

## Glen Burnie High School: Buildings D, E & F Glen Burnie, MD



Building D

### Project Summary

Number of Stories:..... 2-3 by building  
 Total Building Size:..... 110,000 SF  
 Total Renovation Costs:..... \$6,000,000  
 Project Delivery Method:..... Design-Bid-Build

### Project Team

Owner/Occupant: ..... Anne Arundel County Public Schools  
 Architect: ..... JRS Architects  
 MEP Engineer: ..... Johnson, Mirmiran & Thompson  
 Civil & Structural Engineer: ..... Carroll Engineering  
 General Contractor: ..... RWC Contracting  
 Mechanical Contractor: ..... Chilmar

### Mechanical System Summary

- Building D is cooled by a system of unit ventilators.
- Building F has a variable air volume system fed by 5 air handling units and 1 rooftop unit, as well as fan coil units located in the locker rooms.
- Both Buildings D & F receive chilled water from chillers located in Building A.
- Building E's cooling consists of a constant air volume system fed by 9 air handling units, as well as a unit ventilator which serves the gymnastics area.
- Building E is supplied by its own chiller.
- Heating for all 3 buildings is created and supplied by steam boilers located in Building F.



Building E

### Architecture

- Campus style high school comprised of 6 buildings.
- Building D a.k.a. Old Main houses art and language classrooms.
- Building E is the physical education building, housing the primary gymnasium and locker rooms, as well as a wrestling room, a weight room, and a gymnastics area.
- Building F is the Business Education Building and also houses an auxiliary gym and locker rooms.

### Electrical System Summary

- Building D receives power from a 1600 amp, 480/277 volt, 3 phase 4 wire distribution switchboard.
- Buildings E & F are powered by a 2000 amp, 480/277 volt, 3 phase 4 wire distribution switchboard.
- Lighting consists of fluorescent lamps in classrooms and metal halide lamps in gym areas.



Building F

### Structural System Summary

- Building D uses 1 way floor slabs with concrete beams and columns.
- Building E utilizes solid and ribbed floor slabs with concrete beams and columns.
- Building F consists of 2 way floor slabs supported by steel columns and beams.

**Wade Myers**

**Mechanical Option**

[www.engr.psu.edu/ac/thesis/portfolios/2011/wgm5002/index.html](http://www.engr.psu.edu/ac/thesis/portfolios/2011/wgm5002/index.html)