



# Asbestos Management Plan

November 2019

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## Executive Summary

LGIS was contracted by the City of Cockburn (City) to assess all City owned buildings and assets for the presence of asbestos and where identified, develop registers for those buildings, assess the risks that the ACM poses and develop an Asbestos Management Plan. The asbestos registers and management plan were completed in accordance with the *Code of Practice for the Management and Control of Asbestos in Workplaces [NOHSC: 2018 (2005)]*.

The asbestos assessments were completed by Katherine Kempin (Senior OSH Consultant - LGIS), Cale Bant (Facilities Technical Officer - City of Cockburn) in November 2019.

This asbestos management plan (AMP) has been developed to assist the City with the safe and effective management of asbestos containing material (ACM) within their buildings and assets whilst complying with Occupational Safety and Health legislation and applicable codes of practice.

## Definitions

**Asbestos Containing Material (ACM)** – any material, object, product or debris that contains asbestos.

**Asbestos Management Plan (AMP)** – ascertains how asbestos or ACM is identified at the workplace will be managed e.g. what, when and how it is going to be done.

**Competent person** – means a person possessing adequate qualifications, such as suitable training, and sufficient knowledge, experience and skill, for the safe performance of the specific work.

**Friable asbestos** – means material that:

- a) Is in a powder form or that can be crumbled, pulverised or reduced to a powder by hand pressure when dry; and
- b) Contains asbestos.

**In situ** – means fixed or installed in its original position, not having been moved

**Non-friable asbestos** – means material containing asbestos that is not friable asbestos, including material containing asbestos fibres reinforced with a bonding compound (Note: Non-friable asbestos may become friable asbestos through deterioration).

## Legislative Requirements

The City of Cockburn, as an employer, has a responsibility to maintain a safe working environment under the provisions of:

- *Regulation 3.1 of the Occupational Safety and Health Regulations 1996 (OSH Regulations)*, which requires an employer to identify hazards at a workplace, assess the risk of harm to a person from each hazard and to take steps to reduce the risk
- *Regulation 5.43 (OSH Regulations)* which specifically requires the presence and location of asbestos at a workplace to be identified and that the process of identification and risk assessment is conducted in accordance with the *Code of Practice for the Management and Control of Asbestos in Workplaces [NOHSC-2018 (2005)]*.

## Government Policy

The long-term aim is for all buildings occupied or controlled by government agencies to be free of asbestos containing material (ACM).

Whilst working towards this goal, agencies have an obligation to identify and manage ACM in public buildings to meet the occupational safety and health requirements.

ACM in sound condition, left undisturbed, presents negligible risk to building occupants and the general community. Therefore removal of asbestos may not be immediately necessary but should take into consideration immediate health risks and a safe work method statement (SWMS) must be completed prior to demolition, partial demolition, renovation or refurbishment if these works are likely to disturb ACM.

Remaining ACM should be regularly inspected and actions taken to minimise health risks, where practicable.

All work conducted on ACM must be undertaken in such a manner as to minimise health risks.

## Background Information

Asbestos is a naturally occurring mineral rock made up of strong fibres that have fire, heat and chemical resistant properties.

While asbestos is now banned from use, it was a component of thousands of different products used in the community and industry from the 1940s until the late 1980s. Some uses of chrysotile asbestos products, mainly friction materials and gaskets continued until 31 December 2003.

Asbestos can pose a risk if fibres of a respirable size become airborne, are inhaled and reach deep into the lungs in sufficient quantities. These respirable fibres are a major health hazard and can cause serious asbestos-related diseases that can take decades to become apparent.

The lack of immediate health effects has often meant that victims are unaware of the dangers they are exposed to, which means that exposure to the hazard can continue over a long period causing serious health effects.

Due to the health risks associated with asbestos, it is essential that exposure is effectively managed. Working on or near damaged asbestos-containing materials (ACM) without appropriate control measures in place increases the risk of exposure to airborne asbestos fibres.

Exposure to asbestos fibres is known to cause mesothelioma, asbestosis and lung cancer.

## Method

### Asbestos Assessments

Access to City buildings and assets was arranged with City representatives. LGIS conducted a visual assessment of City buildings to identify the presence, condition and potential for disturbance of ACM outside buildings and inside where access was possible with a focus on the specific locations (internal and external walls, flooring, roofs, ceilings, eaves, fascia's and fencing).

