

# Renovations in Stratas

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## What You Need to Know About Asbestos



# Welcome

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# What we'll cover today

- What is asbestos?
- What materials contain asbestos?
- Health effects
- Occupational Health and Safety Regulations
- Case study – Sharon's condo renovation
- Asbestos Inventory and Condition Assessment Report
- Fines

# What is asbestos?

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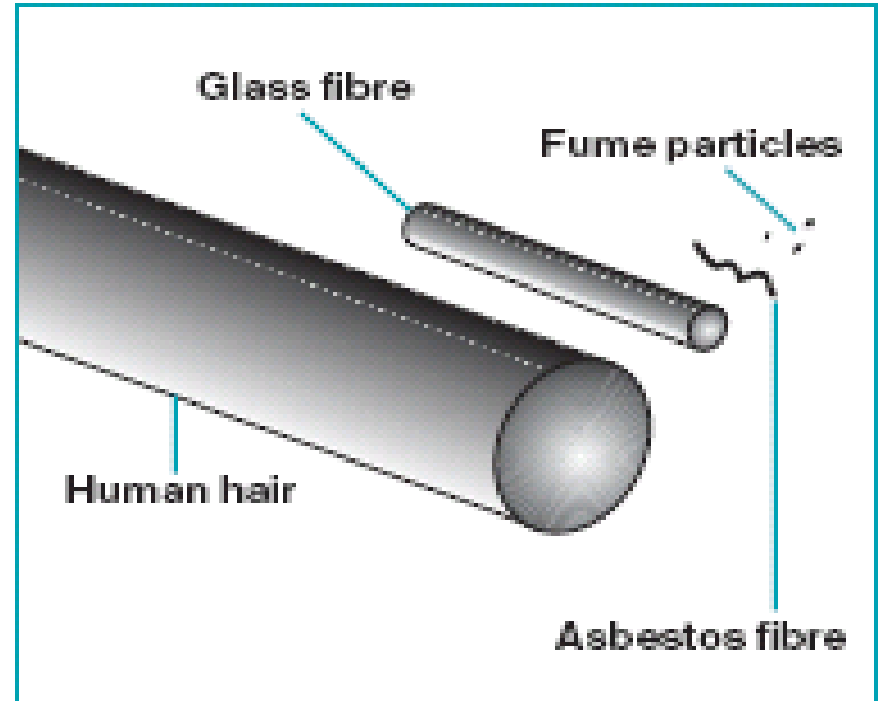
# What is asbestos?

- A fibrous mineral – Rock
- Thin needle-like fibres can easily separate (release into the air)
- Greek - **indestructible** or **inextinguishable**



# What is asbestos?

- Requires microscope to identify
- Up to 700X smaller than a human hair



# What materials contain asbestos?

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Found in more than  
3,000 pre-1990s  
building materials





