

# DEA Clandestine Laboratory Training Center

Quantico Marine Corps Base, Quantico, VA

## Project Team:

**Owner:** United States Navy  
**Occupant:** Drug Enforcement Agency  
Training Academy  
**A/E Firm:** Kling  
**Contractor:** Unknown, Out To Bid  
**CM:** Unknown, Out To Bid

## General Data:

**Size:** 34,152 sq ft  
**Number of Stories:** 1 story plus Mechanical Mezzanine Level  
**Dates of Construction:** October, 2006 – December, 2007  
**Cost:** \$10 million (available construction funds)  
**Project Delivery Method:** Invitational Bid for GMP

## Electrical:

- (2) parallel 13.2 kV feeders from utility
- 750 kVA main transformer steps down to 480V
- 1,200 A main distribution panel
- Outdoor 230 kW emergency generator powered by #2 fuel oil

## Architecture:

- Slab-on-grade masonry building
- Brick veneer accented with courses of CMU
- Large expanses of curtain-wall glazing for natural light
- Curved outline of 2:12 sloped standing seam metal roof
- Low building profile with deep roof overhangs
- Clerestory windows spanning west elevation

## Structural:

- Concrete strip footings along exterior walls
- Concrete spread footings under interior columns
- 6" concrete slab on grade reinforced by welded wire fabric
- Steel wide-flange superstructure
- Columns full height from slab to roof
- Typical bay size 34'x28'
- Steel tube cross-bracing and exterior support of roof canopy

## Mechanical:

- (5) draw-through AHU's ranging up to 10,880 cfm
  - o (3) VFD and (2) constant volume
  - o (1) 100% OA unit serving analytical lab
  - o (2) economizers with return fan integral to AHU
- (2) 105.5 ton air-cooled chillers serving AHU's
  - o (6) hermetic scroll compressors per chiller, (1) step each
- (3) ACU's serving electrical rooms and LAN equipment room
  - o Up to 2,200 cfm and 34.9 ton
  - o Each with separate air-cooled condensing unit
- (2) 1500 MBH natural gas fired boilers with #2 fuel oil back-up
- Fin tube radiators for sensible heating of exterior zones
  - o Up to 18 MBH with 27' active length
- Cabinet unit heaters in stairs, corridors, vestibules, and showers
  - o Up to 420 cfm and 50.8 MBH

David M. Potchak

<http://www.arche.psu.edu/thesis/eportfolio/2007/portfolios/DMP287/>

Mechanical Option