Where some areas were partially inaccessible, the external areas of these assets were assessed as thoroughly as possible. These inaccessible areas should be treated as if they possibly contain ACM and relevant precautions should be taken in the event of maintenance, renovation or demolition work. Areas that were inaccessible have been identified on the asbestos registers.

## Asbestos Registers and Risk Assessment

An asbestos register and risk assessments were developed based on the assessments for each asset identifying the location, condition, potential for disturbance and analysis of associated risk of ACM. The level of risk was assessed using the risk matrix below in accordance with guidelines developed by the Department of Housing and Works.

### Asbestos Risk Matrix

Asbestos Risk Matrix					
Likelihood of Exposure / Disturbance					
Condition	Very Low Inaccessible	Low Only accessed by maintenance staff / contractors	Low Accessible: unlikely to be damaged	Medium Accessible: potential to be damaged	High Accessible to public
<b>Poor</b> Unsealed or coating damaged. Severely weathered.	12 <b>Low</b>	9 <b>Low</b>	6 <b>Medium</b>	3 <b>High</b>	1 <b>High</b>
<b>Fair</b> Unsealed or coating deteriorated. Moderately	14 <b>Very Low</b>	11 <b>Low</b>	8 <b>Low</b>	5 <b>Medium</b>	2 <b>High</b>

weathered.					
<b>Good</b>  Sealed and coating in good condition. Unweathered. Surface sound and well bound.	<b>15</b> <b>Very Low</b>	<b>13</b> <b>Very Low</b>	<b>10</b> <b>Low</b>	<b>7</b> <b>Low</b>	<b>4</b> <b>Medium</b>

<b>Asbestos Risk Control Matrix</b>			
<b>Risk Rating</b>	<b>Action</b>	<b>Priority</b>	<b>Timeframe</b>
<b>1 – 3</b>	Consider safe removal of ACM and replace with non-ACM product	Based on practicability	Based on practicability
<b>4 – 6</b>	Consider enclosing the ACM through non-ACM disturbance measures	Moderate	Based on practicability
<b>7 – 12</b>	Consider sealing the ACM appropriately	Moderate	Within one month
<b>13 – 15</b>	Monitor and review the ACM's condition	Low	Annually
All	Consider safely sampling the ACM for verification	Low	Anytime
All	Signify ACM present (signage)	Immediate	Within one week of identification

Any	Other:	Based on practicability	Anytime
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## Control Measures

As per the *Code of Practice for the Management and Control of Asbestos in Workplaces [NOHSC:2018 (2005)]*, control measures should reflect the hierarchy of controls. A combination of the following controls may be required in order to adequately manage ACM:

1. Elimination – removal is the preferred method of control;
2. Isolation – enclosure and / or sealing of the ACM;
3. Engineering controls;
4. Administration – safe work method statements, signage etc.; and
5. Personal Protective Equipment (PPE).

The control measures set out in the Asbestos Risk Control Matrix include:

- Consider safe removal of ACM and replace with non-ACM product. Removal of ACM must be considered in relation to the practicability to do this. Consider what is the condition of the ACM? Is it in the budget / can it be put in the budget for future removal? What temporary measures need to be implemented until removal?

The removal of asbestos must be performed by suitably licensed and competent persons and under controlled conditions. Removal is the preferred measure to eradicate buildings with ACM from the City.

- Consider enclosing the ACM through non-ACM disturbance measures. Enclosing ACM involves installing a barrier between the ACM and other areas.

This can prevent further physical damage to the exposed ACM. The installation of an enclosure should be conducted without disturbing the ACM.

- Consider sealing the ACM appropriately. Sealing refers to the coating of the outer surface of ACM with some sort of sealant compound that usually penetrates the substrate and hardens the material.
- Monitor and review the ACM's condition. This involves leaving the ACM in its current condition as it is sealed and in good condition and the surface is sound and well bound. The ACM will need to be inspected annually to ensure that there is no further deterioration.
- Consider safe sampling the ACM for verification. This can be conducted at any time. The Environmental Health Officer may take a sample and have it sent to a

NATA accredited laboratory for testing which will confirm if ACM is present and the type of controls necessary.

- Signify ACM present. Signage (labels) should be erected in all buildings where ACM is suspected or confirmed. The sign / label should be located near the ACM without causing any deterioration to the ACM.

