

The Condé Nast Building

New York, New York

Project Type:
Commercial/Industrial

Case No:
C035015

Year:
2005



SUMMARY

Developed by the Durst Organization, a family-run company that owns, builds, and manages premium office buildings, the 48-floor Condé Nast Building at Four Times Square in New York City is one of the first environmentally responsible skyscrapers to be constructed in the United States. Its attributes include the use of low volatile organic compound (VOC) finishes, a construction waste-recycling program, water-efficient plumbing fixtures, and an emphasis on maintaining high indoor air quality. The use of fuel cells and photovoltaics, however, is the most innovative aspect of the project; it was the first time fuel cells were put on a building and approved in New York City and the first time photovoltaics were integrated into the facade of a skyscraper there.

FEATURES

- Green Building
- Sustainable Development
- High-Rise Building

The Condé Nast Building

New York, New York

Project Type: Commercial/Industrial

Subcategory: Office Building

Volume 35 Number 15

July–September 2005

Case Number: C035015

PROJECT TYPE

Developed by the Durst Organization, a family-run company that owns, builds, and manages premium office buildings, the 48-floor Condé Nast Building at Four Times Square in New York City is one of the first environmentally responsible skyscrapers to be constructed in the United States. Its attributes include the use of low volatile organic compound (VOC) finishes, a construction waste–recycling program, water-efficient plumbing fixtures, and an emphasis on maintaining high indoor air quality. The use of fuel cells and photovoltaics, however, is the most innovative aspect of the project; it was the first time fuel cells were put on a building and approved in New York City and the first time photovoltaics were integrated into the facade of a skyscraper there.

LOCATION

Central City

SITE SIZE

1.2 acres/0.5 hectare

LAND USES

Office Building, Community Retail Center

KEYWORDS/SPECIAL FEATURES

- Green Building
- Sustainable Development
- High-Rise Building

OWNER/DEVELOPER

The Durst Organization
1155 Avenue of the Americas, Ninth Floor
New York, New York 10038
212-789-1155
Fax: 212-789-1199
www.durst.org

ARCHITECT

Fox & Fowle
22 West 19th Street, 11th Floor
New York, New York 10011
212-627-1700
Fax: 212-463-8716
www.foxfowle.com

CONSTRUCTION MANAGER

Tishman Construction Company
666 Fifth Avenue
New York, New York 10103
212-399-3600
Fax: 212-489-9694
www.tishmanconstruction.com

MECHANICAL ENGINEER

Cosentini Associates
Two Penn Plaza
New York, New York 10121
212-615-3600
Fax: 212-615-3700
www.cosentini.com

STRUCTURAL ENGINEER

Cantor Seinuk Group
228 East 45th Street, Third Floor
New York, New York 10017
212-687-9888
Fax: 646-487-5501
www.cantorseinuk.com

GENERAL DESCRIPTION

The Condé Nast Building at Four Times Square in New York City is one of the first environmentally responsible skyscrapers to be constructed in the United States. With this building, the development team, led by the Durst Organization, sought to make a commitment to environmentally responsible design and construction. The strong focus on air quality and the use of fuel cells and photovoltaics are the most innovative aspects of the project; it was the first time fuel cells were put inside a building and approved in New York City and the first time photovoltaics were integrated into the facade of a skyscraper there.

The edifice was constructed by the Durst Organization, a family-run company that owns, builds, and manages premium office buildings. Three generations of the Durst family have focused their energy on Manhattan real estate, mainly in midtown.

THE SITE

Located in the heart of midtown Manhattan in Times Square, the site is surrounded by dense urban development that includes office buildings, hotels, theaters, and stores. The original site had no natural features remaining and was completely covered with buildings constructed during the late 19th to mid-20th centuries.

The project sits amid one of the largest collections of mass transit facilities in the world, including New York's Grand Central terminal, the Port Authority bus terminal, and connections to the Long Island Rail Road, New Jersey Transit, and innumerable subway and bus lines. The building provides no parking space.

THE DEVELOPMENT PROCESS

For decades, the Durst Organization had been acquiring property on the block where the Condé Nast Building now stands. The state of New York's Empire State Development Corporation (ESDC) had obtained through condemnation four sites at 42nd Street and Times Square that had been slated for development in the 1980s. Architect Philip Johnson had designed four monolithic structures for Prudential/Park Tower Realty that engendered considerable public resistance. The timing of that development could not have been worse, as the real estate recession was in full swing. In part because of the public outcry but mostly because of economic realities, the projects were delayed and then canceled. During the mid-1990s, the Durst Organization acquired the ground lease from Prudential, which had leased it from the ESDC, and added three other properties to the site by deeding them to the ESDC and amending the Prudential ground lease to include the additional properties.

