

SECTION 025224
FLEXIBLE BASE - SHELL WITH SAND ADMIXTURE (S-25)

1. DESCRIPTION

"Flexible Base - Shell with Sand Admixture" shall consist of a foundation course for surface course or other base courses, shall be composed of shell and binder, and shall be constructed as herein specified in one or more courses in conformity with the typical sections shown on plans and to the lines and grades as established by the Engineer.

2. MATERIALS

- (1) Shell - Shell shall consist of durable particles of shell with or without its natural binder material and may be either washed, partially washed, or unwashed.
- (2) Sand - Sand shall consist of fine sand or sandy loam and shall be practically free from roots, grass, and other foreign materials.
- (3) Flexible Base - All materials shall be obtained from sources designated on the plans or approved by the Engineer. Both the shell and sand shall be of such quality that when properly proportioned and mixed a satisfactory flexible base material will be produced. Samples for testing shall be taken prior to the compaction operations.

The Contractor will be responsible for furnishing shell and sand which, when properly mixed, will produce a satisfactory uniform mixture of 60% shell and 40% sand.

3. GRADATION

The combined material shall conform to the following requirements:

Passing 13 inch sieve 90 - 100%
Retained on No. 40 sieve 45 - 65%

The material passing the NO. 40 sieve shall be known as soil binder and shall meet the following requirements:

The Liquid Limit shall not exceed 35
The Plasticity Index shall not exceed 10

The Engineer may accept the material providing not more than 2 out of 10 consecutive gradation tests performed are outside the specified limit on any individual or combination of sieves by no more than 5% and where no two consecutive tests are outside the specified limit.

The Engineer may accept the material providing not more than 2 out of 10 consecutive plasticity index samples tested are outside the specified limit by no more than 2 points and where no two consecutive tests are outside the specified limit.

4. CONSTRUCTION METHODS

Immediately before placing the base material, the subgrade shall be checked as to conformity with grade and section. Grade tolerance shall be generally 2 inch, highs and lows must approximately balance.

A central mixing plan, or a road mixing machine, or a combination of machine shall be used to produce a uniform material meeting all of the requirements of this specification.

The base material shall be delivered and spread uniformly, sprinkled and compacted to 100% standard proctor density. In addition to the density requirement, the full depth of flexible base shown on the plans shall be compacted to the extent necessary to remain firm and stable under construction equipment. After each section of flexible base is completed, tests as necessary will be made by the Engineer. If the material fails to meet the density requirements, it shall be reworked as necessary to meet these requirements. Throughout this entire operation, the shape of the course shall be maintained by blading, and the surface, upon completion, shall be smooth and in conformity with the typical section shown on the plans and to the established lines and grades.

In that area on which pavement is to be placed, any deviation in excess of 1/4 inch in cross section and in a length of 16 feet measured longitudinally shall be corrected by loosening, adding or removing material, reshaping and re-compacting by sprinkling the rolling. All irregularities, depressions or weak spots which develop shall be corrected immediately by scarifying the areas affected, adding suitable material as required, reshaping and re-compacting by sprinkling and rolling. Should the base course, due to any reason or cause, lose the required stability, density and finish before the surfacing is complete, it shall be re-compacted and refinished at the sole expense of the Contractor.

5. MEASUREMENT

Measurement shall be by the square yard in place of the combined shell and sand admixture or by the cubic yard in truckloads, whichever is specified in the bid.

6. PAYMENT

The unit price bid for flexible base shall be full compensation for securing and furnishing all materials, including all royalty and freight involved, furnishing scales and labor involved in weighing the material when required, all processing and loading, hauling, labor, and equipment to complete.