

MH Marketing Sales Management**MHMSM.com - Innovation - Information - Inspiration for Industry Professionals****What Is The HUD Code?**

by George Porter



What is the HUD Code?, Well, it is just a building code, that's all. In fact it may be the simplest building code ever to exist except for some early Roman Emperor's rules on construction. The HUD Code basically says that if you can prove to the Department of Housing and Urban Development that you can design and build a home that will perform to their regional standards for roof load, wind resistance, thermal efficiency, safety and durability, then you can attach a label to it that says this home meets the HUD Code.

Obviously there are several layers of bureaucracy involved in all of this, but that's about all there is to it.

There are fines for failures to comply with the Code and they usually start at about \$1000. The early Roman Emperor's codes also had penalties. Caesar's building code was also a performance code but had no real details like the HUD Code. Simply put, if the building had severe problems then the architects and engineers that designed it were executed. This Roman law produced some fantastic buildings, but it is probably a good thing that this extreme idea for enforcement was abandoned.

This present day federal building code for our homes came out of "The National Manufactured Housing Construction and Safety Standards Act of 1974" and became federal law on June 15, 1976. There are two main parts to what we call the HUD Code. The first part is called "Part 3280, Manufactured Home Construction and Safety Standards". This concerns itself with the standards that the home must perform to and conform with, this is the construction part of the code. "Part 3282 , Manufactured home procedural and Enforcement Regulations" is the second part of the code, and it talks about who is in charge of looking over who's shoulder to make sure the home complies with Part 3280. To make it as simple as possible you could say that 3280 is how you build the home and 3282 is how HUD makes sure you do it right

Construction and enforcement are the two basic parts of any building code: however, all other types of building codes seems to have something very important that we, under the HUD Code, do not have. It is that all building officials and the most of the general public understand these other codes. Go to any building official and ask him about all the building codes that apply in his town and he will produce a copy of a "stick" building code. Ninety nine out of one hundred officials will say that their town uses the BOCA, CABO, Southern Building Code, or some other "conventional" building code. Only one in one hundred will also say that because the HUD Code is a preemptive federal building code, that it too, is one of the codes used in their town. Most have never heard of it, and therefore have no idea what it is, what it means, or how it works.

It is also good to remember that every town hall or courthouse that contains these local building officials, also houses the local zoning folks. Probably not one in five hundred zoning officials is familiar with the HUD Code, and those that are know it has something to do with "trailers, mobile homes or manufactured housing." Whatever you call it, it's all the same to them. To most zoning officials these things mean trouble at zoning hearings. Citizens packing hearing rooms and hallways, scared there is going to be a "trailer park" near them.

The average citizen doesn't understand the HUD Code either, probably not one in a thousand could tell you anything about it. What most citizens know is that sometimes these manufactured homes have problems and none of the local building officials have a clue as to what to do about it. These officials only deal with "real" homes. The poor folks that buy these home have a hard time getting it fixed because most of the local plumbers and carpenters don't work on "those homes". This is a large circle of ignorance. and it seems to begin with the apparently nearly "secret" HUD Code. Is there a course in a local school or college near you that you could attend to learn about the HUD code? Of course not. What high school or college knows about the HUD code? Not one in ten thousand!

Who can we turn to, to inform the world about this simple and building code that has been nationwide law for twenty-two years? Well, if you are reading this article then it should be you. It has to be you, there is no one else as qualified or probably with as much to loose. The world can live without the HUD Code, in fact, sometimes most of the world seems to be either ignoring it or trying to make it go away. Frankly, can we really blame them? When was the last time you trusted something you knew absolutely nothing about? If the world learns to live without the HUD Code then it is going to be living without your role in the manufactured housing industry as well. Not a good vision for the future!

If you had to, could you give a half hour talk to your local Rotary Club on the HUD Code? Do you know someone in your town who could? Do you have a copy of the HUD Code? Do you know where to get one? If you have answered "no" to any or all of these questions then you need to brush up on the our Code yourself. Here's how.

1. Get the Parts 3280 and 3282 from your state manufactured housing association or write: NCSBCS, 505 Huntmar Park Drive, Suite 210, Herndon, Virginia 20170
2. Read the table of contents then read the parts that interest you the most first. This will give you a feel for how this law is written and what it tries to do. Most of the Code uses words like "shall be designed to" or "shall be capable of". The code doesn't really say how to build a home or even out of what kind of materials, but it does say how it has to perform. The manufacturer has to prove that it performs when the home is finished or the HUD label cannot be affixed.
3. When you have read about one third of these two little books containing about one hundred pages apiece you will start to get the sense that there really is a lot of science in these homes. The requirements are very specific, and there are many levels of inspection in part 3282. Read about the DAPIA and the IPIA. These are a pair of inspection agencies that oversee the design and construction of all of our homes. These inspection agencies are a major key to the manufacturers confidence to place the label on the rear of the home certifying that this home conforms to the HUD Code. You will become amazed at the details that a factory deals with to build every single home. It

should give you some extra confidence in our product and what these homes can be when the science of installation equals the science of manufacturing.

