

**Southern Pine by Design** 

## Advantages of Raised Floor Homes



### **Raise Your Expectations**

Building a home? Whether it is a garden home or gated estate, your new home will reflect many personal choices. Location, architectural style, floor plan and décor are all given careful consideration. On the other hand, the foundation and floor system may not be given a second thought. Nevertheless, a solid and comfortable floor is the most important part of the house. Here, too, you have choices.

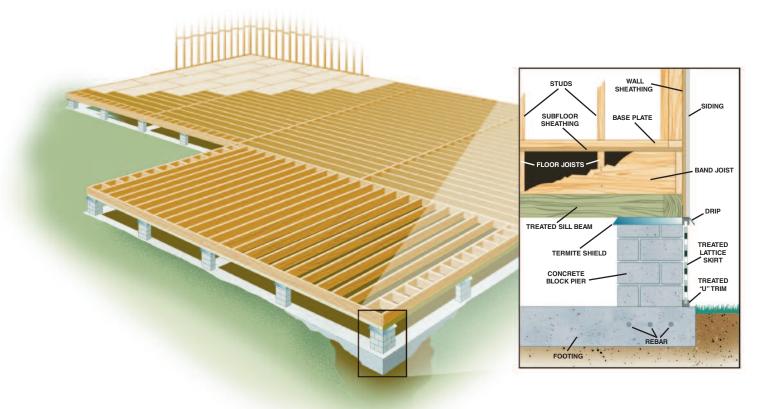
Make the superior choice: a raised wood floor

foundation constructed of solid, strong Southern Pine. Ask your architect or builder to consider the advantages of an elevated, wood-framed floor assembly in the design of your home. Choosing the premium floor system is an up-front investment in your property that will accrue lifelong benefits in terms of curb appeal, comfort, practicality, and lasting value.

Rediscover the raised floor. It's your home. It's your dream. Raise it to a new level with Southern Pine.

# RaisedFloorLiving.com

### Key Elements of the Raised Wood Floor Foundation



# What Building Professionals are Saying...

From the beginnings of architecture, well-designed homes have all had a top, middle, and a bottom. The introduction of slab-on-grade foundations removed the 'bottom' and the homes looked awkward. As I review home styles with my clients, typically the houses they like are elevated. A lot of this goes back to historical associations.

Kevin Harris, Architect; Baton Rouge, LA

A conventional foundation benefits the aesthetics and the function of the house. You have tremendous flexibility to make modifications with a raised floor. On slab, you're cast in concrete. You can adjust the construction schedule to meet your trades. We can get the house underway and not have to wait for the plumber. With slab, you can't pour until the plumber finishes.

Carson Looney, Architect; Memphis, TN

I have a little saying that has always served me well with clients, 'Good home building should be a marriage between practicality and aesthetics.' The raised floor works in both respects with homes of all sizes. Homebuyers are discovering that truly wonderful and aesthetic spaces can be built on a smaller scale with quality lumber, adding nice amenities and finishes. A raised foundation enhances their investment.

Bobby DeVillier, Builder; Baton Rouge, LA

Usually my clients are asking for traditional houses. A raised floor provides architectural proportioning that is much more enticing than slab-on-grade. Then I explain the flexibility that a raised floor allows with adjustments and changes to plumbing and other mechanicals.

Dennis Brady, Architect; New Orleans, LA

With a traditional style, such as a Williamsburg look or a raised cottage, the elevated first floor adds something to the overall aesthetic of the project. Typically, people like to have that raised front porch. Derry Hargett, Architect; Mobile, AL

## Advantages

**Classic Style** — Homebuyers are rediscovering the classic elegance that a raised floor design adds to the look of the American home. Drive through the older neighborhoods of your community. The homes with ageless grace and beauty are usually raised. Visually, the raised foundation functions as a pedestal, enhancing the curb appeal of many architectural styles.

Uplifting Comfort — Inside the raised floor home, there are special qualities that nurture the body and soul. The feeling is warmer, more intimate. Remember that special place when you were a child, a tree house perhaps, where you felt cozy and safe? Raise the floor above the ground and your perspective changes. An ordinary view from the window becomes a vista. There is calm and quiet above the din of street noise. The subtle "give" of a wood floor system provides a more comfortable walking surface, putting less stress on your back, legs and feet.





