

Students in My Backyard

Housing at the Campus Edge and Other Emerging Trends in Residential Development

Where is the campus edge? Is it becoming more defined or disappearing?

by **John Martin and Mark Allen**

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When it comes to building student housing, the stakes for universities and colleges have never been higher. From competing for prospective students and environmental bragging rights to contesting for space on the typical campus, institutions face a fundamentally different landscape than they did when housing previous generations of students. A national sampling of student residential projects and housing data provide some indication of emerging trends. Universities and colleges will increasingly look to the campus edge (even in difficult environments), will challenge themselves to build sustainably (even where budgets are tight), and will partner or compete with private developers in a variety of contexts. These emerging trends are set against the already-established trend that finds students enjoying—and expecting—more luxurious accommodations than were once typical.

Established Trends in Residential Life

Gearing housing to student expectations for a comfortable and engaging environment is an established trend in residential life. From the *Los Angeles Times* to *The Boston Globe*, recent articles on deluxe student accommodations catalog the national scope of this trend (Schweitzer 2008; Spurrier 2007). A generation of students has become accustomed to colleges and universities competing for their enrollment with improved housing options (Schweitzer 2005).

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Figure 1 **Amenities in Residence Halls Completed in 2007**

Amenity	Percentage of Residence Halls Featuring
Air conditioning	91
Carpeting	50
Classrooms	23
Computer access to library	56
Dining hall	28
Electronic access to building	77
Electronic access to rooms	49
Elevators	74
Fitness center	18
Internet access—wired	77
Internet access—wireless	72
Kitchen	62
Laundry facilities	90
Television rooms/lounges	82
Washer and dryer in unit	na

Courtesy of American School and University Magazine

Where spartan facilities might once have been adequate, amenities now abound, particularly in new residence halls (see figure 1). The once-prototypical double room located off a double-loaded corridor with ganged bathrooms has given way to a suite or apartment with a private or semi-private bath. New residence halls typically offer a variety of common areas, including lounges, fitness centers, and coffee bars, to help students connect with one another. Of course, institutions not only compete among themselves to provide superior housing options, but also with private developers creating off-campus residences. Whether institutionally or privately developed, students expect to be enticed with supportive and enriching residential environments. In particular, breaking down anonymity by providing opportunities for social and academic engagement is especially important in large residential projects.

Three new residential projects notable for their size demonstrate the stylistic range of architecture now employed by universities to meet these challenges. In Ann Arbor, the University of Michigan is constructing North Quad, a

Figure 2 **University of Michigan North Quad**



Artist's rendering of the University of Michigan North Quad as viewed from the northeast.

Courtesy of Architecture, Engineering, and Construction, Regents of the University of Michigan

450-bed residential and academic gateway to campus (figure 2). Incorporating the preserved façade of the Carnegie Library, the quad's traditional architecture blends Collegiate Gothic and Arts and Crafts styles. A 10-story residence hall is a key component of this living-learning complex, an environment created by the adjacency of residential common spaces and a central dining hall to media laboratories and language arts classrooms. The \$175 million, 360,000-square-foot complex is projected to open in 2010.

Students expect to be enticed with supportive and enriching residential environments.

In 2005, Case Western Reserve University in Cleveland opened the Village at 115, a seven-building apartment complex for 740 juniors and seniors. Overlooking new athletic fields, the brick neo-Georgian buildings are part of the new North Residential Village. Amenities include a fitness center, a convenience store, a coffee shop, music practice rooms, indoor bicycle storage, and garage parking.

This project represents the initial phase of a 10-year program to replace all undergraduate housing on campus.

At the other end of the design spectrum, new and renovated buildings featuring a modern assemblage of projecting bays and volumes respond to the University of California, Berkeley's urban setting (figure 3). This now pedestrian-friendly area is comprised of four new buildings fit between renovated dormitory towers originally constructed in the 1960s on two city blocks. The new infill buildings, known as Units 1 and 2, provide texture and variety to the experience of the street. The 824 newly-opened student beds are complemented by a variety of student support spaces providing social amenities ranging from group study and collaborative areas to music practice rooms and lounges. As the buildings have no retail space, the additional student density helps support existing local businesses. The convenient location and the mix of student services have eliminated the need for additional parking.