## Asbestos Management Plan (AMP)

The AMP has been developed to assist the City with control of the premises to comply with legislative requirements and to prevent exposure to airborne asbestos fibres while ACM remains in the workplace.

### Roles and Responsibilities

LGIS recommends that a person from the City is appointed as the “Responsible Officer” to ensure the effective implementation of the AMP. This person would be responsible for:

- Providing advice on asbestos issues;
- Developing and implementing the awareness of asbestos to workers;
- Ensuring workers are informed of their roles and responsibilities and of the risk control measures associated with ACM;
- Ensuring regular inspections of assets;
- Maintaining the Asbestos Register(s);
- Recording incidents or hazards;
- Reviewing and updating the AMP accordingly;

All other City workers are responsible for:

- Advising the Responsible Officer when contractors or tradespeople are on site;
- Ensuring precautions are taken to keep people clear of ACM being repaired, removed or upgraded;
- Reporting all incidents or potential hazards associated with ACM to the Responsible Officer;
- Complying with policies, procedures and instructions of the AMP.

Contractors and tradespeople are responsible for:

- Ensuring their workers and sub-contractors are aware of their responsibilities;
- Reporting to the Responsible Officer prior to commencing work on sites with ACM;
- Complying with procedures of the AMP and as stipulated in contracts or other relevant guidance documents;
- Reporting all incidents or potential hazards to the Responsible Officer.

## Awareness and Training

Awareness and training regarding ACM, including general awareness, hazards associated and relevant procedures should be conducted for all appropriate personnel.

Workers and contractors should be informed of the health risks associated with exposure to airborne asbestos fibres. ACM training given to workers should cover the following:

- The health risks of ACM;
- The types of materials, uses and likely occurrence of asbestos in buildings and plant;
- The general procedures to be followed to deal with an emergency (e.g. an uncontrolled release of asbestos dust in the workplace);
- How to control the risks associated with ACM;
- Health surveillance.

And to relevant personnel:

- Assessing the risk and planning work;
- The correct use of control measures (PPE and safe work methods) and how these can reduce the risk of exposure to ACM and limiting exposure and the spread of asbestos fibres in the work area;
- Assessing exposure and air monitoring;
- Exposure standards; and
- Maintenance and control measures.

# Emergencies and Incidents

## Emergencies

An emergency situation is a situation where the health of personnel is considered to be an imminent risk (e.g. earthquake or collapse of a structure which contains ACM). The following procedure should be followed:

- Evacuate all personnel;
- Seal off or isolate the area where possible;
- Advise the Responsible Officer;
- Restrict access to the area;
- Determine “clean up” or other remedial action;
- Conduct air monitoring;
- Responsible Officer to authorise re-occupancy following clearance by the appropriate authority or competent person; and
- Record (document) the incident and update the asbestos register if required.

## Incidents

Other incidents may occur, such as, a contractor unknowing drilling or cutting in to ACM. In this situation the following procedure should be followed:

- Consult the asbestos register;
- Advise the Responsible Officer;
- Isolate the area where required;
- Determine “clean up” or other remedial action;
- Restrict access to the area where required;
- Conduct air monitoring if required;
- Responsible Officer to authorise re-occupancy following clearance by the appropriate authority or competent person; and
- Record (document) the incident and update the asbestos register if required.

## **Maintenance**

The following procedure should be followed in the event of planned maintenance on ACM where material is accessible, stable and unlikely to become airborne:

- Refer to asbestos register;
- Advise all personnel and restrict access to the work area;
- Erect warning signs of the work being conducted;
- Implement control measures e.g. enclosing, sealing, removal or leave it as is;
- Update asbestos register.

## **On-site Maintenance Work**

The following is a list of typical maintenance and service tasks that may disturb ACM and may only be performed after a risk assessment is completed and control measures have been implemented to minimise exposure to airborne fibres:

- Drilling of ACM;
- Sealing, painting, coating where sanding is required of ACM;
- Cleaning leaf litter from gutters of non-sealed ACM;
- Replacement of electrical components affixed to switch boards made of ACM;
- Inspection of in situ asbestos friction materials or seals;

When a project involves a team of more than one worker, the leader of the team will be responsible for ensuring that team members are individually aware of ACM procedures when working with ACM.

Workers engaged to remove ACM must hold the relevant Asbestos Removalist License as required. The Responsible Officer should be advised immediately of any incidents when non-compliance with the AMP may have or has occurred.

