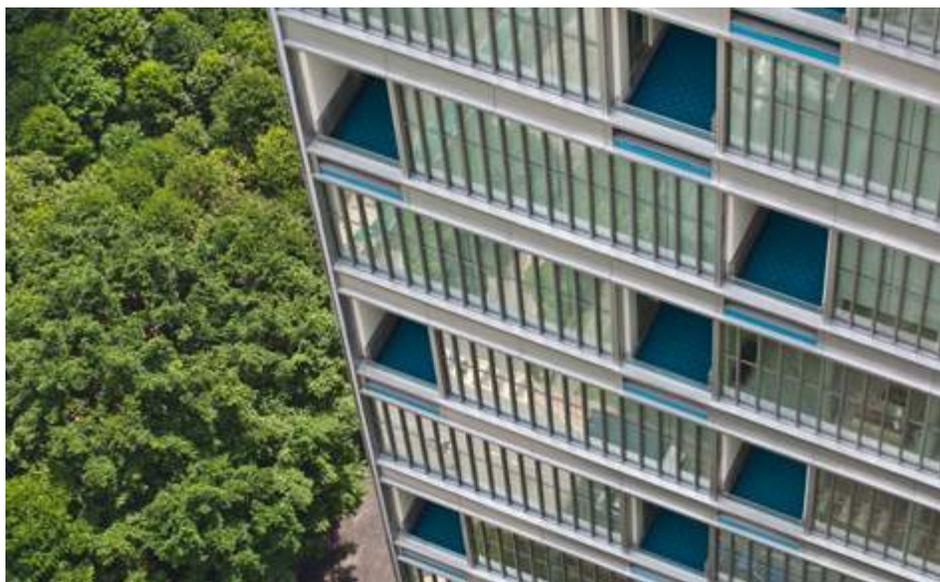


## The Swimming Pool Rises High

Emboldened by new technology-and searching for the next hot amenity-a number of high-rise developers are installing private pools in every unit. But the new idea has its naysayers: Watch out for leaks above



**POOL PARTY** At ONE KL, a 35-story luxury building in Kuala Lumpur completed in 2009, the building's tagline boasts, "94 Apartments, 95 Swimming Pools."

**THE LATEST WEAPON** in the luxury high-rise arms race: a private pool in every unit on every floor. At ONE KL, a 35-story luxury building in Kuala Lumpur completed in 2009, the building's tagline boasts, "94 Apartments, 95 Swimming Pools." In the Bahamas, each of the 34 units at Honeycomb, a condominium with a hexagonal-patterned facade that's expected to be completed in mid-2016, will have a 70-square-foot pool with a transparent edge, offering views of the marina and ocean. And in Mumbai, 30 stories of about 100 residential units at Brand Ohm will include crescent-shaped pools on balconies enclosed in acrylic, the same material used for large aquariums. Site work is expected to begin next year.

More residential high-rises are trying to stand out from the competition by replicating the outdoor spaces typically found in single-family homes, offering everything from larger balconies to rooftop kitchens. Private pools are the latest frontier, says James Law the Hong-Kong based architect designing *Bandra Ohm*. On the day the building's plans were released, 1.2 million hits on his firm's website crashed its server.

Developers have also been emboldened by engineering and design advances such as 3-D structural analysis, lightweight materials and waterproofing technology. But some developers are real-estate agents question the functionality of such pools, which often aren't meant for more than wading or taking a quick plunge. "If you're trying for a differentiator, that's a reason to do it," says I. Dolly Lenz, a luxury real-estate agent in New York. "But personally I wouldn't recommend the idea to a developer."

And despite the advance in materials and design, high-rise pools remain technically challenging. A leak could mean considerable headaches for the neighbors below. Plus, water is heavy: putting a pool in a high-rise can cost about 20% more to install because of additional support.

Bernardo Fort-Brescia, an architect based in Coconut Grove, Fla originally planned to include individual, cantilevered pools for each of the 13 units at the Bath Club Estates in Miami Beach, which feature terraces of more than 2,000 square feet. He says the plan was scrapped because the depth of the pools would have affected the height of the ceilings in the units below. He added that there was also a "technical risk" of slab movement, which could have led to cracks-and leaks.

