



Stronger than the Wind: *Building Better, Being Resilient*



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Stronger than the Wind: *Building Better, Being Resilient*

 National Hurricane Conference
New Orleans, LA

Rob Galbraith, CPCU, CLU, ChFC
Director, Property Underwriting
Property & Casualty Company

April 20, 2017

Our Mission

The mission of the association is to facilitate the financial security of its members, associates, and their families through provision of a full range of highly competitive financial products and services; in so doing, USAA seeks to be the provider of choice for the military community.

Our Core Values

Service ◆ Loyalty ◆ Honesty ◆ Integrity

Our Brand Promise

GOING ABOVE

FOR THOSE WHO HAVE GONE BEYOND

Our Brand Pillars



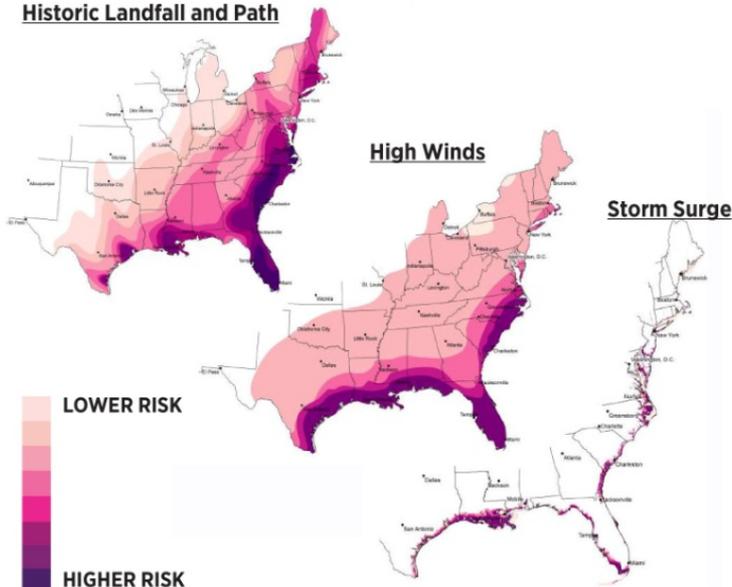
Shared
Military
Values

Financial
Strength
& Wisdom

Passionate
Member
Advocacy

HURRICANE RISK for the contiguous United States

Historic Landfall and Path



This map portrays a general representation of risk associated with high winds and storm surge. They are not intended to predict a special event or occurrence. Source: National Hurricane Center (NHC), nhc.noaa.gov

Resources To Help Prepare for Disaster



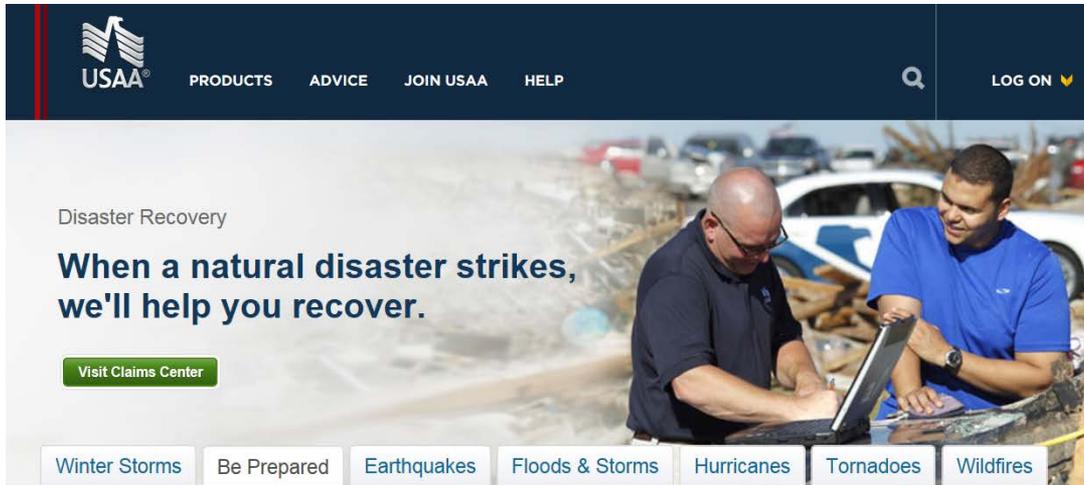
USAA[®] PRODUCTS ADVICE JOIN USAA HELP  LOG ON 

Disaster Recovery

When a natural disaster strikes, we'll help you recover.

[Visit Claims Center](#)

[Winter Storms](#) [Be Prepared](#) [Earthquakes](#) [Floods & Storms](#) [Hurricanes](#) [Tornadoes](#) [Wildfires](#)



Protect Your Home: A Month-by-Month Guide

With the right preparation and maintenance, you can help protect your home year-round from fire, floods, high winds and other potential disasters.

[Learn More](#)

More Disaster Preparedness Resources

[Make Evacuation Less Stressful](#)

[Why Flood Insurance Is a Wise Homeowner Bet](#)

[4 Steps to Prepare Financially for a Disaster](#)

[Top Considerations for Military Families](#)

[Questions to Ask When Renting Your New Home](#)

Prep Your Finances



Deductibles

Coverage limits

Policy exclusions

Emergency fund

Secure storage of records

Home inventory

Promoting Resilience



IBHS FORTIFIED



“Getting the Roof Right”



Education & Advocacy

There When You Need Us



Contact us for:

Information

Advice

Interviews

For more information, contact Rob at:

**rob.galbraith@usaa.com
(210) 913-5275**

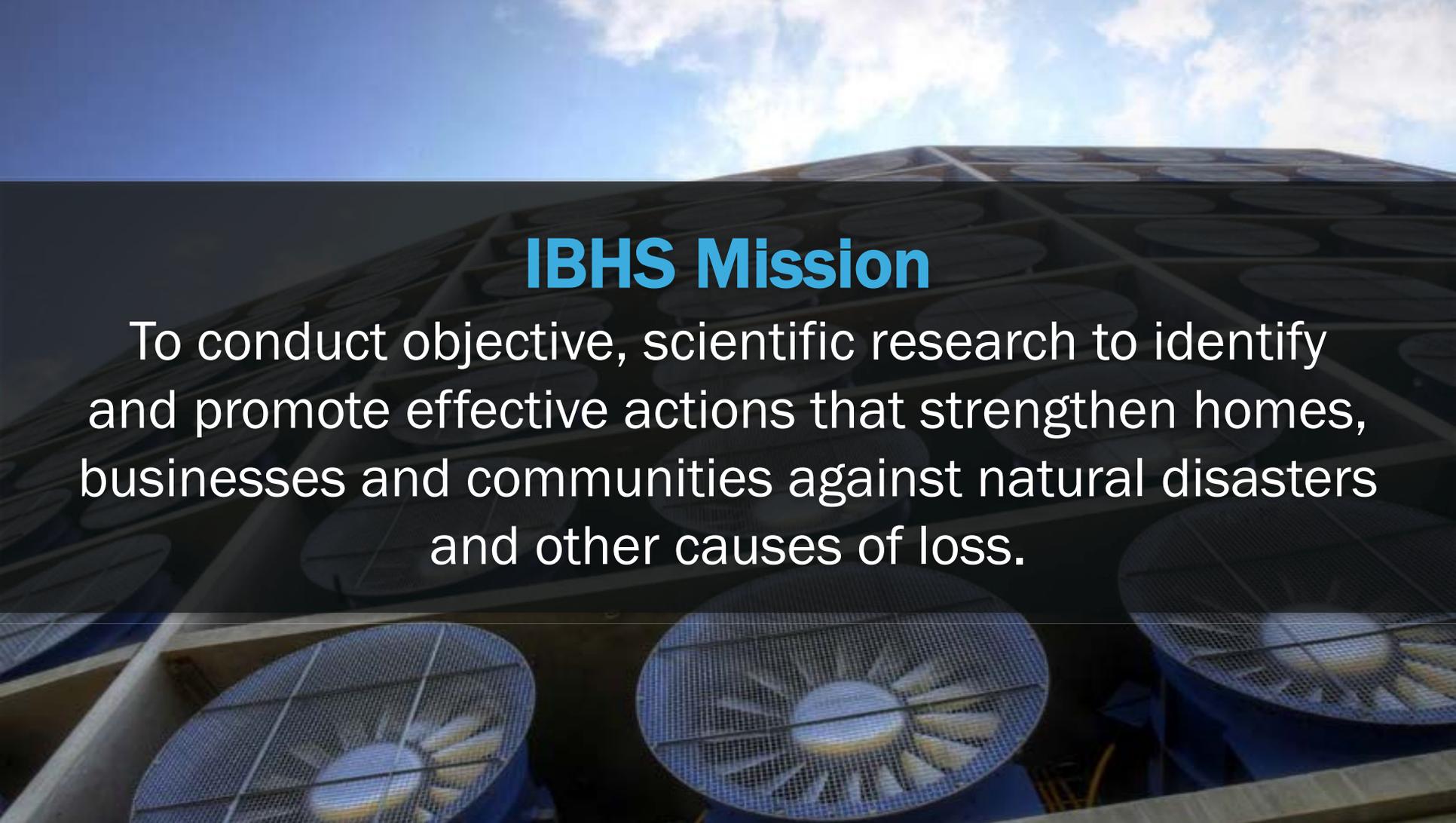


FORTIFIED Home

National Hurricane Conference

April 20, 2017

Alex Cary



IBHS Mission

To conduct objective, scientific research to identify and promote effective actions that strengthen homes, businesses and communities against natural disasters and other causes of loss.

WIND



WILDFIRE



HAIL



RAIN



The Challenges for Resilience...

Consumers don't understand their risk

Need to Change Attitudes/Preferences

- Consumers value what they can see more than what they cannot.
- Consumers need an objective way to compare alternatives.

Consumers make purchasing decisions with incomplete information.

What is FORTIFIED?

3 DESIGNATION LEVELS



<https://player.vimeo.com/video/112705020>

What is FORTIFIED?



Hurricane



High Wind/High Wind & Hail



Roof and Attic Ventilation System

Roof System*

*Class 3 or 4 Impact Rating for HWH



Openings, Gables and Attached Structures

Gables, Porches, Carports and Chimneys



Structure (Continuous Load Path) and Chimney

Garage Doors and Structure (CLP)

Location and Design Wind Speed are key determining factors in deciding which standard(s) apply.

Why FORTIFIED?

Consistent

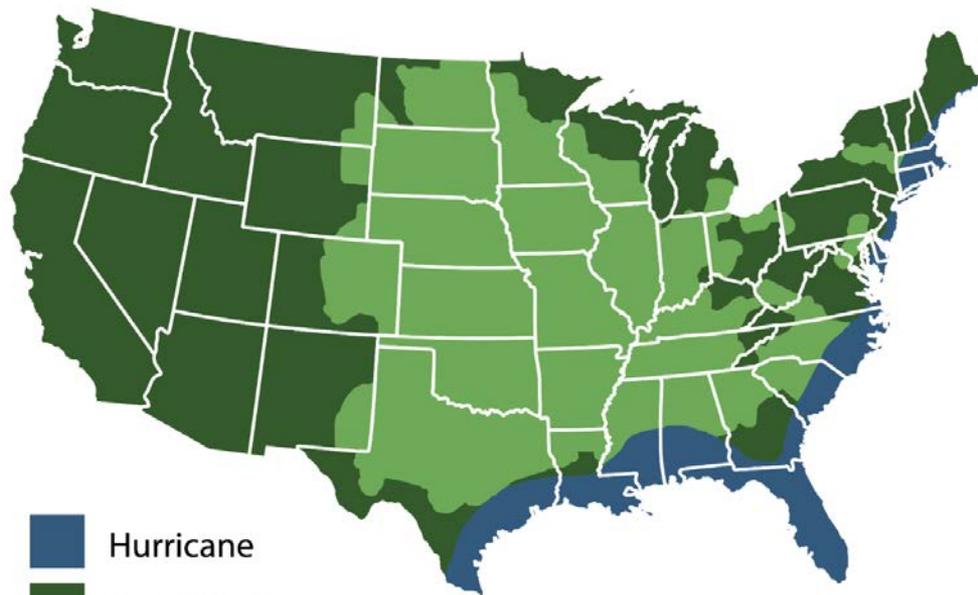
Definable

Verifiable

Systems Based



FORTIFIED Risk Map



-  Hurricane
-  High Wind (Minimum required in all areas that are not Hurricane)
-  High Wind & Hail (Recommended in these areas)

© Insurance Institute for Business & Home Saf



Which home would you want?



https://www.youtube.com/watch?v=JMOgmDfVR_I

Which home would you want to....

Live in...

Live next to ...

Sell or Buy ...

Insure ...

