



Reference number 4979

### Member of the Fire Protection Association of Australia

# Lot 11, section 19, DP 758566, 37 Lanford Avenue, Killarney Heights, NSW 2087.

Wednesday, 19 March 2025

Prepared by:	Matthew Willis  BPAD – Level 3  Certified Practitioner  Certification No: BPD-PA 09337	Math history	19/03/2025
Can this proposal comply with AS3959-2018 (inc section 7.5, 7.5.1,7.5.2, 7.5.3, 7.5.4 (where applicable) of the Rural Fire Services document Planning for Bushfire Protection 2019)?		Yes	
What is the recommended AS 3959-2018 level of compliance?		BAL-19	
Is refe	rral to the RFS required?	No	
Can this development comply with the requirements of PBP?		Yes	
Plans by "Action Plans" (Appendix 1) dated.		7/3/2025	

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# **Bushfire Planning Services**

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# **Bushfire Risk Assessment**

Wednesday, 19 March 2025

### Contact

Ashleigh and James Coburn 37 Lanford Road Killarney Heights NSW 2087 0414 748 706

# Subject Property

Lot 11, section 19, DP 758566 37 Lanford Avenue Killarney Heights NSW 2087

# Document tracking.

Date	Reason for change	Author





### BUSHFIRE RISK ASSESSMENT CERTIFICATE

# THIS FORM IS TO BE COMPLETED BY A RECOGNISED CONSULTANT IN BUSHFIRE RISK ASSESSMENT IN ACCORDANCE WITH SECTION 4.14 OF THE ENVIRONMENTAL PLANNING AND ASSESSMENT ACT.

Property Address	Lot 11, section 19, DP 758566, number 37 Lanford Avenue Killarney Heights
Description of the Proposal	Alterations and additions to an existing building
Plan Reference	7/3/2025
BAL Rating	BAL-19
Does the Proposal Rely on Alternate Solutions?	No

**I, Matthew Willis of Bushfire Planning Services Pty Ltd** have carried out a bushfire risk assessment on the above-mentioned proposal and property. A detailed Bushfire Assessment Report is attached which includes the submission requirements set out in Planning for Bushfire Protection 2019 together with recommendations as to how the relevant Specifications and requirements are to be achieved.

I hereby advise, in accordance with Section 4.14 of the Environmental Planning and Assessment Act 1979 No 203:

- 1. That I am a person recognised by the NSW Rural Fire Service as a qualified consultant in bushfire risk assessment; and
- 2. That subject to the recommendations contained in the attached Bushfire Risk Assessment Report the proposed development conforms to the relevant specifications and requirements\*
- \*The relevant specifications and requirements being specifications and requirements of the document entitled Planning for Bush Fire Protection prepared by the NSW Rural Fire Service in co-operation with the Department of Planning and any other document as prescribed by Section 4.14 of the Environmental Planning and Assessment Act 1979 No 203.

I am aware that the Bushfire Assessment Report, prepared for the above-mentioned site is to be submitted in support of a development application for this site and will be relied upon by Northern Beaches Council as the basis for ensuring that the bushfire risk management aspects of the proposed development have been addressed in accordance with Planning for Bushfire Protection 2019.

REPORT REFERENCE	Wednesday, 19 March 2025
REPORT DATE	Wednesday, 19 March 2025
CERTIFICATION NO/ACCREDITED SCHEME	FPAA BPAD A BPD-PA 09337

### Attachments:

- Bushfire Risk Assessment Report
- Recommendations

SIGNATURE: --- DATE: ---- Wednesday, 19 March 2025





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# 1 Executive Summary.

Bushfire Planning Services has been requested by Ashleigh and James Coburn to supply a bushfire compliance report on lot 11, section 19, DP 758566, 37 Lanford Avenue, Killarney Heights.

The works proposed for the subject lot are for the alterations and additions to an existing building, see attached plans for details.

The subject lot is on the western side of Lanford Avenue and at its closest point to the most significant hazard the proposed new work has a separation distance to the west of approximately 85.5.

The vegetation that is considered to be the hazard to this proposal is situated on land that slopes down slope away from the property at an angle of approximately 17.88°.

For the purposes of this assessment this vegetation is considered to be Forest.

The remaining vegetation within the study area is contained within the boundaries of established allotments and is managed land and of low threat to this proposal.

The calculations and assumptions outlined in this report show that the development will be required to comply with the construction requirements of AS 3959-2018 BAL-19 and any additional construction requirements contained within section 7.5, 7.5.1,7.5.2, 7.5.3, 7.5.4 (where applicable) of the Rural Fire Services document Planning for Bushfire Protection 2019.

The following table is a summary of the pertinent findings of this assessment.

Aspect	North East Sou		South	West
Vegetation type	Managed land	Managed land/remnant		
Slope	N/A	All Upslope and Flat Land		
Setback within lot 11, section				6
Setback outside lot 11, section		50		79.5
Total setback	0m	50m	0m	85.5m
Bal level	BAL-LOW	BAL-LOW	BAL-LOW	BAL-19

Note: The above table is a summary of the significant variables used to determine the highest BAL for this proposal. THIS TABLE IS NOT INTENDED FOR CONSTRUCTION!

Only the highest BAL level is shown, aspects marked as N/A will still have a BAL. Refer to section 11 for construction requirements for these other aspects.





## 2 General.

This proposal relates to the alterations and additions to an existing building on the subject lot and its ability to comply with the rules and regulations for building in a bushfire prone area.

The methodology used on this report is based on Planning for Bushfire Protection 2019 (PBP) as published by the New South Wales Rural Fire Service.

Any wording that appears in *blue italics* is quotes from Planning for Bushfire Protection 2019. Some of the measurements used in this report have been taken from aerial photographs and as such are approximate only.

