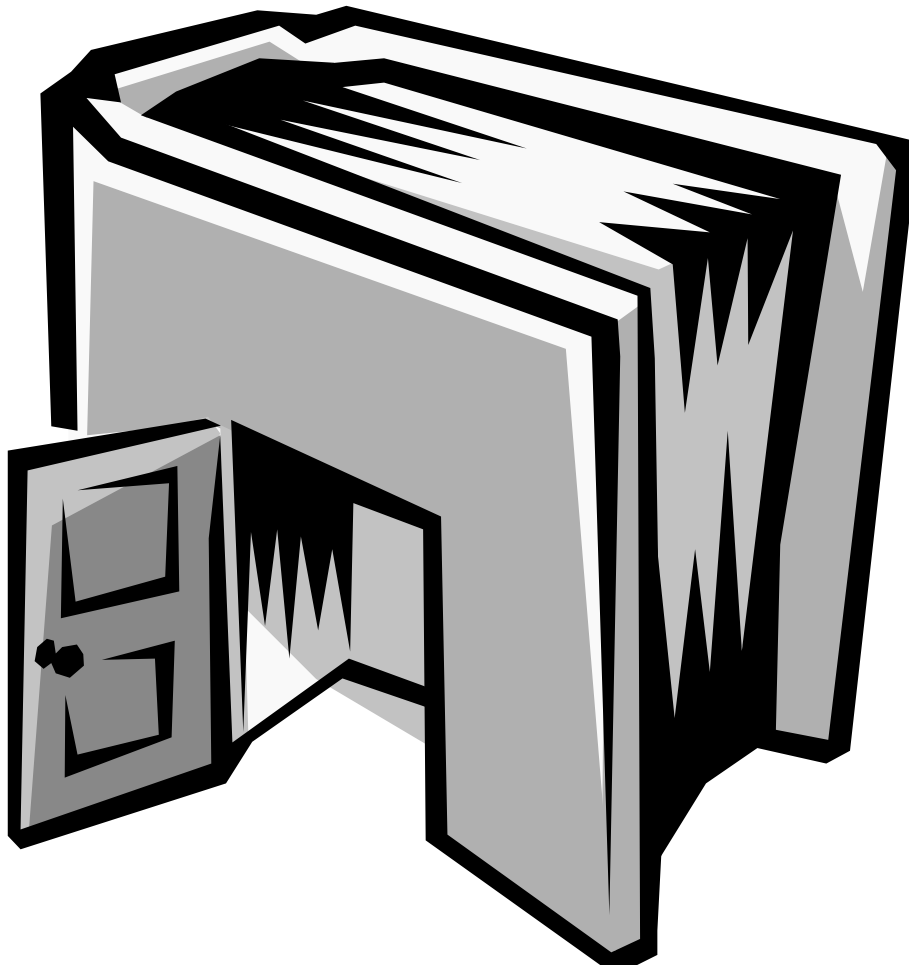
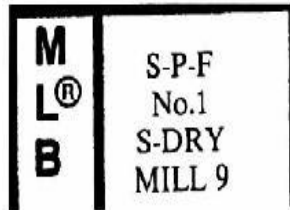


# The National Building Code- How it relates to Durability

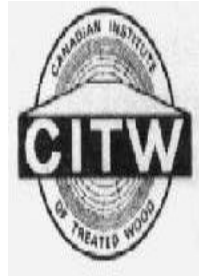


# Canadian Wood Council

## A National Federation



CANADIAN PLYWOOD ASSOCIATION



# National Building Code

- published by the National Research Council
- provides minimum requirements for health, life safety and structural sufficiency in new buildings
- model for all provincial building codes

# Code Development Process

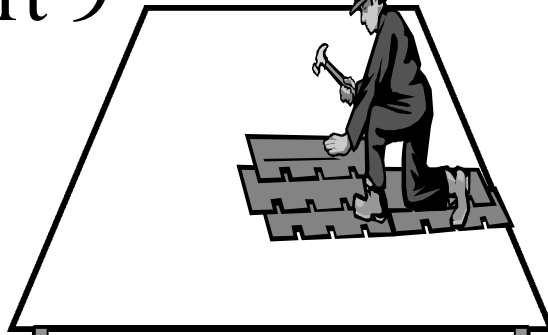
## Balanced Committees:

