







# Penn CONNECTED

With the opening of Penn Park in September, the University's eastward expansion is now a reality. A brief history of what it took to transform this long-sought dead zone into an oasis.

By Trey Popp





The park's 530 newly planted trees weathered the city's wettest August on record—and Hurricane Irene.

**ON** the morning of August 28, as basements across West Philadelphia whirred with the low drone of sump pumps, Penn President Amy Gutmann made her way to the nascent athletic fields and grassy hillocks of Penn Park.

It had been a very wet end to the summer. Two days earlier, Philadelphia had broken its all-time record for precipitation in a single month with 13.6 inches of rain. Then Hurricane Irene hit, dropping nearly six more inches in about 12 hours and raising the Schuylkill River to its highest level in 140 years.

Penn Park, which was scheduled to open about three weeks later, lies in a floodplain. The saplings that crowned its gently sloping berms and dotted its low-lying hollows—London plane trees and honey locusts, willows and bald cypress, cedars of Lebanon and Kentucky coffee trees—had already suffered four or five heat waves since being planted in June. Now they'd been through a night of root-drowning torrents driven by 50-mile-per-hour winds.

So it's hardly surprising that Gutmann's voice was still tinged with relief and



Opening day.

excitement when several days later she recalled her post-storm tour.

"All 530 trees were not only standing but looking healthy," she enthused. "Our state-of-the-art drainage system had obviously worked," she added, referring to the permeable playing fields, engineered subsoils, and a network of cisterns designed to capture and reuse rainwater for irrigation. "It was put to the ultimate test with Irene far sooner than we could have ever expected, and it passed with flying colors."

Two weeks later, amidst a sudden cold snap that did little to discourage students,

staff, and city-dwellers from streaming into the new 14-acre expanse, Gutmann snipped the ceremonial blue ribbon signaling Penn Park's grand opening to the public. On one of the synthetic-turf fields nearby, one group of students fired shots at a soccer goal while another played a pick-up game of Ultimate Frisbee. On the second field—another vast expanse capable of accommodating women's lacrosse, which has the largest field in NCAA sports—the women's rugby team took over the northern portion, leaving the southern half to cricketers and club baseball players. At twilight, as if on cue, the sky cleared and became a limpid lavender backdrop for a giant double-rainbow.

It had been not quite two years since University leaders gathered under a tent pitched more or less on the same spot—which at the time was still the same decrepit asphalt parking lot long controlled by the United States Postal Service—for a ceremonial groundbreaking. In between, four months of demolition and another 18 months of construction had transformed that forbidding void into an unlikely oasis. But in fact, the creation of Penn Park is a story many more years in the making.





The playing fields offer lots of room to run, plus striking Center City views.



**On the 52nd floor of the Comcast Center in Center City,** Penn Board of Trustees Chair David L. Cohen L'81 sometimes likes to greet visitors by taking them to what he calls “the closet with the best view in all of Philadelphia.” Situated, somewhat puzzlingly, in what might otherwise be a prime office in the building’s southwest corner, it offers through its floor-to-ceiling windows a vantage that bears out the truth behind the title of the University’s “Penn Connects” master plan.

“Look how beautiful the campus looks from 900 feet in the sky, with this band of green going across the river and into campus,” Cohen marveled on a rare day of sparkling sunshine in late August.

Lying across the water from the southernmost segment of the Schuylkill River Trail, Penn Park does in fact register from above as a sort of linking mechanism between West Philadelphia and Center City. The pedestrian bridge that was once proposed as a direct connection between

the two green spaces may be a dream deferred to rosier economic times, but one of the most striking aspects of landscape architect Michael Van Valkenburgh’s design is a pedestrian ramp that hooks into the Walnut Street Bridge, inviting passersby onto a massive berm that slopes gracefully down to the main level of Penn Park 30 feet below.

For Matthew Urbanski, the landscape architect in Valkenburgh’s firm who came up with the notion of creating giant landforms to connect the low-lying park to the street level above, it was a “brainstorm” that “seemed like either a deal breaker or a great idea.”

For Gutmann, it became a linchpin of the whole plan.

“The only way we could genuinely make this welcoming to the community is to connect it to Walnut Street,” she said before the grand opening. “If it were only connected through our campus, yes, you could, if you were in the know, find a way of getting there—but you’d have to be in

the know. This way, it says: Come stroll through a park and come into our campus. Even if you didn’t plan on doing it, we welcome you.”

