Queens Botanical Garden Field Trip Report

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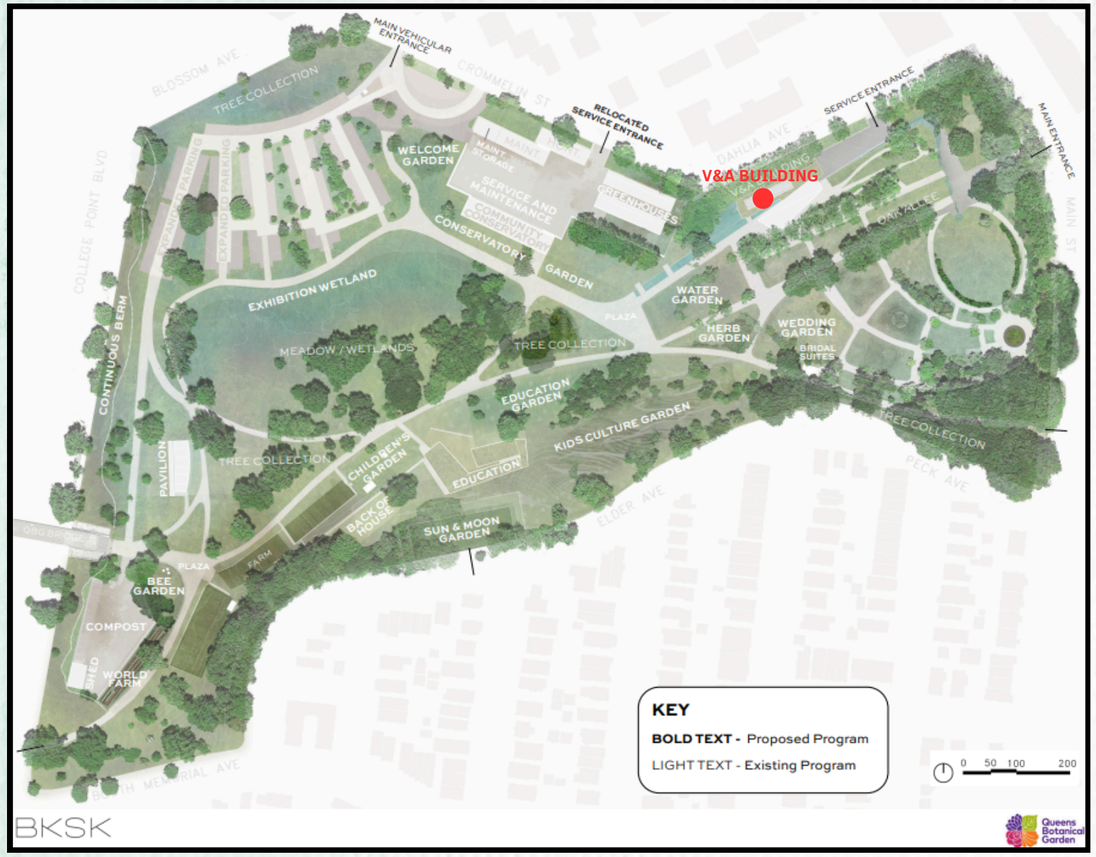


Building Info.

Queens Botanical Garden Visitor & Administration Building

Location: 42-80 Crommelin St, Flushing, NY
Architect: BKSK Architects
Completed: 2007
Style: Sustainable/Contemporary Eco-Architecture
Area: ~16,000 sq ft
Cost: ~$14 million
Cost per SF: ~$875/SF

Interesting Fcts

Five Interesting Facts

- One of NYC’s first public buildings to earn LEED Platinum
- Geothermal wells provide heating and cooling
- Designed around the concept of “living systems” and water cycles
- Serves as an environmental education hub for Queens
- Roof runoff directed into a 250,000-gallon irrigation cistern

Building History

The Queens Botanical Garden Visitor & Administration Building was created to support growing visitor needs and environmental education programs. Built as part of a city initiative for sustainable public buildings, it reflects community values for green urban space. The QBG expanded over time through civic investments and landscape programs, transforming former fairgrounds into today’s 39-acre cultural garden campus.

