

A weather map showing a hurricane system with a color-coded intensity scale. The colors range from green (weaker) to yellow, orange, and red (stronger), with a small white eye visible in the center of the storm. The map covers the eastern United States and the Atlantic Ocean.

# Florida Housing Coalition Hurricane Member Update Webinar

August 28, 2020  
Sponsored by Fannie Mae

# AGENDA

- Hurricane Preparedness and Recovery in Manufactured Home Communities



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THE FLORIDA HOUSING COALITION



# Hurricane Preparedness and Recovery in Manufactured Home Communities

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Upcoming  
Training

**September 11 Hurricane  
Member Update  
Disaster Housing  
Mitigation in Miami**

<https://attendee.gotowebinar.com/register/2830944878400736269>



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AUGUST 31 - SEPTEMBER 2, 2020 | ONLINE

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# Thank you!



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# Manufactured Housing

Mitigation and Post Event Recovery from  
Hurricanes





# Russell S. Watson

Federation of Manufactured Home Owners of Florida  
District 4 President

National Manufactured Home Owners of America  
Board of Directors – Member at Large

HUD Manufactured Housing Consensus Committee  
Member



# A Brief History



Tin Can Tourists circa 1931



# Worker Housing World War Two



# Camping Trailer in Tampa MH Park 1958





# Singlewides





# Older Singlewide Homes in a Land-lease Park



Photo – Russell Watson





# Modern Singlewide MH Park



Photo – Russell Watson





# Modern Mixed Single and Doublewide Park





# Manufactured Homes in a Land-Lease Park



# Top Tier Resort Community



Photo – Russell Watson





# MH on Private Land



Photo – Russell Watson



# New Singlewide Ready for Delivery





# Modern Doublewide Onsite Installation



Photo – Russell Watson



# Sections Come Together



Photo – Russell Watson





# Today's Manufactured Home



Photo – Russell Watson



# Regulation Relative to Construction and Mitigation

## **Department of Housing and Urban Development (HUD)**

24CFR 3280 – 3288

Governs manufacture and installation minimum standards

## **Florida State Department of Highway Safety and Motor Vehicles (FLHSMV)**

Title XXIII Chapter 320

Governs installation, Repair, and Remodeling

## **Florida Hurricane Loss Mitigation Program**

Title XIV Chapter 215

The Tie Down program and others.





# HUD CODE

## **Manufactured Home Construction and Safety Standards**

This standard covers all equipment and installations in the design, construction, transportation, fire safety, plumbing, heat-producing and electrical systems of manufactured homes which are designed to be used as dwelling units.

What is a Manufactured Home?

*Manufactured home* means a structure, transportable in one or more sections, which in the traveling mode is 8 body feet or more in width or 40 body feet or more in length or which when erected on-site is 320 or more square feet, and which is built on a permanent chassis and designed to be used as a dwelling with or without a permanent foundation when connected to the required utilities, and includes the plumbing, heating, air-conditioning, and electrical systems contained in the structure.



# Significant Dates

June 15, 1976

Homes built after this date, which meet the HUD Code, receive a certification label and are termed “Manufactured Homes” These homes were built for sustained winds of 70 mph. This is approximately equivalent to peak gusts of 85 mph.

