

QUICK FACTS

Location: Tampa, Florida

Project type: Mixed-use, mixed-income, master-planned community

Status: Underway

Project cost: \$425 million

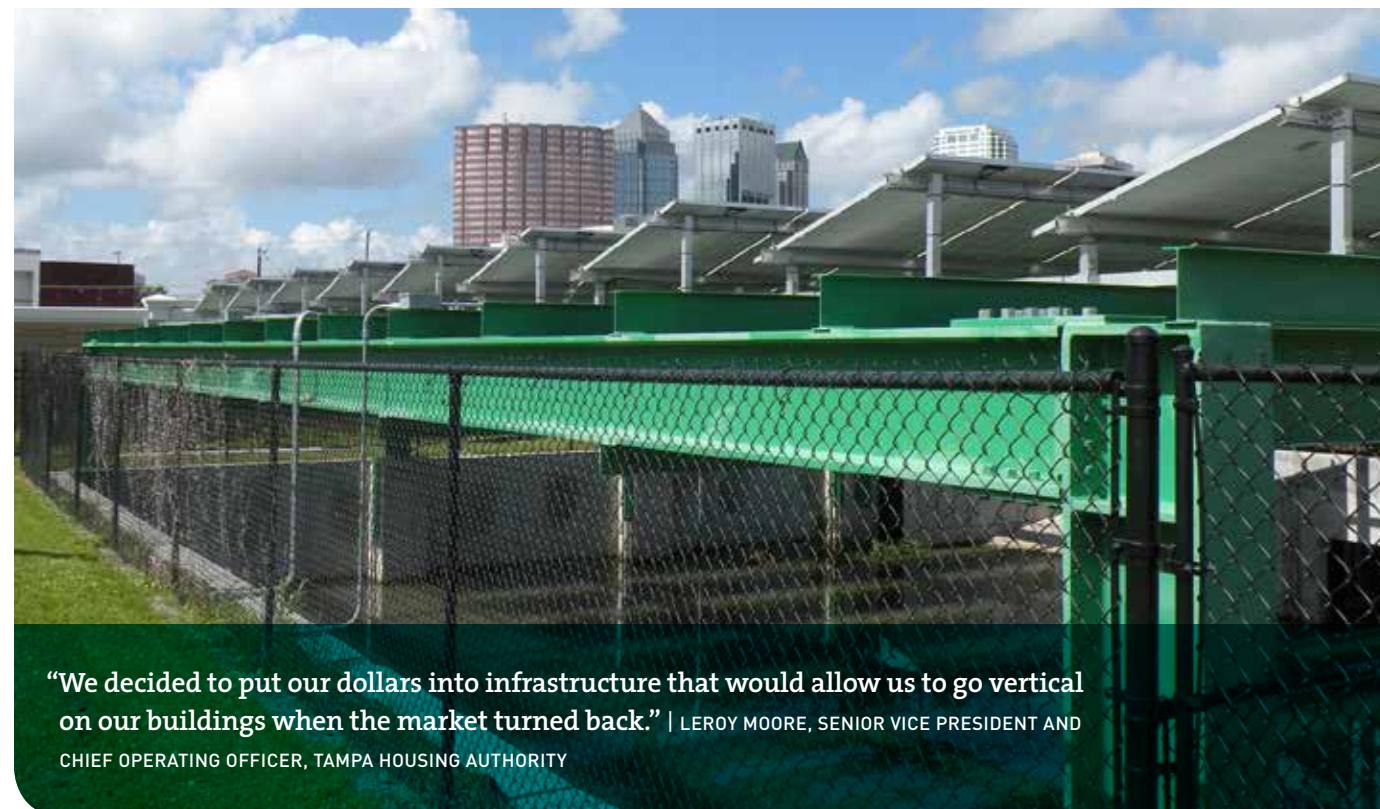
Site size: 28 acres with a planned total of 180,000 square feet of office space, 300-plus hotel rooms, 1,500-plus residential units, and 50,000 square feet of retail space; 662 units in four buildings and the stormwater infrastructure at the Technology Park have been built to date

Developer: Public/private partnership between the Tampa Housing Authority and Bank of America Community Development Corporation

Designers: Baker Barrios Architect, Cardno TBE

Water management features: Filtration systems, native plants or trees, permeable pavers, reuse system, stormwater vault

Topped with solar panels and green space, the vault is the centerpiece of Technology Park.
(Tampa Housing Authority)



Encore! is a mixed-use, mixed-income development including multifamily housing, senior housing, retail, and office space on the site of a previously isolated public housing development. Developed through a public/private partnership between Bank of America Community Development Corporation and the Tampa Housing Authority, Encore! incorporates advanced stormwater management as part of its efforts to achieve Leadership in Energy and Environmental Design for Neighborhood Development (LEED ND) certification. Water management has been a key component of the development strategy, with early infrastructural investments including an 18,000-square-foot water retention vault.

