SECTION 2.12
SUBBASE

2.12.01--Description: The subbase shall consist of a clean soil-aggregate mixture of bank or crushed gravel, crusher run stone, reclaimed miscellaneous aggregate containing no more than 2 percent by mass of asphalt cement or any combinations thereof, placed where shown on the plans or where directed by the Engineer and constructed in accordance with these specifications.

2.12.02--Materials: All materials for this work shall conform to the requirements of Articles M.02.02 and M.02.06. Grading "B" shall be used.

2.12.03--Construction Methods: The prepared foundation for the subbase shall be carefully shaped to the required cross-section and compacted as specified in Article 2.02.03. Where underdrains and outlets are specified on the plans or ordered by the Engineer, they shall be in place and functioning before any subbase material is placed.

The subbase material shall be spread uniformly upon the required grade, in courses not to exceed 150 mm in thickness after final compaction. However, if the required thickness of subbase does not exceed 200 mm, it may be placed in one course.

After each course has been placed as specified above, its entire area shall be compacted with equipment specifically manufactured for that purpose. The sole use of hauling and spreading equipment shall not be considered as a substitute for compacting equipment. Compaction shall be continued until the entire course is uniformly compacted to the required minimum density. The dry density after compaction shall not be less than 95 percent of the dry density for that subbase material when tested in accordance with AASHTO T-180, Method D. If a subbase course is formed from reclaimed miscellaneous aggregate containing bituminous concrete, the wet density after compaction on this course shall not be less than 95 percent of the wet density for that subbase when tested in accordance with AASHTO T180, Method D.

Each layer of subbase shall be compacted at optimum moisture content. No subsequent layer shall be placed until the specified compaction is obtained for the previous layer.

Exception to the use of compacting equipment will be allowed where subbase is made of gravel and used in conjunction with a traffic bound gravel surface in which case the work shall be in accordance with Article 4.13.03.

Should the foundation material beneath the subbase become churned up and mixed with subbase material at any time, the Contractor shall, without additional compensation, remove the mixture and replace it with new subbase material to the required thickness shown on the plans or as previously required by the Engineer. Such replaced subbase material shall be compacted to the required minimum density.

2.12.04--Method of Measurement: Subbase will be measured horizontally in place after final grading and compaction. The thickness will be as indicated on the plans, or as ordered by the Engineer, and within the following tolerances:

Less than 600 mm: minus 25 mm to plus 19 mm

600 mm and greater: minus 50 mm to plus 25 mm

Measurements to determine the thickness will be made by the Engineer at intervals of 150 m, or less, along lanes and shall be considered as representative of the lane. For purposes of these measurements, a shoulder will be considered a lane.

If deficient thicknesses are found, the Engineer will make such additional measurements as he considers necessary to determine the longitudinal limits of the deficiency. Areas not within allowable tolerances shall be corrected, as ordered by the Engineer, without additional compensation to the Contractor.

2.12.05--Basis of Payment: This work will be paid at the contract unit price per cubic meter for "Subbase," which price shall include all materials, equipment, tools and labor incidental thereto.

Pay Item	Pay Unit
Subbase	m^3