

Commercial Construction Foundation Solutions

Many parts of the country, and particularly Texas cities, are plagued with extremely active soil. Active clay soils will expand and contract over time with changing moisture conditions. If not properly designed and engineered, soil movement will likely result in structural foundation failure.

Commercial construction on these active soils requires either remediation of the soil to reduce the potential-vertical-rise (PVR) down to 1" of movement or less or elevating the foundation above the active soil all together. Soil remediation can

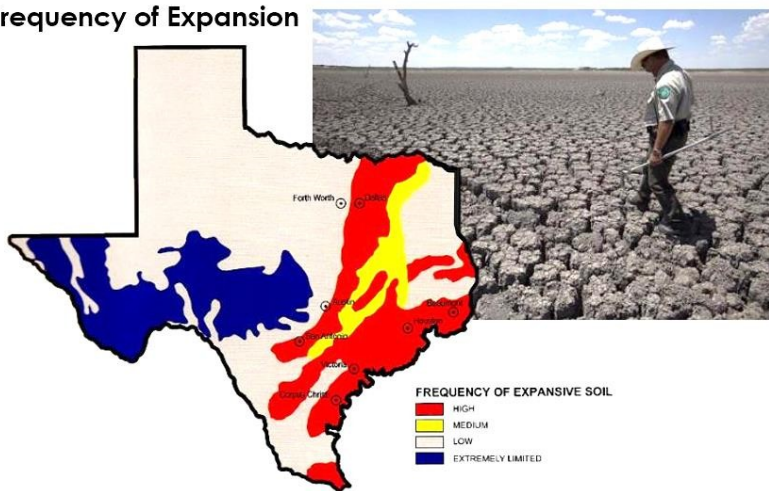
consist of remove-and-replace of soil; chemical or water injection; moisture conditioning; or a combination together with a very heavy slab and beams.

Although often a preferred method, elevated foundations can be cost prohibitive.

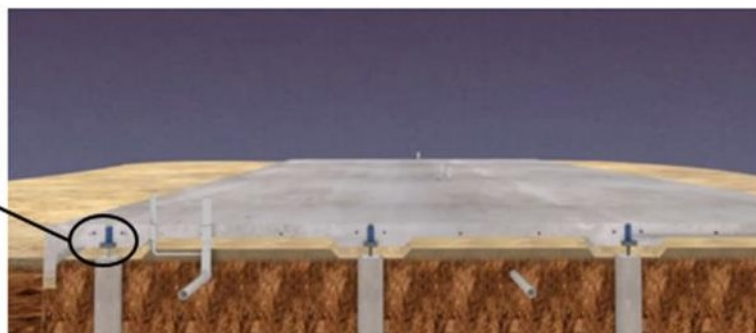
SlabTek has a proven system that has been installed in over 1,000 foundations throughout Texas and Colorado since 2005.

It is a modern alternative to time consuming and expensive soil remediation and void box or crawl space designs.

Frequency of Expansion



TELLA FIRMA
Patented
Lifting Mechanism



- ✓ Performs like a Crawl Space Slab
- ✓ Affordable Suspended Foundation

Eliminate the Foundation Risk Associated with Active Soils

The SlabTek System provides the solution to potential future foundation issues by removing soil movement out of the equation. The SlabTek System uses a proven, patented process of elevating a slab-on-grade foundation above the ground to create a protective void between the slab and the soil. This innovation isolates the foundation,