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As student bodies become more diverse, colleges and universities are recognizing the importance of creating

Figure 3 **University of California, Berkeley Units 1 and 2**



Infill buildings contribute to a pedestrian-friendly streetscape.
Photo courtesy of Peter Aaron/Esto and EHDD Architecture

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residential facilities that assimilate students into an active campus and community life. Some institutions also face political pressure to house more of their students on campus.

The political climate in Boston is representative of the environment that urban schools increasingly face nationwide, where competition for land, parking, and peace and quiet is steadily building. As Boston becomes more densely developed and its institutions continue to grow, the city's colleges and universities have been strongly encouraged to find solutions to rowdy off-campus housing districts and rising tensions with local residents (Bombardieri 2004; Samuels 2006). These initiatives are fueled by the schools' realization that holistic education demands learning both inside and outside the classroom and by the city's desire to make existing off-campus housing stock available to nonstudent households.

The Boston City Council, at the urging of Mayor Thomas Menino, passed an ordinance in March 2008 declaring that no more than five unrelated individuals can share an apartment in the city of Boston (Schworm 2008). The enforceability of such legislation is questionable, but its passage reveals neighborhood misgivings concerning the thousands of students in their figurative and sometimes literal backyards (Bombardieri 2006). To house a greater percentage of their students on campus, Boston schools such as Northeastern University, Boston University, and Suffolk University have turned to residence hall towers of up to 26 stories. Between fall 1999 and fall 2009, Boston University and Northeastern University will open more than 4,000 high-rise beds.

Boston might be an extreme example of these uneasy relationships, but colleges and universities across the country report similar concerns. Nationally, as on-campus housing costs continue to escalate and available campus sites become increasingly scarce, schools are turning to their campus edges as attractive places to build student residences. Building on the edges may present challenges that building on campus or in satellite locations may not, particularly when those edges abut a residential neighborhood. Opposition can come from neighbors unhappy with the prospect of potentially rowdy and transient residents. Or, in the case of mixed-use projects, opposition can come from small businesses concerned with potential retail competition.

Nevertheless, campus edges remain attractive areas for housing development; they are convenient to campus without compromising potential sites for academic or

research buildings. To make these projects feasible, institutions are pursuing a variety of delivery methods ranging from engaging private developers and development managers to building through nonprofit entities created specifically to work with politically sensitive neighborhoods.

Harvard University faced a sensitive political environment in planning for its Riverside Housing Initiative, an ambitious plan to substantially increase the available graduate housing in the historic Cambridgeport neighborhood of Cambridge, at the edge of campus. The planning process began with modifications to zoning amidst a neighborhood call for the university to significantly decrease its as-of-right expansion potential. While preserving its ability to create student housing, the university engaged the neighborhood in finding common ground in this downzoning process. The university integrally involved neighborhood stakeholders at each phase of planning and design, leading to broad support for the project and a development agreement with the city. The completed plan provides a range of apartment types for graduate students, faculty, university affiliates, and the community (in affordable housing) on several existing surface parking lots in proximity to the Charles River and Harvard Yard.

As part of this Harvard initiative, two new graduate residence halls, known as the Graduate Commons at 5 Cowperthwaite Street and 10 Akron Street, have been constructed. The buildings contribute to the public realm by revitalizing once-forlorn street edges and smoothing the abrupt juxtaposition of existing high-rise university housing and adjacent wood-frame residences.

At 5 Cowperthwaite, the residence hall fits with the scale and typology of the street's university buildings, but steps down in height to provide a transition to the surrounding area (figure 4). A new three-level garage located below grade replaces existing surface parking and creates storage for 75 bicycles and 190 cars. Landscaped mid-block paths and reinvigorated streetscapes enhance pedestrian connections to campus. In addition, interior and exterior circulation routes provide areas and opportunities for students to casually meet, addressing data collected by the university that indicated graduate students traditionally encounter fewer opportunities than undergraduates to create a range of formal and informal ties to campus life. Each of the Graduate Commons residence halls has more than 200 graduate student beds in a mix of studios and compact apartments supported by abundant common amenities.

Figure 4 **Harvard University Graduate Commons at 5 Cowperthwaite Street**



Garden façade of the residence hall at 5 Cowperthwaite Street, a LEED Gold-certified building.

