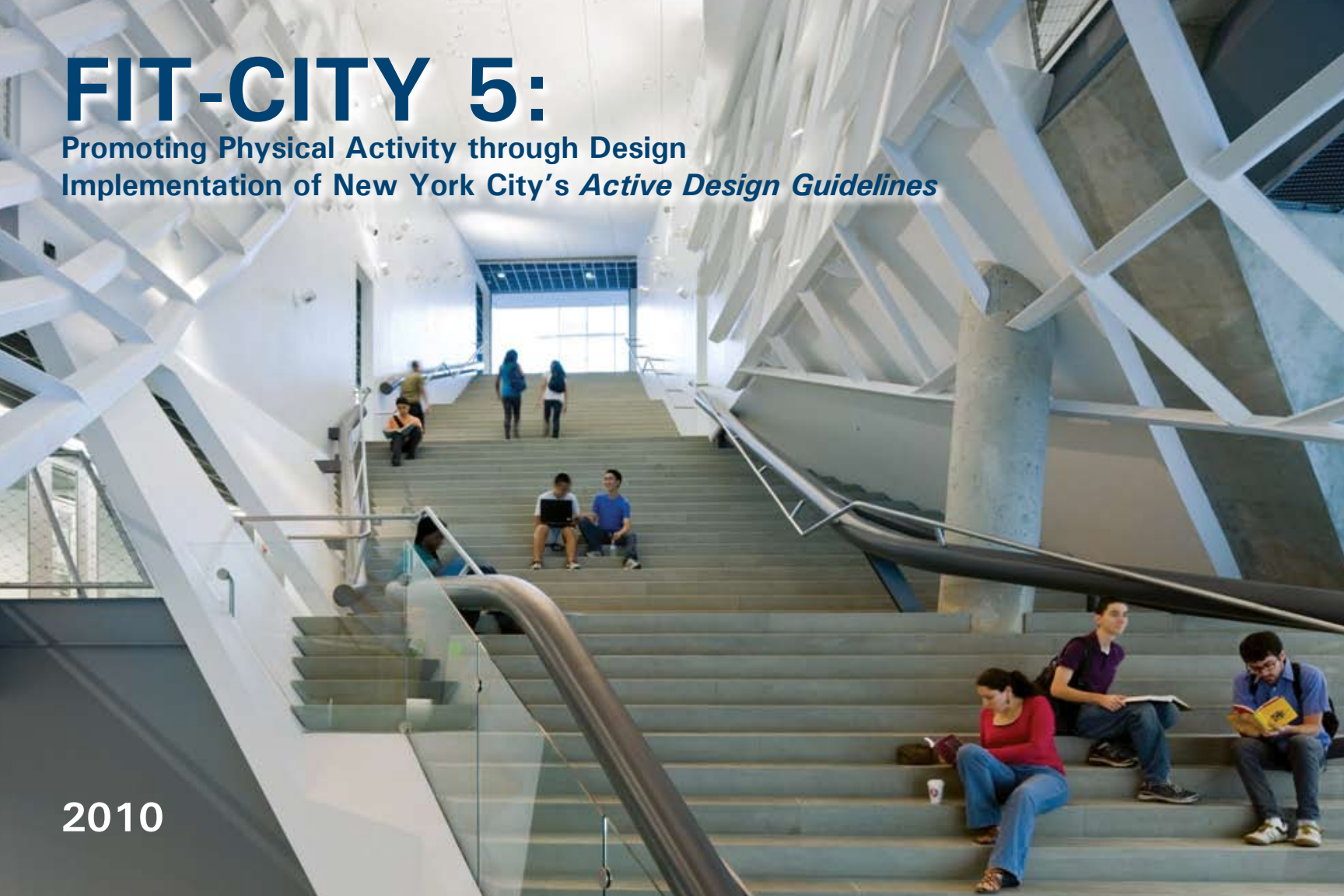


# FIT-CITY 5:

Promoting Physical Activity through Design

Implementation of New York City's *Active Design Guidelines*

2010



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## Introduction and Overview

### **Anthony P. Schirripa, FAIA, IIDA - 2010 President AIA NEW YORK CHAPTER**

It's been an honor for AIA New York (AIANY) to host the Fit City conference every year since 2006. The New York City (NYC) Department of Health and Mental Hygiene has extended our contract for Fit City and I look forward to the progress we'll make together towards a healthier, more sustainable city in the years ahead. A healthy city requires not just designers and doctors swapping ideas; it requires the commitment of clients, regulatory agencies, and the community to be active participants in our community's physical and mental well being. That's why we welcomed the opportunity to collaborate on the creation of the *Active Design Guidelines*, which was sponsored by four of the City's mayoral agencies, and was shaped by input from dozens of community organizations, architects, public entities, and others.

### **Rick Bell, FAIA - Executive Director AIA NEW YORK CHAPTER**

Yogi Berra was, I think, talking about the Department of Health and Mental Hygiene when he said that 90 percent of the game is half mental. When asked, "Yogi, what size cap do you want?" he replied, "I don't know. I'm not in shape yet." Part of what we'll be doing today is getting our minds in shape, nimbly and quickly. It was La Rochefoucauld who said, in one of his maxims, "*La véritable élégance consiste à dire tout ce qu'il faut et à ne dire que ce qu'il faut*," which, loosely translated, says the important thing is to say what you mean and nothing else. We will hear from a bevy of commissioners, all whom have played an important role in the development and now the continuing implementation of the *Active Design Guidelines*.

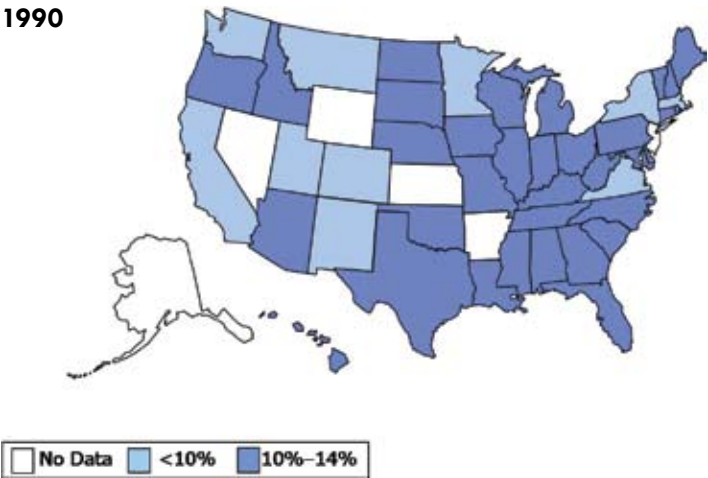
### **George Miller, FAIA - 2010 President AIA NATIONAL**

This Fit City program has caught fire over the last five years in advancing issues of health and design, not only in our city, but across the world. One of the themes that we have in the national program of the American Institute of Architects this year is "Design Matters." It's a simple phrase, but it really connects all of us. Quality design can impact all of our lives each and every day. The *Active Design Guidelines* that New York City has put together will help us become healthier and will help to make sure that our cities are more livable, beautiful, and sustainable as well.

