

Naco Border Patrol Station

BRAE™ Rainwater Harvesting System Hydrates New Desert Border Patrol Facility

Industry:
Government

Category:
Water Reuse

Location:
Naco, AZ

Installation:
Rainwater Harvesting System



CUSTOMER: Naco, Arizona Border Patrol Station

SCOPE: Complete sustainability for the new Naco Border Patrol Station

CHALLENGE: Based in the Chihuahuan Desert, every drop of water counts

SOLUTION: BRAE rainwater harvesting system

RESULTS: Rainwater used for irrigation and toilet flushing

"Where there's little rain, there's all the more reason to rein-in as much of it as possible, and that's what they've chosen to do."

*- RKS Plumbing and Mechanical Inc.
Project Manager
Jeff Jones*

In October of 2010, ground was broken for a new \$40 million, 58,000 square-foot facility, the Naco Border Patrol Station. The key design criterion: sustainability. The station was equipped with a BRAE rainwater harvesting system because in the Chihuahuan desert, every drop of the life-giving natural resource counts.

Buried underground are two, 25,000-gallon fiberglass water storage tanks; the centerpiece of the new BRAE rainwater harvesting system. The building's standing seam roof will collect nearly half a million gallons each year. This water, which ends up in the underground tanks, will be used to irrigate outdoor plants and grass and also to flush toilets inside.

The system, like all BRAE systems, has four major components: inlet filtration, storage, a Rainset™ and treatment components. The self-cleaning inlet filtration is buried just below grade, with a manhole cover for access. What little sediment that collects on the filter is flushed into the system overflow. After passing through a series of strainers, the water continues into the subterranean storage tanks.

The Rainset™ is built on a skid in the mechanical room and serves as the control station, treatment station, and pressure booster pack all in one. Although there's a submersible pump in each of the tanks, the Rainset™ at Naco includes a dual pump system with two, five-HP pumps to boost water pressure for toilets and the sprinkler system. Monitoring, pump and cleaning controls are also mounted on the skid.