Sealed Roof Deck Demonstration



Sealed Roof Deck Demonstration



Sealed roof deck
damage estimate

\$5,408^{.59}

Unsealed roof deck
damage estimate

\$16,935^{.23}

Reduce Stress

“Repairs and/or reconstruction can be a long haul, and a challenging process to endure, so reducing the stress of your temporary living situation is critical.

If a family of 4 or 5 is crammed into a 2 bedroom apartment for 18 months when they are accustomed to living in a 5 bedroom home, that's an important factor to consider.”

—JM, 2007 Witch Creek Fire Survivor

A yellow house with a damaged roof during a storm. The roof is missing shingles in several places, and the sky is dark and stormy. The house has a white door and two windows. A wooden ramp leads to the door. The house is on a concrete foundation.

The difference

\$500

can make.

Why FORTIFIED?



If we get the roof right, we can
reduce potential losses by as
much as 50%

© Insurance Institute for Business & Home Safety



FORTIFIED vs. Traditional Construction

Traditional

Focus: Life safety with limited property protection

In Design Level Event:
Building survives well enough to save lives



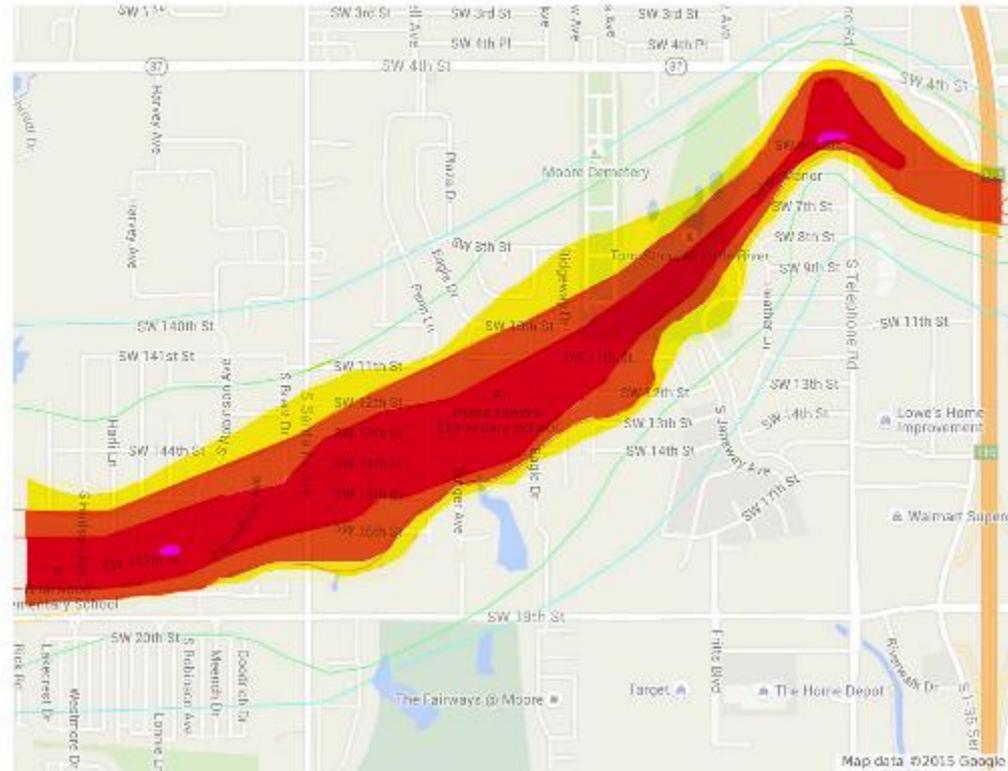
FORTIFIED

Focus: Life safety plus hazard-specific property protection

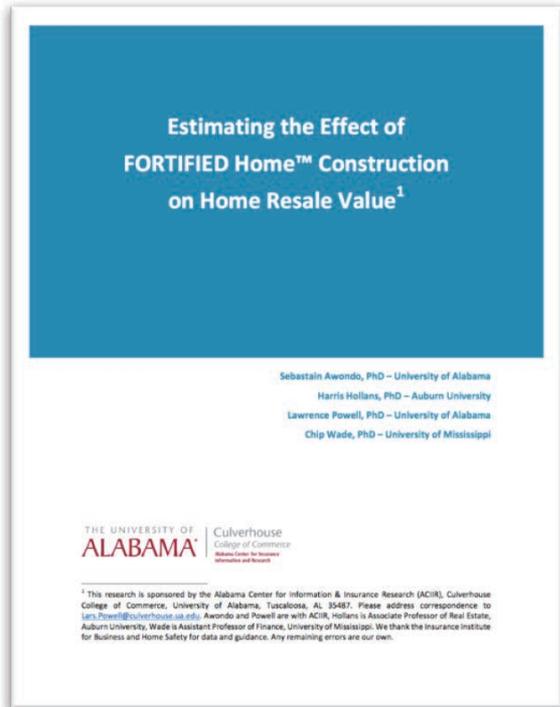
In Design Level Event:
Building survives event and will quickly be re-useable

Narrowing the Path, Reducing Damage

May 20, 2013 Newcastle-South OKC-Moore EF-5 Tornado



FORTIFIED Home™ Impacts Resale Values



“Results show that switching from a conventional construction standard to a Fortified designation increases the value of a home by nearly 7% holding all other variables constant.”

http://aciir.culverhouse.ua.edu/wp-content/uploads/2016/08/FORTIFIEDReport_V2-2.pdf



FORTIFIED Homeowner

There was almost a million dollars of damage in this area during this event last spring, and we had zero damage.

Howard S.



FORTIFIED Testimonials

You're paying an extra percentage to protect your software, your computer, your car... why not do it with your home?



Maureen F.

Homeowner

Building a home that's FORTIFIED raises the standard throughout the entire community.

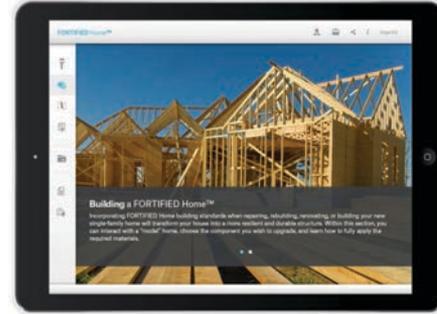


Mike H.

FORTIFIED Contractor

Learn More

Download the
FORTIFIED Home™
On the Go App for iPad



Visit www.FortifiedHome.org

Questions?

