



OUR ROOTS RUN DEEP. SINCE 1918

## How to Build a Raised Bed Cold Frame



Protect your plants from frost with a cold frame that sits right on top of your existing 4' x 4' raised bed. The lid is held open with screen door closers, and the entire frame can be moved easily when the weather warms up. Cut the lumber yourself, or have the boards pre-cut at your local home improvement store.

Note that you'll want to measure the height of your raised bed and adjust leg measurements as needed. If the bed is taller than 9¼ inches, add the difference to the length of the legs; if it's shorter, subtract the difference.

# DETAILS

*Design by Chris Hill*

**Estimated Time:** 2.5 hours\*

*\* less if you have wood pre-cut*

**Difficulty:** Easy

## **List of Materials:**

- 6 – 1 x 2 x 8-foot boards
- 3 – 1 x 4 x 8-foot boards
- 2 – 2 x 8 x 8-foot boards
- 4 - .08 x 2 x 4-foot acrylic sheets
- 2 – 15<sup>3</sup>/<sub>4</sub>-inch heavy-duty adjustable hold-open pneumatic screen door closers
- 1 – screen door pull
- 4 – packages 2 x 1/2-inch mending braces
- 2 – packages 1-inch corner braces
- 3 - 2<sup>1</sup>/<sub>2</sub> -inch narrow utility hinges
- 3/4-inch washer-head lath screws
- 1<sup>1</sup>/<sub>4</sub>-inch deck screws
- 2-inch deck screws
- 3-inch deck screws

## **List of Tools:**

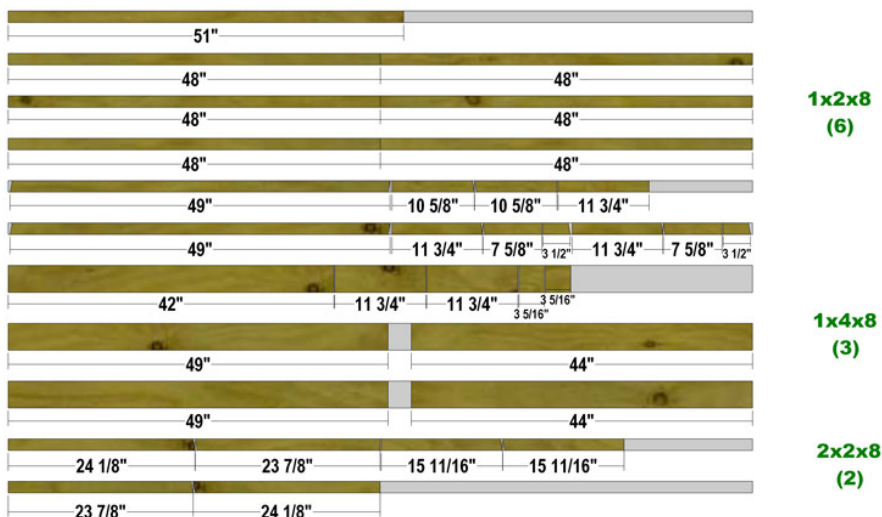
- miter saw or circular saw\*
- drill/driver with #10 countersink bit
- jigsaw with fine-tooth blade, heavy-duty utility knife, or plastic cutter (for acrylic)
- clamps
- square
- measuring tape

*\* or can have lumber pre-cut at home improvement store per dimensions in Parts List*

