



## CRITICAL DETAILS:

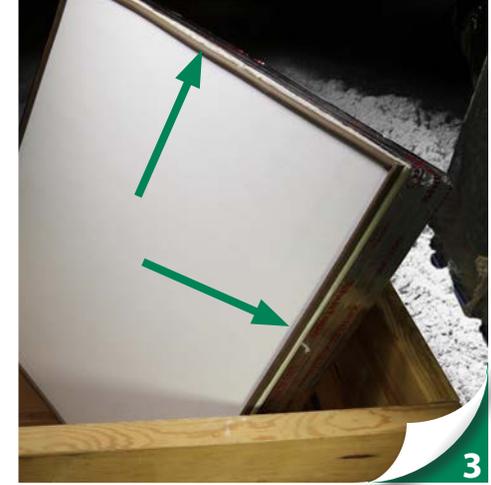
### ATTIC ACCESS HATCHES - SEAL AND INSULATE

Option 1A: Permanently attach batt insulation to the attic access. Ensure that R-value meets or exceeds surrounding insulation levels.

Option 1B: Permanently attach rigid insulation to the attic access. Ensure that R-value meets or exceeds surrounding insulation levels.

Install dams around access holes to protect the surrounding insulation.

Install weatherstripping on access trim. Verify seal.



**NOTICE:** When insulating pull-down stairs, pre-fab or site-built, insulated and weatherstripped covers are recommended.

**NOTICE:** There are multiple options for attaching insulation to the access hatch. The intent is for the insulation to remain attached after repeated homeowner use and that the insulation has an equivalent R-value of the surrounding attic insulation.



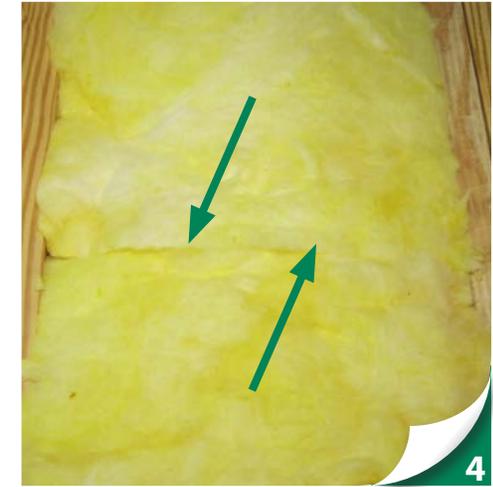
# CRITICAL DETAILS: BATT INSTALLATION - CEILINGS WITH ATTICS

Verify insulation material is the correct width and R-value for the location.

Friction fit insulation snugly between and parallel to all standard and narrow attic framing members

Ensure insulation extends to the outside edge of the exterior top plates and is flush against any ventilation dams/baffles.

Ensure ends of insulation are butted together and flush to underside of framing.



When using kraft-faced batts: Fasten kraft face tabs of insulation to the underside of framing members. Note: no kraft paper overlapping required.

When using vapor retarder and unfaced batts: Fasten vapor retarder to underside of framing once batts are installed. Overlap seams at least 2 inches.

In the attic, install a card that indicates insulation levels in the house to meet code requirements.





## CRITICAL DETAILS:

### BATT INSTALLATION - CEILINGS WITH ATTICS

Option: When installing multiple layers of insulation for optimal thermal performance, install the first layer (bottom layer) parallel to attic framing members and flush with both bottom and top. Install the second layer (top layer) perpendicular to attic framing members. Both layers combined must equal at least the required R-value.





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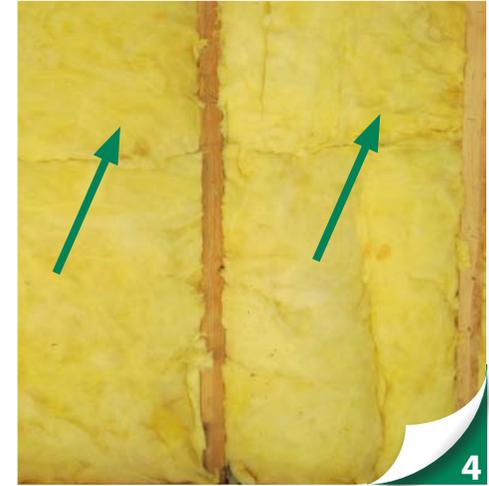
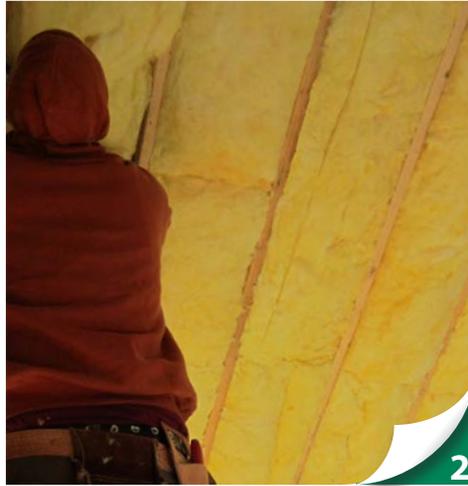
### BATT INSTALLATION - CEILINGS WITHOUT ATTICS (UNVENTED)

Verify insulation material is the correct width and R-value for the location.

