

Belmont Executive Center, Building A

19755 Belmont Executive Plaza
Ashburn, VA 20147



Project Team

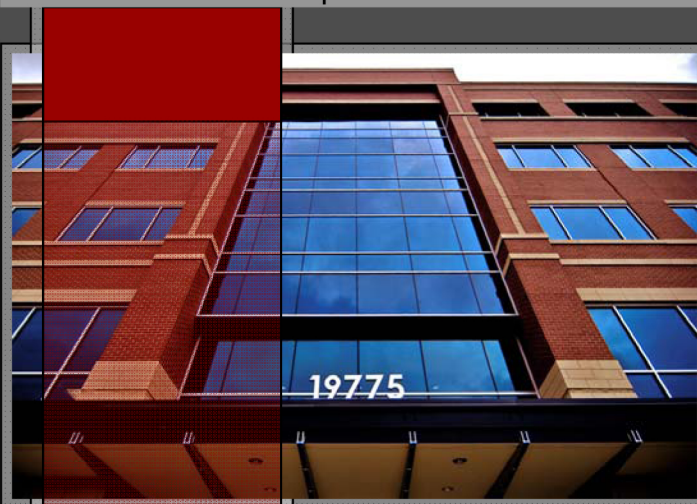
Owner	Toll Brothers Commercial
General Contractor	L.F. Jennings
Architect	The M Group Architects
Civil Engineer	Eastern States Engineering Inc.
Structural Engineer	Haynes Whaley and Associates Inc.
MEP Engineer	KTA Group Inc.
Landscape Architect	Urban Engineering & Associates

Project Information

Location	Ashburn, VA
Occupancy	Business
Total Size	124,661 SF
Stories	5
Dates of Construction	9/21/06 - 7/19/07
Contract Type	Guaranteed Maximum Price

Structural System

- Spread footings with perimeter grade beam
- First floor is a 5" slab on grade reinforced with #5 bars @ 15" o.c.
- Steel frame construction
- Floor system comprised of 6-1/4" of lightweight concrete on composite steel deck reinforced with welded wire fabric
- 4 diagonally braced lateral resisting frame
- Open web joists supporting roof



Architecture

- Flexible multi-tenant office space
- Primarily face brick construction with Arristcraft CMU block accents
- EFCO series curtain walls in center of building and ends
- Exterior terrace located on the backside, accessible from the fifth floor
- Mechanical equipment shielded behind a metal roof screen

Lighting/Electrical

- 277/480 volt, 3 phase, 4 wire switchboard with 4000 amp bus duct
- A 600kW, 480V, 3phase emergency diesel generator with a 900A output circuit breaker

Mechanical/Plumbing Systems

- 2 14000 CFM self contained units per floor with a variable control system supplying heating and cooling to north and south zones of building
- Individual wall heaters supplement heating load
- 1 344 ton cooling tower with heat exchanger
- Individual water heater/chiller per floor

Nicholas L. Ziegler: Structural Option

www.engr.psu.edu/ae/thesis/portfolios/2010/nlz5003/index.html