$$\frac{\text{Coarse Durability Index}}{\% \text{ Absorption} + 1} = \text{Durability Absorption Ratio (DAR)}$$

* Based on the formula contained herein, absorption may exceed 4.2 percent if DAR is greater than 10. Durability Index may be less than 52 if DAR is greater than 24.

Rocks, when conforming to the provisions in this Section 72-2.02, may be obtained from rock excavation of the roadway prism or other excavation being performed under the provisions of the contract, in accordance with the provisions in Section 4-1.05, "Use of Materials Found on the Work."

Rocks shall be of such shape as to form a stable protection structure of the required section. Rounded boulders or cobbles shall not be used on prepared ground surfaces having slopes steeper than 2 to one. Angular shapes may be used on any planned slope. Flat or needle shapes will not be accepted unless the thickness of the individual pieces is greater than ⅓ the length.

72-2.03 Placing.—Rock slope protection shall be placed in accordance with one of the following methods as designated in the Engineer's Estimate.

Method A Placement

A footing trench shall be excavated along the toe of slope as shown on the plans.

The larger rocks shall be placed in the footing trench.

Rocks shall be placed with their longitudinal axis normal to the embankment face and arranged so that each rock above the foundation course has a 3-point bearing on the underlying rocks. Foundation course is the course placed on the slope in contact with the ground surface. Bearing on smaller rocks which may be used for chinking voids will not be acceptable. Placing of rocks by dumping will not be permitted.

Local surface irregularities of the slope protection shall not vary from the planned slope by more than one foot measured at right angles to the slope.

Method B Placement

A footing trench shall be excavated along the toe of the slope as shown on the plans.

Rocks shall be so placed as to provide a minimum of voids and the larger rocks shall be placed in the toe course and on the outside surface of the slope protection. The rock may be placed by dumping and may be spread in layers by bulldozers or other suitable equipment.

Local surface irregularities of the slope protection shall not vary from the planned slopes by more than one foot measured at right angles to the slope.

At the completion of slope protection work, the footing trench shall be filled with excavated material and compaction will not be required.

72-2.04 Measurement.—Rock slope protection will be measured by the ton or cubic yard as designated in the Engineer's Estimate.

Quantities of rock slope protection to be paid for by the cubic yard will be determined from the dimensions shown on the plans or the dimensions directed by the Engineer and rock slope protection placed in excess of these dimensions will not be paid for.

Quantities of rock slope protection to be paid for by the ton will be weighed in accordance with the provisions in Section 9-1.01, "Measurement of Quantities."

Quantities of earthwork required in connection with placing rock slope protection will be measured for the type of earthwork involved, all in accordance with the provisions in Section 19, "Earthwork." Full compensation for backfilling footing trenches will be considered as included in the contract price paid for excavating the trench and no separate payment will be made therefor.

72-2.05 Payment.—The contract price paid per cubic yard or per ton for rock slope protection (the class of rock and method of placement to be designated in the Engineer's Estimate) shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals, and for doing all the work involved in constructing the rock slope protection, complete in place, as shown on the plans, and as specified in these specifications and the special provisions, and as directed by the Engineer, except excavation.

Excavation will be paid for as provided in Section 19, "Earthwork."