

Chicago Green Roof Initiative

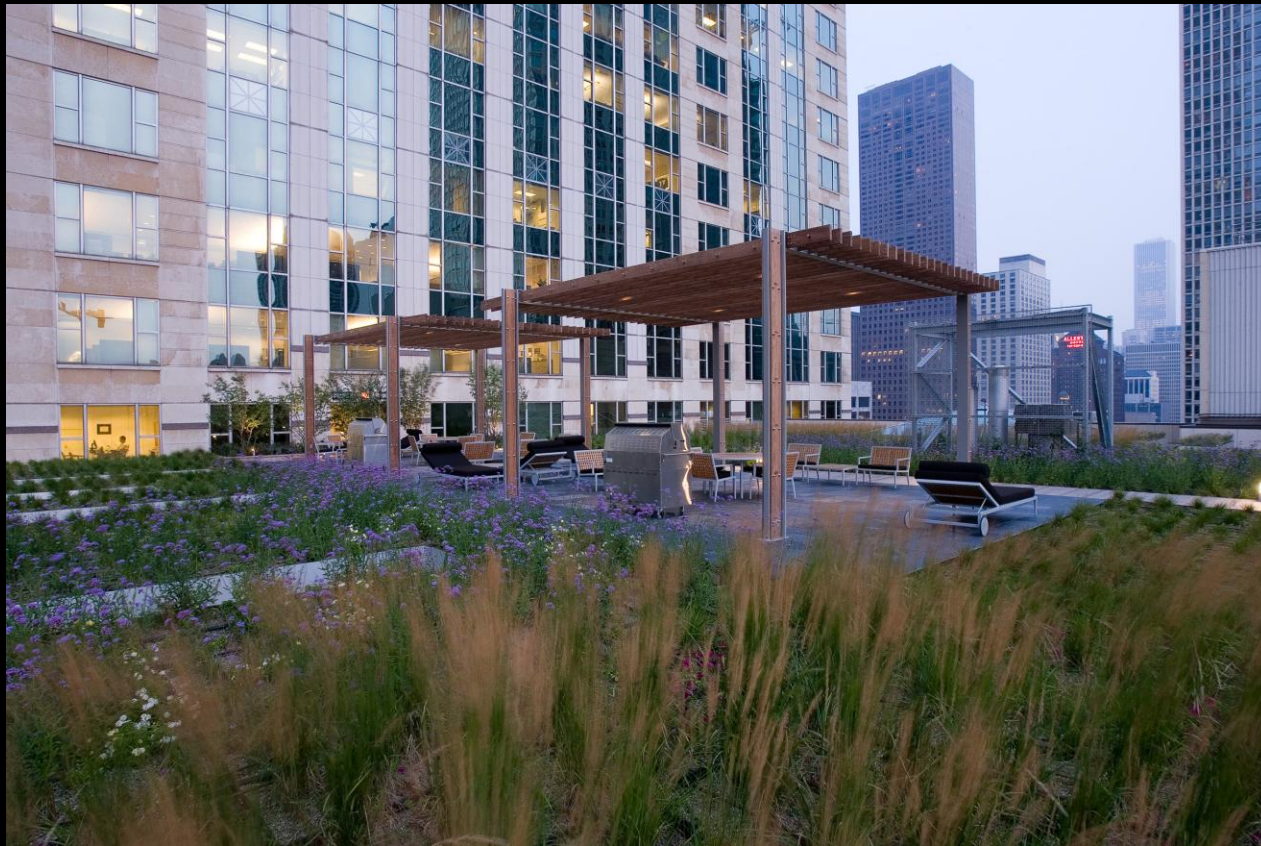


Sustainable Development Policy

Department of Planning and Development Sustainable Development Policy		The Department of Planning and Development is committed to the following principles:	
1. Environmental Protection	Minimize the impact of development on the environment.	2. Social Equity	Ensure that development benefits all members of the community.
3. Economic Viability	Promote economic growth and job creation.	4. Resource Conservation	Conserve natural resources and reduce waste.
5. Community Improvement	Enhance the quality of life in the community.	6. Transparency and Accountability	Engage the public in the planning process and be open to scrutiny.



Stormwater Ordinance



Green Roof Grant Program



Green Roof Improvement Fund (GRIF TIF)

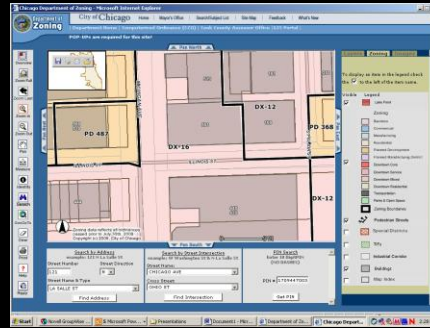


Before



After

Density Bonus



The One.
For Efficiency.

[More Information](#)



The One.
For Views.

[More Information](#)



The One.
For Convenience.

[More Information](#)



The One.
For Location.

[More Information](#)



The One.
For Technology.

[More Information](#)



The One. For All.

