SANDBOX/ POOL/ PLAYDECK

SOUTHERN PINE COUNCIL

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Sandbox/Pool/Playdeck

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What could be more fun for your kids and relaxing for you than a backyard playdeck? You can enjoy the warm sun and enjoy a glass of lemonade on the deck while your kids play in the sand or water. That's right, you can build the playdeck with a sandbox or a pool. Or, why not make two playdecks side by side – one with a sandbox and one with a pool?

When built with pressure-treated Southern Pine, this easy-to-build project is very durable, long lasting, and is protected against decay from moisture and insect attack. Upon completion of your playdeck, invite your friends and family over to enjoy your new backyard addition.

SIZE

48" wide x 99" long; 9 ½" high at open end; 22" high at bench end. (Opening for sand or pool is 45"x50 ½")

MATERIALS LIST

To build this playdeck, you will need the following quantities of pressure-treated Southern Pine lumber:

NUMBER OF PIECES	MATERIAL	LENGTH	SERVICE CONDITION
4	2x10	8'	Ground Contact
2	2x4	8'	Ground Contact
1	2x2	6'	Ground Contact
8	5/4x6 R.E.D.	8'	Ground Contact

OTHER MATERIALS NEEDED

- 8d, 12d hot-dip galvanized or stainless-steel nails (See Fastener Advisory)
- Two 3" hinges
- Water-repellent sealer (or paint)
- For sandbox only: 400-lb play sand; 48"x54" of heavy-duty tarpaulin, or pressure-treated plywood for bottom

For pool only:
2 additional 8' 2x2s; at least 7x7-foot square of heavy-duty (6-mil) reinforced-plastic tarpaulin for pool lining.

TOOLS REQUIRED

- Circular or crosscut saw
- Miter saw
- Hammer
- Drill
- Razor knife
- Square
- Level
- Carpenter's rule or tape

ADVISORY:
Fastener & Connector Performance for Treated Wood

Metal products in contact with pressure-treated wood must be corrosion resistant. Examples include flashing, termite shields, fasteners (e.g. nails, screws, and bolts), and all connecting hardware (e.g. joist hangers, straps, hinges, post anchors, and truss plates).

The International Residential Code, Section R319.3 states, "Fasteners for pressure-preservative treated wood shall be of hot-dipped galvanized steel, stainless steel, silicon bronze or copper. **Exception:** One-half inch (12.7mm) diameter or greater steel bolts."

Traditionally, the treated wood industry has recommended hot-dip galvanized or stainless steel fasteners and connectors for wood products treated with Chromated Copper Arsenate (CCA). Hot-dip galvanized or stainless steel fasteners and connectors continue to be recommended for use with alternative wood preservatives (e.g. Alkaline Copper Quat – ACQ – and Copper Azole), but additional clarification is needed to ensure adequate corrosion protection.

Type 304 or 316 stainless steel is recommended for maximum corrosion resistance in more severe exterior applications, such as swimming pools and salt-water exposure. Furthermore, stainless steel fasteners are generally required below grade for permanent wood foundations.

Hot-dip galvanized fasteners and connectors are generally acceptable for above grade applications. Hot-dip galvanized *fasteners* should meet *ASTM A153* (with 2 ounces of zinc coating per square foot minimum for marine use) and hot-dip galvanized *connectors* should meet *ASTM A653*, Class G185 sheet with 1.85 ounces of zinc coating per square foot minimum. Fasteners and connectors used together should be of the same type (e.g. hot-dip nails with hot-dip joist hangers).

Do not use standard carbon-steel or aluminum products in direct contact with pressure-treated wood. Spacer materials or other physical barriers are recommended to prevent direct contact. In addition, electroplated galvanized metal products generally have a thinner layer of protection compared to hot-dip galvanized and are typically not accepted by the building codes for use in exterior applications.

Fasteners and connectors coated with proprietary anti-corrosion technologies (other than stainless steel or hot-dip galvanized) are also available for use with treated wood. Consult individual hardware manufacturers for specifics regarding the performance of their products with treated wood.

CONSTRUCTION STEPS

1. Pre-cut the following materials you will need. Refer to the Assembly Diagram as needed.

- From an 8' 2x10, cut two frame ends 48" in length.
- From another 8' 2x10, cut 1 frame crosspiece 45" and 2 bench ends 21".
- From an 8' 2x4, cut 1 brace 42" in length.
- From another 8' 2x4, cut 3 joists 44" in length.
- From 8' R.E.D. boards, cut:
  - 12 decking pieces 45" in length
  - 2 decking pieces 47" in length
  - 2 seat pieces 21 ¾" in length
  - 2 seat pieces 10 ¾" in length

NOTE: If adding plywood bottom to sandbox, cut frame sides 93" long.

