

# MEMORIAL VISTA

## // A North Virginia Office Building

### Architecture

**Façade** // 7 different types of Glazing, precast concrete panels, & metal paneling

**Roof System** // Pavers, fluid - applied liquid membrane topped with stone, & some rooftop planters

**Sustainability** // LEED Gold - targeted to achieve 60 points

**Design** // Core and Shell - Interior fit out will be complete after base build

**Priorities** // Quality and Security

**Number of Elevators** // 14

### Electrical

**System** // 3 transformers at 3750 kVA to 3 4000 A switchboards in Garage

// Bus-ways run feeders to panel boards on each floor

// 2 panel boards on each floor (1 in each wing)

**Voltage Needed** // 208 / 120 V

**Emergency Back-up** // ATS puts building on battery banks for short term  
// Diesel generator then powers 2500 A emergency distribution panel to allow 100A fire pump, 250 A life safety loads, and 2500A stand by loads to continue to run

### Structural

**Structure Composition** // Concrete

**Method** // Flat Plate Slabs with drop panels at columns  
// Post tensioning above Lobby & Multipurpose Space

**Formwork** // Peri SKYDECK panels

**Concrete Placement** // Crane and Bucket & Pump truck

### Mechanical

**System** // Water to Air system

// 2 AHU's per floor branching to VAV units

// 2 Closed loops—1 for condenser water & 1 for chilled water

**Components** // 2 Cooling Towers, 2 Chillers, & 1 Heat Exchanger

**Fire Safety** // CPCV piping and wet standpipes in heated spaces

// Dry standpipes in unheated spaces (garage)

### Project Info

**Function** // Office Building

**Size** // 322,725 Gross S.F.

**Building Height** // 5 Stories above grade on North Wing

// 6 Stories above grade on South Wing

// 2 Underground levels (parking)

**Dates of Construction** // April 2011—October 2013

**Overall Project Cost** // \$78.5 Million

**Project Delivery Method** // CM at Risk w/ GMP

CPEP Website:

[www.engr.psu.edu/ae/thesis/portfolios/2014/wjg5052/index.html](http://www.engr.psu.edu/ae/thesis/portfolios/2014/wjg5052/index.html) [wjg5052/index.html](http://wjg5052/index.html)

