

BrightSave Home Program Air Sealing Checklist



Air Sealing Checklist

This section must be completed by any contractor applying for an air sealing incentive to document actions taken to seal the house.

Attic

Corrective Action Description

- 1. Top Plates Sealed:** All interior and exterior (if accessible) wall top plates that were or could be exposed in the attic were sealed with 1 part foam. All wiring and plumbing penetrations through the plate were sealed. If the house is balloon framed and the top plate was open, the opening was stuffed with a rolled fiber glass batt and then foamed over with 1 part foam.

N/A
 Action Taken
- 2. Knee Wall Transition Bypass:** This bypass directly under the knee wall plate was blocked with an air barrier such as rigid board insulation or cardboard. The edges of the blocking were then sealed with 1 part foam.

N/A
 Action Taken
- 3. Plumbing Wet Wall(s):** A plumbing wet wall is a special type of top plate. This is the wall top plate where plumbing stack pipes penetrate the attic plane. Often this top plate has large openings that need to be bridged with a rigid material capable of supporting insulation and resisting the moisture vapor that typically flows from the bathrooms and kitchen to the attic through this large opening. Extruded polystyrene (EPS) was used to bridge the gap and one part foam was used to seal the openings between the EPS and attic plane.

N/A
 Action Taken
- 4. Chimney Penetration(s):** Chimney penetrations or combustion vent pipes are often large openings that run from the lowest level through the roof. These shafts were sealed with fire proof materials. Metal flashing was used to seal the large gaps that surround the chimney or pipe penetrations. The metal flashing was made air tight with a fire rated caulk for a distance of at least three inches from the heat source. Beyond three inches either 1 part foam or fire rated caulk was used to seal any remaining openings.

N/A
 Action Taken
- 5. Recessed Lights:** Recessed lights are a potential fire hazard if not treated correctly. The first step is to determine if the fixture is 1) a sealed IC rated can that does not require treatment, 2) an IC rated can that can touch insulation, or 3), a non-IC rated can that needs at least three inches of clearance all around to be safe. If it is necessary to make the fixture air tight, a box was built around it. The sides of the box were constructed of wall board or rigid insulation. The top of the box was made of ½ inch wall board only. The box was large enough to surround the fixture and left three inches of clearance to every part of the fixture. The box was made air tight with 1 part foam. Foam was kept further than 3 inches from the fixture.

N/A
 Action Taken
- 6. Attic Access(s):** The type of access determines what type of weather stripping/sealing method is used. For pull down staircases, a thermadome was used. If necessary, a deck area was installed or repaired for the q-lon weather stripping on the therma dome to engage properly. For doors or hatches, the opening was weather stripped with q-lon with a carrier. Once the therma dome or q-lon was installed all remaining gaps in the framing around the rough opening were sealed with 1 part foam and the finish trimmed sealed with caulk.

N/A
 Action Taken
- 7. Drop Soffit Area(s):** A drop soffit area is usually located above an architectural detail in the living space, often above cabinets in a kitchen or bathroom. Drop soffits can often be covered with rolled batt insulation in an attic and not easily detectable. The areas were supported by a rigid material capable of supporting insulation. If the rigid material spanned a gap greater than 24 inches in any direction, it was supported with framing material. A good material choice for the drop soffit is rigid board insulation sealed at the edges with 1 part foam.

N/A
 Action Taken
- 8. Mechanical Chase(s):** Mechanical chases are large openings in the attic plane that allow ducts, pipes or wire bunches to pass from the living space into the attic area. These mechanicals were treated with non-fire rated materials if conditions allowed. If the gaps around the mechanicals using the shaft were larger than 1 inch, a rigid air barrier was used and the edges sealed with 1 part foam.

N/A
 Action Taken
- 9. Attic Level Transitions:** In split level homes, the attic level will often change. There will be a vertical frame wall that connects the two horizontal attic planes. Often, this wall's framing cavity bays will be open where it passes the level of the lower attic plane. This wall is an interior partition that is not insulated and the open bay tops allow the attic and conditioned area to freely exchange air. These open wall bays were sealed at the lower attic plane level. A good choice of material is rolled fiber glass batt sealed with a layer of 1 part foam.

