



**SPECIAL PROVISIONS
FOR
GENERAL CONSTRUCTION CONSIDERATIONS AT LEVEES**

**Montgomery County
NHSX-034-2(60)--3H-69**

**Effective Date
December 19, 2023**

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

230085.01 DESCRIPTION.

The work covered by these Special Provisions consists of furnishing all labor and materials, and performing all operations in connection with the construction of work to restore the critical area for the Red Oak – East Nishnabotna LB Levee, as shown in the contract documents or described herein.

230085.02 MATERIALS.

A. General.

1. No contractor access, equipment storage, or material storage shall occur over or on the levee.
2. No contractor access, equipment storage or material storage shall occur within the levee right-of-way outside of the identified construction limits.
3. Any ground disturbance within the levee right-of-way beyond the riverward and landward levee toes shall be restored as identified herein.
4. These requirements are not intended for the restoration of the levee prism. The Contractor shall not damage or degrade the levee prism.

B. Cohesive Fill Material.

1. Cohesive Fill Material shall consist of cohesive materials having at least 50% passing the U.S. Standard 200 mesh sieve size. Cohesive materials consist of materials classifying as lean (CL), having a Plasticity Index of 10 or greater, and falling between the "U" line and the "A" line on Figure 3 in ASTM D 2487 – Standard Tests for Classifications of Soils for Engineering Purposes and a Liquid Limit less than 50.

2. Submit to the Engineer for approval the results of grain size testing (ASTM D 6913 and D 7928) and plasticity testing (ASTM D 4318) on all Cohesive Fill Materials proposed for use restoration within the levee right-of-way outside of the levee prism, beyond the riverward and landward levee toes.

C. Seeding Materials.

1. See the Standard Specifications for topsoil.
2. Do not plant when the ground is frozen, snow covered, muddy, or when air temperature exceeds 90°F.
3. Furnish fertilizer uniform in composition, free flowing and suitable for application with approved equipment, delivered to the site in bags or other containers, each fully labeled and bearing the name and warranty of the producer. Fertilizer shall be in accordance with Iowa State Law.
4. Furnish seed in original standard containers labeled with the producer's name and seed analysis, and in accordance with the USDA Federal Seed Act. Remove any seed from the site that has become wet, moldy, or otherwise damaged in transit or storage. Seed shall be fresh, clean, new-crop seed with specifications available on species, proportions, and minimum percentages of purity, germination, and maximum percentage of weed seed as specified.
5. Seeding mix to be utilized in restoration of areas within the levee right-of-way shall comply with the following specifications:

Botanical Name	Common Name	Amount	Minimum % Germination
	Seed Oats VNS	12.5%	90
Bromus inermis 'Leys'	Smooth Brome Grass	37.5%	85
Festuca arundinacea 'Fawn'	Fawn Tall Fescue	29.5%	90

230085.03 CONSTRUCTION.

A. Levee Right-of-Way Ground Restoration Preparation.

1. **General.**
Prepare the area of the ground within the levee right-of-way outside of the levee prism for restoration by fully removing vegetation, topsoil, and organics. Immediately prior to the placement of Cohesive Fill Material the entire earth surface on or against which fill is to be placed, shall be thoroughly broken and scarified to a depth of 6 inches. Place the cohesive material meeting the material requirements specified in Article 230085.02, B. Following placement of the cohesive fill within the restoration area, top with topsoil and seeding in accordance with Article 0230085.03, D.
2. **Requirements.**
Unless ruts or other disturbance is deeper than 6 inches, no site preparation for restoration shall exceed 6 inches of depth. No ground restoration shall occur within the levee prism or on the levee slopes. No fill shall be placed upon frozen ground.
3. **Seeding.**
 - a. Remove stones over 1 inch in any dimension and sticks, roots, rubbish, and other extraneous matter that will interfere with turf development or subsequent mowing

operations. Prior to applying fertilizer in seeding areas, loosen areas to be seeded with a double disc or other suitable device if the soil has become hard or compacted.

- b. If the area that is being restored is smaller in area that is not suitable for drill seeding, broadcast seeding may be utilized. If using broadcast seeding, use twice the seeding rates specified. Verify there is sufficient overlap to make sure the entire area is seeded.
- c. Mulch the area seeded by means of hydromulching or using hay or straw mulch. Verify that mulch is not bunched or clumped and that sunlight is not completely excluded from penetrating to the ground surface. Mulch shall be anchored to the ground immediately following seeding application to prevent loss of seed. Provide initial watering.
- d. Seeding watering, maintenance, and replacement will be covered by Section 2601 of the Standard Specifications.

B. Embankment Construction and Testing.

Apply Section 2107 of the Standard Specifications, except when amended by requirements of this specification. Verify embankment placed with moisture and density control meets the requirements of Article 2107.03, I of the Standard Specifications.

C. As-Built Survey.

Upon completion of all work within the levee critical area, the Contractor shall proceed with the as-built survey. The as-built survey shall identify any areas that were restored within the levee right-of-way.

230085.04 METHOD OF MEASUREMENT.

- A. The quantity of Embankment-In-Place, Contractor Furnished, Cohesive for Contractor-furnished Cohesive Fill Material will be measured in cubic yards placed. The quantity for which payment is made is only intended to cover those areas needing fill for levee right-of-way restoration from contractor equipment impacts during construction. No levee prism fill is included or specified in this special provision. It is assumed that the material required for levee right-of-way restoration is minor.
- B. The quantity of Seeding for levee right-of-way restoration is only intended for those areas to be restored as a result of contractor equipment impacts during construction. No levee prism seeding is included or specified in this special provision.

230085.05 BASIS OF PAYMENT.

- A. The quantities accepted for payment will be paid for at the contract unit price. The contract unit prices will be full and complete payment for providing all design, materials, labor, equipment, and incidentals to complete the work. Except for water added, payment for Embankment-In-Place, Contractor Furnished, Cohesive is full compensation for all work involved in furnishing, excavating, hauling, and incorporating this material into the restored areas within the levee right-of-way and outside of the levee prism.
- B. Payment for Seeding for Levee Right-of-Way restoration areas will include full compensation for furnishing all materials, equipment, tools, and labor necessary to complete the work according to the contract documents. Payment will not be allowed for any area seeded until fertilizer and mulch are placed.