## **Engaging Contractors**

When engaging a contractor to carry out additions or repairs in areas where ACM has been identified the Responsible Officer should:

- Advise the contractor of the asbestos register which records the presence and condition of ACM;

- Endeavour to advise all personnel likely to be affected by the work before the work involving ACM commences;
- ACM related work should be conducted outside of business hours to reduce the risk to personnel.

Supervision of contractors is required to ensure that ACM work practices are complied with including:

- Signs and barricades are erected;
- Specific safe work procedures are followed;
- Correct handling of in situ ACM;
- Clean up of work areas;
- Correct disposal practices;

## Record Keeping

### Asbestos Register

The purpose of the asbestos register is to provide information on ACM in City assets to ensure that these assets are not inadvertently disturbed in such a manner that could cause an increased risk of harm to the health of workers, contractors or occupants.

The asbestos register must be maintained by the Responsible Officer.

The asbestos register, including risk assessments, should be reviewed every 12 months according to the *Code of Practice for the Management and Control of Asbestos in Workplaces [NOHSC:2008 (2005)]*, unless a risk assessment indicates the need for re-assessment earlier or any ACM is disturbed prior to the 12 month period.

### Asbestos Management Records

The Responsible Officer is responsible for maintaining a record of all asbestos management related activities, such as:

- Inspections;
- Hazard reports;
- Incident reports;

- Maintenance reports, including any repairs or replacements;

This includes ensuring documents are maintained, such as:

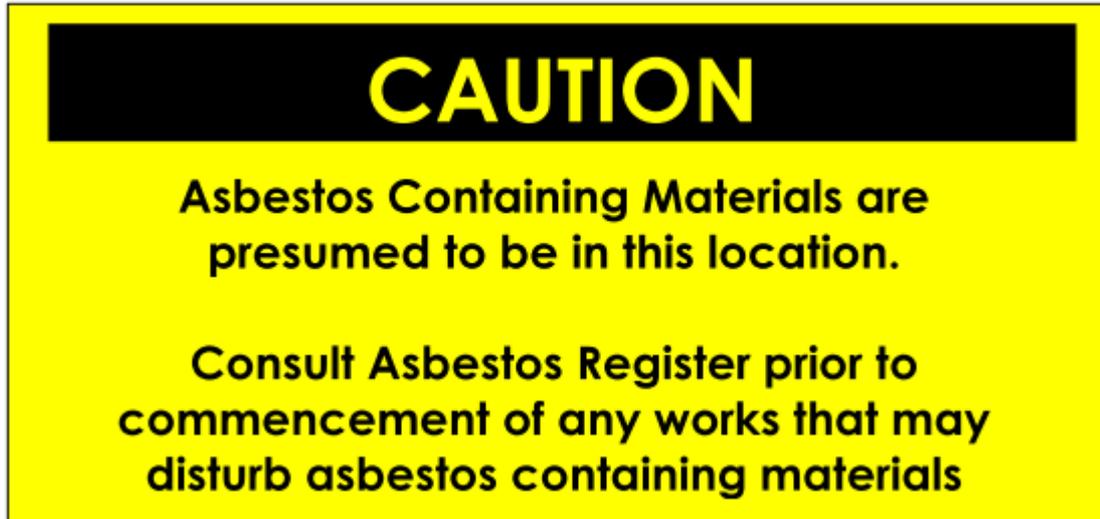
- The AMP;
- Risk assessments (part of the asbestos register);
- Sampling records, should sampling be required;
- Air monitoring records, should air monitoring be required;
- Name and details of contractors;
- Name and details of ACM consultants;
- Name and details of licensed asbestos removalists;
- Copies of asbestos removalist licenses;
- Copies of contractor's liability insurance noting the inclusion of cover for the removal of ACM;
- Details of refurbishments and removal/demolition works.

## Labelling

Labelling of ACM is a requirement under the *OSH Regulations 1996*. An ACM hazard may not be immediately identifiable to all persons who may occupy or work within a building therefore information relating to this risk must be accessible.

Strategic placement of labels or signs is required to provide information to persons who may have to carry out work on assets with ACM or for those who simply occupy or work within those buildings.

An example of appropriate labelling is shown below:



These labels are used to advise personnel in the building that ACM has been identified and that an asbestos register exists and should be consulted prior to any disturbance.