- users
- builders
- designers
- regulators
- product manufacturers

# Structure of the C

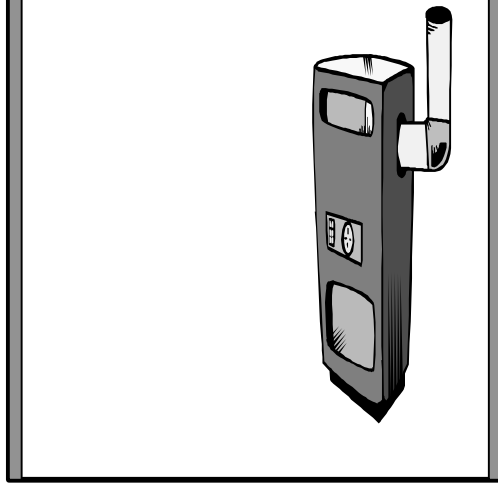


Part 9



Part 5

Part 4



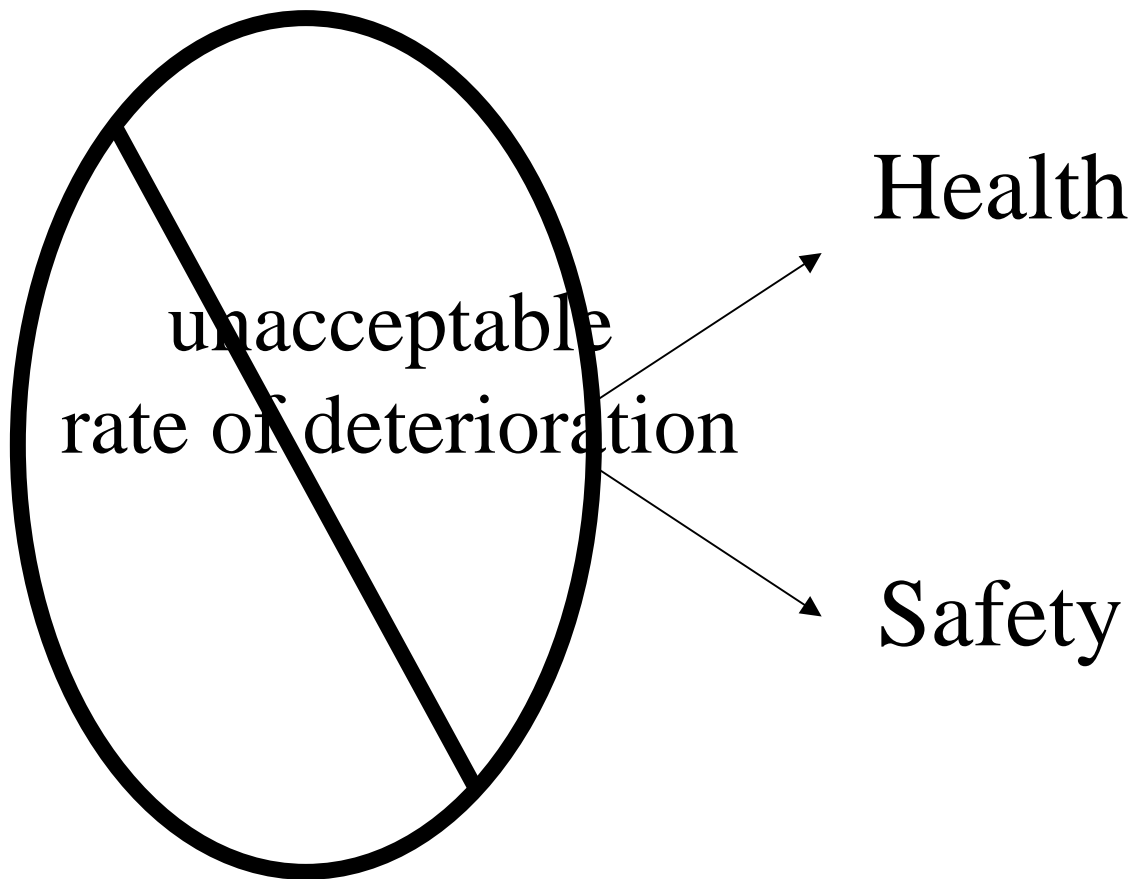
Part 6

# What is durability?

CSA Standard S478 on Durability:

