

Zone green text amendment

...for a greener, greater NEW YORK

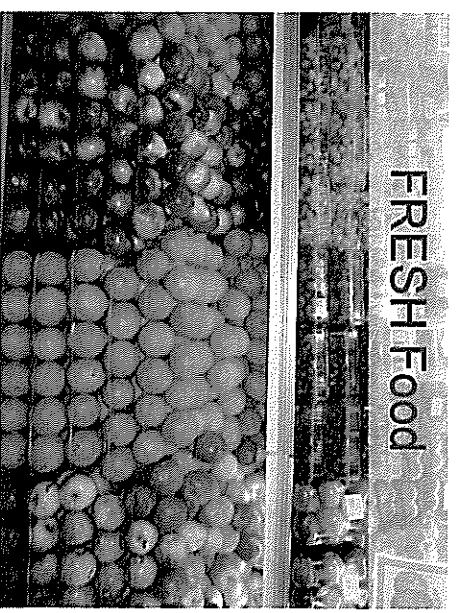
NYCPLANNING



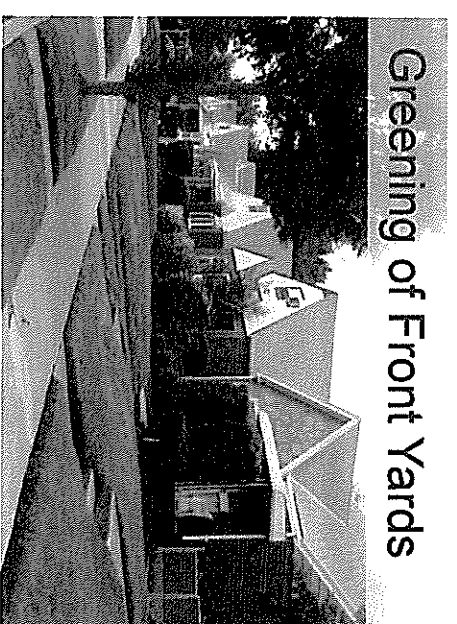
April 23, 2012



Bike Parking



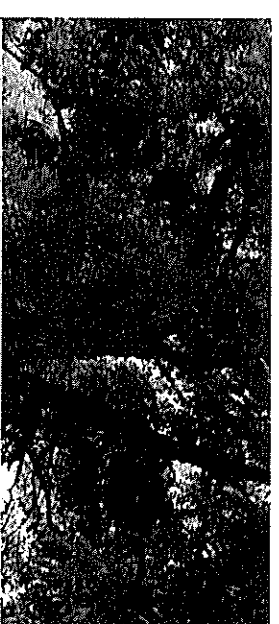
FRESH Food



Greening of Front Yards

CITY PLANNING'S GREEN INITIATIVES

Transit-oriented development



Planting Strips and Street Trees



Car Share



Greening Parking Lots



Zone Green Text Amendment

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NYC PLANNING

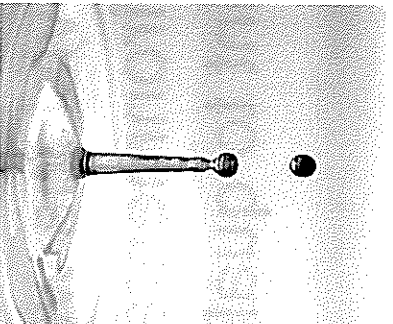
GREEN BUILDINGS BENEFIT EVERYONE



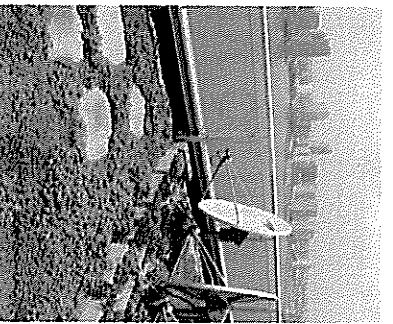
SAVE ENERGY



PRODUCE ENERGY



SAVE WATER



CAPTURE RAINWATER



OPEN SPACE



FOOD

savings ...insulating buildings saves money on heating and cooling bills

health ...improved air quality and water quality; rooftop open space; better access to fresh food;

infrastructure ...reduced burden on City's electrical grid and sewer system

nature ...reduced pollution and carbon emissions; increased biodiversity; connects New Yorkers' to the environment

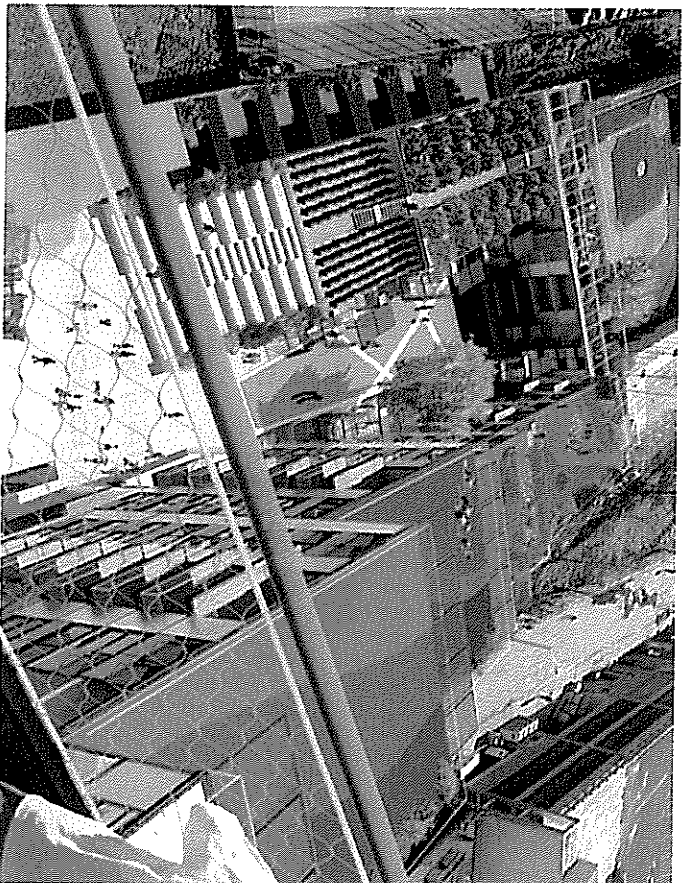
GREEN BUILDINGS & ZONING



Lefrak City. Photo Courtesy: Google Archives

Basic zoning provisions were created half a century ago, before environmental quality was considered important to quality of life in NYC

GREEN BUILDINGS & ZONING



Via Verde, Bronx. Photo Courtesy: Jonathan Rose Companies

- Many buildings have incorporated green building features in recent years.
- But in some instances, zoning discourages or even prohibits green features

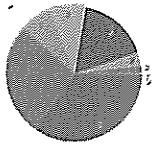


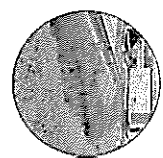
Solaire, Battery Park City. Photo Courtesy: American Hydrotech Inc.

GOAL OF THE TEXT AMENDMENT



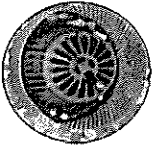
Empower property owners to build or retrofit buildings to 21st century standards

 Save energy and money
(air seal & insulate buildings)

 Reduce urban heat island effect
(built up areas are hotter than vegetated ones)

 Generate clean and renewable energy

 Grow fresh, local food *(rooftop agriculture)*

 Manage stormwater *(green roofs & blue roofs)*

 Reduce carbon emissions & promote a healthier & greener city

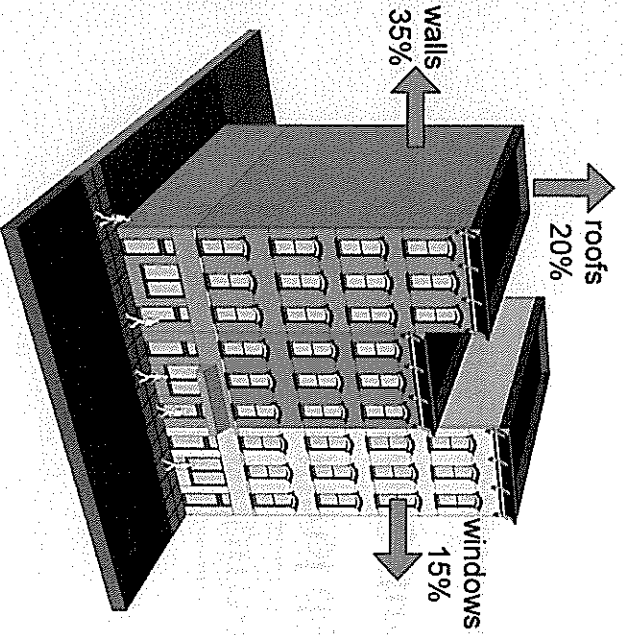
GREEN BUILDING COMPONENTS

- ▣ High performance building envelope
- ▣ Sun control devices (*to reduce summer cooling needs*)
- ▣ Rooftop features
- ▣ Other sustainable features

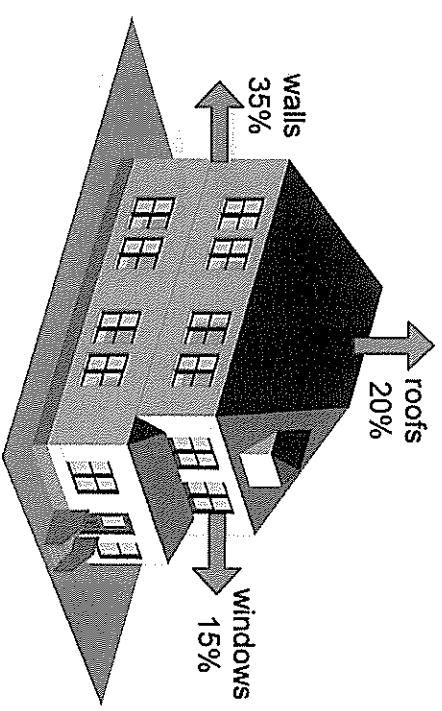
WHY ENVELOPE IS IMPORTANT



The building “envelope” is the external walls, windows and roof of the building



- Space heating and cooling = 50% of total building energy usage
- An un-insulated and leaky envelope = 70% of energy loss



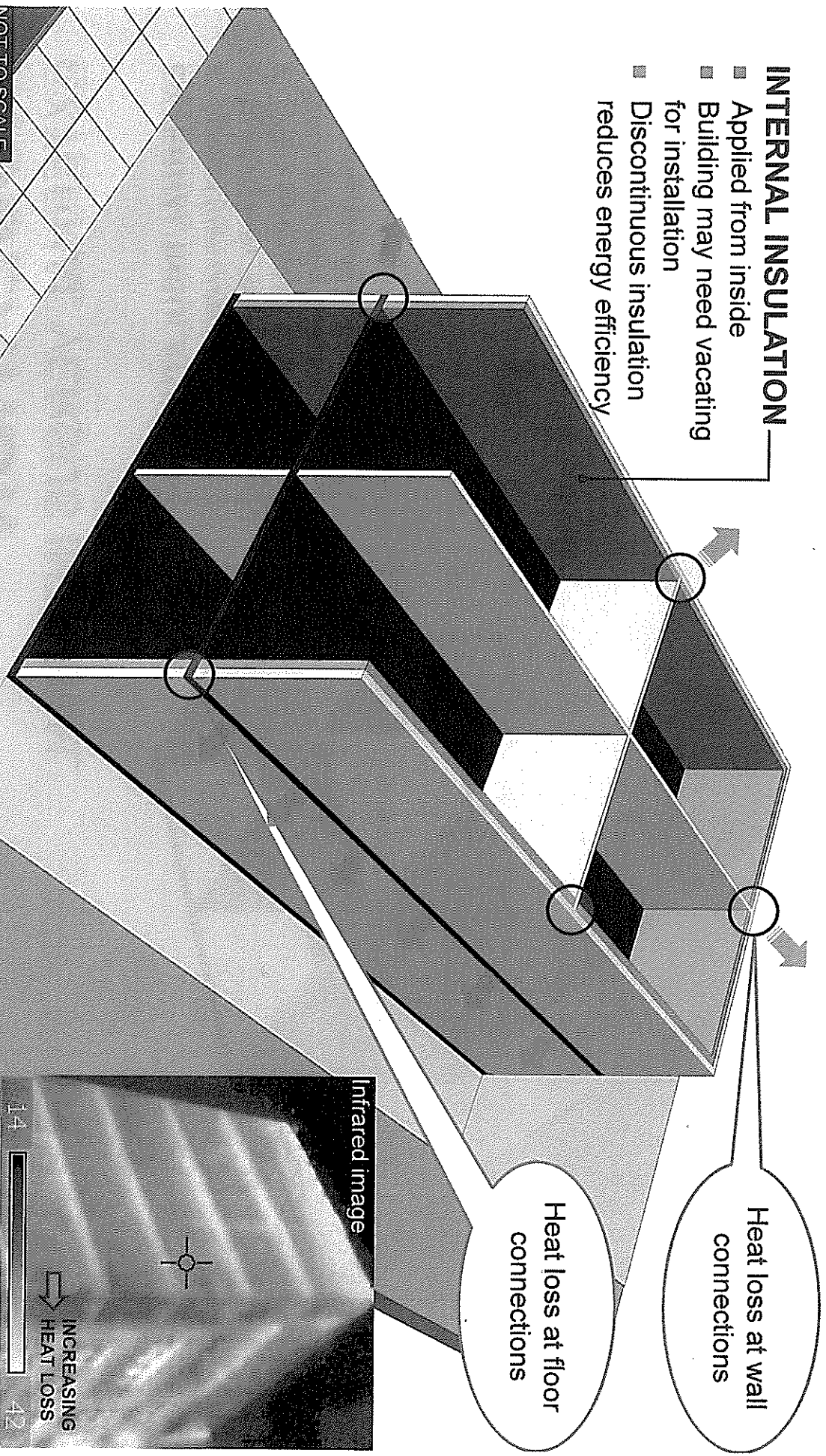
- Well insulated and air sealed exterior walls can save 20%-50% on energy costs (by lowering heating and cooling demands)
- Long term savings (envelope is the longest lasting design element of the building)

INSULATION

EXTERNAL VERSUS INTERNAL



- INTERNAL INSULATION**
- Applied from inside
 - Building may need vacating for installation
 - Discontinuous insulation reduces energy efficiency



NOT TO SCALE

April 23, 2012

NYC PLANNING

Zone Green Text Amendment

Courtesy: James A. DiIorio

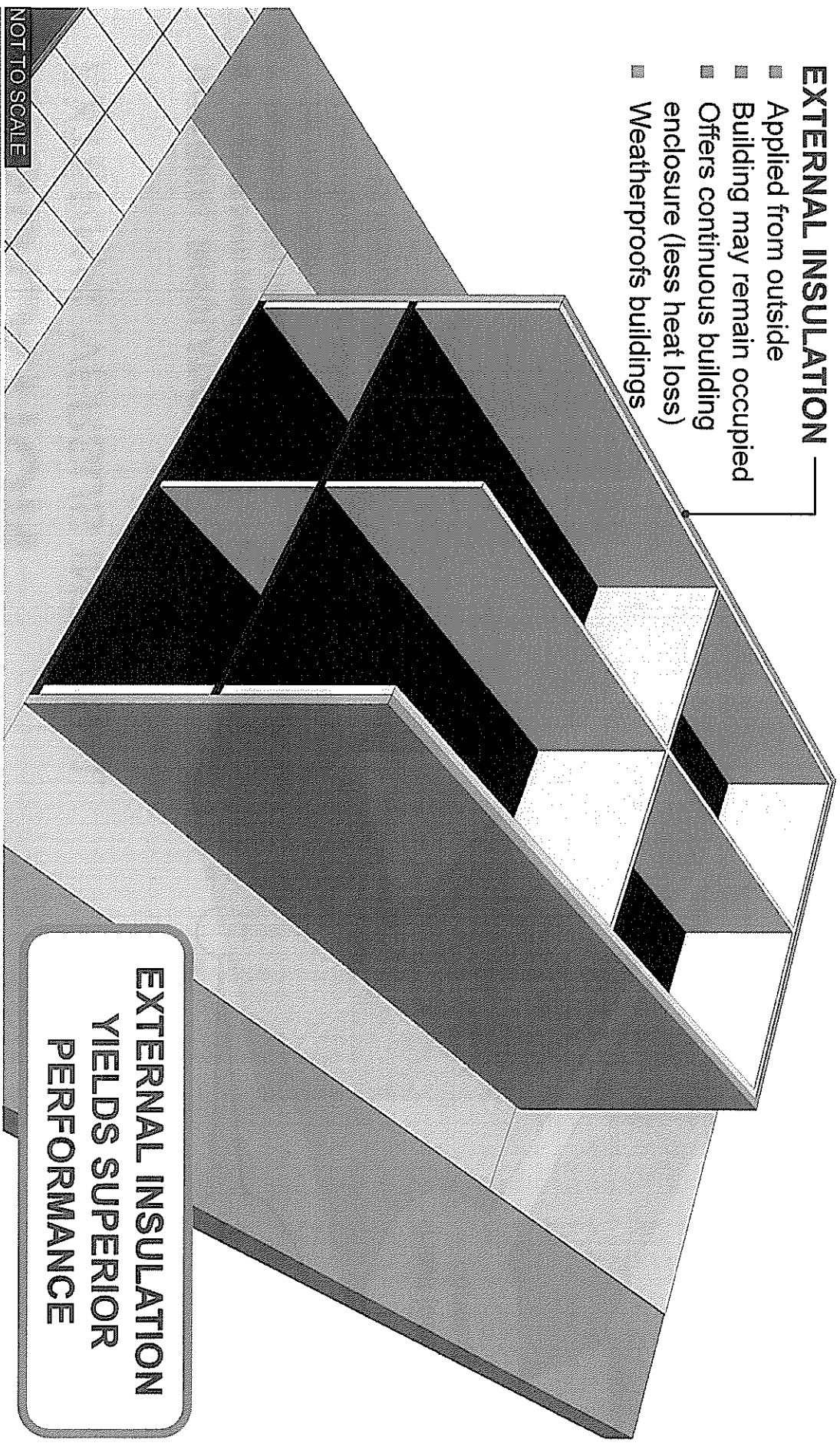


INSULATION

EXTERNAL VERSUS INTERNAL

EXTERNAL INSULATION

- Applied from outside
- Building may remain occupied
- Offers continuous building enclosure (less heat loss)
- Weatherproofs buildings



**EXTERNAL INSULATION
YIELDS SUPERIOR
PERFORMANCE**

NOT TO SCALE

April 23, 2012

NYC PLANNING

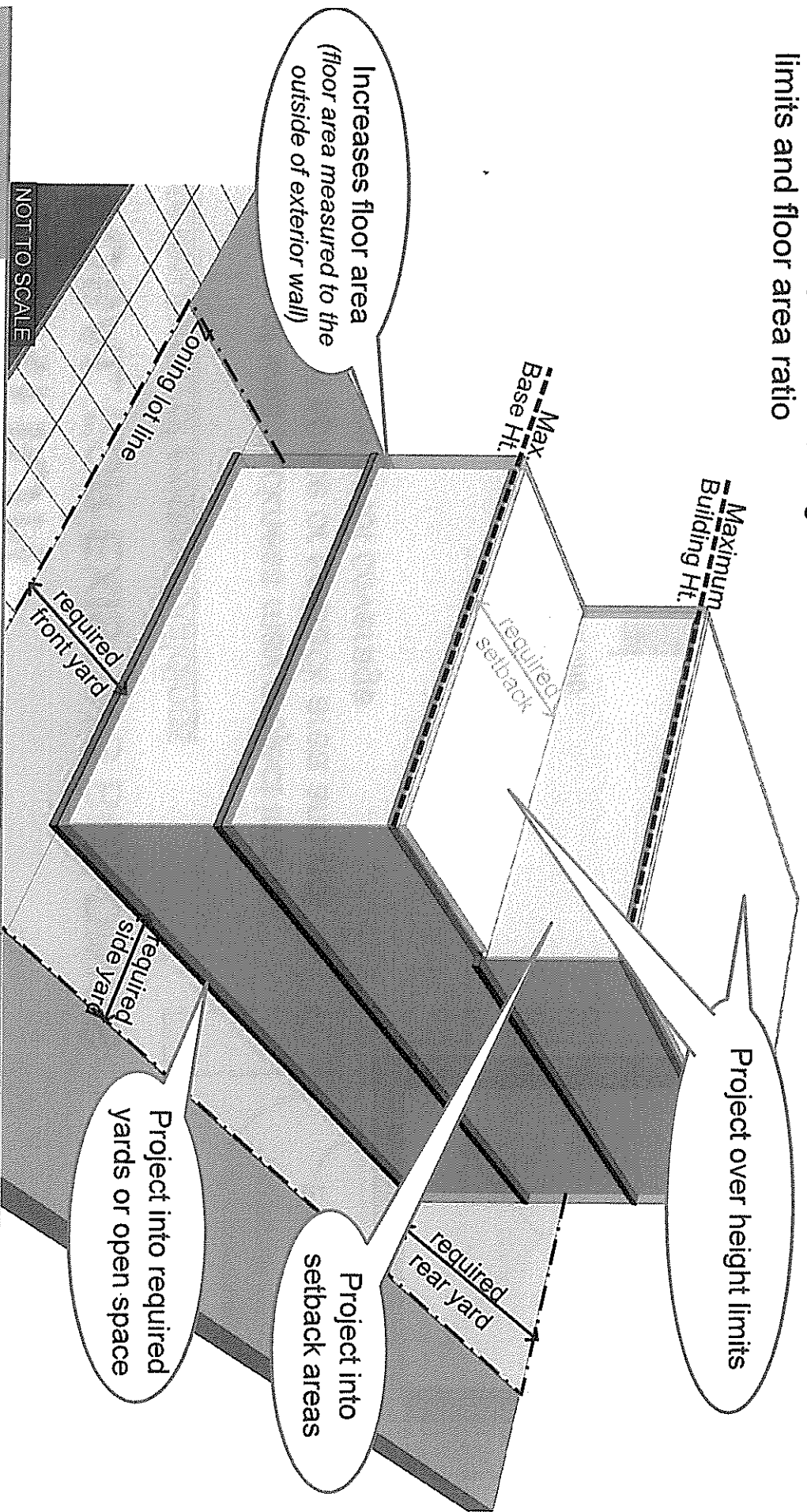
Zone Green Text Amendment



INSULATION

EXISTING BUILDINGS: ZONING ISSUES

Example: Existing building built to its maximum yard limits, height limits and floor area ratio



