

# Build a comfortable and sturdy adirondack chair for two

There are many variations of the classic adirondack chair. This particular version features straightforward construction and common materials.

This chair makes for a satisfying project that can be built and finished in one weekend. And when properly finished, it will provide years of comfortable seating. Note: For this project, it is recommended that you do a dry assembly first to make sure everything fits and lines up. Then disassemble, sand smooth, apply finish and reassemble the chair with glue and appropriate fasteners.

#### **BUILD TIME**



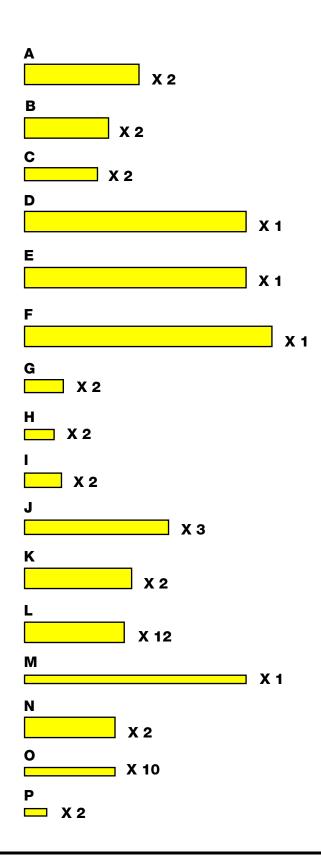


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### WHAT YOU'LL NEED



**CUT LIST** 



### WHAT YOU'LL NEED

#### TOOLS

Miter saw	Countersink drill bill	
Table saw	Router	
Jig saw	1/2" radius roundover router bit	
Hand saw	Socket set	
Drill/driver	Framing / combination squares	
<sup>1</sup> / <sub>8</sub> " drill bit	Clamps	
<sup>3</sup> / <sub>8</sub> " drill bit	Damp rag to wipe up excess glue	
	Paint/Stain Brush	

#### SUPPLIES

(4)  $2 \times 6 \times 8'$ (1)  $2 \times 4 \times 8'$ (8)  $1 \times 6 \times 8'$  2" and 3" deck screws (2)  $3'_8 \times 3 \frac{1}{2}"$  galvanized carriage bolts (2)  $3'_8$  galvanized flat washers and nuts Waterproof wood glue YellaWood Protector<sup>®</sup> Stain & Sealer