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SMART HOME AMERICA

Reduce the Loss and Cost of Disaster

Julie Shiyou-Woodard

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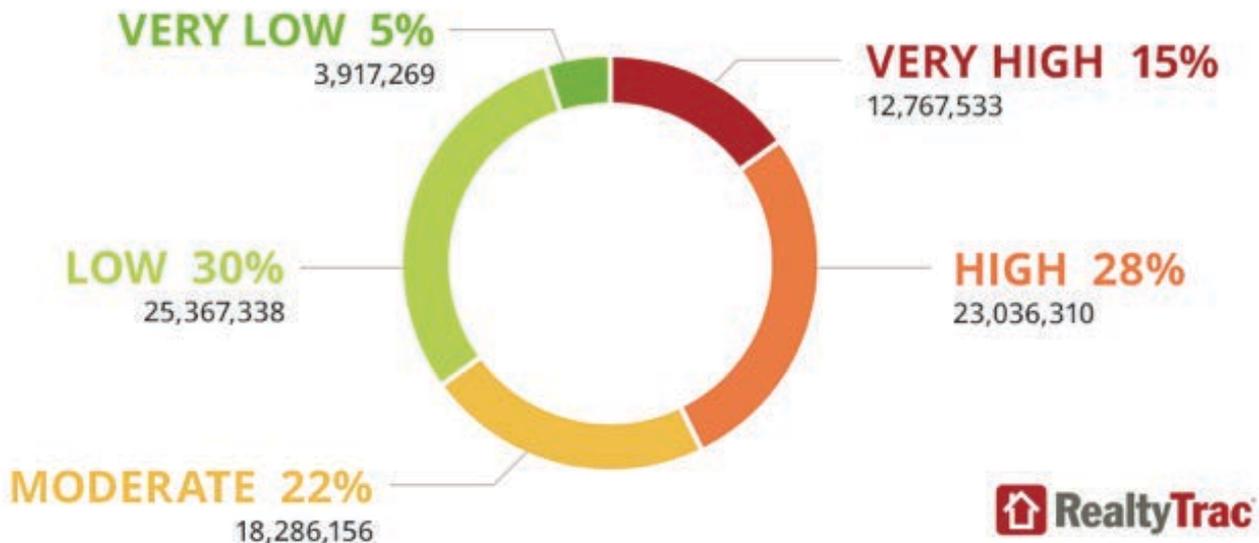
@BuildResilient

Informed Decisions Make a Smart Home





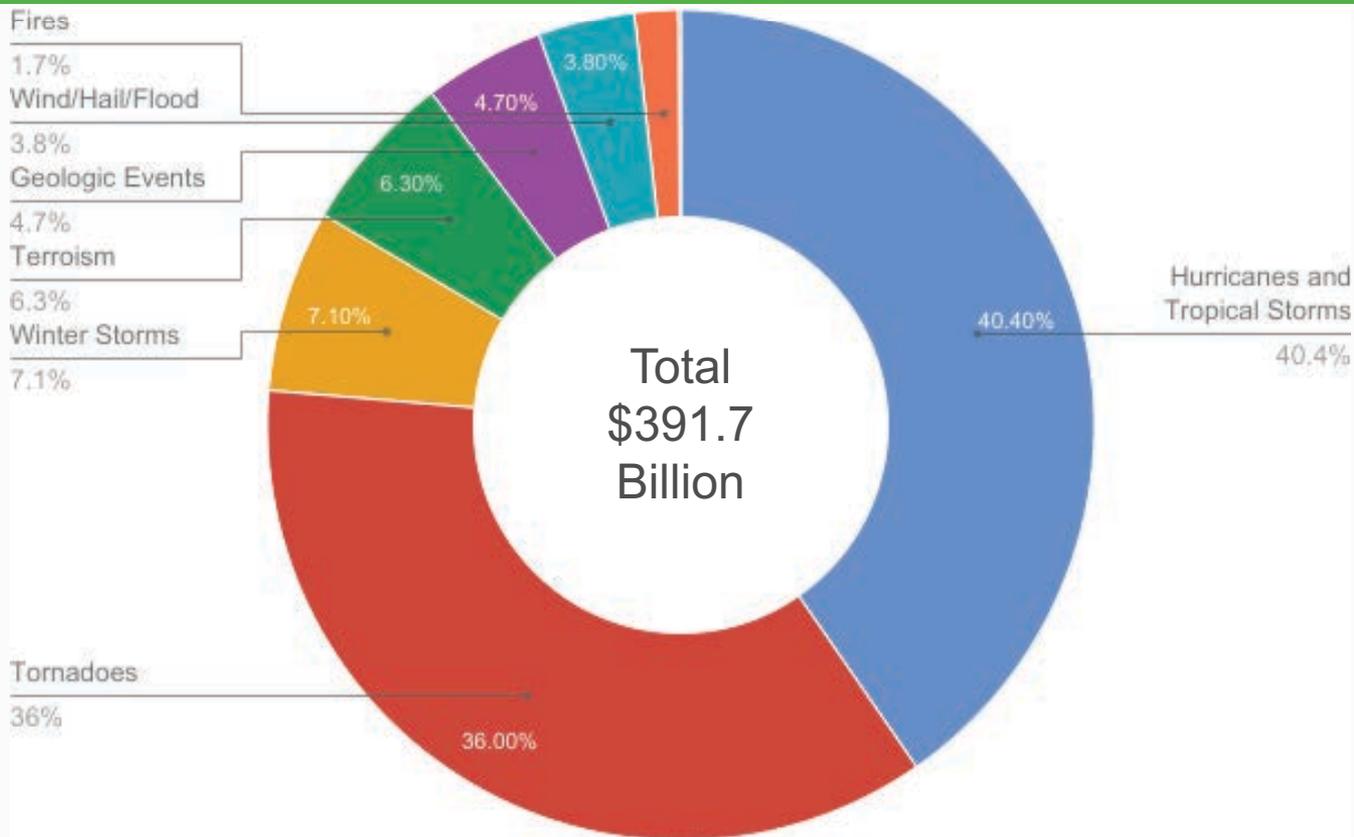
U.S. Homes by Natural Disaster Risk Level



Source: RealtyTrac September 2015.



