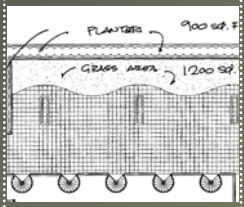
Green Roof Awards of Excellence



Gala Awards Dinner Program

The First Annual Green Roof Infrastructure Conference, Awards and Trade Show

May 29-30, 2003 | Chicago, Illinois

Co-hosted by the City of Chicago and Green Roofs for Healthy Cities

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Green Roof Awards of Excellence

Green Roofs for Healthy Cities established the annual *Green Roof Awards of Excellence* to recognize green roof projects which exhibit extraordinary leadership in integrated design and implementation. The awards also increase general awareness of green roof infrastructure and its associated public and private benefits, while recognizing the valuable contributions of green roof design professionals.

Categories of Awards
There are six award categories, which apply to all types of buildings and installed green roof designs.

New Construction
Extensive green roof
Intensive green roof
Combination extensive/intensive

Retrofit Project
Extensive green roof
Intensive green roof
Combination extensive/intensive

Many Thanks to the Multi-Disciplinary Judging Panel:

William Thompson, FASLA, Editor, Landscape Architecture Magazine
Monica E. Kuhn, BES, B.Arch, OAA - Architect, Founder, Rooftop Garden Resource Group
N. Marcia Jiménez, Commissioner, City of Chicago Department of the Environment
Michael Gibbons, FCSI, CCPR, Head of the Green Roof Task Group, ASTM, President, Architectural Designs
Robert Herman, Horticultural Consultant, Uncommon Plants
Steven W. Peck, Founder & Executive Director, Green Roofs for Healthy Cities

Gala Awards Dinner Agenda

7:30 Dinner Commences

8:15 Opening Remarks
Steven Peck, Founder & Executive Director, Green Roofs for Healthy Cities

8:30 Awards Ceremony
Emcee N. Marcia Jiménez, Commissioner, City of Chicago Department of the Environment

9:30 Closing Remarks

Category: Retrofit Extensive

Montgomery Park Business Center, Baltimore, Maryland

Award Recipient: Katrin Scholz-Barth Consulting

Himmerlrich Associates Inc., Developer and Owner
Werner Mueller, Project Architect with DMJM
David Hawn, Roofing Consultant, Dedicated Roof and Hydro-Solutions
Notari Associates, Architect of Record
Morabito Consultants, Structural Engineers
Emory Knoll Farms, Green Roof Plants
Katrin Scholz-Barth, Green Roof Consulting, then with HoK Planning Group

The 1.3 million square foot Montgomery Park Business Center in Baltimore, Maryland is a large scale adaptive re-use of the 1925 Montgomery Ward Catalog Warehouse. This commercial building is situated within a brownfield redevelopment and incorporates a number of green building features, such as rainwater storage for toilet flushing and operable windows. The 30,000 square foot green roof was completed in the summer of 2002 and performs multiple functions within the building. The 28 acre site was redeveloped with a design goal of reducing non-point source pollution in order to protect the Gwynns Falls Watershed, the Inner Harbour of Baltimore and ultimately Cheaspeake Bay. It was also designed to provide the developer with an opportunity to attract and retain tenants, such as the Maryland Department of the Environment. The system can be viewed from seven floors above but is not designed for occupant access. It was constructed as an inverted membrane assembly using a single ply PVC membrane over which lies four inches of poly-iso insulation board, and 3 inches of growing medium separated by two geotextile filter fabrics. The plants are comprised of 12 different drought tolerant sedum species that will show well throughout the year. The roof was designed for minimal maintenance requirements and has no permanent irrigation system. The green roof generates energy efficiency benefits, will extend the longevity of the membranes, and reduces the urban heat island and annual runoff by an estimated 50% to 75%. The first extensive green roof in Baltimore, this project provides a great opportunity to raise awareness of the multi-functional benefits of green roof infrastructure.

