



CASE STUDY

PROJECT NAME

Phoenix International Raceway
Avondale, AZ

SYSTEM SPECIFICATIONS

4,250 GPD gravity-fed septic system with two septic tanks in-series utilizing 265 Infiltrator High Capacity Chambers

PRODUCT USED

Infiltrator High Capacity Chambers

INSTALLATION DATE

September 2004

DESIGNER

Kelly Brungardt
Septic Technologies
Goodyear, AZ

INSTALLER

Kevin Kirkpatrick
Septic Technologies
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OWNER

Phoenix International Raceway
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High Capacity Chambers Installed in NASCAR Raceway's Wastewater Treatment System

SUMMARY

The Phoenix International Raceway needed a cost-effective replacement septic system that would be able to keep with the pace.

CHALLENGES

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. An easy to install and cost effective approach was required.

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 to 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.

SYSTEM DETAILS

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.

RESULT

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.