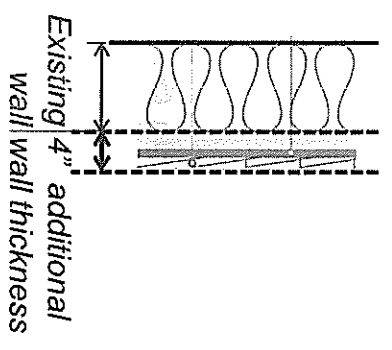


INSULATION PROPOSAL FOR EXISTING BUILDINGS

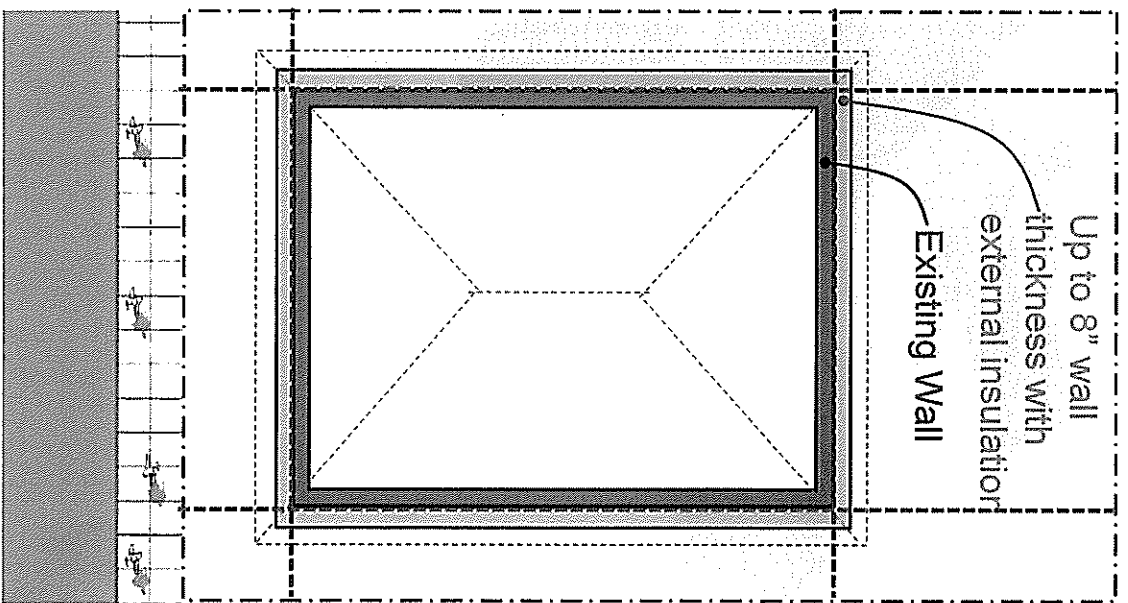
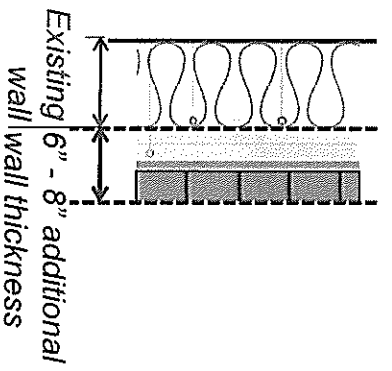
Promote insulation of existing buildings

Up to 8 inches of wall thickness may project into a required yard, open space or setback area and not count toward floor area or lot coverage

**2" Insulation
(Typical Retrofit)**



**4"+ Insulation
(Deep Retrofit)**



INSULATION

PROPOSAL FOR EXISTING BUILDINGS

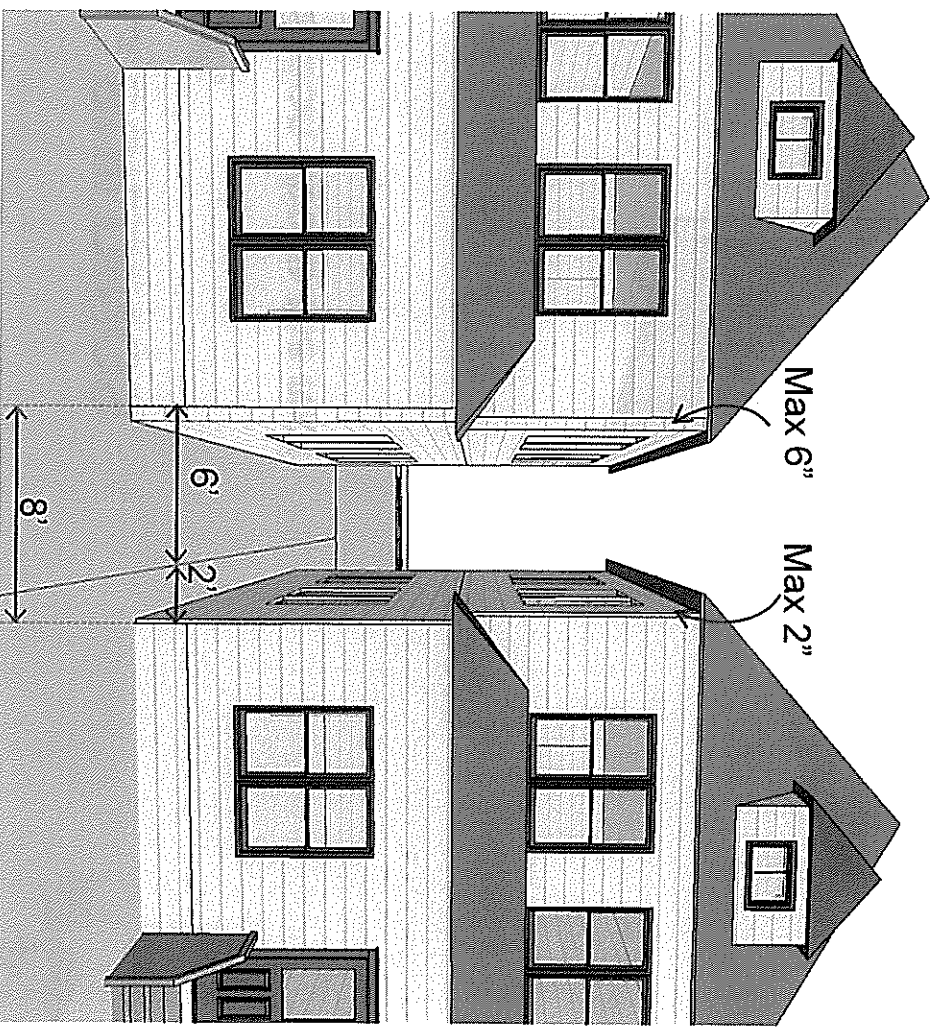


- Limit reduction of small open areas

For open areas 8' or less, 1" of additional wall thickness would be allowed for each 1' of open area

- ▣ Protects small open areas
- ▣ Driveways cannot be obstructed

Note: Similar rule would apply to buildings with non-complying yards, courts, and distance between buildings.

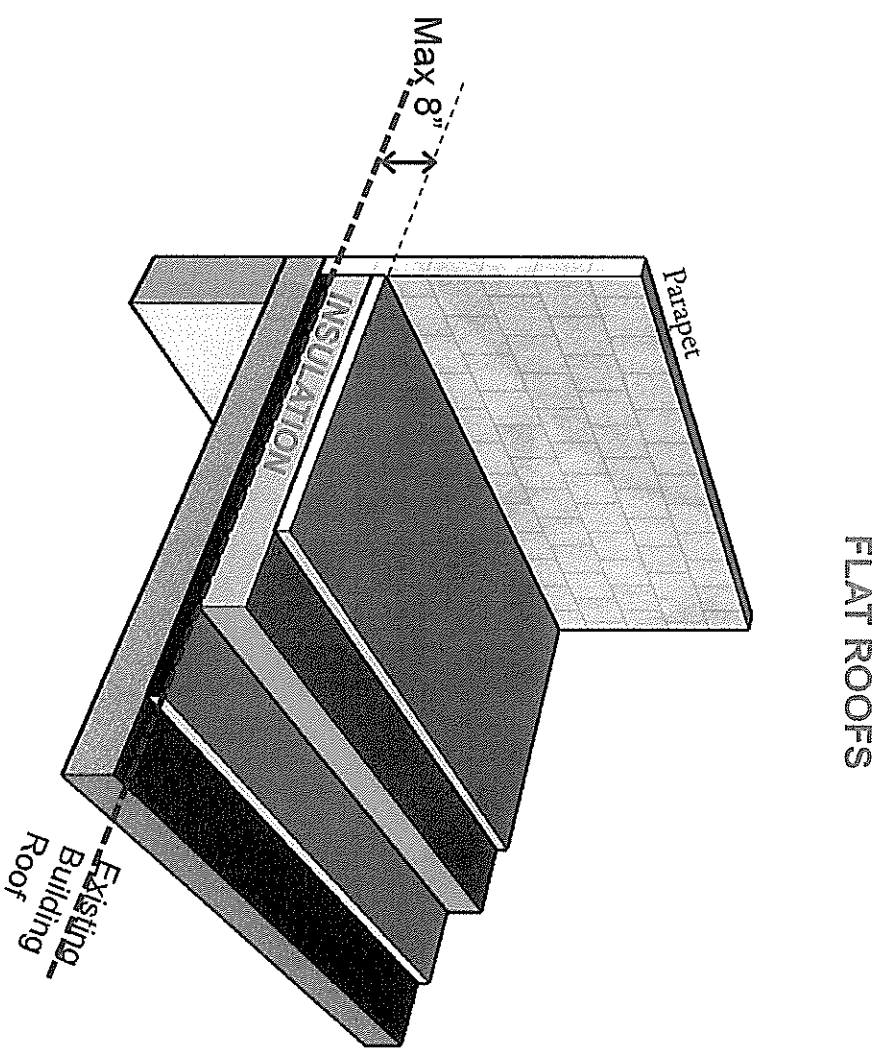
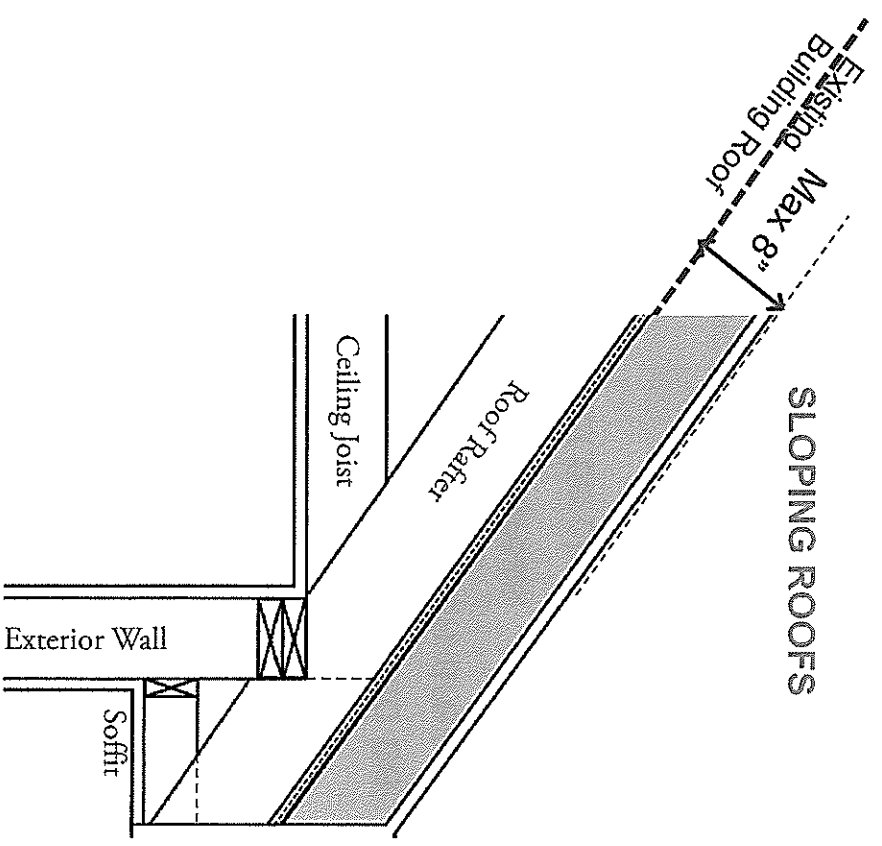




INSULATION PROPOSAL FOR EXISTING BUILDINGS

■ Promote better insulation for existing roofs

Allow up to 8 inches of external roof insulation above the roof

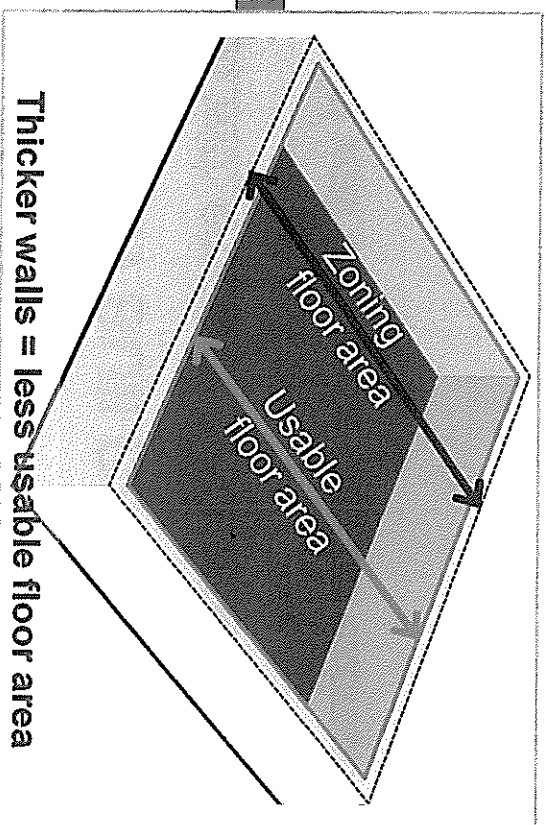
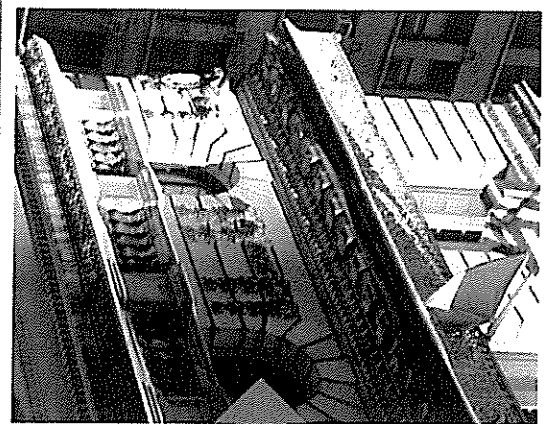
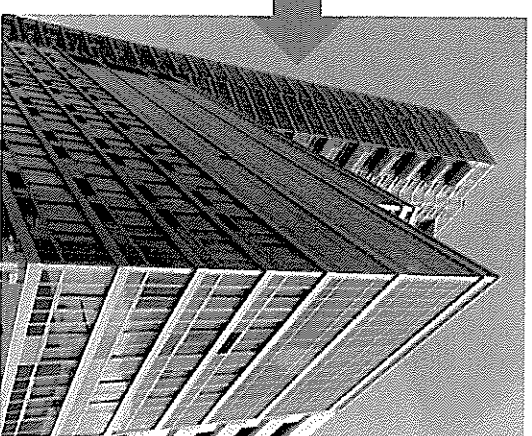
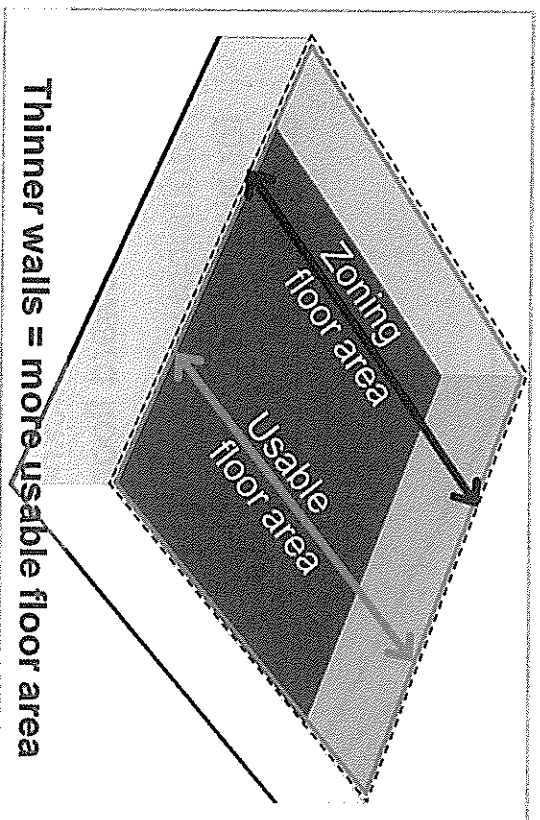




INSULATION

NEW BUILDINGS: ZONING ISSUES

- New buildings must meet NYC energy code requirements
- Buildings that seek to exceed code will generally require thicker walls



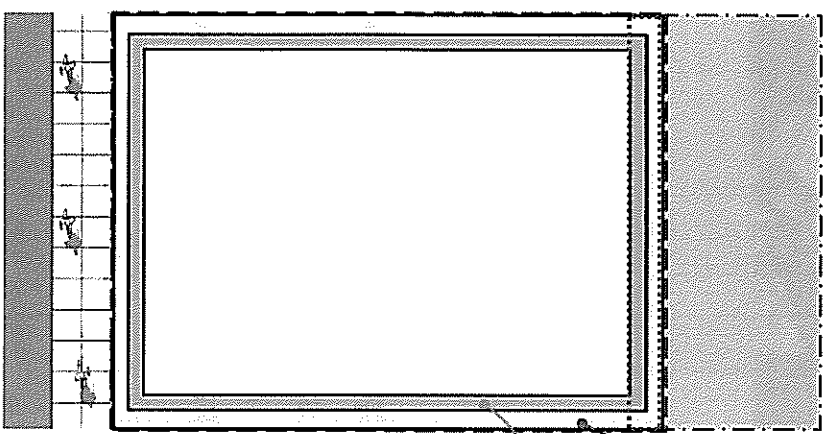
Issue : Thicker, energy efficient walls count as floor area
 → Reduces the incentive for efficiency



INSULATION PROPOSAL FOR NEW BUILDINGS

Encourage new buildings with envelope that outperforms NYC energy code

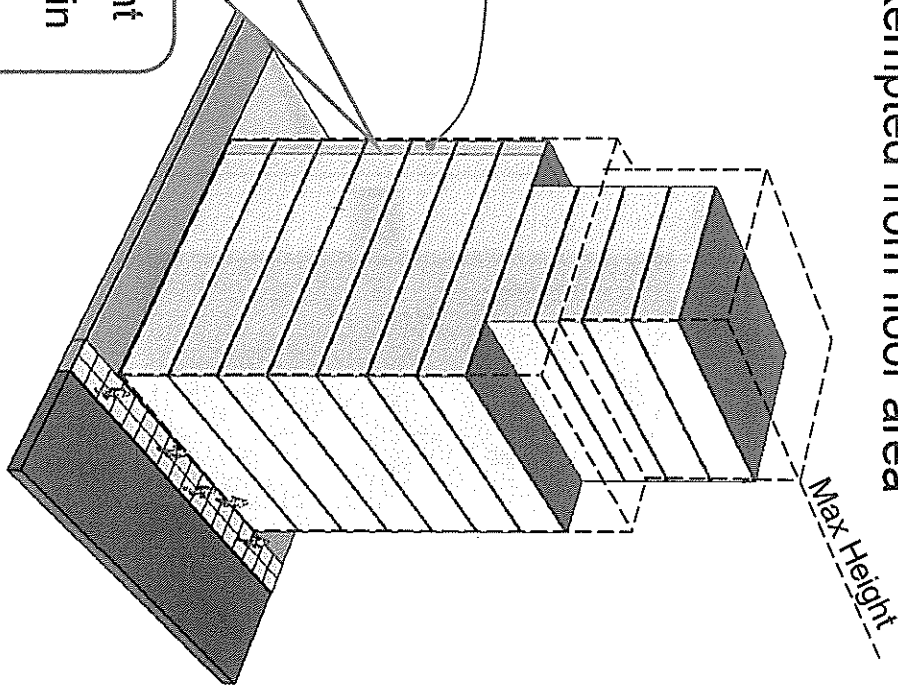
Up to 8 inches of additional wall thickness may be exempted from floor area



8 inches wall thickness
(counts toward floor area)

Additional wall thickness
for higher performance
exempt up to 8 inches

- Usable space remains constant
- Reallocated floor area fits within the zoning district envelopes



