

# Green Building Initiatives & Green Infrastructure

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# What is Green Building?

Green building refers to practices that reduce a building's negative impact. This includes features in the building's design and practices during its construction, operation, and maintenance.



# What is Green Infrastructure (GI)?

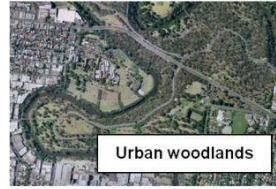
Green Infrastructure encompasses a broad range of practices that replicate natural ecosystems. This is an attempt to reduce environmental impacts of the built environment.



Urban agriculture



Green walls



Urban woodlands



Suburban street trees



City street trees



Green roofs



Sensitive urban design



Parks, gardens & golf courses

## Urban green infrastructure

# What are the criteria we were looking for?

- Energy efficiency
- Water efficiency
- Waste reduction
- Stormwater management
- Ethical materials and resources



## Innovation



Introduction of novel features and procedures

## Indoor Environmental Quality



Use of natural light and efficient air conditioning

## Materials and Resources



Responsible construction waste management and sustainable sourcing of materials



## Location and Transportation

Land protection and access to public transportation and green vehicles

## Sustainable Sites



Sufficient green open space and light pollution reduction

## Energy and Atmosphere



Optimizing sustainable energy production and metering

## Water Efficiency



Indoor and outdoor water reduction

# Green Building Initiatives at Montclair State University

- Memorandum of Understanding (MOU) with the Environmental Protection Agency (EPA) in 2009
- New Resource Usage Dashboard  
<https://alc.buildingos.com/s/montclair/storboard6183/?chapterId=36483>
- PSEG Institute for Sustainability Studies (PSEG ISS)
- Clean Energy and Sustainability Analytic Center (CESAC)
- New Jersey Center for Water Science and Technology (NJCWST)



**Montclair State University**  
**CESAC**  
Clean Energy and Sustainability Analytics Center

**MONTCLAIR STATE UNIVERSITY**  
**PSEG INSTITUTE FOR SUSTAINABILITY STUDIES**

**Montclair State University**  
**NJCWST**  
New Jersey Center for Water Science and Technology

# Why Green Building?

- There is a need for emission and pollution reduction.
  - According to the U.S. Energy Information Administration, commercial and residential buildings account for almost 40% of the total energy consumption in the United States.
- Allowing for significant improvements to be made through green building and infrastructure to reduce impacts on the climate and natural environment.

# Our Project

- The objective of this project is to utilize ArcGIS StoryMaps to display green building initiatives and green infrastructure on the Montclair State University campus.
- This project will enable MSU students to have a better understanding of how sustainable practices are incorporated into the built and natural environment.
- There is a potential to enrich MSU student's knowledge on green building and its usefulness for the future of sustainable development.