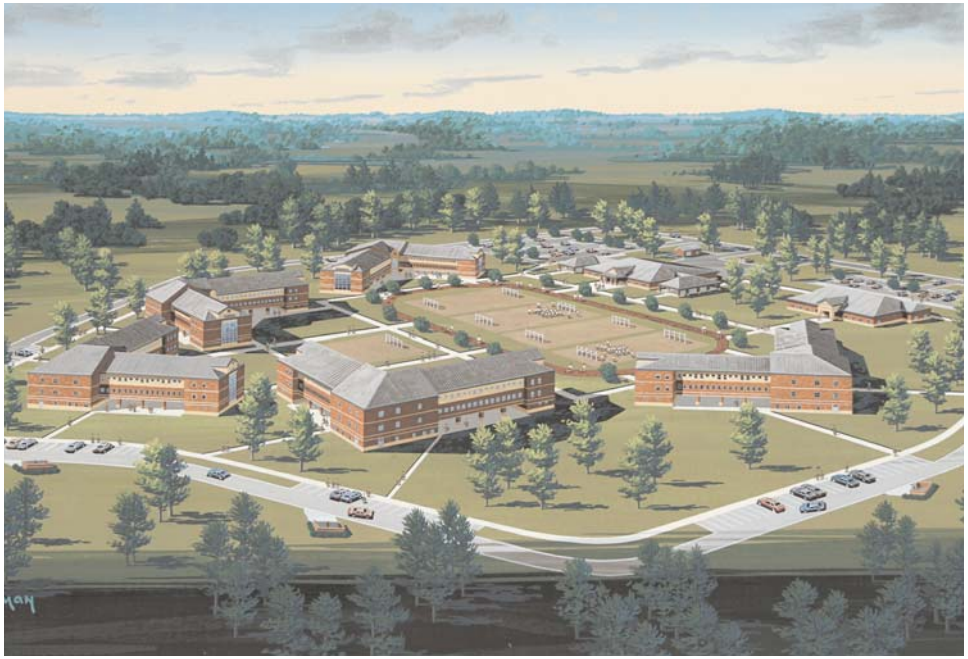


Basic Training Complex
Rendering by Don and Dave Coleman

BT Complex - Primary Features

Basic Training complexes are required by the Army to encompass living, dining, training and administrative/command operations. Basic Training complexes are comprised of Barracks/Company Operations Facilities (B/COF), Dining Facility (DFAC), Battalion Headquarters (BNHQ), and Lawn Equipment Storage Buildings (LEB).

These facilities, with outdoor training areas, and any additional support facilities, are arranged on the site as a unit to allow the battalion to live, eat, train, and work together. This statement of requirements does not address facilities for permanent party personnel; those are defined in other Department of the Army standards.

• B/COF is comprised of sleeping, latrine, classrooms, storage, and company operations components.

• DFAC is comprised of delivery, storage, preparation, cleaning, serving, seated dining, and field feeding components.

• BNHQ is comprised of administration, special functions, storage and classroom components for personnel assigned to work in those facilities.

• LEB provides storage for maintenance equipment and materials.

• The site includes a jogging track, physical training (PT) pits, vehicular and service access drives and parking areas.

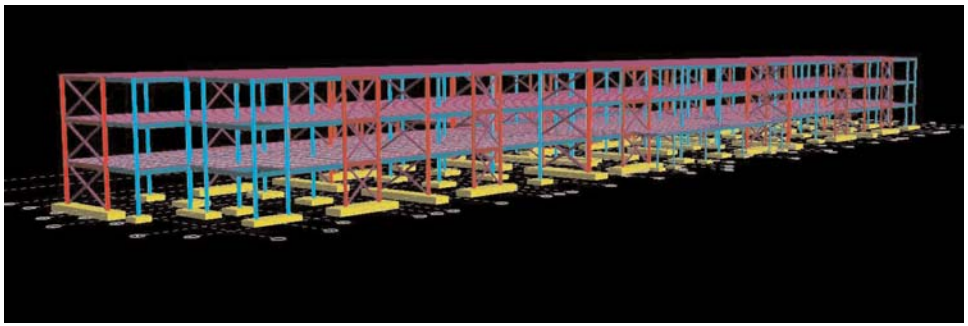
BIM-Based Design & Coordination

The use of enhanced, BIM-based three-dimensional visualization is a powerful and exciting feature of the facility design and construction coordination process. Rendered images alone do not maximize the effectiveness of BIM. That leverage is found in the ability of a BIM-based project to accurately simulate energy consumption, HVAC comfort levels, seismic and structural loadings, and life-safety requirements. This is a core objective of BIM-based design, and it is a central focus of the COS Facility Design Team.

Barracks/COF Facility Rendering

The BIM-based toolset includes:

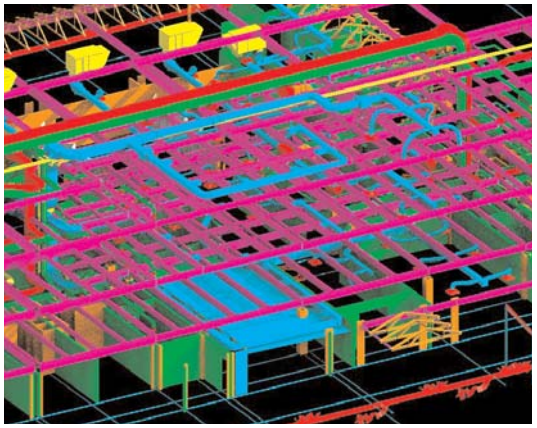
- Building Energy Analysis
- Sustainability Analysis
- Lighting and Day-Lighting
- Comfort Analysis
- Structural and Seismic Analysis
- Smoke Control and Sprinkler System Design
- Electrical Wiring Coordination
- Architectural Visualization
- Spatial Analysis

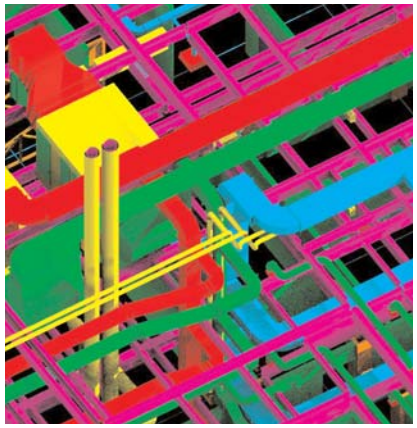


Structural Member “RAM” Model

BIM-Based Clash Detection

The COS Facility Design Team has sought to minimize the level of construction coordination that is left to the contractor's discretion. As design documentation has advanced to include increasing levels of schematic data, the utilization of BIM-based design has proven advantageous in identifying materials and systems clashes.





Multi-Discipline Clash-Detection Model

<u>BIM-based clash detection benefits include:</u>

- Reduced time and cost of contractor coordination efforts
- Improved service access to systems
- Early planning and integration of design disciplines
- Reduced RFI quantities
- Reduced time and cost associated with field changes

BT

BASIC TRAINING

Barracks Complex

A U.S. Army Standard Design Product

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