Demolition

Overview

- Demolition is the act of tearing down a damaged or at-risk structure.
- Structure demolition is recommended when the structure has already experienced flooding which caused severe structural damage or when the structure is likely to experience extensive flooding in the future.
- There are several options for post-demolition:
 - Mitigation reconstruction (construction of a new, elevated building on the same site of the previously existing structure)
 - Re-construction elsewhere on the property, above the Base Flood Elevation line (BFE)
 - Re-construction on a different property, outside of the floodplain
 - Purchase a new structure outside of the floodplain
- If the structure has experienced substantial damage, the structure may be eligible for a NFIP insurance claim which could help cover the cost of demolishing the structure.
- If a structure has experienced flood damage multiple times (repetitive loss) and is in a Special Flood Hazard Area, it may be eligible for a FEMA buyout (see <u>Buyout Document</u>).
- If re-building on the same property, the new structure must be built in compliance of the community's floodplain management laws and ordinances. The new structure's lowest floor must be above the BFE.
- The original structure site must be restored. Site restoration typically includes filling in basements, grading, and landscaping in addition to removing all debris.
- A demolition contractor will be necessary as the utility lines will need to be disconnected and capped, and the demolition will require heavy, dangerous equipment.



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Key Takeaways

In some situations, structure retro-fitting and adaptation measures will not provide enough protection from flooding or may be costprohibitive.

In these cases, demolition may be the best option for eliminating potential future flood damage costs.



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Estimated Costs/Benefits

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

Potential Costs				Potential Benefits
Demolition Type	Action		Cost	Post-Flood Costs
Demolition + Mitigation reconstruction	Demolition + mitigation reconstruction		\$143,000- \$190,000	
	Temporary housing (year)		\$0-\$22,000	
Demolition + Re-construction elsewhere on the property, above the Base Flood Elevation line	Demolition		\$4,000- \$15,000	
	Site restoration	Fill basement	\$0-\$10,000	As demolition is recommended when there is already significant flood damage
		Regrading/ landscaping /seeding	\$0-\$350	
	New construction		\$40,000- \$175,000	and the future flood risk is high, demolishing and starting over will avoid the complete loss of the value of the structure.
Demolition + Rebuilding on a new site on a new property outside of the floodplain	Demolition		\$4,000- \$15,000	
	Site restoration		\$0-\$10,350	
	New property cost and construction		\$40,000- \$175,000 + property	
Demolition + Purchasing a new structure outside of the floodplain	Demolition		\$4,000- \$15,000	
	Site restoration		\$0-\$10,350	
	New property/structure			
ESTIMATED TOTAL COST (1,000 square foot structure)			\$44,000- \$212,000+	TOTAL SAVINGS Value of the structure

Who to Contact

- Demolition contractor
- o General contractor and design professional

Potential Funding Sources

- If the structure has been declared substantially damaged or repetitively damaged, the NFIP may cover up to \$30,000 with a submitted claim.
- o Flood Mitigation Assistance Grant (FMA)
- <u>Building Resilient Infrastructure and</u> <u>Communities Grant (BRIC)</u>

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 demolition and/or sewer demolition permits

Expected Maintenance

• Regular maintenance for new property.

Additional Resources

- <u>FEMA Engineering Principles and</u>
 <u>Practices for Retrofitting Flood-Prone</u>
 <u>Residential Structures (FEMA P-259)</u>
- FEMA Homeowner's Guide to Retrofitting (Chapter 8)

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

Technical 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