomery County planning board;
- building on opportunities created by county designation of an arts district encompassing the western portion of the campus;
- responding to opportunities and constraints imposed by the historic neighborhood to the east of the campus and a historic building and park to the west;
- creating a plan for revitalizing the eastern landlocked portion of the campus, which is characterized by aging buildings with small footprints;
- responding to community opposition galvanized around tree preservation; historic preservation; and concerns about parking, noise and light pollution, and access to bicycle trails;
- identifying buildings that can be demolished to make way for future buildings or open space; and
- backfilling existing college buildings in residential neighborhoods with compatible uses.

There is a history of tension between the college and the community, sparked by the college's acquisition of residential properties in the 1970s for expansion. This tension was largely resolved in the early 1990s when a community task force proposed a plan for the college to expand over a previously insurmountable physical barrier—a railroad right-of-way—into the Silver Spring business district with a pedestrian bridge and a series of strategically located buildings. The campus will receive several new buildings and sees renovation of its original 1970s buildings as critical to its success. This will require the commitment of additional resources coveted by each of the campuses.

Rockville Campus. The Rockville campus, founded in 1975, is the second oldest of the campuses and comprises 82 acres and 676,000 gross square feet of built space. Major issues affecting this campus are:

- identifying sites for new buildings and structured parking, including evaluating existing recreational facilities and/or surface parking areas as potential building sites;
- improving the quality of life on the campus by creating open space, preserving and enhancing the few



areas of remaining woodlands, and renovating deteriorating facilities;

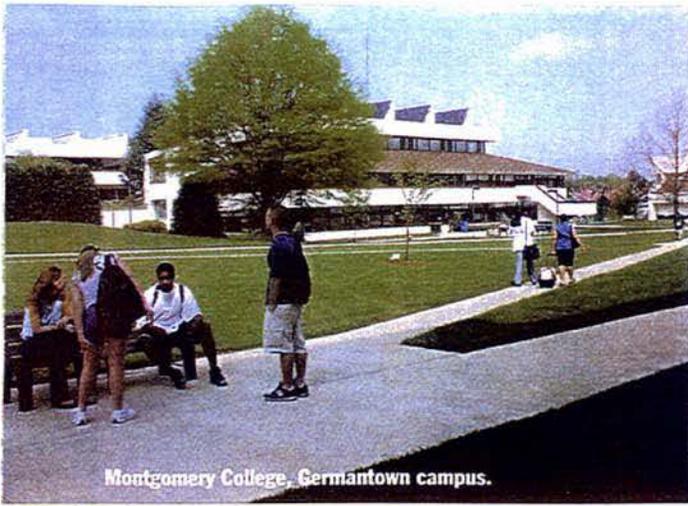
- clarifying vehicular circulation routes and enhancing the campus entrance;
- determining the appropriate location for institutional functions such as information technology, facilities management, and central administration; and
- evaluating potential uses for an adjacent county-owned site.

The Rockville campus master plan has not been updated since 1991. The design team presented college officials with development options for revitalizing a campus that is perceived by faculty as too densely developed, deteriorated, and lacking in amenities. The college board of trustees supported the notion of creating a major campus green space interwoven with a landscaped circulation spine and enhancing the Mannakee Street entrance by removing surface parking spaces to create new signature building sites. It also backed locating recreational facilities, workforce development/continuing education programs, or central administration functions on county-owned property south of Mannakee Street. Finally, it agreed to construction of a new parking structure supported by user fees.

Germantown Campus. The Germantown campus of Montgomery College, founded in 1978, is the newest campus. It also is the largest by far in terms of area at 204 acres, but has only 260,000 gross square feet of built space. Located in a part of Montgomery County that is rapidly developing as a technology hub, the campus is guided by the provost's vision of it being the most technologically advanced campus in the college system and integral to the technology business sector. The college is working cooperatively with the county economic development office to develop a technology business park on 20 acres of newly purchased college land adjacent to the campus, with the dedication of an equal amount of land from the original campus property.

Included among the major issues affecting this campus are:

- determining the extent to which the campus and business park should be intermingled;



Montgomery College, Germantown campus.

EINHORN YAFFEE PRESCOTT

- preserving the rural feel and forested areas of site—faculty members appreciate the “country-club feel” of the campus and have challenged the design team to “envision growth that takes into account the physical beauty of the campus and its intimate feel”;
- responding to the topographical challenges and opportunities of the site;
- enhancing the front door to the campus and developing the perimeters facing major roads and highways;
- improving circulation and access, including creating a secondary emergency exit from the campus;
- evaluating the role of athletics on the campus and the relationship between facilities and related programs; and
- identifying infrastructure improvements required for expansion, including the need for increased stormwater retention and central plant capacity.

