

Higher Education REPORT

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“People from the neighborhood all think of the university as a giant piñata,” sighs one beleaguered community relations person. “If you beat on it enough, you get a prize.”

Several recent studies, however, indicate that colleges/universities have more of an impact on an area than standard measures would suggest, and that a thriving college/university can actually help communities turn their economic fortunes around.

According to Richard Florida, professor of regional economic development at Carnegie Mellon University, the economic impact of a university is far beyond the old measures—the number of jobs it creates. A university’s most important contribution may well be in the atmosphere of tolerance it creates and in the talent it attracts to an area.

With so much at stake for both parties, how can colleges/universities and local governments work together to move beyond the piñata phase and into a viable partnership?

Broadening The Understanding of Economic Impact

One of the first steps for a better relationship between colleges/universities and local authorities is for all parties to see the extent to which their futures are intertwined, explained the experts we contacted. The college or university is more than just a major employer, often providing the atmosphere that encourages new business growth and can put a town on the map economically.

“It starts with the recognition that the university and its community have a unique relationship,” explains Bob Snipes, deputy manager of the Unified

Government of Athens-Clarke County, Ga. (ACC Unified Government). “Many communities can duplicate the infrastructure, but they can’t duplicate the University of Georgia.”

Universities can create a good quality of life—in the form of cultural, athletic and educational opportunities—at reasonable costs, along with providing extensive opportunities to be involved in local organizations, including politics.

“The university community brings different value systems and beliefs that make governing challenging,” offers Snipes. “But it also compels us on the government side to be more creative and open to new ideas.”

Coordination at Multiple Levels

Samuel A. (Pete) Anderson III, FAIA, Architect for the University of Virginia (UVA), believes that the turning point for his university’s relationship with the City of Charlottesville and Albemarle County came more than a decade ago when the League of Women Voters and other community leaders led an effort to bring UVA, the city and the county together. Today, a system of formal and informal meetings is central to the strategy that keeps UVA and its surrounding community working together.

The Planning and Coordinating Council (PACC), which includes UVA’s president and senior vice president, the chairman of the county board of supervisors, the county executive, the mayor and the city manager, addresses policy matters and political issues. The PACC Technical Committee, composed of planning officers from UVA, city and county *continued on page 2*

Remember Your History

According to a report prepared by the director of the Pew Forum on Undergraduate Learning, Russell Edgerton, America had 250 colleges by the time of the Civil War, of which 182 still survive. Which means, these colleges/universities have history and they want to preserve it. Moreover, they are probably part of a community with a rich history, which locals want preserved and respected.

Perhaps some of the most obvious examples of history on campus can be found at the University of Virginia. UVA’s campus includes the world heritage buildings designed by Thomas Jefferson to form the original campus. Because UVA still uses these buildings, the university keeps a special historic preservation officer on staff to attend to them. But, the University of Virginia and other universities grapple regularly with historic preservation issues on a less grand scale than the Jeffersonian buildings, such as how to convert the area’s long defunct turn-of-the-century tuberculosis sanitarium into a research park.

Even where football is king, history and culture have their day. Consider the view corridors that affected the University of Texas’ (UT) Daryl K Royal Memorial Stadium expansion.

“There are ‘view corridors’ in Austin that require a person be able to see the state capitol of Texas from various points in the City of Austin—one of which is from LBJ’s office in the LBJ Library,” explains Heery’s Director of Sports Facilities Mike Holleman.

The view of the state capitol from the LBJ office in the LBJ library is important enough to have been included in state legislation. Understanding this history allowed UT and its architects to develop alternatives. Rather than using solid railings at the top of the stadium, Holleman’s team specified smaller diameter railings so as not to interrupt the view. To avoid interfering with another view corridor, Holleman’s team shifted UT’s indoor football practice facility on the site.

Fire Station No. 7 in Athens, Ga., demonstrates the benefits that can accrue to both colleges/universities and local governments from a cooperative relationship. UGA granted the Unified Government a 99-year lease at a dollar a year for the land for a new fire station. This station serves a major area of facilities on the UGA campus, as well as the neighborhoods surrounding that part of the campus. The win-win? A better level of fire support both to UGA and the neighborhoods.



HEERY

Innovative solutions to the facility challenges facing Higher Education



Scott Stadium, University of Virginia

More than \$11 billion worth of college and university construction projects is expected to be completed and another \$11 billion is expected to begin in 2002.

Source: College Planning & Management, 2002 Construction Report

TOWNS & Gowns

continued from front page

governments, meets more frequently. In addition, each group enjoys non-voting membership on one another's planning boards (on the university side, it's called the master planning council; on the city and county side, planning commissions).

