Raised Heel Truss Guide for Warmer Attics

Focus keyword: Raised heel truss

Meta title: Raised Heel Truss Design and Insulation Guide

Meta description: Learn how a raised heel truss improves insulation at the roof edge, meets energy codes, and cuts cold spots. Costs, sizes, details, and installation tips.

Stop wasting money on your energy bill. The coldest spots in your home are often caused by one common mistake: compressed insulation at the roof edge.

Here is the simple truth that trips up many projects. The roof-to-wall joint often compresses the insulation, so the actual R-value at the edge is much lower than you planned.

A raised heel truss fixes that bottleneck by lifting the truss seat above the top plate so insulation keeps its full depth to the eave. That means fewer cold spots, steadier comfort, and an easier path to energy code targets.

In this guide, you will learn what a raised heel truss is, how it compares to a standard truss, the heel height you may need, common sizes and dimensions, cost drivers, and the key details that protect ventilation and air control.

You will also get a quick checklist to help you specify the right heel height on your plans, plus simple visuals you can hand to the crew. Ready to warm up the edges and make your attic work like it should? Let us get into it.

What Is A Raised Heel Truss

A raised heel truss is a roof truss with extra heel height at the point where the truss bears on the wall plate.

That added height creates clear space for full-depth insulation at the roof edge, so the insulation does not get pinched where the roof meets the wall. If you have ever asked what a raised heel truss is or what a raised heel on a truss is, this is the simple answer. It lifts the seat so the insulation stays thick and effective.

Here is how it works in plain terms: On a standard truss, the sloped top chord meets the wall near the eave and leaves only a thin wedge of space above the top plate. That thin wedge squeezes the insulation, and the real R value at the edge drops.

DOE's Energy Saver notes that insulation performance depends on thickness and that compression reduces the effective R value.

A raised heel truss increases the heel height so you can carry full-depth insulation out to the eave while keeping a clear path for ventilation from soffit to ridge. The Building America Solution Center explains that raised heel energy trusses are deeper at the wall to allow full insulation coverage over the top plate.

Why does this matter? Edge losses drive cold rooms, hot ceilings, and comfort complaints. Keeping insulation at full thickness at the eave helps the home hit its target R value and reduces energy waste.

It also makes it easier to meet energy code goals, since many climate zones call for high ceiling R values per IECC and related guidance.

Key parts you will hear about:

- Heel height. The vertical distance above the wall plate that sets your available insulation depth at the eave.
- Blocking and baffles. Pieces that guide air from the soffit and keep it from washing over the top of the insulation.
- Connectors. Uplift ties and seats that may change with taller heels.

Where a raised heel truss is a smart choice:

- New homes that want steady comfort with fewer cold spots near exterior walls.
- Retrofits that need better attic performance without complex framing changes.
- Projects that plan blown attic insulation and want the rated R value to perform at the edges.

Raised Heel Truss Vs Standard

Two trusses can look the same on drawings, but they behave very differently where it counts. This head-to-head shows how a raised heel truss protects insulation at the edge, improves airflow, and often pays back in comfort and code compliance.

Feature	Standard Truss	Raised Heel Truss
Heel height at the wall	Low heel.	A taller heel that lifts the seat.
Insulation at the eave	Thin wedge that gets compressed.	Full thickness carried over the top plate.
Ventilation path	Baffles are often tight or missing.	Clear soffit to ridge path with baffles and blocking.
Edge comfort	Cold bands near exterior	Fewer cold spots at the

	walls are common.	ceiling edges.
Hardware and blocking	Typical connectors.	May need different uplift ties and blocking due to taller heel.
Design work	Less coordination at eaves.	Confirm clear height after baffles and air barrier.
Code and programs	Harder to hit attic R targets at edges.	Easier path to meet climate zone targets across the whole ceiling.
Cost impact	Lower material at heel.	Small adder for height and hardware.
Best fit	Mild climates, short spans.	Most new homes, colder or mixed climates, and projects chasing energy goals.