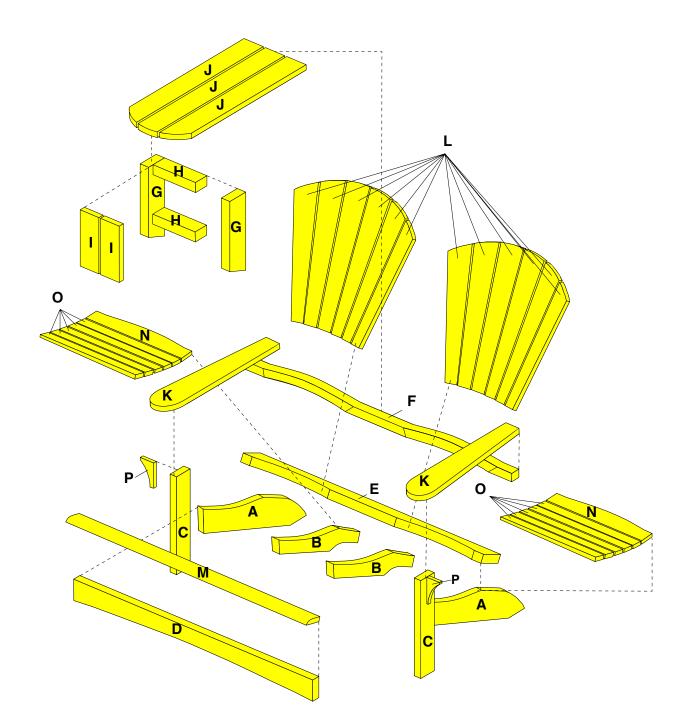
CUT LIST		
Α	(2)	1 ½ x 5 ½ x 31"
В	(2)	1 ½ x 5 ½ x 22 ¾"
С	(2)	1 ½ x 3 ½ x 19 ¾"
D	(1)	1 ½ x 5 ½ x 60"
E	(1)	1 ½ x 5 ½ x 60"
F	(1)	1 ½ x 5 ½ x 67"
G	(2)	1 ½ x 3 ½ x 9 ½"
н	(2)	1 ½ x 2 ¾ x 8"
I	(2)	<sup>3</sup> ⁄4 x 3 <sup>7</sup> / <sub>8</sub> x 8"
J	(3)	<sup>3</sup> ⁄ <sub>4</sub> x 3 <sup>7</sup> / <sub>8</sub> x 30"
Κ	(2)	<sup>3</sup> ⁄ <sub>4</sub> x 5 <sup>1</sup> ⁄ <sub>2</sub> x 30"
L	(12)	¾ x 5 ½ x 27"
Μ	(1)	<sup>3</sup> ⁄ <sub>4</sub> x 2 <sup>1</sup> ⁄ <sub>4</sub> x 60"
Ν	(2)	¾ x 5 ½ x 24 ½"
Ο	(10)	<sup>3</sup> ⁄ <sub>4</sub> x 2 <sup>1</sup> ⁄ <sub>4</sub> x 24 <sup>1</sup> ⁄ <sub>2</sub> "
Ρ	(2)	¾ x 2 x 6"

