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The 'Greening' of New York

Environmentally conscious design and construction are here to stay.

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LAWYERS PRACTICING in the design and construction fields cannot ignore emerging trends, and "green construction"—the use of environmentally conscious design, construction, and operation methods to create sustainable commercial and residential buildings—is an emerging trend. For New York construction lawyers, it is an important trend because New York is leading the nation in green construction. The number of green buildings and green construction projects underway in New York is steadily increasing. Completed green buildings in New York City include the Solaire residential buildings in Battery Park City and Four Times Square. Still to be completed are the Hearst Magazine Building and the Bank of America Tower near Bryant Park, to name a few.

Why the focus? There are a number of reasons,

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Four Times Square, one of the completed green buildings in New York City.

PHOTO BY RICK KOPSTEIN

including a concern for energy efficiency and a growing environmental consciousness, but the most notable cause is no doubt the adoption of mandatory green construction laws and guidelines and the creation of financial incentives on municipal, state and federal levels. Whether or not they have kept themselves at a comfortable distance from existing environmental laws that touch design and construction, such as the State Environmental Quality Review Act (SEQRA) and local zoning and planning laws, lawyers advising owners, developers, builders, designers, and even construction lenders cannot ignore this increasingly important layer of regulation. Green construction

is here to stay; it is becoming the norm, and we must understand its elements to give fully effective advice to our clients.

What Is Green Construction?

Green construction refers generally to the use of environmentally conscious techniques in the design, construction, and operation of a building. The main objectives of green construction are to reduce the consumption of non-renewable resources, minimize waste products created in the construction process and the operation of the building, and use environmentally preferable products. Green techniques include using recycled steel and concrete, installing alternative energy sources such as solar panels or wind turbines, recycling construction debris, and creating rooftop gardens to decrease heat absorption and reduce rainwater runoff, among many others.

The leading source of green building standards is the U.S. Green Building Council (USGBC), a coalition of more than 5,000 organizations from across the design and construction industry. In 2000, USGBC introduced its Leadership in Energy and Environmental Design (LEED) green building rating system, designed to provide national standards for what constitutes a green building. The LEED rating system comprises four different levels of certification, ranging from "certified," a building that meets the minimum green standards, to "platinum," a building that includes the highest and best use of green construction practices (the intermediate levels are "silver" and "gold").

If a construction project team seeks LEED certification, its project must be registered with LEED in its early stages. After registration, USGBC

provides access to software and other tools that facilitate the incorporation of green techniques into the design and construction of the building. As the project progresses, USGBC will insist on careful documentation of the implementation of green standards to enable the USGBC to review the project and assess its "greenness." Essentially, the USGBC conducts the same sort of in-progress construction review one would expect from the foundation inspector, the steel inspector, or the concrete inspector.

Points are awarded for green techniques employed in five general categories: siting, water efficiency, energy and atmosphere, materials and resources, and indoor environmental quality. The total number of points awarded determines the level of certification. Project team members that contribute elements of green construction are presented with an award letter, a certificate and a LEED plaque acknowledging LEED certification.

New York City Initiatives

LEED certification not only raises the profile and desirability of a building; it will soon become a mandatory requirement for certain construction projects in New York City. Legislation passed in October by the City Council and signed by Mayor Michael R. Bloomberg will require most city-owned and city-funded construction projects to meet the standards of the LEED rating system.¹ The legislation, which will take effect on Jan. 1, 2007, will require certain construction projects totaling \$2 million or more to incorporate the standards necessary for the LEED "silver" rating. Other projects must achieve at least a "certified" rating.

The legislation also calls for large-scale construction projects (totaling \$12 million or more) to be built so as to achieve either a 20 percent or 25 percent reduction in energy costs, depending on the size of the project. The City Council predicts that the new legislation will affect approximately \$12 billion in construction during the next 10 years. Thus, architects and contractors hoping to be involved in city construction projects must be prepared to design and build green.

