



4 Promote resilience

BUILD RELATIONSHIPS TO INVEST IN PARK INFRASTRUCTURE THAT ADVANCES COMMUNITY RESILIENCE.

Partnership considerations

- Park and recreation agencies—working closely with cross-sector partners—can be key actors in community resilience because they are major landowners and can thus make a big impact.
- Partners—including design firms and resident and stakeholder groups—can provide the necessary expertise to produce and implement plans leveraging parks to promote resilience.



Project Examples

Drexel Square Park Philadelphia, Pennsylvania	Edison Eastlake Community Phoenix, Arizona
Publicly accessible private park, created by private developer on land leased from university	Planned and improved public parks at mixed-income neighborhood redevelopment being created by cross-sector, health-focused partnership
Private—Brandywine Realty Trust	Multiple—city of Phoenix Housing Department and Gorman & Company
Private—Brandywine Realty Trust (under long-term ground lease from landowner Drexel University)	Public—city of Phoenix Housing Department
Private—Brandywine Realty Trust	Mixed—city of Phoenix Housing Department and Gorman & Company
Private	Mixed—public and private

PROJECT EXAMPLE

Drexel Square Park

PHILADELPHIA, PENNSYLVANIA

Publicly accessible private park, created by private developer on land leased from university

Key Partners

PRIVATE: Brandywine Realty Trust (park developer); West 8 and SHoP Architects (park designers)

COMMUNITY AND NONPROFIT: Drexel University (landowner); Centennial Parkside Community Development Corporation (designated codeveloper)



Drexel Square Park transformed a surface parking lot owned by Drexel University into a landscaped gathering space. *Brandywine Realty Trust*

Drexel Square Park is a 1.3-acre (0.5 ha) publicly accessible, private park that opened in 2019 as part of Philadelphia’s \$3.5 billion Schuylkill Yards master-planned development. The park—built and operated by developer Brandywine Realty Trust—transformed a surface parking lot owned by Drexel University into a landscaped gathering space. With a location directly across from 30th Street Station—the city’s main transportation hub—the park is accessible to neighborhood residents and commuters alike.



PROJECT EXAMPLE

Drexel Square Park

“There’s a reason the trees rose up before the skyscrapers [at Schuylkill Yards]. Public spaces—especially green spaces—have the power to transform communities, change perceptions, and create new realities.”

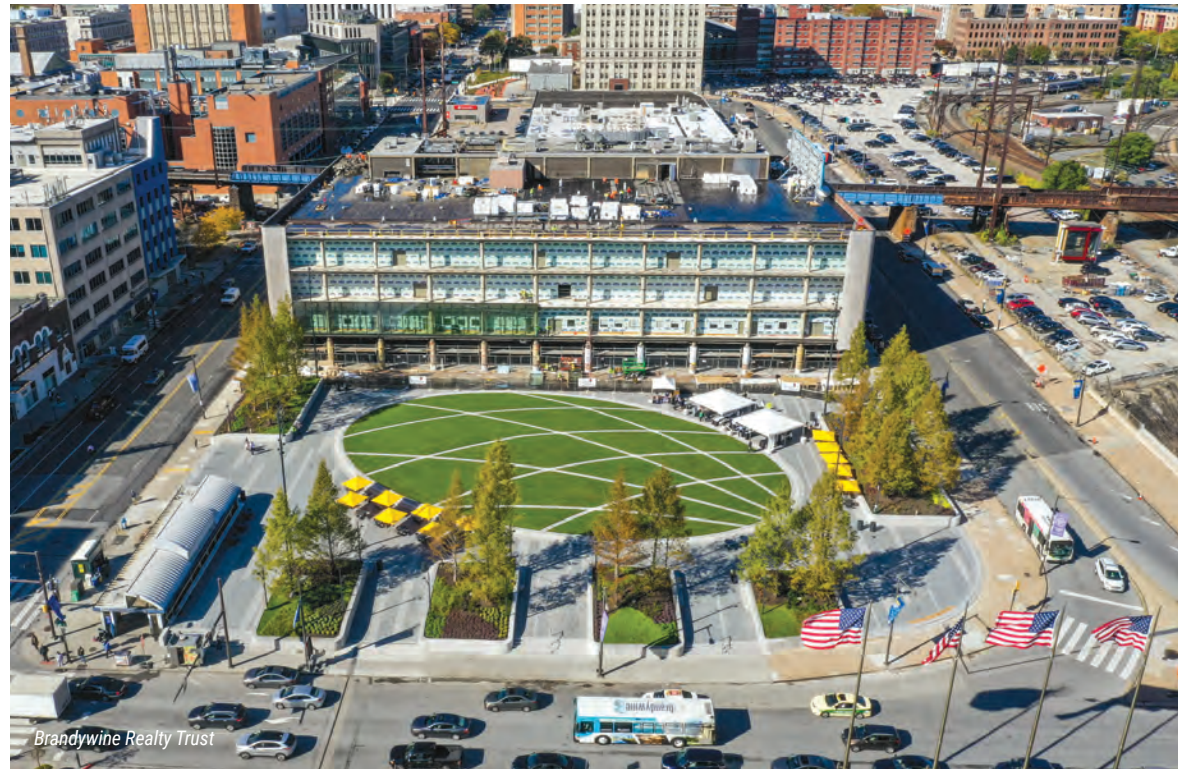
Jerry Sweeney, president and CEO, Brandywine Realty Trust



