FREE BUILDING PLAN · GARDEN PROJECTS

Simple 4 × 6 ft Raised Garden Bed (11 in tall)

A beginner-friendly wooden bed built from four 2×6 boards, one 4×4 post and ordinary exterior screws. It uses the same layout as the University of Florida IFAS Extension's published 4 × 8 ft bed, made 6 ft long and two boards high.

Design reviewed, not yet built | Plan v1.1

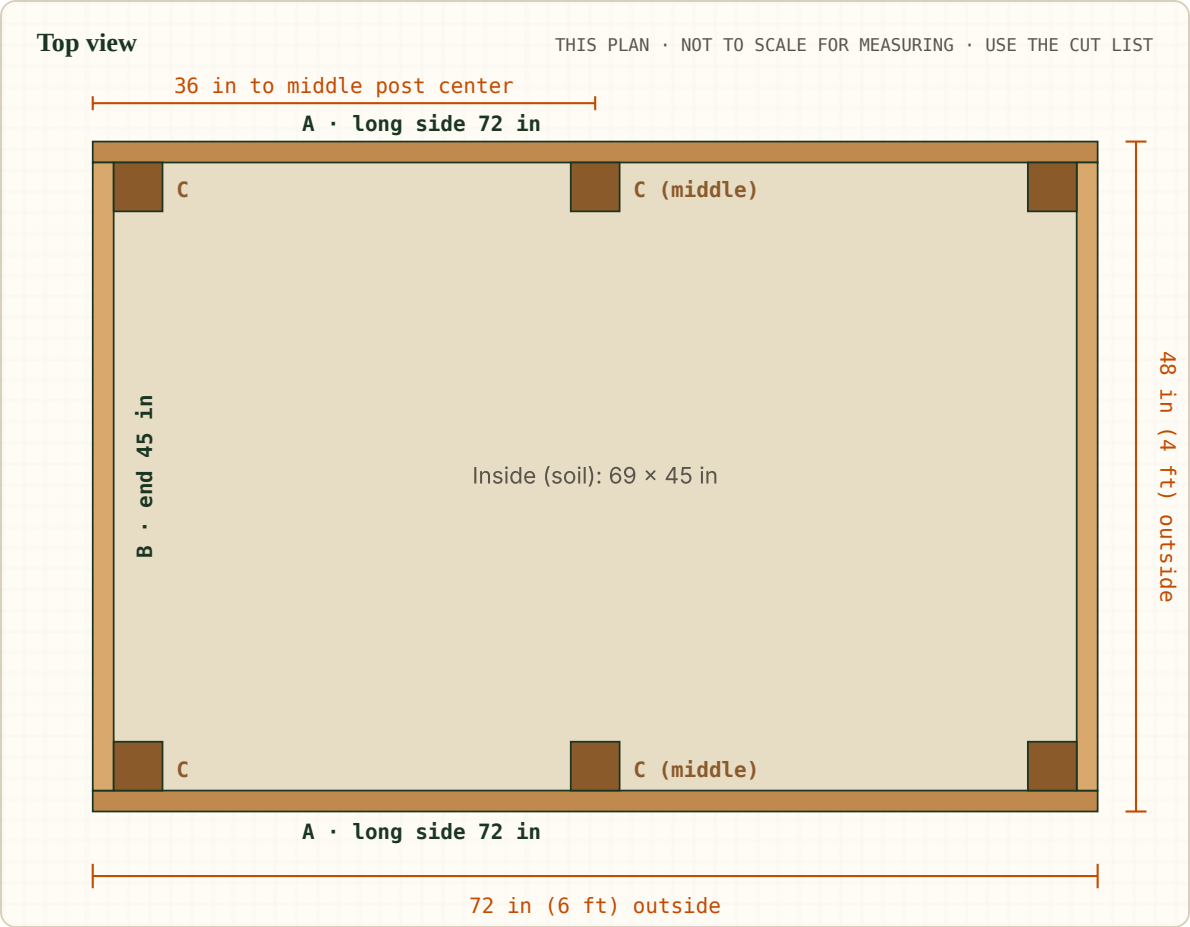
Verification status: design reviewed, not yet built. Practical Maker DIY has not yet built this bed or tested it in use. Its dimensions, cut list and quantities have been checked on paper. Measure your lumber before cutting, and if something doesn't fit, stop and let us know.