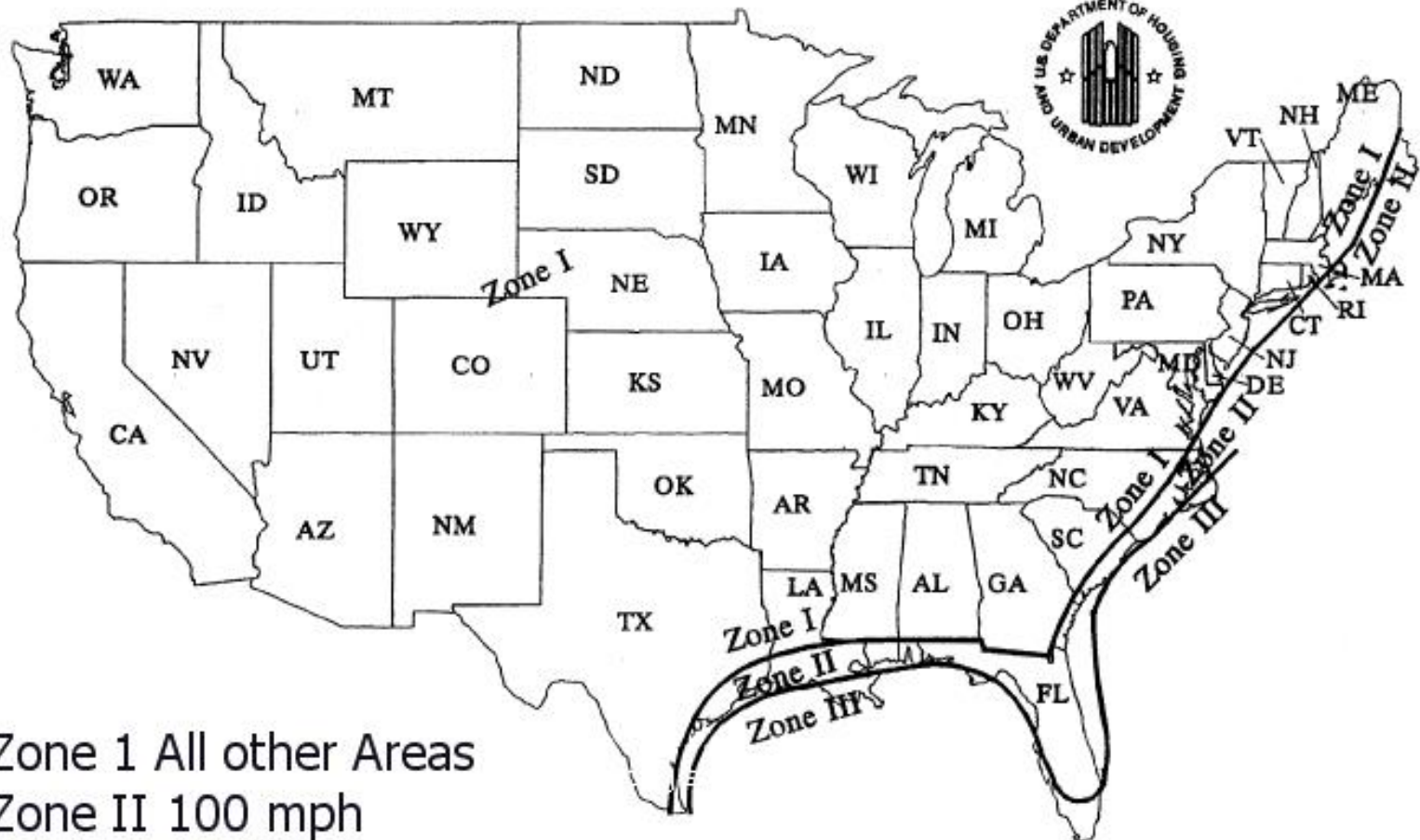
Homes built before this date are not built to HUD Code and are commonly called Mobile Homes

July 13, 1994

Data collected about Hurricane Andrew's effect on manufactured housing in Louisiana and Florida prompted HUD wind safety studies on nail connections, wind load, anchoring systems, and joints. Homes built after this date are designed for greater wind loads. Wind zones were established and homes must meet the zone requirements to be sold there.



# Basic Wind Zone Map for Manufactured Housing



Zone I All other Areas  
Zone II 100 mph  
Zone III 110 mph



# Florida Definitions

## FS 320

“Manufactured home” means a mobile home fabricated on or after June 15, 1976, in an offsite manufacturing facility for installation or assembly at the building site, with each section bearing a seal certifying that it is built in compliance with the federal Manufactured Home Construction and Safety Standard Act.

The “travel trailer,” which is a vehicular portable unit, mounted on wheels, of such a size or weight as not to require special highway movement permits when drawn by a motorized vehicle. It is primarily designed and constructed to provide temporary living quarters for recreational, camping, or travel use. It has a body width of no more than 8 1/2 feet and an overall body length of no more than 40 feet when factory-equipped for the road.

## FS 723:

Mobile home” means a residential structure, transportable in one or more sections, which is 8 body feet or more in width, over 35 body feet in length with the hitch, built on an integral chassis, designed to be used as a dwelling when connected to the required utilities, and not originally sold as a recreational vehicle, and includes the plumbing, heating, air-conditioning, and electrical systems contained therein.





