

## CASE STUDY

# Chambers Used in New System for Raceway

## Avondale, AZ

### SYSTEM SPECIFICATIONS

4,250 GPD Wastewater Treatment System

### INSTALLATION DATE

Fall 2004

### PRODUCTS

High Capacity Chambers

### OWNER

Phoenix International Raceway, Avondale, AZ

### ENGINEER

Septic Technologies, Goodyear, AZ

### INSTALLER

Septic Technologies, Goodyear, AZ

### DESCRIPTION

Phoenix International Raceway is located in the foothills of the Estrella Mountains in Arizona and has long been associated with NASCAR Racing. The raceway was in need of a new wastewater treatment system to serve its infield concessions, medical buildings, restrooms, and offices. The existing stone and pipe septic system was no longer sufficient and was beginning to fail.

A new stone and pipe leachfield was first considered, however because of the size and location of the system, Infiltrator High Capacity Chambers were ultimately selected. The system was to be installed in the infield for the raceway which posed some space restrictions and made for an oddly shaped area for the leachfield. The chambers offered more design flexibility when compared to the proposed stone and pipe system and were faster and easier to install.



To meet the demands during race events, a 4,250 gallons per day (GPD) wastewater treatment system was designed. It included two custom-built in-series septic tanks (6,400 gallons and 4,100 gallons) and 1,525 feet of Infiltrator High Capacity Chambers in a gravity-fed leachfield. The chambers were installed in 15 100-foot-long trenches and one 25-foot-long trench for a total of 1,525 linear feet with six feet of separation. On race days the system is subject to high peak flows. The increased storage of the chamber system has the ability accept large volumes of wastewater and store it. The soil is then able to slowly accept the wastewater and provide treatment.



Kelly Brungardt with Septic Technologies was pleased with the cost savings of using chambers as well as their design flexibility. Today the system continues to perform well and keep with the pace that Phoenix International Raceway is known for.