#### **BUILD TIME**



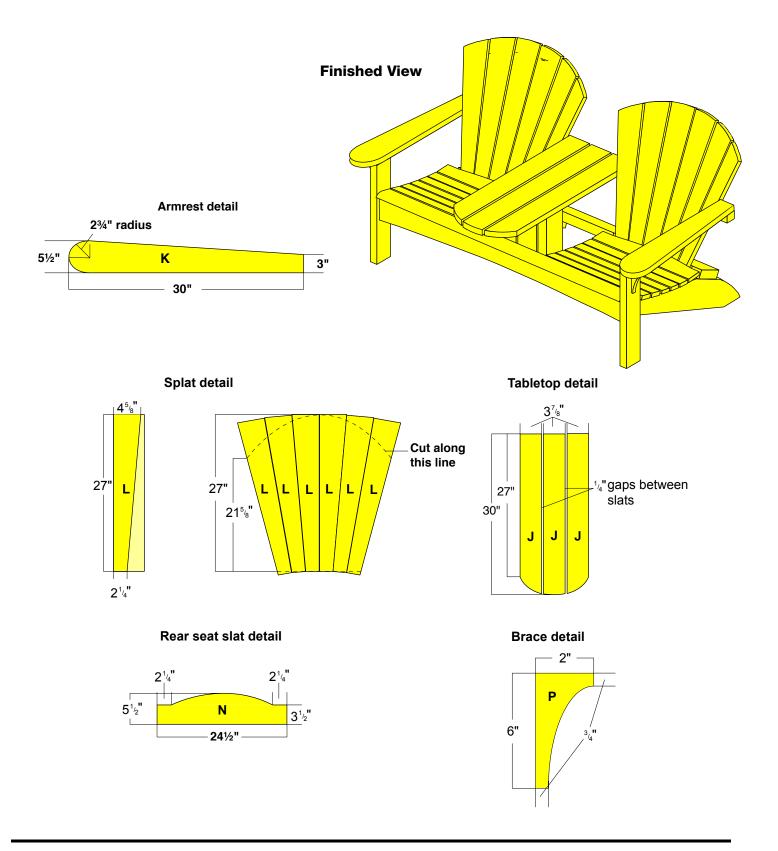
### **OVERVIEW OF STEPS**





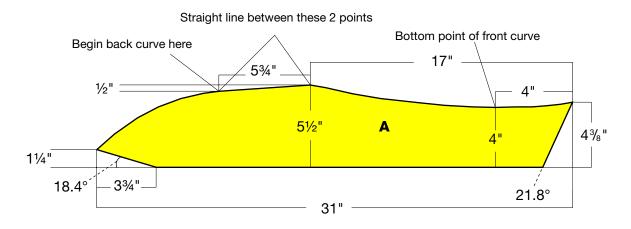
### **DIMENSIONS & DIAGRAMS**





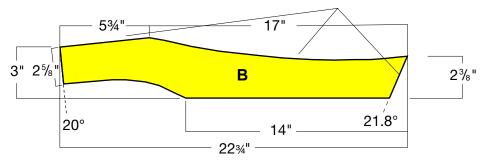
### **DIMENSIONS & DIAGRAMS**





#### Rear leg detail

Copy top & front profile from rear leg detail



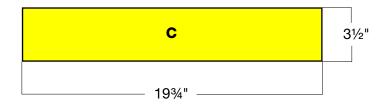
Center support detail

#### Note:

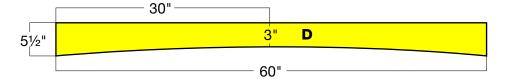
Inscribe angle cuts with a pencil and use a circular saw to allow for more accuracy than miter saws typically provide.

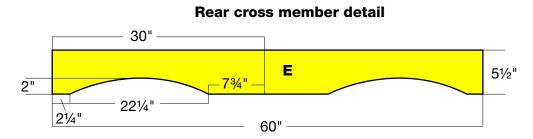
## **DIMENSIONS & DIAGRAMS**





Front rail detail



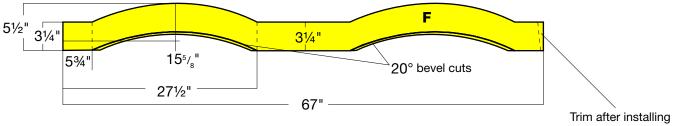




**DIMENSIONS & DIAGRAMS** 







Repeat measurements on the other side

armrests



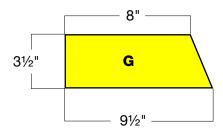
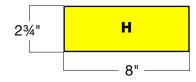
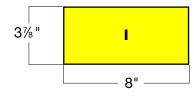


Table brace detail

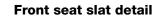


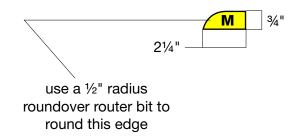
#### **Table panel detail**



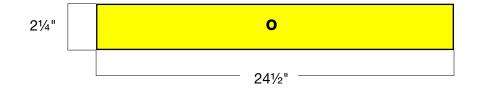
### **DIMENSIONS & DIAGRAMS**











### CONSTRUCTION

#### **BUILDING STEPS**

- **01** Cut all parts to size, referring to detail illustrations for laying out curved, tapered and otherwise shaped pieces. When cutting rear legs (A) and center supports (B), lay out and cut one rear leg and use that as a pattern to lay out the other rear leg and the seat curve portion of the center support.
- **02** Measure and mark the center points of the front rail (D), rear cross member (E) and seat back support (F) after they have been cut and shaped to size.
- **03** Attach front rail (D) to rear legs (A), keeping tops and outside edges flush. Attach with 3" screws through the face of the front rail (see photo 01).

On a flat and level work surface, attach the front rail/rear leg assembly to the front legs (C). Make sure the bottoms of the rear legs sit flat on the work surface and use a framing square to position the front leg properly, keeping the face of the front rail 1/4" back from the front edge of the front legs (C) (see photo 02). Clamp in place and attach with 3" screws through the face of the front leg and into the edge of the front rail (see photo 03). Now predrill for the carriage bolts with a 3/8" drill bit. Your bolt should pass through front leg (C) and rear leg (A), leaving enough room to accept a washer and bolt on the interior.