# 3 Block Description.

The subject block is situated on the western side of Lanford Avenue in an established area of Killarney Heights.

The lot currently contains a single-level class 1 dwelling.

The lands surrounding the proposed site on the subject lot to a distance of at least 85.5 contain existing development or land that is otherwise not considered to be a significant bushfire hazard.

- Lot; 11, section 19
- DP; 758566.
- LGA; Northern Beaches.
- Area; 702.8m2.
- Address; 37 Lanford Avenue, Killarney Heights.

This section has been left blank.







Map 1 shows the cadastral layout around the subject lot.



Map 2 is an extract from the councils' bushfire prone land map. The map shows lot 11, section 19 to be within the buffer zone of category 1 bushfire vegetation.





# 4 Vegetation.

The study area for the vegetation is 140m surrounding the subject block.

The vegetation within the study area for this development is considered to be largely managed land.

The major potential hazard to this development is the vegetation within an area of undeveloped land to the west.

For the purpose of this assessment and compliance with Planning for Bushfire Protection this area of undeveloped land is considered to be Forest and is the hazard to this proposal.



Photo 1 - An overview of the vegetation within the general area.

This area has been left intentionally blank.







Photo 2 is a closer view of the vegetation in the area.

Table 1 outlines the vegetation orientation and distance from the development area.

Aspect	North	East	South	West
Vegetation type	Managed land	Managed land/remnant	Managed land	Managed land/forest
Setback within lot 11, section 19				6
Off-site setback		50		79.5
Total setback	0m	50m	0m	85.5m

Table 1 - Any aspect marked with "N/A" in the table above indicates that it is considered there is none or only a secondary hazard in that direction.

This area has been left intentionally blank.





# 5 Known constraints on subject block.

I have not been informed or know of any places of cultural or environmental significance within the boundaries of the subject block.

Given the nature of the surrounding land it is considered highly unlikely that anything of significance will be affected by this development.

# 6 Slope.

The slope of the land beneath the hazard that is most likely to influence bushfire behaviour has been calculated by topographical map analysis to a distance of 100m from the subject lot.

An extract of the topographical map for the area is shown below and the relevant slope analysis is shown in Table 2.



Table 2 shows the slope beneath the hazard.

Aspect	North	East South Wes		West
Slope	N/A	All Upslope and Flat Land	N/A	15-20 degrees downslope

Table 2 - Any aspect marked with "N/A" in the table above indicates that it is considered there is no hazard in that direction.



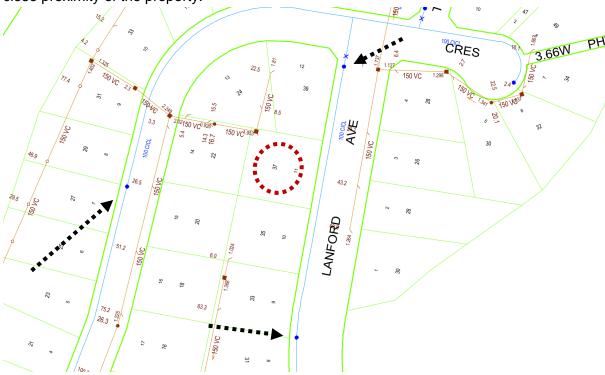


# 7 Utilities.

## **7.1** Water.

The subject block will be serviced by a reticulated water supply.

The following map is an extract from Sydney waters hydrant map. Hydrants are indicated by a blue dot on a blue line. As can be seen there is at least one hydrant point indicated within close proximity of the property.



# 7.2 Electricity

Main's electricity is available to the block.

## 7.3 Gas

It is unknown if bottled or mains gas is to be altered or installed in this proposal.

# 8 Access/Egress.

Access to the development site will be via a short private driveway from Lanford Avenue.

All roads in the vicinity are considered to be capable of carrying emergency services vehicles and pedestrian access onto the lot is also considered to be adequate.





# Analysis of development and recommendation.

# 9 Compliance with Planning for Bushfire Protection setbacks.

Based on the development design, vegetation classification, effective slope estimates and setback distance already outlined in this report the subject development will be required to comply with the deemed to satisfy construction requirements of AS 3959-2018 BAL-19 and the RFS requirements on all fire prone aspects.

The following table is an extract from table A1.12.5 of Planning for Bushfire Protection 2019. This table is used to calculate the BAL for a proposal in an area with an FDI of 100.

The variables that have already been outlined in this assessment are highlighted in red with the highest BAL highlighted in yellow.

	Keith Vegetation Formation		BUSHFIRE ATACK LEVEL (BAL)			
		BAL-FZ	BAL-40	BAL-29	BAL-19	BAL-12.5
LOPE	Arid-Shrublands (acacia and chenopod)	< 7	7 -< 10	10 -< 16	16 -< 23	23 -< 100
	Forest (wet and dry sclerophyll) including Coastal Swamp Forest, Pine Plantations and Sub-Alpine Woodland	< 46	46 -< 56	56 -< 73	73 -< 92	92 -< 100
EES	Forested Wetland (excluding Coastal Swamp Forest)	< 19	19 -< 26	26 -< 37	37 -< 50	50 -< 100
GR	Freshwater Wetlands	< 6	6 -< 8	8 -< 13	13 -< 18	18 -< 100
DE(	Grassland	< 13	13 -< 17	17 -< 26	26 -< 36	36 -< 50
5-20 E	Grassy and Semi-Arid Woodland (including Mallee)	< 24	24 -< 32	32 -< 44	44 -< 59	59 -< 100
7	Rainforest	< 23	23 -< 30	30 -< 42	42 -< 56	56 -< 100
	Short Heath	< 11	11 -< 15	15 -< 23	23 -< 32	32 -< 100
	Tall Heath	< 19	19 -< 25	25 -< 36	36 -< 49	49 -< 100

For the purpose of this assessment the western aspect has been chosen as the most potentially hazardous aspect due to the effective slope, potential run of fire and the prevailing fire weather of the area.