An idea that fostered lively and constructive debate at all levels of the institution was relocation of recreational programs from the Rockville campus to the Germantown campus to create opportunities for further

building development at Rockville. This would balance the need for space for buildings on the Rockville campus with the goal of focusing the Germantown campus’s energy and resources on science and technology programs. The trustees’ decision to abolish the college’s football program made clear its resolve to concentrate scarce institutional resources on academic programs.

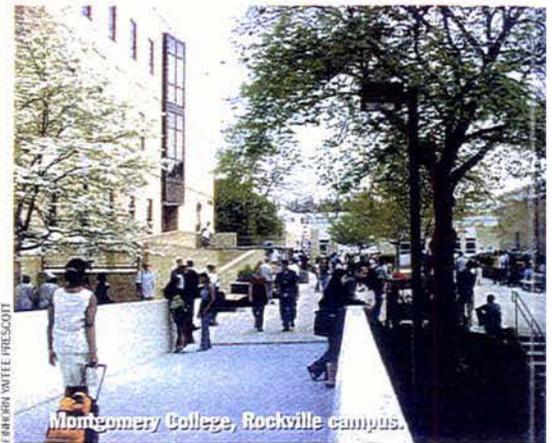
Highlights of the Montgomery College Case Study. Developing a master plan for institutions with

multiple campuses requires the following for a successful and smooth process:

- understanding of the institution as a whole, including its mission, goals, business plan, and position in the market and community;
- understanding of the individual campuses, their unique characters, orientations, environments, and jurisdictional requirements;
- development of an organizational structure and process that balances the needs of the institution with the needs of the campuses, ensuring that issues are voiced and decisions can be made;
- early invitations to the community to participate within a controlled process;
- understanding of the funding mechanism for capital projects;
- incorporation of flexibility to address changes in external or internal factors; and
- employment of a consistent team—client, consultants, and lead designers working in a consistent and

iterative process that addresses campus and institutional opportunities and constraints.

Master plans for multiple-campus institutions attract a high level of scrutiny because of the size of the institutions, their importance in the community, and their relationship to other institutions. Though many viewpoints get represented and vigorous debate ensues, strong leadership, clear objectives, and an open process can translate this dialogue into a strong vision with a broad base of support. A master plan for a single campus can be derived from a more parochial perspective, but master plans for institutions with multiple campuses cannot. The very nature of planning for multiple-campus institutions promotes a well-conceived product—one that can weather changes in values, priorities, and needs in the decades to come.—*Elissa Kellett, principal, Einhorn Yaffee Prescott, Architecture and Engi-*



Montgomery College, Rockville campus.

EINHORN YAFFEE PRESCOTT

neering, PC, located in Washington, D.C.; John McLean, director of capital planning, design, and construction, Montgomery College, Rockville, Maryland

At Cy-Fair, an 18-acre lake system is the defining feature of the campus. Water flows from a basin next to the library over a variety of stones, steps, and weirs into the central lake at the heart of the campus, where the first five buildings are clustered. The lakes provide flood control and irrigation and are living ecosystems containing fish and aquatic plants, while the landscape design reintroduces native grasses and trees, restoring a previously degraded prairie ecosystem.

Establishing a sense of place that offers clear lines of access and welcoming spaces can be essential to the creation of a vital center for the community. The presence of pedestrian and transit connections, benches, amphitheatres, and a variety of areas for different kinds of activities—from studying to informal recreation—helps to enhance interaction among users. Strong open-space components produce an amenity for students and residents alike.

Community colleges can play a major role in economic development, as well. They can help revive downtowns with infill projects that add jobs to the local economy and bring students—and

their money—into languishing commercial areas. For example, Connecticut recently announced a \$230 million development project for downtown New Haven that includes a \$140 million campus for Gateway Community College, which plans to relocate to the downtown area, bringing with it an estimated 11,000 students. New Haven’s downtown has long felt the effects of a high number of commercial vacancies, especially since Macy’s departed in the early 1990s. The city owns the department store’s former location and plans to remove the structure and donate the site to the college. The money generated by the influx of students spending locally—estimated to be \$13 million per year—added to an estimated \$3.6 million in revenue from taxes, is expected to provide the downtown with a much-needed boost. The overall development project also includes a hotel, a conference center, retail and residential uses, and new facilities for Long Wharf Theatre.