OUTSIDE SIZE	HEIGHT	SKILL LEVEL
72 × 48 in (6 × 4 ft)	11 in (two 2×6 boards)	Beginner

TIME	SOIL
About 2 hours, plus filling (estimate)	About ¾ cu yd (calculate yours)

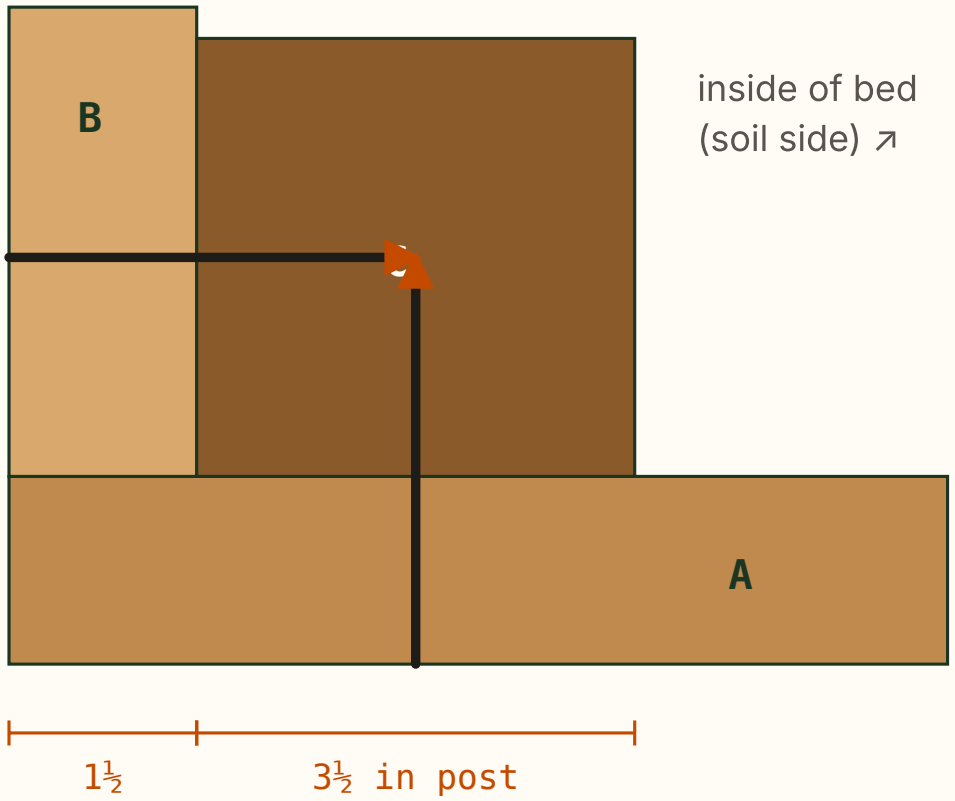
How the bed goes together

Each long side is two 72 in (6 ft) boards stacked on edge. Each end is two 45 in boards that fit *between* the long sides, so the outside of the bed measures exactly 6 × 4 ft. A short 4×4 post sits in each inside corner and in the middle of each long side. The boards screw into the posts. The posts are the same height as the bed and rest on the ground.



Top view of this plan's design. Letters match the cut list. Diagrams are for understanding; take measurements from the cut list.

