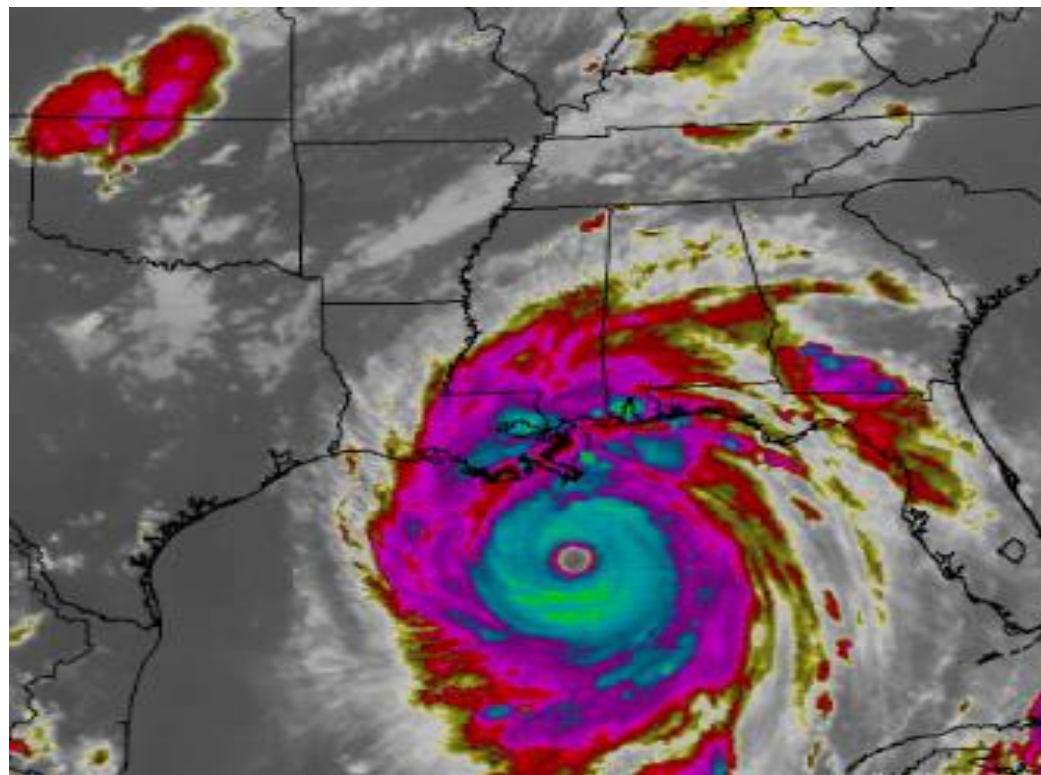


Hurricane Ivan
September 2, 2004

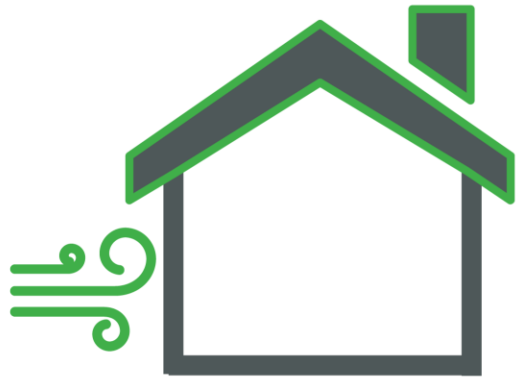


Hurricane Katrina
August 29, 2005

Our Vision

Stronger, Sustainable, More Resilient Communities





SMART HOME



AMERICA



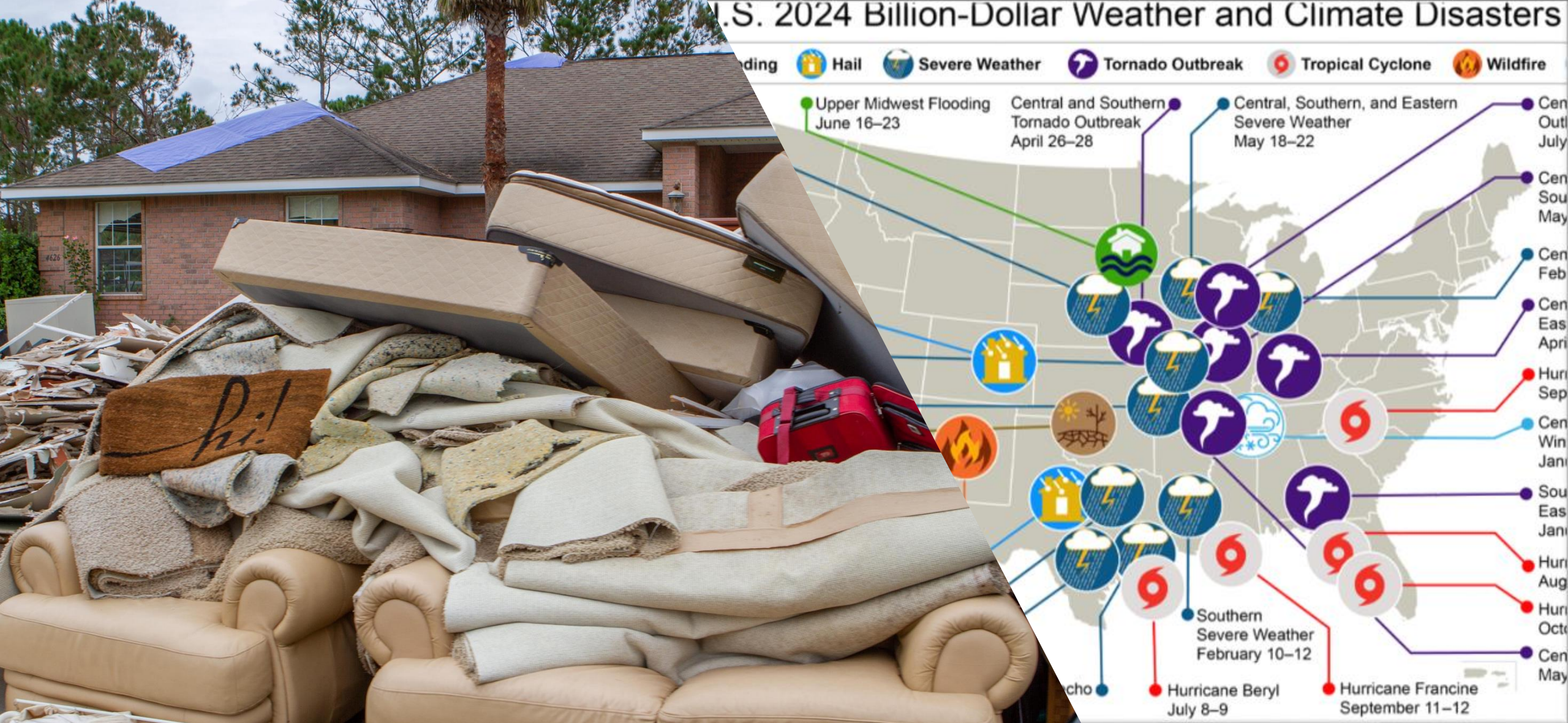
Adequately Insured vs Underinsured



**64% of
homes are
underinsured by an
average of 24%**

24% of a \$200,000 home is \$48,000

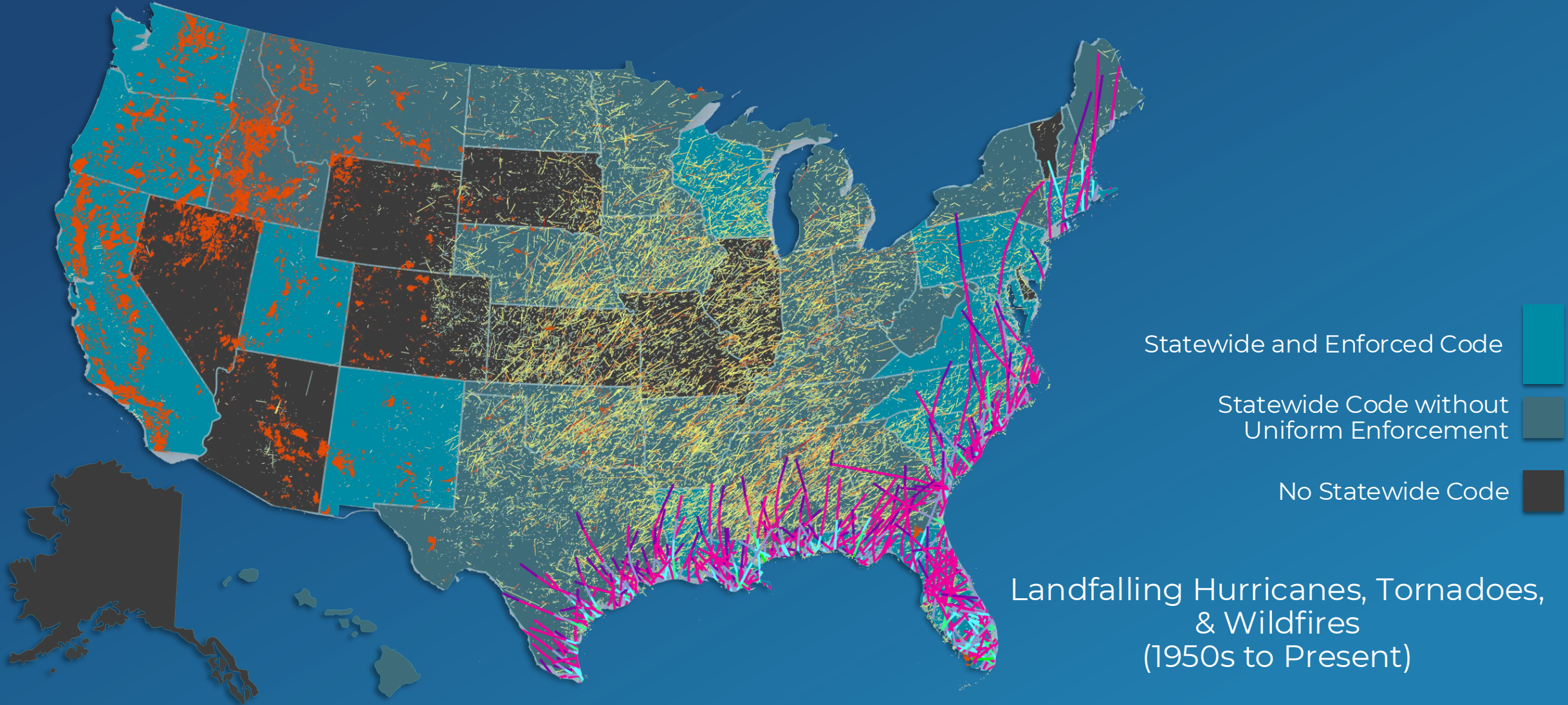
U.S. 2024 Billion-Dollar Weather and Climate Disasters



\$750 Billion in Damage since 2020

Statewide Building Codes

ACROSS THE CONTINENTAL UNITED STATES



Traditional

Minimum Standard



Focus:
Life Safety



Make building
able to survive a
severe event



FORTIFIED

Beyond-Code Standard



Focus:
Life Safety
Property Protection



Make building able
to survive a severe
event & useable in a
short period of time.



