

PALLET-DEX · BUILD GUIDE

Build a ground-level deck on discarded plastic pallets.

A 2x6 grid. One plastic pallet per bay. A 2x4 cut to the pallet, slid through the forklift opening, screwed through the frame. Deck boards through the pallet top into that 2x4. The sandwich is the structure.

Plastic pallets only · Start with the pallet you have · One afternoon

Edition 1 · 2026 · For DIY builders

1. What you are building

This is a ground-level platform. It sits on grade or on an existing pad. It is not an attached second-story deck, and it is not a pile of wooden pallets with boards thrown on top.

You build a grid out of pressure-treated 2x6s. Each plastic pallet sits in its own bay, surrounded on all four sides. A 2x4, cut to the exact size of that pallet, slides through the forklift opening — the same standard gap the forks of a forklift use. You screw through the 2x6 into the end of that 2x4. Then the deck boards screw through the board and through the pallet top into the 2x4. That clamp turns the pallet into the middle ply of a sandwich.

Done in that order, two things happen. The molded pallets keep the grid square. The boards lock every bay into one stiff surface. It becomes a very solid deck, and you skipped the joist pack a normal frame would have required.

What this is not

- Not wooden pallets. Do not use them. They rot, they swell, and they do not have the molded forklift opening this 2x4 is sized for.
- Not a single empty picture-frame with pallets floating in the middle. It is a grid. One pallet per cell.
- Not a 2x4 that hangs past the pallet and sits on top of the frame. The 2x4 is flush with the pallet.
- Not a pallet left loose under the boards. The deck screws go through the plastic.
- Not a house-attached or elevated code deck. Check your city before you build anything more than a step off the ground or anything tied to the house.

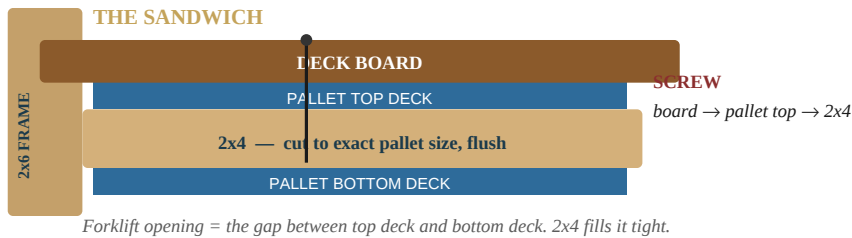
Why it uses less framing

A normal low deck is a 2x6 or 2x8 every 16 inches, plus the rim. That pile is most of the framing bill. This grid only puts 2x6s at the edges of each pallet — about every 42 to 48 inches. The pallet is the field. The 2x4s are short, cut to the pallet, only where the forklift openings already are. You still buy decking. You do not buy a lumberyard of joists to fill the middle. That is the savings. Compare it to the framing pile you did not buy — not to a contractor's full bid.

2. The joint

Every plastic shipping pallet already has a gap between its top deck and its bottom deck. That gap is where the forks of a forklift slide in. It is a standard industrial opening. A pressure-treated 2x4 is sized for it, which is why ordinary discarded pallets work.

The fit is tight on purpose. The top of the 2x4 bears on the underside of the pallet top. The bottom of the 2x4 bears on the topside of the pallet bottom. Pallet and 2x4 already act as one member.



Screw path, in this order

1. the deck board
2. the top surface of the pallet
3. the 2x4 underneath

When the last board is down you should not be able to lift the pallet top off the 2x4. The boards also run across bays, so the whole grid becomes one piece.

3. The pallet — start here

Every cut sheet begins with the pallet you actually have. Not a 10×10 you sketched first. Measure one pallet: width, length, height. Write those three numbers at the top of the sheet. Then decide how many pallets wide and how many long. The deck size is what that grid becomes.

Example: a 42×42 pallet, three across and three deep, is about a 10.5×10.5 deck. It is not a 10×10 you force the pallets into. Frame the bays to 42 inches.

If the pallet is square, the 2x4 is that one number. If it is rectangular, rotate it first. The 2x4 is cut to the width or the length — whichever way the forklift opening runs. Exact. Flush. No tail.

Do not mix footprints in one frame. A 42×42 and a 45×59 do not share a cut sheet. Do not mix heights in the same grid.

Where to get them

Facebook Marketplace is the easy source. Search “plastic pallets” or “plastic shipping pallets.” Around Savannah, Jesup, Statesboro, and Riceboro they typically sell for \$5–\$10 each. Sellers in Jesup list 2,000+ at a time. A 10×10 takes 6–8 pallets, so plan on about \$30–\$80.

Buy the grid-deck pallets with a visible forklift opening in the side. Those are this system.

Skip the listing if it is wood. Keep scrolling.

Also skip the black nestable style with nine round cup legs and no real bottom deck — the 2x4 has nothing solid to bear on. Skip mixed piles unless you can pick matching height and matching footprint. Oversized 45×59 units only if the whole grid is framed to 45×59.

The check, before you load the truck

- Take a scrap of real 2x4 (1½" × 3½").
- Slide it into the forklift opening.
- It should go in snug, tight top and bottom, and come out the other side.
- Skip cracked tops, crushed pockets, or a pallet that already failed in the warehouse.