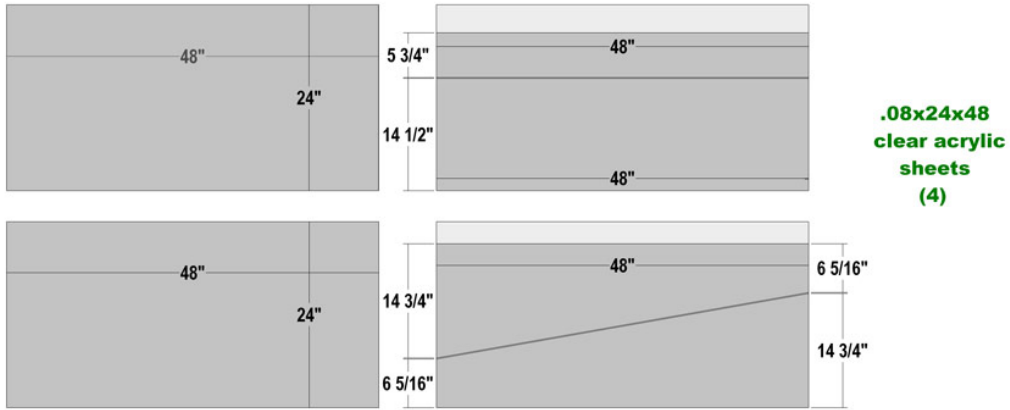
**Parts List:**

Part	Quantity	Size
Inside End Stretcher	2	3/4 x 1 1/2 x 7 5/8
Outside End Stretcher	2	3/4 x 1 1/2 x 10 5/8
Top End Rails	2	3/4 x 1 1/2 x 49 1/4
Bottom End Rails	2	3/4 x 1 1/2 x 48 1/4
Short End Stiles	2	3/4 x 1 1/2 x 3 1/2
Long End Stiles	2	3/4 x 1 1/2 x 11 3/4
Front Legs	2	1 1/2 x 1 1/2 x 15 7/16
Back Legs	2	1 1/2 x 1 1/2 x 23 5/8
Front Rails	2	3/4 x 1 1/2 x 51 1/2
Front Stiles	2	3/4 x 3 1/2 x 3 5/16
Rear Rails	2	3/4 x 1 1/2 x 51 1/2
Rear Stiles	2	3/4 x 3 1/2 x 11 3/4
Rear Stretcher	1	3/4 x 1 1/2 x 11 3/4
Rear Legs	2	1 1/2 x 1 1/2 x 23 7/8
Hinge Board	1	3/4 x 1 1/2 x 54 3/4
Front Panel	1	5 3/4 x 48
Side Panels	2	14 3/4** x 48
Back Panel	1	14 1/2 x 48
Lid Rails	2	3/4 x 3 1/2 x 47 1/2
Lid Stiles	2	3/4 x 3 1/2 x 49
Lid Stretcher	1	3/4 x 3 1/2 x 42
Lid Panels	2	24 x 48

\*\*at widest end – refer to cutting diagram for full dimensions



*Cutting Diagram - Wood*

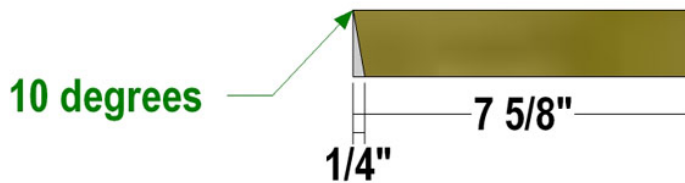


*Cutting Diagram - Acrylic*

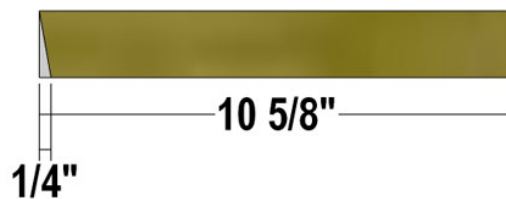
## HOW-TO INSTRUCTIONS

Use the **Parts List** and **Cutting Diagram** as references for part dimensions. Cut the parts as needed for each step.

### Inside End Stretcher

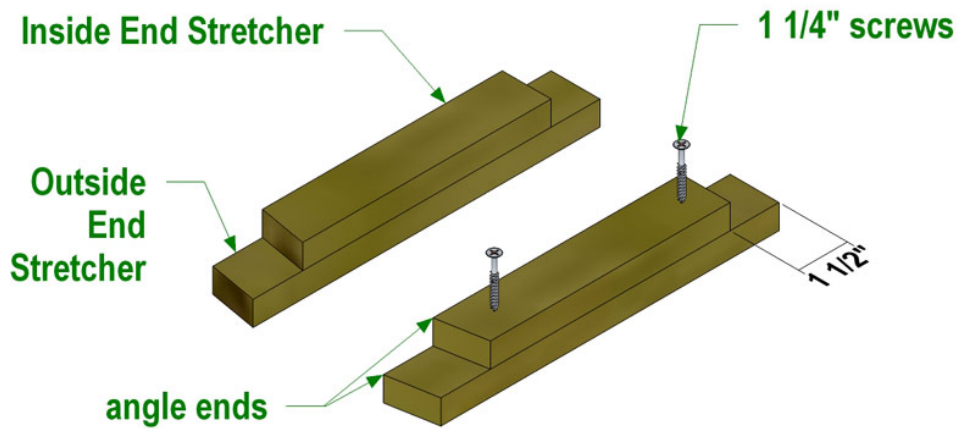


### Outside End Stretcher



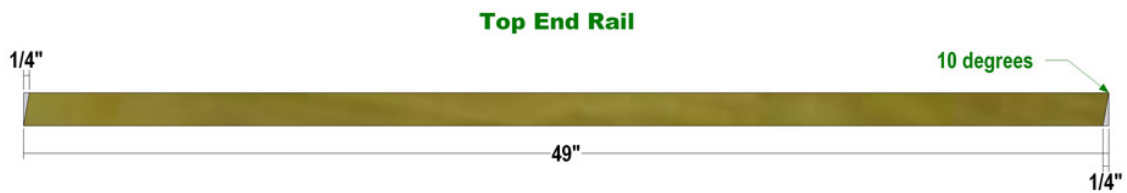
*Figure 1*

Use **Figure 1** as a guide for cutting the **Inside End Stretchers** and **Outside End Stretchers**.



