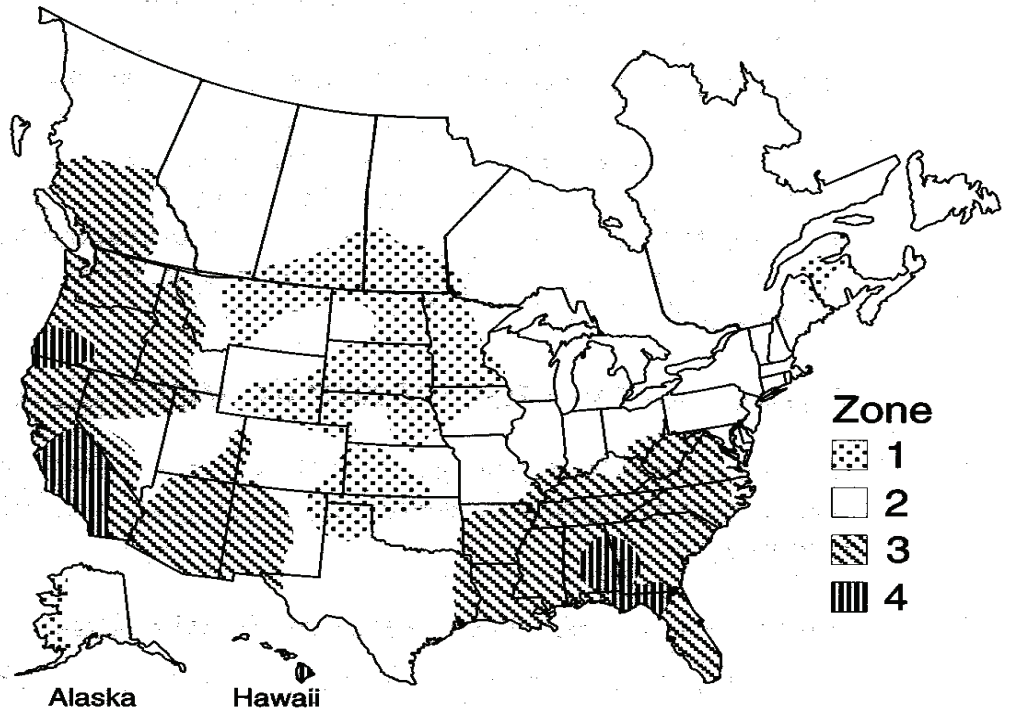




CONVERTING BETWEEN CFM 50 AND NATURAL AIRFLOW



LBL "N" FACTORS

Zone	N Factor	# of Stories	Height Correction Factor
1	14-17	1	1
2	17-20	1.5	0.89
3	20-23	2	0.81
4	23-26	2.5	0.76
		3	0.72

To determine the correct multiplier, identify the N-factor for your region and multiply the result by the appropriate height correction factor.

$$CFM_{50}/N = \text{Natural Airflow (cfm)}$$

HEIGHT-CORRECTED N-FACTORS FOR NEW YORK

Number of Stories	N-Factor
1	19
1.5	16.8
2	15.4
2.5	14.4
3	13.7



MINIMUM BUILDING AIRFLOW STANDARD EXAMPLE CALCULATION (ASHRAE 62-89)

BUILDING DATA (EXAMPLE):

Living Space Area = 1500 sq. ft.

Basement Area = 700 sq. ft.

of Occupants = 4

of Stories Above Grade = 2

Location = Albany, NY

Step 1: Calculate the Ventilation Required for the Building

$$\text{AIRFLOW}(b) = 0.35 \times \text{volume}/60$$

$$\text{Volume} = 8 \times (1500 + 700) = 17600 \text{ cubic feet}$$

$$\text{AIRFLOW}(b) = 0.35 \times 17600/60$$

$$\text{AIRFLOW}(b) = 102 \text{ cfm}$$

Step 2: Calculate the Ventilation Required for the People

$$\text{AIRFLOW}(p) = 15 \times \text{occupants}$$

$$\text{AIRFLOW}(p) = 15 \times 4$$

$$\text{AIRFLOW}(p) = 60 \text{ cfm}$$

Step 3: Using the Higher Airflow Requirement, Convert to CFM₅₀

$$\text{MINIMUM_CFM}_{50} = \text{AIRFLOW} \times N$$

Where N is the LBL conversion factor (see chart)

$$\text{MINIMUM_CFM}_{50} = 102 \times 15.4$$

$$\text{MINIMUM_CFM}_{50} = 1570 \text{ CFM}_{50}$$