Reality check: Make the right ask. When you request a quote, state the target clear height at the eave and the insulation type. Do not just say heel height.

Raised Heel Truss Design In Five Steps

Your goal is simple. Hit the attic R value at the eave, keep a clear vent path from soffit to ridge, and line the air barrier up with the insulation. Get those three right, and the edge of the house stays warm and dry.

Step 1. Pick The Target Attic R Value For Your Climate

Start with the code or program target for attic R value in your climate zone. ENERGY STAR posts a clear table that reflects the 2021 energy code and shows typical attic targets like R 38, R 49, or R 60 by zone.

Step 2. Choose The Insulation Type And Note Its Installed Depth

R value depends on both type and thickness. DOE explains that each product has a labeled R value and that blown products rely on manufacturer coverage charts to reach the promised R after settling. In practice, you will pick the material, then read the chart to get the installed thickness needed for your R target.

Step 3. Convert The R Target To The Clear Height You Need At The Eave

Clear height is the open space above the top plate after you place the wind baffle and the air barrier. You want enough room so the insulation at the eave remains full depth and the vent path stays open.

ENERGY STAR Certified Homes requires a wind baffle at each vented attic eave that reaches the full height of the insulation in every bay to prevent wind washing and to maintain the air channel. That requirement drives the heel height you specify.

Design note: Some programs allow a lower nominal R value when full-height, uncompressed insulation extends over the top plate. That credit only applies when the eave detail truly keeps the insulation at full thickness.

Step 4. Coordinate The Framing Details That Protect The Edge

A taller heel can change blocking, connectors, and nailing at the seat. The Building America Solution Center frames the reason why. Raised heel trusses are deeper at the wall, so full-height insulation can continue over the top plate without a pinch point. Share that intent with your truss engineer so the layout, bracing, and connectors support it.

Step 5. Write The Spec In Plain Language

State the clear height you need above the exterior wall top plate, not just a raw heel dimension. Include the insulation type, the target R value at the eave, and a note to install wind baffles in every bay to the full insulation height.

Field check: Measure the actual clear height after the baffles and air barrier go in. Then confirm installed insulation depth at the eave matches the manufacturer's chart for the R value you specified.

Reality check: If your eave cannot fit the clear height for your chosen material, raise the heel or switch to a higher R per inch product at the edge so you still hit the target R value where it counts.

Raised Heel Truss Height And Dimensions In Practice

Your heel height is not a guess. It is the clear space you need above the top plate so the insulation at the eave keeps its full thickness while air still moves from the soffit to the ridge.

How To Think About The Numbers

- **Start with the insulation thickness you need at the eave.** Use the manufacturer's chart for your chosen product and target R value.
- **Add space for the vent path.** Keep at least a finger width to a couple of inches between the top of the insulation and the roof deck where the baffle runs.
- **Account for parts in the way.** Baffle thickness, air barrier, and any blocking eat into your space.
- **Translate to heel height.** Clear height above the top plate, plus room for the seat cut and connectors, gives you the heel height that goes on the truss mark.

Quick Examples You Can Use On A Plan Review

These are planning examples to show the process. Always confirm with product charts and your truss engineer.

- **Target R around the low forties with blown attic insulation:** Often needs about a foot of insulation at the eave. Add one to two inches for the vent path. Clear height ends up roughly 13 to 14 inches. Heel height on the drawings will usually be a bit taller to allow for the seat and connectors, often in the mid-teens.

- **Target R is near fifty:** Often needs around a foot and a half at the eave. Add the vent path and baffle. Clear height lands near 17 to 18 inches. Heel height on the drawings may be around the high teens to about twenty.

Dimensions That Move Together

- **Overhang and soffit depth.** A deeper soffit makes it easier to fit a full-height baffle without pinching the insulation.

- **Roof pitch.** A steeper pitch gives more room faster as you move in from the wall, but the true pinch point is still right over the top plate.

- **Fascia height and vent area.** Keep a continuous intake at the soffit and do not let the fascia block the baffle entry.