At Cy-Fair, the new campus is beginning to bolster the region’s growth. Just to the south of the college, the Cypress-Fairbanks

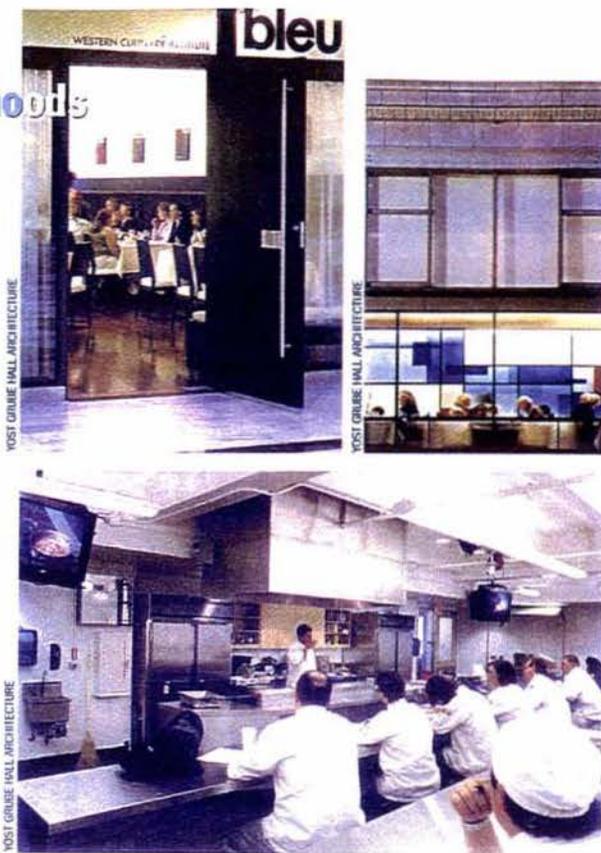
Invigorating Neighborhoods

Two nontraditional educational institutions in Portland, Oregon, have recently made changes to their campuses that have invigorated neighborhoods. Portland Community College (PCC) expanded the most urban of its three campuses, contributing to the ongoing rejuvenation of its north Portland neighborhood, while Western Culinary Institute (WCI) consolidated operations from seven sites to a single historic structure in the downtown core, turning the building into a bustling center of activity.

One school is public; the other is private. One offers a broad array of subjects; the other is specialized. One attracts students locally; the other draws students nationally. One expanded outward with new buildings and land acquisition; the other consolidated scattered facilities into a single renovated building. However, both demonstrate how nontraditional educational institutions can revitalize an urban landscape.

National trends suggest that these urban opportunities are not unique to Portland but rather abound nationwide. Two-year college enrollments have been rising—the Community College Research Center, based at Teachers College at Columbia University in New York, estimates that 11 to 16 percent growth will occur this decade—and both public and private institutions are constructing new facilities. More and more nontraditional higher-education schools are becoming major partners in the revitalization of the urban fabric of cities.

The WCI, previously scattered over seven buildings in southwest Portland, used its expansion to con-



solidate into a single building. The expansion also provided WCI with opportunities to enhance its visibility and identity. The school chose to rehabilitate the 100-year-old Galleria, a 200,000-square-foot, five-story building in Portland's downtown core. Since the 1900s, the Galleria had housed a landmark department store, but it had been underused for the past two decades.

The building now contains WCI's new administrative offices, lecture rooms, two restaurants, and 12 curriculum-specific kitchens. Student spaces and facilities tailored

Western Culinary Institute consolidated its educational facilities previously split among seven different buildings into a single 200,000-square-foot, five-story building in Portland's downtown core.

to the varied cuisines of each teaching kitchen are on the fifth floor, with lecture halls and administrative offices on the floor below. The design opens up full-height historic windows and an atrium, taking advantage of natural light and providing views of downtown Portland. Bleu, a 120-seat fine-dining restaurant on the ground floor of the east face of the building, has become the students' final training ground. A café and dessert confectionery on the west face of the building provide a retail venue for the pastries produced in the school's kitchens several stories above.

Drawing the seven disparate educational facilities together in one location has helped to infuse life into the historic building and the surrounding neighborhood. The move consolidated 1,000 students onto three floors of the Galleria for educational programs that extend from before dawn to late in the evening, bringing vitality and revenue to other businesses in the building and on the surrounding streets.

A similar effect is taking place in the Humboldt neighborhood, where PCC is expanding one of its three campuses from 175,000 square feet to more than 350,000 square feet of academic space. Originally

Independent School District is building the Richard E. Berry Educational Support Center, a \$72 million project that will include a 9,500-seat arena, a 450-seat auditorium, conference facilities, and district staff offices. It will share the site with the district's new football stadium, while the district and the college will share parking for these uses. Just to the northwest, the Rouse Company has begun building the first 600 homes in a new 9,000-acre residential community, expected eventually to include 19,000 single-family homes, parks, and 900 acres of retail stores and office buildings. "Developers put our class schedules in their promotional packets. We are definitely a draw," points out Cy-Fair's Troyer. A local real estate developer, Fred Caldwell, president and CEO of Caldwell Watson Real Estate Group, concurs. "We have been able to attract clients and tenants because of the availability of attractive land and facilities, and a quality workforce," he says. "Cy-Fair College provides the training and specific skills our prospects need for their new or relocating businesses."

