

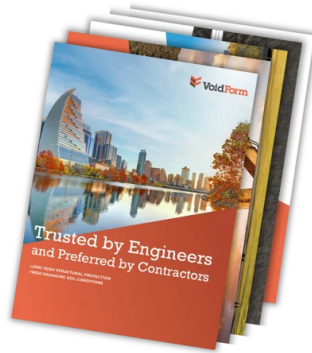
Building on Rural Land? Here's What You Need to Know

Solutions for Building on Challenging Soil in Arkansas, Mississippi, Louisiana & Alabama

Across the South, vast tracts of former agricultural land are being developed for subdivisions, distribution facilities, and data centers.

But beneath that open landscape lies a hidden challenge: expansive soil.

Exerting up to 30,000 psf of pressure on structures, you risk cracked slabs, heaving piers, and compromised structural integrity.



Download Now

VoidForm systems create controlled void spaces beneath slabs, beams, walls, and piers, allowing space for the soil to expand without transferring pressure to the structure above.

- Pre-manufactured, easy-to-install systems for tight timelines & limited labor
- Solutions for slabs, piers, plumbing isolation, and grade beams
- Proven under 178+ million square feet of structures across North America
- Mississippi manufacturing for fast, reliable sourcing

With the right systems in place before the first pour, you can prevent callbacks, schedule delays, and costly repairs. Protect your reputation on every job.

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City	State/Region*
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A download link will be sent to email address provided.

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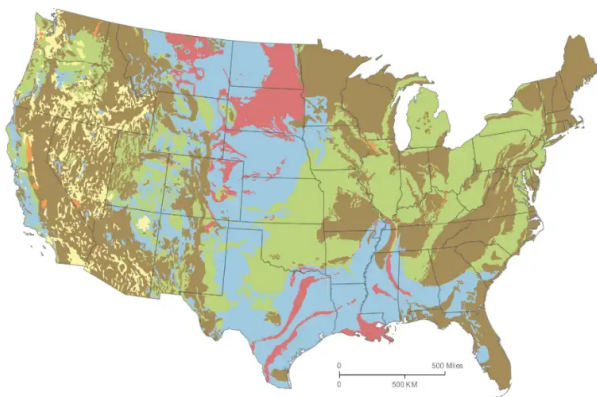


What You Need To Know About Building in the South

- Expansive areas across the South expand when wet and shrink when dry, pushing up to 30,000 pounds per square foot against foundations, slabs, piers, and walls.¹
- Heavy rain, high water tables, and poor drainage cause constant swelling and shrinking that crack concrete and shift structures.
- Soils like Blackland Prairie and Yazoo Clay can run 100s of feet deep, making excavation costly and unrealistic.²
- In the Gulf Coastal Plain, many soils are too wet or organic for lime or cement stabilization to work, especially on larger projects.



What Regions Are Most at Risk?



- Over 50 percent of these areas are underlain by soils with abundant clays of high swelling potential.
- Less than 50 percent of these areas are underlain by soils with clays of high swelling potential.
- Over 50 percent of these areas are underlain by soils with abundant clays of slight to moderate swelling potential.
- Less than 50 percent of these areas are underlain by soils with abundant clays of slight to moderate swelling potential.
- These areas are underlain by soils with little to no clays with swelling potential.
- Data insufficient to indicate the clay content of the swelling potential of soils.

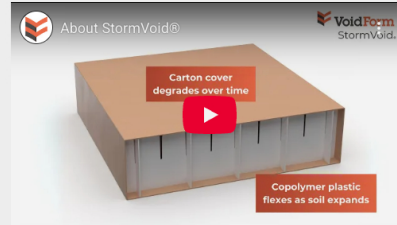
References:

¹ https://osap.nrl.bts.gov/view/dot/62695/dot_62695_DS1.pdf

A Proven Solution for Building in the South

Void forms provide a simple, cost-effective, and scalable solution. By creating controlled voids beneath slabs, beams, walls, and piers, void forms create a space for soil to heave into without transferring pressure to the structure above.

