

## LEAP SUCCESS STORY



**Rich and Lisa Layman**  
**1941 Two story brick home**  
**(+ unfinished basement)**  
**2,564 sf, 3 BR 2.5 BA**  
**Duel Fuel Heat Pump**  
**Location: Arlington, VA**

**Projected Energy Savings:**  
**38%**



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Rich and Lisa Layman both have a background in architecture, so they were keenly aware that their 71-year old home had energy efficiency issues. Tell-tale signs included wide temperature fluctuations throughout their home, despite the previous installation of a high efficiency heat pump, and odd smells coming from the crawl space. After winning the NOVA Home Energy Makeover Contest, the work on their home included new attic insulation, air sealing and encapsulating their crawl space. Now comfort levels are up and complaints are down.

### ***Basic Issues Uncovered in the Home Performance Assessment:***

- Significant air leakage
- Inadequate attic insulation
- Attic pull-down stairs not insulated
- Minimal insulation between kitchen floor and drive-in garage
- Vented crawlspace that is connected to the family room in the basement, which caused moisture and comfort issues

### ***Energy Improvement Measures Implemented:***

- Air sealed all attic floor penetrations, including wires, plumbing penetrations and top plates of all walls on the 2nd floor
- Installed R-49 insulation in the attic
- Removed garage ceiling and installed two part spray foam to insulate and air seal the underside of the kitchen floor
- Encapsulated crawlspace (laid down a thick layer of plastic sheeting and sealed off with two part spray foam)



*"Being an architect I understood the importance of some of the recommendations that the LEAP team made - adding insulation (properly installed this time!) in the attic seemed like a no brainer. I was surprised however at how well it worked. I was skeptical of plans to fix the temperature issues in our sunroom by addressing the crawl space beneath -- I thought they would start with the windows. But now we've reopened the door between the sunroom and the rest of the house, and have been able to enjoy room regardless of how cold it is outside."*

*- Rich Layman*

**Contractors:**

