

**ITEM - CEMENT TREATED BASE (2%)**

The cement treated base shall be as specified in Section 304 of the Standard Specifications, with the following revisions:

**Subsection 304-2.01**            **Aggregate:** of the Standard Specifications is modified as follows:

The aggregate used for the cement treated base shall be Class \* Aggregate Base, and shall be as specified in Section 303 of the Standard Specifications.

The estimated haul distance for the aggregate is \*\* miles.

**Subsection 304-2.04**            **Mix Design:** the second paragraph of the Standard Specifications is modified as follows:

Cement treated base shall contain no less than 2% hydraulic cement by weight of the dry aggregate and shall attain a minimum 7-day strength of 150 psi and maximum 7-day strength of 400 psi. The estimated compacted wet weight of the mixture (aggregate, portland cement and water) is 120 pounds per cubic foot.

**Subsection 304-3.02 (D)**        **Spreading:** the first paragraph of the Standard Specifications is modified as follows:

Mixed material shall be transported from the plant to the roadway in approved vehicles and spread on a moistened subgrade in a uniform layer for the full width of the base under construction. If required by the Engineer, trucks shall be tarped to prevent surface drying or excess moisture loss. Mixed material may be placed in partial widths as approved by the Engineer. Spreading shall be accomplished with a self-propelled paving machine with automatic screed controls, or other approved spreader boxes, finishing machines or motor graders. If the Engineer approves the use of one spreader operating alternately on two or more lanes, not more than 60 minutes shall elapse between the time of placing the material in adjacent lanes at any location. The material shall be spread full depth in one pass unless otherwise specified.

**Subsection 304-3.03**            **Compacting and Finishing:** the first, second and fourth paragraphs of the Standard Specifications is modified as follows:

Initial compaction shall begin immediately after spreading. Successive passes of compacting equipment shall overlap the previous adjacent pass by at least 25 percent of its width. Following initial compaction and before final compaction, the treated material shall be trimmed if necessary by blading with a motor grader or a planing machine to obtain surface in reasonably close conformity with the lines, grades and cross sections established or shown on the project plans.

Extreme care shall be exercised by the contractor during the trimming operation so that no more material than is necessary is disturbed and so that the trimming operation can be completed as quickly as possible. Trimmed material shall be wasted if so directed. Compaction shall proceed without interruption, except as stated above, to achieve at least 100 percent of maximum density as determined in accordance with the requirements of the applicable test methods of the ADOT Materials Testing Manual, as directed and approved by the Engineer. The moisture content of the mixture at the time of compaction shall be uniform and within two percentage points of the optimum moisture content.

The surface of the finished cement treated base shall not vary more than 0.03 feet above or below the grade established by the Engineer.

**Subsection 304-3.04**                    **Operation Time Requirement:**        of            the            Standard Specifications is modified as follows:

Mixed material that has not been compacted shall not be left undisturbed for more than 45 minutes. Not more than two hours shall elapse between the time water is added to the aggregate and cement, and the time of completion of initial compaction prior to trimming. Not more than 2.5 hours shall elapse between the time water is added to the aggregate and cement and the time of completion of final compaction.

**Subsection 304-3.06**                    **Curing Seal:**    the first paragraph of the Standard Specifications is modified as follows:

After final compaction, the cement treated base shall be covered with a bituminous curing seal, applied uniformly to the surface at an approximate rate of 0.15 gallons per square yard. The curing seal shall be applied as soon as possible after final compaction.

**Subsection 304-4**                    **Method of Measurement:**    of the Standard Specifications is modified as follows:

Cement for cement treated base will be measured by the ton.

Cement treated base will be measured by the square yard determined from the horizontal measurement of the surface area treated, exclusive of any side slopes.

**Subsection 304-5**                    **Basis of Payment:**        of the Standard Specifications is modified as follows:

The accepted quantities of cement, measured as provided above, will be paid for at the contract unit price per ton of cement furnished and applied.

The accepted quantity of cement treated base, measured as provided above, will be paid for at the contract unit price per square yard, for the cement treated base mixture, complete in place.

DESIGNER:

- \* To be supplied by the Geotechnical Engineer.
- \*\* To be supplied by the Geotechnical Site Supervisor.