*Figure 2*

Position these parts as shown in **Figure 2**, and attach using 1 ¼-inch deck screws.



*Figure 3*

Use **Figure 3** as a guide for cutting the **Top End Rails**.

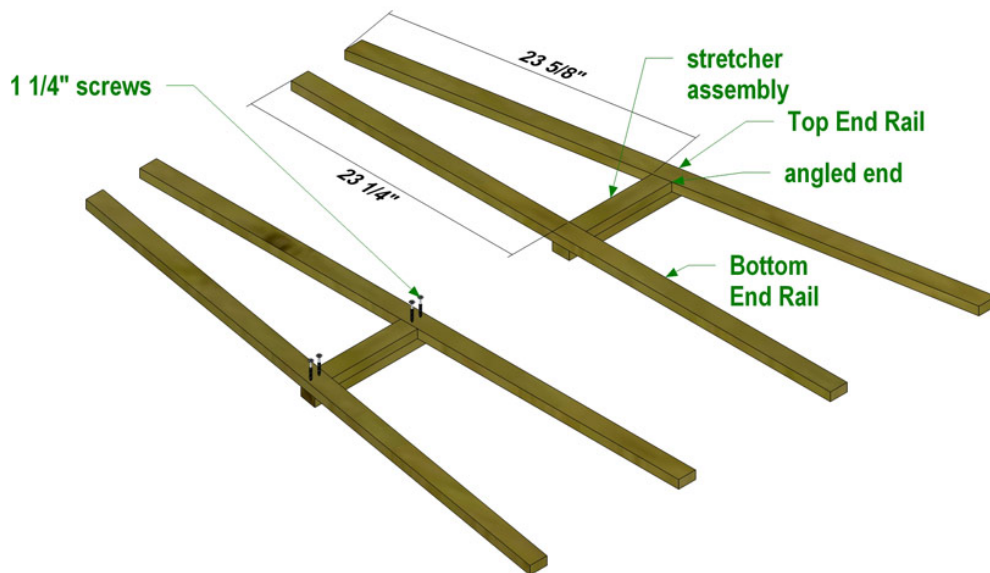
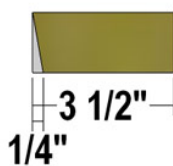


Figure 4

Position the **Top End Rails** and **Bottom End Rails** as shown in **Figure 4**, and attach to the **Outside End Stretchers** using 1¼-inch deck screws. Note that these two assemblies should be mirror images of each other.

### Short End Stile



### Long End Stile

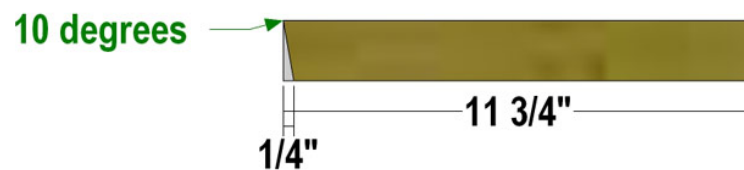


Figure 5

Use **Figure 5** as a guide for cutting the **Short End Stiles** and **Long End Stiles**

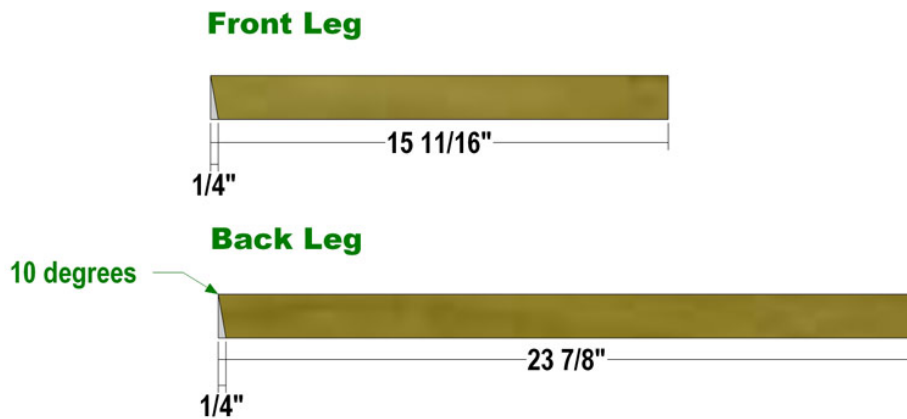


Figure 6

Use **Figure 6** as a guide for cutting the **Front Legs** and **Back Legs**.