Paradigms of Recovery



Traditional

Disaster

Respond

Rebuild

Intentional Resilience

Mitigate

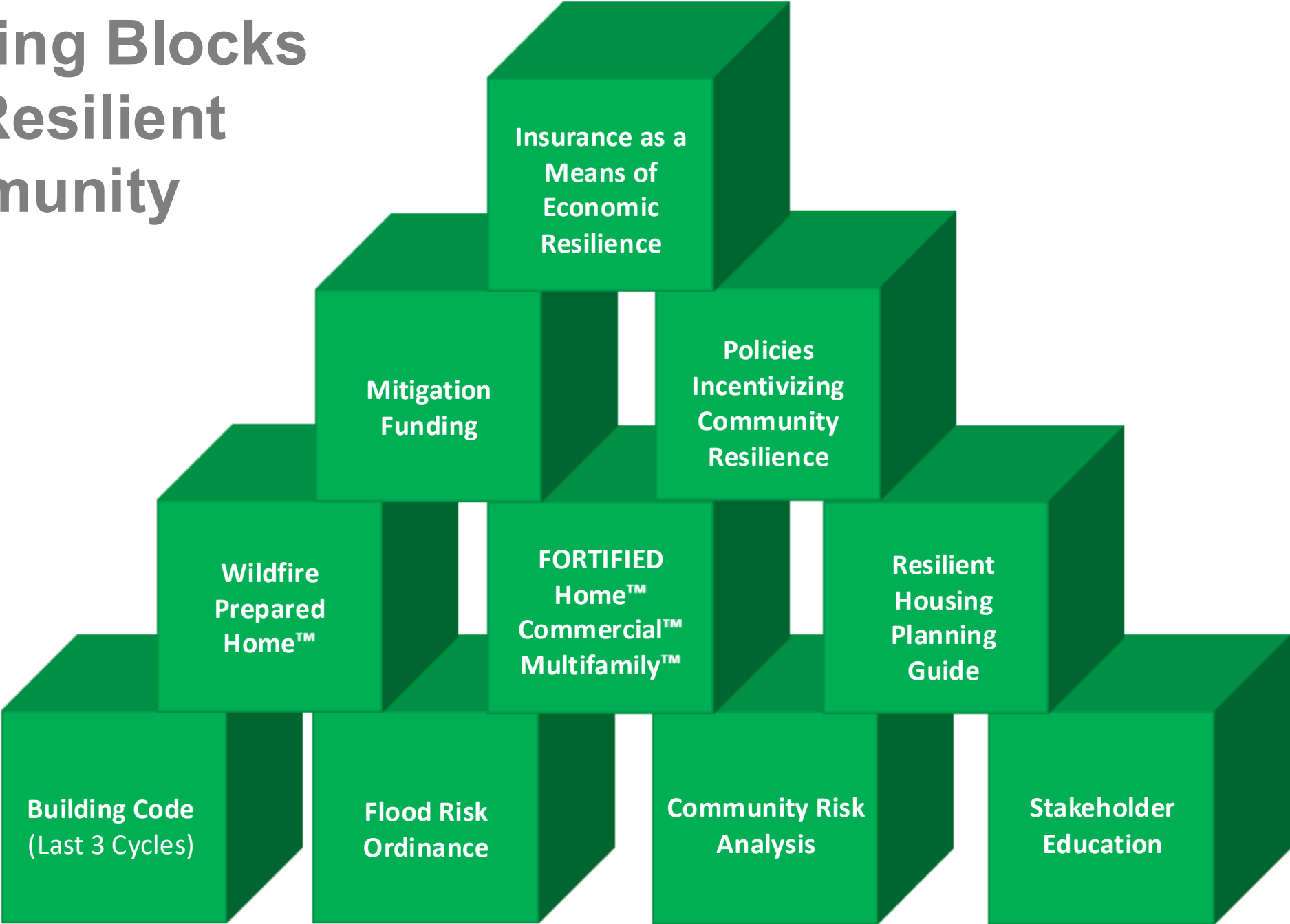
Disaster

Respond

Rebuild

Resilience

Building Blocks of a Resilient Community





**SMART HOME
AMERICA**





2013 Moore, OK EF-5 Tornado

Total path length: 17 miles

EF-0: 7.13 square miles

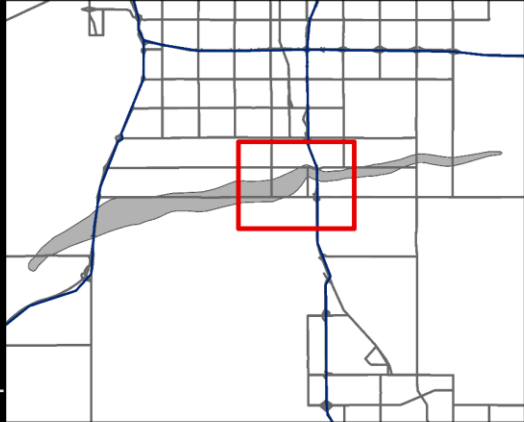
EF-1: 4.90 square miles

EF-2: 2.56 square miles

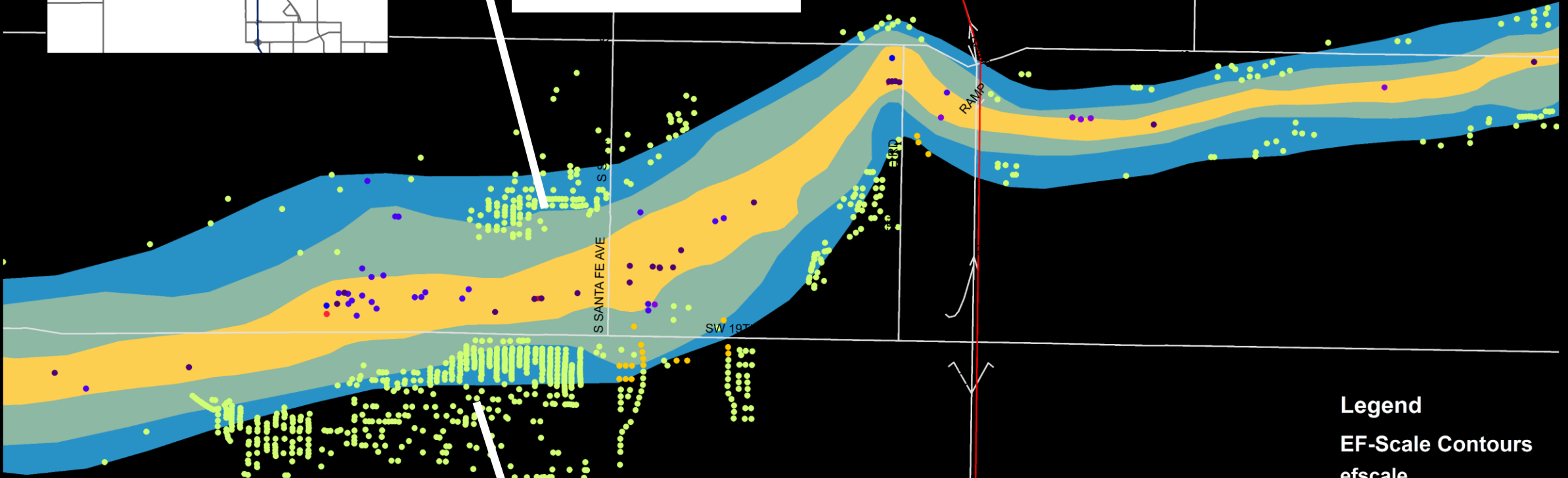
EF-3: 1.48 square miles

EF-4: 0.46 square miles

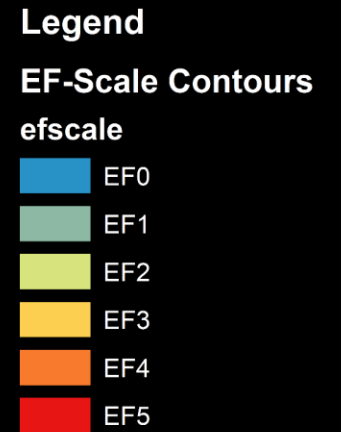
EF-5: 0.0012 square miles



**Primarily
shingle loss**



**Primarily
shingle loss**



WE CAN'T PREVENT IT WE CAN
ALL DAMAGE. PREVENT THIS.