# 10 Siting.

The current site provides adequate separation between the proposed building and surrounding vegetation for a compliant structure to be built.

Recommendation;

Nil.





# 11 Construction and design.

All new work is to be undertaken in accordance with the relevant requirements of the NCC and AS3959 2018. The following recommendations are a minimum level of construction. Constructing the proposal to a higher level than that recommended is allowable under AS3959.

### Recommendation; all new work.

- 1. New construction shall comply with the requirements of section 3 of Australian Standard AS3959-2018 "Construction of buildings in bush fire-prone areas" and,
- 2. New construction shall also comply with the requirements of BAL-19 Australian Standard AS3959-2018 "Construction of buildings in bush fire-prone areas" or NASH Standard "National Standard Steel Framed Construction in Bushfire Areas" and any additional construction requirements contained within section 7.5, 7.5.1,7.5.2, 7.5.3, 7.5.4 (where applicable) of the Rural Fire Services document Planning for Bushfire Protection 2019.
- 3. New roofing valleys and guttering should be fitted with a non-combustible leaf protection to stop the accumulation of debris.

AS-3959 2018 is available as PDF from;

https://infostore.saiglobal.com/en-au/standards/as-3959-2018-122340\_saig\_as\_as\_2685241/

### 12 Utilities.

## 12.1 Water.

The proposed development will have access to a reticulated water supply. There is at least one hydrant indicated within the required distance from the dwelling.

Recommendation;

Nil.

# 12.2 Electricity and Gas.

### Recommendation:

4. Any new electricity or gas connections are to comply with the requirements of table 7.4a of Planning for Bushfire Protection.

# 13 Asset Protection Zone (APZ).

The Asset Protection Zone is "An area surrounding a development managed to reduce the bushfire hazard to an acceptable level. The width of an APZ will vary with slope, vegetation and construction level".

Recommendation;





5. At the commencement of building works and in perpetuity the entire property shall be managed as an Asset Protection Zone in accordance with the requirements of Planning for Bushfire Protection, the RFS document Standards for Asset Protection Zones and in a manner that does not create a bushfire hazard to the property.

# 14 Landscaping.

### Recommendation;

- 6. Any new fencing is to be constructed in accordance with section 7.6 of Planning for Bushfire Protection 2019.
- 7. Any new landscaping to the site is to comply with the principles of Appendix 4 and section 3.7 of Planning for Bush Fire Protection 2019. In this regard the following landscaping principles are, where applicable, to be incorporated into the development<sup>1</sup>:
  - Suitable impervious areas being provided immediately surrounding the building such as courtyards, paths and driveways;
  - Grassed areas/mowed lawns/ or ground cover plantings being provided in close proximity to the building;
  - Restrict planting in the immediate vicinity of the building which may over time and if not properly maintained come in contact with the building;
  - Maximum tree cover should be less than 30%, and maximum shrub cover less than 20%;
  - Planting should not provide a continuous canopy to the building (i.e. trees or shrubs should be isolated or located in small clusters);
  - When considering landscape species consideration needs to be given to estimated size of the plant at maturity;
  - Avoid species with rough fibrous bark, or which retain/shed bark in long strips or retain dead material in their canopies;
  - Use smooth bark species of trees species which generally do not carry a fire up the bark into the crown;
  - Avoid planting of deciduous species that may increase fuel at surface/ ground level (i.e. leaf litter);
  - Avoid climbing species to walls and pergolas;
  - Locate combustible materials such as woodchips/mulch, flammable fuel stores away from the building;
  - Locate combustible structures such as garden sheds, pergolas and materials such timber garden furniture way from the building; and
  - Use of low flammability vegetation species.

<sup>&</sup>lt;sup>1</sup>Refer to referenced documents for a complete description.





# 15 Constraints on the subject block.

None known.

Recommendation;

Nil

# 16 Access/Egress.

All roads in the area are considered to be capable of handling emergency service vehicles. Access from the roadway onto the property is also considered to be adequate for firefighting purposes.

## Recommendation

Nil

# 17 Compliance or non compliance with the specifications and requirements for bushfire protection measures.

APZ A defendable space is provided onsite. An APZ is provided and maintained for the life of the development.	Achievable with the implementation of the recommendations in section 13
SITING AND DESIGN: Buildings are sited and designed to minimise the risk of bush fire attack.	Achievable with the implementation of the recommendations in section 10
CONSTRUCTION STANDARDS:  It is demonstrated that the proposed building can withstand bush fire attack in the form of wind, smoke, embers, radiant heat and flame contact.	Achievable with the implementation of the recommendations in section 11
ACCESS  Safe, operational access is provided (and maintained) for emergency services personnel in suppressing a bush fire while residents are seeking to relocate, in advance of a bush fire, (satisfying the intent and performance criteria for access roads in sections 4.1.3 and 4.2.7).	Achievable with the implementation of the recommendations in section 16
WATER AND UTILITY SERVICES:  • adequate water and electricity services are provided for firefighting operations	Achievable with the implementation of the recommendations in section 12





Gas and electricity services are located so as not to contribute to the risk of fire to a building.	
LANDSCAPING:  • it is designed and managed to minimise flame contact and radiant heat to buildings, and the potential for wind driven embers to cause Ignitions.	Achievable with the implementation of the recommendations in section 14

# 18 Conclusions.

Based on the above report and with the implementation of the recommendation contained within this report the consent authority should determine that this development can comply with the requirements of AS 3959-2018 and 'Planning for Bushfire Protection' guidelines.