### **Air Monitoring Procedures**

Air monitoring may be used as a tool in assessing the risk of ACM, however air monitoring in isolation may not provide enough information to assess the risk.

Air monitoring may only be undertaken with the approval of the Responsible Officer. All air monitoring results should be documented and provided to the Responsible Officer for record keeping.

### **Securing the Work Area**

Where minor work being carried out does not involve disturbing ACM, the Responsible Officer will need to determine that the work activities will not pose a risk to the health of personnel in those areas.

Where work activities involve the use of power tools and/or hazardous substances it is generally undesirable for workers and visitors to be present in the work area.

Where work involves the removal of ACM or has the potential to disturb ACM, the proposed work area must be isolated through the establishment of a ten metre buffer zone and the Responsible Officer should arrange for the work to be conducted outside the normal business hours. All appropriate personnel must be advised of the work.

## **Completion of Works**

Upon completion of works in an area where ACM has been identified and the nature of the material could lead to a contaminated airborne environment, a visual inspection must be undertaken and the site authorised by a qualified Occupational Hygienist. Where non-friable sheets have been removed a visual inspection by the Responsible Officer is required to ensure all safe work procedures were followed.

## **Personal Protective Equipment (PPE)**

PPE should only be used where other more effective control measures are not practicable. All PPE that cannot be decontaminated should be disposed of as asbestos waste.

### **Coveralls**

Disposable coveralls may be disposed of as asbestos waste. Clothes worn underneath coveralls should be thoroughly vacuumed using a vacuum cleaner with high efficiency particulate air (HEPA) filters to ensure fibres do not stay on clothes and are taken in to the home.

### **Footwear**

Pull on boots are preferred as they cannot let any fibres in the way lace up boots can through the eyelets of the laces.

### **Respirators**

Respiratory equipment should remain on until all disposable PPE have been removed bagged and work clothes have been vacuumed. Respirators should not be worn around the neck when not in use or left anywhere where it may accumulate dust. Re-useable respirators should be cleaned after use in accordance with manufacturer's instructions. Class P3 filters should be used with respirators.

## Personal Decontamination

Asbestos fibres should not be transported outside the workplace. Ensure all disposable PPE are placed and sealed in a plastic bag and disposed with other asbestos waste.

## Disposal of Asbestos Containing Material

ACM waste must be disposed of in accordance with the requirements of the *Health (Asbestos) Regulations 1992*.

All asbestos material and waste must be separated from other waste and shall be either placed in polythene sheets 200 micron (µm) thick wrapped and sealed or placed in 200 micron (µm) thick polythene bags which are then sealed.

**NOTE:** All wrappings or containers containing asbestos waste shall be clearly labelled or marked with the words “**Caution Asbestos**” in letters no less than 50 millimetre high.

When the removal of large amounts of asbestos is involved the material may be placed directly into disposal bins or skips that have been lined with polythene, 200 micron thick, and are to be used exclusively for that purpose. Material which may potentially contain asbestos fibres such as debris from gutters and drains which accept discharge from asbestos cement roofs must be placed in polythene bags and sealed. Disposable PPE and some materials and tools used in asbestos related jobs are to be treated as asbestos waste.

All asbestos waste shall be removed from the worksite and disposed of as soon as is practicable.

Documentation should also be supplied to any principle contractor to demonstrate that any asbestos waste has been disposed of to an approved site and in an approved manner.

## Version Control

Version Number	Description	Author	Reviewed By	Date	Review Date
1	Final Report	K.Kempin	E.Horsefield	29/07/2018	29/07/2020



## **Appendices**

**Appendices 1 – Asbestos Site Register**

**Appendices 2 – Asbestos Maintenance Log**

**Appendices 3 – Property Risk Assessments**

## **1.1 Appendix 1**

### **ASBESTOS SITE REGISTER**

## 1.2 Appendix 2

### **ASBESTOS MAINTENANCE LOG**

## **1.3 Appendix 3**

### **PROPERTY RISK ASSESSMENTS**

## **1.4 Appendix 4**

### **REFERENCES**

## References

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[NOHSC:2018 (2005)] Code of Practice for the Management and Control of Asbestos in Workplaces

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[NOHSC:2002 (2005)] Code of Practice for the Safe Removal of Asbestos 2<sup>nd</sup> Edition

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WA Occupational Safety and Health Regulations 1996

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WA Occupational Safety and Health Act 1984

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Health (Asbestos) Regulations 1992

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