

■ ENGINEERING ■ ARCHITECTURE ■ DESIGN-BUILD ■ GEOSPATIAL SOLUTIONS ■ SURVEYING

AWARD WINNING PROJECT

**2006 USAF
Built Structures
Award Winner**

**2006 ACC
Merit Award**

**2005 ACC
Concept Design
Award Winner**

**2005 NCSEA
Structural
Design Award
Winner**



Merrick & Company designed this \$23 million Squadron Operations / Aircraft Maintenance Unit (AMU) hangar facility at Creech AFB, Nevada, for the support of Unmanned Aerial Vehicles (UAV's) operations and maintenance activities. This 69,029 sf project will provide a beddown facility for MQ-1 and MQ-9 aircraft. Merrick performed the structural, architectural, electrical, and civil engineering design, while the geotechnical, mechanical, and fire protection was completed by the Albuquerque District.

The 23,000 sf Squadron Operations administrative section of the facility will support mission planning, flight operations, briefing / debriefing and administrative functions, as well as commons areas for squadron personnel breaks and private / public functions. This section includes a briefing/debriefing theater, command and officers' suites, offices, conference theater, audio-video center, scheduling center, and kitchen and breakroom areas. The 6,600 sf AMU section includes an avionics lab, engine maintenance and repair areas, dismantling and repackaging areas for the UAVs, and training facilities.

While the Squad Ops and AMU components of the structure utilize concrete masonry bearing-wall systems with interior steel framing, the 40,000 sf hangar steel structure posed more difficult structural challenges. Because of the specialized requirements for UAVs, a roll-through design with hangar doors on opposite sides was required. The facility also had to accommodate twelve aircraft; this required clear spans inside the hangar of approximately 142 feet by 250 feet by 27 feet high. For thermal movement and seismic considerations, the hangar structure was separated from the rest of the building with a building expansion joint, creating two separate structures.

This Project Included:

- \$23 Million Aircraft Hangar and Support Facility
- Sustainable Design Practices
- Cost Estimates
- Security Systems Design
- HVAC Design
- Lighting and Power Distribution Systems
- Utility Systems
- Facility Ground and Roads

