



Mould, Building Durability & Sustainable Developments

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Mould growth promoted by:



1. Water egress = envelope leaks
2. Interior moisture sources
 - Piping leaks
 - Poor drainage
 - Condensation
 - People, showers, cooking
3. Lack of ventilation, moisture removal



Water Egress



- Dealt with in other presentations
- Proper handling of exterior moisture required for a durable building



Interior Moisture Sources



- Piping leaks
 - Correct them
 - Often hidden in walls, shafts
- Poor drainage
 - Coil drains can leave standing water
- Condensation
 - Poor/no insulation on cold pipes
 - Thermal breaks
 - Poor building insulation
 - Single glazed windows/frames



Interior Moisture Sources



- People, showers, cooling
 - All add moisture to enclosed interior environment



Lack of Ventilation, Moisture Removal



- Low ventilation rates
- Poorly functioning ventilation
- Humidity control
- 60% RH maximum level
- Good ventilation can:
 - Control interior moisture gains
 - Dry out building



Building Codes and Sustainable Development Practices



- Increased insulation levels
- Better vapor and air barriers
- New buildings don't "breathe" like older ones



Sustainable Building Design Guidelines



- **BOMA Go Green**
 - Targets commercial space
 - Logging IAQ complaints
 - BOMA document on IAQ



Sustainable Building Design Guidelines



- **Green Globes**

- Building envelope durability
 - Avoid replacement
- ASHRAE 62 ventilation rates
 - Effective ventilation
 - CO₂ monitoring



Sustainable Building Design Guidelines

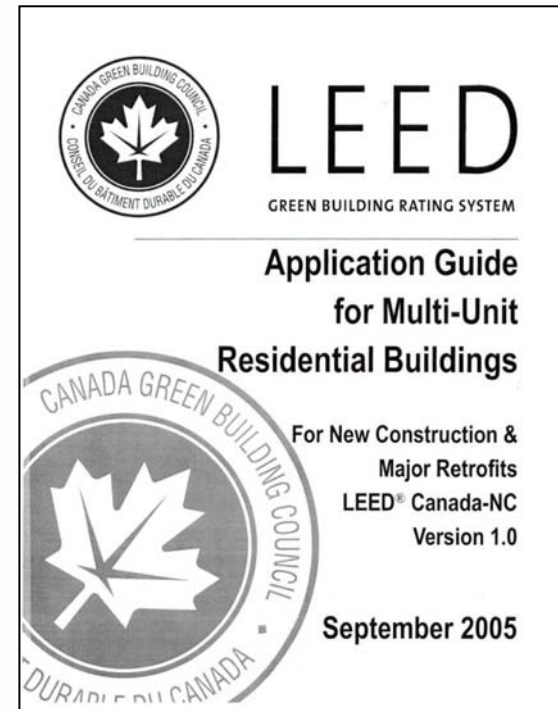


- **BuiltGreen Alberta**
 - Targets residential market
 - Includes some envelope/moisture points
 - Air to air heat recovery



Sustainable Building Design Guidelines

- ● ● ● ●
- **LEED**
 - ASHRAE 55 – temperature and maximum humidity
 - ASHRAE 62 ventilation required
 - LEED Canada
 - point for durable envelope
 - LEED Canada – MURB Application Guide
 - point for continuous ventilation





THANK YOU!