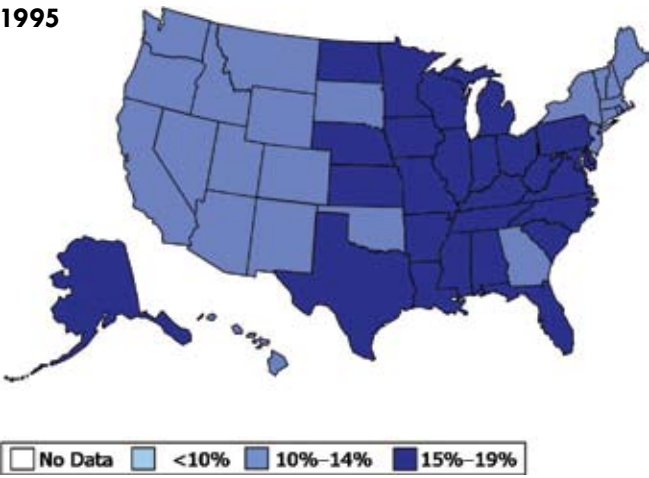


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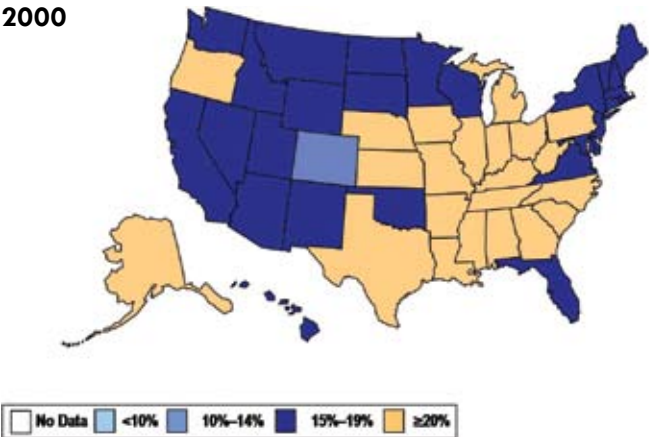
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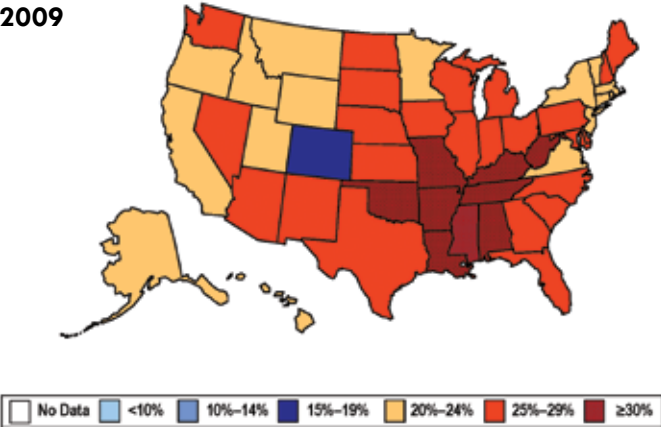
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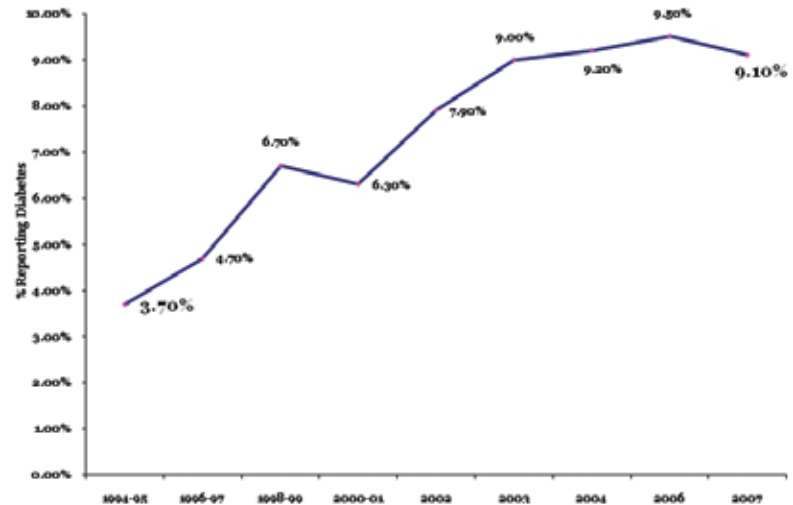
### Lynn Silver, MD, MPH, FAAP - Assistant Commissioner NYC DEPARTMENT OF HEALTH AND MENTAL HYGIENE

Two hundred years ago, we had a city that was rife with typhoid and cholera and all kinds of infectious diseases. Our public health challenges were different. And they've been fundamentally solved, not through antibiotics, but through design solutions, through light, ventilation, streets, parks, changing the way our physical environment looks and functions.

What brings us together today is the need to look at the new challenges for health that we face. There is a particular urgency to making changes today that come, not just from the general desire for our population to be healthy, but also to address an epidemic of obesity in our society. It will take changes in our food supply and in our physical environment. Making our environment friendlier to physical activity is fundamental.

In New York City, we have gone from 12 percent of the population being obese in 1994 to 23 percent in 2009. A larger percentage of the population is overweight. In the Bronx, two-thirds of residents are either overweight or obese. And the epidemic of diabetes has gone hand-in-hand with the epidemic of obesity, increasing dramatically from three percent of City residents to almost one in eight, with huge consequences to our quality of life and enormous societal costs. So these changes are urgent, not just for aesthetics and for making our city more fun, enjoyable, and beautiful, but also to deal with life and death issues.

*Diabetes Rates in New York City, 1994–2007*



## Overview of the Active Design Guidelines



The *Active Design Guidelines* ([www.nyc.gov/adg](http://www.nyc.gov/adg)) were released in January 2010, following a two year development process that involved more than twelve city agencies, as well as academic partners, community organizations and professional associations. A product of New York City's (NYC) Departments of Health and Mental Hygiene, Design + Construction, Transportation, and City Planning, the *Active Design Guidelines* present design strategies for communities, streets, and buildings to help facilitate healthier lives for residents.

Obesity and with it type-2 diabetes are now epidemic in New York City, and

both problems are growing worse rapidly. Mounting scientific evidence, as referenced in the *Guidelines*, demonstrates the important impact that design of the built environment has on physical activity and nutrition. Today, architectural and urban design too often support unhealthy rather than healthy diets, and sedentary rather than active daily lifestyles. **The *Active Design Guidelines* aim to reverse these trends by providing architects, planners, and urban designers in New York City and beyond with a manual for creating healthier buildings, streets, and urban spaces.** Active Design is environmental design that encourages stair climbing, walking, bicycling, transit use, active recreation, and healthy food and beverage consumption.