Ownership

[DIFA](#)

Developer

[The John Buck Company](#)

Architect

[Lohan Caprile Goettsch](#)

General Contractor

[Bovis Lend Lease](#)

Structural Engineer

[Magnusson Klemencic Associates](#)



[Photos](#) (300KB)

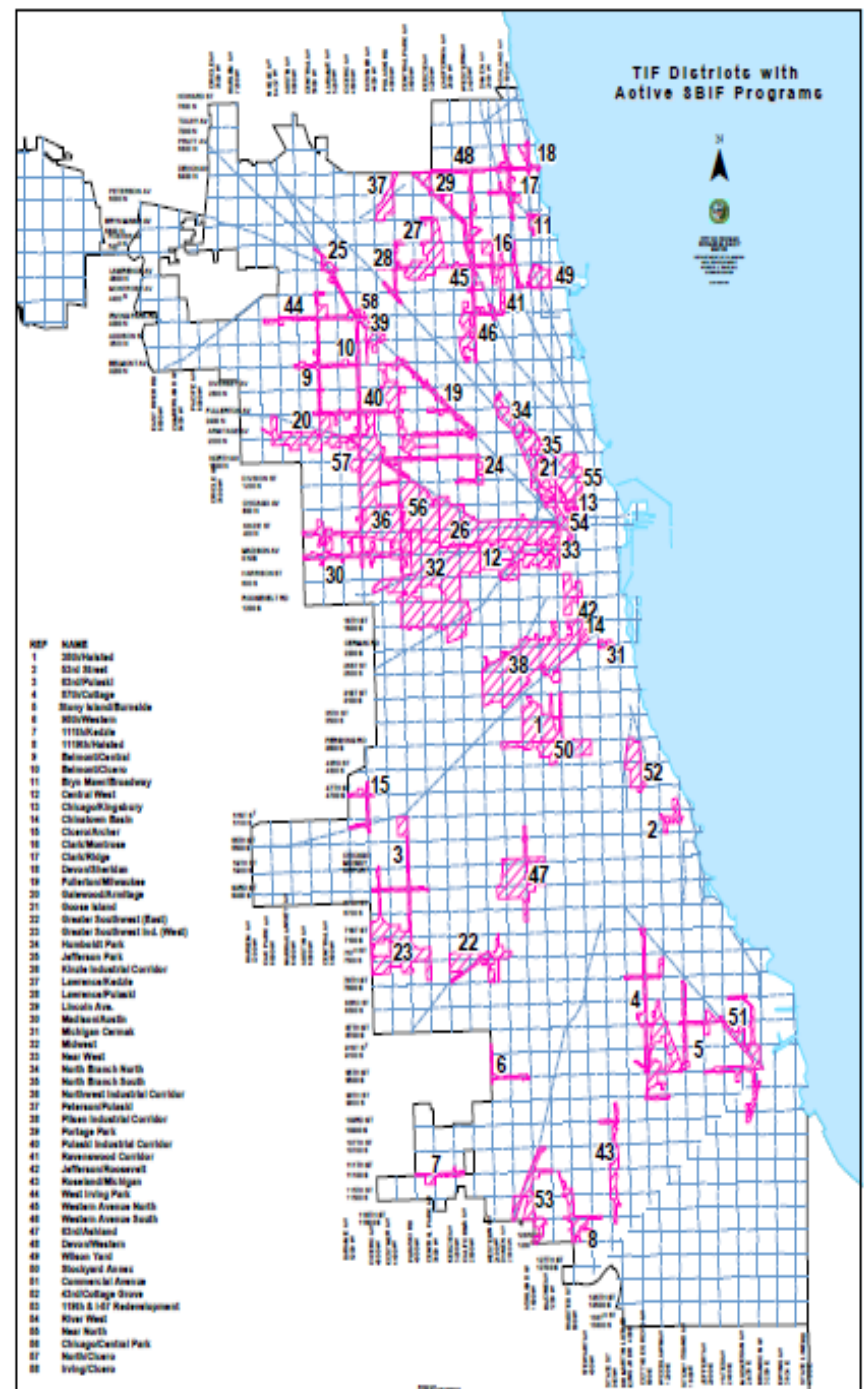
[Brochure PDF](#) (100KB)

[Contact Us](#)

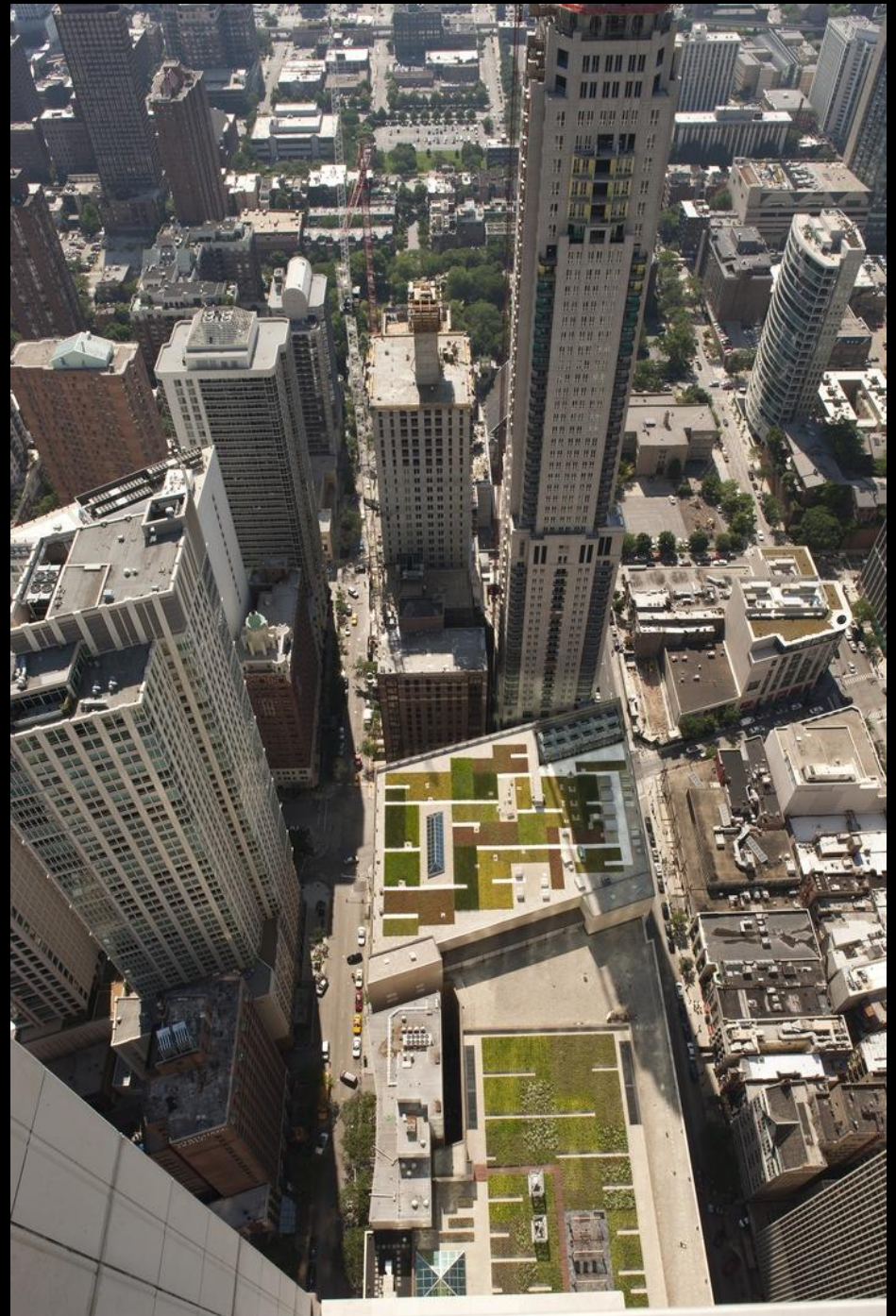
[Lease Availabilities](#)