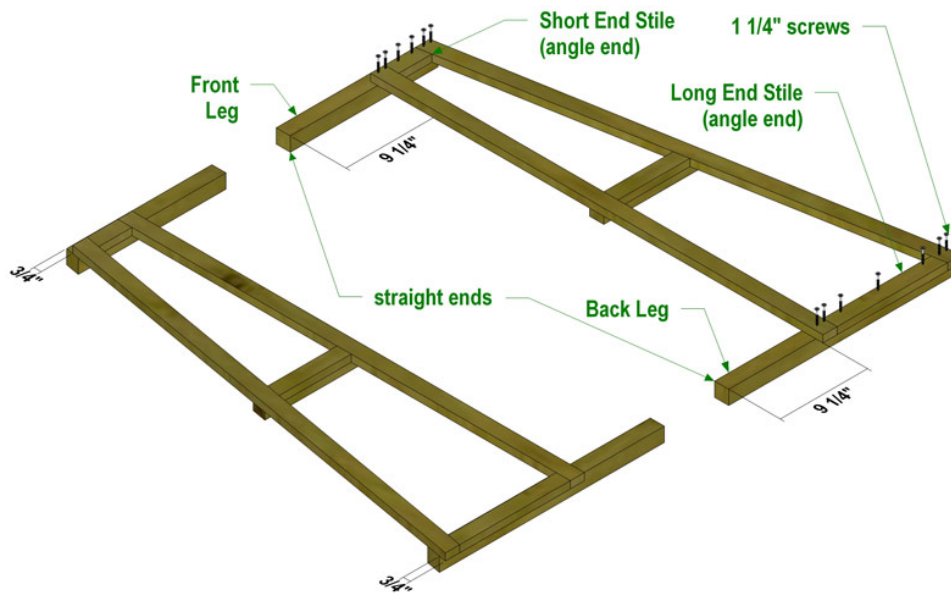


Figure 7

Position the parts as shown in **Figure 7**, and attach using 1  $\frac{1}{4}$ -inch deck screws. Note that the assemblies should be flush with the top ends (with the 10-degree angles) of the **Legs**, and are offset by  $\frac{3}{4}$  of an inch, as indicated. Again, these assemblies should be mirror images of each other.

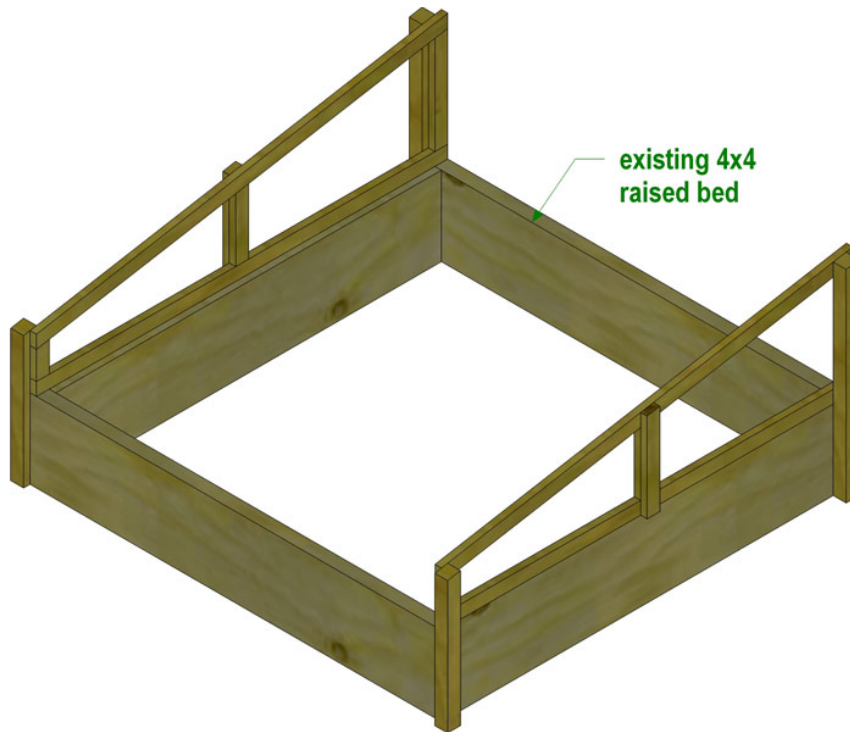


Figure 8

Place these assemblies on your raised bed, as shown in **Figure 8**.