Friction fit insulation between and parallel to the attic framing members.

Ensure insulation extends to the outside edge of the exterior top plates and to the peak of the cathedral ceiling.

Ensure ends of insulation are butted together and flush to underside of framing.



When using kraft-faced batts: Fasten kraft face tabs of insulation to the underside of framing members. Note: no kraft paper overlapping required.

When using vapor retarder with unfaced batts: Fasten vapor retarder to underside of framing members once batts are installed.





## CRITICAL DETAILS:

### BATT INSTALLATION - CEILINGS WITHOUT ATTICS (VENTED)

Verify insulation material is the correct width and R-value, and ventilation chutes and baffles have been installed per manufacturers' specs.

Friction fit insulation between and parallel to the attic framing members.

Ensure insulation extends to the outside edge of the exterior top plates and is flush against all ventilation dams and baffle boards.

Ensure ends of insulation are butted together and flush to underside of framing.



When using kraft-faced batts: Fasten kraft face tabs of insulation to the underside of framing members. Note: no kraft paper overlapping required.

When using vapor retarder with unfaced batts: Fasten vapor retarder to underside of framing members once batts are installed.



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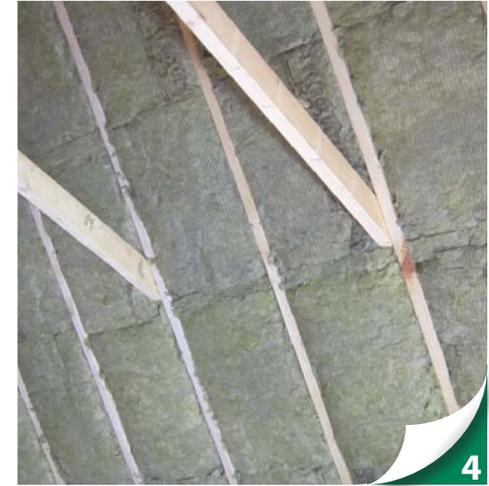
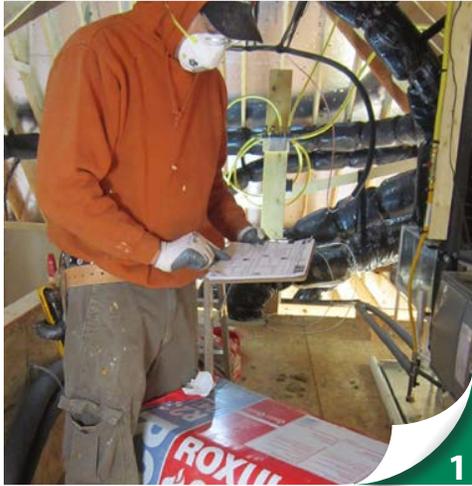
### BATT INSTALLATION TO ROOF DECK - CONDITIONED ATTIC

Verify insulation material is the correct width and R-value for location. Also, verify the depth of roof rafters is at least the depth of the required R-value.

Friction fit insulation between and parallel to the attic framing members

Ensure insulation extends to the outside edge of the exterior top plates and to the peak of the cathedral ceiling.

Ensure ends of insulation are butted together and flush to underside of framing.



**NOTICE:** Ensure conditioned attic insulation strategy is compliant with local fire codes.



## CRITICAL DETAILS:

### VENTILATION BAFFLES - CEILINGS WITH ATTICS

Verify that space between roof deck and top plate will accommodate the appropriate insulation and a minimum 1-inch of required air space.

Measure and mark the height on the baffle. Verify the height allows for 1-inch of required air space.

Cut side fin and fold baffle at the measured mark to allow for correct insulation height.

For all eaves with vents, fasten bottom of baffle in place to allow insulation to completely cover the top plate.



Fasten top portion of baffle in place to allow for a minimum 1-inch space between baffle and roof deck.

NOTICE: If cathedral ceiling, fasten baffle boards to provide continuous unblocked airflow from soffit vent to ridge vent.

NOTICE: Carefully cut baffle around any framing obstructions to prevent air movement through insulation.



## CRITICAL DETAILS:

### VENTILATION CHUTES - CEILINGS WITHOUT ATTICS (VENTED)

Fasten baffle board to underside of roof deck extending past the outside edge of the top plate and beyond the height of the insulation.

Measure and mark the height on the baffle. Verify the height allows for 1-inch of required air space.