Small Business Improvement Fund (SBIF)



Open Space Impact Fee Credit



Green Permitting Program



DOB Green Permit Program Green Menu Items

The DOB Green Permit Program allows applicants to incorporate a number of green building strategies and technologies from a select group of menu items in order to expedite the process timeline.

Design professionals can incorporate environmentally friendly and energy-efficient items into their projects from the Green Menu below.



Green Menu Items

Exceptional Energy Performance

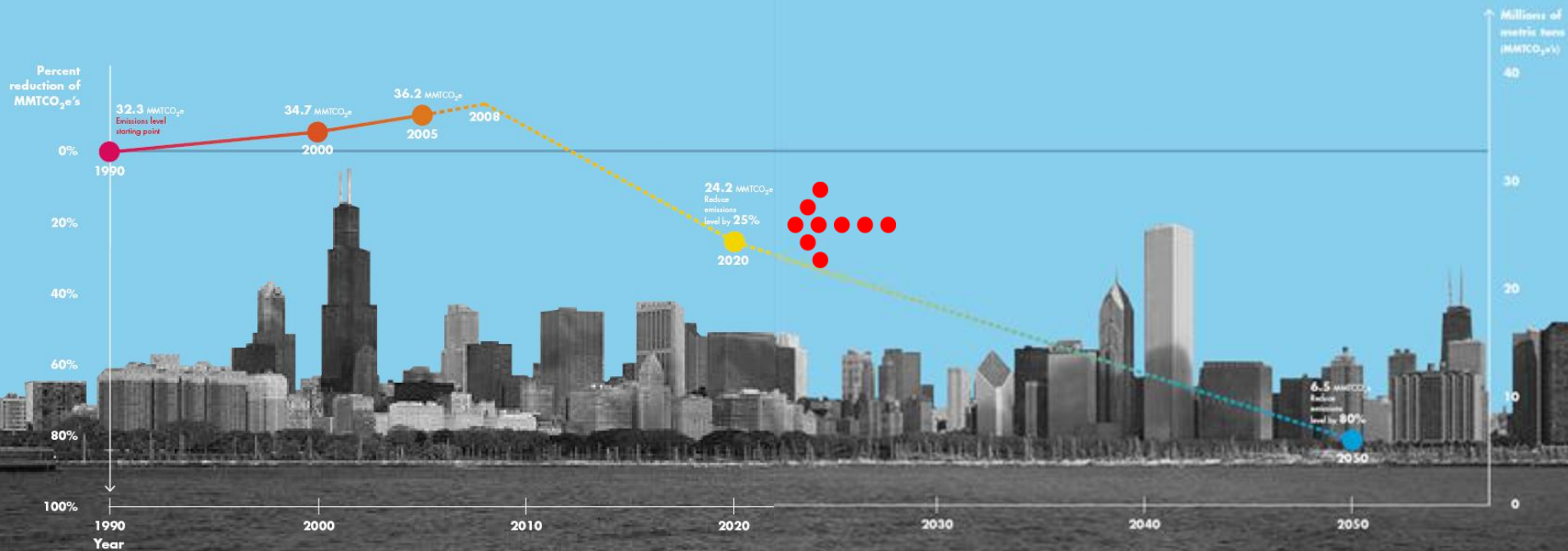
- Energy efficiency provides long-term financial savings to the owner, reduces strain on energy supply infrastructure, and reduces carbon dioxide emissions.
- For LEED projects, earn a minimum of 4 points under EA1, Optimize Energy Performance.
- For Chicago Green Homes projects, earn a minimum of 200 points within the Energy Efficiency category.

Green Roofs

- Green roofs or rooftop gardens reduce storm water runoff, help reduce the urban heat island effect, improve air quality and conserve energy.
- Provide a vegetated rooftop system for a portion of the roof built in accordance with standards for planned developments.

