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**Market:** State, Transportation, Utilities

**Client:** Genesis Group

**Owner:** FL Dept. of Transportation

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## Project Profile

MAE provided design and construction phase services for the replacement of the CR-127 bridge over the north prong of the Cedar River in Baker County, Florida - a \$1.6 million Design-Build project. Design phase services included two SPT borings for the new bridge, advanced to depths of 115 to 125 feet below existing grade. Based on the results of the borings and consideration of total scour and downdrag loads on the piles as well as the factored design load, FB-Deep analyses showed the 18-inch square prestressed, precast concrete piles would achieve the required Nominal Bearing Resistance at a depth of about 50 to 60 feet below existing grade. Construction phase services included providing a full-time, FDOT-certified Pile Driving Inspector. MAE was responsible for observing piles upon delivery, monitoring test pile driving and PDA operations, providing recommended production pile lengths based on the test pile results, and completing pile logs during test pile and production pile driving. The project included installation of (30) 18-inch square piles: six test piles and 24 production piles for a replacement bridge deck 156' long by 43' wide consisting of two end bents and four interior bents. Foundation Certification Packages were provided to the FDOT upon completion of each bent.

**Services:** Construction Engineering Inspection

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