



TECHNICAL BULLETIN

PERMIT AND RESOURCE MANAGEMENT DEPARTMENT

B-5X

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Outdoor Cable Railing

INTRODUCTION

The California Building Code requires that residential guardrails have an opening constructed so that a 4 inch diameter sphere cannot pass through. Various cable rail configurations are often proposed to minimize the rail system's impact on the view from the deck. These systems are often difficult to evaluate because achieving and maintaining the spacing requirement depends on other factors than just the distance between the cables. One example of another factor is the tension of the cables and the anchorage of the cable supports to the deck. The purpose of this memorandum is to provide a performance standard which will allow field evaluation of these systems.

TECHNICAL DETAILS

Cable rail systems shall be listed manufactured systems or shall include a design analysis.

Cables shall have a minimum of 1/8" in diameter and shall be spaced a maximum of 3.00" measured from the inside edges of adjacent cables.

The system shall incorporate a turnbuckle or other device on each cable so that the tension can be adjusted over time. This device shall include a lock nut or other device so that a child cannot easily reduce the tension in the cable.

At the time of inspection, a 50 pound weight must be suspended from the cable strand below the top, at the point where the separation between supports is greatest. With this weight suspended, a 4" sphere shall not pass between the cables at any point, and the supports must not deflect. The building inspector may require the weight be placed at other points in the cable rail system to verify compliance.

When cable rails are shown on the plans, the plan checker shall insure that this standard is made available to the applicant, either by requiring a note on the plans or by attaching a copy of this technical bulletin to the job and office copies of the plans.

Cable rail systems meeting the above performance standard shall be considered complying with the code and may be approved without an application for alternate methods and materials.

REFERENCES

California Building Code, Section 509

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