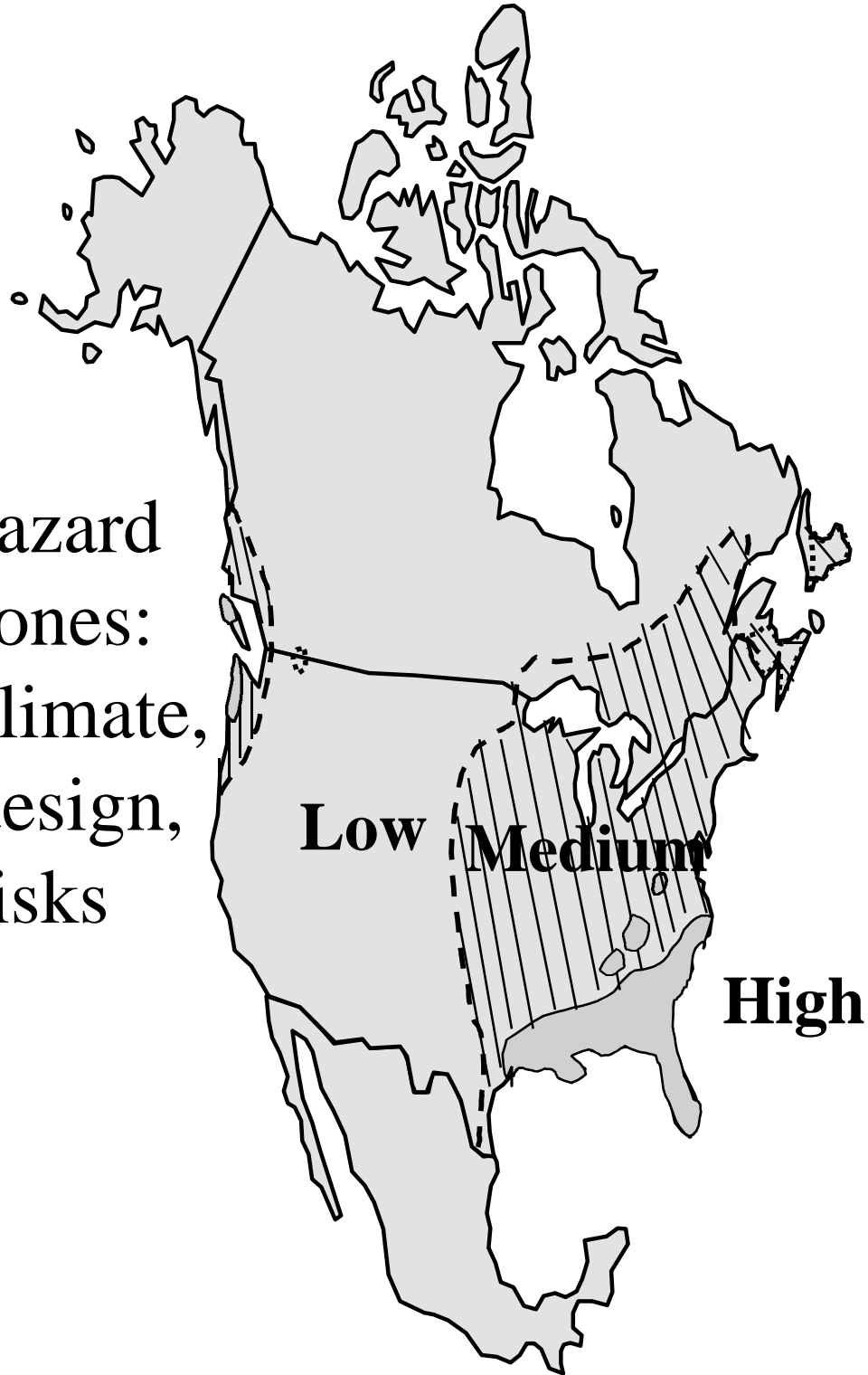
- “..ability of building or components to perform
- its required functions...
  - in its service environment...
  - over a period of time...
  - without unforeseen cost for repair.”

