

## Why Not to Notch Rail Posts

We have seen many decks being built with guardrails that use notched 4x4's as rail posts. Regardless of the depth of the notch this is inadvisable because it significantly weakens the strength properties of the posts. Checks or cracks may propagate along the grain lines at the notch as the lumber dries and shrinks. A 4x4 No. 2 Southern Pine Post is allowed to have up to 1:8 slope of grain. If this 4x4 is notched by 1.75 inches a crack propagated along the grain will leave only .75 inches at 8" above the corner of the notch.

The rail posts must withstand intense concentrated loads and the posts themselves can provide a lever action that can intensify the force exerted on the attachment to the deck. There is some inconsistency for how rails with notched posts are inspected. As a general rule they do not meet the maximum limits of the IRC load requirements.

