

Library In Metropolitan Washington, D.C.

Project Data

Occupant- County Library & Non-profit Art Group
Gross Square Foot- 90,000
Number of Stories- Five w/ One Story of Basement
Construction Cost- \$35,000,000
Actual Project Cost- \$69,530,000
Dates of Construction- January 2013 to October 2014
LEED Certification- Silver

Project Team

Owner- Undisclosed County Government
Architect- The Lukmire Partnership
Contractor- Costello Construction
Construction Manager- MBP
Envelope Commissioning- Gail
Third Party Testing/ Inspection Agent- Robert Balter
General Commissioning Agency

Construction

Delivery Method- Design, Bid, Build
Contract Types- Lump Sum (Contractor & Architect) and Time & Material (Construction Manager)
Cranes- Multiple, Two Largest 200 Ton and 120 Ton
Concrete Placement- Shoot, Crane & Bucket, and Pump
Structure Sequencing- West to Train Stop 1st Floor to Roof then Portion Over the Train Stop
Site Condition- Urban w/ Minimal Laydown & Site Space and a Residential Tower being Built in an Adjacent Lot

Architecture

The design incorporates a future light rail stop that cuts through the building leaving the profile of the first two floors in a wedge shape. On one side of the light rail stop is a glass semi-circular pavilion, and on the other side is the remainder of the first two floors to be fitted out. Spanning the pavilion and the first two floors is a three story library that also cantilevers 50' in the northern corner over the light rail platform.

MEP

An Integrated Packaged Equipment Center (IPEC) installed on the roof houses all the main pumps, blowers, and piping for the building. Mechanical system distribution is by forced air, radiators, and hydronic in-slab piping, all fed through a mechanical shaft. Two electric utility services feed the building; one 400A service for the coffee shop and a 3000A service for the rest of the building. Also on the roof is a cooling tower and a 2500KW natural gas fired generator.

Structural

42 concrete caissons will be installed at a variety of depths for proper bearing capacity. There will be three stair/ elevator towers that are cast-in-place concrete that act as shear walls for lateral bracing. Structural steel will make up the rest of the structure with composite concrete floor slabs. Roof trusses 15' in depth will span west to east. The two northern most trusses will have a 50' cantilever from which the northeast corner of the building will be hung.



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