# “Required Functions”



# “Service Environment”

✓ Hazard  
Zones:  
climate,  
design,  
risks





# “Period of Time”

	Type	Life*	Maintenance	\$
Structure	Wood		100	---
Roof deck	plywood		50	---
Roofing	asphalt	20	replace	
Siding	cedar	25	re-stain	
Interior	paint	10	touch up, repaint	

\* period of performance without unforeseen costs for maintenance or repair

# “Without Unforeseen Cost”



# Code Objectives and Intent

Clause: 9.3.2.9: where  $< 150$  mm of the ground, or likely to accumulate water.

Intent: To reduce probability of decay

Root Objective:

Safety

# Code Objectives and Intentions

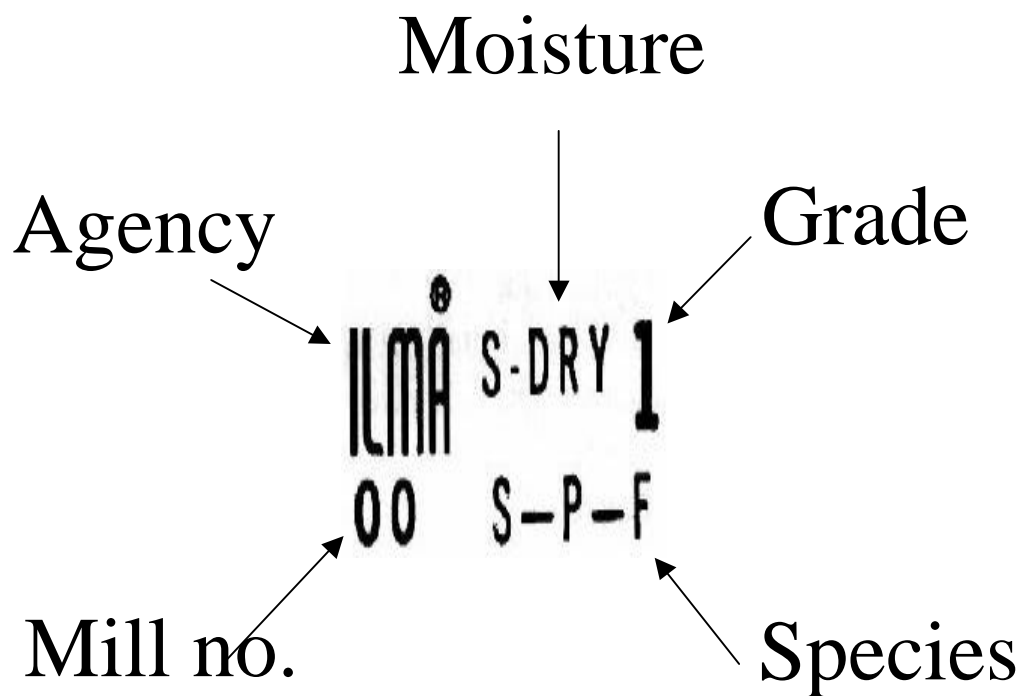
What the Code doesn't cover:

- maintenance or repair
- service life
- life-cycle costing
- durability for its own sake

# Types of Requirements

1. Material requirements
2. Physical separation
3. Resist forces driving moisture through the building envelope

# Material Requirements



# Material Requirements

Other wood products:

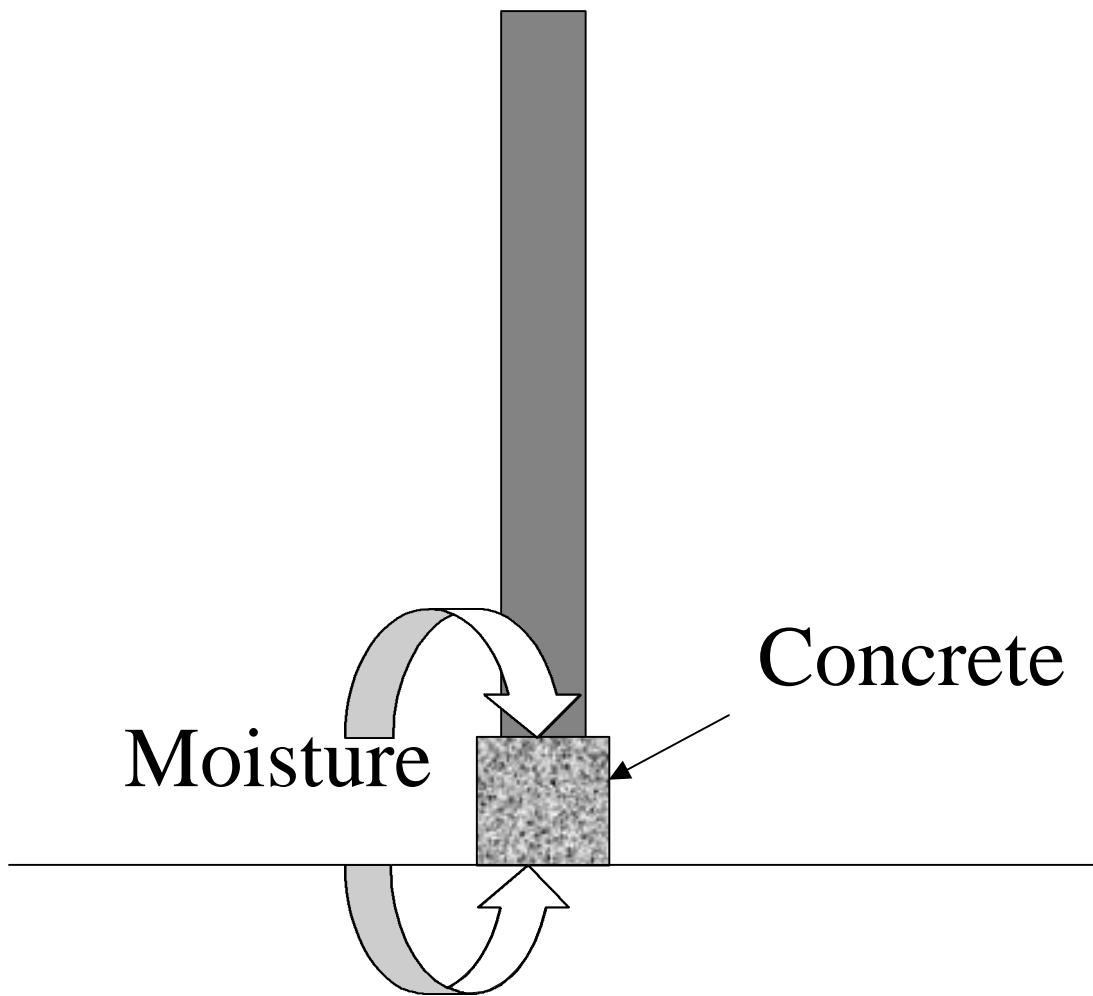
- wood-based panels
  - trusses
  - cladding, finishes
  - treated wood
- ...proprietary products not specified

