

## **Category: 4-Best Building Project (Under \$2 Million-Subcontractor)**

### **Contractor: Associated Building Specialties, Inc.**

#### **Project Name: Shoot House**

Associated Building Specialties, Inc. (ABS) is proud to play a leading role in providing a state-of-the-art tactical training facility at Schriever Air force Base in Colorado Springs. ABS took a preliminary sketch and concept idea from the end-user and converted an empty metal building into a tactical shoot house. A surveillance system, tactical breach door, FlexTact modular panel system, observation mezzanine and perimeter walls were all architecturally detailed, designed and incorporated together to create the final product: a fully functional force-multiplier training facility.

The existing building contained structural roof trusses which required extensive coordination with the observation mezzanine system erected directly above the actual training area. Working within an existing space presented challenges in meeting the owner's requirement for a spectator area. A trainee's supervisor needed to be able to move to any area above the space to view the live action occurring below. A pre-engineered mezzanine was the eventual solution. Further coordination was required to align mezzanine supports in locations where they would not interfere with FlexTact's basic function: Panel mobility on demand.

The FlexTact system incorporated a 40' x 40' grid comprised of 4' x 4' sections of track, on which, were installed (50) 8' tall panels. The moveable panels included doors, windows and solid units, designed to allow the owner the ability to create various environments including apartments, offices, and commercial spaces. These different environments provide real-world training opportunities for active shooters, hostage situations and other tactical training. Each panel is designed to withstand the impact of a 250 lb+ person in a combat situation. Providing that level of stability in a modular design is what the FlexTact system is all about. Further, the high-impact laminate panel faces can withstand the impact of simunition bullets. Simunitions are non-lethal live rounds used in firearms to provide a real-world shooting environment with a residue illustrating the location of impact. Because the system is so flexible, the user can easily

modify the layout for multiple training sessions in different environments. The key is that trainees are unable to memorize the layout of the training facility.

One of the requirements of the owner was the inclusion of a breach door. A specially-designed steel door and frame were integrated into the perimeter wall to add to the variety of training activities. Breach doors are designed to withstand constant impact, forcing trainees to use rams to simulate breaking through locked or obstructed doors, without permanent damage to the door. Single-use pins are used to artificially latch the door during training.

The perimeter wall included the need for it also to be modular. We were not allowed to construct it using typical steel stud and drywall methods. The surface also needed to withstand combat impact and the simunition rounds like the FlexTact panels. Another requirement was for the units to sit just barely above the ground so that the wall components were not directly touching the floor. The solution was a customized design of 4"x4" steel posts and modular 8'x8' MDF and steel stud panels that are captured to each post instead of fastened. The perimeter wall requirements made the design critical to ensuring a high-impact breach operation successful without damage to the modular perimeter wall.

Additional requirements included a camera and DVR system to allow multi-angle, real-time viewing outside the training area, digital recording of all camera angles, as well as the ability to provide it in low-light situations. ABS delivered on the expectations by providing an 11-camera DVR system which automatically converts to an infrared system when lights are extinguished. This provides an option previously unrequested: nonstop action from lighted to unlighted/nighttime environments. The ability to enable trainees to see their performance immediately following the session also allows for higher quality training.

After a review and tour of the shoot house by a 3-star general, he was impressed with the prudent use of military funds to create a training facility of this magnitude. His words to the trainees included, "this force-multiplier facility makes us incredibly capable" and that the security of the base was "nationally critical" so the importance and quality of this training shoot house was money very well spent.

A short video profiling the project can be viewed here: [Shoot House Video](#)







