

Creating Community

Mixed-use projects are becoming more diverse by adding multiple program functions and providing more amenities to boost synergies

— By Grant C. Uhlir, AIA, NCARB, LEED AP, Gensler

Mixed-use projects, which combine several functional programs into one building, are becoming more common in both urban and suburban locations. These projects are going beyond the most basic concept of combining two functions—such as retail and parking or residential and retail—to add more functions and provide more amenities and benefits. As such, they create more challenges for designers.

In many cases, providing buildings with multiple purposes allows the developmental team to more easily navigate volatile economic conditions and spread the risk of the various market segments' cyclical natures. By combining residences with offices and adding retail, the mix ensures developers have not placed all of their eggs in one basket, which could weaken the project's revenues if that market slows.

Developers also are working to mitigate unknown conditions—which have multiplied in recent years as the Great Recession continues—by creating 3P projects: Private-Public Partnerships. This financing model allows developers to join with public entities, often universities, cities or counties,



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The Center on Halsted in downtown Chicago features a Whole Foods store on the first level and the headquarters for a community center for LGBT persons that required an open, welcoming design. The facility includes retail, offices, classrooms, below-grade parking and a terraced roof garden. Precast concrete architectural panels were used to clad the upper levels of the project, which received a LEED Silver rating, while retaining the existing historic storefront on the first floor. Photo: Gensler

to spread the funding to other sources or tap into available grants that encourage development under certain conditions. Developers continue to look for creative ways to secure funding, and in some cases these approaches impact the type of functions for which the building is designed.

The popularity of private-public partnerships has led recently to an increase in university-led projects, in which the institution develops projects, or a developer creates one with the guidance of the university which then leases the space. These projects combine student lofts with classrooms and bookstores or other retail.

The desire to generate revenues quickly, to produce a more favorable ROI, has led developers to look for de-

sign solutions that can phase in functions on a staggered basis. In many cases, these projects construct and open parking levels first while upper, or lower levels with other functions continue construction. Because parking functions require little finishing, they can open quickly once the structure is in place. That allows parking revenues to be generated and locals to become familiar with the building while other levels are finished and opened as they are completed.

Synergies Boost Projects

As indicated by the education projects, the key benefit provided by multi-use projects is the synergies created by combining different functions that work together. Develop-



Including data-center functions within an office project often consigns the design to a drab appearance due to the high-security and protection needs. For an insurance client in Rochelle, Illinois, Gensler used a structural precast concrete wall system for its 52,000-square-foot Tier 3 data center and office, which includes 16,000 square feet of raid-flooring and support galleries. The design divides the facility into three masses that overlap and intertwine, with the data center serving as the anchor and backdrop. The structure can withstand an EF-2 tornado with sustained winds of 135 mph. Photo: Gensler

The popularity of private-public partnerships has led to an increase in university-led projects.

ers of any residential or commercial office property today want to create additional functions that provide amenities for the building's users. Most often, these functions focus on retail or restaurant options, but they can extend to fitness centers, theaters, recreational facilities, and other entertainment options.

Their goal is to extend the hours in which the building is used, including daylight hours for residential properties and evening hours for commercial-office properties. This design provides activity throughout the day and creates a vibrant and active community that allows each function to build on others.

As part of this community building, more projects have focused on providing green space or communal areas that help tenants create connections to others in the building. This approach helps build a neighborhood feeling that is enhanced by having other amenities included in the project.

Combining functions also proves attractive to retailers, who benefit

from more activity in the building and can target demographically-appealing segments that fit their own products. These functions often build on each other, as building tenants want amenities to be close to home, which requires retail activity, while retailers are looking for a critical mass of local customers to ensure the store's long-term success. Once a base of activity is established, the rest can build quickly to create an active location.

Rental Driving Projects

Rental residential drives most mixed-use projects being built today, with the economy remaining in the doldrums. This category benefits from the housing bust, which has driven many homeowners to look for more economical housing. Many previous rental units have been converted to condominiums, reducing supply just as demand rises. Over the past 18 to 24 months, the condominium-to-rental 'reverse conversion' trend supports this.

As competition grows, customers are demanding more amenities,

such as interior parking, commons facilities, fitness centers, green space, retail, and restaurant options. Developers want to add these benefits, as they help differentiate a new project from other available options. Thus the other functions serve as marketing tools.

A key option inherent in a project's location is the availability of nearby transportation centers. With more people returning to the city and looking for convenient ways to get to work and cut commuting time, locating projects near subways, trains and other transport creates an additional amenity that can create differentiation.

Today, virtually all office projects, and even predominantly located parking structures, are including a retail element. By adding storefronts to the first-floor level, buildings create more activity and visual interest which attracts pedestrian attention. These spaces also help generate revenue that boosts the project's success.

Adding retail takes careful planning to ensure it provides attractive space for a variety of possibilities. Lease spaces can't be too narrow or too deep, as retailers want wide, sometimes column-free, areas to encourage merchandising sight lines and to

avoid a claustrophobic feel. Properly planning spaces for retail activity will ensure they can be marketed and filled quickly.

At the same time, providing the open spaces on lower levels that retailers prefer can create challenges for designing residential or office spaces on upper levels. These floors require smaller, more compartmentalized modules that may add higher structural loads that must be accounted for in providing the support on lower levels.