EXAMPLE: R8A Residence District

AIR-CONDITIONERS



WINDOW AIR-CONDITIONER

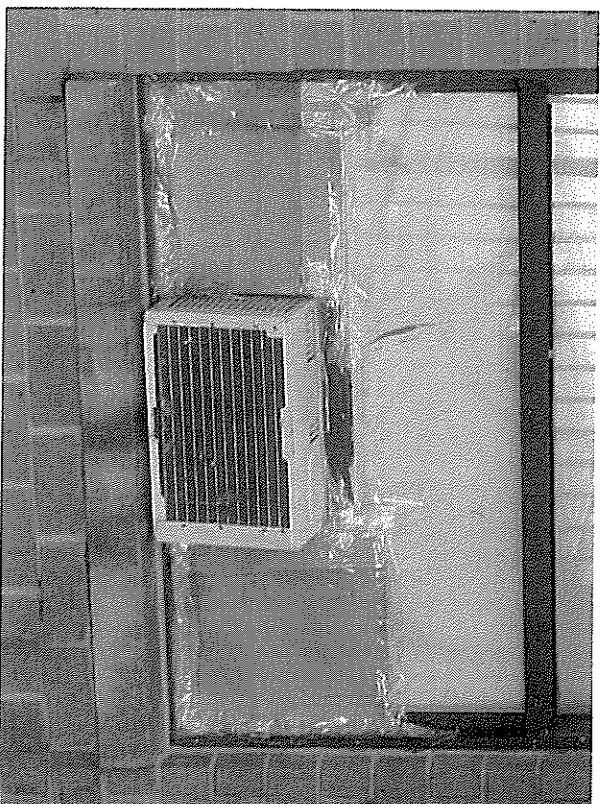


Photo Courtesy: Steven Winter Associates

- Creates leaks and drafts in building envelope
- Poorly fitted ACs cost building owners \$130-\$180 million a year in extra fuel consumption (= an extra 375,000 to 525,000 tons of CO₂e). Source: Urban Green Council
- Window ACs not removed during winter time increase the heating costs by the same amount as cooling cost in summer

Other AC techniques such as central air or mini-splits are more efficient alternatives to window AC

AIR-CONDITIONERS

EXISTING ZONING

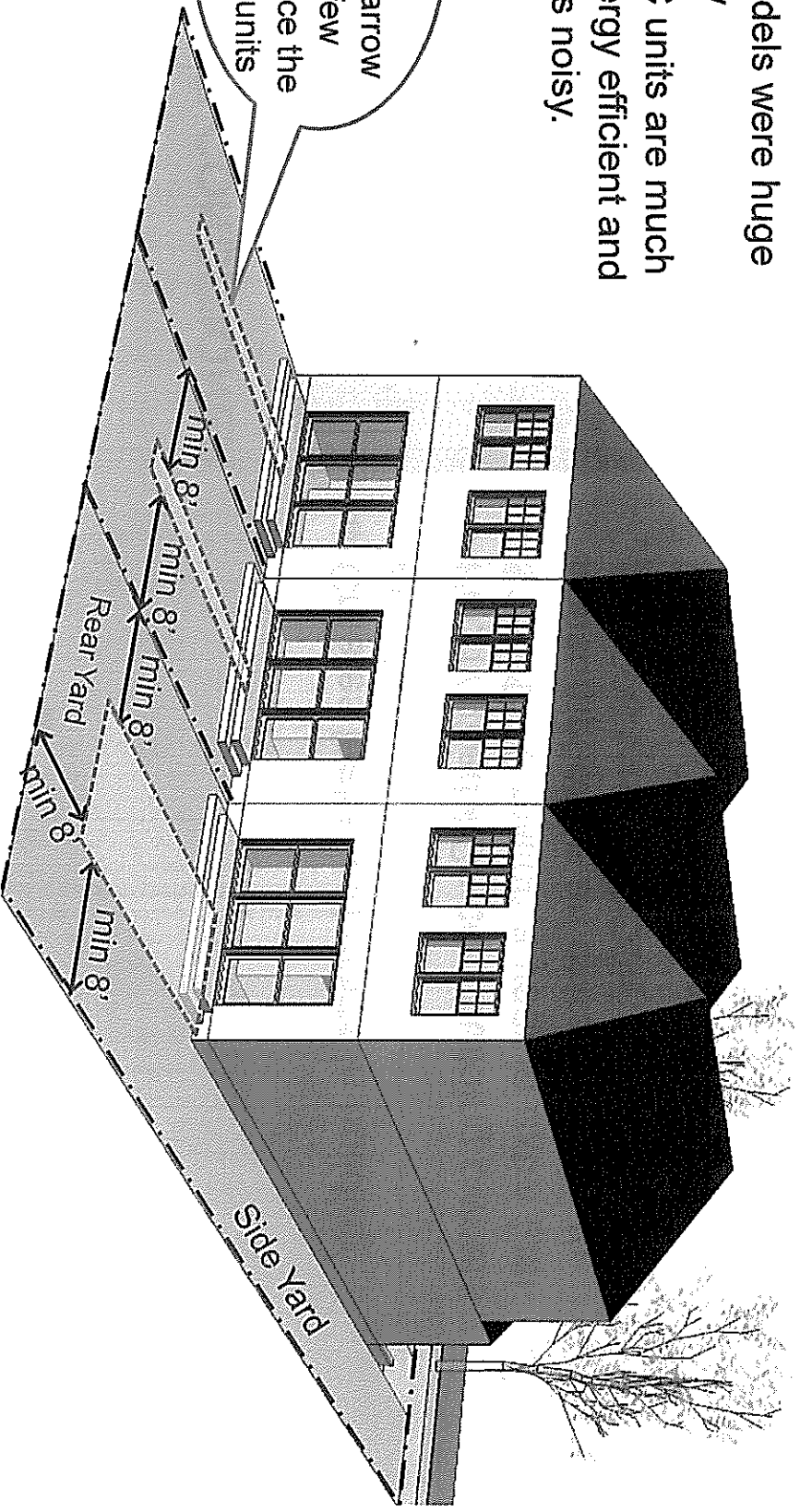


AC condenser units are allowed in rear yards for one- or two- family homes

ISSUE: AC units are required to be at least 8 feet from all lot lines

- Older models were huge and noisy
- Today AC units are much more energy efficient and much less noisy.

On typical narrow lots, very few options to place the condensing units



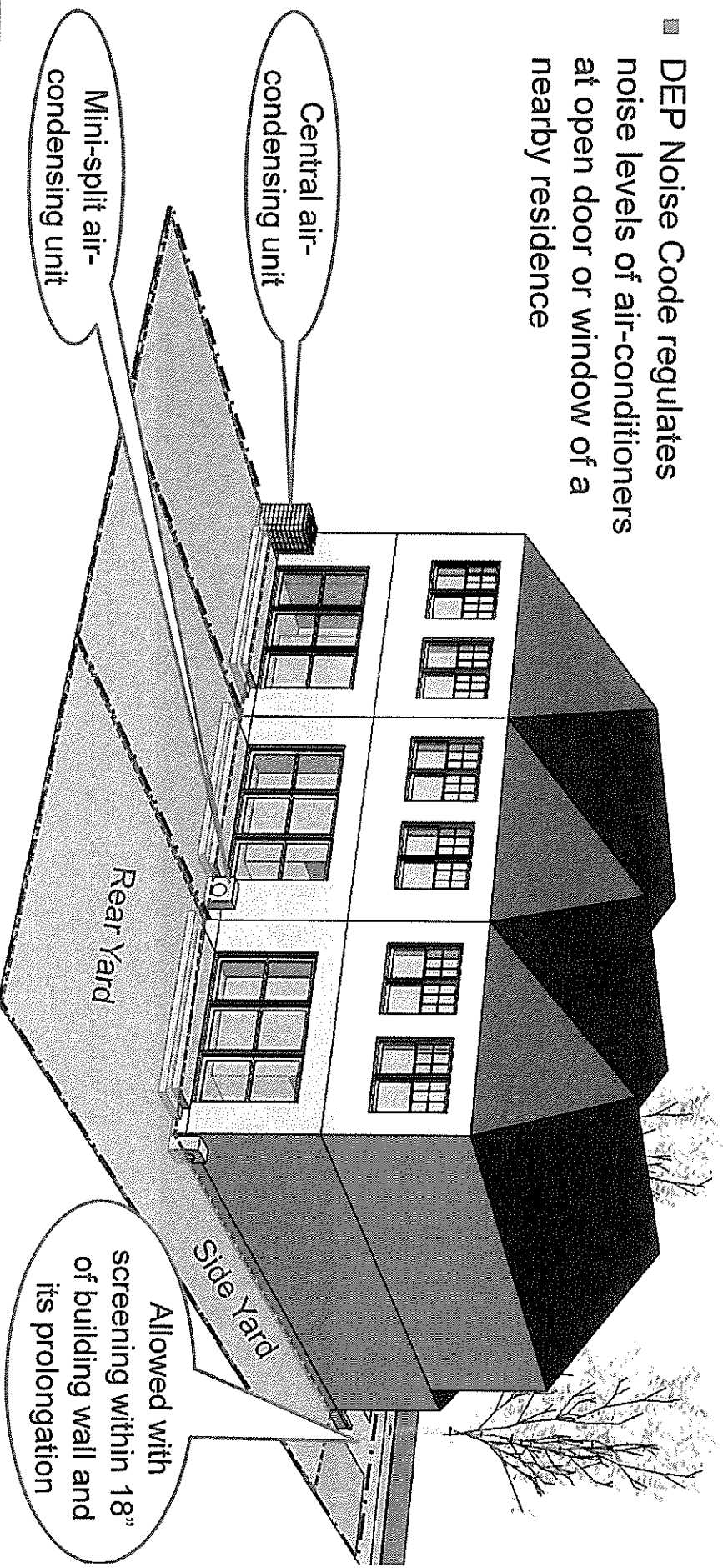
AIR-CONDITIONERS PROPOSAL



■ Allow adequate space and flexibility in location of efficient AC equipment

For one- or two-family homes, air-condensing units shall be permitted in rear and side yards, provided that such units do not obstruct driveways

- DEP Noise Code regulates noise levels of air-conditioners at open door or window of a nearby residence



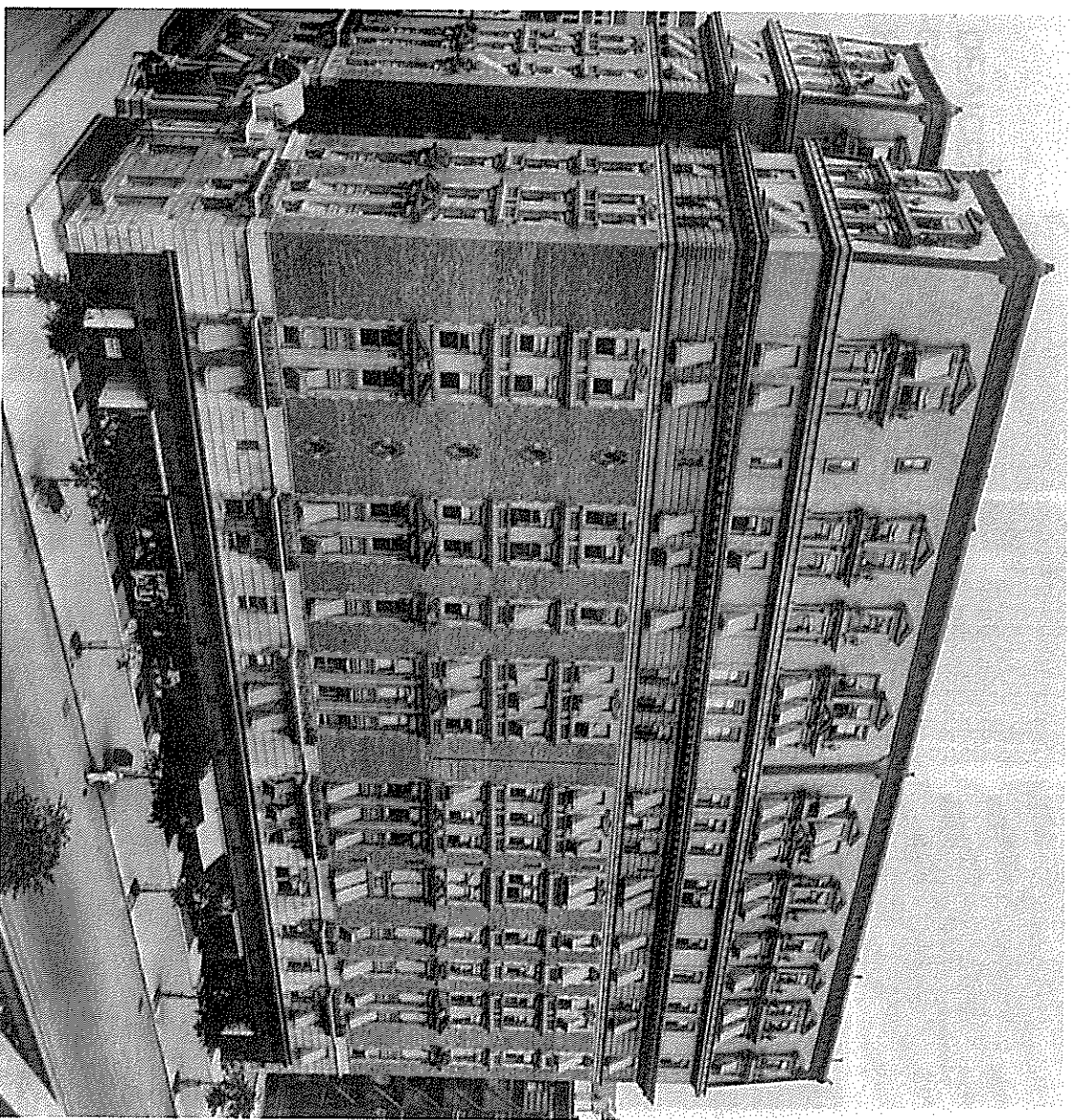
GREEN BUILDING COMPONENTS

- ▣ High performance building envelope
- ▣ Sun control devices *(to reduce summer cooling needs)*
- ▣ Rooftop features
- ▣ Other sustainable features

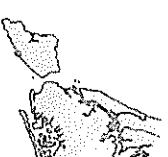


SUN CONTROL DEVICES

Before advent of air-conditioning, awnings were used to block out the sun and keep spaces cool

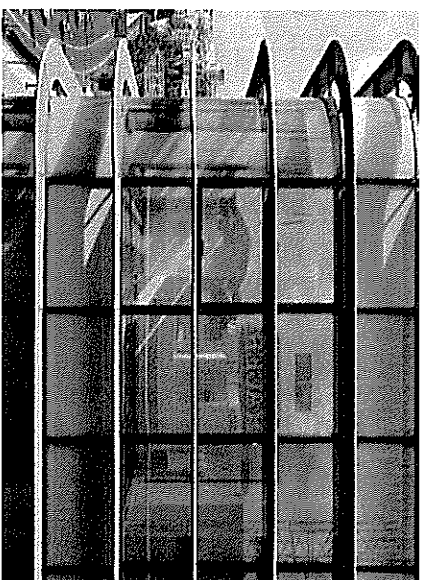
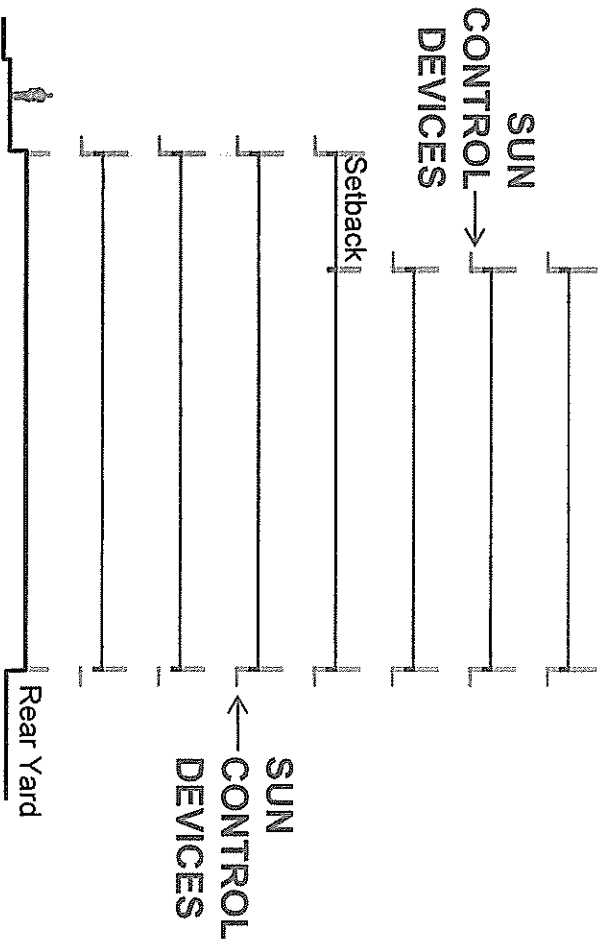


SUN CONTROL DEVICES

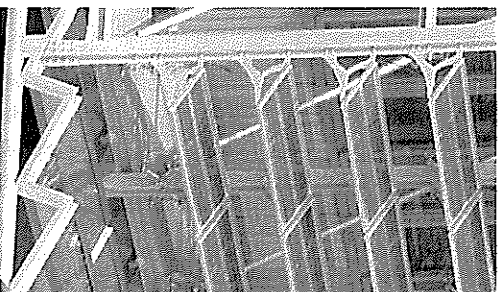


As buildings have become glassier, types of sun control devices have changed

Awnings are permitted in zoning, but a variety of sun control devices may not be permitted



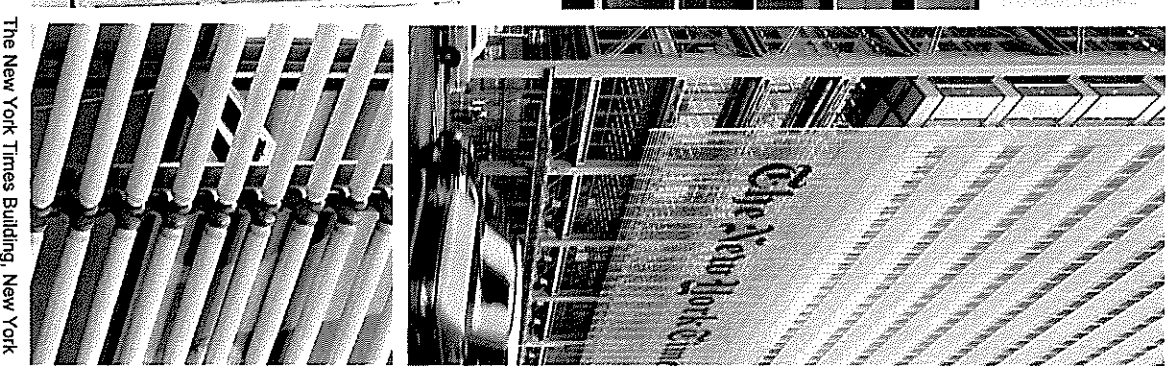
Woeermann Plaza, Las Palmas



Taiwan



91 Metropolitan Ave, Brooklyn



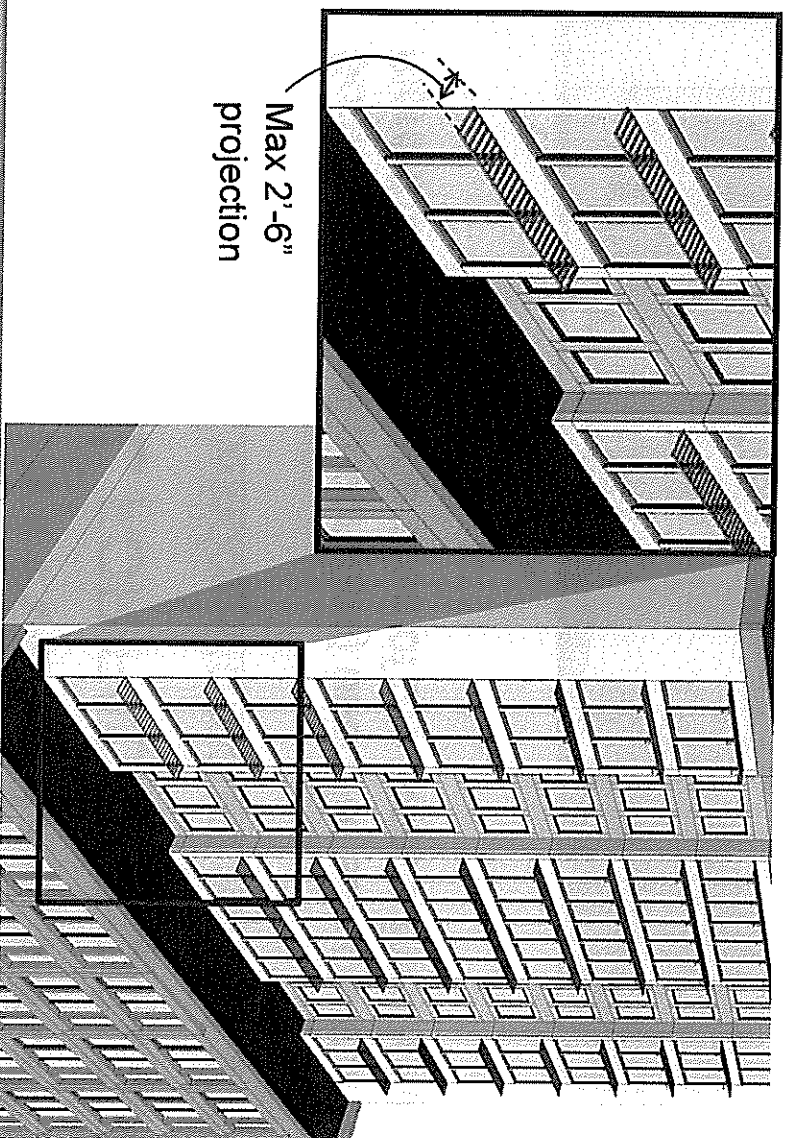
The New York Times Building, New York

SUN CONTROL DEVICES PROPOSAL FOR PROJECTION



■ Allow shading of windows to reduce summer cooling needs

Above ground floor, allow awnings & sun control to project 2'-6" in to required setbacks, yards and open space.

