Rain gardens for teaching

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"This rain garden is like a 15th laboratory, in addition to the 14 new labs inside the building," said Dr. Richard Rhodes, associate dean of the university of Rhode Island's College of the Environment and Life Sciences. At URI's new LEED-certified Center for Biotechnology and Life Sciences which opened in 2009, roof and surface rainwater is collected and conveyed through a series of bioswales, runnels, rain gardens and detention areas to make visible the University's teaching mission and its commitment to sustainability. The system will be expanded for two additional buildings, a College of Pharmacy and a chemistry lab building, in this new, sustainable campus precinct.

Designed by Carol R. Johnson Associates (CRJA) Landscape Architects, in collaboration with Payette Associates Architects and Pare Corp., civil engineers, the new storm water system is designed to cleanse and slow down rainwater runoff before it eventually is reintroduced downstream into the natural wetlands system.

The major components of the system include: collection systems from the roofs and ground surfaces that intersect with pathways for greater visibility; and three garden/filtration ponds with check dams which promote aeration, sedimentation, filtration, nutrient uptake, evapotranspiration and detention. The plantings are designed for year-round visual interest with varied forms, textures and colors of native trees, deciduous and evergreen shrubs, and perennials, grasses, sedges and rushes. The upland plants include traditional flowering garden plants such as astilbes, iris, lupine and phlox, and the wetland meadows include sedges, joe pye weed, cardinal flower, blue vervain, rushes and sedges.

CRJA is also developing a "Rain Garden Maintenance Manual" to foster academic and facilities management collaboration. The intent is for the rain garden areas to look like an intentional, visually interesting landscaped garden - not a traditional storm water detention basin filled with invasive plants. Rain gardens with perennials and grasses are clearly separated from the walkways, plazas and lawn areas which are maintained by the university's landscape maintenance crews.

"We are delighted to assist URI, a signatory on the American College and University Presidents' Climate Commitment, in making visible site features in the landscape that convey its academic and philosophic commitments to sustainability," said John Amodeo, principal of CRJA.

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