Photo courtesy of Robert Benson and Elkus Manfredi Architects

Franklin & Marshall College is another institution that faced tension with the neighborhood abutting its campus in Lancaster, Pennsylvania. As part of an initiative to reduce student reliance on substandard neighborhood off-campus housing, the college added 393 beds in facilities creating a new College Row (figure 5). This mixed-use project provides residential space above ground-floor retail space and revitalizes an important urban edge at the entrance to campus. Students can select from a mix of suite-style apartments, predominantly four bedroom-two bath configurations that include a full kitchen and common living room. The additional beds enabled the college to institute a four-year residency policy. By bringing students

Figure 5 **College Row at Franklin & Marshall College**



Student housing and retail on Harrisburg Avenue define a new campus edge.

Photo courtesy of Brad Feinknopf and Elkus Manfredi Architects

back to the edge of campus and by creating a more vibrant streetscape of shops and services, Franklin & Marshall has also burnished its relationship with the community.

Ohio State University is another institution that has looked to its edge in planning for student life. Defining the east edge of the campus, High Street is an important city corridor that had become increasingly derelict in the area adjacent to the school. The university saw that revitalizing the street would broadly enhance its standing with prospective students, with current students who had moved farther from the university to find safe housing, and with neighborhood residents who had become disconnected from their institutional neighbor. Master planning for the project led to the development of the South Campus Gateway (figure 6), a mixed-use project providing 184 apartments for students and university affiliates. The project extends over four blocks on both sides of High Street. Existing strip retail and asphalt was replaced by walkable streets, creating an attractive new public face for

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Figure 6 **The Ohio State University South Campus Gateway**



Mixed-use buildings on High Street create a new gateway to campus.
Photo courtesy of Brad Feinknopf and Elkus Manfredi Architects

the university. The South Campus Gateway includes 12 restaurants, an 8-screen cinema, a 1,200-car parking garage to support retail business, and the university bookstore, which together enliven the area throughout the entire day, week, and year.

The Sustainable Residence Hall

While the importance of sustainability is well established at most universities, student housing is often the last place to find sustainable design on campus. As shown in figure 7, it has taken some time for the sustainable residence hall to fully emerge as a national trend. Survey data from the U.S. Green Building Council (USGBC) tell the story. Colleges and universities have been ambitious in applying cutting-edge sustainable design to a range of academic buildings on their campuses. As of October 2008, 13 college and university buildings had been recognized by the USGBC with the top-tier Leadership in Energy and Environmental Design (LEED) Platinum certification; only one provides student housing.

While a number of factors make student housing resistant to sustainable design, concern about development costs is foremost. Sustainable design is only the latest feature to be scrutinized by cost-conscious institutions. Starting with the earliest examples of student housing in the United States, the cost expended per bed has been constrained by the revenue generated per bed. In *Harvard: An Architectural History*, Bainbridge Bunting (1985) provides one such early example. He notes that in the late 19th century even an institution as esteemed as Harvard University was reluctant to spend for improved housing; the school feared that the cost of modernization would push room rents too high. While Harvard undergraduates paid as little as \$30 per year for dormitory rooms, they endured monastic accommodations.

The struggle to house the nation's next generation of students—a passionately environmental generation—will be no less intensely felt by institutions. When taken separately, increases in the construction costs, design fees and commissioning, and administrative fees (such as for LEED certification) required for sustainable design are relatively

Figure 7 **Trend: LEED Gold- and Platinum-Certified Student Housing**

Year	Total LEED Gold- and Platinum-Certified Campus Facilities	LEED Gold- and Platinum-Certified Student Housing Facilities	Student Housing as a Percentage of LEED Gold- and Platinum-Certified Facilities
2006	12	2	17%
2008	29	12	41%

Note: From 2006 to 2008, the number of LEED Gold- and Platinum-certified student housing facilities as a proportion of all such certified campus facilities has increased 141 percent.

Source: U.S. Green Building Council, LEED Projects Directory, 2008. Retrieved November 6, 2008, from the World Wide Web: www.usgbc.org/LEED/Project/CertifiedProjectList.aspx. Data sorted by Elkus Manfredi Architects.

modest for construction in a campus setting. However, in the aggregate, these additional costs can represent a barrier to the development of new housing; the added cost per bed can strain pro forma budgets.

Students can claim much of the credit for encouraging institutions to overcome these barriers. For more than a decade, universities and colleges competing for students have revamped their traditional approach to residential life to provide a more comfortable and engaging experience. Today, the nation’s premier universities also compete for leadership in sustainability and carbon reduction on campus. Students now expect these environmental goals to be reflected in the places in which they are intended to live. They worry about their own responsibilities in either contributing to—or heading off—a potentially bleak environmental future (Pagani 2008). Universities have begun to respond by tailoring sustainability to their specific context and culture on campus.

