



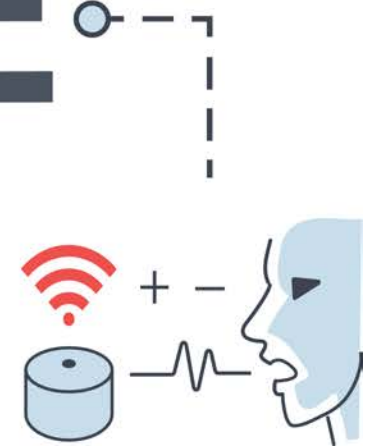
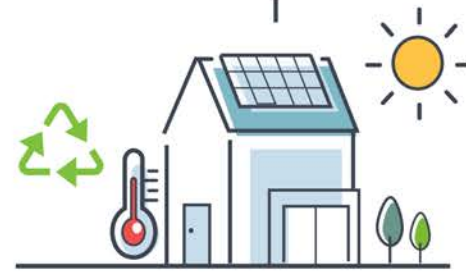
Julie Shiyou-Woodard

President and CEO

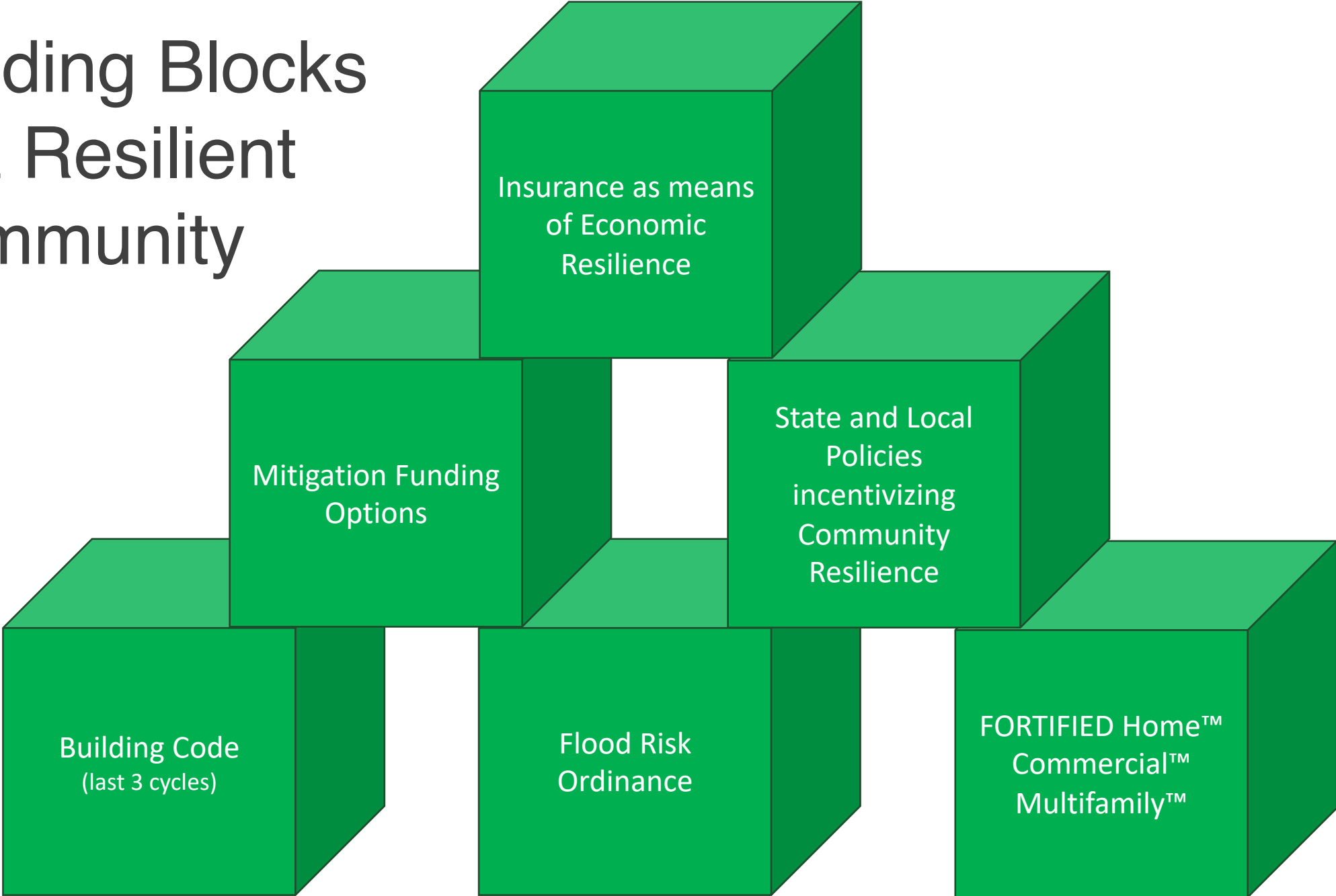


**SMART HOME
AMERICA**

SMART HOME



Building Blocks of a Resilient Community










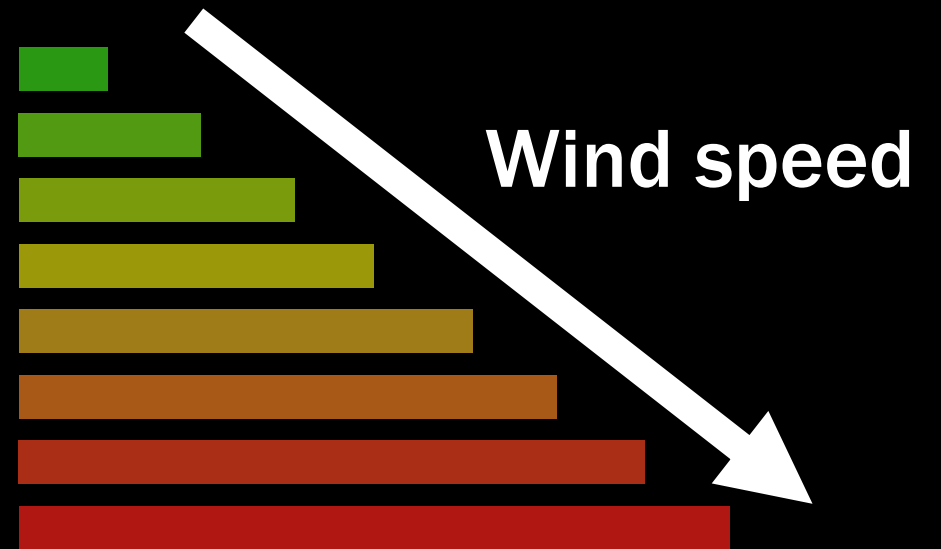
Up to
90%
of post-cat
claims include
damage to the
roof