Real-estate agents say the value added by a pool is difficult to estimate. Depending on a home's regional location and price point, the amenity could help or hurt a home's resale value, because not all homeowners want pools. While the cost of maintaining a pool varies, average annual maintenance for balancing chemicals and cleaning runs around \$1,000 for a small pool, says Roberto Colletto, CEO of Myrtha Pools in Italy, which manufactured pools for the 2008 Beijing and 2012 London Olympic Games and is manufacturing pools for the Porsche Design Tower in Sunny Isles Beach, Fla.

Christopher Anand, senior managing director of the Tavistock Group, the developer of Honeycomb, says the pools are an attractive amenity "that we have seen as a huge selling point." Honeycomb's sales launched in September and the building is 45% sold.

The Porsche Design Tower will include 10-by-15-foot pools on the balconies of most of its 132 units when it's completed in 2016. The prefabricated pools, which are made of stainless steel and include Jacuzzi bubbles and a hydro-massage bench, are costing the developer \$100,000 each. Extra concrete and steel required to hold the weight, as well as supply lines that rise from one story to the next, make the pool portion of the project cost about \$18 million, says Gil Dezer, the tower's developer. The units are on the market for \$6.3 million to \$32.5 million; amenities also include glass car elevators, which will allow residents to remain in their cars on the way up to their apartments.

"If we get pushback from buyers, then we say 'OK, we'll take out the swimming pool for you, but you may be the only one in the building with this layout and no pool,'" says Mr. Dezer, adding that he thinks the pools raise the value of the units by about 10%.

# EVERYBODY INTO THE (PERSONAL) POOL

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The development's pools appealed to Juan Pablo Verdiquio, a real-estate executive who moved with his wife and two children to Miami from Argentina last year. "We always had houses with pools, but an apartment with those features? I wanted to be part of that," he says. Mr. Verdiquio declined to say how much he paid for his 5,835-square-foot, three-bedroom unit on the 12th floor. He says he expects his family to use the pool every day.

To counteract the risks of leakage, some architects opt for pools made of waterproof concrete to ensure tightness, while others choose stainless steel pools because they're lightweight and easy to assemble. Mr. Colletto of Myrtha Pools says his company uses a waterproofing membrane on the pool and liquid PVC around the pool structure to prevent leaks. "You need to guarantee there is not a single drop of water coming through," he says. The weight of water presents a structural challenge for the architects

of these buildings. At the Marq, a two-tower luxury high rise in Singapore completed in 2011, the Signature Tower of 21 units has individual cantilevered pools that are sunken below the floor of each unit. The water in the approximately 50 foot-by-10 foot pools weighs 54 metric tons. To ensure stability, Yiong Hoi Liong of P&T Consultants, the structural engineer of the project, says two circular columns were placed on the pool decks, and pool walls were designed as stand beams for additional support.

Mexico-city based architecture firm DCPA Arquitectos, which is designing Sky Condos in Lima, Peru, with 10 duplexes and cantilevered pools, says weight will be balanced by walls that run parallel to the main structure. At Honeycomb, architect Bjarke Ingels says thick beams that helped create the exterior hexagonal motif will support the weight of the water in the pools-about five metric tons per pool. Honeycomb's condos range from 2,500 square feet to 5,800 square feet and are currently priced from \$3.5 million to \$15 million.

In New York's Chelsea neighborhood, the 11-story Soori High Line is offering 4-foot-deep heated pools in 16 of its 31 units, which range in price from \$3.6 million to \$22.5 million. To test the waterproofing capabilities on his

project, architect and co-developer Soo K. Chan says the pools, made of waterproof concrete, will be filled with water and left for a month to detect any leaks.

Another challenge for Mr. Chan, who also designed The Marq in Singapore and ONE KL in Kuala Lumpur, is dealing with New York's subfreezing winter temperatures. Each pool in Soori High Line will be connected to a heat-pump system to ensure the water temperature doesn't dip below 40 degrees during the winter, and stays around 80 degrees during swimming-friendly months. The penthouses will have their own individual pool heaters that will be billed separately; owners of other units will need to add one, if desired.