The recommendations contained within this report are to be implemented in their entirety. Changing one aspect may have an adverse effect on the rest of the recommendations.

Bushfires are affected by many external influences such as climactic conditions, vegetation type, moisture content of the fuel, slope of the land and human intervention to name a few and are difficult to predict.

This report does not intend to provide a guarantee that the subject property will survive if a bushfire should impact the surrounding area. The purpose of this report is to show the developments level of compliance or in some cases non-compliance with the New South Wales legislation regarding building in bushfire prone areas.

Where non-compliance is found measures will be suggested that should make the building less susceptible to the various attack mechanisms of a bushfire and comply with the performance requirements of the Building Code of Australia.

The opinions expressed in this report are based on the writers' experience and interpretation of the relevant guidelines and standards. Notwithstanding the above, these guidelines and standards are open to interpretation. All care has been taken to ensure that the opinions expressed in this report are consistent with past successful outcomes.

Some of the information used in the compilation of this assessment has been provided by the proponent or the proponent's representatives. While we believe this information to be true and have accepted the information in good faith however this company or its representatives will not accept any responsibility if the provided information is determined to be incorrect.

This document is to assist the consenting authorities with their assessment of this proposal. The recommendations contained in this assessment reflect the normal conditions that are typically applied by the consent authority for a proposal such as this however the conditions of consent for the proposal will be supplied by the certifying authority on approval of the development and may not necessarily be the same as the recommendations of this assessment.





The recommendations in this assessment are for planning guidance only, construction details and compliance with all building requirements are the responsibility of the Architect/Designer, Builder and Certifier.

To avoid confusion, unless specifically referenced by the consenting authority, it is strongly recommended that once this proposal has been approved that this document is no longer referenced and that only the official conditions of consent as reflected in documentation by the certifying body are used for construction guidance.

If any further clarification is required for this report, please do not hesitate to contact me using the details above.

Yours Sincerely

**Matthew Willis** 

Grad Dip Planning for Bushfire Prone Areas Bushfire Planning Services Pty Limited

Mather history





# 19 References.

- Australian Building Codes Board (2019). National Construction Code Volume One -Building Code of Australia. ABCB
- Australian Building Codes Board (2019). National Construction Code Volume two -Building Code of Australia. ABCB.
- Keith, D.A. (2004). Ocean Shores to Desert Dunes: The Native Vegetation of New South Wales and the ACT. NSW Department of Environment and Conservation.
- National Association of Steel Framed Housing (2014). "Steel Framed Construction in Bush Fire Areas. NASH
- Ramsay, C and Rudolph, L (2003) "Landscape and Building Design for Bush fire Areas". CSIRO Publishing, Collingwood.
- Resources and Energy NSW (2016). ISSC 3 Guide for the Managing Vegetation in the Vicinity of Electrical Assets. NSW Government
- Rural Fire Service NSW (2005) "Standards for Asset Protection Zones"
- Standards Australia (2018). "AS 3959, Construction of buildings in bush fire prone areas".
- Standards Australia (2018). "AS/NZS 1530.8.1 Methods for fire tests on building materials, components and structures Tests on elements of construction for buildings exposed to simulated bush fire attack Radiant heat and small flaming sources".
- Standards Australia (2018). "AS/NZS 1530.8.2 Methods for fire tests on building materials, components and structures - Tests on elements of construction for buildings exposed to simulated bush fire attack - Large flaming sources".
- Standards Australia (2014). "AS/NZS 1596 The storage and handling of LP Gas".





### Appendix 1 - Plans . 20



### **DEVELOPMENT APPLICATION**

These plans are for Council Approval only.

NO.	DRAWING NAME
DA00	COVER
DA01	NOTATION
DA02	SAFETY NOTES
DA03	SITE ANALYSIS
DA04	SITE / ROOF / SEDIMENT EROSION / WASTE MANAGEMENT / STORMWATER CONCEPT PLAN
DA05	EXISTING GROUND FLOOR PLAN
DA06	PROPOSED GROUND FLOOR PLAN
DA07	PROPOSED FIRST FLOOR PLAN
DA08	NORTH ELEVATION
DA09	EAST ELEVATION
DA10	SOUTH ELEVATION
DA11	WEST ELEVATION
DA12	LONG SECTION
DA13	CROSS SECTION
DA14	POOL LONG SECTION
DA15	AREA CALCULATIONS
DA16	WINTER SOLSTICE 9 AM
DA17	WINTER SOLSTICE 12 PM
DA18	WINTER SOLSTICE 3 PM
DA19	SAMPLE BOARD
DA20	BASIX COMMITMENTS
DA21	BASIX COMMITMENTS

ITEM DETAILS	DEVELOPMENT APPLICATION								
ADDRESS	7 LANFORD AVENUE, KILLARNEY HEIGHTS 2087								
LOT & DP/SP	LOT 11 SEC 19 DP 758566								
COUNCIL	NORTHERN BEACHS COUNCIL (WARRIN	GAH)							
SITE AREA	702.8m*								
FRONTAGE		25.605m							
CONTROLS	PERMISSIBLE / REQUIRED m / m² / %	m/m²/%	m/m³/%	COMPLIANCE					
LEP									
LAND ZONING	R2 - LOW DENSITY RESIDENTIAL	R2	R2	YES					
MINIMUM LOT SIZE	600m²	702.8m²	UNCHANGED	YES					
MAXIMUM BUILDING HEIGHT	8.5m	5.381m	8.489m	YES					
HAZARDS									
DEVELOPMENT ON SLOPING LAND	Area B - Flanking Slopes from 5 to 25 degrees	N/A	N/A	N/A					
BUSHFIRE RISK	Bush Fire Prone Land: Buffer-100m & 30m	N/A	N/A	N/A					
DCP									
WALL HEIGHT	7.2m	3.853m	6.975m	YES					
NUMBER OF STOREYS	2	1	2	YES					
SIDE BOUNDARY ENVELOPE	4m			YES					
SIDE BOUNDARY SETBACKS	0.9m	N: 1.485m S: 2.885m	UNCHANGED	YES					
FRONT BOUNDARY SETBACK	6.5m	9.13m	UNCHANGED	YES					
REAR BOUNDARY SETBACK	6m	6.801m	UNCHANGED	YES					
LANDSCAPE OPEN SPACE	40% (281.82m²)	51% (359.66m²)	45% (319.06m²)	YES					
PRIVATE OPEN SPACE	60m <sup>a</sup>	60m²	UNCHANGED	YES					