N/A
 Action Taken

Basement

Corrective Action Description

- 1. Plumbing Penetrations Sealed:** Gaps between plumbing penetrations and the conditioned area were sealed with 1 part foam. If the gap was greater than 1 inch, the opening was sealed with a rigid material such as extruded polystyrene (EPS) and the edges sealed with 1 part foam.

N/A
 Action Taken
- 2. Wiring Penetrations Sealed:** Gaps around wiring penetrations that pass between the basement and the conditioned area were sealed with 1 part foam.

N/A
 Action Taken
- 3. Chimney Chases Sealed:** If the heating or DHW system is located in the basement there may be a chimney or combustion vent pipe that passes through the basement ceiling. This penetration was sealed with fire rated materials. A good choice is metal flashing to bridge any large gaps and fire rated caulk to seal the edges of the metal flashing. Non-fire rated materials are not allowed within 3 inches of the chimney or vent pipe.

N/A
 Action Taken
- 4. Mechanical Chases Sealed:** Mechanical chases can be large openings between the basement and the living space to allow ducts, pipes and wire bunches to pass through. Fire rated materials are not required when sealing these openings. This penetration was sealed and if the gap around the mechanicals was larger than 1 inch, a rigid backing material was used and the edges were sealed with 1 part foam. The rigid backer does not have to be able to support the weight of insulation.

N/A
 Action Taken
- 5. Rim and Band Joist Sealed:** The area where the floor joist sits on the exterior wall plates creates an area referred to as the rim and band joist. This area was sealed with either 1 part foam or caulk. The gap area that is formed by the floor joist sitting on the top plate, the floor sheathing sitting on the floor joist, and the connection of the floor joist to the rim joist were all sealed as completely as possible.

N/A
 Action Taken
- 6. Basement Access Sealed:** The basement access, whether a hatch or a door, was weather stripped with q-lon with carrier. The rough framing around the opening was sealed with 1 part foam and the finish work sealed with caulk if the homeowner allowed.

N/A
 Action Taken
- 7. Ground Cover Installed and Sealed:** If the basement floor is not a concrete slab and is also not a high use area, it was covered with a 6 mil polyethylene sheet. The seams of the sheet were overlapped at least six inches and sealed with glue, caulking or tape. If possible it was extended up the basement walls a foot and mechanically attached to the wall, and the seam between the wall and plastic sheet was also sealed.

N/A
 Action Taken
- 8. Windows Caulked or Foamed:** If there are windows in the basement area, gaps between the window framing and the window or the framing and the foundation were sealed with caulk or 1 part foam.

N/A
 Action Taken

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Living Space

Corrective Action Description

- 1. Baseboards Caulked:** The seam where exterior walls sit on the floor is often not sealed during the construction process. If a room is not carpeted, this seam was sealed by caulking the seam between the baseboard molding and the floor and the baseboard molding and the wall board. Homeowner permission was gained before treating.

N/A
 Action Taken
- 2. Window and Door Trim Caulked:** The rough opening gaps around windows and doors are often not sealed during the construction process. These seams were sealed with caulk at the connection between the trim and the window or door and the trim and the wall board. Homeowner permission was gained before treating.

N/A
 Action Taken
- 3. Plumbing Penetrations:** Often, the gaps where plumbing passes through interior finish and enters a wall or floor cavity is much larger than the pipe diameter. These penetrations usually occur inside of a cabinet and out of sight. These gaps were sealed with caulk if they were less than ¼ inch, with foam if they were up to 1 inch, or with rigid backer and foam if they were greater than 1 inch.

N/A
 Action Taken
- 4. Register to Floor/Wallboard Sealed:** The area where a supply or return register penetrates the wall board or subfloor was sealed using duct mastic if the gap was less than ¼ inch or with backer rod and mastic if the gap was greater than ¼ inch.

N/A
 Action Taken
- 5. Interior Sheathing Voids Repaired:** Any opening in the interior sheathing is usually a gap in the air barrier. The gap was repaired with a material similar to the surrounding materials. These repairs were discussed with the homeowner before starting to gain permission and manage expectations.

N/A
 Action Taken
- 6. Ext. Doors Swept and Weather Stripped:** Doors between the conditioned area and the exterior or buffered spaces like garages were weather stripped with q-lon w/ carrier and the bottom of the door swept, preferably with a spring loaded power sweep. Homeowner permission was gained before installing.

N/A
 Action Taken

Notes

Please provide any notable details for corrective actions taken.