



Hudson Yards to house 4.5-acre smart park designed by Nelson Byrd Woltz

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Hudson Yards will soon be home to the smartest park in town. New York's newest elevated park, designed by Nelson Byrd Woltz Landscape Architects, will be unlike any other park in the city. With jet engines, super chilled roots, smart soil and advanced irrigation, the Hudson Yards Public Sq. will include 28,000 shrubs and over 200 trees to create an urban oasis that will be visited by birds, bees and 24 million people every year. Hudson Yards is being developed by Related Cos. and Oxford Properties Group.

Sitting at the nexus of the High Line, Hudson River Park and the soon-to-open Hudson Park & Blvd., the 4.5-acre HudsonYards Public Sq. will be at the center of a new interconnected park system on the West Side. In addition to a seamless link to the High Line, the Hudson Yards Public Sq. will house almost a mile of pedestrian walkways and 30,000 diverse plants, including groves of 200 mature trees.

The Public Square will contain thousands of native New York perennials and wildflowers that attract butterflies, hummingbirds and other pollinators.

"Our aspiration for the Public Square at Hudson Yards is that it will become one of most celebrated gathering places with something for everyone. We felt it was very important to not only learn from the past, but to also look to the future, and we focused our energy on every detail that makes a great public space an inviting experience," said Jay Cross, president of Related Hudson Yards. "Not only is Hudson Yards creating a new epicenter in Midtown Manhattan, but it also sits at the nexus of a network of parks that will run all the way from the Meatpacking District to Times Square. Twenty years from now we hope that, like Trafalgar Square in London and Piazza del Campidoglio in Rome, the Public Square at Hudson Yards will also be on the list of the great meeting places of the world."

"Parks and open spaces define neighborhoods and become an important connection for the surrounding communities. For Manhattan's West Side, the Hudson Yards Public Square will serve as the main intersection, bringing all of New York City's west side parks and neighborhoods together," said Thomas Woltz of Nelson Byrd Woltz Landscape Architects. "The design of the Public Square at Hudson Yards prompted unprecedented innovation and deep collaboration across disciplines, including soil science, horticulture and landscape architecture. What has emerged is a project that will serve as a model for 21st century urban spaces."

The platform that sustains the landscape is a technological innovation. Serving as a ventilation cover over active rail yards, the platform is engineered to support extensive plantings and water features, as well as a large reservoir for site storm-water management and reuse, including:

Heat Control - The train yard can reach a scorching 150 degrees Fahrenheit, creating soil conditions

too hot for tree survival. To protect the plants from this heat below, a sophisticated network of tubing will circulate cooling liquids to protect the plants' roots.

Ventilation - To remove heat generated by the trains below, a ventilation system powered by 15 fans, commonly used in commercial jet engines, will supply fresh air at 45 MPH to the train tracks below.

Smart Soil - With a depth of only eighteen inches for plants and four feet for large trees, a "soil sandwich" of sand and gravel between two concrete slabs is being constructed to compensate for the shallow depth to protect the plants' roots and promote root growth that is wide and shallow. This advanced layering includes provisions for soil aeration, irrigation, drainage, root development and ongoing control of nutrients.

Irrigation - Every drop of rainwater that falls on the Hudson Yards Public Square will be collected into a 60,000 gallon tank and reused to irrigate the plants and trees. By collecting this water, Hudson Yards will save 6.5 megawatt hours of energy and offset 5 tons of greenhouse gas every year.

In addition to the sophisticated layering of utilities and materials being employed to create the landscape above, below is an additional layer of utilities and infrastructure serving as the foundation for the world's most sophisticated, engineered city. When the first phase of Hudson Yards is complete in 2019, it will bring together an unprecedented integration of buildings, streets, utilities and public spaces, creating the most connected, clean, efficient and responsive neighborhood ever built:

Reliable + Efficient Neighborhood - Whatever the disruption - super storm, brown out - Hudson Yards will generate power onsite to keep basic building services, residences and restaurants running. Buildings at Hudson Yards are also interconnected via a micro grid allowing them to either be heated and cooled with their own equipment, or that of their neighbor. Data from an energy management system will also be used to generate, buy and conserve power across the neighborhood. (It also doesn't hurt that being built above a rail yard means our first floor is well above the flood plain.)

Connected Neighborhood - Communications will be supported by a future-proofed fiber loop, designed to optimize data speed and service continuity for rooftop communications, as well as mobile, cellular and two-way radio communications. This will allow enhanced continuous access via wired and wireless broadband performance from any device at any on-site location. The Public Square will also have an expansive WiFi system ensuring that Hudson Yards is a hot spot in more ways than one.

Responsive Neighborhood - Hudson Yards will harness big data to innovate, optimize, enhance and personalize the employee, resident and visitor experience. Supported by an advanced technology platform, operations managers will monitor and react to traffic patterns, air quality, power demands, temperature and pedestrian flows to create the most efficiently navigated, optimized and environmentally attuned neighborhood in New York.

Clean Neighborhood - The waste-management systems are designed to keep garbage out of sight. A vacuum tube system that will accommodate three waste streams (organics, recyclables and trash) will send residential waste straight from chutes on each floor to a central terminal - eliminating piles of garbage on sidewalks and considerable trash hauler traffic. Meanwhile, food-service organic

waste will be converted to dry fertilizer at 10% of its initial weight and size.

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