Before Durst's proposal, all the state environmental quality review approvals had been granted for the site. At the public hearing, the community's reaction to the new building was favorable for the following reasons: 1) the structure's design embraced the character of Times Square; 2) it signaled the end of the real estate recession; and 3) the owner had publicly stated very aggressive environmental goals. The project was exempt from zoning because it was owned by New York State.

PLANNING

The Condé Nast Building was the first structure developed by the third generation of the Durst family, Douglas and Jody Durst. Environmental responsibility in the Dursts' profession was an instinctive outgrowth of their personal interests and concerns. In addition, Durst properties had for years been taking advantage of utility demand-side reduction programs to increase the efficiency of their existing properties, and they were fully aware of the financial advantages of efficiency. They were also aware of the impact they could have on their industry by making the first building to emerge out of the real estate recession in New York City an environmentally responsible one.

The Dursts hired architects Fox & Fowle, engineers Cosentini Associates, and construction managers Tishman Construction Corporation based on their ability to design and build a high-rise office building in New York City. In their effort to design the first environmentally responsible skyscraper in the United States, the Dursts, Fox & Fowle, and Tishman hired or designated people in their firms to focus on environmental issues and support the project team as needed. This "green team" was responsible for providing support for implementation of the environmental aspects of the process (researching environmental materials and technologies, educating the contractors to ensure construction and demolition [C&D] recycling, reviewing submittals for impact on indoor air quality and recycled content).

The building was designed in 1995–1996, when the Leadership in Energy and Environmental Design (LEED) program was in its earliest stages. At the time, smoking was banned in any LEED-rated building, but tenants insisted on their right to allow smoking in private offices. Because LEED was unwilling to budge on the requirement, the project team decided not to use the LEED standards for guidance.

The green building objectives were to explore and integrate any environmentally responsible technologies and techniques that made sense for the project. The team was particularly interested in alternative energy-generating

schemes because the ESDC required 60-foot (18-meter) electric signage on all facades facing Times Square and 42nd Street and seriously considered solar, wind, and fuel cells. Photovoltaics were integrated into the facade, and ultimately two fuel cells were installed.

The building was designed with a strong focus on indoor air quality. A significant amount of time was spent considering how to design the cleanest HVAC system possible in terms of both environmental impact of the systems chosen and indoor air quality. Water-efficient fixtures were used as required by the New York City code.

The New York State Energy Research and Development Authority (NYSERDA) gave financial support through Steven Winter Associates to model and analyze the curtain wall and illustrate the savings that could be achieved by several energy-efficiency measures for tenant fitout. The Department of Defense provided \$200,000 each to help decrease the cost of the two fuel cells for the building. The Rocky Mountain Institute provided support under a grant from the Energy Foundation for strategies related to a performance-based fee experiment in which the design team is financially rewarded for energy-saving design.

DESIGN

The Condé Nast Building is designed with two distinct orientations. Reflecting the dynamic environment of Times Square, the west and north sides of the structure are clad primarily in metal and glass, while along 42nd Street and the east facade, textured and scaled masonry are more appropriate to the midtown corporate context and the refined style of Bryant Park. The addition of the contiguous property allowed for a 30 percent expansion of the original building site and the larger and more efficient floor plates attractive to big corporate tenants. It also enabled the architects to employ setback massing. The architects created a varied composition of interlocking setback forms and facade treatments that respond to the diverse scale and character of the neighboring building and suggests a characteristic Times Square layering of structures that might have evolved over time. The top of the building reflects the principal structural support system and, with its four 70-foot-square (21-meter-square) signs and a communications tower, expresses the project's location at the "crossroads of the world."

CONSTRUCTION

The buildings on the site were salvaged before C&D recycling was aggressively promoted, contractors were educated about the process, and detailed reporting was required. As documented in a U.S. Environmental Protection Agency (EPA) case study, 67 percent of the construction and demolition waste generated from the project was successfully diverted from the landfill.

Demolition and construction began in early 1996; at that time, no major construction projects had been done in an environmentally responsible manner in the United States. Thus, little direction was available. LEED was in its earliest stages and provided little or no guidance for contractors. Each member of the project team had to learn on the job and, in many cases, invent procedures as the job progressed.