During the latter years of the Postal Service’s occupancy, this parcel conveyed the exact opposite impression—one somewhere between repulsion and outright menace. “I remember it as not just a parking lot,” says Cohen, “but an ugly, dirty parking lot with broken-down vehicles parked there.”

Cohen also recalls that University trustees have been thinking about acquiring and transforming that real estate at least as far back as when Al Shoemaker W’60 Hon’95 chaired the board, beginning in the mid-1980s. When Ed Rendell C’65 Hon’00 became Philadelphia’s mayor in 1992, with Cohen as his chief of staff, then-Penn President Sheldon Hackney Hon’93 wasted no time in trying to enlist Rendell’s support.

“One of the first meetings that I remember was Sheldon coming in to meet with



**Ramps and landforms give joggers and others shifting perspectives.**



The Paley bridge provides access from Franklin Field to the park.



Ed and with me,” Cohen says. “He had little mini architectural plans and drawings—[though] not necessarily for a park.”

To the two alumni freshly in charge of the city, the idea seemed “audacious,” in Cohen’s recollection. “I don’t know that we saw any reality to it at the time. We didn’t think or know that the Postal Service was interested in selling. But it certainly showed some foresight by the University. And it stuck in our minds.”

The idea was still just that—an idea—nine years later when Cohen became a University trustee. But the landscape had shifted. The Postal Service was on the cusp of building a modern mail-sorting facility near the airport that would render its 1935 building on the banks of the Schuylkill between Market and Chestnut streets obsolete.

Nevertheless, acquiring the land remained a daunting prospect. Though the USPS was ready to sell, it wanted the entire tract of land—the historic building, the adjacent truck-terminal annex, plus the open tract between the Walnut and South Street bridges—in-

cluded in the purchase. But Penn didn’t want the historic building.

“It’s a million square feet,” observes Penn executive vice president Craig Carnaroli W’85. “It would have taken anywhere between \$5 million and \$10 million [a year] just to maintain it,” and a great deal more to overhaul the interior for whatever tenants could be found to occupy all that space.

Then there was concern about whether Penn could meet the price—a figure not released publicly but estimated in news reports to be around \$50 million—as well as the cost of subsequently developing 14 acres of what was essentially industrial brownfield in a flood zone.

“It began to be a bit of a joke,” Cohen says. “I mean, if you think about it, it took 15 years to make an offer.”

Nevertheless, “there was unanimity that if you could gain control of this real estate, it was something the University had to do,” he adds. “Particularly if it was going to be sold, how could you let someone else buy it, and seal off that development opportunity in the future? There’s

no way as trustees that we wanted to see that land go to another developer.”

After the University’s offer was accepted in 2004, it took another three years to actually close on the land. To acquire the undeveloped portion without being saddled with the buildings, Penn welcomed Brandywine Realty, a publicly traded real-estate investment trust, into the transaction. The University bought the entire parcel, then immediately turned around and sold the historic building to Brandywine—which, as a for-profit entity, could make use of the associated historic-preservation tax credits resulting from its estimated \$265 million rehabilitation of the structure. Brandywine’s tenant for the building is the Internal Revenue Service, which accepted a 20-year lease in a deal that kept 5,100 workers in Philadelphia after the agency shuttered its old facility in the northeast section of the city.

Brandywine also signed a 90-year ground lease with Penn for the adjacent annex facility between Chestnut and Walnut streets, with the understanding that it would be replaced by a parking



garage (which Brandywine has done) and then a mixed-use development incorporating office space, street-level retail, and possibly residential and hotel components (which it has yet to do).

At the end of the day on August 31, 2007, the University at long last had a campus that stretched all the way to the Schuylkill River.

**Once the University had the land,** the challenge shifted to implementing a design capable of accomplishing several goals that weren't all in mutual alignment. First of all, the Division of Recreation and Intercollegiate Athletics wanted more space—including some that could be adaptable for winter use. Second, Penn's leadership wanted the new park to dovetail with the University's Climate Action Plan ["Red and Blue Makes Green," Nov | Dec 2009], with its goals for energy conservation and sustainable design. Third, the athletic fields and tennis courts would also need to coexist with un-programmed space intended to serve as a public amenity. Finally—and perhaps most trickily—the whole assemblage would need to fit into a space variously bordered or bisected by elevated freight-train tracks, a light-rail commuter line, the Schuylkill Expressway, Amtrak's Northeast corridor, and streets situated 30 feet above ground level.