Another recently passed green construction law is New York City Local Law 77, which seeks to reduce emissions from diesel-powered construction equipment used on city projects. The law, which became effective for all of New York City in December 2004, mandates the use of ultra-low sulfur fuel and requires the use of best available technology by non-road, diesel vehicles used on city-funded construction projects. The law is particularly important for contractors who operate diesel construction vehicles on city projects, especially since the law provides for

monetary penalties for non-compliance.²

These mandatory laws have been inspired by the green construction guidelines pioneered by various city and state agencies. For example, the Department of Design and Construction (DDC), which oversees the construction of a wide array of municipal buildings, was one of the first city agencies to promote green construction. In 1997, the department established an Office of Sustainable Design in order to integrate green building practices into city construction projects and to develop guidelines for green buildings.

The High Performance Building Guidelines, published in 1999, set forth technical strategies and tools for implementing green friendly techniques with regard to topics such as energy use, material selection, water management, and operations and management. The guidelines are

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advisory in nature; however, they are often incorporated into the agreements entered into between the DDC and a project team, making contractors, designers and engineers contractually obligated to fulfill the guidelines. Recent green projects advanced by the Office of Sustainable Design include the new Bronx Criminal Court Complex and the Queens Botanical Gardens, which are both designed to feature innovative use of daylighting as well as air quality improvements.

Another pioneer of the green movement in New York City has been the Battery Park City Authority. The Authority has overseen the redevelopment of Battery Park City in Lower Manhattan for the past three decades and has been instrumental in the revival of Downtown since the Sept. 11 attacks. The nation's first green residential tower, the Solaire, opened its doors in Battery Park City in 2003. The Verdisian, another green residential building, is soon to be completed.

The buildings were constructed in accordance with the Authority's Residential Environmental Guidelines, published in 2000. Guidelines for the construction of Commercial/Institutional buildings followed in 2002. The guidelines provide a total system approach for the development of green

buildings in the Battery Park district, stressing early collaboration between owners, architects and contractors and allowing some flexibility to provide for creative approaches to sustainability.

Also affecting Downtown construction are the sustainable design guidelines issued by the Lower Manhattan Development Corporation for the redevelopment of the World Trade Center site. The guidelines identify and describe green construction practices that are to be achieved in the design of each building on the site. Many of the guidelines are mandatory in order to comply with New York State Executive Order No. 111, which requires that construction teams working on government projects seek to conform to LEED standards (discussed further below). Still another local green construction initiative is the Design for the Environment program of the Metropolitan Transportation Authority and its New York City Transit division. The MTA recently completed the construction of the Roosevelt Avenue/74th Street Station in Queens and the Stillwell Avenue Station in Brooklyn, which both received photovoltaic solar panels above the elevated platforms. In addition, the MTA has plans to construct the new Second Avenue Subway using green techniques.³

New York State Initiatives

New York City's commitment to green construction has been spurred in part by the state government's emphasis on, and incentives for, building green. In 2000, New York became the first state in the nation to offer a Green Buildings Tax Credit to owners and developers.⁴ The law allows owners and developers who use environmentally sound materials and who meet certain energy standards to claim tax credits. The legislation provides for \$25 million in tax credits for owners and developers of buildings that meet the eligibility criteria and green construction standards outlined in the law and in regulations promulgated by the Department of Environmental Conservation (DEC).⁵ The law and regulations also establish detailed application procedures and annual record-keeping requirements, among other requirements.

During the first stage of the legislation, from 2001 until 2004 ("Period 1"), tax credits were issued in connection with seven buildings, which accounted for the entire \$25 million allocated to the program. The legislation was recently amended to provide for an additional \$25 million in tax credits to be distributed from 2005 through 2009 ("Period 2"). The Period 2 regulations are currently being drafted by DEC, and are open for public comment. New applications for tax credits

will not be accepted until the regulations are promulgated. Updates on the status of the regulations are available on the DEC Web site.

The tax credit is an important incentive to build green, since the verdict is still out on the non-tax benefits of green construction. While it is probably safe to say that owners will experience long-term savings from green buildings due to increased efficiencies, it may also be said that the total cost of construction will increase when green construction techniques are used. Indeed, USGBC estimates that construction costs will increase by 2 percent when green techniques are used, with costs potentially even greater depending on the scope of the project.⁶ The recent proliferation of laws mandating green construction may spur the construction industry, most notably the technology and building materials sectors, to find ways to improve services and products and, at the same time, decrease the costs associated with building green.

