ProWood® Project Plan

POTTING CART

With ProWood® Professional Grade pressure-treated lumber and lattice, create a handy and mobile workbench for potting and planting.

Materials
- One 2" x 4" x 14' ProWood® Pressure-Treated Lumber
- One 2" x 4" x 10' ProWood® Pressure-Treated Lumber
- One 2" x 4" x 8' ProWood® Pressure-Treated Lumber
- Three 1" x 4" x 12' ProWood® Pressure-Treated Lumber
- Eight 1" x 2" x 8' ProWood® Pressure-Treated Lumber
- One 4' x 8' Sheet of ProWood® Pressure-Treated Lattice
- Two 5-1/2" Lawnmower Wheels
- Two Galvanized Bolts with Nuts and Three Washers
- One Box of 1-1/4"
  #6 Galvanized
All-Purpose Screws
- One Box of 2-1/2"
  #6 Galvanized
All-Purpose Screws
- One Box of 2" 6d
Galvanized Finish Nails
- One Box of 1-1/4" 6d
Galvanized Finish Nails

Basic Tools
- Miter Box or Angle Square for Angle Cuts
- Circular Power Saw
- Drill and Drill Bit
- Tape Measure
- Hammer
- Screwdriver

If your wood project touches the ground, use pressure-treated lumber that is rated for ground contact to ensure long-term performance.
Cut the Lumber to Size

**Caution:** Always wear gloves, a dust mask and eye protection when sawing, sanding or machining wood.

Using a circular saw, cut the boards for the cart assembly.

- Start by cutting the 2” x 4’ x 14’ ProWood® board into four 39-1/4” legs.
- Cut the 2” x 4” x 10’ ProWood® board into two 23-1/2” pieces to be used for the sides of the worksurface frame.
- Cut the remainder of the 2” x 4” x 10’ ProWood® board into two 28-1/2” pieces for the front and back of the worksurface frame.
- Cut the 2” x 4” x 8’ ProWood® board into two 22-1/2” bottom shelf supports.
- Next, cut two 1” x 4” x 8’ ProWood® boards into six 20-1/2” bottom shelf pieces.
- Cut three 1” x 4” x 8’ ProWood® boards into seven 30” worksurface pieces.
- Then cut one 1” x 4” x 8’ ProWood® board into three 28-1/2” upper shelf pieces.
- Cut the remaining two 1” x 4” x 8’ ProWood® boards into fourteen 10” side pieces. These will be cut into pickets for the sides and back of the top shelf assembly.  
  *Refer to the illustration above for a look at this part of the cart.*
- Next, cut the 1” x 2” x 8’ ProWood® trim board into two 9-3/4” cleats to hold together the side panels of the top shelf.
- Cut one 27-1/4” cleat to hold together the back panel of the top shelf.
- Cut one 9” upper shelf cleat.
- Cut one 20-1/2” worksurface cleat.
- Finally, cut the 4” x 8’ sheet of ProWood® pressure-treated lattice into a 25-1/2” x 29” section. This will be attached to the lower cart assembly as a back panel.

Make the Pickets

- Using a tape measure, find and mark the center of the fourteen 1” x 4” x 10” side pieces.
- Using an angle square, draw 45-degree angle marks to each side from the top center of each piece.
- Cut along the angle marks using a miter saw or a circular saw.

Cut the Worksurface Frame Angles

- All angles for the worksurface frame will form 90-degree joints.
- Use a miter box or an angle square to mark and cut 45-degree angles at each end of the two 23-1/2” worksurface frame sides and the two 28-1/2” worksurface frame front and rear pieces to form the frame joints. The angles will be cut through the 2” side of the boards. Since both ends of each frame side require angle cuts, make sure the angles are not parallel.
  *Experiment by cutting angles in scrap wood first to help you get the angles perfect for your project.*

Build the Worksurface Frame

- Lay the sides and the front and back pieces of the worksurface frame end-to-end in a 23-1/2” by 28-1/2” rectangle so the 4” sides meet to form 90-degree joints.
- Insert three 2-1/2” #6 galvanized all-purpose screws into each joint—two from the side piece, each 1” from the outside edge, and one from the center of the other side of the joint.  
  *Refer to the illustration above for a look at where to place the screws.*
- Pre-drilling the screw holes will prevent splitting the frame.
- Measure the diagonals of the rectangle to make sure the rectangle is square.
Build the Worksurface

- Place the seven 1” x 4” x 30” worksurface boards on top of the worksurface frame.
- After laying the worksurface boards down, use a scrap piece of 1” x 4” as a spacer to make sure that the boards overhang the frame by 3/4” all the way around.
- Nail the worksurface to the frame using 2” 6d galvanized finish nails.