U.S Insured Catastrophe Losses by Cause, 1995-2014





Who we work with

Elected Officials

Building Officials

Consumers

Building Inspectors

Insurers

Realtors

Builders & Contractors

Appraisers

Manufacturers & Suppliers

Emergency Managers

Architects & Engineers

Academics



**SMART HOME
AMERICA**

TOP 20 FORTIFIED™ CITIES IN AMERICA

National Rank	State	City	FORTIFIED™ Homes
1	AL	Fairhope	542
2	AL	Daphne	401
3	AL	Mobile	306
4	AL	Foley	274
5	AL	Gulf Shores	267
6	AL	Spanish Fort	255
7	AL	Semmes	132
8	MS	Gulfport	122
9	AL	Orange Beach	116
10	MS	Ocean Springs	114
11	MS	Biloxi	98
12	FL	Panama City Beach	87
13	SC	Myrtle Beach	74
14	AL	Theodore	67
15	AL	Saraland	62
16	MS	Long Beach	52
17	AL	Loxley	50
18	MS	Pass Christian	47
19	AL	Summerdale	39
20	TX	Galveston	33

Resources

INFORMED DECISIONS MAKE A SMART HOME

Helping communities and consumers build stronger, save money and live confidently.

[LEARN MORE](#)

For Homeowners



The Building Industry



For Insurers



For Realtors



Information for [Lawmakers](#)

Don't GOOF When You Re-Roof®

An initiative of  SMART HOME AMERICA



www.DontGoof.org

@DontGoof | #DontGoof

IBHS Roof Farm





FORTIFIED Wise Certification

FORTIFIED WISE TRAINING
GAIN THE FORTIFIED ADVANTAGE

The FORTIFIED Wise™ Associate and Professional demonstrates a solid understanding of FORTIFIED Home™ building principles, construction practices and verification requirements. It's ideal for contractors, product manufacturers, building officials, insurance professionals, students, real estate professionals, or anyone who wants to increase their knowledge of FORTIFIED Home™ and IBHS.

WHEN
August 11, 2016 (8:30 a.m. - 5:00 p.m.)

WHERE
Home Builders Association of Greater Tulsa
11545 East 43rd St.
Tulsa, OK 74146

COST
In-Person Training Class & Exam:
• \$275 (Associate)
• \$375 (Professional)
• **After July 29 (5 p.m. EST)**
\$300 (Associate)
\$400 (Professional)
No registrations accepted after August 4 (5 p.m. EST).

Professional candidates must have a current license or certification in a related field. See registration website for more details.

Fee includes the cost of the class, lunch, the FORTIFIED Wise Manual, the FORTIFIED Wise exam (minimum score to pass exam is 85%), and listing in the FORTIFIED Wise Directory.

For more information and to register, please visit fortified.archtest.com

THE FORTIFIED WISE COURSE IS APPROVED FOR

CE CREDITS

SPONSORED BY

Tulsa Partners
Huber

SPACE IS LIMITED For questions about registration, contact Karen Yetter at Architectural Testing: 717-764-7700 (ext. 3735) or kyetter@archtest.com

FORTIFIED HOME™: THE NATIONAL STANDARD FOR RESILIENT CONSTRUCTION

Available in several states:

- Alabama, Mississippi, Oklahoma and the Carolinas

CEUs

- ICC
- AIA
- Departments of Insurance
- Associations of Realtors®

Fee includes the cost of the class, lunch, the FORTIFIED Wise Manual and listing in the FORTIFIED Wise Directory.

For more information and to register, please visit

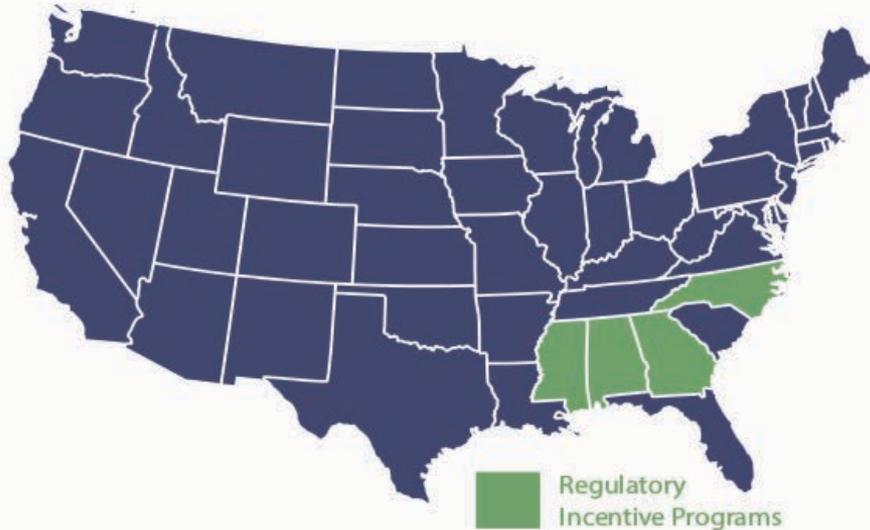
www.fortified.archtest.com

**How does Alabama
lead in FORTIFIED
construction?**





Alabama and FORTIFIED



- Alabama is one of four states to offer smart financing solutions for FORTIFIED
- FORTIFIED is attracting new insurers
- Each insurance company's discounts are different, homeowners should contact their insurer for details.
- We recommend shopping for your coverage



Smart Financing Solutions in Alabama



Data from the Alabama Department of Insurance.
Map Created by Smart Home America 12-2016.

■ 2009 | Alabama passed Act SB500

- Requires admitted insurers to provide actuarially sound discounts
 - Regulations updated in 2016
 - Expands Statewide in 2018
- Tax credits up to \$3,000
- Catastrophe savings accounts



Strengthen Alabama Homes



STRENGTHEN
ALABAMA HOMES

Provides grants up to \$10,000
for mitigating qualified, existing, primary
homes

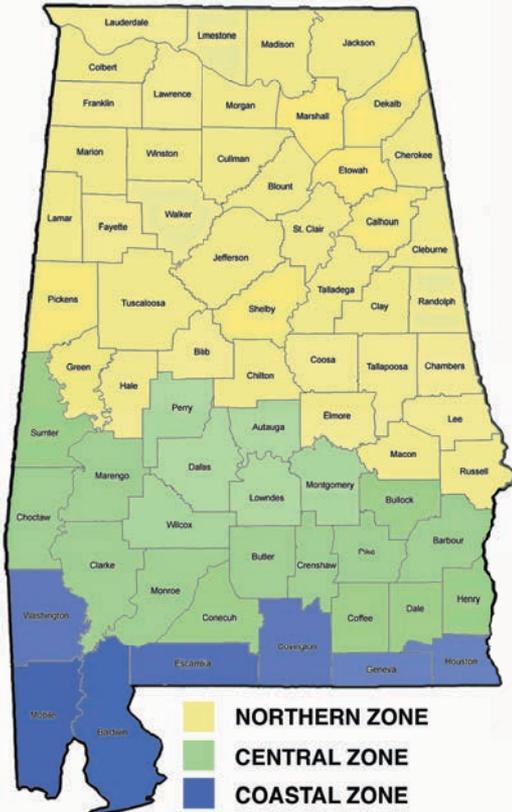
No income limits

Retrofits will meet the FORTIFIED Home™
Bronze or Silver standard

StrengthenAlabamaHomes.com



What was the solution?



