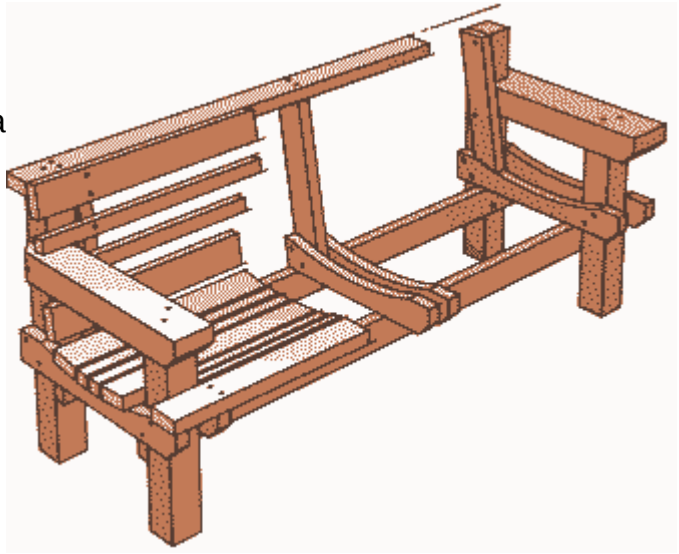
104

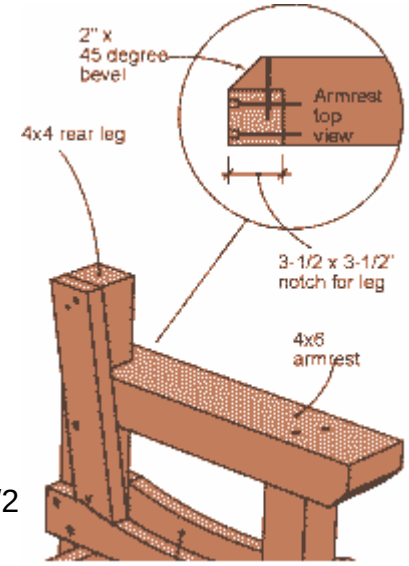
BENCH SEAT

The clean, horizontal lines and rich redwood tones of this bench design reflect the simple beauty of Northern California. Comfortable and elegant with a gracefully curved seat and angled backrest, it offers a standing invitation to sit, relax and enjoy. This freestanding bench uses Construction Common or Deck Common redwood grades that have a pleasing mix of heartwood and sapwood. Where increased decay resistance is needed, use all-heartwood grades: Construction Heart or Deck Heart. Use only corrosion-resistant deck screws to prevent staining. Counter-sink and plug screw attachments.



Materials for Benches

	Quantity	Size	Length
Top, Seat and Backrest Rails	6	2x4	6 feet
Seat and Backrest Rails	6	2x2	6 feet
Main Braces	2	2x4	5 foot 9 inches
Seat and Backrest Supports	9	2x4	26 inches
Front Legs	2	4x4	20-1/2 inches
Back Legs	2	4x4	30-1/2 inches
Armrests	2	4x6	26 inches
Deck Screws	1-1/2 pounds	3 and 4 inches	



Trim and Notch the Armrests

Start building the bench by trimming and notching the armrests. Trim the front end of each 4x6 armrest at a 45 degree angle, beginning 1-1/2 inches down from top. Notch the inside back of each armrest where it will wrap the rear leg. Finish with a 45 degree bevel cut. See armrest detail.