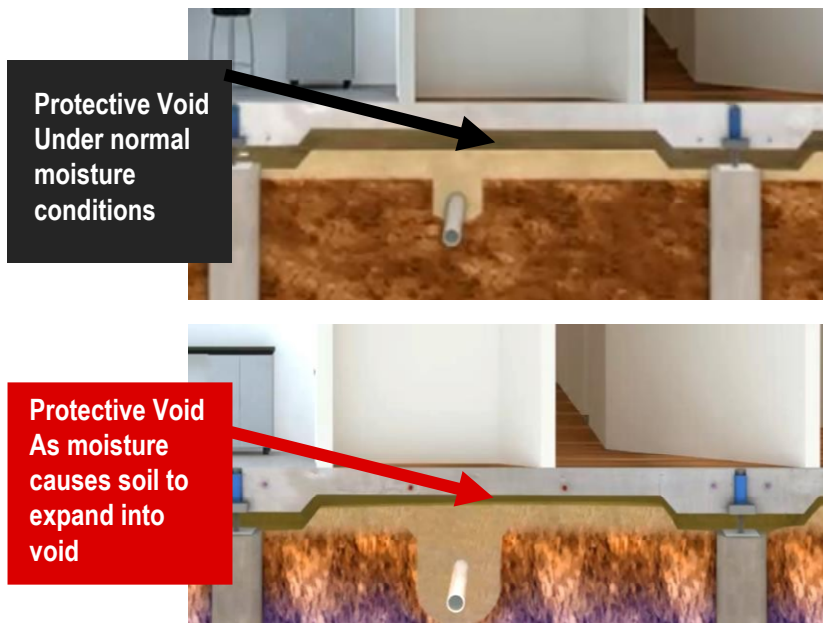


The SlabTek System can be implemented with either concrete piers or steel helical piles.

helping protect it from damaging soil swells and contractions. Designed to perform as a commercial suspended foundation, The SlabTek System provides the strength and reliability of a suspended slab yet is much more affordable and takes less time to install than most traditional suspended foundations. The SlabTek system slabs are based on commercial engineering principles that have been in practice for over 50

years and have been installed in homes and commercial structures for over a decade. The SlabTek System Lifting Mechanism is designed to last over 100 years and backed by a full 10-year warranty.

Shown on the left is a suspended SlabTek System foundation. The slab is elevated at least 1.5 times the expected Potential Vertical Rise (PVR) of the soil based upon the Geotechnical soils test.



Protective Void
Under normal
moisture
conditions

Protective Void
As moisture
causes soil to
expand into
void

Wide Variety of Commercial Building Applications



The SlabTek System is ideally suited for a variety of commercial applications with quality and reliability requirements.

Retail and Multifamily

“Entering this market, we were concerned with various issues associated with soil conditions in this region of Texas. We believe the SlabTek System will minimize the risk associated with these issues, and we found the cost to be in line with other foundations we considered for the project” **Ryan Voorhees, Founder and President of Gold Creek Apartments.**

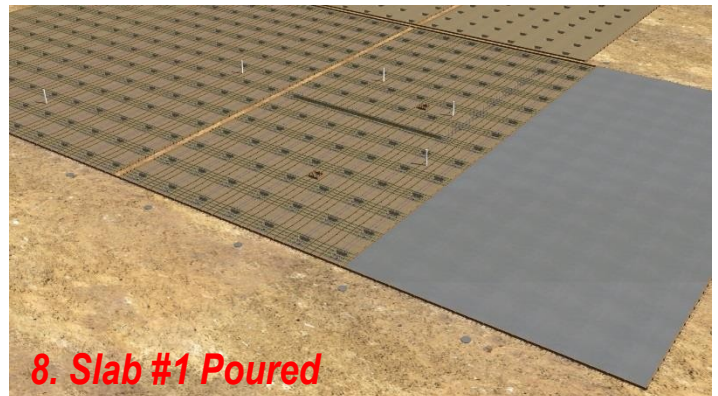
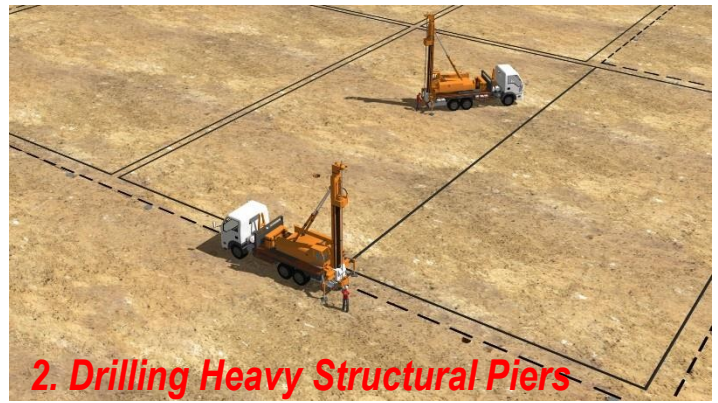
Schools and Churches

The new Spanish House Immersion School in Dallas. “It [the site] was the worst type of foundation site you could have,” says **Rich Atchison**, whose firm, **FORM studios Architecture**, completed the new building for the elementary school after utilizing an innovative solution from The SlabTek System to build a solid foundation on unstable ground.

