An Ill Wind

By George Porter

It has been said that it is an ill wind that doesn't blow somebody some good. I am writing this article in the center of a manufactured housing community somewhere in Homestead, Florida and I can find very little good from this wind. I have seen pictures of Hiroshima and Nagasaki after the atom bomb was dropped in World War II and this looks very similar, except for the burn. In Vietnam I saw B-52 strikes and 24 hour artillery barrages, and I never saw anything like this. I saw Charleston after Hurricane Hugo a few years ago, and while the damage there was severe, most of it could be repaired. South Florida has to be 100% totally rebuilt. It is truly a wasteland.

You think of Florida as a green tropical paradise and it used to be in this area. However, winds reported to be in excess to 200 mph blew every leaf from every tree. There is no green. One person I met is even missing his newly sodded lawn. It literally ripped the grass right off the ground. Large malls and shopping centers and other concrete commercial structures were completely reduced to rubble. I saw a bowling alley that was constructed out of 14" steel I-beams, all of which were twisted like spaghetti in a bowl.

I am writing this fourteen days after the event and there is still no electricity other than what is supplied by generators. At present, new power lines are being run from South Miami and they are still about fifteen miles away from the town of Homestead. For those of you who don't know, south Florida could well be the world's largest patio. It evidently used to be under the ocean, and as a sea floor it was totally covered with coral. This coral still remains a few inches beneath the surface of the ground. Coral is not rock, but it's very close to being rock. It's more like pumice. You can dig it pretty easily with a pick, but it's tough enough to create a sizable problem should you decide to put in underground utilities. Trenching would be very expensive. This layer extends to a depth of many, many feet, so for all practical purposes, the entire area is sitting on a bed of solid stone. Because of that, all utilities were above ground and all the utilities are gone, so are street signs, road signs, stop lights and everything else in the world that was once powered by electricity.

At present, the entire area is heavily patrolled by the military and military aircraft are everywhere. There are helicopters bringing in supplies of food and water and ice, and soldiers are stationed throughout the entire area with loaded rifles to discourage looters. Jeeps with loudspeakers are travelling throughout the area giving messages as to the whereabouts of shelter and food, and advising people in certain districts that this area will be bulldozed on a certain date and any personal belongings left there will be taken away. This is truly a world class disaster. There are messages written on pieces of siding stuck up in piles of rubble that used to be people's homes telling missing family members where the rest of the family can be contacted.

Insurance companies have written in spray paint claim numbers and dates on many, many structures and homes to be sure that they don't get counted twice. One insurance adjustor I saw was looking in vain for a house whose owner had filed a claim, and could not find it. She said she was having that problem a lot, so in a case like that, the homeowner has to prove it existed before

the storm and they will settle the claim as a total loss.

The reason I came to south Florida was not merely to satisfy my curiosity about the damage and destruction. I felt it would be a wonderful opportunity for me to see what effect installation may have on the stability of the homes. In my opinion, it had a lot to do with it. You may have a box leaving the factory that is certified at 25 psf wind load, but if it's not anchored correctly, with a good foundation under it, it will not meet that criteria.

I spent four days looking at things that went right and things that went wrong. From an installer's point of view, I reached on very definite conclusion. Manufactured housing is plenty strong when it's properly set up, and it's mighty week when it's not. All the engineering and inspection of the design and the construction by the people in the little white coats that crawl all over these things at the factory is a complete waste of time if this same manufacturer's instructions are not followed in the installation of the home. Our housing is an engineering dream. It produces a stronger home with less material than any other building code in the country. It's tested and certified to perform as it's supposed to. It's a very high tech structure and requires a very precise installation if it is to meet its performance criteria. Just the way you wrap the strap around the I-beam to anchor it makes a very big difference. The straps that were pulling from the bottom of the I-beam pried the lag bolts out of the floor of the structure like a claw hammer pulls a nail and the structure was missing.

Homes that did not have an adequate foundation under them, although they were standing before the storm crushed their blocks and blew away during the storm. Many anchors were ripped out of the ground because apparently many people felt that concrete poured around a coral anchor, which was placed into a hole in the coral, would hold. I am sure when you looked at the finished product, it seemed like it ought to hold. It was, after all, imbedded in concrete. It is contrary to the instructions of how you install a coral anchor, but it just seemed good enough, maybe better. I saw hundreds of coral anchors with balls of concrete around them laying on top of smashed homes. They popped out of the ground like corks.

Many homes did survive the big blow. They all received some damage, but at least the homeowner's possessions were kept in one spot. I saw hundreds of homes that were blown away, as well as the contents and there is absolutely no telling where it all went. It is just out there with the rest of the trash, somewhere within a mile probably

Please don't get the wrong impression about this. Our houses, nor anyone else's down there, was ever meant to stand the kind of winds that Andrew brought. But Andrew was 200 mph or more only in its center. The further you got away from the center, the less the wind was. A hundred and fifty miles away from the center of this storm, it wasn't even a very bad day, so while the homes in the eye of the storm obviously were doomed, homes about 35 miles away from the eye were within the structural tolerance mandated by the HUD code. These are the homes that should have survived. Even so, how can one know that a tornado didn't dip down suddenly and rip a path. It obviously did these things in other types of housing, and I am sure it did it in manufactured housing communities.

Well north of the storm, I saw a 450-unit community where one home, and one home only,

received any significant damage. It was located in the exact center of the community and it was totally destroyed. Most other people didn't even lose an awning. It was obviously the victim of a downburst or a tornado touched it. Many homes were destroyed by the flying debris from other homes, or billboards or trees or cars or trucks. Everything was in the air in south Florida. It's one thing to say our housing did no worse than anyone else's. Conversely, like all other forms of housing in Dade County, we could have also done a little better.

Right now, politician's and the press and the lawyers are having a feeding frenzy. In a few days it will be off the national news, and in a few weeks it will be off the local news in south Florida and things will calm down considerably. Let us not forget the lessons we have hopefully learned from this. Learn to read the manual and do what it says. Those engineers actually do know what they are talking about and it's our responsibility as installers to follow their directions. If you find you can't do that, call the engineer and ask him how he expects you to. Work out the problem with the factory. Do not invent your own solutions, for if we continue on with a business as usual attitude, this truly will have been an ill wind that blew nobody no good.