

City of Fayetteville Building Safety Division

POLICY & PROCEDURE

Load Calculation Design Criteria

The following criteria shall be used to determine the HVAC/R loads for all projects within the City of Fayetteville. The source of this information is ACCA Manual J; the Arkansas Energy Code and the Arkansas Energy Office.

Fayetteville, AR load calculation design criteria

Elevation (altitude correction factor ACF=.956)	1251'
Latitude	36 N
Winter heating 99% dry bulb temp	13°
Summer cooling 1% dry bulb temp	93°
Coincident wet bulb temp	75°
Cooling Design Grains difference at 50% RH	40.6 gr/lb
Daily Range	M
Indoor heating design temp	68°
Indoor cooling design temp	78°
Indoor summer RH	50%
Heating Temperature Difference (HTD)	55°
Cooling Temperature Difference (CTD)	15°

SHGC of fenestrations is not required by the Arkansas Energy Code but is used in many load calculations.

Use the SHGC from the fenestration label.

If not available, use the default values from Table 102.5.2 (3) of the 2003 IECC.

Default wind velocity values are 15 mph heating and 7.5 mph cooling.

Reason: To ensure accuracy and consistency in Energy Code compliance calculations.

Approved By



Building Official