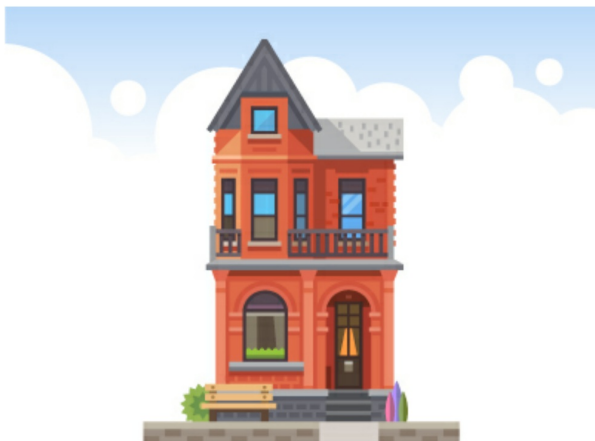


Baker Neighborhood Energy Efficiency Workshop

Simple Do's & Do Not's for Energy Efficiency in Older Homes



Prioritizing Energy Upgrades

When implementing energy upgrades, efforts should be concentrated on improvements that will provide maximum payback for the money expended and least compromise the building fabric. Three types of changes can be undertaken to improve energy efficiency:

1. Operational changes, such as installing programmable thermostats, using curtains and shades, and installing new fluorescent light and LED lights.
2. Upgrading equipment and appliances, such as upgrading HVAC systems and appliances.
3. Corrective work or treatments, such as air sealing, solar panels, and insulation.

Establishing Goals

Set reasonable and achievable goals when retrofitting older homes. Homes built before 1950 are about 30 to 40 percent less efficient than those built after 2000. It is possible to increase older homes' energy efficiency by 40 percent with operational changes, upgraded equipment and appliances, and corrective work or treatments. However, do not expect to achieve the "net zero" energy efficiency levels of new construction, this will require significant alterations and loss of building fabric and materials.

The simple DO's and DO NOT's of energy efficiency for older homes

DO:

Repair and caulk existing windows and install storm windows.

Place HVAC systems where they are not visible from the public right-of-way.

Install programmable thermostats, attic and ceiling fans, louvers and vents.

Install flat, traditionally mounted solar devices in locations that reduce visibility, including the rear portions of the roof, behind parapets walls, on secondary roof slopes OR on non historic additions and accessory structures.

Consider floor/crawl and attic insulation prior to wall insulation. All insulation should be a "borate" only cellulose or fiberglass to avoid negatively reacting with older building materials.

DO NOT :

Replace windows unless they have deteriorated beyond repair and install incompatible and inefficient replacement windows.

Place HVAC equipment where it is highly visible from the primary façade or install air conditioners in windows.

Install solar devices on the front half of the roof or in locations visible from the street or damage original roofing materials to install solar devices.

Use wet spray or spray in insulation that will potentially damage older homes once they expand.

Myths about energy efficiency in older homes

Older homes were not designed to be energy efficient.

FALSE! Older homes make use of passive systems, such as natural lighting and ventilation to accommodate the environment. Today we use active systems to make homes energy efficient.

Wood windows are not energy efficient.

FALSE! Wood windows have the potential to be as energy efficient as modern day replacements if properly maintained. Additionally, air loss through windows accounts for only about 10% of the total air loss in older homes. Studies have shown that window replacement does not pay for itself in energy savings in a reasonable length of time.

When my appliance is turned "OFF" it is no longer using energy.

FALSE! This phenomenon is called "phantom" energy loss. Unplug appliance when not in use to save energy.

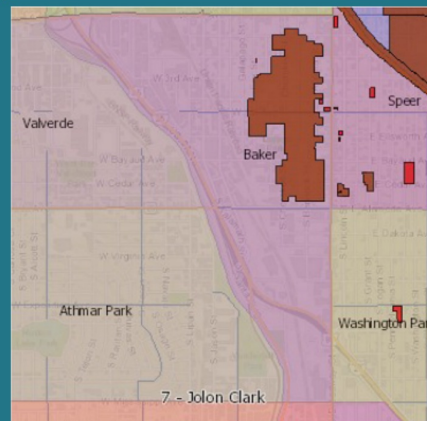
My home needs to be air tight to be energy efficient.

FALSE! While it is advisable to air seal leaks and penetrations, older homes have been designed to "breathe" and changes in how the home has operated for years can result in structural damage and indoor air pollution. Energy efficient improvements should take into account the building materials, adequate venting should exist, and vapor barriers should be avoided.

About the Baker Neighborhood

A large portion of the Baker neighborhood, is a locally designated Historic District (designated in 2000), characterized by its large collection of Queen Anne and Victorian eclectic homes designed by notable Denver architects, master builders and craftsmen. The historic neighborhood developed from 1873 to 1937, providing worker and middle-class housing. In addition to the historic district, several structures within the larger Baker neighborhood, are individual Denver Landmark Structures. Preserving the character-defining features of these historic homes, within the historic district and Individual Landmarks, is of utmost importance. Any exterior work within the historic district or on an Individual Landmark must go through the design review process administered by Denver Landmark Preservation.

Design review ensures that a proposed project (such as storm windows, solar panels, and HVAC/Evap Cooler placement) preserves key historic features and is compatible with the character of the designated district. Prior to the issuance of a building permit, Landmark Preservation will need to review the proposed scope of work and issue a Certificate of Appropriateness."



Baker Neighborhood Map

Pink = Statistical Baker Neighborhood
Brown = Baker Historic District
Red = Individual Denver Landmarks

The Denver Energy Challenge is a free energy advising program for residents within the City and County of Denver.

The Denver Energy Challenge is designed to make energy upgrades easy and accessible so homeowners and renters can reap the benefits of increased comfort, lower bills and reduced energy usage. Three out of four Denver Energy Challenge participants have found a way to improve their home through energy upgrades. You can too!



Get your free advisor today!

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