



*Pend Oreille County*  
**Community Development Department**



## 2021 Washington State Energy Code (WSEC) Residential Significant Changes: Ceiling & Attic Insulation

**BEGINNING MARCH 15, 2024**

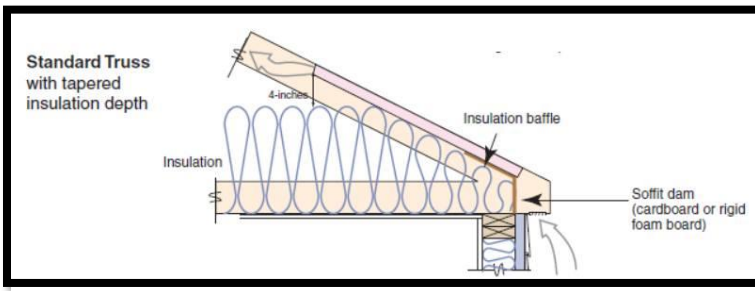


Figure 1 Standard truss with attic space. Source: [Attic Eave Minimum Insulation | Building America Solution Center \(pnnl.gov\)](#)

### If raised-heel trusses are provided

Insulation now needs to meet **R-49**, increased from R-38. This applies to roofs with a raised heel that allows the insulation to extend uncompressed over the top plate of the exterior wall.

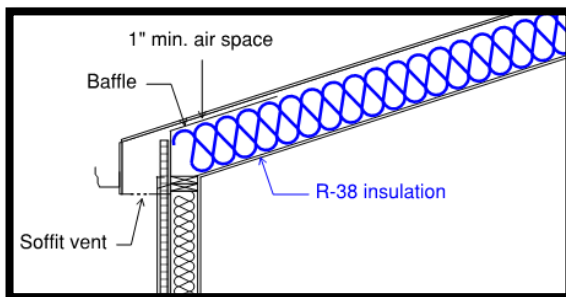


Figure 3 Single rafter-vaulted ceiling

### Ceilings with attic spaces

Insulation now needs to meet **R-60**, increased from R-49. This applies to standard trusses or standard rafter and top plate construction where insulation tapers over the eaves.

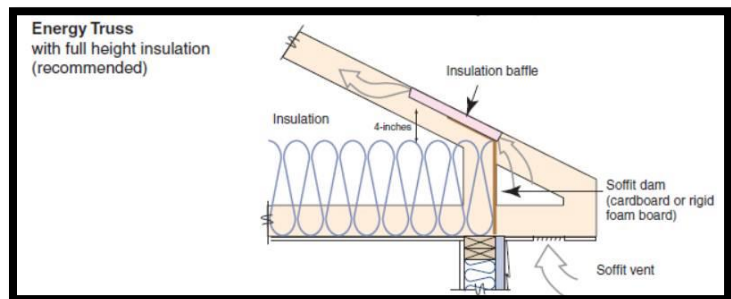


Figure 2 Raised heel (energy) truss with attic space. Source: [Attic Eave Minimum Insulation | Building America Solution Center \(pnnl.gov\)](#)

### For single rafter- joist-vaulted ceilings

Insulation requirement remains **R-38**, if the full insulation depth extends uncompressed over the top plate of the exterior wall.

*For full code text regarding attic insulation requirements, see 2021 WSEC Table R402.1.3 & Section 402.2.1*

Where an addition greater than 150 square feet adjoins existing ceilings with attic spaces, the existing attic spaces need to have insulation upgraded to meet the new requirements. *For full code text regarding additions, see 2021 WSEC Section R502.3.1.1*

*Reminder:* The required R-value is averaged over the entire attic. For blown or sprayed insulation an **insulation certificate** must be left on the job site immediately after insulation installation. The certificate must indicate the installed thickness, settled thickness, settled R-value, installed density, coverage area and number of bags installed.

This handout summarizes one significant change in the 2021 Washington State Energy Code (WSEC) for those buildings defined in the code as *Residential Buildings*. See complete code text for details.