

■ CrossTimbers Decking Application Instructions

■ Tools and Safety...

Elk CrossTimbers can be cut, routed, drilled or fastened with normal woodworking tools. Carbide-tip saw blades with approximately 2 teeth per inch are recommended for best results. It is the responsibility of the user to follow safe practices when using all tools during the installation process.

Compliance with all applicable local, state and federal laws and building codes remains the responsibility of the user.

■ Substructure...

Elk CrossTimbers should not be used as components of a substructure. When constructing the substructure care must be taken to ensure that the joists are level, straight and square, as the CrossTimbers deck boards will conform to the level and orientation of the joists. CrossTimbers should not be attached to any solid surface or watertight flooring system, such as sheathing, waterproof membranes, roof decks, concrete or patios. The required clearance needed for adequate airflow and drainage between CrossTimbers and the surface beneath is 12". Joist spans greater than 8' must be blocked. A good rule of thumb is to block all joist spans greater than 8' at their mid point (a 12' joist would be blocked at 6').

■ Color...

The natural wood fibers used to make CrossTimbers have a tendency to cause slight color variations between boards. It is important to lay out the deck design first to ensure proper color mix. Allow 8-12 weeks of exposure for fading to occur.

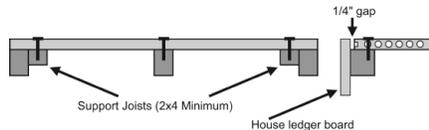
■ Orientation...

The wood grain of Crosstimbers deck boards will reflect light differently depending on the orientation of the boards. To ensure the same look across the deck it is necessary to orient all deck boards in the same direction. Each CrossTimbers deck board will have orientation arrows found on the side of the board indicating the direction of the grain. When laying out the deck design orient the boards so the arrows are facing the same direction.

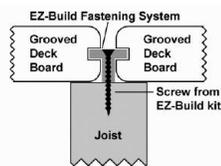
■ Fastening...

It is recommended to use composite lumber screws or standard decking screws when installing CrossTimbers decking or railing. CrossTimbers decking can be installed using one of the two following methods (nailing is not recommended):

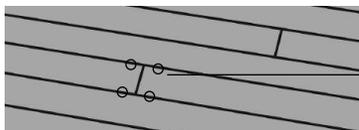
***Face Fastening.** Pre-drilling is recommended when face fastening CrossTimbers boards. For 5/4x6 boards a minimum screw length of 2 1/4" is needed; for CrossTimbers 2x6 decking a minimum screw length of 3" is needed. Two fasteners are required at every joist 3/4" from the side and a minimum of 1" from the end of the board. To accommodate the attachment of the fasteners at board ends and at butt joints a supporting joist or cleat (minimum 2"x4") needs to be attached to the stringer, ledger board or rim joist. Minimum spacing between boards is 3/16".



***EZ-Build™ Fastening Clips:** As with Face Fastening, EZ-Build fasteners should be attached at each joist regardless of joist spacing. When using the EZ-Build fastening system the perimeter of the deck needs to be fastened using the Face Fastening directions.



***Special Note:** Elk recommends avoiding deck designs with butt joints. When butt joints are used, a cleat or block (minimum of 2"x4") is needed at the butt joint to support the desired fastening method. Face fastening at butt joints is recommended to minimize the effects of expansion and contraction. When using the EZ-Build system at butt joints both boards at the butt joint need to be clipped individually.



Indicates to place two clips per board at butt joints.

■ Gapping...

Elk CrossTimbers expands and contracts due to changes in temperature; therefore, it is critical to follow the gapping charts below for proper performance.

Temperature	End Joints	Adjacent to Structure
Below 60 degrees	3/16"	3/8"
Above 60 degrees	1/8"	1/4"

■ Stair Tread...

Solid CrossTimbers deck boards must be used and face fastened on a joist span no greater than 12". Over hang for stair treads must not exceed 4".

■ Fascia...

For 6" fascia use two screws every 12", at least 1" from the edge of the fascia. For 12" fascia use three screws every 12". The outside screws should be at least 1" from the edge of the fascia and the third screw should be placed in the center of the upper and lower screws. Fascia must be gapped at least 1/8" between adjoining boards. Butt joints may be miter cut or back cut to minimize appearance of gapping. Do not miter cut the edges at corners.

■ L-Trim...

L-trim may be applied to cover the sides and ends of boards. This product should be applied with a thin layer of construction adhesive and one 1" long 18 gauge brad or #6 trim head finishing screw in the center of every deck board. Fasteners should be driven through deck boards into the center of the void.