**04** Measure 7" on either side of your center marks on the front rail (D) and rear cross member (E). Attach center supports (B) to the front rail with 3" screws, keeping the inner edge of center support on those lines 7" off center (see photo 04). Place rear cross member (E) on top of the rear legs, keeping outside edges flush and lining up the bottom edge of the cross member with the point at which you began the curved line on the back of the rear legs (A). See detail illustration and exploded view for proper placement. Attach center supports (B) to the underside of rear cross member with 3" screws, again keeping the inner edge of center support on the 7" line on rear cross member (see photo 05).



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### CONSTRUCTION

#### **BUILDING STEPS**

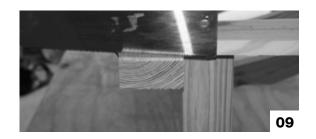
- **06** Attach armrests (K) to top of front legs (C), using 3" screws. Position armrest to sit 2-3/4" beyond the front edge of front leg (C) and overhang 1/2" from the inside face of front leg (see photo 06).
- **07** Cut two temporary braces to 19-3/4" long and set them vertically against rear legs. Position the rear edge of the braces at 24" from the front edge of the front legs (C) (see photo 07). The armrests (K) should rest level on top of the braces. Clamp or temporarily screw braces into place. Make guide marks on seat back support (F) at 3-3/4" in from both ends for armrest alignment. Clamp back support (F) to armrests (K) with your guide marks along the inside edge of the armrests. Attach together with 2" screws from underneath (see photo 08). The seat back support (F) will protrude past the outside edges of the armrest (K). Trim off protruding edges to line up with outside edge of armrests (K) (see photo 09).
- **08** Assemble center table framing (parts G and H) as shown in the exploded view illustration. Make sure it fits between center supports (B) and then remove and attach front slats (I) (see photo 10). Attach front slat (M) to the top of front rail (D), keeping the front edge of slat even with the front edge of front legs (C). Position (G/H/I) assembly between center supports (B). Keep the top level with the back support (F) and square with the top of front seat slat (see photo 11). Clamp in place and attach with 3" screws through center supports (B) into assembly uprights (G) (See photo 12).
- **09** Mark the center of the center table top slat (J) and line it up with the center of seat back support, keeping back edges flush. The front edge of center table slat (J) should overhang the front of table front slats by 5". Attach two more table top slats (J) with ¼" spacers and keeping back edges flush. The sides of table top slats should overhang the side of center table by about ½".



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### CONSTRUCTION

#### **BUILDING STEPS**

- **10** After cutting the tapers on splats (L), lay two of them on a flat surface with their square edges (not the tapered ones) together and their bottoms flush. Place two more splats on either side of these with straight edges against tapered edges for a total of six splats. Square a line along the bottom to align with the bottoms of the middle two splats, and then measure and lay out the curved top (see splat detail illustration on page 6). With a jigsaw, cut along bottom square line and curved top cut line. Do this for both sets of back splats. Clamp a scrap piece of lumber under the rear cross member (E) and set the bottom of the splats on that scrap.
- 11 Align the ¼" space between the middle 2 splats with the center of the curved cut of both the rear cross member (E) and seat back support (F), and place ¼" spacers between the other four splats. Attach through the face of the splats and into both the rear cross member and seat back support (one 2" screw per splat into the rear cross member, two 2" screws per splat into the seat back support) (see photo 13). You may now remove temporary vertical bracing.
- 12 Begin placing seat slats (O), starting with one slat tight against the front seat slat (M) and keeping ¼" spacing between the rest of the slats. Place the rear seat slat last, making sure the curve of the rear slat fits the curve of the splats. Attach with 2" screws.
- **13** Position armrest braces (P) against front legs (C). Drill 1/8" pilot holes through (P) into (C) and from the top of armrest (K) into (P). Attach with 2" screws (see photo 14).
- 14 Make sure all pieces line up and are flush, sanding and trimming when necessary. Then disassemble, sand all surfaces smooth, apply waterproofing finish according to manufacturer instructions and reassemble with glue and screws. Now you're ready to place your piece of fine outdoor furniture and enjoy!

