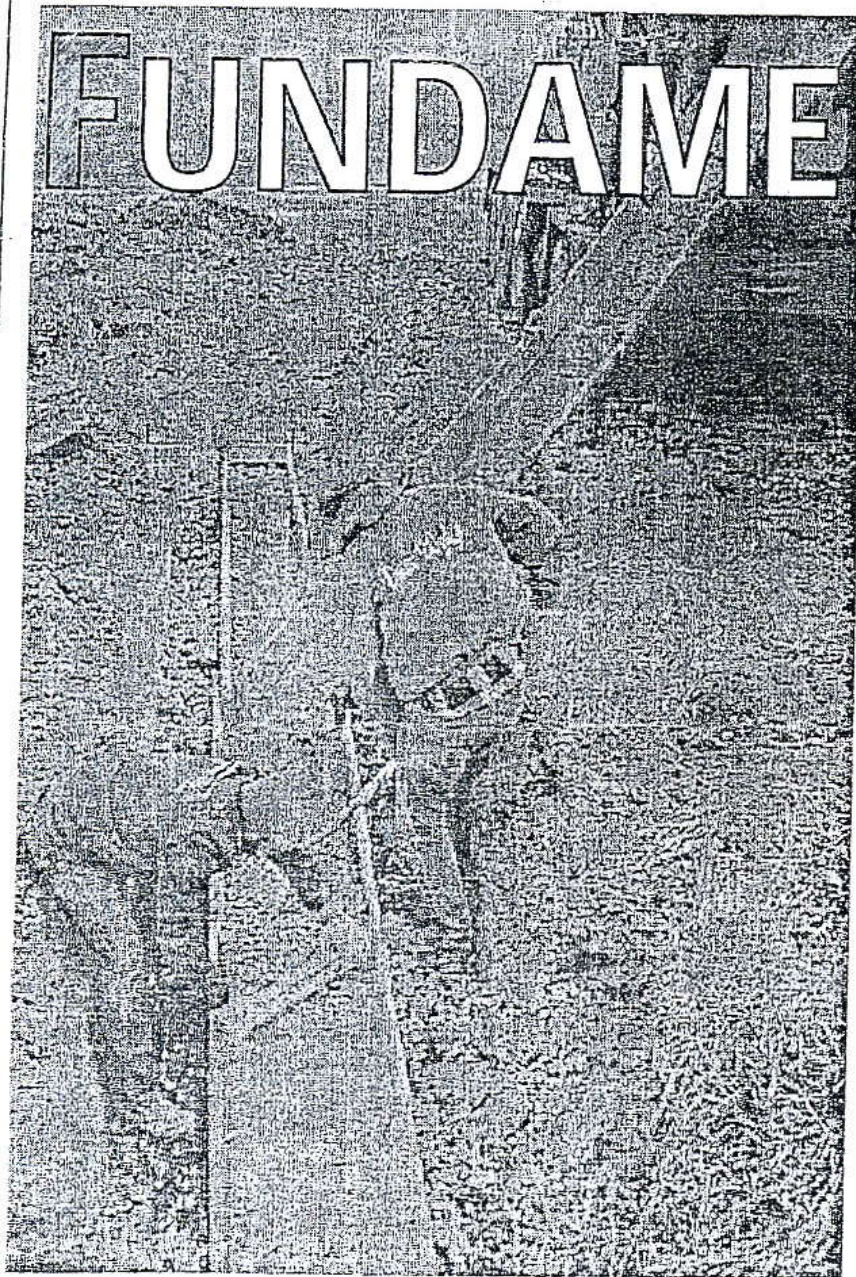


# FOOTING

## FUNDAMENTALS



If you know your soil bearing capacity, following these practical guidelines will ensure strong footings

**U**nder every house is a foundation, and under most foundations are footings. Most of the time we take

**by Brent Anderson, P.E.**

footings for granted, and usually we can: For typical soils, a common 16- or 20-inch-wide footing can more than handle the relatively light weight of an ordinary house.

On the other hand, if you build on soft clay soil or if there's a soft zone under part of your foundation, there can be trouble. A footing that performs well in good soil may not do so well in weak bearing conditions. We don't often see outright failure, but it's not uncommon to see excessive settlement when soil bearing capacity is low.

If the whole house settles slowly and evenly, some additional settlement is no big deal; but if settlement is uneven (differential settlement), there could be damage. A frame house with wood siding and drywall interiors can probably handle up to 1/2 inch of differential foundation movement, but even 1/4 inch of uneven settling is enough to cause cracks in masonry, tile, or plaster.

It's the unusual situations that cause the most trouble. When the footing is laid out off-center so the wall misses its bearing, when you encounter a soft zone on site, or when the footing is undersized, the builder faces a judgment call. If you think there's a problem ahead, you know you should stop and