

DEPARTMENT OF TRANSPORTATION
DIVISION OF ENGINEERING SERVICES
Transportation Laboratory
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METHOD OF TEST FOR FENCE POSTS AND BRACES

A. SCOPE

This test method describes the procedures used for determining the bending strength (Minimum Resisting Moment) of fence posts and braces. A point load at mid-span is applied to a simply supported 4-ft span of fence post or brace in this method.

B. REFERENCES

Caltrans Standard Specifications - Section 80, "Fences"

C. APPARATUS

The following equipment is required to perform this test.

1. Any type of calibrated testing machine capable of applying a downward force in excess of the force required to produce the specified minimum Resisting Moment.
2. A testing frame and loading head similar to that shown in Figure 1.
3. A dial micrometer is required, reading to 0.001 in. with a spindle movement of 1 in.

D. PROCEDURE

1. Mount the member in the testing frame for bending about its major axis. Apply a preload of not less than 20 lbs and not more than 80 lbs. Regulate the amount of preload so that the specimen is firm against all bearing points. Then, zero the dial micrometer located at mid-span.
2. After preloading, apply an additional load in pounds corresponding to the Minimum Resisting Moment in foot-pounds, in accordance with Section 80 of the Caltrans Standard Specifications. Read and record the midpoint deflection on the dial micrometer. Note any visual distress under load.
3. Unload the member to the preload and record any permanent set.
4. Remove the preload and rotate the member 90 degree. Repeat steps 1 through 3 for bending about the minor axis.

E. REPORTING OF RESULTS

Create a form for the test results showing the test number and date. Record the test results as determined in Part D, Procedure. Document results of tests with appropriate comments and notations. Indicate whether results meet specifications or not.

F. 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.

Caltrans Laboratory Safety Manual is available at:

http://www.dot.ca.gov/hq/esc/ctms/pdf/lab_safety_manual.pdf

**End of Text
(California Test 674 contains 3 pages)**

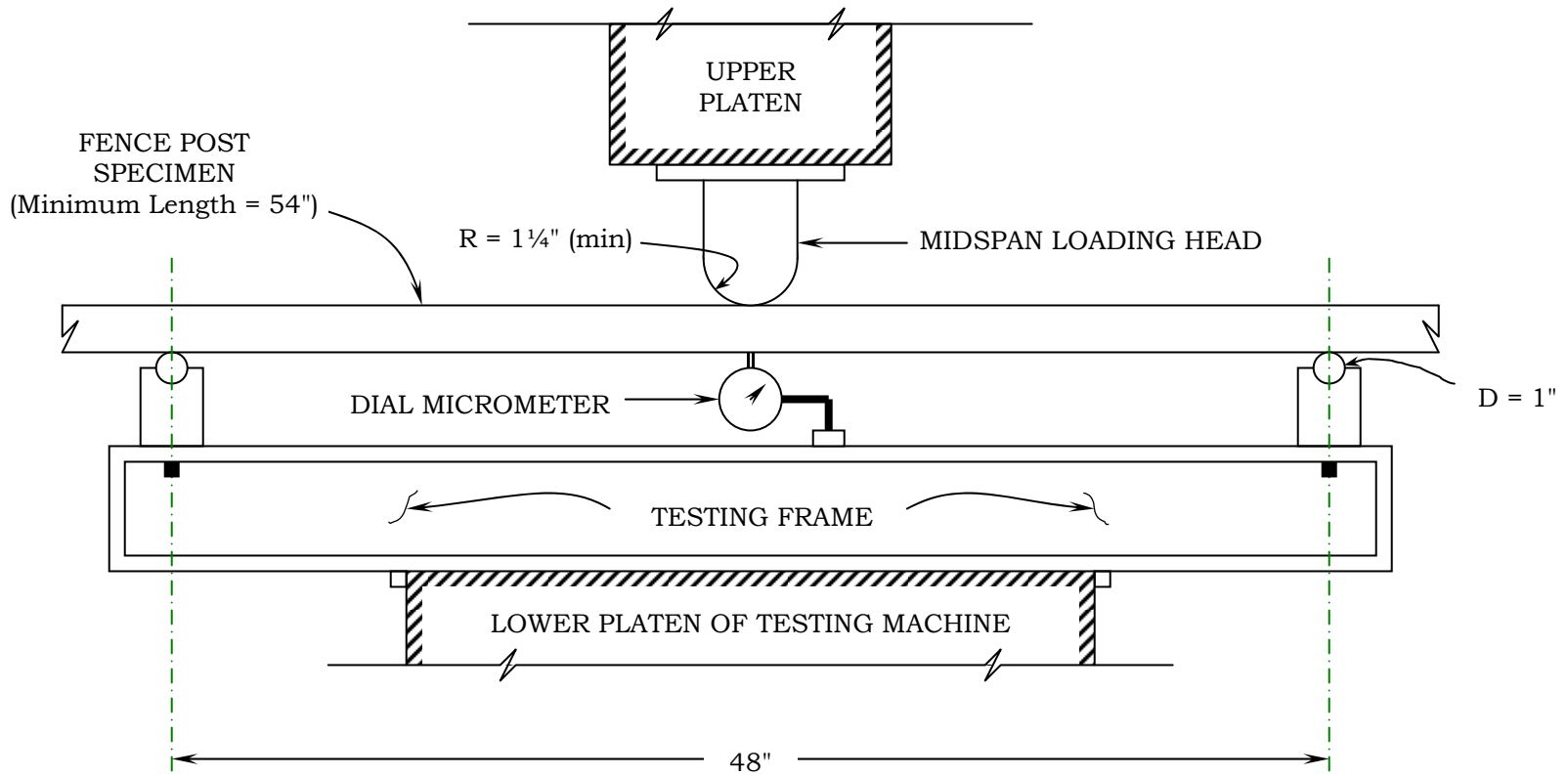


FIGURE 1. FENCE POST TESTING SYSTEM