# Material Requirements: non-wood

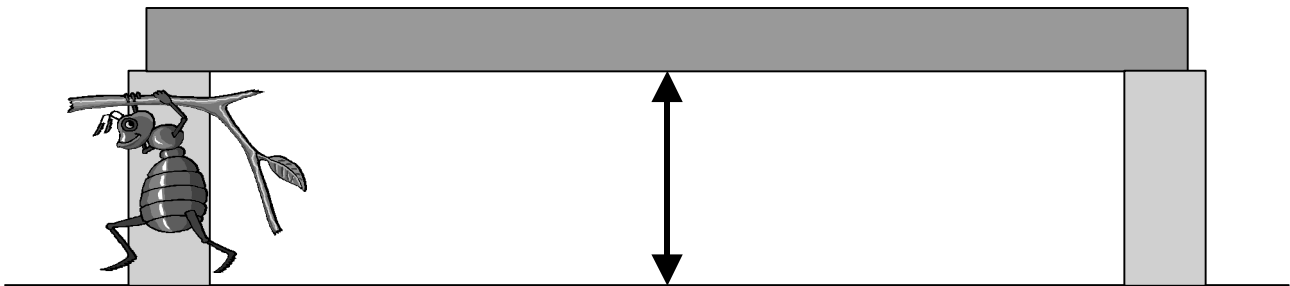




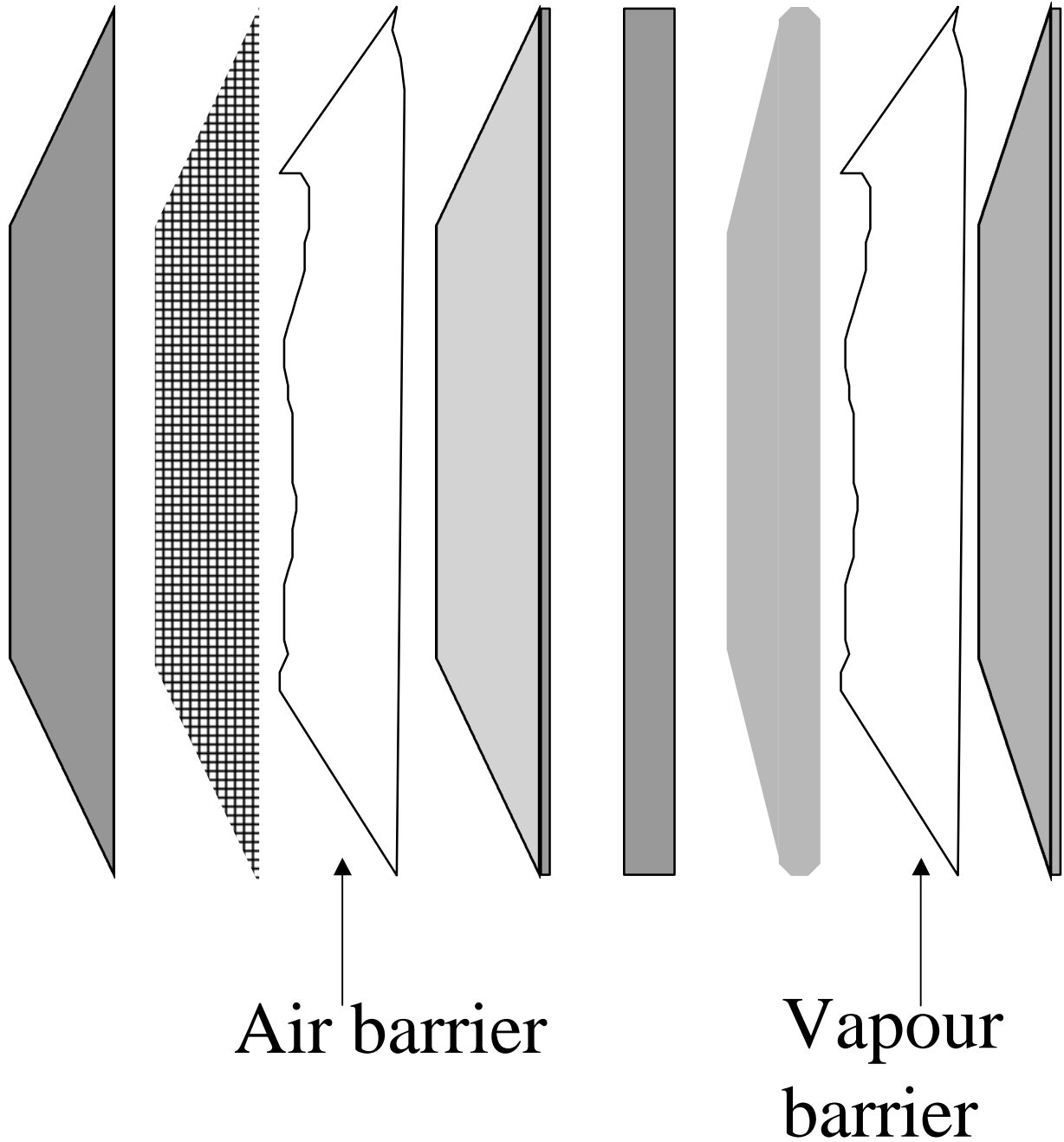
# Separation Measures



# Separation Measures

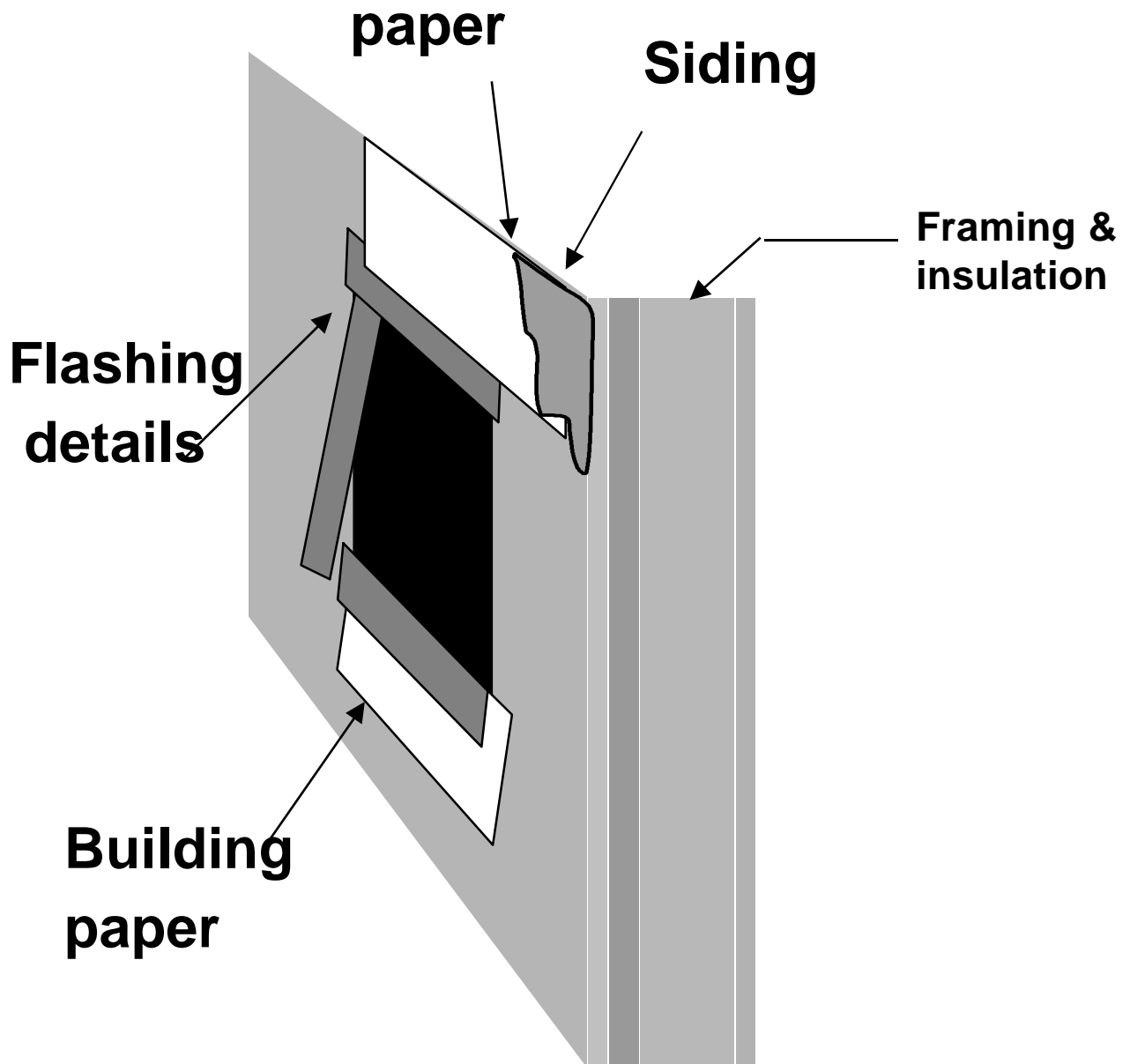


# Building Envelope Protection



# Building Envelope

## Protection Building

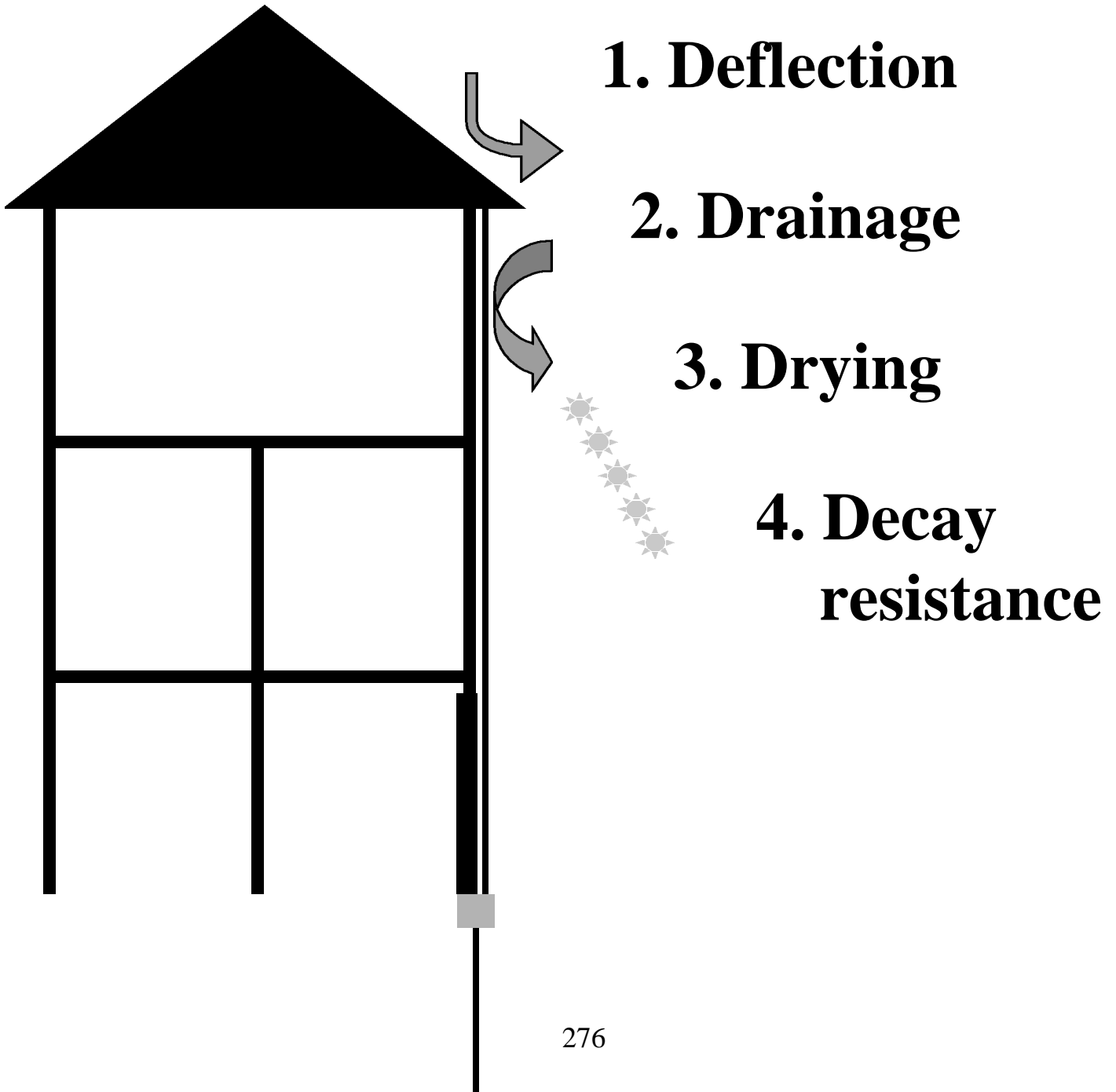


# Moisture Management

Part 9- Prescriptive  
Part 5- Performance

# Moisture Management

## ✓ 4 Lines of Defense



# Current Issues

- Protection from rain penetration
- Climate zones
- Moisture ‘barriers’
- Ventilation (and health issues)
- Marking of treated wood

# For Further Information:

[www.durable-wood.com](http://www.durable-wood.com)

- joint website of CWC and Forintek

- contact: Eric Jones

Canadian Wood Council

[www.ccbfc.org](http://www.ccbfc.org)

- website for the National Building Code

- contact: Adaire Chown

Canadian Codes Centre, NRC