The University of Georgia's (UGA) associate vice president for facilities planning, Danny Sniff, agrees that the symbiotic relationship between his university and the ACC Unified Government demands that the two work closely together. For him, monthly meetings between the UGA president and the ACC Unified Government's county manager set the tone for both groups. When it comes to individual projects, this atmosphere of cooperation often shows up at the field level, with on-site staff from both groups working together to find a solution.

"We're all aware of what's going on 'on paper'," UVA's Anderson points out. "The multiple layers of contact allow us to make the phone call or pull someone aside at lunch to discuss a small issue, before it becomes a major one."

Sharing Plans

Once you've established an atmosphere that supports formal and informal dialogue, the next step is to start sharing plans. Some of the biggest challenges can result from some of the smallest projects, so sharing plans between the college/university and the local government is a big step in fostering a better relationship.

At UGA, one watershed moment in its relationship with the ACC Unified Government came when UGA completed a very deliberate master planning process, and then shared the results. Jeff Prine, Heery's project director for the ACC Unified Government's sales-tax funded public works improvements program, points out that the university's master plan presented significant infrastructure challenges, such as where to cut into sewer lines and how to minimize the amount of time a road can be closed. By knowing the plans in advance, UGA and the unified government could coordinate their projects. The result: minimum down time for roads or major utilities.

Massachusetts Institute of Technology (MIT) has developed a strategy for working more efficiently with City of Cambridge officials. MIT has a number of projects on-going simultaneously, so the university bundles similar issues and reviews them with city officials for permitting at one time. Consider curb cut permits. Rather than dealing with each separate project manager on one curb cut at a time, MIT officials bring together all curb cut permit issues on current projects and reviews them with the city as a group.

Hugh Colasacco, Heery's project director on the MIT Media Laboratory, also points to the university's policy of having a liaison for various agencies as a big time-saver for everyone. Because one university staff member gets to know the agency and its requirements, it prevents last minute wrangling and promotes trust between the two entities.

Sharing plans works both ways. The ACC Unified Government's plans to improve roadways, sidewalks and curb cuts included a stretch directly in front of the UGA's main historic entrance. This area features old brick paving, granite curbing and numerous trees that had to be protected and maintained. By working through the plans together, UGA and the ACC Unified Government developed a plan to work on this area once, handling all major upgrades needed by various groups, rather than continuously disrupting normal traffic patterns.

In addition to developing a master plan and sharing it with the city and county, UVA also attempts to schedule an annual master plan update meeting with the three surrounding neighborhoods. Anderson notes that the effectiveness of these meetings is often dependent on the strength of the neighborhood association to both get out the attendees and communicate back to those who were unable to come.

Know Your Neighbors

"A neighbor is a neighbor and an abutter is an abutter," comments Colasacco. "A well-run project considers all of the possible overlaps."

At MIT, Colasacco has observed that a project's neighbors don't necessarily differentiate one noisy truck from another, so you're just as likely to hear a complaint about someone else's project as your own.

Colasacco has combated this anonymity by assembling the entire team (contractor, designer and himself) to give briefings

UNEARTHING BUILDING Space on Campus

This article originally appeared in the May 2002 issue of *College Planning & Management* and was bylined by Heery Program Manager Jim Black.

Your Campus is Filled, Yet You Need to Build? Go Underground if Your Site is Right

Administrators at the University of Arizona (UA) in Tucson were alarmed back in the early 1990s when they noticed that a majority of their incoming freshman students were not returning for sophomore year on the campus of over 30,000 full-time students. Follow-up surveys quickly revealed that many freshmen, some coming from towns as small as 3,000 or less, were daunted by the size and complexity of the mammoth UA campus.

That was in 1992.

UA administrators went to work trying to get people interested in a building dedicated just to freshmen and their specific needs. It would be a place where new students could go and get just about everything they needed to learn and study—and continue on at UA.

By 1995, the UA Board of Regents had established a budget for the project, but then the real hurdle came—where to build?

Like many other university campuses of its size, UA was fully built, especially in the heart of the campus where the freshmen would spend most of their time. The best alternative quickly became apparent—creating a freshman center in a subterranean environment underneath the campus crossroads. But was this really feasible?

Going Underground: What to Consider

There are a lot of things to consider when investigating underground possibilities. When planning such a project, it is important for institutions to visit and learn from campuses that have already undergone such a project. For the UA project, the construction management team at Heery toured Mayo Hospital in Scottsdale, Ariz., as well as other underground facilities.

One potential problem for some campuses, depending on their location, is the presence of high groundwater. The underground approach also will not be cost-effective if the soil on campus is overly rocky. UA was fortunate in both instances—the groundwater table is below 55 feet, and there was good soil to excavate.

Accommodating for air exchanges, sewage, moisture and mildew in a subterranean environment are also essential considerations.