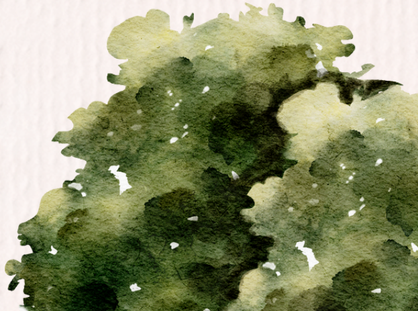
Construction Type

Hybrid steel + wood framing

Glazing and curtain wall system for natural light and ventilation

FSC-certified wood structural elements

Concrete foundations



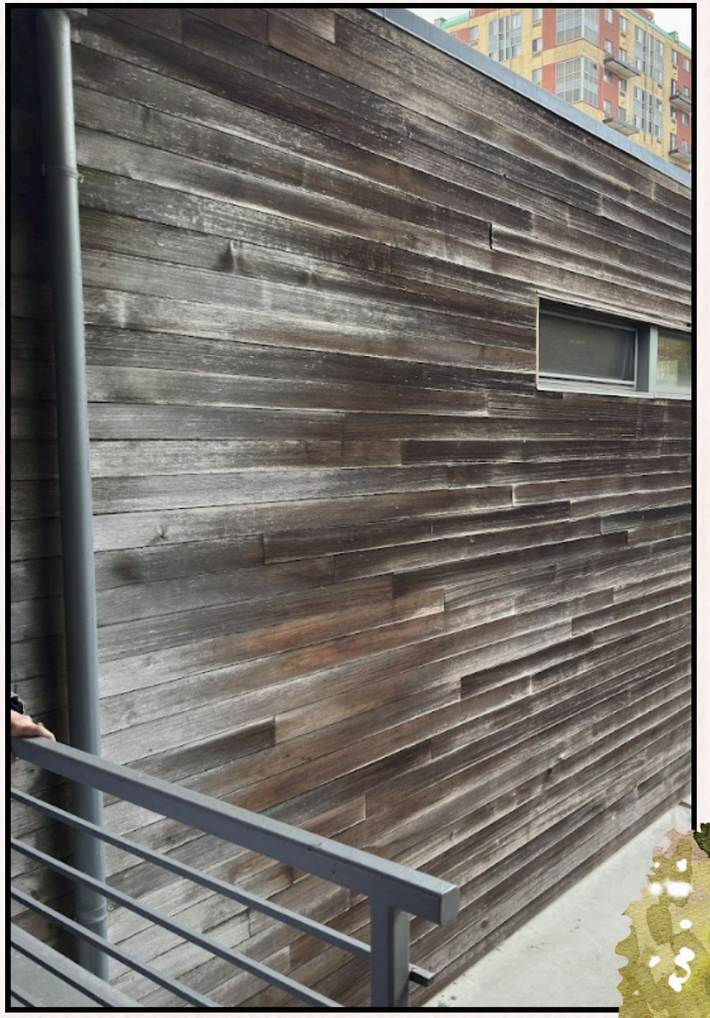
Sustainable Exterior Features

Sustainable Exterior Finishes & Systems

- FSC-certified wood cladding from responsibly managed forests
- Recycled and natural exterior materials
- High-performance glazing for daylight + energy efficiency
- Deep roof overhangs / solar shading louvers reduce heat gain
- Natural ventilation elements reduce mechanical load
- Exterior finishes designed for durability + low maintenance