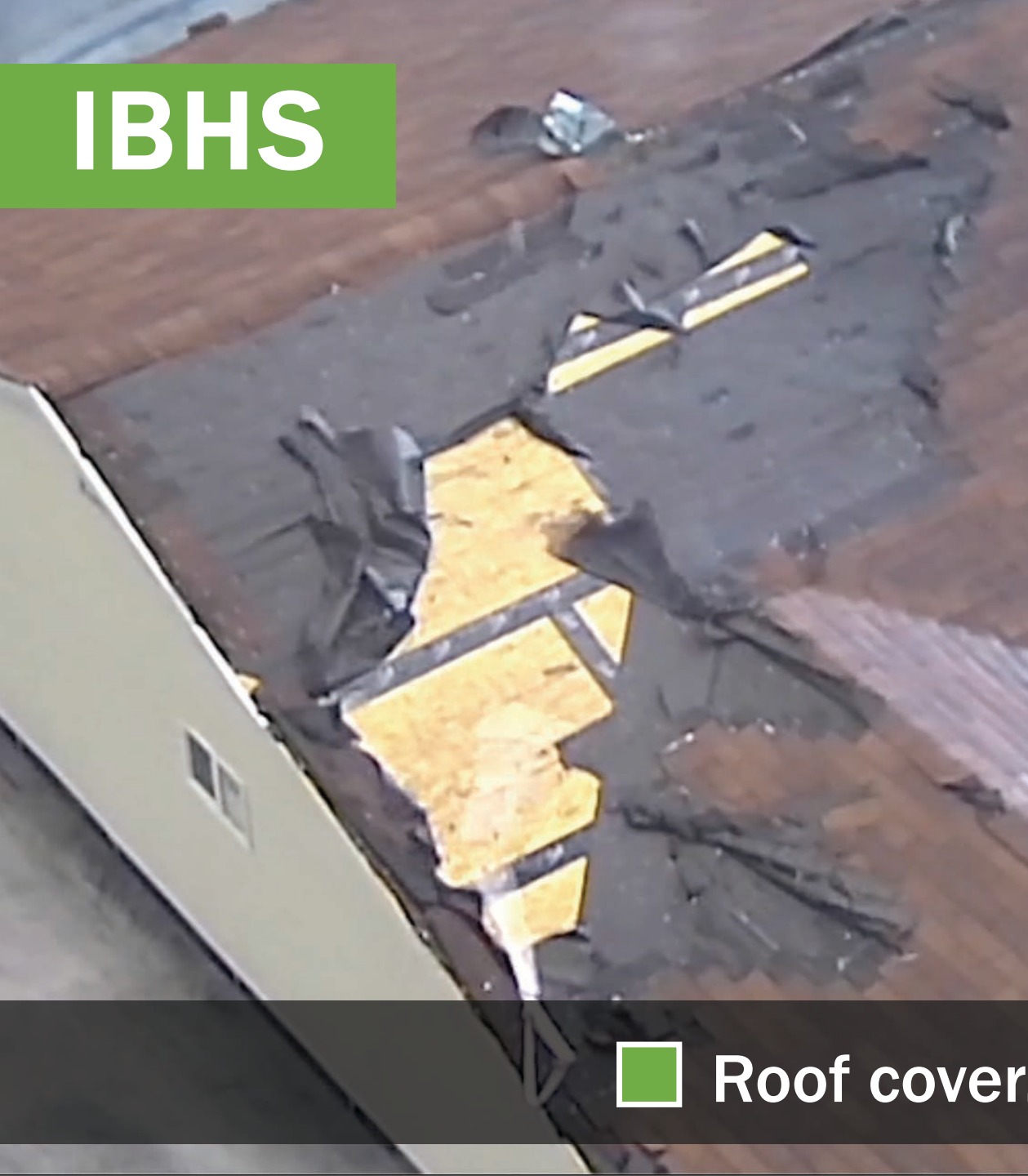


 Total collapse

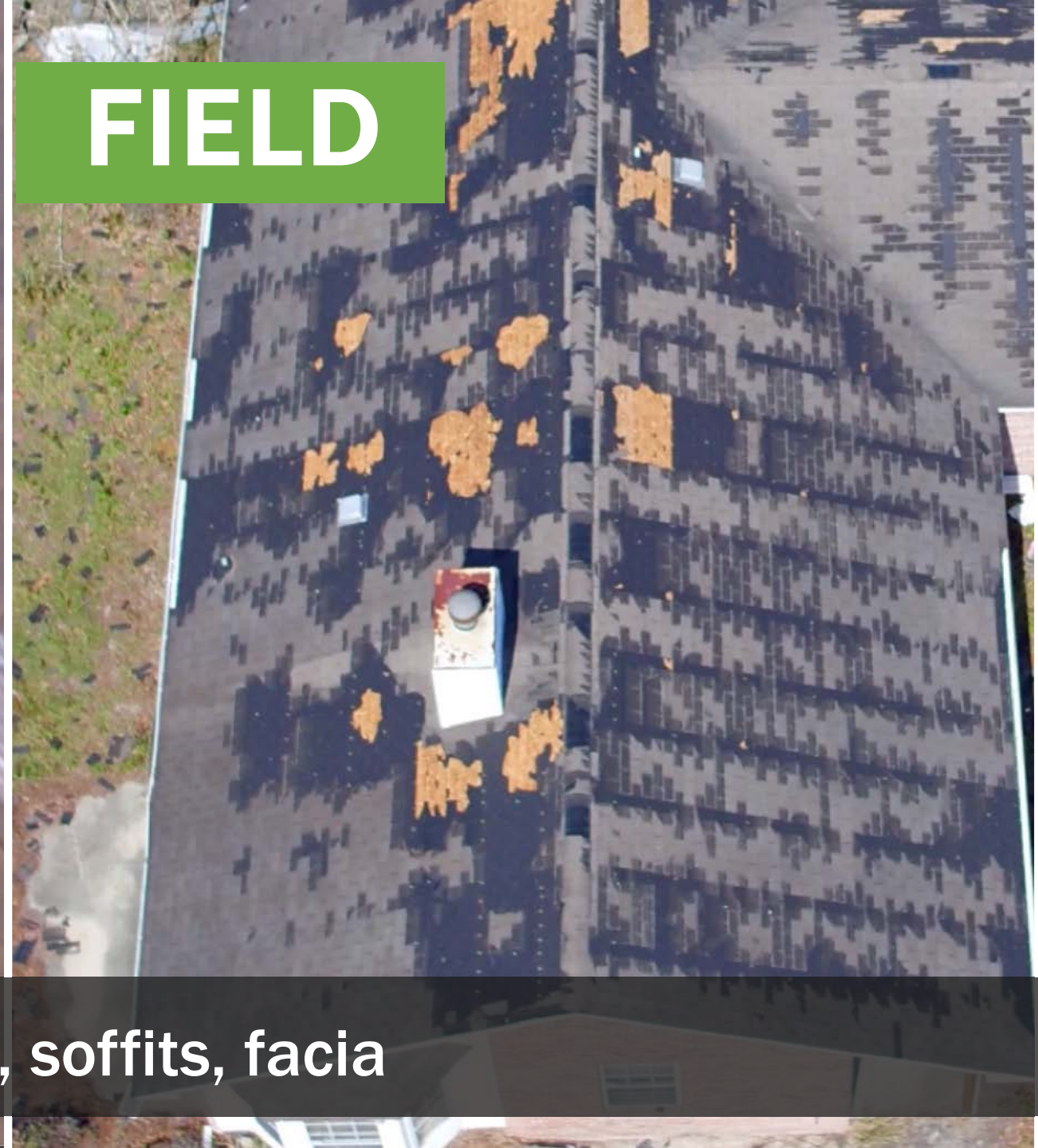
-  Roof cover, soffits, fascia
-  Wall cover
-  Roof sheathing
-  Roof structure
-  Total collapse