# Dadeland Mobile Home Park after Andrew



NOAA Photo Library / Public domain





# Parks can close following extensive hurricane damage





# Flooding



FEMA Leo 'Jace' Anderson



# Insurance

Hurricane Andrew wiped out most insurers of mobile homes. The state of Florida established two associations and a fund in response:

Florida Residential Property and Casualty Joint Underwriting Association (RPCJUA)

Florida Windstorm Underwriting Association (FWUA)

The Florida Hurricane Catastrophe Fund

2002 – RPCJUA & FWUA merged to create Citizens Property Insurance Corp. (Citizens)

2020 – 198 companies listed as providing Mobile Home Physical Damage insurance

Key years to insurers

1976

1994

1999

Other issues:

Add on structures such as carports and screen porches not covered





# Damage

## Most Common:

Carports and Screen Porches

Impact damage from Debris

Missing Shingles/Water intrusion

## More severe:

Major Roof and Structural from carport failure

Falling Trees

Rollover or displacement from foundation – pre 1999



# Carport Damage – Hurricane Irma



Photo – Russell Watson





# Damaged Screen Porch



Photo – Russell Watson





# Wind Swept Debris



Photo – Russell Watson



# Fallen Tree



Picture – Russell Watson





# Carport Gone – Roof Severely Damaged



Storm Ready Services

The carport rolled back almost the entire length of the home. As the panels tore away, the gaps left by torn away panels, allowed the wind to undermine the roof and begin to tear away from the front porch all the way back to the shed.



# Overtured – No Tie Downs!



# Mitigation

“the process or result of making something less severe, dangerous, painful, harsh, or damaging” Merriam- Webster

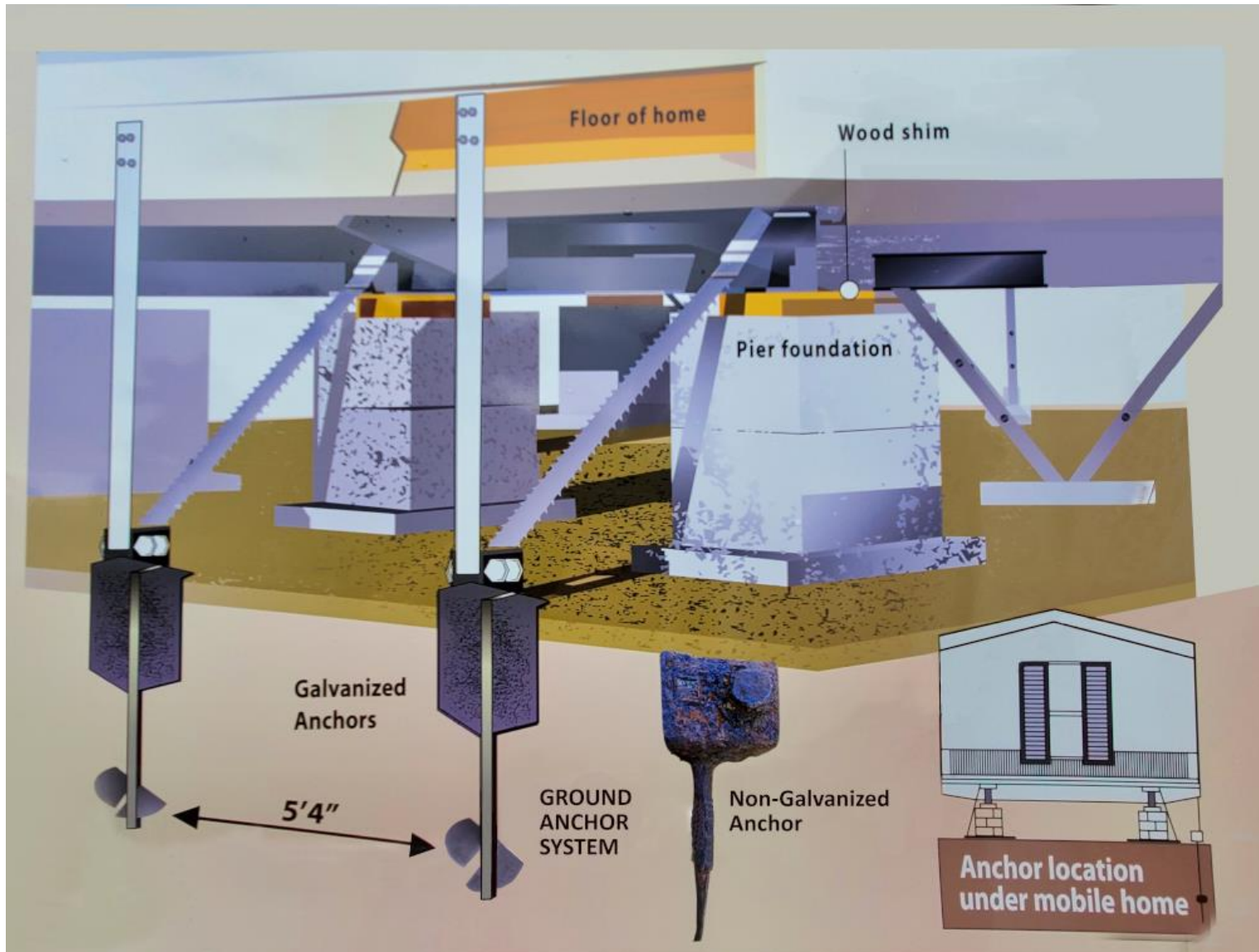
What can be done to reduce losses to mobile and manufactured homes?