Integrating program needs with the social needs of their communities, community colleges can help to revitalize the surrounding area, improve relations between town and school, and reduce costs through the pooling of resources. Troyer notes that if she had it to do over again, "We would reach out and make even more partnerships. But you need time and patience to build those relationships. We had the patience, but not the time." With careful attention to urban design principles and distinctive architecture, community colleges can create a focal point and sense of place in areas that lack them—even with tight construction schedules. Cy-Fair Community College went from a concept to completion in less than three years, points out Troyer. Given today's challenges to state and city budgets, community colleges are likely to rely more and more on partnerships with local governments and businesses. ■

DAVID J. CALKINS IS A PRINCIPAL WITH THE HOUSTON OFFICE OF GENSLER, A GLOBAL DESIGN, PLANNING, AND STRATEGIC CONSULTING FIRM.



YOST GRUBE HALL ARCHITECTURE

The Portland Community College Cascade Campus, located two miles north of the downtown core, has expanded to include a new science building (left) and a new physical education building (right).

built for a private college, the Cascade campus has grown slowly over the past 20 years within a commercial area. PCC's investment in the Cascade campus lagged behind that in the Sylvania and Rock Creek campuses until a 2001 bond vote approved \$57 million for comprehensive academic facilities. The expansion is expected to increase the Cascade student population by 40 percent.

The Cascade campus expansion used open and underused parcels while maintaining the commercial area along North Killingsworth Street. Buildings that face the commercial streets incorporate a storefront character, while beyond the urban edge, a second face of the campus opens onto a large plaza and open quadrangle areas along a central green spine at the heart of the campus. Unlike the traditional mega-structure expansion seen in many urban community colleges, PCC chose to expand in multiple mid-scale buildings that fit the urban commercial character of the neighborhood. The expansion includes four new buildings, major additions to three existing buildings, and remodeled classrooms, student gathering areas, and study spaces in the remaining buildings.

The new campus uses a consistent design vocabulary to reinforce its identity while maintaining the character of the neighborhood. New buildings for arts and humanities, technology education, and physical education are two-floor brick structures built to maintain the main street edge. Additions to the science building, the student center, and a classroom building increase the density of the campus and make cost-effective improvements to updated existing facilities.

An adjacent grocery store that had closed was adapted to provide training facilities for fire, police, and emergency medical services programs.

The Portland Community College Cascade campus is used for a combination of college and private commercial activities. The uses are varied: from traditional classrooms, faculty offices, and art studios to professional music and recording studios, bookstore storefront retail space, and vocational training centers. All these uses employ a storefront character to encourage openness and the accessibility of the college to the community. The local urban community not only derives an identity from proximity to the campus, but local residents and businesspeople can take advantage of the college's performance, recreation, and academic resources.

Portland's planning and transportation policies affected the expansion plans of both institutions. By reusing the Galleria and helping to add economic activity to the downtown core, WCI achieved the goals set forth in multiple planning studies for the downtown area, including the West End Study and the Downtown Plan. WCI also reinforces Portland's dedication to alternative transportation by providing no additional parking at the school. The hub strategy of Portland's bus system brings virtually every spoke to within five blocks of the school, while the two most progressive alternative transportation systems—MAX light rail and the Portland Street Car—cross at the Galleria.

In contrast, PCC Cascade, a commuter campus located two miles north of the downtown core, has seen parking demand strain the neighborhood and commercial areas. Unlike the college's other two cam-

puses, Cascade's urban character and land resources would not allow it to provide large surface parking lots around the campus. However, this restriction is less of a problem since the northern leg of the city's light-rail system, Interstate MAX, opened this spring with a stop four blocks from the campus.

PCC's expansion triggered the use of an impact mitigation plan (IMP), a recently established planning tool intended to promote long-term understanding between city neighborhoods and valued institutions. The Cascade campus IMP, which focused on the effects on transportation and infrastructure and the impact of the new buildings, created an umbrella plan for future campus development. The plan for the Cascade campus expanded the applicability of the IMP by concentrating on long-term thresholds that would trigger associated mitigating improvements. By taking this approach, the master plan avoided specifying individual projects that would be built, thereby extending the life of the master plan and the number and type of future projects that might be built. At the same time, the campus activity spurred Portland to undertake improvements in the rights-of-way, including hardscape design, public lighting, and landscaping.

Portland Community College and the Western Culinary Institute have invested in projects that provide multiple benefits to Portland's urban areas, creating state-of-the-art facilities that enhance learning opportunities while at the same time bringing important revitalization to the city's neighborhoods.—**Ben Hufford**, an associate with Yost Grube Hall Architecture, an architecture and design firm based in Portland, Oregon