



FEMA

No Fear From Up Here: Iowa Family Elevates Home

Vinton, IA - Anthony and Jackie Behounek live along the Cedar River outside the City of Vinton, Iowa. When a record flood in May 2008 hit the rural area, the Behouneks left their home to stay with Jackie's mother. After the flood, they returned home, relieved to find that the 7½ feet of water had left their elevated home untouched.

"We had friends who were boating in and out of here," said Jackie. "They were telling us the water was all the way up to our deck and probably in the house. We were so relieved when we came back to find that the water hadn't gotten any higher than the garage/storage space."

Back in 1993, the Behouneks' home sat on a concrete slab and flooding was relatively common. Two years prior, they had to clean up after floodwaters reached as high as the single-story home's foundation. So when they received word in April 1993 that extremely high water levels were expected to occur, they began looking for measures to protect their home. Following some advice they received, they layered the side of the house facing the river with black plastic, and layed down numerous sandbags in hopes of keeping the water out of their home.

"When the water comes up and hits that plastic, it acts as a filter, and keeps out silt and a lot of other stuff," said Jackie. "The sandbags didn't help, though. The water was just too high."

The Behouneks left their home during the 1993 flood and stayed away for several days. When they returned, they found that 28 inches of water had flowed through their house. That's when they decided it was time to do something.

Learning of an elevated house in Independence, Iowa, they visited the site for inspiration and guidance. They also visited the Mississippi River area to see some of the pile elevated homes.

After calling a nearby house-moving company that also specialized in structural elevations, they contracted to have their home elevated. The Behouneks chose not to go with the pile-style design in favor of having an enclosed space under their home to use as a garage and for storage.

The elevation of a home, or other structures, requires the services of a professional engineer. New and substantially improved structures must be designed (or modified) to resist the forces of the floodwaters. This means adequately anchoring the house to prevent flotation, collapse, or shifting from both the weight of the water and the force of the moving water. In order to resist the weight of the water on the foundation flood vents are installed to provide access for water to flow through the lowest part of the structure. By NFIP regulations there must be a minimum of two openings that are no greater than 12 inches above grade and the total net area must equal 1-square inch of unobstructed area to every 1-square foot of floor space.

The Behounek's contractor alternative method was to lift the wood frame off the slab and elevate only that part. A wood floor is then built directly on to the frame, which is then lowered on to the new foundation. The Behouneks elevated their home 9 feet, which costs them approximately \$25,000.



Benton County,
Iowa



Quick Facts

- Year: **1993**
- Sector: **Private**
- Cost: **\$25,000.00 (Estimated)**
- Primary Activity/Project: **Elevation, Structural**
- Primary Funding: **Homeowner**