Wall texture coat



Drywall joint compound

## Ceiling texture coat (popcorn ceiling)



## Wall or ceiling plaster

Sheet vinyl flooring



Vinyl floor tiles

## Stucco

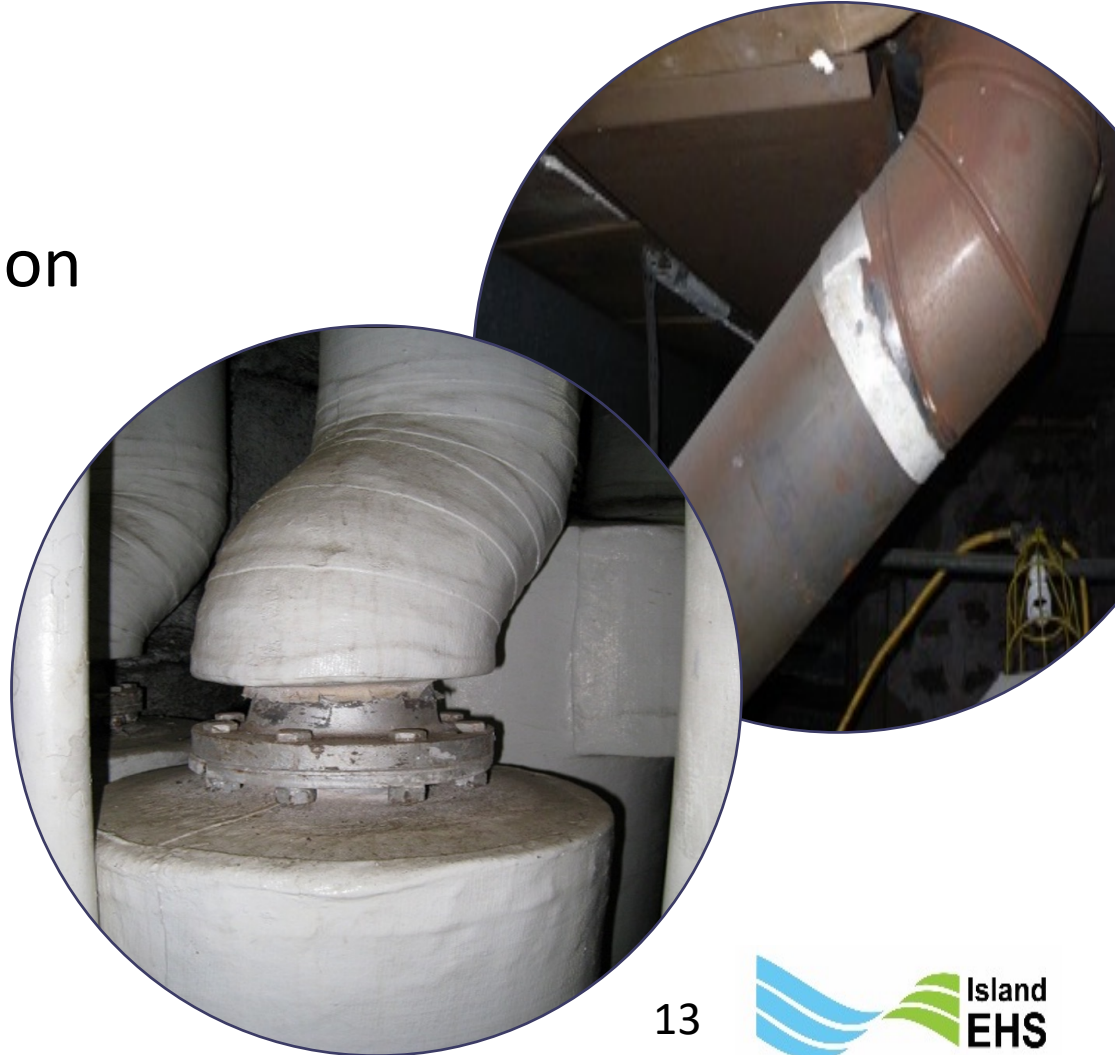


## Caulking



# Other asbestos-containing materials

- Gaskets
- Duct wrap tape
- Mechanical Insulation
- Caulking
- Flooring mastic
- Fire doors
- Cement products
- Roof shingles
- & more...



# Asbestos-containing material means

- Material that contains **at least 0.5%** asbestos (*excluding* vermiculite)
- Vermiculite insulation is an ACM if it contains **any percentage** of asbestos
- Samples taken by qualified person
- Tested at an approved laboratory



# Health effects

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Breathing in asbestos fibres can be fatal.

## Health effects

Disturbing or moving asbestos-containing materials releases the fibres into the air where they can linger for up to 48-hours and be inhaled.