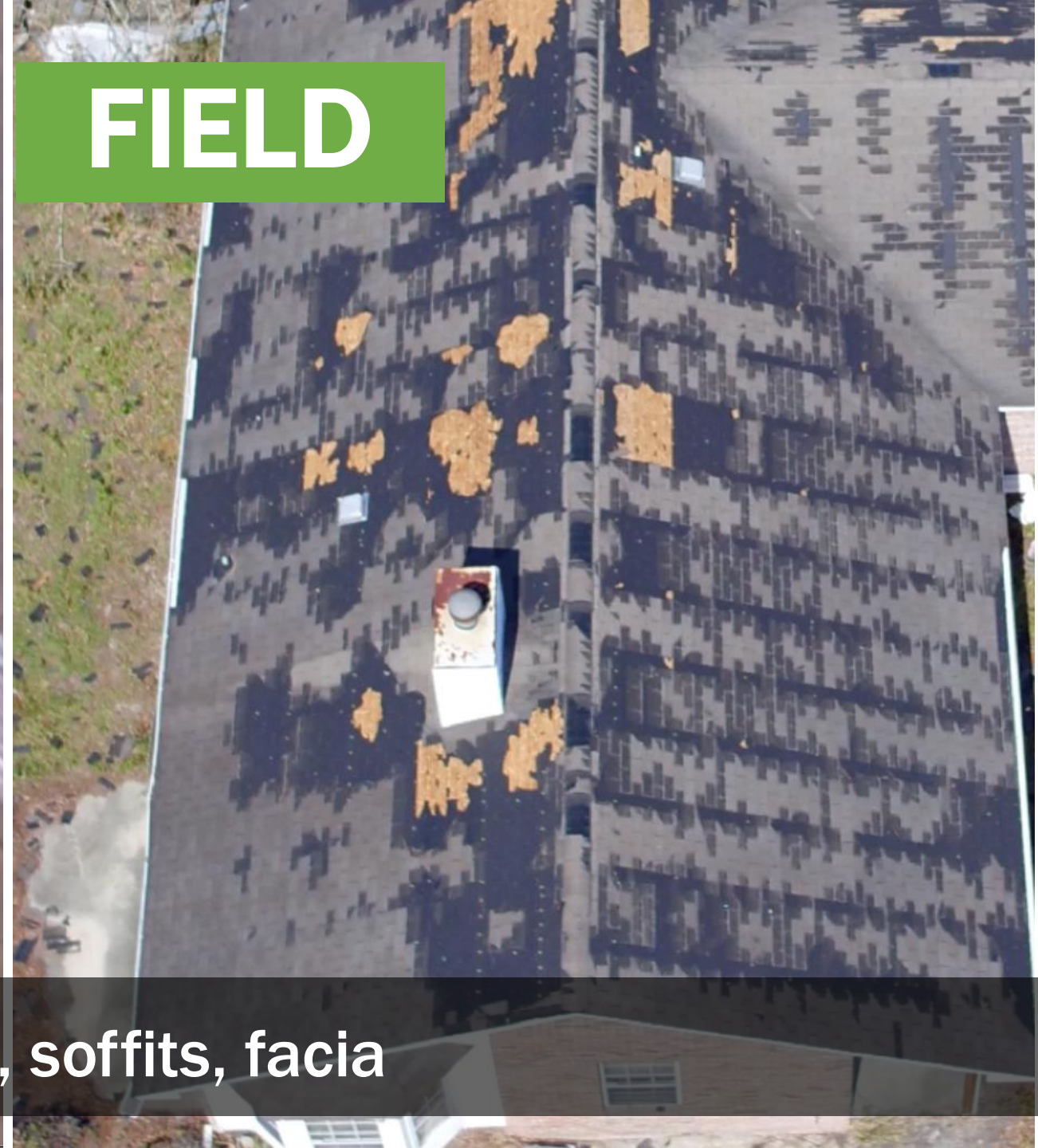


**Insurance
Institute for
Business &
Home
Safety®**

IBHS



FIELD

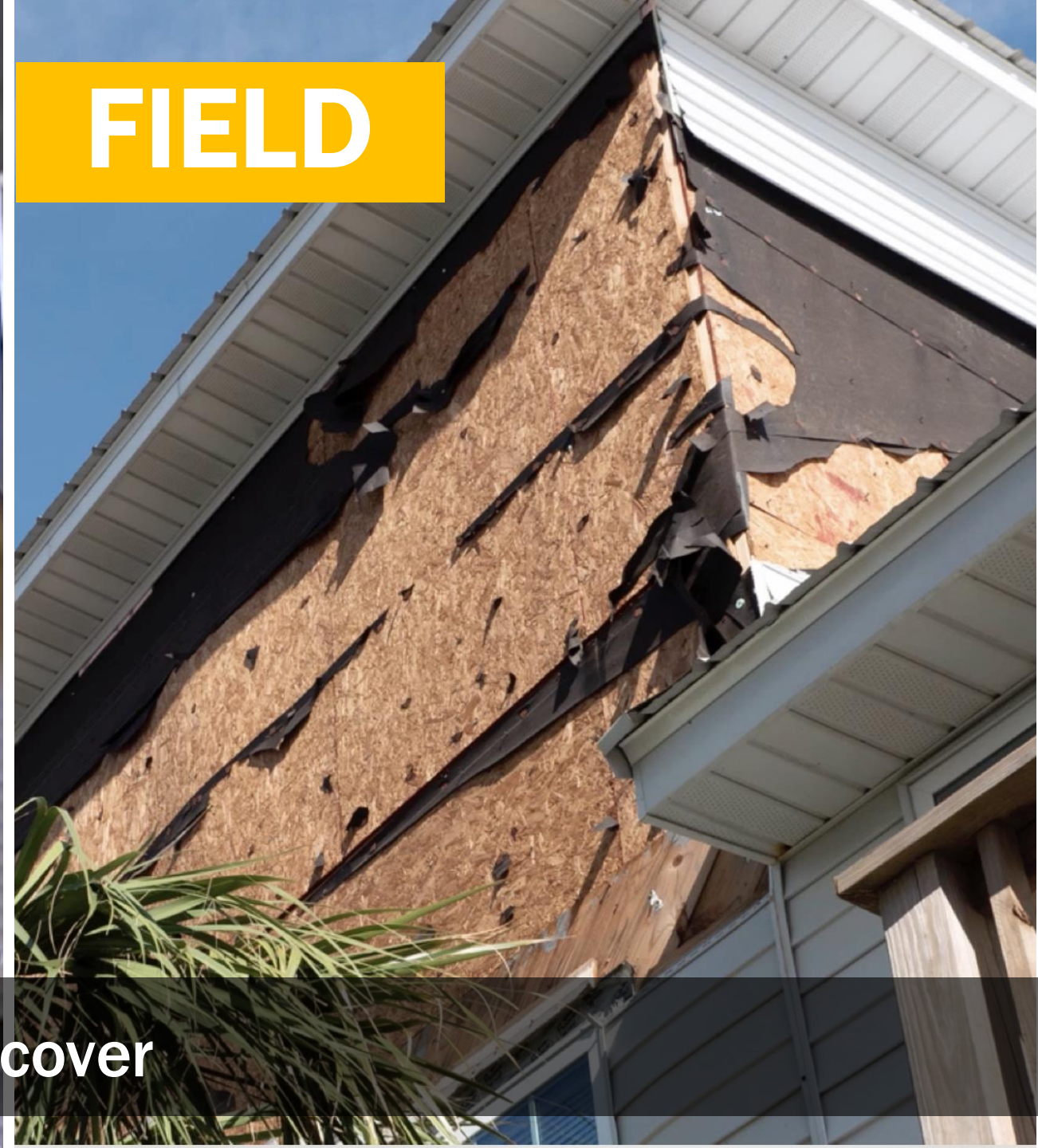


 Roof cover, soffits, fascia

IBHS



FIELD



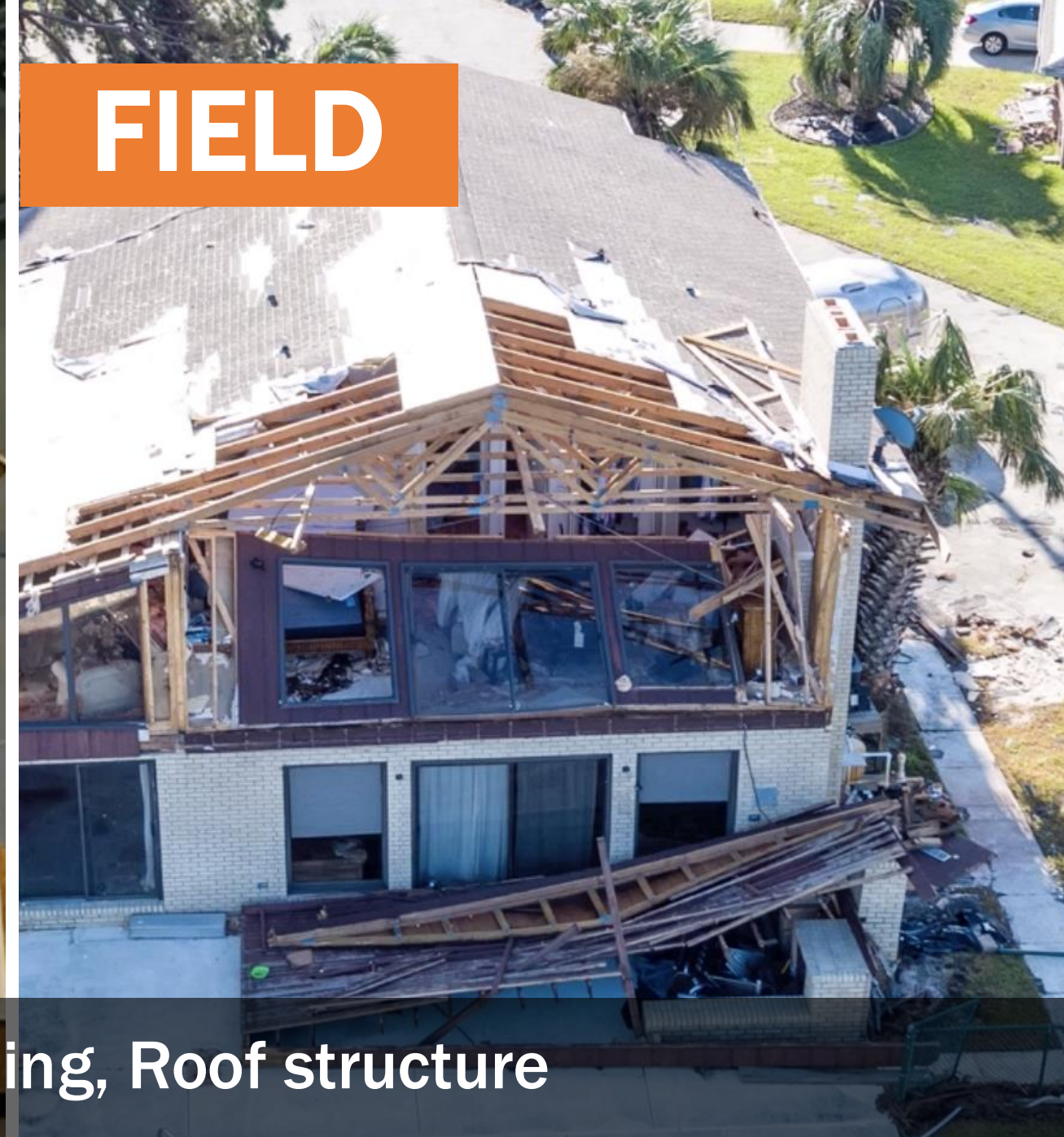
 **Wall cover**

IBHS



 Roof sheathing, Roof structure

FIELD



 Roof sheathing, Roof structure

IBHS



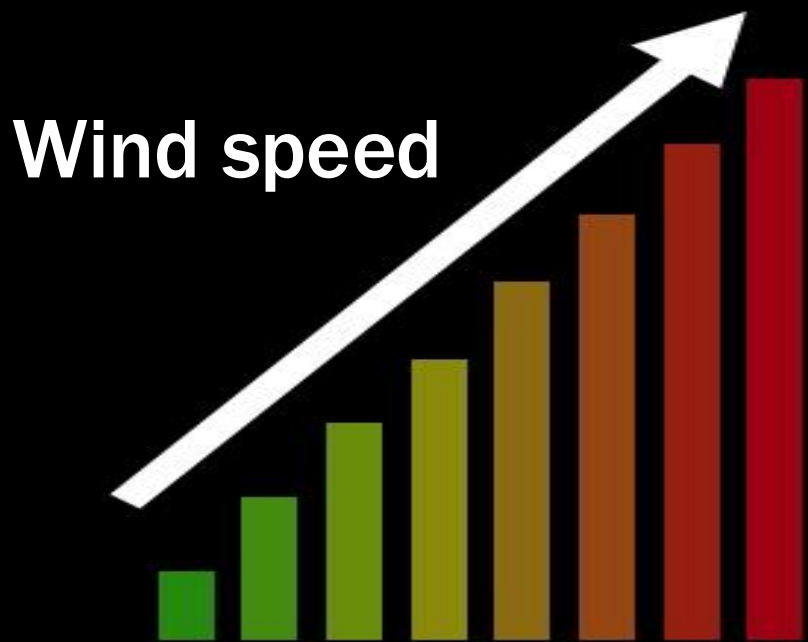
Total collapse

FIELD



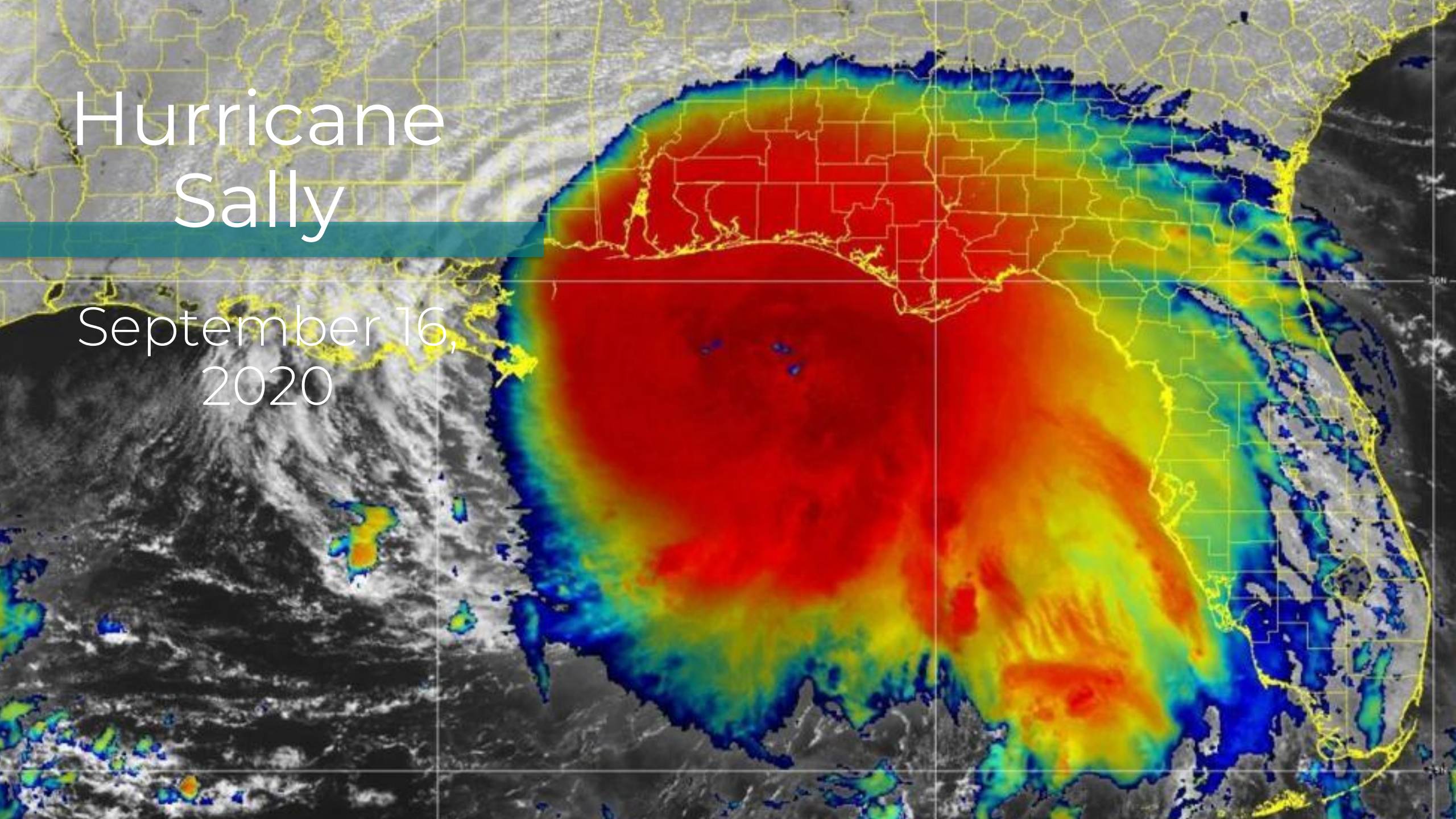


- Roof cover, soffits, fascia
- Wall cover
- Roof sheathing
- Roof structure
- Total collapse



Hurricane Sally

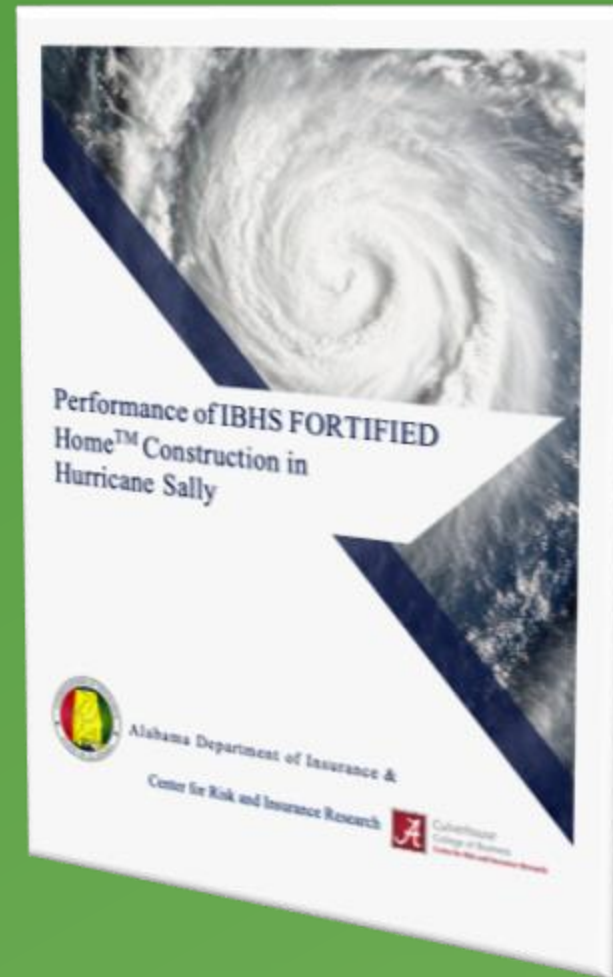
September 16,
2020



Code or Fortified?

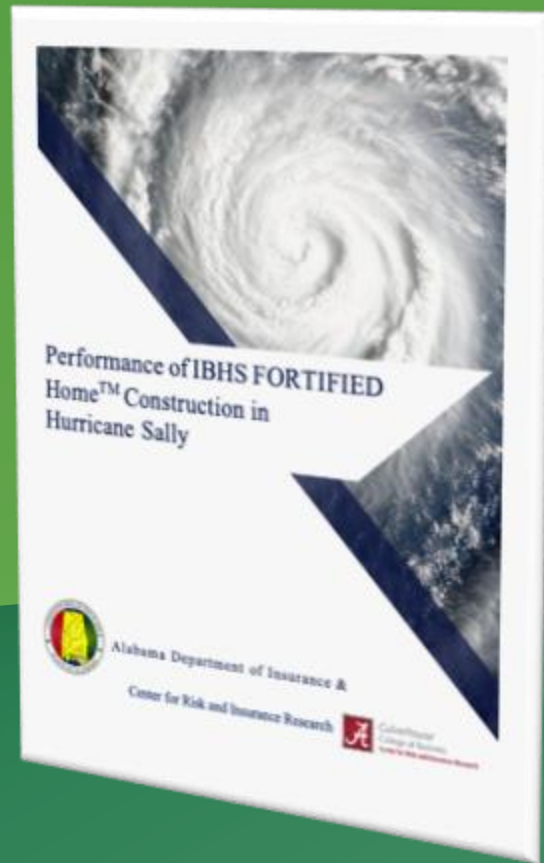
- Code Roof and Code Gold are houses built in a jurisdiction that enforces a code identical to Fortified Roof and Fortified Gold, but the house is neither inspected, nor designated by IBHS.
- Houses built to these codes performed better than non-Fortified houses in Hurricane Sally.
- Code Roof houses experienced more than twice the damage as Fortified Roof houses in Hurricane Sally
- Code Gold houses experienced almost three times as much damage as Fortified Gold houses in Hurricane Sally.

FORTIFIED ROOFS
Outperformed
CODE HOMES *by*
more than
50%.



HURRICANE SALLY Results

40,000
Properties



~~TOTAL~~ **TOTAL DAMAGE** could have been reduced by

22% reduction
~~\$42M~~ **\$42M** for average claim amount Homeowners

~~FORTIFIED~~ **FORTIFIED** ~~\$105.6M~~ **\$105.6M** in Insured Losses outperformed code by more than 50%.

Ben Murphy Company, an award-winning FORTIFIED-Wise™ Roofing and Construction Company, received over 800 messages in just three days because people wanted a FORTIFIED Roof™ like their neighbor.