In a below-ground structure, air still has to be exhausted. For the UA project, small structures for air ventilation were built above ground. Sewer vents, too, would be needed for full-size restrooms, so structures for this purpose also were planned to be at street level, about 20 feet above ground. Some of the air and sewer structures were incorporated into the elevator structures.

Another major concern was to keep the building as dry as possible. The result was that all exterior walls are cast-in-place concrete. The walls were covered with two layers of a waterproofing material. The roof is comprised of precast concrete T-beams with a structural concrete slab placed directly over the beams. The roofing of the structure was covered with two layers of the waterproofing material and an 80-millimeter thick sheet of roofing membrane, heat-welded at the seams. The layering is like having a plastic tarp over the whole structure. In addition, the bentonite material expands when it is exposed to moisture, so no water ever reaches the concrete walls or roof.

An obvious thing to consider is the feel and aesthetics of an underground structure. The architect was concerned about students “being in a hole.” So, designers placed large skylights at various strategic locations to give the effect of daylight throughout a large part of the facility. Traffic rated skylights were used above the freshmen center in UA’s historic mall,



*Integrated Learning Center,
University of Arizona*

which is mostly for campus pedestrians but also must allow access for service and emergency vehicles, including fire trucks weighing more than 55,000 pounds.

Creating an Integrated Learning Center

With many of the underground issues resolved, design of the new 120,000-square-foot Integrated Learning Center (ILC) dedicated to UA’s freshmen students proceeded, with substantial completion accomplished by September 2001. By January 2002, the first freshmen began taking advantage of the building’s advanced resources. At almost every desk or seat in the center’s four auditoriums (seating 150 in three auditoriums and 300 in the large one) a student can power up a computer and connect to the Internet. Teaching equipment in the auditoriums includes whiteboards, computer operated projectors for multiple screen images, cameras to capture the lecture while it is given and surround-sound audio. Lectures can be broadcast to satellite UA facilities. A media prep group is situated centrally between the auditoriums to assist professors in preparing their lectures and for operating all equipment during lectures.

The ILC also offers teachers and freshmen 12 classrooms in varying sizes, each with a range of technology resources. Tutors, counselors and other individuals that can aid a student during his or her first year at the university are housed in the ILC. A direct connection to the university’s main library further assists the students. A library wing was built underground as part of the center, to teach students round the clock how to conduct college-level library research.

In any underground facility, it is important to direct students to the structure with signage and other means of wayfinding. For instance, a grand columned entrance on ground level welcomes visitors to the center where bold graphics direct freshmen to the entry of their own special place designed to achieve UA’s goal of “supporting freshmen as they transition from the high school environment and enhance academic, social and personal development through programs and services that foster student success.”

In the Integrated Learning Center, UA’s freshmen truly can succeed in working their way from the ground up. With some creative thinking, administrators at campuses across the country can unearth their campus’ potential.

TRIBUTES TO THE PAST, Inspiration for the Future

Little did Heery's Graphic Design and Signage Group know that its attempt to add interest to a cinder block wall would create a university trend.

While designing the south endzone for the University of Florida's Ben Hill Griffin Football Stadium, Heery was asked to create a Hall of Fame featuring its current team and stars of the past. Two years later, Heery is designing its third "Wall of Fame" for the university's various sports programs.

According to Heery Graphic Designer Lynne Bernhardt, the Florida football stadium client wanted more than framed photos on the wall. They wanted to add a powerful visual impact, while creating a tribute to the past, a showcase for the current team and an inspiration for future recruits.

"We worked with the athletic director, facility planners and sports information staff to develop a concept," says Bernhardt. "We were then handed a media guide and stack of pictures and told to have fun."

The result – a flexible and expandable 1200-square-foot display with 14 components including championships, bowl games and All-Americans.

So when it came time to update the scenery at the Wayne and Jimmie Carse Swimming and Diving Complex, the university knew whom to call.

Designing the Swim/Dive display was similar to the football project, except this time a former Gator diver worked directly with Bernhardt to coordinate the project. "They're a very enthusiastic client to work with," says Bernhardt. "They really gave me a lot of creative freedom."

This collaboration resulted in a 500-square-foot exhibit with life-sized cut-outs featuring superstar alumnae and current teammates. The Swimming and Diving Hall of Fame provides a visual history of the program and is the first thing you see when you walk in the door, creating a positive first impression – especially for new recruits.

Now in the midst of its third display (this time for the Lemerand Center, a multi-sport facility for baseball, men's and women's track and field, volleyball, soccer and softball) Heery designers developed a timeline going back to 1912 – when Florida launched its athletic program. The design allows for expandability over the next 10 years to create a 100-year Wall of Fame.

Producing these exhibits takes about six months to a year from initial concept through installation. Once the concept is determined, the display is designed on a desk-top computer and is outputted on color proofs. In addition, a three-dimensional scale model is produced enabling the client to get a better idea of the look and feel of the display. Once the display is approved by the client, the files are digitally printed and mounted as needed. In addition, other products such as acrylic are used to add depth without the weight or fragility of glass.