Photovoltaics were of interest to the Durst Organization because of their ability to avoid the environmental impact of greenhouse gases and other types of pollution. Incorporating photovoltaic panels into the spandrel panels replaced a nonproductive glass with one that produced clean electricity. Photovoltaics cost less than the roof-mounted system that was originally considered because they required no additional structure and they replaced expensive spandrel glass.

Integrating photovoltaics and fuel cells into the building and negotiating approvals with the utility were extremely time-consuming and difficult tasks. Overcoming jurisdictional issues with respect to the wiring of the photovoltaics was also a major challenge. Originally, the Dursts had hoped to put photovoltaics at the top of the building and on all four sides, but ultimately because of the cost and the schedule, they were used only on the south and east facades. They initially had hoped to put eight fuel cells at the top of the building and had strengthened it to accommodate them, but because of the cost and the inability to sell electricity back to the utility at night, the number was decreased to two.

Using waste heat from the fuel cells was more difficult than expected because they provide relatively low-grade heat and were placed in the outside air plenum for the lower half of the building fairly late in the process. The Durst Organization ultimately used the waste heat to deal with a condensation problem created by the fuel cells during cold weather. The fuel cells generate power at 0.10 kilowatt-hour, compared with the ConEdison rate of roughly 0.14 kilowatt-hour. Though the savings benefit the tenant, they have been sufficient to pay back the capital expense of the purchase and installation of the fuel cells 1.5 times.

A free cooling system optimizes the use of secondary water, heat exchangers, and crossover piping. Integrating a massive supplementary air-conditioning system for one tenant and monitoring actual Btu consumption proved complicated but doable. It was achieved through exceptional coordination between the base building and tenant engineers.

The "hat truss" design reduced the amount of steel necessary to counter the high wind loads. In addition, heavy equipment placed at the top of the building acts as a damper, decreasing the amount of steel needed.

Extensive research conducted by the project team, consultants, tenant teams, contractors, and subcontractors on recycled content and low-VOC materials paid off in finding materials at a low-price premium or at no premium. Options were much more limited at the time. Every subcontractor was encouraged to find ways to avoid waste and was required to report recycled content and recyclability of all materials.

Low-e high-performance glass and extra-large windows maximized the potential for daylighting. The Durst Organization added extra insulation throughout the building. Although the extra insulation has no significant payback, it will decrease the use of fossil fuels over the structure's lifetime.

Waste chutes were installed along the full height of the building, with adequate space at the loading dock for proper sorting and storage of recyclables. Overcoming the fire department's opposition to the trash chutes' rising the full height of the structure was another unexpected challenge. Nevertheless, the waste chutes paid for themselves quickly because of the high cost of labor and carting in New York City.

The Durst Organization developed tenant guidelines and provided a "green library" for tenants and their architects and engineers to assist in tenant fitout.

FINANCING

The owner funded the purchase of the land and a portion of the initial construction costs for approximately 25 percent of total project costs. The owner and development entity were both wholly owned Durst Organization affiliates.

A syndicate led by Bank of New York provided the construction financing. At the time of closing, the building was mostly preleased. UBS furnished long-term financing through the issuance of commercial mortgage-backed securities. No public financing was used.

MARKETING

Many members of the project team have conducted hundreds of tours of the building. Visitors have come from all over the world—Japan, China, Korea, Australia, Great Britain, France, Germany, Italy, and many other countries. The building has been featured in numerous television and radio documentaries and news reports. Four Times Square was the site of the U.S. EPA ENERGY STAR awards in 2001; numerous other organizations have used it for many other events highlighting environmental responsibility.

The building has won a number of awards: the National Honor Award from the American Institute of Architects in 2001; Excellence in Design from the American Institute of Architects of New York State in 2000; Major Achievement from the New York City Audubon Society in 2000; New Construction Building of the Year for 1999–2000 from the Building Owners and Managers Association; and the Star of Efficiency from the Alliance to Save Energy in 1999. The building has also qualified for ENERGY STAR status.

MANAGEMENT

The building was extensively commissioned by the Durst Organization staff and is regularly recommissioned. Building personnel constantly monitor and manage 10,000 data points. A Web-enabled metering system allows for tracking of energy consumption both for tenants and for the building. Green cleaning agents are used. The trash chute facilitates pickup and recycling of office paper.

