

Existing Construction Conditions

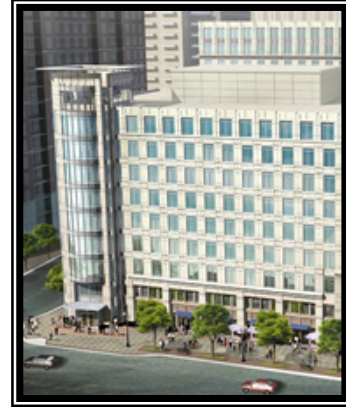
Nathanael Paist

Construction Management

Faculty Adviser: Dr. Messner

Two Liberty Center

Arlington, VA



Executive Summary

Project Schedule Summary:

- Design issued for bid – March 21, 2005
- Begin Excavation and Foundations – December 26, 2005
- Substantial Completion – September 8, 2007
- Interior space turned over for fit-out in phases per floor

Building Systems Summary:

- Shell and Core office building with below grade parking structure
- Soldier piles with wood lagging as excavation support
- Cast in place reinforced concrete frame and slabs
- Pre-cast concrete exterior wall panels with areas of glass curtain wall
- Central plant chilled water system serving 12 factory built Air Handling Units
- 2 main 3000A switchboards with a 1200A retail bus gutter

Project Cost Evaluation:

- \$34 Million building costs at \$109 per square foot
- *D4 Cost 2002* parametric estimate of \$33.7 Million
- *CostWorks 2005* square foot estimate of \$91 per square foot

Technical Assignment #1

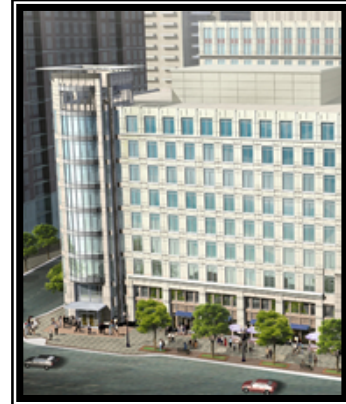
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Site Plan of Existing Conditions:

- Vehicular traffic most critical along south side of the site
- Pedestrian traffic redirected away from east and west sides
- No available on-site parking

Local Conditions:

- Cast-in-place concrete structures and pre-cast concrete facades
- Reusable soils need to be shipped off-site and stored
- Small amounts of contaminated soils
- Long lead time on permitting by local County

Client Information:

- Investors led by a developer with focus on time and quality
- Phased occupancy schedule by floor
- Liquidated damages for occupancy delays

Project Delivery System:

- Modified design-bid-build with contractor negotiation during design
- Contractor under cost-plus-fee with guaranteed maximum price