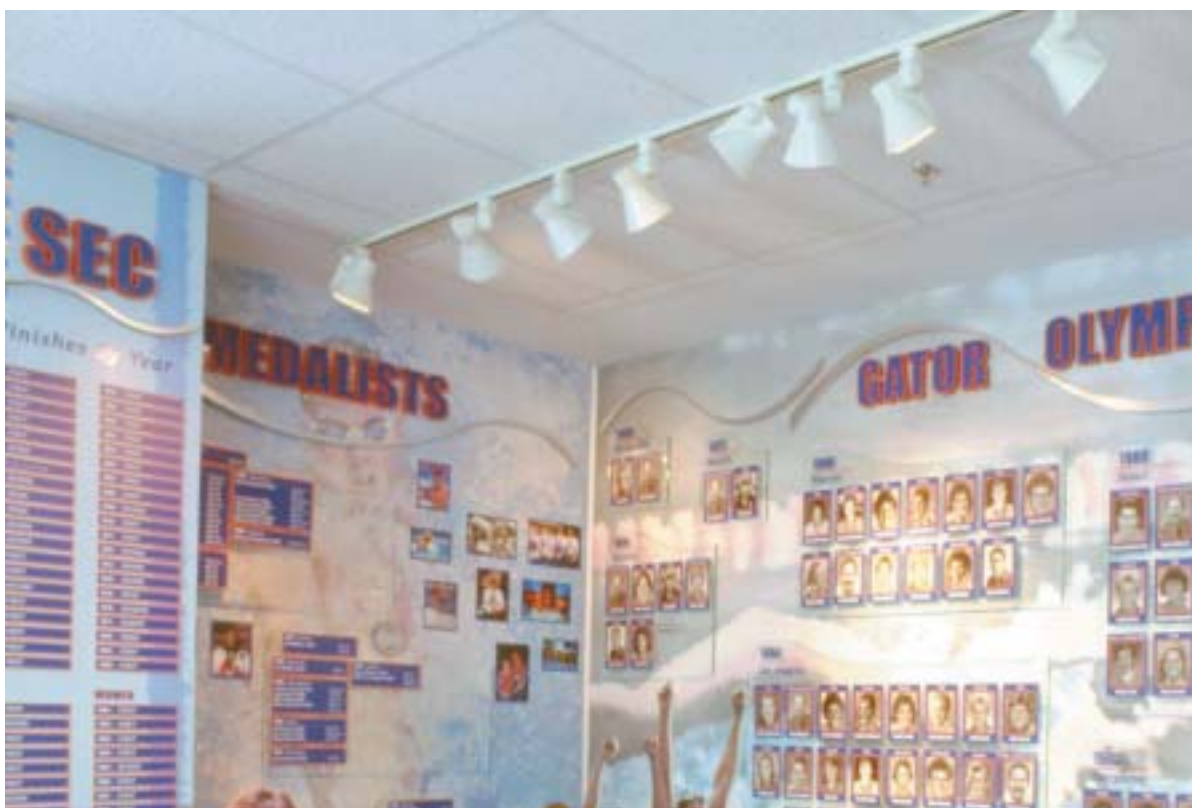
The displays are then installed with specially designed lighting systems and in some cases sophisticated suspension mechanisms.

Heery Director of Graphic Design and Signage Marcus Merritt cites these displays as another example of the firm's value-added services.

"We are able to work closely with our architects to coordinate lighting while our engineers design cabling systems for suspended displays," explains Merritt.

According to Bernhardt, one of the greatest challenges is fitting highlights of highly successful athletic programs over a few hundred square feet and encouraging athletic directors to set limitations. But, according to Bernhardt, these challenges were easily overcome because of the common goal – to honor the past, feature the present and inspire the future.

"One of the best things about this client is their love of the games," explains Bernhardt. "They have a real passion for what they do and it shows."



The display highlights University of Florida championships, Olympians, All-Americans and All-Conference swimmers and divers.



Heery was already working on the renovation and expansion of the Gator football stadium when asked to design a Hall of Fame.

MORE SPACE Outside of Class

Located on a 51-acre campus a few miles north of Denver in Littleton, Colo., Arapahoe Community College (ACC) had facility needs similar to

those of the other 1,100 community colleges across the country. The school needed more “common space” where students could study, relax and just pass time between classes. Areas like these are essential on community college campuses where many of the students commute to the campus from surrounding areas.

The college hired Heery as its owner’s representative during this occupied addition/renovation project, which found the school adding a new learning center/library to its existing main building, as well as renovating vacated space within the learning center.