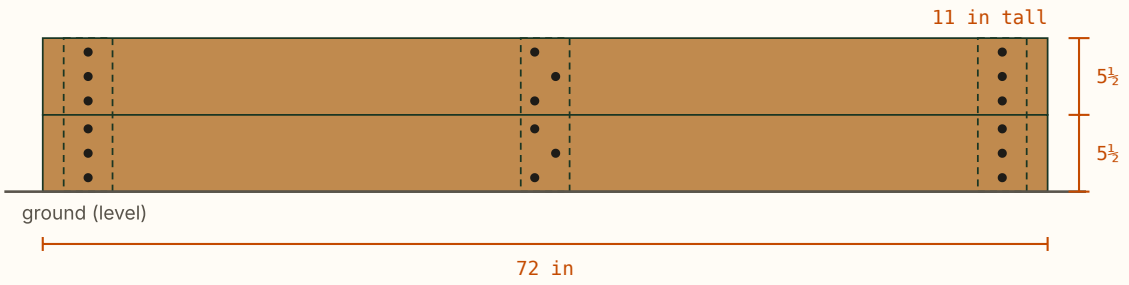
Corner detail (from above)



Screw through B into C: centered ≈ 1¾ in from the end of B.
Screw through A into C: centered ≈ 3¼ in from the end of A.
Stagger the heights so the screws miss each other.

How each corner fits together.

Long side (outside view)



Dashed squares = 4×4 posts behind the boards (11 in long, flush with the top). Dots = screws, 3 per board per post.

A long side: two boards, three posts behind them.

Material list

Qty	Item	Used for
4	2×6 boards, 10 ft long (actual size about 1½ × 5½ in). Cedar, redwood or lumber labeled for **ground contact**. See Choosing lumber. No 10 ft boards at your store? Six 8 ft boards also work (see the cut list).	4 long sides (A), 4 ends (B)
1	4×4 post, 6 ft long (actual about 3½ × 3½ in), same wood type as the boards. An 8 ft 4×4 also works.	6 posts (C)
60	3 in exterior-rated wood or deck screws (#9 or #10). If you use treated lumber, choose screws the maker rates for treated wood, such as stainless steel or hot-dip galvanized. Buy a box of 75 or more, or check the count on a box sold by weight.	3 screws per board at each post (20 joints)

Optional

- Cut-end preservative, if you use pressure-treated lumber. Oregon State University Extension recommends painting fresh cut ends.
- Cardboard or landscape fabric to smother grass under the bed.
- Galvanized hardware cloth where gophers or moles are a problem. Lay it on the ground inside the frame so it reaches the boards on all sides (step 7).
- Soil: about **0.73 cu yd** fills the bed (inside 69 × 45 × 11 in = 19.8 cu ft). With 10% extra for settling, buy about **0.81 cu yd**: 15 bags of 1.5 cu ft, or 1 cu yd bulk. You may still need to top up after the first few waterings. The soil calculator works this out for any size and compares bag and bulk prices.

Cut list

Part	Qty	Length	Cut from
A Long side board (2×6)	**4**	**72 in**	One from each 10 ft board. Keep all four exactly the same length.
B End board (2×6)	**4**	**45 in**	One from each 10 ft board, after A (about 2¾ in left over per board)
C Post (4×4)	**6**	**11 in**	1 post (about 5¼ in left over from 6 ft; 29¼ in from 8 ft)

Why 45 in? The ends sit between the long boards: 48 in − 2 × 1½ in = 45 in. If your boards are not exactly 1½ in thick, cut B to 48 in minus twice your board thickness. Each 10 ft board needs at least 117¼ in of usable length for one A and one B; leftovers assume a ⅛ in saw blade. With 8 ft boards instead: cut one A from each of four boards, and two B from each of the other two. If 10 ft boards won't fit in your vehicle, ask the store to cut each one about 73 in from one end; then cut A and B to exact length at home.

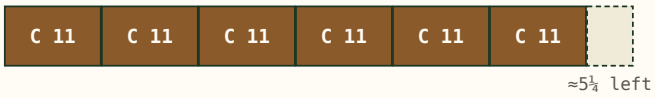
Cutting diagram

BOARDS 1–4 · 2×6 × 10 ft (same cuts on each board)



No 10 ft boards? Use six 8 ft 2×6s: four for the long sides (A), two cut into two ends (B) each.

POST STOCK · 4×4 × 6 ft



Leftovers assume a ⅛ in saw blade and boards exactly 10 ft and 6 ft long. Measure yours.
An 8 ft 4×4 also works for the posts (about 29¼ in left over).

One way to cut all the parts from the material list.

