



Mr Peiter Van der Walt  
Canberra Town Planning Pty Ltd  
5/32 Lonsdale Street  
Dickson, ACT 2602

**BLOCKS 54 and 84 SECTION 8 - PHILLIP**  
**Application Number: 201017864-S165H**

Dear Mr Van der Walt,

I refer to the written evidence from the Environment Protection Authority (EPA) and other relevant information you submitted in response to **Condition A1: (a), (b)** and **Condition A2: (a)** of the Notice of Decision, formally corrected on 30 June 2017 (copy included at Attachment 1), with respect to the above Development Application.

The EPA written evidence and other relevant information now satisfy **Condition A1: (a), (b)** and **Condition A2: (a)** of this corrected decision and have been endorsed to form part of the above Development Approval. Consequently, this endorsement letter is considered to satisfy **Condition A1: (c)** of the corrected decision.

According to **Condition A2: (b)** of the corrected decision, further extension of time was granted by the authority on 12 July 2019 to comply with **Condition A1** of the corrected decision, upon request from the lessee. Therefore, **Condition A2: (b)** is also considered completed. **Condition A3** of the original decision was deleted by the 30 June 2017 correction.

As a result of the above noted compliance, and in accordance with the corrected decision, the approval now takes effect from the date of this S165H endorsement letter.

Pursuant to section 184 of the *Planning and Development Act 2007* (Act), this approval will expire if:

- the development or any stage of the development is not started within two years after the day the approval takes effect;
- the development is not finished two years after the day the development begins; or
- the development approval relates to land comprised in a lease that requires the development to be completed on a stated date – the date stated in the lease for completion of the development, or the approval is revoked pursuant to section 189 of the Act.

While **Condition A1: (a), (b), (c)** and **Condition A2: (a), (b)** of the corrected decision are now considered as satisfied, compliance with **Condition A5** of the original Notice of Decision dated 15 December 2010 (copy included at Attachment 2) relating to registration of the new consolidated Crown lease at Access Canberra (Land Titles and Rental Bonds) is still outstanding and must be satisfied. No building works, except for demolition and decontamination, are to commence on site till the new lease is registered.

Enclosed is a copy of the approved Demolition Plan.

Please note other outstanding conditions of approval in the original decision and the corrected decision, still apply and may need to be addressed prior to development commencing on the site.

If you would like to discuss this matter further, please telephone DA Coordinator on (02) 6207 6383.

Yours sincerely

A handwritten signature in black ink, appearing to read 'James Bennett', written in a cursive style.

James Bennett  
Delegate of the planning and land authority  
Environment, Planning and Sustainable Development Directorate  
24 January 2020



Mr Pieter Van der Walt  
Director  
Canberra Town Planning

Mr Van der Walt

**BLOCK 54 SECTION 8 - PHILLIP  
DA201017864 Borrowdale House**

I refer to the Notice of Decision dated 15 December 2010 and subsequent corrections and amendments to that decision dated 22 June 2011, 29 August 2011, 4 July 2012 and 21 May 2015, in regard to DA201017864.

I understand that the intention of the corrections was to allow demolition to proceed whilst the remainder of the development, being the lease variation and construction works, would not take effect until decontamination works were fully completed.

I refer to information you provided to the planning and land authority on 23 June 2017, and your letter of authorisation to act on behalf of the lessee for this site. I note that the developer has undertaken environmental assessments and is investigating the physical requirements for decontamination, with ongoing discussions with the EPA.

Consequently, in accordance with section 196 of the *Planning and Development Act 2007*, the Notice of Decision dated 15 December 2010 is formally corrected as follows.

This correction is generally consistent with the way that Notices of Decision are now issued for this type of development.

**Delete conditions A1-A3**

**Insert**

**A1. APPROVAL DOES NOT TAKE EFFECT EXCEPT FOR DEMOLITION**

This approval, except for demolition and decontamination, does not take effect until the Lessee has lodged with the planning and land authority written evidence under section 165 of the *Planning and Development Act 2007* that

- (a) the site has been assessed for possible contamination and any decontamination works have been completed, or ongoing management plans agreed, to the satisfaction of the Environment Protection Authority (EPA) or its successors; and



**ACT**  
Government  
Environment and Planning

- (b) the lessee has obtained written advice from the EPA that the site is suitable for the proposed development because all relevant works have been undertaken or are reflected in an ongoing management plan, and so construction can commence; and
- (c) the planning and land authority has advised that these conditions have been satisfied through a section 165 application.

**A2 COMPLIANCE WITH CONDITION A1**

- (a) This approval will end if the lessee has not lodged written evidence in accordance with Condition A1 within 24 months of the date of this Decision.
- (b) If the lessee has lodged with the planning and land authority written advice of the commencement of activities associated with Condition A1, the lessee may apply to the planning and land authority in writing for an extension of time to the approved timeframe.

The remaining conditions of approval set out in the previous Notice of Decision will continue to apply.

The approval, other than demolition, will take effect on the date that condition A1 is met.

If you would like to discuss this matter further please telephone the contact officer on 62076383.

Yours sincerely

Brett Phillips  
Executive Director  
Planning Delivery  
30 June 2017



# Notice of decision

Under Part 7 of the *Planning and Development Act 2007*

## Merit track

DA NO: 201017864 201017864/B 201017864/C		DATE LODGED: 28 May 2010, 17 August 2010 11 November 2010
DATE OF DECISION: 15 December 2010		
BLOCKS: 54 & 84	SECTION: 8	SUBURB: PHILLIP
STREET NO AND NAME: Furzer Street		
APPLICANT: Young-Wright Architects		
LESSEE: Borrowdale House Pty Ltd		

### THE DECISION

This application was lodged in the merit track. Pursuant to section 113(2) of the *Planning and Development Act 2007*, the application must be assessed according to the provisions relevant to merit track applications.

I, Rumana Jamaly, delegate of the ACT Planning and Land Authority (Authority), pursuant to section 162 of the Act, hereby **approve subject to conditions** the proposal for:

- the consolidation of Blocks 54 and 84 Section 8 Phillip;
- variation to the Crown lease to permit residential use; commercial accommodation use limited to serviced apartments, hotel and motel; community use excluding childcare; restaurant; and an increase in the maximum gross floor area to 35,091 square metres;
- demolition of the existing structures on the blocks; and
- the construction of a new multi-storey mixed use development [commercial and car parking at ground level, car parking at podium level 1, residential and car parking at podium levels 2 to 4, residential (including serviced apartments) from levels 6 to 24] in three tower buildings of 14, 20 and 24 storeys in height, with two levels of basement parking; and associated landscaping, site facilities, site works and off site works;

in accordance with the plans, drawings and other documents and items submitted with the application and endorsed as forming part of this approval.

This decision is subject to the conditions of approval at **PART 1** being satisfied.

**PART 2** sets out the Reasons for the Decision

**PART 3** is the Consultation and Entity Referral Report.

**PART 4** contains administrative information relating to the determination.

### DELEGATE

  
Rumana Jamaly

Delegate of the ACT Planning and Land Authority  
15 December 2010

**CONTACT OFFICER**

Mr Ajith Buddhadasa

Phone: 02 6205 1550

Email: [ajith.buddhadasa@act.gov.au](mailto:ajith.buddhadasa@act.gov.au)

## **PART 1 CONDITIONS OF APPROVAL**

This application is approved subject to the following conditions being satisfied. Some conditions of approval will require attention before the approved drawings will be released by the Authority, others before work commences or before the completion of building work.

### **A. ADMINISTRATIVE / PROCESS CONDITIONS**

#### **A1. APPROVAL NOT TO TAKE EFFECT**

This approval does not take effect until the Lessee has provided evidence that:

- a) all hazardous materials present at the site have been removed to the satisfaction of the Department of Environment, Climate Change, Energy and Water (DECCEW) or its successors; and
- b) written advice is obtained from the Environment Protection Unit, DECCEW, that the site is suitable for the residential development;

#### **A2. TIMEFRAME TO COMPLY WITH CONDITION A1**

- c) The Lessee shall provide written advice of compliance with Condition A1 to the Authority within 24 months of the date of this Decision;

#### **A3. COMPLIANCE WITH CONDITION A1**

- d) This Decision will cease to have effect if the Lessee has not provided written advice in accordance with Condition A1 to the Authority within 24 months of the date of this Decision;
- e) If the Lessee provides written advice of commencement of the development within 24 months of the date of this Decision, the Lessee may apply to the Authority in writing for an extension to the approved timeframe to complete.

#### **A4. FURTHER INFORMATION**

Within 28 days from the date of this decision, or within such further time as may be approved in writing by the Authority, the applicant shall lodge with the Authority for approval:

- (a) Revised relevant drawings showing:
  - (i) Privacy screens to the balconies of dwellings located at the south-west & south-east corners of the towers, which are overlooking into each other's balconies;
- (b) Revised colour schedule to add greater vibrancy to the external façade of the building;
- (c) A revised outdoor lighting plan addressing the issues raised by the Department of Territory and Municipal Services (TaMS) and endorsed by TaMS (see ENTITY ADVICE).

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**A5. LEASING****A5.1 *Commencement of Building Work***

That no building work in relation to this Development Application is to commence on the site until the new consolidated Crown lease is registered at the Registrar-General's Office;

**A5.2 *Change of Use Charge***

If a change of use charge is payable, the lessee shall pay it within 28 days of being notified of the amount or within such further time as may be approved in writing by the ACT Planning and Land Authority.

**A5.3 *New Block Survey***

The lessee shall arrange for a survey of the consolidated block and shall lodge the survey plan with the ACT Planning and Land Authority for examination and clearance and pay the appropriate examination fee.

**A5.4 *Surrender and re-grant***

The lessee shall surrender the existing Crown leases over Block 54 Section 8 Phillip - (Volume 1576 : Folio 95) and Block 84 Section 8 Phillip - (Volume 1876 : Folio 22) and shall accept a new Crown lease substantially in accordance with the form of lease appearing at Attachment 1.

**A5.5 *Commencement and termination of lease***

The new Crown lease shall commence on the date of surrender of the existing leases and will terminate on 20 December 2100 or on such further date as may be approved by the ACT Planning and Land Authority.

**A5.6 *Lease registration***

The lessee shall do all that is necessary to ensure that the new Crown lease giving effect to this approval is registered at the Office of Regulatory Services within 28 days of being notified that the Crown lease is available for registration, or within such further time as may be approved by the ACT Planning and Land Authority.

**B. PRIOR TO CONSTRUCTION AND/OR DEMOLITION****B1. SEDIMENT AND EROSION CONTROL**

That prior to any work on the site commencing, the applicant/lessee must submit two copies of the sediment and erosion control plan to Environment Protection Authority for approval;

**B2. TREE PROTECTION**

Tree protection fencing, if required, shall be erected prior to the commencement of any work on the site.

**B3. VERGE MANAGEMENT**

This plan is to be approved and implemented before the commencement of any work on the site, and is to be in accordance with the *City Management Guidelines for the Protection of Public Landscape Assets Adjacent to Development Works-REF-04*.

**B4. TRAFFIC MANAGEMENT**

A Temporary Traffic Management (TTM) Plan shall be prepared by a suitably qualified person and approved by the Senior Manager, Asset Acceptance prior to commencement of any work on the site. This plan is to address, as a minimum, measures to be employed during construction to manage all traffic, including construction traffic, in and around the site, provision of safe pedestrian movement around the site, the provision of parking for construction workers, and associated traffic control devices;

**B5. EMERGENCY ACCESS**

The issues raised by TaMS in relation to emergency access to Woden Town Square must be resolved in discussions with TaMS prior to the commencement of any construction at site (see ENTITY ADVICE).

**B6. HAZARDOUS MATERIAL**

Developer must fully consider the potential for asbestos located in the building to be demolished and associated risks before demolition commences. Developer must contact Mr. Brian Jones from ACT Health on phone 6205 1713 for further advice.

**C. DURING CONSTRUCTION AND/OR DEMOLITION****C1. SEDIMENT AND EROSION CONTROL**

All unsurfaced entry and exit points must be consolidated with crushed aggregate or similar extending from the road kerb to the building line.

Temporary sediment controls – comprising, as a minimum, geo-textile silt fencing along the lowest points of the site and hay bale filters as required – are to be installed and maintained at least daily to prevent sediment from reaching the stormwater mains system.

**C2. TREE PROTECTION**

The applicant/lessee shall protect and maintain all existing trees and shrubs located on the subject site, on adjoining blocks overhanging the subject site, on the verge and unleased Territory land immediately adjacent, except for those specifically identified for removal in the approved drawings and a Tree Management Plan.

**C3. VERGE MANAGEMENT**

During any work undertaken on the site, all existing vegetation (trees, shrubs and grass) located on the verge and unleased Territory land immediately adjacent to the development shall be managed, protected and maintained in accordance with a Landscape Management Plan approved by the Senior Manager Asset Acceptance, Land Management and Planning Division, Department of Territory and Municipal Services

**C4. TRAFFIC MANAGEMENT**

At all times, the site and surrounds shall be managed in accordance with the approved Temporary Traffic Management (TTM) Plan.

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C5. WASTE MANAGEMENT

All building waste is to be stored on the site in suitable receptacles and collected regularly. The lessee is to take all reasonable steps to ensure that waste, particularly wind borne litter, does not affect adjoining or adjacent properties.

C6. HAZARDOUS MATERIAL

Appropriately licensed contractors (and consultants, if required) must be engaged for the removal, assessment, transport and disposal of all hazardous materials present at the site.

C7. NOISE STANDARD

Buildings must be constructed to meet the criteria set out in the following Australian Standards:

*AS 2107 'Recommended Design Sound Levels and Reverberation Times for Building Interiors' [AS 2107 - 2000], and  
AS 3671 'Acoustics - Road Traffic Noise - Building Siting and Construction' [AS 3671 - 1989].*

C8. ENVIRONMENT PROTECTION

Construction and development works must be in accordance with the "*Environment Protection Guidelines for Construction and Land Development in the ACT, 2007*".

C9. The proposed development must include appropriate environment management controls to ensure compliance with the *Environment Protection Act 1997* and the Water Environment Protection Policy.

C10. CAR PARKING PROVISION

Car parking for the residential units, serviced apartments and commercial activities of the proposed development must be provided as outlined in Option 2 as stated in the letter by Mr. Matthew Blair dated 12 Nov 2010 and submitted as supporting document by the applicant on 15 Nov 2010.

C11. WIND IMPACT

All the recommendations outlined in Chapter 6.0-Conclusion of the Pedestrian Wind Environment Study prepared by WINDTECH consultants and submitted to the Authority as supporting document shall be implemented.

C12. CONSTRUCTION PARKING

To minimise reliance on public parking during the construction phase of the development, once the basement and ground floors are substantially completed and safe to access, the lessee shall provide a minimum of 60 car parking spaces or such other number as is agreed in writing by the Territory, within the basement and at ground level, for use by construction workers associated with the development.

**D. ADVISORY NOTES**

Noise

As indicated in Section 8 'Future Tenancies' of the revised Noise Management Plan, further acoustic assessment should be undertaken at the time that it is established who the commercial tenants will be. Future tenants should be advised of this requirement or have this requirement written into their lease

Refer to Appendix 1 for information about approvals that may be required for construction.

## **PART 2 REASONS FOR THE DECISION**

The application satisfactorily meets the requirements for approval. The application was approved because, based on the documentation and in the form modified by the imposed conditions, it was considered to meet:

- the relevant codes, being the Town Centres Development Code and the Multi Unit Housing Development Code.

The key issues identified in the assessment are the solar access to the dwellings, traffic and car parking, interface distances, wind impact, overshadowing, overlooking, payment of change of use charge, and the registration of the new Crown lease at the Office of Regulatory Services.

During the assessment of the original proposal the Authority requested further information with regards to the solar access to the dwellings, traffic & car parking, interface distances, wind impact, overshadowing and overlooking. The applicant was requested to consider impact of the proposed development on the redevelopment of the Alexander and Albermarle buildings located to the north of the subject site and vice versa. The applicant submitted revised drawings and supporting documents to address these issues. Subsequently, the revised details were referred to the relevant entities for comments. The entities supported the proposal subject to conditions.

Prior to the approval, the revised proposal was presented to the Authority's Major Project Review Group (MPRG) and to the Executive Policy Committee (EPC) for further advice. The MPRG and the EPC advised that the revised proposal has adequately addressed the issues raised and therefore can be approved with conditions. The conditions have been imposed as appropriate to address the key issues and ensure that the proposal is consistent with the Territory Plan and the *Planning and Development Act 2007*.

### **EVIDENCE**

**Application No. 201017864; 201017864/B; 201017864/C**

**The Territory Plan zone – CZ1 Core Zone**

**The Development Codes – Town Centres Development Code and  
Multi Unit Housing Development Code**

**Current Crown Lease – Volume 1576 Folio 95; Volume 1876 Folio 22**

**Representations**

**Entity advice**

## **PART 3 PUBLIC NOTIFICATION AND ENTITY ADVICE**

### **PUBLIC NOTIFICATION**

Pursuant to Division 7.3.4 of the Act, the original proposal was publicly notified from 09/06/2010 to 01/07/2010 and the revised proposal was publicly notified from 04/10/2010 to 25/10/2010. Two written representations were received during public notification of the original proposal and two written representations were received during the public notification of the revised proposal.

The main issues raised are as follows. Comments are provided as appropriate.

#### **(a) Character/building design/orientation of dwelling units**

Considering the existing and future physical and social context of the locality and the usage of the proposed development, it is reasonable to consider that the proposed multi-storey mixed use development is not beyond that which would normally be expected within the CZ1 Core Zone and allowable under the Code. The development, whilst creating some impact, is not considered to be so detrimental to the street or surrounding developments as to warrant refusal or redesign of the proposal.

Although some of the dwelling units do not get solar access as required by the relevant rule of the Code, the detailed studies undertaken by the applicant demonstrate, over 80% of residential units will receive 3 or more hours of sunlight between dawn and dusk on the winter solstice and over 95% of units will receive 2 hours of sunlight. These demonstrate that the proposal provides adequate solar access to the units in accordance with the relevant criterion. Balconies will receive more sun light.

Also a range of sustainability measures are proposed in the development to ensure that the proposed development is environmentally sustainable and acceptable to the surrounding physical and social environment as well as to the future occupants of the building.

The proposal had been referred to the Authority's internal Major Project Review Group (MPRG) and the Executive Policy Committee (EPC) for further advice. Both the MPRG and the EPC supported the proposal.

#### **(b) Possible disruption to existing activities on adjacent properties during construction**

The Authority acknowledges that there can be some disruption to existing ongoing activities on adjacent properties. However, existing pedestrian pathways, access to car parks etc will be maintained or appropriately diverted to minimise such disruption. All construction activities are required to be carried out in accordance with the accepted standards and other agency requirements. Issues arising through any adverse impacts may be raised with the relevant agencies should they occur.

#### **(c) Height/bulk & scale**

There is no specific height limit in the Territory Plan for this block. The proposed buildings are 14, 20 and 24 storeys in height. The existing Lovett Tower to the south is approximately 10.5m higher than the proposal and the proposed development to the north (redevelopment of Alexander and Albermarle buildings) will be 11 storeys. Considering the existing and future physical and social context of the locality and the usage, it is reasonable to consider that the proposed multi-storey mixed use development is not beyond that which would normally be expected within the CZ1 Core Zone and allowable under the Code.

(d) Inconsistency of the proposal with the Woden Town Centre Master Plan

The Woden Town Centre Master Plan is not called up by the current Territory Plan in its entirety. The relevant planning features outlined in the Woden Town Centre Master Plan have been incorporated into the Territory Plan.

(e) Interface/visual separation

The East tower is nearest to the proposed development to the north (Alexander and Albemarle buildings). South wing of the proposed development (to the north) is 10 storeys high and will comprise office spaces. The narrow facade of the East tower facing north (9.0m wide) is located at zero setback from the northern boundary and at a distance of 15.5m from the proposed Albemarle building. The West tower with 24 storeys has a frontage, 15.0m wide, facing north and at a distance of approximately 22.0m from the proposed Albemarle Building.

Considering the location of the adjacent developments, their intended usage and future desired character of the locality, it is reasonable to consider that the northern facades of the East and West towers will not adversely impact on the proposed Albemarle Building and vice versa in terms of visual privacy, solar access, wind mitigation, and amenity of outdoor spaces.

The interface distance between the proposal and the existing building to the south (Lovett Tower) is 13.4m. Lovett Tower is of 22 storeys comprising office spaces and ground floor commercial/cafe/tertia. As the Lovett Tower is an office building, it is considered that there will not be any privacy related impact from the proposal on the Lovett Tower.

Shadow diagrams submitted with the proposal demonstrate that there will be overshadowing of buildings located to the south mainly, Phillip Health Centre to the SW, Lovett Tower to the South and Westfield to the SE on 21st June. Supporting information shows that these buildings to the south will be able to get a reasonable amount of solar access throughout the year. Shadow diagrams also demonstrate that there will be reasonable solar access to the Woden town square between the hours of 10am to 2pm on 21<sup>st</sup> June. Therefore, considering the existing and future physical and social context of the locality and the usage of these buildings, it has been determined that the proposed development will not cause an excessive adverse impact or create undesirable circumstances to the overall operational requirements of surrounding developments.

It is considered that the proposed interface distances will not create adverse impacts upon the existing buildings to the south in terms of visual privacy, solar access, wind mitigation, and amenity of outdoor spaces.

(f) Impact upon the amenity of surrounding buildings from the shadowing of proposed building

Refer to (e) above.

(g) Wind impact

The wind report prepared by the Consultants confirms that by implementing the recommendations outlined in the report, in the Landscape Plan, the surrounding pedestrian areas, and the communal open space at 6<sup>th</sup> storey level will be within the comfort range of pedestrian use. A condition has been imposed requiring implementation of the recommendations of the wind report.

