

The Exchange

# Fast-track LEED® Certifiable New Store



## value promise

14% less energy use for long-term savings. Environmental pilot for future facilities.

As part of the Army and Air Force's initiative to construct all new buildings to green standards, the Army and Air Force Exchange Service (AAFES) made plans for a new, sustainable retail facility on the Randolph Air Force Base in Texas. The one stop, state-of-the-art facility, serving more than 50,000 active, reserve, and retired military personnel and their dependents, was one of the first AAFES facilities to pursue LEED® Silver certification. It was also part of the USGBC's pilot program to develop LEED guidelines for the retail industry. SSOE spearheaded the design of the facility with a food court, sales area, specialty vendors, on-site fuel stations, outdoor lifestyle areas, and a loading dock, while also managing LEED certification efforts.

SSOE designed a data / voice, fire alarm, and mass notification combination system for this 167,000 SF facility. As part of the data communication system, a wireless study was performed to determine the best placement of wireless internet antennas. The wireless system was designed to comply with the IEEE 802.11 wireless standard.

Using more than 20% recycled materials, the facility also features an energy management system to coordinate efficient lighting, heating, and air conditioning systems that reduce energy consumption and costs. A roofing membrane reflects 78% of sunlight minimizing energy use within the facility and water-efficient equipment reduces water consumption by 20%. A central cooling tower and chilled water system provide a high efficiency. Using 14% less energy than a traditional similar facility, AAFES has used this environmental model of how to conduct future design and construction projects. Other distinctive aspects of the project include implementation of Anti-Terrorism Force Protection (ATFP) standards relative to siting considerations, building controls, and security systems.

**size** 167,000 SF

**location** San Antonio, Texas

## highlights

LEED® Silver certifiable

Adaptive and complementary architectural style integrates with surrounding base

Fast-track, design / build project

20% recycled material use

Energy efficient utilities

Pilot facility for USGBC's LEED for retail guidelines

Performed design and LEED application process