**The *Guidelines* have four chapters:**

- (1) *Environmental Design and Health: Past and Present*
- (2) *Urban Design: Creating an Active City*
- (3) *Building Design: Creating Opportunities for Daily Physical Activity*
- (4) *Synergies with Sustainable and Universal Design*

## Introduction and Overview

*Why do we need the Guidelines?*

Today, architects, urban designers, and planners can help address some of the most urgent and widespread epidemics of our time—obesity and its related diseases—by implementing the strategies contained in the *Active Design Guidelines*. Beyond the health benefits, the strategies outlined can also help contribute to other important outcomes, such as environmental sustainability, universal accessibility in the public realm, reduced transportation costs for individuals, and more competitive, vibrant communities.

*How are the Guidelines being implemented within City agencies?*

The *Active Design Guidelines* have helped spur and support changes at a number of New York City municipal agencies. The Department of City Planning has developed a Zoning for Bike Parking program to help provide safe and enclosed places for bike parking in new multi-family residential, community facility, and commercial buildings. NYC's Economic Development Corporation (EDC) has incorporated elements of the *Guidelines* into their project Request for Proposals (RFPs), which is helping to ensure proposed real estate projects are designed to encourage healthy, active lifestyles.

Developed in close coordination with the City Council, the Mayor's Office, EDC, and the Departments of City Planning and Health and Mental Hygiene, the Food Retail Expansion to Support Health (FRESH) program is the City's effort to aid development of supermarkets and the expansion of current stores to provide fresh produce in underserved neighborhoods through zoning and financial incentives. The Transportation Department is continuing its work on creating world class streets for pedestrians and bicyclists, which is resulting in a more walkable, bikeable, and livable city. The Department of Design + Construction is working to include strategies such as more visible, accessible stairs, as well as the LEED Design for Health through Increased Physical Activity Innovation Credit, into its projects throughout the City.

## Introduction and Overview

*How are the Guidelines being implemented in the private sector?*

A Leadership in Energy and Environmental Design (LEED) Innovation Credit for green real estate projects and developments has been developed in tandem with the *Active Design Guidelines*. The LEED Design for Health through Increased Physical Activity Innovation Credit was created to promote the health and fitness of building occupants through building design and operation while also achieving synergistic environmental benefits.

The credit has been approved by the U.S. Green Building Council (USGBC) on several projects, such as the Riverside Health Center in northern Manhattan and Via Verde / The Green Way affordable housing development in the South Bronx. The credit also complements the LEED Sustainable Site credits already available for bicycle storage and changing rooms, community connectivity and walkability, and density and transit access to allow LEED-certified projects to be credited for comprehensively promoting transportation and recreation-related physical activity for children and adults.

**Karen K. Lee, MD, MHSc, FRCPC - Director  
BUILT ENVIRONMENT PROGRAM,  
NYC DEPARTMENT OF HEALTH AND MENTAL HYGIENE**

With the release of the *Active Design Guidelines*, we are now undertaking implementation of many of the strategies included in the book's four chapters by changes in city policies, changes in the design of streets and buildings throughout the city, and changes in people's awareness about these issues. The FRESH Program has been developed, which is providing zoning and tax incentives for the creation of supermarkets in our underserved areas. Zoning amendments have been made for bicycle parking within our buildings. We have developed a new LEED Design for Health through Increased Physical Activity Innovation Credit with the U.S. Green Building Council, which has already been approved and is continuing to be used in various types of real estate projects in New York City and elsewhere in the U.S.









### **Thomas Farley, MD, MPH - Commissioner NYC DEPARTMENT OF HEALTH AND MENTAL HYGIENE**

After quitting smoking, physical activity is probably the most important behavior influencing people's health. People are thinking about physical activity today because of the obesity epidemic. If that is what encourages people to exercise, that is a good thing. But the health benefits of physical activity go far beyond weight loss. Among the diseases that are less likely to occur or are less severe if people are physically active are diabetes, heart disease, stroke, colon cancer, depression, osteoporosis, and the cognitive decline that happens with age.

Some people will exercise as a deliberate, separate task. But today only about 25 percent of people do that. The other 75 percent do not and probably will not. Thus, if we want to increase physical activity levels for the entire population—and we do—we are going to have to make it so that people can incorporate physical activity into their daily routines. Physical activity needs to be something that accompanies some other task that they have to do, such as move around, get from place to place—within a building, or between buildings. As such, there has been a real shift over the past ten or twenty years for people in public health, away from only encouraging people to exercise and instead to making it easier for people to incorporate physical activity into their daily routines.

One of the major reasons why government budgets are strained these days is because of health care costs. And the largest drivers of rising health care costs right now are obesity and diabetes. In New York City now, one in eight adults has diabetes, and that number continues to grow rapidly. We could put our money into hospitals and diabetes drugs, or we could put our money into parks and bike lanes. Even though I'm a doctor, I would prefer the latter.

We are very excited that through collaboration with other city agencies, architects, and people from disciplines who understand the built environment, we have taken that broad goal of incorporating physical activity into our daily lives and put it now into guidelines that people can use.

### **David Burney, FAIA - Commissioner NYC DEPARTMENT OF DESIGN + CONSTRUCTION**

When we first got involved with this, there was a sense that obesity and type-2 diabetes were a health policy issue and not that relevant to designers. But when you start to get into it, of course you realize that it is not just that people have to eat better and exercise more. There are things that we do as designers that have a definite impact. Clearly, the invention of the automobile, and later the elevator, were not particularly helpful in how much exercise people undertake. However, the way we handle those automobiles and the way we design our circulation spaces and paths of movement have an enormous impact.

The *Active Design Guidelines* were created as an affirmative idea, to encourage designers and to help them. We see the *Guidelines* as positive support for designers in giving them guidance and pointers in how to implement active design. We are now in the implementation phase. I'm happy to say the *Guidelines* have been widely and wildly popular with many thousands of downloads from the website from all over the world.

So we are now thinking more about implementation and a possible system of accreditation for projects that successfully implement the *Guidelines*. You can actually get a LEED Innovation Credit for implementing the *Guidelines*, but we would like to take that a step further and have some sort of recognition for projects that have adopted and implemented a significant portion of the *Guidelines*.

**Janette Sadik-Khan - Commissioner  
NYC DEPARTMENT OF TRANSPORTATION**

Safety is the number one mission of the Department of Transportation, and we are working very hard to keep our streets as safe as they can be for 8.4 million New Yorkers who use our streets every day in one way, shape, or form. Although our streets are safer than they've been in 100 years, what we want to do is make sure that the trend continues. We have been working to engineer our streets differently, to protect our most vulnerable pedestrians—particularly kids and seniors—and marry demographic data to injury data and make investments accordingly.