(h) Minor encroachments over the adjoining Territory land

The revised proposal does not propose to have any encroachments over adjoining Territory land.

(i) Public notification description of the revised proposal did not identify the changes made to the original proposal

All the major revisions made to the original proposal as well as the overall proposal were adequately described as follows in the public notification description of the revised proposal:

*"Lease variation to consolidate blocks 54 & 84 section 8 Phillip; and vary the consolidated lease to increase GFA to 35,091m<sup>2</sup>; and add the uses of residential, commercial accommodation limited to serviced apartments, hotel and motel, restaurant and community use excluding childcare. Demolition of the existing 3 storey building and construction of a new multi level mixed use building comprising three levels of basement car parking, ground level commercial tenancies, three levels of podium car parking and residential towers in 3 blocks to include 44 serviced apartments over three levels and 157 residential units. Development includes associated site works & landscaping. S144B Amendment to delete Basement 3, add another level to the podium, add apartments to the podium floors, replan the apartment floors, increase the height of the West and South Towers by two storeys and the East Tower by one storey".*

There were no changes proposed to the lease variation component of the proposal and the public notification of the amended proposal closed on 25 October 2010.

(j) Views

Views are matters that are taken into consideration to a certain extent when assessing development proposals, but the extent to which a particular view may be lost or altered must be weighed against an individual's right to maximise the potential of their own block. The height and bulk of the proposal is considered to be of an acceptable scale to the location.

(k) Building materials to be used

A condition has been imposed requiring a revised colour scheme for the proposed development to add greater vibrancy to the external façade of the building.

(l) Inadequate consultation

Even though the Authority encourages applicants to undertake public consultation prior to the lodgement of a DA, it is not a requirement of the Territory Plan or the legislation for the applicant to conduct such public consultation. The *Planning and Development Act 2007* requires DAs in the Merit track to be publicly notified.

(m) Inconsistency of the proposal with the Territory Plan especially with regards to Principle 1.1 of the Territory Plan, which includes community well being and the environmental quality

These requirements have been translated into Rules and Criteria of the Town Centres Development Code and the Multi Unit Housing Development Code. After careful assessment it is considered that the proposal is not inconsistent with these requirements.

(n) Car parking provision

Two separate car parking provision options have been proposed in the revised proposal. In both options it is proposed to accommodate visitor parking off site and all the residential units to be provided with at least one car parking space.

Considering the facts such as, location (town centre), closer to employment opportunities, existing services and amenities, availability of efficient public transport system linking the city and other commercial areas, increased ownership of motorcycles and most tenants in other similar situations possessing one or no cars, under utilisation of available parking in other similar situation (City and along Northbourne Avenue); and increased use of taxis or hired vehicles by the clients of serviced apartments etc, the Transport Planning Section of Territory and Municipal Services (TAMS) supported Option 2. Option 2 proposes a limited shared car parking

arrangement for serviced apartments while providing a greater number of shared parking for the residential units.

(o) No active street frontage to Furzer Street

The proposal is located at the end of Furzer Street along with some other developments. The Furzer Street end is the only service access to all these developments and it is reasonable to envisage that all the servicing requirements to these buildings can only be managed through this street end. The proposal has adequate active frontages to all other main surrounding pedestrian areas.

## ENTITY ADVICE

Pursuant to Division 7.3.3 of the Act, the application was referred to entities and advice was received. The referral entities' comments are as follows. A response to the advice is provided as appropriate.

### CONSERVATOR OF FLORA AND FAUNA

On 21/10/2010 advice was received from the Conservator of Flora and Fauna in relation to the proposal. The advice states that:

*There are no regulated trees affected by this proposal.*

### ENVIRONMENT PROTECTION AUTHORITY (EPA)

On 29/06/2010 advice was received from EPA in relation to the proposal. The advice states that:

#### *Hazardous materials:*

*The Environment Protection Unit (EPU), Department of Environment, Climate Change, Energy and Water has reviewed the reports titled "Intrusive Hazardous Material Survey & Management Plan Borrowdale House Furzer St Phillip ACT 2606", dated May 2010 by Robson Environmental.*

*The EPU supports the consultant's recommendations and proposed methodologies for the removal, handling, transport and disposal of hazardous materials identified in the reports.*

*Appropriately licensed contractors (and consultants if required) must be engaged for the removal, assessment, transport and disposal of all hazardous materials present at the site.*

#### *Noise:*

*In mixed use areas conflicts can often arise with residents' desire for quiet environments in the midst of noisy activities such as, traffic or entertainment venues.*

*To achieve an acceptable noise environment for people living in mixed use areas, buildings shall be constructed to meet the criteria set out in the following Australian Standards as amended from time to time:*

- . AS 2107 'Recommended Design Sound Levels and Reverberation Times for Building Interiors' [AS 2107 - 2000], and*
- . AS 3671 'Acoustics - Road Traffic Noise - Building Siting and Construction' [AS 3671 - 1989].*

*Also, given that the lease allows for noisy activities (hotel, restaurant) a noise management plan prepared by a person suitably qualified in the assessment of environmental noise must be submitted to and approved by the EPA. The plan should detail the design, siting and construction methods which will be used to minimise the impact of noise on neighbours as well as residents within the complex.*

*A noise management plan entitled 'Borrowdale House, Woden, ACT Development: Assessment of Environmental Noise Impact', dated 20 May 2010 by Acoustic Logic Consultancy was submitted with this DA. The EPA has reviewed this assessment and has found that it does not adequately address issues of noise attenuation. Therefore, the EPA does not support the approval of DA201017864 in its current form. The best way forward may be to issue a S141 request for further information.*

*Please contact Rohan Peek on 6207 2188 for further information on noise management plan requirements.*

#### *General EPA requirements*

##### *Erosion and Sediment Control for sites UNDER 0.3ha:*

*Construction and development works should be in accordance with the "Environment Protection Guidelines for Construction and Land Development in the ACT, 2007". It is recognised that building activities can contribute significant pollution to Canberra's lakes & waterways, increasing turbidity and the frequency of blue-green algae blooms. Under the Environment Protection Act 1997 it is an offence to allow soil and other building materials to enter the stormwater system.*

##### *Water quality:*

*The proposed facility should include appropriate environment management controls that ensure compliance with the Environment Protection Act 1997 and the Water Environment Protection Policy.*

##### *Non-potable water for construction:*

*Water may be taken from non potable sources (including onsite sediment erosion control ponds, or potentially off-site sources) for the purpose of short term construction activities, however, the proponent will need to apply for and be granted an Exemption from the requirement for a Licence to take water, before any non-potable water may be taken.*

*Contact Environment Protection Authority (Water Resources) for more information: via telephone 132281.*

##### *Water in basements:*

*If upon completion water seeps into underground car parks or basements and the proponent intends on using that water, they must apply for and be granted a Licence to Take Water and a Water Access Entitlement before any water may be taken. Contact Environment Protection Authority (Water Resources) for more information: via telephone 132281.*

*For disposal of any water in an underground car park or basement, contact Environment Protection via telephone 132281*

*In response to the above comments made by the EPA on the Noise Management Plan (NMP) the applicant submitted a revised NMP with the revised proposal, and the EPA conditionally approved the NMP on 23/11/2010 with the following comments:*

*The revised noise management plan is now acceptable to the EPA. As indicated in section 8 'Future Tenancies', further acoustic assessment should be undertaken at the time that it is established who the commercial tenants will be. Future tenants should be advised of this requirement or have this requirement written into their lease.*

*Matters raised have been incorporated as either conditions of approval or advice.*

## DEPARTMENT OF TERRITORY AND MUNICIPAL SERVICES

On 29/06/2010 advice was received from Territory and Municipal Services (TaMS) in relation to the original proposal. The advice states that:

*This DA is supported subject to the following conditions:*

### **DEMOLITION**

*Demolition notes/requirements should be shown on the Demolition Plan.*

### **TRANSPORT**

*The proposal is acceptable from a parking and traffic perspective.*

*While the consultants (ISG) have raised issues with how parking provision might be calculated, given a range of objectives, they have indicated that it is proposed to provide 258 parking spaces for the development. After allowing for an adjustment to parking provision taking account of the existing GFA in Borrowdale House, this is a reasonable figure. Visitor parking can reasonably be provided in off-site, public or publicly available car parks.*

*The proposal requires displacement of four (4) spaces for people with disabilities, one (1) space for medical practitioners, one (1) loading zone space and six (6) 30-minute meter parking spaces. The parking for people with disabilities, the medical practitioner and the loading zone can be provided close by in the Keltie Street car park by utilising eight (8) of the eighteen (18) one-hour pay parking spaces. The loss of the 30-minute spaces is acceptable for the present.*

*Bicycle parking appears to have been adequately provided for, but there is no indication in the basement floor plans of any provision for motorcycle parking. Generally, we require three (3) spaces per 100 car parking spaces and these are in addition to the car spaces. Given that much of the parking is for residential users, some discount could be considered. However, it is suggested that the proponent be asked to find half a dozen spaces for motorcycles. This should be possible without having to redesign the basement arrangements.*

*Traffic-wise, because this is primarily a residential development, the additional traffic should be capable of being handled on Furzer Street.*

### **LIGHTING**

*The in-ground narrow beam up-lights are not supported.*

*The New Roadway Luminaire inside the planter box is not supported as access for service of 1.5m around it is required.*

*Therefore the planter box may need to be modified so it is separate from the light.*

### **EMERGENCY ACCESS**

*The proponent needs to show how access for an Ambulance and a Fire Truck will be provided into Woden Town Square.*

### **Design Acceptance**

*A Certificate of Design Acceptance and a Certificate of Operational Acceptance on completion of the works are required from the Senior Manager, Asset Acceptance, Land Management and Planning, TAMS, prior to the issue of a Certificate of Occupancy. The Certificate of Design acceptance will be issued for all off-site works or its updated version approved by ACTPLA.*

*In order to obtain the Certificate of Design Acceptance, fully detailed drawings (civil, landscape) prepared by suitably qualified persons for all off-site works including roads, driveways, footpaths, street lighting, storm water, landscaping (and any other issues that may be found by audit of the plans) and a design report in accordance with Ref No 06:"Requirements for Design Acceptance*

*Submissions", must be certified by a Chartered Engineer/Landscape Architect and submitted to the Senior Manager, Asset Acceptance.*

*Similarly a Chartered Engineer/Landscape Architect should certify compliance with TAMS Ref No 08: "Requirements for Works as Executed Quality Records Requirements" when the request for Operational Acceptance is made to the Senior Manager, Asset Acceptance on completion of all off-site works.*

*A Waste Management Plan in accordance with the Development Control Code for Best Practice Waste Management in the ACT should also be included if not approved at the Development Application stage.*

#### *Temporary Traffic Management (TTM)*

*A TTM plan approval from the Manager, Traffic Management & Safety, Roads ACT, Transport and Infrastructure Division, TAMS. All times during construction the site and surrounds shall be managed in accordance with a Temporary Traffic Management Plan, prepared by a suitably qualified person and approved by the Manager, Traffic Management & Safety. This plan is to address, as a minimum, measures to be employed during construction to manage all traffic, including construction traffic, in and around the site, provision of safe pedestrian movement around the site, the provision of parking for construction workers, and associated traffic control devices.*

#### *Landscape Management & Protection Plan (LMPP)*

*LMPP approval from the Manager, Asset Acceptance, Land Management and Planning, TAMS. During construction, all existing vegetation (trees, shrubs and grass) located on the verge and unleased Territory land immediately adjacent to the development shall be managed, protected and maintained in accordance with the Landscape Management Protection Plan (LMPP) approved by the Manager, Asset Acceptance. This plan is to be implemented before the commencement of works, including demolition on the site and is to be in accordance with City Management Guidelines for the Protection of Public Landscape Assets Adjacent to Development Works-REF-04.*

#### *Notice of Commencement of Construction*

*Notice of Commencement of Construction shall be submitted to the Manager Asset Acceptance one week prior to the commencement of works. The Notice shall also include the confirmation of any protective measures installed in accordance with the approved LMPP and programmed implementation of the TTM.*

*On 26/10/2010 following additional advice was received from Territory and Municipal Services in relation to the revised proposal. The advice states that:*

*This DA is supported subject to bicycles parking issues raised in comments below are addressed;*

*The revised assessments on traffic and parking issues provided by ISG have been reviewed and these generally accord with agreements reached previously with the developer and its consultants. The parking provision proposed is supported. It is noted that the two spaces for people with disabilities shown on the ground floor plan as being at the entry to the building from Furzer Street are in addition to the 16 spaces provided within the development's car park. These will be used by people other than those who may live in accessible units and presumably replace some of the existing publicly available spaces in the Furzer Street stub, which will be affected by the development.*

*I note that the increase of four (4) units in total is unlikely to lead to any significant differences in the parking provision requirements. Nor will they add significantly to traffic in Furzer Street or significant intersections in Woden Town Centre.*

However, in relation to bicycle parking for visitors, I disagree with the ISG view (expressed in their letter of 29 July 2010 and attached to the DA) that there is sufficient publicly available bicycle parking for visitors in the walkways between Woden Square and the Woden Library.

Block 86 Section 8 Phillip comprises the public walkways linking Woden Square to Corinna Street, Keltie Street and Furzer Street. It lies to the south of the Borrowdale House site which is the subject of the current DA. There are five (5) Class 3 bicycle rails which probably meet the requirements set out in the Bicycle Parking General Code (the Bicycle Code), but this would need to be checked. There are some 30 concrete bicycle parking structures which are identified in Section 4.6.2 and Figure 3 in the Bicycle Code as unacceptable installations. These cannot be taken into account in considering whether existing public supply of Class 3 bicycle facilities exist within the distances specified in the Bicycle Code.

The proposed development is for a total of 208 apartments, including the 39 serviced apartments. Required bicycle parking provision for visitors under the Bicycle Code is one (1) Class 3 facility per 12 units after the first 12 units. Thus provision of Class 3 facilities for a total of 17 visitor bicycles is required. These can be located in whole or in part at ground level on-site, or in adjacent public areas with the agreement of the land custodian (TAMS). They could be located where the existing unacceptable facilities are presently positioned, although the landscape treatments may need to be modified to ensure an adequate level of passive surveillance

In response to the issues raised above the applicant provided additional information and TaMS supported proposed parking arrangement – Option 2 as stated in Matthew Blair's letter dated 12 Nov 2010 submitted as a supporting document:

*I refer to your emails sent yesterday, in particular to Matthew Blair's letter of 12 November 2010 on the clarification of parking numbers and to our discussion this morning regarding parking provision requirements for the Borrowdale House redevelopment in Woden Town Centre.*

*The site is in a town centre core (CZ1) zone. Given its location close to the Woden Bus Interchange and to the town centre facilities, including publicly available pay parking areas, it has been agreed that visitor parking can be met by the available capacity in publicly operated and privately operated pay parking areas.*

*In relation to on-site parking requirements, the table on the first page of Matthew Blair's letter of 12 November 2010 sets out the figures, with the qualifications that, after allocating single spaces to each residential dwelling, two (2) spaces each to 24 two-bedroom units with tandem parking and nine (9) spaces for retail activities, there are 39 unallocated spaces. There are also to be 39 serviced apartments incorporated within the development.*

*Experience with serviced apartments along Northbourne Avenue, Braddon, points to the parking demand being lower than the minimum requirement under the Parking Code. In a town centre location like that of Borrowdale House, it is reasonable to accept that parking demand is likely to be similarly reduced compared with normal residential apartments. I agree with the discussion following the second table in Mathew Blair's letter (i.e. allocating 17 spaces to serviced apartments and 23 for shared use by residents of two-bedroom apartments), and that this distribution would be a reasonable result.*

*The provision of motorcycle spaces is supported, as is the provision for bicycles. With visitor bicycle parking, some should be provided near the entrance to the building or in between trees in the public area south of the site, as shown approximately on Drawing DA-A05.*

*I note from the drawing that two (2) spaces for people with disabilities are to be retained in front of the building.*

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*Taking account of all of the above, I consider that the objectives of the Parking Code will be met if parking is provided as outlined above, in accordance with the submissions made as part of the DA and with Matthew Blair's letter of 12 November 2010*

Matters raised have been incorporated as either conditions of approval or advice.

ActewAGL (water & sewer)

On 14/10/2010 advice was received from Actew (water & sewer) in relation to the revised proposal. The advice states that the proposal complies with the relevant requirements (see attached).

ActewAGL (electrical)

On 26/10/2010 advice was received from Actew (electrical) in relation to the revised proposal. The advice states that the proposal conditionally complies with the relevant requirements (see attached).

ActewAGL (gas networks)

On 07/10/2010 advice was received from Jemena in relation to the revised proposal. The advice states that the proposal conditionally complies with the relevant requirements (see attached).

Emergency Services Agency (ESA)

On 22/06/2010 & 16/11/2010 advice was received from ESA in relation to the proposal. The advice states that the proposal is conditionally supported (see attached).

ACT Health

On 04/11/2010 advice was received from ACT Health in relation to the proposal. The advice states that:

*The Health Protection Service (HPS) acknowledges the receipt of your email and attached documentation for the lease variation and consolidation of blocks 54 & 84 Phillip. HPS notes that the information provided does not indicate an assessment of asbestos risks due to the demolition of the existing building. HPS requests the applicant is advised to fully consider the potential for asbestos to be located in the building to be demolished before demolition commences.*

*Please contact Brian Jones on phone 6205 1713 if you require any further information about these comments.*

Matters raised have been incorporated as either conditions of approval or advice.

## **PART 4 ADMINISTRATIVE INFORMATION**

### **DATE THAT THIS APPROVAL TAKES EFFECT**

This approval is effective from the day as specified in Condition A1. The effective date for development applications approved subject to conditions could be adjusted if the approval is reconsidered by the ACT Planning and Land Authority or if an application is made to the ACT Civil and Administrative Tribunal.

Pursuant to section 184 of the Act, this approval will expire if:

- the development or any stage of the development is not started within two years after the day the approval takes effect;
- the development is not finished two years after the day the development begins; or
- the development approval relates to land comprised in a lease that requires the development to be completed on a stated date – the date stated in the lease for completion of the development, or the approval is revoked under section 189 of the Act.

### **INSPECTION OF THE APPLICATION AND DECISION**

A copy of the application and the decision are available on the public register. The register can be inspected between 8:30am and 4:30pm weekdays at the ACT Planning and Land Authority Dickson Customer Service Centre at 16 Challis Street, Dickson, ACT.

### **RECONSIDERATION OF THE DECISION**

If the applicant is not satisfied with the decision to approve the application subject to conditions, they are entitled to apply to the ACT Planning and Land Authority for reconsideration within 20 working days of being told of this decision or within any longer period allowed by the ACT Planning and Land Authority.

Application forms and further information about reconsideration are available from the ACT Planning and Land Authority's website and Customer Service Centres. The delegate of the ACTPLA reconsidering the decision must be different from, and senior to, the original decision maker. An application for reconsideration does not prevent an application for a review of the same decision being made to the ACT Civil and Administrative Tribunal.

### **REVIEW BY THE ACT CIVIL AND ADMINISTRATIVE TRIBUNAL (ACAT)**

Decisions that are reviewable by the ACAT are identified in Schedule 1 of the *Planning and Development Act 2007*, except for those precluded under Schedule 3 of the *Planning and Development Regulation 2008* – Matters exempt from third-party ACAT review.

This Notice of decision has also been sent to all people who made representations in relation to the proposal.

# APPENDIX 1

## CONTACT DETAILS OF RELEVANT AGENCIES

<b>ACT Health</b> - health protection	Website: <a href="http://www.health.act.gov.au">www.health.act.gov.au</a> Telephone: (02) 6205 1700
<b>ACT Planning and Land Authority</b> - list of certifiers for building approval - demolition information - asbestos information	Website: <a href="http://www.actpla.act.gov.au">www.actpla.act.gov.au</a> Telephone: (02) 6207 1923 or (02) 6207 1687
<b>Department of Territory and Municipal Services</b> - tree damaging activity approval - heritage - use of verges or other unleased Territory land - works on unleased Territory land - design acceptance - damage to public assets - threatened species/wildlife management	Website: <a href="http://www.tams.act.gov.au">www.tams.act.gov.au</a> Telephone: 132 281 Telephone for asset acceptance: (02) 6207 6594  Research and Planning (02) 62071911
<b>Department of Environment, Climate Change, Energy and Water</b> - environment protection - water resources	Website: <a href="http://www.environment.act.gov.au">www.environment.act.gov.au</a> Telephone: (02) 62076251 for Environment Protection Authority (EPA)
<b>Utilities</b> - Telstra (networks) - TransACT (networks) - ActewAGL - Electricity reticulation	Telephone: (02) 9397 2090 Telephone: (02) 6229 8000 Telephone: 1100 Telephone: (02) 6293 5738

## ADVICE TO APPLICANT

### SUBMISSION OF REVISED DRAWINGS AND DOCUMENTATION

If a condition of approval requires the applicant to lodge revised drawings and/or documentation with the ACT Planning and Land Authority for approval under section 165 of the *Planning and Development Act 2007* the submission shall be made with a completed application Form 11 for Section 144 & 197 Amendments and Satisfying Conditions of Approval (S.165).

### FURTHER APPROVALS FOR CONSTRUCTION

The Notice of Decision grants development approval, but does not cover building approval or approvals which may be required during construction, which commonly include the following.

### BUILDING APPROVAL

Most building work requires building approval to ensure it complies with building laws such as the Building Code of Australia. If this applies to this proposal, the lessee should engage a private building certifier to assess and approve the building plans before construction begins. A list of licensed certifiers and information about building approval is available from the ACT Planning and Land Authority's website and Customer Service Centres.