# 37 Landford Avenue, Killarney Heights NSW 2087



#### NCC 2022 & AS COMPLIANCES SPECIFICATIONS

NCC 2022 & AS COMPLIANCES SPECIFICATIO

STRUCTURE - PRAFITH 4 SECTION 20 PMCC

SITE PREPARATION - PART H103 S. SECTION 3 OF NCC

FOOTINGS 8 JULES - PART H104 S SECTION 3 OF NCC

MASONRY - PART H105 S. SECTION 5 OF NCC

MASONRY - PART H105 S. SECTION 5 OF NCC

MASONRY - PART H105 S. SECTION 5 OF NCC

CLIAZING - PART H106 S. SECTION 5 OF NCC

JULES - PART H106 S. SECTION 5 OF NCC

JULES - PART H106 S. SECTION 5 OF NCC

JULES - PART H106 S. SECTION 5 OF NCC

SAFE MOVEMENT & ACCESS - PART H5 S. SECTION 17 OF NCC

SAFE MOVEMENT & ACCESS - PART H5 S. SECTION 17 OF NCC

SYMMANS POLICIA - PART H107 S. SECTION 5 OF NCC

SYMMANS POLICIA - PART H107 S. SECTION 5 OF NCC

SYMMANS POLICIA - PART H107 S. SECTION 5 OF NCC

ENERGY SEPTICENCY - PART H6 S. SECTION 5 OF NCC

ENERGY SEPTICENCY - PART H6 S. SECTION 5 OF NCC - ENERGY FERICENCY - PARTH & A SECTION 13 OF N.CC
POOL FENIORS OF OTHER PROVISIONS - REGULATIONS, & AS 1029
- DEMOLITION WORKS TO COMPLY WITH AS 399-2001 THE DEMOLITION OF STRUCTURES.
- WATERPROPORS OF WET AREAS TO COMPLY WITH AS 3900-2021
- ALL PLAISE BANDOR OF WET AREAS TO COMPLY WITH AS 3900-2021
- ALL PLAISE BANDOR WORK TO COMPLY WITH AS 3900-2021
- ALL PLAISE BETTEN WORK TO COMPLY WITH AS 4100-2020 AS 1554.12014
- ALL PLAISE BETTEN WORK TO COMPLY WITH AS 1502-12018
- ALL SCHOOL STEETING WORK TO COMPLY WITH AS 1502-12018
- ALL SCHOOL STEETING WORK TO COMPLY WITH AS 2903-2019
- ALL CERAMIC THING TO COMPLY WITH AS 2904-2014 AS 81-2882-2021
- ALL CERAMIC THING TO COMPLY WITH AS 2904-2014 AS 81-2882-2021
- ALL CERAMIC THAN TO COMPLY WITH AS 2904-2014 AS 91-2882-2021
- ALL CERAMIC THAN TO COMPLY WITH AS 2904-2014 AS 91-2882-2021
- ALL TIMEER REFLANDS WALLS ARE TO COMPLY WITH AS 1720. AS 1707-18
- ALL TREATMEN WALLS ARE TO COMPLY WITH AS 3909-2018





#### IMPORTANT NOTATION FOR BUILDERS

- All dimensions are to be confirmed on-site by the builder/subcontractor, any incongruencies must be reported to the

- Au commencions are to de commence on seu or you coulous/vaux.
 - Au commencions are to accommence of any or you coulous/vaux.
 - No Survey has been made on the boundaries. All bearings young, distances, alw been taken from the compount young to continue on the commence and the control was the control of the commence and the after survey plan. A Survey must be carried as the commence until a site survey confirming the safe boundaries has been completed.
 - No construction work shall commence until a site survey confirming the safe boundaries has been completed.

compared to see the set of the compared to th

- All construction, control joints, and expansion joints in the walls, floors, and other locations shall be in strict -Parcoissouduit, bonit or parts, and originator bytas in the waits, stock exists to their nucleotic shallow it sufficiently advantage accordance with the structural engineering details. No joints or breaks other than specified are allowed without written permission from the Engineer.
 - Measurements for the fabrication of secondary components such as windows, doors, internal frames, structural steel

components, and the like, are not to be taken from these documents. Measurements must be taken on-site to suit the

All structural components shall be in strict accordance with details and specifications as prepared by a suitably

qualified structural engineer.

- All existing structures need to be examined for structural adequacy, and it is the Contractor's responsibility to ensure that a certificate of structural adequacy is available prior to the start of any work.

#### SPECIFICATION

- "Approval" obtained by either an 'Accredited Certifying Authority' or 'Local Council'.
   The Owner will directly pay all fees associated with the following: -

Building approval from council or accredited certifier, any footpath and kerb deposits with the local council, insurance building approval from council or accredited certifier, any toopsain and were deposits with the local council, insurance fees to Building services Corporation. Long Service Leave levy fees and approval fees by water and sewerage authority. All other fees are to be paid by the builder. The amount of any local authority deposits which are forfeited due to damage or other causes, will be deducted from payments due to the builder. The Builder is to provide at his/her own expense adequate Public Risk Insurance and arrange indemnification under

the Workers Compensation Act. Works insurance to be as stated in the contract conditions.