We put together, working with ten other city agencies, the *Street Design Manual*, which came out last year and was a complete transformation in terms of what we do when we rebuild our streets. It is a new operating code for the streets of New York, and we are prioritizing mobility, safety, and sustainability. If we are going to accommodate a million more people here between now and 2025, we have to build more sustainable forms of transportation into our street network.

We are engaged right now in a big public education campaign called the Look Campaign, which is about looking out for one another on the roads. I do not think that people understand the difference between a car going 35 miles an hour and hitting someone and a car going 50 miles an hour. It is a matter of life and death. We really need to educate people that speed kills. It does not have a place in New York City.

The final piece we're doing is called the "Don't be a Jerk" campaign, focusing on cycling and cycling behavior. We are designing safe facilities and we need people's behavior to change accordingly. We have 200 miles of on-street bike lanes that we have laid out just in the last three years alone, for a total of 650. We're working very hard to engineer our streets differently, to educate people a little bit differently, and do whatever we can to help one another look out for each other on the streets of New York.

## Commissioners Roundtable

**Amanda Burden, FAICP, Hon. AIA - Commissioner  
NYC DEPARTMENT OF CITY PLANNING**

It may seem like an oblique line to connect zoning with a healthy city, but it is clear as crystal. Let me just trace the path for you. Zoning affects the physical realm of the City. And the neighborhoods that we are shaping determine how the City feels and looks and is perceived. And how we will judge those neighborhoods, in the end, is whether there is a healthy lifestyle in those neighborhoods.

What we are trying to create is what we call complete neighborhoods. That means neighborhoods where you have services close by, where you can meet people, have local services, and where you can shop, so you leave your car at home. This is how you can have a healthier lifestyle for yourself, but also how you can create healthier air, because you are reducing your carbon emissions.

So, if we are going to get people to walk and bike close to home, we need to make that a much more enjoyable experience. What we have been focusing on is the pedestrian experience through zoning: what the sidewalk feels like, how buildings meet the street. What we are trying to create is a continuity of variety. All the new rules for public spaces in the City actually make sure that they are inviting and that they are entertaining, and that they are wonderful places to have respite and to spend time.

Now, the *Active Design Guidelines* are the most incredible tool that we have to actually implement, to teach both our staff and our consultants and people that we are dealing with everyday to understand: what are the tools to really make this a city that is healthy, that is vibrant, that has people actually in the streets engaging with each other? Every one of these pieces that we put together, link together, is actually transforming the City. The great thing is that a healthy, active city is a fun city. It's a young city. It's a city that's competitive. And, putting that all together, it makes one of the greatest cities in the world.

## Commissioners Roundtable

### Fatma Amer, PE - First Deputy Commissioner NYC DEPARTMENT OF BUILDINGS

On behalf of the Buildings Department, I want to applaud the commissioners at the table who were the force behind this wonderful set of guidelines, design guidelines for active living. We have been busy trying to implement the new set of energy laws, called “Greener Greater Buildings,” to help save energy and reduce greenhouse gas emissions.

The *Guidelines*—with simple, effective means that lead to a healthy individual, actually feed in perfectly with saving energy and reducing the carbon footprint of our city. You have more walking and biking, which all means fewer cars on the street, as well as more climbing of stairs and less use of elevators, that all lead to saving energy and saving our planet. In terms of safety, I believe the new guidelines for wider and naturally lit and vented stairs will contribute to safer means of egress and evacuation of buildings in an emergency.

Right now, in the Buildings Department, we are in the cycle for the 2011 Building Code, and we’re going to focus on making sure that the *Active Design Guidelines* are really promoted in the new revision of the code.



Left: **Pedestrian Plaza at Water and Whitehall Streets, Manhattan.** Source: NYC Department of Transportation.

Right: **Waterfront Bike and Pedestrian Lanes, Manhattan.** Source: NYC Department of Transportation.



**Adrian Benepe - Commissioner  
NYC DEPARTMENT OF PARKS AND RECREATION**

As part of PlaNYC, one of our big initiatives is to convert 300 school playgrounds, which were only used by the schools and kept locked up on weekends and after school, into full-time playgrounds when they are not being used by the school. It's something we wanted to do for years and years, but could not do because there were separate bureaucratic fiefdoms. So almost overnight, we are having a one-third addition to our playgrounds.

Another part of PlaNYC, which utilizes new design and technologies, is transforming old asphalt-surfaced schoolyards into synthetic turf playing fields, which, now, are being used 365 days a year, rain or shine. It's the classic "build it and they will come." The minute you open a greenway in a park, open a new playground, open a ball field, it's immediately swarmed.

The other thing we've been working very hard on is the transformation of the industrial landscape. There isn't a lot of virgin land left in New York. Our waterfront was effectively walled off for commerce and for transportation for about the first 400 years of this city's history, with some minor incursions. Now, by taking the post-industrial waterfront where we're no longer doing shipping and no longer have factories and wharfs and warehouses, working with City Planning and the Department of Transportation, we are creating a literal network, a necklace of greenways along the waterfront. If you want to see gridlock, just go to the West Side waterfront on a Sunday and see what happens when you build a safe amenity for pedestrians and bicycles.

One of the things we have pushed very hard on is accessibility for people with disabilities. We are installing Mobi Mats in beaches across the city, which allow people in traditional wheelchairs to get to the edge of the water. Simple things like not having a curb that you have to get over into a public bathroom are enormously important. We have to meet or exceed ADA guidelines in everything we do.

## Commissioners Roundtable

Mayor Bloomberg has said that parks are important. They are as essential to basic quality of life in New York as firehouses and police precincts and schools. So, just to put that in perspective—and I think it's very important to understand this—over the last eight years, we have spent three billion dollars building parks. We have two billion dollars in the budget for the next four years. That is unprecedented in the history of this city in terms of City investment in capital dollars.

**Matthew Sapolin - Commissioner  
NYC MAYOR'S OFFICE FOR PEOPLE WITH DISABILITIES**

There may be an initial thought that people with disabilities are going to be slighted by active design. I tell you that is not true. If you have seen a youngster with autism experience the outdoors with a smile on his or her face, this is part of the mental health improvement that active design impacts.

Building codes prescribe the minimum level of accessibility. Active design and inclusive design encourage us to exceed the minimums of our building code, remain compliant with code, and present environments to the public that are enticing for activity and mental stimulation, and engaging through which to move.

Twenty percent of the people around you have some kind of disability, whether it be cognitive, physical, or other, yet they will benefit from a more engaging interaction with their environment throughout the day. It does not have to be longer, but more absorbing and requiring a little more interaction from the user.