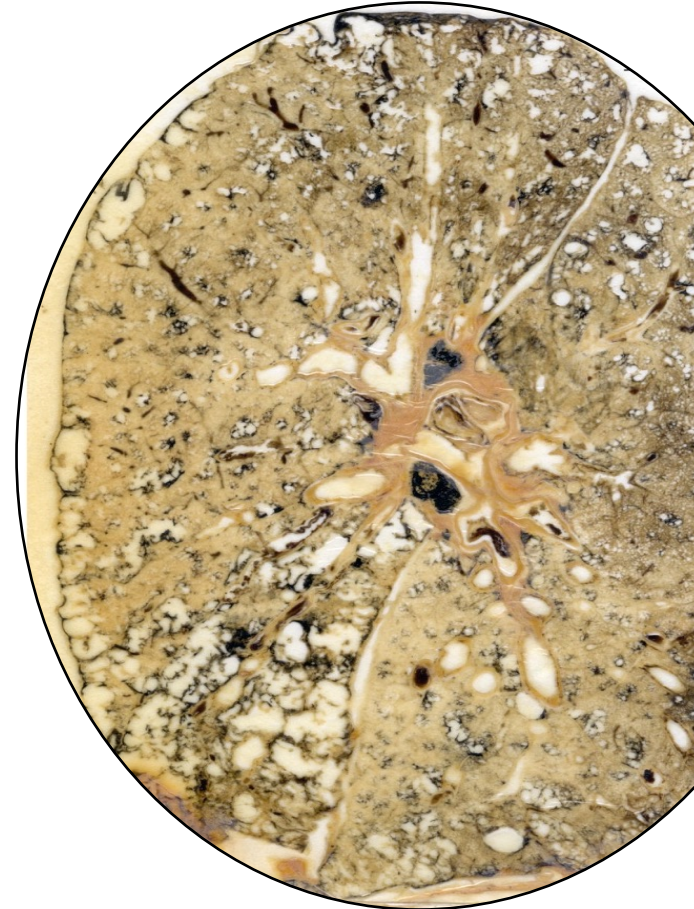




# Health effects

Inhaling asbestos fibres can cause:

- Lung cancer
  - Asbestosis: scarring of the lungs
  - Mesothelioma: cancer of the lung or stomach lining
- 
- Time from exposure to onset of disease ~10 - 40+ years!



# Asbestos exposure is the #1 killer of workers in BC

WorkSafeBC:

Total fatalities 2009-2018 = 1,434

Asbestos-related fatalities = 611

**43%** of all work-related claims!

# Occupational Health and Safety Regulation

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Before renovation of a building **constructed before 1990**, all **employers** responsible for the work, **and the owner** must ensure that a qualified person inspects the building to identify hazardous materials.

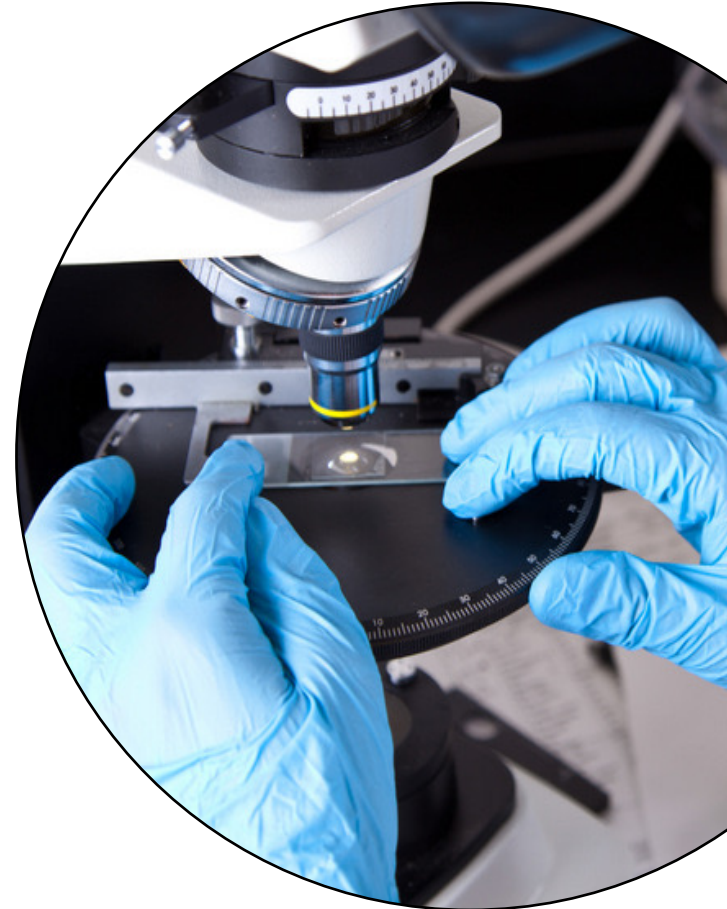
Includes contractors, unit owner and strata corporation.

Hazardous materials surveys include:

- Asbestos-containing materials (ACMs)
- Lead (paint) or other heavy metals
- Toxic, flammable or explosive materials (e.g., mercury, PCBs, radioactive components, etc.)



- Sampling and Risk Assessment by “qualified person” for potential exposure to asbestos-containing materials
- Samples tested at an approved laboratory



## A qualified person is a:

- Certified Industrial Hygienist (CIH )
- Registered Occupational Hygienist (ROH)
- Canadian Registered Safety Professional (CRSP), or
- Professional Engineer (P.Eng) with education and experience specific to asbestos management and work procedures.
- and/or a combination of experience and education/training





## Risk Assessment includes:

- Type of asbestos, % and extent
- Condition and friability (become airborne)
- Potential for occupant and worker exposure
- Other potential hazards
- Options
  - Encapsulation
  - Enclosure
  - Removal
  - Exposure Control Plan





# Case study

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Sharon's condo renovation  
in 1988 building.