During the construction process, the owners had no worries with Heery on the job monitoring the budgets, making sure the contractor adhered to the design and specifications of the architect, and ensuring the safety of the students and staff of ACC. Heery also ensured the most cost-effective resolution while still maintaining design integrity. Heery processed all contractor pay applications and reviewed all change orders for validation and accuracy. Heery resolved all disputes between all involved parties (owner, architect, contractor and consultants) to ensure successful conclusion of the project. Heery completed and corrected required paperwork for proper close out of project and commissioning of all equipment and systems.

The project was not without its challenges – the building was occupied during the project. About ten portable classrooms had to be installed, moved into and maintained in order to keep the project viable. Heery acted as transition coordinator for those classes that were continually moving into and out of the portable classrooms, providing oversight on this potential logistical nightmare.

The end result for ACC was a facility that more than accomplished the desired requirements of giving the students more space in the learning center and adding to the uniqueness of the overall campus, while allowing administrators little disruption to valuable instructional time.

In the end, the project was a success, completed under budget and on time, and the close out finished with no claims from the contractor.

More than two years after the renovation and expansion, ACC officials are still praising the project. “It’s a great addition to the college,” says Jane Merillat, assistant to the vice president for administrative services. “The space is being used as intended and we’re very happy.”

for neighbors of this high-profile project. He improved his odds of having the neighborhood groups show up for the briefings by targeting the different audiences with age-appropriate snacks. For example, to reach the student neighbors, he invited them for pizza and sodas; for older neighbors, he provided more delicatessen-style fare.

Briefings addressed what would be happening on the project and when it would happen. The briefing team also discussed what the neighbors could expect, in terms of noise and dust, and steps the team had taken to mitigate these inconveniences. Most important, they invited feedback from the audience, so that when students asked that the noisiest activities be held until later in the day, the contractor figured out a way to accommodate them somewhat, buying a lot of goodwill from the community in the process.

Find Joint Solutions to Infrastructure Headaches

The relationship between a college/university and its community is more than just concern about the contiguous neighborhoods. Most colleges and universities and their surrounding communities intersect extensively on infrastructure, whether tying into a public sewer line, trying to mesh overlapping transit systems, dealing with the impact of off-campus student housing, or simply handling game-day traffic at the football stadium.

For example, the public transit system must mesh with the college/university’s own efforts to move students, faculty and staff around campus. Especially at colleges/universities with a large student population living off campus and where the college/university is the area’s major employer, transportation—an offshoot of that age-old college/university issue known as parking, or the lack thereof—is an issue that calls for a joint approach.

At UGA only 6000 of the university’s 32,500 students reside on campus, meaning that they are living throughout the surrounding community. The ACC Unified Government’s transit system operates throughout the county; the UGA system circulates throughout the campus. Transferring riders between the systems is a planning issue. The solution? A new \$10 million central bus facility with 17 bays—two of which are devoted to UGA busses—will open to the public in 2004, allowing employees and students alike to transfer from the county-wide system to the university system.

Understand the Cycle

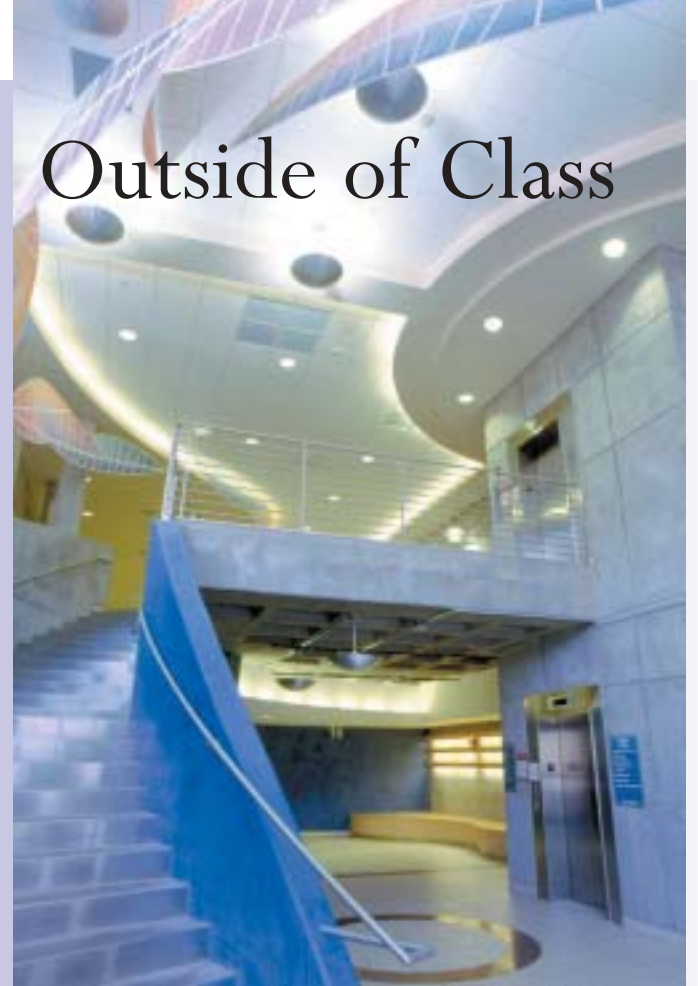
“It doesn’t work if you don’t work at it,” advises UVA’s Anderson. “There’s no magic to it. We try very hard, and with the best will in the world, we can’t avoid the occasional slip-up.”