- Update/Replace Anchoring
- Strengthen Carport/Porch
- Install Hurricane Shutters or
- Replace Windows with Impact Glass
- Roof Update/Upgrade
- Storm cut nearby trees
- Home Replacement





# Anchoring System for Manufactured Homes



# Carport Upgraded to Mitigate Wind Damage



Photo – Russell Watson





# Basic Hurricane Shutters



Photo – Russell Watson



# Impact Glass Replacement Windows



Photo – Russell Watson





# Worn Out Roof with Wind Damage



FEMA

Can result in water damage and mold





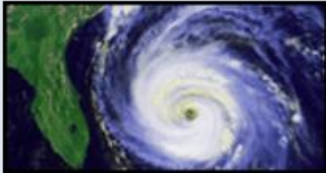
# Large Trees can be Storm Trimmed



Picture – Russell Watson



# Current Mobile/Manufactured Home Mitigation Programs



## Florida Hurricane Catastrophe Fund

A state trust fund formed (FS 215.555) following Hurricane Andrew to provide a stable and ongoing source of reimbursement to insurers. It is funded by insurance companies operating within the state.

The FHCF fulfills its statutory mission by providing reliable, dependable, and predictable coverage that is limited to genuinely catastrophic losses, and by striving to assure that reimbursements are paid promptly and in sufficient amounts



# Hurricane Loss Mitigation Program

In 1999, the legislature passed the Bill Williams Residential Safety and Preparedness Act which created the Hurricane Loss Mitigation Program, FS 215.559.

\$10 million appropriated annually from the Florida Hurricane Catastrophe Fund

\$3 Million goes to retrofit existing facilities used as public hurricane shelters.

\$7 million is used for programs to improve the wind resistance of residences and mobile homes, including loans, subsidies, grants, demonstration projects, and direct assistance; educating persons concerning the Florida Building Code cooperative programs with local governments and the Federal Government; and other efforts to prevent or reduce losses or reduce the cost of rebuilding after a disaster. Forty percent of this section's total appropriation shall be used to inspect and improve tie-downs for mobile homes. (2.8m) Ten percent shall be allocated to the Florida International University center dedicated to hurricane research. (.7m) The remainder is used for grants.





# Mobile Home Tie Down Program

Administered by Tallahassee Community College

The program has served 278 MH Parks totaling 44,541 homes since 1999. Vendor contracts have totaled \$48,179,860. In 2017 the program added an individual home component and has service 413 homes totaling \$652,099.

Current backlog is 153 parks and 121 individuals on the waiting list. Many more would be eligible under an expansion to include homes with stucco or other non-removable skirting. With an estimated 5 yr. wait they are no longer accepting applications. Originally entire parks were done under each application. In 2017 the program began allowing individuals to apply. Homes must be built in 1999 or prior years.



# Rusted and Broken Anchor





# Anchors



Photo – Russell Watson





# New Home Anchor Installation



Photo – Russell Watson



# Manufactured Housing and Mobile Home Mitigation and Enhancement Program 2006

SB1980 established the Florida Comprehensive Hurricane Damage Mitigation Program. (FS215.5586) \$250 Million was transferred from the General Fund to the Department of Financial Services to fund the program. Also created was the Manufactured Housing and Mobile Home Mitigation and Enhancement Program. (FS215.559 (3)(b)1. The initial appropriation for mobile homes was 7.5 million to come from the \$250 Million. The mitigation included problems associated with weakened trusses, studs, and other structural components; site-built additions; or tie-down systems.



## 2007

The main program was renamed to the My Safe Florida Home Program. It continued to offer free home-retrofit inspections of site-built, single-family, residential property. Financial grants were used to encourage single-family, site-built, owner-occupied, residential property owners to retrofit their properties to make them less vulnerable to hurricane damage. Governor Christ used a line item veto to remove \$15 million which was appropriated for the Manufactured Housing and Mobile Home Mitigation and enhancement Program.





# Other Mitigation

## CDBG-MIT

The State of Florida was allocated \$633 million by HUD under this program administered by the Florida Department of Economic Opportunity. (DOE) Input to the state action plan recommending a small amount of these funds be used for mobile/manufactured housing (MH), was provided but the final allocations do not include any money for housing mitigation.