Extensive filtration of outside air removes 85 percent of particulate matter. Filters are changed every two weeks. Permanent carbon dioxide monitors have been placed in return air ducts, and carbon monoxide monitors near loading docks are tied into the building management system. Permanent tubing in the floor facilitates quarterly monitoring of VOCs and other indoor contaminants. The HVAC system allows three floors at a time to be flushed with 100 percent outside air should any contaminants be identified.

EXPERIENCE GAINED

The building was rented primarily to two major tenants for 20-year leases and has consistently outperformed the market in terms of vacancy rate and absorption.

The goal of the Durst Organization is to set new standards in environmentally responsible design and construction and to provide the most efficient and environmentally beneficial buildings possible for its tenants. The firm continues to learn and apply the knowledge gained, currently in two residential high rises, one commercial office tower, and one new weekend home community.

PROJECT DATA
LAND USE AND BUILDING INFORMATION Site area (acres/hectares): 1.2/0.5 Gross building area (square feet/square meters): 1,700,000/158,000 Net rentable area (square feet/square meters): 1,700,000/158,000 Building height (feet/meters): 866/264 to top of spire Number of floors: 48 Typical floor size (square feet/square meters): 34,000–54,000/3,160–5,020
TENANT INFORMATION Office occupancy rate: 100 percent Office rents (per square foot/square meter): \$60–\$75/\$645–\$810 Retail rents (per square foot/square meter per month): \$250/\$2,700 Average lease length: 15–20 years Lease terms: 6–8 months rent free; electricity submetered
DEVELOPMENT COST INFORMATION Site Acquisition Cost: \$100,000,000 Construction Cost: \$250,000,000 Soft Costs: \$80,000,000 Green Building Costs (including full installation costs): Fuel cells: \$1,400,000 Photovoltaics: \$650,000 Recycling chutes: \$165,000 Total Development Cost: \$432,215,000
ANNUAL OPERATING EXPENSES Pilot payments for 20 years to the Empire State Development Corporation (per square foot/square meter): \$3.68/\$39.60 Annual operating costs (per square foot/square meter): \$8.78/\$94.50
DEVELOPMENT SCHEDULE Planning started: May 1995 Construction started: May 1996 Site purchased: July 1996 Sales/leasing started: September 1996 Construction completed: June 1999 Move-in completed: December 1999

DRIVING DIRECTIONS

From John F. Kennedy International Airport: Take the Van Wyck Expressway (Interstate 678) heading north. Continue for a little more than five miles (eight kilometers), then take Exit 9 to Queens Boulevard (Route 25). Stay on Queens Boulevard for a little more than 2.5 miles (four kilometers) and then take the Long Island Expressway (Interstate 495) heading west to the Queens-Midtown Tunnel. Once in Manhattan, take the 35th Street exit to 34th Street/Downtown. Turn right at East 34th Street and then make an immediate right onto Third Avenue. Turn left at East 45th Street and then turn left again at the intersection of East 45th Street, Seventh Avenue, and Broadway. Make sure you turn left on Broadway and not Seventh Avenue and continue for two blocks. The Condé Nast Building will be on Broadway, between West 42nd and West 43rd streets.

Driving time: 32 minutes in nonpeak traffic.

From LaGuardia Airport: Take the Parkway West entry to Manhattan. It will merge into Grand Central Parkway West and then into Interstate 278 (the Brooklyn-Queens Expressway). Take Exit 3 to Hoyt Avenue and turn left at 31st Street. Northern Boulevard will merge with 31st Street. Shortly after the two roads merge, take a right heading west toward the Queensboro Bridge. Continue along the bridge all the way into Manhattan. Get off at the Second Avenue South ramp and turn left on Second Avenue. Then turn right onto East 45th Street and continue until you reach the intersection of intersection of East 45th Street, Seventh Avenue, and Broadway. Turn left on Broadway and not Seventh Avenue and continue for two blocks. The Condé Nast Building will be on Broadway, between West 42nd and West 43rd streets.

Driving time: 17 minutes in nonpeak traffic.

Pamela Lippe, report author
 Jason Scully, editor, *Development Case Studies*
 David James Rose, copy editor
 Joanne Nanez, online production manager

This Development Case Study is intended as a resource for subscribers in improving the quality of future projects. Data contained herein were made available by the project's development team and constitute a report on, not an endorsement of, the project by ULI—the Urban Land Institute.

Copyright © 2005 by ULI—the Urban Land Institute
 1025 Thomas Jefferson Street, N.W., Suite 500 West, Washington D.C. 20007-5201



The 48-story Condé Nast Building at Four Times Square in New York City is one of the first environmentally responsible skyscrapers to be constructed in the United States.



