Intrusive Hazardous Materials Survey & Management Plan

Borrowdale House
Furzer Street
Phillip
ACT, 2606

November 2014

This report MUST NOT be used as a removal specification

Client: Doug Barton
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CERTIFICATE OF APPROVAL FOR ISSUE OF DOCUMENTS

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Borrowdale House
Furzer Street
Phillip, ACT, 2606

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TABLE OF CONTENTS

1 PREFACE

This Intrusive Hazardous Materials Survey and Management Plan (HMSMP) was commissioned by Doug Barton in order to assure the occupants of Borrowdale House, Phillip the highest standards of occupational health and safety in relation to hazardous materials. The safe removal of hazardous materials must be undertaken by appropriately licensed and skilled personnel prior to the demolition of the premises.

The HMSMP contains sections covering the identification, evaluation and control of hazardous materials including asbestos containing materials (ACM), Lead Paint, Polychlorinated Biphenyls (PCB), Synthetic Mineral Fibre (SMF), Refrigerants and Fuel Storage Facilities (e.g. Underground Storage Tanks).

Robson Environmental Pty Ltd commenced the intrusive hazardous material survey on 14 November 2014 and incorporates previous findings from the site hazmat report dated 19 May 2010. The information contained in this document will assist Doug Barton in fulfilling his obligations under the latest editions of the following regulations/Acts:

- *Code of Practice for the Management and Control of Asbestos in Workplaces* [NOHSC: 2018 (2005)];
- *Code of Practice for the Safe Removal of Asbestos* [NOHSC: 2002 (2005)];
- Dangerous Substances (General) Regulation 2004;
- Work Health and Safety Act 2011;
- Work Health and Safety Regulations 2011;
- Dangerous Substances Act 2004;
- *National Code of Practice for the Safe Use of Synthetic Mineral Fibre* [NOHSC:2006(1990)];
- *National Standard for Synthetic Mineral Fibres* [NOHSC:1004(1990)];
- *Guide to Lead Paint Management, Part 2: Residential and Commercial Buildings* Standards Australia, AS 4361.2 - 1998;
- *Identification of PCB-Containing Capacitors; An information Booklet for Electricians and Electrical Contractors* ANZECC 1997; and
- *The Australian Refrigeration and Air-conditioning Code of Good Practice* Standards Australia, HB 40.1 – 2001.

2 EXECUTIVE SUMMARY

2.1 Purpose

This report presents the findings of an Intrusive Hazardous Materials Survey conducted at Borrowdale House, Phillip. Robson Environmental Pty Ltd commenced this survey on the 14 November 2014 at the request of Doug Barton. The safe removal of hazardous materials must be undertaken by appropriately licensed and skilled personnel prior to the demolition of the premises. This report includes information

2.2 Scope

The Intrusive Hazardous Materials Survey undertaken at Borrowdale House was destructive and intrusive in nature. The extent of the survey was limited to the following areas:

- Interior and exterior of the building; and
- Roof, amenities and immediate surrounding land.
- UST filler points and breather vents.

The survey did not include the inspection or assessment of the following areas:

- Subterranean areas (e.g. infill/soil)
- Concealed cavities
- Formwork and subterranean electrical cable ducts and water pipe ducts

2.3 Survey Methodology

The survey involved a visual inspection of accessible, representative, construction materials and the collection and analysis of materials suspected of being potentially hazardous to human health.

Hazardous materials assessed included asbestos containing materials (ACM), synthetic mineral fibre (SMF), polychlorinated biphenyls (PCB), lead containing paint, ozone depleting substances (ODS) and fuel storage facilities, e.g. underground storage tanks (UST).

The visual site inspection performed by Robson Environmental Pty Ltd, which included the sampling of representative materials suspected of being hazardous, was undertaken in accordance with relevant Standards and Codes. The particular sampling methodology used for each hazardous materials type is provided below:

Asbestos: The asbestos materials survey was conducted in accordance with the *Code of Practice for the Management and Control of Asbestos in Workplaces [NOHSC: 2018 (2005)].* It involved a visual inspection of accessible representative construction materials suspected of containing asbestos. Materials were not sampled from all areas due to the uniformity of the materials used throughout the building(s). Samples were analysed in a National Association of Testing Authorities (NATA) accredited laboratory for the presence of asbestos by polarising light microscopy.

Lead (Pb) Based Paints: In accordance with AS4361.2-1998 representative paint samples were collected from various paint coated surfaces identified on site.

A spot sample consisting of a 25mm square of paint coating was removed using a knife to expose the base substrate. All scrapings and portions of the paint from within the square's area were collected and placed in a sealed and marked container. A total of three spot samples were collected for each suspected paint coating.

Samples were analysed for their lead (Pb) content by Envirolab Services Pty Ltd – NATA accreditation number: 2901 using ICP/AES techniques and in-house Method No.4.

Within the same building, wherever a paint coating had a similar surface texture, colour etc. to a paint coating that had already been sampled because of its suspected lead content, it was presumed that these paint coatings were identical.

SMF: Synthetic Mineral Fibre (SMF) materials were visually identified and determination made as to whether they were bonded or unbounded.

PCBs: The information (make, type, capacitance etc.) recorded for each representative fluorescent light fitting capacitor suspected of containing PCB was cross-referenced against *ANZECC Identification of PCB Containing Capacitors – Information Booklet for Electricians and Electrical Contractors - 1997*.

This identification booklet provides a list of electrical equipment that is known to contain PCBs, and a list of electrical equipment known not to contain PCBs. Where the information recorded from the capacitor case(s) correlated exactly with the information listed in the ANZECC Information Booklet for known PCB-containing capacitors it was determined that PCBs were present in the capacitor under analysis.

Wherever a capacitor could not be identified in either list, this was noted in the PCB register as being a capacitor *'Suspected to contain PCBs'* and a recommendation made that an identical capacitor be submitted for analysis to a laboratory NATA registered for PCB analysis.

Ozone Depleting Substances: Visual examination of refrigerant gas labels affixed to representative air-conditioning and refrigeration units. Information concerning the ASHRAE/ARI refrigerant designated R number was noted for later cross-reference to relevant air-conditioning and refrigeration industry Codes of Practice and Guidelines.

In addition, the condition of the plant was noted and comment made as to possible refrigerant or lubricant leaks.

Where refrigerant gas labels are absent from representative air-conditioning and refrigeration plant, an assessment is made as to the likelihood of the plant using an ozone depleting substance, based on its age and condition.

Fuel Storage Facilities: The survey included a visual inspection for above ground storage tanks (AST) and underground storage tank (UST) filler points and breather vents.

2.4 Key Findings

Asbestos

Table 1A: ACM, locations and required actions

Type	ACM	Locations	Action to be taken
Friable Asbestos	Insulation	Second floor – insulation to wet area water pipe in masonry wall	Remove prior to demolition
		First floor – kitchenette – water pipe insulation in masonry wall	Remove prior to demolition
		Ground floor – women's toilet/shower – water pipe insulation in masonry wall	Remove prior to demolition
		All kitchenettes, toilets and wet area hot water pipes set into masonry walls	Expose and remove all hot water pipes prior to demolition
		Basement Storage – insulated roll of wire	Remove prior to demolition
Bonded Asbestos	Vinyl floor tiles (VFT)	Second floor – hall electrical cupboard adj. kitchen beige vinyl floor tile	Remove prior to demolition
		Second floor – cleaners room adj. kitchen beige vinyl floor tile	Remove prior to demolition
		First floor – under carpet throughout – beige VFT with black streaks	Remove prior to demolition
		Ground floor – under carpet throughout –beige VFT with black streaks	Remove prior to demolition
		Post office – rear office space – beige with black streak VFT	Remove prior to demolition
		All VFT should be assumed to contain asbestos	Remove prior to demolition
	Sheet	Second floor – ceiling space packer sheets (assume all packers above masonry walls)	Remove prior to demolition
		Garage interior – fire hydrant closet roof top	Remove prior to demolition

Type	ACM	Locations	Action to be taken
Bonded Asbestos	Gasket	Basement plant room – rear of boiler – gasket to flue	Remove prior to demolition
	Cement pipe	Subfloor adj. garage – pipe fragment on top of soil & pipes running under building	Remove prior to demolition
	Sheet debris	Subfloor adj. garage – sheet debris on top of soil	Remove prior to demolition
	Mastic	External expansion joint to garage (assume all expansion joints)	Remove prior to demolition
Bonded Asbestos	Blackjack adhesive	Second floor - cleaners room adjacent kitchen on VFT	Remove prior to demolition
		Second floor – kitchen under blue floor covering and carpet in hallway	Remove prior to demolition
		Second floor – under carpet in SW corner	Remove prior to demolition
		First floor – under blue carpet near central a/c riser duct	Remove prior to demolition
		Post office – next to fire exit	Remove prior to demolition
		Black adhesive beneath all VFT should be assumed to contain asbestos	Remove prior to demolition
	Expansion joint	Second floor – colonnade south expansion joint to slab (assume all)	Remove prior to demolition
	Caulking	Second floor – to perimeter of external windows (assume all floors)	Remove prior to demolition
	VFT	Post Office – next to fire exit (assume all areas)	Remove prior to demolition
	Expansion joint caulking	To exterior perimeter of building (assume all expansion joints)	Remove prior to demolition

Refer to Section 2.4 - Table 1B for presumed ACM and Section 3.2 for exclusions

Table 1B: Presumed ACM, concealed locations and required actions

Type	ACM	Locations	Action to be taken
The materials listed below while not fully identified on site, should be presumed to be present in all areas until a destructive survey confirms otherwise			
Presumed ACM	Insulation/pipe lagging	Inaccessible ducts, risers and ceiling and wall space cavities	Destructive survey under controlled conditions prior to any refurbishment which is likely to disturb possible ACM in these areas. Until these areas are surveyed they should be presumed to contain asbestos. No access to unauthorised personnel should be given
	Asbestos millboard lining	Interior of air conditioning ductwork adjacent to heater elements	
	Asbestos insulation and gaskets/joints	Within mechanical equipment concealed by outer metal cladding, structure or housing	
	Asbestos vinyl floor tiles, covering, cushioning underlay and adhesive	Found beneath carpets and vinyl flooring	
	Asbestos sheeting	Backing material to ceramic tiles (Roofs, floors and walls) and packers to building construction joints, such as packing pieces	
	Asbestos cement sheet formwork and electrical cable duct / water pipe	Subterranean areas	

Prior to any planned demolition, refurbishment or maintenance, its effect upon any in situ asbestos must be established by reference to this document including amendments.

Lead Paint

The analytical results of paint sampling at Borrowdale House, Phillip revealed that there was no **lead paint (>1.0% Pb)** present.

It should be assumed that all similar paint throughout the building contains comparable percentages of lead.

Synthetic Mineral Fibre (SMF)

SMF was identified as insulation within ceiling space areas and wall cavities, and as pipe insulation. It can be assumed that all inaccessible ceiling spaces and wall cavities contain SMF.

Type	Material	Location & Material	Required action
SMF	Fibreglass	Basement & 2nd level – insulation batts in ceiling space (assume all levels)	**Remove prior to demolition were practicable**
	Fibreglass	Ground level ceiling space insulation to hot water pipes (assume all pipes)	**Remove prior to demolition were practicable**
	Fibreglass	Basement & ground level ceiling space to flexible ducting (assume all ducting)	**Remove prior to demolition were practicable**
	Fibreglass	Ground level wall cavity adjacent post office - insulation	**Remove prior to demolition were practicable**

Polychlorinated Biphenyls (PCB)

PCB containing capacitors were identified to light fittings during the survey.

Result	Make - Type	Location	Required action
PCB	AEE – FW 715	Basement storage	**Remove prior to demolition**
	AEE – FW F913	Throughout first & second level	**Remove prior to demolition**

PCB	AEE – FW F906	First & second level balcony	**Remove prior to demolition**
Non - PCB	Plessey – 102	Ground floor throughout	**Remove prior to demolition**
	ATCO	Ground floor throughout	**Remove prior to demolition**

Ozone Depleting Substances (ODS)

ODS were identified during the survey.

R Number	Location	Total	Required action
Inaccessible presume ODS	First level roof – Daikin split systems x 2 & Mitsubishi x 1	3	Remove prior to demolition
Inaccessible presume ODS	First level roof – unknown make x 2	2	Remove prior to demolition
R22	In boiler room	1	Remove prior to demolition

Above Ground Storage Tanks (AST) & Underground Storage Tanks (UST)

No UST or AST were identified during the survey.

Refer to Section 15.3 Appendix C for the management of fuel storage facilities in the ACT.

2.5 Key Recommendations

Asbestos

- It is recommended that all materials are removed prior to demolition. It should be noted that all hot water pipe insulation set into masonry walls contain asbestos.
- ACM should be reinspected annually (unless demolition occurs within 12 months) by an ACT licensed Class A Asbestos Assessor to update the risk assessment for all identified ACM.
- All vinyl floor tiles are deemed to be asbestos or contaminated and must be disposed of as asbestos waste, due to the asbestos content of the blackjack adhesives used.
- It should be presumed that any suspect materials within inaccessible areas contain asbestos until proven otherwise. Strict controls should be put in place to brief all contractors.
- ACM should be labelled with approved asbestos warning labels or signs. Due to stigma associated with asbestos and to avoid malicious damage to ACM, labelling can be kept to discrete areas. Where labelling can not be undertaken, Management must adopt strict administrative controls to ensure ACM is not subject to accidental damage.

Asbestos Remediation

Removal of ACM must be undertaken by an ACT licensed Asbestos Removalist as per the *Code of Practice for the Safe Removal of Asbestos, 2nd Edition* [NOHSC: 2002 (2005)]. The removal/remediation of friable ACM must be undertaken by a Class A ACT licensed Asbestos Removalist. Removal or remediation of bonded asbestos may be undertaken by either an A or B Class Asbestos Removalist.

Prior to the commencement of any remediation works associated with friable asbestos or greater than 10m^2 of bonded asbestos, a building certifier must be engaged and building approval sought. An asbestos removal contractor must supply an Asbestos Removal Control Plan (ARCP) and a Safe Work Method Statement (SWMS). An independent ACT licensed Class A Asbestos Assessor should be engaged to ensure that the ARCP addresses all safety issues relating to the planned asbestos works.

Air monitoring is mandatory during the removal or remediation of friable asbestos and should be considered during the removal or remediation of bonded asbestos. Air sampling is to be undertaken in accordance with the *Guidance Note on the*

Membrane Filter Method for Estimating Airborne Asbestos Fibres, 2nd Edition [NOHSC: 3003(2005)] and test certificates will be NATA endorsed.

An independent Class A Asbestos Assessor must also be employed to undertake a Clearance Inspection of both friable and bonded asbestos removal or remediation works. A satisfactory clearance of the remediated areas must ensure that no visible asbestos or presumed asbestos remains. Additionally no asbestos fibres should be detected by laboratory analysis in any validation samples. All hard surfaces within the remediated area must be free of general dust and debris.

Prior to any planned demolition, refurbishment or maintenance, its effect upon any in situ asbestos must be established by reference to this document. If the planned works are likely to disturb any asbestos materials a licensed Class A Asbestos Assessor must be engaged to reassess the premises.

SMF

- SMF materials must be removed using effective dust control procedures. Refer to Appendix D for further general information on SMF.

Lead Paint

- No lead paint was identified during the survey.

PCBs

- All capacitors containing PCBs should be removed prior to demolition and be suitably disposed of in accordance with the ACT regulatory authorities. Refer to Appendix D for the correct handling and disposal of PCB containing capacitors.

ODS

- All ozone depleting substances should be captured prior to demolition and be suitably disposed of in accordance with the ACT regulatory authorities. Refer to Appendix D for further general information on ODS.

UST

- No evidence was identified suggested that a UST was associated with the building. Refer to Appendix D for further general information on UST.

Legislation and Guidelines (UST): With regards to Section 3.2 of AS4976 (2008) *The Removal and Disposal of Underground Petroleum Storage Tanks*, it is indicated that the out-of-service period for a UST should not exceed that laid down in any applicable regulation and should not normally be greater than twelve (12) months. Also, Section 6 (Decommissioning) of the ACT EPA (2009) *Environmental Guidelines for Service Station Sites and Hydrocarbon Storage* indicates that all decommissioned tanks must be removed unless there are specific operational or structural reasons as to why they must remain. These reasons must be outlined or substantiated by an experienced and competent person.

Demolition

Robson Environmental Pty Ltd recommends that prior to any demolition, our office be contacted. Our Class A Asbestos Assessor can attend the site to observe the demolition process, advise as necessary and in the event of asbestos or other hazardous materials being located, assist with assessing the extent, type and condition of materials as required.

Robson Environmental Pty Ltd also provides a range of occupational hygiene services in relation to the removal of asbestos material as well as contaminated land advice in relation to hydrocarbon contamination.

To assist with the tendering process Robson Environmental could be engaged to attend the walkthrough to show the extent of ACM and to respond to questions of clarification.

3 INTRODUCTION

The following Intrusive Hazardous Material Survey and Management Plan (HMSMP) has been designed to address the safe control of hazardous materials. It covers current requirements for asbestos management as at 14 November 2014 only and must therefore be updated to comply with any future changes to legislative requirements. The safe removal of hazardous materials must be undertaken by appropriately licensed and skilled personnel prior to the demolition of the premises.

This HMSMP includes the following:

- a register of all identified hazardous materials;
- extent, form, condition and risks associated with nominated hazardous materials;
- labelling requirements for identified hazardous materials;
- a timetable for managing risks including priorities for removal or control of ACM and for reviewing risk assessments;
- responsibilities of all persons involved in hazardous materials management;
- procedures to address incidents or spillage involving ACM;
- safe work and removal methods; and
- guidelines on reviewing and updating the HMSMP and hazardous materials register.

3.1 Requirements for the HMSMP

This HMSMP must be held on site for ready access. All personnel undertaking any repair or maintenance work must be provided with a copy of the HMSMP before commencement of work.

Maintenance, trade and other personnel must be instructed not to remove or damage identified ACM. If ACM is identified in the area where work will be undertaken it must be removed before work begins.

Removal of ACM must be undertaken by an ACT licensed Asbestos Removalist in accordance with the *Code of Practice for the Safe Removal of Asbestos, 2nd Edition* [NOHSC: 2002 (2005)].

3.2 Exclusions

The HMSMP commissioned by the client was to be intrusive in nature.

The survey undertaken was limited to those areas available for access at the time of building inspection. Only the areas accessible to the surveyors at the time of the building inspection are included in this HMSMP.

Unless specifically noted, the survey did not cover exterior ground surfaces and sub-surfaces (e.g. infill/soil) or materials other than normal building fabric such as materials in laboratories or special purpose facilities.

At the time of survey no access was gained to materials and / or void areas located behind, above, or attached to any sampled or assumed ACM.

The HMSMP does not include the areas, locations and equipment items to which the surveyors could not gain access at the time of inspection.

Some other areas which *may* conceal asbestos include:

Material	Location
Asbestos millboard lining	Air conditioning duct work adjacent to heater elements
Asbestos insulation and gaskets/joints	Within mechanical equipment concealed by outer metal cladding
Asbestos insulation	Walls and cavities (e.g. as lagging to hot water pipes set into and sealed within masonry walls)
Vinyl floor tiles and floor covering	Beneath carpets
Sheeting	Backing material to ceramic tiles and as packers to building construction joints
Asbestos cement sheet formwork and electrical cable/water pipe duct	Sub-ground floor slab

No absolute determination can be made regarding the possibility of concealed or inaccessible hazardous materials or items in the areas, locations and equipment listed in the table above until access is gained to allow for inspection.

Materials and equipment in any non-accessed area should therefore be assumed to contain ACM, SMF, lead paint, PCB and ODS (the nominated hazardous materials) and be treated appropriately until assessment and sample analysis confirm otherwise.

Samples were not taken where the act of sampling would endanger the surveyor(s) or affect the structural integrity of the item concerned.

The presence of ACM to pipe work that is not readily visible, or that would require the full removal and replacement of overlying non-asbestos insulation to confirm, has not been investigated.

This HMSMP, although extensive, is not intended for and must not be used as a specification or method statement for any future asbestos removal project. In this instance detailed plans, quantities etc. would be required.

Before any refurbishment or hazardous material removal projects, the contractor(s) carrying out the work must fully acquaint themselves with the extent of the hazardous materials, particularly in those areas which may need full or partial demolition in order to determine the exact extent and location of such materials.

Care should be taken when demolishing or excavating to determine the existence or otherwise of hazardous materials. For example subsurface pipes and drains, revealed through excavation may be constructed of asbestos cement. Wherever a material is uncovered or revealed and it is suspected to be hazardous, it should be assumed to be hazardous and treated appropriately until such time as assessment and sample analysis of the material confirms otherwise.

Until this confirmation occurs the building work must cease in the immediate vicinity of the suspect material and a Class A Asbestos Assessor must issue a Clearance Certificate before the building work can recommence in the affected area.

To ensure contextual integrity, this HMSMP must always be read in its entirety and should never be referred to in part only.

3.3 Limitations

This report is based on the information obtained by Robson Environmental Pty Ltd at the time of building inspection. Robson Environmental Pty Ltd will not update this report; nor take into account any event(s) occurring after the time that its assessment was conducted.

As both the range and use of manufactured products containing asbestos was extremely widespread, Robson Environmental Pty Ltd cannot accept responsibility for any consequential loss or damage that results from non-recognition of a material that may later be established to contain asbestos. For example, certain textured wall and ceiling finishes may contain small traces of asbestos fibre. In situ, textured finishes are often composed of assorted batches of product, or may have been repaired/patched at various times. It is therefore always a possibility that the samples collected may not always be representative of the entire material.

While Robson Environmental Pty Ltd has taken all care and attention to ensure that this report includes the most accurate information available, it has been unable to examine any inaccessible materials or materials hidden from view.

Under normal construction practices some materials are “built in” or “randomly applied”. These materials are therefore not readily accessible and can only be exposed through demolition or damage to the structure or finishes. Access to a material may also be prevented or restricted by “in service” or operational equipment, or where to obtain access contravenes a relevant statutory requirement or code of practice. (e.g. electrical switchboards) Consequently, while all reasonable care and attention was taken in compiling this report no guarantee to its completeness can be given.

Robson Environmental Pty Ltd has taken all care to ensure that this report includes the most accurate information available, where it uses test results prepared by other persons it relies on the accuracy of the test results in preparing this report. In providing this report Robson Environmental Pty Ltd does not warrant the accuracy of such third party test results.

4 ASBESTOS SURVEY RESULTS

4.1 Survey Details

The survey of Borrowdale House, Phillip commenced 14 November 2014. The survey included all accessible areas of the buildings. For further asbestos management information, refer to Appendix D.

4.2 Survey Methodology

The survey involved a visual inspection and subsequent sampling and analysis of suspect asbestos materials in a National Association of Testing Authorities (NATA) laboratory using polarising light microscopy (PLM). Samples were a representative selection of materials suspected of containing asbestos. Samples were not taken from all areas due to the uniformity of the materials used throughout the building. Laboratory analysis certificates are presented in Appendix A.

4.3 Sample Analysis

Table 2: Mineralogical Analysis of Samples for Asbestos using PLM

Sample reference	Sample location	Sample type	Composition Asbestos type
5932 – A1	Second floor – kitchen service riser – insulation to flue	Insulation	No asbestos detected
5932 – A2	Second floor – hall electrical cupboard adj. kitchen beige vinyl floor tile	VFT	**Chrysotile Asbestos**
5932 – A3	Second floor – cleaners room adj. kitchen beige vinyl floor tile	VFT	**Chrysotile Asbestos**
5932 – A4	Second floor – insulation to wet area water pipe in masonry wall	Insulation	**Chrysotile & amosite asbestos**
5932 – A5	Second floor – ceiling space packer sheets	Sheet	**Chrysotile Asbestos**
5932 – A6	First floor – kitchen service riser – insulation to flue	Insulation	No asbestos detected

Sample reference	Sample location	Sample type	Composition Asbestos type
5932 – A7	First floor – under carpet throughout – beige VFT with black streaks	VFT	**Chrysotile Asbestos**
5932 – A8	First floor – kitchenette – water pipe insulation in masonry wall	Insulation	**Chrysotile & amosite asbestos**
5932 – A9	Ground floor – under carpet throughout –beige VFT with black streaks	VFT	**Chrysotile Asbestos**
5932 – A10	Ground floor – women's toilet/shower – water pipe insulation in masonry wall	Insulation	**Chrysotile & amosite asbestos**
5932 – A11	Garage interior – fire hydrant closet roof top	Sheet	**Chrysotile Asbestos**
5932 – A12	Basement Storage – insulated roll of wire	Insulation	**Chrysotile Asbestos**
5932 – A13	Basement plant room – front of boiler – burner gasket	Gasket	No asbestos detected
5932 – A14	Basement plant room – rear of boiler – gasket to flue	Gasket	**Chrysotile Asbestos**
5932 – A15	Basement plant room – water pipe flange joint – gasket	Gasket	No asbestos detected
5932 – A16	Basement storage room – replacement braided gaskets	Gasket	No asbestos detected
5932 – A17	Subfloor adj. garage – pipe fragment on top of soil	Cement pipe	**Chrysotile & amosite asbestos**
5932 – A18	Subfloor adj. garage – sheet debris on top of soil	Sheet	**Chrysotile Asbestos**
5932 – A19	Post office – rear office space – beige with black streak VFT	VFT	**Chrysotile Asbestos**

Sample reference	Sample location	Sample type	Composition Asbestos type
5932 – A20	External expansion joint to garage	Mastic	**Chrysotile Asbestos**
A1047	Second floor - cleaners room adjacent kitchen on VFT	Blackjack	**Chrysotile Asbestos**
A1048	Second floor – kitchen under blue floor covering and carpet in hallway	Blackjack	**Chrysotile Asbestos**
A1049a	Second floor – under carpet in SW corner	VFT	No asbestos detected
A1049b	Second floor – under carpet in SW corner	Blackjack	**Chrysotile Asbestos**
A1050	First floor – under blue carpet near central a/c riser duct	Blackjack	**Chrysotile Asbestos**
A1051	First floor – a/c solid ducting ceiling space	Mastic	No asbestos detected
A1052	Second floor – colonnade column NE of building	Caulking	No asbestos detected
A1053	Second floor – colonnade south expansion joint to slab	Expansion joint	**Chrysotile Asbestos**
A1054	Second floor – to perimeter of external windows	Caulking	**Chrysotile Asbestos**
A1055a	Post office – next to fire exit	VFT	**Chrysotile Asbestos**
A1055b	Post office – next to fire exit	Blackjack	**Chrysotile Asbestos**
A1056	To exterior perimeter of building	Expansion joint caulking	**Chrysotile Asbestos**

Sample reference	Sample location	Sample type	Composition Asbestos type
A1065	Ground floor kitchenette	VFT	No asbestos detected
A1066	External eave sheet to rear of post office	Sheet	No asbestos detected

Chrysotile	**=**	**white asbestos**
Amosite	**=**	**grey or brown asbestos**
Crocidolite	**=**	**blue asbestos**

It should be noted that the above samples were a representative selection of materials suspected of containing asbestos.

Materials were not sampled from all areas due to the consistency of the materials used throughout the premises.

On-site inspections and an examination of the building register within this report should be undertaken prior to the commencement of any asbestos removal programme.

4.4 Risk Assessment

The purpose of the risk assessment is to enable informed decisions to be made concerning the control of ACM.

As per NOHSC: 2018(2005), the risk assessment should take account of the identification information in the Asbestos Register, including:

- type of ACM (bonded or friable)
- condition and location of ACM
- whether the ACM is likely to be disturbed due to its condition and location; and
- the likelihood of exposure

Types of ACM

Bonded ACM	Bonded ACM is any material that contains asbestos bound into a stable matrix. It may consist of cement or various resins/binders and cannot be reduced to a dust by hand pressure. As such it does not present an exposure hazard unless cut, abraded, sanded or otherwise disturbed. Therefore, the exposure risk from bonded ACM is negligible during normal building occupation. *Note: if bonded ACM is damaged or otherwise deteriorated, the risk assessment must be reviewed to reflect a higher potential for exposure to asbestos fibres. A Class A Asbestos Assessor should perform the risk assessment.*
Friable ACM	Friable ACM can be crumbled or reduced to a dust by hand pressure when dry and can represent a significant exposure hazard. Examples of friable asbestos are hot water pipe lagging, severely damaged asbestos cement sheet, limpet spray to structural beams and electrical duct heater millboard.

ACM CONDITION RATING

1	**Severe**	Deteriorated surface in extremely poor condition
2	**Poor**	Deteriorated material
3	**Normal**	Stable asbestos with little damage
4	**Good**	Well sealed stable surfaces in accessible locations

ACM RISK RATING

A	**Very High**	Exposure to airborne asbestos as a consequence of extremely minor disturbance
B	**High**	Exposure to airborne asbestos likely as a consequence of significant disturbance
C	**Medium**	Exposure to airborne asbestos unlikely during normal building use
D	**Low**	No exposure to airborne asbestos during normal building use

4.5 Asbestos Register

The Asbestos Register details the type, location, risk assessment and action required for all identified ACM. The register should be accessed to inform all decisions made concerning control of ACM. Action taken to control ACM must be recorded in this register in order to comply with the *Code of Practice for the Management and Control of Asbestos in Workplaces [NOHSC: 2018(2005)]*.

Table 3A: Asbestos Register

ACM [1]	Sample No.	Item No.	Material Description & Location	Condition Rating	Risk Rating	Approx Quantity	Recommended Management Action	Action Undertaken	Assessor/ Date assessed
Friable Asbestos	5932 – A4	1	Second floor – insulation to water pipe in masonry wall	**2**	**B**	all	**Remove prior to demolition**		
	5932 – A8	2	First floor – kitchenette – water pipe insulation in masonry wall	**2**	**B**	all	**Remove prior to demolition**		
	5932 – A10	3	Ground floor – women's toilet/shower – water pipe insulation in masonry wall	**2**	**B**	all	**Remove prior to demolition**		
	5932 – A12	4	Basement Storage – insulated roll of wire	**3**	**C**	1	**Remove prior to demolition**		
Bonded Asbestos	5932 – A2	5	Second floor – hall electrical cupboard adj. kitchen beige vinyl floor tile (throughout)	**3**	**C**	~ 580m^2	**Remove prior to demolition**		

ACM [1]	Sample No.	Item No.	Material Description & Location	Condition Rating	Risk Rating	Approx Quantity	Recommended Management Action	Action Undertaken	Assessor/ Date assessed
Bonded Asbestos	5932 – A3	6	Second floor – cleaners room adj. kitchen beige vinyl floor tile	**3**	**C**	all	**Remove prior to demolition**		
	5932 – A5	7	Second floor – ceiling space packer sheets	**2**	**B**	all	**Remove prior to demolition**		
	5932 – A7	8	First floor – under carpet throughout – beige VFT with black streaks	**3**	**C**	~ 580m^2	**Remove prior to demolition**		
	5932 – A9	9	Ground floor – under carpet throughout –beige VFT with black streaks	**3**	**C**	~ 440m^2	**Remove prior to demolition**		
	5932 – A11	10	Garage interior – fire hydrant closet roof top – sheet	**3**	**C**	1m^2	**Remove prior to demolition**		
	5932 – A14	11	Basement plant room – rear of boiler – gasket to flue	**3**	**C**	1	**Remove prior to demolition**		
	5932 – A17	12	Subfloor adj. garage – pipe fragment on top of soil & pipes running under building	**2**	**B**	all	**Remove prior to demolition**		

ACM [1]	Sample No.	Item No.	Material Description & Location	Condition Rating	Risk Rating	Approx Quantity	Recommended Management Action	Action Undertaken	Assessor/ Date assessed
Bonded Asbestos	5932 – A18	13	Subfloor adj. garage – sheet debris on top of soil	**2**	**B**	all	**Remove prior to demolition**		
	5932 – A19	14	Post office – rear office space – beige with black streak VFT (throughout)	**3**	**C**	all	**Remove prior to demolition**		
	5932 – A20	15	External expansion joint to garage	**3**	**C**	all	**Remove prior to demolition**		
	A1047	16	Second floor - cleaners room adjacent kitchen - blackjack on VFT (throughout)	**3**	**C**	all	**Remove prior to demolition**		
	A1048	17	Second floor – kitchen under blue floor covering and carpet in hallway - blackjack	**3**	**C**	all	**Remove prior to demolition**		
	A1049b	18	Second floor – under carpet in SW corner - blackjack	**3**	**C**	all	**Remove prior to demolition**		
	A1050	19	First floor – under blue carpet near central a/c riser duct - blackjack	**3**	**C**	all	**Remove prior to demolition**		

ACM [1]	Sample No.	Item No.	Material Description & Location	Condition Rating	Risk Rating	Approx Quantity	Recommended Management Action	Action Undertaken	Assessor/ Date assessed
Bonded Asbestos	A1053	20	Second floor – colonnade south expansion joint to slab – expansion joint	**3**	**C**	all	**Remove prior to demolition**		
	A1054	21	Second floor – to perimeter of external windows - caulking	**3**	**C**	all	**Remove prior to demolition**		
	A1055a	22	Post office – next to fire exit - VFT	**3**	**C**	all	**Remove prior to demolition**		
	A1055b	23	Post office – next to fire exit - blackjack	**3**	**C**	all	**Remove prior to demolition**		
	A1056	24	Expansion joint caulking tot he exterior perimeter of the building	**3**	**C**	all	**Remove prior to demolition**		

1. See Section 10 Asbestos management for management options
2. RA = Referred to another sample as being the same material

Refer to Section 2.4 Table 1B for presumed ACM and Section 3.2 for exclusions

Table 3B: Register of Sampled materials (which have been confirmed as non ACM)

NON ACM SAMPLE REGISTER			
Sample number	**Item No.**	**Material**	**Locations**
5932 – A1	-	Insulation	Second floor – kitchen service riser – insulation to flue
5932 – A6	-	Insulation	First floor – kitchen service riser – insulation to flue
5932 – A13	-	Gasket	Basement plant room – front of boiler – burner gasket
5932 – A15	-	Gasket	Basement plant room – water pipe flange joint – gasket
5932 – A16	-	Gasket	Basement storage room – replacement braided gaskets
A1049a	-	VFT	Second floor – under carpet in SW corner
A1051	-	Mastic	First floor – a/c solid ducting ceiling space
A1052	-	Caulking	Second floor – colonnade column NE of building
A1065	-	VFT	Ground floor kitchenette
A1066	-	Sheet	External eave sheet to rear of post office

Refer to Section 2.4 - Table 1B for presumed ACM and Section 3.2 for exclusions

5 LEAD PAINT SURVEY RESULTS

5.1 Introduction

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.

Further, the Standard for the Uniform Scheduling of Drugs and Poisons (National Drugs and Poisons Schedule Committee July 2000) classifies paints having more than 0.25% lead as First Schedule Paint and prohibits their manufacture, supply or use.

It has been shown that the dust generated from dry sanding or abrasive blast cleaning of paints with a lead concentration of > 0.25% can have sufficient content to produce exposure levels that exceed those that define a 'lead task' in NOHSC 1012.

Therefore, paints with a lead concentration greater than 0.25% (if they are to be removed) must be treated as a lead paint (i.e. subject to the regulations in NOHSC 1012).

5.2 Results

Paint samples were collected from and analysed for lead content. Where paints were collected, samples were analysed by Envirolab – NATA accreditation number: 2901.

Table 4 presents lead composition in paints, with results presented as a percentage concentration of lead contained within the sampled materials. Despite the fact that sampling methodologies require that three (3) paint sub-samples be taken for each sampled product, only maximum values are presented below. Due to the inherent heterogeneity of lead concentrations in applied liquids this maximum reading is presented as it represents an upper level of lead concentrations throughout a heterogeneous product and aids in interpretation of risk assessment and management recommendations. For detailed results of analysed paint samples refer to Appendix A.

Table 4: Lead Composition in Paint by Inductively-Coupled Plasma Spectroscopy

Sample No.	Item No's	Sample location	Colour	Lead in Paint %
5932-P1 abc	-	Second floor – access to kitchenette – blue door paint	Blue	**<0.05**
5932-P2 abc	-	Second floor – access to kitchenette – white door frame paint	White	**<0.05**
5932-P3 abc	-	Second floor – main office space – green paint to middle riser	Green	**<0.05**
5932-P4 abc	-	Second floor – black paint to balcony handrail	Black	**0.080**

Notes:

Lead Paint **(> 1.0% Pb)**

First Schedule Paint **(> 0.25% Pb)**

Lead-free Paint **(≤ 0.25% Pb)**

5.3 Discussion and Conclusion

The analytical results of paint sampling from Borrowdale House, Phillip, revealed that there was no lead paint (>1.0% Pb) and first schedule paint (≥0.25% Pb) present. It should be assumed that all similar paint throughout the building contains comparable percentages of lead.

Refer to Appendix D for safe lead paint removal procedures.

6 Synthetic Mineral Fibre (SMF) Survey Results

6.1 Introduction

SMF is a generic term used to collectively describe a number of amorphous (non-crystalline) fibrous materials including glass fibre, mineral wool (Rockwool and Slagwool) and ceramic fibre. Generally referred to as SMF, these materials are also known as 'Man-Made Mineral Fibres' (MMMF).

SMF products are used extensively in commercial and residential buildings for thermal and acoustic insulation, and as a reinforcing agent in cement, plaster and plastic materials. In some specialised instances, SMF materials have also been used as alternatives to asbestos, especially where high temperature insulation properties are required.

There are two basic forms of SMF insulation **bonded** and **unbonded.**

The **bonded form** is where adhesives, binding agents, facing/cladding, cement or other sealants have been applied to the SMF before delivery and the SMF product has a specific shape (e.g. a binding or sealing agents hold the SMF in a batt or blanket form). Some bonded SMF materials may also be clad in various coverings on one or more sides (e.g. a silver foil backing).

The **unbonded form** has no adhesives, binding agents, facing/cladding or sealants applied, and the SMF is a loose material (e.g. wet spray and loose fill).

6.2 Results

Table 5: Visual Assessment of Samples

Sample Reference	Item No	Sample Location	Sample Type	Form
5932 – S1	SMF1	Basement & second level – insulation batts in ceiling space	Fibreglass	Unbonded
5932 – S2	SMF2	Ground level ceiling space insulation to pipe	Fibreglass	Unbonded
5932 – S3	SMF3	Basement & ground level ceiling space to flexible ducting	Fibreglass	Unbonded
5932 – S4	SMF4	Ground level wall cavity adjacent post office	Fibreglass	Unbonded

6.3 Conclusion

SMF was identified as insulation within ceiling space areas in the basement & second level. In the ground level ceiling space an insulated pipe was identified. The basement and ground level ceiling space contains flexible insulated ducting. It should be presumed that similar materials are present to any inaccessible areas.

- If building works is likely to significantly disturb the insulation, the SMF materials should be removed using effective dust control procedures.

Refer to Appendix D for safe SMF handling and removal procedures.

7 POLYCHLORINATED BIPHENYLS (PCB) SURVEY RESULTS

7.1 Introduction

PCB is the common name for polychlorinated biphenyls. PCBs range in appearance from colourless, oily liquids to more viscous and increasingly darker liquids, to yellow then black resins, depending on the chlorine content of the PCB.

PCBs are chemically stable synthetic compounds that do not degrade appreciably over time or with exposure to high temperatures. The major use of PCBs was as an insulating fluid inside transformers and capacitors. Capacitors containing PCBs were installed in various types of equipment including domestic appliances, motors and fluorescent light fittings during the 1950's, 60's and 70's.

These applications generally do not present an immediate risk to human health or the environment as the equipment is sealed and contains relatively small amounts of PCB. The equipment can continue to be used safely provided that the capacitors do not leak.

The Australian and New Zealand Environment and Conservation Council (ANZECC) in its *PCB Management Plan* of *2003* stipulate cessation dates for the generation of PCB scheduled waste, the use of articles containing PCB scheduled waste, and the disposal of PCB scheduled waste*.

* PCB scheduled waste means any PCB material that has no further use that contains PCBs at levels at, or in excess of 50mg/kg and is of a quantity of 50g or more.

Small equipment items and capacitors found in households and commercial buildings that contain scheduled PCBs (i.e. at or in excess of 50mg/kg) are to be disposed of as scheduled PCB waste. Where the aggregate weight of the items or capacitors exceeds 10kg, they must be notified to the relevant Commonwealth, State or Territory Government agency prior to their disposal.

7.2 Results

Representative samples of fluorescent light fittings were inspected for PCB capacitors. Three types of PCB containing capacitors were identified during the survey.

Table 6: PCB and Non-PCB Containing Capacitors Identified During Survey

Result	Item No	Location	Make - Type	Capacitance (µF)	Remarks
PCB	PCB1	Basement storage	AEE – FW 715	7 ± 10%	Remove prior to demolition
	PCB2	Throughout first & second level	AEE – FW F913	6 ± 10%	Remove prior to demolition

PCB	PCB3	First & second level balcony	AEE – FW F906	6 ± 10%	Remove prior to demolition
Non-PCB	-	Ground floor throughout	Plessey – 102	8 ± 10%	No action required
	-	Ground floor throughout	ATCO	8 ± 10%	No action required

For further PCB management information refer to Appendix D.