Testimonial

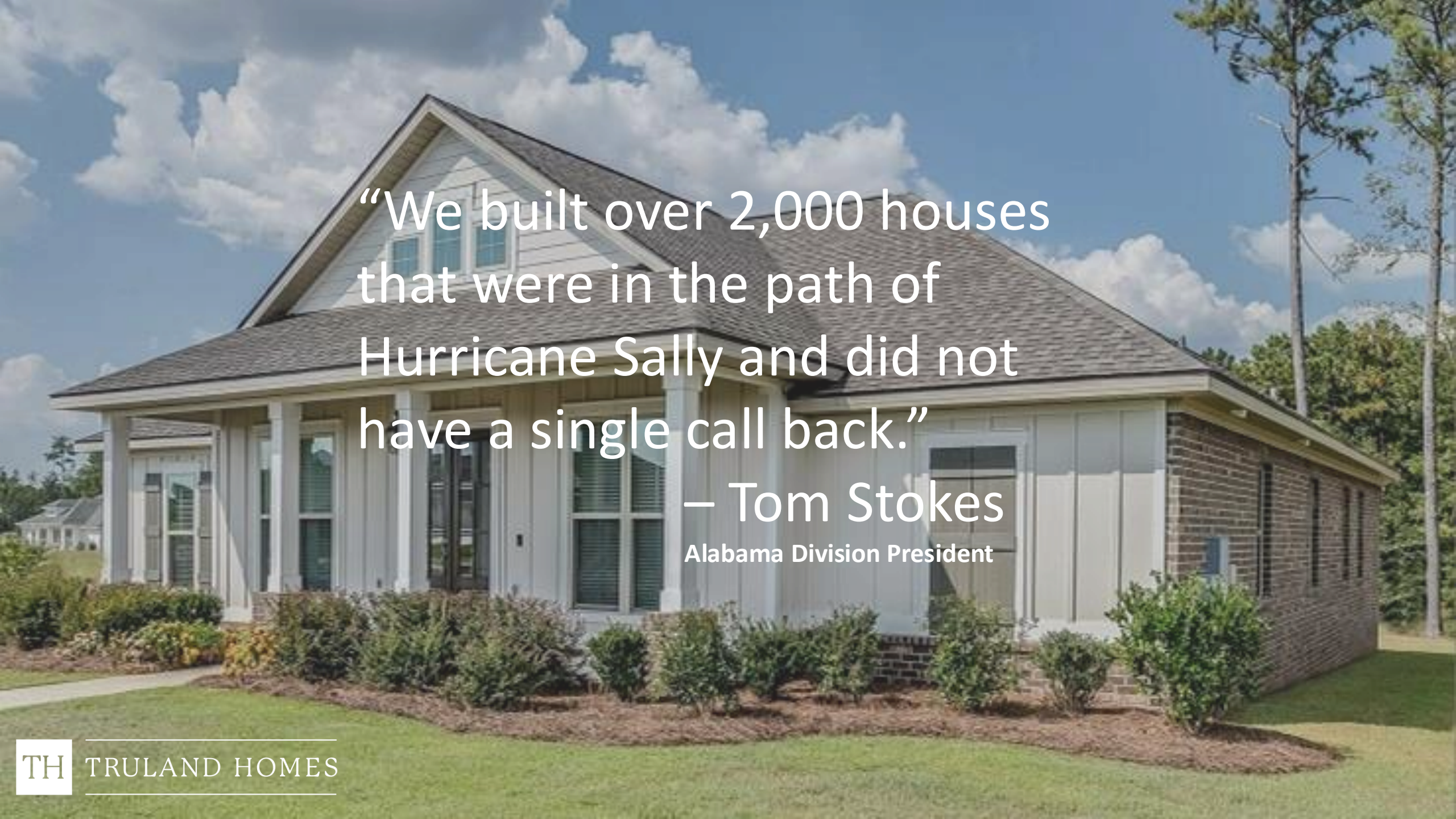
How are you buddy?

I want to tell you, I didn't even lose a shingle! You guys did amazing on my home and I've made sure to tell everyone I know needing work!

BMC NO QUESTIONS!

Aaron Greene





“We built over 2,000 houses
that were in the path of
Hurricane Sally and did not
have a single call back.”

– Tom Stokes

Alabama Division President

What is FORTIFIED?





A PROGRAM OF IBHS
FORTIFIED
HOME



FORTIFIED
COMMERCIAL



FORTIFIED
MULTIFAMILY



Keep the roof on, water out.

Reduce damage amplifiers:

Strengthen gable walls

Strengthen garage door openings.

Secure chimney to house structure.

Anchor attached structures –
porches and carports.

Protect openings against debris impact



Keep the roof on and water out.
Enhanced by a sealed roof deck and a
high performing wind rated roof cover.



Keep the roof on, water out
Reduce damage amplifiers
Keep the entire building intact
with a continuous load path &
protect openings against high
pressures

FORTIFIED HOME™ HURRICANE

*HAIL SUPPLEMENT

Adds impact rated roof cover.

*Must meet the **Good** or **Excellent**
rating by IBHS.



Keep the roof on, water out.
Reduce damage amplifiers:
Strengthen gable ends & overhangs.
Secure chimney to house structure..
Anchor attached structures - porches
and carports.



Keep the roof on and water out.
Enhanced by a sealed roof deck
and a high performing wind rated
roof cover.



Keep the roof on, water out
Reduce damage amplifiers
Keep the entire building intact with
a continuous load path & protect
openings against high pressures.
Install wind rated garage door.

FORTIFIED HOME™ HIGH WIND

Where the design wind speed is 115 and
below as per ASCE 7-10 to 7-16

*HAIL SUPPLEMENT

Adds impact rated roof cover.

*Must meet the **Good** or **Excellent**
rating by IBHS.



Building to Designation Requirements

FORTIFIED REQUIREMENTS ARE BASED ON:

Applicable Weather Hazard



Hurricane



High Wind



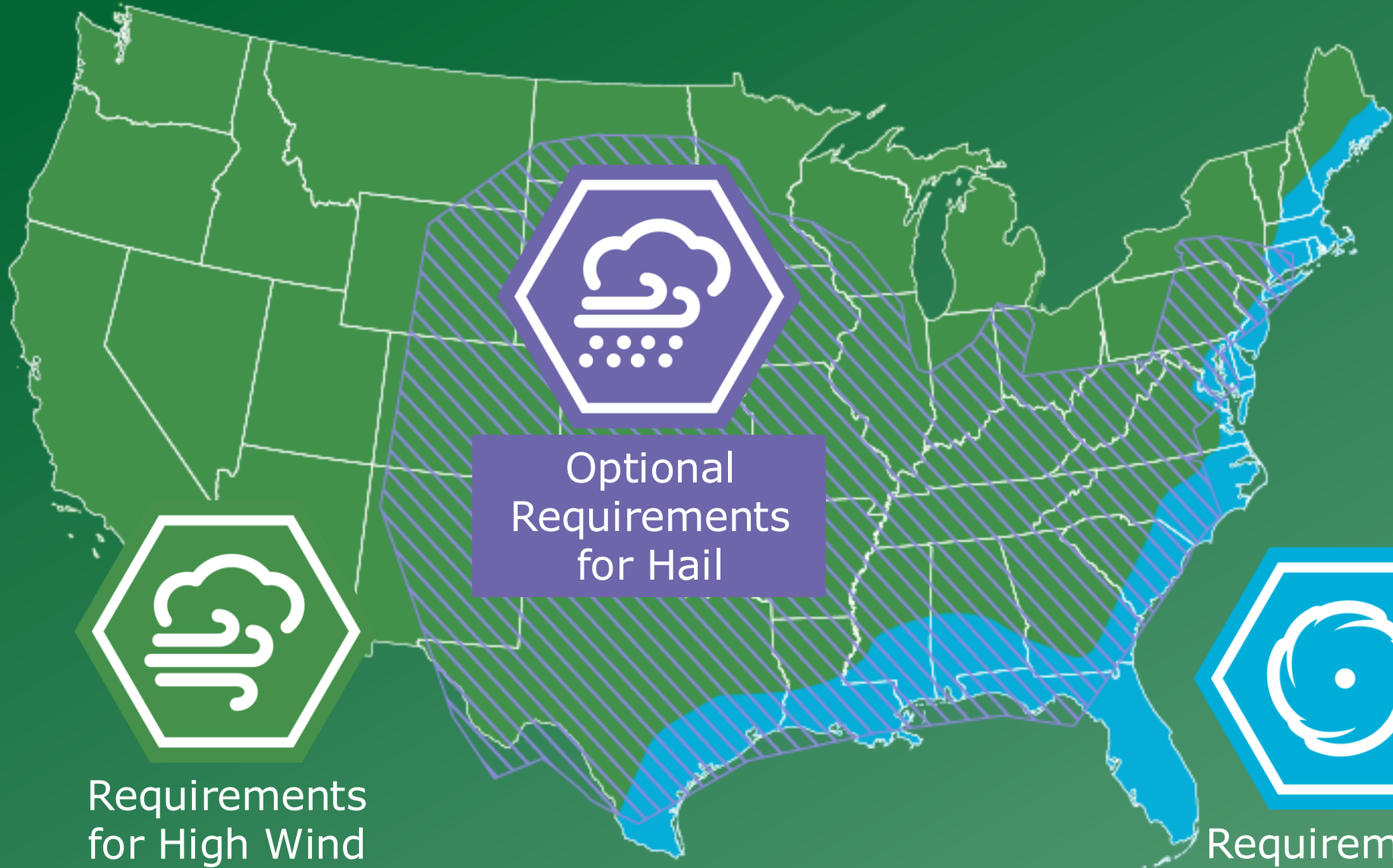
Hail

Local Code Requirements



Desired Designation Level





Optional
Requirements
for Hail



Requirements
for High Wind



Requirements
for Hurricane

Applicable Weather Hazards

Nailed Deck



Sealed Deck



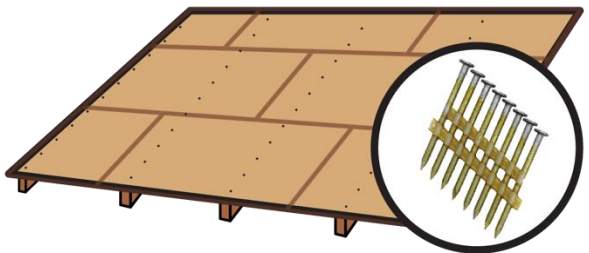
Locked Edges



Rated Cover



1. KEEP THE ROOF ON.



Stronger Connections



Fastener Type

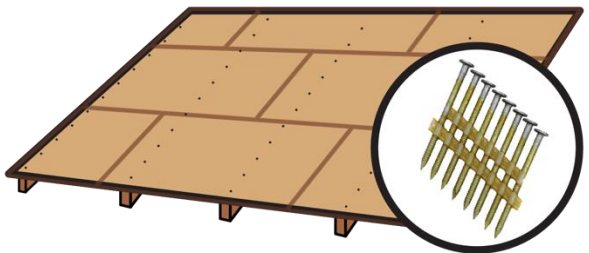
8D Ring-Shank Nails



Roof Deck Attachment

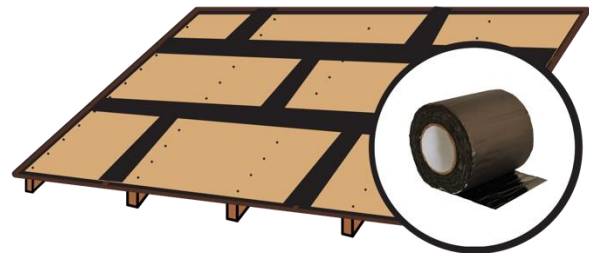


1. KEEP THE ROOF ON.



Stronger Connections

2. KEEP THE WATER OUT.



Sealed Seams



Modified Bitumen (Meets ASTM D1970)

- + Thicker, modified asphalt tape
- + Service temperature range of 35°F–150°F
- + Compatible with asphalt products
- + Inexpensive
- + May require primer

Product Manufacturers

- MFM Roof Deck Tape
- Tite Seal Roof Deck Seam Tape
- Protecto Wrap Protecto Flex
- IKO Goldseam

Butyl (Meets AAMA 711, Level 3)

- + Rubber core, adds flexibility/water resistance
- + Service temperature range of -4°F–200°F
- + Maintains tack at lower temperatures, but may take longer to initiate
- + Less likely to ooze at higher temperatures
- + Low to no volatile organic compounds (VOC)

Product Manufacturers

- Tite Seal Butyl Ultra
- Protecto Wrap BT25XL
- DuPont Tyvek FlexWrap
- Polyken 627-35

*Tapes that meet this criteria include, but are not limited to, the products listed
Product availability may change.*

Acrylic (Meets AAMA 711, Level 3)

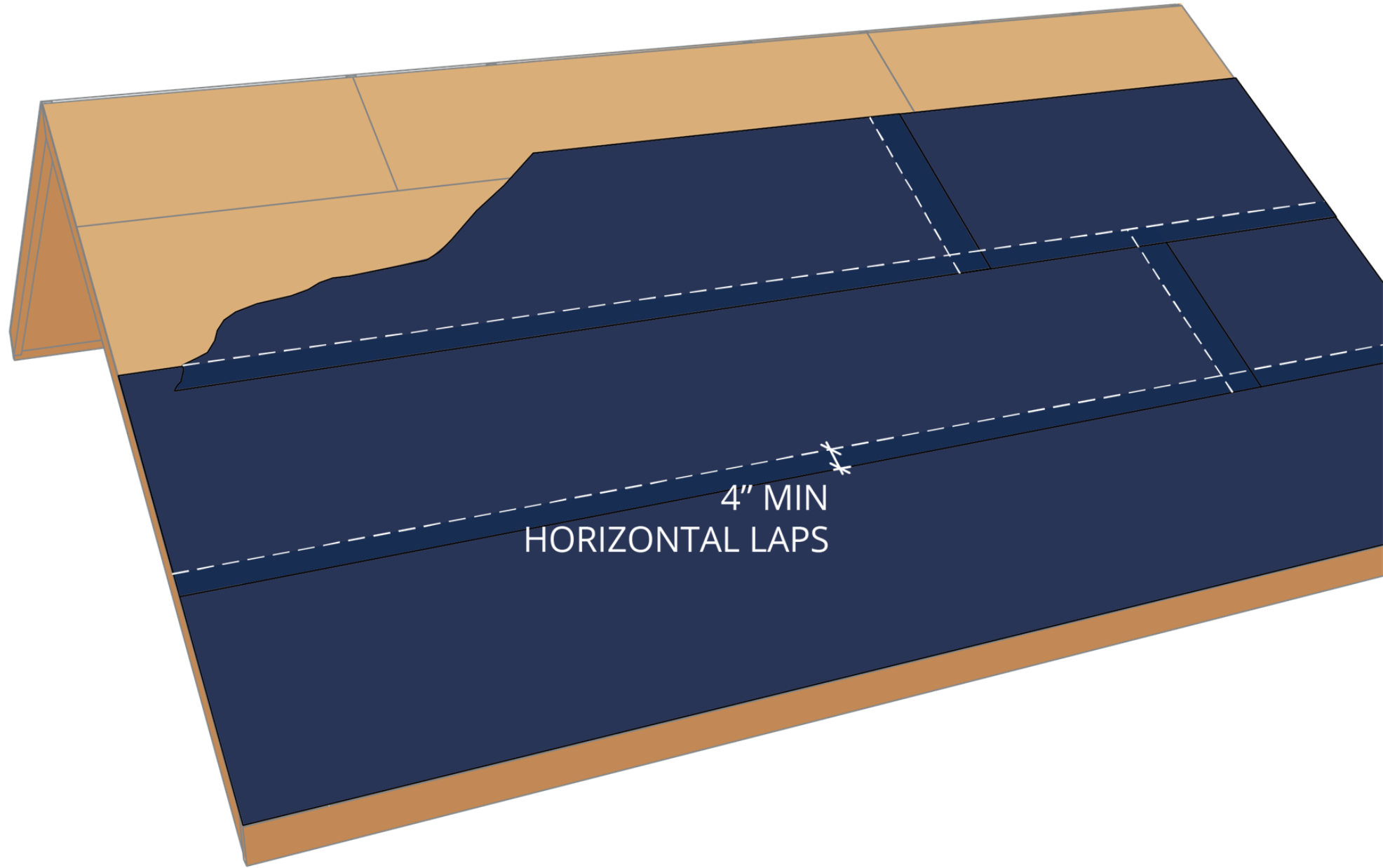
- + Uses acrylic adhesive to help create an airtight seal
- + Service temperature range of -4°F–200°F
- + Bonds to many substrates
- + UV and water resistant
- + No VOCs

