

SECTION SG-SPECIAL – STAFF GAUGES

DESCRIPTION

The Contractor shall install two (2) staff gauges (one upstream of the new weir location and one downstream of the new weir location) at a location to be determined and approved by the Engineer or County Representative. The Contractor shall provide all necessary equipment, labor and materials and perform all work necessary to complete installation of staff gauges, including galvanized steel pipe posts or concrete support piles for the staff gauges.

DATUM SIGN, DATUM HEIGHT OFFSET, NUMBER FIGURES AND HASH MARKS:

The CONTRACTOR shall furnish materials conforming to the following provisions:

- A. For pipe post mounted staff gauges, top staff gauge board shall be Tangent Technologies, LLC – PolyForce -- color extruded structural recycled plastic lumber or DISTRICT approved equal, two (2) inches x ten (10) inches white skin over black core. Bottom board shall be Tangent Technologies, LLC – PolyForce - structural recycled plastic lumber or DISTRICT approved equal, two (2) inches x twelve (12) inches black.
- B. For concrete pile mounted staff gauges, staff gauge board shall be Tangent Technologies, LLC – PolyForce - color extruded structural recycled plastic lumber or DISTRICT approved equal, two (2) inches x ten (10) inches white skin over black core.
- C. Hash marks, number figures, and adjustment channel shall be routed into staff gauge board by use of a computer numerical control (CNC) machine to the depth where black core is clearly visible within the entire routed area. Hash marks shall be graduated in tenths of a foot.
- D. Datum sign (NAVD 88 SFWMD) panel with white and red color core material. Sign shall have a red border and be permanently mounted into routed cavity at the top off staff gauge board.
- E. Datum height offset (+1.28' TO NGVD 29) shall be routed in staff gauge board to the depth where black core is clearly visible within the entire routed area.

STEEL PIPE POSTS:

- A. Pipe posts may be driven either manually or dynamically. In rock areas or soft bottom areas, diagonal bracing with pipe or two (2) inches x six (6) inches pressure treated lumber may be required to obtain sufficient stability.

CONCRETE PILES:

- A. Pre-punching or pilot-drilling holes shall be performed when necessary to allow piles to be driven through rock.
- B. Concrete piles shall be capped with a one (1) inch minimum thick layer of non – shrink epoxy grout applied after driving the pile. Prepare the surface of the pile in accordance with grout MANUFACTURER’s instructions.

STAFF GAUGES:

- A. The CONTRACTOR shall install permanent slide mounted staff gauge(s) on concrete pile(s) or steel pipe post(s) with elevations referenced to NAVD 88 as shown on the Drawings. A 5” high x 8.5” wide sign with two (2) inch Series B alphabet height shall be permanently mounted into a routed cavity at the top off staff gauge board to identify the NAVD 88 reference datum.
- B. The CONTRACTOR shall level staff gauge elevations to within +/- 0.01 feet or less. All leveling will be performed under the direct supervision of a Professional Surveyor or Mapper licensed in the State of Florida. Leveling will meet or exceed the National Geodetic Survey Standards for third order leveling (12mm√k). Field notes for each site shall be reviewed by surveyor and certified as meeting the leveling standards.

METHOD OF MEASUREMENT

Measurement will be by each

BASIS OF PAYMENT

Payment will be made under:

Item No. SG-SPECIAL Staff Gauges – by each

END OF SECTION SG-SPECIAL