

SECTION 240 SAND-CLAY BASE

240-1 Description.

Construct a base course composed of naturally or artificially mixed sand and clay.

240-2 Materials.

240-2.1 General: Meet the sand-clay material requirements as specified in Section 912. Before using any base course material, first have it tested by the Department's laboratory, then obtain the Engineer's approval.

240-2.2 Source of Materials:

240-2.2.1 Contractor's Option: The Department will generally furnish the areas for obtaining the sand-clay base material. The Contractor may either use such areas or provide other areas of his own choosing. The Contractor must absorb any increase in hauling or other costs for Contractor furnished material. If the Contractor elects to use the sand-clay base option, the Contractor shall furnish material from areas he provides.

240-2.2.2 Use of Department-Furnished Areas: The Department will not charge the Contractor for using Department-furnished pits. However, the Contractor shall provide and maintain all necessary roads for hauling material over the shortest practical route, as determined by the Engineer, to the points where the Contractor is using it. The Department will obtain any necessary property easements for haul roads from pits that it furnishes.

240-2.3 Excavation of Material Pits: Neatly excavate the material from the pits in accordance with the stakes set by the Engineer, and do not remove any material until the Engineer has set the stakes. Where the bottom is above the normal water table, shape it to a regular grade to prevent ponding of water.

240-2.4 Materials from Separate Sources: The Contractor may furnish areas consisting of a single source, containing material meeting the specified requirements (with proper manipulation of the various strata), or consisting of separate sources, requiring the mixing of the separate materials be mixed as directed by the Engineer or as shown in the plans.

240-2.5 Blending Materials: To obtain the required sand-clay blend when using material obtained from stratified pits for which blending in the pit is necessary, use a power shovel or front-end loader capable of raking the entire face of the cut with the dipper in the open position. Do not use draglines for such blending.

240-3 Equipment.

240-3.1 Graders: Provide blade graders of the rubber-tired, self-propelled type, of sufficient size and weight to accomplish the desired results.

240-3.2 Rollers: Provide pneumatic-tired rollers which have a double row of wheels equipped with rubber tires so spaced that the tires on the front and rear rows together will cover the entire area over which the roller travels.

240-3.3 Forms: The Engineer will not require forms for this work.

240-4 Placing and Mixing Materials.

240-4.1 Number of Courses: When the specified compacted thickness of the base is greater than 8 inches [200 mm], construct the base in two or more courses.

When the specified compacted thickness of the base is 8 inches [200 mm] or less, the Contractor may construct the base in one course if demonstrated that satisfactory mixture of materials, proper moisture content, and required density can be achieved. Otherwise, construct the base in two or more courses.

240-4.2 Single-Course Base:

240-4.2.1 General: For one course construction, place and mix the base course materials as provided hereinafter for either Case 1 or Case 2.

240-4.2.2 Case 1: This case covers the use of base course material consisting of natural sand-clay with which the mixing-in of additional sand or clay is not necessary. The Contractor may dump the material directly on the subgrade, and uniformly distribute it by approved methods. The Engineer will designate the loose thickness. Continuously check the thickness to ensure that the finished base will have the thickness and shape required by the typical section. Thoroughly mix the base course for its full width and depth as shown in the plans. After mixing, shape the material to the required grade and cross-section.

240-4.2.3 Case 2: This case covers the use of base course material consisting of a mixture of two materials, both of which are to be hauled in. Spread the material in successive layers on the road, and mix it in place. The Engineer will determine the order in which to spread the two materials, as well as the depth of layers of each material. Dump and spread each material, mix the two materials, and shape the base as specified for Case 1.

240-4.3 Multiple-Course Base: Where constructing the base in two or more courses, make the component courses approximately equal in thickness. Place and mix each course as provided above for either Case 1 or Case 2, except that in the operation of mixing a second or third course, operate the equipment so as to penetrate and break up the top 1 inch [25 mm] of the underlying course.

240-5 Compacting and Finishing Base.

240-5.1 General:

240-5.1.1 Single-Course Base: Construct as specified in 200-6.1.1.

240-5.1.2 Multiple-Course Base: Construct as specified in 200-6.1.2.

240-5.2 Moisture Content: Meet the requirements of 200-6.2.

240-5.3 Density Requirement: Meet the requirements of 200-6.3.

240-5.4 Density Tests: Meet the requirements of 200-6.4.

240-6 Testing Surface.

Test the surface in accordance with the requirements of 200-7.

240-7 Thickness of Base.

Meet the requirements of 285-6 and 285-7.

240-8 Priming, Maintaining, and Opening to Traffic.

240-8.1 Priming: Meet the requirements of 200-8.1.

240-8.2 Maintaining: Meet the requirements of 200-8.2.

240-8.3 Opening to Traffic: Distribute traffic so as to properly cure the entire area of base. After applying the prime coat, allow the base to further cure for a period of at least seven days before laying the wearing surface, unless otherwise directed in writing by the Engineer.

240-9 Method of Measurement.

The quantity to be paid for will be the plan quantity, in square yards [square meters], completed and accepted.

240-10 Basis of Payment.

Price and payment will be full compensation for all work specified in this Section, including all materials; all clearing and grubbing of material pits; all stripping of overburden from the pits, if required; all hauling of material, except that if the location of a proposed pit is changed by the Engineer and such change entails an increase in haul distance; and all incidentals necessary to complete the work.

If there is an increase in the haul distance, it will be considered as Unforeseeable Work.

Payment will be made under:

Item No. 285- 7- Optional Base - per square yard.
Item No. 2285- 7- Optional Base - per square meter.