Available in materials ranging from biodegradable corrugated carton to weatherproof plastic, VoidForm can be tailored to the local environment. With a manufacturing facility in Mississippi, VoidForm simplifies sourcing.



FAQs

Q: What states have expansive soil?

Expansive soil deposits exist worldwide and throughout the US, with notable concentrations in several distinct regions. Damage from expansive soil is widely reported in Texas and Colorado, as well as further east, with substantial areas of Arkansas, Mississippi, Louisiana, and Alabama sitting on top of these deposits. Honorable mentions include regions of the Midwest, including Montana, North Dakota, South Dakota, and Illinois.

Q: Can I build on expansive soil?

Building on expansive soil is possible, but it requires specific measures to prevent foundation and structural damage. A thorough geotechnical investigation is essential before construction. Soil borings and laboratory testing can determine the depth, composition, and severity of expansive soil on site, which will help determine the most appropriate mitigation strategies.

Q: What makes Southern soil especially difficult to build on?

The soil types in the South are not only highly reactive but also deep and widespread. Porter's Creek Clay, for example, can reach depths of 200 feet in deposits in Northern Mississippi, making excavation unworkable, while Yazoo Clay can expand more than 200% and exert pressures up to 25,000 psf.

Combined with poor drainage and high water tables, these soils pose unique design challenges for large-scale foundations. Unlike excavation or chemical stabilization, structural alternatives such as void forms are not dependent on local conditions or soil chemistry, making them one of the most adaptable strategies in these environments.

Q: Why don't traditional solutions like overexcavation or chemical stabilization always work in the South?

On smaller projects, overexcavation or chemical stabilization methods are the traditional strategies for reducing soil activity. Over-excavation requires moving and replacing millions of cubic yards of soil, which drives up hauling costs and project timelines.

Chemical stabilization (lime or cement treatment) often fails in high groundwater or the presence of specific organic elements in the soil, and scaling up to hypersize projects can push material costs into scarcity pricing. Chemical stability also requires specific soil and environmental conditions to perform properly. More practical in all types of conditions and often more cost-effective, VoidForm offers a broad range of products to protect in and around concrete beams, walls, slabs, and utilities — a proven solution trusted by engineers for over 45 years.

Q: Where is Yazoo Clay in Mississippi?

According to the [Mississippi Department of Natural Resources](#), the state's Yazoo Clay deposit exists across a northwest-southeast belt that spans nearly three-quarters of central Mississippi. This zone extends across eleven counties, including Yazoo, Holmes, Hinds, Madison, Rankin, Smith, Scott, Newton, Jasper, Clarke, and Wayne.

Q: Does Arkansas have expansive clay?

In [Arkansas](#), expansive clays are most concentrated along an area known as the Fall Line, where Porter's Creek Clay forms a band stretching from near Arkadelphia to Hope with additional deposits farther north. Other areas of concern include parts of the Western Gulf Coastal Plain and the Red River areas in the far South of the state.

Q: What areas of Alabama have expansive soil?

Alabama's Blackland Prairie region (also known as the "Canebrake" or "Alabama Black Belt") is dominated by clay-rich soil with high shrink-swell potential. These formations stretch in a belt across central Alabama into Mississippi. The high mineral-rich clay content causes the soil to expand when wet and contract when dry, posing a risk to building foundations and road construction if not addressed during construction.

Q: What areas of Louisiana are at risk from expansive soil?

Expansive soils are found throughout northern and central Louisiana, particularly in areas underlain by Porters Creek Clay and similar soil types. These clays are highly reactive to moisture and often have poor drainage, making them prone to cycles of heaving and cracking. The Red River Valley and the northern Gulf Coastal area are especially affected, where heavy rainfall and shallow water tables exert immense pressures on foundations and structures.

Have Questions?

Contact Your Local VoidForm Rep