New York State Executive Order No. 111, signed by Governor George E. Pataki in 2001, directs state agencies to utilize green construction techniques and to reduce energy use and carbon dioxide emissions. The order requires all new buildings that are 20,000 square feet or larger to seek to achieve the guidelines set forth in the Green Building Tax Credit, seek to conform to LEED standards and demonstrate a 20 percent improvement over the energy efficiency required by the state's Energy Conservation Construction Code (ECCC), which is one of the most progressive energy codes in the nation. Smaller buildings must attempt to incorporate green design principles into the construction. Reconstruction and renovation projects are also subject to the order.

The New York State Energy Research and Development Authority (NYSERDA), the state authority created to use innovation and technology to overcome New York's energy and environmental problems, was selected to oversee the implementation of the order. NYSERDA has developed a New Construction and Green Buildings Program, which offers developers, architects and engineers technical support and assistance. The program includes computer modeling services, assistance with the LEED certification process and assistance with the New York State Green Buildings Tax Credit program. In addition, the program offers financial incentives to building owners and tenants to conduct technical energy efficiency studies and to purchase and install energy efficient equipment. Up to 60 percent of such costs may be covered under the program. NYSERDA is an important resource for owners, architects and builders to learn

about the technical requirements mandated by Executive Order 111 and the Green Buildings Tax Credit, and to take advantage of the financial incentives available for building green.

Federal Initiatives

The federal government also supports the use of green construction. In 1999, President Bill Clinton signed Executive Order 13123, entitled "Greening the Government Through Efficient Energy Management." While emphasizing the role that federal agencies have in increasing energy efficiency and reducing greenhouse gases, the order also mandates a broad-based approach to achieving sustainable design and development. Section 403(d) of the Order requires the development of sustainable design principles, and requires

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federal agencies to apply the principles to the siting, design and construction of new facilities.

The agency tasked with developing the federal sustainable development guidelines was the General Services Administration (GSA). The GSA has adopted the green building criteria adopted by LEED, and requires that all GSA building projects must achieve a LEED rating of "certified." The GSA offers guides for and assistance with the green design and development process.

Another important federal sustainable development initiative is the Energy Star program. Energy Star is a government-backed program that promotes energy efficiency, and assists businesses and institutions to reduce energy consumption and costs. The program recently issued its Energy Star Challenge, which challenges businesses and institutions to assess energy usage and then strive to improve energy efficiency by 10 percent. As of December 2005, over half the nation's states agreed to join the Energy Star Challenge, including New York.

Looking to the Future

It seems clear enough that local, state and federal governments are committed to green construction. Green construction is well on the way to becoming a mandatory practice for all construction projects, rather than a socially conscious, idealistic option. The good news is that along with increased regulation may come additional incentives for owners, architects and developers. As noted in the statement of findings and purpose of New York City Local Law 86, other municipalities around the country have created various types of non-financial incentives for incorporating green techniques into private construction projects.

Such incentives include direct subsidies, density bonuses, and expedited permitting processes. For example, the City of Arlington, Va., has established a Green Building Incentive Program that offers developers density bonuses and height bonuses for buildings that achieve LEED status. In the State of Connecticut, businesses required to apply for environmental permits to operate in the state may receive benefits such as expedited review of permit applications, less frequent environmental reporting, and public recognition if certain principles of sustainability are adopted.⁷

The County of Santa Barbara, Calif., has instituted an Innovative Building Review Program which offers expedited plan review and decreased review fees for developments that include energy-efficient features. It is likely that New York city and state will seriously examine these and other incentives, and that further laws and regulations concerning green construction can be expected. Lawyers advising their clients must stay abreast of the law and regulations in this newly evolving field, not only to ensure compliance with the laws, but also to be aware of the important incentives and benefits available to their clients for building green.

1. New York City Local Law 2005/086.

2. New York City Local Law 2003/077, §3.

3. See New York City Local Law 2005/086, §1.

4. N.Y. Tax Law §19 et seq. (McKinney 2005).

5. 6 NYCRR Part 638.

6. Greg Kats, et al., *The Costs and Financial Benefits of Green Buildings: A Report to California's Sustainable Building Task Force*, October 2003, p. 15.

7. Conn. Gen. Stat. Ann. 22a-6y (2003).