Extended Living Space – If it is not raised, a porch is not really a porch. Porches and decks are built-in amenities for a raised wood floor foundation, adding usable living area to your home outdoors. Consider the charm and hospitality of a front porch, the pest-free privacy and comfort of a screened back porch, or a spacious deck for outdoor cooking, entertainment and relaxation. On a slab, a "front porch" is just a front patio. The special ambiance you come to expect when gathering on a porch or deck can only be experienced with a raised floor home.

Lifetime Foundation — The raised wood floor foundation has withstood the test of time. Some of the oldest, most historic homes in America are still standing proud today with Southern Pine floor assemblies. Southern Pine is a strong softwood, so you can expect a lifetime of stability and durability when framing with Southern Pine. And today, modern pressure treatment adds nearpermanent resistance to decay and termite attack.

Simple Foundation — Any foundation can settle, but the use of piers with a raised floor system makes leveling or repair a relatively simple procedure. Repairing or leveling a damaged concrete slab can be very expensive. With the raised wood floor foundation, leveling is as easy as jacking up the floor and adding shims. The raised floor is also less susceptible to disruption from tree roots.



Easy Home Improvement – Installation, maintenance and modification of utilities such as water, sewerage and electrical are comparatively simple with a raised floor. Remodeling? Plumbing fixture modifications are easy with the raised floor system. If you want to move the location of a toilet or bathtub on a slab foundation, get the jackhammer! Routing and rerouting of wiring for electrical, telephone, television and computers is relatively easy and less expensive. If the home is raised high enough off the ground, air conditioning ducts can be installed below where floor registers can direct air closer to the actual living area.

Natural Insulator – Why live on the cold, damp ground? Wood is a natural insulator. A properly constructed and insulated raised wood floor foundation isolates your home from potential moisture problems and provides a warm and comfortable walking surface.

Reduced Flood Risk - Flooding is a potential risk for many homeowners. A raised floor system could be the solution to raising your home's foundation above base flood elevation required by the National Flood Insurance Program. Considering other options - slab atop dirt fill or slab on backfilled perimeter wall - the raised floor may be the most practical and cost-effective way to protect your property and meet local building ordinances in flood-prone areas.

Pest and Mold Management - Most pests are ground dwellers. With proper barriers to control termites and other pests, your raised floor home will welcome fewer unwanted guests. For optimum protection against termites, pressure-treated and kiln-dried after treatment (KDAT) Southern Pine lumber is available.



Mold needs moisture to grow. The raised foundation isolates your home from the ground, a major source of moisture. This is no guarantee against mold growth, but the raised floor is a naturally "drier" foundation system from the start.

Flexible Landscaping – Landscaping looks best around the foundation of the home. It helps "ground" the structure to the site. However, the installation of builtup flowerbeds and other landscaping against a slab foundation can invite termite infestation and rot. With a raised floor, landscaping can be located near the foundation without inviting this risk. Furthermore, root-severing slab construction often demands the removal of existing trees in close proximity to the structure. Near a raised floor, these valuable, beautiful and energy-saving shade trees can be preserved. Only the footings of a raised pier-and-beam foundation penetrate the root system, allowing trees to thrive.











1920





Victorian 1890

Prairie 1900

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**Traditional Revival** 1930

### Termites: Treated Framing Adds Value, Protection for Minimal Cost

You may be asking: "If I lived in an area where termites are a problem like much of the Southeastern U.S., won't my raised wood floor foundation be more vulnerable to attack than a comparable concrete slab-on-grade constructed home?"

That's an understandable question, since we all know that termites consume wood, or more specifically any cellulosic material (paper, cardboard, or solid wood). The truth is, a home constructed on a concrete slab is just as vulnerable to termite infestation, and perhaps even more so, than a comparable home properly constructed on a raised floor. True, termites do not eat concrete, but termites can consume any wood or wood product in your home including the framing, wood siding, interior trim and moulding, even furniture, books and paper products.