- **Seat cut and birdsmouth.** Confirm the bearing length and any notch so the clear height you asked for is not lost in the field.

Coordination Notes For The Framer And Insulator

- Mark the required clear height on the elevation or truss layout, not just a generic heel note.

- Call out baffles in every bay at least to the full height of the insulation at the eave.

- Note uplift connectors if the taller heel changes the hardware callouts.

- Ask the insulator to verify the installed depth at the eave before they blow the field.

Pro tip: Ask your truss supplier for a line on the layout that labels the clear height above the top plate at the eave. It prevents confusion between heel height on paper and usable space for insulation in the field.

Field check: After baffles go in, measure from the top plate to the underside of the baffle. If it matches the clear height on the plan, you are set. If it is short, fix it before insulation goes in.

Raised Heel Truss Options For Real Projects

Not every roofline plays by the same rules. The good news is that a raised heel truss can flex with your plan. Want a vaulted ceiling, attic storage, or a tight eave that still keeps full-depth insulation? These variants make it easy.

Raised Heel Scissor Truss

Use this when you want a vaulted ceiling and full-depth insulation at the eave. The bottom chord slopes up, so you keep headroom while the heel still gives room for insulation and a clear vent path.

Attic Truss With Raised Heel

Choose this when you need light storage or a spot for ducts. The raised heel keeps the edge insulated, and the open center adds usable space without pinching the insulation over the wall.

Compact Eave Solution

Tight fascia or shallow soffit? Ask for a modest heel increase plus a tall baffle. This preserves the intake path and avoids crushed insulation at the edge.

Quick coordination notes: Confirm heel height, baffles in every bay, and any uplift connectors. Note the required clear height above the top plate on the drawings, not just a generic heel size.

Good to know: Scissor profiles often need extra attention at the seat so the insulation stays full thickness right over the wall.

Raised Heel Truss Insulation And Air Control

Your edge performance lives or dies on three things. Full depth insulation at the eave, a sealed air barrier, and a clear vent path from soffit to ridge.

Insulation Choices

Loose fill is easy to top up and covers odd corners well. Batts work if you can keep them at full thickness at the eave. A blown-in blanket gives even coverage but still needs space at the edge. Aim for the installed depth your product chart calls for. Do not let the baffle crush it.

Air Barrier That Lines Up

Seal the top plate and continue the interior air barrier to the baffle. If air can sneak over the insulation, wind washing strips away the real R value, and you get cold edges.

Baffles And Ventilation

Run a rigid baffle in every bay from the soffit to above the top of the insulation. Leave a small gap for airflow above the insulation. Keep soffit intakes open and match them with a ridge or high gable vent so air actually moves.

Moisture Awareness

Warm air carries moisture. A tight air barrier and a clear vent path let that moisture leave the attic instead of condensing near the eave.

Do this: Install baffles before insulation and run them to the full insulation height. Then, measure the clear height above the top plate to confirm that the eave can hold the target depth.

Raised Heel Truss Cost And Value

A raised heel truss adds a bit of material and a few detail steps. In return, you protect full-depth insulation at the edge, which cuts cold spots and helps hit energy targets with fewer callbacks.

What Drives Cost

- Added heel height and slightly different connectors.
- Blocking and a full-height baffle in each bay.
- A few extra minutes in layout and inspection.

Where The Value Shows Up

- Warmer room edges and steadier comfort.
- Easier compliance with energy programs.
- Less risk of ice at the eave in cold zones and fewer service calls.

How To Budget It

- Ask your supplier for a clear price adder by heel height step.
- Put baffles and air sealing in the insulation scope so they do not get missed.
- Note the required clear height on the drawings to avoid rework.

Money note: A small heel increase often unlocks full-depth insulation at the eave. Price the next heel step before you cut R value, or live with thin edges.

How To Specify A Raised Heel Truss In Three Steps

Step 1: State The Goal On The Plans

List the target attic R value for your climate and the insulation type you will use.