8 OZONE DEPLETING SUBSTANCES SURVEY RESULTS

The Site was surveyed for the presence of air conditioning and refrigeration units that contain ozone depleting substances.

ODS 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.

The ozone depletion potential (ODP) of a fluorocarbon refrigerant gas, its global warming potential (GWP) and estimated atmospheric life (EAL) all contribute to its potential to deplete the stratospheric ozone layer and enhance the greenhouse effect (leading to global warming).

Chlorofluorocarbons (CFCs) contain chlorine and possess a large ODP, high GWP and long EAL. They are generally found in refrigeration and air-conditioning systems e.g. Centrifugal Chillers.

Hydrochlorofluorocarbons (HCFCs) are less saturated with chlorine than are CFCs and the hydrogen within these compounds give the HCFCs a much shorter EAL and lower ODP. They are generally found in refrigeration systems that are used for food display, cold stores and self contained, split, multi-split and central plant chillers used for building air-conditioning.

Hydrofluorocarbons (HFCs) are a class of replacement gases for CFCs. They do not contain chlorine or bromine and therefore do not deplete the ozone layer. While all HFCs have an ODP of zero, some do have a high GWP (e.g. R-404A, R-407B, R-125 etc).

Halons are synthetic chemical compounds that contain one or two carbon atoms, bromine and other halogens. They have a long atmospheric lifetime and cause very aggressive ozone depletion when breaking down in the stratosphere. Halons were introduced into Australia as fire-extinguishing agents in the early 1970s and quickly replaced many previously accepted fire-fighting products because of their superior fire-extinguishing characteristics and ease of use.

Halon 1211 was commonly used in portable fire extinguishers, while fixed fire protection systems, such as those that protect computer rooms and ship engine rooms, commonly contained Halon 1301.

Halon 1301 has an ODP that is 10 times greater that of CFCs, while Halon 1211 has an ODP 3 times greater than that of CFCs.

8.1 Results

Ozone Depleting Substances (ODS) were located during the survey.

Table 7: Chemical Properties of ODS & non-ODS located during survey

Item No	Location	R Number	Chemical name	ODP	GWP	EAL
Ozone Depleting Substances						
ODS1	First level roof – Daikin split systems x 2 & Mitsubishi x 1		Inaccessible presume ODS			
ODS2	First level roof – unknown make x 2		Inaccessible presume ODS			
ODS3	In boiler room	R22				
Non-Ozone Depleting Substances						

For further refrigerant management information refer to Appendix D.

9 FUEL STORAGE FACILITIES & DANGEROUS GOODS RESULTS

It is important to note that prior to the introduction of natural gas in the ACT in the 1980's, commercial premises generally utilised heating systems where boilers were fuelled by diesel or heating oils which were stored in USTs.

9.1 Results

No UST's were identified during the survey.

Refer to Appendix D for the management of fuel storage facilities in the ACT.

10 ASBESTOS MANAGEMENT

10.1 Control Measures

General requirements

- ACM identified as representing an exposure risk (see Table 3A Asbestos Register) should be removed or otherwise controlled.
- Any ACM that is not scheduled for immediate removal should be labelled with appropriate warnings and maintained in good condition.
- The location of ACM must be entered into the Asbestos Register.
- Maintenance and other personnel must be made aware of the location of ACM.
- The Asbestos Register must be freely available.
- Unless they have valid ACT Asbestos Removal licence, maintenance workers, trades or occupants shall not remove or knowingly damage identified ACM.
- Before any planned demolition, refurbishment or maintenance, its effect upon any in situ asbestos must be established by reference to this document, including amendments.

Accidental damage to ACM

If ACM is damaged or degraded through accident, ageing or misuse, the building manager should apply the following protocols.

- Determine if the damage is likely to affect nearby occupants through the release of asbestos dust (this may require advice from a licensed Class A Asbestos Assessor).
- Gently wet down the damaged section and cover with a heavy plastic sheet or equivalent to encapsulate the ACM. Close nearby windows if the ACM is to the exterior.
- If the damage is significant (i.e. the material is shattered or abraded) the ACM should be replaced as soon as is practicable. Minor damage (i.e. small cracks or holes) may be repaired in the short term using a sealant. All repairs or removal must be undertaken by a licensed Asbestos Removalist.
- Register the event in the HMSMP.

10.2 Management of ACM

The options for short to medium-term management of ACM are outlined below.

1. Defer action

✓ Appropriate when	× Not appropriate when	✓ Advantages	× Disadvantages
Negligible risk of exposure ***and*** Asbestos inaccessible and fully contained ***or*** Asbestos stable and not liable to damage	Possibility of deterioration or damage Airborne dust exceeds recommended exposure standard	No initial cost Cost of removal deferred	Hazard remains Need for continuing assessment Asbestos management program required

2. Encapsulate or seal[1]

✓ Appropriate when	× Not appropriate when	✓ Advantages	× Disadvantages
Removal difficult or not feasible Firm bond to substrate Damage unlikely Short life of structure	Asbestos deteriorating Application of sealant may cause damage to material Water damage likely Large areas of damaged asbestos	Quick and economical for repairs to damaged areas May be an adequate technique to control release of asbestos dust	Hazard remains Cost for large areas may be near removal cost Asbestos management system required Eventual removal may be more difficult and costly

1. Seal through application of paint, lacquer or PVA spray

3. Removal

✓ Appropriate when	× Not appropriate when	✓ Advantages	× Disadvantages
Surface friable or asbestos poorly bonded to substrate Asbestos is severely water-damaged or liable to further damage or deterioration Located in air conditioning duct Airborne asbestos exceeds recommended exposure standard Other control techniques inappropriate	Located on complex and inaccessible surfaces Removal extremely difficult and other techniques offer satisfactory alternative	Hazard removed No further action required	Increases immediate risk of exposure especially to removal workers Creates major disturbance in building Often highest cost, most complex and time-consuming method Removal may increase fire risk in building; substitute required Possible contamination of whole building if removal is done poorly

10.3 Management Decision Record

Option 1: Defer action

Item no.	ACM and Location	Reason	Authorisation	Date

Option 2: Encapsulate or seal

Item no.	ACM and Location	Reason	Authorisation	Date

Option 3: Removal

Item no.	ACM and Location	Reason	Authorisation	Date

10.4 Timetable for Action

The timetable for action should be administered to ensure management has a clear plan for all works which may affect ACM in the workplace. This includes maintenance work, scheduled removal work and risk assessment reviews, which may impact ACM.

Table 8: Timetable for action

ACM removal/ work	Date of scheduled works	Details	Authorisation	Date
Asbestos review/audit	**Date of scheduled review**	**Details**	**Authorisation**	**Date**

11 RESPONSIBILITIES

11.1 Asbestos - Provision of Information

The building manager must:

- ensure the ACM register and all relevant information pertaining to asbestos in the workplace is freely available upon request
- provide occupants with up-to-date information relating to the condition and relative risk of ACM in the workplace
- provide information on the control measures in place to contain ACM-related risk, and
- provide information to staff and contractors on measures to be taken to ensure that they are not exposed to asbestos in the workplace, either through accident or negligence.

Management Action Record

Record all communication activities undertaken to inform staff/occupants of ACM in the workplace.

Action	Authorisation	Date

11.2 Updating the Risk Assessment

The *Code of Practice for the Management and Control of Asbestos in Workplaces* [NOHSC: 2018 (2005)] Section: 9.3.1 requires:

The register of ACM, including any risk assessments, should be reviewed every 12 months or earlier where:

- a risk assessment indicates the need for reassessment; or
- any ACM has been disturbed or moved

A visual inspection of identified ACM should be undertaken as part of any review.

The Dangerous Substances (General) Regulations 2004 requires the review of the Asbestos Survey Management Plan to be carried out at intervals determined by the criteria set out in Chapter 3, Part 3.4, Section 326 of the Dangerous Substances (General) Regulations 2004; the maximum interval being 5 years. The new requirements state that an Asbestos Management Plan and Risk Assessments are required in addition to an Asbestos Register and Survey. Class A Asbestos Assessors at Robson Environmental Pty Ltd are able to produce these documents to comply with your obligations.

Each review should critically assess all asbestos management procedures and their effectiveness in:

- preventing exposure to asbestos fibres
- controlling access to asbestos
- highlighting the need for action to maintain or remove ACM, and
- maintaining the accuracy of the ASMP.

Details of any mitigating actions must be recorded in the Asbestos Register (Refer Table 3A).

11.3 Key Personnel

This section outlines the responsibilities of all persons involved in the safe management of ACM.

1. Building manager

Name:	
Contact details:	
Responsibilities:	*E.g. provision of information*

2. Occupational Health and Safety Representative

Name:	
Contact details:	
Responsibilities:	*E.g. keeping occupants informed of any changes to the status of ACM in the workplace*

3. Facilities Management (if applicable)

Name:	
Contact details:	
Responsibilities:	*E.g. arrange removal and repair works as required; maintaining the HMSMP*

4. Other

Name:	
Contact details:	
Responsibilities:	

12 ASBESTOS REMOVAL WORKS

12.1 Management Responsibilities

Where it has been determined that ACM is to be removed, management or the client must ensure that a risk assessment is performed before the removal work commences and that the removalist takes this risk assessment into account. The risk assessment must include the possibility of uncovering previously concealed ACM, and that concealed ACM is subsequently identified by a Class A Asbestos Assessor.

The client should provide a detailed scope of works prepared by a Class A Asbestos Assessor for the removalist, including potential hazards, details on areas, which contain asbestos and arrangements for clearance inspections and airborne fibre monitoring.

NOHSC: 2018(2005) describes the minimum requirements to be observed during any asbestos removal operation.

12.2 Removalist Responsibilities

Before the commencement of removal work, the licensed removal contractor must:

- Provide a site-specific Asbestos Removal Control Plan(ARCP)
- Ensure the removal is adequately supervised and carried out in a safe manner
- Ensure that the equipment used in the project is appropriate for the task
- Ensure all persons carrying out the removal are competent and trained for the type of work being carried out, and
- Demonstrate that they have a health surveillance program in accordance with the requirements of NOHSC: 2002(2005).

12.3 Licensing Requirements

All Asbestos Removalists in the ACT are licensed by the ACT Planning and Land Authority (ACTPLA).

As a minimum the holder of an ACT Asbestos Removal Licence is required to demonstrate practical experience in the industry for at least three years and possess a full and complete understanding of the requirements of:

- *Code of Practice for the Management and Control of Asbestos in Workplaces* [NOHSC: 2018 (2005)]
- *Code of Practice for the Safe Removal of Asbestos* [NOHSC: 2002 (2005)]

- Work Health and Safety Act 2011;
- Work Health and Safety Regulations 2011;
- ACT Dangerous Substances Act 2004;
- Dangerous Substances (General) Regulation 2004.

ACTPLA specify requirements for authorising certifiers and builders as well as the respective requirements of ACT WorkSafe and ACT NOWaste for the removal and transport of ACM.

12.4 Approval to Begin Asbestos Removal Works

- All removal methods and procedures are required to be undertaken in accordance with NOHSC: 2002(2005).
- Building management in conjunction with a licensed Class A Asbestos Assessor where required, will inform the asbestos removalist of the 'Scope of Works'.
- The licensed Class A Asbestos Assessor will be required to provide a clearance certificate on satisfactory completion of the works.

12.5 Work in Areas Containing Asbestos – Trades Personnel

- Work must not proceed under any circumstance without first contacting the building manager or authorised person.
- Refer to this HMSMP (including amendments) to determine if asbestos material is likely to be encountered in the general work area. If no asbestos is located in the area of intended work, the area may be entered by all relevant personnel on an unrestricted basis.
- Work in areas where asbestos will or is likely to be disturbed will only be given to persons licensed by ACTPLA and all access and works will be undertaken in accordance with the requirements of NOHSC: 2002(2005).

12.6 Emergency Work in Areas Containing Asbestos

- If emergency access is required contact the building manager.
- If the building manager determines that asbestos is likely to be disturbed, all works must be undertaken in accordance with the requirements of NOHSC: 2002(2005) that is, a licensed Asbestos Removalist must be contracted to undertake any asbestos removal works.
- A licensed Class A Asbestos Assessor will be required to provide a clearance certificate on satisfactory completion of the works.

12.7 Monitoring Arrangements

Control air monitoring should be performed when indicated by a Risk Assessment to ensure the control measures are effective.

All air monitoring must be performed by a competent person accredited by the National Association of Testing Authorities (NATA) to perform air sampling for asbestos. Sampling should be performed in accordance with the *Guidance Note on the Membrane Filter Method for Estimating Airborne Asbestos Fibres* [NOHSC: 3003 (2005)].

It is the Asbestos Removalist's responsibility to ensure that the maximum fibre levels throughout asbestos removal and associated works does not equal or exceed the minimum practical detection limit of 0.01 fibres per millilitre of air (F/mL). If the airborne fibre levels are observed at or exceeding those specified below, the licensed Class A Asbestos Assessor will instruct the contractor to take the appropriate control /action as per NOHSC:2002(2005).

Table 9: Control levels and required actions

Control Level (airborne asbestos fibres/mL)	Control/Action
< 0.01	Continue with control measures
≥ 0.01	Review control measures
≥ 0.02	Stop removal work and find the cause

Source: [NOHSC: 2002(2005)]

12.8 Clearance Inspections

Following removal work, a licensed Class A Asbestos Assessor must undertake a clearance inspection before re-occupation of an asbestos work area.

All barriers and warning signs should remain in place until the area has been cleared.

12.9 ACM removal/maintenance record

The Asbestos Register, Section 4.5, Table 3A is to be completed by the building manager after receiving appropriate clearance certification from a licensed Class A Asbestos Assessor.

The 'Work Performed' and 'Asbestos Control Measure' Tables on the following page are required to be completed by the building manager.

1. **Work Performed**

Company name	Contact details	Date of work + job no.	Scope of work

2. Asbestos Control Measures

Work performed	Air monitoring/ decontamination	Clearance certificate issued	Other

3. Additional Information

13 SAFE ASBESTOS REMOVAL PROCEDURES

13.1 Friable ACM

The licensed Asbestos Removalist must provide a 'Safe Work Method Statement' (SWMS) and an 'Asbestos Removal Control Plan' (ARCP). An overview of the basic requirements for removal of friable ACM is provided here. Should any removal of friable asbestos be undertaken, specific work practices will be required.

Wet Removal

i. Obtain approval from the building manager to begin asbestos removal works.

ii. Inform the building occupants of intended asbestos removal works.

iii. Relocate all occupants in immediate and adjacent areas affected by the works.

iv. Rope or barricade the area adjacent to the removal area and place appropriate signage at the perimeter of the area for the removal of friable ACM.

v. Set up the removal area with appropriate materials (plastic, tape, etc.) and decontamination area to enable effective control of dust generated during removal of the friable asbestos (i.e. negative air units and wet decontamination facilities would be required for this type of removal).

vi. Protective clothing and a full face Power Air Purifying Respirator (PAPR) with a fitted P3 particulate filter (cartridge) respirator conforming to AS/NZS 1715:2009, a compressor with appropriate filters, airlines and associated equipment must be used during bulk removal of ***dry friable*** ACM. A particulate filter (P2 cartridge) powered air purifying respirator – (PAPR) conforming to AS/NZS 1715:2009 may be worn during wet removal and at the final clean and vacuuming stage.

vii. The ACM must be kept moist with a water mist spray during the removal of the material except where an electrical hazard exists.

viii. Hand tools are preferred over power tools, and high-speed abrasive power tools should not be used. If low-speed power tools are used they should be fitted with local exhaust ventilation dust control. The ARCP must detail the proposed decontamination method when power tools are to be used within the removal area.

ix. Removed asbestos and other materials are to be packed into plastic bags or containers marked as asbestos waste.

x. Asbestos products must not be re-used.

xi. All surfaces within the removal area to be thoroughly vacuumed to remove any asbestos residue.

xii. All surfaces must be Polyvinyl Acetate (PVA) sprayed to seal any microscopic asbestos fibres or wet-wiped (oil/solvent or water-soaked rag) to remove asbestos fibres.

xiii. Remove all asbestos containing material and all asbestos contaminated material from site for disposal in the approved manner.

xiv. Obtain a visual clearance certificate from a licensed Class A Asbestos Assessor.

Note: Air monitoring is required during the removal of friable ACM. The locations and frequency should be determined by a licensed Class A Asbestos Assessor.

13.2 Bonded ACM

The ACT licensed Asbestos Removalist must provide a SWMS and an ARCP. An overview of the basic requirements for removal of bonded ACM is provided here.

i. Obtain approval from the building manager to begin asbestos removal works.

ii. Inform the building occupants of intended asbestos removal works.

iii. Relocate all occupants in immediate and adjacent areas.

iv. Rope or barricade adjacent to the removal area and place appropriate signage at the perimeter.

v. Set up the removal and decontamination areas with appropriate materials (plastic, tape, etc.) to enable effective control of dust generated during removal of bonded ACM.

vi. Using protective clothing and a half face particulate filter (cartridge) respirator conforming to AS/NZS 1715:2009 remove ACM.

vii. Hand tools are preferred over power tools and high-speed abrasive power tools should not be used. If low-speed power tools are used they should be fitted with local exhaust ventilation dust control. Asbestos cement sheeting should be wetted during removal where safe.

viii. Removed contaminated materials are to be packed into disposal crates or wrapped in plastic sheeting.

ix. Asbestos products must not be re-used.

x. All surfaces within the removal area to be thoroughly vacuumed to remove any asbestos residue.

xi. All surfaces must be Polyvinyl Acetate (PVA) sprayed to seal any microscopic asbestos fibres or wet-wiped (oil/solvent or water-soaked rag) to remove asbestos fibres.

xii. Remove all asbestos containing material and all asbestos contaminated material from site for disposal in the approved manner.

xiii. Obtain a visual Clearance from a licensed Class A Asbestos Assessor.

Note: Air monitoring *may* be required during the removal of bonded ACM. The need frequency and location should be determined by a licensed Class A Asbestos Assessor.

14 FURTHER INFORMATION

14.1 Useful Contacts

Additional information on asbestos can be obtained from the following organisations and agencies.

ACT Planning & Land Authority (ACTPLA)	Ground floor Mitchell Business Centre 160 Lysaght Street Mitchell ACT 2911 Phone: 02 6207 1923 Internet: www.actpla.act.gov.au Ground floor north Dame Pattie Menzies House 16 Challis Street Dickson ACT 2602 Phone: 02 6207 6309 Internet: www.actpla.act.gov.au
ACT Government	Phone: 13 22 81 Internet: www.asbestos.act.gov.au
ACT Work Safe	255 Canberra Avenue Fyshwick ACT 2609 Phone: 02 6205 0200 Email: worksafe@act.gov.au Internet: www.**worksafe.act**.gov.au

15 APPENDICES

15.1 APPENDIX A – Laboratory Reports

Asbestos

Robson ENVIRONMENTAL
Effective Environmental Solutions

140 Gladstone Street
Fyshwick ACT 2609
P: 02 6239 5656 F:02 6239 5669
E: fibreid@robsonenviro.com.au
W: www.robsonenviro.com.au

Fibre Identification Certificate of Analysis

Report Number: 5932-01 Date of Report: 24.11.2014 Samples Taken by: Robson Environmental Page 1 of 2

Client Details		Laboratory Details	
Client:	Doug Barton	Address:	140 Gladstone Street, Fyshwick, Canberra 2609
Attention:	Doug Barton	Manager:	Ged Keane
Received:	14.11.2014	Telephone:	02 6239 5656
Client Reference:	Borrowdale House, Phillip, ACT	Fax:	02 6239 5669
Email:	N/A	Email:	hazmat@robsonenviro.com

Test Specification(s) Employed: AS4964 (2004) & In-House Procedure No.2

Methodology Summary

Samples of material are examined to determine the presence of asbestos fibres using AS4964 (2004) & In-House Procedure No.2 i.e. Qualitative identification of chrysotile, amosite and crocidolite in bulk samples by **Polarised Light Microscopy** (**PLM**) in conjunction with **Dispersion Staining** (**DS**). Unequivocal identification of asbestos minerals present is made by assessing fibre properties to see whether the values are typical and consistent with published data. This provides a reasonable degree of certainty to determine whether a fibre under investigation is asbestiform or not. Careful application of the test procedure provides sufficient diagnostic clues to allow unequivocal identification of asbestos types, and so, to determine whether a sample contains asbestos or not. If sufficient diagnostic clues are absent, then positive identification of fibrous asbestos is not possible.

Client Supplied Samples

Robson Environmental is not responsible for the accuracy or competence of sampling carried by third parties. Sample location(s) and/or sample type(s) of third party samples delivered to the laboratory are given by the client at the time of delivery. Under these circumstances, Robson Environmental cannot be held responsible for the interpretation of the results shown. When the test certificate indicates that bulk samples were taken by the client, they are outside the scope of our NATA Accreditation for sampling. Robson Environmental takes responsibility of information reported only when a staff member takes the sample(s).

Reporting of Results

'Asbestos Detected': Asbestos detected by **Polarised Light Microscopy** (PLM), including **Dispersion Staining** (**DS**)
'No Asbestos Detected': No Asbestos detected by **Polarised Light Microscopy** (PLM), including **Dispersion Staining** (**DS**)
'UMF Detected': Mineral fibres of unknown type detected by **Polarised Light Microscopy** (PLM), including **Dispersion Staining** (**DS**). Confirmation by another independent analytical technique may be necessary.
"Hand-picked" refers to small discrete amounts of asbestos unevenly distributed in a large body of non-asbestos material.

Limit of Detection & Reporting Limit

Known limitations of the test procedure using **Polarised Light Microscopy** (**PLM**) are:

- **PLM** is a qualitative technique only;
- It does not cover identification of airborne or water-borne asbestos;
- The less encountered asbestos mineral fibres actinolite, anthophyllite and tremolite exhibit a wide range of optical properties that preclude unequivocal identification by **PLM** and **Dispersion Staining** (DS). Thus, the method is used to positively identify the three major asbestos minerals: amosite ("brown"), chrysotile ("white") and crocidolite ("blue");
- Valid identification requires that the sample material contains a sufficient quantity of the unknown fibres in excess of the practical detection limit used (in this case, **PLM** and **Dispersion Staining**, which has a calculated practical detection limit of 0.01-0.1% equivalent to 0.1-1g/kg (AS4946-2004:App. A4).

Results relate only to the sample(s) submitted for testing.
Test report must not be reproduced except in full.
Test report **Accredited for compliance with ISO/IEC 17025**

Sample No.	Client Ref.	Location	Physical Structure	Sample Description	Analysis of Fibrous Content
A1047	N/A	Second floor - cleaners room adjacent kitchen on VFT	Blackjack	5 grams	Chrysotile Asbestos Detected
A1048	N/A	Second floor – kitchen under blue floor covering and carpet in hallway	Blackjack	5 grams	Chrysotile Asbestos Detected
A1049a	N/A	Second floor – under carpet in SW corner	VFT	7 grams	No Asbestos Detected
A1049b	N/A	Second floor – under carpet in SW corner	Blackjack	7 grams	Chrysotile Asbestos Detected

Morgan Leech
Robson Approved Identifier

NATA
No. 3181

Morgan Leech
Robson Approved Signatory

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

Table 5 to Procedure No. 2

Fibre Identification Certificate of Analysis

Laboratory Report Number: 5932-01 **Analyst:** Morgan Leech **Page** 2 of 2

Sample No.	Client Ref.	Location	Physical Structure	Sample Description	Analysis of Fibrous Content
A1050	N/A	First floor – under blue carpet near central a/c riser duct	Blackjack	5 grams	Chrysotile Asbestos Detected
A1051	N/A	First floor – a/c solid ducting ceiling space	Mastic	4 grams	No Asbestos Detected
A1052	N/A	Second floor – colonnade column NE of building	Caulking	3 grams	No Asbestos Detected
A1053	N/A	Second floor – colonnade south expansion joint to slab	Expansion joint	3 grams	Chrysotile Asbestos Detected
A1054	N/A	Second floor – to perimeter of external windows	Caulking	2 grams	Chrysotile Asbestos Detected
A1055a	N/A	Post office – next to fire exit	VFT	10 grams	Chrysotile Asbestos Detected
A1055b	N/A	Post office – next to fire exit	Blackjack	10 grams	Chrysotile Asbestos Detected

Morgan Leech
Robson Approved Identifier

NATA
No. 3181

Morgan Leech
Robson Approved Signatory

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

Table 5 to Procedure No. 2

Effective Environmental Solutions

140 Gladstone Street
Fyshwick ACT 2609
P: 02 6239 5656 F:02 6239 5669
E: fibreid@robsonenviro.com.au
W: www.robsonenviro.com.au

Fibre Identification Certificate of Analysis

Report Number: 5932-01 Date of Report: 25.11.2014 Samples Taken by: Robson Environmental Page 1 of 1

Client Details		Laboratory Details	
Client:	Doug Barton	Address:	140 Gladstone Street, Fyshwick, Canberra 2609
Attention:	Doug Barton	Manager:	Ged Keane
Received:	18.11.2014	Telephone:	02 6239 5656
Client Reference:	Borrowdale House	Fax:	02 6239 5669
Email:	N/A	Email:	hazmat@robsonenviro.com

Test Specification(s) Employed: AS4964 (2004) & In-House Procedure No.2

Methodology Summary

Samples of material are examined to determine the presence of asbestos fibres using AS4964 (2004) & In-House Procedure No.2 i.e. Qualitative identification of chrysotile, amosite and crocidolite in bulk samples by **Polarised Light Microscopy** (**PLM**) in conjunction with **Dispersion Staining** (**DS**). Unequivocal identification of asbestos minerals present is made by assessing fibre properties to see whether the values are typical and consistent with published data. This provides a reasonable degree of certainty to determine whether a fibre under investigation is asbestiform or not. Careful application of the test procedure provides sufficient diagnostic clues to allow unequivocal identification of asbestos types, and so, to determine whether a sample contains asbestos or not. If sufficient diagnostic clues are absent, then positive identification of fibrous asbestos is not possible.

Client Supplied Samples

Robson Environmental is not responsible for the accuracy or competence of sampling carried by third parties. Sample location(s) and/or sample type(s) of third party samples delivered to the laboratory are given by the client at the time of delivery. Under these circumstances, Robson Environmental cannot be held responsible for the interpretation of the results shown. When the test certificate indicates that bulk samples were taken by the client, they are outside the scope of our NATA Accreditation for sampling. Robson Environmental takes responsibility of information reported only when a staff member takes the sample(s).

Reporting of Results

'Asbestos Detected': Asbestos detected by **Polarised Light Microscopy** (PLM), including **Dispersion Staining** (**DS**)
'No Asbestos Detected': No Asbestos detected by **Polarised Light Microscopy** (PLM), including **Dispersion Staining** (**DS**)
'UMF Detected': Mineral fibres of unknown type detected by **Polarised Light Microscopy** (PLM), including **Dispersion Staining** (**DS**). Confirmation by another independent analytical technique may be necessary.
"Hand-picked" refers to small discrete amounts of asbestos unevenly distributed in a large body of non-asbestos material.

Limit of Detection & Reporting Limit

Known limitations of the test procedure using **Polarised Light Microscopy** (**PLM**) are:

- **PLM** is a qualitative technique only;
- It does not cover identification of airborne or water-borne asbestos;
- The less encountered asbestos mineral fibres actinolite, anthophyllite and tremolite exhibit a wide range of optical properties that preclude unequivocal identification by **PLM** and **Dispersion Staining** (DS). Thus, the method is used to positively identify the three major asbestos minerals: amosite ("brown"), chrysotile ("white") and crocidolite ("blue");
- Valid identification requires that the sample material contains a sufficient quantity of the unknown fibres in excess of the practical detection limit used (in this case, **PLM** and **Dispersion Staining**, which has a calculated practical detection limit of 0.01-0.1% equivalent to 0.1-1g/kg (AS4946-2004:App. A4).

Results relate only to the sample(s) submitted for testing.
Test report must not be reproduced except in full.
Test report **Accredited for compliance with ISO/IEC 17025**

Sample No.	Client Ref.	Location	Physical Structure	Sample Description	Analysis of Fibrous Content
A1056	N/A	To exterior of building	Expansion joint caulking	5g	Chrysotile Asbestos Detected
A1065	N/A	Ground floor kitchenette	VFT	15g	No Asbestos Detected
A1066	N/A	External eave sheet to rear of post office	Sheet	<1g	No Asbestos Detected

Morgan Leech
Robson Approved Identifier

NATA
No. 3181

Morgan Leech
Robson Approved Signatory

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

Table 5 to Procedure No.2

Envirolab Services Pty Ltd
ABN 37 112 535 645
12 Ashley St Chatswood NSW 2067
ph 02 9910 6200 fax 02 9910 6201
enquiries@envirolabservices.com.au
www.envirolabservices.com.au

CERTIFICATE OF ANALYSIS 41104

Client:
Robson Environmental Pty Ltd
PO Box 112
Fyshwick
ACT 2609

Attention: Brendan Merry

Sample log in details:

Your Reference:	**5932, Borrowdale House Phillip**
No. of samples:	20 Materials
Date samples received:	18/05/10
Date completed instructions received:	18/05/10

Analysis Details:
Please refer to the following pages for results and methodology summary.
Samples were analysed as received from the client. Results relate specifically to the samples as received.
Note, even after disintegration it can be difficult to detect the presence of asbestos in some asbestos -containing bulk materials using PLM and dispersion staining. This is due to the low grade or small length or diameter of the asbestos fibres present in the material, or to the fact that very fine fibres have been distributed intimately throughout the materials. Vinyl/asbestos floor tiles, some asbestos containing epoxy resins and some ore samples are examples of these types of material, which are difficult to analyse.

Report Details:

Date results requested by:	21/05/10
Date of Preliminary Report:	Not issued
Issue Date:	20/05/10

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This document is issued in accordance with NATA's accreditation requirements.
Accredited for compliance with ISO/IEC 17025. **Tests not covered by NATA are denoted with *.**

Results Approved By:

Asbestos was analysed by Approved Identifier:	Matt Mansfield
Asbestos was authorised by Approved Signatory:	Matt Mansfield

Matt Mansfield
Approved Signatory

NATA
ACCREDITED FOR TECHNICAL COMPETENCE

Envirolab Reference: 41104
Revision No: R 00

Client Reference: 5932, Borrowdale House Phillip

Envirolab Ref: --	Sample ID: --	Date analysed -	Sample Description -	Asbestos ID in materials -
41104-1	5932-A1	19/05/2010	80x50x10mm Powdery fibre insulation	No asbestos detected
41104-2	5932-A2	19/05/2010	60x45x3mm Tiles and bituminous adhesive	Chrysotile asbestos detected
41104-3	5932-A3	19/05/2010	70x43x3mm Various tiles and adhesive	Chrysotile asbestos detected
41104-4	5932-A4	19/05/2010	15x10x10x<1mm Loose powdery insulation	Chrysotile asbestos detected Amosite asbestos detected
41104-5	5932-A5	19/05/2010	65x53x4mm Fibre cement sheet	Chrysotile asbestos detected
41104-6	5932-A6	19/05/2010	20x15x<1mm Loose powdery insulation	No asbestos detected
41104-7	5932-A7	19/05/2010	70x32x3mm Vinyl tile and adhesive	Chrysotile asbestos detected
41104-8	5932-A8	19/05/2010	9x7x1mm Powdery insulation	Chrysotile asbestos detected Amosite asbestos detected
41104-9	5932-A9	19/05/2010	100x51x3mm Vinyl tile and adhesive	Chrysotile asbestos detected
41104-10	5932-A10	19/05/2010	24x13x<1mm Powdery insulation	Chrysotile asbestos detected Amosite asbestos detected
41104-11	5932-A11	19/05/2010	40x20x2mm Fibre cement	Chrysotile asbestos detected
41104-12	5932-A12	19/05/2010	20x5x5mm Woven rope insulation	Chrysotile asbestos detected
41104-13	5932-A13	19/05/2010	23x18x<1mm Vitreous fibre insulation	No asbestos detected
41104-14	5932-A14	19/05/2010	20x5x2mm Fibrous gasket	Chrysotile asbestos detected
41104-15	5932-A15	19/05/2010	26x4x1mm Rubbery gasket	No asbestos detected
41104-16	5932-A16	19/05/2010	20x8x2mm Viterous fibrous gasket	No asbestos detected
41104-17	5932-A17	19/05/2010	60x45x6mm Fibre cement	Chrysotile asbestos detected Amosite asbestos detected
41104-18	5932-A18	19/05/2010	70x40x5mm Fibre cement sheet	Chrysotile asbestos detected
41104-19	5932-A19	19/05/2010	35x32x3mm Vinyl tile and adhesive	Chrysotile asbestos detected
41104-20	5932-A20	19/05/2010	35x20x2mm Hardened mastic material	Chrysotile asbestos detected

NATA
ACCREDITED FOR TECHNICAL COMPETENCE

Envirolab Reference: 41104
Revision No: R 00

Page 2 of 3

Client Reference: **5932, Borrowdale House Phillip**

Method ID	Methodology Summary
AS4964-2004	Asbestos ID - Qualitative identification of asbestos type fibres in bulk samples using Polarised Light Microscopy and Dispersion Staining Techniques.

Lead Paint

Envirolab Services Pty Ltd
ABN 37 112 535 645
12 Ashley St Chatswood NSW 2067
ph 02 9910 6200 fax 02 9910 6201
enquiries@envirolabservices.com.au
www.envirolabservices.com.au

CERTIFICATE OF ANALYSIS 41095

Client:
Robson Environmental Pty Ltd
PO Box 112
Fyshwick
ACT 2609

Attention: Brenden Merry / Jeff Whitton

Sample log in details:

Your Reference:	**5932, Borrowdale House Phillip**
No. of samples:	12 Paint Samples
Date samples received:	18/05/10
Date completed instructions received:	18/05/10

Analysis Details:
Please refer to the following pages for results, methodology summary and quality control data.
Samples were analysed as received from the client. Results relate specifically to the samples as received.
Results are reported on a dry weight basis for solids and on an as received basis for other matrices.
Please refer to the last page of this report for any comments relating to the results.

Report Details:

Date results requested by:	21/05/10
Date of Preliminary Report:	Not Issued
Issue Date:	20/05/10

NATA accreditation number 2901. This document shall not be reproduced except in full.
This document is issued in accordance with NATA's accreditation requirements.
Accredited for compliance with ISO/IEC 17025.
Tests not covered by NATA are denoted with *.

Results Approved By:

Rhian Morgan
Metals Supervisor

Envirolab Reference: 41095
Revision No: R 00

NATA ACCREDITED FOR TECHNICAL COMPETENCE

Page 1 of 5

Client Reference: 5932, Borrowdale House Phillip

Lead in Paint Our Reference: Your Reference Type of sample	UNITS --- ---	41095-1 5932-P1 (a) Paint	41095-2 5932-P1 (b) Paint	41095-3 5932-P1 (c) Paint	41095-4 5932-P2 (a) Paint	41095-5 5932-P2 (b) Paint
Lead in paint	%w/w	<0.05	<0.05	<0.05	<0.05	<0.05

Lead in Paint Our Reference: Your Reference Type of sample	UNITS --- ---	41095-6 5932-P2 (c) Paint	41095-7 5932-P3 (a) Paint	41095-8 5932-P3 (b) Paint	41095-9 5932-P3 (c) Paint	41095-10 5932-P4 (a) Paint
Lead in paint	%w/w	<0.05	<0.05	<0.05	<0.05	0.080

Lead in Paint Our Reference: Your Reference Type of sample	UNITS --- ---	41095-11 5932-P4 (b) Paint	41095-12 5932-P4 (c) Paint
Lead in paint	%w/w	0.080	0.090

Client Reference: 5932, Borrowdale House Phillip

Method ID	Methodology Summary
Metals.4	Digestion of Paint chips for Lead determination by ICP-AES.

Client Reference: 5932, Borrowdale House Phillip

QUALITY CONTROL Lead in Paint	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results Base II Duplicate II %RPD	Spike Sm#	Spike % Recovery
Lead in paint	%w/w	0.05	Metals.4	<0.05	41095-1	<0.05 || <0.05	LCS-1	105%

QUALITY CONTROL Lead in Paint	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
Lead in paint	%w/w	41095-7	<0.05 || <0.05	LCS-2	104%

Client Reference: **5932, Borrowdale House Phillip**

Report Comments:

Asbestos was analysed by Approved Identifier: Not applicable for this job
Asbestos was authorised by Approved Signatory: Not applicable for this job
INS: Insufficient sample for this test NT: Not tested PQL: Practical Quantitation Limit <: Less than >: Greater than
RPD: Relative Percent Difference NA: Test not required LCS: Laboratory Control Sample NR: Not requested

Quality Control Definitions

Blank: This is the component of the analytical signal which is not derived from the sample but from reagents, glassware etc, can be determined by processing solvents and reagents in exactly the same manner as for samples.
Duplicate: This is the complete duplicate analysis of a sample from the process batch. If possible, the sample selected should be one where the analyte concentration is easily measurable.
Matrix Spike: A portion of the sample is spiked with a known concentration of target analyte. The purpose of the matrix spike is to monitor the performance of the analytical method used and to determine whether matrix interferences exist.
LCS (Laboratory Control Sample): This comprises either a standard reference material or a control matrix (such as a blank sand or water) fortified with analytes representative of the analyte class. It is simply a check sample.
Surrogate Spike: Surrogates are known additions to each sample, blank, matrix spike and LCS in a batch, of compounds which are similar to the analyte of interest, however are not expected to be found in real samples.

Laboratory Acceptance Criteria:

Duplicate sample and matrix spike recoveries may not be reported on smaller jobs, however, were analysed at a frequency to meet or exceed NEPM requirements. All samples are tested in batches of 20. The duplicate sample RPD and matrix spike recoveries for the sample batch were within laboratory acceptance criteria.

