

CULPEPER DECK BUILDING TIPS



Make sure that your wood is suited for the intended use. Check the tag on lumber for “above ground” or “ground contact” and “DRY” (kiln dried after treatment) or wet lumber.

- To avoid cupping and ponding of water on the decking surface, do not use lumber greater than 6 inches in nominal width (5 ½” actual).
- Make sure the deck is properly elevated to ensure sufficient ventilation. When enclosing the underside of the deck, products such as lattice should allow for proper ventilation (good ventilation will help prevent cupping).
- Before you begin nailing, lay out your lumber with the best-looking face exposed. Decide which pieces you want for visible areas, and which pieces for understructure.
- Separate deck boards as follows to allow for expansion and contraction. If heavy and wet, boards can be butted tightly together, as they will shrink during the drying process. If light and dry (KDAT-kiln dried after treatment), separate boards at least 1/16” but no more than 1/8”, as some expansion may occur.
- Avoid long spans in construction. The greater the distance between supporting points, the more force developed within the wood as it dries. Also avoid designs with long cantilevers unsecured at one end. 2x decking material floor joist should be no farther apart than 24” and with 5/4x no farther than 16”.
- Orient embedded support columns so only treated ends are in ground contact.
- Cover upper ends of posts with post caps or cut them at angles to shed water.
- For maximum protection, coat cut ends with wood preservative (required with western species to validate warranty).
- Screws offer advantages over nails for attaching decking to joists. Screws remain tight over time and allow for easy replacement of decking.
- Minimize the use of metal connectors by stacking deck structural members directly on top of each other (e.g. decking on joists, joists on beams, and beams on posts).
- Hot-dip galvanized fasteners are recommended for above-grade applications and should meet ASTM A153. Connectors should meet ASTM A653, Class G185 with 1.85 ounces of zinc coating per square foot minimum. For coatings other than galvanized (e.g. powder or ceramic) check with the manufacturer to ensure the fastener is recommended for use with pressure-treated lumber.

Type 304 or 316 stainless steel fasteners and connectors, commonly used in severe exterior exposures, provide maximum corrosion resistance.

Fastener Schedule

Decking	Common Practice			Superior Performance		
	5/4 x 6	2 x 4	2 x 6	5/4 x 6	2 x 4	2 x 6
Nails	(2) 8d	(2) 10d	(2) 10d	(3) 8d	(2) 10d	(3) 10d
Screws	(2) 2 ½”	(2) 2 ½”	(2) 2 ½”	(3) 2 ½”	(2) 2 ½”	(3) 2 ½”

- Pre-drill the ends of deck boards anytime you get within the widths distance from the end of the board. This will help reduce end splitting.
- For superior performance, seal KDAT deck boards on all six sides with a quality oil based paint or stain.
- Before applying any finish to pressure-treated Southern Pine, be certain the wood is clean and dry.