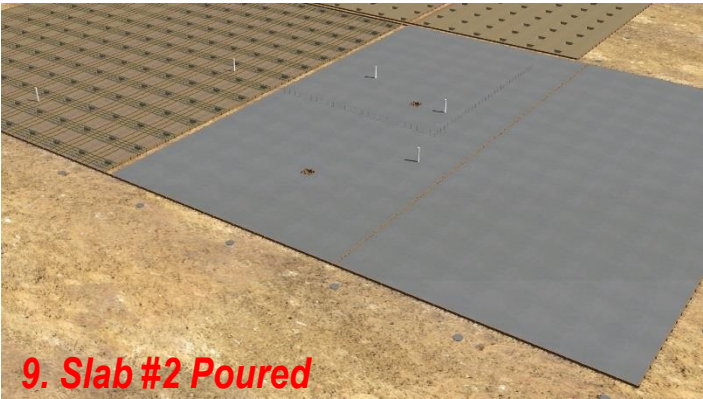


Light Industrial – Tilt Up Wall

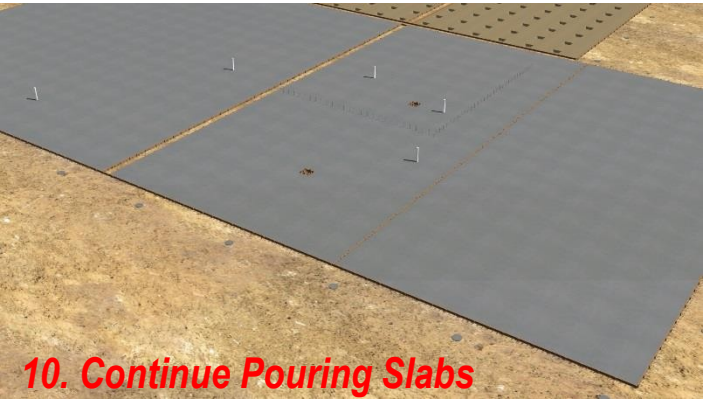
Tella Firma System Installation Process – Steps 1 – 8



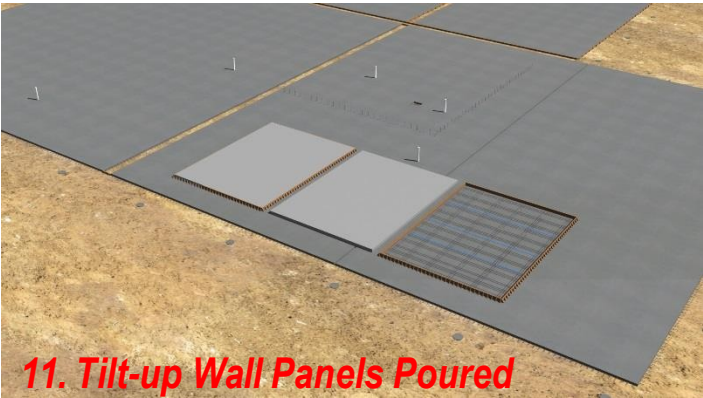
Tella Firma System Installation Process – Steps 9 – 16