Brandywine Realty Trust

PROJECT EXAMPLE

Drexel Square Park



Brandywine Realty Trust

Park Development and Operations

PARK DEVELOPER: Private—Brandywine Realty Trust

OWNERSHIP: Private—Brandywine Realty Trust (under long-term ground lease from landowner Drexel University)

OPERATIONS: Private—Brandywine Realty Trust

FUNDING: Private—Brandywine Realty Trust

Park Highlights

SIZE: 1.3 acres (0.5 ha)

STATUS: Opened in 2019

PROGRAMMING: Free community programming including fitness classes and a concert series

DESIGN FEATURES: 12,000-square-foot (1,100 sq m) elliptical green lawn; 31,000 square feet (2,900 sq m) of granite-paved plaza; 9,000 square feet (860 sq m) of raised planted beds; flexible outdoor furniture; 23 metasequoia street trees—each over 40 feet (12 m) tall—that frame the square

RESILIENCE/SUSTAINABILITY FEATURES:

Reduction in impervious coverage area of 50 percent; shade from redwood trees; sustainably harvested all-natural stone throughout plaza

SOCIAL EQUITY STRATEGIES: Transit accessibility; associated job creation and training, capacity building, local sourcing, and affordable housing initiatives through the \$16 million Neighborhood Engagement Initiative

PROJECT EXAMPLE

Drexel Square Park

Partnership Highlights

PARTNERSHIP BETWEEN DEVELOPER AND UNIVERSITY TRANSFORMED PARKING LOT INTO PARK

Drexel Square Park opened in 2019 after Brandywine Realty Trust invested \$14.3 million to transform a Drexel University–owned parking lot surrounded by a six-foot-high (1.8 m) wall into a park. The park sits on land leased from Drexel and was funded entirely by Brandywine. It is the first of several green spaces that will comprise 6.5 acres (2.6 ha) of the 14-acre (5.7 ha) Schuylkill Yards development—a 6.9 million-square-foot (641,000 sq m) mixed-use project between Philadelphia’s 30th Street Station, Drexel, and the University of Pennsylvania.

PARK OPENED BEFORE OTHER PARTS OF DEVELOPMENT

Drexel Square Park was the first piece of Schuylkill Yards and opened before any of the buildings in the master plan. By creating a publicly accessible park in advance of revenue-generating private development, Brandywine aimed to expand access to community gathering space, while also demonstrating the value of the larger Schuylkill Yards project.

Notably, after transforming the former parking lot into a park, the site’s impervious coverage was reduced by 50 percent, leading to a significant reduction in runoff and lower temperatures at the site.

“With more focus than ever before on human well-being, Brandywine is committed to creating environments that make a positive impact on people, both during their workdays and beyond,” notes Jerry Sweeney, president and CEO of Brandywine Realty Trust. “Every element of this park was carefully designed to create a sense of place, togetherness, and community. We see Drexel Square as an investment for generations to come, and the framework for what will eventually unfold at Schuylkill Yards.”

COLLABORATIVE INITIATIVE SUPPORTS COMMUNITY DEVELOPMENT

As part of the Schuylkill Yards development, Brandywine is investing more than \$16 million in a new Neighborhood Engagement Initiative that supports local job creation, small and minority business development, affordable housing, and other community priorities.