### PERMITTED VARIATIONS TO APPROVED DEVELOPMENT

Under section 35 of the Planning and Development Regulation 2008 the development as built may vary from the approved development in accordance with section 35 and the permitted construction tolerances and other permitted variations identified in Schedule 1A of that regulation.

*Note 1* The development may still need building approval, or further building approval, under the *Building Act 2004*

*Note 2* The development must also comply with the lease for the land on which it is carried out.

### "TREE DAMAGING ACTIVITY" APPROVAL

A Tree Management Plan under the *Tree Protection Act 2005* is required for approval where it is proposed to undertake groundwork within the tree protection zone of a protected tree or likely to cause damage to, or remove, any trees defined as protected trees by that Act. More information is available from the Department of Territory and Municipal Services.

### USE OF VERGES OR OTHER UNLEASED TERRITORY LAND

In accordance with the *Roads and Public Places Act 1937*, road verges and other unleased Territory land must not be used for the carrying out of works, including the storage of materials or waste, without prior approval of the Territory. Approval can be obtained from the Department of Territory and Municipal Services.

### WORKS ON UNLEASED TERRITORY LAND – DESIGN AND OPERATIONAL ACCEPTANCE

In accordance with the *Roads and Public Places Act 1937*, no work can be undertaken on unleased Territory land without the approval of the Territory. Such approval must be obtained from the Manager Asset Acceptance, Asset Services Group, TAMS by way of:

1. a certificate of design acceptance prior to the commencement of any work and
2. a certificate of operational acceptance on completion of all works to be handed over to TAMS

Works on unleased Territory land may include the construction or upgrading of driveway verge crossings, public footpaths, roads, street lighting, stormwater works, waste collection amenities, street signs and line marking, road furniture and landscaping.

A certificate of compliance under s296 of the *Planning and Development Act 2007*, may not be issued unless a certificate of design acceptance **AND** a certificate of operational acceptance have both been obtained from TAMS.

### **CONSTRUCTION REQUIREMENTS**

The following information are some key requirements that apply to building work in the Territory. Other requirements may apply to this development.

### DEMOLITION AND ASBESTOS MANAGEMENT

Demolition and asbestos management must be undertaken in accordance with the *Building Act 2004* (including the Building Code of Australia) and the *Dangerous Substances Act 2004*. Information about demolition and asbestos management is available from the ACT Planning and Land Authority's web site and Customer Service Centres.

**ENVIRONMENT PROTECTION**

All building work must be undertaken in accordance with the *Environment Protection Act 1997*, particularly but not exclusively in relation to noise and pollution control. More information is available from the Department of Environment, Climate Change, Energy and Water.

**REPAIR OF DAMAGE TO PUBLIC ASSETS**

The applicant/lessee is held responsible for all damage to ACT Government assets (including footpaths) caused by the development and they must properly repair any damage to those assets. Before work commences, they should notify the Department of Territory and Municipal Services of any existing damage to public facilities.

**UTILITY ASSETS RETENTION**

The lessee should obtain a plant location advice from ActewAGL to avoid conflict with existing plant or electrical easements. The lessee will be responsible for the costs associated with the relocation of assets, if necessary. The lessee is to ensure that the water service and water meter are retained in position and in good condition. ActewAGL water meters are accountable items and must not be removed from the site or otherwise disposed of.

**WATER RESTRICTIONS AND FILLING OF NEW POOLS, PONDS AND FOUNTAINS**

Water restrictions or permanent water conservation measures may be in force in the ACT and may prohibit or affect the filling of new pools, ponds and fountains using potable (tap) water drawn from ACTEW Corporation Limited's potable water supply system. Applicants wishing to use water drawn from the potable water supply system to fill a new pool, pond or fountain are advised to first contact ACTEW's Water conservation office on (02) 62483131. Where water restrictions or permanent water conservation measures would otherwise prevent or affect the filling of a new pool, pond or fountain, it might be possible to obtain an exemption to fill the pool, pond or fountain using potable water.

**DRAINAGE**

The Building Code of Australia contains provisions affecting surface drainage and the height of finished floor levels. These may apply to this proposal.

**REVIEW OF THE DECISION**

The following notes are provided in accordance with regulation 7 of the *ACT Civil and Administrative Tribunal Regulation 2009*. Refer to the Review by the ACT Civil and Administrative Tribunal (ACAT) section of the Notice of Decision for information about its relevance to this development application.

**CONTACT DETAILS**

The review authority is the ACT Civil and Administrative Tribunal (ACAT).

Location	Contact details
ACT Civil and Administrative Tribunal Level 4, 1 Moore Street CANBERRA CITY ACT 2601	Website: <a href="http://www.courts.act.gov.au">www.courts.act.gov.au</a> Email: <a href="mailto:tribunal@act.gov.au">tribunal@act.gov.au</a> Telephone: (02) 6207 1740 Facsimile: (02) 6205 4855 Post: GPO Box 370, CANBERRA, ACT, 2601 Document exchange: DX 5691

## POWERS OF THE ACAT

The ACAT is an independent body. It can review on their merits a large number of decisions made by ACT Government ministers, officials and statutory authorities. The ACAT can agree with, change or reject the original decision, substitute its own decision or send the matter back to the decision maker for reconsideration in accordance with ACAT recommendations.

## APPLICATIONS TO THE ACAT

To apply for a review, obtain an application form from the ACAT. If you are applying on behalf of an organisation or association of persons, whether incorporated or not, the Tribunal in deciding whether to support this application will consider the effect of the decision being reviewed on the interests of the organisation or association in terms of its objects or purposes. A copy of the relevant documents will be required to be lodged with the Tribunal.

## TIME LIMITS FOR APPLICATIONS

The time limit to make a request for a review is 28 days from the date of this Notice of decision. The time limit can be extended in some circumstances (refer to sections 10 (2), 10(3), 25(1)(e) and 25(2) of the *ACT Civil & Administrative Tribunal Act 2008*; section 7 of the *ACT Civil and Administrative Tribunal Procedure Rules 2009 (No 2)*; and section 409 of the *Planning and Development Act 2007*).

## FEES

Applications to the ACAT, including an application to be joined as a party to a proceeding, require payment of a fee of not less than \$184 (the Tribunal Registry will advise of the current fee), unless you are receiving legal or financial assistance from the ACT Attorney-General. You can apply to have the fee waived on the grounds of hardship, subject to approval (refer to section 22T of the *ACT Civil and Administrative Tribunal Act 2008*). Decisions to grant assistance are made on the grounds of hardship and that it is reasonable, in all the circumstances, for the assistance to be granted. Write to: The Chief Executive, ACT Department of Justice and Community Safety, GPO Box 158, CANBERRA ACT 2601. Ask the ACAT for more details.

## TIME LIMITS FOR REVIEWS OF DECISIONS

The ACAT is required to decide appeals in land and planning and tree protection cases within 120 days after the lodging of the appeal, unless that period is extended by the ACAT upon it being satisfied that it is in the interests of justice to do so.

## FORMS OF LEGAL, FINANCIAL AND OTHER ADVICE AND ASSISTANCE

The following organisations can provide advice and assistance if you are eligible:

- ACT Attorney-General, write to The Chief Executive, ACT Department of Justice and Community Safety, GPO Box 158, CANBERRA, ACT, 2601;
- the ACT Legal Aid Office, telephone 1300 654314;
- Legal Advice Bureau, telephone (02) 6247 5700;
- ACT Council of the Ageing, telephone (02) 6282 3777;
- Welfare Rights and Legal Centre, telephone (02) 6247 2177; and
- Environmental Defender's Office (ACT), telephone (02) 6247 9420.

## AWARDING OF COSTS

You will have to pay any costs involved in preparing or presenting your case. The ACAT also has the power to award costs against a party if the party contravenes a direction of the ACAT and the ACAT considers it in the interests of justice to make such an order. This power is in addition to the power of the ACAT to strike out a party and to dismiss an application for failure to comply with the ACAT's directions.

ACCESS TO DOCUMENTS ABOUT THE DECISION

You may apply for access to any documents you consider relevant to this decision under the ACT Freedom of Information Act 1989. Information about Freedom of information requests is available on the ACT Planning and Land Authority's web site or by contacting us by phone on (02) 6207 1923.

PROCEDURES OF THE ACAT

The procedures of the ACAT are outlined on the ACAT's website, including in the Guide to the Land and Planning Division and the Guide to the Hearing. Contact the ACAT for alternative ways to access information about the ACAT's procedures.

TRANSLATION AND INTERPRETER SERVICES

The ACT Government's translation and interpreter service runs 24 hours a day, every day of the week. Telephone 131 450.

ENGLISH	If you need interpreting help, telephone:
ARABIC	: إذا احتجت لمساعدة في الترجمة الشفوية ، إتصل برقم الهاتف :
CHINESE	如果你需要传译员的帮助，请打电话：
CROATIAN	Ako trebate pomoć tumača telefonirajte:
GREEK	Αν χρειάζεστε διερμηνέα τηλεφωνήσετε στο
ITALIAN	Se avete bisogno di un interprete, telefonate al numero:
MALTESE	Jekk għandek bżonn l-għajnuna t'interpretu, ċempel:
PERSIAN	: اگر به ترجمه شفاهی احتیاج دارید به این شماره تلفن کنید:
PORTUGUESE	Se você precisar da ajuda de um intérprete, telefone:
SERBIAN	Ако вам је потребна помоћ преводиоца телефонирајте:
SPANISH	Si necesita la asistencia de un intérprete, llame al:
TURKISH	Tercümana ihtiyacınız varsa lütfen telefon ediniz:
VIETNAMESE	Nếu bạn cần một người thông-ngôn hãy gọi điện-thoại:

**TRANSLATING AND INTERPRETING SERVICE****131 450**

Canberra and District - 24 hours a day, seven days a week

Planning and Development Act 2007

# Development Application

Application Number: **201017864S165H**

## Type of Application

The type of application you are applying for is a S165 Amendment

## Lease/Site Details

### Site Number: 1

Suburb	Section	Block Number	Unit Number
PHILLIP	8	84	

Street Address  
PHILLIP

### Site Number: 2

Suburb	Section	Block Number	Unit Number
PHILLIP	8	54	

Street Address  
PHILLIP

## Applicant Details

ACN or ABN  
66131577261

Company Name	Position held / Title
Canberra Town Planning Pty Ltd	town planner

Salutation	First Name	Surname
None	Angela	Jones

Postal Address 1	Postal Address 2
5/32 Lonsdale Street	

Postal Address 3

Suburb	State/Territory	Postcode	Country
Dickson	ACT	2602	Australia

Phone Number	Fax Number	Mobile Number
0262625091		

Email  
admin@canberratownplanning.com.au

## Lessee (Property Owners) Details

Lessee Number: 1

Is the Lessee a

Company

Australian Company Number (ACN)

89116080865

Company Name

Borrowdale House Pty Ltd

Position held / Title

Director

Salutation

None

First Name

Doug

Surname

Barton

Postal Address 1

6 Crowe Place

Postal Address 2

Postal Address 3

Suburb

Farrer

State/Territory

ACT

Postcode

2607

Country

Australia

Phone Number

625307208

Fax Number

Mobile Number

0412016893

Email

## List Amendments Being Satisfied

EPA endorsement - Condition A1(b)

## Applicant Declaration

I/we declare that this application is accompanied by all of the required information or documents that address the relevant rules and/or relevant criteria for it to be considered for approval;

I /we understand that this application will be considered lodged once any relevant application fees have been paid;

I/we understand that the documentation provided on CD/DVD or via the electronic lodgment process will be considered to be the relevant documentation associated with this application. All development application documentation will be made available for public inspection including via the Internet unless exclusion has been approved; I/we understand that an amendment may be notified in accordance with the requirements of the Planning and Development Act 2007.

I/we declare that all the information given on this form and its attachments is true and complete;

If signing on behalf of a company, organisation or Government agency: -

I/we the undersigned, declare I/we have the appropriate delegation or authority to sign on behalf of the company, organisation or Government agency.

I accept the above declarations:

Accept

Acceptance Date

7/11/2019

**From:** [Pieter Van Der Walt](#)  
**To:** [Angela Jones](#)  
**Subject:** FW: Block 54 Section 8 Phillip – DA201017864 addressing conditions of approval - EPA clearance [SEC=UNCLASSIFIED]  
**Date:** Thursday, 7 November 2019 1:49:37 PM

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**From:** EPAPanningLiaison <EPAPanningLiaison@act.gov.au>  
**Sent:** Wednesday, 6 November 2019 2:11 PM  
**To:** Pieter Van Der Walt <Pieter@CanberraTownPlanning.com.au>  
**Subject:** RE: Block 54 Section 8 Phillip – DA201017864 addressing conditions of approval - EPA clearance [SEC=UNCLASSIFIED]

Hi Pieter,

All EPA Conditions of approval as per the June 2017 correction have been met.

Regards,

Robin Brown | Environment Protection Authority Planning Liaison

**Phone 02 6207 5642**

**Environmental Quality** | Office of the Environment Protection Authority | Access Canberra | **ACT Government**  
470 Northbourne Ave Dickson ACT 2602 | GPO Box 158 Canberra ACT 2601 | [www.environment.act.gov.au](http://www.environment.act.gov.au)

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**From:** Pieter Van Der Walt [mailto:Pieter@CanberraTownPlanning.com.au]  
**Sent:** Wednesday, 23 October 2019 5:01 PM  
**To:** Brown, Robin <Robin.Brown@act.gov.au>  
**Cc:** EPAPanningLiaison <EPAPanningLiaison@act.gov.au>; Nichelle Jackson <Nichelle@CanberraTownPlanning.com.au>  
**Subject:** Block 54 Section 8 Phillip – DA201017864 addressing conditions of approval - EPA clearance

Hi Robin,

Thank you for taking my call, Andrew (in my team) is away and I couldn't confirm that the documents went directly to EPA; they were submitted to EPSDD as a S165 submission– I thought it best that I send the documents again to make sure it came across to the EPA.

Attached please find:

- The initial DA approval and progressive corrections around matters relating to hazardous materials.
- The 2017 DA201017864 Correction with Conditions that include the EPA clearance condition and the more recent Extension of time certificate that we are working towards to give the DA effect.
- The EPA agreed Management Plan for clearance of the contamination (this was prepared as a result of the original condition of approval in the initial DA – NOD attached) and the correction notice that advised of EPA agreement of the assessment and management

plans

- The S165 documentation that was submitted to EPSDD about a month ago that demonstrate that hazardous materials have been removed.

We are required by EPSDD to provide advice from EPA that the Conditions of approval as per the June 2017 correction is met. The proponent has commissioned and cleared the hazardous materials (see certificates attached). We are seeking the EPA's consideration to provide us with a certificate as per corrected condition A1(b) based on the management plan that was agreed (attached) and the certificated of clearance demonstrating that the work has been completed. Could you please advise if the attached is sufficient for the EPA to issue the required advice so that this matter may progress to demolition and lease registration (meeting Condition A1(b)) and then construction.

Please let me know if any further information is required.

Thank you in advance.

Regards

Pieter



 **Pieter Van der Walt**  
Director • Town Planner

**Mobile** 0409 550 596 

This message may be confidential. If you are not the intended recipient please contact the sender and permanently delete the message.

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This email, and any attachments, may be confidential and also privileged. If you are not the intended recipient, please notify the sender and delete all copies of this transmission along with any attachments immediately. You should not copy or use it for any purpose, nor disclose its contents to any other person.

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CANBERRA  
TOWN  
PLANNING

CANBERRA TOWN PLANNING  
5/32 LONSDALE STREET BRADDON  
CANBERRATOWNPLANNING.COM.AU  
ABN 66 131 577 261

7<sup>th</sup> November 2019

**EPSDD**

Dame Pattie Menzies House  
Challis Street, Dickson  
GPO Box 1908 Canberra ACT 2601

By E-development

**Response to S165 of Correction Notice – DA201017864 – Borrowdale House – dated 30 June 2017**

Dear EPSDD,

A S165 was submitted via e-development on 27 September 2019, to address Condition A1(a) of Correction Notice – DA201017864.

Details we sent to EPA on 23 October 2019 and we have now received EPA endorsement to address condition A1(b) of the same notice. Please find email in this regard as part of this submission.

We trust this now satisfies the conditions, and endorsement can be provided by EPSDD as per condition A1(c).

This letter is for the use only of the party to whom it is addressed and for no other parties. No responsibility is accepted to any third party who may use or rely on the whole or any part of the content of this letter.

Yours Sincerely,



**Angela Jones**

Manager – Senior Town Planner

---

**From:** [REDACTED]  
**Sent:** Tuesday, 10 December 2019 2:49 PM  
**To:** Pradhan, Jyoti; Pieter Van Der Walt  
**Cc:** Bennett, JamesP  
**Subject:** RE: DA201017864-S165H-Borrowdale House, Phillip - Docs for EPA Endorsement  
**Attachments:** Block 54 Section 8 Phillip – DA201017864 addressing conditions of approval - EPA clearance

**Categories:** Highlighted

Hi Jyoti

Pieter [REDACTED] today and has asked me to send through to you the attached email he sent to Robin Brown as requested.

Thanks

[REDACTED]  
Executive Assistant  
5/32 Lonsdale Street, Braddon 2612  
Phone (02) 6262 5091  
[REDACTED]  
canberratownplanning.com.au

Please consider the environment before printing this email.

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-----Original Message-----

**From:** Pradhan, Jyoti <Jyoti.Pradhan@act.gov.au>  
**Sent:** Tuesday, 10 December 2019 1:52 PM  
**To:** Pieter Van Der Walt [REDACTED]  
**Cc:** Bennett, JamesP <JamesP.Bennett@act.gov.au>  
**Subject:** DA201017864-S165H-Borrowdale House, Phillip - Docs for EPA Endorsement

UNCLASSIFIED

Hi Pieter,

I refer to the S165H application for the subject DA currently lodged with the authority for endorsement.

The attached EPA endorsement that was lodged as part of the application states a number of documentation was referred to EPA for their consideration and endorsement. I understand some of the documents mentioned in the email were either prepared by the authority (formal correction letter) or were previously lodged with the authority (S165G). However, I would appreciate if you please forward me the original email, including all attachments, that

you sent to EPA (Robin Brown) on 23 October 2019 for their consideration. This is to ensure the information that EPA received and based their advice on, is on the DA file.

Regards,  
Jyoti

-----  
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---

**From:** Pieter Van Der Walt [REDACTED]  
**Sent:** Wednesday, 23 October 2019 5:01 PM  
**To:** Brown, Robin  
**Cc:** EPAPlanningLiaison; [REDACTED]  
**Subject:** Block 54 Section 8 Phillip – DA201017864 addressing conditions of approval - EPA clearance  
**Attachments:** KEF832 - Borrowdale House 17-06-2019 -Clearance certificate.pdf; DA201017864 s165 ltr Sept 19 FINAL.pdf; KEF832 - Borrowdale House 03-07-2019 -Clearance certificate.pdf; KEF832 - Borrowdale House 07-06-2019 AAM.pdf; KEF832 - Borrowdale House 07-06-2019-Clearance certificate.pdf; KEF832 - Borrowdale House 17-06-2019 AAM.pdf; Doc 1 20101215-Notice of Decision - Signed (A6057902).pdf; 3 DA201017864 Correction June 2017.pdf; C101076.v1 DHMS - Borrowdale House, 49 Furzer St, Phillip ACT.PDF; SUPP-201017864-S165F-HAZARDOUS-01.3.pdf; SUPP-201017864-S165F-HAZMATREPORT-01.pdf; Doc 6 20150521-Formal Correction Letter -End of Approval 21 May 2017- Signed.pdf; Doc 3 20110622- Formal correction to Notice of Decision - Signed (A6490322).pdf

Hi Robin,

Thank you for taking my call, [REDACTED] (in my team) is away and I couldn't confirm that the documents went directly to EPA; they were submitted to EPSDD as a S165 submission– I thought it best that I send the documents again to make sure it came across to the EPA.

Attached please find:

- The initial DA approval and progressive corrections around matters relating to hazardous materials.
- The 2017 DA201017864 Correction with Conditions that include the EPA clearance condition and the more recent Extension of time certificate that we are working towards to give the DA effect.
- The EPA agreed Management Plan for clearance of the contamination (this was prepared as a result of the original condition of approval in the initial DA – NOD attached) and the correction notice that advised of EPA agreement of the assessment and management plans
- The S165 documentation that was submitted to EPSDD about a month ago that demonstrate that hazardous materials have been removed.

We are required by EPSDD to provide advice from EPA that the Conditions of approval as per the June 2017 correction is met. The proponent has commissioned and cleared the hazardous materials (see certificates attached). We are seeking the EPA's consideration to provide us with a certificate as per corrected condition A1(b) based on the management plan that was agreed (attached) and the certificated of clearance demonstrating that the work has been completed. Could you please advise if the attached is sufficient for the EPA to issue the required advice so that this matter may progress to demolition and lease registration (meeting Condition A1(b)) and then construction.

Please let me know if any further information is required.

Thank you in advance.

Regards  
Pieter



 **Pieter Van der Walt**  
Director • Town Planner

**Mobile** 



This message may be confidential. If you are not the intended recipient please contact the sender and permanently delete the message.



