VA STATE CAPITOL Richmond, VA

Eric Fritz Construction Management



Project Team

- Owner: People of Virginia
- Owner Rep. Department of General Services
- Arcithect Hillier Architecture
- CM Gilbane / Christman Assoc.
- Structural Engineer Robert Silman & Assoc.
- Mech. & Elect. Engineer Joseph Loring & Assoc.
- Civil Engineer Draper Aden Associates



Mechanical and Electrical System

Mechanical

- Demolition of existing equipment
- Forced air handler units combined with a hot / cold water system.
- 7 100% Make-Up AHU's
- 8 Constant Volume AHU's
- 1 Variable Air Volume Unit
- Electrical
 - Demolition of existing equipment
 - 5 Switchboards with varying amperes
 - 208Y/120V, 3 Phase, 4 Wire System
 - 42 Panelboards

Project Overview

- 27,000 SF Subterranean Extension and a 90,000 SF Renovation.
- Total Construction Cost: \$64,800,000
- A CM at Risk project with a GMP contract being held with the owner.
- Construction Dates:
 - Extension: 7/19/04 to 12/1/05
 - Existing Capitol: 9/20/04 to 12/11/06

Architecture

- Existing Capitol:
 - Five story high structure
 - Jeffersonian Style Architecture
 - The facade is a three-ply stucco system
- Extension:
 - Two level subterranean structure
 - Exhibit space for artwork and historical items is the main feature.
 - High end materials will be used for the finishes.

Structural System

- Existing Capitol
 - Masonry Brick Foundation
 - Masonry Brick Structural Walls with stucco facade
- Extension
 - Structural concrete walls and slab on grade
 - Roof will be a concrete slab protected with waterproofing
- •An elaborate soil retention system will used to protect the Existing Capitol.
 - Consists of a slurry wall, jet grout

Senior Thesis 2004-2005

www.arche.psu.edu/thesis/2005/erf120