Duplicates: <5xPQL - any RPD is acceptable; >5xPQL - 0-50% RPD is acceptable.
Matrix Spikes and LCS: Generally 70-130% for inorganics/metals; 60-140% for organics and 10-140% for SVOC and speciated phenols is acceptable. Surrogates: 60-140% is acceptable for general organics and 10-140% for

Envirolab Reference: 41095
Revision No: R 00

NATA ACCREDITED FOR TECHNICAL COMPETENCE

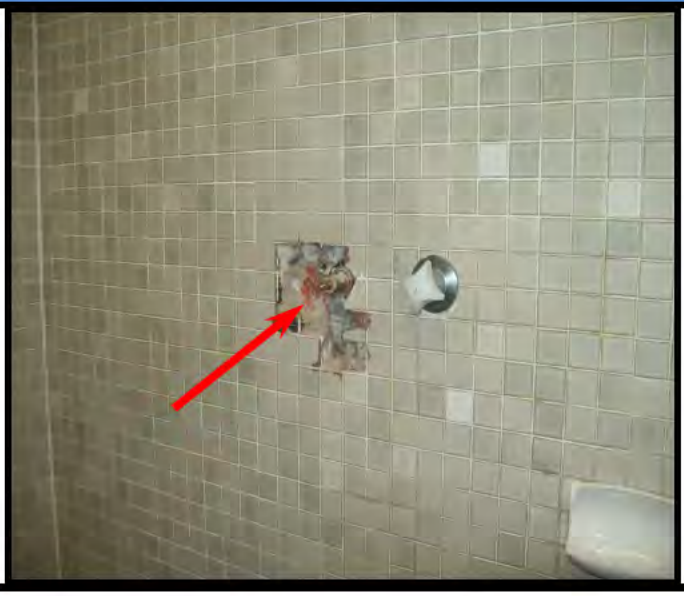
Page 5 of 5

15.2 APPENDIX B – Plans

Not available

15.3 APPENDIX C – HAZMAT Item Locations & Representative Photographs

ASBESTOS CONTAINING MATERIALS			
ITEM NO	**LOCATION**	**MATERIAL TYPE**	**PHOTOGRAPH**
1	Second floor – insulation to water pipe in masonry wall	Insulation	
2	First floor – kitchenette – water pipe insulation in masonry wall	Insulation	

ASBESTOS CONTAINING MATERIALS			
ITEM NO	**LOCATION**	**MATERIAL TYPE**	**PHOTOGRAPH**
3	Ground floor – women's toilet/shower – water pipe insulation in masonry wall	Insulation	
4	Basement Storage – insulated rolls of wire (Rockbestos)	Rope	

ASBESTOS CONTAINING MATERIALS			
ITEM NO	**LOCATION**	**MATERIAL TYPE**	**PHOTOGRAPH**
5	Second floor – hall electrical cupboard adj. kitchen beige vinyl floor tile	VFT	
6	Second floor – cleaners room adj. kitchen beige vinyl floor tile	VFT	

ASBESTOS CONTAINING MATERIALS			
ITEM NO	**LOCATION**	**MATERIAL TYPE**	**PHOTOGRAPH**
7	Second floor – ceiling space packer sheets	Sheet	
8	First floor – under carpet throughout – beige VFT with black streaks	VFT	

ASBESTOS CONTAINING MATERIALS			
ITEM NO	**LOCATION**	**MATERIAL TYPE**	**PHOTOGRAPH**
9	Ground floor – under carpet throughout –beige VFT with black streaks	VFT	
10	Garage interior – fire hydrant closet roof top – sheet	Sheet	

ASBESTOS CONTAINING MATERIALS			
ITEM NO	**LOCATION**	**MATERIAL TYPE**	**PHOTOGRAPH**
11	Basement plant room – rear of boiler – gasket to flue	Gasket	
12	Subfloor adj. garage – pipe fragment on top of soil & pipes running under building	Cement pipe	

ASBESTOS CONTAINING MATERIALS			
ITEM NO	**LOCATION**	**MATERIAL TYPE**	**PHOTOGRAPH**
13	Subfloor adj. garage – sheet debris on top of soil	Sheet debris	
14	Post office – rear office space – beige with black streak VFT	VFT	

ASBESTOS CONTAINING MATERIALS			
ITEM NO	**LOCATION**	**MATERIAL TYPE**	**PHOTOGRAPH**
15	External expansion joint to garage	Expansion joint	
16	Second floor - cleaners room adjacent kitchen - blackjack on VFT	Blackjack	

ASBESTOS CONTAINING MATERIALS			
ITEM NO	**LOCATION**	**MATERIAL TYPE**	**PHOTOGRAPH**
17	Second floor – kitchen under blue floor covering and carpet in hallway	Blackjack	
18	Second floor – under carpet in SW corner	Blackjack	

ASBESTOS CONTAINING MATERIALS			
ITEM NO	**LOCATION**	**MATERIAL TYPE**	**PHOTOGRAPH**
19	First floor – under blue carpet near central a/c riser duct	Blackjack	
20	Second floor – colonnade south expansion joint to slab	Expansion joint	

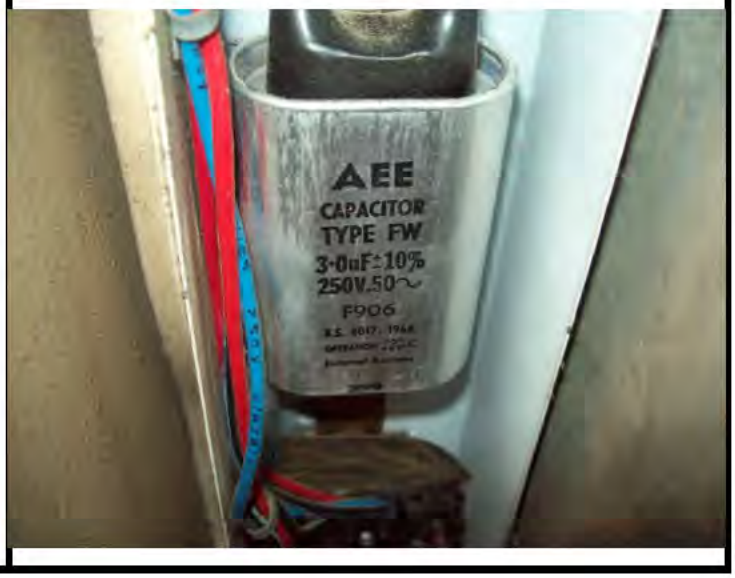
ASBESTOS CONTAINING MATERIALS			
ITEM NO	**LOCATION**	**MATERIAL TYPE**	**PHOTOGRAPH**
21	Second floor – to perimeter of external windows	Caulking	
22	Post office – next to fire exit	VFT	

ASBESTOS CONTAINING MATERIALS			
ITEM NO	**LOCATION**	**MATERIAL TYPE**	**PHOTOGRAPH**
23	Post office – next to fire exit	blackjack	
24	To the exterior perimeter of the building	Expansion joint caulking	

SYNTHETIC MINERAL FIBRE			
ITEM NO	**LOCATION**	**MATERIAL TYPE**	**PHOTOGRAPH**
SMF 1	Basement & second level – insulation batts in ceiling space	Unbonded fibregalss	
SMF 2	Ground level ceiling space insulation to pipe	Unbonded fibregalss	

SYNTHETIC MINERAL FIBRE			
ITEM NO	**LOCATION**	**MATERIAL TYPE**	**PHOTOGRAPH**
SMF 3	Basement & ground level ceiling space to flexible ducting	Unbonded fibregalss	
SMF 4	Ground level wall cavity adjacent post office	Unbonded fibregalss	

POLYCHLORINATED BIPHENYLS			
ITEM NO	**LOCATION**	**MAKE & TYPE**	**PHOTOGRAPH**
PCB1	Basement storage area	AEE – FW 715	
PCB2	Throughout first & second levels	AEE – FW F913	

POLYCHLORINATED BIPHENYLS			
ITEM NO	**LOCATION**	**MAKE & TYPE**	**PHOTOGRAPH**
PCB3	First & second level balcony lights in handrail recess	AEE – FW F906	

OZONE DEPLETING SUBSTANCES			
ITEM NO	**LOCATION**	**R NUMBER**	**PHOTOGRAPH**
ODS 1	First level roof – Daikin split systems x 2 & Mitsubishi x 1	-	
ODS 2	First level roof – unknown make x 2	-	

OZONE DEPLETING SUBSTANCES			
ITEM NO	**LOCATION**	**R NUMBER**	**PHOTOGRAPH**
ODS 3	In boiler room	R22	

15.4 APPENDIX D – Hazardous Material Management Information

ASBESTOS

Some 3000 products have been manufactured using asbestos, of which cement sheeting, pipe insulation, textiles, gaskets, vinyl floor tiles and fire door cores are the most commonly encountered. The mineral asbestos (i.e. Crocidolite, Chrysotile and Amosite and other forms) is classified by the National Occupational Health and Safety Commission as a Category 1 carcinogen. If respirable asbestos fibres are inhaled they may cause an inflammatory response, which in turn may lead to asbestosis (scarring of the lung), mesothelioma (cancer of the pleura or peritoneum) or lung cancer.

It is illegal under Commonwealth, State and Territory legislation to manufacture asbestos building materials or to reuse asbestos products.

Asbestos sheeting or ‘fibro’ is bonded into a stable matrix and as such does not present an exposure hazard unless it is cut, abraded, sanded or otherwise disturbed.

Any type of work on or removal of sheeting has the potential to release asbestos fibres, which in turn can be inhaled. It is therefore critical to maintain the integrity of these materials. If damage is inevitable through physical impact, the asbestos material must be removed or otherwise encapsulated with reference to the *Code of Practice for the Safe Removal of Asbestos* [NOHSC:2002(2005)] and ACT Worksafe and ACT Planning and Land Authority requirements.

LEAD PAINT

Introduction

Lead in paint (as lead carbonate) is found extensively in homes and commercial and industrial buildings built pre-1970. Although Australian industry has generally phased out lead content in paint, levels of below 1 percent are still permitted and industrial application of high-lead paint to residential/commercial dwellings may still continue.

Lead-base paint may be a health issue if it becomes mobile in the environment or if ingested. For this reason sealing or safe removal of paint is strongly recommended particularly where it is flaking or exposed to the elements.

Assessment Criteria

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.
Further, the Standard for the Uniform Scheduling of Drugs and Poisons (National Drugs and Poisons Schedule Committee July 2000) classifies paints having more than 0.25% lead as First Schedule Paint and prohibits their manufacture, supply or use.

It has been shown that the dust generated from dry sanding or abrasive blast cleaning of paints with a lead concentration of 0.25% can have sufficient content to produce exposure levels that exceed those that define a ‘lead task’ in NOHSC 1012.

Therefore paints with a lead concentration greater than 0.25% (if they are to be removed) must be treated as a lead paint (i.e. subject to the regulations in NOHSC 1012).

Lead Paint Management and Recommendations

The following information uses Australian Standard (AS 4361.2 – 1998) as the primary reference. Lead paint and first schedule paints in residential and commercial premises may be managed in one of four ways:

- Leave undisturbed;
- Stabilised (i.e. over painting or encapsulation);
- Abated (i.e. removed); or
- A combination of the three management options may be required.

Should removal be chosen, a high degree of skill, preparation and risk minimisation is required to avoid lead exposure, as dry sanding of lead levels as low as 0.25% can generate high lead dust. Therefore the Wet Scraping and Wet Sanding methods are amongst the safest methods available.
Strict adherence to the guidelines described in AS 4361.2 – 1998 will best ensure minimisation of risk. During this process personal protective equipment and waste containment equipment is essential and children, pregnant women and persons not directly engaged in the process should not be present. General workers may undertake this process providing they adhere strictly to the guidelines, however, a specialist lead paint removal contractor is recommended for extensive paint removal works.

Where remediation is required it is important to minimise ongoing maintenance costs by ensuring that the works are undertaken by a professional who is able to give a significant time guarantee of the painted surfaces at the completion of the works. The following website lists contactors by postcodes that have been included based on their indicated skills and training in working safely with lead paint. http://www.lead.org.au/paintersall.html These contractors should however be assessed by current performance prior to engagement.

Lead Paint Removal and Containment

- Avoid dry sanding or any actions which create dust;
- Place ground sheets around the work area ensuring all paint debris are contained. Remove accumulated debris frequently to prevent its spread into surrounding areas using a vacuum cleaner fitted with a HEPA filter;
- Minimise the spread of debris, dust and fumes by avoiding dust-generating activities during windy conditions. Seal all windows and heating/cooling system duct registers to prevent dust or fumes from contaminating adjacent areas. Use negative air pressure for interior work;
- Use personal respirators according to AS/NZS 1715 [2009];
- Use disposable clothing; and
- Wipe down all surfaces using a wet cloth and dispose of all clothing, equipment and plastic used during paint removal as Hazardous Waste.

Responsibilities of Owners and Contractors

According to AS 4361.2 – 1998 owners of residences or commercial buildings that may contain lead should:

- Manage the property in such a manner as to effectively control any health risk to occupants, contractors or others;

- Ensure occupants are sufficiently informed about and protected from the hazards associated with lead paint; and
- If management work is to be undertaken, inform immediate neighbours about the nature of the work.

Contractors should:

- Obtain appropriate accreditation to undertake the proposed level of remedial work involving lead paint and have the required level of specialized training; and
- Undertake the contracted work in such a way as to protect the health and safety of employees, tenants and the general public.

SYNTHETIC MINERAL FIBRE

SMF refers to man-made mineral fibrous materials commonly used for their insulating and reinforcing properties. The amorphous (non-crystalline) materials include glass fibre, mineral wool and ceramic fibre products.

Discussion

Although glass fibre is classified as an irritant, levels of airborne fibreglass during routine occupation of the premises would be insignificant. During any large-scale installation or removal of fibreglass insulation, providing SMF fibre suppression measures as defined below are employed, exposure standards for SMF fibre would not normally be exceeded.

The following Risk Assessment is based on the requirements of the document:

- Worksafe Australia, Worksafe Australia, Sydney 1990, *Synthetic Mineral Fibres: National Standard and National Code of Practice.*

SMF Risk Assessment

According to Worksafe Australia 1990 (p 9) health risks associated with SMF are "significantly less potent … than white asbestos (Chrysotile) fibres" and that "...the possibility of lung cancer is eliminated at an exposure standard (time weighted average) of 0.5 respirable fibres per millilitre of air for all types of synthetic mineral fibres...." (p V).

To reduce the possibility of skin, eye and upper respiratory tract irritation a maximum exposure standard of 2 milligrams per cubic metre of inspirable dust is recommended. These two standards are designed principally for the manufacture and end user industries in which significant dust clouds would be generated.

The same document also states: "The overall conclusion based on available animal experiments and epidemiology is that provided work is carried out in accordance with (NOHSC 1990), and compliance is maintained with the exposure standards, then there is a negligible health risk associated with exposure to SMF under present-day manufacturing and usage patterns."

Recommendations

Although of negligible health risk if undisturbed, it is strongly recommended that if fibreglass is to be removed or otherwise disturbed the following procedures and safety measures should be adopted.

- Workers wear personal protective equipment to minimise dust inhalation and irritation to eyes and skin. The correct use of filter masks, goggles, gloves and disposable coveralls should prevent significant irritation;

- Care should be taken to ensure minimal SMF or nuisance dust enters the occupied areas below the work area;

- If significant contamination of the occupied areas is likely, dust control measures such as the use of plastic screens and an effective extraction fan should be positioned to prevent such an occurrence; and

- Disposable suits and any removed insulation are to be appropriately bagged and disposed of as general waste.

PCBs

PCB is the common name for Polychlorinated Biphenyls. PCBs range in appearance from colourless, oily liquids to more viscous and increasingly darker liquids, to yellow then black resins, depending on chlorine content of the PCB.

Discussion

The major use of PCBs in the electrical industry has been as an insulating fluid inside transformers and capacitors. These transformers and capacitors have ranged in size from the very large transformers typically used by electrical supply companies, to the small capacitors used in commercial products. Capacitors containing PCBs were installed in various types of equipment including fluorescent light fittings during the 1950's, 60's and 70's.

Risk Assessment

Small quantities of PCBs are usually found in sealed containers known as capacitors. PCB-containing capacitors are unlikely to pose a health risk, unless they become damaged and leak.

PCBs can enter the body in three ways:

- absorption through the skin
- inhalation of PCB vapour
- ingestion, e.g. by contamination of food or drink

The most commonly observed symptom in people exposed to high levels of PCBs is a condition known as chloracne. This is a severe, persistent acne-like rash due to repeated and prolonged contact of PCBs with skin. This condition has also occurred in people who have accidentally ingested PCBs orally.

Very high exposure to PCBs may also cause liver damage and damage to the nervous system.

There is the possibility that PCBs may cause cancers.

The likelihood of becoming sick from PCB exposure increases with the length of time and the amount of material that a person might come in contact with.

Recommendations

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 vapourise readily at room temperature
- do not smoke
- after handling PCBs, employ good personal hygiene practices, including washing hands in warm, soapy water before eating, drinking, smoking, handling food, or using the toilet

Disposal

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 Worksafe ACT and Environment Protection and Heritage.

Note: 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.

OZONE DEPLETING SUBSTANCES

Introduction

Ozone depleting substances (ODS) are compounds that contribute to stratospheric ozone depletion. They are widely used in refrigerators, air-conditioners, fire extinguishers, in dry cleaning, as solvents for cleaning, electronic equipment and as agricultural fumigants.

Ozone depleting substances (ODS) include:

- Bromochloromethane (BCM)
- Carbontetrachloride (CCl_4)
- Chlorofluorocarbons (CFCs)
- Halons
- Hydrobromofluorocarbons (HBFCs),
- Hydrochlorofluorocarbons (HCFCs),
- Methylbromide (CH_3Br)
- Methylchloroform (CH_3CCl_3)

ODS are generally very stable in the troposphere and only degrade under intense ultraviolet light in the stratosphere. When they break down, they release chlorine or bromine atoms, which then deplete the ozone.

Ozone Protection Strategy

The Australian Strategy for Ozone Protection calls for personnel who handle, install, service, commission and decommission and maintain commercial and industrial refrigeration and air-conditioning equipment to be accredited, licensed, registered to work with ozone depleting substances.

Best Management Practices

In Australia a 'Code of Good Practice' has been drawn up 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 Australian Refrigeration and Air-conditioning Code of Good Practice (HB 40.1 – 2001) recommends best practice for the maintenance, design, servicing, labelling and manufacture of refrigeration and air conditioning systems towards this objective.

Legislation

Under the Federal Government's *Ozone Protection and Synthetic Gas Management Act 1989* and its *Ozone Protection and Synthetic Gas Legislation Amendment Bill 2003* it is illegal to vent an ODS (Scheduled Substances) to the atmosphere.

General Maintenance

- All refrigeration and air-conditioning plant should be regularly inspected for traces of leaking refrigerant and/or oil, and for signs of leak-indicating dye.

- Whenever a system is charged with refrigerant and/or lubricant, the service person must clearly label the system with the refrigerant/lubrication type; name of service organization; and date of service. In addition, the ASHRAE/ARI refrigerant designated R number shall be clearly displayed.

- A service person should be aware of the possibility that a refrigeration or air-conditioning system may have been incorrectly charged or incorrectly labelled. The type of refrigerant contained in the system must therefore be first established by checking the temperature/pressure relationship or by using other tests to verify that the labelling is correct.

Advice to Equipment Users

- Users are advised that persons who service refrigeration and air-conditioning equipment are required by legislation to observe the Code of Good Practice and not to ‘top-up’ or ‘charge’ systems known to be leaking refrigerant, or to service equipment unless it can be returned into service in a leak-free condition.

- If a user does not have trained staff to undertake service or maintenance work, then it is recommended that a routine maintenance agreement for their plant be undertaken with a reputable service organization.

- All users should monitor the operation of their installation weekly and call the service person immediately if any abnormal condition is found.

- When a refrigeration system contains in excess of 50 kg of refrigerant, that system should be leak tested on a quarterly basis.

Leak Testing

- Various methods may be used for leak-testing, e.g. electronic leak detectors, halide lamp and or ultraviolet lamp.

- Only a non-controlled refrigerant mixed with a pressurising substance such as dry nitrogen should be used to leak test refrigeration and air-conditioning systems.

- Where an air-conditioning or refrigeration system is found to be leaking and needs to be repaired, the vapour and/or liquid must first be recovered from the leaking system.

- Where pressurisation testing has determined that an air-conditioning or refrigeration system is not leaking, moisture and non-condensables must be evacuated from the system using dry nitrogen as the moisture absorber and either the deep or triple evacuation methods.

- All refrigerants shall be recovered and either recycled, reclaimed or held for disposal in an approved manner.

- It is highly recommended that a refrigerant charge monitor or leak detector be installed to alert equipment owners/operators of a refrigerant leak.

Recovery, Recycling and Disposal of Refrigerants

- 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.

Disposal of Refrigerants

- 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.

Handling and Storage

Losses of refrigerant to the atmosphere can occur during the handling and storage of refrigerant containers. Service persons have a duty of care to avoid such losses.

- There are numerous hazards associated with the storage of refrigerant. These include asphyxiation in confined space due to leakage from refrigerant containers; and fire, which may overheat and explode refrigerant containers or decompose refrigerant into toxic substances.

Alternative Refrigerants and Lubricants

- With the introduction of HFC alternative refrigerants, alternative lubricants need to be considered to ensure system reliability. Some of these alternative lubricants tend to exhibit greater hygroscopicity than mineral oils, so care must be taken to ensure they are kept in sealed containers at all times.

- Care must be taken to ensure that all components used in the refrigeration/air-conditioning system are compatible with the new refrigerant and lubricant.

Recovery of Fluorocarbons Mixed with other Refrigerants

A number of different refrigerants and refrigeration mixtures have been used to replace or to ‘top up’ fluorocarbon based refrigerants in refrigeration and air-conditioning systems.

In many cases the equipment in question may not be labelled to indicate that hydrocarbon or hydrocarbon mixtures have been used and as the operating pressures of these replacement refrigerants are usually similar to those of the original refrigerant, their identification in the field is extremely difficult.

- It is not safe therefore to recover flammable refrigerant (hydrocarbon) using equipment designed only for non-flammable refrigerants such as R-12 and R-134a.

- Should it be suspected that refrigeration or air-conditioning system contains an unidentified mixture or, if on asking the owner, examining the labels, and/or detecting instruments indicate that a hydrocarbon/fluorocarbon mixture or any other non-standard mixture of refrigerant may be present; the following procedure should be followed:

- If a hydrocarbon or flammable mixture that contains hydrocarbon is suspected, use only equipment designed for the recovery of flammable gasses and recover the refrigerant into a specially marked container.

- In the case of refrigerant mixtures, it is not advisable to use recovery equipment as many mixtures have very high condensing pressures, which could result in equipment failure and/or injury to persons operating, or near the equipment.

- The safest method of recovery is to use an evacuated and preferably chilled container to depressurise the system.
- Label the container to show that it contains a mixture or the suspected composition, if known, and deliver it to a supplier for recycling.
- Purge the residual gas from the system with dry nitrogen before proceeding with any repairs

Health Effects

In addition to causing environmental degradation certain ozone depleting substances may present a risk to human health when they are improperly handled or released in to a poorly ventilated area.

Inhalation
The most significant exposure route for humans is through inhalation. Refrigerant gases displace oxygen in the air making breathing difficult.

Overexposure can cause central nervous system depression and oxygen deficiency. Effects of overexposure may include light-headedness, giddiness, shortness-of-breath, headaches, and in extreme cases, irregular heartbeats, cardiac arrest, asphyxiation and death.

Symptoms of overexposure at lower concentrations may include transient eye, nose and throat irritation.

Skin Contact
Contact with rapidly released refrigerant gas may cause frostbite. Symptoms of frostbite may include changes in skin colour to white or greyish yellow.

Other direct dermal contact may result in skin de-fatting, dryness, irritation or contact dermatitis.

Standard work clothes provide adequate protection of the skin but it is recommended that lined butyl gloves and goggles be used whenever handling liquid refrigerants.

Eye Contact
Eye contact with rapidly released refrigerant or air-conditioning gas may cause severe frostbite damage to eyes and eyelids. Eye irritation may occur if exposure occurs at lower concentrations.

FUEL STORAGE FACILITIES

In the ACT the management of fuel storage tanks is regulated by ACT Worksafe who administers the *Dangerous Substances Act 2004* and the *Dangerous Substances (General) Regulation 2004.*

Heating oil and other petroleum products are classified as a Dangerous Substance under the ACT Dangerous Substances Act 2004.

The Dangerous Substances (General) Regulation 2004 – Division 2.4.2-233 *Decommissioning* (applies to a container used to store a dangerous substance) states the following:

'The container is thoroughly cleaned so that the container is in the condition it would be in if it had never contained the substance';

This would be difficult to achieve therefore it is advantageous to remove the tank.

In the ACT, Environment Protection and Heritage prefers underground fuel storage tanks be removed once they are no longer in use, unless there are extenuating circumstances i.e. their removal undermines permanent infrastructure. This is also emphasized in the Code of Practice for *The Removal and Disposal of Underground Petroleum Storage Tanks* (Australian Institute of Petroleum CP22 –1994).

Further, the ACT Environment Protection Authority (Environment Protection and Heritage) which administers the Environment Protection Act 1997 which contains contaminated land provisions responsible for the development of policy and guidelines to facilitate best practice when it comes to the management of contaminated land.

Environment Protection and Heritage deems all sites known to have had fuel storage facilities as potentially contaminated until investigated and assessed and shown to be free of contamination.

Based on this information and for the long-term management of the sites with fuel storage tanks, Robson Environmental Pty Ltd recommends that the USTs be removed in accordance with the requirements of ACT Worksafe and Environment Protection and Heritage.

Removal of the UST does require approvals from relevant ACT Government agencies which include:

- ACT Planning and Land Authority (ACTPLA)
- ACT Worksafe - Dangerous Goods Unit.

16 GLOSSARY

ACM	*See asbestos containing material*
Air monitoring[1]	Air Monitoring means airborne asbestos fibre sampling to assist in assessing exposures and the effectiveness of control measures. Air monitoring includes exposure monitoring, control monitoring and clearance monitoring. *Note: Air monitoring should be undertaken in accordance with the Guidance Note on the Membrane Filter Method for Estimating Airborne Asbestos Fibres [NOHSC:3003 (2005)]*
Airborne asbestos fibres[2]	Any fibres of asbestos small enough to be made airborne. For the purposes of monitoring airborne asbestos fibres, only respirable asbestos fibres (those less than 3µm wide, more than 5µm long and with a length to width ratio of more than 3 to 1) are counted.
Amosite	Grey or brown asbestos
AR	*See Asbestos Register*
Asbestos Containing Material	Any material, object, product or debris that contains asbestos.
Asbestos Register	Inventory of ACM by type, form, location, risk and required action.
Asbestos Removalist[2]	A competent person who performs asbestos removal work. *Note: an asbestos removal licence is required in all State and Territory jurisdictions for friable ACM.*
Asbestos Survey and Management Plan	Document covering the identification, risk evaluation, control and management of identified asbestos hazards, developed in accordance with NOHSC: 2018(2005).
Asbestos[2]	The fibrous form of mineral silicates belonging to the serpentine and amphibole groups of rock-forming minerals, including actinolite, amosite, anthophyllite, chrysotile, crocidolite, tremolite or any mixture containing one or more of the mineral silicates belonging to the serpentine and amphibole groups.
Asbestos–cement (AC)[2]	Products consisting of sand aggregate and cement reinforced with asbestos fibres (e.g. asbestos cement pipes and flat or corrugated asbestos cement sheets).
ASCC	*See Safe Work Australia Council*
Bonded asbestos	ACM that is bonded into a stable matrix and cannot be reduced to a dust by hand pressure.
Chrysotile	White asbestos
Clearance inspection[2]	An inspection, carried out by a competent person, to verify that an asbestos work area is safe to be returned to normal use after work involving the disturbance of ACM has taken place. A clearance inspection must include a visual inspection, and may also include clearance monitoring and/or settled dust sampling.
Clearance monitoring[2]	Air monitoring using static or positional samples to measure the level of airborne asbestos fibres in an area following work on ACM. An area is 'cleared' when the level of airborne asbestos fibres is measured as being below 0.01 fibres/mL.

Competent person[2]	A person possessing adequate qualifications, such as suitable training and sufficient knowledge, experience and skill, for the safe performance of the specific work.
Control monitoring[2]	Air monitoring, using static or positional to measure the level of airborne asbestos fibres in an area during work on ACM. Control monitoring is designed to assist in assessing the effectiveness of control measures. Its results are not representative of actual occupational exposures, and should not be used for that purpose.
Crocidolite	Blue asbestos
Exposure monitoring	Air monitoring in the breathing zone to determine a person's likely exposure to a hazardous substance. Exposure monitoring is designed to reliably estimate the person's exposure, so that it may be compared with the National Exposure Standard.
HMSMP	*See hazardous material survey and management plan*
In situ[2]	Fixed or installed in its original position, not having been removed.
Inaccessible areas	Areas which are difficult to access, such as wall cavities and the interiors of plant and equipment.
Licensed Class A Asbestos Assessor	Person who is qualified to undertake the identification and assessment of asbestos and provide recommendations on its safe management.
Licensed Class B Asbestos Assessor	Person who is qualified to undertake the identification of asbestos.
Membrane	A flexible or semi-flexible material, which functions as the waterproofing component in a roofing or waterproofing assembly.
NATA	National Association of Testing Authorities (NATA)
NOHSC *(now SWA)*	National Occupational Health and Safety Commission (*now known as Safe Work Australia)*
Safe Work Australia Council (SWAC)	A council that provides a national forum for State and Territory governments, employers and employees to consult and participate in the development of policies relating to OHS and workers' compensation matters, and promote national consistency in the OHS and workers' compensation regulatory framework.
SWMS	Safe Work Method Statement
UST	Underground Storage Tank (fuel)

1. Definition sourced from: NOHSC: 2018(2005).
2. Definition sourced from: NOHSC: 2002(2005).

17 REFERENCES

Australian Capital Territory Parliamentary Counsel (2006), *Asbestos Legislation Amendment Act 2006 [A2006-16]*, Canberra, Australia.

ANZECC 1997, *Identification of PCB-Containing Capacitors; An information Booklet for Electricians and Electrical Contractors;*

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

Dangerous Substances Act 2004 A2004-7.

Standards Australia, AS 4361.2 - 1998 *Guide to lead paint management, Part 2: Residential and Commercial Buildings*;

Standards Australia, HB 40.1 – 2001 *The Australian Refrigeration and Air-conditioning Code of Good Practice*; and

Work Safe Australia, Sydney 1990, *Synthetic Mineral Fibres: National Standard and National Code of Practice;*

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barton@grapevine.com.au

15 December 2014

Re: Borrowdale House, Furzer Street, Phillip – Hazmat Report Addendum

Dear Doug,

This addendum addresses the possibility of removing asbestos containing materials (ACM) from the first and second floors of Borrowdale House while the current tenant remains conducting normal business hours on the ground floor tenancy of the building.

The following information has been considered in the recommendations provided below;

- The central air conditioning plant has been decommissioned and replaced by split systems that only service the ground floor Australia Post tenancy.
- Any hazardous material works would be confined to the unoccupied first and second floors of the building.

Based on the above and the additional requirement to completely isolate the central airconditioning shaft from the first and second floors the asbestos removal works may proceed with the ground floor tenancy operating normally.

It is essential that the engaged Class A licensed asbestos removalists supplies an appropriate and approved (by Robson Environmental) Asbestos Removal Control Plan (ARCP) prior to commencing the asbestos removal works.

The ARCP must address the specific methodologies for each removal location which adequately details satisfactory dust control procedures during pipe lagging removal and to address odour control if Citra-Force is used to removal blackjack adhesive or adequate noise and dust control methods are employed when removing vinyl floor tiles and grinding blackjack adhesive.

Yours sincerely,

John Robson

John Robson B.Sc., Grad. Dip. Occ. Hyg.
Class A Asbestos Assessor
Occupational Hygienist
Managing Director
Robson Environmental Pty Ltd

ACT Government
Environment and Sustainable Development

Mr Alfonso del Rio
Partner Clayton Utz
GPO BOX 9806
CANBERRA ACT 2601

Dear Mr del Rio

BLOCKS 54 & 84 SECTION 8 - PHILLIP
Application Number: 201017864, 201017864A & 201017864B
Lessee: Borrowdale House Pty Limited

I refer to the Notice of Decision dated 15 December 2010 concerning the above application.

Condition A1, as formally corrected under Section 196 of the *Planning and Development Act 2007* (Act) on 4 July 2012, restricts the effect of the approval until all hazardous materials are removed from the land. On 18 May 2015, the applicant lodged the Hazardous Material Survey and Management Plan, dated November 2014, and addendum thereto dated 15 December 2014, prepared by Robson Environmental demonstrating that contamination removal can occur on the land. On 18 May 2015, that report was endorsed in writing by the Environment Protection Authority (EPA). Conditions A1, A2 and A3 are no longer required to restrict the development from taking effect.

Consequently, in accordance with section 196 of the Act, the Notice of Decision dated 15 December 2010 is formally corrected as follows:

Amend Condition A1 as follows:

A1. COMMENCEMENT OF CONSTRUCTION – HAZARDOUS MATERIALS

The construction works for the approved development must not commence on the land until all hazardous materials have been removed from the premises in accordance with a Hazardous Materials Management Plan approved in writing by the Environment Protection Authority (EPA), or its successor.

Delete Conditions A2 and A3.

The remaining conditions of approval set out in the previous Notice of Decision will continue to apply. The date of effect of the correction to the approval is the date of this letter.

The approval now takes effect on the 22 May 2015. In accordance with Section 185 of the Act, the approval for the lease variation will end unless the new Crown lease is registered at the Office of Regulatory Services on or on or before **21 May 2017**.

If you would like to discuss this matter further, please telephone me on (02) 6207 2869.

Yours sincerely

Maggie Chapman
Delegate of the planning and land authority
Planning Delivery Division

21 May 2015

ACT Government
Environment and Sustainable Development

Mr Chris Young-Wright
Young-Wright Architects
22 Embling Street
WANNIASSA ACT 2903

Dear Mr Young-Wright

BLOCKS 54 & 84 SECTION 8 - PHILLIP
Application Number: 201017864, 201017864A & 201017864B
Lessee: Borrowdale House Pty Limited

I refer to the Notice of Decision dated 15 December 2010 concerning the above application.

It has come to the ACT Planning and Land Authority's attention that Condition A1 of the Notice of Decision has been imposed in such a way that the approval does not take effect until all hazardous materials present at the site have been removed to the satisfaction of Environment Protection [Department of Environment, Climate Change, Energy and Water (DECCEW)] and written advice has been obtained from Environment Protection that the site is suitable for the residential development. This is a standard condition from the Environment Protection Unit and the entity regularly imposes this condition wherever a proposed development involves demolition. It is noted that these works can be undertaken during demolition. Therefore, this condition can be included in Section C During Construction and/or Demolition under Part 1 Conditions of Approval. Conditions A2 and A3 of the Notice of Decision relate to the timeframe and compliance of Condition A1.

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:

Deleted 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.

Additional Condition

C1a. HAZARDOUS MATERIAL

All hazardous materials present at the site shall be removed to the satisfaction of the Department of Environment, Climate Change, Energy and Water (DECCEW) or its successors. Written advice must be obtained from the Environment Protection Unit, that the site is suitable for the residential development.

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

The date of effect of the correction to the approval is the date of this letter.

If you would like to discuss this matter further, please telephone me on 6207 1830.

Yours sincerely

Rumana M. Jamaly

Rumana Jamaly
Delegate of the ACT Planning and Land Authority

22 June 2011

ACT Government
Environment and Sustainable Development

Mr Chris Young-Wright
Young-Wright Architects
22 Embling Street
WANNIASSA ACT 2903

Dear Mr Young-Wright

BLOCKS 54 & 84 SECTION 8 - PHILLIP
Application Number: 201017864, 201017864A & 201017864B
Lessee: Borrowdale House Pty Limited

I refer to the Notice of Decision dated 15 December 2010 concerning the above application.

As advised on 22 June 2011 in notice under Section 196 of the Act, Conditions A1, A2 and A3 of the Notice of Decision were deleted subject to a Formal Correction. This correction sought to permit the demolition of the building by allowing the effect of the approval to commence. It is now apparent that the commencement of the effect of the approval for the variation of the Crown lease would result in approval expiring under Section 185 of the Act 24 months from the date the approval took effect or 16 December 2012. It was determined that there is not sufficient time to complete the removal of hazardous materials and register the Crown lease. Therefore, Condition A1 should have been corrected to permit the effect of the approval for the demolition works and removal of hazardous materials to commence and but then also allow a timeframe of 24 months from the date of approval to demonstrate compliance with Condition A2 and allow a further extension to the effect of the remaining works in accordance Condition A3.

Also Condition A5, 5.1 does not facilitate the demolition and removal of hazardous materials prior to the registration of the Crown lease, as such for the same reason this condition also requires correction.

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:

Inserted Conditions

A1. APPROVAL NOT TO TAKE EFFECT

This approval, with the exception of the demolition of the existing buildings and structures on the land and the removal of hazardous materials from the site, does not take effect until the applicant/Lessee has provided evidence that:

(i) all hazardous materials present at the site have been removed to the satisfaction of the Environment Protection Unit, Environment and Sustainable Development Directorate (ESDD), or its successors; and

(ii) written advice is obtained from the Environment Protection Unit, ESDD, or its successors, that the site is suitable for the residential development;

A2. TIMEFRAME TO COMPLY WITH CONDITION A1

The applicant/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

(i) This approval will end if the Lessee has not submitted written advice in accordance with Condition A1 to the Authority within 24 months of the date of this Decision;

(ii) If the applicant/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.

Amended Conditions:

A5. LEASING

A5.1 Commencement of Building Work

That building work in relation to this Development Application, with the exception of the demolition of the existing buildings and structures on the land and the removal of hazardous materials from the site, must not commence on the site until the new consolidated Crown lease is registered at the Registrar-General's Office;

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

The date of effect of the correction to the approval is the date of this letter.

If you would like to discuss this matter further, please telephone me on 6207 7387.

Yours sincerely

S. A. Messer

Susan Messer
Delegate of the planning and land authority

4 July 2012

From: Messer, Sue
Sent: Wednesday, 9 April 2014 1:56 PM
To: Walker, Karen
Subject: FW: Blocks 54 & 84 Se3ction 8 Phillip application Number 201017864,-A & B / DA Currency
Attachments: B'Dale leasing letter.pdf; ARCP_54 & 84 Section 8 Phillip Borrowdale House_ 942014.pdf

_____
Susan Messer | Manager
DA Leasing
Phone 02 6207 2869
Lease Administration | Environment and Sustainable Development | **ACT Government**
Dame Pattie Menzies House, Challis Street, Dickson | GPO Box 158 Canberra ACT 2601 | www.environment.act.gov.au

From: Chris Young-Wright [mailto:youngwright@bigpond.com]
Sent: Wednesday, 9 April 2014 1:53 PM
To: Messer, Sue
Subject: Blocks 54 & 84 Se3ction 8 Phillip application Number 201017864,-A & B / DA Currency

Mrs. Messer,
Re: Blocks 54 & 84 Se3ction 8 Phillip application Number 201017864,-A & B / DA Currency
Dear Sue,
Attached find our letter requesting an extension of the timeframe of conditions A1 & A2 of your Notice of Decision dated 4 July 2012 for above Application.
Regards
Chris Young-Wright.

Young-Wright ***Architects***
c/o 16 Meldrum St Weston ACT 2611
M [redacted]
e-mail youngwright@bigpond.com

Mrs. Susan Messer
Delegate of the planning and land authority

Dear Mrs. Messer

Blocks 54 & 84 Section 8 – Phillip
Application Number: 201017864, 201017864A & 201017864B
Lease: Borrowdale House Pty Limited

Regarding the correction to the Notice of Decision dated 4 July 2012, and the following Conditions;

A1. *APPROVAL NOT TO TAKE EFFECT*
This Approval, with the exception of the demolition of the existing Buildings and structures on the land and the removal of hazardous materials from the site, does not take effect until the applicant/lessee has provided evidence that;
(i) *all hazardous materials present at the site have been removed to the satisfaction of the Environment Protection Unit, Environment and Sustainable Development Directorate (ESDD), or its successors; and*
(ii) *written advice is obtained from the Environment Protection Unit ESDD, or its successors, that the site is suitable for the residential development.*

A2. *TIMEFRAME TO COMPLY WITH CONDITION A1*
The applicant/Lessee shall provide written advice of compliance with Condition A1 to the Authority within 24 months of the date of this Decision; (4th. July 2012)

A3. *COMPLIANCE WITH CONDITION A1*
(i) *This approval will end if the Lessee has not submitted written advice in accordance with Condition A1 to the Authority within 24 months of the date of this Decision;*
(ii) *If the applicant/Lessee provides written advice of commencement of this 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.*

Our Nominated Sub Contractor to the Demolition Contract is Ozbestos Pty Ltd, a locally operated asbestos removal company, recommended by Robson Environmental (provider of our Intrusive Hazardous Materials Survey & Management Plan), see attached Asbestos Removal Control Plan.

However a condition of our Lease with Australia Post (Ground Floor Tenant) requires six months notice before the agreed relocation for the duration of the building works, hence Demolition can not be started for a minimum of six months following our notice to Aust. post.

We expect to enter into discussions with Aust. Post over the next month.

Therefore we request from the Authority a 6 (six month) extension to the timeframe (3 Jan 2015) to comply with condition A1 and as outlined in A2. & A3.

If you would like to discuss this request further, please telephone me on [redacted]

Yours Sincerely

[redacted]

Chris Young-Wright

The Applicant DA 201017864,- 201017864B

9 April 2014

ASBESTOS REMOVAL CONTROL PLAN

Borrowdale House
Block 54 & 84 Section 8 Phillip ACT

AUTHORISATION FOR ISSUE

This edition of the Asbestos Removal Control Plan
Revision 1, is approved and authorised for issue by [redacted]

[redacted]

[redacted]
Manager
Ozbestos
[redacted]

9/4/2014
Date

Rev.	Details	Date Issued	Developed By	Authorised By
1	This manual contains Asbestos Removal processes and procedures specific to Ozbestos Pty Ltd	April 2014	Matrix Systems	Stephen Murphy

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COPY NUMBER	1
ISSUED TO	

Induction Register

Asbestos Removal Control Plan Induction Register – All members of the Project Team are to sign below, acknowledging they have read and understood their roles and responsibilities documented within this Asbestos Removal Control Plan.

Name	Signature	Date

Table of Contents

Definitions

• ACM	Asbestos Containing Material
• Control Measure	In relation to a risk to health and safety means a measure to eliminate or minimize the risk
• Emergency	An unexpected event of a serious nature which demands immediate action
• Hazard	Means a situation or thing that has the potential to harm a person. Hazards at work may include: noisy machinery, a moving forklift, chemicals, electricity, working at heights, a repetitive job, bullying and violence in the workplace.
• Health Surveillance	Monitoring of individuals for the purpose of identifying changes in health status that may be due to workplace exposures
• High Risk Work	Means any work set out in Schedule 3 of the Regulations as being within the scope of a high risk work licence.
• HIRAC	Hazard Identification, Risk Assessment & Control
• Incident	Any unplanned event resulting in, or having a potential for injury, ill-health, damage or other loss.
• Record	Information generated from undertaking a task e.g. letters, faxes, memos, filled in forms, registers, minutes etc.
• Risk Assessment	The overall process of estimating the magnitude of risk and deciding what action will be taken
• Risk	Is the possibility that harm (death, injury or illness) might occur when exposed to a hazard.
• Risk Control	Means taking action to eliminate health and safety risks so far as is reasonably practicable, and if that is not possible, minimizing the risks so far as is reasonably practicable. Eliminating a hazard will also eliminate any risks associated with that hazard.
• Risk Identification	The process of recognising that a risk exists and defining its characteristics.
• Safety	A state in which the risk of harm (to persons) or damage is limited to an acceptable level.
• SWMS	Safe Work Method Statement
• Toolbox Talk (TBT) meeting	Regular, recorded meetings between management and workers/site personnel to discuss safety, programming and other issues relating to their work practices and working environment.
• Worker	A person who carries out work in any capacity for a person conducting a business or undertaking

1.0 Introduction; Purpose and General Principles

1.1 Purpose

This Ozbestos Asbestos Removal Control Plan (ARCP) is designed to demonstrate our commitment to our workers health and safety at work whilst removing asbestos, as well as address the contractual and legislative requirements for each project.

The ARCP and associated SWMS shall detail the method for the safe removal and encapsulation of the asbestos in accordance with current legislative requirements.