## Sharon requests permission

Per the bylaws, Sharon writes to council to request permission to:

- Remove the ceiling texture (popcorn)
- Remove a kitchen wall
- Remove the kitchen lino flooring & install ceramic tile
- Replace the bedroom window



## Council's response

Council replies requesting the following:

- A Hazmat survey / Risk Assessment
- Lab testing results
- Notification of Project – Asbestos (NOP-A)
- Contractor information including WorkSafeBC #
- Indemnity Agreement



# Risk Assessment

Sharon hires a Registered Occupational Hygienist to take samples and do a risk assessment. The lab results show asbestos in:

- Ceiling texture 2%
- Drywall joint compound 1%
- Lino sheet flooring (paper backing 70%)
- Window caulking none detected
- Stucco none detected

[illegible]

## Conditions of approval

Council gives written permission for the reno.

There are many conditions of approval including:

- ☑ Abatement contractor qualifications including an Asbestos Exposure Control Plan (AECP)
- ☑ NOP with WorkSafeBC including safe disposal of ACMs – Ministry of Environment Regulations
- ☑ Copy of building permit for removal of wall, and relocating electrical outlet
- ☑ Signed Indemnity Agreement

# Notice of project (NOP)

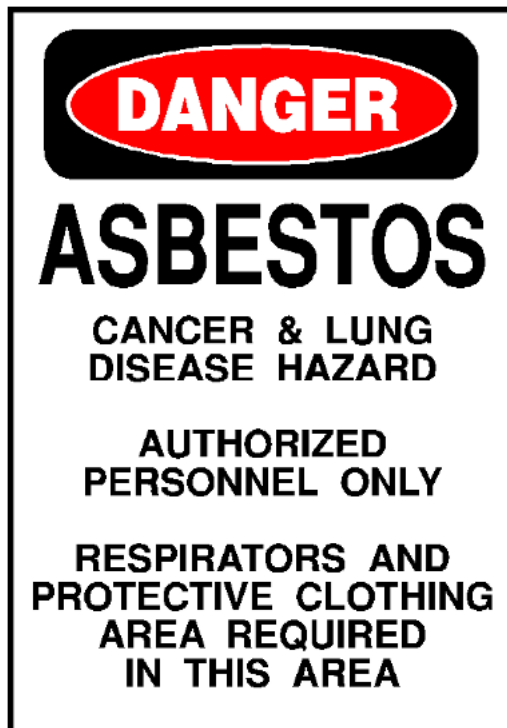


WORKING TO MAKE A DIFFERENCE

Must follow all WorkSafeBC Occupational Health Safety Regulations.

- Submit online 24 hours prior to start of work
- NOP required for all asbestos abatement work

# Abatement begins



A handwritten log sheet with the following data:

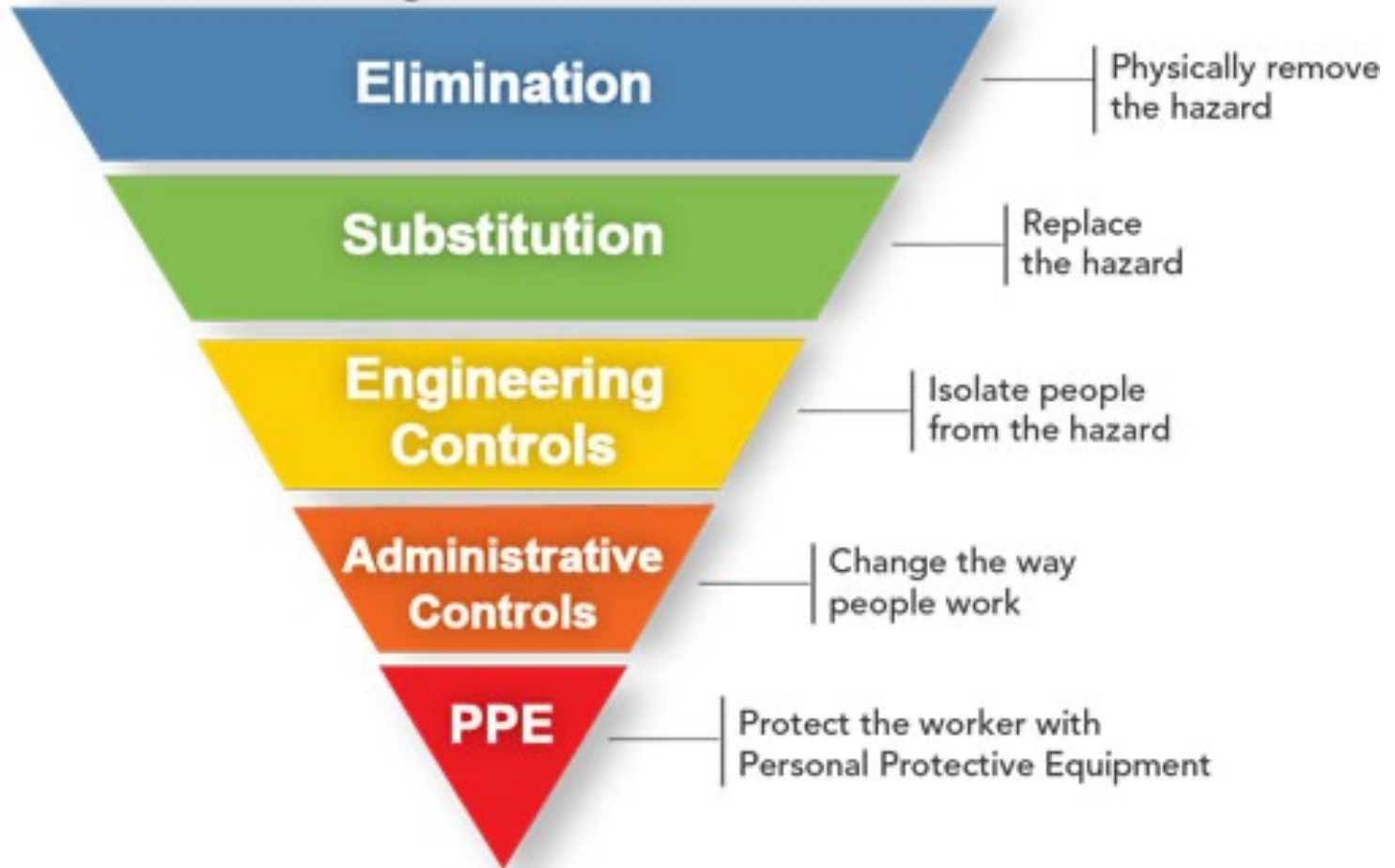
NAME	09 FEB	IN	OUT
Warren, Robert		OUT	
Libbel, Brian		09:00	
Bjorgan, Travis		09:00	
Gutteridge, Jesse		09:00	
Harris, Chris		09:10	
Holdestock, Cole		09:10	
Symes, Sean		09:10	
Thomsen, Josh		09:15	
Warren, Bob		09:15	
Julie		Back at	
Bill		09:00	
Harding, John		OUT	
Nelson, Mark		OUT	

# Hierarchy of Controls

Most  
effective



Least  
effective





# Popcorn ceiling texture removal

## Abatement Method: Removal

### Risk level: High

High level of controls needed to prevent worker exposures to asbestos fibres (released into the air)

- Full enclosure & negative air (HEPA)
- Workers: disposable coveralls, rubber boots, PAPR (respirators)
- 3-stage decontamination facility (with shower)



# Popcorn ceiling texture removal

- Full enclosure & negative air



# Negative air

Machines and HEPA vacuums

- Keeps contaminants from escaping
- HEPA filter exhaust – 99.97 efficient



Prevent worker  
exposure to  
asbestos fibres





## Kitchen wall removal

**Abatement Method: Removal**

**Risk level: “Modified” Moderate**

- High dust activity
- PPE: coveralls, rubber boots, PAPR (respirators)
- Full enclosure & negative air
- 2-stage decontamination (shower not required)