IBHS



FIELD

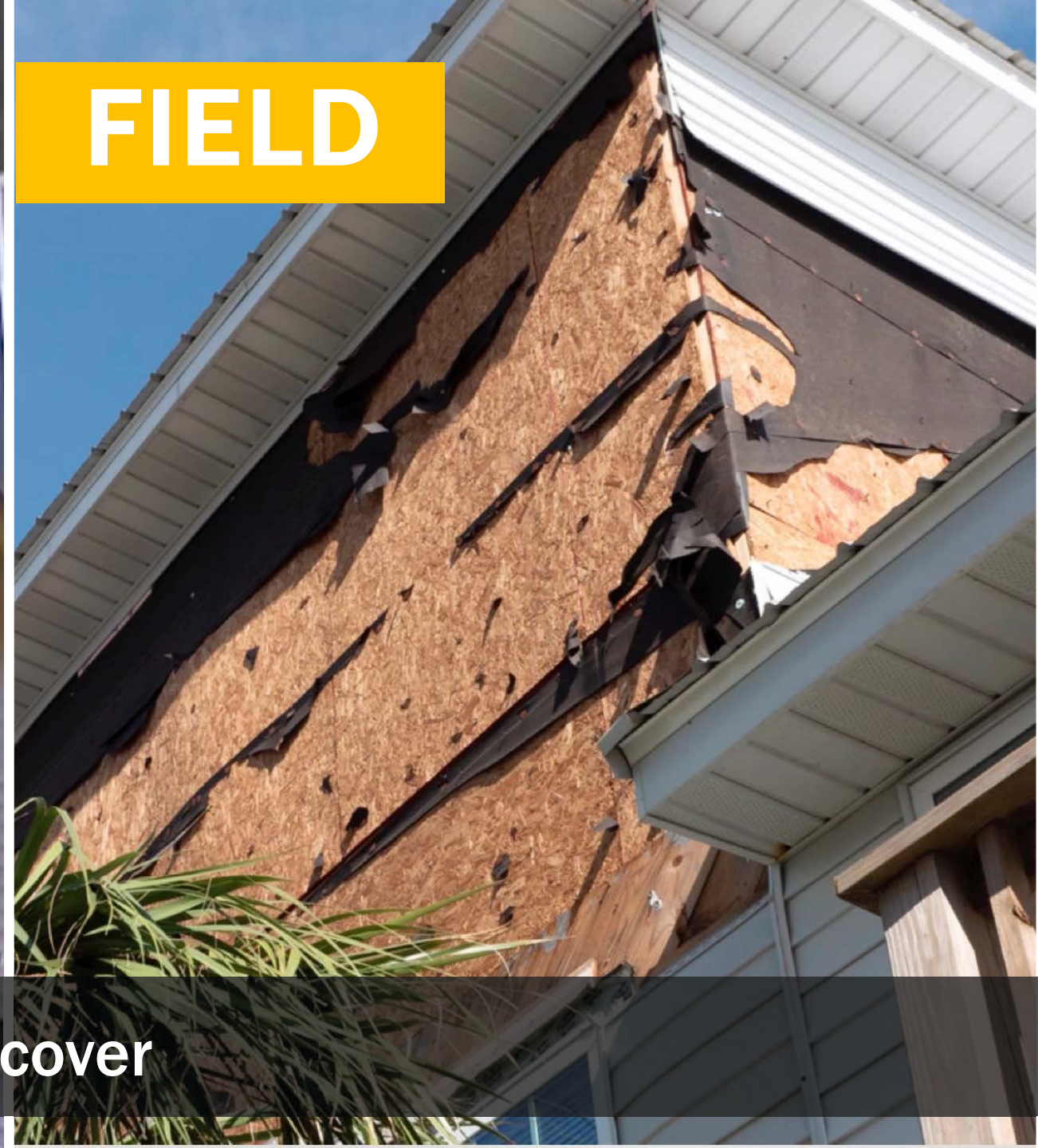



 Roof cover, soffits, fascia

IBHS



FIELD

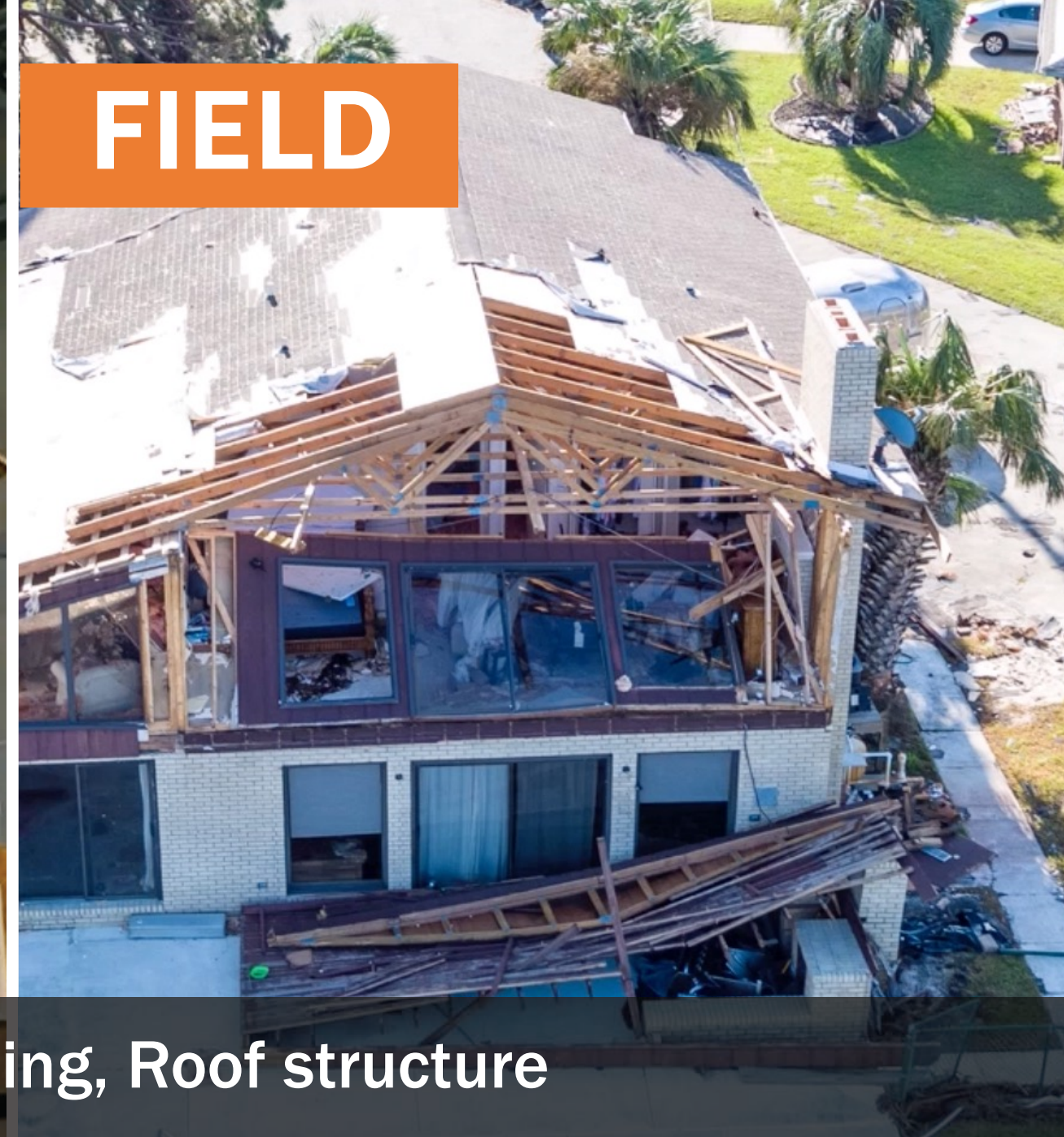


 **Wall cover**

IBHS



FIELD



 **Roof sheathing, Roof structure**

IBHS



 **Total collapse**

FIELD



FIELD