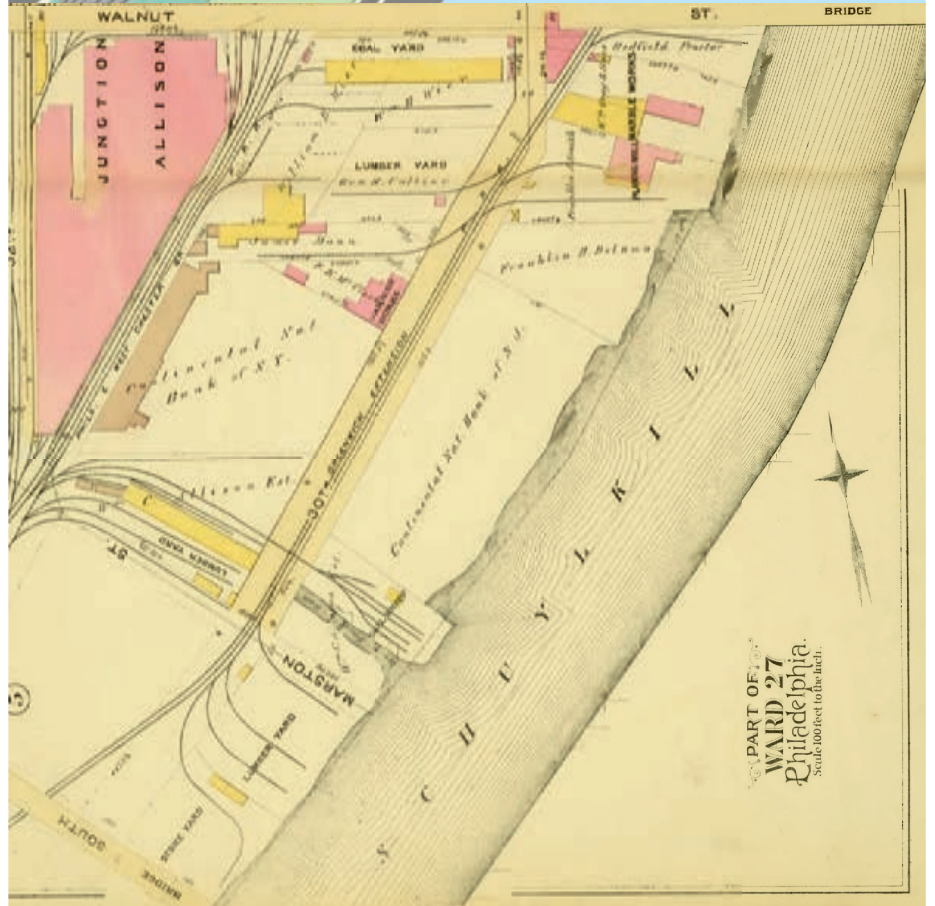
As Matthew Urbanski puts it, making “a lyrical connection to the city, and improving access in an intuitive way” would involve “some real gymnastics.”

“The city wasn't designed to provide those connections,” he explains. “It was actually designed to create separation, which is typical of a city as it evolves against a river, which were often thought of as backyard areas, if you will. It was cut off by extra tracks, and the requirements of the roads being elevated because of flooding. So there was no latent reason why this would be an easy solution based on the previous industrial history of the site.

“But it seemed that although it was quite involved to make this engineering solution, where you come down with bridges and landforms,” he adds, “on the other hand it was a relatively minor intervention—minor in scale compared to the other elements there: the elevated tracks, Amtrak, and whatnot. And it could create this level of urban connection and discovery and convenience.”



Penn Park in context.