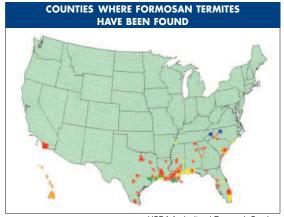
Concrete slab-on-grade foundations put wood framing and finishing components much closer to the ground where most termites live, exposing the wood to additional moisture, which termites need to thrive. It is also not unusual for cracks to develop in slab foundations, offering termites direct access to your home's framing.

On the other hand, a raised wood floor foundation elevates your home above the ground, above the moisture source and primary termite habitat. The raised floor system makes termite detection simple for trained pest control exterminators who can easily inspect under-floor areas.

Finally, if there is still concern over vulnerability to pests, the raised floor system, or even the entire house, can be framed with pressure-treated Southern Pine lumber, structural panels, and other engineered wood components. The concept of using pressure-treated wood framing components in high-moisture areas of the home for added protection against decay and termite attack is nothing new.

Informed builders and homeowners have used pressure-treated lumber for years to insure full protection of structural framing members. In fact, analysis by the Louisiana Department of Agriculture and Forestry indicate that a typical home (about 2,000 sq.ft.) could be framed entirely with pressure-treated components, while adding less than 2% to the overall cost of the home. Widespread damage by the Formosan termite has put considerably more emphasis on the use of pressure-treated framing, whether in the raised wood floor foundation or for the entire framing of the home.

Today, Formosan termites can be found in 11 states (see map) and are expected to continue spreading northward as far as Washington State on the West Coast and Massachusetts on the East Coast. This "super termite" is considered the most voracious species in the world. A native subterranean termite colony will consume about seven pounds of wood per year. In contrast, a typical Formosan colony will consume over 1,000 pounds of wood annually.



USDA Agricultural Research Service

The American Wood Protection Association (AWPA) has approved several preservative treatments effective against Formosan termites that are suitable for residential or commercial enclosed (interior) framing applications. For all structural framing uses, pressure-treated lumber must be kiln-dried after treatment, KDAT.

The use of pressure-treated wood offers homeowners the most practical, cost-effective and safest way to fully protect framing components from termites or fungal decay.



Habitat for Humanity constructed its first all-treated wood home in New Orleans. The raised floor design (1050 sq. ft.) called for 8,500 board feet of KDAT Southern Pine lumber and plywood.



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#### Wood Floors Add Allergy-Free Elegance to Your Raised Home

Wood flooring naturally complements a raised wood floor foundation, and classic Southern Pine flooring is the ideal choice. It suits any décor, from country to contemporary.



Floors are the most heavily used surface in a house. Solid wood flooring is not only durable, but is an elegant way to add value and beauty to your home. Just check real estate listings to see that it's always a noted feature. And in five to seven years, if the floor needs maintenance, it can be refinished for about the price of replacing carpet, or a fraction of the cost of other flooring options. An added benefit of wood flooring is that those with allergies should suffer less because, unlike carpeting, wood does not trap mold spores and dust that cause many household allergies.





#### **Additional Information**

Homebuyers, builders, designers, and others interested in the raised floor system can now help themselves at **RaisedFloorLiving.com**. Sponsored by the Southern

Forest Products Association, this site presents the latest

information on the raised floor system advantages and construction methods.

The Southern Forest Products Association offers a wide variety of helpful publications for design-build professionals. The titles listed below are available online in PDF. Visit SouthernPine.com to download:

RaisedFloorLiving.com

Raised Wood Floor Foundations (#411)

foundation types, construction defails, floor framing spans, cost-saving strategies

Pressure-Treated Southern Pine (#300) preservative types, standards, specifications, applications

#### Southern Pine Use Guide (#200)

grade descriptions, design values, applications, specification guidelines

Southern Pine Maximum Spans for Joists & Rafters (#202) span tables, design criteria

Southern Pine Headers & Beams (#207) size selection and allowable load tables for Southern Pine lumber and glued laminated timber The conditions under which lumber is used in construction may vary widely, as does the quality of workmanship. Neither the Southern Forest Products Association, nor its members, have knowledge of the quality of materials, workmanship or construction methods used on any construction project and, accordingly, do not warrant the technical data, design or performance of the lumber in completed structures.

> SouthernPine.com SouthernPineDecks.com RaisedFloorLiving.com



SFPA is a nonprofit trade association that has represented manufacturers of Southern Pine lumber since 1915.

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