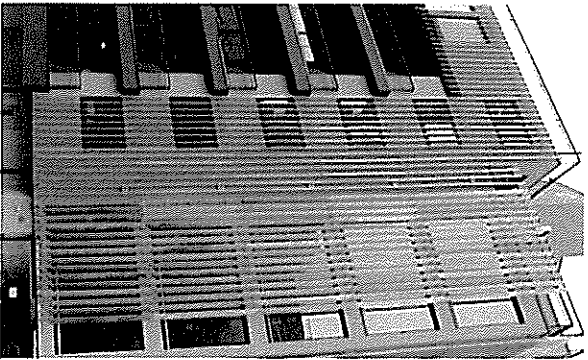




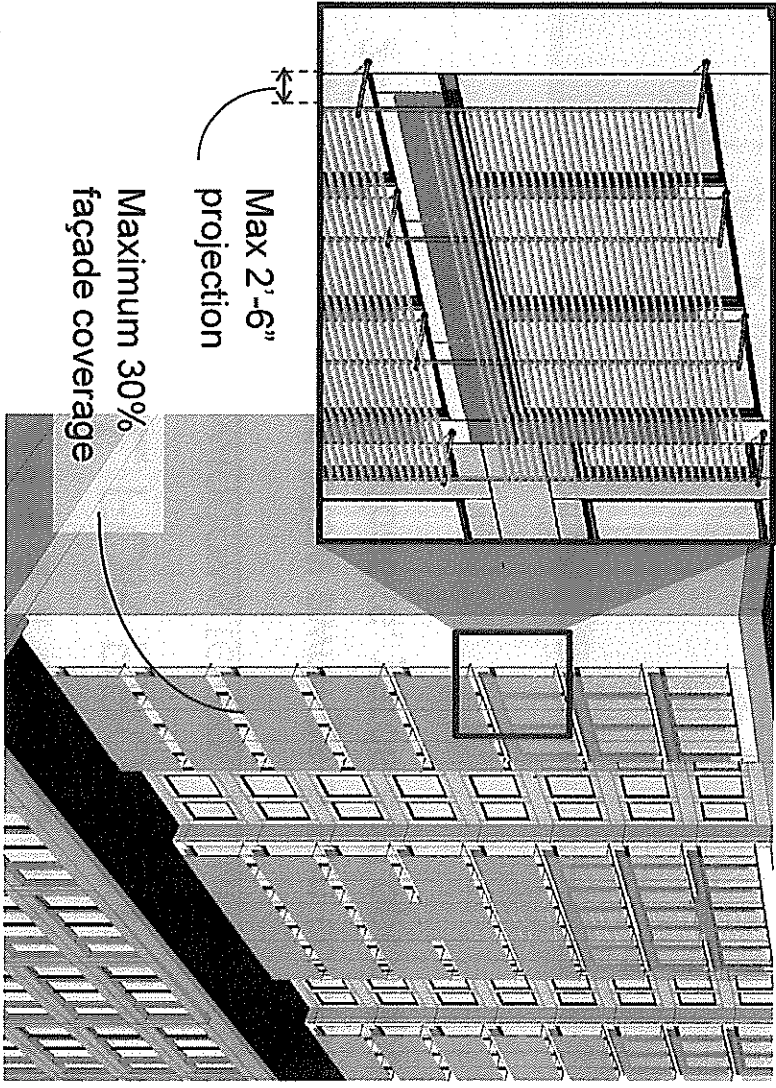
SUN CONTROL DEVICES AS SCREENS PROPOSAL FOR FAÇADE COVERAGE

■ Allow shading of windows to reduce summer cooling needs

Screens (only solid portions) used for sun control shall cover no more than 30% of the area of the façade from which they project



New York Times building ~ 30% coverage (only solid portions)



GREEN BUILDING COMPONENTS

- ▣ High performance building envelope
- ▣ Sun control devices *(to reduce summer cooling needs)*
- ▣ Rooftop features
- ▣ Other sustainable features



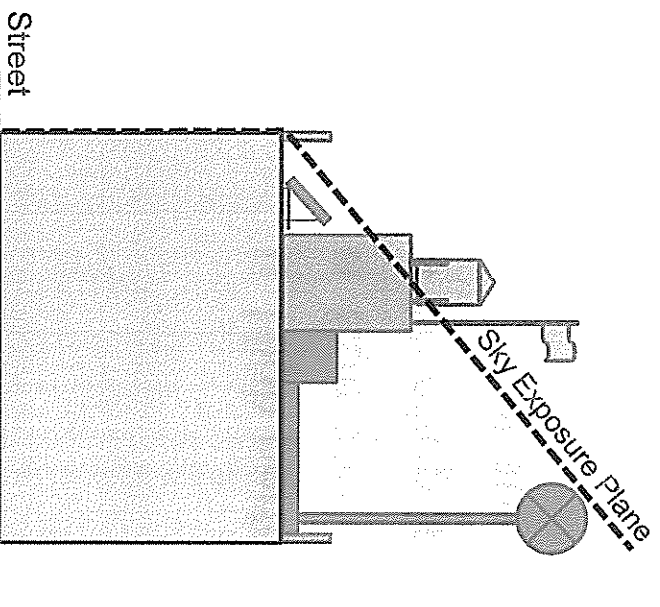
ROOFTOP FEATURES

ZONING ISSUES

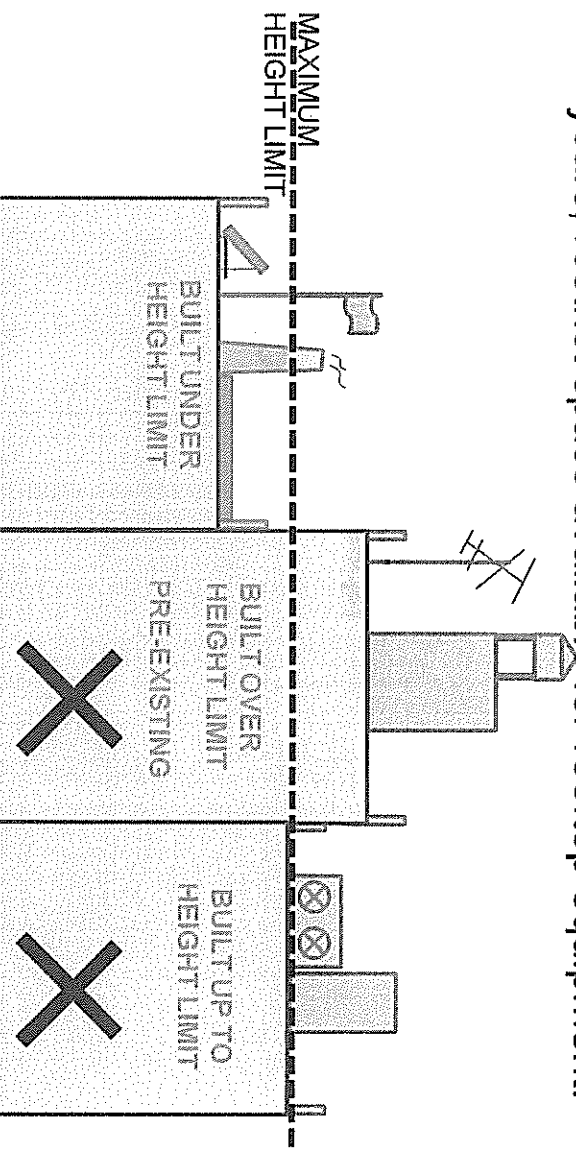
NON-CONTEXTUAL

CONTEXTUAL

Contextual height limits, mapped extensively in recent years, restrict space available for rooftop equipment.
















SIDE ELEVATION (not to scale)



STREET ELEVATION (not to scale)

Permitted Obstructions

Not Permitted Currently

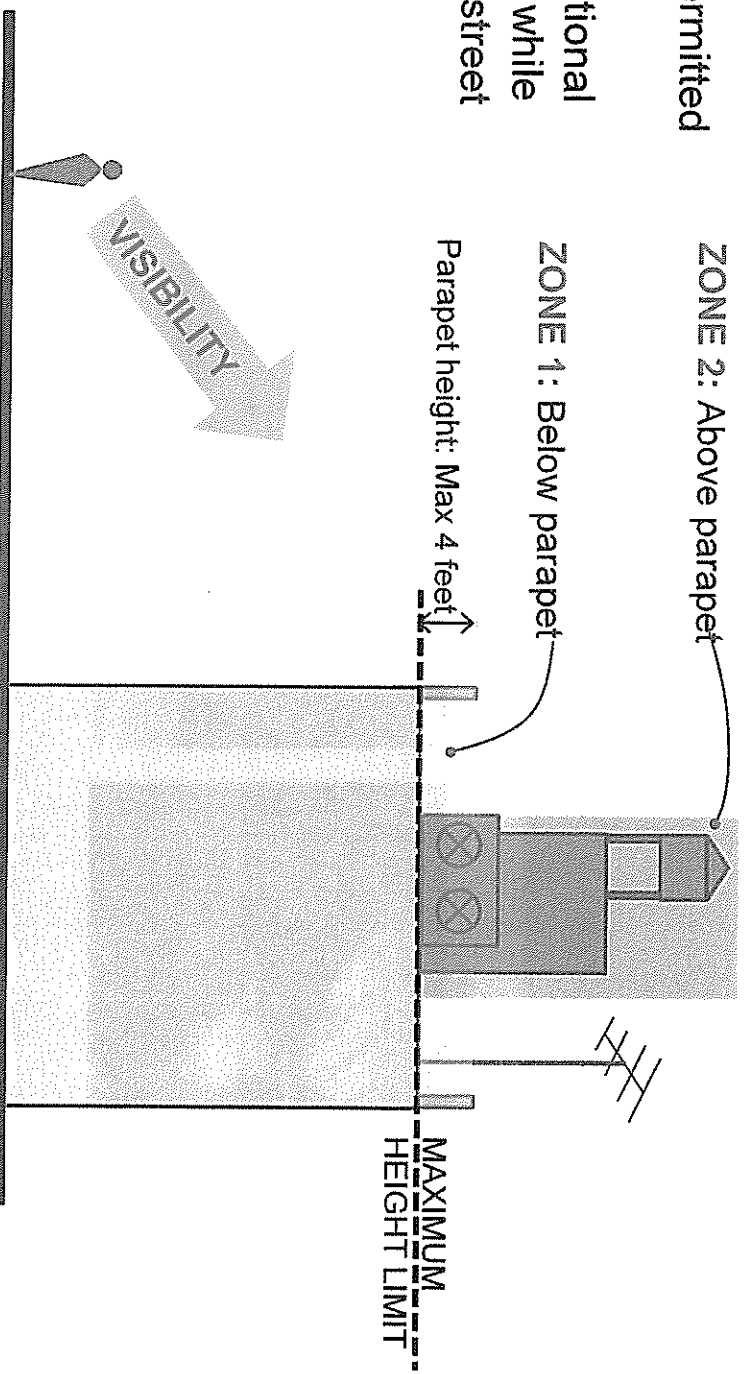
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|---|--------------|---|------------------|---|-------------------|---|---------------|---|-------------------|---|----------------------|---|------------|
|  | Parapet |  | Bulkhead |  | Water tank |  | Cooling tower |  | Chimney/
Flues |  | Aerials/
antennas |  | Flag poles |
|  | Solar panels |  | Vegetative roofs |  | Cogen/
Boilers |  | Wind turbines |  | Blue roofs |  | Skylights | | |

ROOFTOP FEATURES

OVERALL ZONING APPROACH



- Broaden the list of permitted obstructions
- Add flexibility for additional rooftop infrastructure while limiting visibility from street



Permitted Obstructions

- Parapet
- Bulkhead
- Water tank
- Cooling tower
- Chimney/Flues
- Aerials/antennas
- Flag poles
- Solar panels
- Vegetative roofs
- Cogen/Boilers
- Wind turbines
- Blue roofs
- Skylights

~~Not~~ Permitted Currently

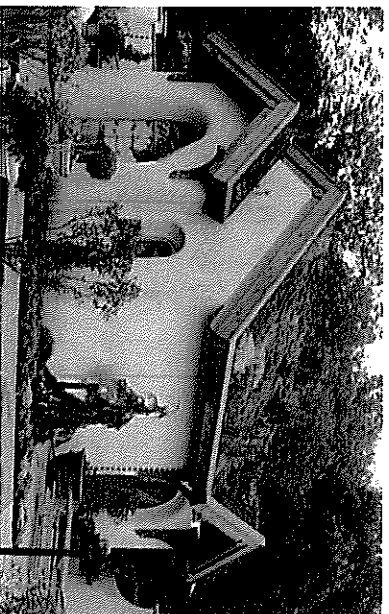
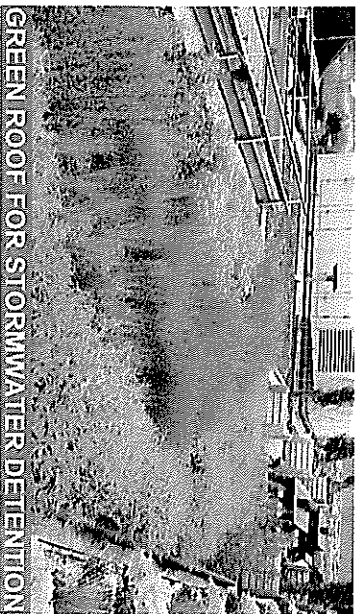
ROOFTOP FEATURES – UPTO 4’ PROPOSAL



■ Support storm water management, open space, and other beneficial rooftop uses

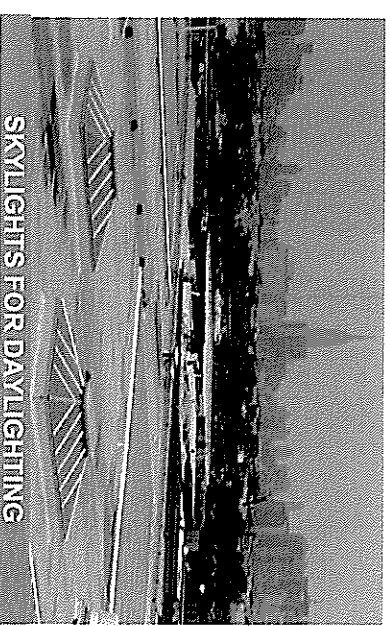
Above the roof of buildings:

- Allow specified rooftop features up to 3'-6"



Gwinnett Environmental & Heritage Center - Buford, GA.
Photo courtesy of American Hydrotech, Inc.

- On sloping roofs, allow vegetative roof up to 12"
- Allow skylights and clerestories up to 4 feet

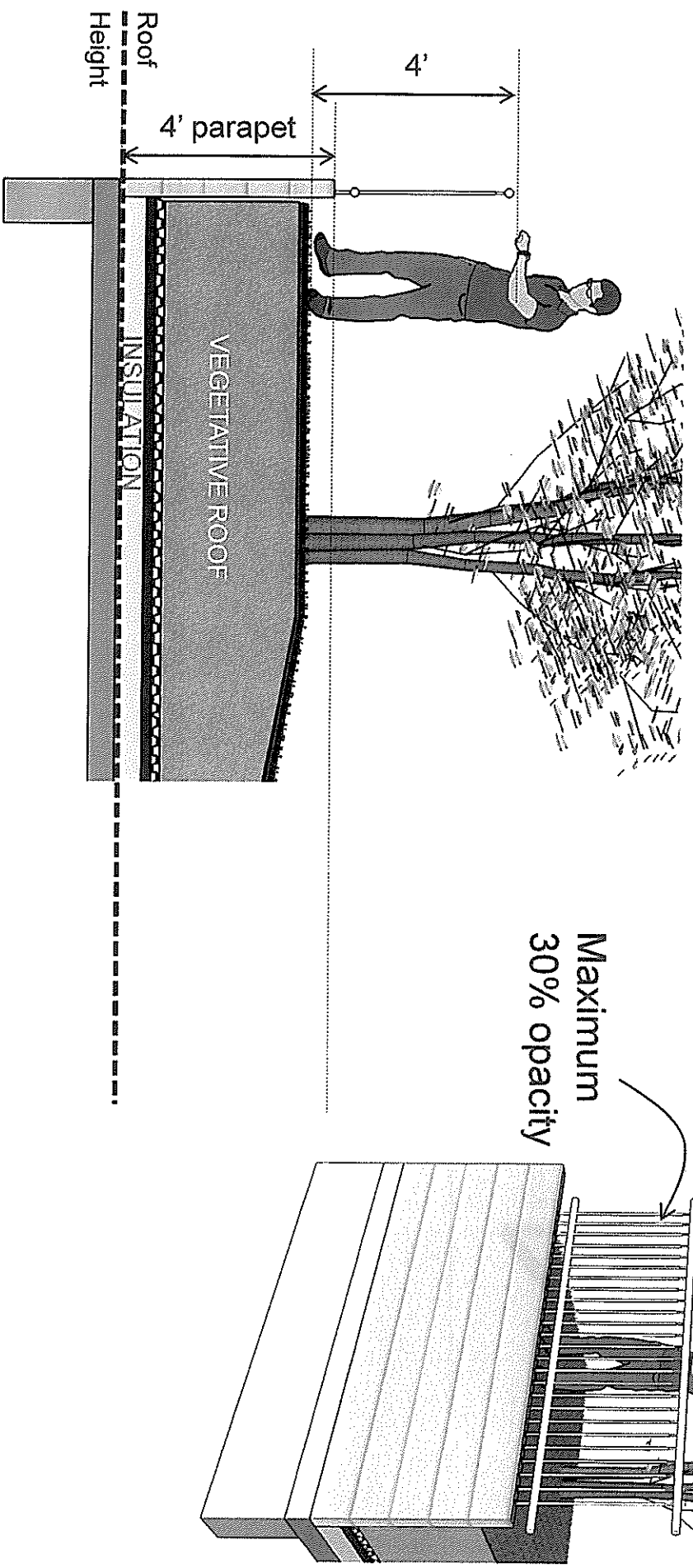


GUARDRAIL PROPOSAL



Accommodate safety features on accessible roofs while maintaining transparency

- Where required for safety, allow guardrail at a height of 4' above the accessible roof surface (CPC modification)
- Such guardrail shall not exceed 30% opacity



SOLAR (UPTO 4 FEET) PROPOSAL

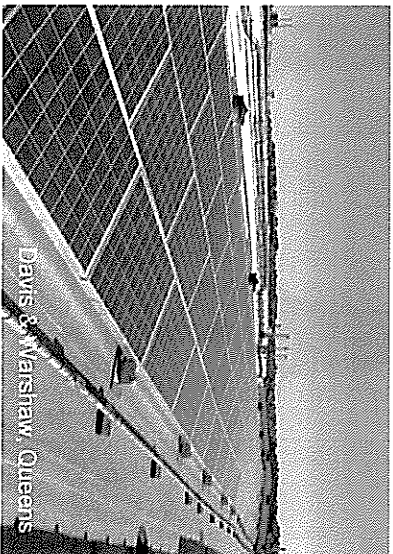


Promote solar electric and hot water systems

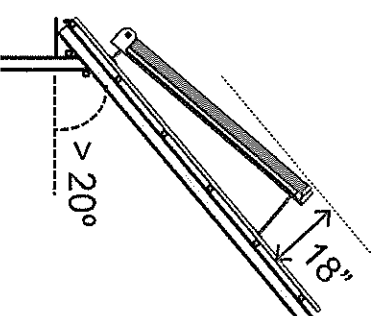
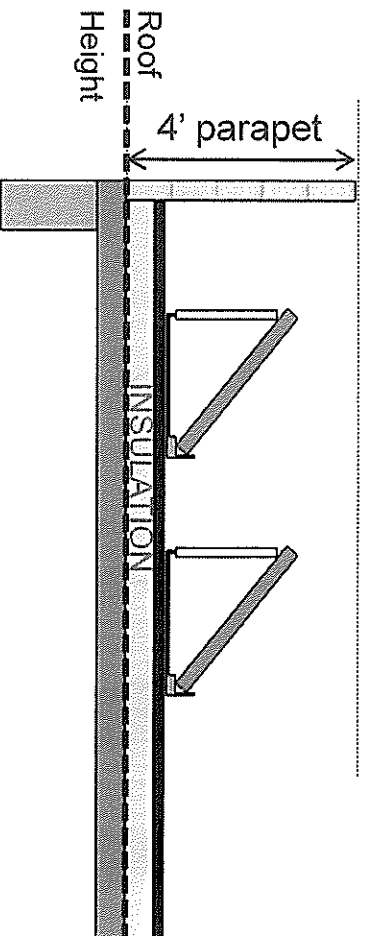
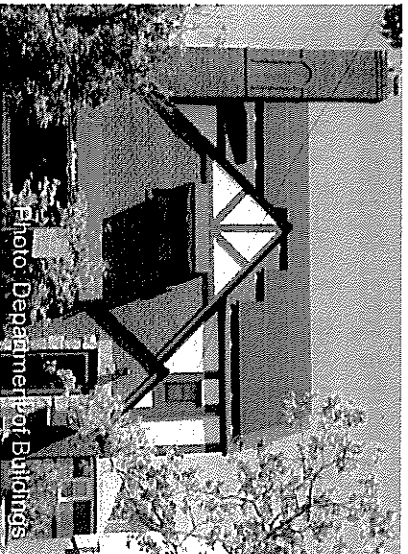
Above the roof of buildings

- On flat roofs, solar panels may be located up to 4 feet above the roof
- On slopes greater than 20 degrees, solar panel height shall be limited to 18"

Flat roofs



Sloping roofs



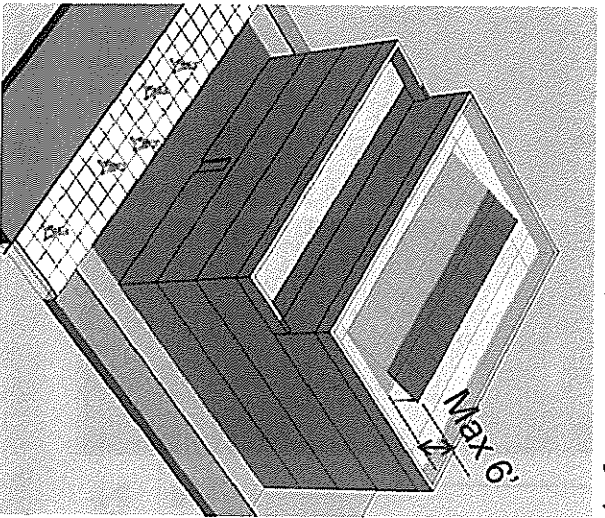
SOLAR (HIGHER THAN 4 FEET) PROPOSAL



■ Allow elevated solar panels for fire access or other purposes, while limiting visibility