Costing less than a roof-mounted system, photovoltaic panels were incorporated into the spandrel panels on the building's south and east facades. Two fuel cell generators on the roof of the skyscraper generate additional clean energy.



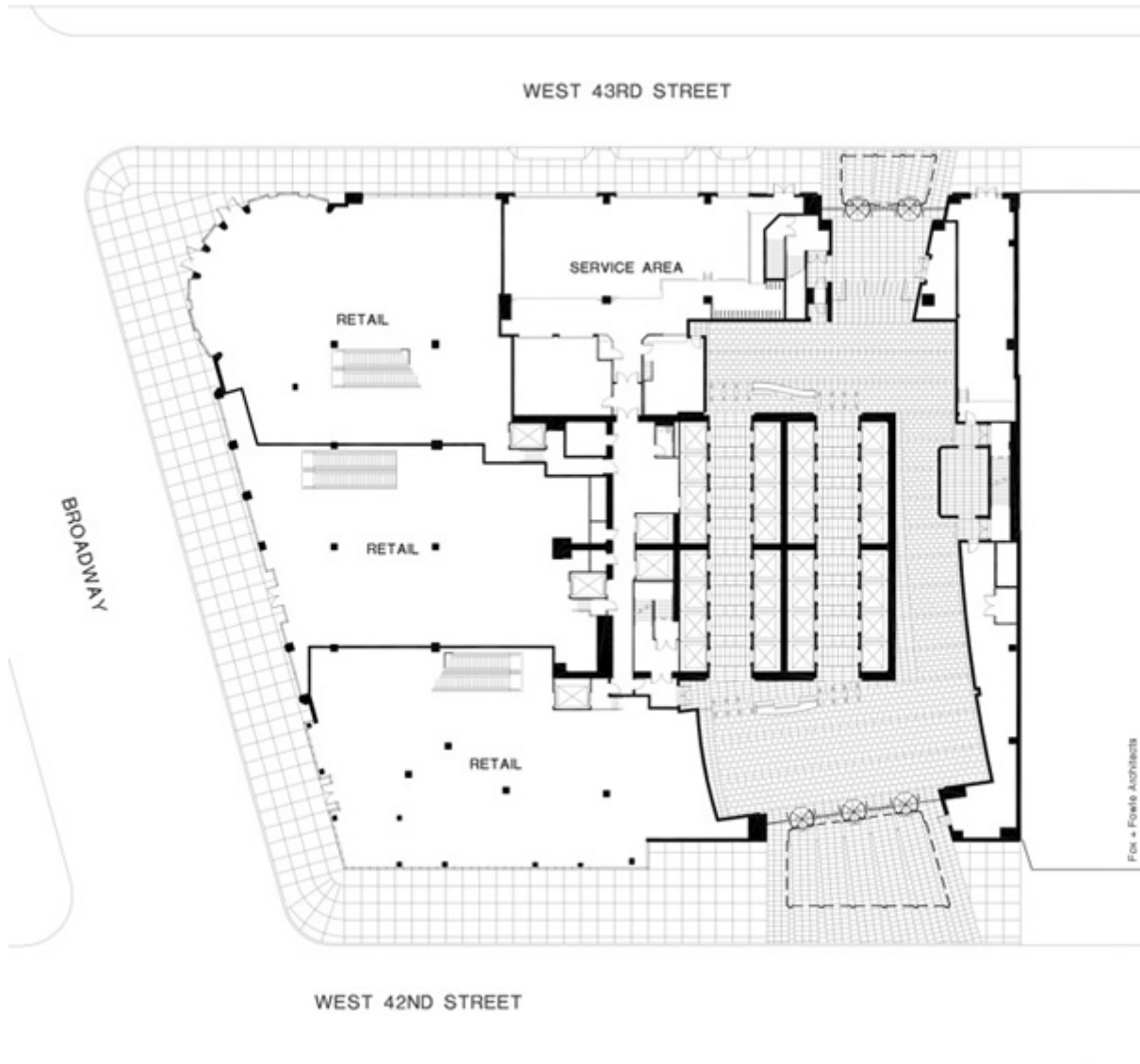
Andrew Christian

A series of setbacks on the upper floors, combined with a variety of facade treatments, created a design that was intended to fit into Times Square.



Andrew Gordon

Extensive use of sustainable features and equipment is expected to result in operational costs that are 10 to 15 percent lower than such costs in a comparable building.



Cond? Nast Building site plan.