Make no mistake, developing good university/government relationships is hard work. But consider the implications.

According to *College Planning & Management*, colleges and universities plan to start more than \$11 billion in building projects in 2002, in addition to the \$11 billion in projects they expect to complete. The volume of work has nearly doubled in five years, when volume was at \$5.8 billion in 1997.

This major upswing in construction activity is bound to strain relationships with neighbors as big construction projects mean even bigger noise and more inconveniences. Veteran facilities experts on both sides counsel diligence and patience.

“When you have this much going on,” explains one old-timer, “it affects everyone.”



STUDENT HOUSING Reaches New Level of Class

Do you ever wonder how much college has changed since you walked the hallowed halls of your alma mater? Sure, tuition is higher, course offerings have increased and classes are larger, but that's not all; today's student housing facilities are a bit more posh than the dormitories of old.

Because students often flee on-campus student housing for off-campus locations touting features of greater convenience, today's resident housing options typically offer amenities rivaling "luxury" apartments.

"I have seen student preferences changing over the years a great deal," says Joan Schmidt, president of the Association of College & University Housing Officers-International (ACUHO-I). "Some of the things they are now requesting include private bedrooms, thermostats they can control, more space for all their 'stuff,' and lots more electrical outlets."

"Students [are] bringing in computers, televisions, printers, scanners, refrigerators, videogames, and so on," Schmidt explains.

Another challenge is adapting living spaces to the needs of students with hypersensitivity to chemicals and other environmental elements, according to Gary Reynolds, P.E., president of APPA: The Association of Higher Education Facilities Officers. These students may require facilities with more modern air conditioning and better ventilation. Today's students are also more concerned about potential damage to the environment, another factor fueling advances in mechanical systems in current student housing facilities.

Heery has dealt with similar issues, providing inspection services for the mechanical/plumbing systems in the

University of Maryland-College Park's (UMD) new South Campus Commons. Heery is providing services in lieu of the usual county inspections.

Other changes taking shape on college campuses have to do with the variety of options available. Instead of the standard two-person room, many schools are offering several living arrangements – rooms may even come with a living room and a

kitchen. In its 12th Annual Residence Hall Construction Report published in 2001, *American School & University* indicates that 56% of new construction in 2000 contained kitchens, while 44% of all new construction included individual bathrooms.

"People want more privacy, fewer people sharing the bathroom," says Gary Schwarzmuller, executive director of ACUHO-I.

AS&U also found that 100% of new construction in 2000 featured Internet access and laundry facilities. Other commonly reported features included television rooms (78%), elevators (78%) and computer access to the library (67%).

Though these are examples of small-scale adjustments in dormitory living, some of the changes in residence hall construction are large-scale, programmatic ones.

In response to the steady increase in enrollment in its Honors program, UMD embarked upon South Campus Commons, a three-phase project to increase the number of beds available to those students. In keeping with college and university administrators' realization that much of what today's students learn happens outside the confines of the traditional classroom, the new UMD facilities embody the integrated living-learning environments that the ACUHO-I refers to as the "residential nexus."

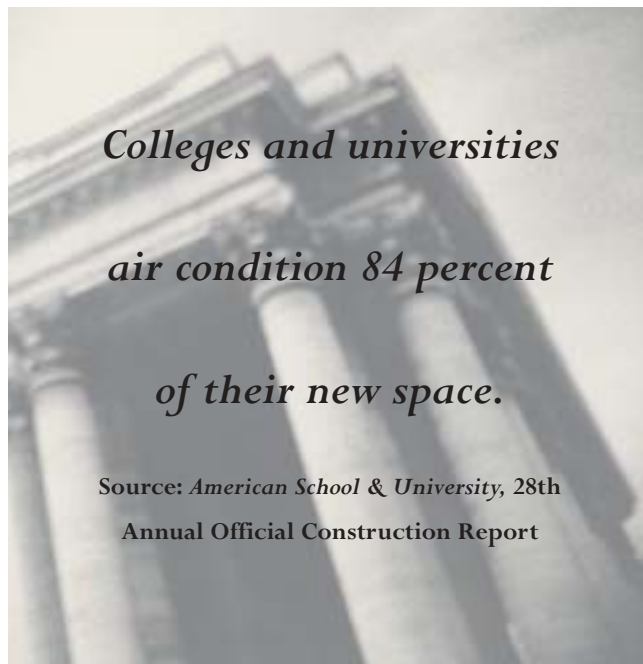
"Tremendous opportunities exist for residential programs to become strategic partners in the enterprise of student learning – particularly where in-class instruction merges with the out-of-class experience," says a report from ACUHO-I's Residential College Task Force.