- All tenderers are to visit the site to satisfy themselves as to the nature and extent of the Works, facilities available and

And office entails to have been to statisfy in entered the sound in fault as info earlier for the equal to the control of the entails of the entered to the

Dimensions shall not be obtained by scaling the drawings, use figured dimensions. All dimensions are in millimetres. Limensensen shall not be codemact by scaling, liver drawings, use flags required ministrations, and immensions are immlimenters.

The Bullder is resurve all construction, levels and other flems comply with the conflictions of the Bullding Approval.

Any detailing additional to that which is supplied shall be resolved between the Owner and the Bullding Approval.

Except for any structural details or design, which is to be supplied by the Engineer.

All work for a burst and a tradesame shall be manner and in a concidence with the shallardsr, code and regulations of the Work of the Standards. All works to Austracto bust rains to he hat long of construction Code and any statutory authority having juriediction over the works.

 All structural work is to be in accordance with the structural details prepared by a suitably qualified structural engineer - All structural work is to be in accordance with the structural orients prepared by a suitably qualities forcitized are represented including but not fitted to all piers, footings, concrete slabs, retaining walls, steelworks, formwork, undespinning, additional structural loads, timber framing, wind bracing and associated connections. Builder to obtain prior to finalising the tender, unless previously obtained by owners.
 - All brickwork is to be selected by the Owner, and is to comply with AS 1640.

All masonry is to comply with AS 3700.

- Provide all metalwork and flashings necessary to satisfactorily complete the works.

- All timber construction to be in accordance with AS 1684 - Residential timber-framed construction. Level and grade where necessary under timber floors to provide a minimum clearance of 300mm under bearers or 400mm under joists. Adequate precautions shall be taken to ensure that the surface and/or seepage water does not collect or remain under

- Sustainable timbers, and not rainforest or old growth timber will be used. Recycled timber or second hand timbers are

to be sourced and used in preference to plantation timbers, if available and suitable.

- All clazing installation is to comply with AS 1288, AS 2047 and in accordance with manufacturers recommendations. -All wall and ceiling linings in wet areas to be plasterboard and villaboard, or equal. A breathable wall wrap is to be provided to all external walls. Timber dadding is to be battened out from timber frame to provide an 'air' gap to prevent condensation. Workmanship is to comply with the relevant Australian Standards or installed in accordance with manufacturer's specifications. All bathrooms and wet areas to be waterproofed with a flexible membrane to manufacturer's specifications and to AS 3740, Part H4D2 and Section 10; Part 10.2 of the 2022 NCC. - All Architraves and skirtings to the profile as selected by owner, and painted or stain finish as selected

An administration of the control of

- Smoke detector alarms are to be installed in accordance with AS 3786. Part H3D6 and Section 9: Part 9.5 of the 2022

NOT.

If a member which provides structural support to the works is subject to termite attack, management measures are to comply with AS 3690 and Section 3; Part 3.4 of the 2022 NCC, Termite management system to be installed to manufacture? Septilications. - Stairs and Balustrades to comply with Part H5D2, H5D3 and Section 11; Part 11.2 and 11.3 of the 2022 NCC. Provide

a handrail along the full length of the flight and a slip resistant finish to the edge of the nosings to comply with 3.9.1 and 3.9.2 of the NCC. No horizontal elements to facilitate climbing between 150mm and 760mm where floor to level below

is more than 4m.

Electrical works to be in accordance with SAA wiring rules and be done by a licenced tradesperson. Obtain electrical layout prior to proceeding. All electrical power (CPO's) and light outlets to be determined by the Owner. Painting: All paints or other coatings shall be of the best quality materials & of approved manufacture. All priming materials shall be of an approved brand acceptable to the manufacturer of the finishing coats to be used. External materials shall got of an approved prince operation and expension of the internet prince of the second prince of the prince of all faces at the prince of assembly. Where new work or affection were depicted to be painted shall be primed on all faces at place of assembly. Where new work or affection work adjoins existing painted workness allow for repainting existing surfaces to provide uniform appearance.

- ZERO-VCO C IOM/VCO paints and primers only are to be useful.

- Any work indicated on the plans but not specified and any item not shown on the plans which is obviously necessary as mort proper construction and/for finish, is to be considered as shown and specified and is to be undertaken as part.

of the contract. Variations will not be permitted without prior written approval by the owners.

- The Builder shall provide sediment and siltration control measures as required by Council, and maintain them

throughout the duration of the works.

A legible copy of the plans bearing approval stamps, must be maintained on the job site at all times. Hours of construction shall be restricted to the times as required by the building approval.

—The Builder is to arrange for all inspections required by the relevant authorities and/or lending institutions, to their

 The Builder is to obtain approval for interruptions to existing services and minimise the duration and number of interruptions. Any interruptions to existing services and equipment is to be undertaken by appropriately qualified radespersons.

The Builder shall restore, reinstate or replace any damage to existing structures or landscaping caused by the

construction works or workmen - Provide protection to existing trees to remain, or as required by the Approval Conditions

#### **GENERAL NOTATION**

 Approved means by the 'relevant local authority' or council?
 All work and materials to comply with the current Australian standards at the time of commencement, where The builder is to comply with all ordinances, local authority regulations and the requirements of all services supply

authorities having jurisdiction over the works.

authorities having prosaction be connected to the existing stormwater system. All new downpies are to be connected to the existing stormwater system. All timber sizes and poen concrete details to be confirmed by the builder prior to commencement of any work. All guters, downpies to be colorbond.

