

## Code Briefs by Paul and Chuck

*“As a service to our friends in the construction community.”*

Paul Armstrong

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### *CODE BRIEF*

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#### **CBC Section 1013 - GUARDS**

Glazed panels used as guard/handrail systems have become a topic of discussion. Section 1013 requires that a Guard, previously known as a Guardrail, have a minimum height of 42 inches, including along a stairway on the open side. Exception 1 allows for a reduction in height to 34-38 inches along an open residential interior stairway if the top of the guard is used as the handrail. All other uses/situations must comply with the 42 inch minimum height requirement and a handrail at 34"-38".

The issue at hand is when the design includes glazed panels as part of the Guard system. The problem is that Section 2407.1.2 requires that each handrail or guard be supported by at least three glazed balusters (panels), or some other supporting system, such that if one glazed balustrade panel fails, then the other two panels will be there to support the handrail or guard. No matter what the design is, the glazed panels and their support system must be able to resist the loading criteria of Section 1607.7. The critical issue is that the glazed guard system must be in place.

Based on our experience, some architectural designs have excluded a top supporting rail or other means of structural support and certainly have not provided a structural design for the system itself. That is a violation of the code and that design should not be encouraged or used. We do understand that designing a glazed guard/handrail system for open stairways is more difficult

than for other structural materials. However, the code requires such an analysis. As a result, we have found it easier to design a Guard and handrail system that is independent of the glazed panels.

Prepared by:

A handwritten signature in black ink, appearing to read "Chuck Daleo". The signature is fluid and cursive, with a large initial "C" and "D".

Chuck Daleo

Reviewed by:

A handwritten signature in black ink, appearing to read "Paul Armstrong". The signature is cursive and somewhat stylized, with a large initial "P" and "A".

Paul Armstrong