4. Materials — 3×3 of 42×42 pallets

This is one worked example, not a law. Your pallet number changes every cut. Decking choice changes the total. The sandwich does not.

Item	Qty	Role	Budget
2x6 PT (grid)	see cut sheet	Four sides of every bay	~\$60–90
Plastic pallets, Marketplace	9 for a 3×3	Field / middle ply	\$5–10 each
2x4 PT, cut to pallet size	2 per pallet	Fork opening / clamp bar	~\$70
2x6 or 5/4 deck boards	cover the grid	Top ply	~\$150
3" or 3½" exterior deck screws	1 box	Frame junctions + sandwich	~\$30
Weed barrier + pea gravel	as needed	Site	~\$25

Ballpark for this example with pine decking: about \$340–\$420. Substructure (grid + 2x4s + pallets) is the part that stays cheap. Decking is still decking.

Tools: drill/driver, circular or hand saw, 4-ft level, tape, pencil, 1/8" bit for pilots, safety glasses, gloves. A mallet helps seat a tight 2x4.

5. The build

1. Site — about 30 minutes

Pick ground close to level, about 1 inch in 10 feet. Clear grass and roots. Weed barrier plus about an inch of pea gravel is worth it. Water has to leave. This method is for a platform on the ground or on an existing pad.

2. Build the 2x6 grid — about 45–90 minutes

Start from the pallet measurement. Cut 2x6s so every inside bay matches that width and length. Interior lines are shared walls between two pallets. Every pallet is framed on all four sides. Screw the crossings and the corners. Check the outer diagonals within 1/4".

3. Cut and thread the 2x4s — about 20 minutes

Cut each 2x4 to the exact pallet dimension in the direction of the forklift opening. Slide it through until it is flush with both sides of the pallet. Most pallets get two 2x4s. Tight to the underside of the top deck and the topline of the bottom deck. If a pocket is crushed and blown out, skip that pallet.

4. Set each pallet in its bay — about 30 minutes

Drop each pallet, 2x4s already in and flush, into its own bay. Boxed on four sides. The 2x4 ends meet the frame on the two sides the opening runs toward. The pallet top should come in flush, or within a sliver, of the top of the frame.

5. Fasten at the 2x4-to-frame junction — about 30 minutes

Drive two 3" screws through the 2x6 into each 2x4 end. Pilot so the end does not split. That is the only structural attachment of pallet to frame. A plastic pallet is already a rigid square. Locked this way, it keeps the grid from racking. Done correctly, the pallets square the deck.

6. Screw the deck on — this is the sandwich — 1 to 3 hours

Lay boards across the 2x4s. Leave about 1/8" between boards. Every field screw goes through the deck board, through the pallet top, and into the 2x4. Aim at the centerline of the 2x4. Pre-drill so the bit does not skate off the plastic. Two screws per board per 2x4. Edge boards also catch the 2x6. Use a screw long enough to bury at least an inch in the 2x4 after it has already gone through the board and the pallet skin — 3" or 3½", not 2½". When the last board is down, the sandwich is closed. The deck should feel like one piece.

If a pallet sits high, the 2x4 may be riding a rib — back it out and reseal. If it sits low or sloppy, the pocket is no longer standard. Replace that pallet. Do not stack washers.

6. Blank cut sheet

Print this page. Fill it standing next to the pallet. Then cut.

Pallet width	_____ in
Pallet length	_____ in
Pallet height	_____ in
Fork opening runs which way?	width / length (circle one)
2x4 length (copy that number)	_____ in × how many? _____
Bays across	_____
Bays deep	_____
Finished deck (bays × pallet)	_____ in × _____ in
2x6 grid cuts	list on back
Deck board length (outside of frame)	_____ in

Marketplace search terms: plastic pallets · plastic shipping pallets · 42x42 plastic pallets · heavy duty plastic pallets.

7. If it still moves

- A 2x4 missed the screw line — you fastened the board to plastic only.
- A junction at the frame was skipped.
- Two pallet sizes in one grid.
- A nestable nine-leg pallet with no bottom deck for the 2x4 to bear on.
- Wood pallets. Start over with plastic.

8. Weekend checklist

- Plastic pallets only. Same footprint. Same height.
- 2x4 scrap fits the forklift opening, snug.
- Numbers on the cut sheet come off one measured pallet.
- Grid built. Every pallet boxed on four sides.
- 2x4s cut to the pallet, flush, not longer.
- Every 2x4-to-frame junction screwed.
- Deck screws through board and pallet top into the 2x4.
- Walk it. If a bay moves, a junction or a screw missed.

9. Limits

This guide is for a ground-level, free-standing platform built by a homeowner. It is not engineered stamped drawings. It is not permission from your city, HOA, or insurer. Load, drainage, fire, and attachment rules vary. If you want rails, stairs, height, or a structure tied to the house, stop and get local advice. Wear eye protection. Measure twice.

PALLET-DEX · Edition 1 · 2026. Method: plastic pallet in a 2x6 grid, 2x4 through the forklift opening, deck screws through the pallet top. Do not publish a version that puts wooden pallets in this joint.