

CASE STUDY

Federal Correctional Complex, Beaumont WATER CONSERVATION RETROFIT

Federal Correctional Complex, Beaumont (FCC, Beaumont) is a large federal prison for men consisting of two different levels of security, including low, medium, and high, in unincorporated Jefferson County, Texas, near Beaumont.

The prison was opened in 1998. It accommodates over 5600 male prisoners. FCC, Beaumont is operated by the Federal Bureau of Prisons.



THE CLIENT CHALLENGE

Federal agencies must reduce energy use in their facilities by 30% from their 2005 baseline by 2015. The facility houses over 5,600 inmates in low, medium, and high security areas.

THE WATER SOLUTION

The scope of work included one-on-one replacement of existing sanitary fixtures in cells, restrooms or retrofitting of existing fixtures and valves to decrease water usage. Water fixtures operated as before and our scope of work provided for the retrofit and installation of new low flow consumption flush valves, toilets, and sinks. RTS Water also installed a new ozone system on commercial laundries as well as have installed electronic devices to limit toilet flush frequency and shower usage. We also removed existing residential-style washers and dryers from the facility. Modifications to the existing laundry facility were also included.

Our scope also included ensuring that the existing toilets are flushing at the correct rate of 1.6 gpf, the urinals are replaced with new 0.13 gpf fixtures, the existing lavatory faucets are retrofitted with 0.5 gpm spray moderators and shower heads are replaced with new 2.0 gpm fixtures.

THE RESULTS

The overall savings was significant. Utility savings were generated in three different areas: water, sewer, and natural gas usage. Most of the savings resulted from water and sewer reductions. The natural gas was saved by the reduction in hot water consumption. Since less hot water is being used, less energy is required at the hot water heater.

ECM's (Energy Conservation Measures):

Plumbing Fixture Retrofits, Commercial Laundries, Electronic Usage Controls.

FOR MORE INFORMATION

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