



Sustainable Design Principle:
Enhance Indoor Environmental Quality (IEQ)

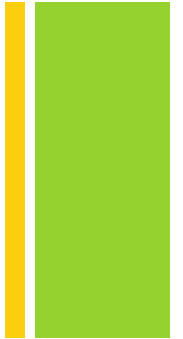
By: Scott Ramirez

+ Indoor Environmental Quality

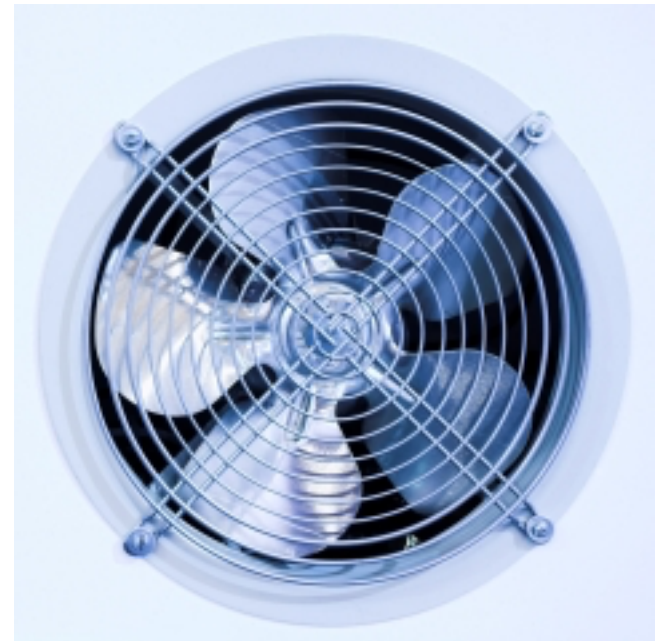
- What is it?
 - Basically the conditions inside the building.
 - Including
 - Air quality
 - Access to daylight and views
 - Pleasant acoustic conditions
 - Occupant control on lighting and thermal comfort



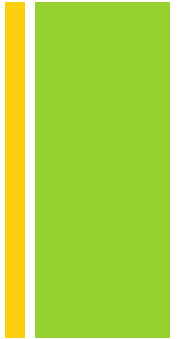
+ Air Quality



- Adequate Ventilation and Exhaust is important!
 - Prevents:
 - Odor build-up
 - Carbon dioxide
 - Allergens and toxins inside



+ Acoustics



- Good acoustics allows for:
 - Confidential conversations among collaborating workers
 - Not too loud
 - Does not echo too much
 - Controls excess noise pollution from indoor and outdoor forces



+ Watch What You Use!

- Adhesives
 - Often emit high levels of harmful Volatile Organic Compounds, VOCs
 - Ventilation is important when using products with high VOC
- Paints, stains, and finishes
 - Also contains high VOC
- SOOOOO. What are you gonna do?

USE PRODUCTS WITH LOW VOC

DUHHH!



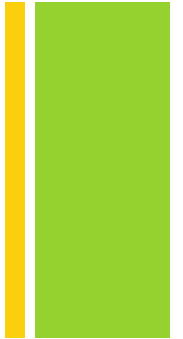
+ Clean

- Cleaning of a building both removes dirt and contaminates
 - This is important to keep a healthy environment
 - With a dirty environment contaminants and dirt are being inhaled by patrons and ran through Ventilation System
 - Maintenance of filters is key!





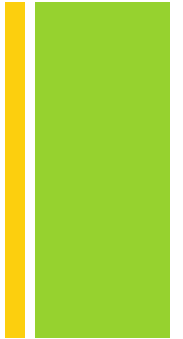
Green Cleaning?! Say what?!



- Use products that have a low environmental impact
 - Even though it may not seem as strong, use a product that can still remove the dirt and contaminates
- What is it?
 - It is the use of non-toxic, Biodegradable Chemicals, and recycled cleaning products
 - Use of cleaning equipment that has little to no environmental impact
- So like how Scott?
 - Daytime cleaning
 - Use of Microfiber cleaning clothes
 - More concentrated cleaning products which use less packaging



+ Daylighting

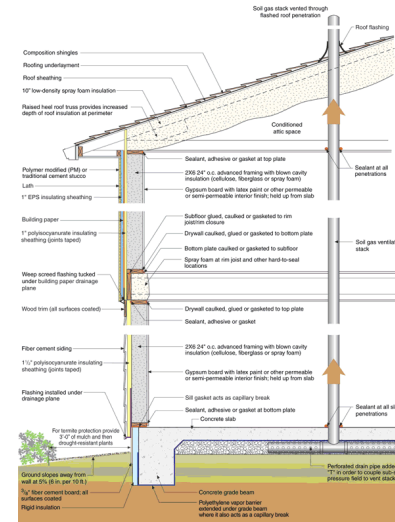


- What is it?
 - Uses natural daylight as a substitute for electrical lighting
 - Can be done with using layers of light
 - Daylight as basic ambient light levels
 - Provide other light levels to meet their needs



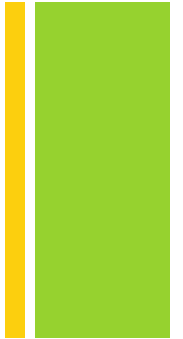
+ Building Envelope

- Prevent air passage into building
 - Airborne Bacteria
 - Mold
 - Radon
 - Etc.



- This includes through Vents, HVAC, and any other system

+ Indoor Air Quality (IAQ) Tips



- State of the air within the space
 - Area with low toxins, contaminants, and odors
 - Well ventilated with outside air and protection from pollutants
- Strategies include:
 - Bringing in 100% outside air
 - Maintaining appropriate exhaust systems
 - Comply with ASHRAE Standards
 - Use High efficiency Filters
 - Install Walk off Mats at entry
 - Prohibit smoking with space and near windows and air leaks
 - Provide indoor plants
 - Use low VOC materials for everything



+ Questions?