April 13, 2020 Chattanooga, TN
EF-3 Tornado

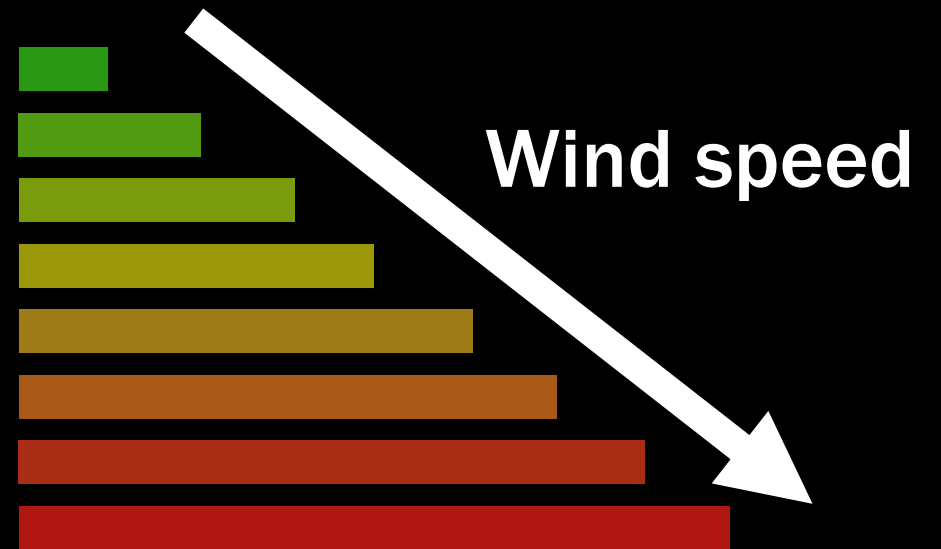
IBHS





 Total collapse

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





A PROGRAM OF IBHS
FORTIFIED
HOME



FORTIFIED
COMMERCIAL



FORTIFIED
MULTIFAMILY

WHAT IS FORTIFIED?