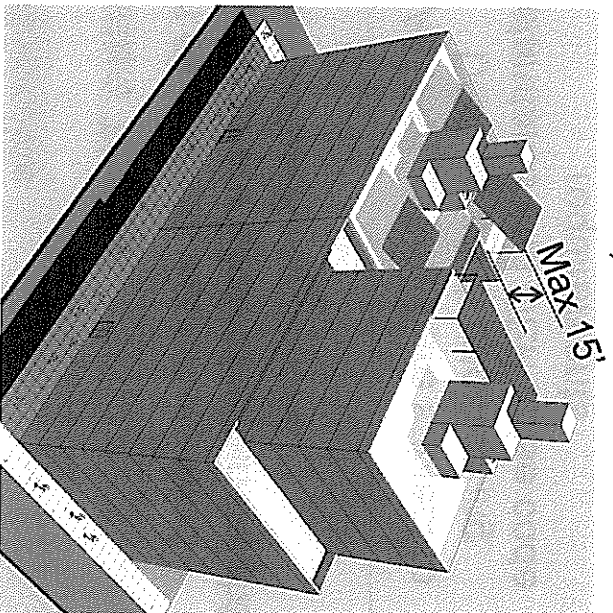
Solar more than 4 feet above height limit shall be set back 6 feet from roof edge and limited to 25 percent roof coverage

R1-R5 (including C overlays)



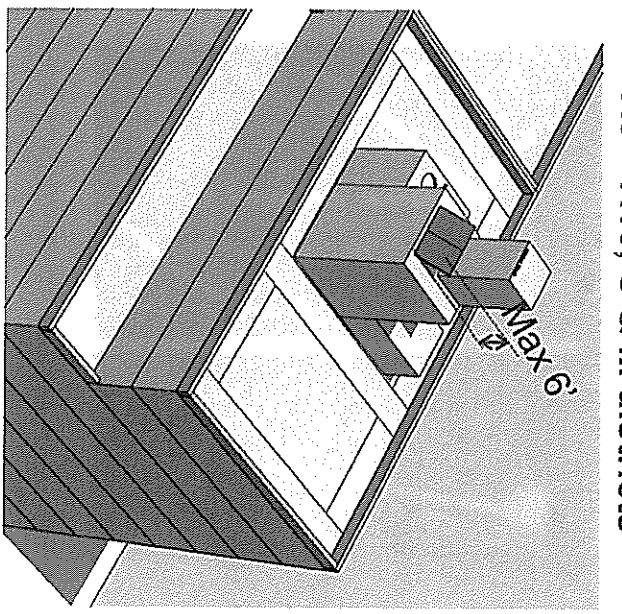
- 6 feet height above roof height

R6 – R10, C & M districts



- 15 feet height above the roof height

R5 – R10, C & M districts

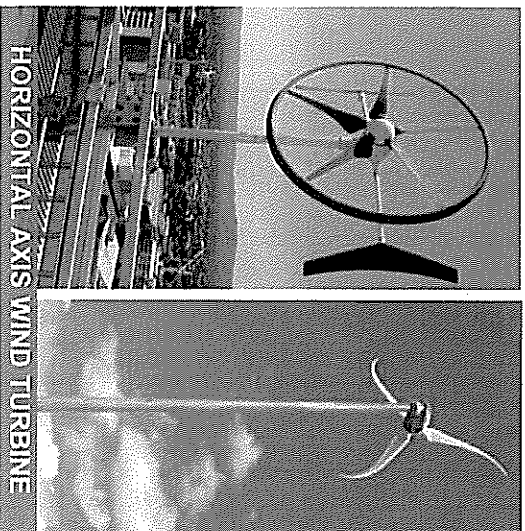


- 6 feet above bulkhead

SMALL WIND TURBINES



Small wind has limited potential in an urban environment, but can generate clean energy where wind conditions are favorable



ZONING TODAY

- In all districts, accessory wind turbines are allowed within height and setback regulations

All wind turbines are subject to DOB safety & engineering standards and DEP noise code requirements

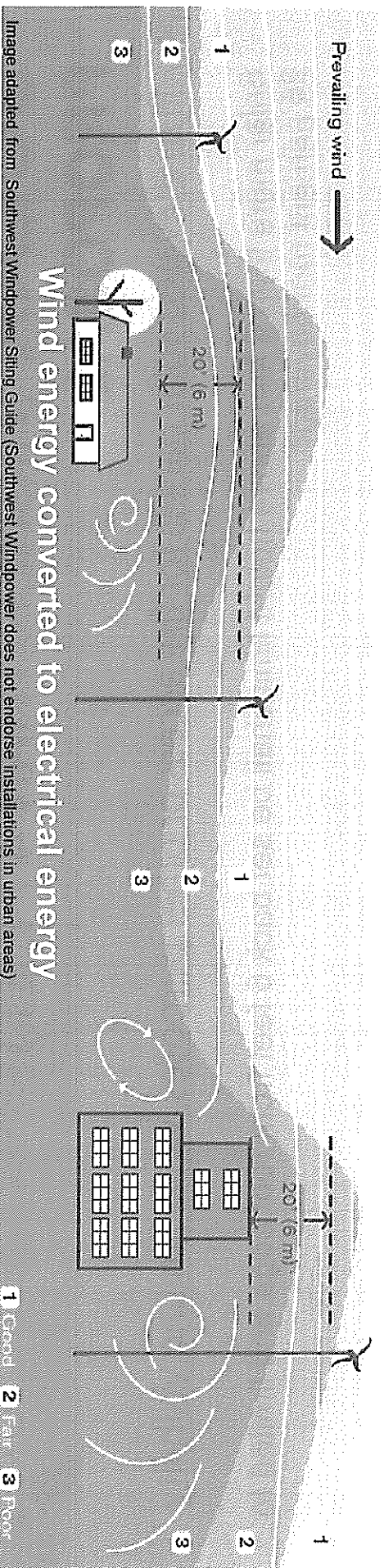
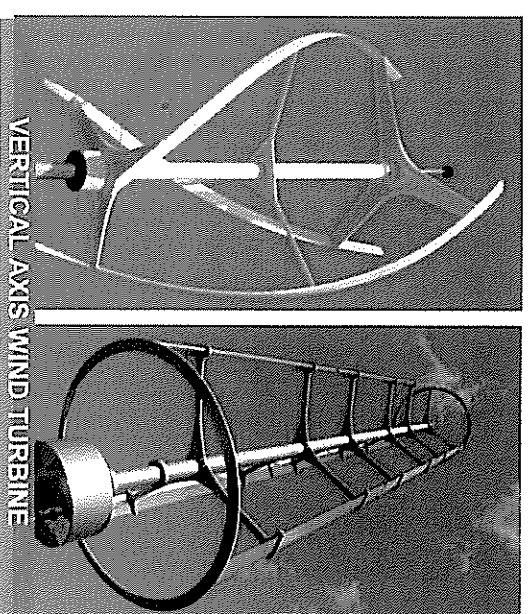


Image adapted from Southwest Windpower Siting Guide (Southwest Windpower does not endorse installations in urban areas)

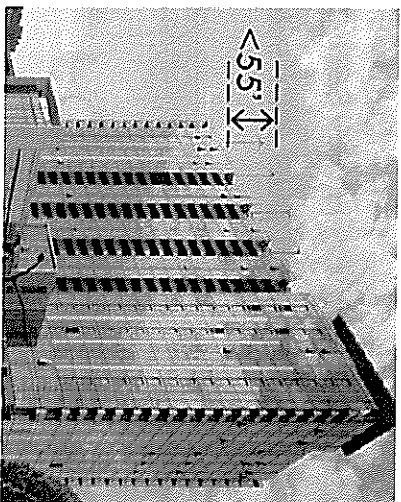
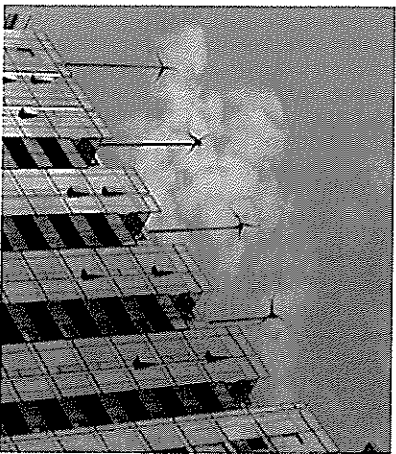
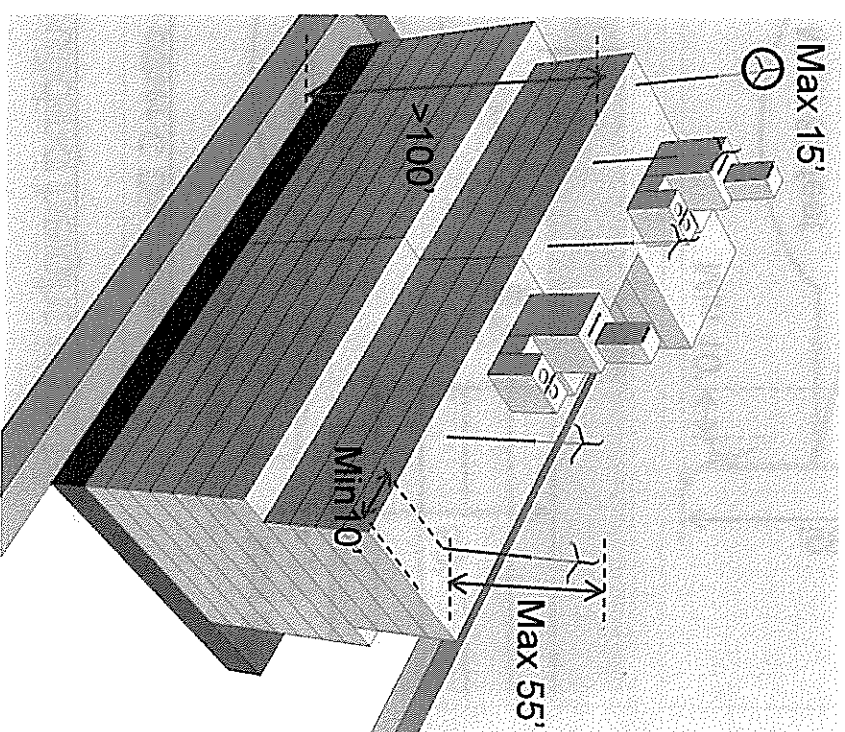
SMALL WIND TURBINES PROPOSAL



■ Allow additional flexibility for small wind on tall buildings

On buildings taller than 100 feet:

- Allow turbine up to a maximum height of **55 feet**
- No portion of the turbine within 10 feet of any lot line
- In districts in which residences are allowed and within 100 feet of such districts, the diameter of the swept area of a turbine shall not exceed 15 feet.



Portland, Oregon. Source: Zimmer Gunsul Frasca Architects

SMALL WIND TURBINES

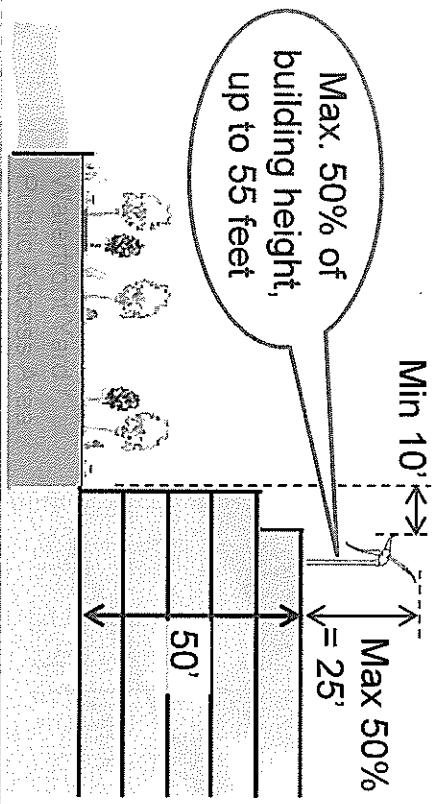
PROPOSAL FOR WATERFRONT BLOCKS



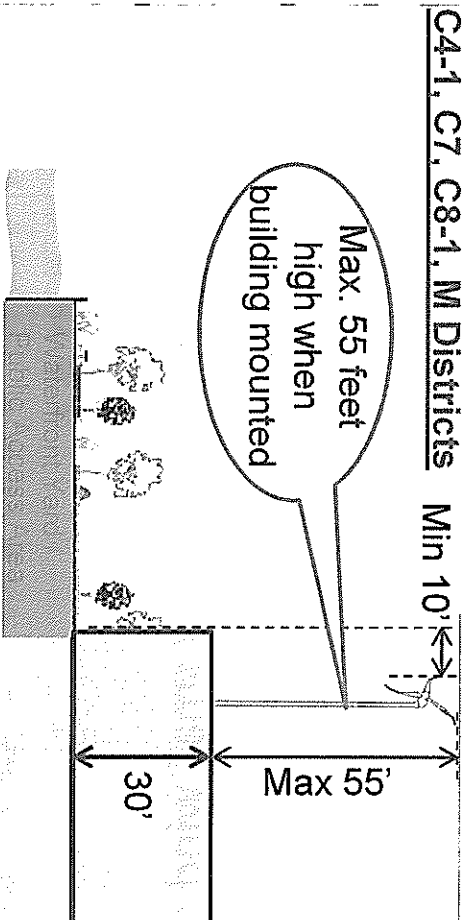
Allow additional flexibility on the waterfront where building height is restricted

- On top of low commercial and industrial buildings, allow turbines up to 55 feet and up to 85 feet, if free standing
- In C & R districts, allow turbines that are half the building height, up to 55 feet
- No portion of the turbine within 10 feet of any lot line or waterfront public access area boundary

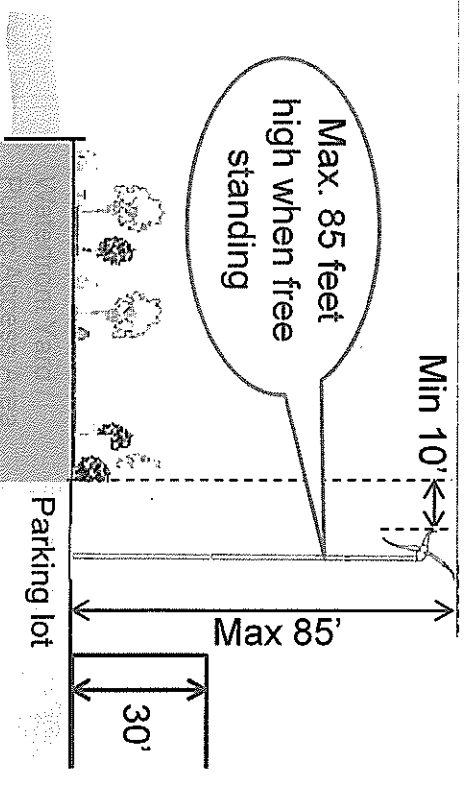
R6-R10 & other C Districts



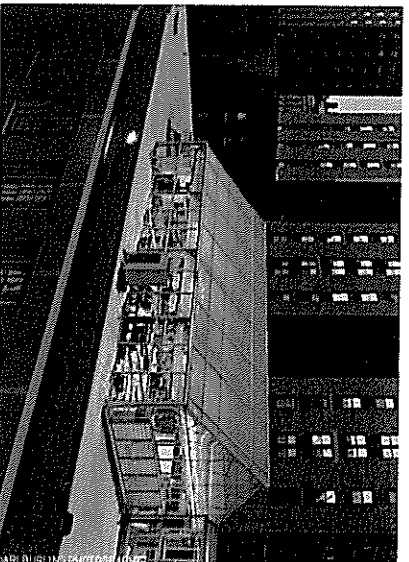
C4-1, C7, C8-1, M Districts



R6-R10 & other C Districts



ROOFTOP GREENHOUSES



PS 333. Photo by Art Burling. Courtesy: NY Sun Works

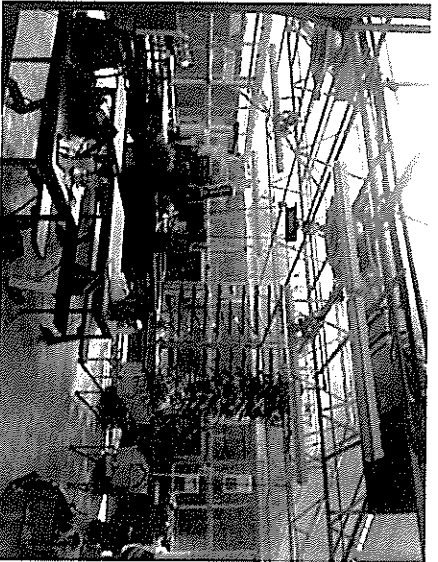


Photo by Delmy Perez
Courtesy: NY Sun Works



Benefits:

- Education (*when attached to schools*)
- Year round local food production in an urban environment
- Food travels less distance, reducing energy use and related carbon emissions

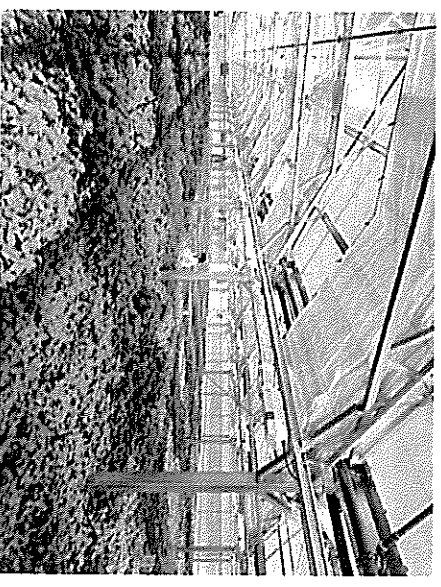
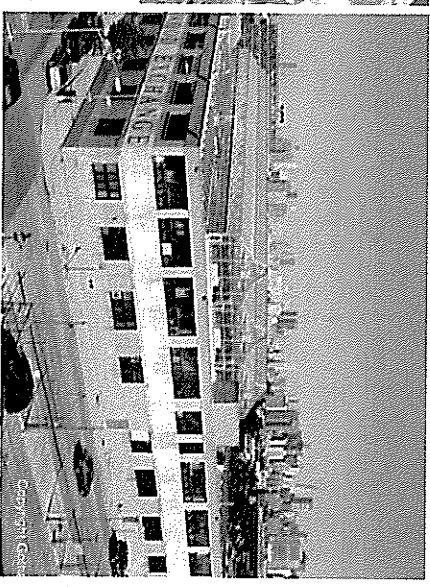


Photo Courtesy: Gotham Greens

Existing zoning permits greenhouses subject to floor area and height limits

ROOFTOP GREENHOUSES PROPOSAL



■ Encourage educational and food production-oriented rooftop greenhouses

By certification from CPC chair, allow rooftop greenhouses to be exempt from floor area and height limits if:

- On top of a building that does not contain residences or sleeping accommodations
- Greenhouse includes rain water harvesting
- Set back at least 6 feet from roof edges
- No more than 25 feet tall

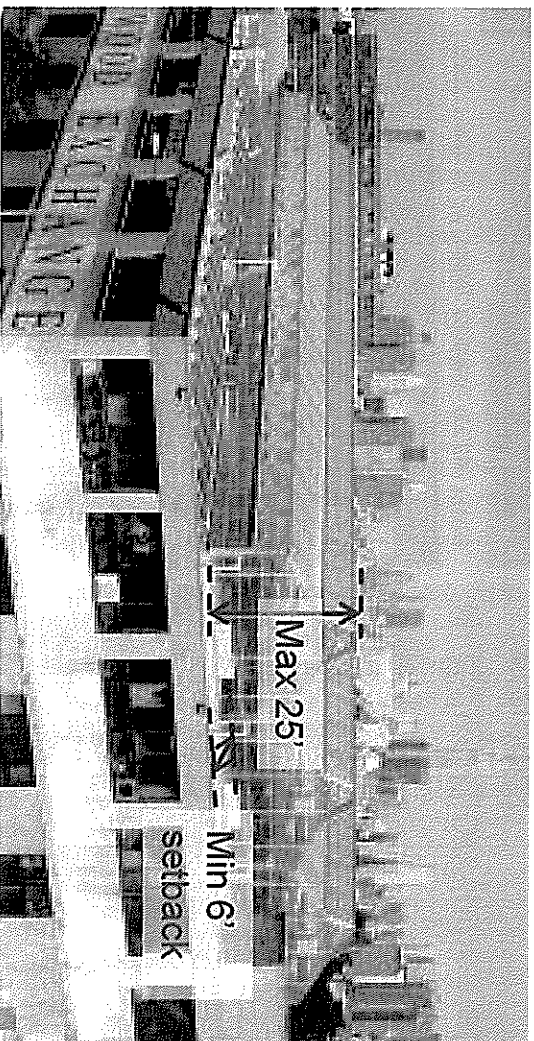
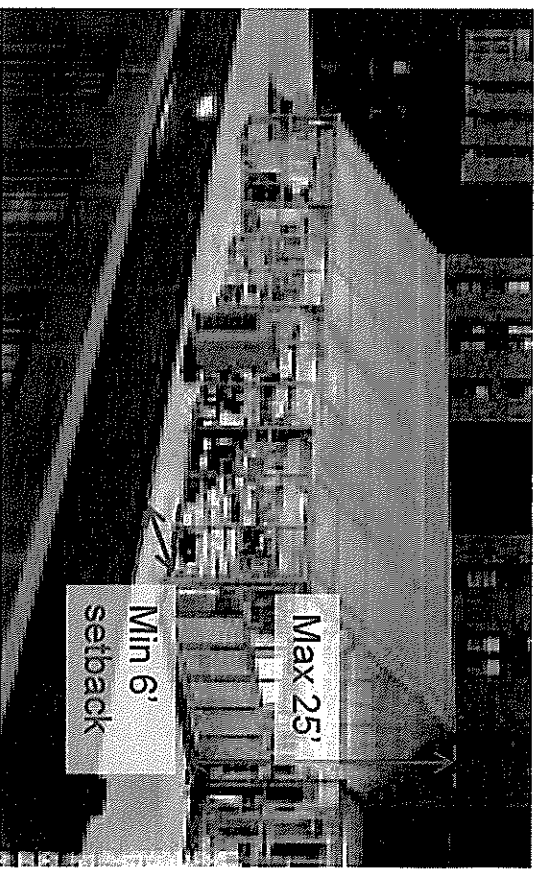


Photo Courtesy: Gotham Greens.



