PROJECT OVERVIEW AND CHALLENGES

Bradshaw Construction Corp. was subcontracted to Rockdale Pipeline Inc. (RPI) to tunnel under the Hillsborough river and install an 84-inch diameter water main in the tunnel. Two shafts were constructed on either side of the river by RPI using driven steel sheets. BCC mined the tunnel by jacking a 98-inch diameter steel casing behind a 101-inch diameter earth pressure balance (EPB) tunnel boring machine (TBM) manufactured by Lovat of Ontario, Canada. The tunnel was completed successfully through difficult ground conditions including layers of hard and abrasive chert and high groundwater pressures.