<https://vimeo.com/112705020>

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.

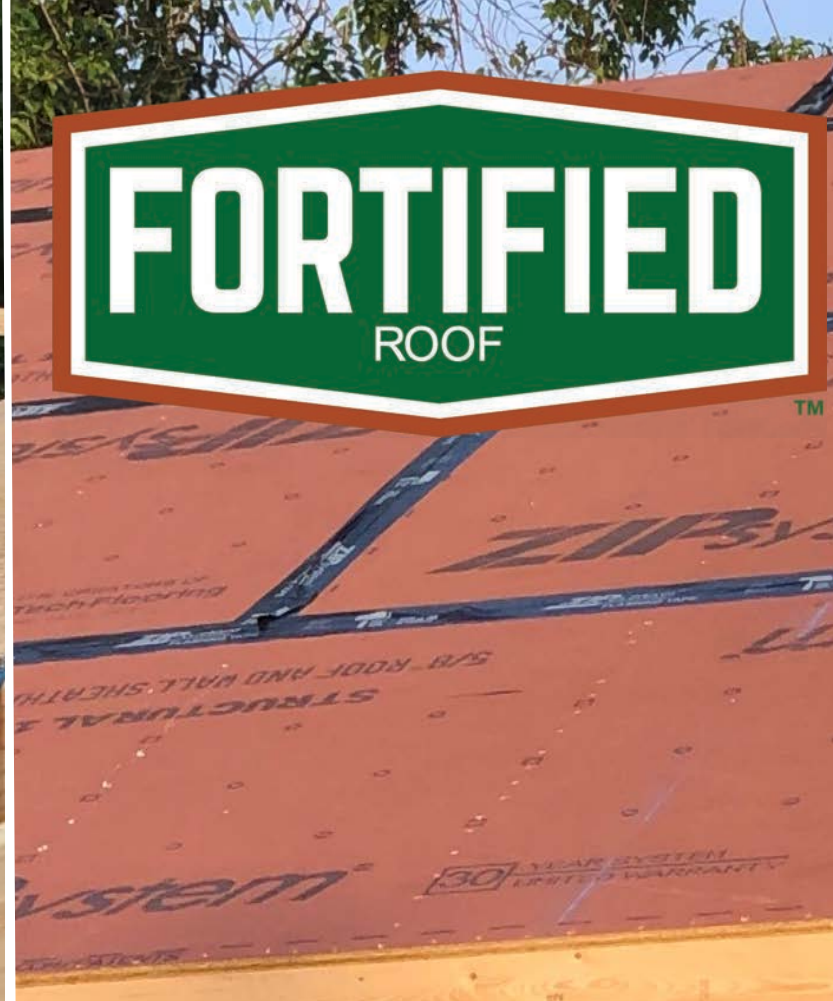




1

Nail it Down

Keep the Roof On



2

Seal it Up

Keep the Water Out



3

Lock it In

Keep the Wind Out

IBHS



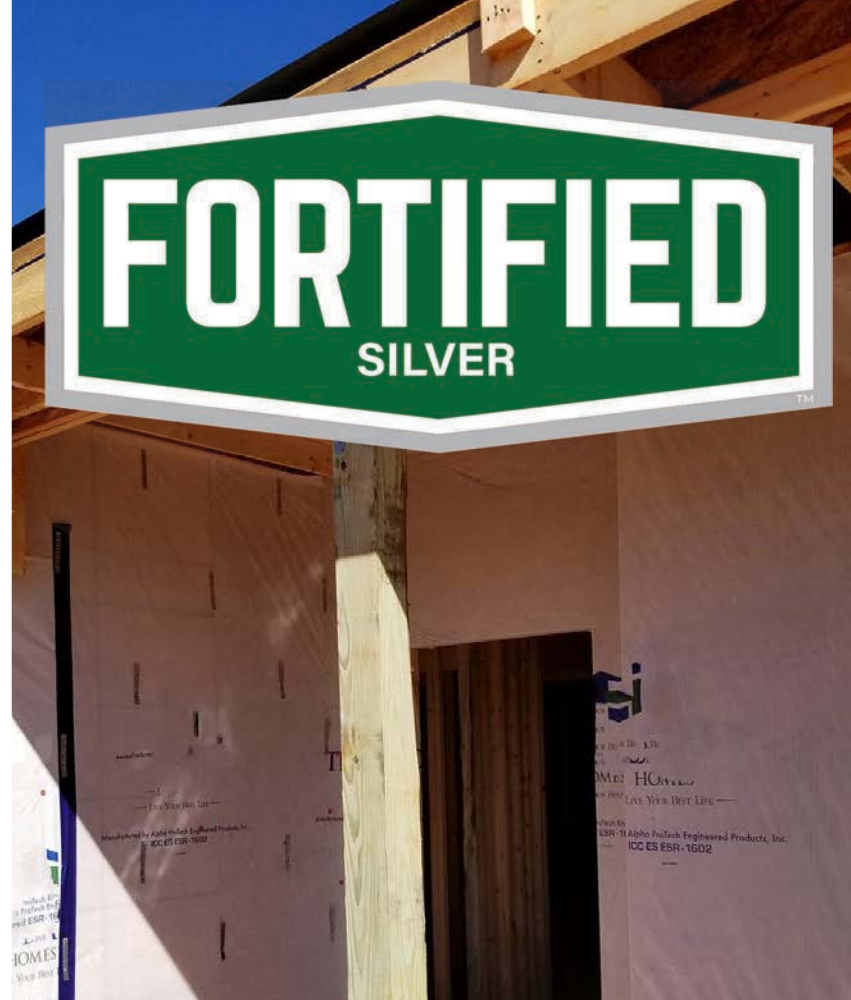
Water Intrusion Demo at the IBHS Research Center



