HOW TO BUILD MULTI-USE RAISED BED PLANTERS WITH PRIVACY PANELS

This planter is 64" high, made in 2014.

I got the idea for my raised bed planters while reading a popular gardening catalog suggesting the use of 30" high raised beds to create "outdoor rooms." To me rooms have walls, and since I'm short, I really didn't see the need for planters 30" high. However, I have wanted to fence in my entire yard for quite some time; but found the restrictions for fences in my city limited to the backyard – effectively eliminating the use and privacy of the side yards – not ideal in my opinion. So I decided to build raised beds with an attached privacy screen and set them up around the perimeter of my lot. I plan on making the units in my backyard 64" high (as I am only 60" high and shrinking!) On the side yards I'll use units 48" high, and in the front yard 32" high. Even though I plan on using cedar, which ends up being more expensive than any fence I would consider, I can build these units over a period of a few years – something you can't do when fencing in a yard. Additionally, these units are more versatile than a mere fence. The base is roughly 16" high which makes for a great planting depth as well as a terrific height for seating, storage, or even composting. And with horizontal boards up the back, vertical gardening or shelving could be added to any unit desired.

So on with the instructions!!

For a 48"H planter, you will need:

Power Tools:	Hand Tools:	Materials:
Table Saw	Tape Measure	#8 1.625" deck screws
Miter Saw (10" min.)	Square	64" perforated angle iron
Cordless Drill	Clamps	#10 steel washers
Impact Driver	Hack Saw	22 boards 1x4x8'
Jigsaw (maybe)	Claw hammer or Pry bar	Water-seal (optional)

I used 1x4x8' cedar boards for the entire planter. For a 48" high unit you will need a total of 22 boards. If you choose something other than cedar, just be sure whatever you use is rated for outdoor construction. My first step was to "water-seal" all the boards to help them last even longer, especially since temperatures here (northern Ohio) range from almost 100°F to -20°F; this step is entirely up to you. Rather than suggest any brand names, the choice is yours; I plan on trying a few.

Next I sorted the wood for use on the different areas of the planter. For example, the bases need narrow filler slats to make them "solid" vs. the "open-slatted" back which doesn't need to be solid to hold in the soil. (You will need 2 boards per planter for the filler slats.) I carefully chose boards with no knots or very small knots to make cutting easier. Also, cutting through knots can lead to breakage, which I like to avoid. Since cedar has a rough side and a smooth side, I prefer to have the rough side facing into my yard, which means my neighbors will see the smooth side; so I chose boards with the best smooth sides for the back of the planter. (A 48" planter needs 12 full boards for the back.) Then I chose the best rough sides for the back vertical supports (1.5 boards) and the front of the planter base (4 full boards). The appearance for the sides (1 full board each) and interior supports (1.33 boards) is not important unless you plan to have the sides exposed.

On my table saw I cut 2 boards per planter into 4 slats 0.75" wide. Since a 1x4 is really only 3.5" wide, allowing for the standard thickness of a saw blade (0.125") there is no waste, but be careful to NOT exceed 0.75" when ripping the boards for the slats. You should end up with 8 slats 96" long, 2 of which will be cut shorter for the sides. After cutting 3 of the slats I found I needed to run the remainder thru the saw just to trim it down a bit; it looked like I was trying to make veneer!

The front of the unit consists of – board, slat, board, slat, board, slat, board – 16.25” total height. The layout for the ends is the same, except the boards are only about 24” long. When I say “about” the actual measurement for cutting the sides is 23.9375” (23-15/16”). What I do is mark the boards at 24” but instead of cutting with the blade adjacent to the mark, I cut with the blade exactly on the mark. I do this because you would end up with an awful lot of waste cutting a 96” board at exactly 24” which would yield 3 boards at 24” and a leftover of 23.625” – bummer! So for the sides cut 2 boards at 23.9375” times 4 and 3 slats per side the same length. You can use a small miter saw, but I plan to use my beast – a 12” compound sliding-arm miter saw – YEAH!! (I LOVE power tools!)

Cutting the vertical supports uses the same marking and cutting theory. The base requires 7 supports – 2 for each side and 3 for the front – cut at 15.9375” (15-15/16”) – mark them at 16” and cut on the mark. You can get 6 of these shorter supports from one 96” board.

After cutting the last short vertical support, use the remainder of that board to cut a vertical support for the back at 47.9375” (48-15/16”) – mark at 48” and cut on the mark. (You should end up with a 32” piece to maybe use in another planter.) Use one more board for the other 2 vertical back supports. NOTE: You could cut these at exactly 48” by cutting adjacent to the mark, just be sure the board is at least 96.125” long before cutting. I like to use the smaller measurement because the remainder will come in handy when I build more planters.

