

DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES

Transportation Laboratory

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**METHOD OF TEST FOR MAKING AND CURING CONCRETE TEST
SPECIMENS IN THE FIELD****A. SCOPE**

This test method describes the procedure for making, handling, and curing concrete specimens from representative samples of fresh concrete in the field.

B. PROCEDURE

Conduct the test in accordance with American Society for Testing Materials (ASTM) C31/C31M-19 except for the following:

1. Add to the end of Section 4.1:

4.1.1 Where referenced in the Standard Specifications, "Method 1" will be understood as Standard Curing in ASTM C31-19. "Method 2" and "Method 3" will be understood as Field Curing in ASTM C31-19.

2. Replace the first paragraph of Section 5.2 with:

Cylinder Molds – 4 in. x 8 in. cylinder molds or 6 in. x 12 in. cylinder molds with lids conforming to the requirements of ASTM C470-15 must be used.

3. Replace "Practice C172/C172M" in the first paragraph of Section 7.1 with:

Practice C172/C172M-17

4. Replace the first paragraph of Section 6.3 with:

The individual making and curing specimens for acceptance testing must be qualified under the Department's Independent Assurance Program (IAP).

5. Replace Section 8 with:

8. RESERVED

6. Replace the second sentence in the first paragraph of Section 9.5.1 with:

The top surface of freshly made cylinders must not be capped using neat portland cement paste.

7. Add to end of Section 12:

12.2 Section 12.2 applies to concrete cylinders.

12.2.1 Form TL-0502 sample identification card must be complete. There should not be any blank spaces. Designation of concrete strength must be included in Remarks field of TL-0502.

12.2.2 Source of aggregates should indicate the deposit from which the aggregates were obtained, such as "Kaiser-Radum" or "Chevreaux-Bear River" and not the batch plant.

12.2.3 A uniform system of marking cylinders is used. This system consists of the contract number, the sample number, the date cast, and the structure identification number. The sample number consists of a series of digits separated by dashes to indicate: method of storage for curing, age at which cylinder(s) are to be tested, and the cylinder number of the pair, trio, or the group of 5, which is to be tested. Use a permanent marker (flow pen) to mark each cylinder.

Example: Contract No. 09-100844
Sample No. 1-28-1/5
Date Cast _____
Structure ID: 59-5629L

Where: In the sample number shown above, the first digit indicates Method 1 storage for curing (use only one digit for this designation). The second group of digits indicates that the cylinder is to be tested at 28 days (use 2 digits for the test age). The third symbol (1 /5) indicates that it is the No. 1

cylinder of the 5-cylinder trial batch sample (the No. 2 cylinder would be marked 2/5, etc.).

C. REPORTING OF RESULTS

RESERVED

D. HEALTH AND SAFETY

It is the responsibility of the user of this test method to establish appropriate safety and health practices and determine the applicability of regulatory limitations prior to use. Prior to handling, testing or disposing of any materials, testers must be knowledgeable about safe laboratory practices, hazards and exposure, chemical procurement and storage, and personal protective apparel and equipment.

Refer to the Safety Manual for your Laboratory.

End of Text
(California Test 540 contains 3 pages)