## PROJECT DETAILS

JOB NUMBER	KEF832	CLEARANCE DATE	17/06/2019
CLIENT	AGH Demolition & Asbestos Removal	REPORT DATE	17/06/2019
CONTACT NAME	[REDACTED]	CONTACT NUMBER	[REDACTED]
SITE ADDRESS	Borrowdale House - 49 Furzer Street Phillip, ACT 2606		
SCOPE OF WORKS	Removal of non friable asbestos pipe insulation in ground level bathroom.		
SCOPE OF CLEARANCE	A thorough visual inspection and clearance air monitoring was conducted.		
ASBESTOS CONTRACTOR	AGH Demolition & Asbestos Removal	SUPERVISOR	[REDACTED]
ASBESTOS ASSESSOR	[REDACTED]	LICENCE NUMBER	[REDACTED]
LEGISLATION	Asbestos removal clearance certificate issued under regulations 473 & 474 of the Work Health Safety Regulation 2011		

## VISUAL CLEARANCE

	YES	NO	N/A
Did inspection of the specific work area detailed above find no visible asbestos remaining as a result of the asbestos removal work carried out?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Did inspection of the of the site find no visible asbestos remaining as a result of the asbestos removal work carried out?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Is air monitoring required?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
If air monitoring was carried out as part of the clearance inspection was the result below 0.01 fibres/ml?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Can the site be dismantled?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Did inspection of the work area following dismantling of the exclusion zone find no visible asbestos remaining?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Can the area be reoccupied?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

## CONCLUSION

A thorough visual inspection of the removal area found no visible asbestos residue from asbestos removal work in the area or in the vicinity of the area where the work was carried out.

This area has been cleared for reoccupation, and restrictions associated with the asbestos removal can now be lifted.

Kind Regards,



**Hygienist**



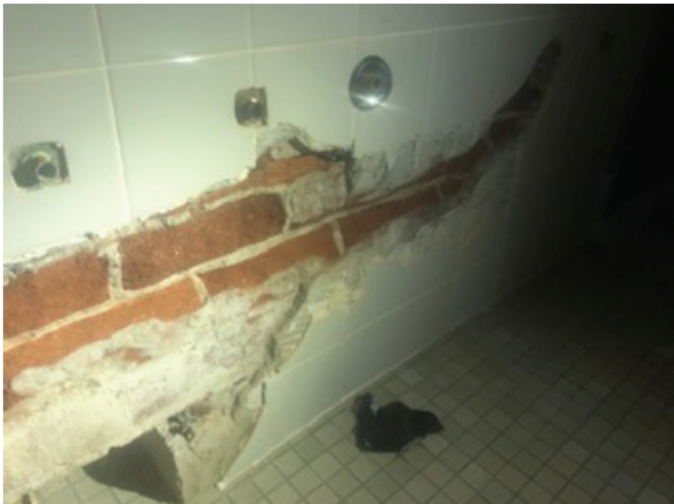
PHOTOS



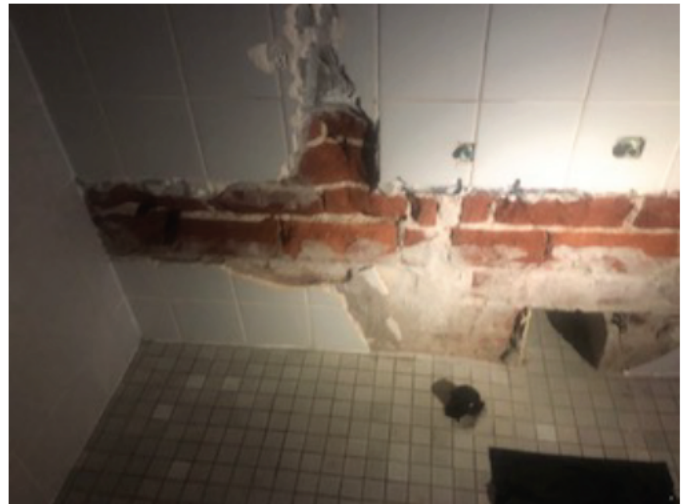
Removal area



Removal area



Removal area



Removal area





## PROJECT DETAILS

JOB NUMBER	KEF832	CLEARANCE DATE	3/07/2019
CLIENT	AGH Demolition & Asbestos Removal	REPORT DATE	3/07/2019
CONTACT NAME	[REDACTED]	CONTACT NUMBER	[REDACTED]
SITE ADDRESS	Borrowdale House - 49 Furzer Street Phillip, ACT 2606		
SCOPE OF WORKS	Removal of non friable asbestos black adhesive to floors throughout ground level. Removal of non friable mastic to basement ai handling units.		
SCOPE OF CLEARANCE	A thorough visual inspection was conducted.		
ASBESTOS CONTRACTOR	AGH Demolition & Asbestos Removal	SUPERVISOR	[REDACTED]
ASBESTOS ASSESOR	[REDACTED]	LICENCE NUMBER	[REDACTED]
LEGISLATION	Asbestos removal clearance certificate issued under regulations 473 & 474 of the Work Health Safety Regulation 2011		

## VISUAL CLEARANCE

	YES	NO	N/A
Did inspection of the specific work area detailed above find no visible asbestos remaining as a result of the asbestos removal work carried out?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Did inspection of the of the site find no visible asbestos remaining as a result of the asbestos removal work carried out?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Is air monitoring required?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
If air monitoring was carried out as part of the clearance inspection was the result below 0.01 fibres/ml?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Can the site be dismantled?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Did inspection of the work area following dismantling of the exclusion zone find no visible asbestos remaining?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Can the area be reoccupied?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

## CONCLUSION

A thorough visual inspection of the removal area found no visible asbestos residue from asbestos removal work in the area or in the vicinity of the area where the work was carried out.

This area has been cleared for reoccupation, and restrictions associated with the asbestos removal can now be lifted.

Kind Regards,



**Hygienist**



PHOTOS



Removal area



Removal area



Removal area



Removal area



Removal area



Removal area



## PROJECT DETAILS

JOB NUMBER	KEF832	SAMPLE DATE	7/06/2019
CLIENT	AGH Demolition & Asbestos Removal	REPORT DATE	7/06/2019
CONTACT NAME	[REDACTED]	CONTACT NUMBER	[REDACTED]
SITE ADDRESS	Borrowdale House - 49 Furzer Street Phillip, ACT 2606		
SCOPE OF WORKS	Removal of friable asbestos pipe insulation in male and female bathrooms and cleaner's room to level 1 and 2.		
TYPE OF CONTAMINANT	Asbestos	TYPE OF AIR MONITORING	Control/Clearance
ASBESTOS CONTRACTOR	AGH Demolition & Asbestos Removal	SUPERVISOR	[REDACTED]
ASBESTOS ASSESSOR	[REDACTED]	LICENCE NUMBER	[REDACTED]
FIELD LAB LOCATION	n/a		
METHODOLOGY	Air monitoring was conducted in accordance with: - Guidance Note on the Membrane Filter Method for Estimating Airborne Asbestos Fibres [NOHSC: 3003 (2005)] - In house procedures from JMBEC D03 Laboratory Manual for the Estimation of Airborne Fibres (latest version)		

## AIR MONITORING DETAILS

SAMPLE NO	PUMP	SAMPLE LOCATION(S)	TIME		SAMPLE DURATION (mins)	FLOW RATE (L/min)			SAMPLE VOLUME (L)	FIELDS COUNTED	FIBRE COUNT	FIBRE CONC. (fibres/mL)
			START	STOP		START	FINISH	AVERAGE				
7630	KE20	On window ledge adjacent removal area on level 2	9:00	16:04	424	1.0	1.0	1.0	424	100	1	<0.01
7702	KE72	In stairwell adjacent removal area on level 2	9:01	16:05	424	1.0	1.0	1.0	424	100	1	<0.01
7688	KE76	On window ledge adjacent removal area on level 1	9:02	16:06	424	1.0	1.0	1.0	424	100	2	<0.01
7454	KE97	In stairwell adjacent removal area on level 1	9:03	16:07	424	1.0	1.0	1.0	424	100	1	<0.01
7727	KE103	Clearance inside level 1 bathrooms	14:27	16:08	101	4.0	4.0	4.0	404	100	0	<0.01
70979	KE106	Clearance inside level 2 bathrooms	14:28	16:09	101	4.0	4.0	4.0	404	100	0	<0.01
9772		Field Blank							0	100	0	Ok

## CONCLUSION

Air monitoring yielded results below 0.01 fibres/mL.

These results relate only to the items tested and shall not be reproduced except in full, without written lab approval.

Kind Regards,

[REDACTED]

APPROVED COUNTER: [REDACTED]

[REDACTED]

APPROVED TO AUTHORISE RESULTS: [REDACTED]



WORLD RECOGNISED  
ACCREDITATION

Accredited for compliance with ISO/IEC 17025  
Corporate Site Sydney  
NATA accredited laboratory 19564  
Base Site Canberra

The results of the tests, calibrations and/or measurements included in this document are traceable to Australian/national standards



## PROJECT DETAILS

JOB NUMBER	KEF832	CLEARANCE DATE	7/06/2019
CLIENT	AGH Demolition & Asbestos Removal	REPORT DATE	7/06/2019
CONTACT NAME	[REDACTED]	CONTACT NUMBER	[REDACTED]
SITE ADDRESS	Borrowdale House - 49 Furzer Street Phillip, ACT 2606		
SCOPE OF WORKS	Removal of friable asbestos pipe insulation in male and female bathrooms and cleaner's room to level 1 and 2.		
SCOPE OF CLEARANCE	A thorough visual inspection and clearance air monitoring was conducted.		
ASBESTOS CONTRACTOR	AGH Demolition & Asbestos Removal	SUPERVISOR	[REDACTED]
ASBESTOS ASSESSOR	[REDACTED]	LICENCE NUMBER	[REDACTED]
LEGISLATION	Asbestos removal clearance certificate issued under regulations 473 & 474 of the Work Health Safety Regulation 2011		

## VISUAL CLEARANCE

	YES	NO	N/A
Did inspection of the specific work area detailed above find no visible asbestos remaining as a result of the asbestos removal work carried out?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Did inspection of the of the site find no visible asbestos remaining as a result of the asbestos removal work carried out?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Is air monitoring required?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
If air monitoring was carried out as part of the clearance inspection was the result below 0.01 fibres/ml?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Can the site be dismantled?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Did inspection of the work area following dismantling of the exclusion zone find no visible asbestos remaining?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Can the area be reoccupied?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

## CONCLUSION

A thorough visual inspection of the removal area found no visible asbestos residue from asbestos removal work in the area or in the vicinity of the area where the work was carried out.

This area has been cleared for reoccupation, and restrictions associated with the asbestos removal can now be lifted.

Kind Regards,



**Lab Manager**



PHOTOS



Removal area



Removal area



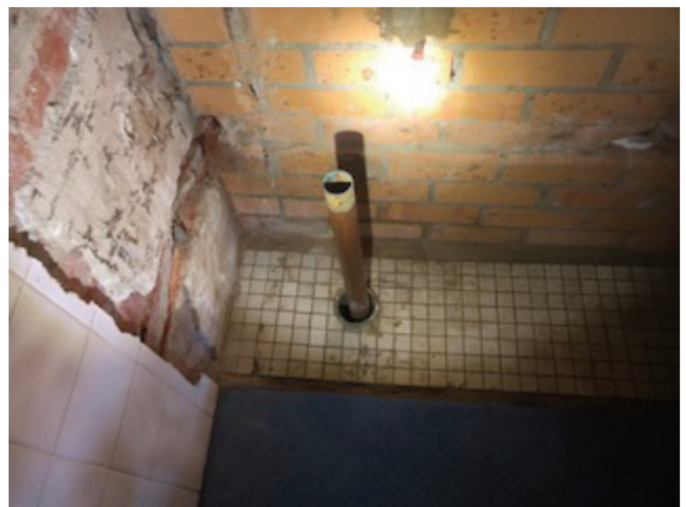
Removal area



Removal area



Removal area



Removal area



## PROJECT DETAILS

JOB NUMBER	KEF832	SAMPLE DATE	17/06/2019
CLIENT	AGH Demolition & Asbestos Removal	REPORT DATE	17/06/2019
CONTACT NAME	[REDACTED]	CONTACT NUMBER	[REDACTED]
SITE ADDRESS	Borrowdale House - 49 Furzer Street Phillip, ACT 2606		
SCOPE OF WORKS	Removal of non friable asbestos pipe insulation in ground level bathroom.		
TYPE OF CONTAMINANT	Asbestos	TYPE OF AIR MONITORING	Control/Clearance
ASBESTOS CONTRACTOR	AGH Demolition & Asbestos Removal	SUPERVISOR	[REDACTED]
ASBESTOS ASSESSOR	[REDACTED]	LICENCE NUMBER	[REDACTED]
FIELD LAB LOCATION	n/a		
METHODOLOGY	Air monitoring was conducted in accordance with: - Guidance Note on the Membrane Filter Method for Estimating Airborne Asbestos Fibres [NOHSC: 3003 (2005)] - In house procedures from JMBEC D03 Laboratory Manual for the Estimation of Airborne Fibres (latest version)		

## AIR MONITORING DETAILS

SAMPLE NO	PUMP	SAMPLE LOCATION(S)	TIME		SAMPLE DURATION (mins)	FLOW RATE (L/min)			SAMPLE VOLUME (L)	FIELDS COUNTED	FIBRE COUNT	FIBRE CONC. (fibres/mL)
			START	STOP		START	FINISH	AVERAGE				
8196	KE20	Adjacent decon change area	8:15	13:51	336	1.5	1.5	1.5	604	100	1	<0.01
7871	KE22	Adjacent of removal area toilet	8:16	13:52	336	1.5	1.5	1.5	604	100	1	<0.01
78906	KE27	To right side adjacent lady toilet	8:18	13:53	336	1.5	1.5	1.5	603	100	0	<0.01
7647	KE106	Clearance inside ground level bathroom	12:00	13:50	110	4.0	4.0	4.0	440	100	2	<0.01
1018		Field Blank							0	100	0	Ok

## CONCLUSION

Air monitoring yielded results below 0.01 fibres/mL.

These results relate only to the items tested and shall not be reproduced except in full, without written lab approval.

Kind Regards,

[REDACTED]

APPROVED COUNTER:

[REDACTED]

APPROVED TO AUTHORISE RESULTS:

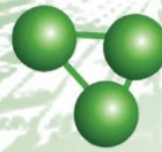
[REDACTED]



WORLD RECOGNISED  
ACCREDITATION

Accredited for compliance with ISO/IEC 17025  
Corporate Site Sydney  
NATA accredited laboratory 19564  
Base Site Canberra

The results of the tests, calibrations and/or measurements included in this document are traceable to Australian/national standards



**SAFE WORK &  
ENVIRONMENTS**

**DESTRUCTIVE (PRE-DEMOITION)  
HAZARDOUS MATERIALS SURVEY  
& MANAGEMENT PLAN:  
BORROWDALE HOUSE, 49 FURZER STREET,  
PHILLIP ACT**



## Author and Document Control

Reference	Author	Reviewed/Approved	Approved	Date issued	Distribution
C101076.v1	[REDACTED]	[REDACTED]	22/06/2015	22/06/2015	1 PDF
	Licensed Asbestos Assessor	Principal OHS&E Consultant			

### Prepared For:

[REDACTED]  
 CBS Commercial  
 Unit 8, 71 Leichhardt Street, Kingston ACT 2604

### Prepared by:

### Prepared and QC by:



Senior Environmental Consultant  
 Asbestos Assessor [REDACTED]

Principal OHS&E Consultant

### Safe Work and Environments Pty Ltd

ABN 88127010995

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Concord NSW 2137

Phone: 02 8757 3611 Fax.: 02 8757 3612

### Canberra Office:

PO Box 230, Dickson, ACT 2602

Phone: 02 6247 0022

Email: [enquiries@swe.com.au](mailto:enquiries@swe.com.au)

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## **Appendix A – Photographs**

## **Appendix B – Certificates Of Analysis**

## Executive Summary

Safe Work and Environments Pty Ltd (SWE) was commissioned by Cockram Constructions Pty Ltd to undertake a Destructive (pre-demolition) Hazardous Materials Survey (DHMS) of the building known as Borrowdale House located at 49 Furzer Street, Phillip ACT. The survey was undertaken by [REDACTED] (Class A Asbestos Assessor) on the 14<sup>th</sup> of June, 2016. The purpose of the survey was to identify hazardous materials within the building, document findings and produce a current hazardous materials register and management plan for the site. In addition, the register is to be used for reference in demolition planning including removal of hazardous materials.

The hazardous materials register is not intended as a removal specification, and any removal works must be undertaken with reference to a site-specific Asbestos Removal Control Plan (ARCP).

The scope of works involved the following:

- Development of a task specific Safe Work Method Statement (SWMS);
- Review the existing report / documentation for the site;
- Walkthrough inspection of the site building/s;
- Identification of all visible and accessible hazardous materials including asbestos, lead, SMF & PCBs;
- Sampling of suspect materials where necessary (if required);
- Laboratory analysis of selected samples where the inspector suspected the presence of asbestos, lead, od SMF containing materials (if required); and
- Preparation of an Hazardous Materials Register and Management Plan in accordance with all relevant legislative requirements.

The objectives of the Hazardous Materials Survey and Management Plan are to:

- Identify hazardous materials within the building(s);
- Detail the survey methodology;
- Provide a qualitative risk assessment of the identified hazardous materials and provide information regarding health risks;
- Provide recommendations for control measures and management strategies;
- Prepare a Hazardous Materials Register for the site to ensure legislative compliance;
- Outline the responsible persons and details those persons responsibilities in relation to managing on site Asbestos Containing Materials;
- Detail the principles of hazardous materials management;
- Detail management strategies for insitu asbestos and other hazardous materials;
- Provide information about Safe Working Practices for work involving asbestos and other hazardous materials;
- Detail the requirements for removal of Asbestos Containing Materials (ACM);
- Provide a template for Emergency Response Procedures; and
- Outline Asbestos Training and Awareness.

A full listing of all hazardous items identified, including a risk assessment and removal recommendations for identified items has been included in the Hazardous Materials Register section of this report. It is recommended that all hazardous materials should be removed prior to any demolition works that would disturb the listed hazardous materials. All asbestos removal works are to be carried out in accordance with the *Safe Work Australia Work Health and Safety (How to Safely Remove Asbestos Code of Practice) Approval 2014*. This survey was limited to accessible areas of the buildings with destructive, intrusive sampling carried out. It should be noted that some services within the building were still live at the time of the assessment, meaning some areas could not be accessed due to the risks associated with live equipment. Some areas could also not be accessed as keys were not available or the area was still tenanted. These limitations of the assessment are noted within the report and should be accessed at a later date when services can be cut / access becomes available.

# 1 INTRODUCTION

Safe Work and Environments Pty Ltd (SWE) was commissioned by Cockram Constructions Pty Ltd to undertake a Destructive (pre-demolition) Hazardous Materials Survey (DHMS) of the building known as Borrowdale House located at 49 Furzer Street, Phillip ACT. The survey was undertaken by [REDACTED] (Class A Asbestos Assessor) on the 14<sup>th</sup> of June, 2016. The purpose of the survey was to identify hazardous materials within the building, document findings and produce a current hazardous materials register and management plan for the site. In addition, the register is to be used for reference in demolition planning including removal of hazardous materials.

The hazardous materials register is not intended as a removal specification, and any removal works must be undertaken with reference to a site-specific Asbestos Removal Control Plan (ARCP).

## 1.1 Scope of Works

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- Development of a task specific Safe Work Method Statement (SWMS);
- Review the existing report / documentation for the site;
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- Identification of all visible and accessible hazardous materials including asbestos, lead, SMF & PCBs;
- Sampling of suspect materials where necessary/possible;
- Laboratory analysis of selected samples where the inspector suspected the presence of asbestos containing materials; and
- Preparation of a Hazardous Materials Register and Management Plan in accordance with all relevant legislative requirements.

## 1.2 Objectives

The objectives of the Hazardous Materials Survey and Management Plan are to:

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- Provide information about Safe Working Practices for work involving asbestos and other hazardous materials;
- Detail the requirements for removal of Asbestos Containing Materials (ACM);
- Provide a template for Emergency Response Procedures; and
- Outline Asbestos Training and Awareness.

## 1.3 Legislative Requirements

The survey works and production of this report have been undertaken in accordance with the requirements of:

- *Work Health and Safety Act 2011.*
- *ACT Dangerous Substances Act 2004.*
- *Dangerous Substances (General) Regulation 2004.*
- *Work Health and Safety (Asbestos) Amendment Regulation 2014.*
- *AS2601 (2001) The Demolition of Structures.*
- *SafeWork Australia Code of Practice: How to Manage and Control Asbestos in the Workplace (2011).*
- *Safe Work Australia Work Health and Safety (How to Safely Remove Asbestos Code of Practice) Approval 2014.*
- *NOHSC Guidance Note on the Membrane Filter Method for Estimating Airborne Asbestos Dust, 2nd Edition [NOHSC: 3003 (2005)]*
- *National Code of Practice for the Safe Use of Synthetic Mineral Fibres [NOHSC:2006(1990)].*
- *National Standard for Synthetic Mineral Fibres [NOHSC:1004(1990)].*
- *AS4361.1 (1995) Guide to Lead Paint Management. Part 1: Industrial Applications.*
- *AS4361.2 (1998) Guide to Lead Paint Management. Part 2: Residential and Commercial Buildings.*
- *ANZECC (1997) Identification of PCB-containing Capacitors: An Information Booklet for Electricians and Electrical Contractors.*

### 1.3.1 Demolition of Structures Containing Asbestos

Under the *Work Health and Safety (Asbestos) Amendment Regulation 2014* (the regulation) administered under the *Dangerous Substances Act 2004* and the *Work Health and Safety Act 2011* and commenced 1<sup>st</sup> January 2015, a number of provisions have been enacted for demolition of structures known or suspected to contain asbestos and built prior to December 2003. These include the following, *inter alia*:

- The person with management or control of a workplace must give a copy of the asbestos register to the demolisher prior to works commencing.
- The person undertaking demolition or refurbishment must not commence until the structure or plant has been inspected for asbestos by a licensed asbestos assessor.
- All known asbestos containing materials are to be removed prior to demolition or refurbishment.
- All asbestos removal must be undertaken by a licensed asbestos removalist.

