

Mitigating the Effects of Hurricanes in Florida: The Challenges of Upgrading Mobile Home Parks

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ABSTRACT

For the past four years, several universities have been involved in a multi-disciplinary study on how to mitigate the effects of hurricanes on residences in Florida, particularly mobile homes, which constitute a substantial portion of affordable housing in the state. The research has involved several academic disciplines, including engineering, construction, sociology, geography, landscape architecture, and architecture.

The purpose of this track was to analyze issues relative to the upgrading of mobile home communities. The team looked at existing mobile home parks in west central Florida that are economically marginal to assess the feasibility of their redevelopment into zoning-conforming lots that would be appropriate to other types of affordable housing. The intent was to identify potential impediments to the redevelopment of the parks as affordable single-family subdivisions. The work was to build on earlier studies that looked at the physical implications of re-platting existing mobile home parks.

The research focused primarily on west central Florida in the analysis of barriers to upgrading mobile home parks. Team members met with developers, real estate consultants who were familiar with issues related to developing and upgrading mobile home parks. The team also developed case studies on other mobile home communities, related to the issue of upgrading. The importance of this research was made obvious by the 2004 hurricane season, and which four major storms created significant damage to Florida's housing stock, particularly mobile homes.

1. BACKGROUND

Florida leads the nation in the number of mobile homes. Some 2 million residents of Florida, or about 12.5% of the total population, live in mobile homes. The Tampa Bay area, with more than 3 million people, has the heaviest concentration of mobile homes in the state. In many communities, it is the only form of affordable housing. The state does not have rules to keep mobile homes from being placed in high-danger areas: hurricane wind and flood zones in coastal communities.

The potential for damage to this housing stock from hurricane impact is real and of the utmost importance to Florida policy-makers, public officials and a host of stakeholders including, the residents, but also mobile home manufacturers, housing developers and builders as well as design and engineering professionals. The largest numbers of mobile homes are found West Central Florida.

In the Tampa Bay area's five counties — Hillsborough, Pinellas, Pasco, Polk and Manatee —there are more than 134,000 mobile homes. Polk County, crossed by three hurricanes in 2004, has the highest number of mobile homes of any county in the state: 38,748. Pinellas County ranks second, with 35,544. Pasco County ranks fourth with 20,742; Hillsborough County is fifth with 20,726; and Manatee sixth

with 18,805. Lee County is third with 26,802 mobile homes. Charlotte County officials expect to spend millions cleaning up the 12,000 mobile homes Charley destroyed or severely damaged. (Helgeson)

A report in November from the Florida Bureau of Mobile Home and RV Construction, which surveyed hurricane damage to mobile homes in 14 counties, says mobile homes built after 1994 stood up fairly well, though some suffered serious damage. Homes manufactured before 1994, however, were found to have sustained extensive damage. For instance, Charley destroyed 93 percent of the 140 mobile homes in Pine Acres mobile home park in Punta Gorda. Only seven of the homes in the park were built by 1994 standards. (Helgeson)

Any issue that affects such a large segment of the population becomes a very important one not only for the residents themselves, but also for state legislators, policy-makers and others. The demographics of mobile homes residents are quite different than those of the total population of the state. These characteristics include the following: Slightly more than 36% of the households consisted entirely of elderly persons (65 and older); an additional 49.1% of the households included members 65 years of age or older; about 15.4% of the population are widowers living alone. These are segments of the population that could be categorized as having *special needs* especially during emergencies.

There are three distinct generations of mobile homes based on their year of manufacture. Roughly these generations can be identified as: Pre-1976, 1976 to 1994, and Post-1994. The Pre-1976 units are those that were built when there were no manufacturing/design standards. Those of the 1976-1994 generation were built under HUD standards. Because of the dismal performance of mobile homes in Hurricane Andrew, new wind standards went into effect in the HUD Code in July 1994-- manufactured homes placed in high-risk hurricane areas now must be designed to withstand approximately 100 mile per-hour winds. The Post-1994 generation incorporates stricter design and manufacturing standards including wind load standards based on ASCE specifications.

