

Realistic Catio Build Plan

A practical materials list and construction sequence based on the enclosed garden-style catio concept we created.



Concept image: AI-generated in this conversation as the visual reference for the build.

Working Design

This plan assumes a long, walk-in enclosure attached alongside the house, approximately **6 ft wide x 12 ft long x 8 ft high**. Those dimensions are intentionally easy to modify once you measure the actual build area. The structure uses pressure-treated lumber, predator-resistant wire mesh, a partially weatherproof roof, a human access door, climbing shelves, branches, resting platforms, and a cat-safe ground surface.

Important: Before buying lumber, measure the exact wall length, desired projection from the house, roof height, window locations, utilities, drainage, doors, HOA restrictions, and local permit requirements. Do not permanently attach anything to siding or roofing until you know the correct flashing and attachment method for your home.

1. Shopping List

Item	Approx. quantity for 6' x 12' catio	Notes
4x4 pressure-treated posts	6	Corners plus intermediate supports
2x4 pressure-treated lumber	30-36 boards, 8 ft	Wall frames, roof framing, door, bracing

Item	Approx. quantity for 6' x 12' catio	Notes
2x6 pressure-treated lumber	Optional 4-6 boards	Useful for heavier headers/base framing
1/2 in hardware cloth, 19-ga or heavier	About 300 sq ft	Preferred over lightweight chicken wire
Exterior structural screws	5 lb box each: 3 in and 2-1/2 in	Exterior/deck rated
Washers + screws / poultry staples	Enough for all mesh edges	Washers make mesh attachment stronger
Roof panels	About 80 sq ft	Corrugated polycarbonate or metal
Roofing screws with washers	1 box	Match roof-panel system
Concrete / post anchors	6 post locations	Choice depends on soil, patio, or deck
Exterior door hardware	1 set	3 hinges, latch, handle; add carabiner
2x2 or 2x3 lumber	8-12 boards	Cat shelves and light framing
Shelf boards	6-10	8-12 in deep; exterior-grade
Sisal rope	100-200 ft	Wrap climbing posts/branches
Exterior wood sealer	1-2 gallons	Cat-safe after fully cured
Pavers / gravel / mulch	As needed	Choose a washable, well-drained surface
Cat-safe plants	Optional	Examples: cat grass, catnip, wheatgrass
Weatherproof hide box	1-2	Shade, naps, retreat

2. Tools

Tape measure, framing square, level, string line, circular or miter saw, drill/impact driver, socket set, staple gun if using heavy poultry staples, tin snips or aviation snips for mesh, roofing-panel cutting tool appropriate to the material, shovel/post-hole digger if setting posts, ladder, clamps, utility knife, work gloves, eye protection, and hearing protection.

3. Basic Frame Layout

House side: Use the house only as an attachment point if you can do so without creating water intrusion. A freestanding frame immediately beside the house is often simpler and safer for DIY construction.

Outer wall: Set 4x4 posts at the corners and approximately every 6 ft. Connect them with lower and upper horizontal 2x4 rails. Add vertical framing so no unsupported mesh panel is excessively large.

Ends: Frame both ends fully. Put the human door at the most convenient end. If possible, create a small two-door 'airlock' or vestibule so a cat cannot bolt directly outside when the main door opens.

Roof: Pitch the roof away from the house. Even a modest slope helps shed rain. Use rafters sized and spaced for the roofing product and local weather loads.

4. Build Sequence

1. Measure and mark. Lay out the full footprint. Confirm the enclosure does not block drainage, HVAC equipment, dryer vents, hose bibs, utility meters, or emergency egress.

