

March's Preferred Referral Network Newsletter:
Concrete - The Building Material of Choice

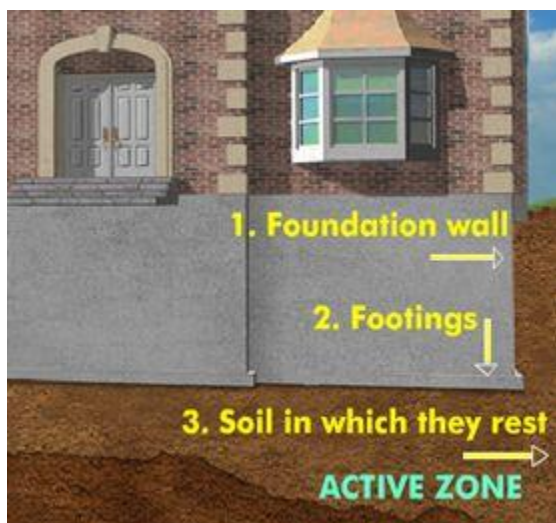


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Concrete as an Ideal Building Material

Did you know that concrete is an ideal building material? Okay, I didn't, but it seems like everyone else does. Do you know why concrete is so great? It's amazingly versatile, easy to repair, and can be reinforced, removed, or replaced with ease. Since I've begun learning about concrete, I've started to see it everywhere! Countertops, foundation walls, patios, tiling, and everything is dyed, stamped, and engraved. In fact, I've been learning a lot about the **spanning capability of concrete foundations.**



Concrete's Strengths

Concrete foundations, or poured foundations, are relatively common along the Front Range, especially in homes built after the 1950s. We transitioned to poured concrete because its overall strength in spanning is extremely high. Basically, concrete handles the compressive weight of the home well, while resisting cracking as it distributes the weight of the home onto the underlying soil.

Naturally, this strength can be compromised when the soil underneath the foundation swells and expands throughout the seasons. Putting that aside for a moment, we can truly begin to marvel at concrete's spanning capability. It is so strong that piers can be placed at intervals underneath it, the home's weight transferred onto the piers, and the entire foundation stabilized without losing its spanning ability. In fact, that's the basis for the entire piercing process—using the concrete's strength to span the distance between piers and then using the weight of the home as resistance to drive the piers to solid claystone, or other bedrock material.

Why Engineering is Important Around Concrete Foundations and Piering

The amount of engineering that goes into creating a poured concrete foundation is absolutely mind-blowing. Peak is asked quite often to double check the proposed pier spacing on various projects when other piercing companies are involved.



I was looking over the equations and conditions on a recent project as our engineer, Mike Sullivan, was checking facts and figures. He came to an incredibly disturbing conclusion: *the 15 foot spacing on a proposed piercing project would destroy the foundation—the amount of pressure exerted by each pier at that spacing would literally tear the home apart!*

Mike contacted the general contractor on the project and quickly reviewed the math. In order to lift the home without destroying it, the piers would need to be spaced at 6 foot intervals. The homeowner was not thrilled to discover that their general contractor was putting their entire home at risk!

Is the Piering Company You've selected using a Load Calculator to Determine Pier Spacing?



Stories like this are exactly why we've been working with engineers to develop a simple way to calculate the spanning strength of each client's foundation—whether it's a poured foundation, or concrete block

design. The calculator allows us to plug in certain characteristics of a home, measurements, and conditions to determine **exactly** how far apart to place the piers. After that, we take the information back to real engineers to double check our calculations.

Are we the first piercing company to use a load calculator? I'm not certain, but I have seen the math behind the calculator and I believe that using the load calculator will save our clients from nasty surprises and ruined homes!

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