

CASE STUDY

GUIDED AUGER BORING | ROAD CROSSING

**Project Name:**

I-95 Waterline Crossing

**Prime/Sub Contractors:**

Rising Sun Inc. – Fairfax, VA

**Location:**

Stafford County, VA

**Owner:**

Public Utility Authority

**Ground Conditions:**

Lean clay conditions

**Akkerman Equipment:**

Model 240A GBM System with Akkerman Quick-Connect System. Akkerman Lubrication System and Guidance Systems. Paired with Michael Byrne D72-1.5 Auger Boring Machine

**Pipe:**

42-in steel casing

**Total Length/Longest:**

462 LF

PROJECT OVERVIEW

Rising Sun Inc. completed guided auger boring operations for a waterline crossing beneath I-95 in Stafford County, Virginia. The project required precise installation of a 42-in steel casing over an extended drive length while maintaining strict alignment tolerances beneath a major transportation corridor.

Utilizing the Akkerman 240A GBM System in conjunction with an auger boring machine, the crew achieved accurate line and grade control throughout the installation. The project marked a successful application of guided auger boring technology in high-profile infrastructure crossing conditions.

- Applied controlled installation methods to maintain alignment within tight tolerance requirements

OUTCOME

- Successfully completed the 462 LF guided auger bore beneath I-95
- Achieved line and grade accuracy within tight project tolerances
- Maintained consistent performance throughout the long installation in clay conditions
- Enabled installation of critical waterline infrastructure with minimal surface disruption
- Demonstrated the effectiveness of guided auger boring for long, high-precision roadway crossings

THE CHALLENGES

- Maintaining strict line and grade accuracy beneath an active interstate corridor
- Executing a relatively long guided auger bore requiring consistent alignment control
- Working within lean clay soils requiring controlled excavation and lubrication
- Meeting tight tolerance requirements for waterline installation

THE SOLUTION

- Utilized the Akkerman 240A GBM System with Quick-Connect and guidance systems for precision alignment
- Integrated lubrication systems to reduce friction and maintain bore efficiency over long distances
- Paired guided boring technology with the auger boring machine to optimize excavation and advance rates