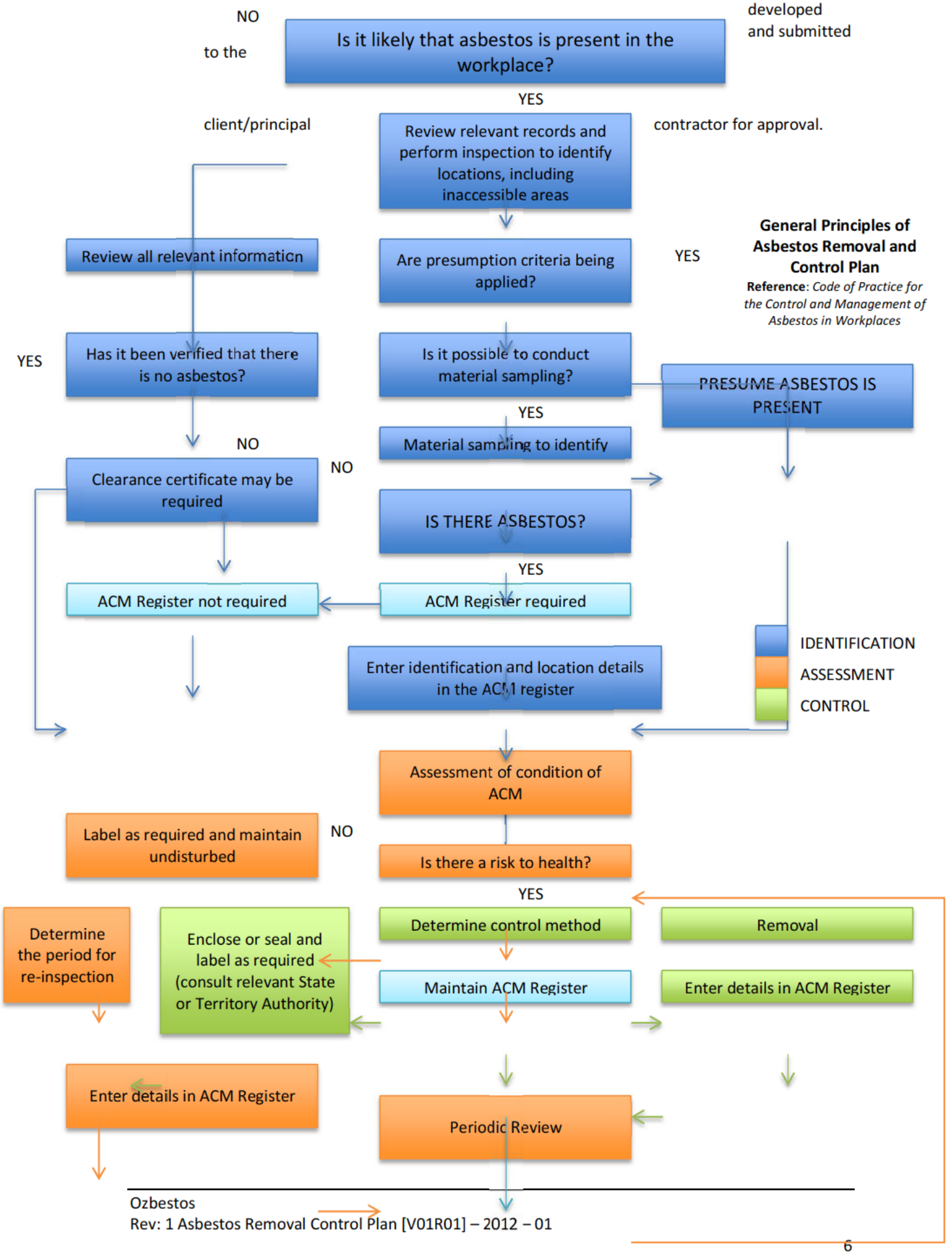
1.2 General Principles

All works shall be carried out under the direct supervision of the licensed asbestos removalist and an Occupational Hygienist with experience in asbestos risk management. Ozbestos shall provide on site support to ensure that all works are conducted in accordance with the licensing conditions and the occupational hygienist will ensure all current legislative requirements are adhered to.

This will include putting the following measures in place to address potential impacts:

- Works on site shall be undertaken in accordance with the WHS Act 2011, WHS Regulation 2011, the WHS Code of Practice 'How to Safety Remove Asbestos', and the National Occupational Health and Safety Commission Code of Practice for the Safe Removal of Asbestos 2nd Edition [NOHSC:2002 (2005)].
- All workers shall be provided with and wear appropriate PPE whilst in the work area such as protective clothing/coveralls, steel capped boots, eye protection, gloves, dust mask or respirator and other PPE specifically for hazmat remediation.
- A wet decontamination unit will be set up on site to enable on site personal decontamination.
- The area will be defined as containing asbestos and appropriate barricades and signage will be established in accordance with the on-site recommendations of an Occupational Hygienist.
- All workers will undergo a site induction prior to entering the asbestos work area to ensure that they are adequately trained to recognize environmental aspects, hygiene and WHS issues. The induction will incorporate the activities required to manage contamination issues as detailed in this plan.
- A water supply is to be on site for dust suppression and wetting down of ACM.
- An inspection of the work area shall be carried out each day to make sure no asbestos impacted material is loose outside of the work area.
- Continuous asbestos fibre monitoring will be conducted as required by a NATA accredited hygienist at the perimeter of the asbestos removal area. Monitoring results will be checked daily in accordance with the Guidance Note on the membrane filter method for estimating airborne asbestos fibres 2nd Edition [NOHSC:3003 (2005).
- The hygienist shall carry out a visual assessment of the area following completion of the works.
- Control measures must be established to prevent exposure to airborne asbestos fibres and should take into account the results of risk assessments conducted for the identified or presumed ACM.
- All workers and contractors on site must be advised of the ARCP and ACM Register at time of induction, and as requested, permitted access to the register for their review.

- Once a risk assessment has been completed and controls established, a SWMS is to be developed and submitted to the client/principal contractor for approval.



General Principles of Asbestos Removal and Control Plan

Reference: *Code of Practice for the Control and Management of Asbestos in Workplaces*

2.0 Policies

Copies of Ozbestos policies are included in *Annexure A* to this Asbestos Removal Control Plan.

The content of these policies will be conveyed to workers during site inductions.

In addition, Ozbestos will ensure the following objectives are achieved:

- Comply with applicable Legislation;
- Deliver effective asbestos management work programs;
- Ensure that no one is exposed to airborne asbestos fibres;
- Ensure compliance with this Asbestos Removal Control Plan; and
- Ensure the asbestos database and register is accurate.

3.0 Regulatory Requirements

This asbestos management plan is consistent with removal, encapsulation, transport, and disposal or otherwise potential disturbance of asbestos containing materials. All these activities shall be performed in accordance with the WHS Act 2011, WHS Regulation 2011, applicable WHS Codes of Practice and Australian Standards. Refer Annexure B, Legislation Reference Register.

3.1 Company Requirements

- Protect Managers and/or Site Managers must be notified before asbestos removal work commences;
- The client's representative must be notified before asbestos removal works commence;
- An approval from the client is required prior to any removal works commencing;
- Any new asbestos identified must be explicitly notified to the Principal Contractor/client, project managers and/or site managers;
- All staff and contractors must comply with this Plan; and
- Tenants and other interested parties must be notified of the asbestos removal work in advance and asbestos awareness training shall be made available to those persons affected by the asbestos work.

4.0 Organisational Responsibilities

PERSON / PARTY	RESPONSIBILITY
WHS Manager (WHSM)	• Endorse Asbestos Management Plan
Project Manager (PM)	• Ensure a copy of the WorkSafe notification, approvals, plans and any hazardous material reports are available on the worksite. • Ensure all staff and contractors are aware of and comply with the plan. • Project management functions. • Identification and bringing to the attention of appropriate staff, any suspected ACM. • Ensure all contractors working on asbestos are aware of and meet the requirement of the plan. • Review of project ACM Register prior to works starting.
Site Manager (SM) / Site Supervisor (SS)	• Obtain from any Subcontractors a site specific SWMS for the task to be carried out; • Ensure project personnel (including contractors) are inducted. • Surveying, identification and arranging for sampling of suspected asbestos containing materials by competent persons. • Training and awareness. • Inspections and monitoring. • Manage the asbestos works program and removal program. • Respond to incidents. • Document preparation, recording and filing. • Manage asbestos inspection contractor. Ensure awareness of the presence of ACM is identified and communicated as part of the induction process.
Contractors (C) and Trades Staff (TS)	• Not to impact on an ACM without complying with the plan. • To bring to the attention of the SM/HSE any suspect material. • Refer to the plan for guidance to identify, manage, and remove asbestos. • Apply for Asbestos Permit to Work when performing asbestos removal work that requires notification. • Undergo company Contractor Induction. • Develop a site specific asbestos removal control plan, SWMS AND Risk Assessment prior to performing the asbestos removal work.

5.0 Licensed Contractors

ACM falls into two broad categories (bonded and friable) and the category the ACM falls under will determine how the ACM is removed. If the ACM is classified as friable (e.g. sprayed limpet, pipe lagging, millboard insulation, vinyl sheet floor coverings with asbestos backing material, etc.) it is necessary to engage a contractor who holds a current AS-A class license for friable asbestos removal. The holder of an AS-A licence is also permitted to remove Bonded ACM.

If the ACM is classified as bonded, (e.g. asbestos cement wall linings, Super Six roof sheeting, vinyl floor tiles, Zelemite electrical boards, etc.) the ACM may be removed by the contractor who holds a current AS-B licence for bonded asbestos removal. The holder of an AS-B licence is not permitted to remove friable ACM.

5.1 Barricades and signage

Barricades and signage will be utilized to clearly indicate the work area where the asbestos removal work is being performed. The signs are to be placed in positions so that people are aware of where the asbestos removal work area is and should remain in place until removal is completed and clearance to re-occupy has been granted.

The signs shall be in accordance with AS1319 Safety signs for the Occupational Environment.

The type of barricading used shall be relevant to the level of risk. For friable asbestos removal work, solid barricades will be used. Tape is appropriate for non-friable asbestos removal work of a short duration.

6.0 Removal of ACM

6.1 Method

- This building is to be demolished and the asbestos is required to be removed first
- All asbestos removal, transport and disposal must be performed in accordance with legislative requirements.
- The asbestos work area and the asbestos removal site should be clearly defined and access restricted to prevent unauthorized personnel entering that work area. Potential entry points to the asbestos work area should be signposted or labeled in accordance with AS1319-1994 Safety Signs for the Occupational Environment.
- **Friable Asbestos**
- Air Monitoring is required for all friable asbestos removal and will be in place
- Build enclosure and install neg-air units and decontamination unit as required
- Worker using the appropriate PPE will remove the lagging using hand tools to remove the render
- All rubble and pipe lagging is to be placed in asbestos disposal bags ready for disposal
- All waste and tools are to be decontaminated before leaving the removal area
- Final clean by vacuum and wet wipe the removal area
- Inspection by a Class A Asbestos Assessor
- Clearance monitor in removal area
- Strip down after clearance and treat all waste as contaminated
- **Bonded Removal**

- All floor tiles and sheeting is to be removed with minimal breakage and dampening method to be used
- All tiles and sheeting to be placed in asbestos waste disposal bags, wrapped in 200um plastic and or drums ready for disposal
- Final clean removal area by vacuum and we wipe
- Inspection by Class A Asbestos Assessor and clearance issued

6.2 Removing Friable Asbestos

When Ozbestos is removing friable asbestos, the following controls shall be implemented as far as reasonably practicable:

- The asbestos removal area is to be enclosed to prevent the release of respirable asbestos fires.
- Negative pressure is to be used, provided the enclosure has been tested for leaks.
- The wet method of asbestos removal will be used.
- Works will not commence until the air monitoring is started by an independent licensed asbestos assessor following the testing for leaks.
- Air monitoring shall be undertaken during the asbestos removal work at times decided by the independent assessor undertaking the monitoring.
- Any glove bag used to enclose the asbestos removal area shall be dismantled and disposed of safely.

The enclosure shall not be dismantled until the results are received from the licensed asbestos assessor who undertook the air monitoring and the client/principal contractor (if applicable).

The results must show that the respirable fibre level is below 0.01 fibres/ml.

A clearance certificate is to be obtained following the safe removal of the enclosure.

6.3 Personal decontamination

- Personal decontamination must be undertaken each time workers leave the asbestos work area and at the completion of the asbestos removal work. Personal decontamination should be done within the asbestos work area where re-contamination cannot occur.
- When leaving the work area, all site personnel must make their way to the nominated wet decontamination unit, remove their coveralls and clean their masks and boots using the wet rags. Respirator must remain on during decontamination and must only be removed on completion of the decontamination.
- All equipment that is to leave the work area must also be decontaminated in the dry decontamination area with the use of wet rags.
- Once the decontamination is complete, contaminated rags and coveralls must be disposed of in 200µm ploythene bags.
- At completion of works all asbestos related materials including polythene, coveralls, geo-fabric and rags must be double wrapped and sealed for disposal as asbestos contaminated waste.

6.4 Waste disposal

When carrying out licensed asbestos removal work, Ozbestos is responsible to ensure that asbestos waste is contained and labeled in accordance with legislative requirements prior to being removed from the asbestos removal area. It must be disposed of as soon as possible to an authorized asbestos waste facility. Other requirements for waste containment and disposal include but are not limited to:

- Disposable PPE that has been used in the asbestos work area and is contaminated with asbestos dust must be sealed and labeled in a container and disposed of upon completion of the asbestos removal work;
- Clothing that is non-disposable should be laundered at a laundry that is equipped to launder asbestos contaminated clothing or if this is not practical it should be sealed in a container until it is reused for asbestos removal purposes. The container must be labeled;
- Alternatively, clothing may be decontaminated prior to it being removed from the asbestos removal area.

The site supervisor is responsible to establish the site-specific arrangements for waste disposal in accordance with legislative requirements. For any asbestos waste removal vehicle leaving the site, the following information must be recorded:

- Origin of material;
- Material type;
- Approximate volume; and
- Truck registration number.

The Site Supervisor shall collect these details and report to the Project Manager at the conclusion of each shift.

Transport and disposal of asbestos waste shall be carried out only in a manner that will prevent the liberation of asbestos fibres in to the atmosphere.

To achieve “final completion” of an asbestos removal activity, Ozbestos require verification that the asbestos waste has been transported and disposed of in accordance with applicable legislative requirements at Mugga Lane Waste Facility.

6.5 Airborne Fibre Monitoring

Air monitoring involves sampling airborne asbestos fibres to assist in assessing exposure to asbestos and the effectiveness of implemented control measures. It must be conducted in accordance with the Guidance Note on the Membrane Filter Method for Estimating Airborne Asbestos Dust 2nd Edition [NOHSC:3003 (2005)] by an independent licensed asbestos assessor (friable asbestos) or a ‘competent person (non friable).
Air monitoring requirements will vary depending on the type of asbestos being removed, the location and position of the asbestos, if an enclosure is used and whether the asbestos removal work is within a building or outside.

Air monitoring is mandatory for friable asbestos removal work. This includes prior to dismantling an enclosure and for the purposes of the clearance inspection.

Air monitoring is not required for removal of more than 10m2 of non-friable asbestos removal but may be considered to be carried out by an independent licensed asbestos assessor or competent person to ensure compliance with the duty to eliminate or minimize exposure to airborne asbestos and to ensure that the exposure standard is not exceeded.

Air monitoring may also be carried out when:

- The asbestos work is being undertaken next to a public location;

- It is not clear whether new or existing control measures are effective;
- There is evidence (for example dust deposits are outside the enclosure) the control measures have deteriorated as a result of poor maintenance;
- Modifications or changes to safe work methods have occurred that may adversely affect workers exposure;
- There has been an uncontrolled disturbance of asbestos at the workplace; and
- Before and during Class A asbestos removal work

Air monitoring is also conducted after the ACM has been completely removed and the work area has passed a satisfactory visual inspection to determine whether the area is safe to reoccupy by unprotected persons.

6.6 Results of the Air Monitoring

Action to be taken following the results of the air monitoring depend on the respirable fibre levels are as follows:

Action Level	Control	Action
Less than 0.01 fibres/ml	No new control measures are necessary	Continue with existing control measures
At 0.01 fibres/ml or more than 0.01 fibres/ml but less than or equal to 0.02 fibres/ml	Review	Review Control Measures
	Investigate	Investigate the cause
	Implement	Implement controls to eliminate or minimize exposure and prevent further release
More than 0.03 fibres/ml	Stop removal work	Stop removal work
	Investigate the cause	Conduct a thorough visual inspection of the enclosure (if used) and associated equipment in consultation with all workers involved in the removal work
	Implement controls to eliminate or minimize exposure and prevent further release	Extend the isolated/barricaded area around the removal area/enclosure as far as reasonably practicable (until fibre levels are at or below 0.01 fibres/ml, wet wipe and vacuum the surrounding area, seal any identified leaks (e.g. with expandable foam or tape) and smoke test the enclosure until it is satisfactorily sealed
	Do not recommence removal work until further air monitoring is conducted	Do not recommence until fibre levels are at or below 0.01 fibres/ml

6.7 Clearance Certificates

For all ACM removal works, before an area can be re-occupied post asbestos removal, a clearance inspection must be carried out. An independent Class A Asbestos Assessor must undertake the clearance inspection and a clearance certificate must be obtained from that person. Clearance monitoring is a mandatory requirement for all asbestos removal works.

The complete removal of all ACM must be verified with a written clearance certificate, which must include details of a satisfactory clearance inspection conducted by the Class A Asbestos Assessor. If clearance air monitoring has been conducted, the results of the clearance monitoring must be included as part of the clearance certificate as well.

6.8 Record Keeping

Ozbestos shall maintain detailed records of all activities relating to asbestos works which have been undertaken on site. The records kept include but are not limited to:

- Copies of all asbestos survey/audit reports, including updates and amendments;
- Risk Assessments and SWMS documents;
- Ozbestos Asbestos removal permits;
- Air Monitoring and Clearance certificate records;
- Records pertaining to the informing of employees/contractors about the presence of asbestos on site, and that employees/contractors have been appropriately trained in safe work procedures and practices;
- Clearance certificates indicating areas are safe to reoccupy after asbestos abatement works;
- Airborne fibre monitoring results; and
- Previous versions of the asbestos register.

All documentation is to be retained in the one file structure under the heading of Asbestos Management. All asbestos related records and documents are to be retained for a period of 30 years.

6.9 Tools and Equipment

Tools and equipment to be used for asbestos removal jobs shall be used to minimise the generation of airborne asbestos fibres. High-speed abrasive power or pneumatic tools such as angle grinders, sander, 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 in accordance with legislative requirements); or
- Disposed of in sealed containers similar to that for disposal of the ACM waste product.

Vacuum cleaners used for asbestos cleaning must comply with:

- AS 3544-1988 (Industrial Vacuum Cleaners for Particulates Hazardous to Health); and
- AS4260-1997 High Efficiency Particulate Air Filters (HEPA)- Classification, construction and performance.

6.10 Electrical

The risks associated with electrical equipment shall be controlled via the following procedures:

- De-energisation and removal from the asbestos work area. If the electrical equipment/services can not be disconnected and removed they must be de-energised prior to commencement of work;
- Any electrical cabling or equipment remaining in the asbestos removal area must be labeled and protected from mechanical damage or the ingress of water in accordance with AS/NZS3000 Wiring Rules;
- A licensed electrician must safely remove and re-install electrical cables and equipment;
- For electrical equipment such as fire detectors, smoke detectors and thermal detectors, only a person able to remove and isolate the circuits and heads as required prior to the asbestos removal work will be engaged. Testing will be carried out following the removal work once services are re-energised;
- All portable electrical tools and equipment, including flexible leads and any electrical installations utilized by workers during asbestos removal, shall comply with AS/NZS 3012 Electrical Installations – construction and demolition sites.

6.11 Confined Spaces

Removal of asbestos in a confined space shall only be undertaken where it is not possible to avoid doing work in that space. A safe system of work shall be developed for inclusion in a Safe Work Method Statement (SWMS).

Friable asbestos removal requires the use of enclosures that are designed to eliminate or minimize the release of airborne asbestos spreading from the asbestos removal work area. Depending on the conditions inside the enclosure, an asbestos enclosure may also become a confined space and will require the development of a site-specific SWMS and rescue plan.

6.12 Falls

Work at heights shall not be undertaken if the task can be performed on the ground. If asbestos removal work must be undertaken at height, then it shall be undertaken in accordance with the requirements of the legislation. A SWMS shall also be developed in consultation with workers who are required to be working at height.

6.13 PPE

Ozbestos shall provide all workers with PPE that is suitable for the asbestos removal work.

The PPE provided must be worn at all times during the work in the asbestos removal area. Mandatory PPE required includes but is not limited to:

Protective clothing such as disposable coveralls;

Steel capped, lace less, rubber soled footwear or gumboots;

Disposable gloves

Respiratory protective equipment (RPE) conforming to the requirements of AS/NZS 1716 Selection, use and maintenance of respiratory protective devices. The level of RPE shall be determined by a competent person.

Selection, use and maintenance of PPE shall be in accordance with the WHS CoP How to Safety Remove Asbestos and applicable Australian Standards.

7.0 Incident, Emergencies and First Aid

7.1 Emergencies

All Ozbestos employees and subcontractors shall participate in site induction where they will be briefed on the site emergency evacuation arrangements.

Ozbestos workers shall also take part in planned evacuation drills and will communicate any changes to the emergency evacuation arrangements via tool box talks.

Should an incident occur that triggers an emergency situation, the Site Supervisor will immediately call Emergency Services (000 or 112 from mobiles).

The Site Supervisor is the person responsible to initiate the emergency response and take control of the situation until emergency services arrive.

Where applicable, Ozbestos shall adopt the existing emergency evacuation procedures for the site.

7.2 First Aid

Workers shall be advised of First Aid arrangements during site induction.

First Aid Kits are provided in company vehicles and within the worksite

First Aid injuries shall be recorded on the company incident report form. Records shall be maintained.

7.3 Incidents

Ozbestos shall encourage all employees to report hazards immediately. The nominated **Site Supervisor** will investigate all reported hazards and document corrective actions. It is the responsibility of the **Site Supervisor** to ensure an incident report is completed and an incident investigation if deemed necessary is carried out within 3 working days of the event being known.

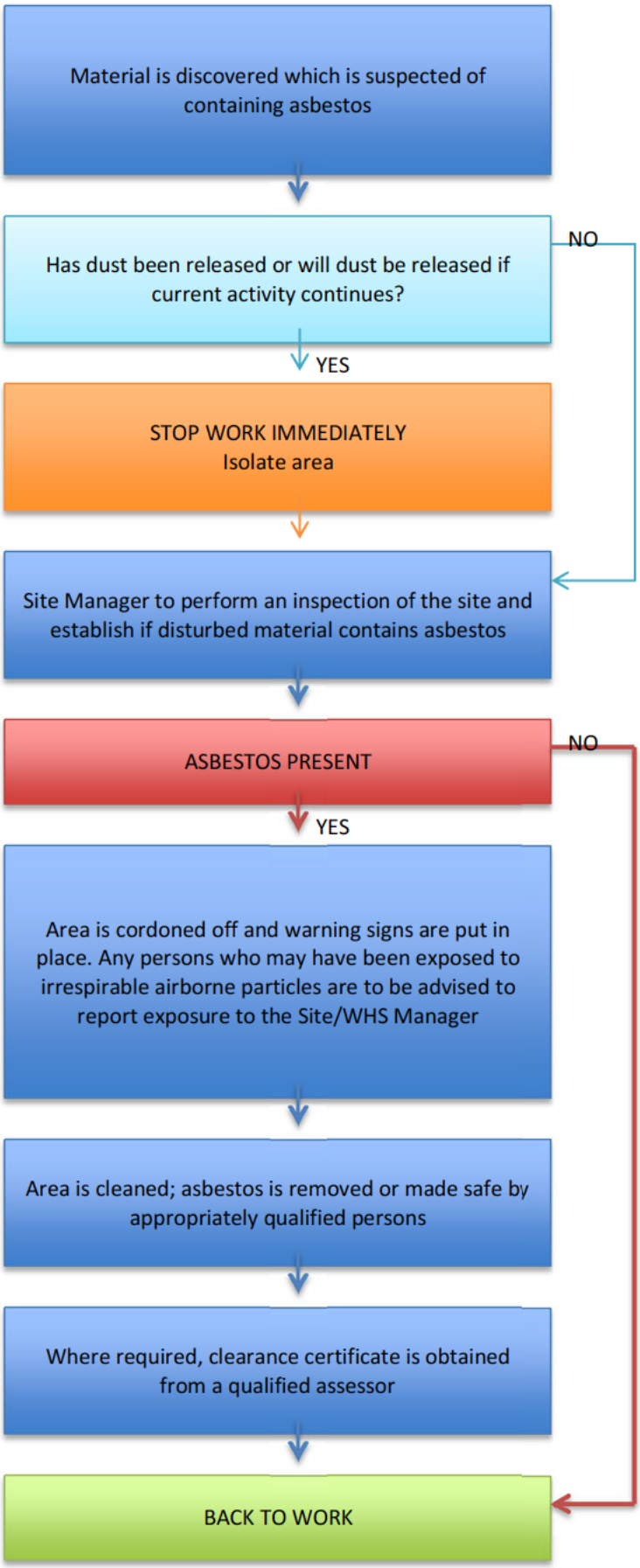
A copy of relevant records shall be provided to the principal contractor. In the event of an incident, the site supervisor is to notify the managing director and the principal contractor immediately.

Should an injury or incident result in medical treatment or lost time, the site supervisor is also responsible to notify WorkSafe (refer WorkSafe website). A Workers Compensation Claim form will be issued to the injured worker if they wish to proceed with this process.

Near miss incidents (where standard controls are violated or do not work as envisaged, but where no one is hurt or no damage or loss occurs), hazards and first aid injuries shall also be recorded on an incident report and notified to the principal contractor.

Refer Incident Response Flow Chart below which will be followed if ACM is suddenly discovered.

7.4 Incident Response Flow Chart



8.0 Training

8.1 Asbestos Awareness Training

Asbestos awareness training provides participants with a general overview of asbestos including history and background; asbestos types and properties; common asbestos situations; health effects; risk in perspective and management of asbestos. All Ozbestos workers have attended Asbestos Awareness Training.

A competent person prior to commencement of work shall provide induction training to all Ozbestos workers and subcontractors. In addition, workers carrying out the removal works shall be inducted into the ARCP, Hazardous Materials Report, Asbestos Register and applicable SWMS.

All workers shall be informed of the requirements and availability of the WHS Code of Practice 'How to Safety Remove Asbestos', a copy of which will be available on site.

9.0 Documentation Requirements

9.1 Asbestos Containing Material (ACM) Register Form 1

The Ozbestos ACM register will be generated where no report has been received from the client or when additional ACM items have been identified but not listed in previous reports.

The Ozbestos ACM register and the clients ACM report will be monitored and signed off where required, when ACM works are completed. Supporting information that should be documented in the register includes but is not limited to;

- Register of ACM items;

10.0 Annexures

Annexure C Asbestos Containing Material (ACM) Register, Asbestos Containing Material (ACM)

Form 1: ACM Register

Project Name:	**Block 54 & 84 Section 8 Phillip / Borrowdale House**	**Report date:**	**9/4/2014**
Project Number:			

Item No.	Date entered	Entered by	Location of ACM	Sample Tested Y/N	Asbestos Bonded / Friable / NA	Description of ACM type & condition, remedial works planned (Scattered pieces, sheeting, pipe lagging etc)	Date work completed
	9/4/14	P Hengst	1st floor insulation to water pipes in masonry walls	Y	Friable	Pipe lagging to be removed pre-demolition	
	9/4/14	P Hengst	2nd floor insulation to water pipes in masonry walls	Y	Friable	Pipe lagging to be removed pre-demolition	
	9/4/14	P Hengst	Ground floor insulation to water pipes in masonry walls	Y	Friable	Pipe lagging to be removed pre-demolition	
	9/4/14	P Hengst	Basement Storage roll of wire	Y	Friable	Wire to be removed pre-demolition	
	9/4/14	P Hengst	2nd Floor electrical cupboard vinyl floor tiles	Y	Bonded	To be removed pre-demolition Approx. 1m2	
	9/4/14	P Hengst	2nd Floor ceiling space packers	Y	Bonded	To be removed pre-demolition	
	9/4/14	P Hengst	1st Floor under carpet throughout beige floor tiles	Y	Bonded	To be removed pre-demolition 578m2	
	9/4/14	P Hengst	Ground floor under carpet throughout beige floor tiles	Y	Bonded	To be removed pre-demolition 418m2	
	9/4/14	P Hengst	Fire hydrant closet ceiling	Y	Bonded	To be removed pre-demolition 1m2	
	9/4/14	P Hengst	Basement plant room gasket to boiler flue	Y	Bonded	To be removed pre-demolition	

Form 1: ACM Register

	9/4/14	**P Hengst**	**Sub-floor pipe fragments and pipes**	**Y**	**Bonded**	**To be removed pre-demolition**	
	9/4/14	**P Hengst**	**Sub-floor sheet debris**	**Y**	**Bonded**	**To be removed pre-demolition**	
	9/4/14	**P Hengst**	**Post office rear office beige**	**Y**	**Bonded**	**To be removed pre-demolition 6m2**	
	9/4/14	**P Hengst**	**External expansion joints**	**Y**	**Bonded**	**To be removed pre-demolition**	

SAFE WORK METHOD STATEMENT – REMOVAL OF FRIABLE ASBESTOS

From: Walker, Karen
Sent: Wednesday, 9 April 2014 2:59 PM
To: 'youngwright@bigpond.com'
Subject: FW: Blocks 54 & 84 Se3ction 8 Phillip application Number 201017864,-A & B / DA Currency
Attachments: 20140409 S165 endorsement letter fails to satisfy.pdf

Hi Chris,

Please find attached a response to your request below.

Thanks,
Karen

Karen Walker| Leasing DA
Phone 02 6207 7257 | Fax 02 6207 1856
Planning and Delivery Division | Environment and Sustainable Development | **ACT Government**
Dame Pattie Menzies House, Challis Street, Dickson | GPO Box 158 Canberra ACT 2601 | www.environment.act.gov.au
Mon - Wed, 9:30 - 14:30

From: Chris Young-Wright [mailto:youngwright@bigpond.com]
Sent: Wednesday, 9 April 2014 1:53 PM
To: Messer, Sue
Subject: Blocks 54 & 84 Se3ction 8 Phillip application Number 201017864,-A & B / DA Currency

Mrs. Messer,
Re: Blocks 54 & 84 Se3ction 8 Phillip application Number 201017864,-A & B / DA Currency
Dear Sue,
Attached find our letter requesting an extension of the timeframe of conditions A1 & A2 of your Notice of Decision dated 4 July 2012 for above Application.
Regards
Chris Young-Wright.

ACT Government
Environment and Sustainable Development

Mr Chris Young-Wright
C/0- 16 Meldrum Street
WESTON ACT 2601

Dear Mr Young-Wright

BLOCKS 54 & 84 SECTION 8 - PHILLIP
Application Number: 201018561
Lessee: BORROWDALE HOUSE PTY LIMITED

I refer to your request of 9 April 2014 and supporting information you submitted requesting an extension of time to comply with condition A1 of the Notice of Decision with respect to the above Development Application.

I note that condition A1 of the Notice of Decision requires the land being deemed suitable for the proposed residential use, prior to the new Crown lease being issued.

After consideration of the details contained in the 'Asbestos removal control plan Borrowdale house' and your email, a 6 month extension of time to complete this development is granted to 4 January 2015.

If you would like to discuss this matter further please telephone me on 6207 2869

Yours sincerely

S. A. Messer

Sue Messer
Delegate
Planning and land authority
Environment and Sustainable Development Directorate

9 April 2014

From: Walker, Karen
Sent: Tuesday, 15 April 2014 12:16 PM
To: 'youngwright@bigpond.com'
Subject: 20140415 Further extension of time granted til 3 July 2015
Attachments: 20140415 Further extension of time granted til 3 July 2015.pdf

Hi Chris,

Could you please replace the previously sent document with the one attached. The one sent earlier has the incorrect DA number.

Thanks,
Karen

Karen Walker| Leasing DA
Phone 02 6207 7257 | Fax 02 6207 1856
Planning and Delivery Division | Environment and Sustainable Development | **ACT Government**
Dame Pattie Menzies House, Challis Street, Dickson | GPO Box 158 Canberra ACT 2601 | www.environment.act.gov.au
Mon - Wed, 9:30 - 14:30

ACT Government
Environment and Sustainable Development

Mr Chris Young-Wright
C/0- 16 Meldrum Street
WESTON ACT 2601

Dear Mr Young-Wright

BLOCKS 54 & 84 SECTION 8 - PHILLIP
Application Number: 201017864
Lessee: BORROWDALE HOUSE PTY LIMITED

I refer to your request of 14 April 2014 and supporting information you submitted requesting an extension of time to comply with condition A1 of the Notice of Decision with respect to the above Development Application.

I note that condition A1 of the Notice of Decision requires the land being deemed suitable for the proposed residential use, prior to the new Crown lease being issued.

After consideration of the details contained in your email and supporting explanatory letter, a further extension of time to comply with condition A1 of the Notice of Decision has been granted until 3 July 2015.

Please note that NO further extension will be granted. If the leasing component of this development application is not finalised by 3 July 2015, it will expire in accordance with S185 of the Planning and Development Act 2007.

If you would like to discuss this matter further please telephone me on 6207 2869

Yours sincerely

S. A. Messer

Sue Messer
Delegate
Planning and land authority
Environment and Sustainable Development Directorate

15 April 2014

From: Walker, Karen
Sent: Tuesday, 15 April 2014 11:12 AM
To: Walker, Karen
Subject: FW: Blocks 54 & 84 Section 8 - Phillip- Request for extension
Attachments: ACTPLA Letter request.pdf

From: Chris Young-Wright [mailto:youngwright@bigpond.com]
Sent: Monday, 14 April 2014 2:12 PM
To: Messer, Sue
Subject: Blocks 54 & 84 Section 8 - Phillip- Request for extension

Dear Mrs. Messer,
Re: Blocks 54 & 84 Section 8 – Phillip
Request for extension of Time
Dear Sue,
As discussed discussions with Leasing agents have identified a likely space for Aust Post, which will allow us to proceed with the Asbestos removal.
The date the space will become available in nine months.
Given its availability and the scope of work we are requesting an extension of time to satisfy condition A1.
See attached Letter.
Faithfully.
Chris Young-Wright.
The Applicant

Young-Wright **Architects**
c/o 16 Meldrum St Weston ACT 2611
M [redacted]
e-mail youngwright@bigpond.com

Mrs. Susan Messer
Delegate of the planning and land authority

Dear Mrs. Messer

Blocks 54 & 84 Section 8 – Phillip
Application Number: 201017864, 201017864A & 201017864B
Lease: Borrowdale House Pty Limited

Regarding the correction to the Notice of Decision dated 4 July 2012.

Thank you for your timely response to our request for an extension of time to comply with condition A1 of the Notice of Decision of the above Development Application.

As advised, we will need to relocate Aust. Post before we undertake the Asbestos removal.

A condition of our Lease with Australia Post (Ground Floor Tenant) requires six months notice before the agreed relocation for the duration of the building works hence Demolition can not be started for a minimum of six months following our notice to Aust. Post.

We will be entering into discussions with Aust. Post in the near future, and have identified a promising area for there relocation which will become vacant in nine months.

Given the likely date the Aust. Post's space will become available, and the extent of work and there relocation we request from the Authority a further 6 (six month) extension to the timeframe (3 July 2015) to comply with condition A1 and as outlined in A2. & A3.

If you would like to discuss this request further, please telephone me on [redacted]

Yours Sincerely

[redacted]

Chris Young-Wright

The Applicant DA 201017864,- 201017864B

14thy. April 2014

From: Cilliers, George
Sent: Friday, 28 June 2019 7:10 PM
To: [redacted]
Cc: Pieter Van Der Walt; Phillips, Brett; Bennett, JamesP
Subject: RE: DA201017864 (Borrowdale House) - request for extension to address DA conditions [SEC=UNCLASSIFIED]
Attachments: 20190602 Correction DA201017864 Extension.pdf

Dear [redacted]
Thank you for your application for a six month extension pursuant to condition A2(b) of the (corrected) Notice of Decision for DA201017864. Initially, it was contemplated to make a decision within this week. I regret to advise that the planning and land authority has not made a decision at this stage and is currently obtaining further advice to inform its consideration of your application. I note that your application for extension was lodged on 4 June 2019 and is therefore within the timeframe for the planning and land authority to continue to consider such an extension. The planning and land authority will inform you as soon as possible about its decision.
Regards

George Cilliers | Executive Branch Manager, Development Assessment
Phone 02 6207 6804
Planning Delivery| Environment, Planning and Sustainable Development| **ACT Government**
Dame Pattie Menzies House, Challis Street, Dickson | GPO Box 1908 Canberra ACT 2601 | www.actpla.act.gov.au

From: [redacted]
Sent: Tuesday, 4 June 2019 8:18 PM
To: Phillips, Brett <Brett.Phillips@act.gov.au>
Cc: Cilliers, George <George.Cilliers@act.gov.au>; Pieter Van Der Walt [redacted]
Subject: RE: DA201017864 (Borrowdale House) - request for extension to address DA conditions

Dear Brett,

On behalf of Cromwell Property Group, please find attached letter requesting extension of time to complete conditions under the Notice of Decision for the abovementioned development application. Should you have any queries please contact Pieter in the first instance.

Regards,

[redacted]
Associate Director

5/32 Lonsdale Street, Braddon ACT 2612
Mobile [redacted]
canberratownplanning.com.au

CANBERRA TOWN PLANNING

Pieter van der Walt
[redacted]
CANBERRATOWNPLANNING.COM.AU
ABN 66 131 577 261

Brett Phillips
Executive Director – Planning Delivery
Environment, Planning and Sustainable Development Directorate - Planning
Dame Pattie Menzies House,
16 Challis Street,
Dickson ACT

[redacted]

4 June 2019

Dear Mr. Phillips,

Block 54 Section 8 Phillip – Correction to NOD: DA201017864 Borrowdale House

Canberra Town Planning are acting on behalf of the Lessee in relation to this matter; the Notice of Correction to DA201017864 referring dated 30 June 2017.

Thank you for the opportunity to present this correspondence in relation to the Notice of Correction received from yourself on 30 June 2017. As you would indeed recall, the Lessee approached the Authority in late 2016 and early 2017 seeking consideration of a correction relating to corrections and amendments that were made to the original decisions in June 2011, August 2011, July 2012 and May 2015.

The intention of the corrections was to allow demolition to proceed while the remainder of the decision that dealt with other development (including Lease Variations and Construction works) were not to take effect until the decontamination works have been completed and such works endorsed by the EPA to confirm suitability of the land.

The Authority provided a formal correction to the Notice of Decision dated 15 December 2010 that deleted conditions A1-A3 and inserted the following:

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

(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 A 1 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 A 1, the lessee may apply to the planning and land authority in writing for an extension of time to the approved timeframe.

[redacted]

The Lessee has engaged a contractor (AGH Demolition & Asbestos Removal PTY LTD) to undertake the demolition work with a target to have the site decontaminated by the latest on 28 June 2019.

On 31 May we were advised by the contractor that the works are unlikely to be completed in June 2019 (see correspondence attached). This advice renders the Lessee unable to seek EPA endorsement as per Condition A1(a)-(c) within the required timeframe of the correction as expressed in Condition A2(a).

In line with Condition A2(b), the Lessee requests the Authority provide an extension of time to complete the decontamination works that are underway and provide both the contractor and the Lessee an opportunity to deal with the unforeseen matters preventing the completion of decontamination works.

We note that the completion of the contractors works would culminate in advice being provided to the EPA seeking their advice that the site suitability is confirmed. The Lessee is committed to completing this work at the earliest time possible and endeavour to continue regular correspondence with the Authority and EPA to provide updates as to the progress of the works currently underway.

We ask the Authority's consideration for a 6 month extension to meet the DA Condition, noting that the decontamination works are well underway and were scheduled to be completed shortly, thus paving the way for EPA endorsement to be sought.

Please feel free to contact me should you have any questions in relation to this matter.

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,

Pieter van der Walt
Town Planner

Attachment:
Correspondence to Lessee from demolition contractor: AGH Demolition & Asbestos Removal PTY LTD

Cromwell Property Group
243 Northbourne Avenue
LYNEHAM ACT 2602

31 May 2019

Dear [redacted]

RE: Borrowdale House

Please be advised that due to unforeseen circumstances during the asbestos removal process the intended completion date of 28 June 2019 may need to be extended.

Yours Sincerely

[redacted]

From: Cilliers, George
Sent: Wednesday, 3 July 2019 2:55 PM
To: Bennett, JamesP
Subject: Fwd: DA201017864 (Borrowdale House) - request for extension to address DA conditions [SEC=UNCLASSIFIED]
Attachments: Cromwell Letter to EPSDD_3.7.pdf

FYI

Get Outlook for iOS

From: [redacted]
Sent: Wednesday, July 3, 2019 2:17:32 PM
To: Cilliers, George
Cc: Pieter Van Der Walt
Subject: RE: DA201017864 (Borrowdale House) - request for extension to address DA conditions [SEC=UNCLASSIFIED]

Good afternoon George,

Please find attached written advice as requested in relation to Condition A1 of DA201017864. Trust that this assists with your consideration of the request, should you require further information on this matter please let me know.