- 2. Prepare the base.** For soil, remove unstable organic material and establish a level, well-drained perimeter. For a patio or deck, use appropriate structural anchors rather than simply resting posts on the surface.
- 3. Set posts.** Install the 4x4 posts plumb and square. Temporary diagonal braces make the rest of the build much easier.
- 4. Frame the walls.** Install top and bottom rails, then intermediate studs and cross rails. Add blocking wherever shelves or large climbing structures will attach.
- 5. Frame the roof.** Install the roof ledger only if proper house attachment and flashing are understood. Otherwise build a freestanding roof frame. Add rafters and roof panels.
- 6. Build the door.** Use a rigid 2x4 frame with diagonal bracing so it does not sag. Cover it with the same hardware cloth. Use a secure latch cats cannot manipulate.
- 7. Install mesh.** Place hardware cloth on the cat side of the framing where practical. Pull it tight. Fasten every few inches around edges with exterior screws and washers or heavy-duty fasteners. Overlap seams and mechanically fasten them.
- 8. Close every gap.** Inspect roof edges, corners, door perimeter, house transitions, and ground level. A cat's head is the test: if the head can pass through, assume the rest of the cat may follow.
- 9. Finish the floor.** Use pavers, pea gravel, compacted stone, untreated mulch, decking, or a combination. Prioritize drainage and easy cleanup.
- 10. Add cat furniture.** Install shelves at multiple heights, ramps, sisal climbing posts, sturdy natural branches, lookout perches, shade, beds, and a hide box.
- 11. Final safety inspection.** Check for exposed wire ends, sharp screws, toxic plants, unstable shelves, pinch points, loose mesh, gaps, hot metal surfaces, and anything that could trap a collar or paw.

5. Cat Enrichment Layout

The best catio is not just a box with wire around it. Use the vertical space. A useful arrangement for a 12-ft run is a tall climbing tower near the house entrance, a sequence of staggered shelves along one wall, a real or artificial branch structure in the center/back, a high lookout shelf near the far end, and a low shaded resting area. Keep a clear human walkway through the middle.

Try to provide at least three distinct height zones: low (under 2 ft), middle (3-5 ft), and high (6-7 ft). In a multi-cat household, provide more than one route up and down so one cat cannot easily block another.

6. Safety Details Worth Spending Money On

Mesh: Use welded hardware cloth rather than ordinary chicken wire. Chicken wire is designed primarily to contain poultry, not to create a high-security pet enclosure.

Door security: Use a latch plus a secondary carabiner or locking clip. A self-closing hinge or spring can be helpful.

Predator resistance: Secure the bottom edge. On soil, consider an outward hardware-cloth apron or buried barrier if digging animals are a concern.

Weather: Provide permanent shade and at least one rain-protected area. A catio can become much hotter than the surrounding yard if clear roofing receives strong direct sun.

Plants: Verify every plant before putting it inside. Avoid lilies entirely around cats. Do not assume a plant is safe because it is sold as a common houseplant.

7. Rough Budget

Category	DIY planning range
Structural lumber	\$300-\$650
Hardware cloth	\$150-\$350
Roofing	\$100-\$300
Fasteners / brackets / anchors	\$100-\$250
Door hardware	\$30-\$100
Floor / drainage materials	\$75-\$300
Shelves / sisal / enrichment	\$100-\$350
Sealant / miscellaneous	\$75-\$200
Approximate total	\$930-\$2,500

These are planning allowances, not live store quotes. Actual cost will depend heavily on lumber prices, mesh gauge, roof material, foundation method, and how much reclaimed material you use.

8. Before We Build Yours

For the final construction drawing, measure and photograph the actual location. We need: (1) total available length, (2) desired width, (3) height from ground to the eave/roofline, (4) location and size of the cat-access window or door, (5) ground surface, (6) where you want the human door, and (7) whether the enclosure should be attached to the house or freestanding.

Once those measurements are available, this concept can be converted into an exact cut list, post locations, framing elevations, shelf plan, roof pitch, hardware quantities, and a board-by-board shopping list.

Quick Build Checklist

- Measure exact site
- Confirm drainage/utilities/egress
- Check permit or HOA requirements if applicable
- Choose attached vs. freestanding structure
- Prepare foundation or anchors
- Set and brace posts
- Frame walls
- Frame and weatherproof roof
- Build secure human door
- Install hardware cloth
- Seal all gaps and mesh seams
- Install floor/drainage surface
- Add shelves, branches, scratching surfaces and shade
- Inspect every fastener and wire edge
- Supervise first catio sessions and watch for escape attempts