Product Manufacturers

- Huber ZIP System
- 3M Scotch 8067
- Dow Weathermate
- Protecto Super Stick Building Tape

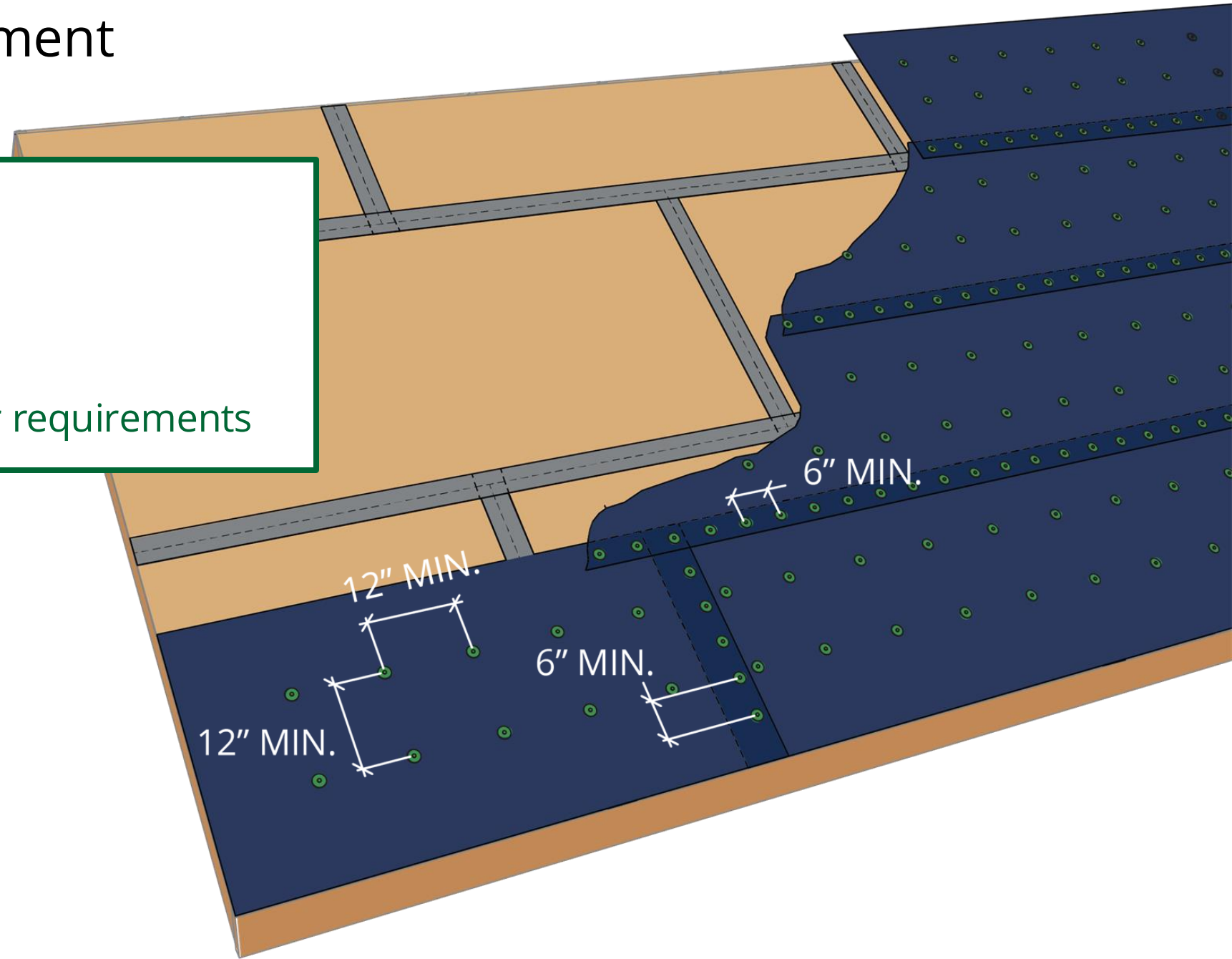


Installation: Self-Adhered Membrane



Installation: Underlayment

- Horizontal Laps: 6 in. O.C.
- End Laps: 6 in. O.C.
- Center Field: 12 in. O.C.
- According to manufacturer requirements

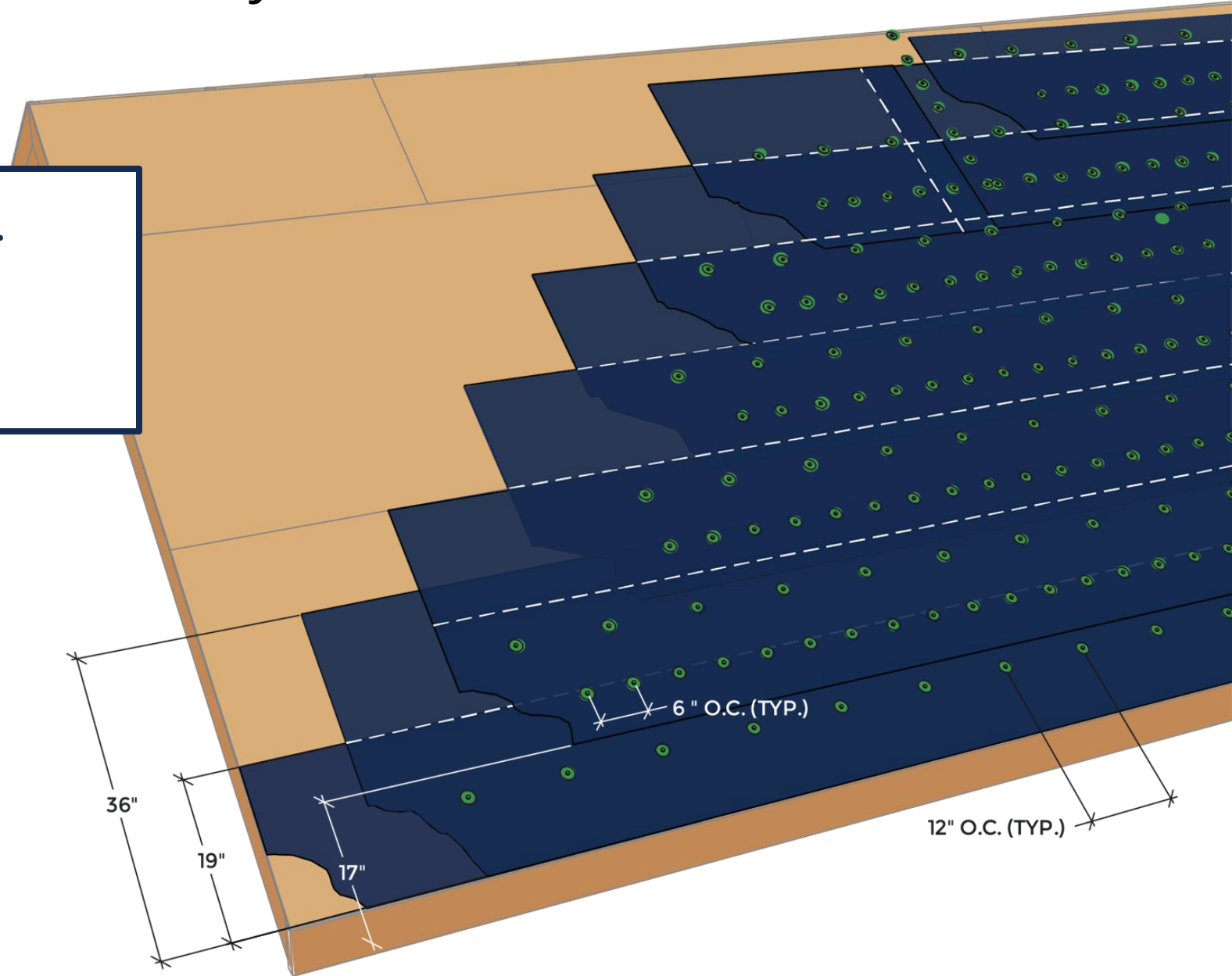


Installation: Two-Layer Felt Underlayment

Horizontal Laps: 6 in. O.C.

Center Field: 12 in. O.C.

Vertical Laps: 6 in. O.C.



Final method when top of deck sealing is not an option: Spray Foam Adhesive

SPRAY FOAM ADHESIVE USED MUST BE TESTED AND EVALUATED IN ACCORDANCE WITH:

- ASTM E330, *Standard Test Method for Structural Performance of Exterior Windows, Doors, Skylights and Curtain Walls by Uniform Static Air Pressure Difference*
or
- TAS 202-94, *Criteria for Testing Impact and Non-Impact Resistant Building Envelope Components Using Uniform Static Air Pressure*



IBHS



Water Intrusion Demo at the IBHS Research Center





UNSEALED ROOF DECK: **COST OF CLAIM**

3X LOSS ESTIMATE

SEALED

UNSEALED





THE RISK

60%

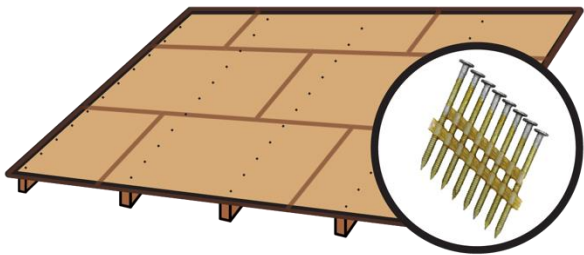
An unsealed roof deck allows up to 60% of the rain that falls to enter the attic.

BENEFITS

95%

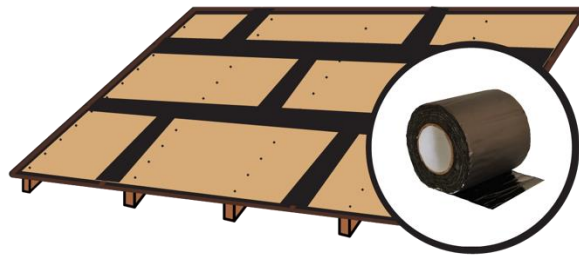
A properly installed sealed roof deck reduces water entry by 95%.

1. KEEP THE ROOF ON.



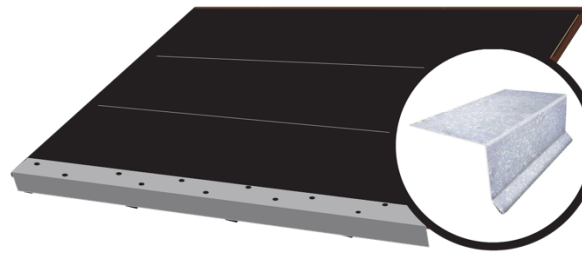
Stronger Connections

2. KEEP THE WATER OUT.



Sealed Seams

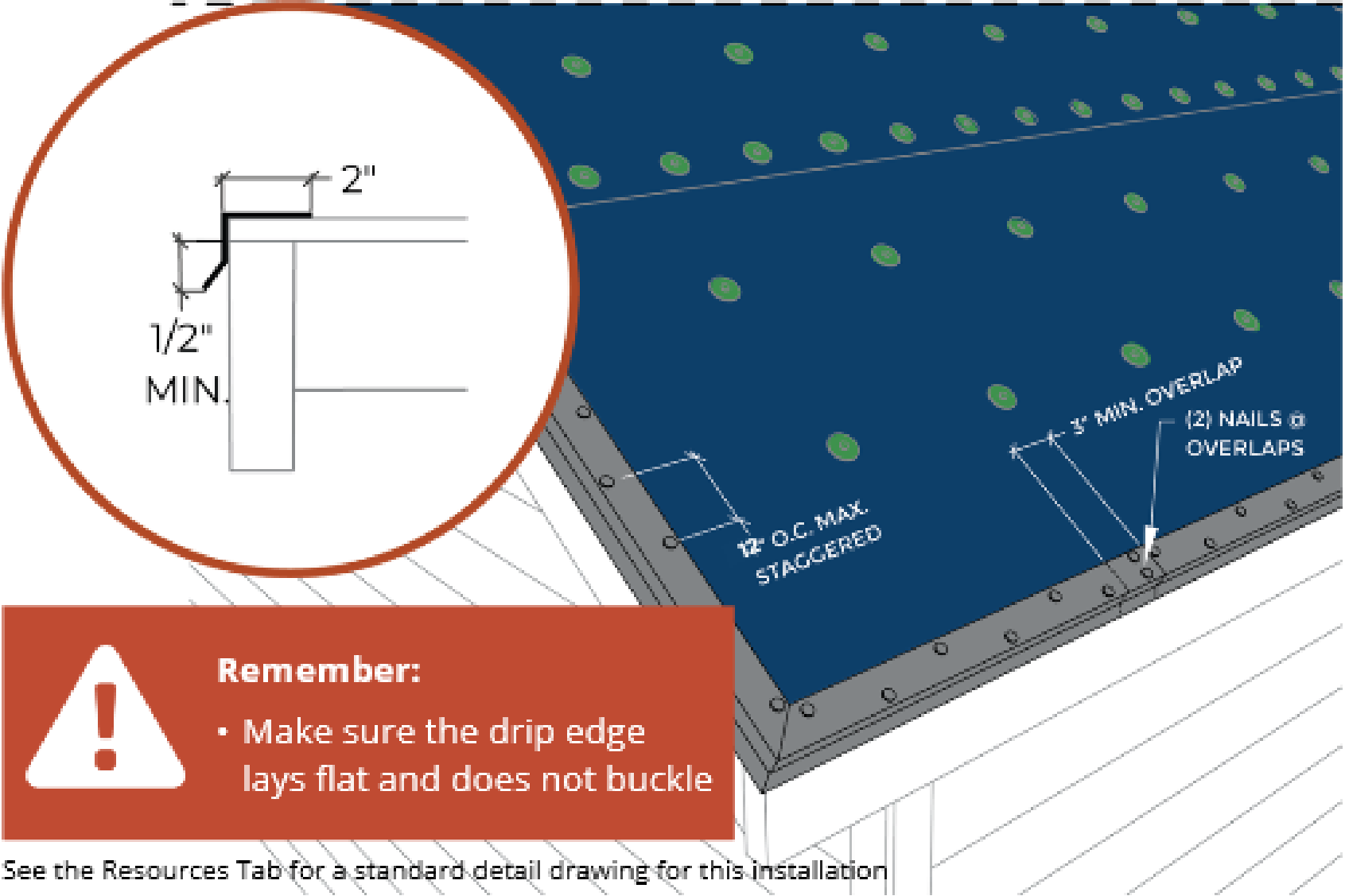
3. KEEP THE WIND OUT.