Regards,

[redacted]
Town Planner

Mobile [redacted]

From: Cilliers, George <George.Cilliers@act.gov.au>
Sent: Tuesday, 2 July 2019 5:14 PM
To: [redacted]
Cc: Pieter Van Der Walt [redacted]
Subject: RE: DA201017864 (Borrowdale House) - request for extension to address DA conditions [SEC=UNCLASSIFIED]

Good afternoon [redacted]
To assist me to consider your request, please provide "written advice of the commencement of activities associated with Condition A1" as mentioned in condition A2(b) of the (corrected) Notice of Decision for DA201017864.
Regards

George Cilliers | Executive Branch Manager, Development Assessment
Phone 02 6207 6804
Planning Delivery| Environment, Planning and Sustainable Development| **ACT Government**
Dame Pattie Menzies House, Challis Street, Dickson | GPO Box 1908 Canberra ACT 2601 | www.actpla.act.gov.au

From: Cilliers, George
Sent: Friday, 28 June 2019 7:10 PM
To: [redacted]@CanberraTownPlanning.com.au>
Cc: Pieter Van Der Walt [redacted] Phillips, Brett <Brett.Phillips@act.gov.au>; Bennett, JamesP <JamesP.Bennett@act.gov.au>
Subject: RE: DA201017864 (Borrowdale House) - request for extension to address DA conditions [SEC=UNCLASSIFIED]

Dear [redacted]
Thank you for your application for a six month extension pursuant to condition A2(b) of the (corrected) Notice of Decision for DA201017864. Initially, it was contemplated to make a decision within this week. I regret to advise that the planning and land authority has not made a decision at this stage and is currently obtaining further advice to inform its consideration of your application. I note that your application for extension was lodged on 4 June 2019 and is therefore within the timeframe for the planning and land authority to continue to consider such an extension. The planning and land authority will inform you as soon as possible about its decision.
Regards

George Cilliers | Executive Branch Manager, Development Assessment
Phone 02 6207 6804
Planning Delivery| Environment, Planning and Sustainable Development| **ACT Government**
Dame Pattie Menzies House, Challis Street, Dickson | GPO Box 1908 Canberra ACT 2601 | www.actpla.act.gov.au

From [redacted]
Sent: Tuesday, 4 June 2019 8:18 PM
To: Phillips, Brett <Brett.Phillips@act.gov.au>
Cc: Cilliers, George <George.Cilliers@act.gov.au>; Pieter Van Der Walt [redacted]>
Subject: RE: DA201017864 (Borrowdale House) - request for extension to address DA conditions

Dear Brett,

On behalf of Cromwell Property Group, please find attached letter requesting extension of time to complete conditions under the Notice of Decision for the abovementioned development application. Should you have any queries please contact Pieter in the first instance.

Regards,

[redacted]
Associate Director

5/32 Lonsdale Street, Braddon ACT 2612
Mobile [redacted]
[redacted]
canberratownplanning.com.au

CROMWELL PROPERTY GROUP

HEAD OFFICE Lvl 19, 200 Mary St, Brisbane QLD 4000 | GPO Box 1093, Brisbane QLD 4001
INVESTORS 1300 268 078 | EMAIL invest@cromwell.com.au
TENANTS 1800 005 657 | EMAIL property@cromwell.com.au
TELEPHONE +61 7 3225 7777
FACSIMILE +61 7 3225 7788
WEBSITE www.cromwellpropertygroup.com

3 July 2019

George Cilliers
Executive Branch Manager, Development Assessment
Environment, Planning and Sustainable Development
ACT Government
GPO Box 1908
Canberra ACT 2601

Attn: George Cilliers

DA201017864 Borrowdale House – Block 54 Section 8 – Phillip

With reference to Canberra Town Planning letter dated 4 June 2019 regarding DA201017864 and the application for an extension of time to complete decontamination works pursuant to Condition A1, this letter is provided to outline the requirements associated with addressing Condition A2(b).

The Lessee commenced planning and procurement for the decontamination in early February 2019 following completion of prior site inspections and detailed Hazmat Remediation reporting undertaken by certified consultants to assist with informing the necessary scope of works.

Initially, tendering contractors submitted a non-conforming scope and price and following further investigation and interrogation of these items, the initial two (2) contractors declined to further participate in the procurement process.

As a result, the Lessee undertook a further separate procurement process with newly selected contractors. Negotiations took place through the month of March until a cost and scope was agreed with the successful contractor in early April 2019. Following appointment, works commenced on site and once underway, formal advice was provided by the contractor undertaking the works that an extension to the contract completion date of 28 June 2019 was required. This extension was due to latent conditions and elements of asbestos containing materials that had not been previously identified within the Hazmat Reporting or inspections of the site.

Furthermore, the Lessee had not commenced remediation works until lease negotiations with the existing tenants within the adjoining Lovett Tower were exhausted and the realisation of the final development plan for both sites was able to be realised. The Department of Prime Minister and Cabinet was the remaining tenant who vacated Lovett Tower at the end of March 2019 with works commencing shortly thereafter.

In consideration of the above elements, the Lessee confirms that the procurement for the remediation works commenced in February 2019, well ahead of the 30 June 2019 expiry date for DA201017864. However, due to circumstances largely out of the control of the Lessee, the works have been delayed, and therefore an extension of 6 months is requested as outlined in the Canberra Town Planning letter aforementioned.

Your consideration and understanding on this matter, is greatly appreciated and should you have further queries, please do not hesitate to contact the undersigned.

Yours faithfully
Cromwell Property Group

Head of Development

Email: [redacted]@cromwell.com.au
Phone: +61 8278 3600
Mobile: [redacted]
Address: Suite 2, Level 14, 167 Macquarie Street, Sydney NSW 2000
www.cromwellpropertygroup.com

From: Bennett, JamesP
Sent: Friday, 12 July 2019 9:00 AM
To: [redacted]; Pieter Van Der Walt
Cc: Cilliers, George
Subject: FW: DA201017864 (Borrowdale House) - request for extension to address DA conditions [SEC=UNCLASSIFIED]
Attachments: 20190712 - Extension of time for DA Condition to January 2020.pdf

Dear [redacted]/Pieter

Please find attached a conditional extension for the time to address DA conditions for DA201017864 (Borrowdale House).

I draw your attention to the need for written progress reports and the timeline for doing so.

Thanks
James

James Bennett | A/g Exeuctive Branch Manager, Development Assessment
Phone 02 6205 4877 | Planning Delivery Division
Environment, Planning and Sustainable Development Directorate | ACT Government
Dame Pattie Menzies House, 16 Challis Street, Dickson | GPO Box 1908 Canberra ACT 2601 | www.planning.act.gov.au

From: [redacted]
Sent: Wednesday, July 3, 2019 2:17:32 PM
To: Cilliers, George
Cc: Pieter Van Der Walt
Subject: RE: DA201017864 (Borrowdale House) - request for extension to address DA conditions [SEC=UNCLASSIFIED]

Good afternoon George,

Please find attached written advice as requested in relation to Condition A1 of DA201017864. Trust that this assists with your consideration of the request, should you require further information on this matter please let me know.

Regards,

[redacted]
Town Planner
Mobile [redacted]

From: Cilliers, George <George.Cilliers@act.gov.au>
Sent: Tuesday, 2 July 2019 5:14 PM

To: [redacted]
Cc: Pieter Van Der Walt [redacted]
Subject: RE: DA201017864 (Borrowdale House) - request for extension to address DA conditions [SEC=UNCLASSIFIED]

Good afternoon [redacted]
To assist me to consider your request, please provide "written advice of the commencement of activities associated with Condition A1" as mentioned in condition A2(b) of the (corrected) Notice of Decision for DA201017864.
Regards

George Cilliers | Executive Branch Manager, Development Assessment
Phone 02 6207 6804
Planning Delivery| Environment, Planning and Sustainable Development| **ACT Government**
Dame Pattie Menzies House, Challis Street, Dickson | GPO Box 1908 Canberra ACT 2601 | www.actpla.act.gov.au

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From: Cilliers, George
Sent: Friday, 28 June 2019 7:10 PM
To: [redacted]
Cc: Pieter Van Der Walt <[redacted]>; Phillips, Brett <Brett.Phillips@act.gov.au>; Bennett, JamesP <JamesP.Bennett@act.gov.au>
Subject: RE: DA201017864 (Borrowdale House) - request for extension to address DA conditions [SEC=UNCLASSIFIED]

Dear [redacted]
Thank you for your application for a six month extension pursuant to condition A2(b) of the (corrected) Notice of Decision for DA201017864. Initially, it was contemplated to make a decision within this week. I regret to advise that the planning and land authority has not made a decision at this stage and is currently obtaining further advice to inform its consideration of your application. I note that your application for extension was lodged on 4 June 2019 and is therefore within the timeframe for the planning and land authority to continue to consider such an extension. The planning and land authority will inform you as soon as possible about its decision.
Regards

George Cilliers | Executive Branch Manager, Development Assessment
Phone 02 6207 6804
Planning Delivery| Environment, Planning and Sustainable Development| **ACT Government**
Dame Pattie Menzies House, Challis Street, Dickson | GPO Box 1908 Canberra ACT 2601 | www.actpla.act.gov.au

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From: [redacted]
Sent: Tuesday, 4 June 2019 8:18 PM
To: Phillips, Brett <Brett.Phillips@act.gov.au>
Cc: Cilliers, George <George.Cilliers@act.gov.au>; Pieter Van Der Walt [redacted]
Subject: RE: DA201017864 (Borrowdale House) - request for extension to address DA conditions

Dear Brett,

On behalf of Cromwell Property Group, please find attached letter requesting extension of time to complete conditions under the Notice of Decision for the abovementioned development application. Should you have any queries please contact Pieter in the first instance.

Regards,

ACT Government
Environment, Planning and Sustainable Development

Pieter van der Walt
Canberra Town Planning

E: [redacted]

Dear Mr van der Walt

Extension of Development Approval Conditions – DA201017864 – Borrowdale House

I refer to your correspondence dated 4 June 2019 requesting an extension of time to complete conditions of development approval DA201017864 as corrected on 30 June 2017.

I also note the further information you have provided on 3 July 2019 in the form of a letter from Mr Chris Hansen of Cromwell Property Group in response to my email request of 2 July 2019 for 'written advice of the commencement of activities associated with Condition A1'.

After considering your original request and the further written advice you provided, I have decided to grant you a conditional six month extension to the approved timeframe. This extension is granted on the condition that you provide me with two progress reports on the actual works undertaken to achieve compliance with this condition. These progress reports must be provided in writing, to the planning and land authority, by 30 September 2019 for Progress Report 1, and 30 November 2019 for Progress Report 2.

The time for completing these activities under Condition A2 is now 12 January 2020.

Given the length of time since the original approval was issued, the planning and land authority is unlikely to grant any further extensions and will only consider a further request for extension in exceptional circumstances.

Yours sincerely

George Cilliers
A/g Executive Group Manager
Planning Delivery
12 July 2019

ACT Planning & Land Authority

Mr Chris Young-Wright
Young Wright Architects
22 Embling Street
Wanniassa ACT 2903

Dear Mr Young-Wright

BLOCK 54 SECTION 8 - PHILLIP
Application Number: 201017864
Lessee: Borrowdale House Pty Limited

I refer to the plans/information you submitted in response to Condition A4 of the Notice of Decision with respect to the above Development Application.

The plans/information now satisfy Condition A4 of the decision and have been endorsed to form part of the above Development Approval.

Please note that any other outstanding conditions of approval in the Notice of Decision may need to be addressed prior to development commencing on the site.

If you would like to discuss this matter further please telephone Rumana Jamaly on 6207 1830 or me on 6207 1854.

Yours sincerely

Ada Schuurmans-Stekhoven
Assessment Officer
Development Assessment
3 May 2011

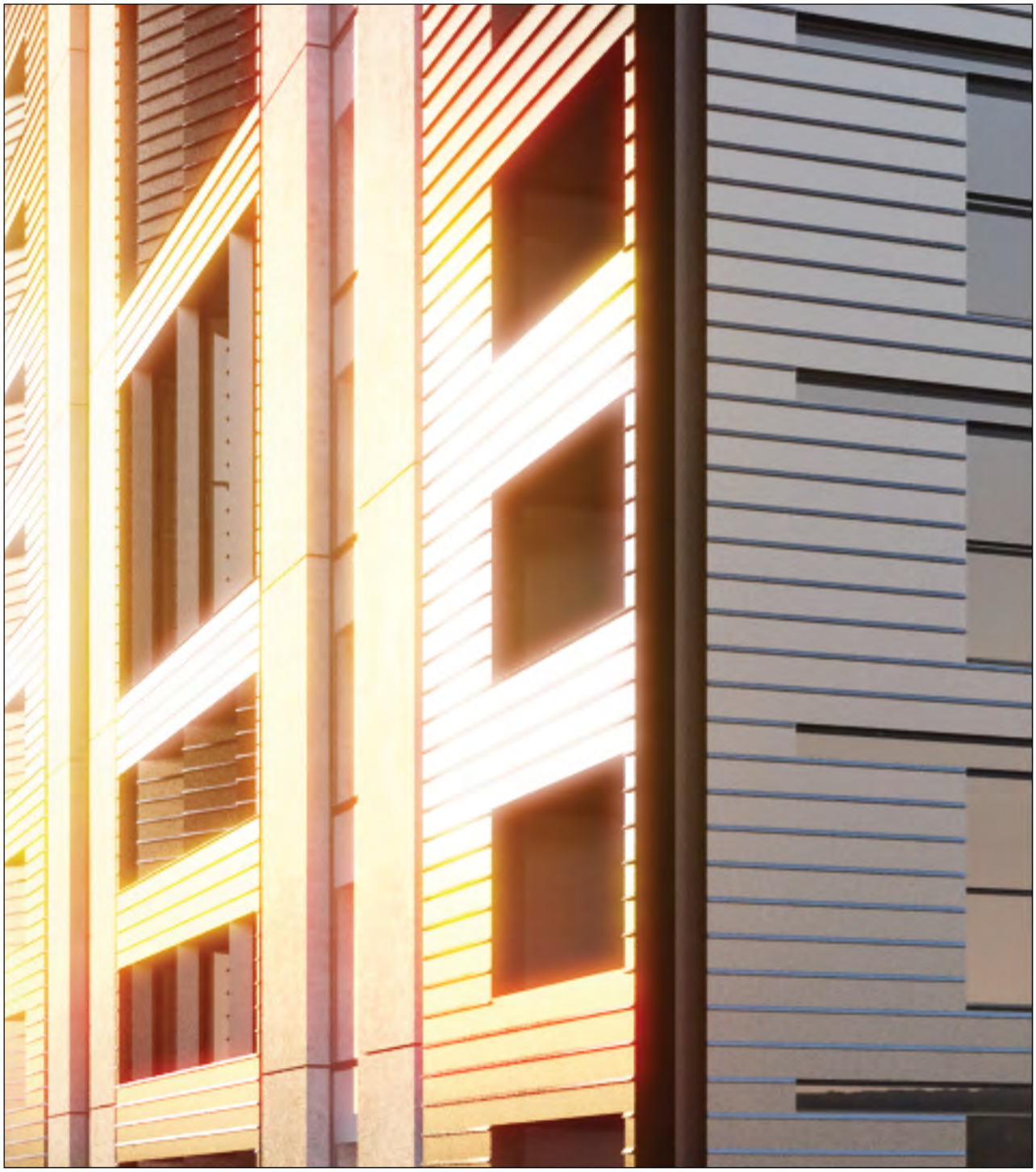
BORROWDALE HOUSE MIXED USE DEVELOPMENT

DA201017864

BLOCKS 54&84, SECTION 8
WODEN TOWN SQUARE, WODEN

BVNArchitecture

RESPONSE TO CONDITIONS IN THE NOTICE OF DECISION
ISSUE 1 / 10 FEBRUARY 2011



BORROWDALE HOUSE MIXED USE DEVELOPMENT

DA201017864

BLOCKS 54&84, SECTION 8
WODEN TOWN SQUARE, WODEN

BVNArchitecture

1.0 REASON FOR THIS REPORT

The 'Notice of Decision', dated 15 December approved the propose redevelopment of Borrowdale House, Woden Town Square with three conditions:

(a) Revised relevant drawing 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 facade 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).

These conditions are listed on Page 3 of 22 of the Notice of Decision.

This report addresses each of these conditions and describes our response to them. Revised drawings are issued to accompany this report, with a list of changes to the proposal. The changes are in response to the conditions listed above.

BORROWDALE HOUSE MIXED USE DEVELOPMENT

DA201017864

BLOCKS 54&84, SECTION 8
WODEN TOWN SQUARE, WODEN

BVNArchitecture

1.0 CONDITION (A): PRIVACY

1.1 CURRENT PROPOSAL

The current proposal complies with interface distances as described in R10/C10 of the Multi-Unit Housing Development Code. This Condition relates to '5.1 Visual Privacy', specifically R219/C219 and R220/C220 and figure C5 from the code.

Figure 01-05 below shows ACTPLA Figure C5 overlaid on a typical floor plan of the proposal, indicating the areas that require slight modification. Following the discussion at ACTPLA on the 25th of January 2011with Ada Steckhoven, Ajith Buddhadasa, Craig Egle (ACTPLA) and Matthew Blair (BVN) the following interpretation of the code has been used:

- The 9m screening zone extends from the outer edge of a balcony *and* from the window line of a habitable room.

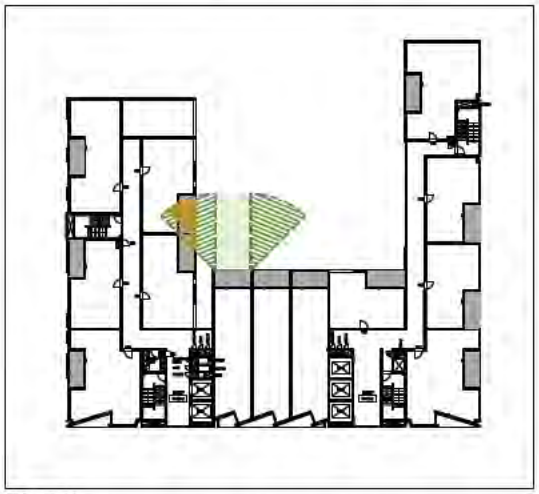
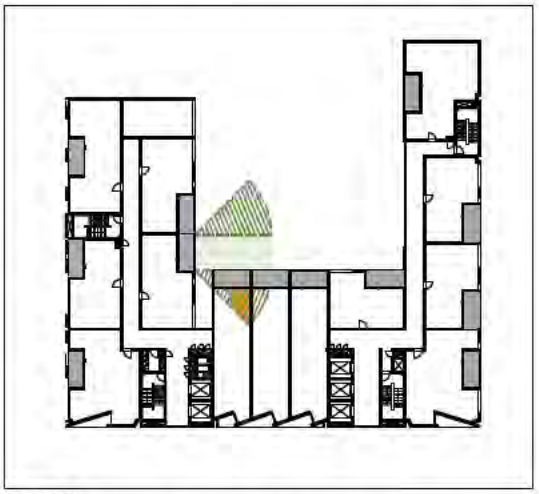


FIGURE 01
Privacy/ overlooking diagram (ACTPLA Figure 05) shown from the front edge of a balcony on the South Tower (apartment type 14). (Applies to levels T2, T7, T9, T11 and T15). Other levels are equivalent.
The privacy impact, based upon this diagram, is shown in orange.



NORTH

FIGURE 02
Privacy/ overlooking diagram (ACTPLA Figure 05) shown from the front edge of a balcony on the West Tower (apartment type 5). (Applies to levels T2, T7, T9, T11 and T15). Other levels are equivalent.
The privacy impact, based upon this diagram, is shown in orange.

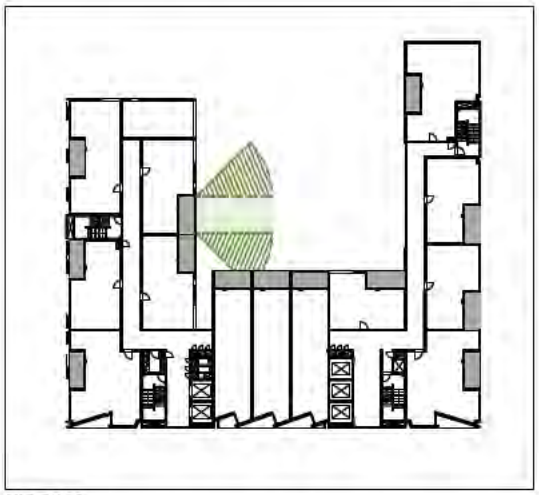
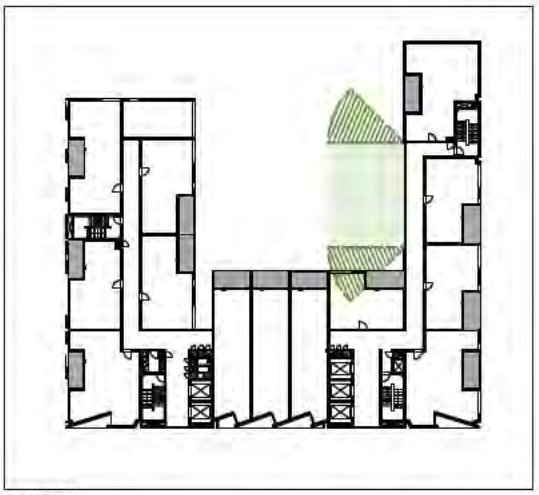


FIGURE 03
Privacy/ overlooking diagram (ACTPLA Figure 05) shown from the front edge of a balcony (north of balcony in Figure 01) on the West Tower (apartment type 5). (Applies to levels T2, T7, T9, T11 and T15). Other levels are equivalent.
The privacy impact, based upon this diagram, is shown in orange



NORTH

FIGURE 02
Privacy/ overlooking diagram (ACTPLA Figure 05) shown from the circulation corridor on the East Tower.
The privacy impact, based upon this diagram, is shown in orange

BORROWDALE HOUSE MIXED USE DEVELOPMENT

DA201017864

BLOCKS 54&84, SECTION 8
WODEN TOWN SQUARE, WODEN

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1.2 PROPOSED CHANGES

To resolve this issue the proposal has been altered in four areas (shown below in Figure 05):

1. Changes to the plan of the apartment on the West Tower facing East to move its balcony north, away from the south tower
2. The sunscreen to the East Tower corridor has been angled slightly
3. Geometric changes to the wall at the western end of the South Tower to angle it away from the West Tower and extend it beyond the primary plane of the building.
4. The bedroom window adjacent to the window from the western lift lobby has been pushed out and now faces north. This improves the amenity of this apartment (solar access from the north and a view to the north) and stops any potential overlooking from the corridor into this apartment

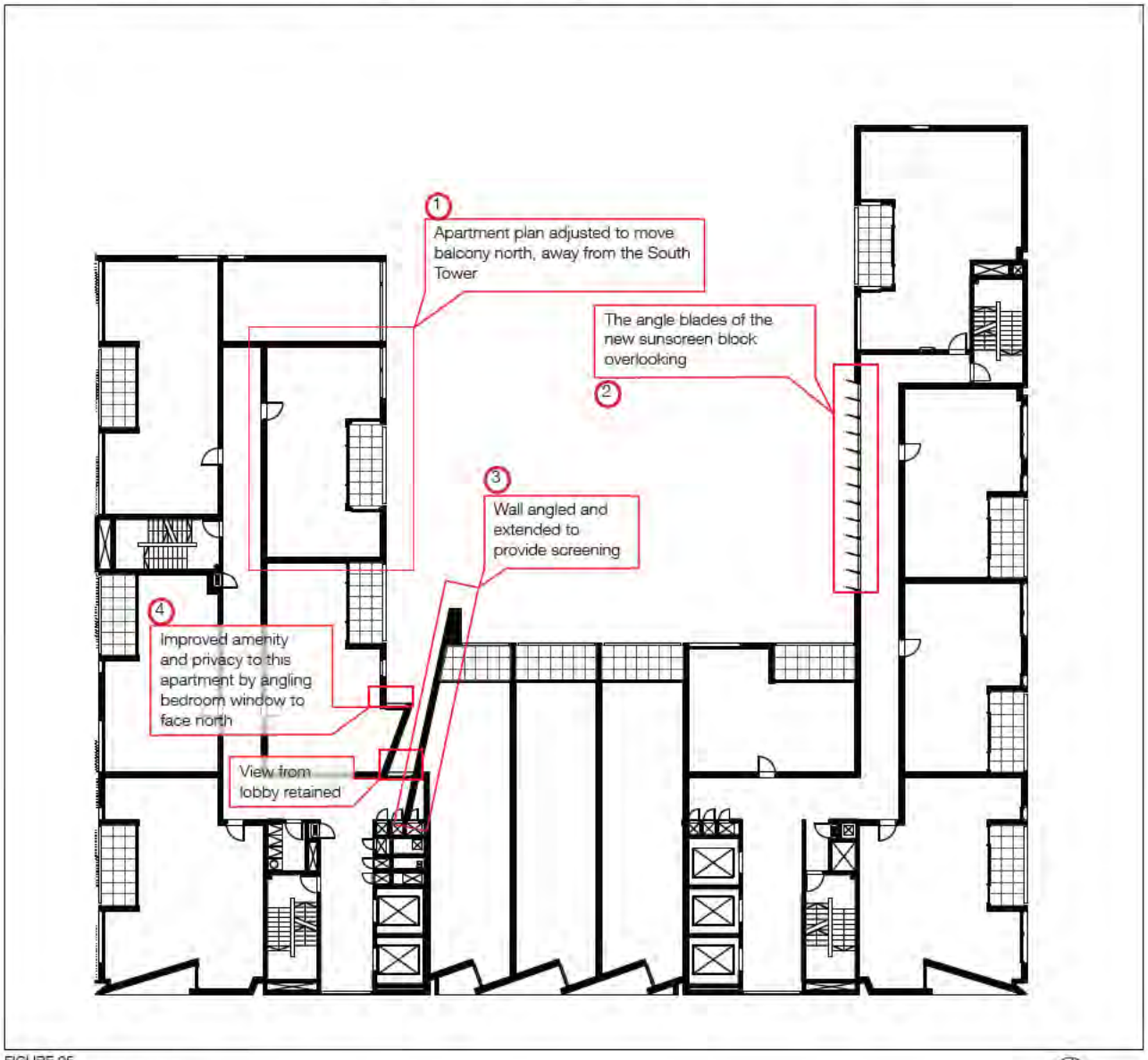

FIGURE 05
Changes to the proposal

BORROWDALE HOUSE MIXED USE DEVELOPMENT

DA201017864

BLOCKS 54&84, SECTION 8
WODEN TOWN SQUARE, WODEN

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The ACTPLA diagram is shown overlaid on the revised proposal below (figures 6-9).

1.3 CONCLUSION

The proposed changes resolve the issue of overlooking.

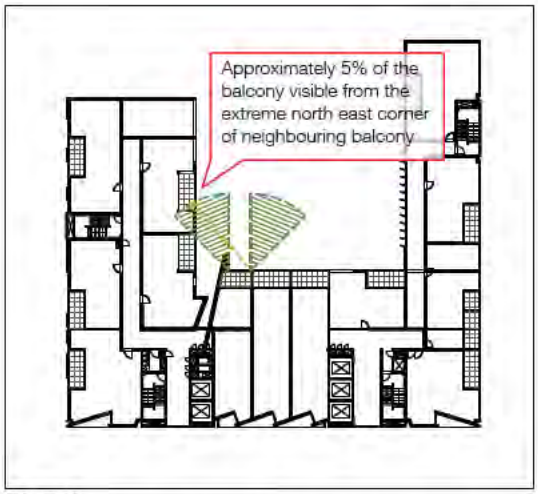

FIGURE 06
Privacy/ overlooking diagram (ACTPLA Figure 05) shown from the front edge of a balcony on the South Tower (apartment type 14). (Applies to levels T2, T7, T9, T11 and T15). Other levels are equivalent.
The privacy impact, based upon this diagram, is shown in orange.

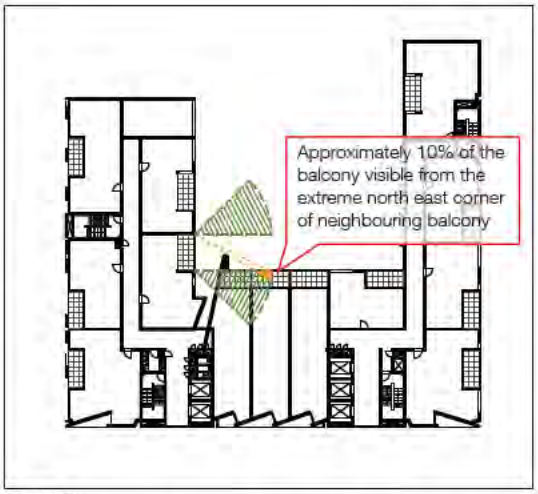

FIGURE 07
Privacy/ overlooking diagram (ACTPLA Figure 05) shown from the front edge of a balcony on the West Tower (apartment type 5). (Applies to levels T2, T7, T9, T11 and T15). Other levels are equivalent.
The privacy impact, based upon this diagram, is shown in orange.

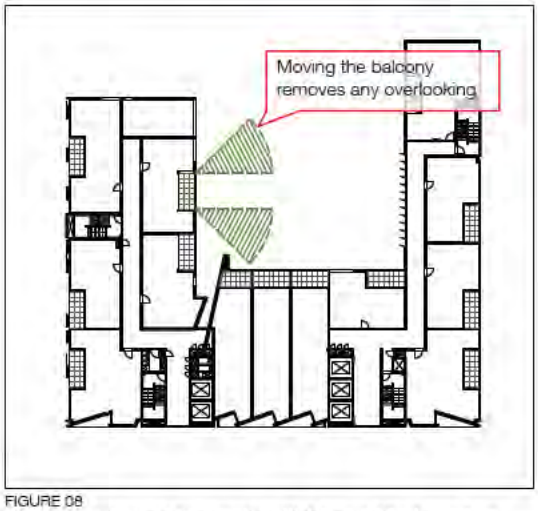

FIGURE 08
Privacy/ overlooking diagram (ACTPLA Figure 05) shown from the front edge of a balcony (north of balcony in Figure 01) on the West Tower (apartment type 5). (Applies to levels T2, T7, T9, T11 and T15). Other levels are equivalent.

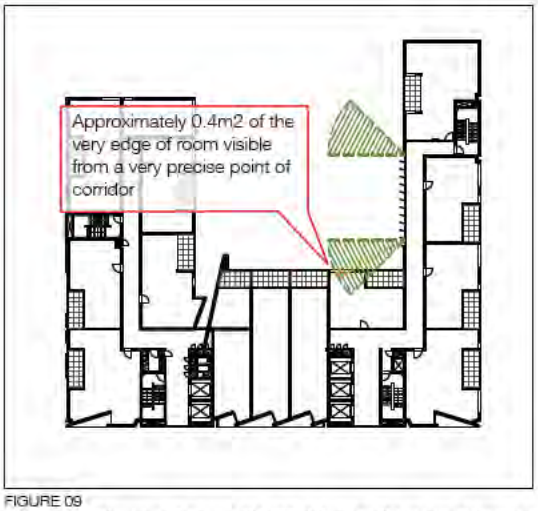

FIGURE 09
Privacy/ overlooking diagram (ACTPLA Figure 05) shown from the circulation corridor on the East Tower.
The privacy impact, based upon this diagram, is shown in orange

2.0 FACADE VIBRANCY

2.1 ARCHITECTURAL INTENT OF THE BUILDING FABRIC

A design statement was included in the original submission of May 2010:

The Woden palette of colours are tertiary and subdued, based upon the grey/greens, brown/greys and pale greys of the Australian landscape. The older building stock tends to be masonry, in-situ concrete and pre-cast. Newer buildings have extensive glazed areas and metal cladding. There are some strong colours used as design features (eg Scarborough House) within the town centre.

The majority of the buildings use their materiality to form building articulation in the form of integrated sunscreen elements or, as discussed above, clear articulation of primary building forms such as lift and stair cores. Lovett Tower is distinctively white with a repetitive form repeated essentially on each level. Its slender form, height and white colour make it a distinctive landmark in Woden Valley and in the ACT. It is visible from many viewpoints.

The colour and materials proposed in the development have been chosen to respond to this context. The new building is massed and its materiality and colour allow Lovett Tower to remain as a landmark, even though another large building is immediately adjacent.

A limited palette of materials and colours, in keeping with the context are proposed. The building form is clearly articulated through recognition of its geometry via reveals and detailing at corners and where different materials meet. The materials chosen are:

- *The core is high quality in-situ concrete, visible continuously from the base of the building to the top, clearly articulating its use*
- *The building is clad in a profiled steel product with a distinctive horizontal band every 300mm*, coloured pale bronze.*
- *Sunscreen elements are aluminium and are also bronze, to distinguish the wholistic approach to the design where each element is important to the overall success of the project, and hence is of equal importance. This is expressed through the use of a consistent colour*
- *Glazed elements are as clear as possible, with a grey tint.*
- *Shopfronts are clear glass*

The colours and materials accentuate the overall design approach and are designed as a contextual response to Woden Town Centre. They form a calm and sophisticated response whilst responding to the apparent scale of the building and assisting in its articulation, both from the immediate vicinity and from further afield.

Following comments from ACTPLA, and the recent meeting we would like to clarify this statement and make a number of changes to the proposal. We stand by our design statement and believe that the architectural rigour with which the building has been designed and described should not be altered at this stage.

2.2 'SKIN' AND THE BUILDING FABRIC

Following the intent of the statement above, the 'skin' of the proposal is a continuous 'wrapper' which is articulated at cores and corners. This wrapper is continuous across all external non-core surfaces of the proposal and defines the boundary of the built fabric, or, to put it another way, the limits of the protective skin which houses the apartments and those living within them. Arbitrary variation of the material or its colour only diminishes the clarity of the architectural idea and weakens the proposal's response to the Woden context - both in its current incarnation and in its original ideas and intent. The skin is a single material upon which light, reflection, sheen and shadow play, varying through the day and night depending on the surrounding conditions. As such no two facades will ever look the same as the lighting conditions are continuously variable. As a residential building this *calm nature* responds to the rhythms of daily life, rather than commercial buildings which, at times, need further advertisement of their nature through signage or applied colour.

The concrete cores complement the 'wrapper' by accentuating the primary scale and forms of the proposal. The served (apartments)/servant (cores) model to which these elements respond is a key driver of modern architecture. This clarity of articulation and material use fits with the surrounding context whilst not being a slave to it.

The cladding product has been specifically chosen to respond to and satisfy these requirements, to promote the calm nature of the building whilst being a lively addition to the streetscape.

The cladding has:

- A horizontal profile every 300mm (see figure 10) which casts a varying series of shadows across the facade, depending on the time of day and season. The horizontal relief adds an appreciable scale to the building and helps articulate the forms. This profile also gives a strong specular reflection to the facade - Adding vibrancy and life
- A metallic sheen which responds to the lighting conditions through the day and night, resulting in colour variation and reflection
- A recognisable and distinctive colour, 'Champagne bronze' which defines the building as different to those around it and gives a memorable identity whilst not overpowering the context. This identity allows future residents to form bonds with the building and hence help them identify the building as their home, rather than as an anonymous mass.

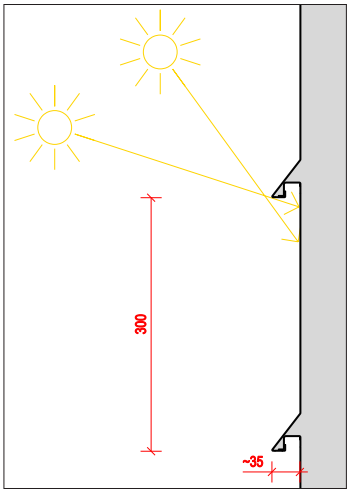

FIGURE 10
Section Detail of facade material showing dimensions and indicating the variance of sun shadowing due to the horizontal profile

2.3 CHANGES TO THE FACADE/EXTERNAL ENVELOPE

Based upon the conceptual framework that underpins the design of the facade and choice of materials, and following discussions with ACTPLA, we are proposing some changes to the face and external envelope to extend the ideas above.

The changes are:

1. Modifications to the building geometry on the northern face of the south tower. This change, whilst instigated to resolve ACTPLA Condition 1, also enhances this area of the building when seen from a distance as it further articulates the forms of the building, in this case between the South and West Towers.
2. Replacing the balcony lining with plywood, rather than the primary steel cladding material. In the current proposal the steel cladding returns into the balconies. This is a mis-reading of the idea of 'skin', as expressed above, as the balconies are 'cut in' to the building form. Replacing the steel cladding gives a more suitable tactile material for the balconies (which is readily maintainable) and will provide a visibly different colour (albeit from the same hue range)
3. The colour of the sunscreens on the western facade has been changed to a metallic silver colour. These sunscreens are user operable, hence they will change location and bring diversity to the facade. The silver colour will act as a protective veil
4. The colour of the sunscreen to the western facade of the East Tower has also been changed to metallic silver
5. New horizontal sunhoods/lightshelves have been added to the northern facade of the South Tower, and the Eastern Facade of the West Tower. These sun-hoods will further add to the play of shadow on the facade throughout the day (see Figures 11 and 12 below).
6. Windows have been increased in width by 300mm, allowing the building to look more 'open'.
7. Change of the balcony balustrades to the serviced apartments on the southern facade to glazed rather than solid, to better read the geometry and articulation of the building.