### 1.3.2 Management Responsibilities

Cockram Constructions Pty Ltd (the management) must ensure that the licenced asbestos removal contractor, tradesmen and demolition contractors are provided with the asbestos register and are made aware of the location and condition of any ACM that may impact on scheduled works. In addition, management must perform a risk assessment prior to works commencing in order to mitigate the risk of release of asbestos fibres. Management have a duty to inform all relevant persons at the workplace of the planned asbestos removal work, including workers, tradesmen and those persons in the immediate vicinity of the removal area.

### 1.3.3 Demolition Contractor Responsibilities

The demolition contractor must ensure a copy of the asbestos register is made available and asbestos is identified in the work area prior to demolition commencing. The contractor is further obliged to ensure that asbestos has been removed from the work area where practicable. In addition, the contractor must have emergency procedures in place to ensure that, in the event of ACM disturbance through accident or negligence, exposure of demolition workers to asbestos is prevented or mitigated.

### 1.3.4 Asbestos Removalist Responsibilities

The licensed asbestos removalist must ensure that all approvals are in place prior to commencing removal work, including giving the regulator (ACT WorkSafe) written notice at least 5 days before scheduled works. A site-specific (i.e. non-generic) asbestos removal control plan (ARCP) must be produced by the asbestos removalist which must include the following:

- A plan of how the asbestos removal will be carried out, including the method to be used and the tools, equipment and PPE to be used.
- Details of the asbestos to be removed, including the location, type and condition of the asbestos.

The person who commissioned the licensed asbestos removal work must be given a copy of the ARCP which shall be kept on site until the works have been completed. A nominated asbestos supervisor must be present at the work area whenever removal work is being carried out.

### 1.3.5 Air Monitoring and Clearance Reports

Management must ensure that, where the licenced asbestos assessor has found necessary, air monitoring for airborne fibres is undertaken during asbestos removal works, including control and clearance monitoring where required. All air monitoring shall be undertaken by a licenced asbestos assessor in accordance with the applicable guidance note NOHSC *Guidance Note on the Membrane Filter Method for Estimating Airborne Asbestos Dust, 2nd Edition [NOHSC: 3003 (2005)]*.

Management or the licensed asbestos removalist must ensure that, following completion of asbestos removal works, a final clearance inspection is undertaken by an independent licensed asbestos assessor. Following the inspection, a clearance report must be produced by the assessor prior to re-occupation of the workplace or commencement of demolition works.

## 1.4 Background

The site has not been previously assessed by Safe Work and Environments. A *Hazardous Materials Survey & Management Plan* Report completed by Robson Environmental dated 08.12.2014 was made available to SWEN prior to the site survey works. The Robson Environmental report was relied upon for information with regard to previously sampled / tested items. References to this earlier issued report have been made within this SWE report, with specific reference to previously identified hazardous materials is made within the Hazardous Materials Register.

It is a requirement of the *ACT Dangerous Substances (General) Regulation (2004)* that all non-domestic premises built before December 2003 have in place an Asbestos Management Plan. These plans must be compiled by an ACT licensed Class A Asbestos Assessor.

## 1.5 Site Descriptions

Borrowdale House has two sections; a three level (plus basement plant room level) commercial building and a single level extension to its western side. The three level section has been historically used for office space but was vacant at the time of the inspection. The Basement level was observed to contain all plant for the building including an air conditioning system, boiler unit, lift motor room, main switchboard room, storage rooms etc. The vacated levels were all open plan space with amenities, a hallway, fire stairs and a lift shaft. All three levels of office space were carpeted over vinyl tiles with ceiling tiles rendered brick walls with windows on all sides. Half of the ground level was occupied by Australia Post at the time of the inspection and was not accessed. Similarly, the ground level extension was also occupied and not accessed; these areas will be accessed at a later date following the vacation of the site by the current tenant.

## 2 DESTRUCTIVE SURVEY METHODOLOGY

Hazardous materials surveys (including asbestos (AS), synthetic mineral fibre (SMF [in friable and exposed condition]), lead based paint systems (Pb), Ozone Depleting Substances (ODS) and Polychlorinated Biphenyls (PCB)) are carried out applying a risk management approach to identify, assess and ultimately control the risk associated with the identified materials. Furthermore semi-quantitative asbestos risk assessment methodology was applied to assess the risk of all identified asbestos situations. This assessment methodology is presented in the below section 3.0 Asbestos Risk Assessment.

The pre-demolition survey comprises a walk through survey of the accessible areas of the premises and may also include the gathering of anecdotal information available from the public space, building occupants, owners and property management where available. Based upon the aforementioned information sources and physical inaccessibility on the day of the assessment, building fabric and fittings suspected of containing any of the above referenced hazardous materials are identified by means of visual observation and representative sampling. Sampling for asbestos and lead based paint systems will be confirmed by laboratory analysis. These findings will then be included in the hazardous materials register (Section 4.0) with all notated items risk assessed as per the above mentioned methodology. At locations where suspected ACM may be located, intrusive survey methods are employed, including the following:

- Accessing hot water pipe fittings chased into double-brick walls / masonry.
- Exposing lagged asbestos pipes and ducts behind walls.
- Exposing cement sheeting behind splashbacks and floor tiles to wet areas.
- Removing floor coverings to expose vinyl floor tiles and adhesives.
- Removing ceiling panels to expose cement sheeting and fibrous asbestos to beams

The surveys are limited to the experience and training of the surveyor(s) and the information and access made available at the time of the survey by the client. All SWE surveyors are trained in accordance with our in house hazardous materials consulting manual and work instructions for asbestos and hazardous materials surveys, which amongst other parameters requires that all surveyors are trained by and 'shadowed' on numerous diverse sites by a competent and experienced surveyor prior to carrying out independent surveys. There is, however, still a possibility that some hazardous (asbestos) materials may not be identified as any surveying is subject to human error.

Where necessary the surveyor will sample suspected hazardous material situations to confirm or refute the presence asbestos fibres or other hazardous item within the sampled materials. All sampling is undertaken by use of representative sampling which caters for numerous similar situations when appropriate. This means that a close inspection of all similar situations within the site is carried out, however, sampling may not be undertaken to reduce the risk of disturbance of materials, exposure to occupants and surveyor and analytical costs for client. Some sampling is also conducted as what is referred to as presumptive sampling. Presumptive samples may be included in the hazardous materials register where no actual sample is collected but there is reason to presume that a hazardous material may be present; however, no access and/or safe access for sampling and/or no visual access can be obtained. Examples of typical presumptive samples are millboard insulation to electrical duct heaters, electrical backing boards, lift brake linings and similar. Sample collection is conducted in a non-destructive and non-invasive manner.

A standard hazardous materials survey does not include access and inspection of any areas that will require special access permits or other means of access to restricted areas such as confined spaces, work at height, isolation of energy services, live equipment and mechanical building services, partial demolition of structures and similar access limitations.

All properties will have concealed materials in its current state that cannot be accessed or revealed prior to demolition or refurbishment of the structure(s). Ongoing assessment of building materials is recommended and required during any such structural work and should be carried out by hazardous materials awareness trained personnel. Where any suspected material is uncovered an experienced hazardous materials consultant should be contacted to sample, risk assess and document the finding(s).

## 3 HAZARDOUS MATERIALS RISK ASSESSMENT

### 3.1 Asbestos

Asbestos is considered a health risk whenever a potential asbestos fibre release is likely to occur. The health risk posed by asbestos containing materials and products in premises are due to a number of risk factors including:

- Condition of the material;
- Friability of the material;
- Airborne potential of the material;
- Accessibility of the material; and
- Location of the material.

A risk level for asbestos products or materials can be determined by multiplying the hazard level for the given asbestos type\* by the 5 variants (above) which have also been assigned hazard levels (**Table 1**). The risk assessment methodology used in our assessment is based on the Australian Standard AS4360-1999, "Risk Management".

A qualitative Asbestos materials risk assessment is undertaken each time an asbestos survey or re-survey of the site/property or structures is conducted and detailed in an Asbestos Report Register (ARR). The risk assessments are performed by competent persons only. Each asbestos situation is allocated either a 'High', 'Moderate', 'Low' or 'Nil' risk rating (**Table 2**). These ratings are defined as follows:

- **High Risk:** There is an immediate exposure risk to anyone entering the area due to friable material which has already been disturbed or there is a short term exposure risk to anyone entering the area (usually a friable or poorly bonded material in an average or poor condition). Immediate action is required to restrict access and stop the spread of fibres or dust as well as plan for decontamination and remedial works.
- **Moderate risk:** Due to the material status and/or activity in the area. Usually applies to bonded materials in a state of minor deterioration and in moderate to high activity levels, or accessible friable materials in good condition.
- **Low Risk:** Poses a negligible or low risk to occupants of the area due to the material being in sound condition unless seriously disturbed. Usually applies to bonded or sealed products in at least average condition, or materials with no or low accessibility.

The risk assessment of the asbestos containing material is to be reviewed when:

- The Asbestos Management Plan is reviewed;
- Further asbestos or ACM is identified at the workplace;
- Asbestos is removed from or disturbed, sealed, enclosed or undergoes any other change in condition;
- There is evidence that the risk assessment is no longer valid;
- There is evidence that control methods are not effective; or
- A significant change is proposed for the workplace or for work practices or procedures relevant to the risk assessment.

Alternatively an asbestos risk assessment review is to be conducted every 5 years if not effected by one or more of the aforementioned variables. This is to be performed by a competent person.

Table 1

Asbestos Type* – Hazard Level 0 - 2		Condition – Hazard Level 1 to 3	
0	Non asbestos Detected (NAD)	1	No sign of damage/deterioration, non-friable
1	Bonded	2	Mild damage/deterioration, friable by force
2	Friable	3	Severe damage/deterioration, very friable
Accessibility – Hazard Level 1 to 3			
1	Fully concealed behind a false wall or ceiling, sealed/painted. Inaccessible due to height.		
2	Partial encapsulation, low activity area, low exposure to weathering and/or physical impact.		
3	No encapsulation, high activity area; exposed to weathering, people and maintenance.		
Airborne Potential – Hazard Level 1 to 3		Exposure potential – Hazard Level 1 to 3	
1	Material not present in common air space.	1	Accessed only by maintenance personnel.
2	Material exposed to natural ventilation	2	Accessible to small numbers of personnel.
3	Material exposed to forced ventilation (A/C, fans)	3	Readily accessible to the majority of persons

By multiplying the hazard level from each risk factor the total can then be used to determine the recommended Health Risk/Action Priority Levels as presented in Table 2.

Table 2

Risk Level	Risk Status	Action Priority
50+	High (H)	Immediate action should be taken (Materials that pose an immediate or elevated health risk to employees and/or general public – assessed as in poor condition / very friable).
20 - 49	Moderate (M)	Removal or encapsulation and regular monitoring of the material is recommended (likely potential for further deterioration, instability and an increased risk of exposure).
1 - 19	Low (L)	Label, maintain and review (Products or materials that pose little health risk to employees and/or general public – assessed as stable, non-friable, low access)
0	Nil (N)	No action necessary

**Note:** Where any planned maintenance, refurbishment or demolition works will disturb ACM, licensed removal is recommended.

## 3.2 Synthetic Mineral Fibres

The risk assessment factors for SMF are similar to those of asbestos including:

- Evidence of physical damage;
- Accessibility to material;
- Likelihood of disturbance;
- Accessibility to exposed areas; and
- Environmental and occupational conditions.

**High Risk:** Friable synthetic mineral fibre exposed and readily accessible.

**Moderate Risk:** Friable synthetic mineral fibre or damaged bonded material which due to its present condition and/or location is likely to be further damaged resulting in fibre release.

**Low Risk:** Non-friable or seated stable friable material that is unlikely to present a risk to health unless damaged, tooled, cut, sanded or machined.

### 3.3 Lead

Lead when inhaled or ingested is toxic to humans. The lead containing paint risk assessment factors are assessed based on these two exposure routes on human receptors (infants, children, adults or contractors). These factors include:

- Likelihood of inhalation or ingestion;
- Likelihood of disturbance;
- Condition of the paint system; and
- Environmental and occupational conditions.

**High Risk:** Damaged or deteriorated paint membrane, which due to its present condition and location, presents a significant health risk.

**Moderate Risk:** Paint membrane showing signs of deterioration and weathering which if left will continue to deteriorate and require abatement that is more extensive.

**Low Risk:** Stable paint membrane that is in good condition and/or covered by a lead-free paint membrane, which is also in a good condition.

Lead paint is defined by the Australian Standard (AS 4361.2 – 1998 *Guide to lead paint management Part 2: Residential and Commercial buildings*) as a paint or component coat of a paint system containing lead or lead compounds, in which the lead content (calculated as lead metal) is in excess of 1.0% by weight of the dry film as determined by laboratory testing.

#### 3.3.1 Lead-containing dusts

Settled dust containing lead in ceilings spaces, voids and cavities is in fine particles and has a potential for greater bioavailability causing serious long-term health problems on the brain, kidneys and reproductive organs. Human exposure is through inhalation or ingestion. Routes of exposure and risk assessment factors include:

- Areas of exposed soil adjacent to the building;
- Type of materials and age of the building;
- Refurbishment works conducted on the building;
- Distance from roads, commercial garages and mining/smelting operations;
- Dust fall rates and carpet wear; and
- Nature of paint work.

The below lead dust guidelines are extracted from Australian Standards AS 4361.2-1998, Section 5.6.4.2 (*Surface Dust Lead Loadings*) after lead paint management activities. The permissible amount of leaded dust remaining on each of the following surfaces following lead hazard work is:

- 1 mg/m<sup>2</sup> on floors (carpeted or uncarpeted)
- 5 mg/m<sup>2</sup> on interior window sills (or stools).
- 8 mg/m<sup>2</sup> on window troughs (the area where the sash sits when closed).
- 8 mg/m<sup>2</sup> on exterior concrete.

### 3.4 Polychlorinated Biphenyls

Polychlorinated biphenyls (PCBs) are a set of persistent organic chemicals that are known or suspected to cause a wide range of health effects. There is clear evidence that PCBs cause cancer in animals, and they are considered probable human carcinogens [U.S. Environmental Protection Agency (EPA) 1996]. Human and animal data provide evidence that PCBs have significant toxic effects, including effects on the immune system, the reproductive system, the nervous system, and the endocrine system.

**High Risk:** PCB oil leaking from the component item under consideration.

**Low Risk:** Component item is in good condition. Unlikely to present a risk to health unless capacitor is damaged or deteriorates.

### **3.5 Ozone Depleting Substances**

The risk assessment factors for Ozone Depleting Substances (ODS) are similar to those of asbestos including:

- Evidence of physical damage;
- Accessibility to material;
- Likelihood of disturbance;
- Leakage;
- Accessibility to exposed areas; and
- Environmental and occupational conditions.

## 4 HAZARDOUS MATERIALS REGISTER

**Table Abbreviations:** Chrysotile (**CH**); Amosite (**AM**); Crocidolite (**CR**); Synthetic Mineral Fibre (**SMF**); Ozone Depleting Substance (**ODS**); Polychlorinated Biphenyls (**PCB**); No Asbestos Detected (**NAD**). Not Assessable (**NA**)

Assessment by:		Safe Work & Environments		Date of inspection:		14 <sup>th</sup> of June 201		Register Review & Re-Inspection details:			Complete survey of Australia Post tenancy when accessible. Remove all listed hazardous materials items prior to demolition & obtain validation report.		
Site Contact:		Cockram Constructions		Site Location:		Borrowdale House, 49 Furzer Street, Phillip ACT							
Sample No.	Results	Photo ID	Description	Location	Asbestos Type	Condition	Accessibility	Airborne Potential	Exposure Potential	Risk Score	Action Priority	Quantity (m <sup>2</sup> , m <sup>3</sup> )	Actions/Comments
<b>Asbestos Containing Materials</b>													
Ref. Robson Enviro. Sample 5932-A14	CH	2	Asbestos containing gasket	Basement level, plant room, rear of boiler, gasket to flue.	2	2	2	2	2	32	M	1m	Friable asbestos gasket in stable condition. Remove prior to demolition. Refer to <b>Sections 5.1, 7.1 &amp; 9.</b>
-	Presumed to contain asbestos	-	Asbestos containing gaskets & putty	Basement level, plant room, boiler unit, gaskets & seals to internals of boiler unit.	2	2	1	1	1	4	L	Unknown	<b>No access to internal parts of boiler unit, asbestos items presumed to be present. Assess for presence of asbestos when services have been isolated.</b>
C101076-A04	CH	3	Asbestos containing gaskets	Basement level, plant room, green pipework throughout, gaskets to pipe joins / flanges.	1	2	2	2	2	16	L	Through-out	Remove prior to demolition. Refer to <b>Sections 5.1, 7.1 &amp; 9.</b>
Ref. Robson Enviro. Sample 5932-A12	CH	4	Asbestos insulated roll of wire	Basement level, spare parts store room, floor, roll of asbestos insulated wire.	2	2	2	2	1	16	L	1 x roll	Friable asbestos rope in stable condition. Remove prior to demolition. Refer to <b>Sections 5.1, 7.1 &amp; 9.</b>

## Destructive Hazardous Materials Survey &amp; Management Plan



Sample No.	Results	Photo ID	Description	Location	Asbestos Type	Condition	Accessibility	Airborne Potential	Exposure Potential	Risk Score	Action Priority	Quantity (m, m <sup>2</sup> , m <sup>3</sup> )	Actions/Comments
Ref. Robson Enviro. Sample 5932-A5	CH	5, 6	Asbestos containing beige vinyl floor tiles	Ground level, vacant office, floor surface beneath carpet throughout entire level (including kitchen area), asbestos floor tiles.	1	1	1	1	3	3	L	~450m <sup>2</sup>	Remove prior to demolition. Refer to <b>Sections 5.1, 7.1 &amp; 9.</b>
Ref. Robson Enviro. Sample A1055b	CH	5, 6	Asbestos containing black adhesive	Ground level, vacant office, floor surface beneath vinyl tiles (including kitchen area), blackjacket adhesive.	1	1	1	1	3	3	L	~450m <sup>2</sup>	Remove prior to demolition. Refer to <b>Sections 5.1, 7.1 &amp; 9.</b>
Ref. Robson Enviro. Sample 5932-A10	CH	7	Asbestos lagging	Ground level, vacant office female bathroom, asbestos lagging to hot water pipes chased into masonry wall (pipes to shower and sinks).	2	3	1	1	1	6	L	Estimate 5m pipe length	Remove prior to demolition. Refer to <b>Sections 5.1, 7.1 &amp; 9.</b>
Ref. Robson Enviro. Sample 5932-A10	CH	-	Asbestos lagging	Ground level, vacant office male bathroom, asbestos lagging to hot water pipes chased into masonry wall.	2	3	1	1	1	6	L	Estimate 5m pipe length	Remove prior to demolition. Refer to <b>Sections 5.1, 7.1 &amp; 9.</b>
Ref. Robson Enviro. Sample 5932-A7	CH	8	Asbestos containing beige vinyl floor tiles	Level 1, floor surface beneath carpet throughout entire level (including hallway and cupboards), asbestos floor tiles.	1	1	1	1	3	3	L	~600m <sup>2</sup>	Remove prior to demolition. Refer to <b>Sections 5.1, 7.1 &amp; 9.</b>
Ref. Robson Enviro. Sample A1050	CH	-	Asbestos containing black adhesive	Level 1, floor surface beneath vinyl tiles (hallway and cupboards), blackjacket adhesive.	1	1	1	1	3	3	L	~600m <sup>2</sup>	Remove prior to demolition. Refer to <b>Sections 5.1, 7.1 &amp; 9.</b>

## Destructive Hazardous Materials Survey &amp; Management Plan



Sample No.	Results	Photo ID	Description	Location	Asbestos Type	Condition	Accessibility	Airborne Potential	Exposure Potential	Risk Score	Action Priority	Quantity (m, m <sup>2</sup> , m <sup>3</sup> )	Actions/Comments
Same as C101076-A01	CH	9	Asbestos cement sheets	Level 1, open office and hallway areas, ceiling lining fill panels between lights.	1	1	2	2	3	12	L	~45m <sup>2</sup>	Remove prior to demolition. Refer to <b>Sections 5.1, 7.1 &amp; 9.</b>
Ref. Robson Enviro. Sample A1053	CH	10	Asbestos containing mastic / sealant	Level 1, exterior awning area (eastern side only), mastic / sealant used as caulking to repair tiled floor cracks.	1	2	3	2	2	24	M	Estimate ~6m	<b>No access at time of inspection; assess exterior awning for further application of mastic.</b> Remove prior to demolition. Refer to <b>Sections 5.1, 7.1 &amp; 9.</b>
Ref. Robson Enviro. Sample A1054	CH	-	Asbestos containing mastic / sealant	Level 1, exterior awning area, base of window frames to floor, mastic / sealant used as caulking.	1	2	3	2	2	24	M	Unknown	<b>No access at time of inspection; assess exterior awning for further application of mastic.</b> Remove prior to demolition. Refer to <b>Sections 5.1, 7.1 &amp; 9.</b>
Ref. Robson Enviro. Sample 5932-A8	CH	11	Asbestos lagging	Level 1, kitchenette, asbestos lagging to hot water pipes chased into masonry wall.	2	3	1	1	1	6	L	Estimate 2m pipe length	Remove prior to demolition. Refer to <b>Sections 5.1, 7.1 &amp; 9.</b>
Ref. Robson Enviro. Sample 5932-A8	CH	-	Asbestos lagging	Level 1, disabled toilet, asbestos lagging to hot water pipes chased into masonry wall.	2	3	1	1	1	6	L	Estimate 1m pipe length	Remove prior to demolition. Refer to <b>Sections 5.1, 7.1 &amp; 9.</b>
Ref. Robson Enviro. Sample 5932-A8	CH	-	Asbestos lagging	Level 1, female bathroom, asbestos lagging to hot water pipes chased into masonry wall.	2	3	1	1	1	6	L	Estimate 1m pipe length	Remove prior to demolition. Refer to <b>Sections 5.1, 7.1 &amp; 9.</b>