2. Connect 2x10 frame sides to frame ends and fasten at corners with 12d nails.
3. Position eight 45" decking pieces side by side to determine exact length needed for joists and exact position of frame crosspiece. Then position and nail crosspiece between frame sides, using 12d nails. For sandbox with plywood bottom, nail full sheet of plywood under entire frame or half sheet under sandbox end.
4. Place frame on level ground where it will be used. If you are not using plywood bottom, lay tarp under sandbox and trim excess.
5. Position and nail (using 8d nails) both 21" 2x10 bench ends in each outer corner at platform end of frame. Next, nail 2x4 joist to crosspiece and frame end. Also nail two 2x4 outer joists against the upright bench ends. Position joists 1" below top of frame.
6. Cut 3" off ends of two 45" decking pieces. Lay the 2 strips across joists between the bench ends to form bottom of storage bench. Lay the remaining 6 decking strips across the joists and attach with 8d nails or decking screws. Always predrill any nail holes near ends of decking to reduce splitting.
7. Using 8d nails, nail 42" 2x4 brace to back of bench and also between bench ends flush with top of frame. For bench lid, cut two 7 ½" braces using 2x2s to form slanted ends. Clamp or hold lid boards flat, side by side. Center the braces, long edge down, about 6" from each end; nail in place. Attach lid to bench with 3" hinges.
8. Cut material for seats: Use miter saw (angled at 45° to trim off the corners of the 10 ¾" and 21 ¾" seat pieces. Refer to Seat-Cutting Detail to ensure direction of 45° is correct. Cut two 12" 2x2 cleats and two 13 ½" 2x2 cleats. Using 8d nails, nail cleats inside 2 outer corners of sandbox or pool 1" below top edge.
9. For pool only: Lay tarp inside pool with sides overlapping frame. Smooth out, gathering excess at corners. Cut 20"-long flaps at seat corners (see Wading-Pool Lining diagram). Cut and nail (using 8d nails) 2x2s on inside top of pool perimeter. Be sure 2x2s are flush with top edge and are over tarp to hold it in place, except at seat-corner flaps. Trim tarp flush with edge and bunch long corners under seat above waterline.
10. Apply water-repellent sealer or paint to all exposed surfaces to protect wood and help prevent splintering. Let dry thoroughly, then fill with sand or water.
11. When playdeck is not in use, cover with plastic to keep pool clean and sand contained. Empty pool after each use by pulling seat corner flaps of tarp down inside pool. You can also siphon water with a short-length hose or bail water with a bucket.

