PWF

The Permanent Wood Foundation System:
Economical, Durable and Energy Efficient.

www.act54.com

INSPECTIONS

A Builder's Checklist

The Builder's Permanent

It's comparatively easy to have a quality PWF installation. But there are some important things to remember, and act54.com hope this checklist will help. But don't start with the checklist. It is essential that you familiarize yourself first with the PWF Certified web site and your custom foundation design plan.

Official Web Site:
For Permanent Wood Foundations
www.pwfs.com
www.act54.com
www.woodbasement.com
www.woodfoundation.com
www.permanentwoodfoundation.com

Materials

1. **Insist that materials are the right grade, size and thickness as shown on foundation drawings, and that they are properly identified (*Foundation Grade*) ink stamp quality marks on both plywood and lumber of an approved inspection agency certified to inspect preservative-treated wood, indicating compliance with the AWPA-FDN Standard or equivalent code approved preservative-treated and quality control requirements. Be sure to follow Handling Precaution listed on back.**

Site Preparation

1. **Check the soil classification group for the site. (*See http://www.act54.com/soil.htm*) Special construction details may be necessary if soil-bearing capacity is less than 1500 psf; or if expansive soil condition are encountered.**
2. **Provide positive drainage for basement sump and gravel under basement floor (if applicable), and for gravel footings. Place at least 4" of gravel under basement floor *(use 6" of gravel for poorly-drained soil*).**
3. **Make sure bottom of footing plate is below frost line. Gravel footing should be at least twice as wide and three-fourths as thick as the footing plate width, and should be laterally contained. Never use poured concrete footing and or drain tiles for best performance. Place at least 4" of gravel under all footing plates.**

Fabrication

1. **Cull any unsuitable lumber and plywood, such as delaminated or excessively warped pieces.**
2. **Use fasteners and spacing as shown on foundation drawings. Use stainless steel nails or staples to attach plywood below grade. Do not use electro galvanized staples or nails for plywood below grade. All lumber-to-lumber fasteners may be hot-dipped or hot-tumbled galvanized nails. (*Use stainless steel nails for fabricating and attaching knee-wall assemblies.)***
3. **Apply plywood with face grain across studs unless shown otherwise on drawings. Support all panel edges that occur above grade with framing or blocking between studs.**
4. **Stagger footing plate joints with respect to bottom plate joints.**
5. **Ends of lumber cut after pressure treating which are to be place below grade or within 8 inches above backfill must be field-treated by brushing, dipping or soaking until the wood absorbs no more preservative. Use a field treatment that has a minimum concentration of 2% copper naphthenate.**

Wood Foundation Checklist

6 Caulk plywood panel joints. Caulk any unbacked horizontal plywood joint before panels are nailed to frame.

7 Mark the maximum allowable depth of backfill on outside of plywood.

Installation

1 Level gravel footing to proper elevation.

2 Set two panels at corner, caulk joints and nail securely through framing. Caulk joints while the remaining panels are set temporarily in position.

3 Level wall and square up by measuring diagonals. Apply top plate so joints are staggered relative to panel joints. Complete panel nailing.

4 Use 6 mill polyethylene on outside of basement walls as a moisture deflector and vapor barrier. Seal poly to top of wall with construction glue and at side-lapped joints with adhesive. Do not run film under or out from the footer plate. Seal around utility openings.

5 Install and caulk the treated grade board over the polyethylene film to serve as a guide for finish grade when backfilling. (*Grade board 8" above grade and 4" below grade.)*

6 Attach floor framing to top of wall as shown on foundation drawings. If backfill is more than 4 feet, framing anchors may be needed for joist-to-plate connection. Where joists are parallel to foundation walls, joist blocking should be installed as shown on foundation drawing and the subfloor nailed to it.

7 Place polyethylene vapor barrier before pouring basement floor slab. For treated wood basement floor, see *(http://www.act54.com/basementfloor.htm)*

8 If a daylight basement is used, key the concrete slab into the wall between the studs. See *(www.act54.com/concretefloor.htm)* Ventilate basement while slab is curing.

Backfilling

1 Make sure walls are adequately braced at the top by the wood floor and at the bottom by the basement floor. (*Complete nailing of plywood floor system prior to backfilling.)*

2 Backfill with at least 12" of washed gravel or crushed stone, or up to half the fill depth, depending on soil type. Wet site backfill ¾ the way up with gravel. Top off with clay.

3 To avoid excessive deflection, place backfill (preferably non-porous) in 12 - 24 inch layers. If backfill is saturated with water, brace the studs continuously below the grade line. Avoid backfilling with sharp objects or pieces of frozen soil. Fill to, but not over, the grade board. Do not fill above any maximum fill marks on the panel, nor closer than 8" below any untreated wood. Backfill must be done no more than 2' at a time on opposite walls. Slope the top of the backfill away from the structure ½" in 12" for a distance of 6 feet or more.

4 Avoid unnecessary operation of heavy equipment near walls.

5 Since a wood foundation is an engineered structure, the wall design including nails, footing, studs and plywood etc, has been pre-establish for any particular building and site condition. If any changes are made after a final plan is made, it may change the load distribution and the engineering must be checked before construction in order to avoid a costly mistake.

6 An inspection report shall be made before the backfilling can take place. (*Download inspection report at http://www.act54.com/report.htm)*

Handling Precautions
For Preservative-Treated Wood

- **Dispose of treated wood by ordinary trash collection or burial. Treated wood should not be burned in open fires or fireplace.**
- **Avoid frequent or prolonged inhalation of sawdust from treated wood. When sawing and machining treated wood, wear a dust mask. Whenever possible, these operation should be perform outdoors to avoid indoor accumulations of airborne sawdust from treated wood.**
- **When power sawing and machining, wear goggles to protect eyes from flying particles.**
- **Wash thoroughly after skin contact, especially before eating, drinking or use of tobacco products.**
- **If preservatives or sawdust accumulates on clothes, launder before reuse. Wash work clothes separately.**

Caution: Arsenic is in the pesticide applied to some types of treated wood.
Never burn treated wood, wear dust mask and goggles when cutting or sanding wood, wear gloves when working with wood.
Ask for the consumer safety information sheet or call 1-800-282-0600.
www.ccasafetyinfo.com

Act54.com

For more information about Permanent Wood Foundations go to the official web site on wood foundations.

810-232-5099

The panel use recommendations contained in this publication are based on years of research and comprehensive field experience. However, quality of workmanship and the conditions under which panel products are used vary widely. Act54.com has no control over there elements; it cannot accept responsibility for panel performance or designs as actually constructed.

Form No. 2002