## Destructive Hazardous Materials Survey &amp; Management Plan



Sample No.	Results	Photo ID	Description	Location	Asbestos Type	Condition	Accessibility	Airborne Potential	Exposure Potential	Risk Score	Action Priority	Quantity (m, m <sup>2</sup> , m <sup>3</sup> )	Actions/Comments
Ref. Robson Enviro. Sample 5932-A8	CH	12	Asbestos lagging	Level 1, male bathroom, asbestos lagging to hot water pipes chased into masonry wall.	2	3	1	1	1	6	L	Estimate 1m pipe length	Remove prior to demolition. Refer to <b>Sections 5.1, 7.1 &amp; 9.</b>
Ref. Robson Enviro. Sample 5932-A2 & 5932-A3	CH	13	Asbestos containing beige vinyl floor tiles	Level 2, floor surface beneath carpet throughout entire level (including hallway and cupboards), asbestos floor tiles.	1	1	1	1	3	3	L	~600m <sup>2</sup>	Remove prior to demolition. Refer to <b>Sections 5.1, 7.1 &amp; 9.</b>
Ref. Robson Enviro. Sample A1047 & A1048	CH	14	Asbestos containing black adhesive	Level 2, floor surface beneath vinyl tiles (hallway and cupboards), blackjack adhesive.	1	1	1	1	3	3	L	~600m <sup>2</sup>	Remove prior to demolition. Refer to <b>Sections 5.1, 7.1 &amp; 9.</b>
Ref. Robson Enviro. Sample 5932-A5	CH	-	Asbestos cement packers	Level 2, ceiling void, perimeter of ceiling void, asbestos cement packers between concrete façade & structural beams.	1	2	1	1	1	2	L	Infrequent occurrence: <2m <sup>2</sup>	Remove prior to demolition. Refer to <b>Sections 5.1, 7.1 &amp; 9.</b>
C101076-A01	CH	13	Asbestos cement sheets	Level 2, open office and hallway areas, ceiling lining fill panels between lights.	1	1	2	2	3	12	L	~45m <sup>2</sup>	Remove prior to demolition. Refer to <b>Sections 5.1, 7.1 &amp; 9.</b>
Ref. Robson Enviro. Sample A1053	CH	15	Asbestos containing mastic / sealant	Level 2, exterior awning area, mastic / sealant used as caulking to expansion joints & to repair tiled floor cracks.	1	2	3	2	2	24	M	Estimate 15m	<b>No access at time of inspection; assess exterior awning for further application of mastic.</b> Remove prior to demolition. Refer to <b>Sections 5.1, 7.1 &amp; 9.</b>

## Destructive Hazardous Materials Survey &amp; Management Plan



Sample No.	Results	Photo ID	Description	Location	Asbestos Type	Condition	Accessibility	Airborne Potential	Exposure Potential	Risk Score	Action Priority	Quantity (m, m <sup>2</sup> , m <sup>3</sup> )	Actions/Comments
Ref. Robson Enviro. Sample A1054	CH	16	Asbestos containing mastic / sealant	Level 2, exterior awning area, base of window frames to floor, mastic / sealant used as caulking.	1	2	3	2	2	24	M	Estimate 55m	<b>No access at time of inspection; assess exterior awning to assess extent of mastic application.</b> Remove prior to demolition. Refer to <b>Sections 5.1, 7.1 &amp; 9.</b>
Ref. Robson Enviro. Sample 5932-A4	CH	17, 18	Asbestos lagging	Level 2, kitchen, asbestos lagging to hot water pipes chased into masonry wall.	2	3	1	1	1	6	L	Estimate 2m pipe length	Remove prior to demolition. Refer to <b>Sections 5.1, 7.1 &amp; 9.</b>
Ref. Robson Enviro. Sample 5932-A4	CH	-	Asbestos lagging	Level 2, cleaners store room, asbestos lagging to hot water pipes chased into masonry wall.	2	3	1	1	1	6	L	Estimate 3m pipe length	Remove prior to demolition. Refer to <b>Sections 5.1, 7.1 &amp; 9.</b>
Ref. Robson Enviro. Sample 5932-A4	CH	-	Asbestos lagging	Level 2, female bathroom, asbestos lagging to hot water pipes chased into masonry wall.	2	3	1	1	1	6	L	Estimate 1m pipe length	Remove prior to demolition. Refer to <b>Sections 5.1, 7.1 &amp; 9.</b>
Ref. Robson Enviro. Sample 5932-A4	CH	-	Asbestos lagging	Level 2, male bathroom, asbestos lagging to hot water pipes chased into masonry wall.	2	3	1	1	1	6	L	Estimate 1m pipe length	Remove prior to demolition. Refer to <b>Sections 5.1, 7.1 &amp; 9.</b>
<b>Lead Based Paint Materials</b>													
<b>No lead based paints were identified during the survey</b>													

## Destructive Hazardous Materials Survey &amp; Management Plan



Sample No.	Results	Photo ID	Description	Location	Asbestos Type	Condition	Accessibility	Airborne Potential	Exposure Potential	Risk Score	Action Priority	Quantity (m <sup>2</sup> , m <sup>3</sup> )	Actions/Comments
<b>Synthetic Mineral Fibre (SMF) containing Materials</b>													
Ref. Robson Enviro. Sample 5932-S1	SMF	-	Unbonded SMF insulation	Basement level & level 2, ceiling voids, SMF insulation batts.	-	-	-	-	-	-	L	Throughout	Remove prior to demolition. Refer to <b>Sections 5.3 &amp; 7.3.</b>
Ref. Robson Enviro. Sample 5932-S2	SMF	-	Unbonded SMF insulation to pipes	Ground level, ceiling space, SMF insulation to pipes.	-	-	-	-	-	-	L	Throughout	Remove prior to demolition. Refer to <b>Sections 5.3 &amp; 7.3.</b>
Ref. Robson Enviro. Sample 5932-S3	SMF	-	Unbonded SMF duct insulation	Basement & Ground levels, ceiling spaces, SMF insulated flexible ducting.	-	-	-	-	-	-	L	Throughout	Remove prior to demolition. Refer to <b>Sections 5.3 &amp; 7.3.</b>
Ref. Robson Enviro. Sample 5932-S4	SMF	-	Unbonded SMF insulation	Ground level, wall cavity adjacent to post office, SMF insulation.	-	-	-	-	-	-	L	Throughout	Remove prior to demolition. Refer to <b>Sections 5.3 &amp; 7.3.</b>
<b>Poly-chlorinated Biphenyls Containing Materials</b>													
VO	PCBs	-	Capacitors labelled AEE-FW 715	Basement storage area, light fittings.	-	-	-	-	-	-	L	Throughout	Remove prior to demolition. Refer to <b>Sections 5.4 &amp; 7.4.</b>
VO	PCBs	-	Capacitors labelled AEE-FW F913	Level 1 and Level 2, light fittings throughout.	-	-	-	-	-	-	L	Throughout	Remove prior to demolition. Refer to <b>Sections 5.4 &amp; 7.4.</b>
VO	PCBs	-	Capacitors labelled AEE-FW F906	Level 1 and Level 2 balconies, light fittings throughout.	-	-	-	-	-	-	L	Throughout	Remove prior to demolition. Refer to <b>Sections 5.4 &amp; 7.4.</b>

## Destructive Hazardous Materials Survey &amp; Management Plan



Sample No.	Results	Photo ID	Description	Location	Asbestos Type	Condition	Accessibility	Airborne Potential	Exposure Potential	Risk Score	Action Priority	Quantity (m, m <sup>2</sup> , m <sup>3</sup> )	Actions/Comments
<b>Ozone Depleting Substance (ODS) Containing Materials</b>													
VO	ODS	-	R22 refrigerant to plant	Basement level, plant room, refrigerant to plant item	-	-	-	-	-	-	L	1 x unit	Remove prior to demolition. Refer to <b>Sections 5.5 &amp; 7.5.</b>
VO	ODS	-	Presume to contain ODS	Ground level, roof, air conditioning units.	-	-	-	-	-	-	-	Unknown	<b>No access, presumed to contain ODS. Undertake further assessment when accessible.</b>
<b>Underground Storage tanks (USTs)</b>													
<b>NO USTs were identified during the survey</b>													
<b>Sampled Materials found NOT to contain Asbestos OR other Hazardous Materials</b>													
C101076-A05	NAD	-	Gaskets	Basement level, plant room, blue pipework throughout, gaskets to pipe joins / flanges.	0	-	-	-	-	-	-	-	No asbestos identified, no further action required.
C101076-A06	NAD	-	Putty	Basement level, plant room, air conditioning unit ducts, putty to duct joins.	0	-	-	-	-	-	-	-	No asbestos identified, no further action required.
Same as C101076-A06	NAD	-	Putty	Basement level, spare part store room, air conditioning unit ducts, putty to duct joins.	0	-	-	-	-	-	-	-	No asbestos identified, no further action required.
C101076-A02	NAD	-	Vermiculite / insulation	Ground level, Level 1 and Level 2, riser behind amenities rooms, insulation to flue pipe.	0	-	-	-	-	-	-	-	No asbestos identified, no further action required.
Same as C101076-A03	NAD	-	Fibrous gasket	Ground level, Level 1 and Level 2, riser behind amenities rooms, gaskets to water pipes.	0	-	-	-	-	-	-	-	No asbestos identified, no further action required.

## Destructive Hazardous Materials Survey &amp; Management Plan



Sample No.	Results	Photo ID	Description	Location	Asbestos Type	Condition	Accessibility	Airborne Potential	Exposure Potential	Risk Score	Action Priority	Quantity (m, m <sup>2</sup> , m <sup>3</sup> )	Actions/Comments
Ref. Robson Enviro. Sample 5932-P1 abc	<0.05%	-	Blue paint system	Level 2, door to kitchenette, blue paint to door.	-	-	-	-	-	-	-	-	Lead free paint identified, no further action required.
Ref. Robson Enviro. Sample 5932-P2 abc	<0.05%	-	White paint system	Level 2, door frame to kitchenette, white paint to frame.	-	-	-	-	-	-	-	-	Lead free paint identified, no further action required.
Ref. Robson Enviro. Sample 5932-P3 abc	<0.05%	-	Green paint system	Level 2, main office space, middle riser, green paint to riser.	-	-	-	-	-	-	-	-	Lead free paint identified, no further action required.
Ref. Robson Enviro. Sample 5932-P4 abc	<0.080%	-	Black paint system	Level 2, exterior, balcony handrail, black paint to handrail.	-	-	-	-	-	-	-	-	Lead free paint identified, no further action required.
VO	No PCBs	-	Capacitors labelled Plessey - 102	Ground floor, light fittings throughout.	-	-	-	-	-	-	-	-	No PCBs identified, no further action required.
VO	No PCBs	-	Capacitors labelled ATCO	Ground floor, light fittings throughout.	-	-	-	-	-	-	-	-	No PCBs identified, no further action required.

#### 4.1 No Access Areas

The following areas were not accessible at the time of the inspection:

- Ground level, Australia Post tenancy and Loading dock (still tenanted).
- Level 1, Level 2, exterior including roof, fire stairs and balconies (no key access).
- Interior throughout, live plant and services (electrocution & OH&S risk).

## 5 HEALTH RISKS

### 5.1 Asbestos

The related health aspects of exposure to airborne asbestos fibres has been documented in the SafeWork Australia Code of Practice: *How to Manage and Control Asbestos in the Workplace* (2011). The information in this code of practice identifies Asbestos as a known carcinogen. The inhalation of asbestos fibres is known to cause mesothelioma, lung cancer and asbestosis.

Malignant mesothelioma is a cancer of the outer covering of the lung (the pleura) or the abdominal cavity (the peritoneum). It is usually fatal. Mesothelioma is caused by the inhalation of needle-like asbestos fibres deep into the lungs where they can damage mesothelial cells, potentially resulting in cancer. The latency period is generally between 35 and 40 years, but it may be longer, and the disease is very difficult to detect prior to the onset of illness. Mesothelioma was once rare, but its incidence is increasing throughout the industrial world as a result of past exposures to asbestos. Australia has the highest incidence rate in the world.

Lung cancer has been shown to be caused by all types of asbestos. The average latency period of the disease, from the first exposure to asbestos, ranges from 20 to 30 years. Lung cancer symptoms are rarely felt until the disease has developed to an advanced stage. Asbestosis is a form of lung disease (pneumoconiosis) directly caused by inhaling asbestos fibres, causing a scarring (fibrosis) of the lung tissue which decreases the ability of the lungs to transfer oxygen to the blood. The latency period of asbestosis is generally between 15 and 25 years.

Asbestos poses a risk to health by inhalation whenever asbestos fibres become airborne and people are exposed to these fibres. Accordingly, exposure should be prevented. The National Exposure Standard (NES) TWA of 0.1 fibres/mL should never be exceeded, and control measures should be reassessed whenever air monitoring indicates the 'control level' of 0.01 fibres/mL has been reached.

ACM can release asbestos fibres into the air whenever they are disturbed, and especially during the following activities:

- any direct action on ACM, such as drilling, boring, cutting, filing, brushing, grinding, sanding, breaking, smashing or blowing with compressed air (State and Territory legislation prohibits most of these actions, and the relevant laws should be checked before performing any activity on ACM);
- the inspection or removal of ACM from workplaces (including vehicles, plant and equipment);
- the maintenance or servicing of materials from vehicles, plant, equipment or workplaces; and
- The renovation or demolition of buildings containing ACM.

### 5.2 Lead

Workers and others in the workplace can be exposed to residual lead based paint during restoring buildings and demolition work where structures with a high percentage of lead based paint are present. Surface preparation for repainting or work such as welding on structures with lead paint can also result in exposure to lead hazards.

Most buildings and homes decorated in Australia before 1970 contain lead paint. Deteriorating paint can peel off in large pieces, flake off in smaller chips or into a fine powder. Lead paint can be dangerous if it is peeling or breaking down. Old lead paint is not only confined inside the building, but may also contaminate other nearby areas, such as soil underneath the house or building. In addition to exposure in the workplace, workers can also carry small amounts of contaminants in their clothing and thus expose their families, particularly children, to lead.

Lead paint and lead contaminated dust is a major source of health risks to children and adults and control measures for the removal of lead dust or old paint are very important. Lead can harm virtually every organ in the human body, especially the brain, kidney and reproductive system. Lead can enter the body through several routes, for example the respiratory tract, the gastrointestinal tract and through skin absorption. Lead gets into the body when you breathe in lead dust or fumes in air. If you swallow food or water that is contaminated by lead dust, small amounts of lead can build up in the body and cause health problems.

Most people with increased blood lead levels are asymptomatic; adults may not display symptoms until blood levels reach 60 micrograms per decilitre ( $\mu\text{g}/\text{dL}$ ) or 2.9 micromoles per litre ( $\mu\text{mol}/\text{L}$ ) and above. Children generally do not show symptoms of lead intoxication until blood lead levels reach 45 to 55  $\mu\text{g}/\text{dL}$  (2.7 to 2.64  $\mu\text{mol}/\text{L}$ ). Yet, some may be asymptomatic even when blood lead levels are as high as 60 to 70  $\mu\text{g}/\text{dL}$  (2.89 to 3.38  $\mu\text{mol}/\text{L}$ ).

The National Health and Medical Research Council has set guidelines for permissible levels of lead in the blood and in ambient air in Australia. It set a specific goal "to achieve for all Australians a blood lead level of below ten micrograms per decilitre (0.48 micromoles per litre)." Lead cannot be excreted. It stores in the body for up to 20-30 years in bone, from where it can be mobilised back into the blood. From a single exposure, lead is readily absorbed and quickly distributed to the following areas of the body: blood (1%), soft tissue (4%) and bones/teeth (95%). Anaemia can occur if lead accumulates in blood and in blood-forming tissues (bone marrow). Lead distorts the production of red blood cells in the body.

The current National Exposure Standard (NES) set by the National Occupational Health and Safety Commission (NOHSC) is TWA of 0.15  $\text{mg}/\text{m}^3$  of air. The NSW OHS Regulation 2001 sets levels of lead in blood for Lead Risk Work, removal of workers from lead risk jobs and for health surveillance.

### 5.3 Synthetic Mineral Fibres

For some years, there were concerns that SMF may be associated with health effects similar to those found with asbestos. This was because of the similarities of appearance, as well as the industrial application, of SMFs and asbestos. Now there is a large amount of scientific data from various studies, including epidemiological studies of workers in SMF industries. Reviews of these results show a number of health effects from exposure to various SMF.

Short term exposure can result in:

- Skin and eye irritation – more likely in workers having direct contact with SMF products for the first time or after a period of absence. May involve reddening, burning, itching, prickling, scaling, thickening and inflammation around the fingernails.
- Upper respiratory tract irritation – likely during exposure to very high concentrations of SMF in the air.

Long term exposure to SMF was shown to be associated with a slightly increased risk of lung cancer among exposed workers in early SMF industries. Animal studies have shown the potential of SMF to cause mesothelioma, but no cases of this lung disease were reported from studies in the fiberglass and rockwool manufacturing industries.

With other cancer-causing substances (carcinogens), there is no safe level of exposure -that is, there is no low level that can be guaranteed not to cause an increased cancer risk. However, current scientific opinion is that SMF caused chronic health effects will not occur under typical "modern-day" operations, provided adequate precautions are taken in the workplace. In particular fibrous dust is less easy to limit and control on construction sites and it is very important to ensure that contractors and other in the workplace are protected from over exposure.

The current National Exposure Standard (NES) set by WorkSafe Australia is TWA of 0.5 fibres per milliliter of air for all types of SMF. Due to the limitations of available data on which to set a health-based exposure standard, another standard is applied alongside. This secondary standard recommends 2  $\text{mg}/\text{m}^3$  of inhalable (Total) dust to minimise upper respiratory tract irritation from the larger sized fibres.

### 5.4 Polychlorinated Biphenyls

PCBs are a serious health problem because of their persistence in the environment, their accumulation in human and animal tissues, and their potential for chronic or delayed toxicity. The importation of PCBs for most purposes was banned in Australia in the 1970s. However some equipment containing PCBs is still in use today.

Many workers exposed to PCBs have not been given information about the hazards of PCBs or information about correct procedures for the safe handling, transport and disposal of PCBs. A broad range of health

problems have been reported in people exposed to PCBs. These health effects increase with the amount of PCBs and the length of exposure. PCBs accumulate in the body with repeated exposure and are stored in fat tissue and body organs including the liver, kidneys, lungs and brain. PCB exposure can cause:

- Chloracne (a severe, persistent acne-like rash) is the most commonly observed symptom in people exposed to high levels:
- Liver damage;
- Respiratory disorders;
- Thyroid gland disorders;
- Muscle and joint pain, headaches, loss of appetite, nausea, vomiting and abdominal pain;
- Cancer - PCBs are classed as Carcinogen Class 2 (probable human carcinogen); and
- Reproductive problems in animals. These include increased spontaneous abortion rates, still births, underweight births and decreased post-natal survival.

When PCBs are exposed to extreme heat they may form dioxins, which are highly toxic. Workers involved in servicing and dismantling electrical appliances, transformers and capacitors may be exposed to PCBs. PCB-containing capacitors contain small amounts of PCBs and are unlikely to pose a health risk unless they become damaged or leaking. PCBs can affect the body if they contact the skin, if they are inhaled or if they are swallowed. Absorption through the skin represents the major occupational health risk. The National Occupational Health and Safety Commission (NOHSC) has determined a maximum exposure standard for PCB's:

- PCBs containing 42 % chloride: Time weighted average (TWA) 1 mg/m<sup>3</sup>, Short term exposure limit (STEL) 2 mg/m<sup>3</sup>
- PCBs containing 54 % chloride: Time weighted average (TWA) 0.5 mg/m<sup>3</sup>, Short term exposure limit (STEL) 1 mg/m<sup>3</sup>

STEL exposure standards refer to the maximum level of exposure allowed over a period of 15 minutes.

## 5.5 Ozone Depleting Substances

ODS's are used for heat transfer in refrigeration and air conditioning systems, absorbing or releasing heat according to vapour pressure. Release of these substances to the atmosphere have the ability to cause long term atmospheric pollution that can lead to ozone depletion, global warming, petrochemical smog and acid rain. ODS's include compounds such as Hydrofluorocarbons (HFCs) Hydrochlorofluorocarbons (HCFCs), Chlorofluorocarbons (CFCs) and Halons.

ODS's can enter the body primarily by inhalation of air containing ODS's, but can also enter the body by accidental ingestion, or by dermal contact. Inhalation of air containing high levels of some ODS's may lead to health effects including chest tightness, irritation of the respiratory tract and breathing difficulties. Exposure to high levels of some ODS's may also affect the nervous system, heart, liver, kidney and reproductive system. Ingestion of some ODS's may cause nausea, headache, dizziness and disorientation. Dermal contact with some ODS's may cause skin irritation, dermatitis and frostbite.

## 6 RESPONSIBILITIES

This Hazardous Materials Survey and Management Plan has been designed to be integrated into the existing maintenance and operations programs. It is critical to the Management Plan that all responsible persons involved in the management and functioning of the site are adequately informed and trained in the purpose and use of the document.

