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Award for Innovation in Green Design - Product, System or Technology Category: Arts Court at Shady Hill School engages wetland by collecting and treating stormwater

June 20, 2013 - Spotlights

Shady Hill School is a private campus for primary through middle-school education, situated between Mount Auburn Cemetery and the Charles River. The school's eleven acres of landscape includes tree-lined paths, wetlands, and grassy recreational areas. It is a verdant campus with a small village feel, comprised of small one and two-story buildings that cluster to create courtyards and small quadrangles. At the northwestern edge of this academic village, Richard Burck Associates introduced a central courtyard to unite a new complex of buildings. Serving as an outdoor classroom for a diversity of programs, the Arts Court maximizes visibility between indoor and outdoor activities, while cleverly collecting and treating stormwater.

The selected open-joint stone paving allows for pocket planting, helping to slow and capture first-flush rainfall. Surface grading directs stormwater to drain inlets where water is then dispersed into a buried network of perforated pipes. Since initial establishment, the courtyard irrigation is now entirely passive, relying on stormwater alone. Beneath the courtyard's network of perforated pipes lie several feet of structural soil and a deeper volume of crushed stone, which receives all of the site's stormwater, slowing and filtering it before it is discharged into the adjacent wetland. This design promotes sediment drop and also reduces the stormwater volume that is eventually released. The flush deck, which features recycled-content, wood-plastic composite decking to frame the central stone courtyard, is structurally tied to the perimeter buildings to prevent differential settlement at building entrances.

The adjacent wetland's natural connections, which had been fractured by manmade disturbance, are now restored, thereby reestablishing a healthy ecosystem and wildlife habitat.

The Arts Court at Shady Hill School takes full advantage of its context to create an experiential landscape that serves its students, faculty, and staff, as well as the local environment.

Project Team:

Landscape Architect: Richard Burck Associates, Inc.

Architect: Machado and Silvetti

Civil Engineers: Judith Nitsch Engineering

Environmental Engineers/Soil Scientists: Pine + Swallow Associates

General Contractor: William A. Berry & Son, Inc.

Landscape Contractor: Prime Landscape Contractors

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