



**SPECIAL PROVISIONS
FOR
REGENERATIVE CONVEYANCE**

**Polk County
IM-080-3(274)125--13-77**

**Effective Date
September 15, 2026**

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.

230435.01 DESCRIPTION.

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

230435.02 MATERIALS.

A. Aggregate.

Comply with Section 4117 of the Standard Specifications, Gradation No. 21.

B. Organic Compost.

Provide organic material composed of plant material. Acceptable material includes finely chipped bark (3/8 inch diameter or less); finely shredded, partially decomposed mulch, peat and sphagnum peat moss.

C. Topsoil.

Comply with Article 4170.09, A of the Standard Specifications with the following addition: Topsoil must have a clay content less than 25% verified with a ribbon test that yields no more than 1 inch.

D. Engineered Soil Media Riffle Base.

Thoroughly blend aggregate, organic compost and topsoil to provide a mixture of 15% organic compost, 70% aggregate and 15% topsoil by volume. Provide 1 gallon sample of media for coefficient of permeability testing (ASTM D2434); Contractor to provide one test per 500 cubic yards of material produced. Minimum coefficient value of 1 inch per hour required for approval of sample.

E. Erosion Stone.

Comply with Section 4130 of the Standard Specifications.

F. Engineering Fabric.

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

G. Revetment, Class E.

Comply with Section 4130 of the Standard Specifications.

H. Subdrain.

1. Subdrain shall be perforated flexible dual wall HDPE pipe except as noted below.
2. Subdrain at terminal ends of line as shown on plans shall be solid wall PVC water main grade (AWWA C900) pipe. Install threaded PVC cap at outlet of pipe.

I. Macadam Stone Base.

Comply with Section 4122 of the Standard Specifications, Gradation no. 13a.

J. Choke Stone Base.

Comply with Section 4122 of the Standard Specifications, Gradation No. 13b.

K. Soil Plug.

Soil plug material shall be inorganic clays conforming to ASTM D2487 Soil Group CL or CH.

230435.03 CONSTRUCTION.

- A. Install sediment and erosion control practices upstream to protect the regenerative conveyance structures from sediment in stormwater runoff.
- B. Verify all trash, debris and frozen material is removed from engineered soil media material.
- C. Do not remove existing revetment rock along bottom of ditch. Install choke stone base and engineering fabric over revetment before placement of engineered soil media.
- D. Relocate existing revetment as necessary to construct cohesive soil plug.
- E. Install soil plugs as shown in the plans. Compact material to 90% Standard Proctor Density. Obtain required compaction within a soil moisture range of optimum moisture to 4% above optimum moisture content. Provide one density test per plug.
- F. Install macadam and choke stone base over revetment before placement of engineered soil media.
- G. Remove all vegetative ground cover from riffle base area where rock revetment is not present.
- H. Do not place engineered soil media material on frozen ground.
- I. Scarify soil to a depth of 12 inches prior to placement of engineered soil media material.
- J. Deposit engineered soil media material in horizontal layers no greater than 12 inches in loose thickness.
- K. Do not compact engineered soil media material. Light tamping of material for shaping and grading of riffles/pools is acceptable.
- L. Install erosion stone along downstream slope of riffle and top of riffle as shown in plans; top surface of erosion stone to be flush with grading surface of riffle. Refer to detail in plans.
- M. Install erosion control measures and 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.

- N. Do not store materials or operate heavy equipment within or near the regenerative conveyances after installation has been completed.

230435.04 METHOD OF MEASUREMENT.

Measurement 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).

230435.05 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, aggregate, organic compost, topsoil, mixture of aggregate, organic compost and topsoil (engineered soil media riffle base), erosion stone, class E revetment, macadam stone base, choke stone base, soil plugs, engineering fabric, engineered soil media testing, and miscellaneous work to construct regenerative conveyance. Seeding and installation of rolled erosion control produce for regenerative conveyances is not included in this bid item.