Category: New Extensive

901 Cherry Offices for Gap Inc., San Bruno, California

Award Recipient: William McDonough + Partners

Gensler & Associates, Executive Architect and Interior Design Architect
William Wilson and Associates, Construction Manager
Hargreaves & Associates, Landscape Architect
Paul Kephart, Grassland Specialist
Ove Arup & Partners, Engineers
Swinerton, General Contractor

Located in the hills above San Francisco International Airport, 901 Cherry Offices for Gap Inc. was designed to blend in almost seemlessly into its steeply sloping savannah foothills site. Designed first and formost as a great place to work, the building was completed in 1997 and incorporates diverse elements including a café, a fitness centre, a conference facility and other amenities. Its defining sustainable design feature is a 69,000 square foot green roof covered in native grasses and wildflowers. The design of this undulating green roof had a fundamental effect upon the building's design profile, its physical relationship to the surrounding environment, its mechanical performance, acoustical and thermal comfort and stormwater management. The system utilizes an American Hydrotech waterproofing membrane, and 6 inches of growing medium. Studies showed initial costs to be about 130% of a conventional base case, net first costs approximately 185% and annual operating costs of just 70% of a conventional roof. Annual energy cost saving projections demonstrated a simple payback of 11 years. Any excess rainfall is recycled back onto the roof for irrigation purposes. The mass of the roof attenuates sound transmission by up to 50 Db, providing an acoustic barrier to the air traffic above. Like other native grasslands, the roof is a highly self-sustaining ecosystem requiring minimal annual maintenance. The green roof not only allows the offices to blend into the landscape, but it also atones for the very space occupied by the building - for a bird flying overhead, nothing has changed!

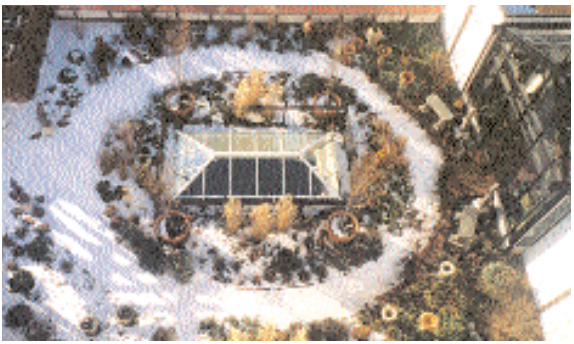
Category: Retrofit Intensive

Garden Room, Shorewind, Wisconsin

Award Recipient: Buettner & Associates, Landscape Architects

Deborah Kern, Owner
John Schroeder Architects, Architect
Triad Engineering, Contractor
Cudahy Roofing & Supply Inc., Roofing Contractor

The Garden Room is nestled in the middle of a mixed retail and residential complex in Shorewood, Wisconsin. The 4,000 square foot roof sits atop a rehabilitated retail store specializing in unique garden items. The project was designed to explore the full potential of establishing a true garden in the city, provide display opportunities for merchandise and educate consumers about hardy urban plants. The garden has been well received by the local community and is comprised of three useable spaces - the Conservatory area, the Garden and the Arbor Terrace. The concrete roof deck is covered with a Siplast Teranap waterproof membrane, an Aqua Pore subsurface low volume irrigation system, a root barrier, insulation, drainage layer and growing medium. The green roof portion occupies 1,900 square feet and supports a wide range of hardy native and non-native perrenials, vines, ornamental grasses, trees, flowering and evergreen shrubs. These provide a beautiful setting in all four seasons. The design had to overcome a number of structural loading challenges and the challenges of anchoring fencing and other features to the roof. Tours are given regularly and the project displays a wide array of beautiful design possibilities for intensive green roof gardens.