To advance this initiative, Brandywine selected local nonprofit Centennial Parkside Community Development Corporation to serve as codeveloper for several phase one projects of Schuylkill Yards. As codeveloper, Centennial Parkside participates in biweekly construction meetings, including on the design and operation of Drexel Square Park.

The overall goal of the codeveloper partnership is to support communities surrounding Schuylkill Yards by giving local west Philadelphia organizations a voice at the table and deploying resources to neighboring communities. Centennial Parkside receives \$100,000 in annual funding from Brandywine, training on real estate development, and access to support services to build the organization’s capacity to create and preserve affordable housing. As the project moves forward, Brandywine will continue to expand support for local community development corporations through the Neighborhood Engagement Initiative.

“In addition to providing input on the park, the partnership with Brandywine provides us unrestricted funding for our work to support affordable housing, local businesses, and housing preservation in the area. This is a huge financial boost for a small community organization and makes up 25 percent of our operating budget.”

Chris Spahr, executive director, Centennial Parkside CDC

PROJECT EXAMPLE

Edison Eastlake Community

PHOENIX, ARIZONA

Planned and improved public parks at mixed-income neighborhood redevelopment being created by cross-sector, health-focused partnership

Edison Eastlake is a mixed-income neighborhood redevelopment project with a planned 1,161 units adjacent to St. Luke's Medical Center in Phoenix. Initial project phases were under construction as of 2020. The redevelopment plan includes new, expanded, and improved park space to link the neighborhood with drought-tolerant and native plants to provide cool islands, among other green spaces and shaded areas. Edison Eastlake provides an example of using parks to mitigate extreme heat.

Edison Eastlake experiences some of the hottest temperatures in Maricopa County, with surface temperatures of up to 130 degrees Fahrenheit (54 degrees Celsius) in the summer. The area has low vehicle ownership and high rates of walking, bicycling, and transit use, so it is crucial to ensure that the redevelopment is heat resilient to protect the health and safety of residents, employees, and visitors.

Planned public spaces and rights-of-way at Edison Eastlake adhere to Phoenix's Walkable Urban zoning code requirement that all new sidewalks must be 75 percent shaded. Cool paving technologies—including experimental coatings and paving materials—are

being explored for paths and sidewalks. A linear park with walking paths, fitness stations, a meditation garden, and shade structures will connect the neighborhood to St. Luke's Medical Center. Parks at Edison Eastlake are also designed to support community resilience by serving as gathering places during emergencies.

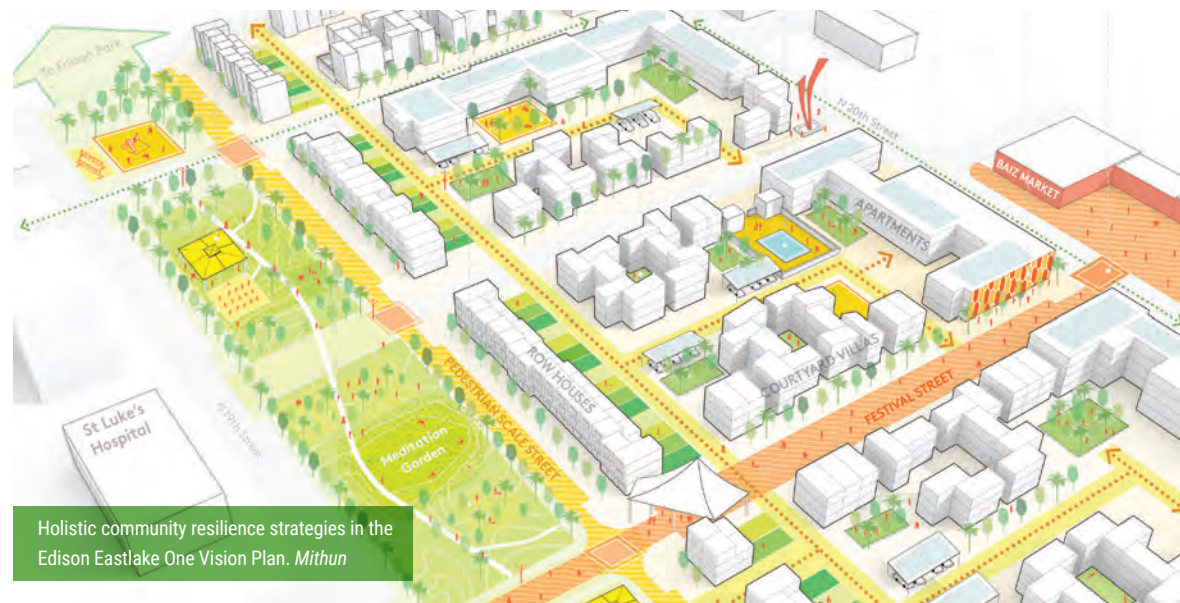
The project is a partnership that includes the city of Phoenix Housing Department, Mithun Inc., Gorman & Company, Arizona State University (ASU), and other groups, with each partner providing specific expertise to ensure that people have safe and healthy housing and park space.