BORROWDALE HOUSE MIXED USE DEVELOPMENT

DA201017864

BLOCKS 54&84, SECTION 8
WODEN TOWN SQUARE, WODEN

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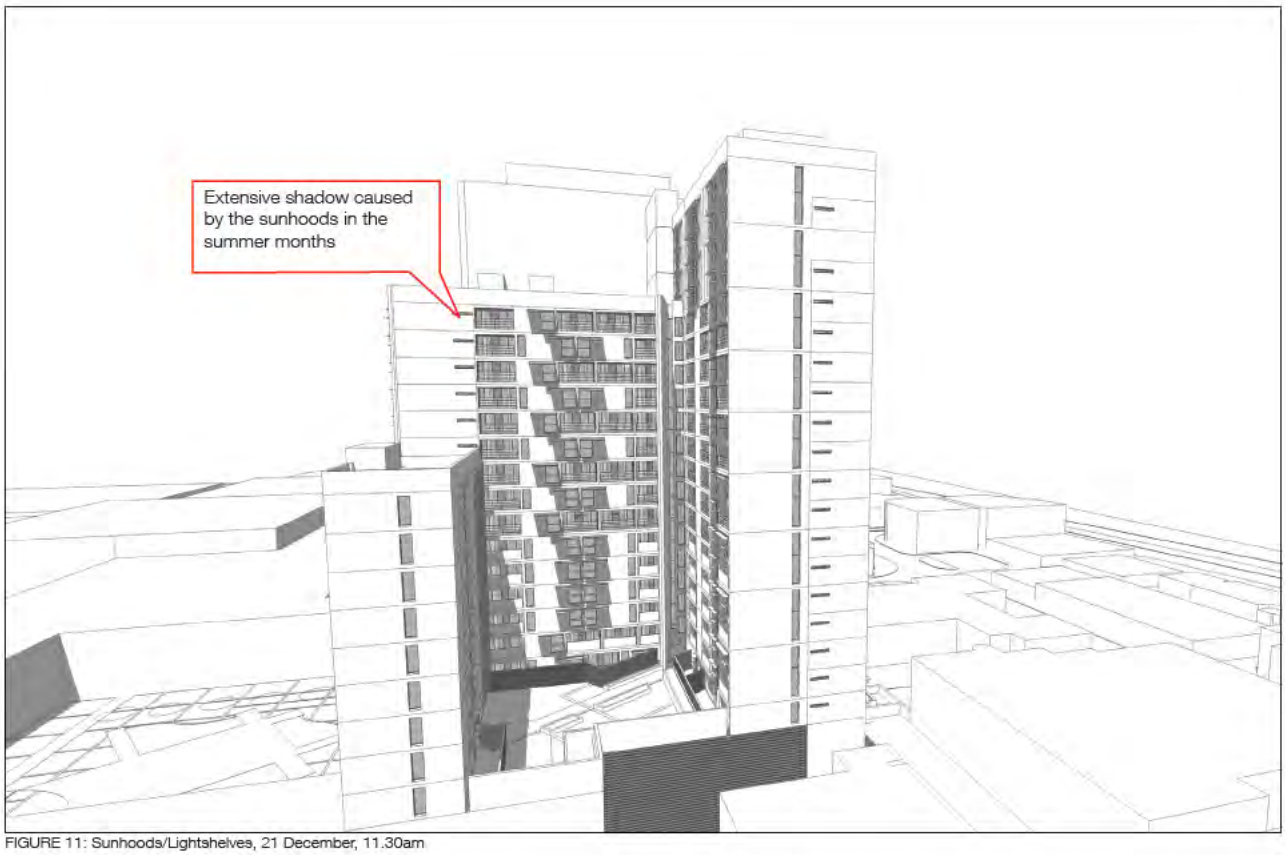

FIGURE 11: Sunhoods/Lightshelves, 21 December, 11.30am

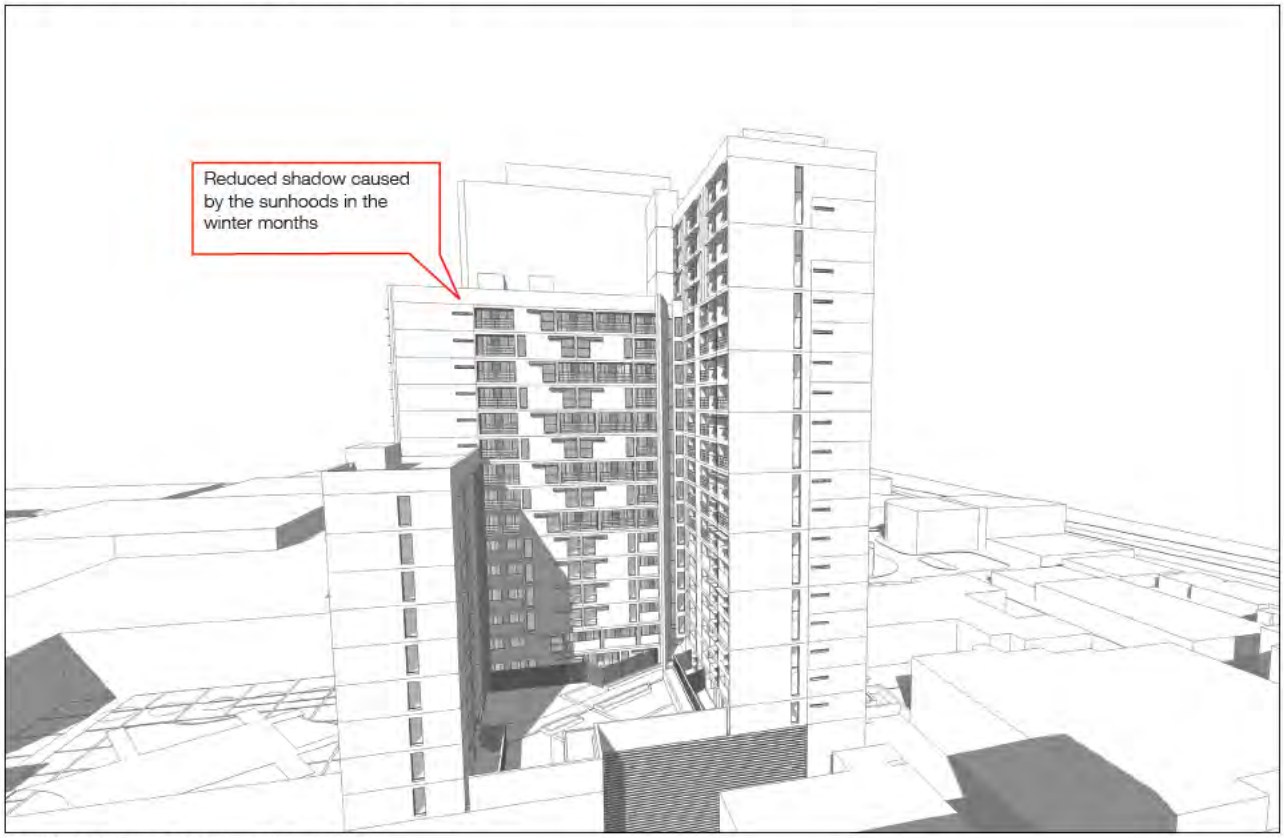

FIGURE 12: Sunhoods/Lightshelves, 21 June, 11.30am

BORROWDALE HOUSE MIXED USE DEVELOPMENT

DA201017864

BLOCKS 54&84, SECTION 8
WODEN TOWN SQUARE, WODEN

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FIGURE 13
Artists Impression of the eastern facade, showing revised proposal

BORROWDALE HOUSE MIXED USE DEVELOPMENT

DA201017864

BLOCKS 54&84, SECTION 8
WODEN TOWN SQUARE, WODEN

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FIGURE 13
Artists Impression of the western facade, showing revised proposal

2.8 EXTERNAL LIGHTING PLAN

The external lighting plan has been updated in accordance with the comments from TaMS. This updated plan has been sent to TaMS for endorsement, which has been received. The endorsement and updated plan are attached. An extraction from the endorsement is shown below (Figure 14).

RE: Decision 54 & 84/8 Phillip 201017864
Chris Young-Wright to: 'Jatheendran, Lingam', matthew_blair 04/02/2011 12:14 PM

Hi Lingam,
Thank you for your quick response and your endorsement.
Regards
Chris Y-W

Young-Wright Architects
22 Embling Street.
Wanniassa A.C.T.
T 0262314713
M 0414286116
e youngwright@bigpond.com

-----Original Message-----
From: Jatheendran, Lingam [mailto:Lingam.Jatheendran@act.gov.au]
Sent: Friday, 4 February 2011 12:11 PM
To: Chris Young-Wright
Subject: RE: Decision 54 & 84/8 Phillip 201017864

Hi Chris

We endorse the lighting plan forwarded to us previously. The detailed design of these lighting would be required only at the design acceptance stage.

Regards

Lingam Jatheendran
Manager Commercial Development
Asset Acceptance

FIGURE 14

BORROWDALE HOUSE MIXED USE DEVELOPMENT

DA201017864

BLOCKS 54&84, SECTION 8
WODEN TOWN SQUARE, WODEN

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3.0 LIST OF CHANGES

1. Changes to building geometry at the south-west internal corner facing the terrace, between the South and West towers
2. Changes to the extent of louvres on the east elevation adjacent to the neighbouring block
3. Increase in width of windows by 300mm, except for windows on the south facade
4. Change of material to balconies on the southern facade (serviced apartments) to glass
5. Change of colour of sunscreen to the western facade of the West Tower to metallic silver
6. Change of colour of sunscreen to the western facade of the East Tower to metallic silver
7. Change of lining material to balconies to plywood
8. New sunhoods and lightshelves the north facade and eastern facade of the West Tower
9. Changes to apartment types, and additional types due to the geometric changes to the building form (item 1 above). These are: The type 3 with the angled wall is now type 3a (area change neutral); the type 14 with the angled wall is now type 14a; the type 5 directly to the north of the type 5 with the ‘pop out’ window is now a type 8 (previously unused)
10. Minor changes to the planning of apartment type 1 and type 1a to improve resident amenity
11. Minor changes to type 2a and 2b (serviced apartments) to improve amenity
12. Minor changes to type 6 (adaptable) to improve amenity
13. Minor changes to type 11 (adaptable) to improve amenity
14. Minor changes to type 22 to improve amenity

RE: Decision 54 & 84/8 Phillip 201017864

Chris Young-Wright to: 'Jatheendran, Lingam', matthew_blair 04/02/2011 12:14 PM

Hi Lingam,
Thank you for your quick response and your endorsement.
Regards
Chris Y-W

Young-Wright Architects
22 Embling Street.
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T 0262314713
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-----Original Message-----
From: Jatheendran, Lingam [mailto:Lingam.Jatheendran@act.gov.au]
Sent: Friday, 4 February 2011 12:11 PM
To: Chris Young-Wright
Subject: RE: Decision 54 & 84/8 Phillip 201017864

Hi Chris

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Regards

Lingam Jatheendran
Manager Commercial Development
Asset Acceptance

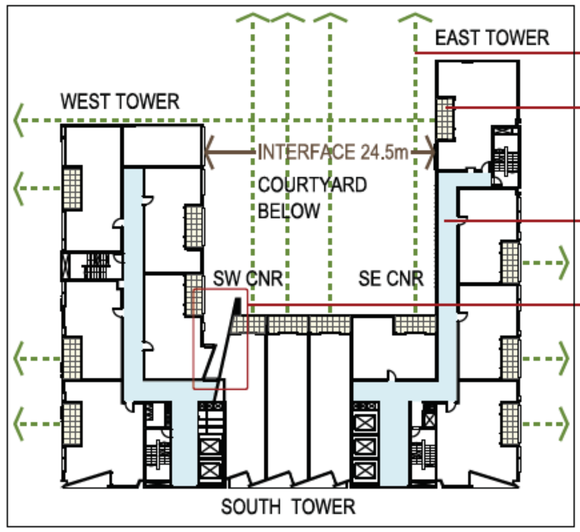
-----Original Message-----
From: Chris Young-Wright [mailto:youngwright@bigpond.com]
Sent: Friday, 4 February 2011 12:04 PM
To: matthew_blair@bvn.com.au; Jatheendran, Lingam
Subject: FW: Decision 54 & 84/8 Phillip 201017864

Dear Lingam,
Re: Attached find the Notice of Decision, See page 3 A4 (c).
Please advise receipt of revised outdoor lighting plan addressing the issues
raised by TaMS. (sent on 20/1/2011) Please provide your endorsement of above
so we can meet the Conditions of this Approval as soon as possible.
We are required to provide this information by Thursday 10th. Feb. 2011.
Kind regards
Chris Y-w

Young-Wright Architects
22 Embling Street.
Wanniassa A.C.T.
T 0262314713
M 0414286116
e youngwright@bigpond.com

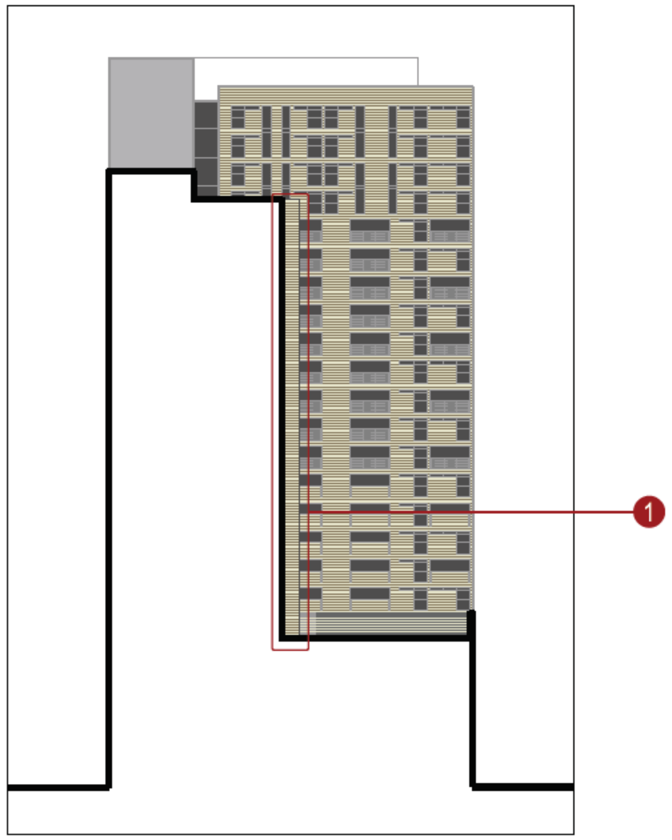
-----Original Message-----

From: Lefebvre, Ann [mailto:Ann.Lefebvre@act.gov.au]
Sent: Thursday, 16 December 2010 11:53 AM
To: youngwright@bigpond.com; barton@netspeed.com.au
Cc: Gill, Tony; matthew_blair@bvn.com.au
Subject: Decision 54 & 84/8 Phillip 201017864

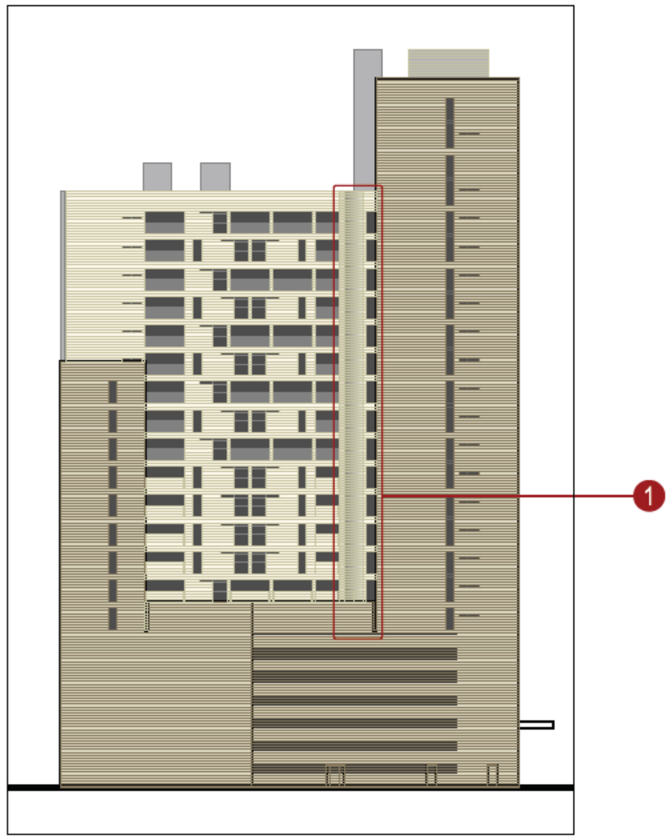


TYPICAL FLOOR PLAN

1. CHANGE TO BUILDING GEOMETRY AT CORNER FOR VISUAL PRIVACY TO APARTMENTS ON SW COURTYARD SIDE CORNER OF BUILDING.
2. SCREENING ZONE (GREEN HATCH) TAKEN FROM EDGE OF BALCONY. (REFER TO 5.1 VISUAL PRIVACY AND FIGURE C5 'SCREENING ZONES' IN THE MULTI UNIT HOUSING DEVELOPMENT CODE)
3. EXTENT OF VIEW OF NEIGHBOURING APARTMENT WITHIN SCREENING ZONE (ORANGE)
4. PRIVATE OPEN SPACE - BALCONY (BEIGE)
5. PRIVATE OPEN SPACE OF ADJACENT APARTMENTS
6. RESIDENTS CIRCULATION ZONE (PALE BLUE)
7. VIEW FROM PRIVATE OPEN SPACE - BALCONY. (GREEN DASHED ARROW)
8. EXTENT OF VIEW FROM UPPER LEVEL APARTMENT (GREEN HATCH). ALL BALCONIES ARE RECESSED THEREFORE TYPICALLY UPPER FLOOR BALCONIES DO NOT OVERLOOK LOWER FLOOR BALCONIES. THIS COMPLIES WITH THE REQUIREMENT FOR UPPER LEVEL APARTMENTS TO OVERLOOK LESS THAN 50% OF THE PRIVATE OPEN SPACE OF LOWER LEVEL APARTMENTS. (REFER TO R219 OF THE MULIT UNIT HOUSING CODE)



WEST ELEVATION



NORTH ELEVATION

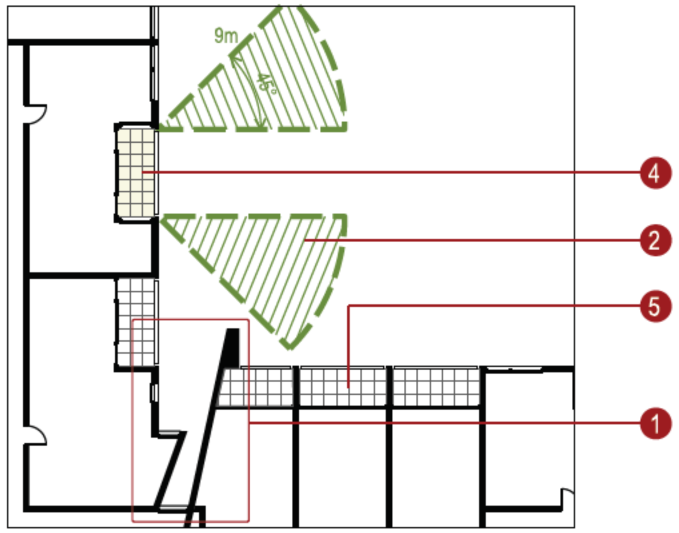


DIAGRAM 01: VISUAL PRIVACY
SW CORNER (COURTYARD SIDE)

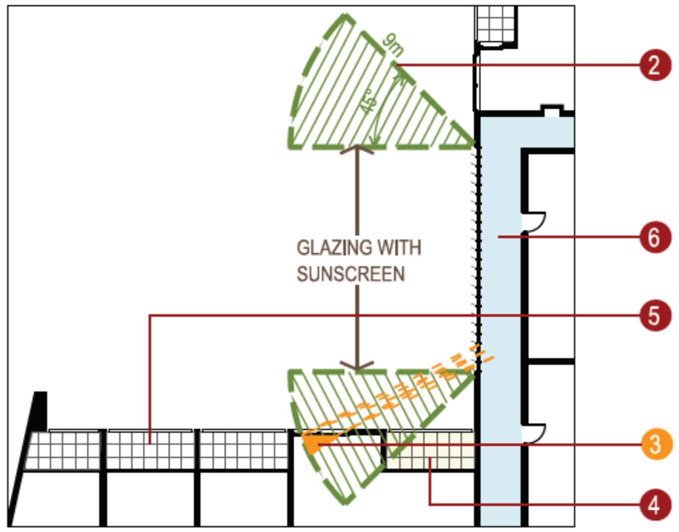


DIAGRAM 04: VISUAL PRIVACY
SE CORNER (COURTYARD SIDE)

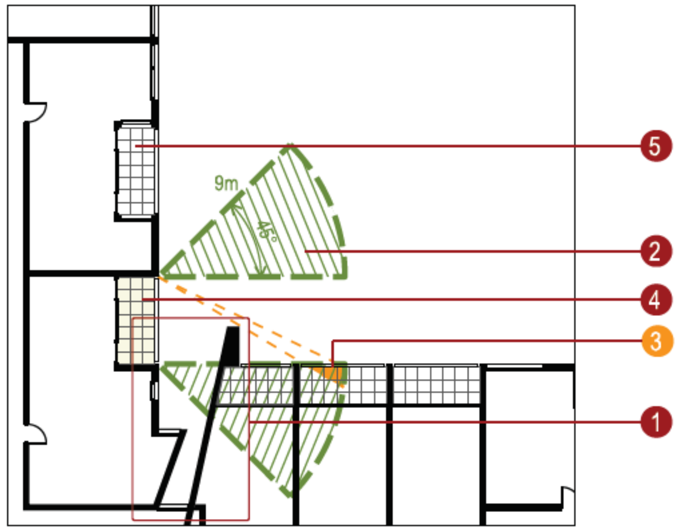
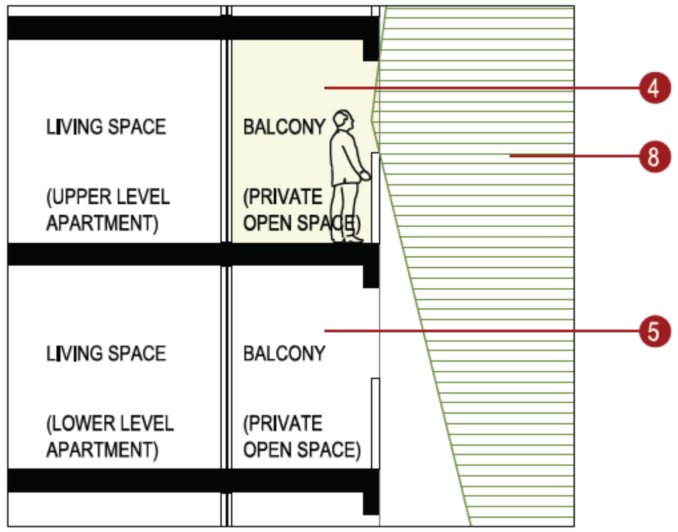


DIAGRAM 02: VISUAL PRIVACY
SW CORNER (COURTYARD SIDE)



TYPICAL SECTION

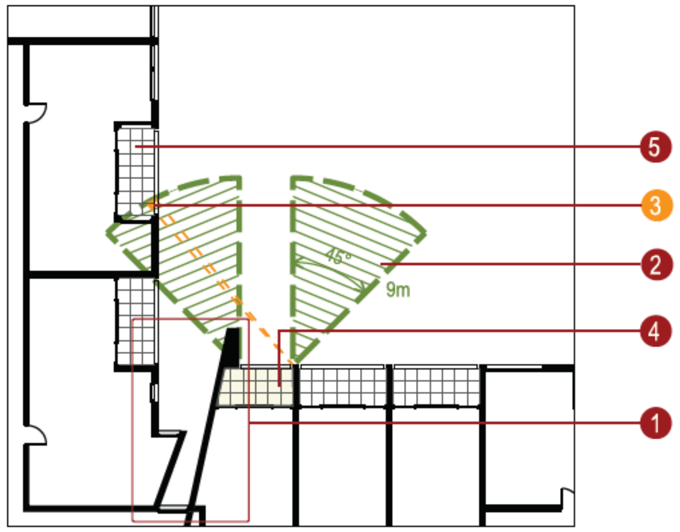
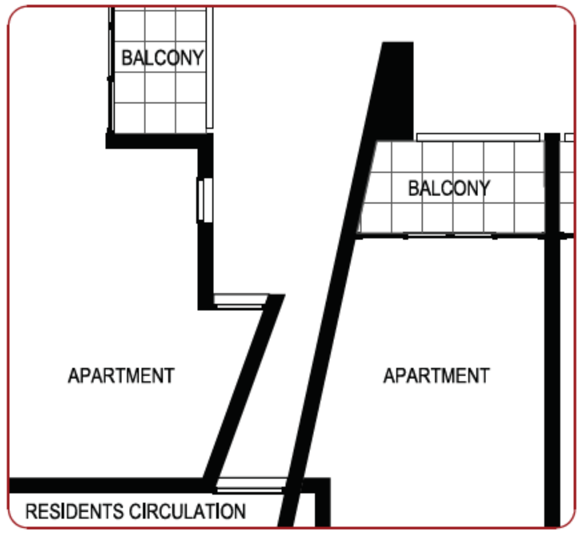


DIAGRAM 03: VISUAL PRIVACY
SW CORNER (COURTYARD SIDE)



DETAILED PLAN 1

BVN
BVNArchitecture

INTELLECTUAL PROPERTY

ISSUE	DATE	FOR
01	10_2_11	DEVELOPMENT APPLICATION (FOR INFO)

CLIENT
BORROWDALE HOUSE PTY LTD

PROJECT
BORROWDALE HOUSE
MIXED USE DEVELOPMENT
WODEN
SECTION 8, BLOCKS 54 & 84

STATUS
DEVELOPMENT APPLICATION

NORTH
SCALE NTS
GRAPHIC SCALE

DRAWING
VISUAL PRIVACY DIAGRAM
DRAWING NUMBER DA-U02
ISSUE 02

1 WALL CLADDING
PROFILED STEEL SHEET
L'ATTITUDE (LYSAGHT)
PRE-FINISHED 'CHAMPAGNE BRONZE'

2 COURTYARD WIND SCREEN
PROFILED STEEL SHEET
L'ATTITUDE (LYSAGHT)
PRE-FINISHED 'CHAMPAGNE BRONZE'

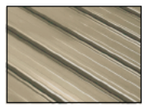
3 AWNING AND SUN HOODS
SHEET METAL CLADDING

FINISH TO MATCH WALL CLADDING (1)

4 PODIUM LEVEL CAR PARK SCREEN
PROFILED STEEL LOUVRES
TO MATCH L'ATTITUTE (LYSAGHT)
PRE-FINISHED 'CHAMPAGNE BRONZE'

5 PLANT ROOM WALLS
PROFILED STEEL LOUVRES
TO MATCH L'ATTITUDE (LYSAGHT)
PRE-FINISHED 'CHAMPAGNE BRONZE'

6 LIFT AND STAIR CORES
EXPOSED OFF-FORM CONCRETE



7 ROOF SHEET
STEEL PROFILED
KLIPLOK 700 (LYSAGHT)
FINISH TO MATCH WALL CLADDING (1)

8 SUN SHADE
VERTICAL METAL BLADES

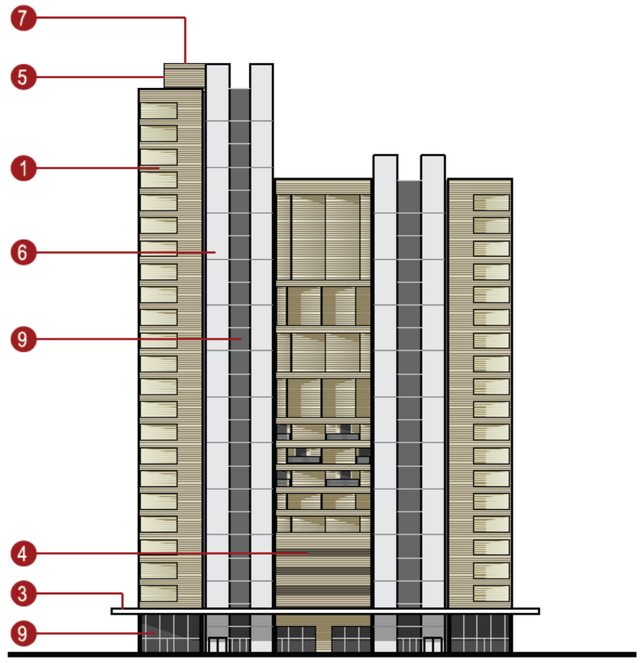
METALLIC SILVER

9 BALUSTRADE AND ALL GLAZING
CLEAR GLASS

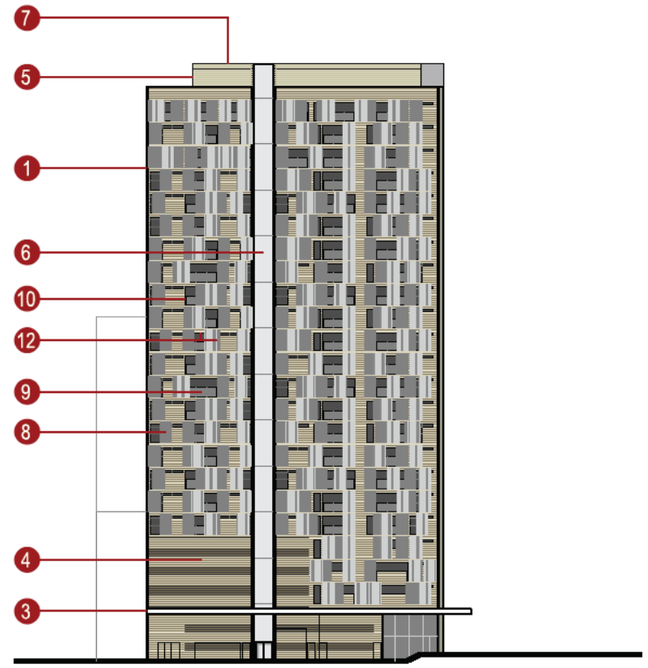
10 STEEL BALUSTRADE FRAME

11 WINDOW AND DOOR FRAMES
TO MATCH COLORBOND MONUMENT

12 BALCONY SOFFIT AND WALL LINING
PLYWOOD WITH BEECH VENEER



SOUTH ELEVATION



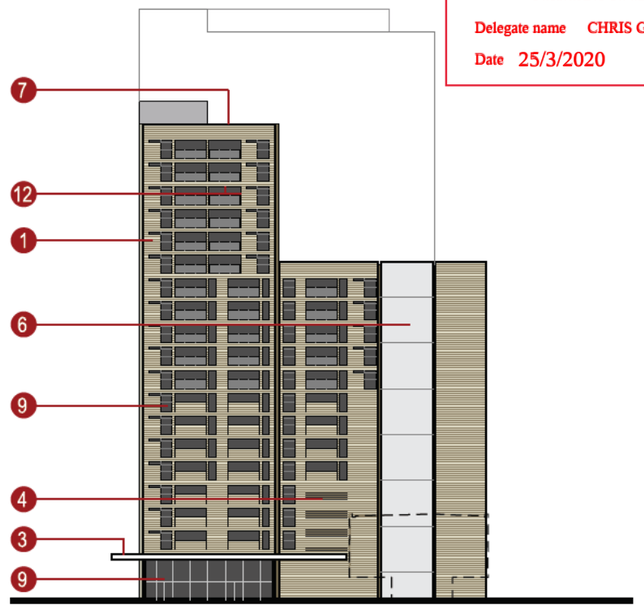
WEST ELEVATION

PLANNING AND DEVELOPMENT ACT 2007
APPROVAL GRANTED
SUBJECT TO THE CONDITIONS SET OUT IN THE NOTICE OF DECISION
PURSUANT TO SECTION 162

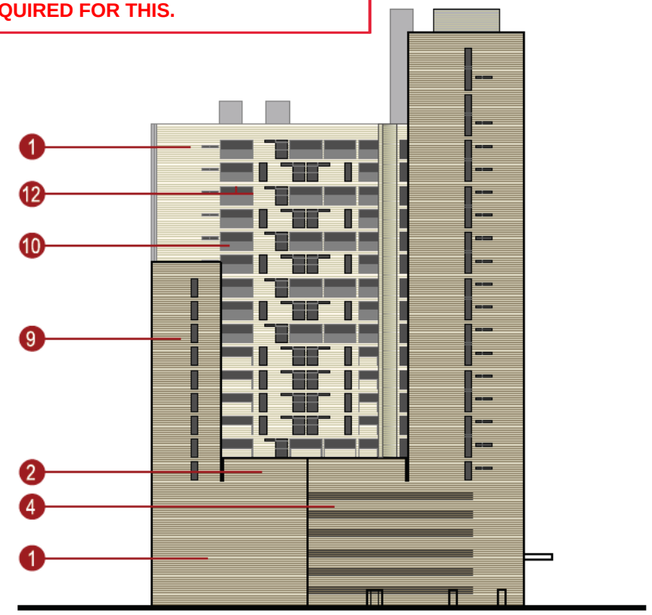
Delegate name CHRIS GELL

Date 25/3/2020

NOTE
THIS APPROVAL DOES NOT APPLY TO THE INDICATED BUILDING CLADDING.
A FURTHER S197 AMENDMENT WILL BE REQUIRED FOR THIS.



EAST ELEVATION



NORTH ELEVATION

BVN

BVNArchitecture

ISSUE	DATE	FOR
01	24.05.19	DEVELOPMENT APPLICATION
02	05.08.19	AMENDMENT TO DEVELOPMENT APPLICATION
03	10.02.11	DEVELOPMENT APPLICATION

CLIENT
BORROWDALE HOUSE PTY LTD

PROJECT
BORROWDALE HOUSE
MIXED USE DEVELOPMENT
WODEN
SECTION 8, BLOCKS 54 & 84

STATUS
DEVELOPMENT APPLICATION

NORTH
SCALE
NTS
GRAPHIC SCALE

DRAWING
BUILDING MATERIAL FINISHES
DRAWING NUMBER
DA-U01
ISSUE
03

PLANNING AND DEVELOPMENT ACT 2007
APPROVAL GRANTED
SUBJECT TO THE CONDITIONS SET OUT IN THE NOTICE OF DECISION PURSUANT TO SECTION 162

Delegate name CHRIS GELL

Date 25/3/2020

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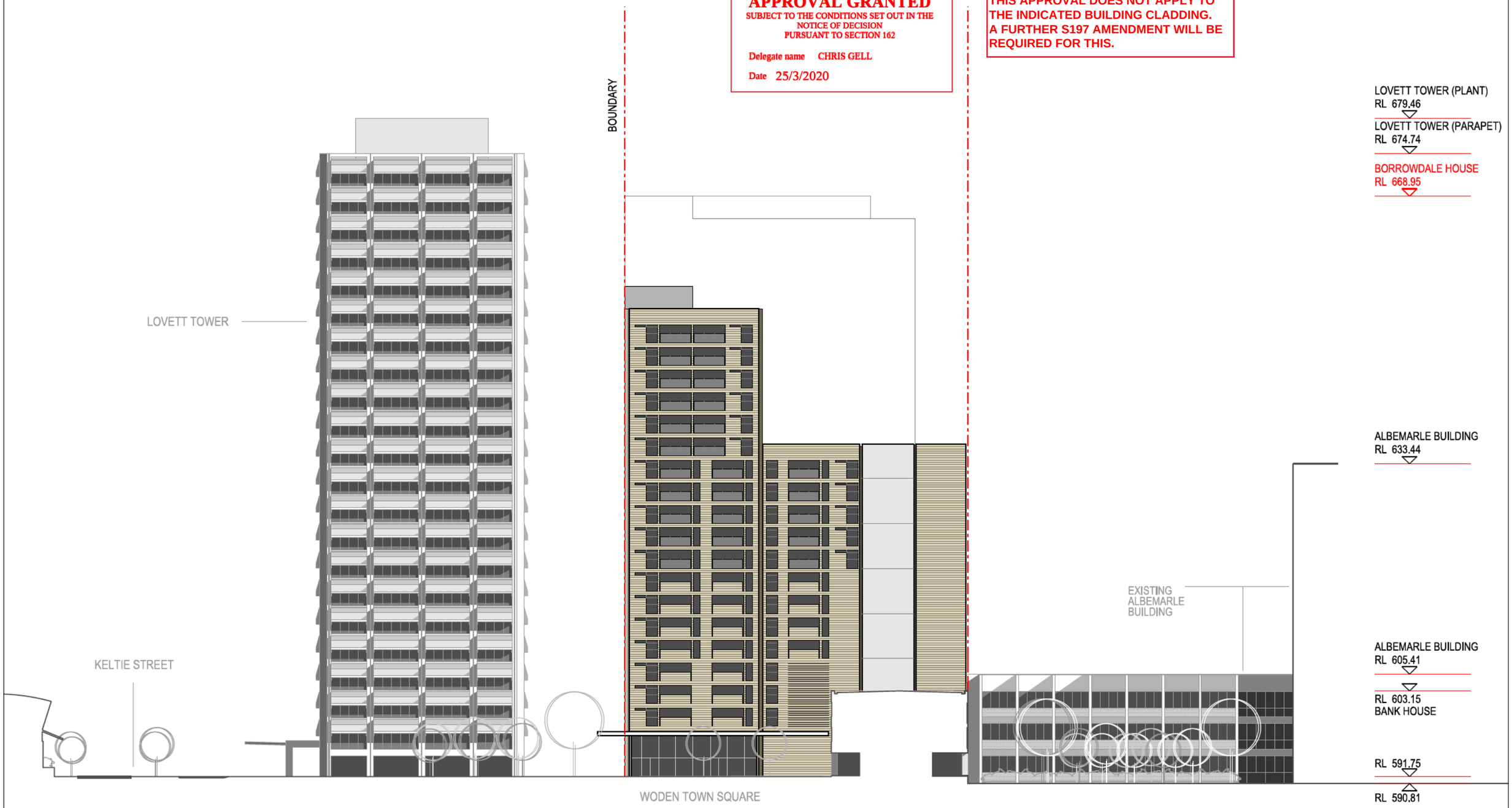

EAST STREETSCAPE ELEVATION

BVN

BVNArchitecture

ISSUE	DATE	FOR
01	24.05.10	DEVELOPMENT APPLICATION
02	02.07.10	COST ESTIMATE
03	23.07.10	CLIENT INFORMATION
04	02.08.10	INFORMATION
05	05.08.10	AMENDMENT TO DEVELOPMENT APPLICATION
06	17.09.10	DEVELOPMENT APPLICATION
07	10.02.11	DEVELOPMENT APPLICATION

CLIENT: BORROWDALE HOUSE PTY LTD

PROJECT: BORROWDALE HOUSE
MIXED USE DEVELOPMENT
WODEN
SECTION 8, BLOCKS 54 & 84

STATUS: DEVELOPMENT APPLICATION

NORTH

SCALE: 1:250 at A1

GRAPHIC SCALE: 0 5000 15000

DRAWING: COMPOSITE STREETSCAPE ELEVATION - EAST

DRAWING NUMBER: DA-E10

ISSUE: 07

PLANNING AND DEVELOPMENT ACT 2007
APPROVAL GRANTED
SUBJECT TO THE CONDITIONS SET OUT IN THE NOTICE OF DECISION PURSUANT TO SECTION 162

Delegate name CHRIS GELL

Date 25/3/2020

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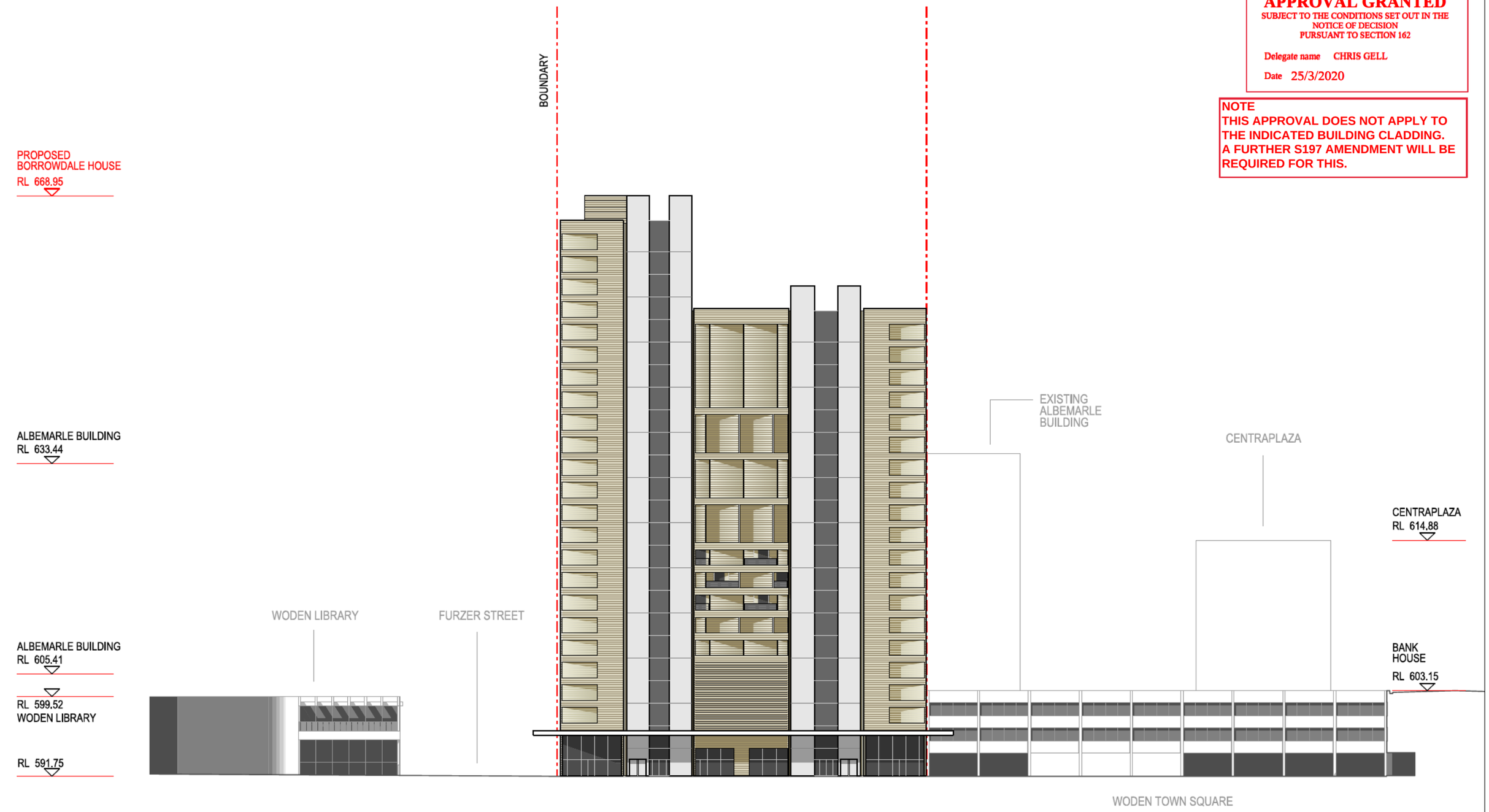

SOUTH STREETSCAPE ELEVATION

BVN

BVNArchitecture

ISSUE	DATE	FOR
01	24,05,10	DEVELOPMENT APPLICATION
02	02,07,10	COST ESTIMATE
03	23,07,10	CLIENT INFORMATION
04	02,08,10	INFORMATION
05	05,08,10	AMENDMENT TO DEVELOPMENT APPLICATION
06	17,09,10	DEVELOPMENT APPLICATION
07	10,02,11	DEVELOPMENT APPLICATION

CLIENT: BORROWDALE HOUSE PTY LTD

PROJECT: BORROWDALE HOUSE MIXED USE DEVELOPMENT WODEN SECTION 8, BLOCKS 54 & 84

STATUS: DEVELOPMENT APPLICATION

NORTH

SCALE: 1:250 at A1

GRAPHIC SCALE: 0 5000 15000

DRAWING: COMPOSITE STREETSCAPE ELEVATION SOUTH

DRAWING NUMBER: DA-E12

ISSUE: 07

PLANNING AND DEVELOPMENT ACT 2007
APPROVAL GRANTED
SUBJECT TO THE CONDITIONS SET OUT IN THE NOTICE OF DECISION
PURSUANT TO SECTION 162