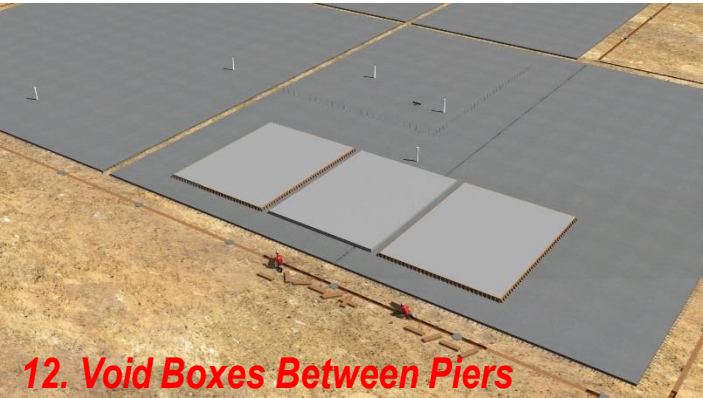
9. Slab #2 Poured



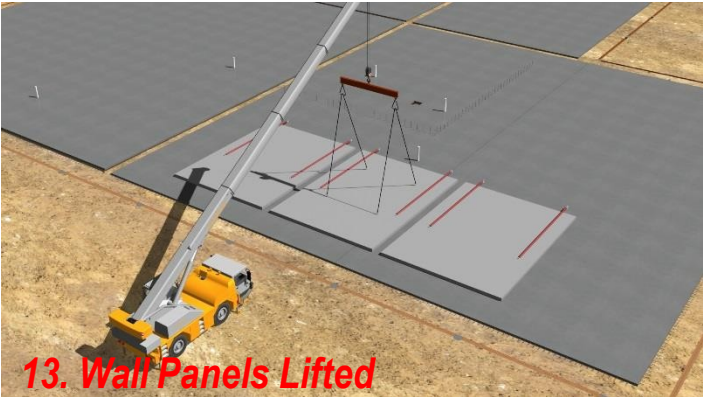
10. Continue Pouring Slabs



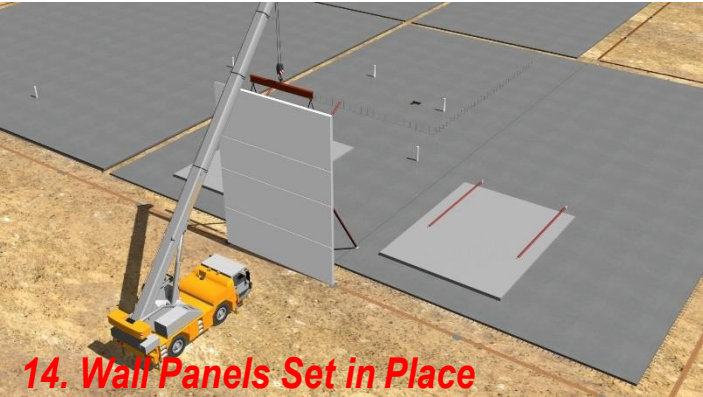
11. Tilt-up Wall Panels Poured



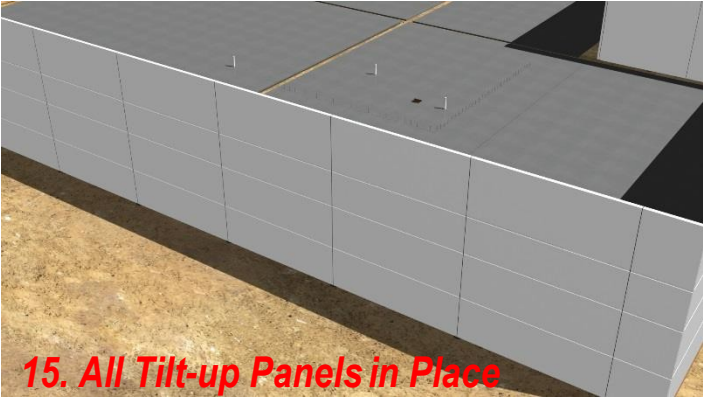
12. Void Boxes Between Piers



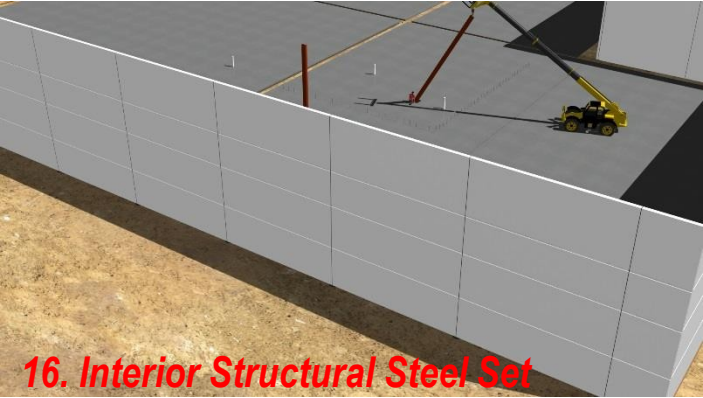
13. Wall Panels Lifted



14. Wall Panels Set in Place

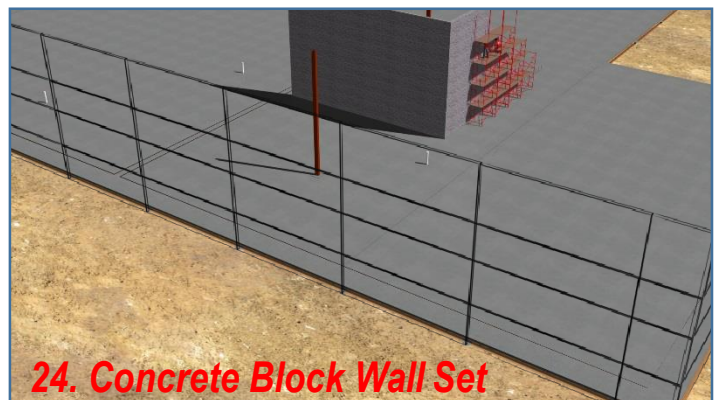
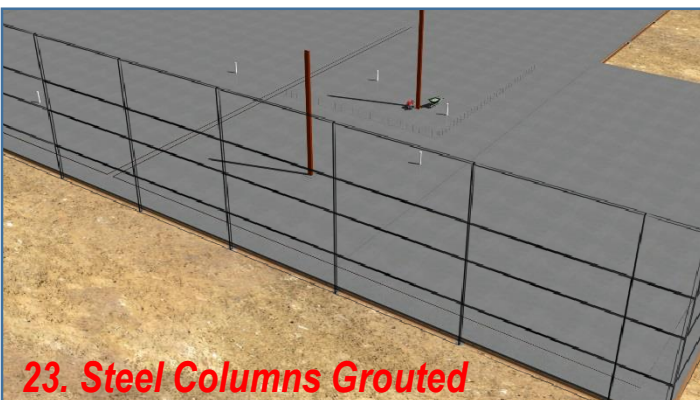
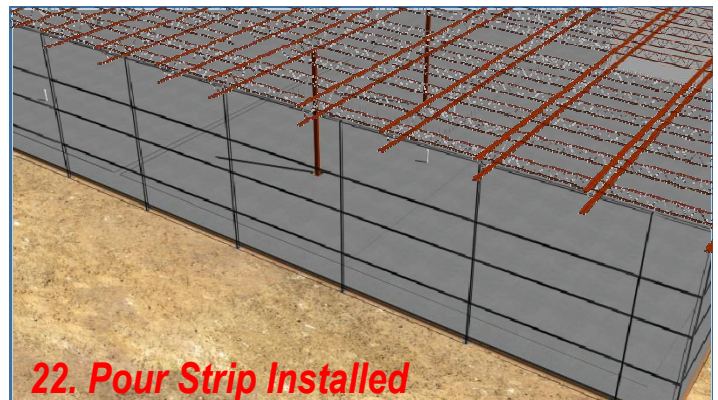
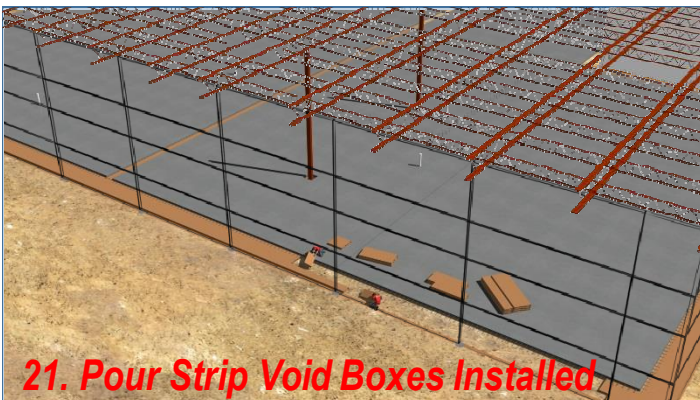