CHICAGO
CLIMATE
ACTION

The image features the words "CHICAGO", "CLIMATE", and "ACTION" stacked vertically. Each letter is a large, bold, sans-serif character filled with a different photograph. The "CHICAGO" row includes images of a bridge, a city skyline, a skyscraper, a modern building facade, and a city street. The "CLIMATE" row features a field of colorful flowers, a close-up of a plant stem, a wooden plank, and a blue sky with clouds. The "ACTION" row shows a sunset over water, a modern building, a wind turbine, a city skyline at night, and a modern architectural structure.



Chicago Greenhouse Gas Emissions and Reduction Goals:

- **25 percent reduction from 1990 levels by 2020**

2000 Chicago Greenhouse Gas Emissions

34.6 MMTCO₂e



MMT: Million Metric Tons



FIVE STRATEGIES

ADDRESSING THE CHALLENGE
OF CLIMATE CHANGE

ENERGY EFFICIENT BUILDINGS
8 ACTIONS

CLEAN & RENEWABLE ENERGY SOURCES
5 ACTIONS

IMPROVED TRANSPORTATION OPTIONS
10 ACTIONS

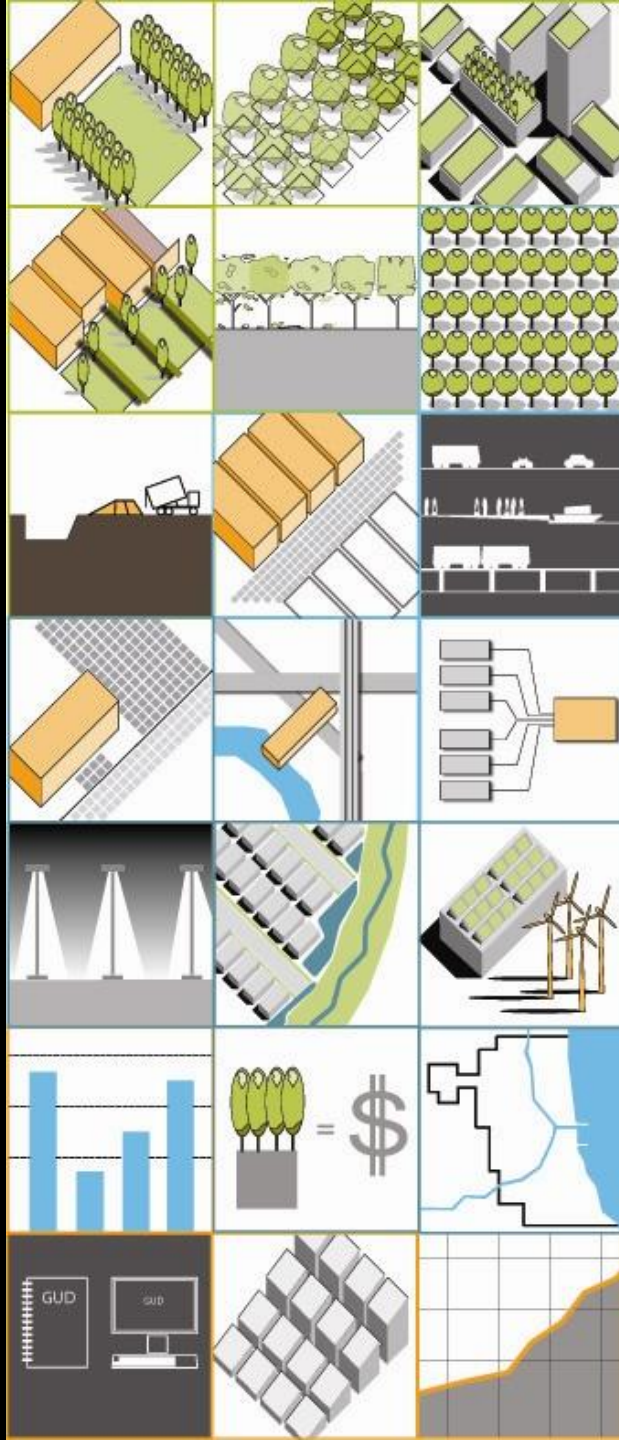
REDUCED WASTE &
INDUSTRIAL POLLUTION
3 ACTIONS

PREPARATION
9 ACTIONS

=

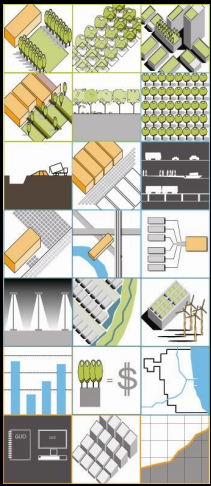
35 WAYS

TO ENSURE A RESILIENT CITY



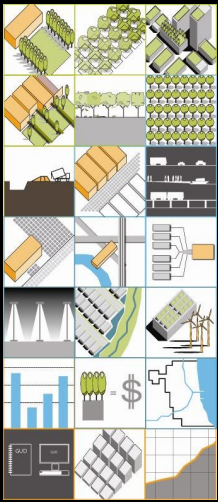
ADDING GREEN TO URBAN DESIGN

A CITY FOR US AND
FUTURE GENERATIONS



GOAL:

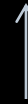
- Maintain and improve upon Chicago's urban design to optimize its environmental benefits for current and future generations

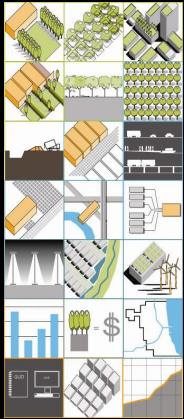


GOAL:

- Maintain and improve upon Chicago's urban design to optimize its environmental benefits for current and future generations

All exterior surfaces including
roofs, facades, landscapes and
roadways



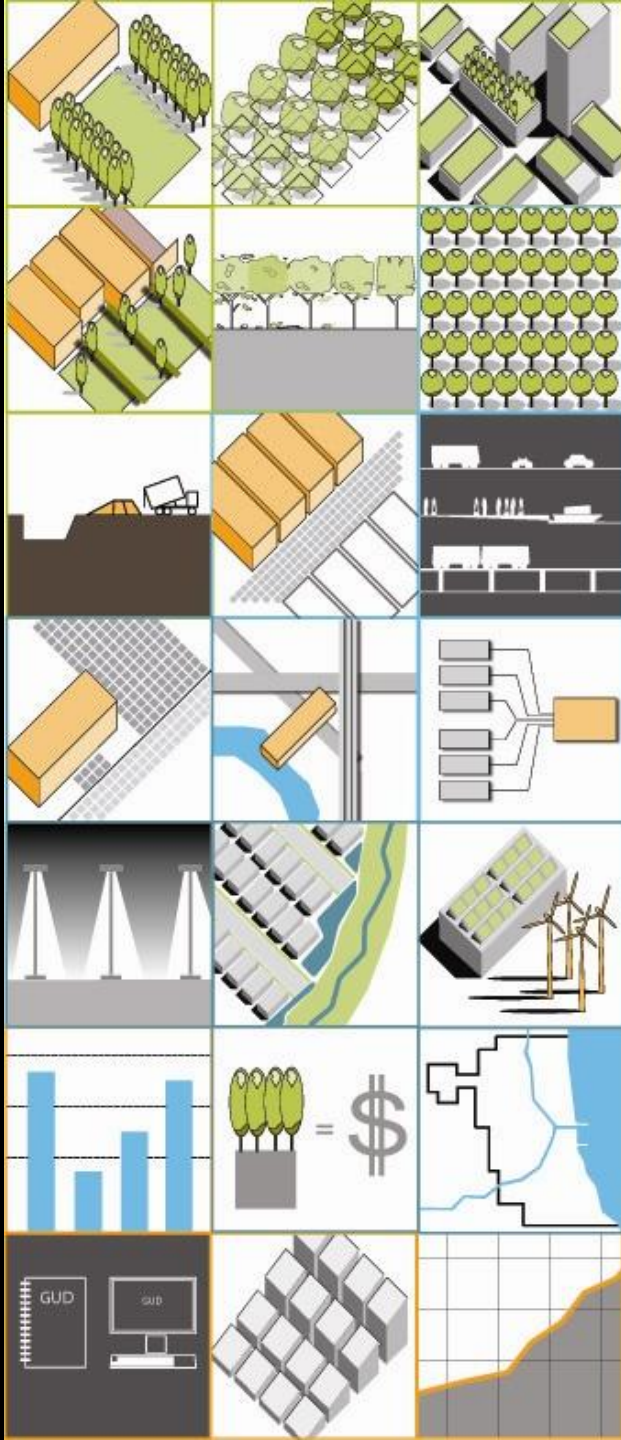


OBJECTIVES:

- Maintain and improve upon Chicago's urban design to optimize its **environmental benefits** for current and future generations