Tools and safety

Tools

- Tape measure, pencil and a speed square
- Saw: circular saw, miter saw or handsaw (a 4×4 takes two passes with most circular saws)
- Drill/driver with a bit to match your screws

- Drill bit for pilot holes (often ⅛ in; check the screw box)
- Two clamps (helpful, not required)
- Level, shovel or flat spade, and a rake

Safety

- Wear safety glasses when cutting and drilling, and hearing protection with power saws.
- Wear a dust mask and gloves when cutting. Cut outdoors.
- With pressure-treated wood: wash your hands after handling it and before eating, clean up sawdust and scraps, and never burn treated wood. Follow the safety sheet or tag that comes with the lumber.
- Support boards fully while cutting, and keep hands clear of the blade path.

Assembly steps

1 **Pick and prepare the spot**

Choose a sunny, level area with room to walk around the bed (UF/IFAS suggests at least 18 in between beds, 30 in for a wheelbarrow). Mark a 6 × 4 ft rectangle and make it as level as you can now; it's easier than levelling the finished frame. Remove sod, or plan to cover it with cardboard.

2 **Cut and label the parts**

From each 10 ft board, cut one 72 in long board (A) and one 45 in end board (B). Cut six 11 in posts (C). Mark each piece with its letter. If the wood is treated, paint the fresh cut ends with cut-end preservative.

3 **Build the two end panels**

Lay two B boards flat, edge to edge, to make an 11 in tall panel. Put a post under each end, flush with the board ends and with the top and bottom edges. Drill pilot holes, then drive three screws through each board into each post, centered over the post (about 1¾ in from the board end) and spaced up and down the board. That's 12 screws per panel.

4 Attach the long sides

Assemble near the final spot. Stand the end panels up about 6 ft apart, posts facing in. Hold a long board (A) against the posts so its end is flush with the outside face of the end panel and its top is level with the top of the posts. Drill pilot holes, then drive three screws through A into each corner post, about 3¼ in from the board end. Place these screws at slightly different heights from the end-panel screws so they don't hit each other inside the post (a UF/IFAS tip). Add the second board below it, then repeat on the other side.

5 Add the middle posts

On the inside of each long side, set a post centered 36 in from either outside end (its edges at 34¼ in and 37¾ in), flush with the top. If your long boards came out slightly shorter than 72 in, center the post at half their actual length. Drill pilot holes, then drive three screws through each board into the post: 12 screws for both middle posts.

6 Check square and level

Measure both outside diagonals, corner to corner. They should match (about 86½ in each). If one diagonal is longer, push those two corners toward each other until the diagonals match. Check level along each side and dig out or add soil under any low spots so the bed sits evenly on the ground.

7 Line and fill

If you use hardware cloth, lay it on the ground inside the frame so it reaches the boards on all sides. Then lay cardboard or fabric inside the frame. Fill to the top with a raised-bed soil mix, water it well, and top up as it settles. UF/IFAS notes the level may drop about 2 in.

Screw count: end panels 24 + corner joints on the long sides 24 + middle posts 12 = 60.

Choosing lumber

- **Cedar or redwood** resists rot naturally and costs more. University of New Hampshire Extension says beds made from these can last 10 years or more.
- **Untreated pine or fir** is cheapest but rots soonest: about 3–5 years, according to UNH Extension.
- **Modern pressure-treated lumber** labeled for **ground contact** lasts longer at moderate cost. Check the tag on the end of the board. In an Oregon State University study of copper-azole ground-contact lumber, extra copper stayed within about 1 in of the boards

and did not increase copper in the vegetables. The study was done in Oregon soils, so treat it as strong evidence, not a guarantee everywhere.

- **Avoid** old salvaged lumber that might be CCA-treated (CCA was withdrawn from most home uses at the end of 2003, according to the U.S. EPA), as well as railroad ties and wood treated with creosote or penta.
- **Pick straight boards.** Sight down each board and skip ones that are twisted, bowed, cracked or have large loose knots, especially near the ends where the screws go.
- **Nominal vs. actual size.** A "2×6" is really about 1½ × 5½ in, and a "4×4" is about 3½ × 3½ in (U.S. lumber standard PS 20). Rough-sawn or wet lumber can be larger, so measure before cutting the end boards.