PS 333. Photo by Ari Burling. Courtesy: New York Sunworks.

BULKHEADS PROPOSAL



Allow flexibility for a variety of rooftop equipment, while limiting visibility from street

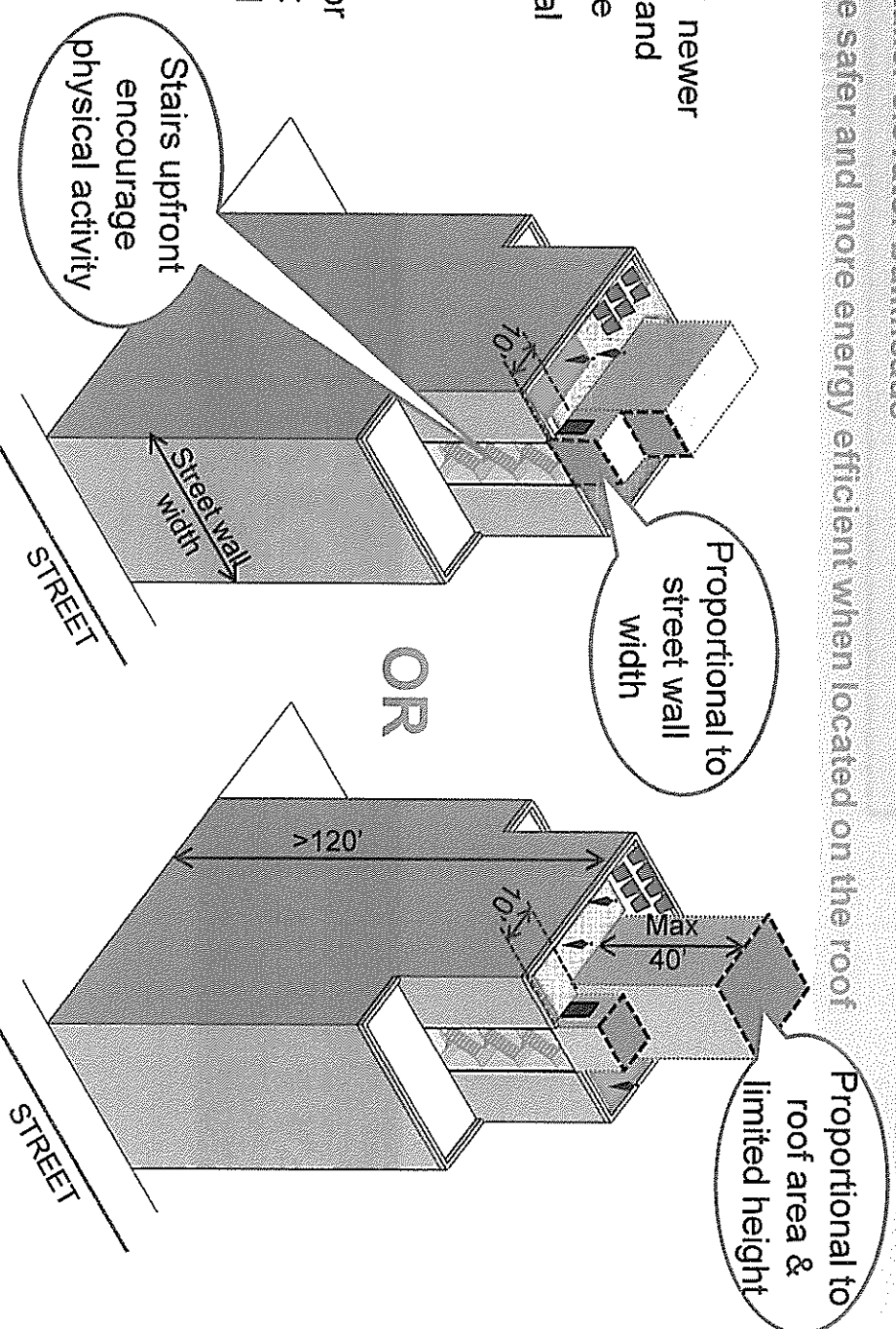
- Solar panels, roof decks, and other features require flexible options for location on roof
- Locating stairs near building entrance encourages physical activity
- Roof accessibility requires taller elevator bulkheads
- Boilers & cogen systems are safer and more energy efficient when located on the roof

Allow flexibility

- Apply bulkhead envelope of newer Special Districts to medium and high density districts citywide
- Allow a variety of mechanical equipment within bulkheads

Limit Visibility

- Equipment other than stair or elevator bulkheads must set back 10 feet from street wall
- Require screening of mechanical equipment



GREEN BUILDING COMPONENTS

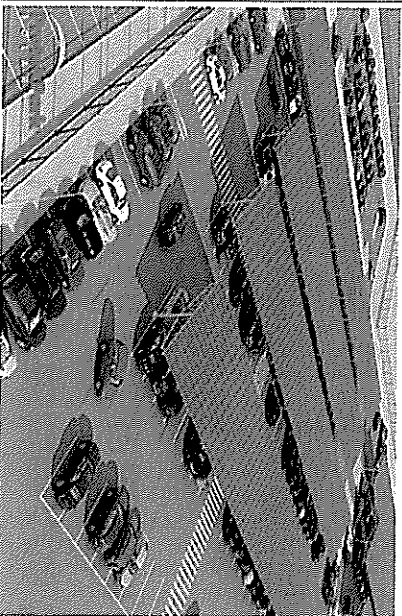
- ▣ High performance building envelope
- ▣ Sun control devices (*to reduce summer cooling needs*)
- ▣ Rooftop features
- ▣ Other sustainable features

OTHER SUSTAINABLE FEATURES PROPOSAL



■ Update and clarify zoning standards for green features

Solar Energy Generation



- Allow solar energy generation as accessory to any use or as a free standing use in Commercial Districts (subject to height and setback limits)

Electric Vehicles



- Clarify that electric vehicle (EV) charging is allowed in all parking facilities
- Allow EV charging or battery swapping in Commercial Districts (Use Group 7)

Sidewalk Planting Strips



- For schools in lower-density districts where sidewalk planting strips are required, allow permeable pavement as an alternative where required to accommodate foot traffic

CPC MODIFICATIONS



■ Greenhouses

- Require application to be delivered to affected Community Board
- Clarify that accessory space required to be accessory to greenhouse
- Greenhouse not to exceed 25 feet in height

■ Insulation (New Buildings)

- Update reference to Energy Code standards
- Require insulation exempted from floor area to be noted on C of O

■ Rooftop Features

- Increased permitted guardrail height to 4 feet (from 3'6")
- Clarify distinction between guardrails and fences (already permitted)
- Add skylights to list of permitted obstructions within a courts (above the level of the first story)

■ Sun Control Devices

- Clarify measurement of 2'6" limit, and that sun control devices that are not accessible do not count as floor area

How to get the most out of your energy audit

Zone Green

Summary

Energy audits are a key step in reducing energy consumption and saving money. They provide a detailed look at how energy is used in a building and identify areas where energy is being wasted. This document provides a summary of the key findings from a recent energy audit and offers recommendations for how to improve energy efficiency.

Key findings:

- The building has a high level of energy efficiency, with a low energy consumption rate.
- There are several areas where energy is being wasted, including the heating system, the cooling system, and the lighting system.
- Recommendations for improvement include upgrading the heating system, upgrading the cooling system, and upgrading the lighting system.

Next steps:

- Implement the recommendations for improvement as soon as possible.
- Monitor energy consumption regularly to ensure that the improvements are having the desired effect.

For more information, contact:

Energy Audit Team
 1234 Main Street
 New York, NY 10001
 Phone: (212) 555-1234
 Email: energyaudit@nyc.gov

Thank You

More information at:
nyc.gov/zonegreen

How to get the most out of your energy audit

Zone Green

Information

Save energy, save money!
 An energy audit can help you find ways to save energy and money in your home.

You can find out how to save energy and money by making your home more energy efficient. Using less energy helps reduce air pollution and protects your wallet.

What is an energy audit?

An energy audit is a professional check-up on your home's energy use. It identifies areas where energy is being wasted and provides recommendations for how to improve energy efficiency.

How do I get an energy audit?

There are several ways to get an energy audit. You can contact your local utility company, a government agency, or a private energy audit company.

For more information, contact:

Energy Audit Team
 1234 Main Street
 New York, NY 10001
 Phone: (212) 555-1234
 Email: energyaudit@nyc.gov

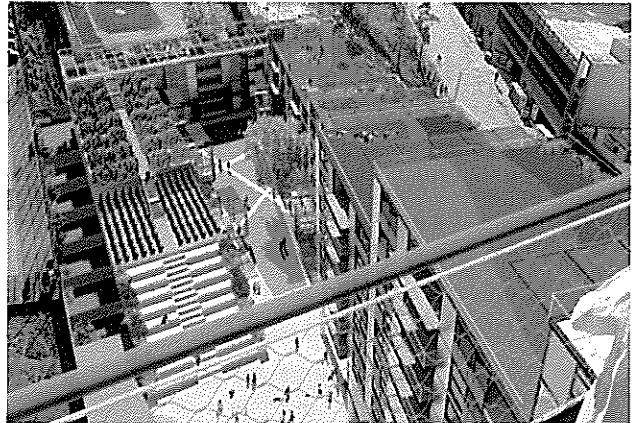
FOR MORE INFORMATION, VISIT US AT:
www.nyc.gov/zonegreen



text amendment

Buildings can be designed to **save money for owners and tenants, provide a healthier environment, reduce the burden on city infrastructure, and support our ecology.** But green building features are sometimes discouraged or even prohibited by existing zoning regulations.

This proposal seeks to modernize the Zoning Resolution to **remove impediments to the construction and retrofitting of greener buildings.** It will give owners more choices for the investments they can make to save energy, save money, and improve environmental performance. This proposal will help bring our buildings into the 21st century while protecting the character and quality of life of our neighborhoods.



Via Verde, the Bronx. Courtesy: Jonathan Rose Companies

FEATURES OF THE PROPOSAL

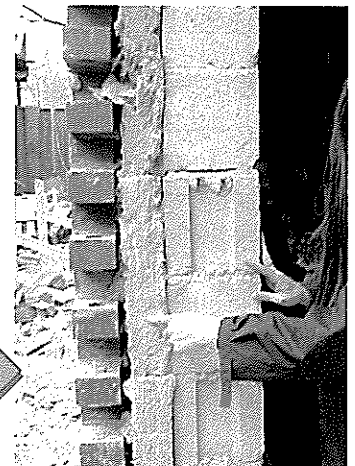
- **Energy-efficient building walls:** Well insulated exterior walls reduce heating and cooling demands, lowering home heating bills and summer air conditioning bills. But zoning today sometimes prohibits adding insulation to the exterior of existing buildings or penalizes thicker walls.



Courtesy: Escape Estates Homebuilders

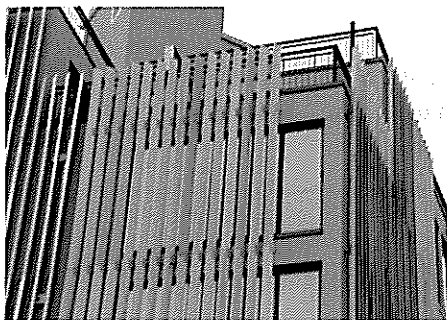
The proposal: Allow *existing buildings* to add external insulation within the property line while exempting it from floor area calculations and yard regulations. This typically adds about four inches of wall thickness, but up to eight inches would be allowed to encourage highly efficient retrofits.

For *new buildings* whose walls are substantially more efficient than required by code, up to eight inches of wall thickness could be exempted from floor area, encouraging high-performance buildings without changing the amount of usable space in the building.



Courtesy: Chris Benedict, R. A

- **Sun control devices:** These horizontal or vertical projections can help reduce air-conditioning needs and lighting bills by providing glare-free natural light, while adding interest to the building façade. Zoning today often does not allow sun control devices to project over required open areas.



Courtesy: NYC DCP

The proposal: Above the ground floor, allow *sun control devices and awnings* to project 2'-6" over required open areas, but not to cover more than 30 percent of the façade from which they project.



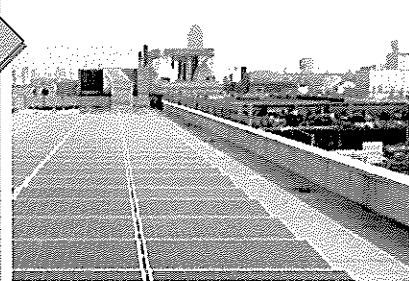
Courtesy: Kaplan Thompson Architects

- **Solar energy:** Solar power can provide pollution-free energy for electricity or hot water, reducing utility bills and carbon emissions. Today, zoning does not allow solar installations above the maximum permitted building height.



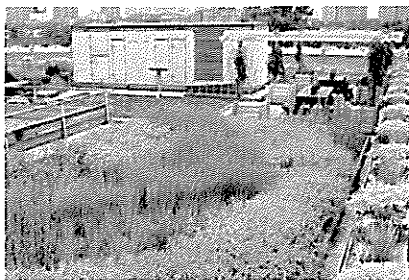
Courtesy: NYC DOB

The proposal: Allow *solar panels* on flat roofs anywhere below the parapet, regardless of building height. Taller solar installations would be subject to limits on roof coverage and height. On sloping roofs, panels would be allowed to be flat-mounted (less than 18" high).



Courtesy: Solar Energy Systems

- **Other rooftop equipment:** In a dense city where space is at a premium, rooftops can serve a wide range of purposes, including managing stormwater, providing recreation space, or generating renewable energy. In addition, systems such as boilers and cogeneration facilities can be safer and more efficient when located on roofs. Key building systems such as stair and elevator bulkheads must also be located on roofs. However, zoning districts with contextual height limits restrict the space available for these systems above the maximum building height.



Courtesy: NYC DEP

The proposal: Allow low-lying features such as *green roofs*, recreational *decks*, and *skylights* anywhere below the parapet, regardless of building height. A guardrail no more than 30% opaque would be allowed up to 3'6" above the top surface of the roof. Greater volume, similar to what is already allowed in many Special Districts, would be allowed above the maximum building height to accommodate modern *bulkheads*, with requirements for setback and screening of equipment.

- **Rooftop greenhouses:** Greenhouses on industrial, commercial and school buildings can enable year-round local food production and provide valuable educational opportunities within a dense urban environment. Unfortunately, limitations on floor area or building height have constrained opportunities for these facilities.

The proposal: By certification of the Chair of the City Planning Commission, allow a *greenhouse* to be exempt from floor area and height limits, provided that it is located on top of a building that does not contain residences or sleeping accommodations. These greenhouses must not exceed 25 feet in height, must set back six feet from the roof edge, and must include practical measures to limit water and energy consumption.

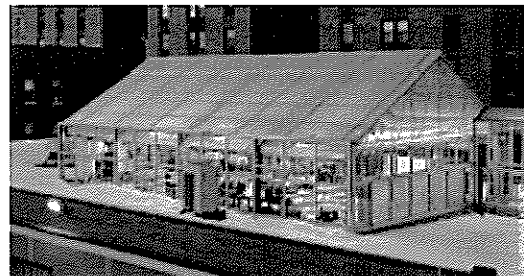
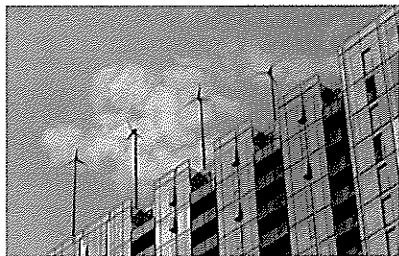


Photo by Ari Burling. Courtesy: NY Sun Works

- **Wind energy:** Wind energy generation in New York City makes the most sense where winds are consistent – on taller buildings and near the waterfront. Today, small wind turbines are allowed if they do not exceed a building height limit.



Courtesy: Zimmer Gunsul Frasca Architects

The proposal: On buildings taller than 100 feet, a *wind turbine* assembly may rise up to 55' above the rooftop (including the pole and rotor), provided it is set back at least 10 feet from any property line. In addition, free-standing or building-mounted turbines would be allowed in commercial developments near the waterfront. Installations must follow all requirements from the Department of Buildings.

MORE INFORMATION

For more information about the proposed zoning text amendment, including information about the public review process, which began on December 12, 2011, visit www.nyc.gov/zonegreen.



Save energy, save money!

An energy audit can show you how

You can lower your heating and electricity bills by making your home or business more energy efficient. Using less energy helps reduce air pollution and reduces greenhouse gas emissions.

What is an energy audit?

In an energy audit, a qualified professional takes a hard look at your building to find problem areas and inefficiencies that may be costing you money. The audit may include a customized analysis of which efficiency measures can save you the most money.

You can also do some things on your own.

For more information, visit the US Department of Energy at www.energysavers.gov/your_home/energy_audits/index.cfm.

How do I get an energy audit?

THE NEW YORK STATE ENERGY RESEARCH AND DEVELOPMENT AUTHORITY (NYSERDA)

ENERGY \$MART COORDINATORS for NYC

Manhattan & Staten Island: 212-785-0734 (Solar One)

Brooklyn and Queens: 718-637-8644 (Pratt Center)

The Bronx: 914-572-4236 (Courtney-Strong, Inc.)



NYSERDA Energy \$mart Community Coordinators can help you learn more about energy audits, find contractors, and identify funding to help you pay for it.

NYSERDA's ENERGY AUDIT ASSISTANCE PROGRAMS are also available online:

For Residential - www.nyserda.ny.gov/residential

For Commercial - www.bit.ly/uLBSrf

THE BUILDING PERFORMANCE INSTITUTE is another great place to find accredited contractors at www.bpi.org

For more ideas

- on saving energy, visit ConEdison's Green Team website at www.coned.com/energyefficiency/
- on making buildings green, including energy and water efficiency and indoor air quality, visit NYC Green House at www.nycgreenhouse.org
- on going solar, visit the NYC Solar America Partnership's Solar Map at www.nycsolarmap.com
- on living green every day, visit GreeNYC's website at www.nyc.gov/greenyc

*Source: New York Energy Research and Development Authority (NYSERDA). Actual savings may vary based upon efficiency measures selected and other factors related to your building. A participating contractor can help evaluate potential savings.



For the Record

212.477.6016
323 E 9 ST, NYC 10003
cbenedict@chrisbenedict.ra.com

CHRIS BENEDICT RA

ARCHITECTURE FOR A CHANGING WORLD



Good Morning. I am Chris Benedict, an Architect, Chair Emeritus of the Building Enclosure Council New York, and Professor of Architecture at Pratt Institute. I served on the Mayor's Task Force for Greening the Code and I am the original author of the two measures that concern improvements to insulation for new and existing buildings. In my own work I have run into obstacles that prevent me from installing as much insulation as possible so it is with great pleasure that I am here to talk about the benefits of the measures. They bring New York onto the same energy efficiency playing as Europe and Canada and I am excited to see how well we can play on that field!

In 2001 I designed and monitored the construction of building with code minimum, but continuous insulation installed on the exterior. I noticed that the interior temperature of the building never went below 50 degrees in the winter while it was under construction. This inspired me to imagine how great it would be to have buildings that need little or no heat at all in the winter! This is possible with the new insulation measures. Energy issues, affordability issues, comfort issues, security issues and disaster issues such as pipe freezes or deaths due to freezing could be eliminated!

Insulation works by slowing the flow of heat through the building enclosure, requiring less heat to be added or removed from a building via the heating or air conditioning systems. Heating in New York is mostly done with gas or oil, so this means less gas or oil needed and burned in the city. Air conditioning is mostly done with electric so this means less electrical load at peak times where we sometimes have brownouts and blackouts. The R value, resistance to heat moving through a wall, for a 12" masonry wall is 1.2. The value of just one inch of insulation ranges from 3 to 7. Insulation makes a huge difference in energy performance.

The measure for existing buildings allows up to 8" to be added to the outside of the building without a floor area penalty. This allows for continuous coverage of a building without gaps or what building scientists like to call "thermal nose bleeds". The "thermal nose bleeds" occur when trying to insulate buildings apartment by apartment from the inside. All kinds of things get in the way of the insulation including studs, partitions, pipes, wiring and existing interior finishes. And of course what sane landlord wants to insulate an occupied building apartment by apartment? It is for all practical purposes impossible to do! With this measure, dramatic improvements in energy performance can actually be accomplished! And contrary to what some believe, insulation on the exterior prevents condensation in walls by keeping the walls warm.

The measure for new buildings allows insulation thicker than code minimum to not be included in the floor area calculation. In my experience owners seeking energy efficiency are walking a tightrope trying to use every square inch they are allowed, while also trying to have a high performance enclosure. This measure has a built in reward for insulating – square footage, a win win!

The measures are great as written; the only improvements I would make would be to allow for even more insulation than 8" on existing buildings and to not count the entire amount of insulation in new buildings as floor area. Perhaps this could be considered in second phase. I am extremely passionate about insulation and I could go on all day about the merits, but I will stop here and I am happy to answer any questions. Thank you.



THE ADVOCATE FOR NEW YORK CITY'S HISTORIC NEIGHBORHOODS

232 East 11th Street New York NY 10003
tel (212) 614-9107 fax (212) 614-9127 email hdc@hdc.org

Statement of the Historic Districts Council
Regarding the Proposed Zone Green Text Amendment
Being Considered by the City Council Subcommittee on Zoning and Franchises
April 24, 2012

The Historic Districts Council is the citywide advocate for New York's historic neighborhoods. HDC's mission is to protect designated landmarks and historic districts as well as neighborhoods meriting preservation. As this proposal has the potential to affect all existing and new buildings within historic neighborhoods across the city, we have carefully reviewed it and are pleased to have the opportunity to comment on its provisions.