Cut soffit dam material to allow for correct insulation height and any obstructions.

For all eaves with vents, fasten soffit dam material to the attic framing or permanent blocking so that insulation will completely cover the top plate.



**NOTICE:** If cathedral ceiling, fasten baffle boards to provide continuous unblocked airflow from soffit vent to ridge vent.

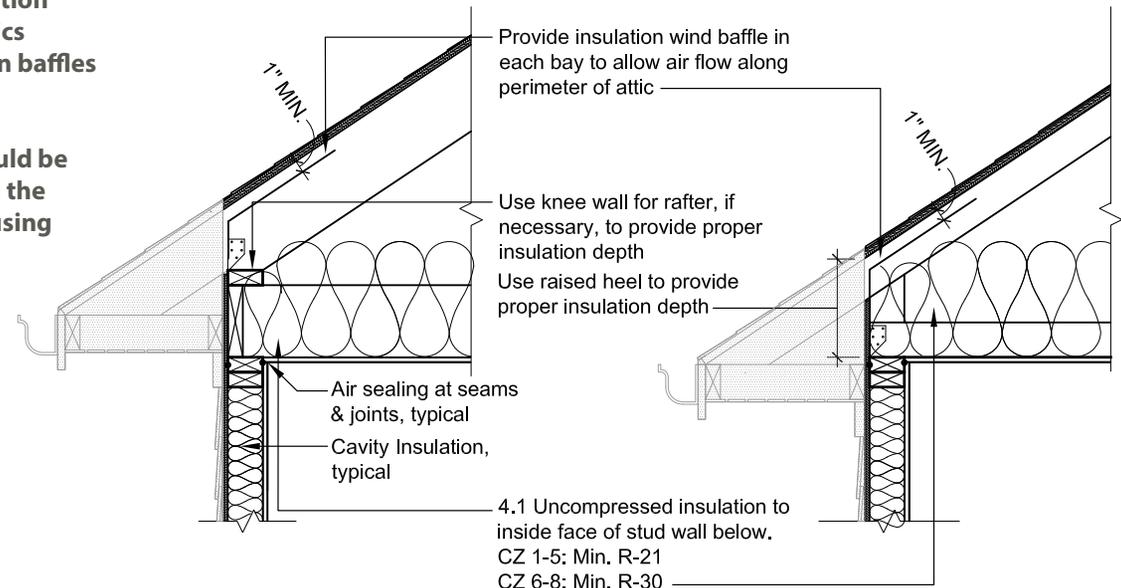
**NOTICE:** For ceilings with attics, it is only necessary to install ventilation baffles. For ceilings without attics (vented), install both ventilation baffles and chutes.

**NOTICE:** Ventilation chutes should be installed with a 2" gap between the ends. Reduce gap to 1/2" when using blown-in insulation.



STICK FRAMED

ROOF TRUSS

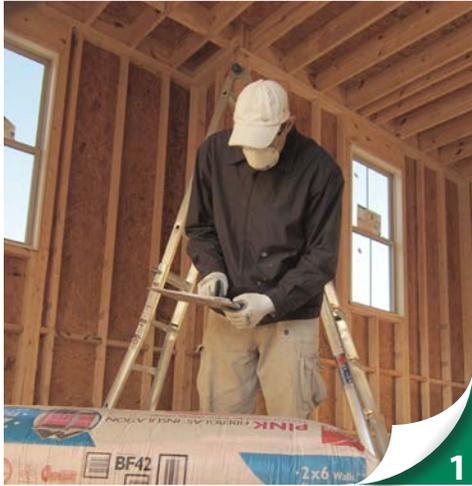




## CRITICAL DETAILS:

# FLOORS - INSULATE THE UPPER PART OF THE CAVITY AGAINST THE FLOOR

Verify insulation material is the correct width and R-value for location.



Verify that any necessary fire blocking and draft stops have been installed.



When using kraft-faced batts, install kraft facing against the warm-in-winter side of cavity. Do not leave kraft facing exposed.



Friction fit insulation between and parallel to the floor joist framing.



With wire fasteners, support insulation to be in full contact with the subfloor without being compressed.



Ensure insulation extends to the outside edge of each joist bay and is in contact with blocking or rim/band joist



Ensure ends of insulation are butted together and in full contact with subfloor.





# CRITICAL DETAILS: KNEE WALLS



Verify insulation material is the correct width and R- value.

Verify that top/bottom plates and a fire-rated rigid backing have been installed.

Friction fit insulation between and parallel to the framing members in full contact with rigid backing, top and bottom plates.

Ensure ends of insulation are flush and butted together.



When using kraft-faced batts: Fasten kraft face tabs of insulation to framing members. Note: no kraft paper overlapping required.

When using vapor retarder with unfaced batts: Fasten vapor retarder to face of framing members once batts are installed.