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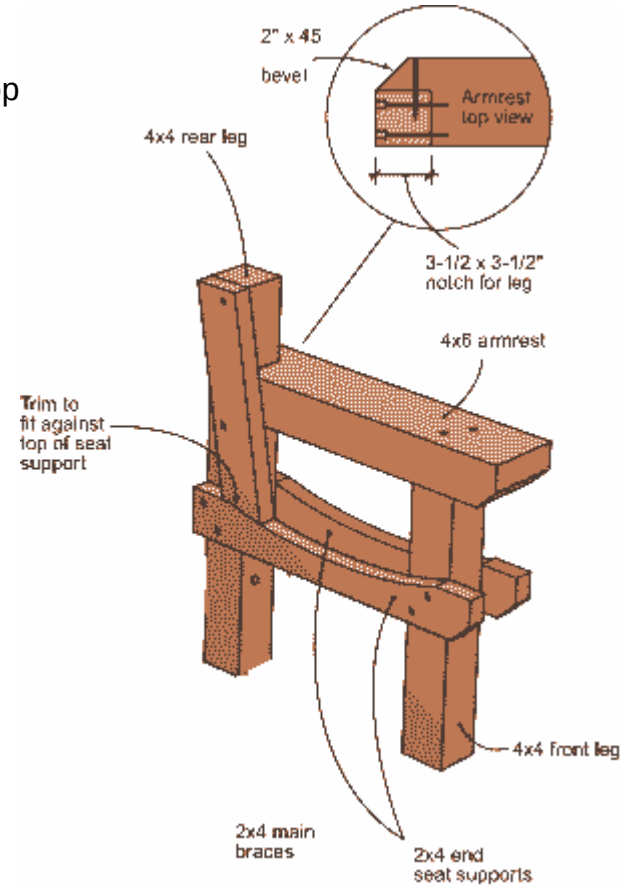
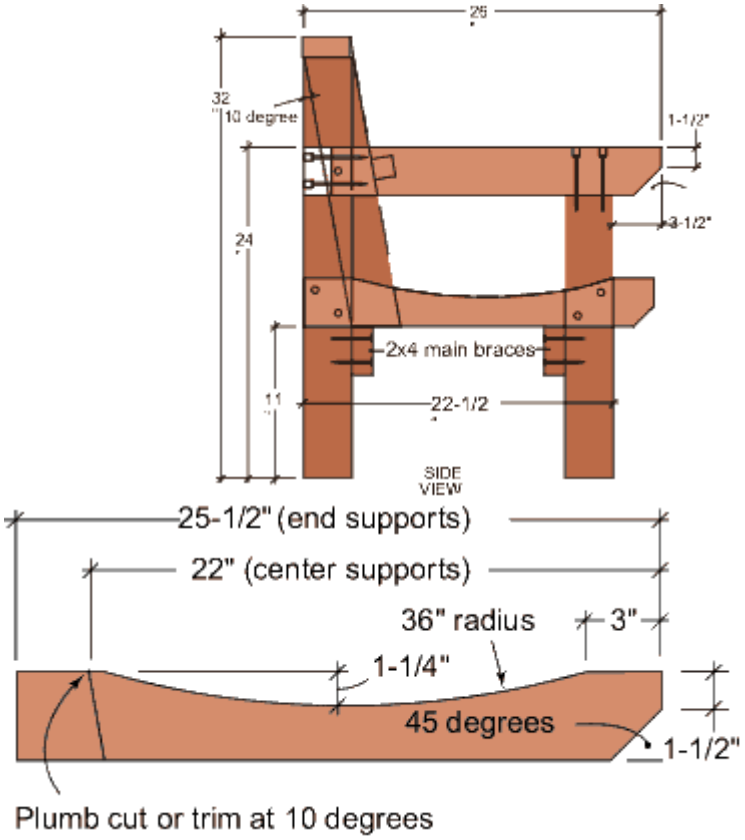
Prepare the Legs

Using 4-inch screws, attach armrests to 4x4 rear legs 24 inches up from the bottom. Attach armrests to front legs by driving two screws through the armrest and into the top of the leg.



Main Braces

Trim 2x4s for the main braces and attach to inside front and rear legs 11 inches from bottom.