## Commissioners Roundtable



**William Bird, MD, MBE - Strategic Health Adviser  
NATURAL ENGLAND**

I work for Natural England, which is a government agency in the Department of the Environment, but I work very closely with the Department of Health as well, and we are trying to make sure that that the link is made on all health policy. As a physician, I still see about 2,000 patients a year, so they are my policy advisors. They tell me where things are right and where things are going wrong.

What's happening is that my patients, and everyone else, are being programmed to remain inactive and indoors. So we have a moral right to try and help them have the opportunities to be active and be outdoors and be in the environment, because otherwise we know that their muscle development does not take place, their bones are being jeopardized and their coordination is impaired, both mentally and physically.

We are going to see a time bomb coming through as Baby Boomers like myself get older. Because of the inactivity, their independence will be lost at an earlier and earlier age. And we're going to have to look after all these older people. And inactivity, if it just retains someone in their own home for another year, has an unbelievably huge cost. So the cost benefit from this, for policy makers, is that you will get your returns within months, not years.

We are designed as hunter-gatherers. We are designed to be active all the time. And you can see, if you take 1,000 years for every hour, you go back 100,000 years, then that's 100 hours. That's back to Friday morning. And, for the whole of Friday, the whole of Saturday, the whole of Sunday, and pretty much the whole of Monday, we were hunter-gatherers. And then, 10 hours ago, we became agricultural. We were still active all the time, but we just weren't roaming around. And then, just four hours ago, we started building our cities. And then, just nine minutes ago, we industrialized. And, in that nine minutes, we've expected our body, after all those thousands of years beforehand, to suddenly switch and adapt. And it can't. We just simply can't do it.

## Active Design Implementation

We just heard about the U.S. health expenditure continuing to outstrip national income by about 2.4 percentage points faster than GDP. That's because we're patching up the problems of inactivity, of diabetes and obesity. It's all about people changing their behavior, rather than drugs and operations, which will actually patch things up.

What evidence is there that if you build well, you'll reduce obesity? There was a study in Europe by the Medical Research Council, published in a British medical journal, that showed people who lived—when they were matched exactly, case for case—in greener neighborhoods were much more active and obesity was lower. Those who lived where there were lower levels of green space actually had higher obesity and reduced physical activity.

For physical inactivity, the next part is it costs us a lot of money. Forty-two percent of New Yorkers are not getting the recommended level of physical activity like bicycling or brisk walking. In the UK, about 26 million people are not getting the 150 minutes every week of moderate intensity activity (like bicycling or walking), which we are asked to do. The total direct costs here of inactivity are about £1 billion on health benefits: £8.2 billion is the total economic cost related to work loss. Related conditions account for 9.2 percent of our National Health Service costs, or about £6 billion.

Our environment, whether it is built or natural, offers a health service. It offers a health service that can be measured economically, by disease, just as we can measure it through operations and pharmaceuticals. In New York today, the prediction is that if it is an average day, 323 babies will be born. And I think that legacy of children being isolated from an environment where they can feel active and participating is gone. They're very lucky indeed to be born in New York.



## Active Design Implementation



**Craig Dykers, AIA - Senior Partner  
SNØHETTA**

We recently completed the National Opera and Ballet in Oslo. Since it opened in 2009 we have had about 1.5 million people climb the main plazas that form the roof of the building. The spaces created by the roof have the quality of a natural landscape, although there are none of the usual features of a landscape such as trees or vegetation. The natural quality within an urban context promotes a huge amount of activity. It's an attraction for the City and for a great number of visitors to unexpectedly experience this surprising new landscape.

When I show pictures of the building in North America, people often say, "You can't do that sort of thing in the U.S. It's just not going to be possible." The fact is that the building and landscape are designed to meet all the safety codes. It's absolutely code-worthy. In the U.S. however you must design beyond code for this type of space, in order to somehow go beyond ordinary safety measures. There was actually some reluctance in Oslo originally, so the design was shown in the newspapers and a referendum was called to ask people if the landscape should be freely accessible or have limited access due to safety concerns. A majority chose to make the space accessible, essentially suggesting that they would rather risk falling every now and then than not making this experience possible. And it is universally accessible. We placed a great deal of emphasis on negotiating the design with the accessibility authorities to ensure that the experience would be pleasurable for wheelchair access visitors.

There are always places to look, to see and to be seen. It's very important for people to see other people when they are active. And the best way to see other people is by changing the levels of the plaza and making the visual paradigm broader. So voyeurism is a great concept when trying to create active spaces.

## Active Design Implementation

The space itself was primarily an industrial site in the past. Once we finished this project, we removed and managed about 60,000 tons of pollutants, making the shoreline accessible again. A wide range of flora and fauna has returned to this part of Oslo Fjord that hadn't been there for two centuries. We created a kayak launching point, so now there is boating activity around the new Opera. Occasionally there are larger events held on the roof, such as when 4,000 people came to see a presentation of *Carmen* projected on a temporary outdoor screen adjacent to the main auditorium.



## Active Design Implementation

### **Robyne Kassen, Assoc. AIA, and Sarah Gluck - Co-Founders URBAN MOVEMENT**

We began our work on the private scale, working with people who had physical disabilities, mostly people in wheelchairs that sustained some sort of spinal cord injury. This was our attempt at really bringing attention to people and what their bodies need and what the potential was for an intervention with their space to try to help with their healing process.

We were able to expand our ideas to the public realm in the Olympic Village in Whistler, British Columbia. It was only two and a half to three years before the Olympic Games were coming in, and it was well after the eight architects had already designed or completed their initial design phase. Landscape architecture had been done and the master plan was complete. So, we came on really as a top layer of creating a ribbon of movement and human sustainability in conjunction with all of the existing plans.

Most of the people were high performing athletes—and by the way, high performing athletes are not very different from New Yorkers, or a lot of people that are living in big cities, who are used to a high stress environment and an overtaxed sympathetic nervous system. They need to learn how to relax, most of all, before they get moving. We began by taking that understanding of the sympathetic and the parasympathetic nervous systems—the sympathetic system is everything that makes your body move a little bit faster and makes your heart pump faster. Your parasympathetic system is about how you rest and how you digest your food.

The first thing we designed were “Monkey-Bar Bike Racks.” They are designed specifically to allow for stretches and strengthening exercises that are specific to bicyclists, which would be good for them before and after a workout. We also designed bus shelters—there are six different specific movement and deeply restful positions that consider your body alignment, allowing your body to relax into a safe and held position. All of these varied movements and restful positions are choreographed into these seating structures. But they also encourage a lot of interaction and different types of movements that are sometimes the more playful discoveries.