Local group of advocates formed

Education of key stakeholders

Passage of innovative legislation

Convene stakeholders – Create path forward

Proof of concept projects

Code adopted at the local level

Educate public – demand increased

Why FORTIFIED?





Choose FORTIFIED because...



Renewable



Savings



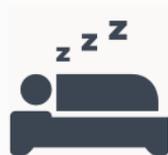
Affordable



Strength



Transferable



Peace of mind



FORTIFIED Increases Home Value

Preliminary results show an increase of nearly 7%...

But as you get closer to the water, further research shows it's nearing 12%

According to an ongoing study conducted by:



Estimating the Effect of FORTIFIED Home™ Construction on Home Resale Value¹

Sebastain Awondo, PhD – University of Alabama
Harris Hollans, PhD – Auburn University
Lawrence Powell, PhD – University of Alabama
Chip Wade, PhD – University of Mississippi

THE UNIVERSITY OF
ALABAMA[®] | Culverhouse
College of Commerce
Alabama Center for Insurance
Information and Research

¹ This research is sponsored by the Alabama Center for Insurance Information and Research (ACIIR), Culverhouse College of Commerce, The University of Alabama, Tuscaloosa, AL 35487. Please address correspondence to Lars.Powell@culverhouse.ua.edu. Awondo and Powell are with ACIIR, Hollans is Associate Professor of Real Estate, Auburn University, Wade is Assistant Professor of Finance, University of Mississippi. We thank the Insurance Institute for Business and Home Safety (IBHS) for data and guidance. Any remaining errors are our own.



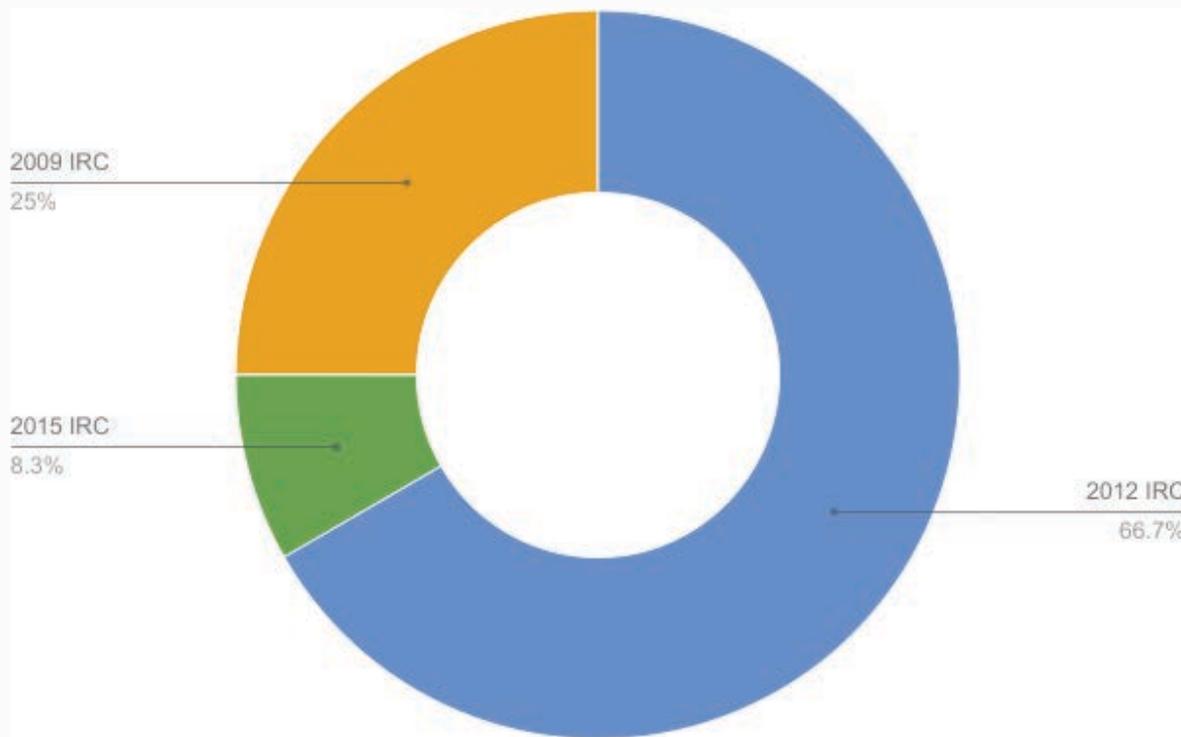
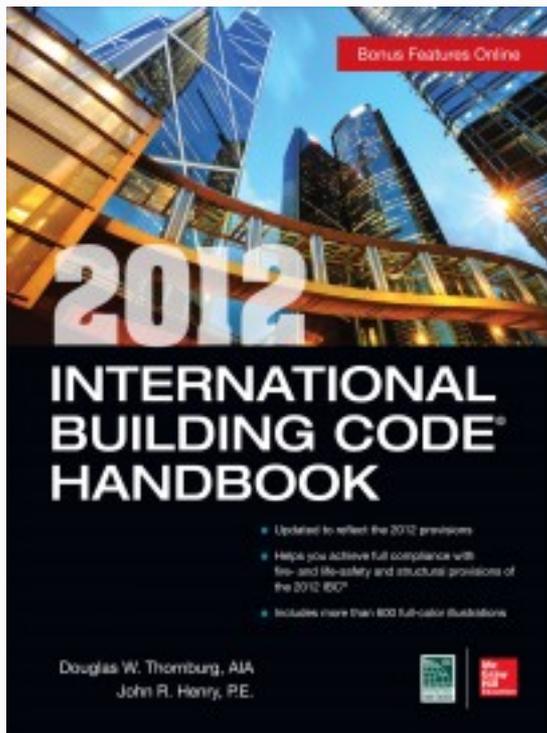
Habitat for Humanity



Planning for Disaster -Build Stronger-



Code adoption in coastal Alabama





The Coastal Code Supplement

With adoption of the 2009, 2012 or 2015 IRC and the full Coastal Code Supplement:

- A new, or re-roofed, home is built to, at minimum, FORTIFIED Home™ Bronze
- **With a certified Evaluation a FORTIFIED designation, insurance discounts* can be achieved.**

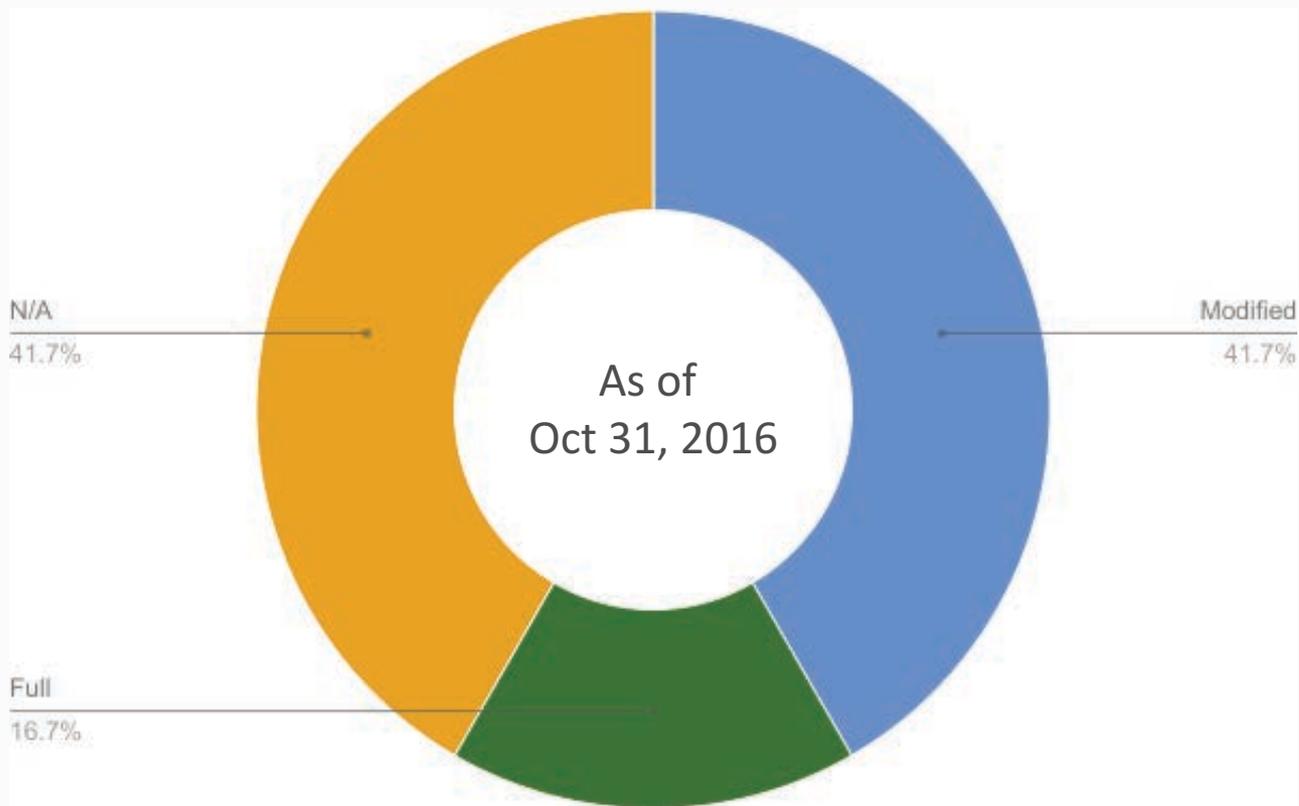
*if applicable in your area.





Code Supplement adoption in coastal Alabama

**FORTIFIED
HOME**



**Can FORTIFIED
Reduce
Loss and Cost?**



Save Time and Money During Recovery

What if you **reduce** debris and the removal costs?

Take the example of a city with 24,000 people & 10,000 housing units.

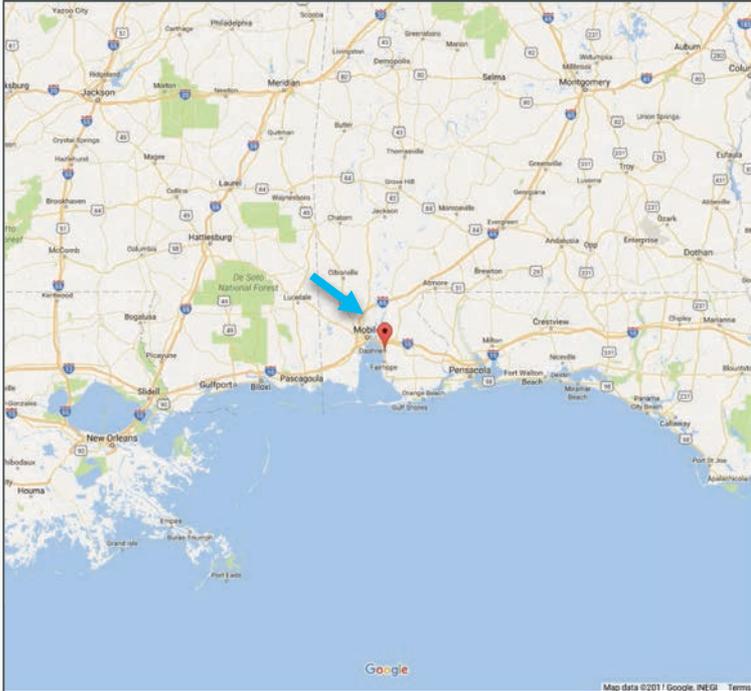
Daphne, Alabama

Lets use their Debris Management Plan estimates as a baseline

Hurricane	Cubic Yardage
Category 1	9,466
Category 2	37,863
Category 3	123,055
Category 4	236,644
Category 5	378,631



Where is Daphne, Alabama?



