

This Industry is Putting On Weight

By George Porter

This year at Christmas my mother baked 24 dozen chocolate chip cookies, Guess who ate most of them and gained 12 lbs in three weeks. It is not healthy or even sane but that is the way it is, I can't help it. It will be gone in a couple of months because in order to do what I do I just can't weigh this much.

The homes in this industry are just the opposite from me. As the business got healthier over the years the houses have been getting heavier, much heavier.

In this article last month we discussed how to make a home sit on the dirt without sinking. You determine the load bearing capacity of the soil with a Pocket Penetrometer and then you can easily find the correct footing size if you know how much weight you have to hold. This brings us to the question of how do I find out how much the home weighs?

One of the things I always do in my seminars is find a few guys in the class who have been setting homes for at least 25 years and ask them; "How much weight does the foundation of an average 1500 sq. ft. home have to hold?" The answer is always the same; " About 30,000 lbs." Then I ask the whole class if they agree and they always do, after all, these guys have been doing this for a quarter of a century. They certainly ought to know. Then the class is informed that they have missed the correct answer by about 100,000 lbs. They don't believe it and look at me like I have lost my mind.

Lets think about what the home has to do. First it is required by the HUD Code to have a certain roof load. Most of the country is required to have at least 20 lbs./s./ft. This means that the roof must be able to hold 20 lbs. on each and every square foot of it. If you have a 1500 sq. ft. home then do the math; $1500 \text{ sq/ft} \times 20 \text{ lbs} = 30,000 \text{ lbs}$. The same HUD Code states that the floor load on all homes is 40 lbs./s./ft. If we again do the math we get; $1500 \text{ sq/ft} \times 40 \text{ lbs.} = 60,000 \text{ lbs}$. The total so far is 90,000 lbs. and we still have to add the weight of the home itself. This is the weight that the class was thinking about at the beginning and it probably is about 30,000 lbs. Add it all up and you get 120,000 lbs! In some places in the rocky mountains you are required to have a 120 lbs./s./ft. roof load. This home would weigh in a 270,000 lbs., you better know what you are doing here.

That is what the foundation has to be capable of holding and it is a bunch! You didn't think the foundation just replaced the wheels did you? The wheels are just enough to carry the box around and they are not made to hold a roof full of snow and a house full of people with waterbeds. This might be worth remembering when you move a used home with lots of furniture in it or let your sales units sit out on the lot unblocked in the blizzard of '96. The northeast is already sold out of snow shovels and salt, next will come drywall and spackeling. The industry really is getting healthy and fat and we will have to learn to carry our weight well or we will appear a little saggy with ugly bulges here and there. Sort of like me after the cookie season.