Context

Situated between Old Tampa Bay and Hillsborough Bay, Tampa is surrounded by water, which ultimately flows into Tampa Bay and the Gulf of Mexico. Although Tampa does not have combined sewers or the requirements of a federal consent decree, stormwater management is a priority given the city's frequent flooding and low elevation of three or four feet above sea level.²⁵

Encore! sought to protect residents from flooding through the incorporation of district-scale water management that would capture all stormwater on site. "When you control runoff and cut down on erosion problems, . . . you don't have that fear of standing water and flooding," explains Leroy Moore, the Tampa Housing Authority



Encore! is a mixed-use, mixed-income development in Tampa's Central Avenue business district. *(Tampa Housing Authority)*

senior vice president and chief operating officer. "It keeps the site safe, clean, and healthy."

The centerpiece of the water management system is a water-retention vault that accommodates 33,000 cubic feet of water. The chamber is roughly 12 feet below ground, with a three-foot rock layer below the chambers. "It is the slickest, coolest feature that we've done from a sustainability perspective. . . . It is one of the most unique stormwater management systems in the state on account of its size," explains Marc Mariano, then assistant director of site development for Cardno TBE. All surface stormwater is collected from the site in the vault and then treated through a system of nutrient-separating baffle boxes and sediment chambers that capture pollutants. Water is then stored for irrigation use. When the vault is at capacity, stormwater runoff is filtered through sand before reaching Tampa Bay. Over several years, water has yet to leave the site or be piped in for irrigation.

The project also reduces stormwater runoff through permeable pavers, native plants, and other elements. Land above the water-retention vault has been transformed into Technology Park, a passive educational park that serves to explain Encore!'s green building practices to area residents.

Innovative Water Management Features

- Stormwater vault and baffle boxes.** The 18,000-square-foot stormwater vault is structured with five-foot individual cubes that together hold up to 33,000 cubic feet of stormwater. Stormwater then flows through two baffle boxes for pretreatment before being used for landscaping irrigation.
- Permeable pavers and native plants.** Encore! manages stormwater in an urban setting by using permeable pavers and native plants that are not irrigation intensive. Pavers on the hardscapes and the median of the central street through Encore! contribute to stormwater management and create visibility for the stormwater system. The landscape palette is estimated to reduce water needs for landscaping by 50 percent.
- Park with educational signage.** Technology Park, a 16,000-square-foot park located above the stormwater vault, features

educational kiosks, solar public art, and the district chiller. Visitors often watch the fluctuation of water in and out. "Once you draw people to the vault, you can educate them about it and the many sustainability features built into Encore!," explains Moore.

Value Proposition

The investment in cutting-edge stormwater management features allowed Encore! to maximize the developable land on the site. A traditional retention pond and water collection system would have required six acres: the net gain of developable land from having used a half-acre vault is three city blocks, or about a quarter of the full site. Moore explains, "We were motivated by not having to consume a lot of that land with surface retention." Investing in stormwater technologies allowed Encore! to be "a more valuable project and an urban scale," according to Moore.

Encore! also benefited greatly from federal government funding available at the time of development. As Moore explains, "The recession hit and everything was put on hold, but we had the most shovel-ready site in the country." The development team initially committed to district-scale green and stormwater infrastructure when it planned to use tax increment financing. However, instead of using that approach, the development team leveraged a \$28 million stimulus grant to complete the site's district-scale infrastructure.

Today, the Tampa Housing Authority is investigating district-scale infrastructure opportunities for another public/private redevelopment, the \$2 billion Tampa Live project.

LESSONS LEARNED

- District-scale stormwater management can free up developable land and create a more urban development product.** Using a stormwater vault rather than a retention pond not only ensured that the maximum portion of the site was available for development, but also fostered the creation of a better-connected street network.
- District-scale sustainable utilities were a part of the marketing draw for the site.** The market-rate units at Encore! were leased up before the affordable units, which the development team attributes to the location, competitive pricing, and branding. "All of our indications show that market-rate residents want to live in sustainable communities," explains Moore.
- Stormwater infrastructure provides an opportunity to educate and inspire.** Stormwater infrastructure is celebrated in the park topping the stormwater vault.