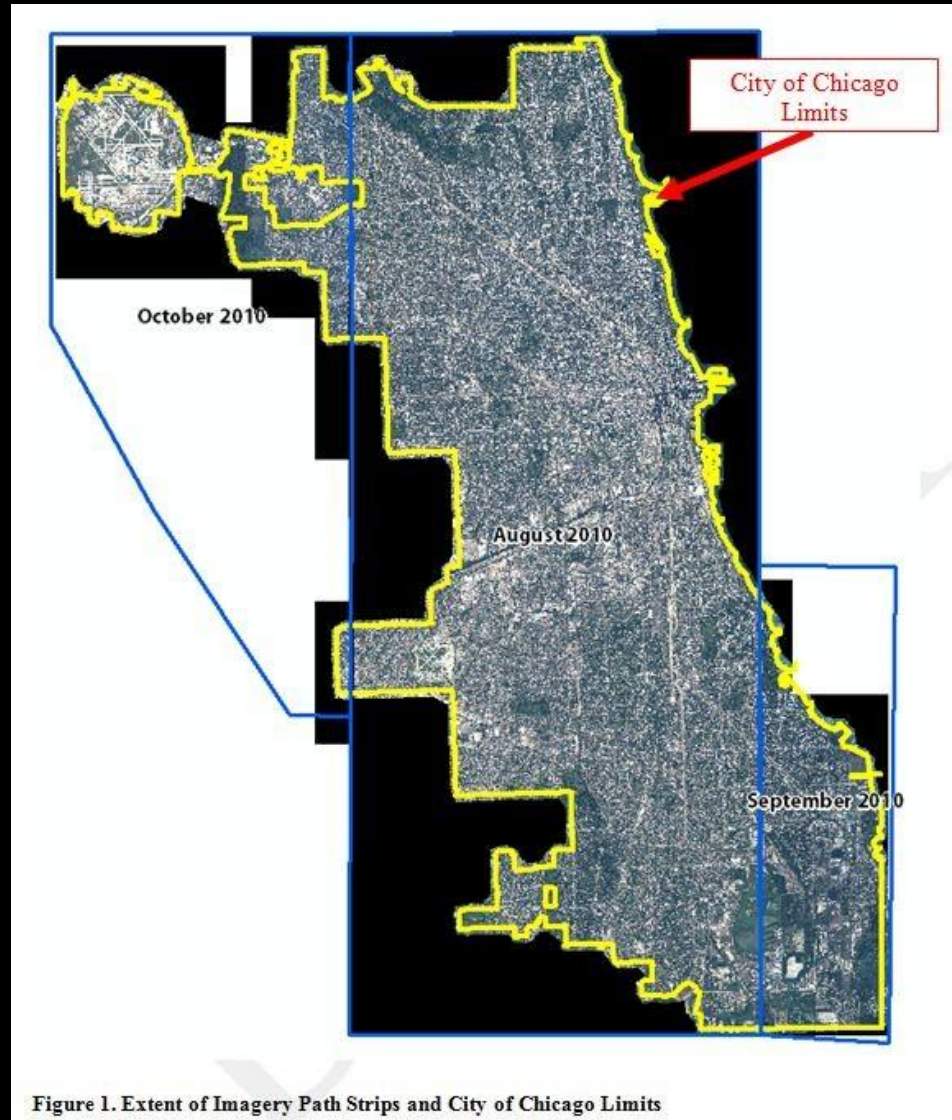


LAND	Preserve, expand and improve the quality and function of the vegetated surfaces
WATER	Capture, clean and use precipitation and encourage water conservation
AIR	Contribute towards improved air quality
QUALITY OF LIFE	Improve safety, public health, and economic development and engage people in the outdoors environment

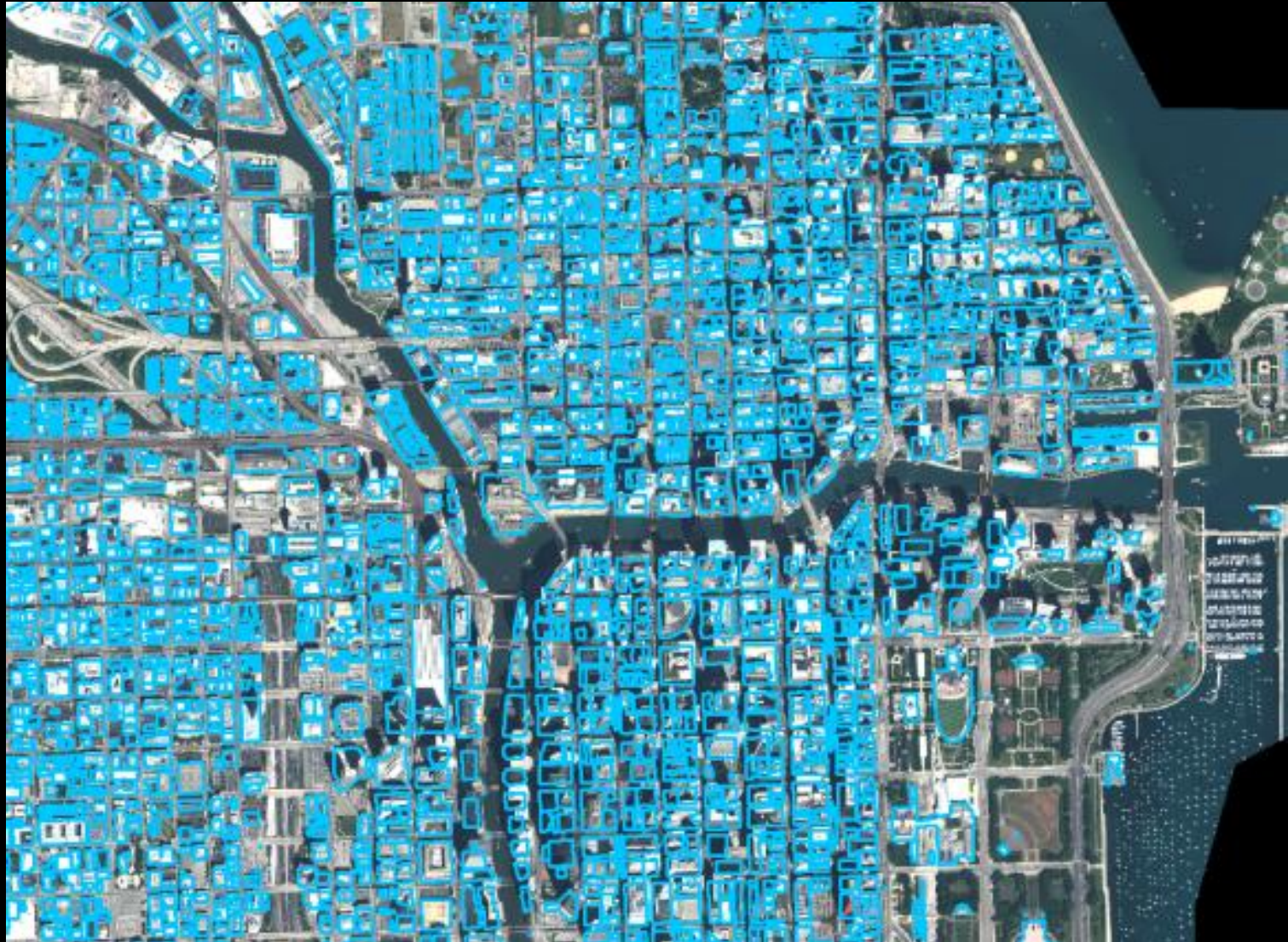


- 21 Key Strategies
 - Increase green roof requirements in the Sustainable Development Policy
 - Sustainable landscape standards for all public landscapes
 - Urban forest agenda
 - Context-based design guidelines
- Multi-year implementation plan