Forest Stewardship Council

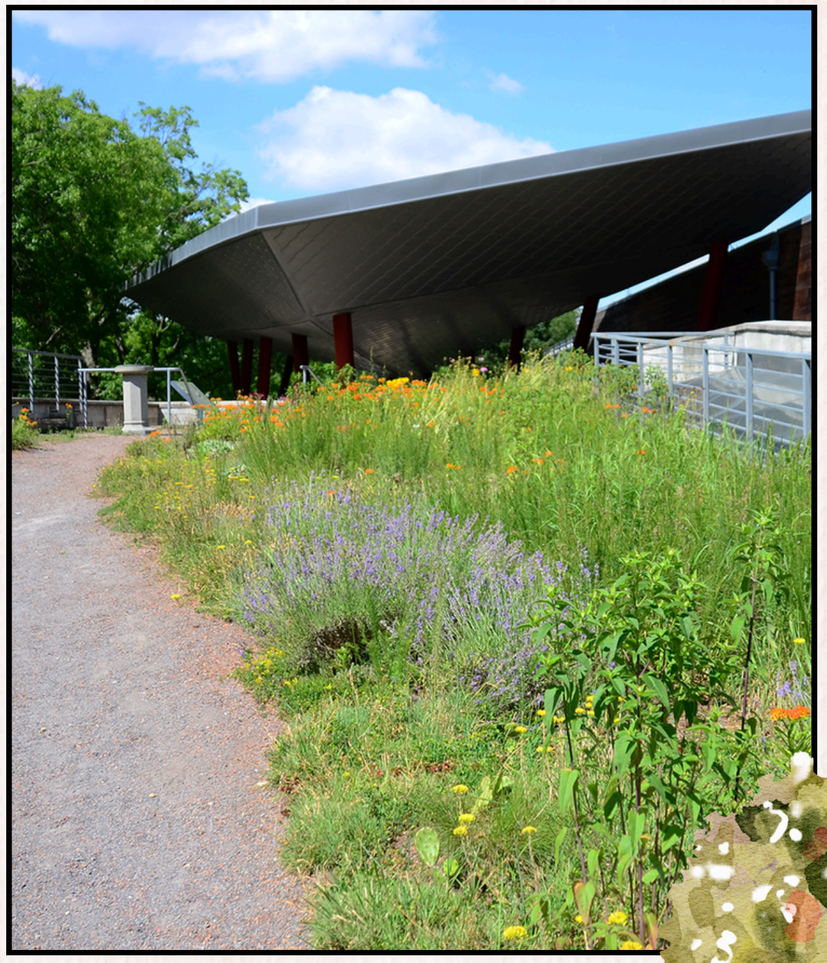
Certifies wood sourced from forests that protect biodiversity, support local communities, and prevent illegal logging.



Green Roof System

Green Roof Sustainability Benefits

- Vegetated roof reduces urban heat island effect
- Adds thermal insulation, lowering heating & cooling needs
- Native + drought-tolerant plant species support biodiversity
- Slows roof-runoff + directs stormwater to cistern / bioswales
- Improves air quality + creates habitat for pollinators
- Extends roof membrane lifespan by protecting it from sun & weather



Sustainable Interior Finishes

Interior Sustainability Features

- Recycled-content materials + low-VOC paints and adhesives
- Bamboo and sustainable wood cabinetry and panels
- Daylighting + occupancy sensors reduce energy use
- Permeable finishes and natural ventilation improve indoor air quality

Parking Garden

Parking Garden Features

- Parking area designed as a landscape-first space
- Permeable pavers allow rainwater to filter into soil naturally
- Trees + native plants provide shade + reduce heat island effect
- Integrates parking with ecological function and visitor entry experience

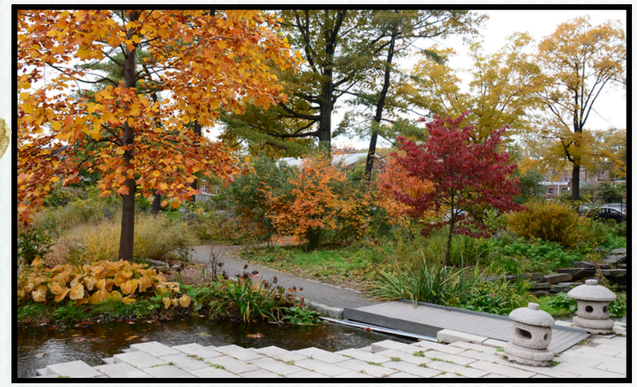
Bioswales & Biotope Garden

Bioswlales

- Shallow landscaped channels throughout site
- Slow, filter, and clean stormwater using soil + vegetation
- Directs cleaner water into the garden's drainage/ecology systems

Bioswlales

- Designed to support native plants, insects, and pollinators
- Creates a living ecosystem that reflects local habitat



Rainwater Catchment & Cistern

Rainwater Collection System

- Roof water collected and filtered naturally
- Stored in large cistern below the plaza (~250,000 gallons)
- Water reused for irrigation and landscape maintenance
- Helps reduce dependence on municipal water system