The report cites several examples including residential colleges, where students and faculty live and work together; living-learning centers, in which residential programs have direct connections with specific academic pursuits; theme halls, where students with common interests live together; and residential learning communities for students who attend classes together.

The South Campus Commons currently houses 451 students; 330 are members of a program designed to connect students with the value of opportunities outside the classroom across the university's campus and beyond through internships, research opportunities and community service. The Commons are completely furnished apartments with a computer lab, informal and formal student lounges, a 24-hour help desk and seminar and conference rooms on site.

In August 2001, 454 new beds became available, followed by 254 additional beds in January 2001. By August 2002, 310 more beds will open, bringing the capacity to over 1,200 in a location adjacent to downtown College Park. In keeping with the results of current research, other amenities and features of South Campus Commons include data connections in bedrooms and fully equipped kitchens.

Because residence halls provide important revenue sources for college and university campuses and may play a major role in a prospective student's decision to attend a school, college and university planning and management administrators must be mindful of trends in residence hall and other construction on America's campuses.



Apartment-style dormitories at Middle Tennessee State University.



KING'S COLLEGE LONDON: A Lesson in Mergers and Acquisitions

Recognizing that biomedical research and education are most effective in an interdisciplinary environment, King's College London redefined its program by merging, consolidating and modernizing facilities.

A merger of Kings College London (KCL) with the United Medical and Dental Schools of Guys and St. Thomas' Hospitals (UMDS) – itself born of a merger – would meet several programmatic needs, but meant multiple facilities throughout the city. A redevelopment plan was necessary to meet KCL's desire to provide an environment that enables academic excellence to flourish and internationally-acclaimed standards of teaching to prosper, as well as minimize wasteful travel between work places and maximize the benefits of cross-fertilization of research ideas by co-locating related research activities.

Successfully coordinating and delivering an academic merger (not an easy achievement in the best of circumstances), site redevelopment and asset rationalization of this size and complexity required a clear and authoritative project management structure. In 1996, Heery International teamed with business consulting giant Ernst & Young to manage the project.

According to Heery Area Director Roy Simkin, who led the firm's efforts, the major merger and redevelopment objectives called for modern facilities for medical, dental, life and health science education, combined with cutting-edge research; consolidation of academic activities in central London; and private investment in public infrastructure.

Simkin explains that the project consisted of three main elements: 1) The consolidation of Life and Health Sciences at Cornwall House, an existing building owned by KCL; 2) The construction of a new research and teaching facility on the London Bridge site adjacent to Guys Hospital; and 3) The sale of surplus property – a critical part of the finance package.

The massive £175m (approx. US \$256 million) development, which was completed in the fall 1999, was then the largest public-private partnership scheme in England's higher education sector.

The majority of the funding was generated by the sale of surplus college sites in prime residential areas of Chelsea and Kensington. In addition, significant grant funding from the Department for Education and Employment and the Department of Health, as well as contributions from the Special Trustees of Guys and St. Thomas' Hospitals and anticipated revenue savings by the college, secured funding.

Partnership with the private sector ensured that material risks that could not be accepted by the college were transferred to the consortium, made up of the developer, architect, engineers and contractors. This arrangement allowed for superior facilities at a lower cost and, most importantly, within the academic merger timetable.

Construction work on Cornwall House, now the Franklin Wilkins Building, commenced in January 1998 and was occupied in August 1999, in time for the commencement of the autumn term.

As could be expected in a 100-year-old building, considerable structural alterations were needed to accommodate the requirements of the college. According to Simkin, this was particularly true in the construction of a 360-seat lecture theatre within the basement and in inserting, through the existing structure, the high volume of mechanical and electrical systems required to supply the highly-serviced research laboratories.

Simkin credits "a great deal of lateral thinking and proactive management" in overcoming these design challenges.

The demolition of the old Hunts House commenced in August 1997. Work on reconstruction began in 1998 and the new building was occupied by mid-August 1999.

"This redevelopment brought together the requirements of function and affordability by undertaking intensive user group meetings to manage expectations, developing a detailed design brief to reflect the users' requirements not their 'like to haves', saving £6m on refurbishment projects at Guys Campus through value engineering, and using a single-point KCL contact with the appropriate level of authority," says Simkin.

Founded in 1829, KCL's largest campus still stands where it was established, on the Strand overlooking the River Thames. The recent merger and redevelopment has allowed the college to locate its three main campuses within a single square mile in the heart of London, making it one of London's largest colleges with some 16,500 students.