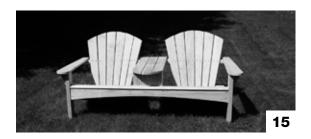


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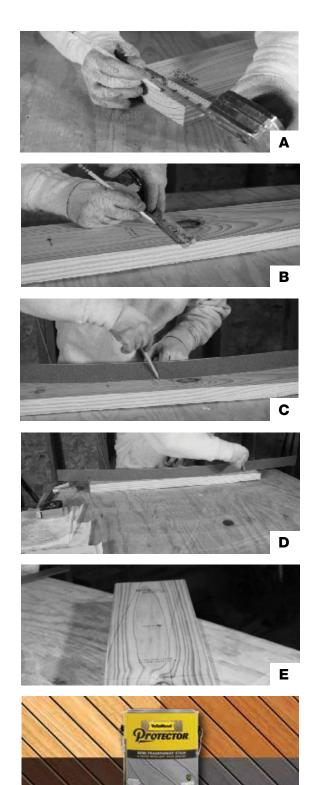






#### LAYING OUT CURVES

- A When you need to lay out curved lines, there are many different methods you may use. The following technique is one of the easiest and requires only that you know the piece's final length and width, as well as a piece of hardboard or other pliable material that can easily be pushed or pulled to create a consistent curved line. This illustration uses the curved legs from the daytripper chair as an example, but you can use the concepts for any of the 20 projects featured in this section.
- **B** After cutting your raw stock to length, measure up from the bottom edge on both ends and mark the width of the piece (2 ¾" in this example). Then, measure down from the top edge along the centerline and mark the same measurement.
- C Drive finish nails into your assembly table at each end at the bottom corners of your stock, place your piece of hardboard against those nails and push up along the centerline until the edge of your hardboard touches your mark at the centerline (you may have to push and bend the nails to make sure your hardboard edge intersects the bottom corners properly). Hold the hardboard steady and lightly trace along the edge to get your curve.
- D Tack two more nails into the assembly table at the 2 ¾" marks along the edge of both ends and place your hardboard against them. Push along the centerline until the edge of the hardboard touches the top edge of the stock and trace that curved line.
- E Your result is two parallel and consistent curves exactly 2 <sup>3</sup>/<sub>4</sub>" apart from each other along the entire length of the stock. Make your cut with a jig saw or band saw, leaving the line on your finished piece, and then sand cuts smooth until you just remove the pencil line.
- **F** We recommend long lasting YellaWood Protector<sup>®</sup> semi-transparent stain and water repellent wood sealer, the only stain backed by the famous Yella Tag. Follow manufacturer's recommendations for application.



F

### **FASTENER & HARDWARE INFORMATION**

#### FOR INTERIOR OR EXTERIOR APPLICATIONS

Use fasteners and hardware that are in compliance with the manufacturer's recommendations and the building codes for their intended use. As with any good design and construction practices, treated wood should not be used in applications where trapped moisture or water can occur. Where design and/or actual conditions allow for constant, repetitive or long periods of wet conditions, only stainless steel fasteners should be used.

#### FOR EXTERIOR APPLICATIONS

The following minimum galvanization levels may be used for connectors, joist hangers, fasteners and other hardware that are placed in direct contact with exterior applications of micronized copper treated wood:

• Fasteners - nails, screws, etc.	ASTM – A 153 (1 oz/ft²)
• Hardware - connectors, joist hangers, etc.	ASTM – A 653 G90 (0.90 oz/ft <sup>2</sup> )

The effects of other building materials within a given assembly, along with environmental factors, should also be considered when selecting the appropriate hardware and fasteners to use for a given project containing treated wood.

