

Oaklyn Branch Library Evansville, IN

Assembly

Type IV - 14.00 inches of media

Irrigation

Base flood irrigation

Roofmeadow Contractor

Enviroscape

Awards

2003 AIA Indiana Honor Award

2004 GRHC Award of Excellence

Area

18,000 square feet

Waterproofing

PVC

Architect

Veazey Parrot Durkin & Shoulder

A green roof fit into the architect's concept, to blend the building into the landscape and to demonstrate an ecologically sensitive design appropriate to an educational institution. The site is steeply sloping and the earth-sheltered building is built into the slope. The green roof was designed to support a mesic meadow prairie native plant community that would mirror the landscape design for the remainder of the project. The mesic meadow prairie on the roof blends into the prairie meadow community surrounding the site of the one story building and the integrated landscapes have a high habitat value. In many locations it is difficult to determine where the building ends and the meadow begins.

The assembly is irrigated using the base flood irrigation system which introduces water to the green roof profile at the level of the roots. Since the roof is sloping 'roof ruffles' contain the water allowing it to be utilized by the vegetated cover. This is an extremely efficient method of irrigating a green roof and closely approximates natural conditions associated with shallow soil over shale bedrock.

The roof deck pitches uniformly at three percent toward one edge of the building. To reduce the potential for long-term service and maintenance costs, the roof deck was installed without roof drains. Runoff discharges from the down gradient side of the roof where it is collected in a vegetated swale. The green roof incorporates an internal drainage network composed of perforated rectangular conduits that intercept percolated water during large rainfall events and discharge it to the storm sewer.

This project is also noteworthy in that it was the first time that Roofmeadow used pneumatic equipment to disperse the green roof media.



Photo courtesy of Oaklyn Branch Library



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