Franklin Wilkins Building



Academic Medical Centers

The planning issues for academic medical centers have changed significantly over the past decade. To attract the best doctors to their medical centers, universities are increasingly adding medical research space and outpatient clinics, rather than beds.

While the most well-known irritants in university-town relationships have to do with residential neighborhoods, the University of Virginia has a different concern with its growing medical center. As the University of Virginia medical complex slowly expands outward, it is moving into commercial areas. Given that commercial areas provide most of the tax base for the local community and the university is an untaxed entity, UVA is extremely sensitive to investigating mixed-use types of developments that can provide taxable space (commercial and residential) together with research or medical office space associated with the university.

Sometimes opportunity knocks, and a medical center moves in order to overcome its landlocked status. The University of Colorado Health Sciences Center (UCHSC) and its primary teaching hospital, University of Colorado Hospital (UCH), had become landlocked over the years and desperately needed more space for research, education and patient care facilities. Moreover, UCHSC's neighbors and local politicians wanted to limit growth in this particular area. When the Fitzsimons Army Medical Center in Aurora, Colo., was closed as part of the Base Realignment & Closure program, UCHSC and UCH embraced the opportunity to take a comprehensive look at its existing facilities and develop a plan that would work for the long term. The University of Colorado was given 217 acres of the 578-acre Fitzsimons site by the federal government on which to build and develop a 21st-century academic health center.

At its full development of nearly 14 million square feet, the entire 578-acre Fitzsimons redevelopment, including UCHSC, UCH, The Children's Hospital, Colorado Bioscience Park Aurora and additional related facilities, will comprise roughly as much space as found in the entirety of Research Triangle Park, N.C. The Fitzsimons facilities will represent a vast improvement for UCHSC and UCH, attracting more research dollars, staff and patients and making it one of the premier academic medical centers in the United States.

While the total cost of the relocation of UCHSC and UCH will run approximately \$1.3 billion by 2010, benefits to the State of Colorado will be extensive.



A BUILDING DESIGNED to Teach Building Design

The new home to Southern Polytechnic State University's School of Architecture, Civil Engineering Technology and Construction is truly an "experience in architecture," claims Dr. Curtis Sartor Jr., professor and head of Southern Polytechnic's architecture program, during the recent ribbon-cutting ceremony.

"As we go through this building, you see how technology works," says Sartor. "It becomes a wonderful experience of what architecture should be."

The \$12 million, 100,000-square-foot, Heery-designed facility located on Southern Poly's campus in Marietta, Ga., an Atlanta suburb, is a trendsetter for good design on campus, according to Dr. Wilson C. Barnes, professor and dean, School of Architecture, Civil Engineering Technology and Construction.

"The building creates a striking visual impact," says Barnes. "When people come around the corner, they know immediately it's architecture."

In addition to its sleek, modern, brick, concrete and glass

exterior, the real test of success is the usefulness of the facility. In this case, form and function stand together to truly facilitate the marriage of architectural theory with the practice of design and construction. The facility, which opened this spring, not only accommodates instruction, it also serves as an instructional tool itself.

Upon entering, visitors get the sense of warehouse club meets hip, urban loft. With its openness and exposed systems, users can see how the building is constructed, from structure to environmental systems to finishes.

"Inside, the facility helps students learn how they can create space, and demonstrates the dependency all the disciplines within the construction industry have on each other, and how critical it is to work together to achieve a goal," says Gordon Smith, vice president and Southeast Director of Architecture for Heery International.

This fits with the university's intent to prepare students for their professions. According to Barnes, last year the university became one of three universities in the country that has integrated its architecture, civil engineering technology and construction programs into one school. This allows collaborative opportunities both academically and socially and helps students better understand each other's disciplines. After all, it takes all disciplines to create infrastructure.

"The building design is a successful reflection of the design curriculum combined with technology. The overall design of the building offers a well-integrated teaching/learning experience for students and professors alike," says Dr. Ameen Farooq, professor of architecture at Southern Polytechnic State University.

The classrooms themselves open to the outside and take advantage of natural light. Other classroom benefits pay homage to technology. Each seat is equipped with a power source and data port – of which there are more than 500 in the building.

The facility also has had a profound effect on the program's future and has become an incredible recruiting tool. Applications are up 145 percent. And prior to the facilities completion, there were 210 students in the architecture program. Next fall 148 new students will enter the school of architecture.

"One would be forgiven for imagining that an architect's nightmare would be to design a building for a committee of architects," says Smith, "Happily, this project has been one of the most aesthetically rewarding projects of our careers. This building is about the joy of architecture."



Photos taken by Michael Parker Photography



Southern Polytechnic State University,
School of Architecture

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