

Amend **Section 203 - Excavation and Embankment** to read as follows:

**"SECTION 203 - EXCAVATION AND EMBANKMENT**

**203.01 Description.** This section is for borrow excavation and disposal of unsuitable or surplus excavated material.

Borrow excavation includes using material obtained from acceptable sources outside of the highway rights-of-way for the construction of embankments or for other portions of the work.

**203.02 Materials.** None specified.

**203.03 Construction Requirements.** Clear and grub all areas requiring excavation, grading, and embankment according to Section 201 - Clearing and Grubbing.

**(A) General.** When encountering remains of prehistoric people's dwelling sites or artifacts of historical or archaeological significance, refer to Subsection 107.17(D) - Archaeological, Historic, and Burial Site Findings.

The Engineer will not allow blasting.

**(B) Excavated Material.**

**(1) Selected Material.** Selected material is suitable excavated material from areas within the highway right-of-way.

Use the selected material:

- (a)** for backfilling depressions according to the Plans, or
- (b)** as specified by the Engineer.

Place selected material on the roadbed according to Subsection 203.03(c) - Embankment Construction and selected topsoil for erosion control according to Section 209 - Erosion Control.

The selected material shall remain in place until the Contractor can haul, place, and compact it in final position. The Contractor may stockpile the material at specified locations for later placement in final position only if it is according to the contract. The stockpile locations shall be determined by the Contractor and accepted by the Engineer. The Engineer will not allow additional compensation for

any delay or inconvenience in excavation caused by stockpiling the material.

The Engineer will not consider selected topsoil placed in windrows along the tops of roadway slopes for erosion control work as stockpiled material.

**(2) Borrow Material.** Borrow material shall conform to the size and quality requirements specified in the contract. When the contract does not specify size or quality, the material shall be of a quality suitable for the purpose intended. The sand equivalent (SE) value as determined by AASHTO T 176 for the top three feet of the embankment, excluding the pavement structure, shall not be less than the filled area and less than two.

Arrange to obtain borrow material and pay the costs involved. Notify the Engineer 20 working days before opening borrow areas. Allow sufficient time for testing the borrow by the Engineer.

Control of borrow material shall be according to Section 106 - Control of Materials.

Do not excavate beyond the dimensions and elevations established for the borrow pit. Do not remove the borrow material until after the Engineer completes the staking out and cross sectioning of the site. Establish and specify the finished borrow areas approximately true to line and grade. Complete the finished borrow areas so no water may collect or stand therein. Blade and leave borrow areas in shape as to permit accurate measurements after completing the excavation.

Do not place borrow material until after placing the selected material in fill. When there is more borrow material than is required, the Engineer will deduct the excess quantity from the borrow volume as measured in the borrow area.

**(3) Unsuitable Material.** Where excavation to the finished grade results in a subgrade or slopes of unsuitable soil, the Engineer will require:

- (a) removing of the unsuitable material and
- (b) backfilling to the finished grade with acceptable borrow excavation.

The Engineer may designate as unsuitable those soils that cannot be properly compacted in embankment. Unsuitable material may include vegetable matter, garbage and junk piles, on the surface or buried. Unsuitable material shall become the property of the Contractor.

Conduct the operations so that the Engineer can take the necessary cross-sectional measurement before placing the backfill.

**203.04 Method of Measurement.** The Engineer will measure borrow excavation per cubic yard.

The Engineer will measure borrow material on a volume basis in excavation. The Engineer will compute by the average end area method from measurement taken before and after removal of the material at the borrow site. The Engineer will deduct material excavated at the borrow site and not incorporated into the work from the computed volume of excavation. The Engineer will not pay for the deducted material.

The Engineer will include binder material entering and becoming a part of the borrow excavation material placed on the roadbed in the pay quantities of borrow material.

The Engineer will determine the quantities of materials to be paid for by the cubic yard by converting the weight measurement to volume as provided in Subsection 109.01 - Measurement of Quantities. When the Engineer cannot exercise the control of measurements of pits as supplying the materials, the Engineer will decide the weight-volume ratio from the material in its natural state. The Engineer will use the maximum dry density of the material obtained by the method specified in Subsection 106.09(A)(1) - Maximum Dry Unit Weight when the Engineer cannot determine the weight-volume ratio of the material in its natural state.

When selecting the borrow pit, the Contractor shall be responsible for the weighing of the material loads.

When the Contractor chooses to use pits other than those designated, the Engineer will estimate the difference in the swell and shrinkage factors involved. When these factors increase or decrease by more than two percentage points, the Engineer will apply a suitable correction to the measured quantities taken from the pit when calculating pay quantities.

**203.05 Basis of Payment.** The Engineer will pay for the accepted borrow

excavation at the contract unit price per cubic yard complete in place.

The price includes full compensation for staking out and cross sectioning the site; establishing the borrow area; excavating the borrow material and hauling the material to the site; placing and compacting the borrow material in the depression area as shown in the contract; and furnishing labor, materials, tools, equipment, and incidentals necessary to complete the work.

The Engineer will not pay for selected material from ditch and channel or structure excavations, when used, instead of borrow.

The Engineer will make payment under:

<b>Pay Item</b>	<b>Pay Unit</b>
Borrow Excavation	Cubic Yard"