4. "The Wheel Thing" To the best of my knowledge every structure ever built by man had most of its parts brought to the site by wheels. When they built the pyramids they used logs for wheels and the World Trade Center in New York City used trucks. Wheels mean nothing other than transportation, period!
5. If I had to pick a characteristic of our homes that is the most different from "old fashion conventional" homes it would be the floor system not the wheels. The weakest part of a conventional home's floor is the center of the span between the two walls. The longer the span the larger the joists have to be so they don't sag. Our floor joists are much smaller (and therefore cheaper) because the longest span is between the main beams of the frame of the home, usually a little over eight feet. Our weakest point in the floor is the edges because there is no real support at the perimeter of the home. The floor joists alone hold the walls up unless they get some help from some extra support. You could say our walls sit on diving boards and conventional homes have trampolines for floors. The trick is of course to make the trampoline so stiff it hardly bends at all and to do the same thing with the diving boards. All conventional floors sag over time, and all HUD Code home floors crown over time because of plain and simple gravity. Ideally this sagging is so slight as to not be noticed, but sometimes something causes them to sag more than is acceptable.
6. If you have a sixteen foot conventional floor with a grand piano in the center of it, one of three things must happen. #1, the floor will sag under the extra weight; #2, the floor will get extra support under it in the location of the piano and will not sag; #3, the floor was originally designed to hold the extra weight and will not sag with the piano on it. Suppose you had a large upright piano next to the exterior wall that weighed about the same as the grand piano? This is the strongest part of the conventional floor because it is where it is supported by the foundation and chances are that you would not have to do anything extra.
- 7.
8. Let's use the same scenario on a HUD Code Home. Suppose the piano, pianist and candelabra weight 1500 lbs. and you put them in the middle of a sixteen foot wide section of one of our homes. What would you have to do? First of all the floor is tested to hold 40 lbs. per square foot so as long as there was nothing but this collection of weight in an area of a little over 6ft. x 6 ft., 37.5 square feet to be exact, there is no problem. The problem might come from the three legs of the piano and their concentrated load on the floor. If the piano had wheels and the part of each wheel touching the floor was 1/16 of an inch by 1 inch then the surface area of each wheel is .0625 square inches. Three wheels equal .1875 total square inches with 1500 lbs. total weight or 8,000 lbs. per square inch. The HUD Code says that all of our homes are tested to hold a 200 lb. load on a one inch diameter disc with a deflection of no more than 1/8 of an inch at its most critical point. Obviously this is not enough to hold the big piano on it's wheels. If you increase the holding area under each wheel by at least a 4x4 inch non-flexible pad and make sure each leg is on a different floor joist you will probably be OK. When you get to the sidewall of the same room you have a different problem. The "diving board" floor joists will bend under the large load so you will have to not only put pads under the piano wheels but also install adequate supports under the perimeter of the home in this area.
9. This is probably a lot more than you want to know about floor loading. The real purpose here is to point out that the HUD Code contains a lot of fine details and can answer nearly every question about our homes. If you are in this business it just might save you from making a large mistake some day. Plus when you have customers with a piano or some other heavy piece of furniture, you can help both yourself and them with your knowledge of your industry.
10. One last point, can you imagine what happens when you don't grade the lot properly and don't put down a vapor barrier on the dirt under the home? The floor gets a little damp from the humidity in the crawl space, and all this science and math flies right out the window when the piano falls through the floor. The most important thing that this industry needs to learn is how to keep these homes in compliance with the HUD Code both before and after the sale. This, of course, is accomplished by proper installation. Proper installation is accomplished by doing what it says in the directions that come with the home. The more you know about the HUD Code, the more you realize how critical are manufacturers instructions. Getting it right is the #1 greatest asset for your future and getting it wrong will surely be your largest liability.

We have a very good building code here and if we can just explain it to the rest of the people in our towns and counties then they will come to trust it as another acceptable way to build a home. They will also understand how important it is to do certain things that may be somewhat different from what they are used to. They may even come to think of the HUD Code as just another way to build a home, and that is all this industry will ever need to drastically increase our market share of single family homes.



George Porter, Manufactured Housing Resources, P.O. Box 9, Nassau, DE 19969. <http://www.george-porter.com>