- All wall and ceiling linings to be plasterboard or cement render as selected, and villa board in wet areas. To comply with relevant Australian standards, and installed in accordance with manufacturers specification

#### NCC 2022 & AS COMPLIANCES SPECIFICATIONS

- Structure Part H1 & Section 2 of NCC Structural Provisions PART H1D2 & PART 2.2 of NCC
- Site Preparation Part H1D3 & Section 3 of NCC
- Earthworks Part 3.2 of NCC
  Drainage Part 3.3 of NCC
  Termite Risk Management Part 3.4 of NCC
- Footings & Slabs Part H1D4 & Section 4 of NCC
- Footings, Slabs & Associated Elements Part 4.2 of NCC
- Masonry Part H1D5 & Section 5 of NCC
   Masonry Veneer Part 5.2 of NCC
   Cavity Masonry Part 5.3 of NCC
- Unreinforced Single Leaf Masonry Part 5.4 of NCC

- Isolated Piers Part 5.5 of NCC

  Masonry Components & Accessories Part 5.6 of NCC

  Waetherproofing of Masonry Part 5.7 of NCC
- Framing Part H1D6 & Section 6 of NCC
- Sub Floor Ventilation Part 6.2 of NCC Structural Steel Members Part 6.3 of NCC
- Roof & Wall Cladding Part H1D7 & Section 7 of NCC Sheet Roofing Part 7.2 of NCC
- Roof Tiles & Shingles Part 7.3 of NCC - Gutters & Downpipes - Part 7.4 of NCC - Timber & Composite Wall Cladding - Part 7.5 of NCC
- Glazing Part H1D8 & Section 8 of NCC
- -Windows & External Glazed Doors Part 8.2 of NCC Glass - Part 8.3 of NCC
- Glazing Human Impact Part 8.4 of NCC
- Damp & Weatherproofing Part H2 of NCC
- Fire Safety Part H3 & Section 9 of NCC

- rire Saiety raft H3 & Section 9 of NCC Fire Separation of External Walls Part 9.2 of NCC Fire Protection of Separating Walls & Floors Part 9.3 of NCC Fire Protection of Garage Top Dwellings Part 9.4 of NCC Smoke Alarms & Evacuation Lighting Part 9.5 of NCC
- Health & Amenity Part H4 & Section 10 of NCC
- Wet Area Waterproofing Part 10.2 of NCC Room Heights Part 10.3 of NCC Facilities Part 10.4 of NCC
- Light Part 10.5 of NCC
- Ventilation Part 10.6 of NCC Sound Insulation - Part 10.7 of NCC
- Condensation Management Part 10.8 of NCC
- Safe Movement & Access Part H5 & Section 11 of NCC
- Stairway & Ramp Construction Part 11.2 of NCC
- Barriers & Handrails Part 11.3 of NCC
- Ancillary Provisions Part H7 & Section 12 of NCC
- Annualy Provisions Part 174 3 Section 12 O NOC Construction in Alpine Areas Part 12.2 of NCC Attachment of Framed Decks & Balconies to External Walls of Buildings Using a Waling Plate Part 12.3 of NCC Heating Appliances, Frieplaces, Chimneys & Flues Part 12.4 of NCC
- Swimming Pools Part H7P1 & NSW H7D2 of NCC
- Construction in Bushfire Prone Areas Part NSW H7D4 of NCC
- Energy Efficiency Part H6 & Section 13 of NCC Building Fabric - Part 13.2 of NCC

- Building Fabric Part 13.2 of NCC External Glazing Part 13.3 of NCC Building Sealing Part 13.4 of NCC Ceiling Fans Part 13.5 of NCC Whole of Home Energy Usage Part 13.6 of NCC Services Part 13.7 of NCC

- Pool Fencing & other provisions - Regulations, & AS 1926
 - Demolition Works to comply with AS 2601-2001 The Demolition of Structures.
 - Waterproofing of Wet Areas to comply with AS 3740-2021
 - All plumbing & drainage work to comply with AS 3500-2021

All plasterboard work to comply with AS 2588:2018

- All plasternoidr work to comply with As 258E.2015 - All structural steels work to comply with AS 4100.2020 8 AS 1554.1:2014 - All roof sheeling work to comply with AS 1582.1:2018 - All corrains tiling to comply with AS 1582.1:2018 - All corrains tiling to comply with AS 3958.1:2007.8 3958.2:1992 - All corrains tiling to comply with AS 2967.2:007.8 3958.2:1992 - All corrains tiling to comply with AS 2968.2:2018

- All timber retaining walls to comply with AS 1720, AS 1170
- All retaining walls to comply with AS 3700:2018 & AS 3600:2018
- All construction in bushfire-prone areas to comply with AS 3959:2018

THIS SET OF DRAWING SHOULD BE READ & KEPT IN ITS ENTIRETY. NO INDIVIDUAL PAGE SHOULD BE SEPARATED FROM THE REST OF THE SET. EACH NOTATION LISTED ON THIS PAGE APPLY TO ALL PAGES OF THIS SET.





#### **SAFTEY NOTES**

THESE NOTES MUST BE READ AND UNDERSTOOD BY ALL INVOLVED IN THE PROJECT. THIS INCLUDES (but is not excluded to): OWNER, BUILDER, SUB-CONTRACTORS, CONSULTANTS, RENOVATORS, OPERATORS, MAINTENORS, DEMOLISHERS.