Right, Top: “Monkey-Bar Bike Racks” invite bicyclists and walkers-by to stretch and engage their bodies. © Rachel Rabhan

Right, Bottom: 2010 Olympic Village Bus Shelters feature inclusive design using multiple seating, leaning, and stretching surfaces. © Rachel Rabhan



*Executive Summary (Excerpt)*

**Active Design Guidelines, Chapter 1:**

***Environmental Design and Health: Past and Present***

*In the 19th and early 20th centuries architects and urban reformers in New York City and elsewhere helped defeat infectious diseases like cholera and tuberculosis by improving buildings, streets, neighborhoods, parks, water systems, and sanitation. In the 21st century, designers can again play a crucial role in combating the biggest public health epidemics of our time: obesity and related chronic diseases such as diabetes, heart disease, and some cancers.*

**Robin Guenther, FAIA - Principal  
PERKINS + WILL**

Acuity levels, or how sick people are when they enter a health care facility, are rising, as is the energy intensity of hospitals. As people are hospitalized for what we might call routine medical reasons, they often are coming in obese, with diabetes, with chronic health conditions that physical activity would lessen, and they place an additional burden on the disease care that they receive. When you talk about these *Guidelines* with health care professionals, they all love them.

Keeping employees healthier and beginning to model different kinds of behaviors for the patients that come through their doors is a huge concern for the health care industry. Hospitals are building many more garden spaces and outdoor active public facilities. The whole issue of getting staff outdoors is becoming much more common in health care design. Another trend is the idea of creating a concourse level in a hospital that separates what you'd call the bed floors, where all the visitors are visiting, from the public realm of the building—the cafeterias, the chapels, the gift shops, the kind of common facilities that people use. So, each of those areas can be accessible by only a flight or two or three of stairs, which encourages greater stair use.

## Active Design Implementation

*Executive Summary (Excerpt)*

**Active Design Guidelines, Chapter 2:**

***Urban Design: Creating an Active City***

The *Guidelines* present strategies for designing neighborhoods, streets, and outdoor spaces that encourage active transportation and recreation, including walking and bicycling. Key recommended measures include:

- Design accessible, pedestrian-friendly streets with high connectivity, traffic calming features, landscaping, lighting, benches, and water fountains;
- Facilitate bicycling and transportation and recreation by developing continuous bicycle networks, and incorporating infrastructure like secure indoor and outdoor bicycle parking;
- Develop and maintain mixed land use in city neighborhoods;
- Improve access to transit and transit facilities;
- Improve access to plazas, parks, open spaces, and recreational facilities, and design these spaces to maximize their active use where appropriate;
- Improve access to full-service grocery stores and fresh produce.



Bike Rack, Astor Place, Manhattan. Source: NYC Department of Transportation.

## Active Design Implementation

### Active Design in Action Profile:

Thomas Balsley, FASLA - Principal, THOMAS BALSLEY ASSOCIATES  
CHELSEA WATERSIDE PARK

As landscape architects, we do a lot of work to turn schoolyards into places of pride and activity, to design public parks and plazas as well as green street projects. In Chelsea Waterside Park, at the foot of 23rd Street, we were very focused on maximizing active recreation, hoping that it would help to balance a more passive approach to the waterfront park on the other side of the highway. We have a year-round multipurpose playfield, basketball courts, a water play area with distinctive water play forms, and an urban dog run that includes rocks and tree trunks. It's become a very successful community gathering space.



Left: Chelsea Waterside Park. Source: Thomas Balsley Associates.

Right: "StairWeek" Program, NYC Department of Design + Construction. Source: NYC Department of Design + Construction.

### Executive Summary (Excerpt)

#### Active Design Guidelines, Chapter 3:

#### Building Design: Creating Opportunities for Daily Physical Activity

Opportunities for incorporating regular physical activity into daily life can be found not only outdoors but inside buildings as well. Architects can help building occupants incorporate physical activity into their daily routines through the following measures:

- Increase stair use among the able-bodied by providing a conveniently located stair for everyday use, posting motivational signage at elevators and escalators to encourage stair use, and designing visible, appealing and comfortable stairs;
- Locate building functions to encourage brief bouts of walking to shared spaces such as mail and lunch rooms; provide appealing, supportive walking routes within buildings;
- Provide facilities that support exercise such as centrally visible physical activity spaces, showers, locker rooms, secure bicycle storage, and drinking fountains;
- Design building exteriors and massing that contribute to a pedestrian-friendly urban environment and that include maximum variety and transparency, multiple entries, stoops, and canopies.



### Active Design in Action Profile:

Brian Tolman, AIA, LEED AP - Managing Principal, STUDIOS Architecture  
WALL STREET JOURNAL HEADQUARTERS

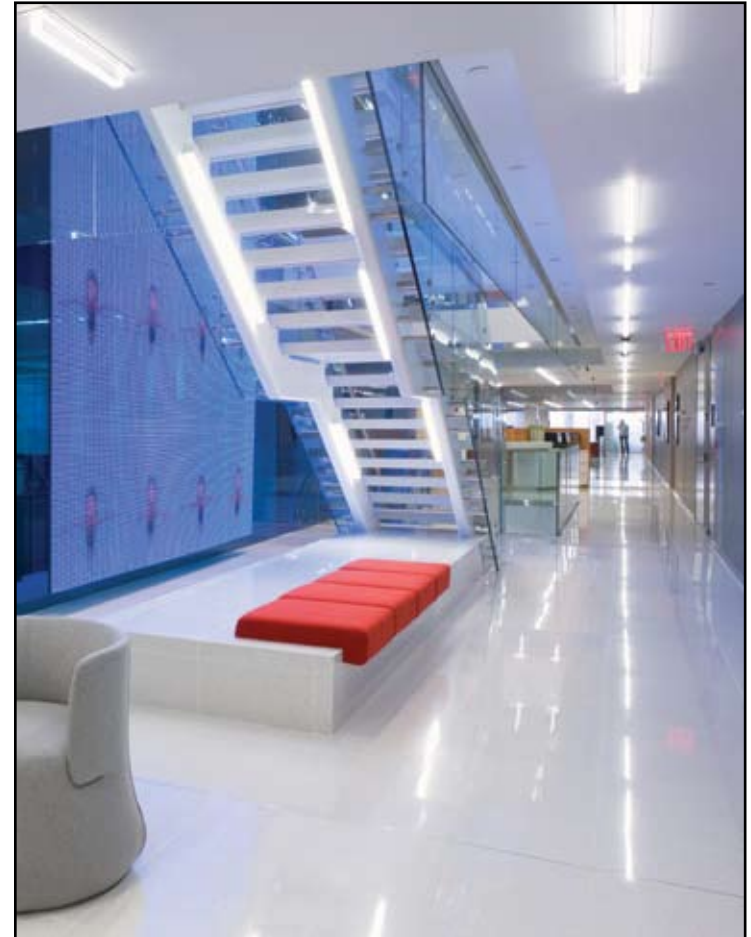
None of our commercial clients have ever come to us and said, "Please design a space for us with a focus on health and activity." The good news is, they are all doing it anyway, so the fact of the matter is the majority of our projects line up quite well with the *Active Design Guidelines*. The difference is that our clients are coming at it from a different viewpoint. They're coming to us and saying, "We'd like a space that makes our business run better. We want more collaboration. We want more visibility in the spaces where people are meeting each other and interacting; we want more variety of interaction type spaces. We want to increase efficiency."