The personnel responsible for the implementation and maintenance of the Management Plan may include:

- Persons conducting a business or undertaking (PCBU);
- Persons conducting a business or undertaking with management or control of a workplace;
- Persons conducting a business or undertaking carrying out demolition or refurbishment work.

**Table 3.** Hazardous material management and control responsibilities of duty holders.

Duty Holder	Responsibilities
Person Conducting a business or undertaking (PCBU)	<p><b>Control risk of exposure</b></p> <ul style="list-style-type: none"> <li>• must ensure, so far as is reasonably practicable, that exposure of a person at the workplace to airborne asbestos is eliminated, except in an area that is enclosed to prevent the release of respirable asbestos fibres and negative pressure is used. If this is not reasonably practicable, the exposure must be minimised so far as is reasonably practicable.</li> <li>• must ensure the exposure standard for asbestos is not exceeded at the workplace.</li> </ul>
Person Conducting a business or undertaking (PCBU)	<p><b>Health monitoring</b></p> <ul style="list-style-type: none"> <li>• must ensure health monitoring is provided to a worker who is carrying out licensed removal work, other ongoing asbestos removal work or asbestos-related work and there is risk of exposure when carrying out that work.</li> <li>• must ensure the health monitoring is carried out under the supervision of a registered medical practitioner and information as specified in the WHS Regulations is provided to that medical practitioner.</li> <li>• must pay all expenses for health monitoring, obtain report and keep records of all health monitoring.</li> </ul>
Person Conducting a business or undertaking (PCBU)	<p><b>Training and use of equipment</b></p> <ul style="list-style-type: none"> <li>• must ensure that information, training and instruction provided to a worker is suitable and adequate and that it is provided in a way that is readily understandable by any person to whom it is provided</li> <li>• must ensure that, if a worker is either carrying out asbestos-related work or may be involved in asbestos removal work, they are trained in the identification and safe handling of asbestos and ACM and the suitable control measures</li> <li>• for workers who carry out work where asbestos is likely to be found, training must be provided on hazards and risks associated with asbestos.</li> </ul>
Person Conducting a business or undertaking (PCBU)	<p><b>Controlling the use of equipment</b></p> <ul style="list-style-type: none"> <li>• must not use, or direct or allow a worker to use, certain equipment on asbestos and ACM.</li> </ul>

<p>Person Conducting a business or undertaking (PCBU)</p>	<p><b>Asbestos related work</b></p> <ul style="list-style-type: none"> <li>• must, if there is uncertainty as to whether work is asbestos-related work, assume asbestos is present or arrange for an analysis of a sample to be undertaken to determine if asbestos or ACM is present.</li> <li>• must give information as specified in regulation 480 of the WHS Regulations to a person who is likely to be engaged to carry out asbestos-related work.</li> <li>• must ensure the asbestos-related work area is separated from other work areas at the workplace, signs are used to indicate where the asbestos-related work is being carried out and barricades are used to delineate the asbestos-related work area.</li> <li>• must ensure a competent person carries out air monitoring of the work area if there is uncertainty as to whether the exposure standard is likely to be exceeded.</li> <li>• must ensure that asbestos waste is contained and labelled in accordance with the Globally Harmonised System of Classification and Labelling of Chemicals (GHS) before it is removed, and is disposed of as soon as practicable.</li> <li>• must ensure, where personal protective equipment (PPE) is used and contaminated with asbestos, such PPE is sealed, decontaminated, labelled and disposed of in accordance with the WHS Regulations. If this is not reasonably practicable, the PPE must be laundered in accordance with the WHS Regulations. PPE that is not clothing and cannot be disposed of must be decontaminated and kept in a sealed container until it is reused for the purposes of asbestos-related work.</li> </ul>
<p>PCBU with management or control of a workplace</p>	<p><b>Identifying or assuming Asbestos or ACM</b></p> <ul style="list-style-type: none"> <li>• must ensure, so far as is reasonably practicable, that all asbestos or ACM at the workplace is identified by a competent person or assume its presence.</li> <li>• may identify asbestos or ACM by arranging a sample of the material to be analysed.</li> </ul>
<p>PCBU with management or control of a workplace</p>	<p><b>Indicating presence and location</b></p> <ul style="list-style-type: none"> <li>• must ensure the presence and location of asbestos or ACM identified (or assumed to be identified) at the workplace is clearly indicated (by a label if reasonably practicable).</li> </ul>
<p>PCBU with management or control of a workplace</p>	<p><b>Asbestos register</b></p> <ul style="list-style-type: none"> <li>• must ensure an asbestos register is prepared, maintained, reviewed and kept at the workplace. It must be readily available to workers, their health and safety representatives and other persons</li> <li>• must ensure, when management or control of the workplace is relinquished, a copy of the asbestos register is given to the person assuming management or control.</li> </ul>
<p>PCBU with management or control of a workplace</p>	<p><b>Asbestos Management Plan</b></p> <ul style="list-style-type: none"> <li>• must, where asbestos has been identified at the workplace, ensure an asbestos management plan is prepared, maintained and reviewed. It must be accessible to workers, their health and safety representatives and other persons.</li> </ul>
<p>PCBU with management or control of a workplace</p>	<p><b>Naturally occurring asbestos</b></p> <ul style="list-style-type: none"> <li>• must manage the risks associated with asbestos at the workplace and, where identified at the workplace or likely to be present, ensure that a written asbestos management plan is prepared, maintained and reviewed.</li> </ul>

PCBU with management or control of a workplace	<p><b>Demolition and refurbishment work</b></p> <ul style="list-style-type: none"> <li>• prior to demolition or refurbishment work starting, must review the asbestos register and ensure all asbestos that is likely to be disturbed is identified and removed so far as is reasonably practicable</li> <li>• must provide a copy of the asbestos register to the person carrying out the demolition or refurbishment work before the work commences</li> <li>• must, if an emergency occurs and a structure or plant is to be demolished, ensure that before the demolition occurs there is a procedure to reduce the risk of exposure to asbestos to below the exposure standard and notify the regulator about the emergency.</li> </ul>
PCBU carrying out demolition or refurbishment work	<p><b>Demolition and refurbishment work</b></p> <ul style="list-style-type: none"> <li>• must, prior to the demolition or refurbishment work being carried out: obtain a copy of the asbestos register for the workplace from the person with management or control before the work commences</li> <li>• if an asbestos register is not available, ensure the structure or plant to be demolished or refurbished has been inspected by a competent person to determine if any asbestos or ACM is fixed to or installed (or assume it's presence)</li> <li>• where asbestos is determined to be fixed to or installed, tell the occupier, owner (if at a domestic premises) or the person with management or control in any other case</li> <li>• ensure asbestos at domestic premises that is likely to be disturbed by the demolition or refurbishment is identified and, if reasonably practicable, removed before the work starts</li> <li>• if an emergency occurs at domestic premises where asbestos is identified (or assumed) and it must be demolished, ensure there is a procedure to reduce the risk of the exposure to asbestos to below the exposure standard and notify the regulator about the emergency.</li> </ul>

## 7 CONTROL OF HAZARDS AND REMOVAL

### 7.1 Control of Asbestos Hazards

Control measures need to be implemented based on the risks of exposure to ACM at a workplace. The control measures should be aimed at eliminating risk arising from ACM and preventing exposure. The control measures are to follow the following hierarchy of controls:

1. Elimination/removal
2. Substitution
3. Isolation/Enclosure/Sealing
4. Engineering Controls
5. Safe Work Practices (Administrative controls)
6. Personal Protective Equipment (PPE)

The following information should be used as a guideline when determining the correct control method for management the ACM risks.

- If the ACM are friable and not in a stable condition, and there is a risk to health from exposure, they should be removed by an asbestos removalist as soon as practicable.
- If the ACM are friable but are in a stable condition and are accessible, serious consideration should be given to their removal. If removal is not immediately practicable, short-term control measures, such as sealing and enclosure, may be able to be used until removal is possible, although some State and Territory WHS authorities do not permit the sealing or encapsulation of ACM.
- If the ACM are not friable and are in a good, stable condition, minimising disturbance and encapsulation may be appropriate controls. Again, however, some State and Territory authorities do not permit sealing or encapsulation.
- Any remaining ACM should be clearly labelled, where possible, and regularly inspected to ensure they are not deteriorating or otherwise contributing to an unacceptable health risk.
- ACM need to be removed before demolition, partial demolition, renovation or refurbishment if they are likely to be disturbed by those works, in accordance with the *Safe Work Australia Work Health and Safety (How to Safely Remove Asbestos Code of Practice) Approval 2014*.

#### 7.1.1 Elimination/Removal of Asbestos

Asbestos removal work must be performed under certain controlled conditions. Removal is considered preferable to the other abatement options such as enclosure or encapsulation as it eliminates the hazard from the workplace. The removal process, however, does pose an increased risk to personnel engaged in the removal, and may result in increased levels of airborne contaminant (asbestos fibres) in adjacent occupied areas if the removal program is not strictly controlled. The recommendations, conclusions or stability of asbestos materials contained in this report shall not abrogate a person of their responsibility to work in accordance with Statutory Requirements, Codes of Practice, Guidelines, Material Safety Data Sheets, Work Instructions or reasonable work practices.

Asbestos containing materials (ACM) are referred to as either friable or bonded. Friable asbestos is in the form of a powder, or can be crumbled, pulverized or reduced to powder by hand pressure when dry. Friable asbestos includes materials such as sprayed and thermal insulation, pipe lagging and millboard, and can release fibres with only minimal disturbance. Non-Friable asbestos products are ones in which the asbestos fibres are bound within the matrix of the material. Non-friable asbestos is difficult to damage or cause the release of fibres by hand and includes materials such as asbestos cement sheeting (fibre cement or fibro), vinyl floor tiles and zelemite electrical switchboards. However, non-friable asbestos containing materials that have been subjected to weathering, physical damage, water damage, fire or other conditions may contain exposed fibres which could be released upon disturbance.

## **Control Measures**

### *Friable Asbestos*

Friable ACM exhibits the greatest risk to human health as fibres are released upon minimal disturbance. As such removal and replacement would be the preferred option if such materials were found in accessible areas or air conditioning systems.

The selection of the most appropriate control measure should be determined from risk assessments and detailed knowledge of the workplace and activities. The following general principles may be applied:

1. If the ACM is friable, in a poor/unstable condition and accessible with risk to health from exposure, immediate access restrictions should be applied and removal is required as soon as practicable using a licensed removalist.
2. If the ACM is friable and accessible but in a stable condition, removal is preferred. However, if removal is not immediately practicable, short-term control measures (i.e. restrict access, sealing, enclosure etc.) may be employed until removal can be facilitated.
3. If the ACM is friable, in good condition and not accessible, a lower priority for removal and replacement should be given any such material. However, the removal of friable asbestos should be planned for the medium to long term and preferable in conjunction with planned minor or major building works.

### *Non-Friable Asbestos*

Where the ACM situation has been identified to be bonded but in a poor/unstable condition and assessed as high risk; minimising disturbance and removal or encapsulation may be appropriate controls.

For non-friable ACM's in a good and stable condition, ongoing maintenance and periodic inspection would be appropriate controls.

Any remaining identified ACM's or presumptions should be appropriately labelled, where possible, and regularly inspected to ensure they are not deteriorating resulting in a potential risk to health.

Prior to any demolition, partial demolition, renovation or refurbishment, asbestos containing materials likely to be disturbed by those works should be removed in accordance with the *Safe Work Australia Work Health and Safety (How to Safely Remove Asbestos Code of Practice) Approval 2014* including the development of asbestos removal control plan (ARCP).

Further assessment of risk through airborne fibre monitoring can assist with decisions on the most appropriate, and urgency of, control measures.

## **Asbestos Removal Requirements**

In the event that activities are required to or will remove asbestos containing materials as part of any building works the following must be complied with:

- All maintenance on, or removal of, asbestos is only to be undertaken by licensed removal contractors.
- At no time are unlicensed maintenance personnel /contractors to undertake work that involves the disturbance of hazardous materials.

The following procedures are an outline of the methods to be used by the asbestos removal contractors when working in the buildings to allow access by maintenance personnel. These procedures *are not intended* for use for large scale asbestos removal. Specific procedures should be compiled for all large scale asbestos removal.

### *Asbestos Cement Sheeting Material*

The following procedure is to be followed for undertaking maintenance work in areas containing asbestos cement sheeting. It is only necessary to adopt this procedure for work that will disturb the asbestos cement sheet. Other work in the adjacent area which does not disturb the asbestos may be undertaken without special precautions.

- Plastic sheeting is to be placed on the floor of the area in which the work is to be undertaken.
- Barrier tape with appropriate signage is to be placed approximately 10m from the work area to prevent unauthorised access.
- All persons involved in the maintenance work are to wear disposable coveralls and approved respirator.
- If asbestos cement sheet has to be disturbed, it is to be wetted to suppress any dust generated from the work. Approved vacuum cleaners are to be used during the work to collect dust generated by the work.
- At the completion of the work the area is to be thoroughly vacuumed and all plastic and disposable coveralls are to be sealed in plastic bags for disposal. Respirators are to be bagged for later cleaning and reuse.
- The area is to be inspected by the hygienist to ensure that all asbestos debris has been removed.
- A copy of clearance report is to be given to the building controller.

### *Non-Friable Asbestos Products such as Vinyl Floor Tiles & Electrical Backing Boards*

The following procedure is to be followed for undertaking maintenance work in areas containing bonded asbestos materials. It is only necessary to adopt this procedure for work that will disturb the above-mentioned asbestos materials. Other work in the adjacent area that does not disturb the asbestos material may be undertaken without special asbestos precautions:

- Where appropriate, plastic sheeting is to be placed on the floor of the area in which the work is to be undertaken.
- Barrier tape with appropriate signage is to be placed approximately 10m from the work area to prevent unauthorised access.
- All persons involved in the maintenance work are to wear disposable coveralls and approved respirator.
- All dust and debris generated during the work is to be collected and placed in plastic bags for disposal.
- At the completion of the work the area is to be vacuumed and wet wiped and all plastic and disposable coveralls are to be sealed in plastic bags for disposal. Respirators are to be bagged for later cleaning and reuse.
- The area is to be inspected by the hygienist to ensure that all asbestos debris has been removed.
- A copy of clearance report is to be given to the property controller.

### ***Air Monitoring and Clearance Inspections***

Before an area can be re-occupied post asbestos removal a clearance inspection must be performed. The clearance inspection must be undertaken by a competent person only and a clearance certificate must be obtained from the competent person. Clearance monitoring is recommended for Asbestos removal jobs and should be assessed as part of the planning and conduct of the removal job.

All asbestos removal work must be verified by requiring final clearance certificates for both inspections and monitoring if required.

#### **7.1.2 Leave In Situ**

The identification of Asbestos containing material (ACM) in a building does not automatically necessitate its immediate removal. Materials in a stable condition and not prone to mechanical damage can generally remain in situ.

The ACM will need to be inspected on a regular basis to ensure its integrity is maintained. The ACM should be labelled according to SafeWork Australia Code of Practice: *How to Manage and Control Asbestos in the Workplace* (2011). This form of control method is to be used in conjunction with encapsulation or sealing to ensure that the risk of airborne fibres is minimised. It is also advisable to label all identified and presumed ACM while they remain in situ.

### 7.1.3 Sealing or Encapsulation

Encapsulation refers to the coating of the outer surface of the asbestos containing material by the application of some form of sealant compound that usually penetrate to the substrate and harden the material. Sealing is the process of covering the surface of the material with a protective coating impermeable to asbestos. Encapsulation or sealing helps protect the asbestos from mechanical damage, and is designed to reduce the risk of exposure by inhibiting the release of asbestos fibres into the airborne environment, and increase the length of serviceability of the product.

The use of encapsulation or sealing may be of limited application. It is not considered to be an acceptable alternative to repairing or removing severely damaged asbestos materials.

### 7.1.4 Enclosure or Isolation

Enclosure involves installing a barrier between the asbestos containing material and adjacent areas. This is effective in inhibiting further mechanical damage to the asbestos, and friable products such as calcium silicate pipe lagging or sprayed limpet asbestos which may be targeted for enclosure where removal is not an option. The type of barrier installed may include plywood or sheet metal products, constructed as a boxing around the asbestos.

### 7.1.5 Safe Work Practices

Work involving the removal of asbestos is to be conducted as per the guidelines in the Safe Work Australia *Work Health and Safety (How to Safely Remove Asbestos Code of Practice) Approval 2014*. Safe Work Practices regarding asbestos are covered in detail within **Section 9** of this AMP.

### 7.1.6 Personal Protective Equipment

The personal protective equipment requirements for work involving asbestos containing materials at the Subject site are to be based on the risk assessment. The Safe Work Australia *Work Health and Safety (How to Safely Remove Asbestos Code of Practice) Approval 2014* should be consulted to determine the PPE needs as well as AS 1715 and AS 1716 for respiratory protection. PPE used during the asbestos removal should be treated as waste and disposed of in the approved asbestos waste bags. Personal Protective Equipment as a control against the asbestos risk is discussed in detail within **Section 9** of this AMP.

## 7.2 Control of Lead Hazards

### 7.2.1 Lead Paint

The selection of the most appropriate control measure should be determined from risk assessments and detailed knowledge of the workplace and activities. The following general principles may be applied:

- Regardless of condition, immediate access restrictions should be applied and removal undertaken if the lead-based paint is located in areas that are likely to be chewed or licked by children, knocked or are subject to friction.
- If the lead-based paint is flaking or chalking, or in a poor/unstable condition (and not located in areas as described above), repainting is required as soon as practicable. However, the surface will need to be prepared by a light wet sanding with wet-and-dry sandpaper to help the paint stick to the surface. Take care not to generate lead dust or contaminate the areas with water from the wet-sanding process.
- Lead-based paint in good condition (and not located in areas as described above), should be left in place, unless major renovation and comprehensive removal is planned.
- Painting over lead-based paint is a temporary solution limited by the life of the paint. Alternatives to painting or the removal of lead-based paint include encapsulating the paint with other materials.

## 7.2.2 Lead Dust

The selection of the most appropriate control measure should be determined from risk assessments and detailed knowledge of the workplace and activities. The levels of lead in dust detected may be compared with the following indicative levels when undertaking the risk assessment:

### *Indicative Levels*

According to the Australian Standard Guide to Lead Paint Management (AS 4361.2 – 1998), the permissible amount of leaded dust remaining on each of the following surfaces following lead hazard work is:

- 1 mg/m<sup>2</sup> on floors (carpeted or uncarpeted)
- 5 mg/ m<sup>2</sup> on interior window sills (stools).
- 8 mg/ m<sup>2</sup> on window troughs (the area where the sash sits when closed).
- 8 mg/ m<sup>2</sup> on exterior concrete (1 mg = 1000 µg).

In the absence of a legislative standard, SWE (in consultation with the Department of Health and WorkCover) has adopted a threshold of 300 mg/kg which is considered appropriate for residential roof / ceiling cavities).

Other control measures such as training and communication strategies, control of contractors and administrative procedures must be considered as part of the overall Asbestos Management Plan.

## 7.2.3 Disposal Options

Where it has been determined that a material contains lead, waste disposal options available for the generator/facility owner or the contractor includes the following:

- Reclaiming the lead by smelting or chemical methods.
- Using as a raw material for another process.
- Treating the waste using a solidification/stabilization technology.
- Storing/disposing at an appropriate storage/disposal facility.

In the common case of the removal of lead containing materials prior to demolition the hazardous waste should be disposed of at an approved hazardous waste disposal facility.

## 7.3 Control of Synthetic Mineral Fibre Hazards

The following National Standards and Codes of Practice are applicable to SMF:

<i>Standard for Synthetic Mineral Fibres</i> [NOHSC:1004(1990)]	Sets the recommended maximum exposure level for all types of SMF. (This is also contained in Exposure Standards for Atmospheric Contaminants [NOHSC: 1003 (1995)])
<i>Code of Practice for Synthetic Mineral Fibres</i> NOHSC:2006(1990)]	Provides practical guidance about managing risks from synthetic mineral fibres to keep exposure within the standard

Use hand tools, not power tools, and wet or dampen the material before cutting. If power tools are used, local exhaust ventilation should be installed. Protective equipment must be used wherever other means cannot keep the exposure level below the exposure standard. It should include the appropriate type of mask and clothing. The code of practice has a detailed guide to selecting respiratory protection.

At the end of demolition/removal operations, a clearance inspection and sampling program should be carried out and a Clearance Certificate issued. If the SMF insulation is to be disturbed or removed, the airborne SMF monitoring should be carried out during the removal operations by a NATA accredited laboratory. SMF's are currently not on the schedule of substances requiring health surveillance.

## 7.4 Control of Polychlorinated Biphenyls Hazards

Care must be taken when handling damaged capacitors to ensure that spillage does not occur. The person handling the damaged capacitor should take the following precautions:

- put on personal protective equipment and clothing before removing damaged or leaking components;
- wear gloves that are made of materials that are resistant to PCBs, such as Viton, polyethylene, polyvinyl alcohol (PVA), polytetrafluoroethylene (PTFE), butyl rubber, nitrile rubber, or neoprene;
- **do not** use gloves made of polyvinyl chloride (PVC) or natural rubber (latex);
- use disposable gloves;
- wear disposable overalls made of Tyvek or made of materials with similar chemical resistant properties;
- when working with overhead equipment (e.g. Fluorescent light fixtures), wear a full face shield and appropriate hair protection;
- wash any non-disposable contaminated equipment with kerosene and collect the kerosene for disposal as a PCB contaminated solvent;
- if PCB vapours are suspected (e.g. PCB leaks onto a hot surface in a confined space), wear a twin cartridge type respirator suitable for chlorinated vapours;
- always ensure adequate ventilation;
- Note: PCBs do not vaporise readily at room temperature;
- do not smoke; and
- after handling PCBs, employ good personal hygiene practices, including washing hands in warm, soap.

