Roofmeadow
Green roofs. For good.

Queens Botanical Garden
Flushing, NY

Assembly
Type V - 9.25 inches of media
Irrigation
Un-irrigated
Roofmeadow Contractor
Former Network Contractor
Architect
Weiss/Manfredi

Area
2,200 square feet
Waterproofing
LARA
Landscape Architect
Herbert Dreiseitl


Photo courtesy of Stuart R Gaffin, Ph. D


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Roofmeadow designed the profile to support a highly diverse meadow plant community that compliments the landscape design prepared by Herbert Dreiseitl for this LEED Platinum project. In order to support the mission of QBG the green roof was designed have a beautiful appearance but to have minimal maintenance requirements. The roof is also a large ramp sloping from the grounds of the botanical garden to the second floor of the visitor center. Visible and accessible from the building, the roof ramp is separated into two sections by a bluestone chip pathway bisecting the center of the green roof. Visitors can enjoy views of the grounds from the elevated vantage point. The green roof seamlessly blends the building into the landscape in a tactile way and can be experienced by QBG visitors and staff.

The plant palette includes many native perennials and grasses including Andropogon scoparius, Asclepias tuberose, Bouteloua curtipendula and Echinacea purpurea. The emphasis on natives plants gives this green roof a high habitat value.

Not just a beautiful and functional roofscape, this green roof is also monitored by Stuart R. Gaffin, Ph. D. of the Center for Climate Systems Research Columbia. Since the spring of 2008, the instrumentation has been capturing data from the green roof media including the moisture level, and the surface and sub-surface temperatures. Small sections of white and black waterproofing are also being monitored for temperature.

QBG has made good use of the rooftops on the visitor center. The main roof of the building incorporates photovoltaic panels which are expected to produce more than 15% of the building's energy. The canopy of the visitor center helps to manage stormwater by capturing and directing rain into a pool designed to filter pollutants from the water. The green roof ramp manages stormwater, creates habitat and provides visitors to the garden with a rare pathway through an engineered roofscape. The green roof ramp partially covers the underground Helen M. Marshall Auditorium and reduces interior sounds from overhead by acting as an acoustical barrier to external sounds.