Throughout the state of Florida, and particularly in the west central Florida region, there are significant numbers of older mobile homes in use today. Only about 14% of units in service have been built to the strictest wind standards while approximately 29% belong to the "no-standards" pre-1976 generation. This category of mobile home tends to be the most vulnerable under adverse weather conditions. A combination of factors-- age, sustained use, inability to be upgraded or renovated to comply with current codes and standards, substandard modifications-- contribute to unsafe and hazardous conditions. The fact that most of these structures were built under less stringent regulations, using construction methods that would be considered "outdated" today, suggests that many of these mobile homes should be retired from further use. Most of these mobile home structures are of the "singlewide" configuration and were installed on either leased or purchased lots. Invariably, these structures incorporated approximately 500 to 700 square feet of floor area in a rectangular unit, and occupied regular-shaped parcels - some with typical dimensions as small as 25 feet by 40 feet.

It is unlikely that the manufactured housing industry will implement significant new changes in the foreseeable future, to further minimize the risk of property loss and damage due to hurricanes or other severe weather conditions. While modest improvements have been made in enhancing the structural integrity of mobile homes over the last two decades, current trends in this type of construction appear to be focused on increased space, the inclusion of more amenity features and enhanced curb appeal or character. Newer mobile homes have become much more appealing and marketable to that segment of the general public that will consider this form of housing as a first choice, or as an alternative to conventional site-built houses. As the inventory of newer, mostly doublewide mobile homes are purchased and installed; there is an increasing supply of older ones that remain on the market and in continuous use.

In coastal areas, storm surges during hurricane events can be devastating to mobile homes. Floods can cause strong pressures on foundations or piers, and floating debris can cause further damage to

the exterior. Interior damage to the structure can be extensive. Some wind and flood damage can be avoided by proper installation, by raised installations using properly designed fill and/or posts, and by using tie-down. However, local building inspectors may be unfamiliar with the particular needs of manufactured houses. This may be especially true in small communities where inspectors do not specialize. Also, inspectors or inspection agencies may easily miss resold manufactured/mobile homes.

2. PROJECT

Because of the growth of the west central Florida, there is no lack of new residential developments at all but the very lowest economic level. These include manufactured home communities, several of which were visited by the research team. While the layout of mobile home parks is in general very tight, this is a factor of the affordability of manufactured houses, and appears to foster a positive sense of community among the residents as many observers have noted. These newer communities appear to be meeting the demand for HUD certified manufactured housing for newcomers or for those who can afford to move and have become aware of the deficit of the older, grandfathered parks and housing stock. Nevertheless, this older stock is serving a vital function in housing the poorest segment of the population.

Most mobile home parks resemble each other more than they differ. Generally the lots are configured for single unit homes and are closely spaced, with minimal side yards. Their roads are typically narrow, more along the lines of driveways [technically *easements*], and are minimally improved. Densities are as high as 50 units per acre. The typical mobile home dweller feels a degree of autonomy afforded by the freestanding home.

Individual sites in a licensed mobile home park are not legally described parcels. The entire mobile home park is a single parcel. Internal lot lines and setbacks in a community are features of landowner policy. Some local governments or similar entities of jurisdiction impose setback standards to effectively reduce the number of usable lots and consequently the number of homes in the community. "This practice discourages homeowners from upgrading and promotes sprawl." (Governor's Blue Ribbon)

Park owners that are trying to improve the distressed appearance of their parks are often hampered by the lack of available and affordable rehabilitated mobile home units. Therefore, the park needs to bring in upgraded older homes that are appropriate for the park and the incomes of the persons demanding this product. Older parks are further limited by lot dimensions that cannot accommodate the newer wider and generally larger units.