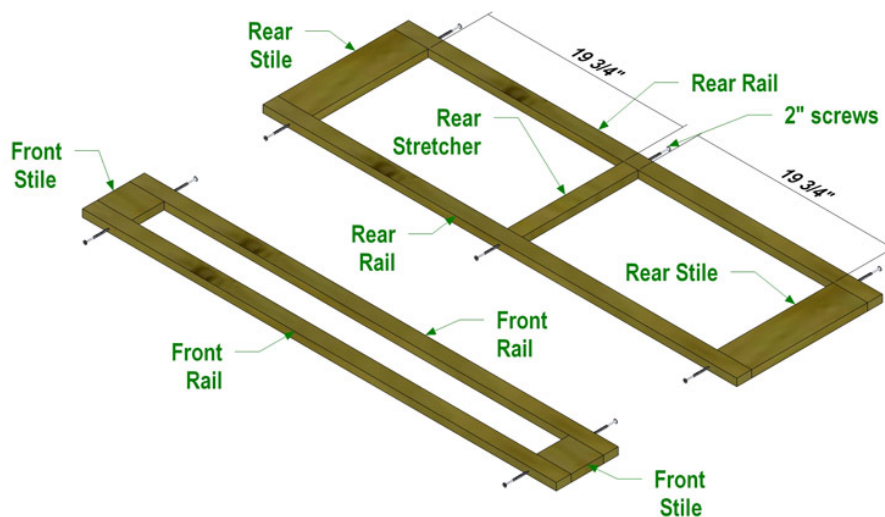


Figure 9

Position the **Front Stiles** and **Front Rails** as shown in **Figure 9**, and attach using 2-inch deck screws driven through the **Rails** and into the **Stiles**. Position the **Rear Stiles**, **Rear Stretcher**, and **Rear Rails** as also shown in **Figure 9**, and attach using 2-inch deck screws driven through the **Rails** and into the **Stretcher** and **Stiles**.



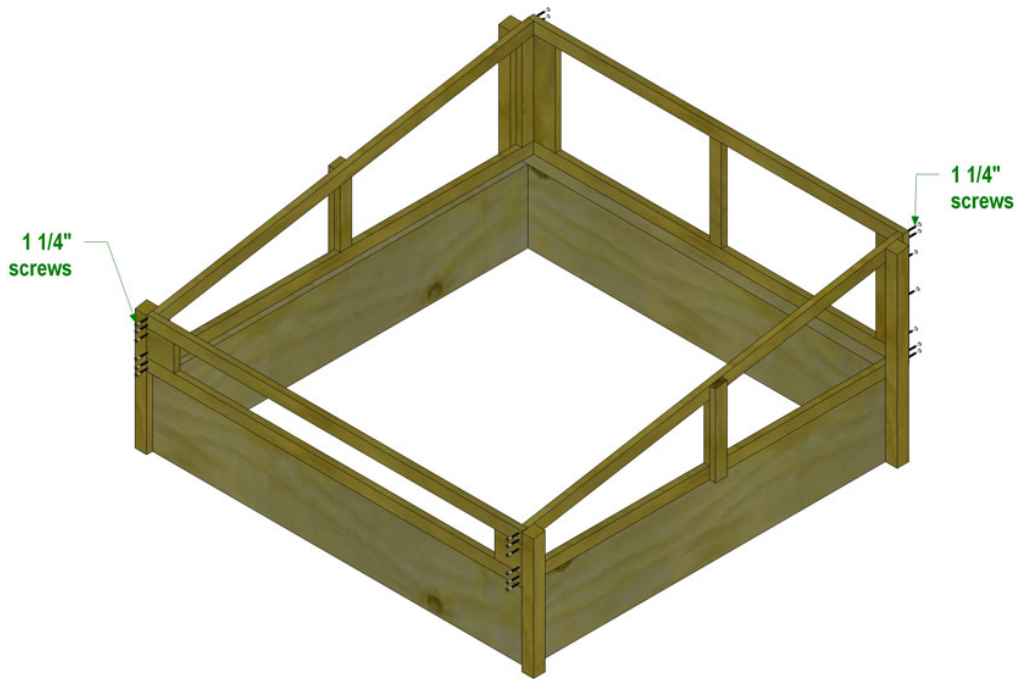


Figure 10

Position these assemblies as shown in **Figure 10**, making sure they are flush with the top end of the **Legs**, and attach using 1¼-inch deck screws as shown.

