

$$V_{bz} = R_p P_z + R_a A_z \quad \text{(Equation 4-1)}$$

where:

A_z = Zone floor area: the *net occupiable floor area* of the space or spaces in the zone.

P_z = Zone population: the number of people in the space or spaces in the zone.

R_p = People outdoor air rate: the outdoor airflow rate required per person from Table 403.3.1.1.

R_a = Area outdoor air rate: the outdoor airflow rate required per unit area from Table 403.3.1.1.

IMC 2021 Tbl 403.3.1.1

Conference Rm

$$V_{bz} = R_p P_z + R_a A_z$$

R_p =	5						
P_z =	50 per	1000 ft ² =	15.0 people				
R_a =	0.06						
A_z =	315.0 ft ² -	5 % for furniture =	299.25 ft ²				
V_{bz} =	92.77	cfm fresh air					

Main Entry Lobbies

$$V_{bz} = R_p P_z + R_a A_z$$

R_p =	5						
P_z =	10 per	1000 ft ² =	1.9 people				
R_a =	0.06						
A_z =	186.0 ft ² -	0 % =	186.0 ft ²				
V_{bz} =	20.46	cfm fresh air					

Office Spaces

$$V_{bz} = R_p P_z + R_a A_z$$

R_p =	5						
P_z =	5 per	1000 ft ² =	25.5 people				
R_a =	0.06						
A_z =	5366.00 ft ² -	5 % furniture =	5,097.70 ft ²				
V_{bz} =	433.3	cfm fresh air					

Total fresh air required = 546.5 cfm fresh air

Future Tenant Area

Office Spaces

$$V_{bz} = R_p P_z + R_a A_z$$

R_p =	5						
P_z =	5 per	1000 ft ² =	7.9 people				
R_a =	0.06						
A_z =	1667.00 ft ² -	5 % furniture =	1,583.65 ft ²				
V_{bz} =	134.6	cfm fresh air					

Total fresh air required = 134.6 cfm fresh air