Attach the Legs

- Lay the worksurface on the ground face down and place the four 2” x 4” legs on end into the box formed by the worksurface frame.
- Position the legs in the corners of the frames so that the 4” side meets the 23-1/2” side of the frame and end of the 2” x 4” is flush with the bottom of the worksurface.
- Using four 2-1/2” #6 galvanized all-purpose screws, screw through each leg into the frame.

Build the Bottom Shelf

- Measure 6-1/2” from the bottom of all four legs and mark a line.
- Attach a 2” x 4” x 22-1/2” bottom shelf support between the two front legs, keeping the top edge of the 2” x 4” shelf support flush with the marked line on the leg and the 4” face of the support flush with the outside 2” edge of the front legs.
- Screw through the leg into the shelf support using 2-1/2” #6 galvanized all-purpose screws.
- Repeat this procedure to attach the second 2” x 4” x 22-1/2” bottom shelf support between the two rear legs, keeping the outside 4” face of the support flush with the outside 2” edge of the rear legs. These bottom shelf supports should be parallel with the front and back sides of the worksurface frame.
- Next, evenly space the six 1” x 4” x 20-1/2” bottom shelf boards across the bottom shelf supports and nail them to the supports using 2” 6d galvanized nails.

Build the Top Shelf Assembly

Build the Back Panel

- Lay eight 1” x 4” pickets together side by side and attach the 1” x 2” x 27-1/4” cleat to them to form the back panel. Remember to attach the cleat on the panel centered over the width of the panel’s boards. Space the back cleat along the eight back panel pickets so that it has a 3/4” gap from each end of the back panel sides. The cleat on the back panel should be attached so that the top of the cleat is 5-3/4” from the bottom of the pickets.
- Use 1-1/4” #6 galvanized all-purpose screws to attach the cleat. Screw the cleat on from the inside, through the cleat into the 1” x 4” boards.

Assemble the Top Shelf Side Panels

- Lay three 1” x 4” pickets together side by side and attach the 1” x 2” x 9-3/4” cleat to form the left side panel. As with the back panel, the top of the cleat should be 5-3/4” from the bottom of the pickets. One end of the cleat should be 3/4” from the edge of the panel that joins the back panel. The other end of the cleat should be flush.
- Again, use the 1-1/4” screws to attach the cleat to the pickets.
- Repeat these steps to form the right side of the picket bench-back assembly. Remember that the left and right sides will be opposite of each other and that the cleat configuration of each should mirror the other.

Build the Top Shelf Frame

- Place the left side panel into position at the left end of the back panel so they form a 90-degree joint with the side panel covering the outside edge of the back panel.
- Using 1-1/4” #6 galvanized all-purpose screws, attach the side panel to the back panel by screwing through from the outside face of the side panel into the edge of the back panel. Refer to the illustration at the top of the previous page for a look at where to place the screws.
- Repeat these steps to attach the right side panel.

Build the Top Shelf

- Take three 1” x 4” x 28-1/2” upper shelf pieces and slot them one-by-one into the top shelf frame so they rest on the cleats.
- Nail the shelf boards to the cleats using 1-1/4” 6d galvanized finish nails.
- Next, flip the picket bench-back assembly upside down and attach the 1” x 2” x 9” cleat centered across the shelf pieces using 1-1/4” #6 galvanized all-purpose screws. The end of the cleat closest to the back panel is attached so that the top of the cleat is flush with the back panel’s cleat.

Attach the Picket Bench-Back Assembly to the Worksurface

- Place the picket bench-back assembly on the worksurface so that the back and sides of the bench-back are flush with the back and sides of the worksurface.
- Using 2-1/2” #6 galvanized all-purpose screws, screw through the worksurface overhang up into the center of each picket of the picket bench-back. Pre-drilling the screw holes will prevent the boards from splitting.

Attach the Lattice

- Place the 25-1/2” x 29” section of lattice over the back legs that the back and sides of the bench-back are flush with the back panel so they form a 90-degree joint with the side panel covering the outside edge of the back panel.
- Using 1-1/4” #6 galvanized all-purpose screws, attach the side panel to the back panel by screwing through from the outside face of the side panel into the edge of the back panel. Refer to the illustration at the top of the previous page for a look at where to place the screws.
- Repeat these steps to attach the right side panel.

Make the Potting Cart Mobile

- Place a 5-1/2” lawnmower wheel against the outside 4” face of both rear legs with the wheel resting on the ground.
- Mark a dot on each leg through the hole in the center of the wheel, and at the mark, drill a hole centered on the leg.
- Measure up 1” from the bottom of the rear legs and mark a line.
- Using a circular saw, cut the bottom inch of both rear legs.
- Bolt the wheels onto the legs using a galvanized bolt and three washers. Refer to the illustration at the top of the previous page for a look at where to place the screws.
- Next, attach the handle to the front 28-1/2” piece of the worksurface frame. Center the handle both side to side and up and down and then screw it on.