

STRENGTHEN YOUR STRUCTURE

Washington University Laboratory Sciences Building



Project Summary

This is a concrete framed structure, 5 levels, that consists of approximately 10500 cy of structural reinforced concrete and over 400,000 square feet of formwork contact surface. The building skin follows the collegiate gothic style of red granite and limestone that is typical of the WU Hilltop campus. The exterior concrete walls and columns are shaped solely for the purpose of providing the complicated structural back-up system for the highly detailed and complex building skin. These shapes include horizontal stone ledges that project from the face of the structural walls and uniquely shaped columns that create the form of the multiple styles of buttresses, projections and other exterior features of the building. The column shapes include "T", "L", "Y", as well as a variety of other shapes not defined by the alphabet, in multiple sizes. There are approximately 20 different column types used per floor, which vary and offset in dimension from floor to floor, and between floors, in addition to many sizes of traditional square, rectangular, and round column shapes. This project was highly complex, with very little repetition. Although most of the concrete work was not architectural, this project demonstrated the true versatility of concrete when used as the structural back-up system to create unique architectural elements of granite and limestone.

Owner

Washington University

Architect/Engineer

Skidmore, Owings & Merrill

General Contractor

BSI Constructors inc.

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