Category: New Intensive

Ducks Unlimited National Headquarters and Oak Hammock Marsh, Interpretive Centre, Winnipeg, Manitoba

Award Recipient: Number Ten Architectural Group, Project Architect

Hilderman Thomas Frank, Cram & Associates, Landscape Design
Crosier Kilgourand Partners, Structural Engineers
MCW Consultants, Mechanical Engineers
AGE Engineering, Electrical Engineers
UMA Engineering, Civil Engineers

This building is home to the National Headquarters of Ducks Unlimited, a non-profit organization dedicated to the conservation of waterfowl. Located on the edge of the Oak Hammock Marsh, an internationally designated wetland in southern Manitoba, the building was completed in 1992 and is home to the Oak Hammock Marsh Interpretive Centre. The Centre welcomes over 200,000 visitors a year and provides education about wetlands and their preservation. The 54,000 square foot, two storey concrete frame building is designed to blend seemlessly into its marsh and prairie surroundings through the use of two green roofs totaling 28,190 square feet. The design objectives were to reduce the visual impact from a “birds eye” view, create maximum opportunities for observation of the marsh and restore habitat. The green roof features include 16 inches of growing medium, wire mesh for rodent control, a 2-ply SBS Soprema membrane system, high and low level drains, filter cloth on a granular drainage layer, and rigid insulation. A wide variety of native prairie grasses and flowers were planted including Little Blue stem, Long Headed Coneflower and Western Wheatgrass. Isolated sections of the green roof are home to numerous birds, such as piping plovers, as well as a few ground squirrels. The soil depth of the green roof and burming on the sides of the building eliminates the need for a chiller. Every three years, the prairie grasses are repropogated through a controlled burn on the upper roof.

Category: Retrofit Combination

Peggy Notebaert Nature Museum, Chicago Academy of Sciences, Chicago, Illinois

Award Recipient: Conservation Design Forum, Landscape Architect

Perkins and Will, Architects
CE Anderson and Associates, Structural Engineers
Roofscapes, Roofing Contractor

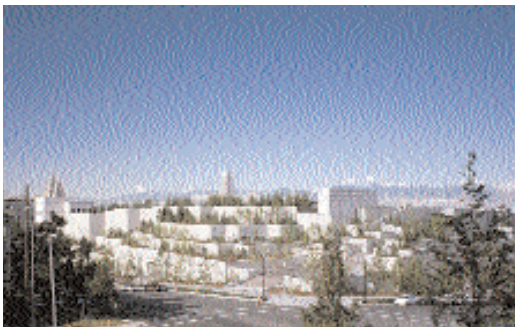
Located in the Peggy Notebaert Nature Museum on Chicago's north shore along Lake Michigan, this demonstration project has many positive features. The purpose of the project was to provide an educational opportunity for visitors to the museum. Although it is directly visible from a number of vantage points within the museum, the lack of loading capacity kept the project from being directly accessible to the public. Only 2,400 square feet in size, the project has four progressively thicker green roof systems along its 200 foot length and is designed in harmony with the existing architecture of the building. It utilizes a drip irrigation system, a solar driven water re-circulating pump, a retaining wall and features over 80 species of native and hardy ornamental plants. The green roof system includes a Sarnafil 60 ML waterproofing membrane, gravel drainage layer, and includes a 2.5 inch deep wetland section, a 4 inch deep transitioning extensive section, and 8 to 10 inch sections. The different sections also reflect different loading capacity capabilities ranging from 40 to 90 pounds per square foot. In addition to providing educational opportunities, this project provides opportunities for plant survivability research and sets the stage for additional green roof work at the museum.

Category: New Combination

The Church of Jesus of Latter-Day Saints Convention Centre, Salt Lake City, Utah

Award Recipient: Olin Partnership, Landscape Architect

Church of Jesus Christ of Latter-Day Saints, Owner
Simmer Gunsel Frasca Partnership, Architect
KPFF, Structural Engineers
Auerbach + Associates, Theater Consultants



