



## Mitigation of Utilities in Older Home Prevents Damages

**State-wide, New Jersey** – Mr. Robert Vilee’s home is in a residential neighborhood of Long Branch that is prone to flooding from the nearby river and marshland.

His home was originally built at the turn of the 20<sup>th</sup> century and is mostly above grade. The foundation is red brick; the basement is about five and a half feet deep and has a cement floor with a sump pump and drains. The basement, which is about two feet below grade, houses the hot water heater and the boiler for the radiant heating system.

In 2006, the previous owner constructed an addition that is slightly higher in elevation than the first floor. He didn’t want to try to match the new floor with the old. The addition is on a six and a half foot high basement space complete with flood vents at ground level. The foundation for the home is mostly exposed with only a few feet below ground level.

Mr. Vilee installed his hot water heater and boiler in the basement using a quick release method so that he could easily disconnect and remove them. His premise is that he could prevent damage or loss by removing the utilities, as well as the washer, dryer, and all of his tools, before a storm flooded the basement.

Before Hurricane Irene made landfall, he removed the equipment from the basement. While his neighborhood flooded, Mr. Vilee’s property did not sustain any damages as the floodwaters did not reach his home, but he was prepared for potential flooding. The hot water heater and boiler were reinstalled as soon as the storm passed.

As Hurricane Sandy approached, he began disconnecting his utilities and moved everything from the basement to the first floor. He heeded the warnings and evacuated the house, as he normally does during a severe storm, and returned to find that his basement did get about five feet of water.

Most of the water drained out quickly via the flood vents while the sump pumps running on a generator handled the rest. Mr. Vilee was able to easily clean up the excess mud.

He was without power for about a week. Once he was able to return to his house, he re-connected all of his utilities in an afternoon including the washer and dryer, and later put all his tools (many electric) back in the basement. His actions prevented any loss or damage to his utilities, etc.

The only other damage from the flood water was to the grouting on the red brick foundation, but it doesn’t appear to affect the integrity of the foundation and it will be repaired.

Some of his neighbors lost their cars to the flood water. Many homes were flooded through the first floor. When measuring the high water mark, Mr. Vilee’s first floor living space was still over a foot higher than the record flood levels.

Mr. Vilee admits that his procedure is time consuming and he is seriously contemplating putting his utilities on a higher level, but he knows these Mitigation Actions have allowed him to recover faster in a disaster. He admits, “I’m getting too old to keep doing this,” but considers himself very fortunate.