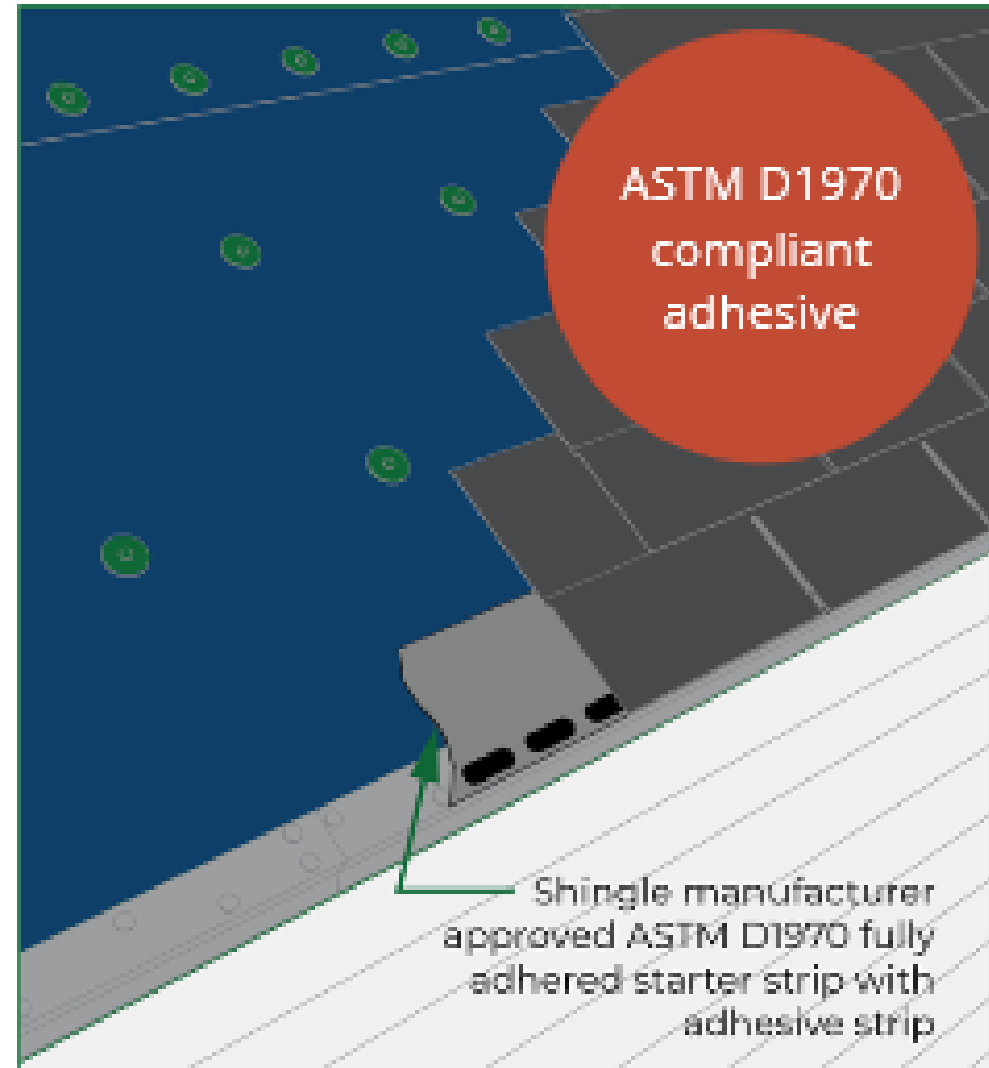
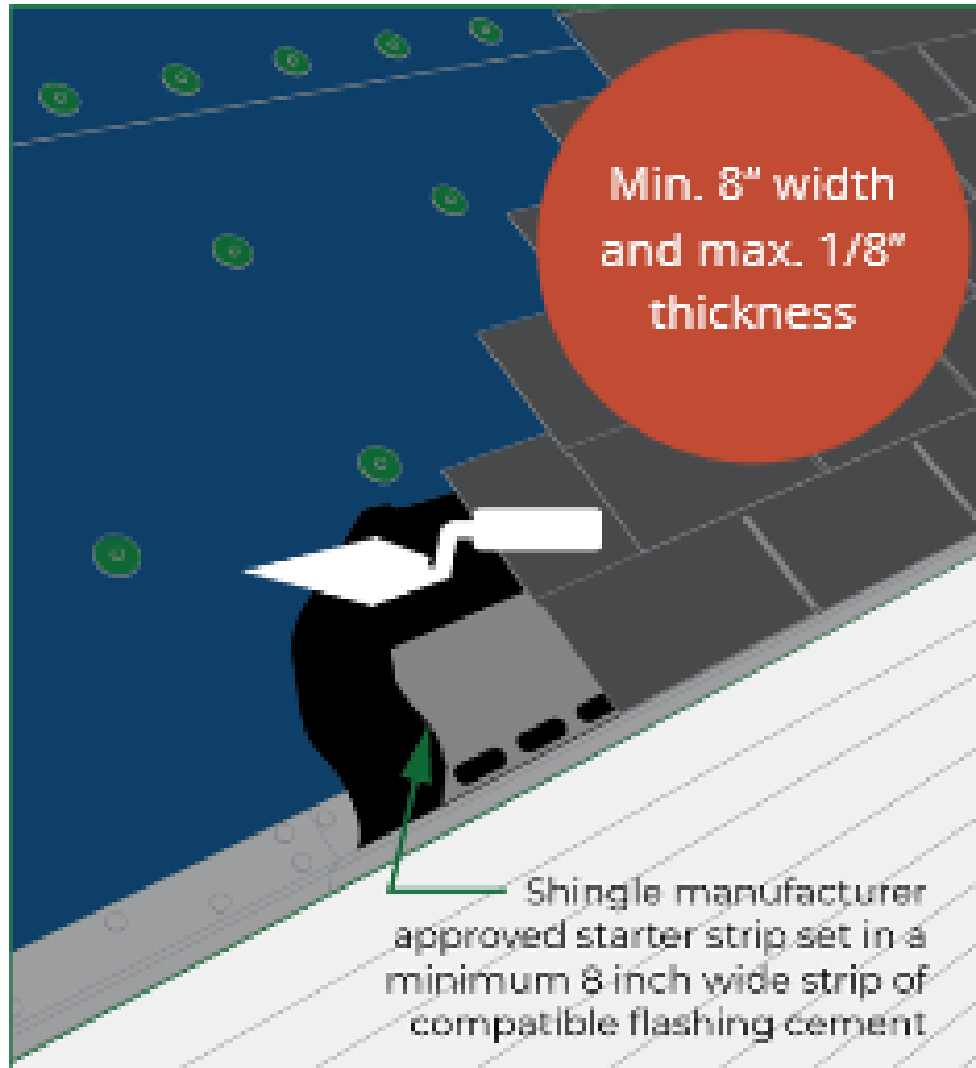
Lock the Edges Down



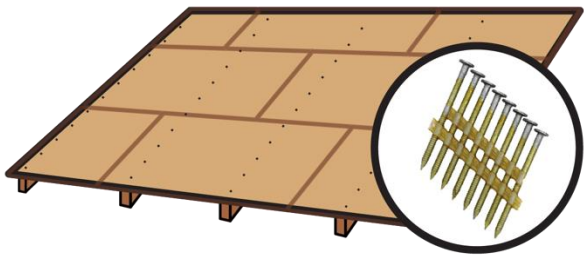
Installation: Drip Edges



Starter Strip

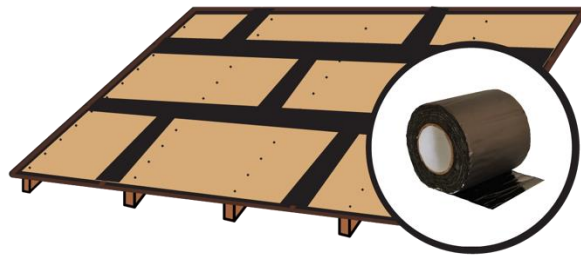


1. KEEP THE ROOF ON.



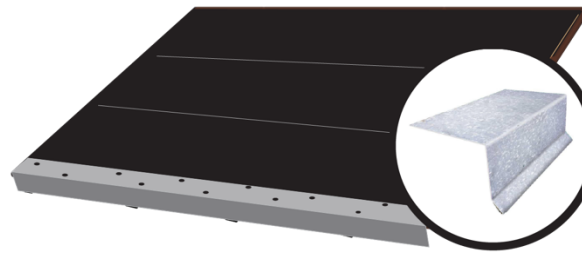
Stronger Connections

2. KEEP THE WATER OUT.



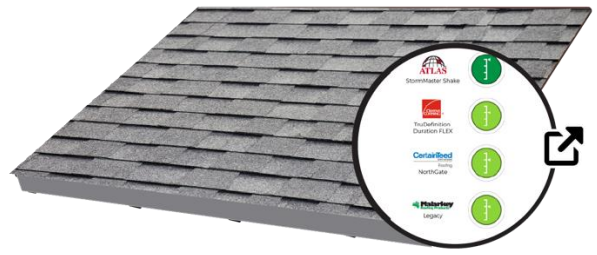
Sealed Seams

3. KEEP THE WIND OUT.



Lock the Edges Down

4. DEFEND THE SHINGLES.



Choose an Impact-Rated Shingle**



Asphalt Shingle Classification

Acceptable shingle classifications include:

- ASTM D3161 Class F
- ASTM D7158 Class H



Other Roof Cover

- Must be installed to resist design uplift pressures of the site
- Must have independent third-party testing to determine the design pressure limitations



CERTIFIED PRODUCT EVALUATION REPORTS

Use design pressures listed in certified product evaluation reports:

Must apply a 2 to 1 margin of safety to the tested pressure



The International Code Council
Evaluation Service Report

Florida Building Code
Product Approval

Miami-Dade
Notice of Acceptance

Texas Department of
Insurance Product Evaluation

OPTIONAL HAIL SUPPLEMENT – MUST MEET GOOD OR EXCELLENT

Requirements:



Asphalt shingles:

- Excellent or Good by IBHS Impact Resistance Test Protocol for Asphalt Shingles

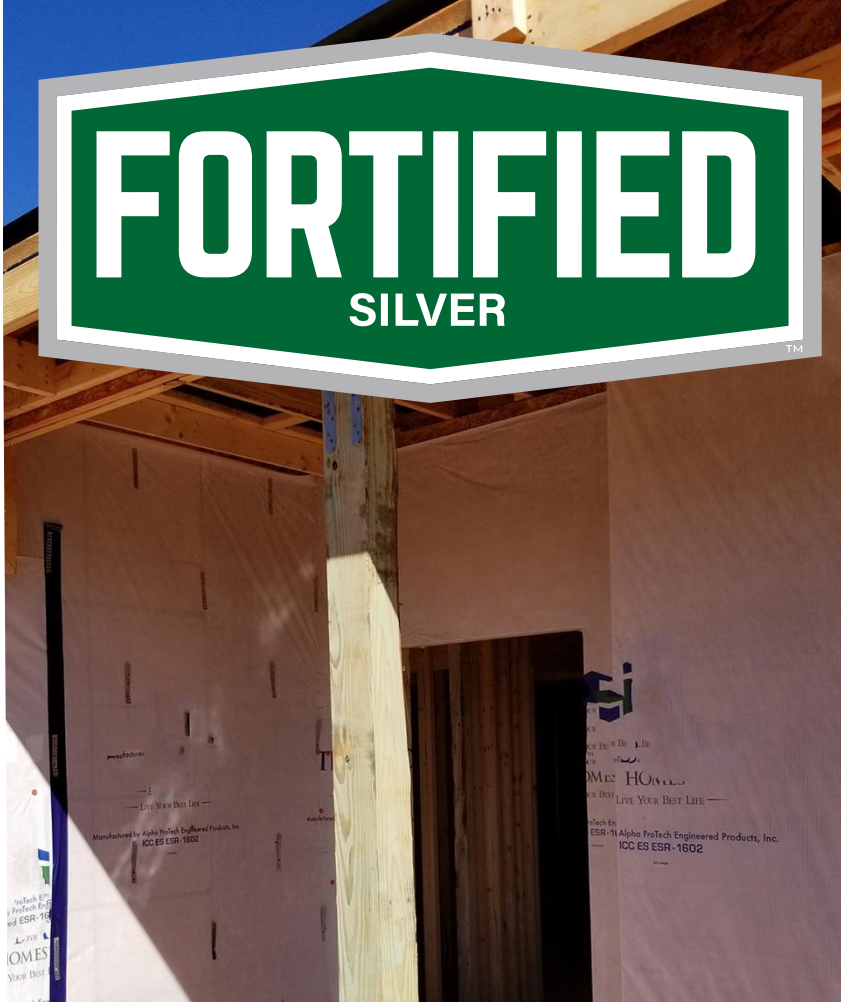
ROOF SHINGLE HAIL IMPACT RATINGS				
Manufacturer/Brand	Overall Rating	Dents/Ridges	Tears	Granule Loss
	Good	Good	Good	Good
	Good	Fair	Good	Good
	Good	Fair	Good	Good
	Good	Good	Good	Good
	Good	Good	Good	Good
	Good	Fair	Good	Good
	Good	Fair	Good	Good