This 1.1 million square foot conference centre, completed in 2000, is one of the world's largest religious buildings with room for over 20,000 congregants. The design objectives for this complex, located in Salt Lake City, were to integrate the building into the landscape of the Wasatch and Oquirrh mountain ranges. The designers also wanted to create a building that did not overwhelm the Mormon Temple adjacent to it. The roof is multi-leveled and over eight acres in size. The design incorporates the elements of water, stone, trees and meadows, along with planted terraces that step up 65 feet to roof gardens of firs, pines and a meadow. The meadow planting involved over a thousand volunteers that carried native plants up to the roof bucket-brigade style. The green roof system includes a Hydrotech membrane and drainage mat, 140N Mirafi geotextile filter fabric and a growing medium, comprised of expanded aggregate and organic matter, with a depth that ranges from 2 inches to 4 feet. Coniferous trees such as Douglas Fir and Bristlecone Pine are placed along free standing walls anchored to the roof structure to accommodate the soil depths. The roof absorbs vast quantities of rainwater lowering the peak rate of runoff for the ten acre site and eliminates the extremes of air conditioning for an assembly hall of this size. The vast expanse of meadowland and the firs, pines and aspens throughout, create an oasis for meditation and contemplation in an urban context, as well as being an important gathering point for the congregation and its social requirements.

Join Us in Portland 2004

Greening Rooftops for Sustainable Communities 2004 will be held in Portland, Oregon in May 2004. The Hamilton apartment green roof designed by The Garland Company, one of the first research demonstration projects in Portland, Oregon, will be on tour in 2004.

Thank You to All of the Green Roof Awards of Excellence Participants and Good Luck in Portland 2004!

Burt Hill Kozar Rittlemann Associates, Pittsburgh, Pennsylvania
Charles Simon Architect + Planner, Eden Mills, Ontario
Cornelia Hahn Oberlander Architect, Vancouver, British Columbia
Gustitus Group, Inc., Chicago, Illinois
Hughes, Good, O'Leary & Ryan, Inc., Atlanta, Georgia
Intrinsic Landscaping, Glenview, Illinois
MAGCO Inc., Jessup, Maryland
Pascoe Landscape Design and Planning Inc., Langley, Washington
Roofscapes, Inc., Philadelphia, Pennsylvania
Stone McQuire Vogt Architects, Toronto, Ontario
The Garland Company, Cleveland, Ohio
WC Consulting, Minneapolis, Minnesota
WHW Architects Inc., Halifax, Nova Scotia
Wolff Clements & Associates, Ltd., Chicago, Illinois
Xero Flor America, Lansing, Michigan

About Green Roofs for Healthy Cities

Green Roofs for Healthy Cities is a membership-based network of public and private organizations, established in 1999 to support the creation of a green roof industry. It is our mission to achieve the development of a multi-million dollar market for green roof infrastructure products and services in cities throughout North America in order to take full advantage of the many benefits these technologies offer. The objectives of the network are as follows:

- To generate new business opportunities for our members
- To advocate for the development of public investment in the market
- To facilitate integrated performance-based research
- To educate the public and provide training opportunities for practitioners

Services

We produce an extensive website, which profiles the products and services of our diverse members, which include architects, landscape architects, local governments, roofing contractors, and green roof product manufacturers. Our website also offers technical information about green roofs, highlights the latest in policy development, and funding sources.

Green Roofs for Healthy Cities also works with local communities to organize green roof training and market development workshops. These workshops allow communities to learn about green roofs from local and national experts, to identify local research needs and obstacles to implementation, and to develop supportive policy and program incentives. We offer a range of support services such as agenda development, logistical support, marketing and promotion.

Publications

We publish the semi-annual *Green Roof Infrastructure Monitor*™, which contains technical performance data, policy developments and new product/service developments from our members in the green roof industry. The *Green Roof Infrastructure Journal* is published on-line quarterly, and consists of more detailed technical information, which is available to members only on-line.

For more information about the cost and benefits of membership in Green Roofs for Healthy Cities, please visit our website at www.greenroofs.ca

Greening Rooftops for Sustainable Communities 2003 was co-hosted by Green Roofs for Healthy Cities and the City of Chicago.

www.greenroofs.ca