SOUTHERN PINE BY DESIGN™

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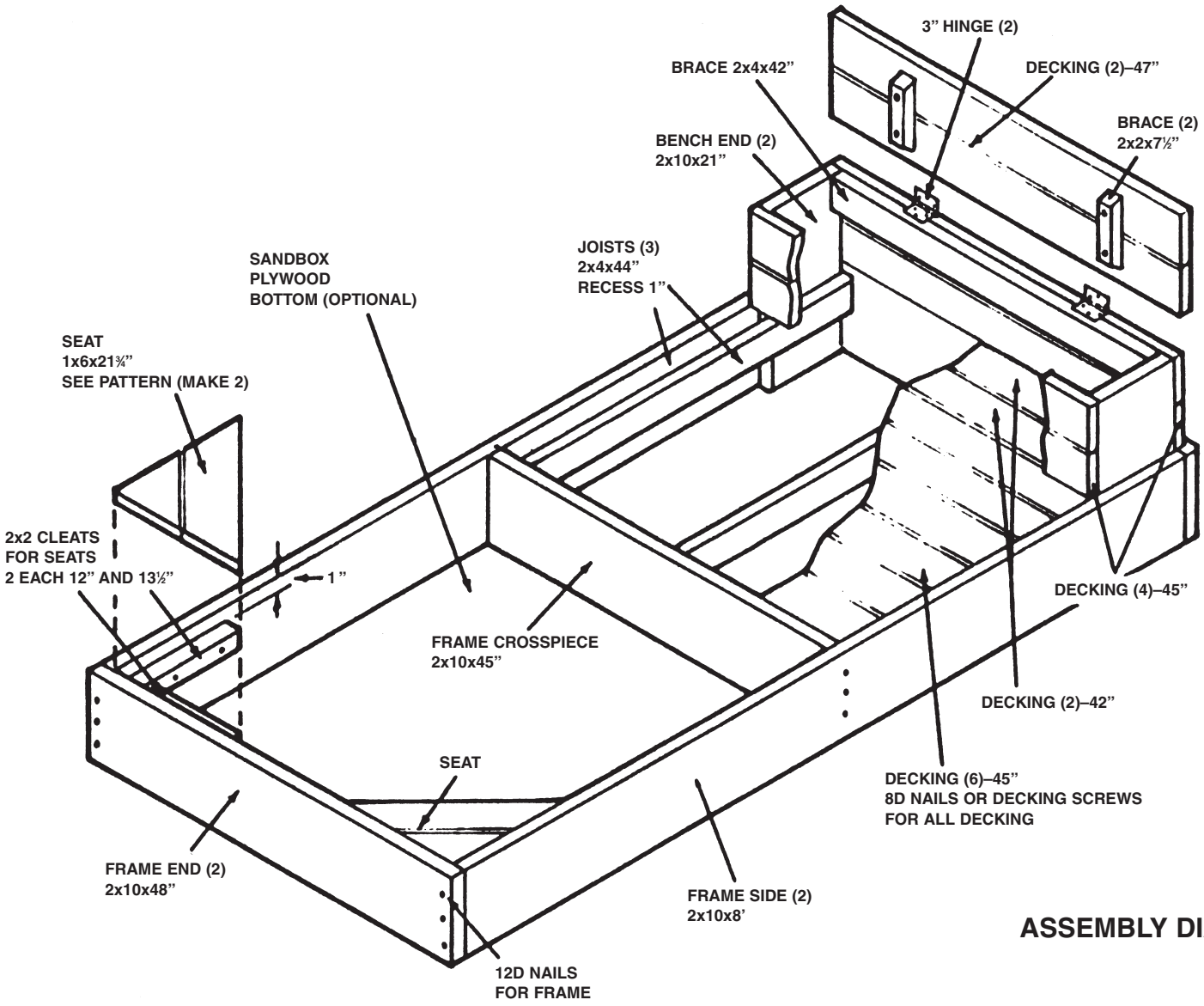
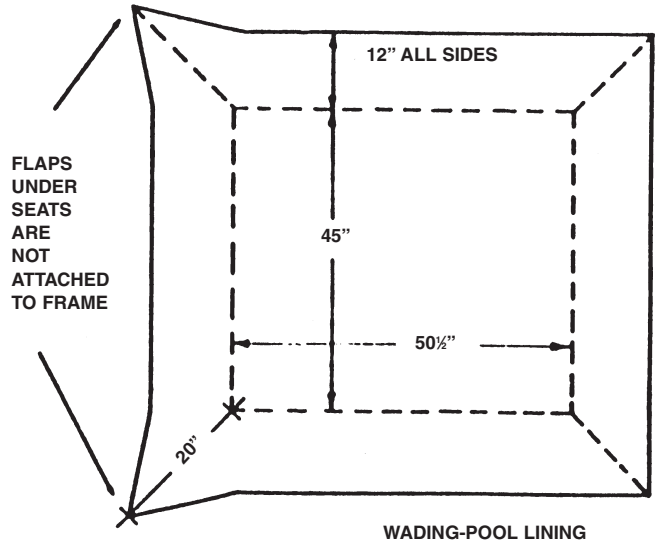
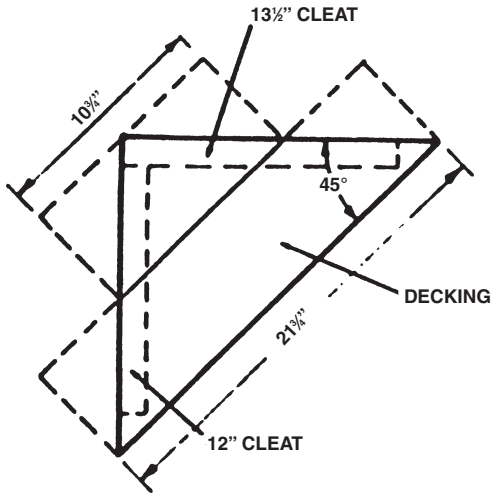
These plans and the information contained herein will help you achieve the best possible results in working with Southern Pine lumber products. The conditions under which lumber is used in construction vary widely, as does the quality of workmanship. Since neither the Southern Pine Council nor its members control the method of use or the quality of workmanship in structures built with lumber, they do not warrant lumber performance or design in completed structures.



ASSEMBLY DIAGRAM



WADING-POOL LINING



SEAT–CUTTING DETAIL