At Sunny Isles Beach's Porsche Design Tower, the designers faced a different weather conundrum. Mr. Colletto and Mr. Dezer needed to create a master valve to lower the water levels in pools when hurricanes may be on the horizon so if there's a storm, "the building doesn't look like it's crying," Mr. Dezer says.w



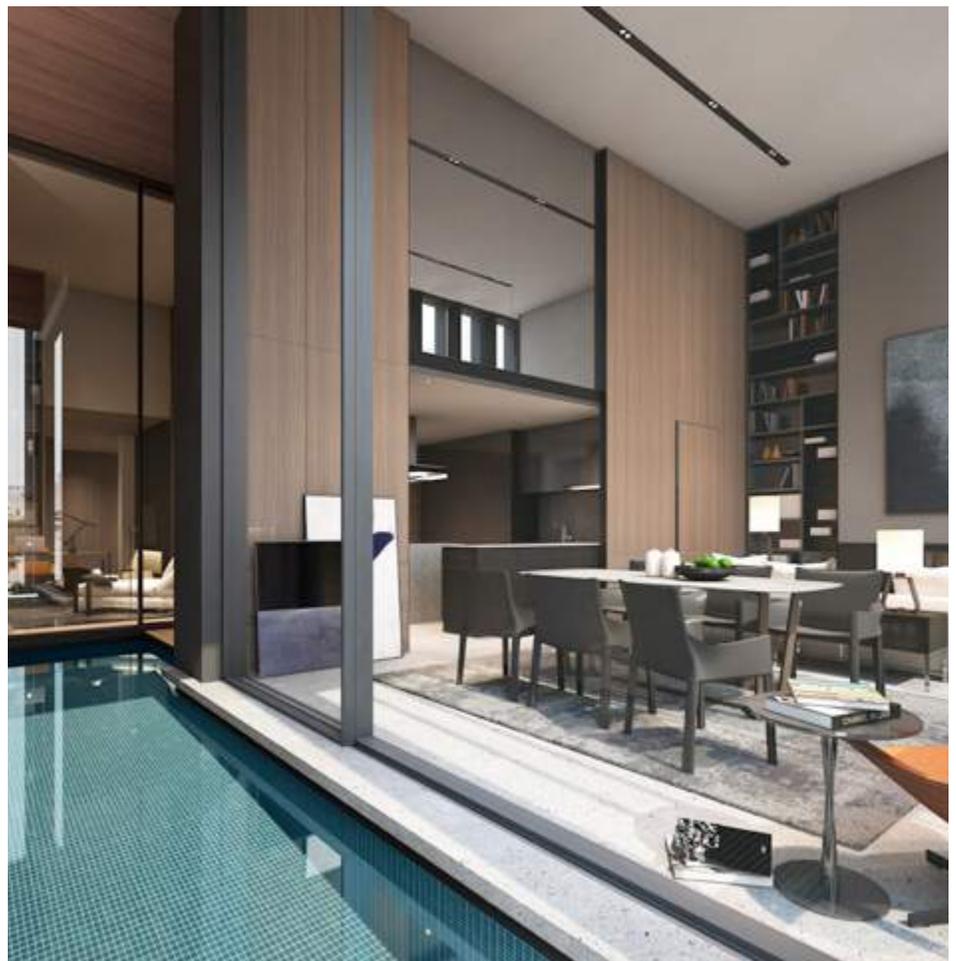
**DIVE IN** The Marq in Singapore is a two-tower high rise, its Signature Tower of 21 units has individual cantilevered pools sunken below the floor of each unit.

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**WINTER DIP** The pools in Soori High Line, seen in a rendering here, will be heated to deal with New York's winters.

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**KEEPING IT TOGETHER** One of the biggest concerns with private plunge pools in high-rises is leakage. At the 11-story Soori High Line in New York, rendered here, all the pools will be filled with water and left for a month to detect any leaks.

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