<https://ibhs.org/hail/shingle-performance-ratings/>





Windows & Doors
Garage Doors



Porches &
Attached Structures



Gable End Bracing
(where applicable)

FIELD

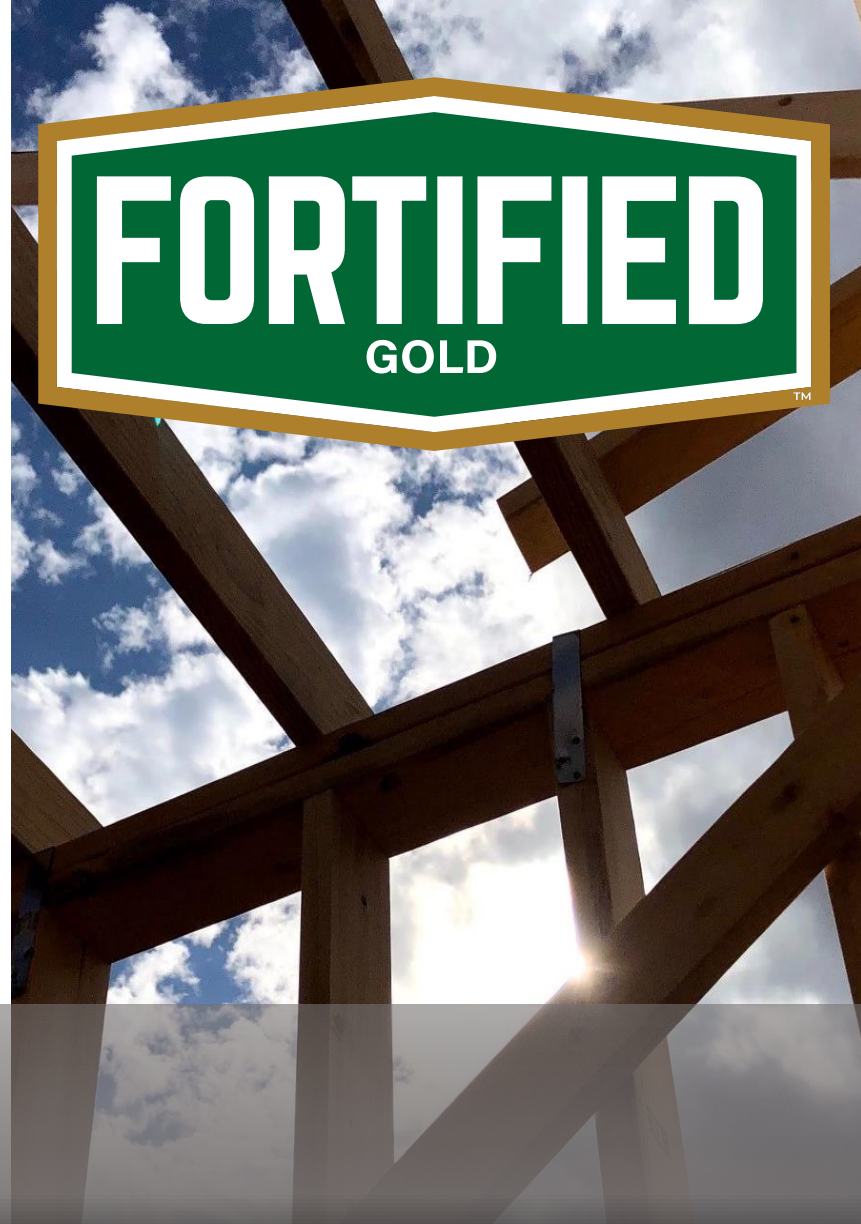


April 13, 2020 Chattanooga, TN
EF-3 Tornado

IBHS



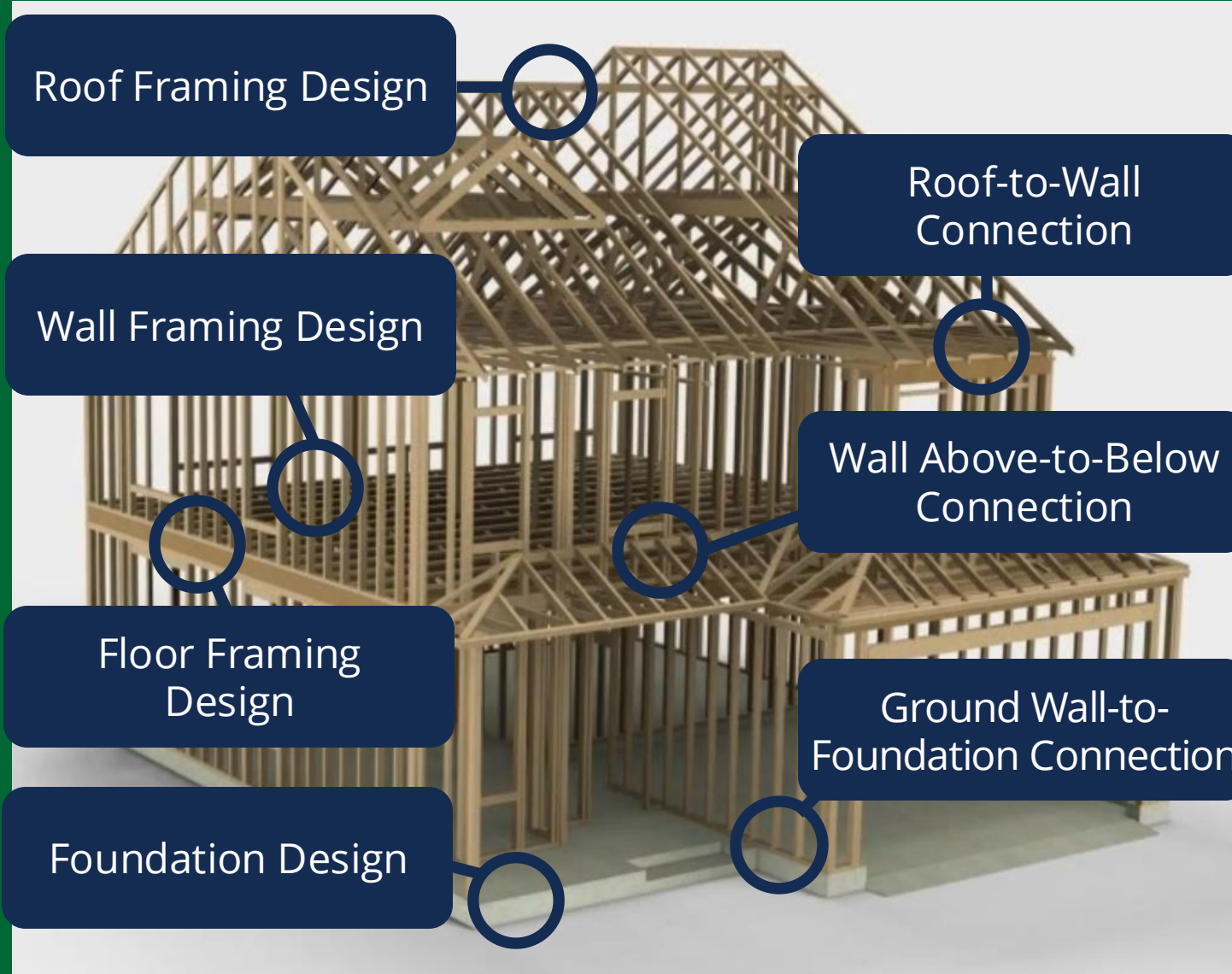




FORTIFIED
GOLD

Continuous Load Path

New Homes



Connections required for FORTIFIED Silver:

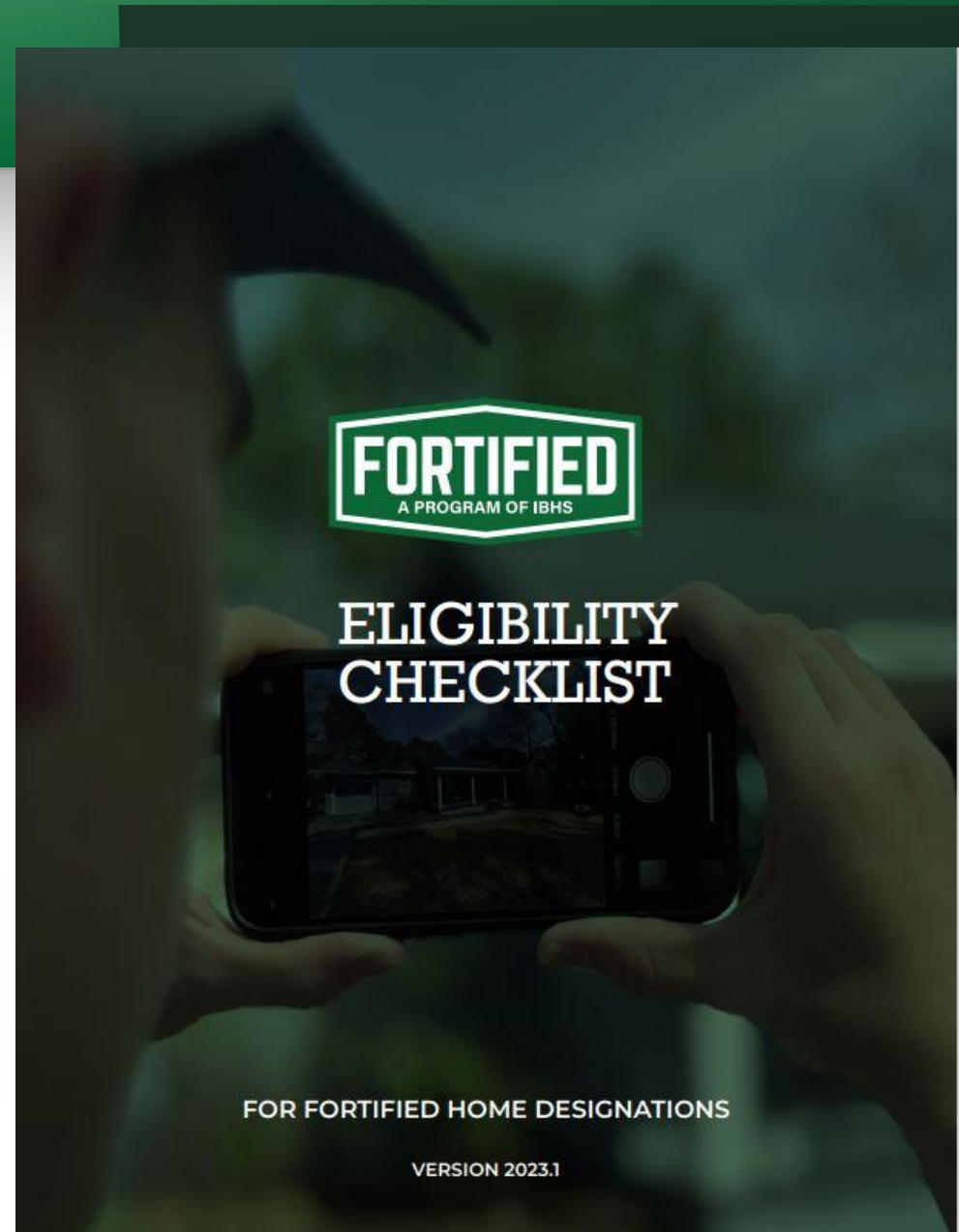
- Chimney framing and connection requirements
- Attached Structure design

Which house would you rather
Own? Build? Sell? Insure?



Eligibility verification is KEY

Not all homes are eligible for a
FORTIFIED designation!