Lumber Sizes and Dimensions:

Nominal Size	(Length)	Actual Size
5/4" x 6" Solid	(12', 16' & 20')	1.00" x 5.55"
5/4" x 6" Voided	(12', 16' & 20')	1.00" x 5.50"
2" x 6"	(12', 16')	1.45" x 5.60"
2" x 4" Solid	(12')	1.50" x 3.55"
2" x 4" Slotted	(12')	3.50" x 1.75"
2" x 2" Baluster	(12')	1.50" x 1.50"
4" x 4" Post	(4.5')	3.50" x 3.50"
L-Trim 1" x 1"	(12')	1.06" x 1.00"
1/2" x 6"	(12')	0.50" x 5.55"
1/2" x 12"	(12')	0.50" x 11.50"

■ Decking Span Chart...

Maximum recommended center-to-center spans with a minimum of three joists are shown below. CrossTimbers must not be applied to a solid surface.

Center to Center Span

Board Size	Residential Light Duty	High Traffic Boardwalks/Marinas
5/4" x 6" Voided	24"	16"
5/4" x 6" Solid	24"	20"
2" x 6"	24"	24"

Note: When diagonal installation is used; do not exceed 45° and joist span can not exceed 16".

■ Warranty...

Elk Composite Building Products, Inc. provides a 20-year limited warranty for CrossTimbers products. For a copy of the limited warranty see your CrossTimbers dealer or visit www.elkcorp.com.

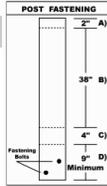
■ Code Evaluation...

ICC Evaluation Service Report (ESR-1590)

■ CrossTimbers Railing Application Instructions

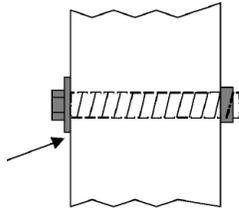
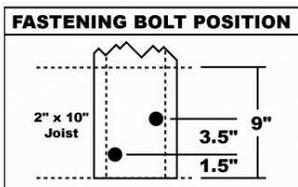
■ Post Fastening...

- A) Optional: Post above rail.
- B) Rail assembly position.
- C) Maximum space between deck and bottom rail.
- D) Area for fastening post to deck joists (9" Minimum)



■ Fastening Bolt Position...

Use 1/2" diameter stainless or double galvanized steel bolts long enough to go through the post and joist with 1 1/2" minimum heavy duty washers on both ends plus 1/2" for attaching nut.
Do not put bolts in the center area of the post. Position bolts just so they miss the inside edges of the post wall.
Bolts may be tightened by hand with a wrench or socket wrench no longer than 10".



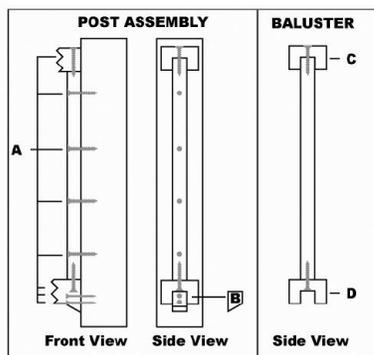
Ensure that there is no localized compression of the washer into the post; crushing of the post surface around the washer may compromise the ability of the post to carry necessary load.

■ Residential Post and Baluster Assembly...

(International Building Code [Section 1607.1, exception 1] and International Residential Code areas)

- A) Pre-drill all post, baluster and rail assembly holes.
- B) Balusters should be spaced on maximum 5" centers, keeping the space between balusters less than 4".
- C) The distance between the bottom hand rail and the deck should be no more than 4".
- D) Posts **MUST BE** fastened to the inside of the rim joist.
- E) **POSTS MUST NOT BE NOTCHED.**
- F) Maximum guard rail span is 72", center to center between posts.
- G) Foot blocks are required if span is greater than 4', centered between the posts.

Residential Post Assembly and Baluster Fastening



- A) 2 1/2" stainless steel or ceramic coated screws. The top screw used to attach the baluster to the post should be spaced no more than 2" from the bottom of the hand rail.
- B) Baluster block (side view) – attach block with two screws.
- C) Top rail – install screws through the top of the hand rail into the baluster.
- D) Bottom rail – install screws through the bottom of the hand rail into the baluster.

■ Baluster Assembly...

Attach each baluster with two 2 1/2" 8d stainless steel or ceramic coated deck screws; one through the top of the baluster and one through the bottom.

Attach fascia to each baluster and the posts with two 1 1/2" 8d stainless steel or ceramic coated deck screws.



■ Commercial Post Assembly & Baluster Fastening...

- A) Baluster plug; measure inside dimension of post and cut to length.
- B) Top view of post.
- C) Insert 2 1/2" piece of baluster into post and secure with (2) 1 1/2", 8d stainless steel or ceramic coated deck screws.
- D) Post side view.
- E) 2 1/2" stainless steel or ceramic deck screws.
- F) Fasten 1/2" x 6" fascia to balusters with 1 1/2" 8d stainless steel or ceramic coated deck screws.
- G) Baluster block attached with one 2 1/2" 8d stainless steel or ceramic coated deck screws.