Manufactured home size trends mirror those in site-built homes; they are getting larger. Even in cases where new homes are only slightly larger, the original layout and existing setback allowances between homes and from homes to roadways make retrofitting older parks with new homes difficult or impossible. An option in this case could be to request a variance, but the granting of such a variance could cause concerns in terms of access for emergency vehicles (if roadways are infringed upon by the new homes) as well as represent a higher risk of fires spreading (if homes are located closer together).

Another possible option to adapt to larger homes would be to reduce the number of sites in the park. In addition to being logistically difficult (since neighboring sites would need to be vacant at the same time to implement such a strategy), this activity would tend to reduce the cash flows associated with ownership of the park. Though rents for larger sites will tend to be higher, it is unlikely that they could be increased sufficiently to compensate for the sites lost in the renovation (including the loss of use of electrical, water, and sewer infrastructure which was already in place to the removed sites). (*Taking Stock*)

A similar issue of concern is the number of single-wide manufactured homes that are being replaced by double-wide homes in mobile home parks. The industry claims the double-wide homes are more marketable, but from the perspective of the residents they can be seen as reducing the affordable housing options that the single-wide units provide.

In addition to the affordability issue, a preponderance of double-wide units can quickly change the character of a mobile home park by reducing available open space. Privacy is also affected by the reduced separation between units. The majority of the open space that is available on a mobile home lot is within a single side yard between two homes. While most lots within a park can accommodate a doublewide, the substitution comes at the expense of outdoor living areas (decks, patios, carports, etc) within these side-yard setbacks. The local codes require a minimum of fifteen feet of separation between homes and a minimum of ten feet between an adjacent home and an accessory structure. For the purpose of the mobile home regulations, accessory structures include decks, patios, carports, sheds, etc. In a majority of situations, a single-wide lot includes an outdoor deck within the side yard and also accommodates the required separation from the deck to the adjacent home within the same area. When a doublewide is placed on the same lot, the ability to have the outdoor living area or carport is sacrificed to meet the minimum separation requirements. (de Raismes)

The team developed the following case studies, relevant to the barriers in upgrading mobile home parks:

2.1. Yachthaven

Yachthaven Estates community area was developed as mobile home subdivision in unincorporated Pinellas County in the 1950s and through resident petition annexed into Largo in 1966 by referendum. There are currently a total of 73 lots that were created through metes-and-bounds lot splits and the dedication of additional right-of-way to access the lots. The area was originally platted as a two-phase, 34-lot single-family subdivision. Since its inception, the property has been developed with mobile homes. Residents discovered that they were in difficult position of being unable to replace their mobile homes (because they were in a flood zone) or construct site built houses (because lot sizes were too small). Thus the neighborhood was unable to upgrade the deteriorating mobile home stock.

“[A home owner] discovered, at the worst possible time, that she and the other residents in the Yachthaven Estates mobile home community are stuck in a web of city, state and federal regulations, unable to replace their homes even if they are damaged or destroyed by hazards. They can't replace them with mobile homes because their community is in a flood zone and coastal high hazard area, and because it is not legally described as a mobile home park. So when their old, 1950s-era, mobile homes deteriorate to the point of needing replacement the only option is to build houses on site. But other laws require site-built houses have to be on minimum lots of 5,808 square feet. Almost all the lots in Yachthaven are smaller than that. Some are half that size. Factor in required city setbacks of up to 20 feet, and that doesn't leave room for much of a house, even if a house were allowed. (Benham, “Neighborhood”)

In June 2003, the City Commission of Largo approved a neighborhood plan that made all the lots legal, creating an exception to city codes. Mobile homes are still not being allowed, but modular, wood, masonry or any other construction that meets Florida Building Codes is approved. The plan also would reduce the required front setback from 20 feet to 10 feet. The smaller lots (e.g., 40 ft. x 60 ft. and 45 ft. x 90 ft.) are allowed to redevelop in one of three ways:

- Individually as single-family residences following the same standards applied to the other lots;
- "Together" as two single-family attached (zero lot line) residences with a single-family appearance. Each unit must be maintained on as a separately deeded parcel capable of being independently owned and sold;

- Be combined into one lot (without requiring replat), allowing them to be returned to the same size as the other surrounding lots.
(*Yachthaven Estates Neighborhood Plan*)

2.2. Affordable Residential Communities

Affordable Residential Communities (ARC) is a Colorado-based company that buys distressed mobile home parks throughout the country, performs some upgrades, and manages the parks. It is one of the largest mobile home park owners in the country, with over 200 parks and 50,000 spaces.