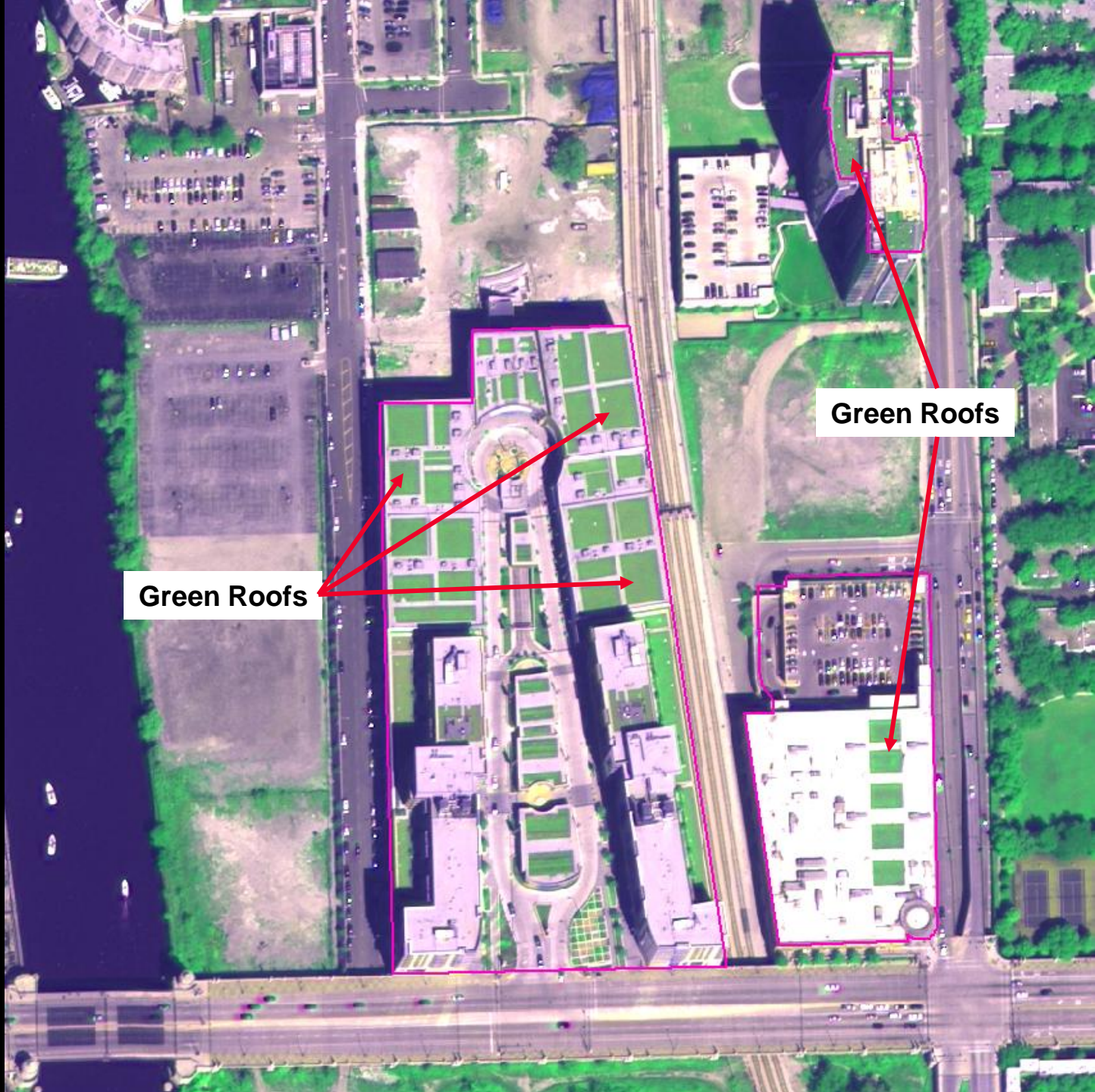
Green Roof Assessment & Analysis



Green Roof Assessment & Analysis



Green Roof Assessment and Analysis



Green Roofs

Green Roofs

Results of Assessment and Analysis

Total Number of Green Roofs	359
Total Square Footage of Green Roofs	5,469,463 ft²
Average Size of Green Roofs	15,235 ft²
Median Size of Green Roofs	5,234 ft²