Known as the “university in the forest,” Duke University puts environmental stewardship and ecological restoration at the core of its master planning standards and has committed to LEED certification as the baseline for all buildings. Recognizing student interest in sustainable living, the university has established LEED Silver as the goal for its newest housing initiative and campus extension. Larry Moneta (pers. comm., October 22, 2008), Duke’s vice president for student affairs, states “Duke’s vision for its new housing is to provide contemporary, environmentally responsive and beautiful accommodations which enhance student and faculty intellectual and social engagement.” The new campus extension will border West Campus, the university’s historic center, and will engage the landscape

features of the hollows as both a visual and recreational amenity. Phase one will include 500 beds in suite-type residence halls; each residence hall will provide housing for 40 to 75 undergraduates and will be set amid a lively environment of academic, performance, cultural, and arts facilities. This environment, says Moneta (pers. comm., October 22, 2008), “will be designed to promote an integration of student experiences.”

As a counterpoint in scale, the newly occupied Smart Home at Duke represents a model for environmental consciousness as a building block of community. This facility is the nation’s only LEED Platinum-certified student residence. Ten students live together, testing sustainable strategies in a structure that is half home, half research facility. This is a true living-learning environment, where students learn from one another by living together in a space that challenges them to reduce their collective ecological footprint. Smart Home features include passive thermal cooling, solar hot water heating, and rainwater harvesting for toilet flushing.

As universities respond to the need for sustainable design, so do their partners in housing development. Architectural and engineering firms are embracing sustainable design to an unprecedented degree. Where once sustainable design may have been an additional service that required additional fees and outside consultants, design firms now increasingly assume that all campus housing will incorporate basic sustainability features that will be consequently designed within the base fee. Construction managers and general contractors are also embracing sustainability. As the administrative and construction scheduling aspects of LEED certification have become routine, milestones for

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green building product submittals, commissioning, and testing have become more predictable.

In some cases being green can even reduce first costs, such as in the management of construction waste. One such example is Harvard University's Graduate Commons at 5 Cowperthwaite Street, where 97 percent of construction waste was diverted from landfills to recycling. The cost of this program was more than offset by the potential cost of sending 4,000 tons of debris to expensive Massachusetts landfills. Similarly, the Graduate Commons offsets the expense of its high-performance building skin with energy consumption 29 percent less than that of a similar code-compliant building—a significant savings, given the region's high energy costs. As part of its Green Campus Initiative, the university has implemented an online interface that allows student residents to monitor these savings in real time. This fascinating tool presents energy and water consumption trends and carbon footprint analyses over hourly, daily, and monthly periods. Residents are able to view the impact of their collective choices on their living environment. These and other strategies have contributed to the certification of 5 Cowperthwaite Street as a LEED Gold building.

The Private Development Trend

Private development of student housing fits broadly into two categories: those projects developed in direct partnership with the institution and those projects developed in competition with the institution. The former provides the institution with undergraduate and graduate student housing “off balance sheet,” preserving a greater proportion of capital budgets for nonresidential institutional missions. At their best, these partnerships allow the institution to benefit from the efficiencies of private development without having to surrender design control to a third party. Two projects developed through successful partnerships, College Row at Franklin & Marshall College and South Campus Gateway at Ohio State University, were described previously in this article. The challenge for both institutions was similar: provide the most interactive and enriching student living experience possible for the least cost.

Philadelphia-based Campus Apartments developed College Row in partnership with the Franklin & Marshall administration. The school set the program, site selection, and design criteria; the developer selected the architect and construction management team. The college planning

office created a ground lease for the property on which Campus Apartments, as private equity developer, sited the project, which comprises student residences and third-party retail space adjacent to campus. Daniel Bernstein (pers. comm., October 22, 2008), senior vice president of Campus Apartments, stated, “Campus Crossings at College Row was a textbook example of the relationship we try to create with each of our college or university partners. Franklin & Marshall maximized the value of their land, minimized their capital expenditure, and relied on our expertise to bring market-competitive student apartments to the campus along with retail amenities that benefited both the students and the Lancaster community.”

The challenge: provide the most interactive and enriching student living experience possible for the least cost.

