DEFLECTION TESTING

This type testing is used to check the roundness of the pipe, which ensures proper laying of the pipe.

Questions to ask: What size of pipe? (8”, 10”, and so on)
What type of pipe? (SDR26, SDR35, HOBOS, ETC.)
Is the deflection 5% (standard) or different?
(Example: 8” SDR35 5% deflection)

Equipment needed: deflection gauge (mandrel), examples = Hurco whistle gauge, single size gauge, multi size (change out end plates to match pipe size example, 6”, 8”, 10”, 12”), aluminum gauges and TKO option to single gauges. Line stringer, rope reel, and parachute to match pipe size. Alternate rope reels are 3/8” poly rope set up on carts, tiger tail, or winch cable system with bottom roller to pull mandrel through.

Procedure: set line stringer up on downside manhole, tie parachute to mandrel. On the other end of the mandrel attach line from rope reel. Next, place chute and mandrel in upstream manhole. Have a person start line stringer with another person placing their foot on the rope reel (lightly). The draft from the line stringer will pull the mandrel through the line if the line is clean. (A CLEAN LINE IS VERY IMPORTANT!!) On small lines use lightweight gauges such as whistle gauges and on larger lines, 12” and up, chute will pull multi mandrel with various end plate sizes. If this does not work, use line stringer to hook up to 3/8” rope or winch cable. Run rope through tiger tail before pulling tag line back to rope reel. Next, attach rope or cable to mandrel, if using cable set roller up in bottom of manhole where pulling winch is located. Attach rope or cable to back of mandrel for safety should mandrel get stuck in line. (TKO option works well in these cases.) Start pulling mandrel back at a steady easy pace.
DEFLECTION GAUGES

Multi-Size Deflection Test Gauges
Stationary Deflection Test Gauges

"Whistle" Gauge