Stainless Steel fasteners and hardware are required for Permanent Wood Foundations below grade and are recommended for use with treated wood in other severe exterior applications such as swimming pools, salt water exposure, etc. Type 304 and 316 are recommended grades to use.

#### ALUMINUM

Aluminum building products may be placed in direct contact with YellaWood® brand products used for interior uses and above ground exterior applications such as decks, fencing, and landscaping projects. Examples of aluminum products include siding, roofing, gutters, door and window trim, flashing, nails, fasteners and other hardware connectors. However, direct contact of treated products and aluminum building products should be limited to code-compliant construction applications that provide proper water drainage and do not allow the wood to be exposed to standing water or water immersion.

We recommend you contact the aluminum building products manufacturer for its recommendations regarding use of its aluminum products in contact with treated wood in ground contact applications or when exposed to salt water, brackish water, or chlorinated water, such as swimming pools or hot tubs.

Also check with the aluminum building products manufacturer regarding compatibility with other chemicals and cleaning agents and the use of their aluminum products in commercial, industrial, and specialty applications such as boat construction.

YellaWood® brand pressure treated products are treated with preservatives (the "Preservatives") and preservative methods and technologies of unrelated third parties. For details regarding the Preservatives, methods, and technologies used by Great Southern Wood Preserving, Incorporated, see www.vellawood.com/preservative or write us at P.O. Box 610, Abbeville, AL 36310. Ask dealer for warranty details. For warranty or for important handling and other information concerning our products including the appropriate Safety Data Sheet (SDS), please visit us at www.yellawood.com/warranties or write us at P.O. Box 610. Abbeville. AL 36310. YellaWood®, YellaWood Protector<sup>®</sup> and the yellow tag are federally registered trademarks of Great Southern Wood Preserving, Incorporated.

Great Southern Wood Preserving, Incorporated makes no warranties expressed or implied as to the fitness for a particular purpose of this plan.

### IMPORTANT INFORMATION

- Consult the end tag to determine which preservative or preservative system was used in the treatment of that particular product. YellaWood® brand products may be used in direct contact with aluminum building products when limited to codecompliant construction applications that provide proper water drainage and do not allow the wood to be exposed to standing water or water immersion.
- Use fasteners and other hardware that are in compliance with building codes for the intended use.
- Do not burn preserved wood.
- Wear a dust mask and goggles when cutting or sanding wood.
- Wear gloves when working with wood.
- Some preservative may migrate from the treated wood into soil/water or may dislodge from the treated wood surface upon contact with skin.
- Wash exposed skin areas thoroughly.
- All sawdust and construction debris should be cleaned up and disposed of after construction.
- Wash work clothes separately from other household clothing before reuse.
- Preserved wood should not be used where it may come into direct or indirect contact with drinking water, except for uses involving incidental contact such as fresh water docks and bridges.
- Do not use preserved wood under circumstances when the preservative may become a component of food, animal feed or beehives.
- Do not use preserved wood as mulch.
- Only preserved wood that is visibly clean and free of surface residue should be used. If the wood is to be used in an interior application and becomes wet during construction, it should be allowed to dry before being covered or enclosed.
- Mold growth can and does occur on the surface of many products, including untreated and treated wood, during prolonged surface exposure to excessive moisture conditions. To remove mold from the treated wood surface, wood should be allowed to dry. Typically, mild soap and water can be used to remove remaining surface mold. For more information visit www.epa.gov.
- Projects should be designed and installed in accordance with federal, state and local building codes and ordinances governing construction in your area, and in accordance with the National Design Specifications (NDS) and the Wood Handbook.

### DISPOSAL

### RECOMMENDATIONS

Preserved wood may be disposed of in landfills or burned in commercial or industrial incinerators or boilers in accordance with federal, state and local regulations.