The notion of a communicative office space, the notion of sustainability and the notion of an active space or a design that promotes health are complementary. We designed the offices for Dow Jones, the headquarters for *The Wall Street Journal*. The real driver of this job was to make the newsroom the hub of everything that goes on in the organization. They were moving into a Midtown Manhattan high rise building where the floor plates were vast, the ceiling heights were low, and the windows were tiny. So, they wanted to create a really active, interactive space, and the building really didn't work for it very well.

One of the key things we did here was the introduction of these expansive holes and staircases that actually do not give you a straight shot anywhere. As you're coming down from one of the top floors, while you can get a good circulation path that will connect you to that newsroom on the end, you have to circulate into the office. That was very much by design, to focus and then create that interaction.

So this becomes an environment where people want to be. They want to walk up and down these stairs to get to the floor below them rather than go to the elevator bank, push the button in the box and wait for the cab to arrive.

## Active Design Implementation





## Active Design Implementation

### Active Design in Action Profile:

Les Bluestone - Partner, BLUE SEA DEVELOPMENT  
FOREST HOUSE

About 20 years ago, I started developing affordable housing, and have never really looked back. In residential design, it's about making use of the stairs and about providing physical opportunities wherever you can in the building. During all of these years working in affordable housing, I've been told by every City and State agency that, "We need to see the elevators from the lobby door." So now, we have to change this mind-set.

On the NYC Department of Housing Preservation and Development (HPD)/NYC Housing Authority (NYCHA) project in the South Bronx known as Forest House, we went through three iterations to try and make the stairs more prominent. We have relocated the building entrance and now the elevators are off to the side and the entrances to the stairs are pretty much in direct view of the lobby entrance. And the benefit to all this—unbeknownst to me, while reconfiguring this—is we picked up an extra unit, which is a win-win.

What we've also tried to do is to create little outdoor fitness "rooms" on a fitness path in the rear plaza we have, which is about 10,000 square feet. One other feature that we're incorporating is a rooftop hydroponic farm; it's a 10,000 square foot building integrated greenhouse that will be operated to grow fresh produce for an area that has little or no access to it. The approximately 4,000 residents in the building and in the NYCHA campus buildings will be eligible to participate in what's called a CSA—Community Supported Agriculture system—or obtain the produce through local markets such as the Bronx Food Co-op, so that basically we're talking about a distance of less than a mile from being harvested to the counter.

The economics of affordable housing are always the big concern for developers. The total costs at this time are approximately \$200,000, which is less than one half of a percent of the building's total development cost.



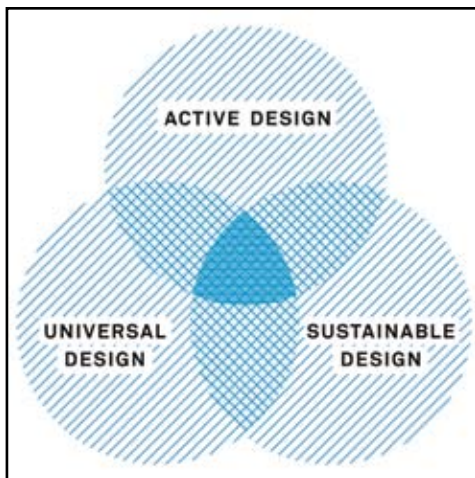


*Executive Summary (Excerpt)*

**Active Design Guidelines, Chapter 4:**

***Synergies with Sustainable and Universal Design***

*Active Design promises benefits not only for public health but also for the environment and for advancing universal design. Design strategies that increase physical activity and improve health—for example, measures that promote walking over driving, stairs and ramps over elevator and escalator use, and active recreation over television watching—also tend to reduce energy consumption and greenhouse gas emissions. In addition, Active Design can assist not only people able to climb stairs daily, but users of all mobilities, ages, and backgrounds. A diverse, active, healthy population and a sustainable planet are synergistic.*



## Active Design Implementation

**Active Design in Action Profile:**

Katie Winter, AIA - Principal, KATIE WINTER ARCHITECTURE  
PLAY SPACE DESIGN

For the past fifteen years I've been working with schools in Harlem, the Bronx, and Manhattan to rethink their exterior spaces. What's interesting is that our active design projects are really low cost relative to conventional playgrounds. You get more bang for the buck because our spaces can be used in so many different ways. We designed a basketball court for a school in Harlem where we abstracted the pattern in the court so that it could stimulate the children to play different kinds of games beyond basketball.

At the Immaculate Conception School in the Bronx, we designed a grid of poles in two colors that align with the space in the center. The kids have a great time swinging on the poles and running between them. Keeping play space ambiguous allows for kids to participate in defining what that space will be, and thus, in creating their own culture. Part of the challenge in cities is in creating a range of spaces in a really limited amount of area that address the interests of children—and a huge range of children. We typically think about our outdoor spaces a lot like interior architectural floor plans and subdivide them into areas for a large group doing active activities and then smaller areas. We try to encourage kids to explore the landscape much like they would if they had their own backyard, luring them with color or a destination.

There's been a lot of emphasis on the design of school interiors, but we haven't really explored the ramifications of these ideas on the outside. So much of the urban landscape these children typically spend their time in is visually banal. We try to introduce visual and physical complexity either with the natural or the man-made. At a school that we're working on in Washington Heights, we developed a rooftop playground that includes artificial boulders and a planter covered in plastic panels at the end to tie some gardening and science into their curriculum. What we've learned about encouraging an active environment is that a lot of design can stop the imagination dead in its tracks, or it can excite the imagination and encourage people to run in different directions.

## Active Design Implementation



**Susan S. Szenasy - Editor-in-Chief**  
**METROPOLIS MAGAZINE**

We need to improve very quickly and dramatically our built environment in New York City. The physical environment as it exists today can be nonfunctioning, unhealthy. How do architects intervene in that? The other issue is about the food supply, growing healthy food near where people live. We need to think of the next 10, 15, 20, 30 years, how the city will evolve as a result of these urban and public realm interventions, what will accrue around them, and how those neighborhoods rebuild themselves.