All the boards for a 48” high planter should now be cut; however, I found one more step is necessary before setting up my planters side-by-side. Make sure ALL the 96” boards are absolutely no longer than 96”. If you ignore this step, your planters will not sit neatly side-by-side. I found the boards ranged from 96.125” to 96.5”, so I had to trim every board!

To assemble my planters I use #8 1.625” deck screws in a color (beige) that matches the wood as closely as possible; you’ll need 193 screws for one 48”H planter. I also use slotted or perforated angle iron (cut to 16”) in each corner of the planter base. So a total of 64” of this angle iron is necessary. I found that 1.5” x 48” angle iron is the best price per inch (for me); I used a hack saw to cut some of it, but found out jigsaw blades for cutting metal are available; however, controlling the saw is tricky, but it CAN be done!



Now that EVERYTHING is cut, let’s assemble! Starting with the 24” pieces I assemble the sides – board, slat, board, slat, board, slat, board – using 2 short supports placed the thickness of a board from each end. Since the supports are roughly 16” and the height of the side is 16.25” I place the top of the supports even with the top of the sides because I prefer this look. Use a leftover piece of wood to help with spacing the supports. I use 2 deck screws per board and 1 screw per slat, and I pre-drill everything! (I used a 7/64” drill bit.) If you want the rough sawn side facing the outside of your planter, be sure to assemble the sides with the smooth side up. I prefer to face the rough sawn side of the vertical supports facing the interior of the planter – it’s your choice.








For the front I use the same B, S, B, S, B, S, B layout with 3 short supports – 1 dead center and the other 2 placed as for the sides – the thickness of the wood from the corners. Use 2 screws per board and 1 per slat. If you want the rough sawn side facing the outside of your planter, be sure to assemble the front with the smooth side up. Again I face the rough sawn side of the vertical supports facing the interior of the planter – it’s your choice.




When assembling the back of the planter, I lay everything out but assemble the base of the back first. Because I need consistency in the height of my planters, I place the vertical supports for the back flush with the bottom and top of the back – unlike the front and sides. Using whatever method you prefer, set up 0.5” spacing between the boards above the base. Due to the nature of wood you may have a little variance in your spacing. Also, with a height of 48”, the space between the base and the first upper board will only be about 0.25”. I try to clamp everything in place but sometimes I encounter some torque that I do my best to overcome with clamps and my pry bar. Use the same thickness of a board to space the vertical supports at either end of the back, with the center support dead center of the back.

The base of the back is basically the same as the front; however, make sure to assemble it with the rough sawn side facing up. After building the base of the back, place the top board first – flush with the top of the vertical supports. Then slide the remaining 7 boards under the vertical supports. Starting on one side, space the ends of these additional boards roughly the thickness of a board per previous spacing. At the same time space the boards 0.5” apart which leaves a 0.25” space above the base. I clamped everything and only inserted one screw per board – to start. Then I set up the other side, again only using one screw per board. At the center support, I started from the top spacing one board at a time, using a pry bar if necessary, and a clamp to set the 0.5” space, screwing each board with two screws – one board at a time. I then went back to the sides and inserted the second screw per board as previously done on all boards.

Once you have these pieces assembled, it's much easier to attach the angle iron to the short sides first. Place the angle iron even with the support pieces so when the planter is assembled, the sides are evenly placed between the front and back panels. Then attach the sides to the front and finally attach the back.

I attached the angle iron with the same deck screws; however, you will need #10 washers to compensate for the large holes in the angle iron:

Here's a finished planter:

Here's what my neighbors will see:

Once I place my completed planters where I plan to use them, I will use weed control mat (landscape fabric) stapled to the inside of each planter. I also plan on placing 0.5" hardware fabric (metal grid) on the ground to prevent rodents burrowing up from the bottom.

I think that covers everything – for now! Enjoy!

Oh yeah – I also plan a few removable cold frame tops to use for starting early season plants. And when I plant blueberries, blackberries, and raspberries – frames to attach screening to keep the birds away! Bench tops for seating and storage, and dividers for composting. Haven't figured out the hanging stuff yet.

This weekend I'm hoping to build four 48"H planters; and if I have time I'll experiment with a cold-frame or bench top.

UPDATE: Never mind, it's too darn hot to finish!! I still have two more backs to make before final assembly!

FYI, I spent about six hours cutting all the wood for four 48"H planters. It took two hours to make eight sides for four planters. It took one-and-a-half hours to make the four fronts; and somewhere between one-and-a-quarter to one-and-a-half hours to make one back. So it would take (roughly) three hours to assemble one planter.

Well, I finally managed to finish all four planters!!!! Now I just need to prep the area where I'm going to put them and start gardening.