

Community Book Boxes

Prototype designed by Mitch Ransdell



MATERIALS

- Variety of edge-glued solid pine wood boards, both $\frac{3}{4}$ " and 1" thick
- Two 1" x 4" x 8' solid pine wood boards
- One 2" x 4" x 8' solid pine wood board
- One 4" x 4" x 8' solid wood post (treated ground-contact pine)
- Two pieces of clear plexiglass, approximately 0.2" thick
- Four hinges, black, each measuring 2 $\frac{1}{2}$ "
- One 2 $\frac{1}{2}$ " hook and eye set, black
- Two black cabinet pulls
- One galvanized 4" x 4" post bracket
- One pint Cabot Australian Timber Oil- Mahogany Flame
- One box of 1 $\frac{1}{2}$ " screws
- One box of $\frac{3}{4}$ " screws
- One tube of exterior silicone (clear)
- One tube of Liquid Nails or similar adhesive
- One bag Quikrete cement

TOOLS

- | | | |
|----------------------------|---------------------|---------------|
| -Circular saw or table saw | -Carpenter's square | -Straightedge |
| -Jig saw or band saw | -Paintbrush | -Wheelbarrow |
| -Drill and bits | -Caulk gun | -Level |
| -Measuring tape | -Posthole digger | -Clamps |

Step 1: Constructing the box

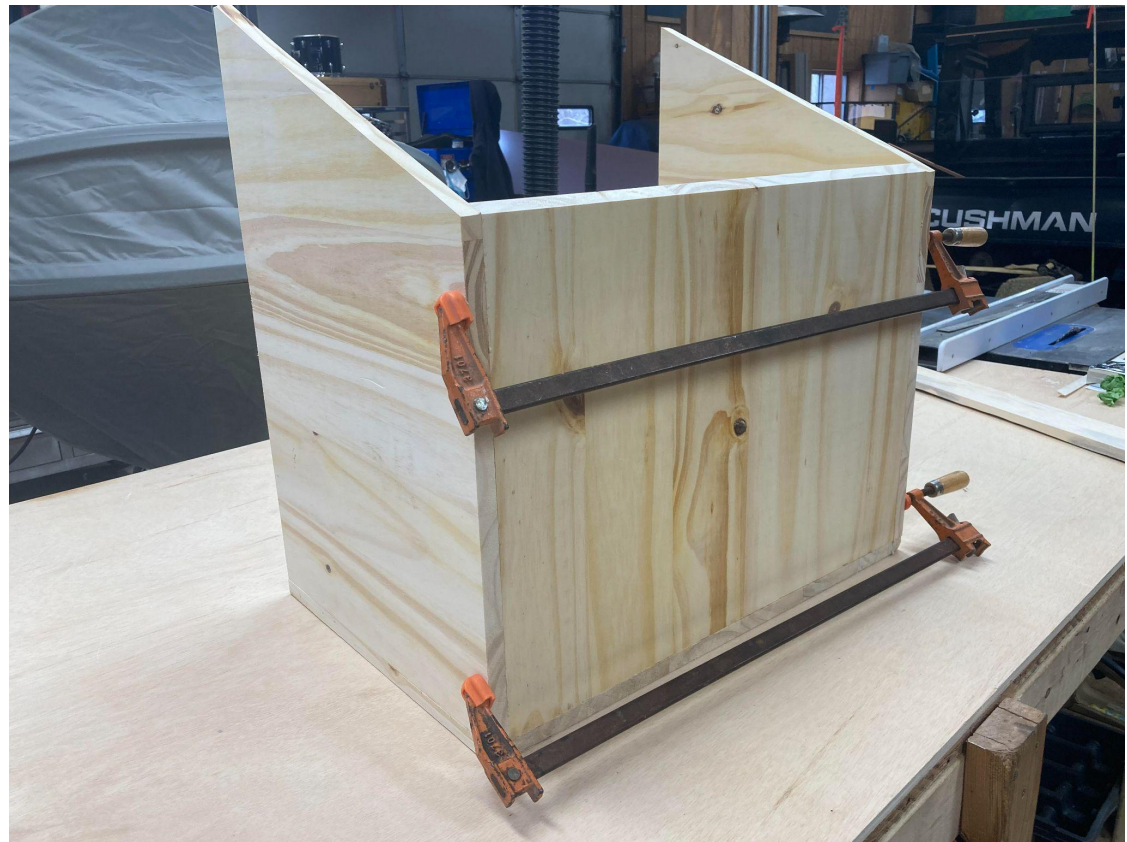


The five pieces that make up the box are shown above. Dimensions are specified on the green tape (continued on next page).