### Rear Leg

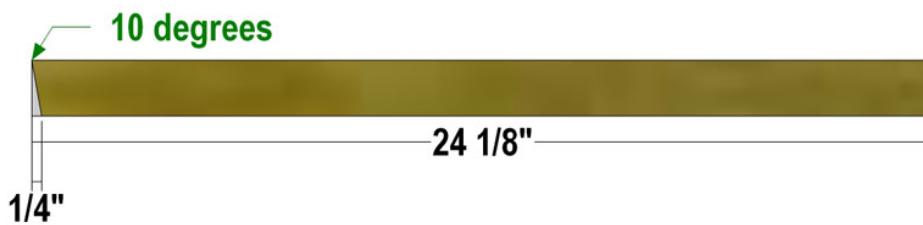
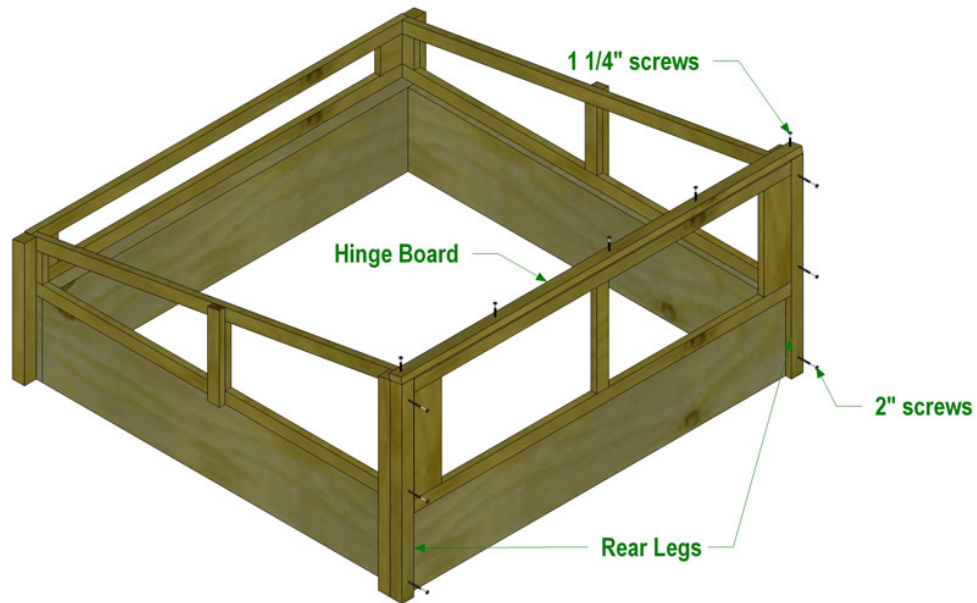


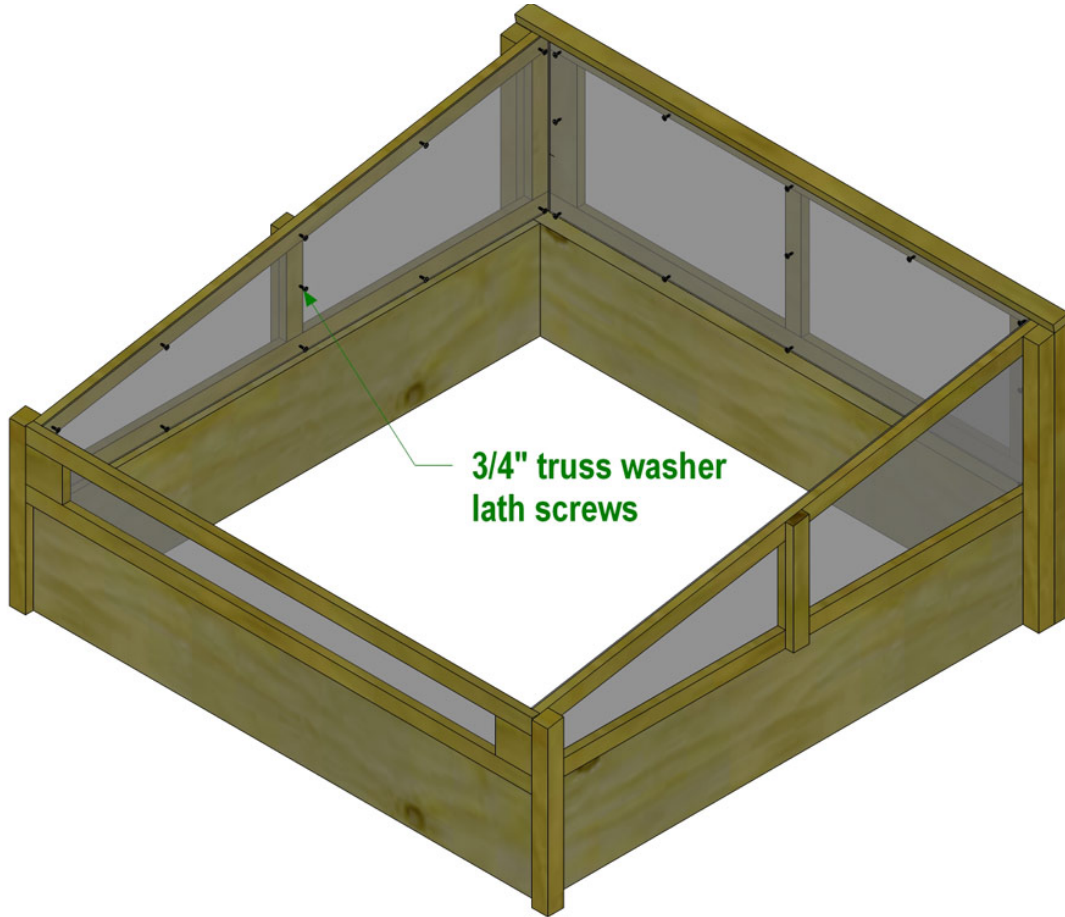
Figure 11

Use **Figure 11** as a guide for cutting the **Rear Legs**.