<https://vimeo.com/165188884>



**Windows & Doors
Garage Doors**



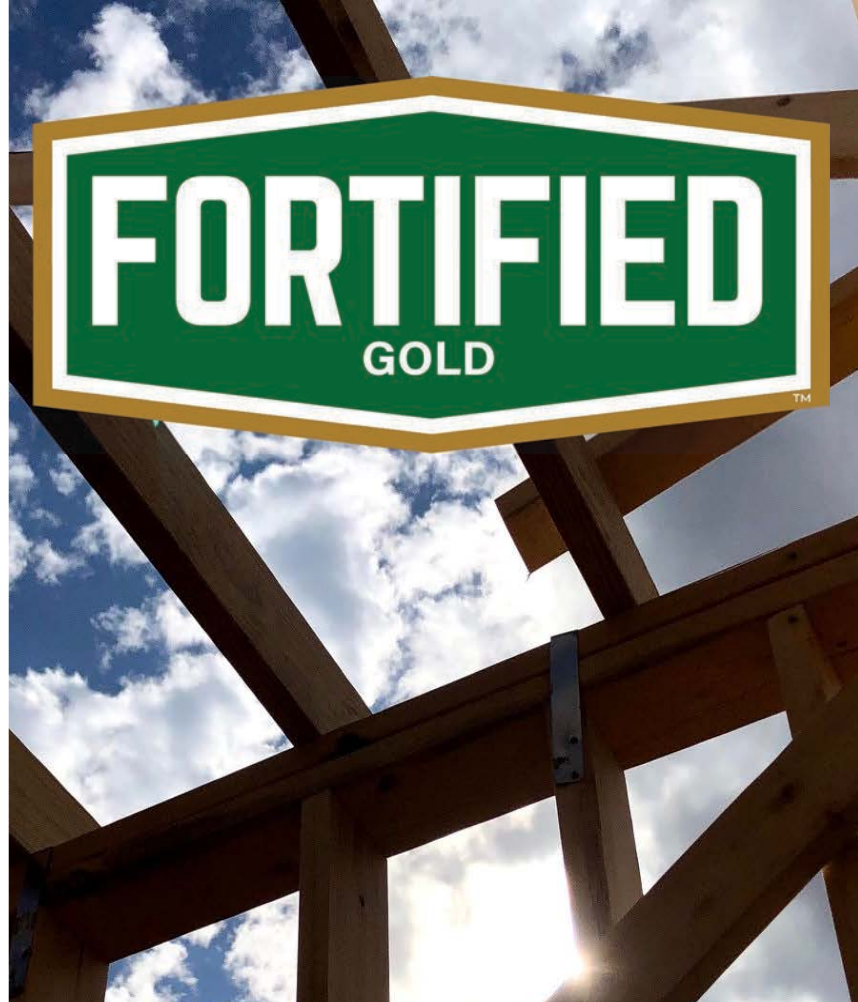
**Porches &
Attached Structures**



Gable End Bracing
(where applicable)

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





Continuous Load Path



An aerial photograph showing a residential neighborhood that has been severely damaged. The foreground and middle ground are filled with a vast expanse of brown and grey debris, including twisted metal, wood, and rubble. Many houses are reduced to skeletal remains or completely flattened. In the background, the destruction gives way to a more intact suburban area with green lawns and trees, and further back, rolling green hills under a clear sky. The overall scene conveys the scale of the disaster.

WE CAN'T PREVENT
ALL DAMAGE.

BUT WE CAN
PREVENT THIS.

Designation Process Overview



1.