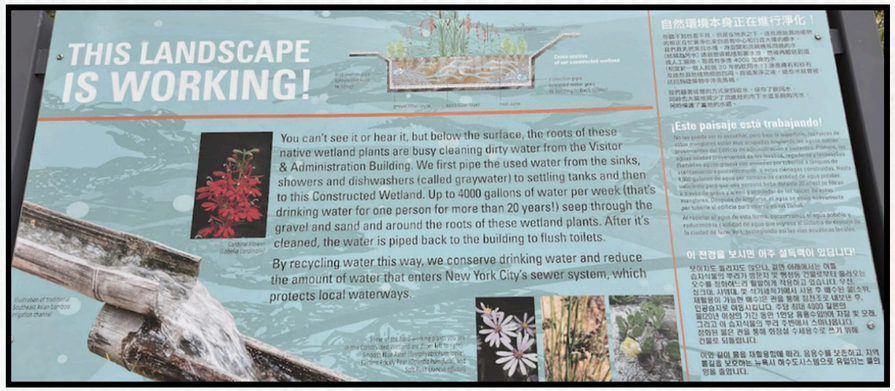
Greywater & Wetland Treatment

Greywater Wetland System

- Building sinks + drains send greywater to outdoor wetland cells
- Plants + microbes naturally treat wastewater
- Water polished before re-entering environment
- Demonstrates closed-loop ecological water treatment

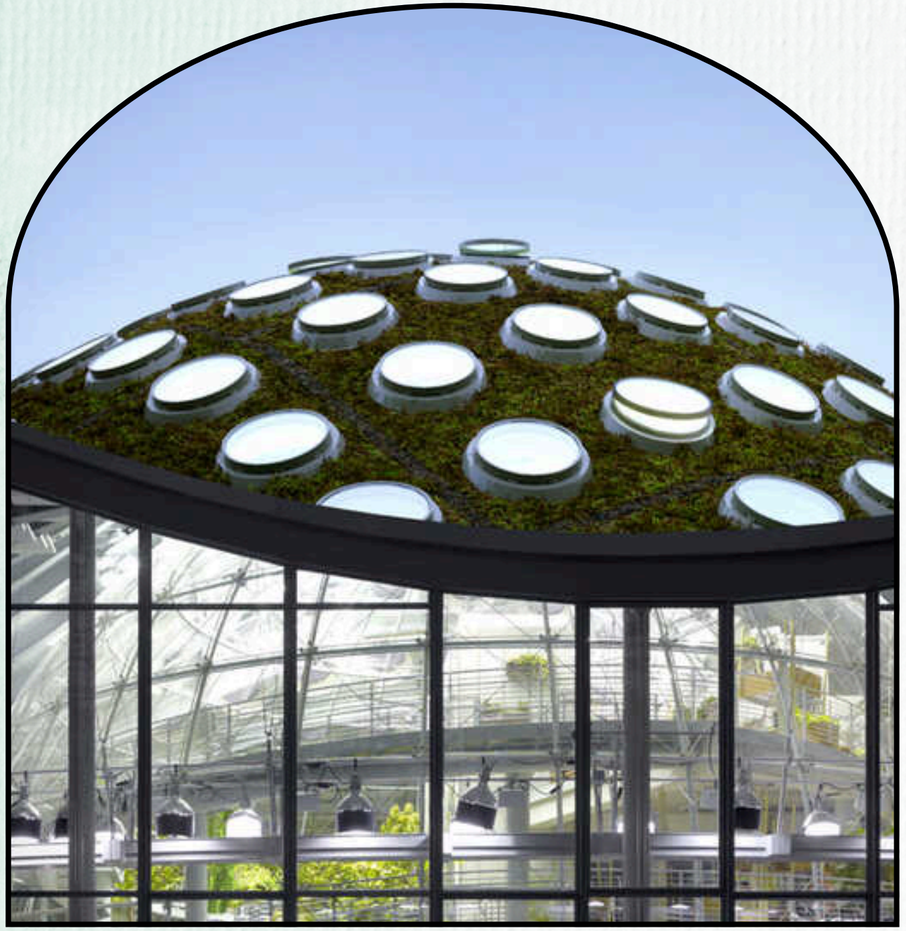
Sustainability Benefit

- Reduces potable water use
- Mimics natural filtration & hydrology systems



Reflection

Visiting QBG deepened my understanding of how architecture, landscape, and natural systems integrate to create truly sustainable environments. I was inspired by the building's relationship to water, the use of native vegetation, and the emphasis on community education. This site demonstrates how thoughtful design can enhance visitor experience while protecting the environment.



California Academy of Sciences

San Francisco, CA

- Architect: Renzo Piano
- Living green roof w/ 1.7M plants
- LEED Platinum building
- Natural ventilation + passive cooling
- Recycled steel + insulation from recycled denim
- Solar canopies + high-performance glass