It is hard to argue with motherhood, apple pie or "green buildings". We all want to help reduce energy use. But it should be noted that NYC is already one of the most energy-efficient places on the planet. New Yorkers walk, bike or ride mass transit, and live densely, sharing walls and often floors and ceilings with our neighbors. Preservationists don't disagree with the intent of the legislation, but find it incomplete, with an odd bias against simple, time-tested, low-tech solutions. That is the opposite message from the recent evidence-based reports of the National Trust for Historic Preservation. There need to be performance standards attached to the text amendment, or these directives invite gaming by unscrupulous developers and misleading of unsophisticated owners. As written, they promulgate changes that may be visually extreme yet energy inefficient, so opportunities for collateral damage to the built environment are great. There needs to be both science and enforcement added.

Importance of Reusing Older Buildings

HDC's chief and over-arching concern about these proposals is about the potential loss of historic fabric in the many buildings and neighborhoods that should be preserved but are not protected by landmark designation or otherwise. HDC supports sustainability and believes that the greenest building is the one that is already built. Existing historic buildings often have lower-carbon-cost climate control systems – such as operable windows and masonry walls – which, when properly maintained, lower the environmental costs of the building. Moreover, re-using, upgrading and rehabbing existing buildings rather than demolishing them lessens the waste stream, has a lower energy cost than new construction and creates local economic activity.

Equally importantly, retaining and preserving historic buildings adds immeasurably to New York's quality of life and helps create the distinct sense of place which distinguishes the various precincts of the city and add to their livability and desirableness. The City Planning Commission acknowledges this goal by stating that "this proposal will help bring our buildings into the 21st century while protecting the character and

quality of life of our neighborhoods.” Despite the laudability of this goal, the details on how this proposal will actually affect the character of New York City’s neighborhoods is not well-defined or examined.

To look at “green” only from the perspective of zoning is not helpful to homeowners who want to do the right thing, but don’t know where to begin. It leaves them vulnerable to sales pitches for exterior-insulation-finish systems and photo-voltaic panels, when those products are unlikely to produce significant energy savings, yet are likely to have a great and negative visual impact on neighborhood character. The City of New York should instead be suggesting that they start with an energy audit, and begin with the lowest impact/ highest benefit projects (caulking, storm windows, attic insulation). There are also numerous traditional climate-mediating solutions which are both easier and more appropriate (i.e. awnings or planting trees and vines instead of sunscreens) that should be given precedence.

Threats to the Historic Character of Unprotected Buildings and Neighborhoods

HDC is concerned that in striving to streamline the process for environmentally upgrading all of New York City’s buildings, the door may be opened for their widespread defacement or worse. The Department of City Planning and the Buildings Department do not have guidelines for design or materials dealing with existing buildings and there are scant few for new construction. Encouraging generalized, one-size-fits-all retrofitting and environmental upgrading, unless done conscientiously and with careful oversight, could potentially have negative impacts on all new and existing buildings throughout the city.

Specifically, HDC is concerned that the provisions regarding retrofitting of existing buildings with external insulation creates the potential for massive alterations of building exteriors in a manner that could negatively alter the essential nature of such buildings in their neighborhood context. Applying exterior insulation is probably the MOST expensive and inefficient way to improve thermal performance. Imagine re-siding an ornate wood-clad Victorian home in a foam “fat suit” or examine how little positive energy impact coating the front and back facades of an attached rowhouse would be. This proposal does not seem to relate to the present built environment of the five boroughs and certainly pays no heed to the very real concerns which citizens have about the appearance of their neighborhoods. It also does not make sense from an engineering perspective; there is currently not an intrinsic connection between wall thickness and R-value, and the disconnect will become more pronounced in the future with new technologies.

Guidelines must be developed, especially with regard to new features including greenhouses, exterior insulation and its covering, window-covering awnings/sun control devices and expanded bulkheads. We are also concerned that certain aspects of the proposed changes could be misused in a manner not intended by the proponents of such changes, such as construction of rooftop additions nominally characterized as greenhouses, but in reality constituting party spaces or other uses. Additional specific concerns are that solar panels should be encouraged on rear facades, not street facades and freestanding air-conditioning units should not be permitted on the street facades of any buildings. Finally, we have serious concerns about noise and potential structural damage to existing buildings from wind turbines. To the extent that the wind turbine provisions are enacted, any such wind turbine constructions should require a certification of the Chair of the City Commission Planning and Community Board Review and conform to Department of Environmental Protection noise guidelines.

Public Review of Effects on Neighborhood Character

One strategy which could reinforce community input into projects which have an avowed community purpose would be to require that applications which under the provisions of the Zone Green Text Amendment require a certification of the Chair of the City Commission Planning (such as for rooftop

greenhouses) also be made to require Community Board Review. If the requirement of the Chair's review was expanded to encompass any substantial modification of a building's exterior above and beyond what is currently allowed, community board review would further ensure that enhancements to the building would not negatively impact the essential character of the building in its neighborhood context. In order to encourage participation in this program, permit fees could be waived if an energy audit were required.

Requirement for Quantifiable Energy Savings

In fact, the role of an energy audit is pivotal in ensuring that these provisions are used in the manner they are intended. Instead of the current language: "An energy audit should be conducted and submitted to the Department of Buildings prior to approval of any DOB/CPC authorization," the provision's language could say:

"Submittal for approval to DCP and DOB shall include an energy audit of the existing building TOTAL energy performance which shall include an energy analysis of the improvement expected from the proposed work and a demonstration that it cannot be obtained otherwise. This energy analysis shall constitute a commitment on the part of the applicant that the project will provide the promised energy savings.

Approval of the submittal by DCP and DOB shall include a commitment by the applicant that within 3 months of completion of the project an energy audit will be conducted and certified by a qualified professional and be submitted to the DCP and DOB. In the event the project fails to deliver the expected energy savings, an additional charge shall be levied on the property until the promised energy savings have been delivered. "

Applicability to Designated Landmarks

Finally, the Amendment should in some manner explicitly state that New York City landmarks and buildings in historic districts are subject to Landmark Preservation Commission review. CPC staff advised this is not explicitly stated in other sections of the Zoning Resolution and including here as it might call into question other zoning rules that do not expressly state this exemption. Here is language that might be considered about this:

"That the enacting legislation specify that nothing in this Text Amendment is intended to alter the criteria that Landmarks Preservation Commission applies in consideration of applications for alterations or construction on designated individual landmarks, buildings in historic districts, and buildings calendared for designation hearings, and that such applications continue to be considered according to criteria that would be applied irrespective of any "green" merits of such alterations or construction."

Julius Tajiddin
P.O. Box 1683
New York, NY 10009
Preserveharlemslegacy@yahoo.com

April 24, 2012

Subcommittee on Zoning and Franchises
Land Use Committee
New York City Council
250 Broadway
New York, NY

Re: Zoning, Impediments to green building features (N120132ZRY) - *Not in Favor*

Dear Members of the Subcommittee:

The Department of City Planning has made an application, No. N 120132 ZRY, Pursuant to Sections 197-c and 201 of the New York City Charter for the Zoning Resolution of the City of New York that would remove Zoning impediments allegedly to green building features that will help promote energy efficient building envelopes; renewable energy, Storm-water detention, reduction of carbon emissions and provide for a healthier New York City. To incorporate these alleged goals various Sections of the Zoning Resolution would have to be allegedly amended.

I understand that everything in the Green Text Amendment proposal sounds good, but re-zonings that have taken place in recent years, i.e., the **125th Street Special District**, have been hot buttons in various communities.

One of the main contentions about the 125th re-zoning was the height limitations proposed by DCP. The Harlem community at large did not want the height limitations along the 125th Street corridor's core sub-district that were finally set by city council.¹ And certainly the Community didn't want the city's original height offer. However, the former height limitations have been grudgingly accepted as a compromise. So it goes without saying that the Harlem Community at large doesn't want anything that will create more height in the core sub-district than such limitations or its adjacent areas for that matters, now.²

¹ The Community and CB 10 were willing to accept [no building] higher than the Theresa Hotel, minus the crown, which would be 130 feet.

² The Community and CB 10 [believe] that the height limits that were set should not be altered under any circumstances. See CB 10 Resolution, [dated] February 1, 2012.

The "valley" - as it has been affectionately referred to, is a place where people enjoy the open air and the sun.³ When city council approved the re-zoning, with modifications, the message we understood it to be was, "*We will give [you] this height. That's more than enough for you to do whatever you want to do.*" You equals landowners or developers.

City Planning can come up with different exceptions to allow the height limits to be waived forever. They all sound altruistic. However, what we in the community see happening is that every time we look around, the height limits are being raised higher and higher or something is changed from the zoning that was passed in 2008.

Take the Inclusionary Housing Text Amendment (IHTA) as an example. Although the height limits won't be changed by this amendment, the housing component got altered. As you should know [we] wanted the core sub-district to remain largely commercial or totally commercial. Thus, [we] can settle for the mechanisms that were put in place that encourage commercial development rather than residential.⁴

But DCP/CPC and city council recently allowed a zoning text amendment that encourages home ownership in the core sub-district.⁵ That's doing the opposite of what [everybody] promised.

Then there is the **Fresh Food Text Amendment that was passed shortly after IHTA**. A developer can achieve an extra 15 feet if a fresh food market goes on the property. Under a Reasonable Worse Case Development Scenario the height in the core sub-district can now go to **175 feet on the South Side** of the street and **210 feet on the North Side** of the street. In adjacent areas it is worse. Heights can now go as high as **135 feet**. And I say it is worse because such heights would severely, negatively impact the integral fabric of the historic Village of Harlem in such areas, those areas being more contextual than the core sub-district, something that was promised wouldn't happen with the 2008 rezoning.

With this latest text amendment, under a **Reasonable Worse Case Development Scenario such heights could be 225 feet, 260 feet and 185 feet, respectively.**

³ The Core Sub-district.

⁴ The FAR is not considered desirable for housing. And the zoning disallowed permanent home ownership. Therefore we in the Harlem community saw that as a compromise to no housing at all in the core sub-district.

⁵ The Inclusionary Housing Program Text Amendment.

Page 3

Zoning and Franchises Subcommittee

Re: Zoning, Impediments to green building features (N120132ZRY)

April 24, 2012

Let's respect the height limits that were put in place. They are more than enough. Community Board 10 came up with a resolution that is appropriate for its community. The height limits must be respected.

I refer Committee a reminder of Council Member Inez Dickens' rezoning plan that she promised would protect us. Height limits, contextual zoning, etc. Don't let it be just words.

While I cannot speak for other districts as well as I can speak for the 125th Street Special District, I believe that there are many districts that feel the same way. Therefore the Council is going to have to modify this text amendment proposal in order for it to be acceptable and work for us in Harlem or just deny it at this time on behalf of everybody's interest in light of the points raised in my objection until it is carefully thought out.

[We] do not want this text amendment to apply in Harlem, 125th Special District, Frederick Douglass Blvd. district, etc., in particular, because we see that there will be all sorts of problems with areas that were meant to have contextual zoning as a focus, open sky for better breathing and sunlight, etc. Which by the way is going green naturally. Under a reasonable worse case development scenario, developers will just be more concerned with getting out of it what's going to make more money for them and not what's important to the people living in the area, i.e., contextual zoning, open sky for better breathing and sunlight and height limits.

Yours truly,

Julius Tajiddin
Harlem Resident and
Respected Voice

Refr. [Council Member Inez E. Dickens' circular on the protections she sought for the community. Circa December 2007 - April 2008.]

Council Member Inez E. Dickens

125th Street Rezoning

Why Inez Fights For Harlem — Current zoning provides NO protections for Harlem

- No height restrictions to maintain the integral fabric of the historic Village of Harlem
- No affordable-housing bonuses or plans for income-targeted housing
- No protections for Harlem's legacy as the worldwide destination for black art and culture
- No protections for local businesses, many of whom are on month-to-month leases and can be put out at any time
- Consequence of NO ACTION — If the law is not changed now, it will be years before another rezoning happens resulting in overdevelopment that will destroy Harlem

What Inez Is Fighting For — Community Benefits for OUR Community

For many years there was no development. Now we need new protections. We must have a voice in the future development of our community.

- **Height Restrictions:** Nothing can be taller than the Hotel Theresa
- **Affordable Housing:** Providing income-targeted units with 100% community preference with subsidy on top of 421A on-site development
- **Community Businesses:** Direct financial aid to assist current businesses to remain on 125th Street or relocate to comparable space and areas. Our businesses must be given the tools to thrive through technical assistance providing marketing skills/tools and business plans.
- **Cultural Bonus:** Priority for local cultural groups in new spaces and community-based selection for these cultural groups. Further, free or low cost shared use of space for grass-roots arts organizations
- **Transportation:** Must protect 125th Street for pedestrians, shoppers, schoolchildren and tourists, with parking for tour buses
- **Marcus Garvey Park:** New capital projects for pathways, the Acropolis, Fire Watchtower, Amphitheater and Pelham Fritz Recreation Center to make this a first class recreational and community space in Harlem
- **Health Programs —** NOT studies — to manage adverse impacts of development, like asthma, dust and hearing loss

The Only Way The Current Zoning Law Can Change to Protect our Village of Harlem Is For

INEZ E. DICKENS To Be At The Table To FIGHT FOR US!



Council Member Inez E. Dickens

COMMUNITY BOARD #1 – MANHATTAN
RESOLUTION

DATE: FEBRUARY 28, 2012

COMMITTEE OF ORIGIN: PLANNING AND COMMUNITY INFRASTRUCTURE
LANDMARKS COMMITTEE

PLANNING VOTE:	7 In Favor	0 Opposed	0 Abstained	0 Recused
LANDMARKS VOTE:	7 In Favor	1 Opposed	0 Abstained	0 Recused
BOARD VOTE:	24 In Favor	6 Opposed	1 Abstained	0 Recused

RE: Zone Green Text Amendment - N 120132 ZRY

WHEREAS: The Green Codes Task Force which consisted of a group of leading practitioners convened by the Urban Green Council at the request of Mayor Bloomberg and Council Speaker Quinn, released a set of recommendations to amend City regulations to promote green buildings, and

WHEREAS: The Department of City Planning proposes a Citywide zoning text amendment to remove zoning impediments to implementation of green features in construction of new buildings and retrofitting all buildings in New York City, and

WHEREAS: This proposal is intended to give owners more choices for the investments they can make to save energy, save money, and improve environmental performance, and

WHEREAS: This proposal is one of a series of green initiatives the Department of City Planning has been undertaking to promote sustainable communities throughout New York City and will help bring our buildings into the 21st century, and

WHEREAS: This proposal would allow existing buildings to add external insulation within the property line, while exempting it from floor area calculations and yard and open space regulations and for new buildings up to eight inches of additional wall thickness could be exempted from floor area, encouraging high-performance buildings without changing the amount of usable space in the building, and

WHEREAS: This proposal would allow sun control devices and awnings to project 2'-6" over required open areas above the ground floor which can help reduce air-conditioning needs and lighting bills by providing glare-free natural light, and

WHEREAS: The proposal would allow solar panels on flat roofs anywhere below the parapet, regardless of building height because solar power can provide pollution-free energy for electricity or hot water, reducing utility bills and carbon emissions, and

WHEREAS: This proposal would allow green roofs, recreational decks, other storm water detention systems and skylights anywhere below the parapet, regardless of building height and will, by certification of the Chair of the City Planning Commission, allow s greenhouse to be exempt from floor area and height limits, provided that it is located on top of a building that does not contain residences or sleeping accommodations and does not exceed 25 feet in height and is set back six feet from the roof edge because greenhouses can enable year-round local food production and provide valuable educational opportunities within a dense urban environment, and

WHEREAS: This proposal would allow a rooftop wind turbine assembly to rise up to 55' above the rooftop on buildings taller than 100 feet and on waterfront blocks up to half the height of the building or 55 feet, whichever is less, provided all wind installations comply with requirements set forth by the Department of Buildings because wind energy generation in New York City makes the most sense where winds are consistent – on taller buildings and near the waterfront, and

WHEREAS: This proposal would allow greater flexibility for the location of air conditioning condenser units for more efficient systems for one- and two-family residences, and

WHEREAS: This proposal clarifies rules for electric vehicle charging or battery swapping facilities and solar energy generation, which are cleaner than traditional fueling or energy generation facilities, and

WHEREAS: This Proposal would allow permeable pavements as an alternative where required to accommodate the high levels of foot traffic generated by schools in Lower density districts, and

WHEREAS: Community Board One endorses Green Building and generally favors zoning changes to foster Green Building, but is concerned that certain aspects of the proposed changes could be misused in a manner not intended by the proponents of such changes, such as construction of rooftop additions nominally characterized as greenhouses, but in reality constituting party spaces, and

WHEREAS: Community Board One is concerned the provisions regarding retrofitting of existing buildings with external insulation creates the potential for massive alterations of building exteriors in a manner that could negatively alter the essential nature of such buildings in their neighborhood context, and

WHEREAS: Community Board One is concerned that wind turbines can present safety, livability and aesthetic issues to neighboring buildings because of noise, vibration, shadows and unsightliness, and

WHEREAS: Community Board One anticipates that the alteration and construction latitude granted by the proposed Text Amendment would bring with it increased need for enforcement vigilance, and

WHEREAS: CPC materials call for “protecting the character and quality of life of our neighborhoods” as a goal, there are no provisions that would ensure this in the proposed text amendment, now

THEREFORE

BE IT

RESOLVED

THAT: Manhattan Community Board 1 recommends adoption by the City Planning Commission of N 120132 ZRY Zone Green Text Amendment, subject to the following changes and caveats:

1. That the wind turbine provisions not be enacted;
2. That the enacting legislation specify that nothing in this Text Amendment is intended to alter the criteria that Landmarks Preservation Commission applies in consideration of applications for alterations or construction on designated individual landmarks, buildings in historic districts, and buildings calendared for designation hearings, and that such applications continue to be considered according to criteria that would be applied irrespective of any “green” merits of such alterations or construction;
3. That applications under the provisions of the Zone Green Text Amendment that require a certification of the Chair of the City Planning Commission (such as for rooftop greenhouses) also be made to require Community Board Review;
4. That any substantial modification of a building’s exterior require a certification of the Chair of the City Planning Commission and Community Board Review to assure that such modification not negatively impact the essential character of the building in its neighborhood context; and
5. To the extent that the wind turbine provisions are enacted, notwithstanding our contrary recommendations, that any such wind turbine construction require a certification of the Chair of the City Planning Commission and Community Board Review, and

BE IT

FURTHER

RESOLVED

THAT: Manhattan Community Board 1 recommends that the City Planning Commission consider the development and implementation of general design standards governing any substantial modification of an existing building’s exterior, and

BE IT
FURTHER
RESOLVED

THAT: Manhattan Community Board 1 recommends that adequate budgeting be provided to the Department of Buildings for the increased enforcement costs that can be expected from assuring that projects taking advantage of the Zone Green Text Amendment provisions comply with the limitations specified in those provisions.



OFFICE OF THE BROOKLYN BOROUGH PRESIDENT

MARTY MARKOWITZ
President

**TESTIMONY BY BROOKLYN BOROUGH PRESIDENT MARTY MARKOWITZ
TO THE CITY COUNCIL
REGARDING ZONE GREEN TEXT AMENDMENT
APRIL 24, 2012**

AS CHAIR OF THE BROOKLYN BOROUGH BOARD, I WANT TO THANK CHAIRPERSON WEPRIN AND MEMBERS OF THE CITY COUNCIL LAND USE SUBCOMMITTEE FOR ZONING AND FRANCHISES FOR ALLOWING ME TO TESTIFY TODAY ON THE ZONE GREEN TEXT AMENDMENT.

I WANT TO APPLAUD THE DEPARTMENT OF CITY PLANNING FOR DEVELOPING THIS TEXT AMENDMENT THAT WOULD REMOVE IMPEDIMENTS TO THE CONSTRUCTION AND RETROFITTING OF BUILDINGS IN ORDER TO ALLOW FOR GREENER BUILDINGS TO BE COMPLIANT WITH ZONING REGULATIONS. SUCH BUILDINGS OPERATE MORE ECONOMICALLY WHILE PROVIDING FOR A HEALTHIER ENVIRONMENT, REDUCING THE BURDEN ON CITY INFRASTRUCTURE AND SUPPORTING OUR ECOLOGY.

THE BOROUGH BOARD WAS ALSO PLEASED THAT THE PROPOSAL PROMOTES ENERGY-EFFICIENT BUILDING WALLS AND SUN CONTROL DEVICES FOR BOTH EXISTING AND NEW BUILDINGS BY EXEMPTING THE ADDED WALL THICKNESS FROM FLOOR AREA, OPEN SPACE AND YARD REGULATIONS. IN TERMS OF PERMITTED HEIGHT, THE PROPOSAL EASES EXISTING RESTRICTIONS TO PROMOTE INSTALLATION OF SOLAR ENERGY SYSTEMS, WIND ENERGY SYSTEMS, ROOFTOP GREENHOUSES AND OTHER TYPES OF ROOFTOP EQUIPMENT

THE BOROUGH BOARD DID HAVE A FEW CONCERNS FROM UNRESOLVED ISSUES THAT MIGHT IMPEDE QUALITY-OF-LIFE TO THE POTENTIAL FOR MISSED OPPORTUNITIES THAT CAN BENEFIT FROM GREEN INITIATIVES. TO SOME EXTENT THE CITY PLANNING COMMISSION MODIFIED THE PROPOSAL BY THE DEPARTMENT OF CITY PLANNING, WITH A FEW CHANGES RECOMMENDED BY THE BROOKLYN BOROUGH BOARD. SUCH CHANGES INCLUDED PERMITTING AWNINGS AND OTHER SUN CONTROL DEVICES WITHOUT REGARDS TO YARD COMPLIANCE, AND ALLOWING GREENHOUSES WITHOUT REGARD TO HEIGHT AND SETBACK COMPLIANCE -- BEING LESS RESTRICTIVE IN WHERE ROOFTOP GREENHOUSES CAN BE PLACED. IT WAS WONDERFUL THAT THE COMMISSION HEEDED THE RECOMMENDATIONS AS THIS MODIFICATION WILL BE FACILITATING WHAT WILL BE THE WORLD'S LARGEST GREENHOUSE ON TOP OF SUNSET PARK'S LIBERTY VIEW INDUSTRIAL PLAZA.