## FEMA Hazard Mitigation Grant Program

Pre-Disaster Mitigation (PDM) Grant  
Building Resilient Infrastructure and Communities (BRIC)  
Hazard Mitigation Grant Program (HMGP)

None of these appear applicable to MH Housing



# Recovery

## Division of Emergency Management

FEMA Individual Assistance Grant Program

FEMA Public Assistance Grant Program

Hurricane Michael State Grant

## Florida Housing Finance Corporation

Hurricane Michael Recovery Loan Program

Hurricane Housing Recovery Program

Rental Recovery Loan Program (Hurricane Michael)

## Department of Economic Opportunity – Office of Disaster Recovery

Rebuild Florida Programs

Michael

Irma

Hermine & Mathew



# REBUILD FLORIDA HOUSING REPAIR & REPLACEMENT PROGRAM

Mobile/Manufactured Housing Units (MHUs) may be eligible for repair under this program. However, to be cost effective, the MHU to be rehabilitated must be no more than five years old at the time of assistance and the repair costs necessary to rehabilitate the MHU must not exceed \$15,000 (hard and soft construction costs). Any MHU that is older than five years or has an estimated repair cost greater than \$15,000 will require the MHU to be replaced with another MHU.





## Hurricane Irma Timeline

- September 2017: Hurricane Irma made landfall in Florida
- November 2017: HUD announced Florida will receive approximately \$616 million to support long-term recovery for Hurricane Irma.
- February 2018: HUD released guidance that must be followed by state and local governments to access the funding and describe which counties will receive the majority (80%) of the funding.
- May 2018: DEO finalized the action plan and submitted to HUD.
- June 2018: HUD approved the State of Florida Action Plan For Disaster Recovery.
- September 2018: DEO launched registration for the Rebuild Florida Housing Repair and Replacement Program
- June 20, 2019: DEO, through an agreement with the Florida Housing Finance Corporation, launched the Rebuild Florida Affordable Workforce Housing Construction Program.



# Mobile & Manufactured Home Rebuilding Code

Department of Highway Safety and Motor Vehicles  
Division of Motor Vehicles

Mobile Homes Governed by Rule 15-2.0081

(c) Repair or remodeling of a mobile/manufactured home shall require the use of material and design equivalent to the original construction. Structure shall include, but not be limited to, roof system, walls, floor system, windows and exterior doors of the mobile/manufactured home.

(2) Electrical repair and replacements shall require the use of material and design equivalent to the original construction.

(3) Plumbing repairs and replacements shall require the use of material and design equivalent to the original construction.



# General Considerations

## Mitigation/Repair/Replacement of Mobile/Manufactured Homes:

### Year Built:

Prior to 1976

1976 – 1994

1994/1999 – present

### Return on investment:

Home value vs. award

Future resiliency after repair

Park owner changes land use.





# Mitigation is Our Best Current Approach

Programs are already in place

- Hurricane Loss Mitigation Program (Tie Downs)
- Manufactured Housing and Mobile Home Mitigation and Enhancement Program

Reduces the likelihood of damage or lowers the severity of damage  
Can address thousands of homes annually

## Current Data is Needed

Current inventory by year of manufacture

Geographic distribution

Associated income levels

Primary vs secondary residence

Owned vs. rented

Private land, leased land, co-op or other

Damage assessments from recent hurricanes



# Thanks!

Federation of Manufactured Home Owners of Florida

Jerry Durham

Storm Ready Services

Rob Boulware

Tallahassee Community College

Jennifer Shaw & Amy Bradbury

Department of Economic Opportunity, Office of Disaster Recovery

Drew Winters and Trip Farmer

Division of Emergency Management, Mitigation Bureau

Miles Anderson and Brianna Beynart

Florida Housing Coalition:

Gladys Cook, Michael Chaney, Kody Glaser, and Jaime Ross



## **International Hurricane Research Center Reports and Data**

<http://www.ihrc.fiu.edu/research/project-articles/hlmp-year-01/>

<http://www.ihrc.fiu.edu/research/project-articles/hlmp-year-02/>

<http://www.ihrc.fiu.edu/research/project-articles/hlmp-year-03/>

<http://www.ihrc.fiu.edu/research/project-articles/hlmp-year-04/>

<http://www.ihrc.fiu.edu/research/project-articles/hlmp-year-05/>

## **Manufactured Housing Advocates**

[Federation of Manufactured Homes of Florida](#)

[FMO District 4 Learning Center](#)

[Florida Manufactured Housing Association](#)

[Florida Manufactured Home Living](#)

## **Programs**

[Tallahassee Community College Mobile Home Tie Down Program](#)

[Rebuild Florida](#)

[Florida Housing Finance Corporation – Disaster Relief Resources and Information](#)