Careful attention also has to be paid to how much retail space is being added to the overall development mix. Too much retail space can leave stores empty and make the building's main face feel stagnant. At the same time, providing too little can cut into the activity and excitement of the project and eliminate potential revenue generation. Proper balance and flexibility are paramount.

In some cases, developers are creating two-story retail spaces to take full advantage of the potential for generating retail revenues. These spaces create more challenges, as it can be

difficult to draw customers in to second-story retail. Adjacent parking facilities that align with, and are accessible to, upper level retailers are also favorable. Above two levels, retail becomes extremely challenging unless the locations are destination sites, such as food courts, restaurants, spas or theaters.

Attracting major retailers and national chains requires additional planning. These retailers will require specific amounts of parking space based on their square footage, which must be included in the parking requirements being built. Typically, the parking space provided for these projects exceeds that which is required by local codes.

Parking Usually Included

Virtually every mixed-use project today and many single-use residential and commercial properties contain parking levels. This amenity has become critical to users of all types, and it serves as either a marketing benefit or a revenue generator for the developer.

Parking provides a versatile aspect

to these projects, because it can be located in any position and prove successful. Below-grade parking can become extremely expensive, but it can be a solution for projects in which height becomes an issue or locating parking on higher levels creates other architectural problems. Dealing with ground-water issues, excavation costs and ramping needs can boost per-stall costs and create budget challenges that developers try to avoid.

Grade-level parking offers another option. Typically, storefront retail can be added along key pedestrian traffic ways while maintaining sufficient parking spaces behind these retail spaces within the building's footprint. In some cases, the parking will extend to upper levels as well.

Some projects use the entire first level and even the second for retail, requiring parking levels to be raised higher. Indeed, with two-story retail, even more space is required for parking to supply sufficient spaces for the retail square footage.



The 90,000-square-foot Barneys New York store in Chicago's Gold Coast neighborhood includes a restaurant on the top floor and additional storefront retail at street level. The façade consists of two-story architectural precast concrete panels on all floors above the first, which features limestone. This stacked format allowed speedy erection and overall cost efficiencies. The panels were acid etched, with a mix formulated to simulate natural stone. Joint patterns, reveals and deeply notched recesses at the panel edges allowed the window-opening design detailing to create the desired depth and shadow lines. The panels helped the project achieve a LEED Silver rating. Photo: Gensler

No Green Premium

Mixed-use projects lend themselves well to implementing sustainable-design concepts. At Gensler, green building is not an additive process but a conceptual design philosophy inherent to every project. Although developers are wary of systems that add a premium for green-building benefits, achieving even a Silver LEED rating does not create a premium today.

Projects that combine a variety of functions offer great potential for maximizing the capabilities of sustainable-design techniques. Energy efficiency and water recycling in particular can be used to maximum advantage by capturing gray water from one function for use by another at another time of the day. Likewise, heat recovery from offices and retail establishments during the day can be dissipated or used for water heating for residential units at night. With more cutting-edge technology being devised all the time, more such capabilities will arrive that will enhance the ability of multi-use projects to make efficient use of sustainable options.

Mixed-use projects also create added life safety issues that must be considered, as different functions will require different building-code requirements. Key elements include providing fire-rated separations between various occupancies and proper egress solutions. Other requirements may arise depending on the functions being provided. In most cases, these can be challenging to balance.

Precast Concrete Benefits

Precast concrete designs help meet the challenges produced by mixed-use properties in a number of ways. The capability to create attractive, efficient, and quickly-constructed parking levels with precast concrete components provides a major benefit, especially for developers looking to phase in their projects. In many cases, projects designed with precast concrete easily allow for phased construction and expansion. This can also provide a single-source of materials supply and create a unified appearance.

Particularly in urban areas, precast concrete's capabilities for providing easy constructability make it a good choice. It can be erected quickly, allowing the building's shell to be enclosed rapidly to protect the building



Gensler managed the design and development for The Shops at Kingsbury Square in Chicago's Lincoln Park neighborhood, a mixed-use development that was anchored by a Whole Foods store. The 300,000-square foot building features retail on the ground floor and two levels of parking above, along with green roofs and a river walk to encourage pedestrian traffic. Precast concrete spandrels and architectural panels were used to clad the exterior, which helped the project achieve a LEED rating. Photo: Gensler

from weather while interiors are finished. It also requires minimal on-site staging room, allowing large panels to be erected quickly from flat-bed trucks.

Precast concrete's inherent Mass provides the fire-rated separation needed between parking levels and other uses, and it can create long spans that provide the open spaces retailers desire while providing the loading needed to compartmentalize upper floors.

It also offers considerable sustainable-design benefits, including energy conservation through its thermal mass and capabilities for insulation, the use of recycled content through fly ash and other additives, local manufacture due to nearby location of plants, elimination of on-site construction waste, recycled energy and materials in fabrication, and other factors.

At the same time, it can provide the

high-quality aesthetic statement that developers require with high-profile multi-use projects. Precast concrete can replicate limestone or granite appearances or make use of embedded thin brick to project a more traditional or classic look. It's a highly plastic material that also can create a contemporary, upscale image if that is desired.

Mixed-use projects have become more prevalent as developers focus on minimizing their risk in a difficult economy and boosting the marketability of their projects. Balancing all of the needs of these projects creates challenges. But the result of good design and construction efforts are vibrant, highly used buildings that can make a statement and boost an entire neighborhood. ■

For more information on these or other projects, visit www.pci.org/ascent.