- On Mobile Bay - 27.5 miles to Gulf
- The largest municipality in Baldwin County by population.
- Approximately 17.5 sq. miles
- Baldwin County has a wet, sub tropical maritime climate
- A major hurricane is likely to create the largest volume of debris on a citywide basis

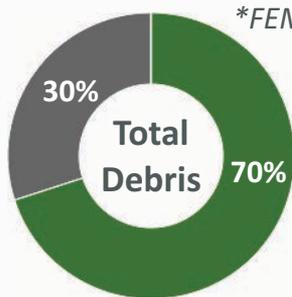


Example 1 = A Category 3 Storm Hits Anytown, USA



123,000 cubic yards (CY)
of debris is created

**City of Daphne Debris Management Plan*



70% = 86,100 CY
Construction and
demolition debris (C&D)



One 2,000 sq/ft house =
600 CY of debris &
\$7,200 to remove

**FEMA 325 July 2007*



City of Central, LA

86,100 CY = ~144, 2,000 sq/ft homes



That's \$1,036,800 total potential C&D debris cost
Anywhere, USA could owe \$259,200 **FEMA 75/25*



Think about this

- Did Anytown, USA plan “good enough?”
- Should they build back the same way afterwards?
 - *The vicious cycle of “rinse and repeat”*
- If so, what does that look like in terms of future...
 - Debris removal costs
 - Time
 - Effort
 - Lost economic productivity, businesses
 - Fewer residents and a smaller tax base



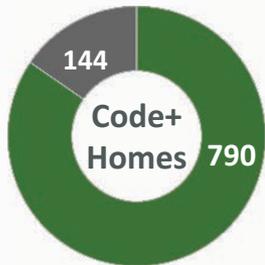
There are solutions to plan ahead and build stronger



Example 2 = A Category 3 Storm hits Daphne, Alabama



86,100 cubic yards (CY) of debris is still created



934 Total

Built or rebuilt to code+

Data doesn't include code+ re-roofs



BUT...Daphne adopted the Code Supplement in June 2012



400+ Designated



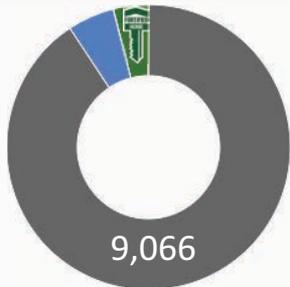
*UA, ACRE

All 790 new homes since 6/2012 have been built to code-plus standards

We can assume fewer 's will be damaged during future events



How much could be being resilient save?



**UA, ACRE & IBHS*

934 or 9.3% of all homes in Daphne are code-plus

790 built and 144 rebuilt to code+.

400 FORTIFIED



**934 houses =
560,400 CY of debris
@600 CY of debris
per house**



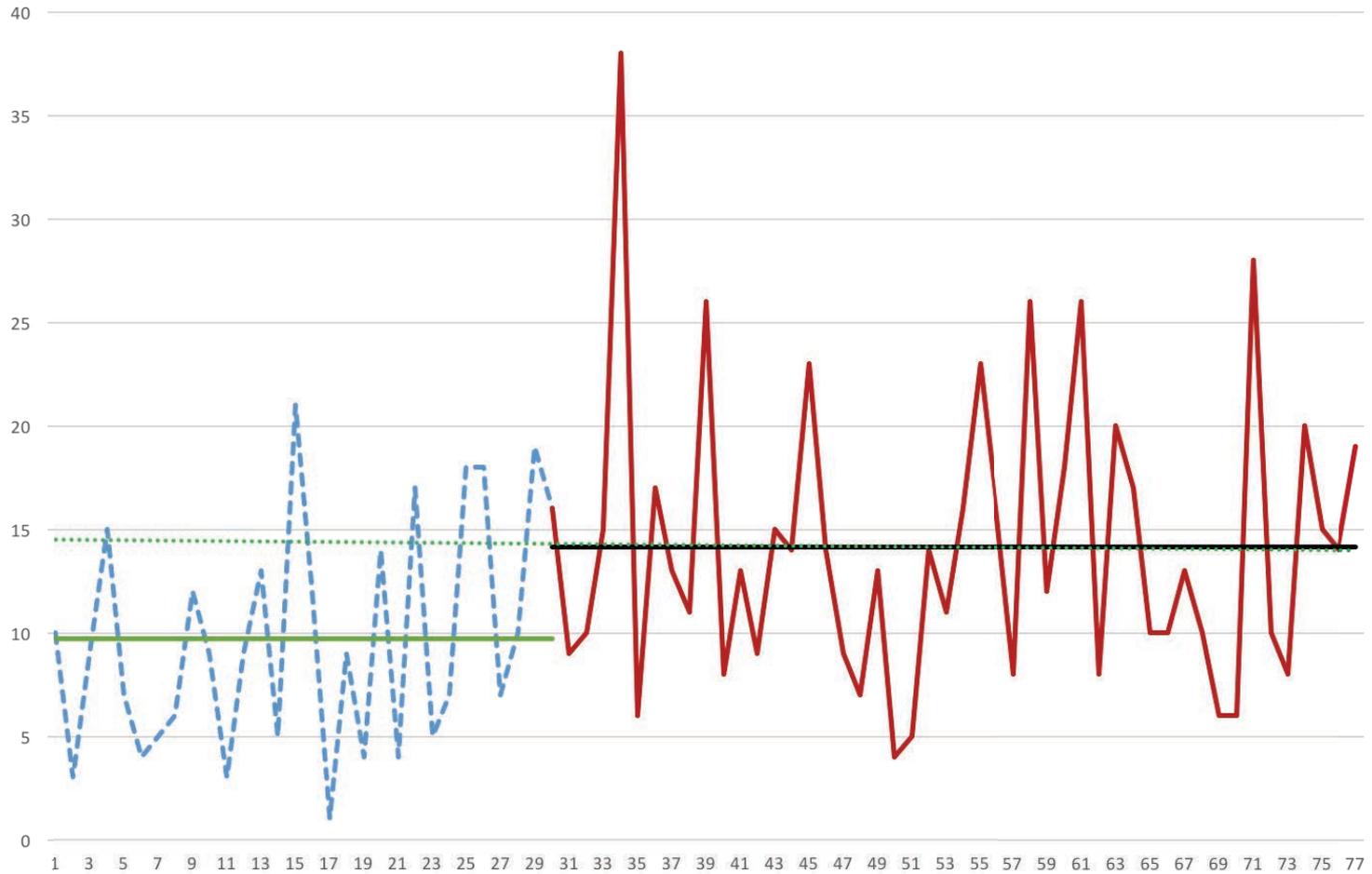
City of Central, LA

**934 homes x's
\$7,200 for each home
to be removed**

\$6,724,800 potential total future C&D debris removal savings

Daphne can save \$1,681,200 *FEMA 75/25

Daphne Building Permits



--- Daphne before

— Daphne before average

— Daphne after

— Daphne after average

..... Linear (Daphne after)

THANK YOU

Questions?

Stronger than the Wind: *Building Better, Being Resilient*
Session J2



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