It is advisable to check the current regulations in effect with the authority responsible for environmental protection authority in your State or Territory. In the ACT this is WorkCover ACT and Environment Protection and Heritage. The absence of a capacitor from the ANZECC information booklet is not a guarantee that the capacitor does not contain PCBs: If there is any doubt as to whether a capacitor or any electrical equipment contains PCBs, treat the equipment as if it does contain PCBs.

## 7.5 Control of Ozone Depleting Substances

*The Australian Refrigeration and Air-conditioning Code of Good Practice* (HB 40.1 – 2001) has been designed with the objective of assisting the reduction of emissions into the atmosphere of substances that deplete the ozone layer and contribute to global warming. The aforementioned “Code of Good Practice” recommends best practice for the maintenance, design, servicing, labelling and manufacture of refrigeration and air conditioning systems towards this objective.

With regard to the recovery, recycling and disposal of refrigerants, the following points are made as general recommendations:

- It is highly recommended, and in some cases mandatory, for recovery and/or recycling equipment to be used for the removal and recovery of refrigerant during service.
- To avoid the danger of mixing different refrigerant types, the receiving containers shall be identified by the correct colour coding and labelling and shall only be used for the refrigerant type that is being transferred. The recovery containers shall conform to AS 4484-2004, „*Gas Cylinders for Industrial, Scientific and Refrigerant use – labelling and colour coding*”.
- As chillers have large internal volume, it is important that all refrigerant vapour be recovered. A chiller at atmospheric pressure can still hold many kilograms of refrigerant vapour after the liquid has been removed.

- When recovering refrigerant from a chiller the refrigerant should be recovered until the internal system pressure is reduced to 3 kPa absolute for low-pressure systems (e.g., R-11) and 70 kPa absolute for positive pressure systems (e.g., R-12 and R-22). The internal pressure should then be taken up to atmospheric pressure with dry nitrogen if the chiller is to be opened. This will prevent moisture-laden air entering the system, which could lead to contamination and corrosion.
- Unusable or surplus fluorocarbon refrigerant shall not be discharged to the atmosphere, but shall be returned to a supplier.
- Empty residual refrigerant in a disposable container shall be recovered and the container disposed of at a recycling centre.
- The utmost care must be taken to avoid mixing different types of refrigerants, as separation may be impossible and large quantities of refrigerant may be rendered unusable.

## 8 ONGOING MANAGEMENT OF IN SITU ACM

The management of in situ asbestos containing materials (ACM) entails that the ACM is not disturbed or becomes subject to deterioration to such an extent that staff and users, external contractors or visitors are unnecessarily exposed to 'Inhalable' asbestos fibres.

### 8.1 Re-inspections

Re-inspections of ACMs remaining on site are to be conducted by a competent person only. Such re-inspections will comprise a visual assessment of the condition of the materials to determine whether the material remains in a satisfactory condition, or if deterioration has occurred since the previous inspection. Such re-inspections will determine if any remedial action, such as encapsulation, isolation or removal of the ACM, is required. Re-inspections will be performed on a regular basis (every 5 years for asbestos).

Normally, re-sampling of materials would not be required during re-inspections. If, however, previously unidentified or undocumented ACMs, or materials suspected of containing ACMs, are encountered during the re-inspection process, sampling and analysis will need to be performed. The ACMs register, where necessary, will be updated and re-issued at the completion of the re-inspection work.

### 8.2 Record Keeping

The relevant stakeholder (or contracted representative) shall maintain detailed records of all activities and work permits relating to ACMs works which have been undertaken on the premises contained within this report. The records kept should include:

- Copies of all Asbestos survey reports, including updates and amendments (Refer to Appendix F for example of an Site ACM Maintenance Log);
- Copies of all 'permit to work' documents;
- Site induction records pertaining to the informing of contractors about the presence of ACMs on site, and that such contractors have been appropriately trained in safe work procedures and practices;
- Records pertaining to the informing of contractors about the presence of ACMs on site, and that such persons have been appropriately trained in safe work procedures and practices;
- Records of any ACMs abatement works performed on site;
- Clearance certificates indicating areas are safe to reoccupy after ACMs abatement works;
- Air monitoring results of asbestos fibre;
- Previous versions of the ACMs register; and
- All asbestos related records and documents are to be retained for 70 years after the: removal of the ACM; after the building has been demolished; after the last action.

### 8.3 Labelling and Signage

The relevant stakeholder/s (or contracted representative) should implement a system of labelling throughout the premises where applicable, to clearly identify and provide warning of the presence of ACMs and principally asbestos containing materials.

ACMs labels must comply with Australian Standard AS1319 Safety Signs for the Occupational Environment. An example of the standard warning labels for asbestos is illustrated below:



The policy of the stakeholders should be to install signage in areas that contain ACM including plant, equipment and components. These signs should be placed at all entrances to the work areas where asbestos is present. And also to cover the following situations and conditions;

- Labels are to be placed on items of ACM identified or presumed and any ACM enclosed or inaccessible;
- The positions and number of labels required should be determined by a competent person;
- The labels are to be located and consistent with the locations in the ACM register; and
- Warning labels are to be in a location that will alert persons to not disturb the material without the correct training.

## 8.4 Occupational Exposure Standards

The aim of the stakeholders is to keep personal exposure to hazardous (asbestos) building materials as low as reasonably achievable. Where occupational exposure to such hazards is likely to occur, exposure is not to exceed the occupational exposure standards as published by the National Occupational Health and Safety Commission (WorkSafe Australia).

Occupational exposure for asbestos is measured using the Membrane Filter Method, by collecting a sample of air from the breathing zone of a person, over a minimum four hours duration.

The current occupational exposure standards TWA for asbestos are:

- Chrysotile (white) asbestos - 0.1 fibres per millilitre
- Amosite (brown) asbestos - 0.1 fibres per millilitre
- Crocidolite (blue) asbestos - 0.1 fibres per millilitre
- Other forms of asbestos or a mixture of asbestos types - 0.1 fibres per millilitre

## 9 SAFE WORK PRACTICES

### 9.1 General

Prior to commencing any works on the Subject site, such as demolition, refurbishment or maintenance, the Asbestos register for the site or structure in question must be consulted to determine if any ACM is present which is at risk of being disturbed. If it is documented ACM is present in the area, and may be impacted upon by the proposed works, it must be removed under controlled conditions by a competent person licensed to perform asbestos removal work prior to the commencement of any further works.

Depending on the nature of the ACM, abatement options other than removal (such as encapsulation) may be feasible but removal is the preferred method of control. If unknown materials, or undocumented materials suspected of containing asbestos are encountered during site works, such materials are to be sampled and treated as if they contain asbestos and any work that would impact on that material must immediately cease, pending sampling and analysis by a qualified person. This will allow the property controller to determine what control methods are required.

Any external contractor contracted to perform works on or in a building of such an age that ACM may be present, must, prior to commencing work, undergo a site/client specific induction. Such an induction is designed to alert the contractor to the possible presence of ACM, and the various issues associated with working with asbestos in building structures. The asbestos register for the building in question will be consulted in the presence of the contractor during the site induction, and it will be determined if any ACM are at risk of being disturbed as a result of the intended works. If this is suspected to be the case, the contractor engaged is to ensure that a licensed asbestos removalist performs the asbestos removal work which will require an Asbestos Permit to Work to be made available prior to commencing the work.

It is important that safe work practices are in place when carrying out asbestos work or asbestos-related work. Wherever possible, dry asbestos should not be worked on. Techniques that prevent or minimise the generation of airborne asbestos fibres include:

- the wetting of asbestos using surfactants or wetting agents, such as detergent water
- the use of thickened substances, pastes and gels, including hair gel and shaving cream, to cover the surfaces of asbestos being worked on (these substances should be compatible with the conditions of use, including the temperature, and should not pose a risk to health)
- the use of shadow vacuuming
- performing the task in a controlled environment (for instance, a ventilated enclosure).

### 9.2 Tools and Equipment

Tools and equipment to be used for asbestos removal jobs are to minimise the generation of airborne asbestos fibres. High-speed abrasive power or pneumatic tools such as angle grinders, sanders, saws and high speed drills must never be used. Hand tools are preferred over power tools. At the end of the removal work, all tools should be:

- Decontaminated (i.e. fully dismantled and cleaned under controlled conditions) or
- Placed in sealed containers (and used only for asbestos removal work); or
- Disposed of as asbestos waste.

### 9.3 Personal Protective Equipment (PPE)

PPE will need to be used, in combination with other effective control measures, when working with asbestos. The selection and use of PPE should be based on a risk assessment. The ease of decontamination should be one of the factors considered when choosing PPE. For PPE that is not clothing and cannot be disposed of, it must be decontaminated and kept in a sealed container until it is reused for the purposes of asbestos-related work.

### 9.3.1 Coveralls

- Protective clothing should be made from material capable of providing adequate protection against fibre penetration.
- When selecting protective clothing, other hazards—including heat stress, fire and electrical hazards—should also be considered.
- Disposable coveralls with fitted hoods and cuffs should be worn. Coveralls with open pockets and/or velcro fastenings should not be used, because these features can be contaminated and are difficult to decontaminate. Fitted hoods should always be worn over the straps of respirators and loose cuffs should be sealed with tape. Disposable coveralls rated type 5, category 3 (prEN ISO 13982–1) or equivalent would meet this standard.
- Asbestos fibres must be prevented from being transported outside the workplace by thoroughly vacuuming asbestos fibres from work clothes using an asbestos vacuum cleaner or, depending on the level of contamination and risk, the use of a water spray bottle or damp cloths may be appropriate.
- Disposable coveralls need to be of a suitable standard to prevent penetration of asbestos fibres so far as is practicable. Disposable coveralls rated type 5, category 3 (prEN ISO 13982-1) or the equivalent would meet this standard.
- Non-disposable coveralls are not recommended and would require specialist laundering if used.
- Any clothing worn under coveralls must be disposed of or suitably bagged for laundering as asbestos-contaminated clothing.

### 9.3.2 Footwear and Gloves

- Laced boots should be avoided as they can be difficult to clean and asbestos dust can gather in the laces and eyelets. Laceless boots such as gumboots are preferred where practicable. If boot covers are worn, they should be of a type that has anti-slip soles to reduce the risk of slipping.
- Safety footwear must be decontaminated before being removed from the asbestos work area or sealed in double bags, the exterior of which is decontaminated, for use only on the next asbestos maintenance task. Alternatively, work boots that cannot be effectively decontaminated should be disposed of as asbestos waste at the end of the work.
- The use of protective gloves should be determined by a risk assessment. If significant amounts of asbestos fibres may be present, disposable gloves should be worn. Protective gloves can be unsuitable if dexterity is required. Personal decontamination including hand and fingernail washing should be carried out each time workers leave the asbestos work area and at the completion of asbestos maintenance and service work. Any gloves used must be disposed of as asbestos waste.

### 9.3.3 Respiratory Protective Equipment (RPE)

- In general, the selection of suitable RPE depends on the nature of the asbestos work, the probable maximum concentrations of asbestos fibres that would be encountered in this work and any personal characteristics of the wearer that may affect the facial fit of the respirator (for example, facial hair and glasses).
- A competent person should determine the most efficient respirator for the task.
- RPE should comply with AS/NZS 1716-2003 *Respiratory Protective Devices* and be selected, used and maintained in accordance with AS/NZS 1715-1994 *Selection, Use and Maintenance of Respiratory Protective Devices*. They must always be worn under fitted hoods. Face pieces should be cleaned and disinfected.
- RPE should be used until all contaminated disposable coveralls and clothing has been vacuum cleaned and/or removed and bagged for disposal and personal washing has been completed. RPE should be properly stored when not in use.
- More comprehensive advice on RPE is provided in the Safe Work Australia *Work Health and Safety (How to Safely Remove Asbestos Code of Practice) Approval 2014*.

## 9.4 Laundering Clothing

Disposable coveralls should be used as protective clothing unless it is not reasonably practicable to do so. When non-disposable protective clothing is used, the contaminated clothing must be laundered in a suitable laundering facility that is equipped to launder asbestos-contaminated clothing. Contaminated protective clothing must not be laundered in homes. Any clothing worn under coveralls must be disposed of or suitably bagged for laundering as asbestos-contaminated clothing.

## 9.5 Cleaning Up

Following any asbestos work carried out, there are requirements to ensure the work area, tools and workers are decontaminated and asbestos waste is disposed of properly. In addition to this, for licensed removal work a clearance certificate will be required before the work area can be reoccupied for ordinary use.

The Safe Work Australia *Work Health and Safety (How to Safely Remove Asbestos Code of Practice) Approval 2014* provides details on decontamination and waste disposal.

## 10 EMERGENCY PROCEDURES

An emergency situation is most likely to entail such a scenario where asbestos containing materials (ACM) present on site have been inadvertently disturbed through actions of site employees, users, maintenance personnel, contractors, visitors, or damaged by severe weather conditions (e.g. hail damage to a corrugated asbestos cement roof). Where such damage has occurred, the site manager or persons with control of the site shall be notified immediately. The below procedural steps may form the framework for site operations in response to an emergency involving asbestos or an unexpected asbestos find:

**Step 1:** Suspected asbestos material uncovered at worksite.

**Step 2:** Cease work and evacuate affected area .

**Step 3:** Contact immediate supervisor and raise a Hazard Report.

**Step 4:** Consult Safety and Environment Coordinators, Site manager and OHS & E Consultant.

**Step 5:** Arrange for erection of barricades around the affected area. Ensure all PPE is worn as per **Section 9.3**.

**Step 6:** Provide PPE as per **Section 9.3** to staff required to be in the vicinity of the affected area.

**Step 7:** Carry out staff site briefing.

**Step 8:** Assessment and testing of area by an OHS & E Consultant.

**Step 9:** If asbestos is found proceed with remediation under recommendations of consultant, if not resume works.

**Step 10:** Engage the removal contractor and gain appropriate Work Cover Permit if required and proceed with remediation and airborne asbestos monitoring.

**Step 11:** Clearance to be provided on completion.

**Step 12:** Return to normal operations.

During any removal of ACM an emergency within the building may necessitate the need to evacuate the building. The risks associated with any asbestos removal work should be assessed and include contingencies in the case of an emergency. Workers should be trained in the event of an emergency. Decontamination procedures can be temporarily waived in the event of an emergency and this is to be based on risk. The event likely to present in an emergency may include but not be limited to:

- Fire Evacuation.
- Chemical spill and contamination.
- Gas leak/contaminated atmosphere hazardous to health.

In the case of the above situations requiring an emergency, Site supervisor, Site Security and the other Stakeholders should be notified immediately and the area evacuated.

## 11 TRAINING AND AWARENESS

Licensed, reputable asbestos removalists should undertake all asbestos removal work. Site staff/personnel, contractors and others who may come into contact with asbestos containing materials (ACM) at the subject site either directly or indirectly should be provided with asbestos awareness training. Such training may include the following:

- Purpose of the training
- Information on the health risks associated with ACM;
- Information on the presence of ACM in relative buildings/sites, including the types of asbestos, uses and typical locations/likely occurrences where ACM may be encountered.
- The trainee roles and responsibilities under the Asbestos Management Plan.
- Information on the site register of ACM and how to access it.
- The timetable of ACM removal at the subject site.
- Process and procedure to be followed to prevent exposure.
- The correct use of maintenance and controls measures, PPE and work methods to minimise the risks from ACM, limit the exposure to workers and limit the spread of asbestos fibres outside any asbestos work area.
- The relevant National Exposure Standards and control levels for ACM.
- The purpose of any air monitoring or health surveillance that may occur.

## 12 STATEMENT OF LIMITATIONS

This report and the associated services performed by SWE are in accordance with the scope of services set out in the contract between SWE and the Client. The scope of services was defined by the requests of the Client, by the time and budgetary constraints imposed by the Client, and by the availability of access to the Subject Site.

SWE derived the data in this report primarily from research, visual inspections, examination of available records, interviews with individuals with information about the site, and if requested, limited sample collection and analysis made on the dates indicated. In preparing this report, SWE has relied upon, and presumed accurate, certain information provided by government authorities, the Client and others identified herein. Except as otherwise stated in the report, SWE has not attempted to verify the accuracy or completeness of any such information.

Limitations also apply to analytical methods used in the identification of substances [refer to examples a), b) and c) below]. These limitations may be due to non-homogenous material being sampled (i.e. the sample to be analysed may not be representative), low concentrations, the presence of 'masking' agents and the restrictions of the approved analytical technique. As such, non-statistically significant sampling results can only be interpreted as 'indicative' and not used for quantitative assessments.

a). Due to the very low concentration of asbestos fibres and the non-homogenous matrix of vinyl floor tiles, false negative results may be obtained. Therefore the accuracy of all results cannot be guaranteed.

b). Notably, with some asbestos containing bulk material it can be very difficult, or impossible to detect the presence of asbestos using the polarised light microscopy analytical method, even after ashing or disintegration of samples. This is due to the low grade or small length or diameter of asbestos fibres present in the material, or attributed to the fact that, very fine fibres have been distributed individually throughout the materials.

c). The analysis of many asbestos products used as a component of insulation materials, may be compromised in instances where the material has been heat affected, as heat may alter the morphology of the fibrous material.

No warranty, undertaking, or guarantee, whether expressed or implied, is made with respect to the data reported or to the findings, observation, conclusions and recommendations expressed in this report. Furthermore, such data, findings, observations, conclusions and recommendations are based solely upon the existence at the time of the investigation. The passage of time, manifestation of latent conditions or impacts of future events (e.g. changes in legislation, scientific knowledge, land uses, etc) may require further investigation at the site with subsequent data analysis and re-evaluation of the findings, observation, conclusions and recommendations expressed in this report.

This report has been prepared on behalf of and for the exclusive use of the Client, and is subject to and issued in connection with the provisions of the agreement between SWE and the Client. SWE accepts no liability or responsibility whatsoever and expressly disclaims any responsibility for or in respect of any use of or reliance upon this report by any third party or parties.

*It is the responsibility of the Client to accept if the Client so chooses any recommendations contained within and implement them in an appropriate, suitable and timely manner.*

## 13 REFERENCES

- *Work Health and Safety Act 2011.*
- *ACT Dangerous Substances Act 2004.*
- *Dangerous Substances (General) Regulation 2004.*
- *Work Health and Safety (Asbestos) Amendment Regulation 2014.*
- *AS2601 (2001) The Demolition of Structures.*
- *SafeWork Australia Code of Practice: How to Manage and Control Asbestos in the Workplace (2011).*
- *Safe Work Australia Work Health and Safety (How to Safely Remove Asbestos Code of Practice) Approval 2014.)*
- *NOHSC Guidance Note on the Membrane Filter Method for Estimating Airborne Asbestos Dust, 2nd Edition [NOHSC: 3003 (2005)]*
- *National Code of Practice for the Safe Use of Synthetic Mineral Fibres [NOHSC:2006(1990)].*
- *National Standard for Synthetic Mineral Fibres [NOHSC:1004(1990)].*
- *AS4361.1 (1995) Guide to Lead Paint Management. Part 1: Industrial Applications.*
- *AS4361.2 (1998) Guide to Lead Paint Management. Part 2: Residential and Commercial Buildings.*
- *ANZECC (1997) Identification of PCB-containing Capacitors: An Information Booklet for Electricians and Electrical Contractors.*
- *The Australian Refrigeration and Air-conditioning Code of Good Practice (HB 40.1 – 2001)*

# APPENDIX A

## Photographs

**Photograph 1: Borrowdale House.**

**Photograph 2: Basement level, plant room, boiler unit with asbestos gasket.**

**Photograph 3: Basement level, plant room, green pipework, asbestos containing gaskets.**

**Photograph 4: Basement level, spare parts store room, roll of asbestos insulated wire.**



**Photograph 5: Ground level, entire floor area, asbestos containing vinyl floor tiles and blackjack adhesive beneath carpet throughout.**

**Photograph 6: Ground level, asbestos containing vinyl floor tiles and blackjack adhesive (exposed) beneath carpet throughout.**



**Photograph 7:** Ground level, vacant office female bathroom, asbestos lagging (covered and labelled) to hot water pipes in amenities rooms.



**Photograph 8:** Level 1, asbestos containing vinyl floor tiles with asbestos containing blackjacket adhesive beneath.



**Photograph 9:** Level 1, asbestos cement ceiling lining fill panels between lights.



**Photograph 10:** Level 1, exterior balcony, asbestos containing sealant to expansion joints / tile cracks.



**Photograph 11:** Level 1, kitchenette, asbestos lagging (covered and labelled) to hot water pipes.



**Photograph 12:** Level 1, male bathroom, asbestos lagging to hot water pipes chased into wall masonry.



**Photograph 13:** Level 2, throughout entire level, asbestos cement vinyl floor tiles and blackjack adhesive beneath carpeted areas. Note also the asbestos cement fill panels to ceiling lining.



**Photograph 14:** Level 2, throughout entire level, asbestos cement vinyl floor tiles and blackjack adhesive beneath carpeted areas.



**Photograph 15:** Level 2, exterior balcony, asbestos containing putty used as sealant to expansion joints.



**Photograph 16:** Level 2, exterior balcony, asbestos containing putty used as sealant / caulking to base of window panels.



**Photograph 17:** Level 2, kitchenette, asbestos containing lagging to hot water pipes in wall.



**Photograph 18:** Level 2, kitchenette, asbestos containing lagging to hot water pipes in wall.



# **APPENDIX B**

## Certificate of Analysis