

New Design Road Water Treatment Plant

Tuscarora, MD



Project Description: Expansion of the New Design Road Water Treatment Plant, including the addition of a new Filter Building and Grit Facility, required foundation support in challenging subsurface conditions (Karst geology).

GeoStructures provided both design and installation of high capacity micropiles bonded into rock for support of a new filter building foundation in pinnacled limestone. Pre-production verification testing and extensive production proof testing were employed to verify pile load carrying capacity and to optimize the pile design. The installation of three hundred sixty one (361) micropiles with a design load of 200 kips in compression and over 20,000 LF was completed in the fourth quarter of 2008.

Owner: Frederick County Department of Public Works, Frederick, MD

General Contractor: Fru-Con Construction Corporation, Tuscarora, MD

Structural Engineer: Rummel Klepper and Kahl, Baltimore, MD

Geotechnical Engineer: Rummel Klepper and Kahl, Baltimore, MD