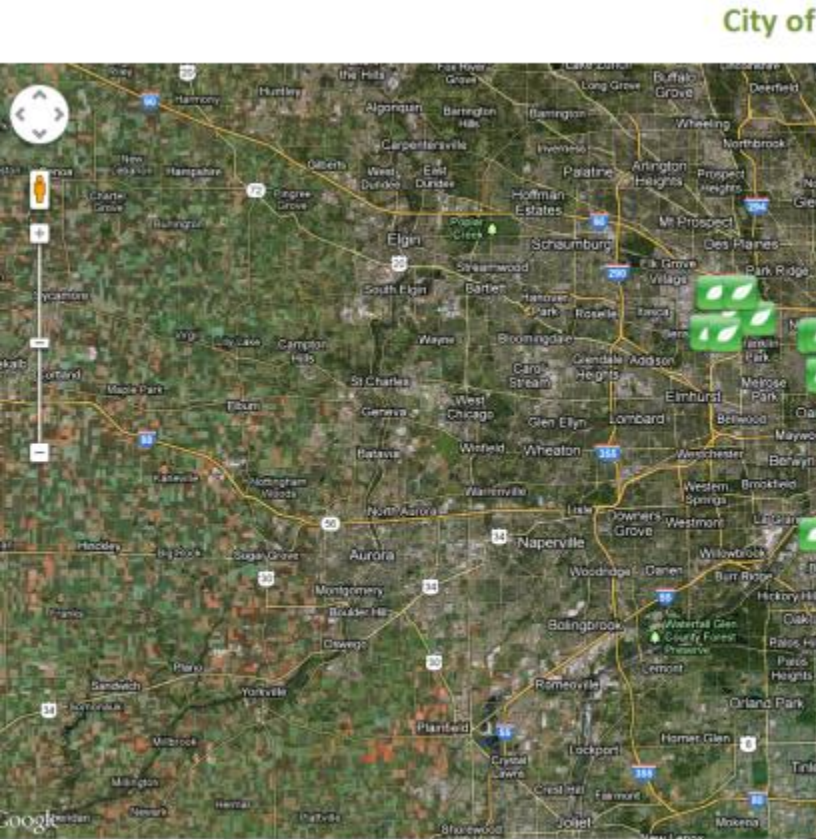


Results of Assessment and Analysis

Ratio Required Roofs to Elective Roofs	297:62
Total Required by Sustainable Development Policy	294 (82%)
Total Required by Stormwater Ordinance	3 (1%)
Total Required by Green Permitting Program	17 (5%)
Total Elective Vegetated Roofs	62 (17%)



Google Map



If you'd like to submit the location of a

Vegetated Roof Factsheet

Vegetated Roof Assessment for Parcel ID: N/A

Address: 4449 N BROADWAY STREET



Location Overview Map



Image Date: August 01, 2010

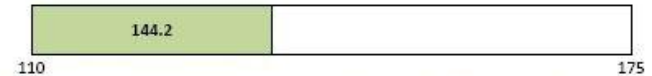
Total Roof sq. ft: 94,241

Vegetated Roof sq. ft: 58,788.00

% Vegetated Roof sq. ft: 62.4

Vegetation Health:

Relative NDVI



Relative NDVI – The Normalized Difference Vegetation Index (NDVI) is a normalized ratio between the reflected near-infrared wavelengths and the reflected visible red wavelengths. Higher values indicate healthier vegetation. These values are termed “relative” because they are only comparable within this project, and not to NDVI values calculated in other projects.

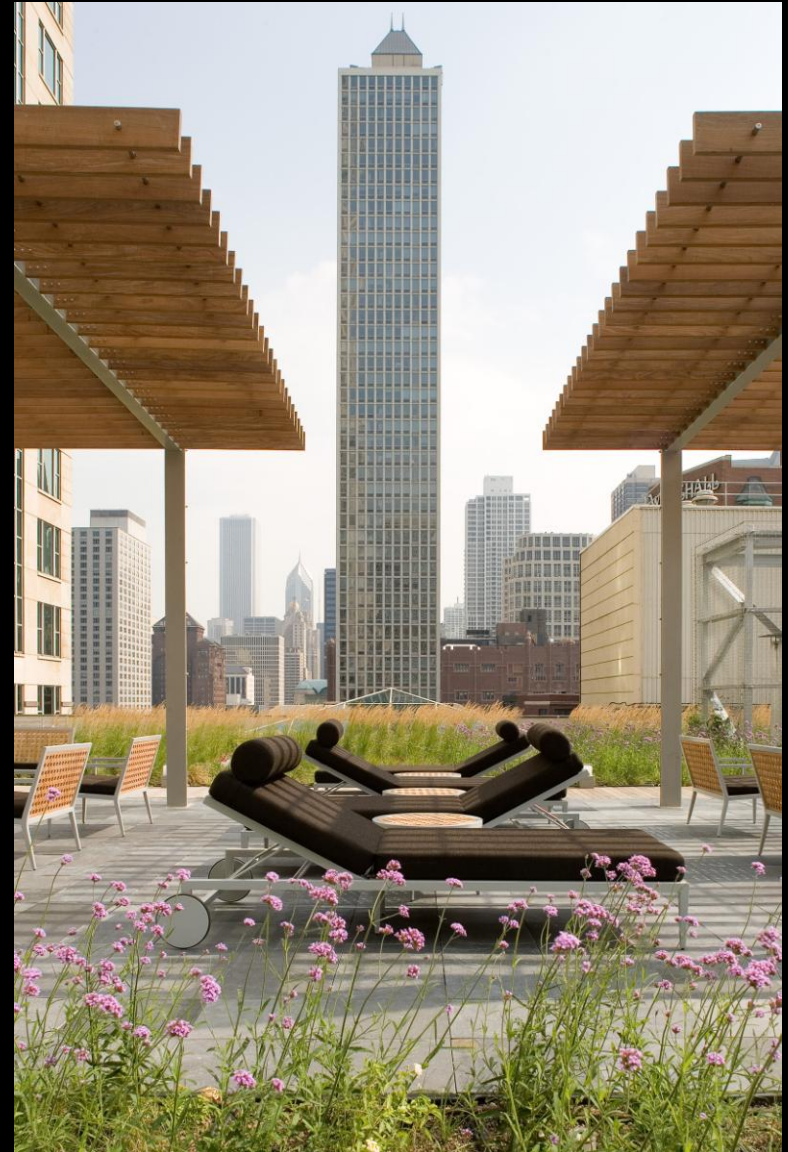


City of Chicago

Department of Housing and Economic Development

Environmental Benefits of 5,469,463 ft² of green roofs

- 21 metric tons of carbon mitigated per year
- 124,000,000 gallons of stormwater absorbed per year





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Sustainable Development Division

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