Seat Supports

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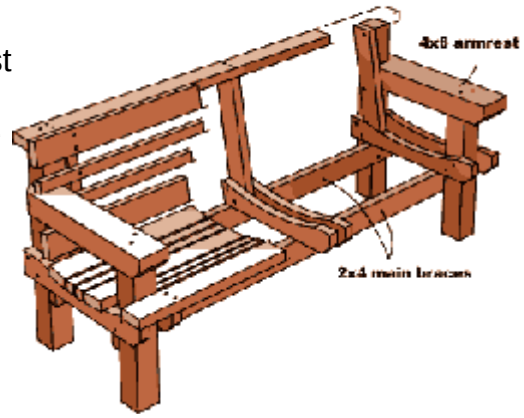
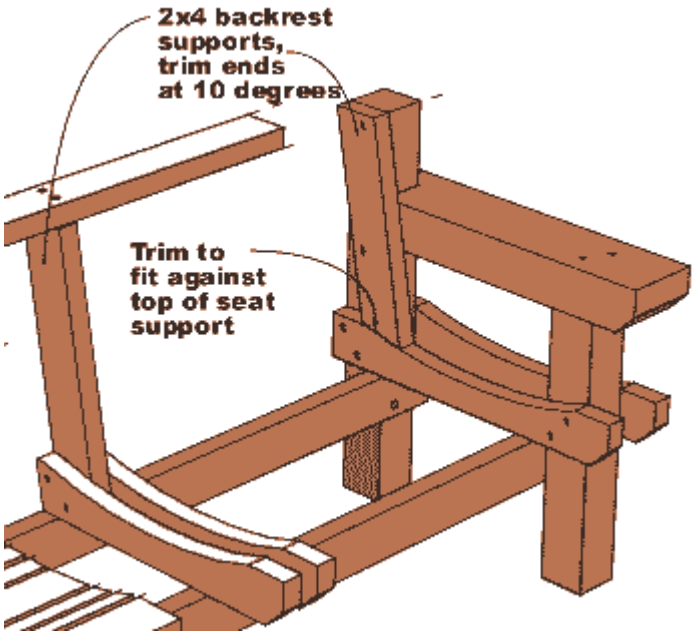
The curved seat supports are made up of 2x4 lumber sandwiching either the 4x4 rear legs or the single 2x4 backrest support. To shape the curve, make a template for a 36-inch radius cut. Mark the cut to start 3 inches in from the front. Use a bandsaw to cut the radius to a depth of no more than 1-1/4 inches.

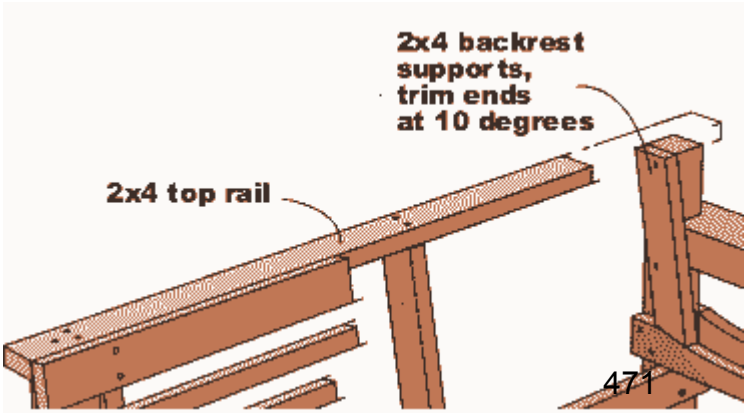




Finish the seat supports with a 45 degree bevel cut to match the armrests. Note that the end and center seat supports differ slightly in length and attachments. End seat supports Trim four 2x4s to 25-1/2 inches. Attach the inside seat supports to the rear and front legs so they rest on the top edge of the 2x4 main braces. Attach the outside seat supports level with the inside ones.

Center Seat Supports

Trim the two center seat supports to 22 inches. Using a scrap piece of 2x4 as a temporary spacer for the backrest, attach these seat supports across the main braces flush with the back edge of the rear brace. Use two 3-inch screws for each joint, angled from below and inside. Remove the spacer.