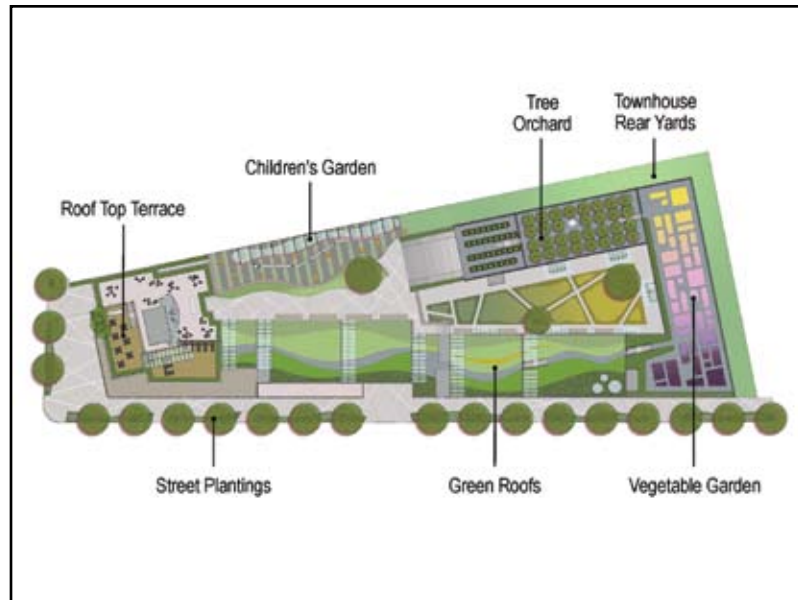
**Jonathan Rose - Founder**  
**JONATHAN ROSE COMPANIES**

The things that we do in the public, that we create through public design, through buildings, they are about transformation or even unleashing of pro-social and positive environmental human behavior. And so, when we think of ourselves as designers and as builders and as planners, we need to think about our power in choosing a different behavioral future for our communities.

I have looked at the life cycle of cities throughout history and there are many reasons why they rise and fall. But one of the reasons they fall is when they expand beyond their capacity to be resilient under stress. New York City has great infrastructure and if you think about the third water tunnel, the Second Avenue subway, there's a series of investments that I believe are increasing our resilience and our ability to deal with the stresses that are coming.

The second thing that I believe is a key to a great city is a combination of density and connection with nature and open space. And the open space needs to occur at the cellular level, like on the building roof and at the neighborhood level. We're seeing things like the restoration of the Bronx River and the South Bronx Greenway. And we also have the social culture. There's a tremendous effort here to really build an amazing schools network. I see the political commitment and the coherence about the political commitment to it are stronger here than in many cities. If we get the infrastructure right, the public realm right and re-immense nature into it, that really takes you a big step of the way towards creating a great city.

## Active Design: Making it Real





**Vincent Chang, AIA, RIBA - Partner  
GRIMSHAW ARCHITECTS**

It's anticipated that 29 percent of the population of New York City will be under the age of 19 in a few years. Much of the discussion today and the purpose of the *Active Design Guidelines* are concerned with legacy and inheritance, and it's about the future health of our cities.

Cities are about diverse and spirited communities. They're about the spaces that are not really owned by you or me but are shared, that come alive through enjoyment of use. Sustainable design begins with an understanding that architecture that is not about technology or "signature" but instead about an understanding of how people wish to live. We have to think beyond the confines or specificity of the project at hand, and think about the broadest impact on the community within this design context, which is incredibly fertile. There are so many opportunities to positively influence active and convivial behavior. Fundamentally people know how to live and we just have to be better at providing better choices.

**Thom Mayne, FAIA - Founder  
MORPHOSIS ARCHITECTS**

Our work as architects is to connect broad notions of the physical to particular ideas of sustainability and health, while considering and allowing for an impact based on architecture's relationship to social and cultural understanding. It is integrative methods that produce the qualities that are so important in architecture today. It is a technique that impacts our ability to understand and encompass increasingly complex problems into our work. The biggest challenge today is one of vision and commitment.

Those charged with adding to our built environment, whether public or private entities, must look to architecture for a standard that includes the use of long term sustainable methods. Also, procurement procedures must be put in place to allow for, even demand, a much higher level of construction. Parallel to that, the public has to become much more active and vociferous in its demands for quality and sustainability. Things are moving along in this direction, but the public and the design community still have to be more demanding.





**New York City Active Design Guidelines:  
Promoting Physical Activity Through Design**  
<http://www.nyc.gov/adg>

**Fit City 1 Report**  
<http://www.aiany.org/fitcity1>

**Fit City 2 Report**  
<http://www.aiany.org/fitcity2>

**Fit City 3 Report**  
<http://www.aiany.org/fitcity3>

**Fit City 4 Report**  
<http://www.aiany.org/fitcity4>

**NYC Department of Buildings**  
<http://www.nyc.gov/buildings>

**NYC Department of City Planning**  
<http://www.nyc.gov/dcp>

**NYC Department of Design + Construction**  
<http://www.nyc.gov/ddc>

**NYC Department of Health  
and Mental Hygiene**  
<http://www.nyc.gov/health>

**NYC Department of Parks and Recreation**  
<http://www.nycgovparks.org>

**NYC Department of Transportation**  
<http://www.nyc.gov/dot>

**NYC Mayor's Office for People  
with Disabilities**  
<http://www.nyc.gov/mopd>

**PlaNYC 2030**  
<http://www.nyc.gov/planyc>

**Active Living Research**  
<http://www.activelivingresearch.org/alr>

**Blue Sea Development Company**  
<http://www.blueseadev.com>

**Grimshaw Architects**  
<http://www.grimshaw-architects.com>

**Jonathan Rose Companies**  
<http://www.rose-network.com>

**Katie Winter Architecture**  
<http://www.katiewater.com>

**Morphosis Architects**  
<http://www.morphosis.com>

**Natural England**  
<http://www.naturalengland.org.uk>

**Perkins + Will**  
<http://www.perkinswill.com>

**Snøhetta**  
<http://www.snoarc.no>

## Resources

**STUDIOS Architecture**  
<http://www.studiosarchitecture.com>

**Thomas Balsley Associates**  
<http://www.tbany.com>

**Urban Movement**  
<http://www.urbanmovementdesign.com/>

**U.S. Centers for Disease Control  
and Prevention (CDC), Guide to  
Community Preventive Services,  
Recommendations for Physical Activity**  
<http://www.thecommunityguide.org/pa>

## Credits

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**Rick Bell**, FAIA, Executive Director - AIA New York

**Comm. Adrian Benepe** - NYC Dept. of Parks and Recreation

**Dr. William Bird**, MBE - Strategic Health Advisor, Natural England

**Les Bluestone**, Partner - Blue Sea Development

**Comm. Amanda M. Burden**, FAICP, Hon. AIA - NYC Dept. of City Planning

**Comm. David J. Burney**, FAIA - NYC Dept. of Design + Construction

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**Comm. Thomas Farley**, MD, MPH - NYC Dept. of Health and Mental Hygiene

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