More detail and sources are in our draft guide Choosing lumber for raised beds.

Compared with the UF/IFAS 4 × 8 ft bed

	UF/IFAS published bed	This plan
Size	4 × 8 ft	4 × 6 ft
Boards	Nine 2×8 × 8 ft, three high	Four 2×6 × 10 ft, two high
Height	21¾ in	11 in
Posts	Six at 21¾ in, cut from two 4×4 posts	Six at 11 in from one 6 ft 4×4
Screws	90 × 3 in	60 × 3 in (same 3 per joint)
End boards	Boards cut in half (4 ft)	45 in, so the outside is exactly 4 ft
Soil	2.15 cu yd (published)	About 0.73 cu yd (inside volume; 0.81 with 10% extra)

The layout is the same: posts in each inside corner and at the middle of each long side, ends attached to the posts first, then the long sides, three screws per joint.

Assumptions and limits

- Sizes assume standard dry, surfaced lumber (2×6 = 1½ × 5½ in; 4×4 = 3½ × 3½ in) and boards exactly 10 ft (2×6) and 6 ft (4×4) long. Measure yours.

- The bed sits directly on level ground. This plan doesn't cover slopes, decks, patios, rooftops, legs or use as a retaining wall.
- Posts are flush with the top and are not driven into the ground. UF/IFAS mentions cutting its posts 24 in and driving the extra 2¼ in into the ground as an option; this plan doesn't cover that.
- **Middle posts and reinforcement.** This plan uses the UF/IFAS layout: a 4×4 post in each inside corner and one in the middle of each long side. The middle posts tie the two boards on each side together, but they aren't anchored in the ground. Oregon State University Extension (FS 270) recommends reinforcing beds longer than 6 ft or taller than about 18 in. This bed is 6 ft long and 11 in tall, so it is at the edge of that range, not over it, and this plan doesn't add other reinforcement. That isn't a guarantee: after filling, and again after the first few heavy waterings, sight along each long side. If a side is visibly bowing, stop adding soil and get advice, for example from your local Extension office.
- This is a quantity and assembly guide, not a structural design or an engineering check. Practical Maker DIY has not yet built or tested this bed. Follow lumber and fastener makers' instructions and any local rules.
- Time and soil figures are estimates. Prices are not included because they vary by store and region.

Sources

1. University of Florida IFAS Extension, *Gardening in Raised Beds* (ENH1211 / EP472, rev. July 2016): edis.ifas.ufl.edu/publication/EP472 (https://edis.ifas.ufl.edu/publication/EP472). Reference design: 4 × 8 ft, 2×8 sides, 4×4 inside-corner and mid-side posts, three screws per connection.
2. Oregon State University Extension, *Raised bed gardening* (FS 270, rev. Sept 2020, reviewed 2024): extension.oregonstate.edu/pub/fs-270 (https://extension.oregonstate.edu/pub/fs-270). Beds longer than 6 ft or taller than about 18 in should be reinforced; and *Pressure-treated wood for raised bed construction in Oregon* (EM 9879): extension.oregonstate.edu (https://extension.oregonstate.edu/catalog/em-9879-pressure-treated-wood-raised-bed-construction-oregon).
3. University of New Hampshire Extension, *How to Utilize Raised Beds for Small Space Gardening* (2024): extension.unh.edu (https://extension.unh.edu/blog/2024/04/how-utilize-raised-beds-small-space-gardening).
4. U.S. EPA, *Chromated Arsenicals (CCA)*: epa.gov (https://www.epa.gov/ingredients-used-pesticide-products/chromated-arsenicals-cca).
5. NIST, *PS 20-25 American Softwood Lumber Standard*, Table 3 (dressed dry sizes): nist.gov (https://www.nist.gov/system/files/documents/2024/12/11/PS%2020-25%20Final.pdf).

Planning and assembly information only — not a structural design. Design reviewed, not yet built. © 2026 Practical Maker DIY.