The Edison Eastlake One Vision Plan—led by design firm Mithun and created with residents, stakeholders, and public health experts—lays out the strategy for redevelopment and identifies cooling the urban heat-island effect as one of three top implementation priorities.¹⁹ “Having a public health expert embedded

in the mix is a game changer,” Erin Ishizaki, a partner at Mithun, observes. “And once you hear the health-related data about heat, open space, and walkability, you can't go back.”

Additional partners central to the ambitious plan to address extreme heat include the U.S. Green Building Council, the Maricopa County Public Health Department, the Vitalyst Health Foundation, and the Nature Conservancy, which is conducting a “thermal comfort” study to assess how residents experience heat and to identify solutions to mitigate extreme temperatures.

Phoenix Housing also continues to coordinate with ASU to track the success of urban heat-island mitigation measures. ASU researchers have installed multiple weather stations in the neighborhood to measure baseline temperatures and track neighborhood temperature change from construction through buildout.



Holistic community resilience strategies in the Edison Eastlake One Vision Plan. Mithun

ISSUE BRIEF

Partnerships and Resilient Parks

Parks present an important opportunity to promote community and climate resilience, with *resilience* defined as “the ability to prepare and plan for, absorb, recover from, and more successfully adapt to adverse events.”²⁰

Parks can enhance resilience through thoughtful design features that mitigate local climate extremes, by providing safer spaces to congregate or engage in exercise during times of disruption, and by supporting daily quality of life and improved resident health outcomes.

Resilient park design anticipates and plans for the impacts of climate change, such as increased heat, more intense rainfall, and more frequent flooding. Common park resilience strategies include providing shaded areas, adding drought-tolerant plants, and building living shorelines, new wetlands, and greenways designed to be underwater during floods.

Increasingly, parks are also designed to function as resilience hubs—community resource centers that are created with flexible designs to accommodate uses during disruptions and recovery periods that differ from their everyday uses.²¹ Examples of park amenities that enhance both daily use and are advantageous during disruptions include wi-fi access, cooling centers, and resilient power options.

Parks and recreation agencies—often working closely with private, nonprofit, and philanthropic partners—are key actors in community resilience because they are often major landowners with opportunities to invest in natural infrastructure through the creation, management, or enhancement of public space.²² However, the ability of parks and recreation departments to prioritize resilience may be limited because of budget or capacity restraints, making creative partnerships and funding approaches even more essential.

Cross-sector partnerships—such as those that advance real estate projects with significant park components—can enhance resilience by helping address the effects of climate change in numerous ways, including protecting against water-related events and mitigating heat-island effects.

PARKS, EXTREME HEAT, AND HEALTH

Cross-sector partnerships to support parks can improve public health, including by mitigating the effects of extreme heat. Extreme heat compromises human cardiovascular and respiratory systems, making high temperatures a pressing public health risk, particularly for low-income and elderly communities.²³

The most universally applicable resilience design strategies to combat extreme heat are the creation of shade and the preservation of open space.²⁴ Parks create “cool green space islands” that reduce surrounding air temperatures by at least 2 to 4 degrees Fahrenheit (1.1 to 2.2 degrees Celsius).²⁵

BEFORE



AFTER



Historic Fourth Ward Park in Atlanta transformed a neglected site into a park that addresses the problem of combined sewer overflows. The park was created through a partnership that included neighborhood residents, the Historic Fourth Ward Conservancy, the Atlanta BeltLine, the Atlanta Department of Watershed Management, and the Atlanta Department of Parks and Recreation. *William R. Bryant; Steve Carrell*