

Building Statistics: Part One



Rendering courtesy of Devroux & Purnell Architects

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Option: Mechanical

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General Building Data

Building Name: Elementary School One
Location and Site: Maryland
Building Occupant Name: Elementary School
Occupancy/Function Type: Educational
Size: 84,400 sq. ft.
Number of Stories: 3 above and 1 below grade
Primary Project Team
Owner: Elementary School
Architect: Devroux & Purnell
Civil: Delon Hampton
M.E.P. (sponsor): JVP Engineers
Structural: Restl Designers
Landscape: Landscape Architecture Bureau
Dates of Construction: 2010 – August 2011
Cost: \$25 Million Budget
Project Delivery Method: Modified Design Build

Architecture

The existing school building was built in 1925 in Maryland. The school building is now listed on the National Register of Historic Places. In 2010, renovation of the existing building and construction of the addition began. The Addition is three stories which matches the existing school. New classrooms, a gymnasium and a library are what make up the majority of the addition. The addition is attached to the existing building on the west wall of the west wing of the school. The addition continues and is mostly lies southwest of the existing building.

Codes: IBC 2006, IFC 2006, NFPA 101 2006

Zoning: R-1, Residence District Use Regulations

Building Enclosure

Building Façade: The existing building façade is a red brick which is load bearing. The building section of the addition that is directly attached to the existing has facebrick on 6” metal studs. The facebrick is similar, but does not exactly match the existing brick. The rest of the addition is a combination of aluminum curtain wall system, clay tile cladding and architectural concrete masonry units. Most of the glazing is on the southwest corner of the building.

Roofing: The existing school has a pitched roof which is made of red ribbed metal roof panels. The addition has a flat roofs on 3” metal deck and 4” rigid insulation with nailable face. The flat roof has a white membrane for solar heat reflection that is attached to the rigid insulation with nails.

Sustainability Features

Elementary School One received LEED for Schools 2007 Gold Certification after the modernization. There are a collection of minor sustainability features helped them reach Gold. Here are some of the features listed below:

- Variable refrigerant flow systems
- Variable Air Volume boxes
- Dedicated outside air
- Energy heat wheels
- Lighting control (Ex. Occupancy sensors)
- Independent thermostats control for FCUs
- Solar heat reflecting roof membrane