Delegate name CHRIS GELL
Date 25/3/2020

NOTE
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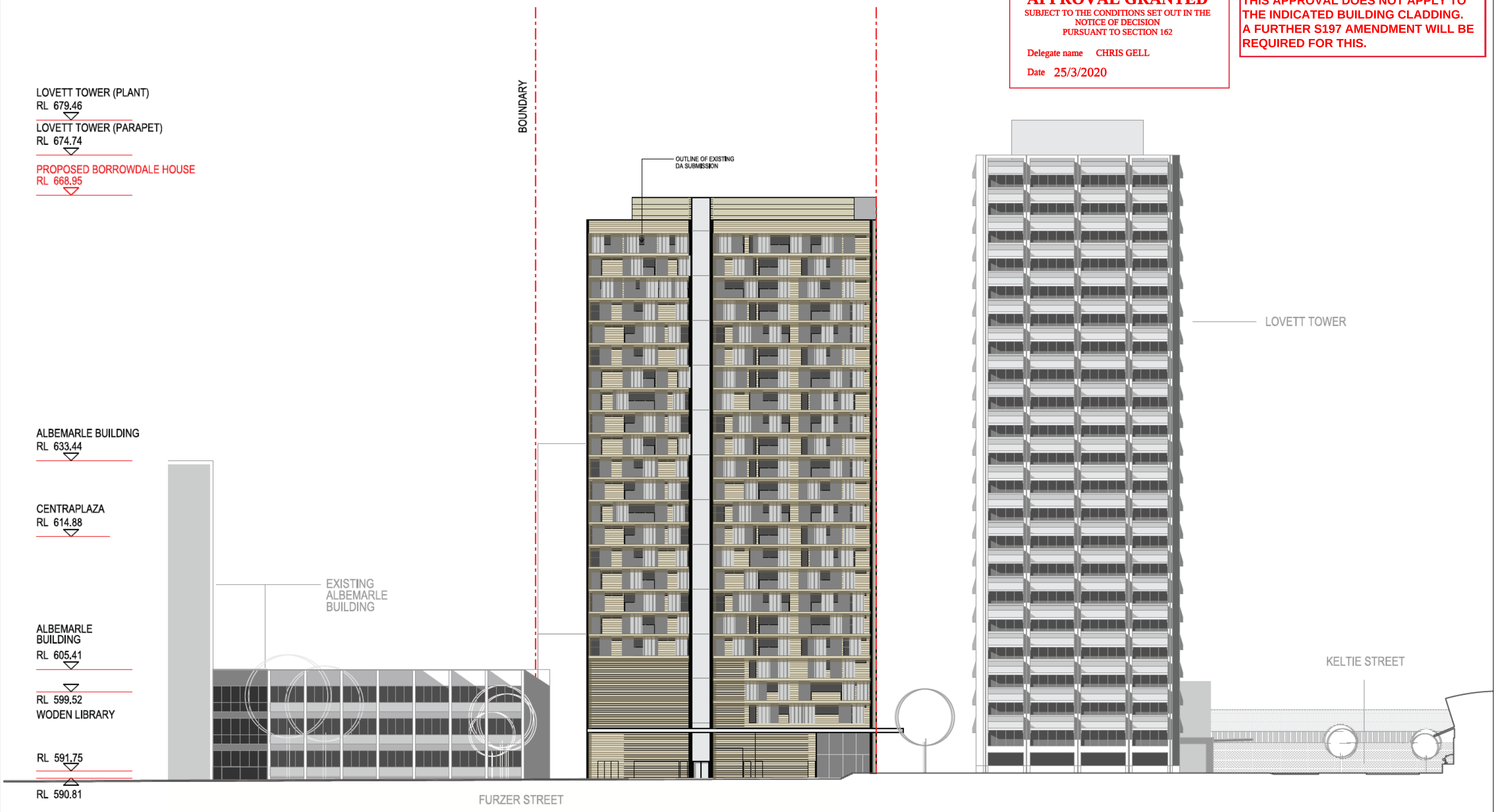

WEST STREETSCAPE ELEVATION
SUNSCREEN NOT SHOWN FOR CLARITY

BVN
BVNArchitecture

INTELLECTUAL PROPERTY

ISSUE	DATE	FOR
01	24.05.10	DEVELOPMENT APPLICATION
02	02.07.10	COST ESTIMATE
03	23.07.10	CLIENT INFORMATION
04	02.08.10	INFORMATION
05	05.08.10	AMENDMENT TO DEVELOPMENT APPLICATION
06	17.09.10	DEVELOPMENT APPLICATION
07	10.02.11	DEVELOPMENT APPLICATION

CLIENT: BORROWDALE HOUSE PTY LTD

PROJECT: BORROWDALE HOUSE
MIXED USE DEVELOPMENT
WODEN
SECTION 8, BLOCKS 54 & 84

STATUS: DEVELOPMENT APPLICATION

NORTH
SCALE: 1:250 at A1
GRAPHIC SCALE: 0 5000 15000

DRAWING: COMPOSITE STREETSCAPE ELEVATION WEST
DRAWING NUMBER: DA-E11
ISSUE: 07

PLANNING AND DEVELOPMENT ACT 2007
APPROVAL GRANTED
SUBJECT TO THE CONDITIONS SET OUT IN THE NOTICE OF DECISION
PURSUANT TO SECTION 162

Delegate name CHRIS GELL

Date 25/3/2020

NOTE
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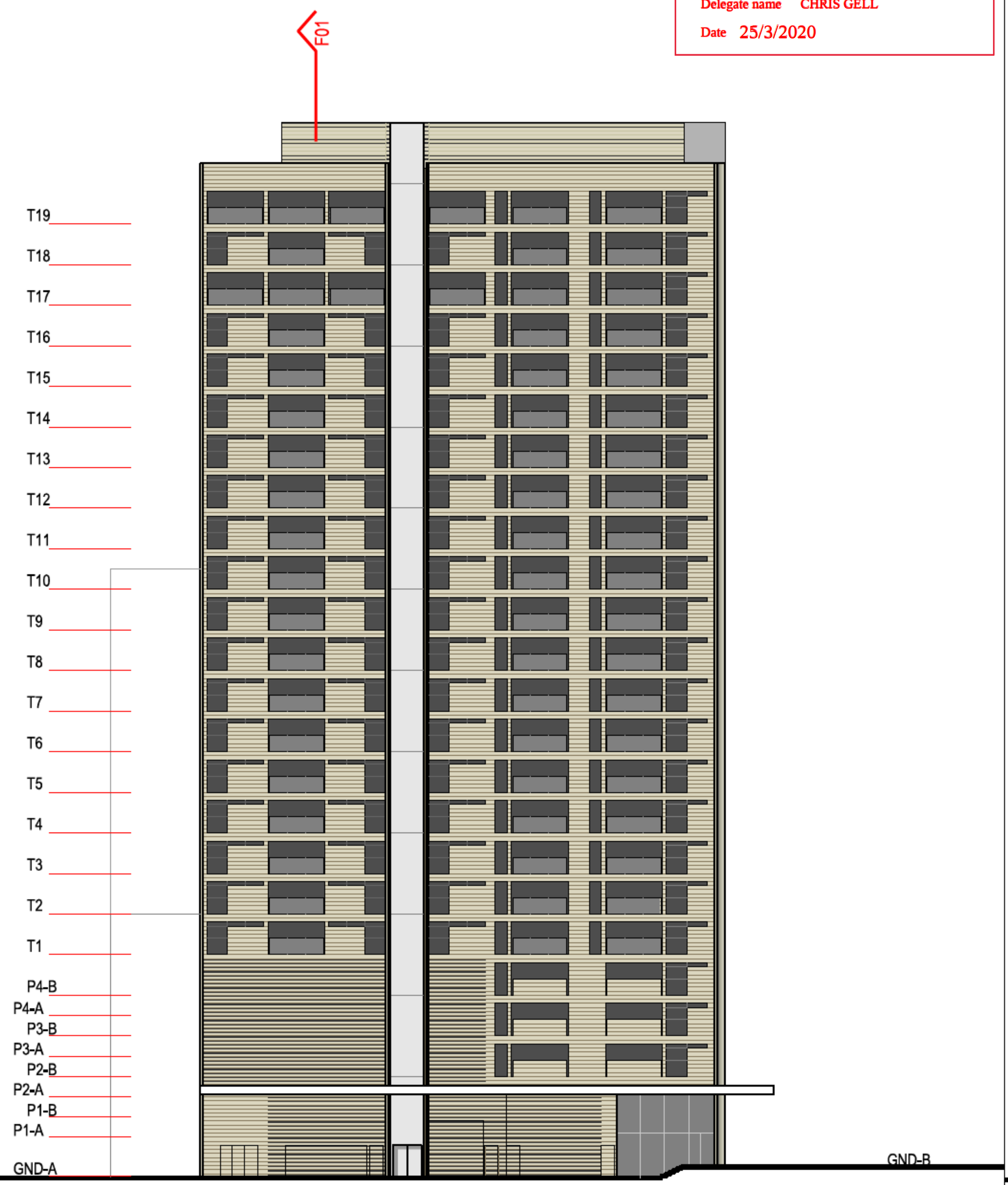
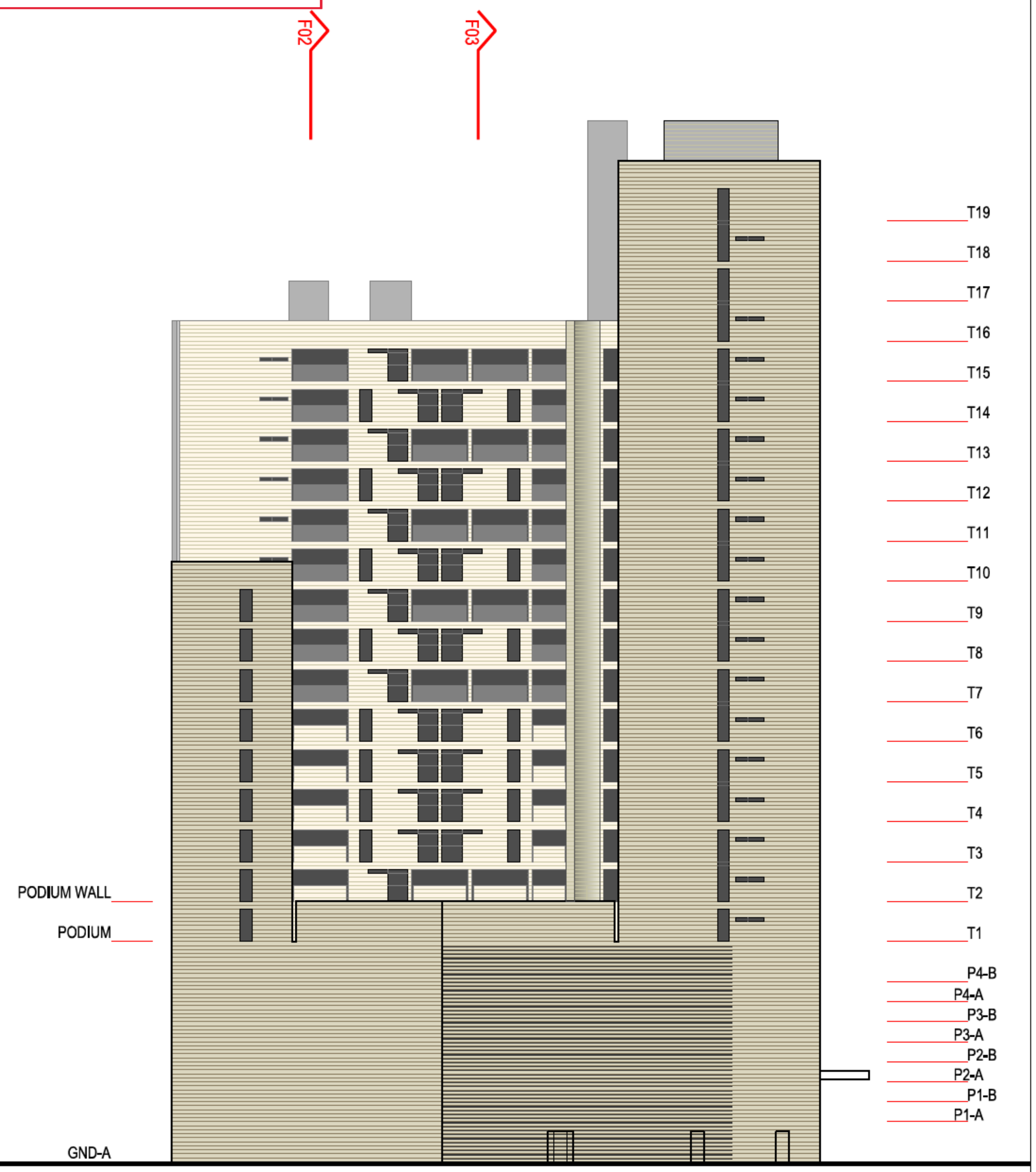


WEST ELEVATION
1:200



NORTH ELEVATION
1:200

SUNSCREEN NOT SHOWN FOR CLARITY

BVN

BVNArchitecture

ISSUE	DATE	FOR
01	24.05.10	DEVELOPMENT APPLICATION
02	02.07.10	COST ESTIMATE
03	23.07.10	CLIENT INFORMATION
04	02.08.10	INFORMATION
05	05.08.10	AMENDMENT TO DEVELOPMENT APPLICATION
06	17.09.10	DEVELOPMENT APPLICATION
07	10.02.11	DEVELOPMENT APPLICATION

CLIENT
BORROWDALE HOUSE PTY LTD

PROJECT
BORROWDALE HOUSE
MIXED USE DEVELOPMENT
WODEN
SECTION 8, BLOCKS 54 & 84

STATUS
DEVELOPMENT APPLICATION

NORTH

SCALE
1:200 at A1

GRAPHIC SCALE
0 4000 10000

DRAWING
ELEVATIONS

DRAWING NUMBER
DA-E02

ISSUE
07

PLANNING AND DEVELOPMENT ACT 2007
APPROVAL GRANTED
SUBJECT TO THE CONDITIONS SET OUT IN THE NOTICE OF DECISION
PURSUANT TO SECTION 162
Delegate name CHRIS GELL
Date 25/3/2020

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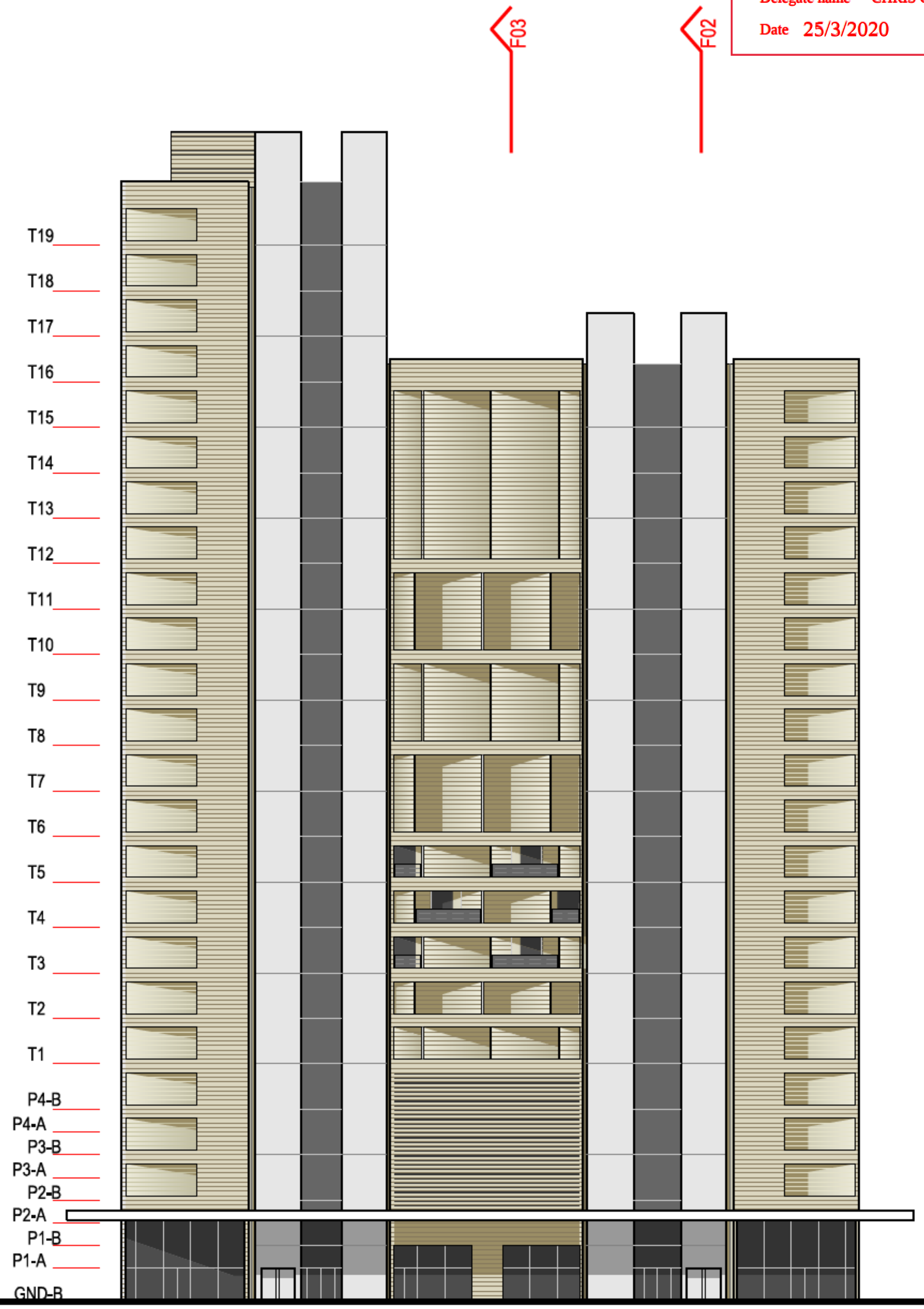
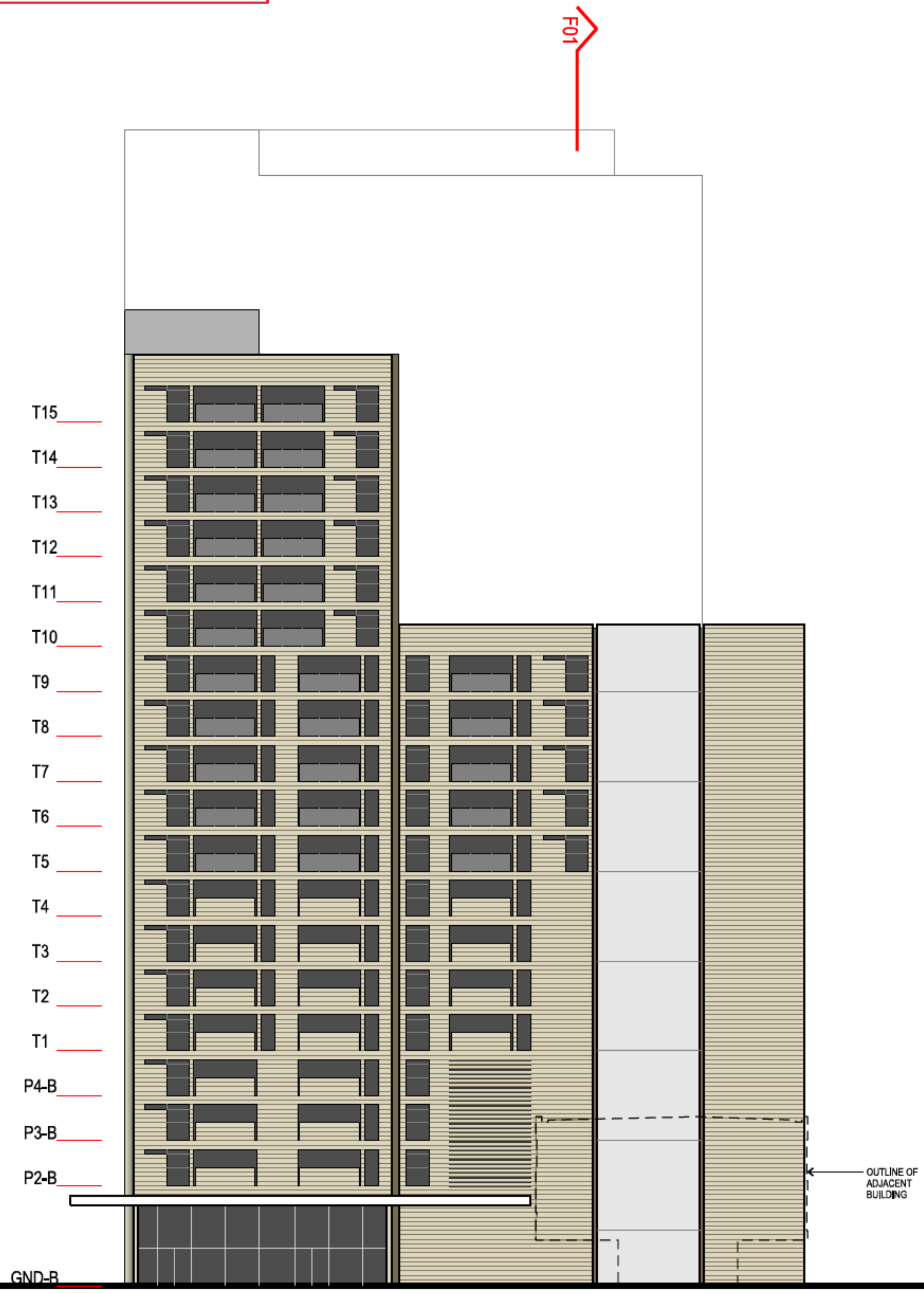


SOUTH ELEVATION
1:200



EAST ELEVATION
1:200

BVN
BVNArchitecture

INTELLECTUAL PROPERTY

ISSUE	DATE	FOR
01	24.05.10	DEVELOPMENT APPLICATION
02	02.07.10	COST ESTIMATE
03	23.07.10	CLIENT INFORMATION
04	02.08.10	INFORMATION
05	05.08.10	AMENDMENT TO DEVELOPMENT APPLICATION
06	17.09.10	DEVELOPMENT APPLICATION
07	10.02.11	DEVELOPMENT APPLICATION

CLIENT: BORROWDALE HOUSE PTY LTD

PROJECT: BORROWDALE HOUSE MIXED USE DEVELOPMENT WODEN SECTION 8, BLOCKS 54 & 84

STATUS: DEVELOPMENT APPLICATION

NORTH

SCALE: 1:200 at A1

GRAPHIC SCALE 0 4000 10000

DRAWING: ELEVATIONS

DRAWING NUMBER: DA-E01

ISSUE: 07

PLANNING AND DEVELOPMENT ACT 2007

APPROVAL GRANTED

SUBJECT TO THE CONDITIONS SET OUT IN THE NOTICE OF DECISION PURSUANT TO SECTION 162

Delegate name CHRIS GELL

Date 25/3/2020

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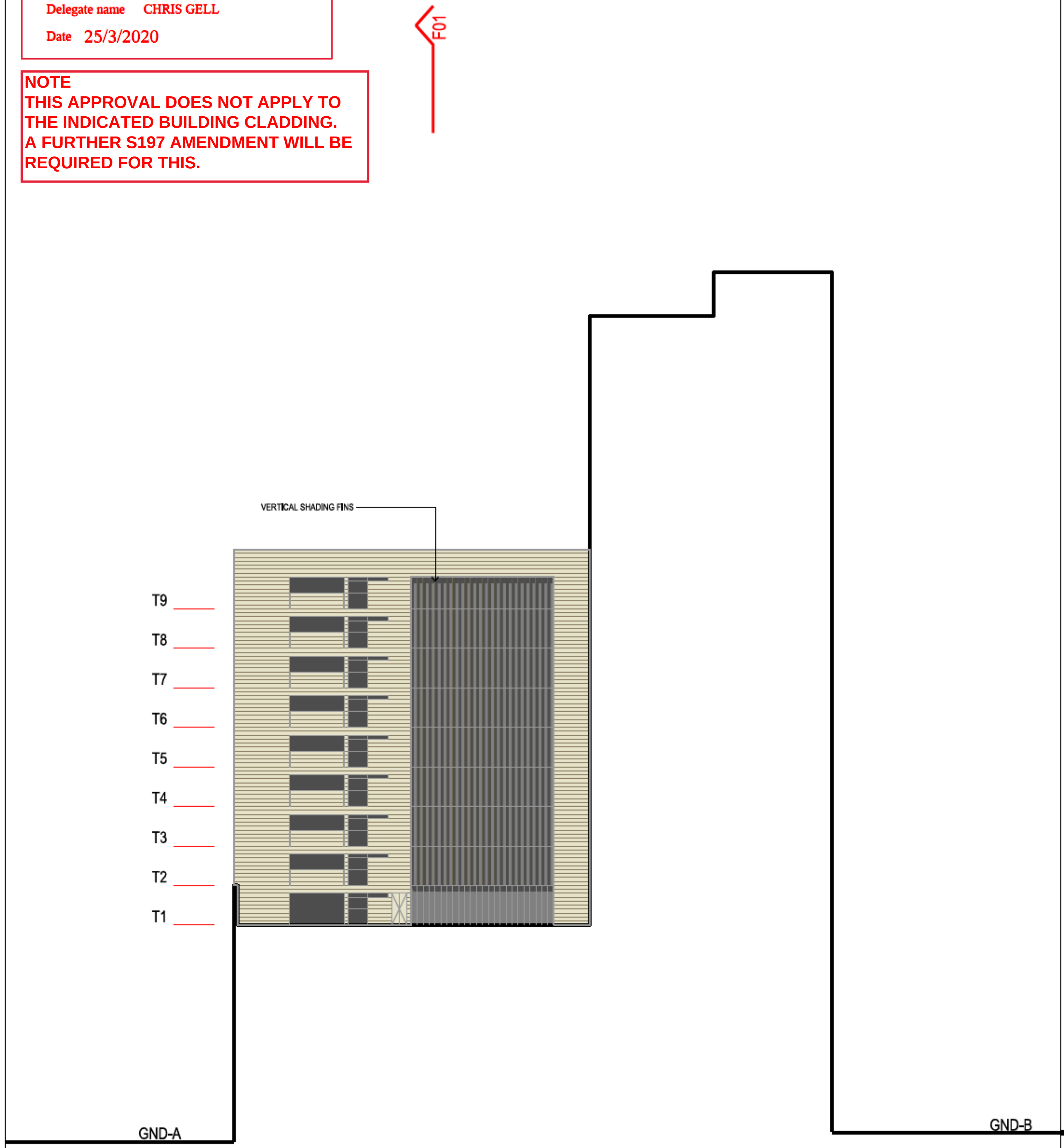
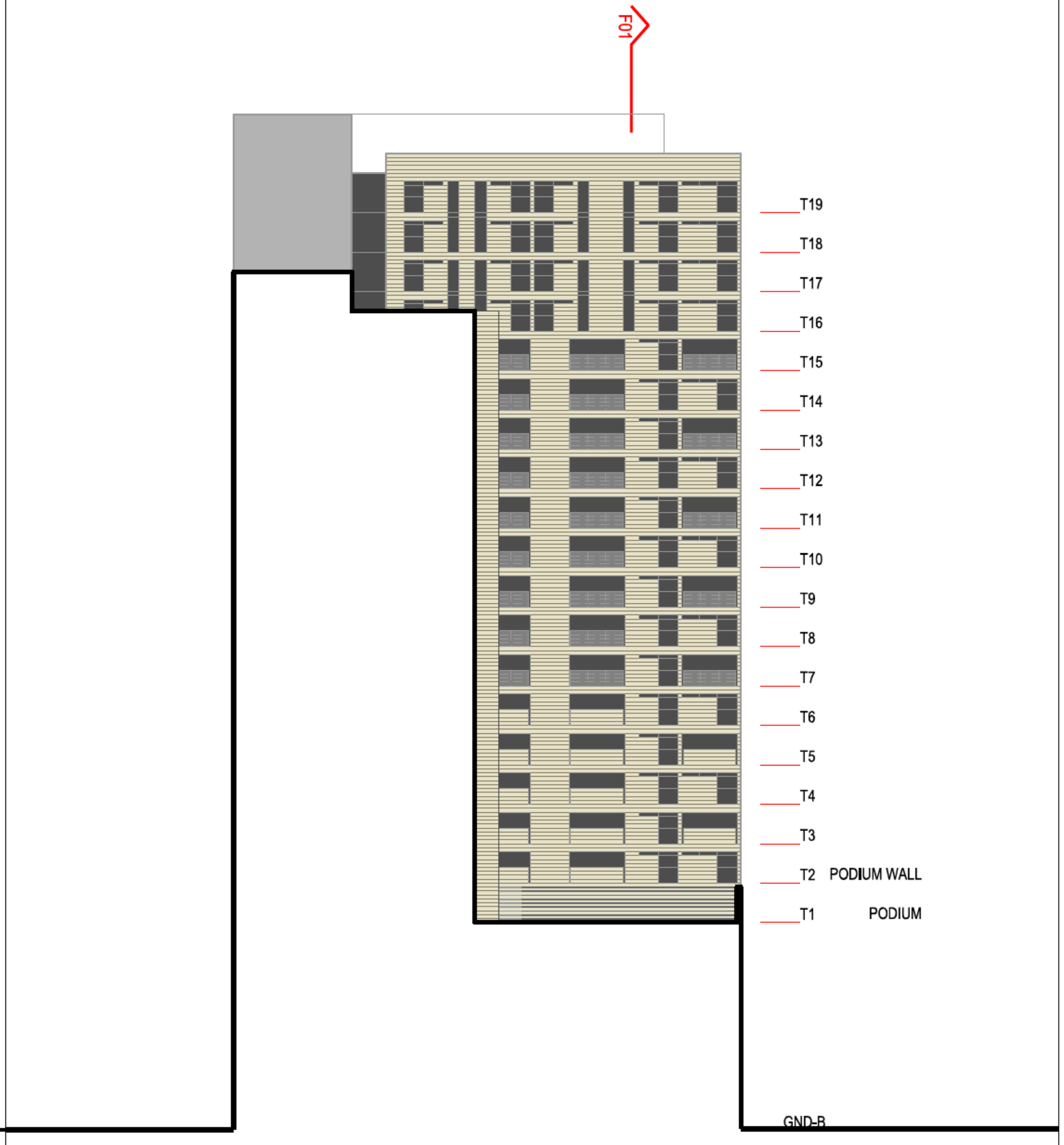


WEST ELEVATION OF EAST TOWER
1:200



EAST ELEVATION OF WEST TOWER
1:200

BVN

BVNArchitecture

INTELLECTUAL PROPERTY

ISSUE	DATE	FOR
01	24.05.10	DEVELOPMENT APPLICATION
02	02.07.10	COST ESTIMATE
03	23.07.10	CLIENT INFORMATION
04	02.08.10	INFORMATION
05	05.08.10	AMENDMENT TO DEVELOPMENT APPLICATION
06	17.09.10	DEVELOPMENT APPLICATION
07	10.02.11	DEVELOPMENT APPLICATION

CLIENT
BORROWDALE HOUSE PTY LTD

PROJECT
BORROWDALE HOUSE
MIXED USE DEVELOPMENT
WODEN
SECTION 8, BLOCKS 54 & 84

STATUS
DEVELOPMENT APPLICATION

NORTH

SCALE
1:200 at A1

GRAPHIC SCALE
0 4000 10000

DRAWING
ELEVATIONS

DRAWING NUMBER
DA-E03

ISSUE
07

PLANNING AND DEVELOPMENT ACT 2007
APPROVAL GRANTED
SUBJECT TO THE CONDITIONS SET OUT IN THE NOTICE OF DECISION PURSUANT TO SECTION 162

Delegate name CHRIS GELL

Date 25/3/2020

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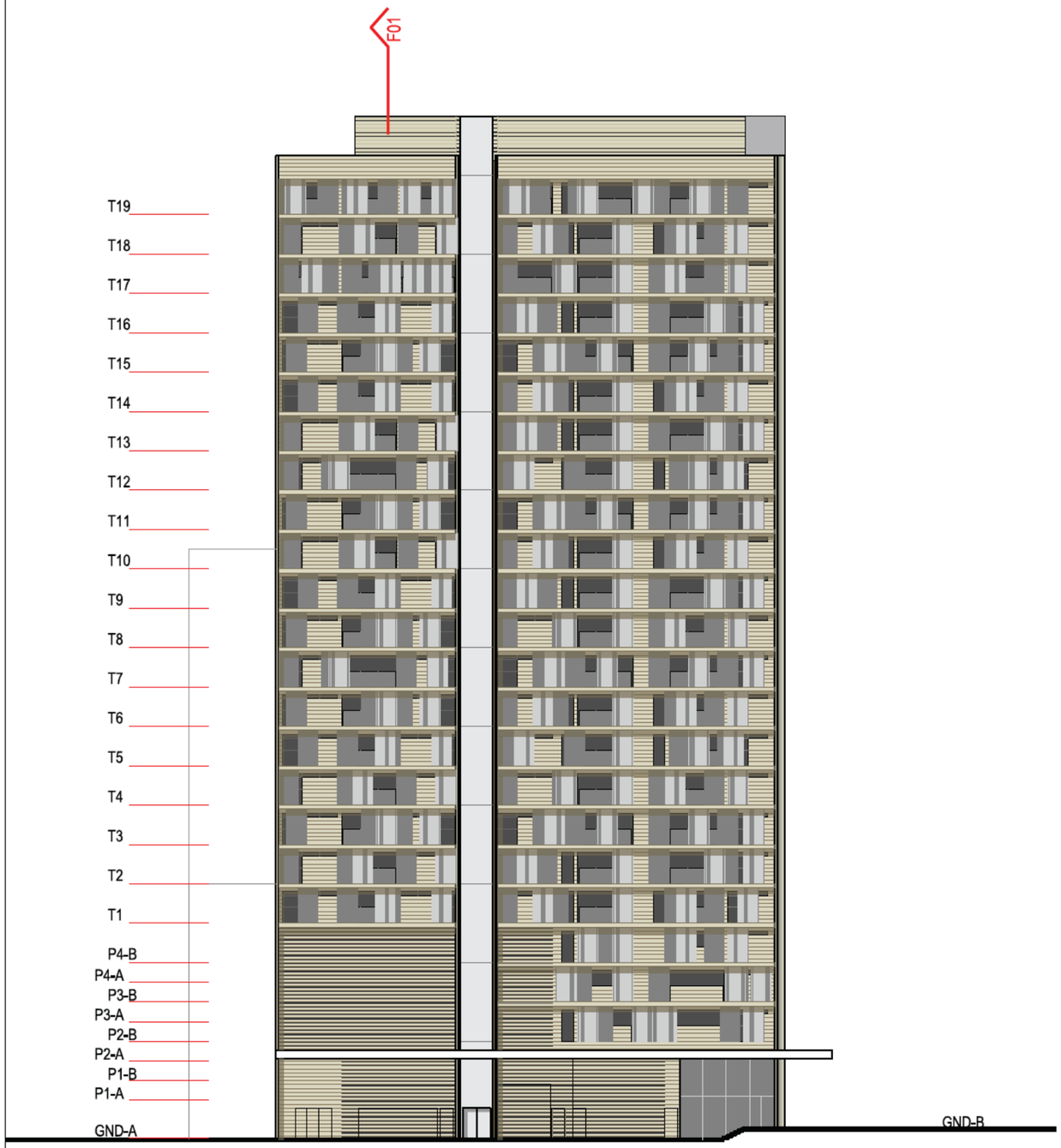


WEST ELEVATION
1:200

P:\08\08111001\Jon\Dwg_Archive\DA-E04 (west elevation sunscreen).dgn 10/02/2011

BVN

BVNArchitecture

ISSUE	DATE	FOR
01	24.05.10	DEVELOPMENT APPLICATION
02	02.07.10	COST ESTIMATE
03	23.07.10	CLIENT INFORMATION
04	02.08.10	INFORMATION
05	05.08.10	AMENDMENT TO DEVELOPMENT APPLICATION
06	17.09.10	DEVELOPMENT APPLICATION
07	10.02.11	DEVELOPMENT APPLICATION

CLIENT
BORROWDALE HOUSE PTY LTD

PROJECT
BORROWDALE HOUSE
MIXED USE DEVELOPMENT
WODEN
SECTION 8, BLOCKS 54 & 84

STATUS
DEVELOPMENT APPLICATION

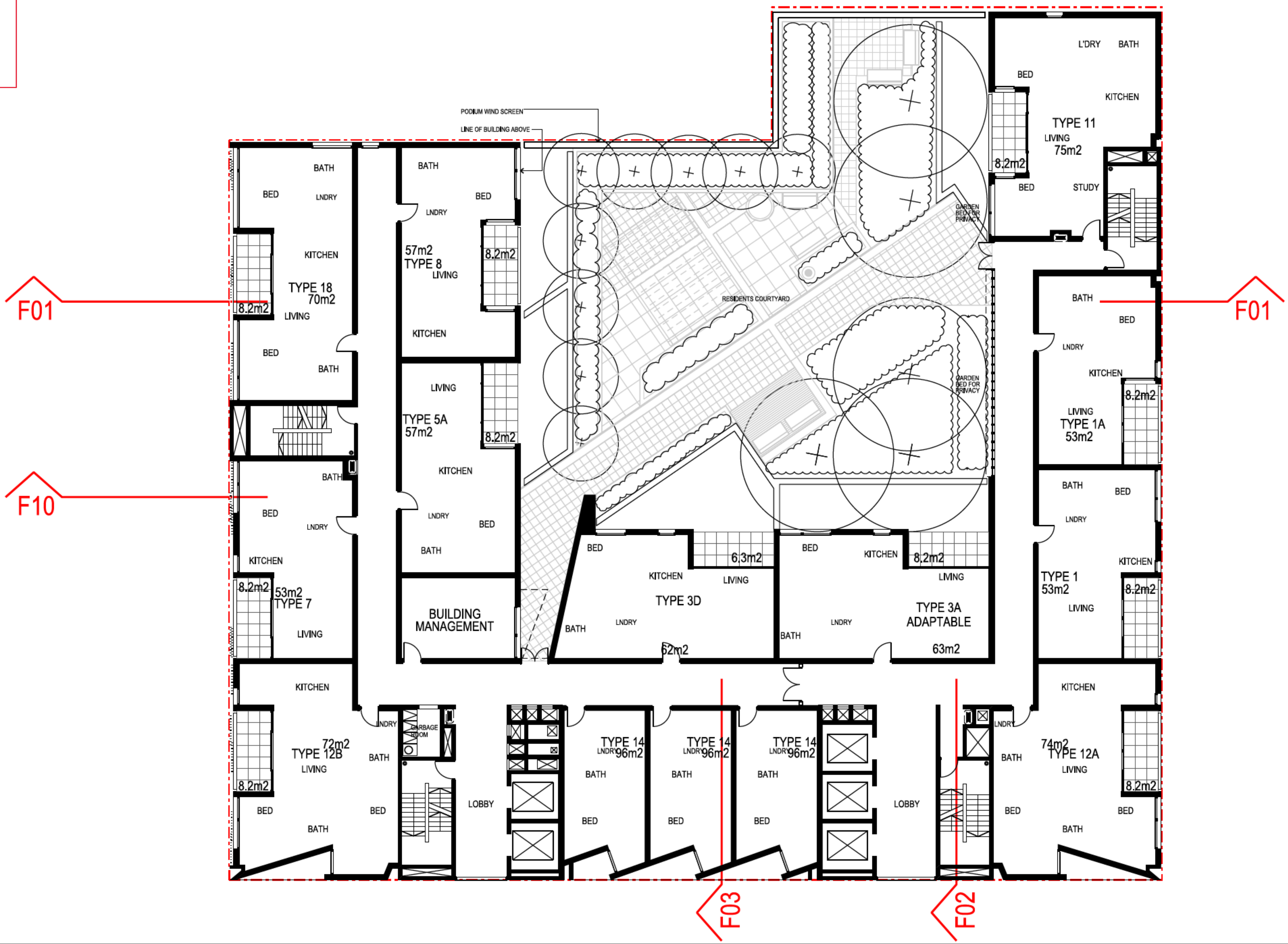
NORTH
SCALE
1:200 at A1
GRAPHIC SCALE
0 4000 10000

DRAWING
WEST ELEVATION SUNSCREEN
DRAWING NUMBER DA-E04
ISSUE 07

PLANNING AND DEVELOPMENT ACT 2007
APPROVAL GRANTED
SUBJECT TO THE CONDITIONS SET OUT IN THE NOTICE OF DECISION PURSUANT TO SECTION 162

Delegate name CHRIS GELL

Date 25/3/2020



INTELLECTUAL PROPERTY	ISSUE	DATE	FOR
	01	24.05.10	DEVELOPMENT APPLICATION
	02	02.07.10	COST ESTIMATE
	03	23.07.10	CLIENT INFORMATION
	04	02.08.10	INFORMATION
	05	05.08.10	AMENDMENT TO DEVELOPMENT APPLICATION
	06	17.09.10	DEVELOPMENT APPLICATION
	07	10.02.11	DEVELOPMENT APPLICATION

