

Kentucky Method 64-502-082
Revised ~~11/21/02~~ 04/01/08
Supersedes KM 64-502-~~9502~~
Dated ~~5/17/95~~ 11/21/02

CONSOLIDATED, UNDRAINED TRIAXIAL COMPRESSION TEST ON COHESIVE SOILS

Refer to *Standard Method Of Test For Consolidated, Undrained Triaxial Compression Test On Cohesive Soils* - AASHTO T 297-~~93-94~~ with the following additions and modifications:

Pocket penetrometer and/or Torvane tests shall be performed on each sample prior to testing and the results shall be recorded on the data sheets. For Torvane tests, the size of the vane used shall be indicated. These tests shall be performed on a portion of the sample that will be removed during the sample trimming process.

1.3. The actual number of tests to be used is left to the discretion of the engineer responsible for the project.

5.13. Filter-paper strips or a filter-paper cage is required.

7.2.1.2. It is not necessary to boil the porous disks for every test. However, disks should be boiled approximately once every month. If disks are not boiled every time the test is run, they should be kept in water and not allowed to dry between tests.

7.2.2.1 & 7.2.2.2. May be omitted.

8.2 to 8.2.4.4. The procedures outlined are suggested procedures. Many other procedures have been developed that adequately accomplish saturation.

8.2.4.2. A plot of ~~σ_v~~ σ_v versus time is not required.

8.3.3. An alternate method of consolidation is to obtain an initial burette reading and then open appropriate drainage valves so that the specimen may drain from one end of the sample. Pore pressure shall be monitored from the other end of the sample. Allow the sample to consolidate overnight. Prior to shear, close the appropriate valves and obtain a burette reading.

8.3.4 & 8.3.5. Omit if the alternate method of consolidation specified above is used.

8.4.2. If the alternate consolidation method specified above is used, the rate of axial strain shall be 0.03 to 0.04 percent per minute. The test may be terminated when a sufficient number of readings have been obtained to plot the stress path as described in 10.5.

10.1. Calculating and recording the volume of solids, initial void ratio, initial degree of saturation, and initial dry unit weight are not required. The initial total unit weight must be calculated and recorded.

- 10.4. May be omitted.
- 10.6 to 10.7.1. May be omitted.
- 10.8. Determination of major and minor principal stresses at failure based on total stress is not required.
- 10.9. Construction of Mohr stress circles at failure based on total stress is not required.
- 11.1.2 to 11.1.4. May be omitted if presented on other data sheets or in other reports.
- 11.1.5. Reporting of initial specimen dry unit weight, void ratio, and percent saturation are not required.
The initial water content and total unit weight must be reported.
- 11.1.11. This section shall be omitted if the alternate consolidation method specified above is used.
- 11.1.12. Reporting of specimen dry unit weight, void ratio, and percent saturation after consolidation are not required. The water content and total unit weight after shearing must be reported.
- 11.1.18. May be omitted.
- 11.1.20. Mohr stress circles based on total stresses are not required.

APPROVED

DIRECTOR
DIVISION OF MATERIALS

DATE 04/01/08

~~APPROVED—~~

~~Director~~
~~Division of Materials~~

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