*Figure 12*

Position the **Rear Legs** and **Hinge Board** as shown in **Figure 12**. Attach the **Rear Legs** to the **Back Legs** using 2-inch deck screws. Attach the **Hinge Board** to the top end of the **Rear Legs** using 1¼-inch deck screws, and to the top **Rear Rail** using 1¼-inch deck screws. Space the hinges equidistantly apart on the **Hinge Board** and attach. Cut the **Front Panel**, **Side Panels**, and **Back Panel** per the **Cutting Diagram**. (If using a jigsaw, place masking tape over the cut line to help minimize cracking.)



3/4" truss washer  
lath screws

*Figure 13*

Set the panels in place and drill pilot holes for the  $\frac{3}{4}$ -inch washer-head lath screws. Attach the panels using these screws as shown in **Figure 13**. Be careful not to drive the screws in too far, as the plastic may crack.

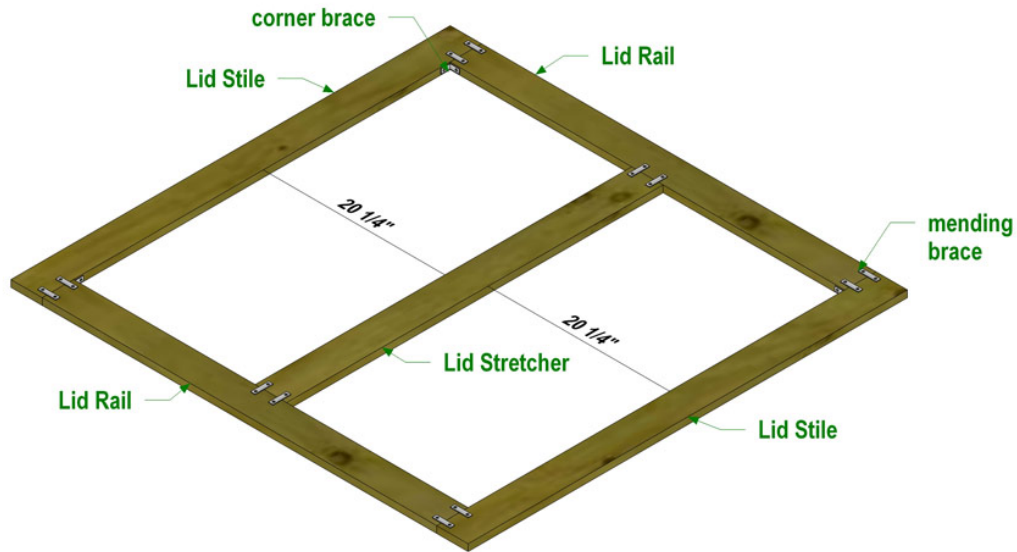


Figure 14

Position the **Lid Rails**, **Lid Stretcher**, and **Lid Stiles** as shown in **Figure 14**. Attach using mending braces, corner braces, and the screws included in the brace packaging.

