

# **OBO's Approach to Improving Indoor Air Quality**

## **OBO Champions**

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# What are industry standards for IAQ?

- Comprehensive and consistent standards have not been established by industry leaders
  - American Society of Heating, Refrigerating and Air-Conditioning Engineers (ASHRAE)
  - Environmental Protection Agency (EPA)
  - Leadership in Energy and Environmental Design (LEED)
  - National Institute of Standards and Technology (NIST)
  - Occupational Safety and Health Administration (OSHA)

# What is OBO doing to improve IAQ?

- Reducing Source Pollutants
- Pressurization
- Enhanced Filtration
- Environmental Control

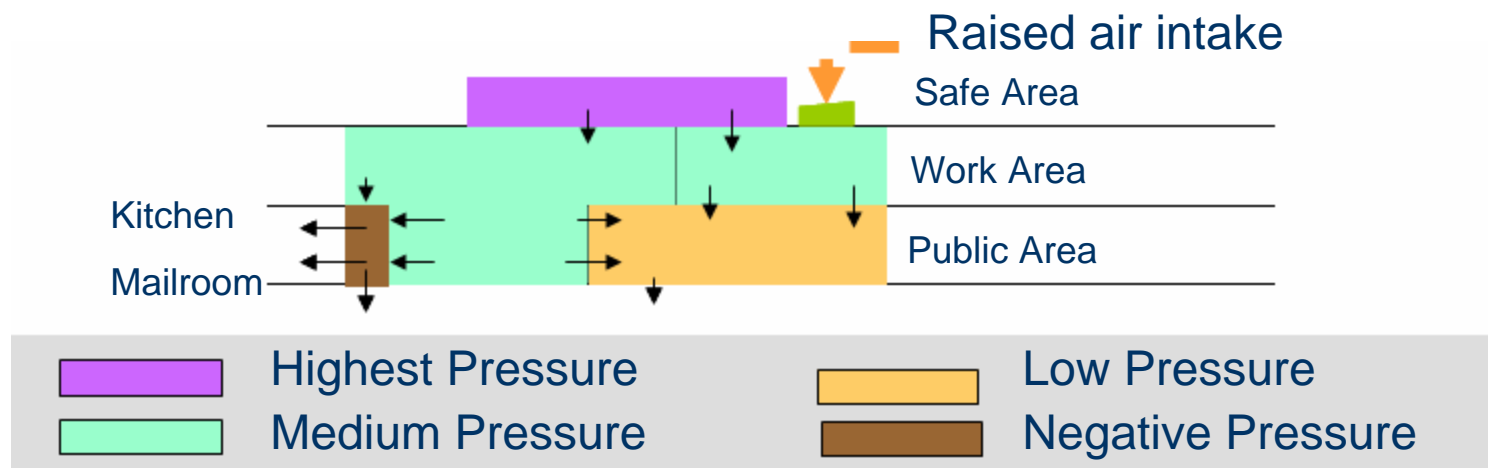
# Reducing Source Pollutants

- Minimize introduction of chemicals (cleaning agents, solvents, sealants, and paints) – **LEED**
- Limit Volatile Organic Compounds (VOCs) from carpet, furniture, and finishes – **LEED**
- Locate outside air intakes away from pollution sources (i.e. generator exhaust) – **OBO and ASHRAE**
- Install non-operable windows to minimize outdoor pollutant infiltration – **OBO**
- 100% exhaust mailrooms, toilets, janitorial closets, and kitchens – **OBO and ASHRAE**



# Pressurization

- Positively pressurize building relative to atmosphere, preventing infiltration
- Commissioning and balancing becomes more important



# Enhanced Filtration

- Enhanced filtration (chem/bio protection) removes outdoor AND indoor pollutants
- Higher capital cost to provide stringent filtration
- Higher energy cost due to required 24/7 operation of HVAC system



# Environmental Control

- Maintain temperature at 23°C and relative humidity at 50% to prevent mold and mildew growth
- Setback temperatures reduce energy costs



# New Technologies

- UV lights
- Chemical and biological sensors
- New, 'green' interior finishes
- Wireless building automation systems (BAS)
- Computer controlled/access heating and cooling