Step 1: Constructing the box (continued)

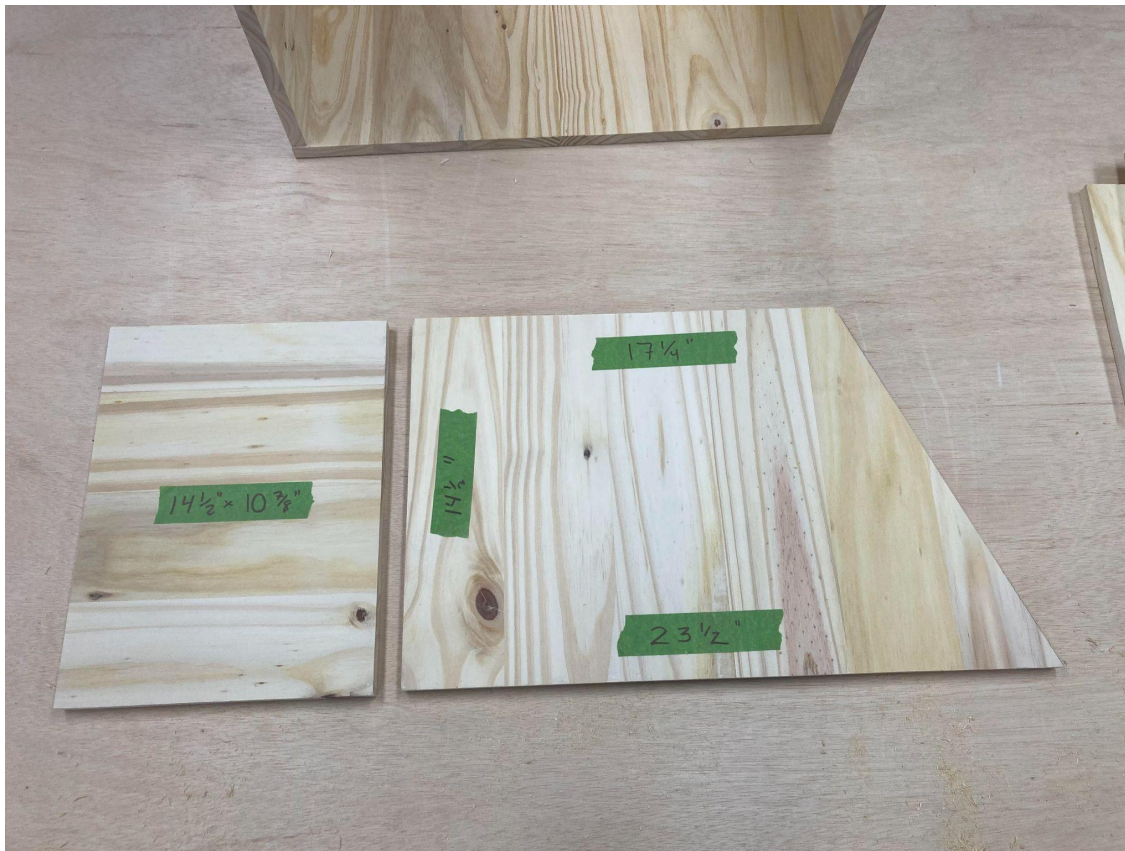
The box itself (excluding the roof and shelves) consists of the five pieces pictured on the previous page. The bottom measures 24" x 16". The back side measures 17 ¼" x 22 ½", with a 25 degree beveled top edge. Both sides measure 16" along the bottom, with the top cut at a 66 degree angle, so that the top slopes from 24" at the front to 17" at the back.

Assemble using clamps and screws. Countersink the screws so that the holes can be plugged later. The remaining piece, which spans across the front of the box to support the roof, should be installed following Step 2.



Step 2: Shelving

Cut the two shelving pieces, as seen below. The upright piece measures $14\frac{1}{2}$ " deep, $23\frac{1}{2}$ " tall, sloping to $17\frac{1}{4}$ " at the rear. It should match the side profiles of the box exactly. The second piece should be square, measuring $14\frac{1}{2}$ " by $10\frac{7}{8}$ ". Assemble using screws, with the top edge of the shelf 12" from the floor of the box. Assemble as shown.