Step 2: Convert That Goal To Space At The Eave

Write the clear height needed above the top plate after the baffle is in place. This is the usable space for full-depth insulation and a small vent gap.

Step 3: Call Out The Edge Details

Note baffles in every bay to the full insulation height, a continuous soffit to ridge vent path, any required blocking, and the uplift connectors the heel will need.

Checklist:

- Attic R target and insulation type.
- Installed insulation depth from the product chart.
- Required clear height above the top plate.
- Baffles in every bay to full insulation height.
- Continuous intake and exhaust vents.
- Uplift hardware and bearing length confirmed.

Field tip: After baffles go in, measure from the top plate to the underside of the baffle. If it matches the clear height on your plan, you are ready to insulate.

When A Standard Truss Still Makes Sense

Raised heel is great, but not every roof needs it. Here are cases where a standard truss can be the right call.

- **Mild climate with deep soffits**

  If the attic target R is modest and the soffit gives plenty of entry height for a full baffle, you can keep the insulation at full depth without raising the heel.

- **Insulation at the roof deck**

  If you plan a conditioned attic with spray foam at the roof deck or rigid foam above the deck, the insulation plane moves off the top plate. The eave pinch is no longer the bottleneck, so a standard truss can work.

- **Tight retrofits and fixed fascias**

  On reroof jobs with shallow overhangs, changing the heel may snowball into fascia and soffit rebuilds. A better move can be a slim, rigid baffle plus a higher R per inch product at the edge, or adding rigid foam above the deck during reroof.

- **Short spans or non-conditioned spaces**

  Porch roofs and small bump-outs that sit outside the main thermal boundary do not benefit much from a raised heel.

- **Hardware complexity in high wind areas**

  Very tall heels can change uplift connectors and bracing. If the hardware adder outweighs the energy gain, a standard heel with a carefully detailed eave can be the better trade-off.

Decision aid: If you cannot keep full insulation thickness over the top plate with a clear vent path, move to a raised heel. If you can, a standard truss may be fine.

Structural Wood Corporation Workflow

Cold edges and code stress at the eave? Send us your plans and attic R target. We will size the raised heel, set the clear height above the top plate, and return a clean layout with notes for baffles, blocking, and hardware.

- Quick takeoff and layout you can drop into the set.
- Clear install notes for your framer and insulator.
- Price and delivery date in one reply.

Ready to fix the edge and move fast? Request your free takeoff and quote today.

> Want the full library of truss layouts before you quote? Start with the Roof Truss Design Guide.

Final Thought

Warm edges and steady comfort come from simple choices that protect full-depth insulation at the eave. A raised heel truss removes the pinch point, keeps the real R value up, and makes code checks smoother.

If you want a clean layout sized to your climate and insulation choice, we can help. Send your plans and target R today. Structural Wood Corporation will size the heel, mark the clear height, and return a fast, no-pressure quote so you can build with confidence.

FAQs

What is a raised heel truss?

A raised heel truss adds height where the truss sits on the wall, so attic insulation stays full depth at the eave. That keeps the real R value up and reduces cold spots. The raised heel truss detail also preserves a clear vent path from soffit to ridge.

How tall should the heel be on a raised heel truss?

Match heel height to the insulation thickness you need at the eave, plus space for a baffle and airflow. Your truss layout should call out the clear height above the top plate so the raised heel truss meets the target R value.

Does a raised heel truss cost more?

Yes. There is usually a small adder for extra heel height, blocking, and connectors. Many builders find the raised heel truss pays back through comfort, easier code compliance, and fewer callbacks.

Can I use a raised heel scissor truss for a vaulted ceiling?

Yes. A raised heel scissor truss lifts the interior ceiling while keeping full-depth insulation over the wall. You get the look you want and the thermal performance at the eave.

Do I need special ventilation with a raised heel truss?

Yes. Use baffles in every bay and keep a clear soffit to ridge path so air does not wash across the insulation. With correct baffles and air sealing, a raised heel truss improves both insulation and moisture control.

IP-Raised Heel Truss

96 Score

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