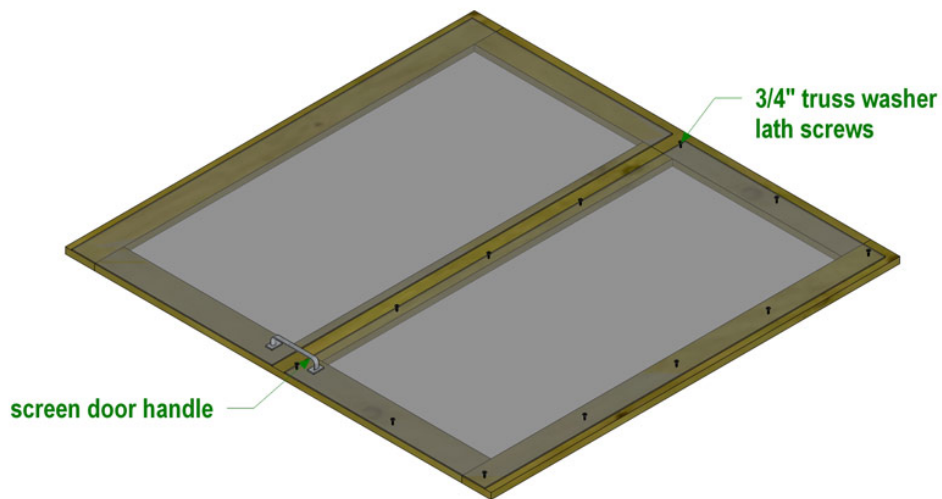
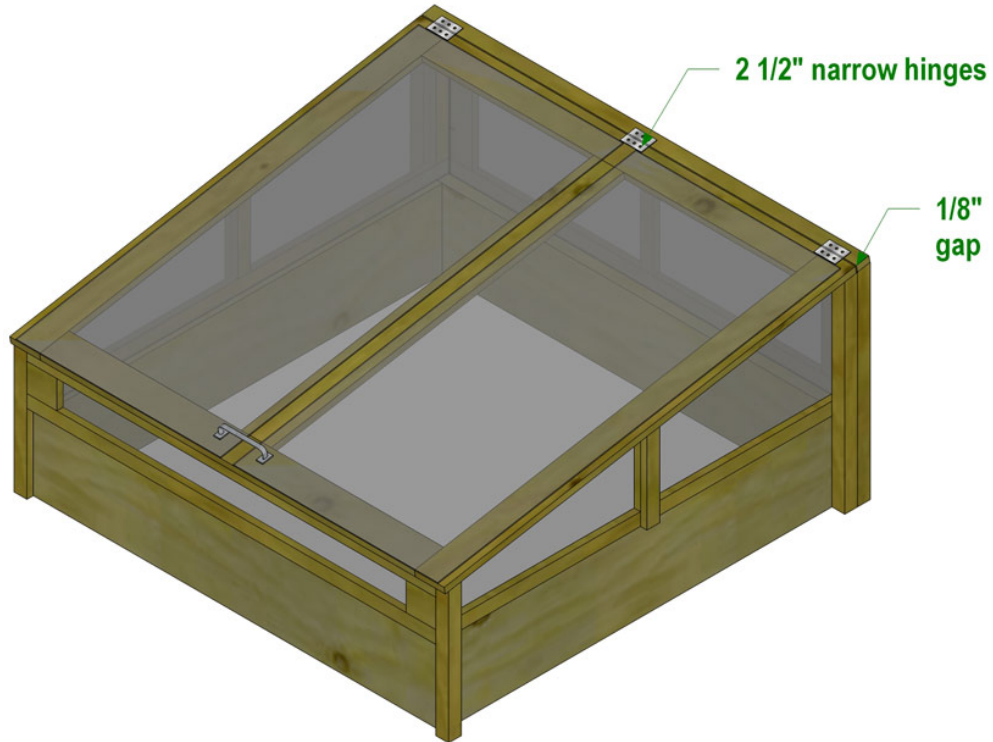


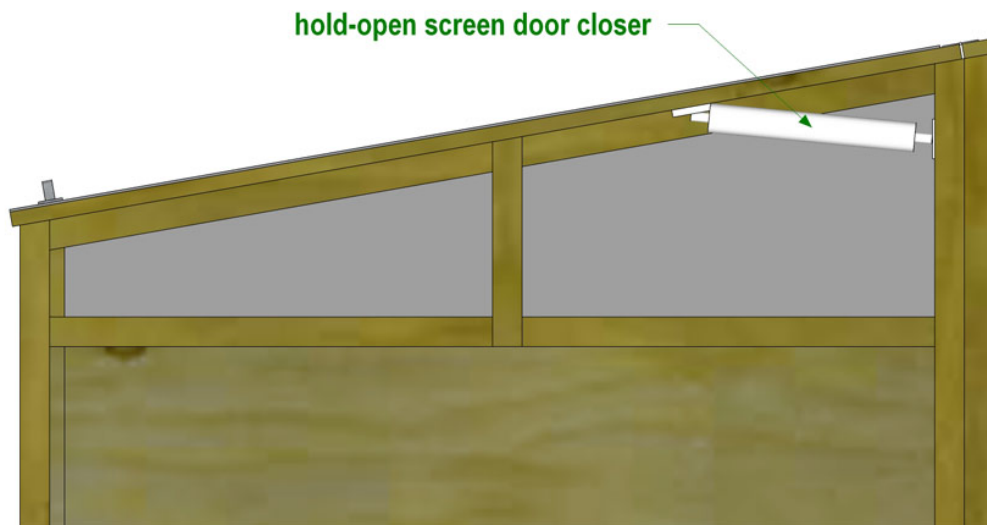
Figure 15

Place the **Lid Panels** on the **Lid Assembly**; it should be flush against one end and  $\frac{3}{4}$  of an inch from the outer edge. Drill pilot holes for the  $\frac{3}{4}$ -inch washer-head lath screws, and attach the panels using the screws as shown in **Figure 15**. Center the screen door pull on the front **Lid Rail** and attach, as also shown in **Figure 15**.



*Figure 16*

Position the **Lid Assembly** as shown in **Figure 16**, and attach the hinges.



*Figure 17*

Attach one screen door closer in the position shown in **Figure 17**, following manufacturer's directions. Repeat on the other side.

**Note:** Check the acrylic sheet panels periodically for gaps along the edges, as they may form during large swings of warm and cool temperatures. Add additional  $\frac{3}{4}$ -inch washer-head lath screws at these points as needed. If cracks form, use clear, small project construction adhesive or clear silicon sealant caulk to repair.

**Finished Dimensions:**

Height: 24  $\frac{7}{8}$ \* inches

Width: 51 inches

Depth: 49  $\frac{1}{2}$  inches

\*at highest point