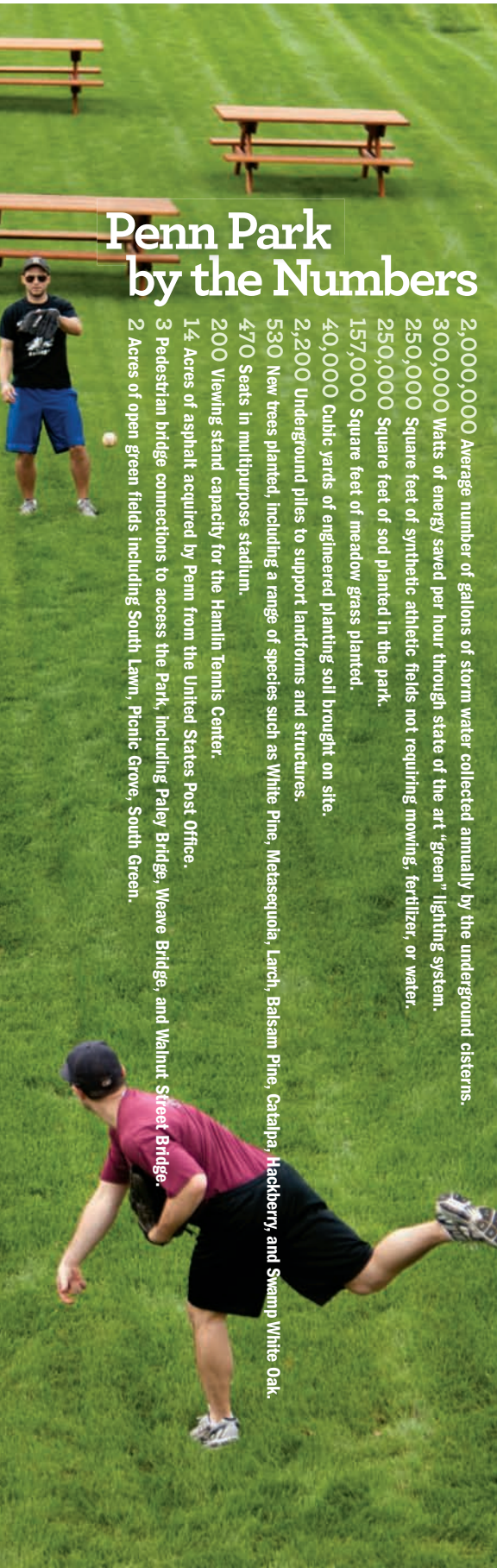
The land as it was used in 1892.



The distinctive “weave” bridge spans Amtrak’s Northeast corridor, right behind the 12 tennis courts.







## Penn Park by the Numbers

- 2,000,000 Average number of gallons of storm water collected annually by the underground cisterns.
- 300,000 Watts of energy saved per hour through state of the art "green" lighting system.
- 250,000 Square feet of synthetic athletic fields not requiring mowing, fertilizer, or water.
- 250,000 Square feet of sod planted in the park.
- 157,000 Square feet of meadow grass planted.
- 40,000 Cubic yards of engineered planting soil brought on site.
- 2,200 Underground piles to support landforms and structures.
- 530 New trees planted, including a range of species such as White Pine, Metasequoia, Larch, Balsam Pine, Catalpa, Hackberry, and Swamp White Oak.
- 470 Seats in multipurpose stadium.
- 200 Viewing stand capacity for the Hamlin Tennis Center.
- 1.4 Acres of asphalt acquired by Penn from the United States Post Office.
- 3 Pedestrian bridge connections to access the Park, including Paley Bridge, Weave Bridge, and Walnut Street Bridge.
- 2 Acres of open green fields including South Lawn, Picnic Grove, South Green.

The large but sinuous berms do double-duty. They provide connections to the Walnut Street bridge and the Paley pedestrian bridge, which leads to Franklin Field (and in another year or so, the forthcoming Al Shoemaker Green in front of the Palestra). They also divide what could otherwise be a pancake-flat expanse into distinctive zones with different focal points—the two synthetic-turf fields on the northern edge of the park (which were made from recycled materials); the 470-seat softball stadium (adaptable for other purposes); the 12-court Clay W. & Lynn B. Hamlin Tennis Center; and the general-use grass field at the southern end—while providing walkers and joggers with constantly shifting sightlines, from varying heights, toward the Center City skyline.

Executing the concept proved more difficult than initially imagined.

“When we started this job,” says Anne Papageorge, vice president of facilities and real estate and a landscape architect herself, “we thought that the soils could handle more loads than what they actually can handle. So it started to become expensive—very expensive—to support buildings, even though they’re small, and these landforms, because even though they’re dirt, they’re heavy.”

What Papageorge and the construction team discovered, in effect, was the industrial history of the site.

“There’s a whole layer of probably 15 to 20 feet of just urban debris,” she says. “And then [beneath that], there’s a layer of what we call dredge material.”

The dredge material extended inland from the river in what construction director Ed Sidor likened to fingers reaching into the site.

According to Mark Frazier Lloyd, director of the University Archives and Records Center, these refilled trenches correspond to canals dug in the 19th century, when the west bank of the Schuylkill was a busy shipping terminus south of the Market Street bridge (which marked the upper boundary for cargo vessels). Indeed, maps from 1872 and 1892 in the University archives show that some of the land here was owned by Franklin H.

Delano, a great-uncle of the US president, and (among other things) a partner in a New York shipping firm.