In his case study of South Campus Gateway at Ohio State University, master planner David Dixon (2005) catalogued the problems the institution faced at its campus edge and the benefits of using a public-private partnership to develop a mixed-use housing project there. A task force assembled by the university administration had considered a range of delivery options for the project, including university development and private development independent of the university. However, the administration concluded that the project required both the flexibility and development expertise found in the private sector and the funding and eminent domain capacities of a public entity. Campus Partners was formed, and this public-private partnership developed a community-based strategy for revitalizing High Street, which defines the eastern edge of campus. Once the project scope was established, Campus Partners moved quickly: construction of South Campus Gateway proceeded simultaneously on four distinct blocks on both sides of High Street. The 890,000-square-foot project—580,000 square feet of residential, retail, and entertainment space and 310,000 square feet of parking structure space—was fully occupied within two years of the start of construction.

In addition to speed, private student housing developers have also proven capable of delivering large numbers of beds, often in resort-inspired settings. At Arizona State University, Vista del Sol opened in 2008 with 1,866 beds in

a mix of apartment styles. Developed by American Campus Communities (ACC), the complex is located near the main campus in Tempe. Amenities include a resort-style swimming pool, volleyball and basketball courts, and a fitness center. Each unit has a kitchen and living area and is equipped with a washer and dryer; cable television and Internet are offered in each bedroom.

Vista del Sol is only one of ACC's latest developments. A relatively new player in the emerging big business of privately developed student housing, ACC is a publicly traded real estate investment trust (REIT) based in Austin, Texas. ACC has multiple university clients nationwide and has developed 57 student housing projects, including 46 located on campus. Since 1996, ACC has developed more than \$1.5 billion in properties, and has acquired \$2 billion in student housing assets.

Education Realty Trust, another publicly traded company, is part of the building boom in Ann Arbor (Larcom 2008). This boom is fueled not only by projects on the University of Michigan campus, such as North Quad, but also by developers competing to meet student demand for convenient off-campus housing. Education Realty Trust has recently opened phase one of The Courtyards, located off-campus in a slice of real estate surrounded on three sides by the university's North Campus. When completed, this huge complex will have a total of 896 beds in three buildings of five stories each. As in other privately developed projects, the complex entices students with a range of socially oriented amenities including a movie lounge, volleyball court, tanning facility, and outdoor grilling area. Amenities within the apartments include granite countertops, a washer and dryer in each unit, and, most notably, private baths with every bedroom. The unit mix ranges from one bedroom-one bath units to four bedroom-four bath units. By contrast, the prototypical dormitory room has never seemed less appealing.

Emerging Trends are Not Mutually Exclusive

It is clear that these emerging trends in student housing are not mutually exclusive. In fact, the overarching trends of institutional competition for students and the development of greater residential amenities to attract them may actually reinforce their connection. We see that the forces that encourage institutions to look both to the campus edge

and to private developers are often the same as those that support the design of sustainable housing on and off campus, with—and increasingly without—additional student parking. The projects at Franklin & Marshall College and Ohio State University are examples of both campus edge and private development trends. Likewise, Harvard University's Graduate Commons at 5 Cowperthwaite Street is an example of both a sustainable residence hall and a campus edge project.

Today's students expect more—and it will take more.

Colleges and universities now must address these emerging trends—trends that were not issues when housing previous generations of students. Boston is an example of a city no longer willing to unconditionally house its student population, a dynamic increasingly seen nationwide. Communities now expect that colleges and universities will offer housing on campus or at the campus edge that also provides a public benefit. At the same time, today's students expect more—and it will take more to entice them back to university housing, including the promise of an enriching, sustainable living experience. The race for amenities will continue with an evolving definition of what constitutes an amenity, such as convenient access to organic or locally grown food shops. Proximity to campus for walking—and the environmental benefits that follow—may become as highly prized as the private bath.

In contrast to student expectations, the challenges of cost containment and limited housing revenue are anything but new and place limits on how far institutions can go as they compete for students in the places they call home. Private developers will continue to play a role as well, competing with institutions and each other or partnering with institutions to create appealing, enriching living experiences at the campus edge. Designing student housing has become a complex challenge, one that demands cost-effective solutions for market-type amenities delivered with sustainable methods. Solving this challenge will continue to require collaborative thinking between colleges and universities, their architects and engineers, their abutting communities, and the private sector. 🏡

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