□ □□□□□□□
project

2. Build or reroof to designation requirements

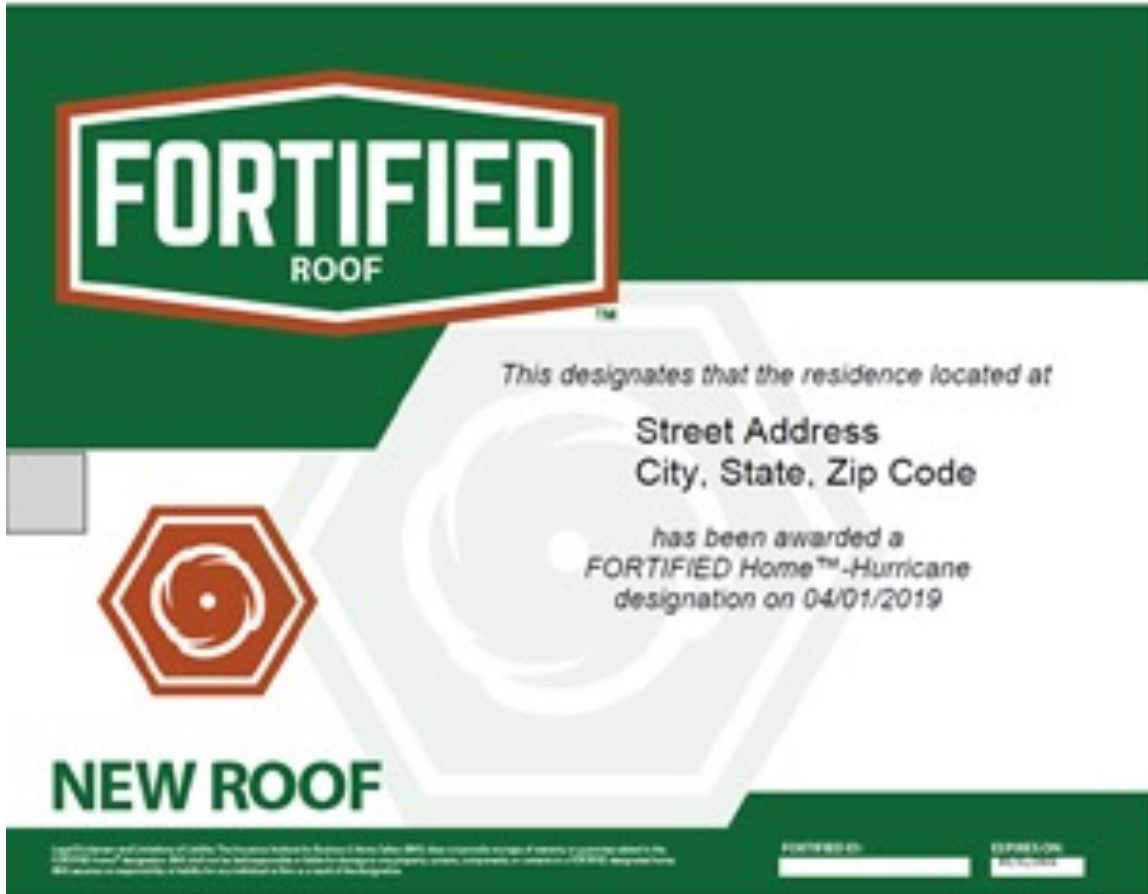
3. Document requirements

4. Verify requirements

5.

Review and
designate

Designation Term Limit and Re-Designations

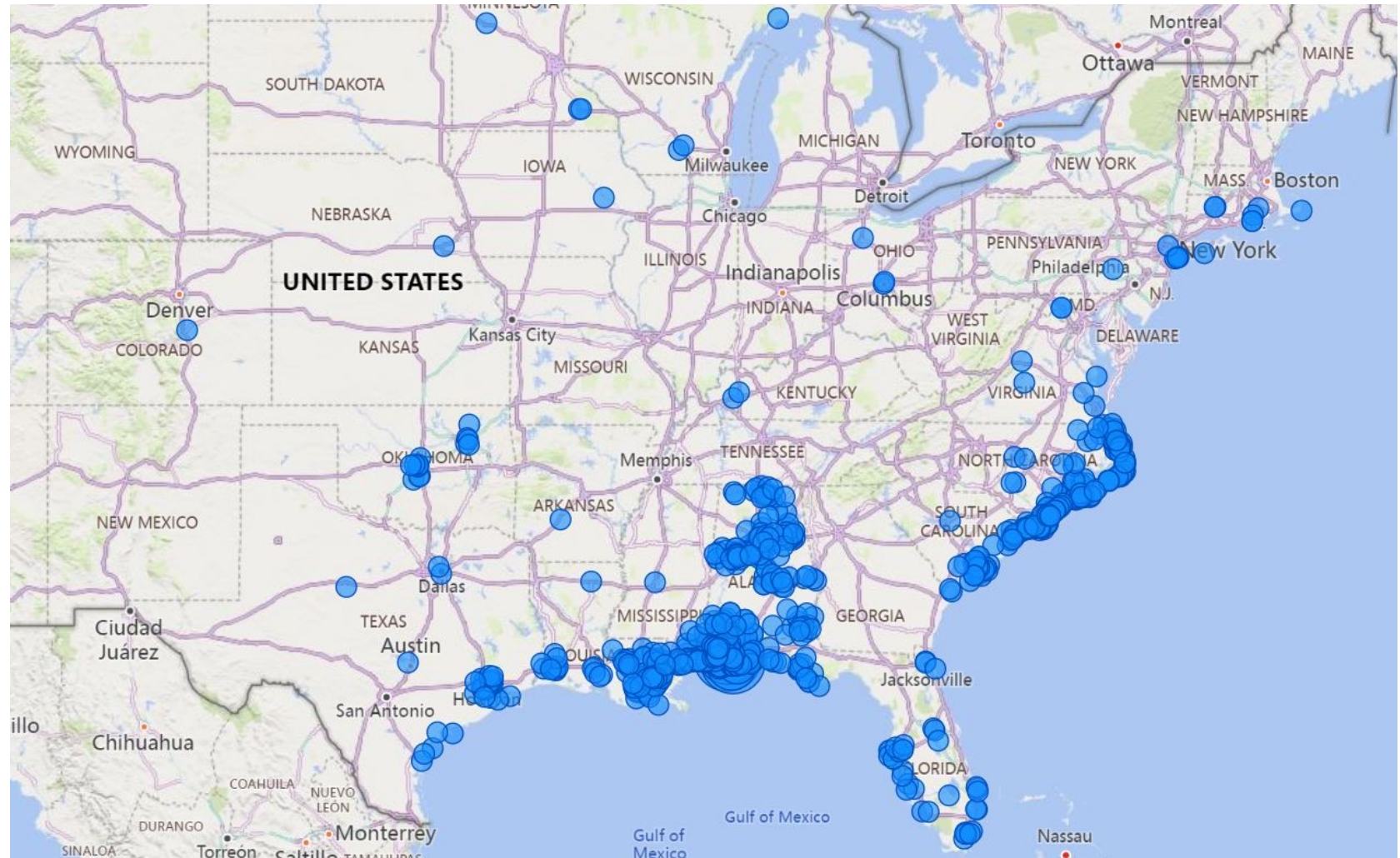


FORTIFIED designation certificates:

- Transferable between homeowners
- Valid for five years
 - Re-designated after five years to verify the expected remaining life and condition of the roof covering
- Homeowners receive a renewal notice from BHS prior to expiration