BVN

BVNArchitecture

CLIENT
BORROWDALE HOUSE PTY LTD

PROJECT
BORROWDALE HOUSE
MIXED USE DEVELOPMENT
WODEN
SECTION 8, BLOCKS 54 & 84

STATUS
DEVELOPMENT APPLICATION

NORTH

SCALE
1:100 at A1

GRAPHIC SCALE
0 2000 5000

DRAWING
T1 - PODIUM LEVEL APARTMENT & COURT YARD FLOOR PLAN

DRAWING NUMBER
DA_D08

ISSUE
07

PLANNING AND DEVELOPMENT ACT 2007

APPROVAL GRANTED

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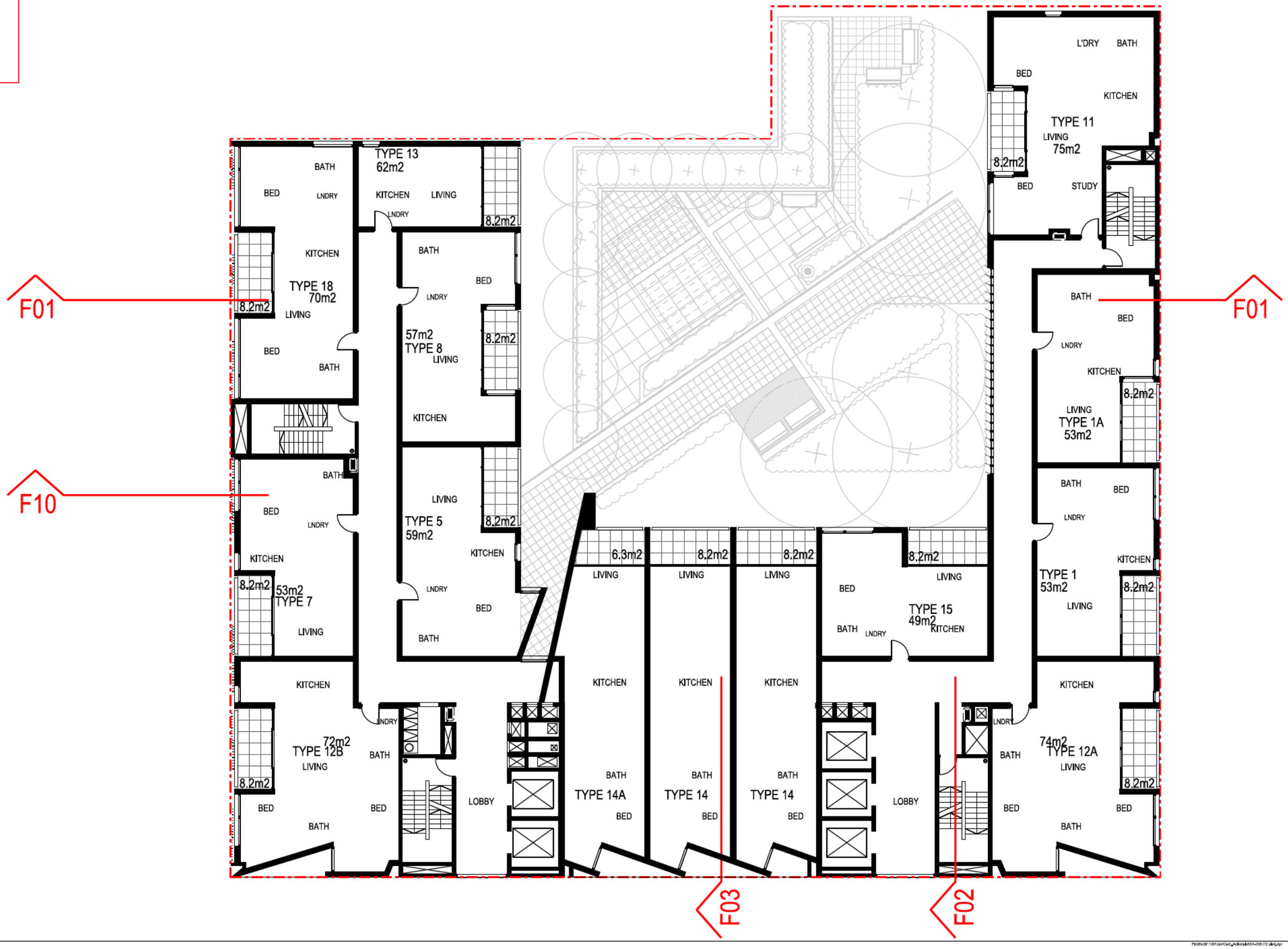
Delegate name CHRIS GELL

Date 25/3/2020



BVN

BVNArchitecture

ISSUE	DATE	FOR
01	25,05,10	DEVELOPMENT APPLICATION
02	02,07,10	COST ESTIMATE
03	23,07,10	CLIENT INFORMATION
04	02,08,10	INFORMATION
05	05,08,10	AMENDMENT TO DEVELOPMENT APPLICATION
06	17,09,10	DEVELOPMENT APPLICATION
07	10,02,11	DEVELOPMENT APPLICATION

CLIENT: BORROWDALE HOUSE PTY LTD

PROJECT: BORROWDALE HOUSE
MIXED USE DEVELOPMENT
WODEN
SECTION 8, BLOCKS 54 & 84

STATUS: DEVELOPMENT APPLICATION

NORTH

SCALE: 1:100 at A1

GRAPHIC SCALE: 0 2000 5000

DRAWING: T2 - FLOOR PLAN

DRAWING NUMBER: DA_D09

ISSUE: 07

PLANNING AND DEVELOPMENT ACT 2007

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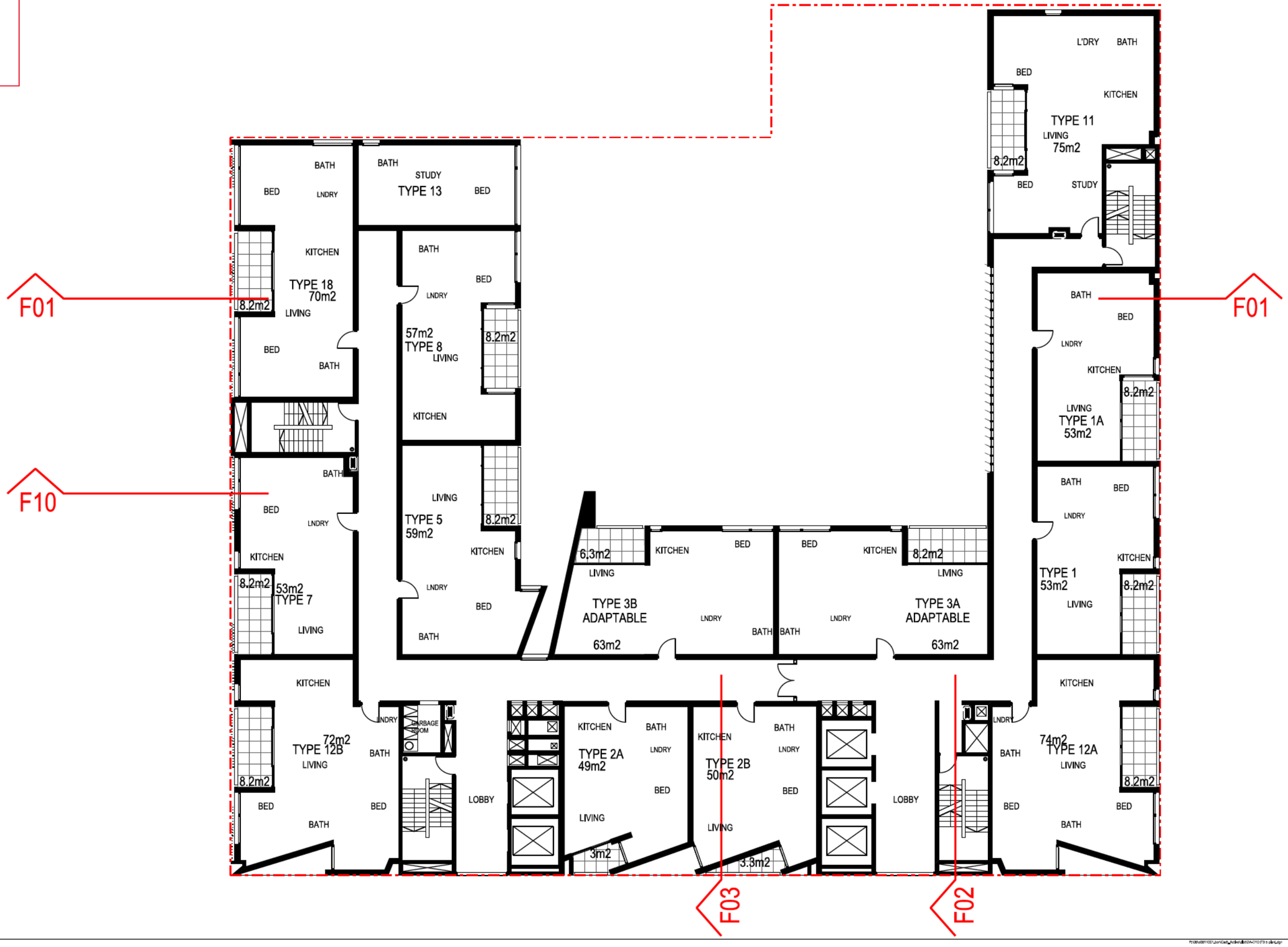
Delegate name CHRIS GELL

Date 25/3/2020



BVN

BVNArchitecture

ISSUE	DATE	FOR
01	24,05,10	DEVELOPMENT APPLICATION
02	02,07,10	COST ESTIMATE
03	23,07,10	CLIENT INFORMATION
04	02,08,10	INFORMATION
05	05,08,10	AMENDMENT TO DEVELOPMENT APPLICATION
06	17,09,10	DEVELOPMENT APPLICATION
07	10,02,11	DEVELOPMENT APPLICATION

CLIENT: BORROWDALE HOUSE PTY LTD

PROJECT: BORROWDALE HOUSE MIXED USE DEVELOPMENT WODEN SECTION 8, BLOCKS 54 & 84

STATUS: DEVELOPMENT APPLICATION

NORTH

SCALE: 1:100 at A1

GRAPHIC SCALE: 0 2000 5000

DRAWING: T3 & T5 - FLOOR PLAN

DRAWING NUMBER: DA_D10

ISSUE: 07

PLANNING AND DEVELOPMENT ACT 2007
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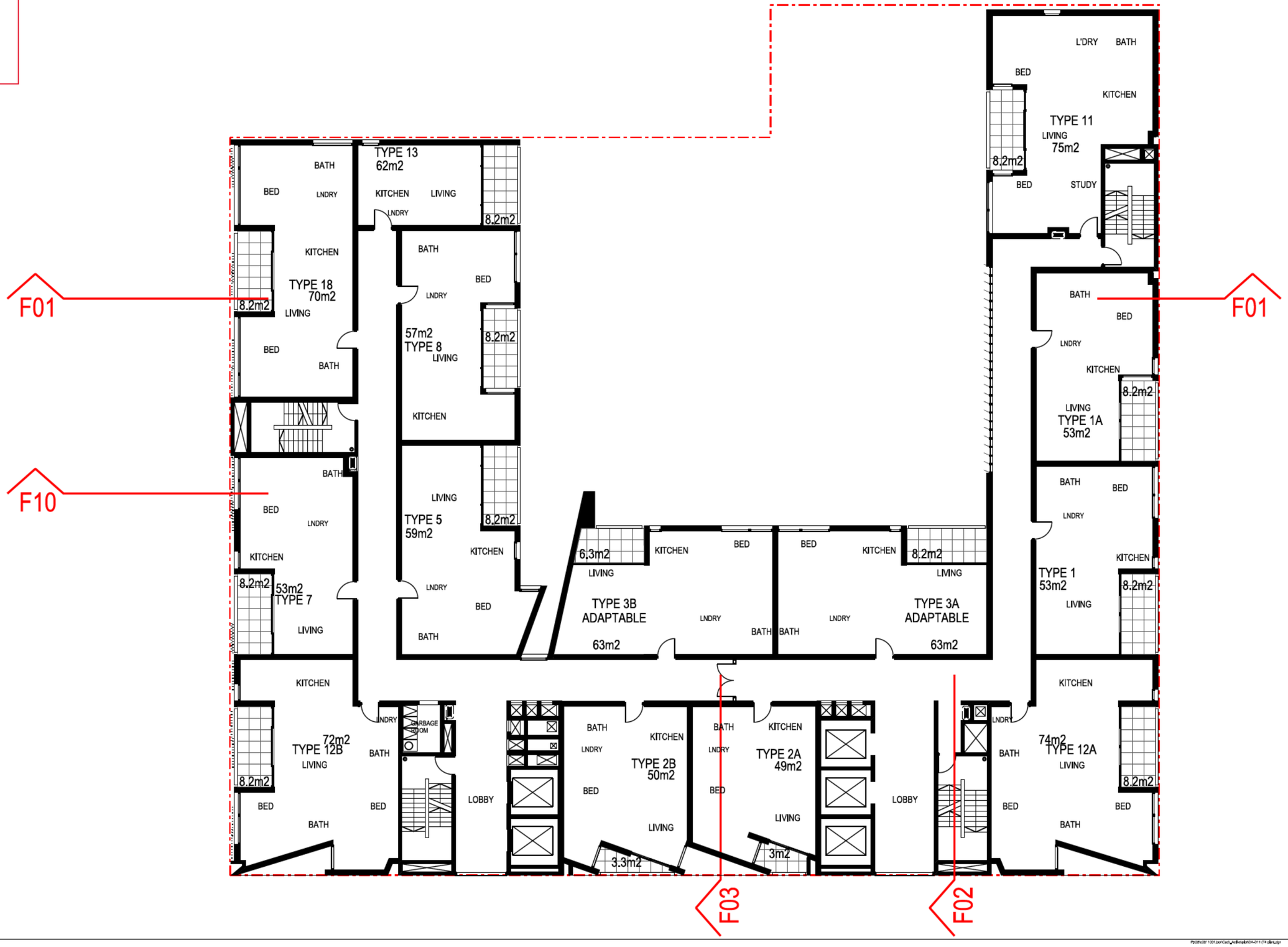

BVN

BVNArchitecture

ISSUE	DATE	FOR
01	24,05,10	DEVELOPMENT APPLICATION
02	02,07,10	COST ESTIMATE
03	23,07,10	CLIENT INFORMATION
04	02,08,10	INFORMATION
05	05,08,10	AMENDMENT TO DEVELOPMENT APPLICATION
06	17,09,10	DEVELOPMENT APPLICATION
07	10,02,11	DEVELOPMENT APPLICATION

CLIENT: BORROWDALE HOUSE PTY LTD

PROJECT: BORROWDALE HOUSE
MIXED USE DEVELOPMENT
WODEN
SECTION 8, BLOCKS 54 & 84

STATUS: DEVELOPMENT APPLICATION

NORTH

SCALE: 1:100 at A1

GRAPHIC SCALE: 0 2000 5000

DRAWING: T4 - FLOOR PLAN

DRAWING NUMBER: DA_D11

ISSUE: 07

PLANNING AND DEVELOPMENT ACT 2007

APPROVAL GRANTED

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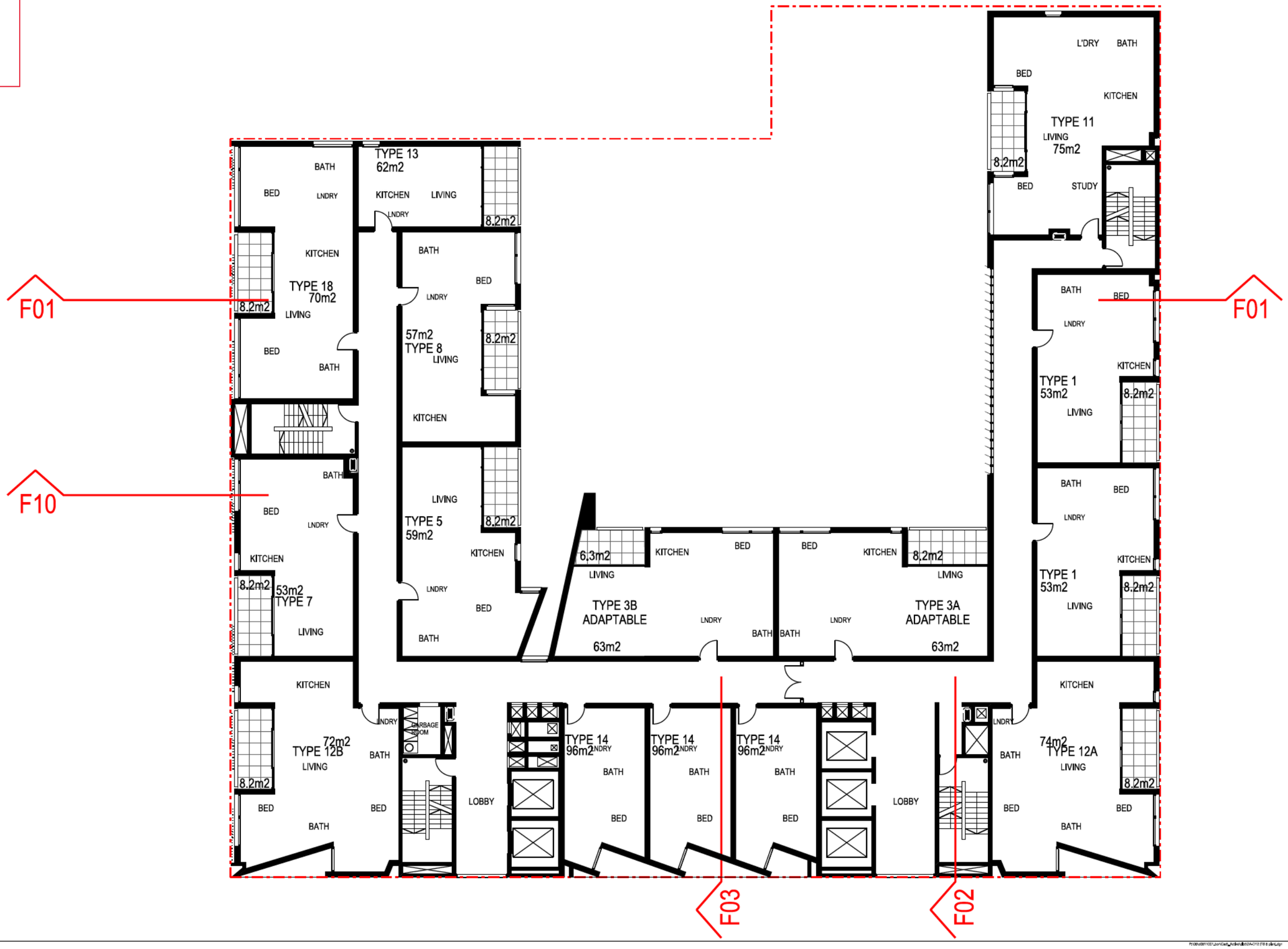

BVN

BVNArchitecture

ISSUE	DATE	FOR
01	24,05,10	DEVELOPMENT APPLICATION
02	02,07,10	COST ESTIMATE
03	23,07,10	CLIENT INFORMATION
04	02,08,10	INFORMATION
05	05,08,10	AMENDMENT TO DEVELOPMENT APPLICATION
06	17,09,10	DEVELOPMENT APPLICATION
07	10,02,11	DEVELOPMENT APPLICATION

CLIENT: BORROWDALE HOUSE PTY LTD

PROJECT: BORROWDALE HOUSE MIXED USE DEVELOPMENT WODEN SECTION 8, BLOCKS 54 & 84

STATUS: DEVELOPMENT APPLICATION

NORTH

SCALE: 1:100 at A1

GRAPHIC SCALE: 0 2000 5000

DRAWING: T6 & T8 - FLOOR PLAN

DRAWING NUMBER: DA_D12

ISSUE: 07

PLANNING AND DEVELOPMENT ACT 2007

APPROVAL GRANTED

SUBJECT TO THE CONDITIONS SET OUT IN THE NOTICE OF DECISION PURSUANT TO SECTION 162

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Date 25/3/2020

BVN

BVNArchitecture

ISSUE	DATE	FOR
01	24,05,10	DEVELOPMENT APPLICATION
02	02,07,10	COST ESTIMATE
03	23,07,10	CLIENT INFORMATION
04	02,08,10	INFORMATION
05	05,08,10	AMENDMENT TO DEVELOPMENT APPLICATION
06	17,09,10	DEVELOPMENT APPLICATION
07	10,02,11	DEVELOPMENT APPLICATION

CLIENT: BORROWDALE HOUSE PTY LTD

PROJECT: BORROWDALE HOUSE MIXED USE DEVELOPMENT WODEN SECTION 8, BLOCKS 54 & 84

STATUS: DEVELOPMENT APPLICATION

NORTH

SCALE: 1:100 at A1

GRAPHIC SCALE: 0 2000 5000

DRAWING: T7 T9 - FLOOR PLAN

DRAWING NUMBER: DA_D13

ISSUE: 07

PLANNING AND DEVELOPMENT ACT 2007

APPROVAL GRANTED

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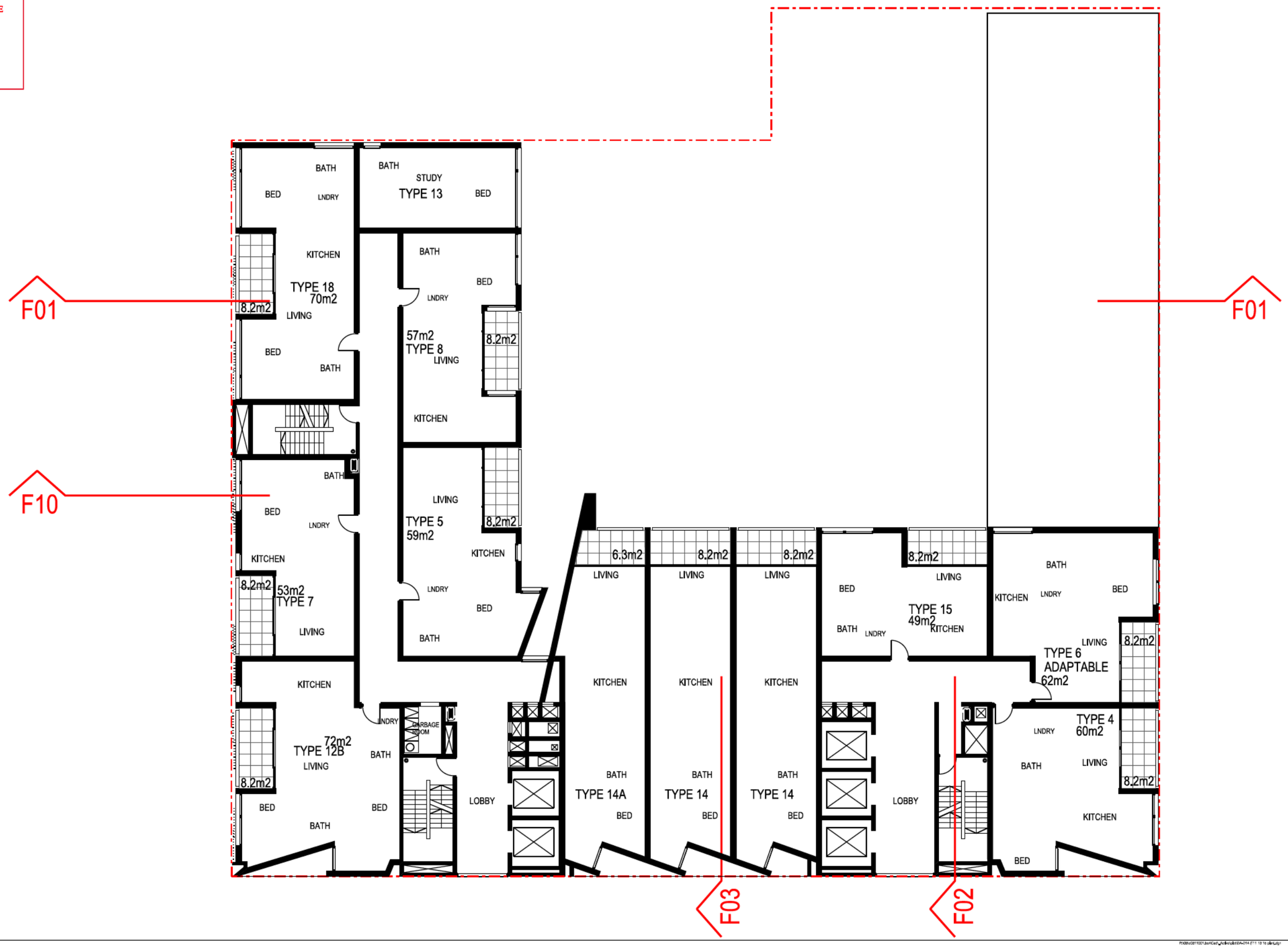
Delegate name CHRIS GELL

Date 25/3/2020



BVN

BVNArchitecture

INTELLECTUAL PROPERTY

ISSUE	DATE	FOR
01	24.05.10	DEVELOPMENT APPLICATION
02	02.07.10	COST ESTIMATE
03	23.07.10	CLIENT INFORMATION
04	02.08.10	INFORMATION
05	05.08.10	AMENDMENT TO DEVELOPMENT APPLICATION
06	17.09.10	DEVELOPMENT APPLICATION
07	10.02.11	DEVELOPMENT APPLICATION

CLIENT: BORROWDALE HOUSE PTY LTD

PROJECT: BORROWDALE HOUSE MIXED USE DEVELOPMENT WODEN SECTION 8, BLOCKS 54 & 84

STATUS: DEVELOPMENT APPLICATION

NORTH

SCALE: 1:100 at A1

GRAPHIC SCALE: 0 2000 5000

DRAWING: T11, T13, T15 - FLOOR PLAN

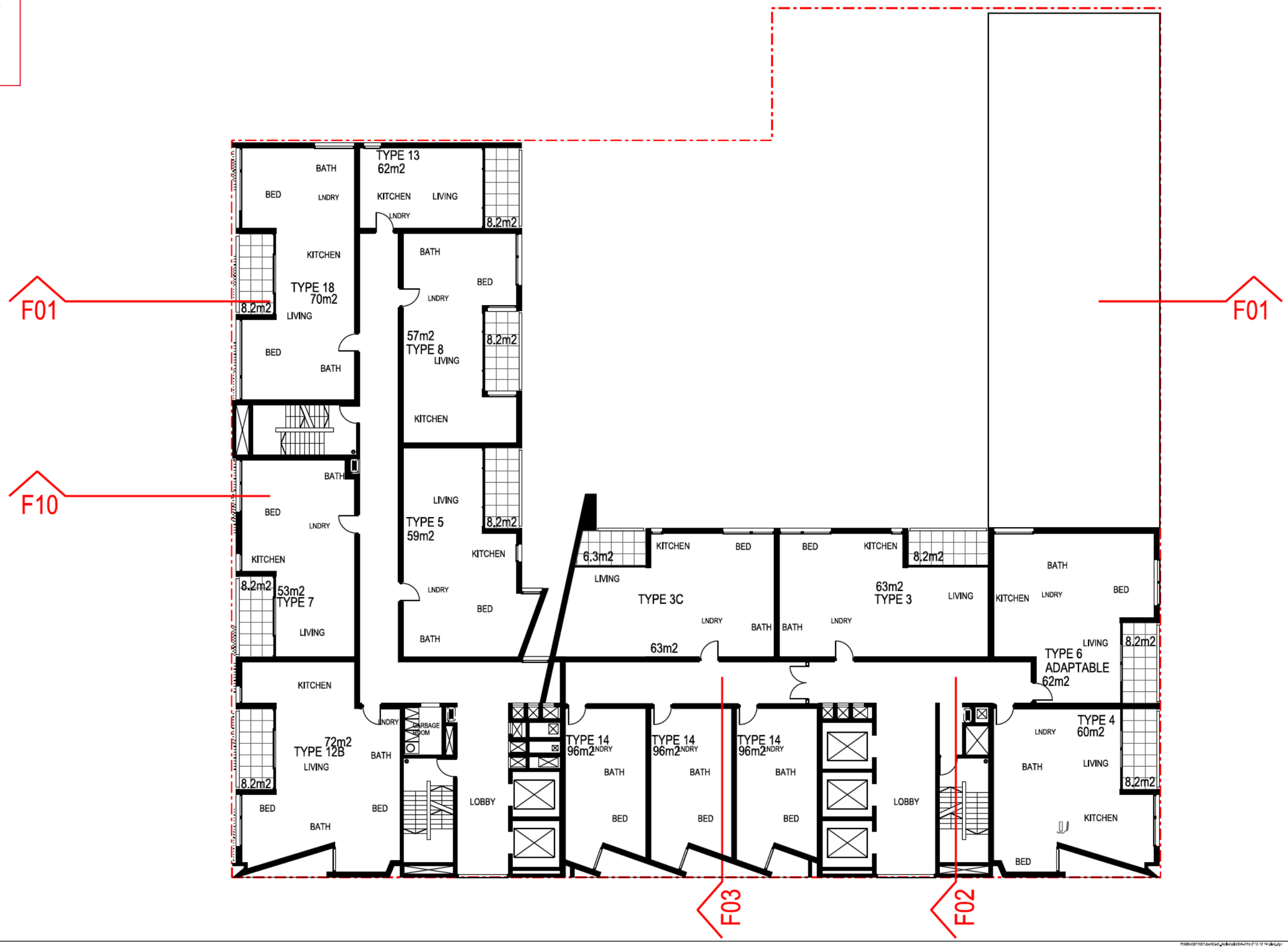
DRAWING NUMBER: DA_D14

ISSUE: 07

PLANNING AND DEVELOPMENT ACT 2007
APPROVAL GRANTED
SUBJECT TO THE CONDITIONS SET OUT IN THE NOTICE OF DECISION PURSUANT TO SECTION 162

Delegate name CHRIS GELL

Date 25/3/2020



BVN

BVNArchitecture

ISSUE	DATE	FOR
01	24.05.10	DEVELOPMENT APPLICATION
02	02.07.10	COST ESTIMATE
03	23.07.10	CLIENT INFORMATION
04	02.08.10	INFORMATION
05	05.08.10	AMENDMENT TO DEVELOPMENT APPLICATION
06	17.09.10	DEVELOPMENT APPLICATION
07	10.02.11	DEVELOPMENT APPLICATION

CLIENT
BORROWDALE HOUSE PTY LTD

PROJECT
BORROWDALE HOUSE
MIXED USE DEVELOPMENT
WODEN
SECTION 8, BLOCKS 54 & 84

STATUS
DEVELOPMENT APPLICATION

NORTH
SCALE 1:100 at A1
GRAPHIC SCALE 0 2000 5000

DRAWING
T10, T12, T14 - FLOOR PLAN
DRAWING NUMBER DA_D15
ISSUE 07

PLANNING AND DEVELOPMENT ACT 2007
APPROVAL GRANTED
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Delegate name CHRIS GELL

Date 25/3/2020

BVN

BVNArchitecture

ISSUE	DATE	FOR
01	24.05.10	DEVELOPMENT APPLICATION
02	02.07.10	COST ESTIMATE
03	23.07.10	CLIENT INFORMATION
04	02.08.10	INFORMATION
05	05.08.10	AMENDMENT TO DEVELOPMENT APPLICATION
06	17.09.10	DEVELOPMENT APPLICATION
07	10.02.11	DEVELOPMENT APPLICATION

CLIENT: BORROWDALE HOUSE PTY LTD

PROJECT: BORROWDALE HOUSE
MIXED USE DEVELOPMENT
WODEN
SECTION 8, BLOCKS 54 & 84

STATUS: DEVELOPMENT APPLICATION

NORTH

SCALE: 1:100 at A1

GRAPHIC SCALE: 0 2000 5000

DRAWING: T16 & T18 - FLOOR PLAN

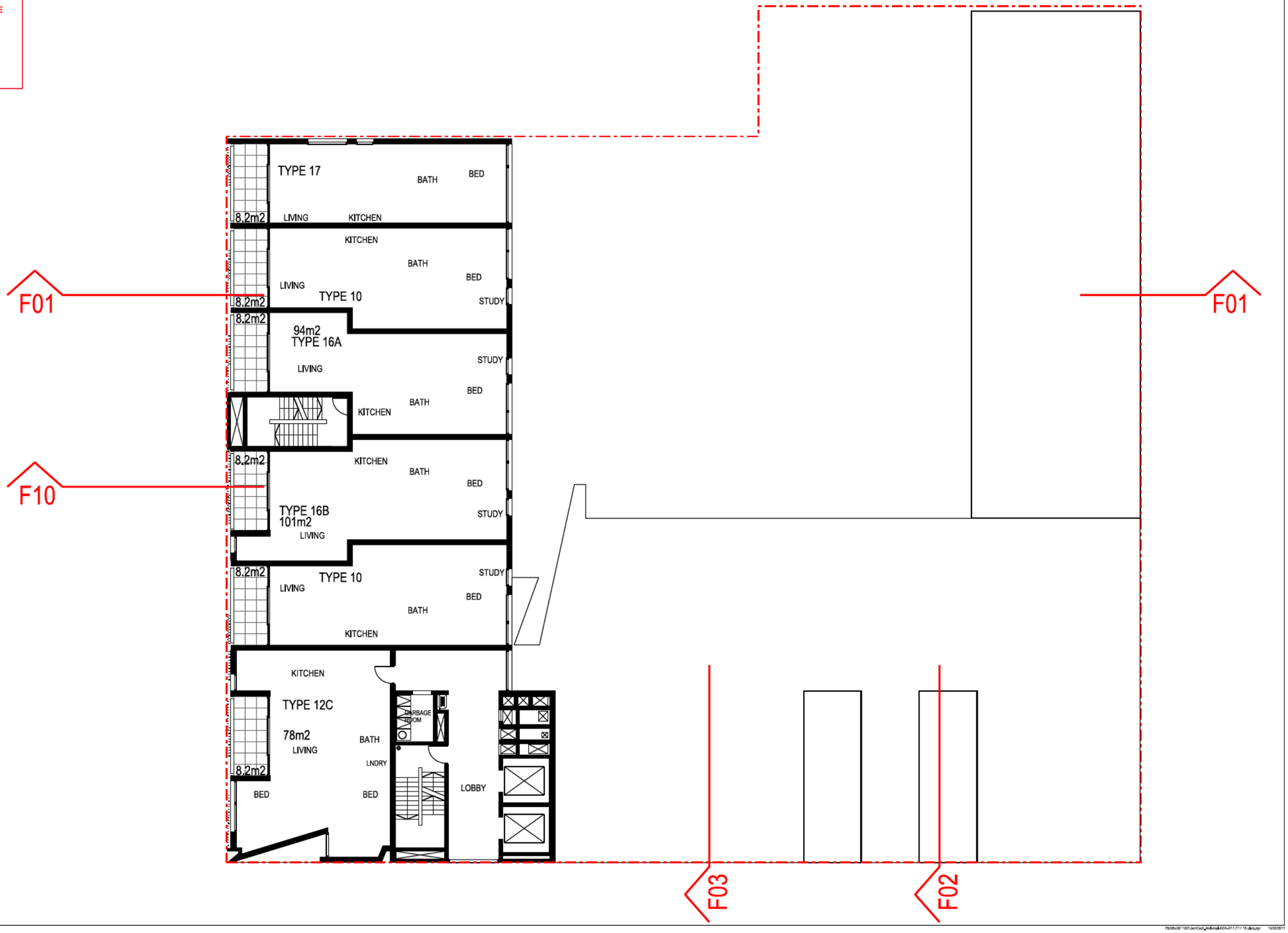
DRAWING NUMBER: DA_D16

ISSUE: 07

PLANNING AND DEVELOPMENT ACT 2007
APPROVAL GRANTED
SUBJECT TO THE CONDITIONS SET OUT IN THE NOTICE OF DECISION PURSUANT TO SECTION 162

Delegate name CHRIS GELL

Date 25/3/2020



BVN

BVNArchitecture

ISSUE	DATE	FOR
01	24.05.10	DEVELOPMENT APPLICATION
02	02.07.10	COST ESTIMATE
03	23.07.10	CLIENT INFORMATION
04	02.08.10	INFORMATION
05	05.08.10	AMENDMENT TO DEVELOPMENT APPLICATION
06	17.09.10	DEVELOPMENT APPLICATION
07	10.02.11	DEVELOPMENT APPLICATION

CLIENT: BORROWDALE HOUSE PTY LTD

PROJECT: BORROWDALE HOUSE
MIXED USE DEVELOPMENT
WODEN
SECTION 8, BLOCKS 54 & 84

STATUS: DEVELOPMENT APPLICATION

NORTH

SCALE: 1:100 at A1

GRAPHIC SCALE: 0 2000 5000

DRAWING: T17 & T19 - FLOOR PLAN

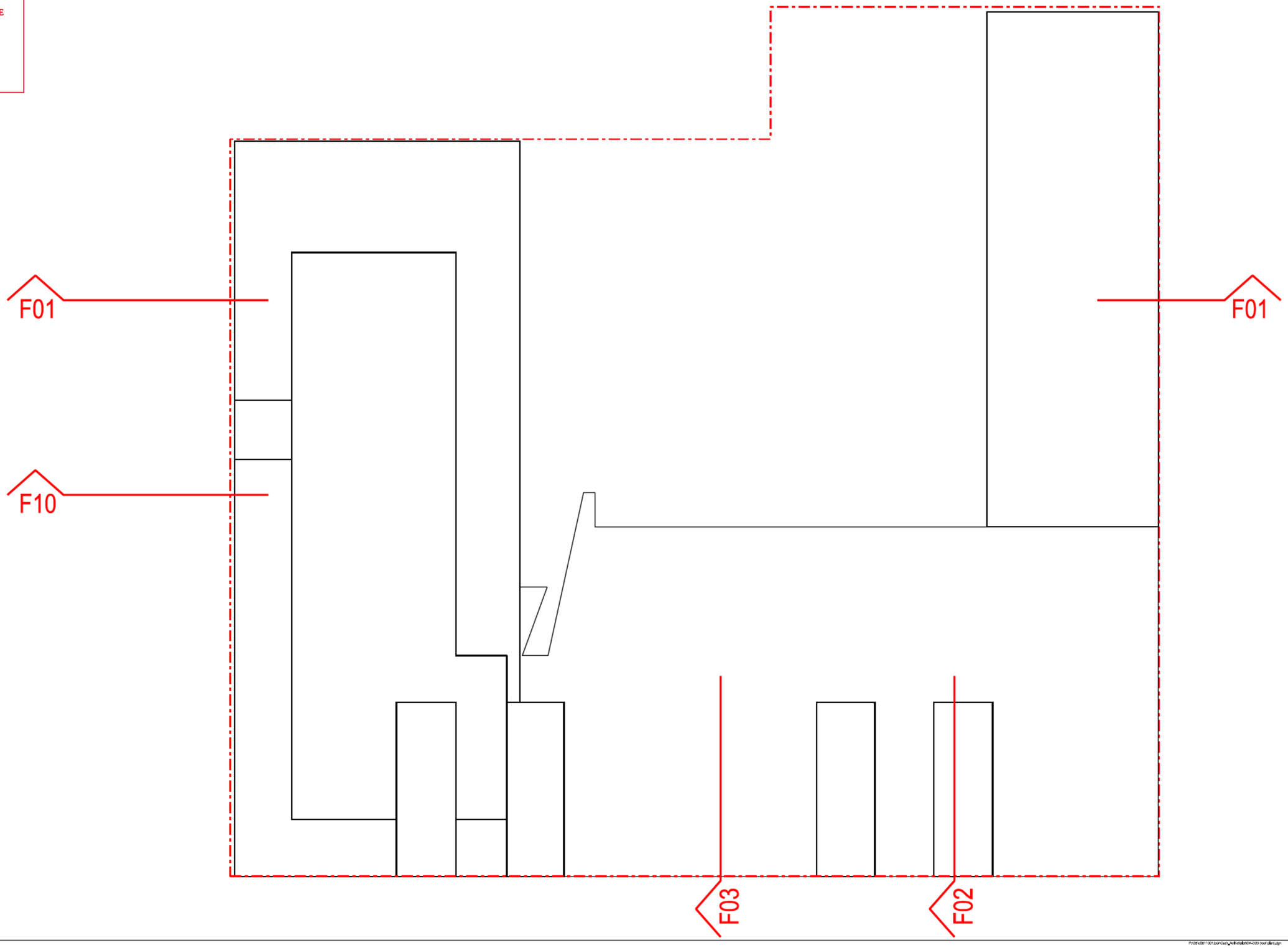
DRAWING NUMBER: DA_D17

ISSUE: 07

PLANNING AND DEVELOPMENT ACT 2007
APPROVAL GRANTED
SUBJECT TO THE CONDITIONS SET OUT IN THE NOTICE OF DECISION PURSUANT TO SECTION 162

Delegate name CHRIS GELL

Date 25/3/2020



BVNArchitecture

ISSUE	DATE	FOR
01	24.05.10	DEVELOPMENT APPLICATION
02	02.07.10	COST ESTIMATE
03	23.07.10	CLIENT INFORMATION
04	02.08.10	INFORMATION
05	05.08.10	AMENDMENT TO DEVELOPMENT APPLICATION
06	17.09.10	DEVELOPMENT APPLICATION
07	10.02.11	DEVELOPMENT APPLICATION

CLIENT
BORROWDALE HOUSE PTY LTD

PROJECT
BORROWDALE HOUSE
MIXED USE DEVELOPMENT
WODEN
SECTION 8, BLOCKS 54 & 84

STATUS
DEVELOPMENT APPLICATION

NORTH
SCALE 1:100 at A1
GRAPHIC SCALE 0 2000 5000

DRAWING
ROOF PLAN
DRAWING NUMBER DA_D20
ISSUE 07