Prior to 1925, when the Pennsylvania Railroad began buying up most of it, this tract of land had supported a wide range of businesses. There were coal, stone, and lumber yards, a varnish works, and at one time a large factory that manufactured leaded paint. Many of these operations featured canals or wharfs. Collectively, they planted the seeds of an unexpected challenge faced by Penn Park’s construction team.

What with the deep layer of urban debris, and the similarly unstable sections of dredge material lying underneath that, you had to go anywhere from 25 to 55 feet down before you hit solid ground. So in order to support some of the key elements of the park—the massive berms, cisterns designed to hold 2.5 million pounds of water, the stadium and tennis complex—Papageorge’s team had to sink some 2,200 structural concrete piles into the bedrock.

Between those, the stormwater reclamation and irrigation systems, the underground electrical infrastructure (which supports energy-efficient lighting the University estimates will save 300,000 watts of energy per hour), approximately \$12 million of the \$46.5 million budget “went underground,” as the construction managers put it.

In the days between the park’s completion and its official opening, all the key players among Penn’s leadership were effusive about the result—especially given how gracefully it had weathered the hurricane.

Athletic director Steve Bilsky W’71, whose original dream for a field house proved to be insupportably expensive, sounded like a man who’d decided that his consolation prize was better than the jackpot. “The first thought was: If we’re going to do this after all these years, let’s do it as well as we can. So there’s a cost implication to that ... Cost is always a factor, but we had one shot at this, and we wanted to make it as spectacular as possible.”

Reaching back to his days as a student beginning in 1967, Bilsky says, “From the time I first came to Penn, everybody talked about how we don’t have enough playing fields and outdoor surfaces.” He expects Penn Park to put



The non-athletic—or those just resting—are welcome, too.



an end to that longstanding complaint. “As you add those two [synthetic-turf] fields, and then the outfield of the softball stadium, and then Franklin Field, you’ve gone from one facility that had a surface and lights, to four.

“So you can now not only program much more than you ever did before, but you can do it in a rational way,” he adds, noting that Penn has 1,000 student-athletes competing for space. “So you won’t have intercollegiate teams having to practice at five in the morning anymore—which is not only not ideal, but it also impacts their academic schedules. Then, of course, you can now schedule your club and intramural programs as well. They’re the beneficiaries, because now they can play more, and at regular times.”

And they won’t have to stop come the first snowfall. The Dunning-Cohen Champions’ Field and Air Structure [“Gazetteer,” Sept/Oct 2010], a giant temperature-controlled bubble that will stretch over one of the new fields during winter, promises more functionality at a lower cost than a field house. “Instead of having a field house with an infield allowing maybe 40 yards,” Bilsky says, “we now have an infield that’s as long as any field that

exists, [under a roof that’s] probably 70 feet high. So you can play football, baseball, do anything in there.”

For David Cohen, the park “hits three critical University and city priorities.”

“Number one, it’s a grand-slam home run for the students,” he says. “We have this great urban campus, and students love our campus. Add a layer of green space and park land with athletic fields right up against the river, with the skyline of the city right over your shoulder—I mean, what an amazing amenity to add to the University’s portfolio. If you’re a student at this University, it’s another wow space on the campus that makes you realize what a special place the University of Pennsylvania is. Number two, it’s a great statement about the University’s commitment to green, and to environmental repurposing. I can’t tell you how proud I am as chair of the trustees ... What a wonderful statement to make for our commitment to the environment and to green than to spend almost \$50 million developing a park. And the third element is that it’s the perfect expression of Penn’s connection to the city of Philadelphia.”

Gutmann echoes those points, and puts the last one into historical context.

“Everybody’s connection to Penn goes beyond our academic excellence, even if it begins with our academic excellence,” she says. “We are a community. And we’re a community of people who believe in what higher education can contribute to the world. That’s Penn’s trademark. It goes as far back as our founder, Ben Franklin. We’re not an ivory tower; we are a university that’s dedicated to showing the difference we can make in the world. And our world begins right here at home.”

Musing on how it feels, seven years into her presidency, to preside over the accomplishment of this long-sought goal, Gutmann turns to another historical analogy.

“As old as Penn is, it feels to me a little as I imagine the American pioneers felt when they ventured into a new territory and then developed it into something,” she says. “There’s a great sense of, I just have to say pride and privilege, that as president I could help transform the space, and to transform it for everybody. I’ve thought my whole career, and especially as president of Penn, that what Penn stands for is making a difference to our community. And this is such a palpable difference.

“Frankly, it’s beyond my expectations.” ♦