

BUILDING HUDSON YARDS THE PUBLIC SQUARE AND GARDENS: THE SMARTEST PARK IN TOWN

New York's newest elevated park grows over a different set of tracks.

A PARK FOR ITS PLACE

The Public Square and Gardens is a park unlike any other in New York, and not just because it boasts state-of-the-art WiFi. Built on a platform sitting above a working railyard, it relies on a sophisticated, layered approach to root growth, nutrient delivery, temperature regulation, irrigation and drainage. It is as much a feat of technology as horticulture.

PLANTS, TREES, BIRDS AND BEES PLACE

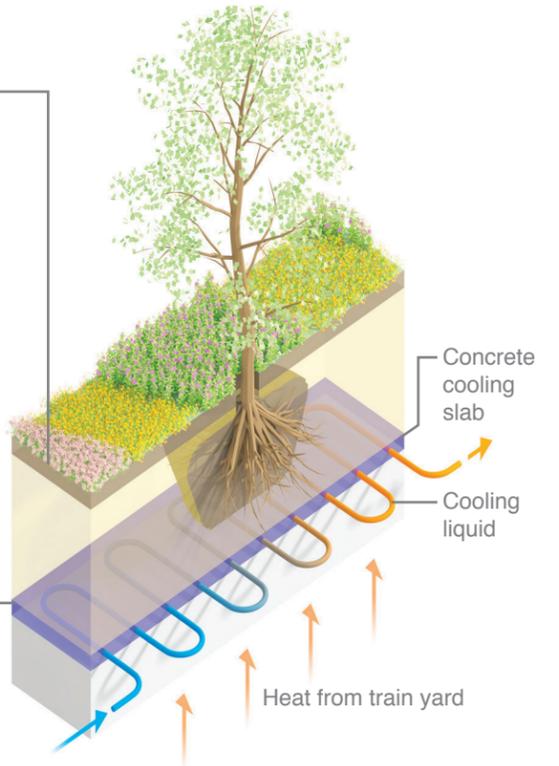
Across five acres, visitors will encounter more than 28,000 plants of diverse species and size, including a forest of 200+ mature trees. Wildflowers in the *Echinacea*, *Monarda* and *Rudbeckia* families attract bees, butterflies, hummingbirds and other pollinators, while fruiting trees and shrubs, such as serviceberry, spicebush and winterberry, are seasonal homes to migratory birds like warblers, sparrows and American redstarts.

DIRTY WORK

The platform's thickness puts a limit soil depth—18 inches for plants, four feet for large trees—but soil beds have been designed to provide room for (mostly horizontal) root growth. Where trees are planted in paving, a "soil sandwich" of sand, gravel and concrete slab protects roots while again allowing them to expand. The sophisticated layering of the system also includes provisions for aeration, irrigation, drainage and ongoing control of nutrients.

PAMPERED PLANTS PLACE

The heat from the train yard below can reach 150 degrees, too hot for city trees, even in winter. To combat this, a network of tubing is embedded in the platform to circulate cooling liquids.



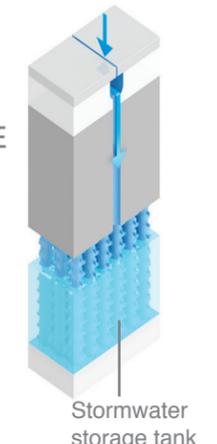
AIR SUPPLY PLACE

A ventilation system of 15 large fans—the kind usually found in jet engines—helps to remove the heat generated in the rail yards below.



RAIN, RAIN (DON'T) GO AWAY PLACE

Rainfall at Hudson Yards is collected in a 60,000-gallon tank and used for irrigating our plants and trees. The environmental benefits include easing the pressure on the city's sewer system as well as limiting water usage and the energy (approximately 6.5 megawatt hours) it takes to pump it. The greenhouse gas mitigation is equivalent to the carbon output of four acres of forest.



SUPPORT SYSTEM PLACE

The 10-acre platform is held up by hundreds of concrete-and-steel caissons drilled deep into the bedrock between train tracks.