Step 3: The roof

Cut a 1" thick board to a size of 26" x 21 1/2". Be sure to orient the grain of the wood front-to-back, to encourage rainwater runoff. The 26" sides should have parallel 25 degree bevels. Screw this roof onto the top of the box, leaving an overhang of 2 1/2" over the front doors to discourage water from dripping into the library.

As with the rest of the screw holes, countersink them so that they can be plugged later.



Step 4: Doors



Construct the doors using standard 1" x 4" boards. Rip them down to 2" wide strips. Cut to length as follows: four pieces at 20" long, and four pieces at 11 ⁷/₈" long. Cut a dado into the inside edge of the frame to accommodate the plexiglass window, about ¹/₄" deep.

Step 4: Doors (continued)

Cut two pieces of plexiglass to $20 \frac{3}{8}$ " x $8 \frac{1}{4}$ ".

Test fit the components of the door, and make any necessary adjustments. Then, run a bead of wood glue into the dado and assemble the doors.

If available, use a pocket hole jig to assemble the door frames, otherwise assemble them with 3" cabinet screws. Once assembled, the doors should measure 24 " x $11 \frac{7}{8}$ ".



Step 5: Assembly, plugs, and sanding

Cut a beveled piece of wood to a length of 24". The smaller width should be about 1" thick, and the bevel should sit flush against the front underside of the roof, right above where the doors will be mounted.

Fill the countersunk screw holes with glued oak plugs or dowels, then sand the faces and edges of the box.



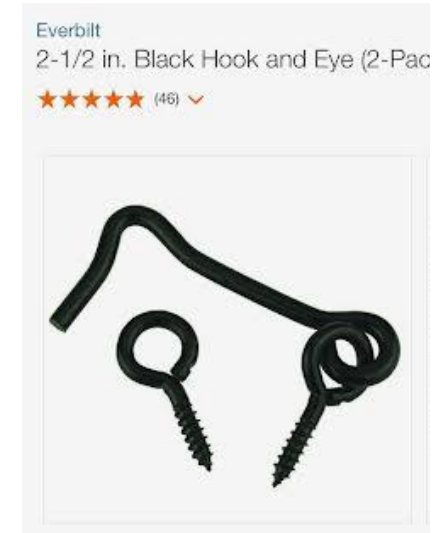
Step 6: Weatherproofing and finishing touches

Stain the library inside and out using Cabot Australian Timber Oil Mahogany Flame. Allow to dry, then repeat for a second coat.

Once dry, mount the doors with black hinges. They should sit 2" in from both the top and bottom of each door. Apply silicone caulk on the edges of the plexiglass inside and outside of the doors.

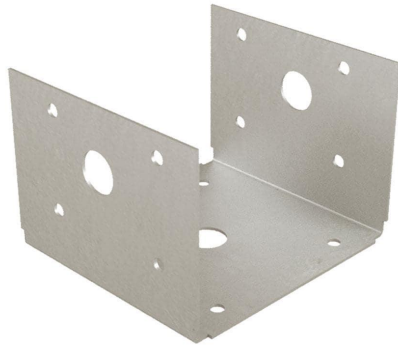
Install handles on each door, centered up and down.

Install a hook and loop across the front of the doors to keep them closed, about 1" up from the bottom of the doors.



Step 7: Mounting

Cut a section of 2" x 4" lumber to 18", and place it lengthwise and centered on the bottom of the library. Screw down from inside the library to secure it. Center your 4" x 4" bracket on the 2" x 4", and mount it with screws from underneath. Then, cut a 4" x 4" treated timber to a length of 5'. Insert into the bracket and secure with screws. Cut the remaining 4" x 4" lumber into braces with 45-degree angles and attach with screws.



Step 7: Installation

Once an area is selected for installation, call your local utility provider to verify that the ground is clear of any gas lines, electric cables, or any other infrastructure. Using a posthole digger, excavate a hole to a depth of 2'. Set the library into the hole, and use braces to keep it plumb and level. The bottom of the library box should sit about 3' above grade. Mix a bag of Quikrete cement, then pour it into the hole. Let it cure for 24 hours before removing braces and beginning use.



Shoeless Joe Jackson Museum and Baseball Library

356 Field Street

Greenville, SC 29601

www.ShoelessJoeJackson.org

@ShoelessMuseum