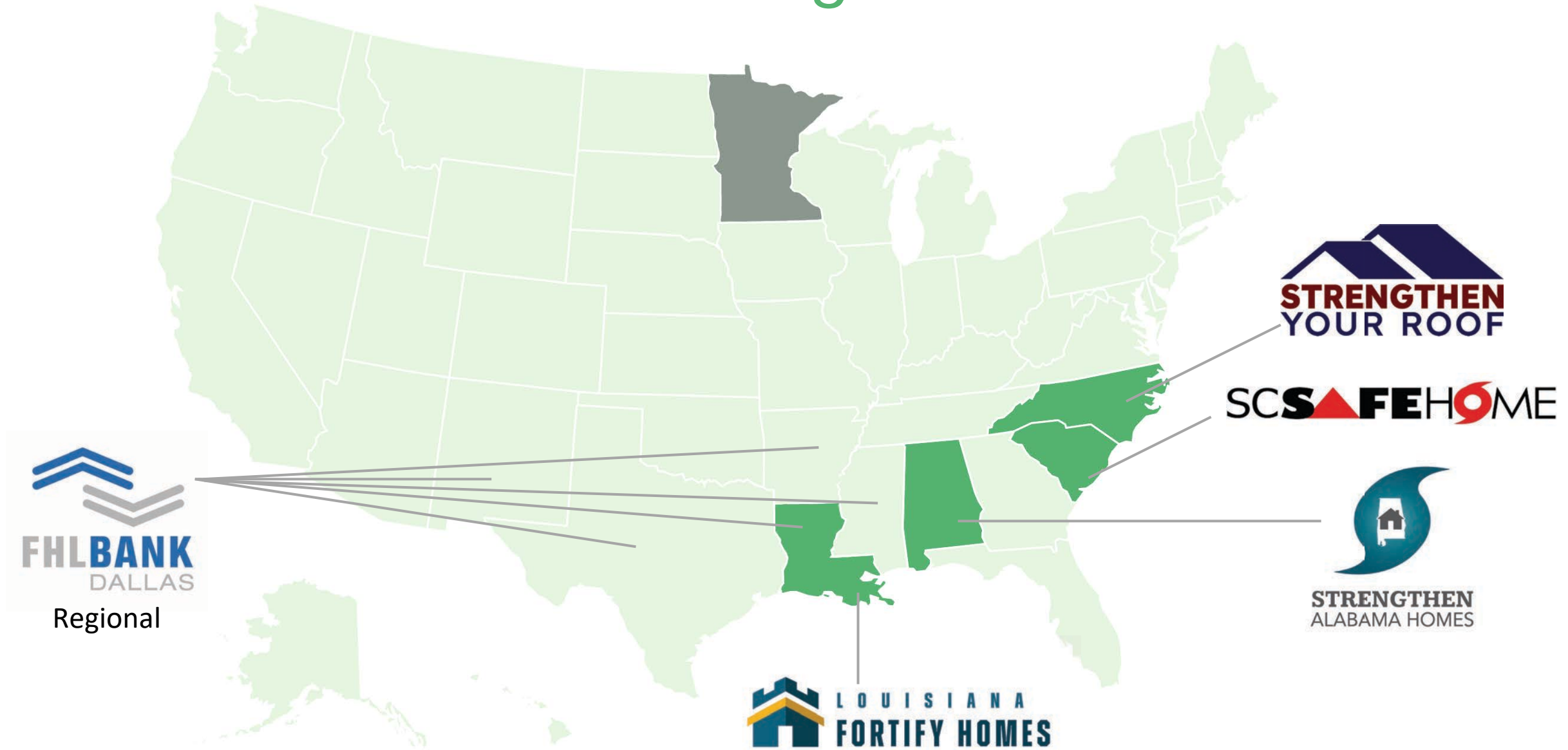


- Over 55,000 Nationally
- 50% of inventory designated in last 2 years
- AL leads with over 45,000





Grant Programs



The National Standard for Resilient Construction



FEMA



U.S. Small Business
Administration



LOUISIANA
— Office of —
COMMUNITY
DEVELOPMENT



FHLBANK
DALLAS



STRENGTHEN
ALABAMA HOMES



LOUISIANA
FORTIFY HOMES



SCSAFEHOME



Louisiana Housing
Corporation

IOWA
economic development

II.A.2.a. Alignment with mitigation plans. Grantees must ensure that the mitigation measures identified in their action

plan **will align with existing hazard mitigation plans** submitted to the Federal Emergency Management Agency (FEMA) under section 322 of the Robert T. Stafford Disaster Relief and Emergency Assistance Act (42 U.S.C. 5165) or other state, local, or tribal hazard mitigation plans.

II.A.2.b. Mitigation measures. Grantees must incorporate mitigation measures when carrying out activities to construct, reconstruct, or rehabilitate residential or non-residential structures with CDBG-DR funds as part of activities eligible under 42 U.S.C. 5305(a) (including activities authorized by waiver and alternative requirement). To meet this alternative requirement,

grantees **must demonstrate that they have incorporated mitigation measures** into CDBG-DR activities as a construction standard to create communities that are more resilient to the impacts of recurring natural disasters and the impacts of climate change. When determining which mitigation measures to incorporate, grantees should design and construct structures to withstand existing and future climate impacts expected to occur over the service life of the project.

II.A.2.c. Resilience **performance metrics**. Before carrying out CDBG-DR funded activities to construct, reconstruct, or rehabilitate residential or non-residential structures, the grantee must establish resilience performance metrics for the activity, including: (1) an estimate of the projected risk to the completed activity from natural

hazards, including those hazards that are influenced by climate change (e.g., high winds destroying newly built homes), (2) **identification of the mitigation measures that will address the projected risk**s (e.g., using building materials that are able to withstand high winds), and (3) an assessment of the benefit of the grantee's measures through verifiable data (e.g., 10 newly built homes will withstand high winds up to 100 mph).



Louisiana Housing
Corporation



LOUISIANA
Office of
COMMUNITY
DEVELOPMENT


Hurricane Ida



Brian Emfinger @brianemfinger



Grant Ethridge Construction, <http://www.gchp.net>



University of Alabama
study shows ROI
for resilient
construction
can be as
high as 72%

Also showed
74% of renters
would pay more
for a resilient home

Thank You

Contact Information



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