

CASE STUDY

Quick4 Chambers Installed in Soil Absorption System for WWTP

Jackson, WY

SYSTEM SPECIFICATIONS

Soil Absorption System for 45,000 GPD Wastewater Treatment System

INSTALLATION DATE

June 2006

PRODUCTS

Quick4® Standard Chambers

OWNER

Snake River Sporting Club Development Co. LLC,
Jackson, WY

ENGINEER

The Meridian Group Inc. Jackson, WY

INSTALLER

Killroy LLC, Alton, WY

DESCRIPTION

Snake River Sporting Club is a first-class golf and sporting community on 554 acres along the Snake River in Jackson Hole, WY. The area is closely protected by state and county agencies. When the 71-lot residential development with an 18-hole golf course, clubhouse and restaurant was proposed, a suitable solution was necessary for handling the wastewater onsite.

Several distribution and wastewater treatment options were evaluated including pressure sewer, gravity sewer and centralized lift stations, sand filters and a conventional wastewater treatment plant. A community soil absorption system was the preferred solution due to area topography, anticipated seasonal occupancies, limited siting area within the project boundary, ease of construction and minimal O&M requirements.

Each building has its own septic tank which provides primary treatment. The effluent is then transported via a pressurized sewer to dual high capacity siphon units. Then the effluent is dosed alternately between two community chamber leachfields. Infiltrator chambers were specified to minimize required leachfield dimensions. The chambers are installed in three equally sized cells consisting of a total of 3,270 Quick4 Standard chambers. One of the three cells is rested on a yearly basis leaving two cells operational under uniform pressurized distribution.

Two areas within the project are served by gravity sewers terminating at common septic tanks. Through the use of a Orenco Bio-Tube filter, duplex pumping units are inserted directly within the septic tanks serving both these locations. The Clubhouse which generates both sanitary and kitchen wastes has two gravity sewer service lines. A 6-inch line carrying sanitary wastes discharges to the first of two septic tanks connected in series. A 4-inch line conveying kitchen wastes discharges to a 1,500-gallon grease interceptor and is subsequently connected to the 6-inch sanitary main. Effluent is then conveyed to a separate pump chamber and the pressurized network. Isolation valves within the network were incorporated to facilitate system operation and maintenance and to minimize service interruption. Effluent will enter the bed and filter through the soil then into the groundwater.



IWTCS-CHAMBERS-150808

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