Eligible Dwellings

- New and existing homes
- Single-family detached homes
- Duplexes
- Townhouses
- Manufactured homes



Foundation verification – DRYSTACK BEWARE

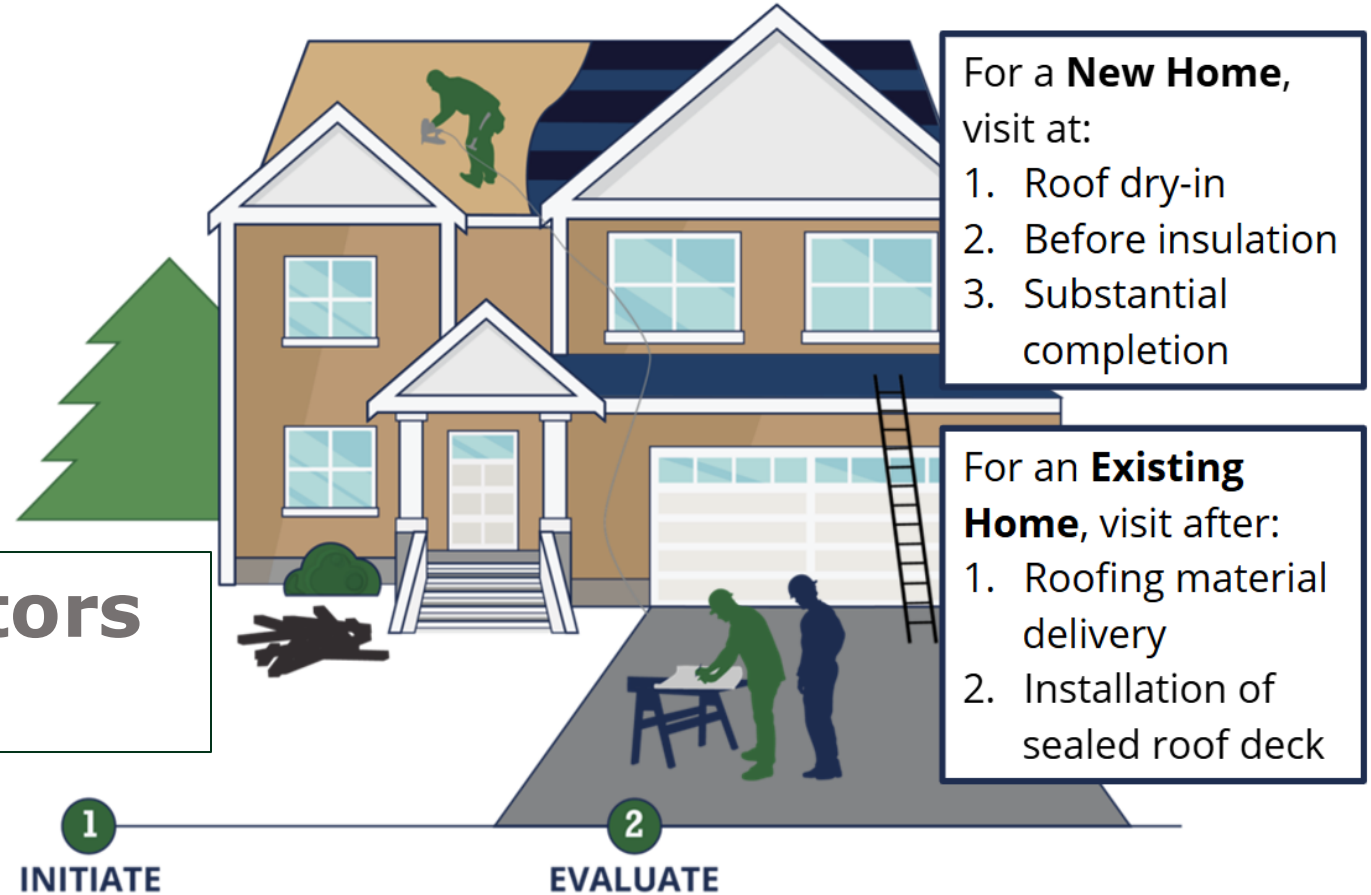




Every FORTIFIED
designation
requires
**independent
third-party**
verification and
documentation
of key
requirements

Module 3: FORTIFIED Home™ Designation Process

Designation Process Overview



**Site Visits by Evaluators
Are REQUIRED**

For a **New Home**, visit at:

1. Roof dry-in
2. Before insulation
3. Substantial completion

For an **Existing Home**, visit after:

1. Roofing material delivery
2. Installation of sealed roof deck

Documentation



Photographs of Materials
and Construction

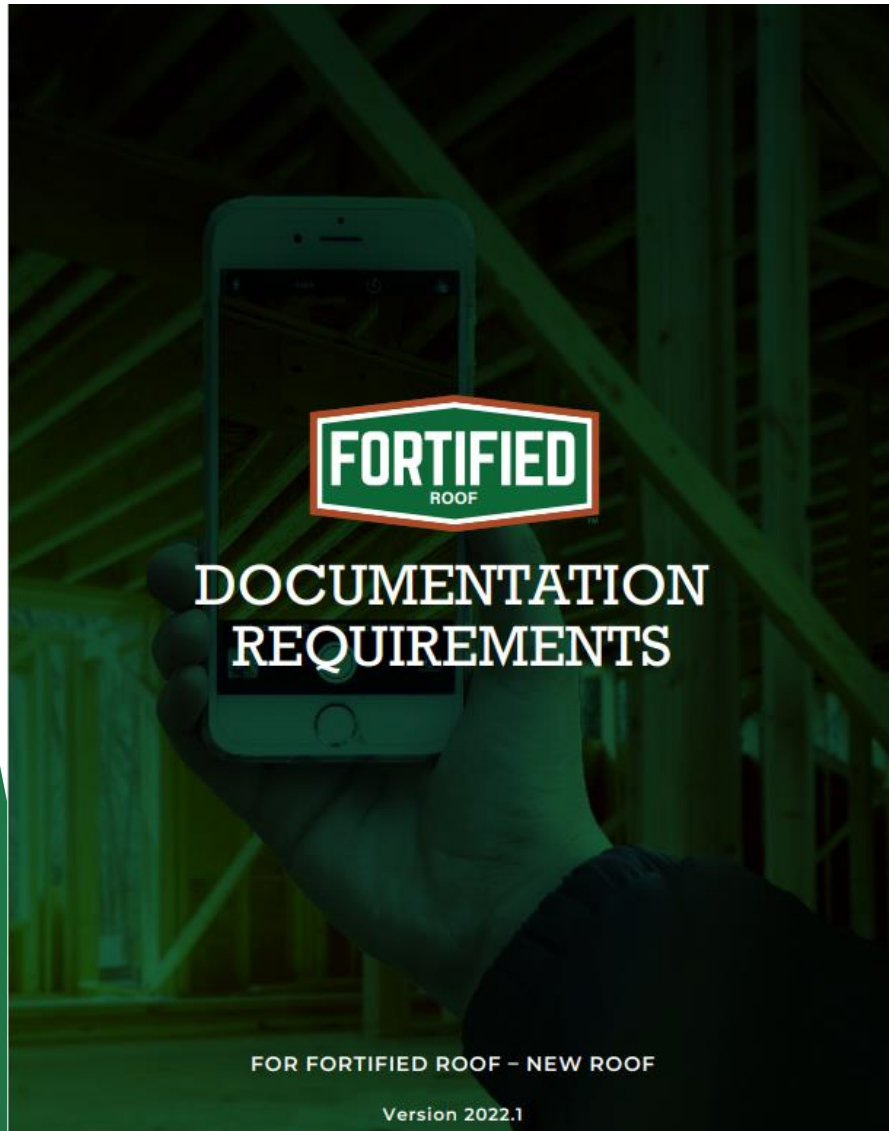



Test Reports/Manufacturer
Documentation



FORTIFIED Compliance
Forms

Documentation Checklist



 **2020 FORTIFIED Home™ Standard – Roof Designation Requirements**

RCF1 - Roofing Compliance Form for Asphalt Shingle Roof Cover – New Roof or Re-Roof

All sections must be completed and signed by installing Roofing Contractor Responsible Party to confirm that roof products and installation meet FORTIFIED Roof requirements. Form not valid if all sections are not filled out, initialed and/or signed by Roofing Contractor. Location and date stamped photos documenting roof installation must match RCF to achieve FORTIFIED designation.

General Information (complete a thru h):

a. FORTIFIED ID: _____ (Obtain from homeowner or FORTIFIED Evaluator)

b. Homeowner's Name: _____

c. Property Street Address: _____

d. City: _____

e. State: _____

f. ZIP: _____

g. County: _____

h. Date of roof installation: _____

1. Permit information (complete a, b, c, d OR e):

a. Permit Number: _____

b. Dated: _____

c. Issued by the _____ (County/City/State) Building Department

d. Date of final inspection by Building Department: _____

e. _____ Initial here if no permit was issued

2. Site Conditions (complete a thru f):

a. Building Code and Edition: _____

b. Design Wind Speed (minimum $V_{wh} = 130$ mph): _____

c. Exposure Category: B C D

d. Lowest slope of all roof areas with asphalt shingle roof cover: ____/12

Note: If there are multiple roof cover types on the same home, separate Roofing Compliance Forms must be submitted for each roof cover type.

e. Mean Roof Height (MRH): _____ ft
 $MRH = \frac{1}{2}$ (height from ground to eave + height from ground to ridge)

f. Check here if site is within 3,000 ft of saltwater
Note: If site is within 3,000 ft of saltwater, fasteners and connectors must comply with FORTIFIED Corrosion Protection Requirements per [Standard Detail F-G-1](#)

3. Roof Sheathing (Decking) Type and Thickness (complete a thru d):

a. Sheathing type: Plywood/OSB Wood board Other _____ (Check One or Write In)

b. Sheathing thickness: _____

Page 1 of 5

FORTIFIED Home is a program of the Insurance Institute for Business & Home Safety Revised January 2022

Designation Term Limit and Re-Designations

FORTIFIED designation certificates:

- Issued by IBHS with unique identifier
- Transferable between homeowners
- Valid for five years
 - Re-designated after five years to verify expected remaining life & condition of roof cover
 - Homeowners receive a renewal notice from IBHS prior to expiration



What makes a home ineligible?

Redesignation taboos

- **Additions constructed without an evaluator involved**
 - Includes enclosing or adding porches or carports
- **Reroofing or repairing without an evaluator**
- **Installing solar panels without an evaluator**
- **Replacing Doors or Windows**
- **Adding a doggie door**



Who Can Do the Work?

- Licensed Contractors, Home Builders, Roofers
- Find certified roofers, contractors and evaluators on the FORTIFIED website
- Nov 1, 2025 ALL FORTIFIED Homes must have the roof installed by a FORTIFIED Certified Roofer

Find FORTIFIED Wise Professionals
fortifiedproviders.com/

Requirements for Certification



Professional
Experience



Minimum
Insurance



Complete
Training



Pass
Exam



To become a certified
FORTIFIED Wise Roofing Contractor

or a certified
FORTIFIED Wise Evaluator

visit:

**Fortifiedhome.org/
how-to-become-fortified-certified**

Who can do the work?



FORTIFIED DIRECTORY



Welcome

Providers Near Me

Provider Login

Welcome to the FORTIFIED Directory

Finding a building professional who knows the FORTIFIED standard is the first step towards protecting your home from the next storm. Whether you're seeking a certified FORTIFIED evaluator, roofing contractor or professional, you've come to the right place.

Find a FORTIFIED Service Provider near you:

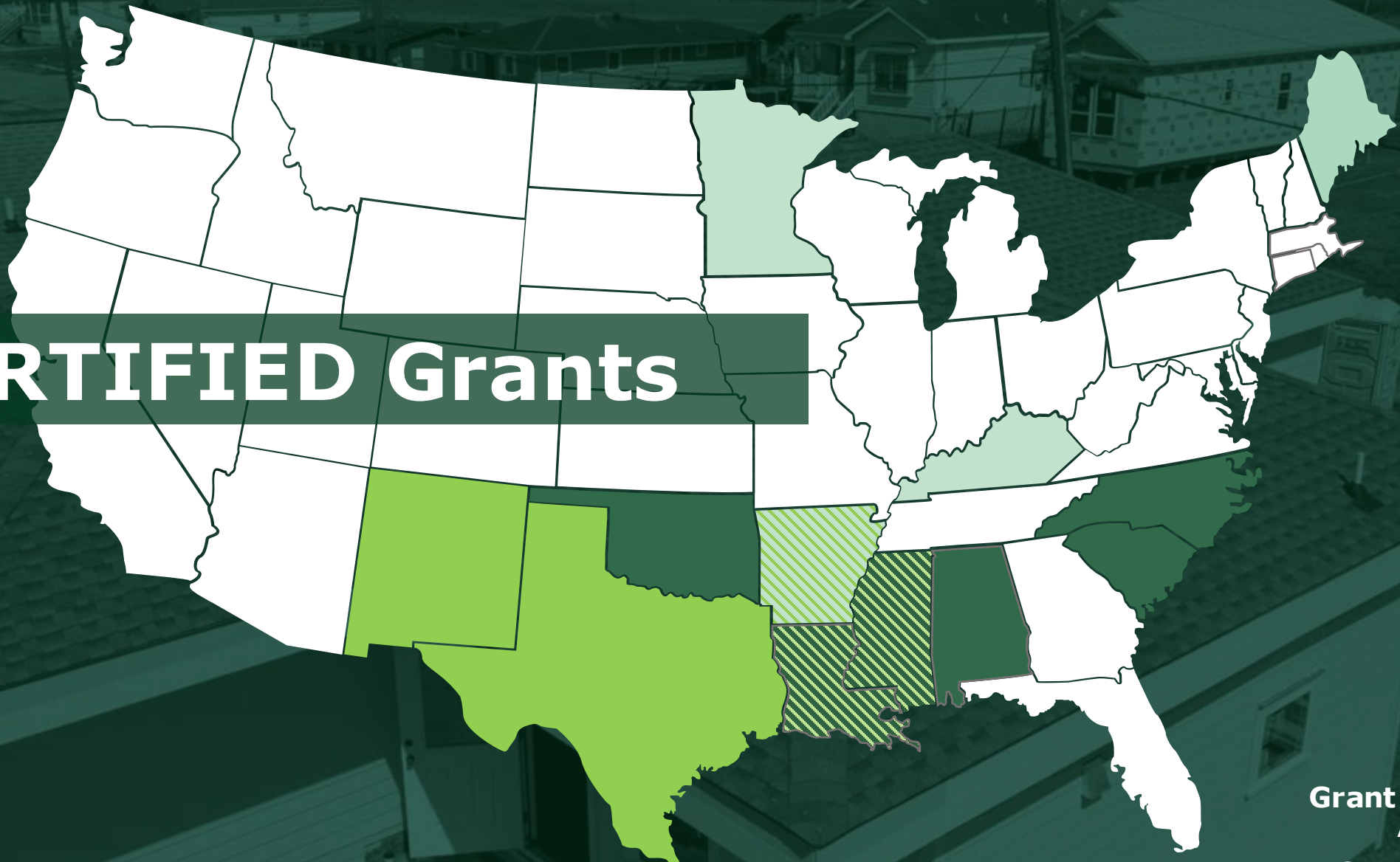
 Find an Evaluator


 Find a Roofer

 Find a Professional

fortifiedproviders.com

FORTIFIED Grants



- Grant Program Available 
- Coming Soon 
- Federal Home Loan Bank of Dallas 

State Farm



Thank you!

TRAVELERS 

 Robert Wood Johnson
Foundation

 Fannie Mae®


 **LDI** Louisiana
Department of
Insurance




FHLBANK
DALLAS

 Freddie Mac



 Culverhouse
College of Commerce
Alabama Center for Insurance
Information and Research

 Insurance
Institute for
Business &
Home
Safety®

 **LSU**
AgCenter
Research · Extension · Teaching

