



**SPECIAL PROVISIONS
FOR
REGENERATIVE CONVEYANCE**

**Polk County
IM-080-3(264)124--13-77**

**Effective Date
July 16, 2024**

THE STANDARD SPECIFICATIONS, SERIES OF 2023, ARE AMENDED BY THE FOLLOWING MODIFICATIONS AND ADDITIONS. THESE ARE SPECIAL PROVISIONS AND THEY SHALL PREVAIL OVER THOSE PUBLISHED IN THE STANDARD SPECIFICATIONS.

230182.01 DESCRIPTION.

The purpose of this specification is for construction of regenerative conveyance pools and riffles for treatment of storm water runoff.

230182.02 MATERIALS.

A. Sand.

Comply with Section 4134 of the Standard Specifications, Gradation No. 36.

B. Wood Chips.

Provide shredded hardwood chips\mulch. Per Section 4170 of the Standard Specifications.

C. Sand\Wood Chips Riffle Base.

Thoroughly blend sand and wood chips to provide a mixture of 70% sand and 30% wood chips by volume.

D. Erosion Stone.

Comply with Section 4130 of the Standard Specifications.

E. Engineering Fabric.

Comply with Article 4196.01, B, 3 of the Standard Specifications.

F. Revetment, Class E.

Comply with Section 4130 of the Standard Specifications.

G. Topsoil.

Comply with Article 4170.09, A of the Standard Specifications with the following additions: Topsoil must contain minimum 2% organic content. Organic content to be verified with laboratory testing 1 sample per 200 cubic yards.

H. Water.

Supply potable water for compaction of sand\wood chips riffles. In lieu of potable water, supply clean, clear water, free of harmful contaminants, from a source approved by the Engineer.

230182.03 CONSTRUCTION.

- A. Verify all trash, debris and frozen material is removed from sand\wood chip riffle base material.
- B. Remove all vegetative ground cover from riffle base area.
- C. Do not place sand\wood chip material on frozen ground.
- D. Scarify soil to a depth of 12 inches prior to placement of sand\wood chip material. Compaction not to exceed 200 PSI at 6 inches or 1.25 gm/ccm
- E. Deposit sand\wood chip material in horizontal layers no greater than 8 inches in loose thickness.
- F. Compact sand\wood chip material lifts by two passes of a vibratory plate compactor or equal method.
- G. If sand\wood chip material is dry to the extent that it will not satisfactorily compact the Contractor may moisten the material.
- H. Install class E revetment at base of riffles as shown in plans; top surface of revetment to be flush with grading surface of riffle.
- I. Install erosion stone along downstream slope of riffle as shown in plans; top surface of erosion stone to be flush with grading surface of riffle. Refer to detail.
- J. Install topsoil with erosion stone. Install erosion stone and topsoil mix in 12" lifts with sufficient to fill voids of erosion stone. Install erosion stone and topsoil mix in 12' lifts with sufficient material to fill voids of erosion stone; final depth of soil to match depth of erosion stone and revetment.
- K. Ensure good housekeeping measures are taken throughout construction, until final acceptance of improvements by owner, to prevent erosion and sedimentation that could reduce the effectiveness of the regenerative conveyances. Address any such erosion or sedimentation should it occur, until final acceptance.
- L. Do not store materials or operate heavy equipment within or near the regenerative conveyances after installation has been completed.

230182.04 METHOD OF MEASUREMENT.

Measurement for Regenerative Conveyance will be in linear feet along the centerline of the ditch. Measurement will extend from the downstream toe of a riffle to the upstream toe of a riffle (pool bottom).

230182.05 BASIS OF PAYMENT.

- A. Payment will be at the contract unit price per linear foot of Regenerative Conveyance.
- B. Payment is full compensation for all excavation, grading, sand, wood chips, mixture of sand and wood chips, erosion stone, class E revetment, engineering fabric, topsoil for choking of erosion stone and class E revetment, supply and applying water for compaction of sand\wood chips and miscellaneous work to construct regenerative conveyance. Seeding of regenerative conveyances is not included in this bid item.