

BUSINESS SCHOOL RENOVATES CENTRAL COURTYARD

trees receive 500 ft³ of soil each & manage stormwater on-site



The Haas School of Business at the University of California-Berkeley wanted to renovate their central courtyard to create a more inviting and functional environment where students, faculty, staff, and visitors could gather and share ideas. This renovation, the school felt, was essential to furthering their mission to develop leaders who redefine business. Three interconnected buildings serve as the campus's community focal point and the interior courtyard area is its central meeting place.

The Haas building cluster was the last project designed by renowned American architect Charles Moore before his death in 1993, and a few eyebrows were raised when

a proposal was made to remove Moore's concrete tree planters and thereby alter the intimate spaces they created in the courtyard. Over time, however, the philosophy of the business school had evolved toward a collaborative model that called for an open, public gathering space rather than the intimate corners of the original design. In keeping with this philosophy, the client wanted the renovated plaza to be relatively flat and mostly paved so that it could accommodate tents and banquet tables and be used for commencements, fund raising events, and other social gatherings.

The original concrete planters needed to be removed in order to increase the usable surface area of the plaza and create



a more flexible “open-plan” outdoor space. The client also wanted to plant 12 new Red Maple trees that would thrive in the plaza courtyard and further enhance the inviting atmosphere for social and business gatherings. The landscape design team began looking for solutions that would support the addition of paving while also providing adequate growing conditions for the trees so that they would thrive as the gems of the plaza.

Jim Horner, landscape architect for the UC Berkeley campus, worked with the design team to select the Silva Cell as a means of providing support to the pavement and soil to the trees, thereby investing in the long-term sustainability of the plaza. Through close collaboration between Jim, the design team (GLS) and construction team (McGuire & Hester), the Silva Cells were integrated into the plans for the Haas plaza in a way that is consistent with the larger campus planning goals to prioritize spaces for people while also enhancing the green areas on campus.

In compliance with the those same campus planning goals, the University also wanted to avoid increasing the amount of stormwater runoff from the plaza, and the Silva Cells presented an opportunity to capture and cleanse water on-site using soil. Each Silva Cell frame can hold approximately 2 cubic feet of stormwater, a total of 1,200 cubic feet of water for the whole site. To capture the water, contractors made each planter into a tributary area and paved around each of the tree beds with permeable pavement granite planks with ¼” gaps filled with gravel.



The resulting system allows all of the runoff for the plaza to go directly into the soil contained in the Silva Cells. Underdrains provide a route for excess water to run off if necessary. Since all the stormwater from this part of the campus flows in to nearby Strawberry Creek, the University was concerned about controlling the quality of the runoff. By filtering all the plaza runoff through soil stored in the Silva Cells, they are able to maintain this quality control on-site.

The renovated plaza at Haas School of Business has 12 new trees and an increased usable surface area that will complement and facilitate the institution’s evolving mission toward collaborative and progressive business education and community building. Below this new space lies an innovative 2- and 3-layer system of Silva Cells that will nurture these new trees as well as provide stormwater management in compliance with the ambitious regulations of the University.

Installation Summary:

Average Soil Volume Per Tree: 500 ft³ (14 m³)

Catchment Area: 15,600 ft²

Number of Trees: 12

Total Silva Cells: 600 Frames, 260 Decks

Installation Date: Jan/Feb 2013

Installation Type: Integrated – Trees and Stormwater

Project Designer: GLS Landscape Architecture

Contractor: McGuire and Hester

Client: Regents of the University of California

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