I BELIEVE THE COMMISSION DID NOT GO FAR ENOUGH SO I AM SEEKING CITY COUNCIL SUPPORT FOR ADDITIONAL MODIFICATIONS.

FIRST, THE COUNCIL SHOULD FURTHER MODIFY THE PROPOSAL BY INCORPORATING QUALITY-OF-LIFE RECOMMENDATIONS. THE COUNCIL MUST SEEK ADDITIONAL REGULATIONS FOR AIR CONDITIONING CONDENSING UNITS ASSOCIATED WITH LANDSCAPING, -- SUCH AS COVERING THE SIDE OF SUCH UNITS WITH PLANTINGS AND THAT LANDSCAPING BE HEAT-TOLERANT, IMPOSING MAXIMUM NOISE LEVEL STANDARDS AND PROPERTY LINE SETBACK OF AT LEAST EIGHTEEN INCHES TO MINIMIZE HEAT EXHAUST AND AIR INTAKE IMPACTS; AND WHEN CONSIDERING THICKER EXTERIOR WALLS, THE COUNCIL MUST PREVENT THE NARROWING TO LESS THAN EIGHT FEET OF DRIVEWAYS WHICH PRE-DATE THE 1961 ZONING REGULATIONS; AND, AS FOR BULKHEADS THE COUNCIL MUST RESTRICT TO A HEIGHT OF 25 FEET ALONG SUNSET PARK'S FOURTH AVENUE IN ORDER TO MINIMIZE IMPACTS OF THE HARBOR VIEWS.

ALTHOUGH THE PLANNING COMMISSION AGREED WITH THE BROOKLYN BOROUGH BOARD TO ACHIEVE MORE SHADING THROUGH MORE LIBERALLY INCORPORATING AWNINGS AND OTHER SUN CONTROL DEVICES IN NON-COMPLYING FRONT AND REAR YARDS, THE BOROUGH BOARD BELIEVES THE COMMISSION WENT TOO FAR, PLACING PEDESTRIANS AT RISK WHERE SUCH DEVICES WOULD REACH PUBLIC SIDEWALKS, PLACING PEOPLE AT RISK TO SNOW THAT MIGHT SLIDE OFF SUCH AWNINGS AND OTHER HORIZONTAL SHADING DEVICES. FURTHER, THE COMMISSION WENT TOO FAR IN TERMS OF THE EXTENT IT WOULD PERMIT ENCROACHMENT OF SUBSTANDARD REAR YARDS.

THOUGH, THE COMMISSION WAS NOT PREPARED TO ALLOW SUCH GREENHOUSES WHERE CARETAKER UNITS EXIST IN SUCH BUILDINGS. THE BROOKLYN BOROUGH BOARD SEEKS FOR THE COUNCIL TO MAKE AN EXCEPTION WHEN THE CARETAKER UNIT IS NOT DIRECTLY BELOW THE ROOF INTENDED FOR SUCH WAREHOUSE -- WE NEED TO MAXIMIZE OUR OPPORTUNITIES FOR THE SAKE OF FRESH FOOD AND JOBS!

BY INCORPORATING THESE ADDITIONAL CHANGES, I AM CONFIDENT THAT THE COUNCIL WILL FURTHER THE MAYOR'S COMMITMENT TO SUSTAINABILITY WHILE BALANCING QUALITY-OF-LIFE CONSIDERATIONS.

IN ADDITION TO WHAT THE COUNCIL CAN DO TO MODIFY THIS PROPOSAL, THE COUNCIL SHOULD BE AWARE THAT THE PROPOSAL MERELY ADDRESSES PLANTING STRIPS IN TERMS OF PERMITTING DRIVEWAY AND UTILITY CROSSINGS AND TO ACCOMMODATE MORE EXTENSIVE PAVED AREAS FOR SCHOOLS (PERMEABLE PAVERS/PAVEMENT AS A SUBSTITUTION) AND BUS STOPS.

THE BOROUGH BOARD SEEKS COUNCIL SUPPORT FOR THE DEPARTMENT OF CITY PLANNING TO INCORPORATE CURBSIDE PLANTING REQUIREMENTS ALONG FOURTH AVENUE (A-K-A BROOKLYN BOULEVARD) AND SECTIONS OF OCEAN AVENUE AND KINGS HIGHWAY AS OFTEN NOTED IN MY RECOMMENDATIONS. THE BOROUGH BOARD BELIEVES THAT THE CITY SHOULD ANALYZE AND IMPLEMENT MEANS TO PROVIDE STREETSCAPING/LANDSCAPING, IN CONSULTATION WITH AFFECTED COMMUNITY BOARDS AND THEIR ELECTED OFFICIALS, TO ACHIEVE PLANTING FOR ALL NEW DEVELOPMENT.

THE BOROUGH BOARD LOOKS FORWARD TO THE COUNCIL HAVING THE OPPORTUNITY TO WEIGH IN ON CITY PLANNING'S PROPOSAL AS WELL AS THOSE OF THE BOROUGH BOARD -- AND AS THE COUNCIL BRINGS OUR CITY ONE STEP CLOSER TO BEING AS GREEN AS IMAGINATION CAN ACHIEVE.

THANK YOU.



**Testimony of Russell Unger
Executive Director, Urban Green Council**

Before the New York City Council Subcommittee on Zoning and Franchises

April 24, 2012

Good morning Chairperson Weprin and members of the committees. My name is Russell Unger and I am the Executive Director of Urban Green Council, the U.S. Green Building Council of New York. I also served as Chair of the NYC Green Codes Task Force from 2008-2010.

Let me begin by thanking the City Council and Mayor's Office for their extraordinary leadership in greening the construction codes, as well as the Department of City Planning for their tremendous work on Zone Green. Since the release of the report of the Task Force in February 2010, 29 of the Task Force's 111 recommendations have been implemented. The changes you have already helped make will:

- Reduce citywide greenhouse gas emissions by 5%
- Save the equivalent of 30 Central Park Reservoirs of water each year
- Divert 100,000 of asphalt from landfills
- Treat 15 million gallons of caustic concrete washout water
- Save New Yorkers \$400 million per year

I'm here to testify in support of the amendments to the Zoning Resolution.

The Resolution predates modern green construction practices leading to numerous anomalies. For example, a building constructed to its maximum zoning

height is still allowed to add mechanical equipment like chillers to its roof but can't add solar panels. Awnings are allowed to extend over zoning setback lines but not more modern sun control devices. Zone Green updates these and similar areas of the zoning resolution.

The most exciting parts of Zone Green concern how the zoning resolution counts floor area. Because FAR is measured from the outside edge of a building, right now zoning discourages owners from building thicker, better-insulated walls. Thick walls eat up FAR. Zone Green changes this calculation – and encourages advanced buildings – by allowing owners to deduct wall FAR if their walls exceed energy performance standards in the Energy Code.

Zone Green also facilitates improvements to existing buildings by allowing insulation that is added to exterior walls to extend over setback lines (but not into neighbors properties). We estimate that a detached 3-story residential building would save 7% on their heating costs or \$250 every year by adding just 2 inches of insulation.

Zone Green is the most sophisticated green revision to zoning regulations that has been proposed in the country. It's approach and provisions encouraging better-insulated walls are sure to be imitated by other cities.

Thank you for your consideration and the Council's leadership on environmental issues. I am available to answer any questions you may have.



April 24, 2012

**City Council Zoning Subcommittee Hearing - Zone Green
Statement of Samantha Wilt, Energy Policy Analyst**

Good morning. My name is Samantha Wilt, and I am an Energy Policy Analyst at the Natural Resources Defense Council (NRDC), a national nonprofit environmental organization based in New York City. Thank you for the opportunity to speak today in support of the Department of City Planning's Zone Green Proposal. We commend the Department for putting forward this proposal and the Council for reviewing it. The Proposal not only represents an important step forward in achieving the City's greenhouse gas reduction and energy goals, but will also result in lower energy costs for consumers, the creation of much-needed jobs, fewer emissions of harmful pollutants, and increased reliability of our electric grid.

Buildings represent an important and necessary opportunity for reducing the City's carbon footprint, as nearly 80% of the City's greenhouse gas emissions come from buildings. It is also critical that we address existing buildings, as 85% of the buildings that will exist in 2030 are currently standing. The Department's Zone Green Proposal builds upon the groundbreaking efforts the City has already been taking in this area, including its Greener, Greater Buildings Legislation, as well as its initiatives to address barriers to greater efficiency, including its work to promote energy-aligned leases and to facilitate financing of energy efficiency retrofits through the New York City Energy Efficiency Corporation. Energy efficiency is an important resource and is the cheapest, easiest and fastest way to meet New York City's energy needs while reducing harmful pollution and saving money.

This proposal, which builds on a number of the recommendations of the City's Green Codes Task Force, of which we are a member, will remove zoning impediments to making New York City buildings greener, providing building

owners with the flexibility to implement sensible measures that save energy and money. In fact, the City estimates the potential for up to \$800 million per year in energy savings through this proposal, which is quite significant. The proposal will also make it easier for people to install clean, renewable energy technologies, such as solar and rooftop wind, so we're not only empowered to use less energy, but also to generate what we do use in the cleanest way possible. It will provide numerous other benefits, as well, including helping to encourage local food production and facilitate rooftop stormwater retention. As with the City's other efforts to promote green buildings, this proposal will not only help New Yorkers save money, but it will also help to create jobs – jobs that cannot be outsourced elsewhere.

We strongly support Zone Green and commend the City for continuing to be a leader on the issue of green buildings. We urge the Council to adopt the Zone Green text amendment and remove the zoning barriers that currently exist. Doing so will not only help us move towards a more sustainable city, it will also help New Yorkers save money and enjoy a healthier environment.

Thank you.



**Testimony of Samantha Schoenberger
Program Associate, Enterprise Green Communities
Enterprise Community Partners, Inc.**

**New York City Council Subcommittee on Zoning and Franchises Public Hearing
Zone Green Text Amendments
April 24, 2012**

Thank you for the opportunity to give this statement in support of the proposed Zone Green Text Amendment. This proposal would remove zoning impediments to the construction and retrofitting of green buildings, thus creating health, environmental, and economic benefits for New York City households.

I am speaking today on behalf of Enterprise Community Partners. We have been a national innovator in creating affordable homes and revitalizing communities for nearly 30 years, and we have invested nearly \$2.2 billion in New York. We are also committed to improving the environmental performance of the homes we touch. We created the Enterprise Green Communities Criteria, the first comprehensive 'green' framework for specifically for affordable housing, and it is now used by more than 20 cities and states, as well as federal agencies.

Enterprise Supports the Zone Green Text Amendment

We believe that building and rehabilitating affordable housing using green, energy-saving techniques is one of the best ways to stimulate the economy – it creates jobs and lowers the housing burden on those least able to shoulder rising utility costs. It also reduces maintenance costs, which helps community organizations preserve affordable housing for the long-term.

The proposed Zone Green Text Amendment would further these goals. It would remove barriers to green construction and retrofits in New York City, and allow all property owners to make investments that will save money and improve energy efficiency. A number of the proposed changes would be particularly beneficial to the affordable housing sector, such as proposals that would:

- Allow existing buildings to improve insulation and thicken walls without adding to floor area calculations;
- Allow properties to reduce heating costs with sun control devices and solar panels;
- Permit green rooftop features and equipment as allowed obstructions on contextually zoned buildings; and,
- Provide a building height allowances to accommodate modern bulkheads on rooftops.



At the City Planning Commission hearing in February, we requested one minor clarification to the language of the text amendment. We asked that the language clearly define permitted “solar energy systems” to specifically include solar thermal, in addition to photovoltaic systems. We are happy to say that the Commission responded to our concern and confirmed that zoning text, as it is currently written, allows for solar thermal uses. We appreciate their attention to this detail, which will give property owners a low-tech and durable means of lowering water heating costs.

In summary, we believe that the proposed changes would allow us and our community partners to more easily invest in energy efficient, healthy, and affordable housing. Reductions in energy and water consumption and stormwater runoff can also lessen the strain on local utility infrastructure, providing benefits to the larger community as well.

Most importantly, these green practices are not only environmentally sustainable and cost-saving to property owners – they will also help improve the quality of life for people with low and moderate incomes. Healthy, green buildings can lower utility costs, decrease exposure to harmful pollutants, and improve the health of tenants.

We applaud you for considering these improvements to the green building policy framework in New York City. We look forward to continuing to work with you to create and preserve green and healthy homes that can become the foundation for healthy families and residents, and rewarding jobs.



Tuesday April 24, 2012

Council Member Mark Weprin
Subcommittee on Zoning and Franchises
The City Council of New York
New York, New York 10007

Dear Chairman Weprin,

Good morning. I am Bob Fox, partner at Cook+Fox Architects, an architecture firm dedicated to sustainable development, and a partner at Terrapin Bright Green, an environmental consulting firm that advises clients on green building strategies here in New York City and around the world. I am here today to voice my support for the amendments to the Zoning Resolution of New York City in LU 0601-2012.

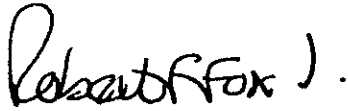
These measures will improve the sustainability of the City's building stock by removing unnecessary obstacles to green building best practices. What is counted as usable floor area can have major impacts on a project's finances. While none of these amendments should significantly affect the massing of buildings, they will make many energy efficient upgrades affordable by recognizing that they should not be treated as affecting rentable floor area.

- LU 601 recognizes that counting exterior wall insulation in floor area requirements is often detrimental to the economics of high performance buildings. This would remove the disincentive to building well-insulated exterior walls in new projects. For existing buildings, it will be important to educate the design community about how to properly implement these exterior insulation retrofits while preserving the city's aesthetic.
- LU 601 will also encourage the use of sun control devices for passive energy savings and a comfortable indoor environment. Because sun control devices are small and located well above ground, they will not interfere with open space requirements.
- LU 601 will allow one and two family homes to take greater advantage of the efficiency benefits of centralized air conditioning. This will reduce the need for inefficient, unattractive window-mounted units.
- LU 601 recognizes that outdoor spaces are incredibly valuable in the city, and will allow building owners to use roof space effectively without sacrificing building height. This will affect both owners of existing buildings that are overbuilt, and owners of new buildings built to the maximum permitted height.
 - The amendments allow these building owners to use roof-mounted solar power, removing a market barrier for solar energy without any significant tradeoffs.
 - The amendments will also encourage green roofs. This is especially important as the City's Department of Environmental Protection is encouraging the development of green stormwater infrastructure throughout the city.

- The amendments encourage the production of local food by exempting small greenhouses from floor area requirements and height limits.
- The amendments will also allow further exploration of building-integrated wind power where it is most promising: on tall, waterfront properties.

In summary, LU 601 will remove several unnecessary disincentives to designing high performance buildings in the city. It will allow important investments in sustainability to be assessed on their own merit, without negatively impacting the economics of the greater building project. I thank you for your efforts in passing these amendments.

Sincerely,

A handwritten signature in black ink that reads "Robert R. Fox, Jr." with a period at the end. The signature is written in a cursive, slightly slanted style.

Bob Fox, Jr., AIA LEED AP

**THE COUNCIL
THE CITY OF NEW YORK**

Appearance Card

I intend to appear and speak on Int. No. LU 601 Res. No. _____

in favor in opposition

Date: 4/24/12

(PLEASE PRINT)

Name: HOWARD SLATKIN

Address: _____

I represent: DEPT OF CITY PLANNING

Address: _____

**THE COUNCIL
THE CITY OF NEW YORK**

Appearance Card

I intend to appear and speak on Int. No. LU 601 Res. No. _____

in favor in opposition

Date: 4/24/12

(PLEASE PRINT)

Name: MONIKA JAIN

Address: _____

I represent: DEPT. OF CITY PLANNING

Address: _____

**THE COUNCIL
THE CITY OF NEW YORK**

Appearance Card

I intend to appear and speak on Int. No. LU 601 Res. No. _____

in favor in opposition

Date: 4/24/2012

(PLEASE PRINT)

Name: Travis Knop

Address: 641 Avenue of the Americas, NY, NY 10011

I represent: Bob Fox

Address: 641 Avenue of the Americas 10011

Please complete this card and return to the Sergeant-at-Arms

**THE COUNCIL
THE CITY OF NEW YORK**

Appearance Card

I intend to appear and speak on Int. No. 601 Res. No. 120132 ZRY

in favor in opposition

Date: 4/24/12

(PLEASE PRINT)

Name: Julius Tajiddin

Address: P.O. Box 1683, NYC 10009

I represent: Harlem Community

Address: Harlem USA

**THE COUNCIL
THE CITY OF NEW YORK**

Appearance Card

I intend to appear and speak on Int. No. LU 601 Res. No. _____

in favor in opposition

Date: 04.24.12

(PLEASE PRINT)

Name: ETHAN MCGINNIS

Address: 2 CHARLTON ST. APT 2L NYC 10014

I represent: 2 CHARLTON ST. 10014

Address: " " "

**THE COUNCIL
THE CITY OF NEW YORK**

Appearance Card

I intend to appear and speak on Int. No. LU 601 Res. No. _____

in favor in opposition

Date: 4/24/2012

(PLEASE PRINT)

Name: DAVID WEST

Address: ~~66 E FAIRMOUNT AVE~~ ~~MANHATTAN~~ ~~11 BROADWAY~~

I represent: GWAA Architects

Address: 11 Broadway NYC

Please complete this card and return to the Sergeant-at-Arms

**THE COUNCIL
THE CITY OF NEW YORK**

Appearance Card

I intend to appear and speak on Int. No. LU 601 Res. No. _____

in favor in opposition

Date: _____

(PLEASE PRINT)

Name: RICHARD BEARAK

Address: BROOKLYN BOROUGHT HALL

I represent: BROOKLYN BOROUGHT PRESIDENT

Address: MARTY MORICOWITZ

**THE COUNCIL
THE CITY OF NEW YORK**

Appearance Card

I intend to appear and speak on Int. No. LU 601 Res. No. _____

in favor in opposition

Date: _____

(PLEASE PRINT)

Name: VIRAJ PURI

Address: 151 EAST 3RD ST. NY, NY 10009

I represent: GOTHAM GREENS

Address: _____

**THE COUNCIL
THE CITY OF NEW YORK**

Appearance Card

I intend to appear and speak on Int. No. _____ Res. No. Zone Green 601

in favor in opposition

Date: 4/24/2012

(PLEASE PRINT)

Name: Russell Cuyler

Address: _____

I represent: Urban Green Council

Address: U.S. Green Building Council

Please complete this card and return to the Sergeant-at-Arms

**THE COUNCIL
THE CITY OF NEW YORK**

Appearance Card

I intend to appear and speak on Int. No. 621 Res. No. _____

in favor in opposition

Date: 4/21/12

(PLEASE PRINT)

Name: SIMON BINKOFF

Address: 232 E 11 Street

I represent: Historic Districts Council

Address: _____

**THE COUNCIL
THE CITY OF NEW YORK**

Appearance Card

I intend to appear and speak on Int. No. L0601 Res. No. _____

in favor in opposition

Date: 24 APRIL 2012

(PLEASE PRINT)

Name: CHRIS BENEDICT

Address: 323 E 9th ST, NYC

I represent: MYSELF

Address: SAME AS ABOVE

**THE COUNCIL
THE CITY OF NEW YORK**

Appearance Card

I intend to appear and speak on Int. No. _____ Res. No. _____

in favor in opposition

Date: 11/6/12

(PLEASE PRINT)

Name: Carol N Grossman

Address: _____

I represent: _____

Address: _____

Please complete this card and return to the Sergeant-at-Arms

**THE COUNCIL
THE CITY OF NEW YORK**

Appearance Card

I intend to appear and speak on Int. No. 601 Res. No. _____

in favor in opposition

Date: _____

(PLEASE PRINT)

Name: Samantha Schoenberger

Address: 1 Whitehall Street

I represent: Enterprise Community Partners

Address: 1 Whitehall St. NY NY

**THE COUNCIL
THE CITY OF NEW YORK**

Appearance Card

I intend to appear and speak on Int. No. _____ Res. No. _____

in favor in opposition

Date: _____

(PLEASE PRINT)

Name: MONIKA JAIN

Address: 22 READE ST, NY, NY 10007

I represent: CITY PLANNING

Address: _____

**THE COUNCIL
THE CITY OF NEW YORK**

Appearance Card

I intend to appear and speak on Int. No. 601 Res. No. _____

in favor in opposition

Date: 4/24/12

(PLEASE PRINT)

Name: George CALDERARO

Address: 200 River Terrace, 10082

I represent: Community Board 1

Address: 59 Chambers St

Please complete this card and return to the Sergeant-at-Arms

**THE COUNCIL
THE CITY OF NEW YORK**

Appearance Card

I intend to appear and speak on Int. No. 601 Res. No. _____

in favor in opposition

Date: 4.24.12

(PLEASE PRINT)

Name: Paul Freitag

Address: 551 Fifth Avenue NYC

I represent: CHPC

Address: 42 Broadway NYC

**THE COUNCIL
THE CITY OF NEW YORK**

Appearance Card

I intend to appear and speak on Int. No. LU#601 Res. No. _____

in favor in opposition

Date: April 24

(PLEASE PRINT)

Name: Laurie Reilly

Address: 75 PARK Place

I represent: CUNY & the NYC Solar America City Partnership

Address: Saw

**THE COUNCIL
THE CITY OF NEW YORK**

Appearance Card

I intend to appear and speak on Int. No. 0601-2012 Res. No. 0601-2012

in favor in opposition

Date: 4/24/12

(PLEASE PRINT)

Name: Samantha Wilt

Address: 19 Croton Ave, Hastings on Hudson NY

I represent: Natural Resources Defense Council

Address: 40 West 20th St, NYC

Please complete this card and return to the Sergeant-at-Arms