

Relocate the Structure

Overview

- In order to protect a structure from flooding, the structure can be relocated outside of the floodplain to an area where it may be less susceptible to flooding.
- This measure is highly recommended in high hazard areas, including areas with high flood depth and wave action potential.
- During relocation, structures are prepared for the move, placed on a wheeled vehicle, transported to a new location and set on a new foundation.
- Some structures can be moved all at once, others must be moved in segments.
- Single-story wood frame houses are typically the easiest houses to relocate. Brick, concrete, or masonry structures are generally more difficult as partitioning and associated increased costs are more likely.
- Homeowners will need to stay in temporary housing for the duration of the relocation and construction.
- When choosing a new location for the structure, make sure that the design engineer considers the following:
 - Floodplain location
 - Accessibility
 - Utility service
 - Flood flow frequency, velocity, duration
 - Erosion vulnerability
 - Underlying soil conditions
- A new property may need to be purchased.
- Demolition/restoration of the foundation of the original structure will be required.
- If the structure has experienced substantial damage, the cost of relocating it may be eligible for a NFIP insurance claim.



Photo credit: FEMA

Key Takeaways

The frequency and intensity of coastal and precipitation flooding events are increasing.

In some cases, the only way to avoid flood damage costs in areas experiencing frequent, high levels of flooding is to relocate the entire structure to an area outside of the floodplain (sometimes within the same property, sometimes onto a new property).

Structure relocation is limited to structures and properties which meet very specific requirements.

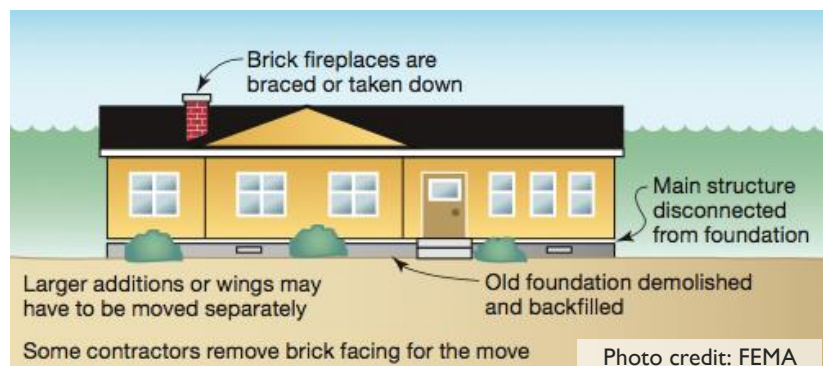
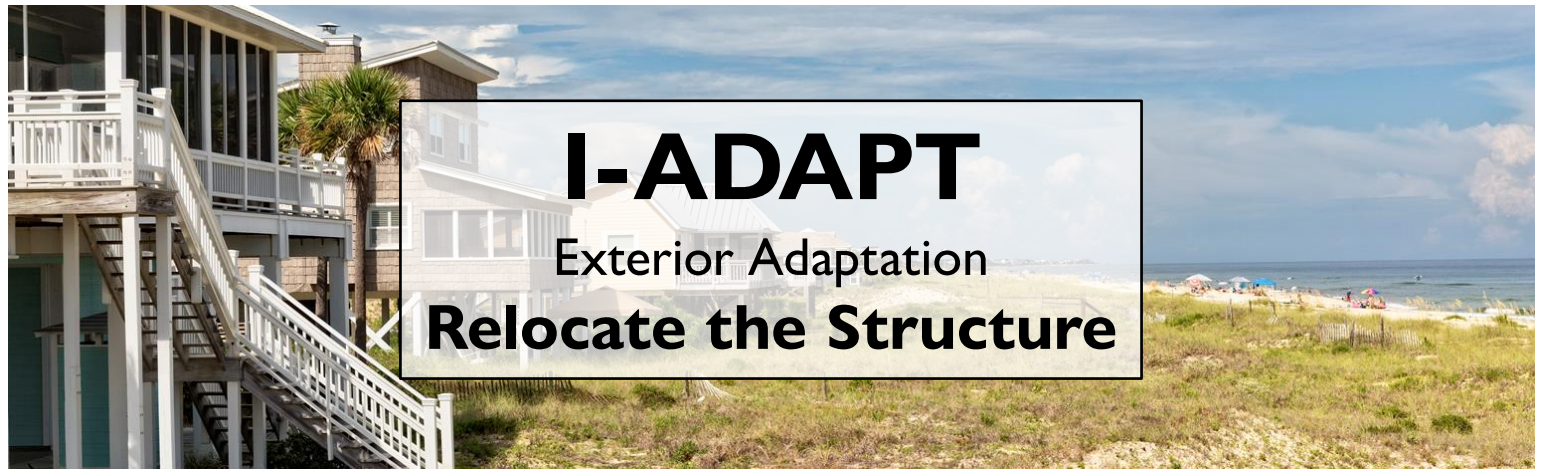


Photo credit: FEMA



I-ADAPT

Exterior Adaptation

Relocate the Structure

Estimated Cost/Benefits

*in 2022 U.S. dollars, estimates are subject to change

Potential Costs		Potential Benefits		
Item	Estimate	Post-Flood Action	Estimate	
Purchase of new property if not relocating onto different area on the original property	Dependent on size, grading, and locality	Flood damage recovery (professional clean-up, mold removal, replacement/repair of flood-damaged items)	1 inch water	\$10,800-\$53,500+
Structure relocation including new foundation, septic, wiring, plumbing, relocation, and demolition of old foundation	\$50,000-\$90,000		↓	↓
Temporary housing (60 days)	\$5,000-\$7,000		4 feet water	\$53,500-\$203,200+
ESTIMATED TOTAL COST	\$55,000-\$97,000+	ESTIMATED TOTAL SAVINGS	\$10,800-\$203,200+	

Potential Funding Sources

- Increased Cost of Compliance (ICC) coverage is for flood insurance policyholders who need additional help rebuilding after a flood. It provides up to \$30,000 to help cover the cost of mitigation measures that will reduce flood risk.
- [Flood Mitigation Assistance Grant \(FMA\)](#)
- [Building Resilient Infrastructure & Communities Grant](#)

Additional Resources

- [FEMA Engineering Principles and Practices for Retrofitting Flood-Prone Residential Structures \(FEMA P-259\)](#)
- [FEMA Homeowner's Guide to Retrofitting \(Chapter 8\)](#)

Resources can also be found at <https://de.gov/iadapt>

Expected Maintenance

- Regular structure maintenance.

Additional Actions

- Utility systems may need to be updated to be compliant with local and state regulations.
- While the structure is being moved, the inhabitants will need temporary housing.

Permitting Agencies

Contacts for permitting requirements include but are not limited to the following:

- Your city and/or county government for local flood ordinances or regulations
- Your city and/or county government for building permits
- [DNREC Coastal Construction Permit](#)
- [DNREC Septic System Removal](#)

Who to Contact

- Relocation contractor
- General contractor
- Design engineer/professional
- Utility companies

Technical term definitions and more information are located on the I-ADAPT website: <https://de.gov/iadapt>.



This information is intended to be used for planning purposes. It is not intended to substitute or take precedence over the guidance of design engineers, contractors, utility companies or regulatory agencies.

For more information, contact DNREC's Division of Climate, Coastal and Energy at DNREC_IADAPT@Delaware.gov

