



CASE STUDY



Hubbell's Raised Floor Solutions Bring Flexibility and Function to Scott Air Force Base

Supporting U.S. Transportation Command and Air Mobility Command, Scott Air Force Base (AFB) in Bellevue, Illinois maintains an 8,000-foot runway, Air Traffic Control Tower and more than 960 buildings that comprise more than 7 million square feet of space.

Like many military and government locations, Scott AFB sees its fair share of construction projects. One of the current construction projects is USTRANSCOM (U.S. Transportation Command facility), a joint services consolidation project that includes moving the U.S. Army Surface Deployment and Distribution Command (SDDC) from Fort Eustis, Va. to Scott AFB of to serve the transportation effort. The new 200,000 square-foot multi-use office facility was designed for maximum flexibility to accommodate frequent mission changes, which is precisely why they decided to deploy a raised-access floor system.

The use of a raised floor is becoming more common in sustainable building design. It offers better space efficiency and facilitates the use of underfloor systems that can offer easy access to power and communications, while reducing the need for large overhead air plenum space that may ultimately result in overall higher building height. Power and data deliver systems in raised-access floor applications are reusable, reconfigurable and relocatable, which also reduces waste and improves total cost of ownership by eliminating the need to install completely new systems when needs change.

"Military and government facilities are constantly shifting people and responsibilities," says Mike Kemper, project manager for Pyramid Electrical Contractors, the Fairview Heights, Ill. full service contractor responsible for deploying the raised-floor power and communications systems at Scott AFB. "The flexibility and ability to reconfigure in this environment is vital, and a raised floor offers much faster deployment of power and data systems. For Scott AFB, speed of deployment was a major factor since they were closing other facilities and consolidating responsibilities at the new multi-use location."

For the Scott AFB TRANSCOM facility, the U.S. Army Corps of Engineers specified Hubbell's CONNEXION zone distribution system. This factory-assembled modular wiring system delivers power to workstations in raised-floor applications using centrally-located zone distribution boxes that receive power from the power distribution panel. Plug-and-play extender cables then deliver power from the boxes throughout the raised floor to points of use, which can include power poles, furniture feeds and pre-wired raised-floor access boxes.



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Phone (800) 288-6000 • FAX (800) 255-1031 • Website: www.hubbell-wiring.com

GreenWise is Hubbell's sustainability initiative that aims to enhance efficiency and moderation in the use of energy, space and materials.

The CONNEXION zone distribution boxes and extender cables can be easily reused and reconfigured to deliver power anywhere in the raised floor environment. For the Scott AFB project, 75 CONNEXION zone distribution boxes were deployed under the raised floor to feed power to power poles, furniture systems and nearly 650 Hubbell AFB series raised access floor boxes that housed Hubbell duplex receptacles for normal and backup power, as well as voice and data connections. Another 400 Hubbell raised access floor boxes were deployed for delivering voice and data only.



“The Scott AFB project included one floor box per work station, and for flexibility and future reconfigurability, we were required to include 10 feet of slack at every box location,” says Kemper. “It’s a very congested office environment that includes 6’ x 6’ cubicles for upwards of 1500 employees.”

Responding to the changing needs at Scott AFB required a lot of coordination and redesign. Rich Arthur, applications engineer for Hubbell, worked closely with Kemper and Pyramid Electrical to ensure proper design of the system. “Mike Kemper sent us drawings of what he needed, and we then translated those into CAD drawings and ensured that the system would meet the needs,” recalls Arthur. “Throughout the process, several of the circuits needed to change to accommodate furniture systems and other requirements that changed from the original design.”

Many “green” LEED-certified facilities use a raised floor to accommodate an open floorplan that avoids blocking areas off from exterior windows to introduce more daylight and views into occupied areas of a building. The LEED rating system for new construction provides points for maintaining a direct line of sight to the outdoor environment in either 75% or 90% of occupied areas. The new Scott AFB TRANSCOM facility will have a Silver LEED certification. In fact, the new building is so flexible and smart in function and use that it recently won a merit award for concept design by the United States Air Force. Raised-floor solutions like Hubbell’s CONNEXION zone distribution system and raised-access floor boxes help make that flexibility and functionality possible.