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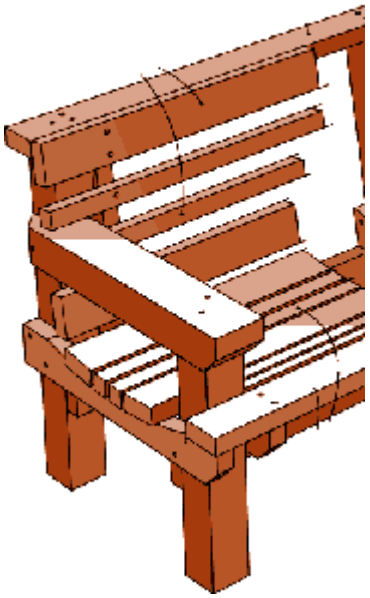
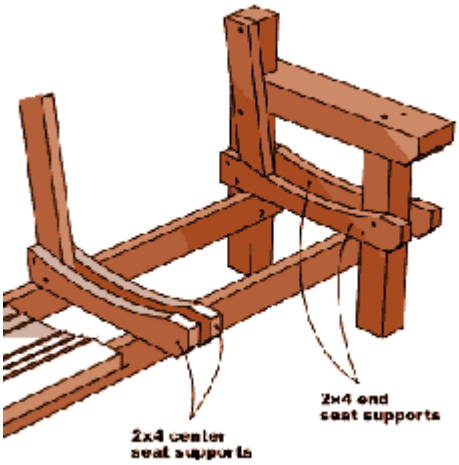
Backrest Supports

Trim the 2x4 backrest supports to a 10 degree angle at the top edge. The two end backrest supports start at the top of the 4x4 rear leg and trim to rest on top of the seat supports.



The center backrest trims flush to the bottom edges of the two center seat supports. Attach the end backrest supports to the inside of the 4x4 rear leg with two screws. The bottoms should fit snugly to the top of the seat supports and can be secured with screws driven at an angle from below. You should install the top rail before trimming and attaching the center backrest.

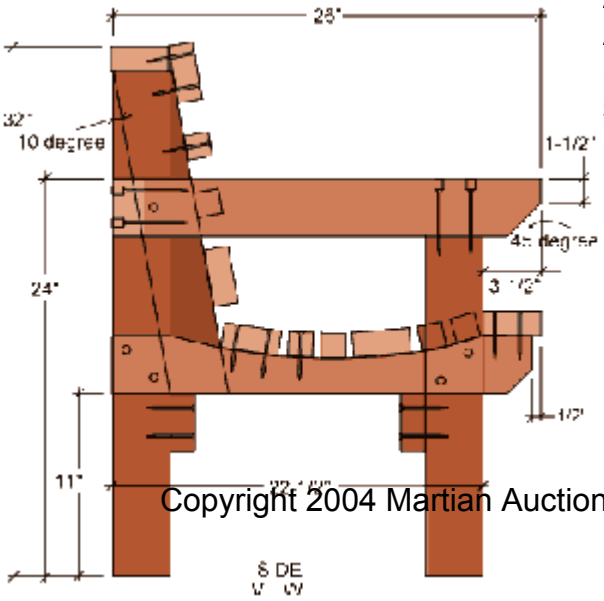


Top Rail

Attach the 2x4 top rail to the rear legs with three deck screws at each end. Measure and trim the center backrest. Install between the seat supports and flush to the underside of the top rail. Secure with screws.

Seat and Backrest Rails

Trim one 2x2 backrest rail to fit between the armrests. Trim the other 2x2 and 2x4 seat and backrest rails to six feet. Install the front seat rail so that it overlaps the seat support by 1/2 inch, and attach with two deck screws at each joint.



Attach the rear seat rail to each support with two deck screws. Adjust the spacing of the remaining seat rails before attaching. Space the backrest rails equally, and attach to supports with a single screw at each 2x2 and two screws at each 2x4.

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