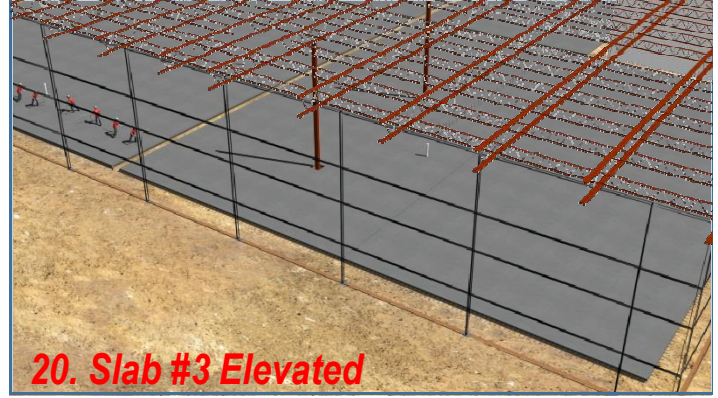
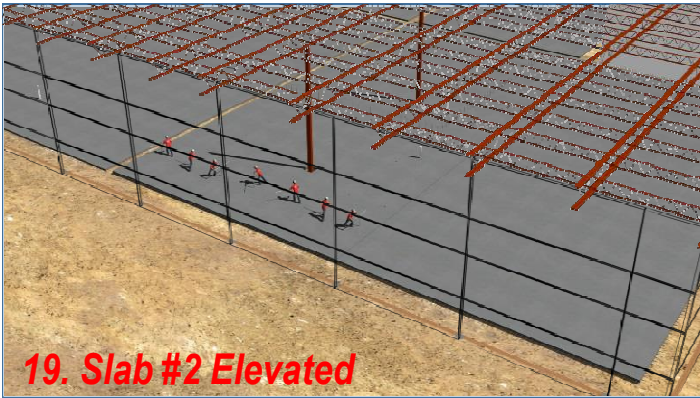
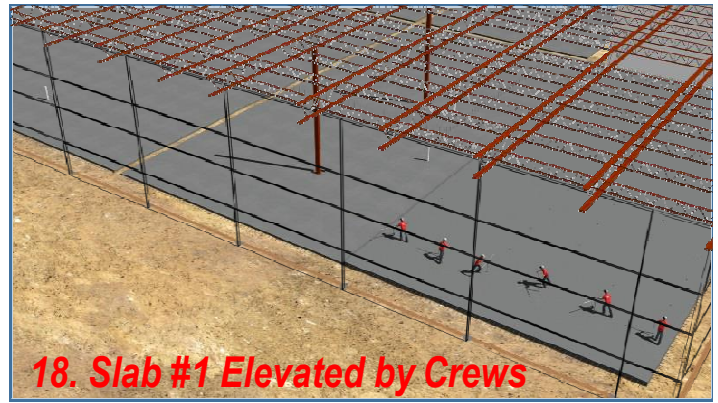


15. All Tilt-up Panels in Place



16. Interior Structural Steel Set

Tella Firma System Installation Process – Steps 17 – 24



Slab Lifting Process – Extensive Quality Control



Elevations are Taken at Each Pier Location



Plumbing is Marked and Carefully Monitored



Lifting Bolt Greased and Installed



Slab is raised 1/3" per Bolt Rotation





**Slabtek Company
Commercial Construction**

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This product and implementation of suspended slabs using this product are protected by the following United States and Canadian Patents which are owned exclusively by Tella Firma, LLC. US Patents: 8458984, 8671627, 8407898, 8678712, 7823341 B2, 8069620 B2. Canadian Patent: 2628422

For more information contact:

**SlabTek Company
2505 N. Plano Road, Suite 400
Richardson, TX 75082**

Phone: 214-451-6630

Visit our web site and watch our videos at:

www.SlabtekCompany.com