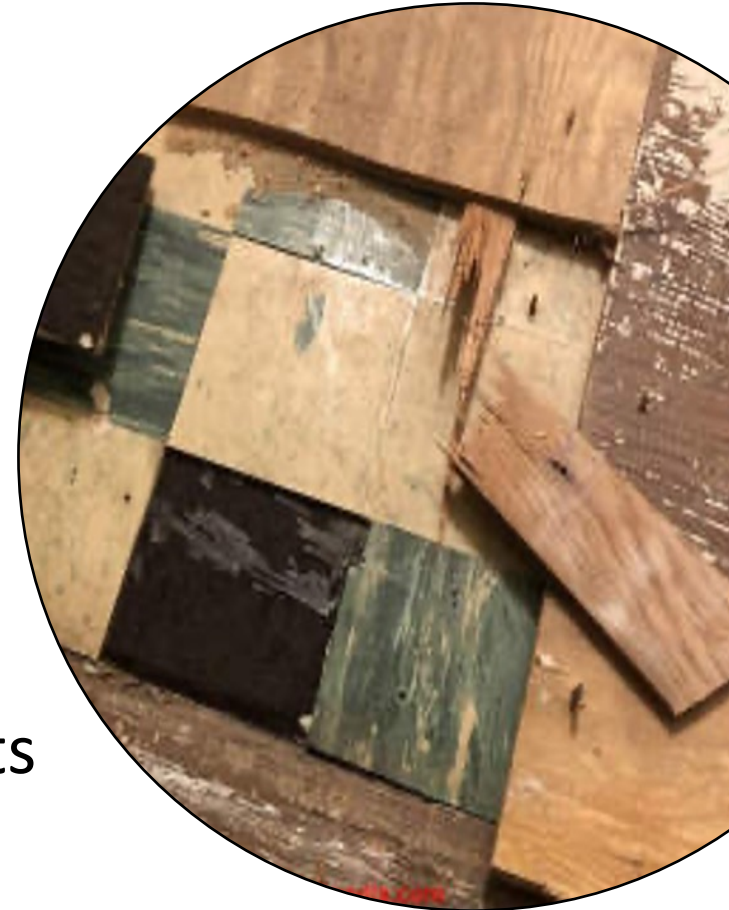


## Kitchen sheet flooring

**Abatement Method: Enclosure**

**Risk level: Moderate**

- Install ¼" plywood over vinyl flooring
- Creates a physical barrier between asbestos containing materials and building occupants
- Avoids aggressive disturbance
- PPE: coveralls, boot covers, half-face respirator



## Replace bedroom window

- Lab results showed no ACMs detected
- No abatement required **presuming drywall is unaffected**
- To avoid exposure to workers, contractor replaces window after abatement has completed in other areas of condo



## ACM waste

- Double-bagged
- Labelled
- Cannot go in strata bins
- Contractor must dispose of at approved MoE landfill – waste manifest
- Transportation requires TDG permit





# Asbestos Inventory & Condition Assessment Report

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Required for Sharon's renovation.  
Best if strata has an inventory of all ACMs.

# Asbestos Inventory

Prepared by a qualified person:

- Strata to keep an **up-to-date inventory** of all ACMs
- Ensure that all ACMs are clearly **identified/labelled**
- Review **prior** to disturbing ACMs
- Review annually or update following renovations, as required



# Fines

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WorkSafeBC can levy fines  
on strata corporations and owners  
if regulations not followed.

# Fines from \$2,500 to \$710,488

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In 2022, over 63 fines levied on building owners, contractors, and businesses.

## Violations included:

- No Hazmat survey conducted
- Drilling disturbed drywall and vermiculite
- ACMs not removed before renovation work began
- Area not isolated and ventilated to prevent spread of dust and debris
- ACM waste improperly bagged and labelled



In Sep 2022, a fine of \$710,488 was imposed for failure to provide workers with PPE (personal protective equipment) during a high-risk abatement.

## Crescent Housing Society: **\$2,516** fine

- Thermostats installed in pre-1990 residential building
- Disturbed drywall compound
- Fined for not providing subcontractor with copy of Exposure Control Plan
- Work took place without precautions to protect workers
- A high-risk violation



## Pacific Edge Properties: **\$2,500** fine

- Demolition in one unit
- No Hazmat survey conducted
- Flooring materials were ACM (asbestos containing materials)
- Asbestos waste not in sealed containers
- No written safe work procedures
- A high-risk violation

# Investigations and penalties

See cases where fines were imposed for violations of the *Workers Compensation Act* and *Occupational Health and Safety Regulation*.

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**Incident investigations**

- Reporting incidents to WorkSafeBC
- Conducting an employer investigation
- WorkSafeBC investigations
- Penalties
- Injunctions

## Search for penalties

Administrative penalties are fines imposed on employers for health and safety violations of the *Workers Compensation Act*, the Occupational Health and Safety Regulation, and/or orders of WorkSafeBC, and for failure to take sufficient precautions to prevent workplace injuries or illnesses. Penalties are published as a deterrent and to highlight the importance of making workplaces safe.

The status and amount shown are current as of the posting date. The current amount may not reflect the final penalty amount.

To browse penalties, leave the Search box blank.

# Acknowledgments

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Thank you to today's speaker, Ted Letourneau.

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[www.islandehs.ca](http://www.islandehs.ca)



# Thank you for attending today's webinar

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