



APPROVED PRODUCTS

SIMPSON

Strong-Tie

®

HANDRAILS, GUARDRAILS, FOOTINGS AND POSTS

The things you must check when inspecting your deck

The handrails, guardrails, footings and posts on your deck are all part of a system that ensures the safety of anyone using your deck at any time. But like everything else, parts wear down and deteriorate over time and usage, and this is especially true of decks because they are constantly exposed to the elements.

Use the checklist below when inspecting the handrails, guardrails, footings and posts on your own deck to help determine its overall safety.

Handrails

- No visible signs of cracks, decay or over-notching of wood decking
- Guards and handrails are located along stairway
- Handrail height is between 34 inches and 38 inches
- Handrail can be grasped
- Opening between handrail balusters (columns that support railing) is less than 4 3/8 inches
- If handrail is separate, it is secured to a post or safety terminal/support structure

Guardrails

- Guardrails present if walking surface is more than 30 inches above grade
- Guardrail height is at least 36 inches
- Top rail of the guard and the post are properly connected to transfer the load to deck framing
- "Shear" connection between posts and deck frame use hold-downs—not just bolts and lag screws
- No notched posts (do not meet load and deflection standards)
- Opening between guardrail balusters (columns that support railing) is less than 4 inches
- No visible signs of decay, deterioration or cracking
- No visible signs of corrosion or rust on hardware

Footings

- Footing/deck support is at least 12 inches by 12 inches
- Footing is at least 12 inches below undisturbed soil

Posts

- Posts show no visible signs of decay, cracks or post-corrosion (if metal)
- Posts are connected to footings with proper post-base hardware (stainless steel, ZMAX® or hot-dip galvanized coating)
- Post-to-beam connectors are not bent or improperly modified
- Beams alongside posts are attached using a metal connector—not bolts, lag screws or nails
- Posts and beams have diagonal bracing (required at corner posts greater than 2 feet in height)
- No visible signs of red rust on hardware (fasteners and connectors)
- All connector holes are filled with proper fasteners (i.e., galvanized fasteners used with galvanized connectors, stainless fasteners used with stainless connectors)