In 1999, the company bought a mobile home park in Manhattan, Kansas. John Brown, ARC public relations official, "residents who own a 1982 manufactured home or older model, and want to sell their home, will have to make changes meeting the U.S. Department of Housing and Urban Development standards." Homes built prior to 1982 will be able to remain in Blue Valley," Brown said. "Should they decide to sell their older homes, they would have to be brought up to HUD 1976 standards." (Kistner)

The team met with David Prejean and Mike Proulx, from ARC, in June, and visited two of the company's mobile home parks in Broward County. In choosing a new community to invest in, ARC establishes a budget and evaluates the due diligence of the property. In most cases, old sewer systems are the most common factor that deters the company from investment in a park. The established budget is then used to improve the infrastructure, do extensive clean up and add amenities to the community.

3. FINDINGS

For most mobile home parks an upgrade in the housing stock to better resist hurricane force winds is the obvious needed change. Replacing older mobile homes, especially those manufactured prior to 1976, with newer post-1994 manufactured homes would be a desirable upgrade. Unfortunately the newer units are typically wider than older mobile homes they would replace. In consequence the team's initial exploration was to determine ways to re-plat existing parks to accommodate either the newer and larger (wider) manufacture housing units or perhaps even site-built housing.

Typically, the oldest and most decrepit mobile homes are occupied by the least advantaged members of society. The occupants cannot afford to pay for the newer, better and safer units. To the extent that the mobile home market operates like the automotive market it accommodates all comers – but the fundamental notion of upgrading mobile home parks by re-platting and installing newer and larger manufactured homes contains a fallacy: the poorest segment of the existing mobile home parks will be squeezed out, and will be left homeless. Also, manufactured units that would fit on many existing lots are available, but typically are not promoted by the industry, according to some sources, which prefers to sell double-wide units.

Land-tenure must be addressed, since the incremental increase in value of the homes is in fact typically tied up in the increase in value of the land, which the land-tenant doesn't benefit from. Where parks are failing or have failed the change of land ownership should be pursued both for humanitarian reasons and for the benefit of the larger community. Education has been given insufficient attention, but must be linked to the land-tenure conclusion. It is clear that most owners of mobile homes simply do not understand the economics underlying their ownership and how this really affects them. Studies point to the fact that capital growth associated with mobile homes inheres in the land they are located on. An educational program must address not only hurricane safety but also the larger issues of mobile home ownership or occupancy.

As Florida's cities expand, mobile home parks that were once on the periphery have been engulfed. Many of these parks have been or are being redeveloped, though typically as apartment buildings and at rents the former occupants cannot afford. Outside of metropolitan areas the pressure to re-develop may be non-existent, as the state has an ample supply of existing and current single-family developments. People living in mobile homes are a growing segment of the population among the lower economic sectors of society. Manufactured homes already represent an important portion of the housing stock in Florida. From the research findings disclosed before it can be seen that upgrading of mobile home parks is very difficult and nearly impossible without special zoning considerations, except when they are dedicated to other uses such as apartment units and others. Apartment living is unacceptable to many people who now live in mobile homes. The result of these barriers is that many of the less privileged members of society live in the older generation of mobile homes, those that are the most vulnerable to hurricane impacts. It is apparent that policy is needed that will facilitate the upgrading of mobile homes and communities in order to reduce the potential for damage from hurricanes.

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