University of Virginia, Harrison Institute and Small Special Collections Library

Charlottesville, Virginia

Owner
University of Virginia

Architect
Hartman-Cox Architects

Contractor
Skanska USA Building

Completion Date
2004

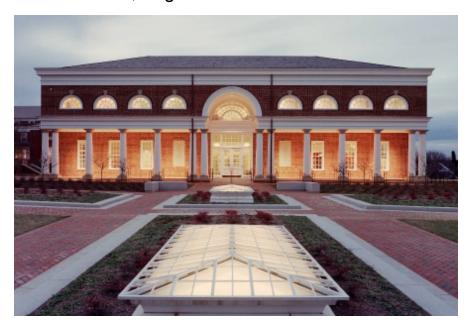**Construction Cost**
$22 million

Total Area
72,800 sf

Awards
Excellence in Structural Engineering Merit Award, New Buildings: $10-$25 Million, Structural Engineers Association of Metropolitan Washington, 2006

Rendering courtesy Hartman-Cox Architects

Photos courtesy Bryan Becker

Structural design for a new four-story, 72,800-square-foot library. Located near Jefferson's "Academical Village" and the University's older libraries, the exterior was designed to blend with the style of neighboring structures.

The bulk of the building, 80% of the total square footage, was built underground to preserve the open green of the library quadrangle while providing space for the special collections library, which also required well-controlled humidity and light levels. The building's upper levels house the Harrison Institute for American History, Literature, & Culture, which includes an exhibit gallery, an archaeological room devoted to Virginia history, seminar rooms and study areas.

The structure consists of a cast-in-place concrete, water-tight basement with an exterior double wall system designed to resist ground water uplift pressures. The below-grade floors were constructed of a combination of beams and one-way slabs, which are exposed to view, and continuous drop panels with pan-formed concrete joists. The third floor plan – at grade – supports plantings and hardscape, and features a vaulted room with skylights running down the center. A long-span section over an auditorium was constructed of composite steel beams that span 50 feet, and includes several column transfers from above.

A monumental staircase comprised of compound curves spirals its way up through the building. This stair is structured with a cast-in-place curved slab which follows the complex geometry.

Thornton Tomasetti