#### 1. FALLS, SLIPS, TRIPS

#### a) WORKING AT HEIGHTS

#### DURING CONSTRUCTION

Wherever possible, components for this building should be prefabricated off-site or at ground level to minimise the risk of workers falling more than two metres. However, construction of this building will require workers to be working at heights where a fall in excess of two metres is possible and injury is likely to result from such a fall. The builder should provide a suitable barrier wherever a person is required to work in a situation where falling more than two metres is a

#### DURING OPERATION OR MAINTENANCE

For houses or other low-rise buildings where scaffolding is appropriate: Cleaning and maintenance of windows, walls, roof or other components of this building will require persons to be situated where a fall from a height in excess of two metres is possible. Where this type of activity is required, scaffolding, ladders or trestles should be used in accordance with relevant codes of practice, regulations or legislation. For buildings where scaffold, ladders, treatles are not appropriate: Cleaning and maintenance of windows, walls, roof or other components of this building will require persons to be situated where a fall from a height in excess of two metres is possible. Where this type of activity is required, scaffolding, fall barriers or Personal Protective Equipment (PPE) should be used in accordance with relevant codes of practice, regulations or legislation

#### b) SLIPPERY OR UNEVEN SURFACES

#### FLOOR FINISHES Specified

If finishes have been specified by designer, these have been selected to minimise the risk of floors and paved areas becoming slippery when wet or when walked on with wet shoes/ feet. Any changes to the specified finish should be made in consultation with the designer or, if this is not practical, surfaces with an equivalent or better slip resistance should be chosen.

#### FLOOR FINISHES By Owner

If designer has not been involved in the selection of surface finishes, the owner is responsible for the selection of surface finishes in the pedestrian trafficable areas of this building. Surfaces should be selected in accordance with AS HB 197:1999 and AS/ NZ 4586:2004.

#### STEPS, LOOSE OBJECTS AND UNEVEN SURFACES

Due to design restrictions for this building, steps and/ or ramps are included in the building which may be a hazard to workers carrying objects or otherwise occupied. Steps should be clearly marked with both visual and tactile warning during construction, maintenance, demolition and at all times when the building operates and action warming during owners and occupiers should monitor the pedestrian access ways and in particular access to areas where maintenance is routinely carried out to ensure that surfaces have not moved or cracked so that they become uneven and present a trip hazard. Spills, loose material, stray objects or any other matter that may cause a slip or trip hazard should be cleaned or removed from access ways. Contractors should be required to maintain a tidy work site during construction, maintenance or demolition to reduce the risk of trips and falls in the workplace. Materials for construction or maintenance should be stored in designated areas away from access ways and work areas.

#### 2. FALLING OBJECTS

#### LOOSE MATERIALS OR SMALL OBJECTS

Construction, maintenance or demolition work on or around this building is likely to involve persons working above ground level or above floor levels. Where this occurs one or more of the following measures should be token to ovoid objects falling from the area where the work is being carried out onto persons below. 1. Prevent or restrict access to areas below where the work is

#### being carried out.

- Provide toeboards to scaffolding or work platforms.
- Provide protective structure below the work area.
   Ensure that all persons below the work area have Personal

#### Protective Equipment (PPE).

#### BUILDING COMPONENTS

During construction, renovation or demolition of this building, parts of the structure including fabricated steelwork, heavy panels and many other components will remain standing prior to or after supporting parts are in place. Contractors should ensure that temporary bracing or other required support is in place at all times when collapse which may injure persons in the area is a possibility. Mechanical lifting of materials and components during construction, maintenance or demolition presents a risk of falling objects. Contractors should ensure that appropriate lifting devices are used, that loads are properly secured and that access to areas below the load is prevented or restricted.

#### 3. TRAFFIC MANAGEMENT

For building on a major road, narrow road or steeply sloping road: Parking of vehicles or loading/unloading of vehicles on this roadway may cause a traffic hazard. During construction, maintenance or demolition of this building designated parking for workers and loading areas should be provided. Trained traffic management personnel should be responsible for the supervision of these areas. For building where on-site loading/ unloading is restricted: Construction of this building will require loading and unloading of materials on the roadway. Deliveries should be well planned to ovoid congestion of loading areas and trained traffic management personnel should be used to supervise loading/unloading areas. For all buildings: Busy construction and demolition sites present a risk of collision where deliveries and other traffic are moving within the site. A traffic management plan supervised by trained traffic management personnel should be

#### 4. SERVICES

Rupture of services during excavation or other activity creates a variety of risks including release of hazardous material. Existing services are located on or around this site. Where known, these ore identified on the plans but the excel location and extent of services may vary from that indicated. Services should be located using on appropriate service (such as Dial Sefore You Dig), appropriate excavation practice should be used and, where necessary, specialist contractors should be used. Locations with underground power. Underground power lines MAY be located in or around this site. All underground power lines must be disconnected or carefully located and adequate warning signs used prior to any construction, maintenance or demolition commencing. Locations with overhead power lines: Overhead power lines MAY be near or on this site. These pose a risk of electrocution if struck or approached by lifting devices or other plant and persons working above ground level. Where there is a danger of this occurring, power lines should be, where practical, disconnected or relocated. Where this is not practical adequate warning in the form of bright loured tape or signage should be used or a protective barrier provided.

Components within this design with a moss in excess of 25kg should be lifted by two or more workers or by mechanical Components within this obegin with a most in excess or 2xeg should be litted by two or more workers or or ymerchanical lifting device. Where this is not practical, suppliers or fatheritators should be required to limit the component mass. All material packaging, building and maintenance components should clearly show the total moss of packages and where practical all items should be stored on site in a way within minimises bending before lifting. Advice should be provided on safe lifting methods in all areas where lifting may occur. Construction, maintenance and demolition of this building the construction of the will require the use of portable tools and equipment. These should be fully maintained in accordance with manufacturer's specifications and not used where faulty or (in the case of electrical equipment) not carrying a current electrical safety tag. All safety guards or devices should be regularly checked and Personal Protective Equipment should be used in accordance with manufacturer's specification.

#### 6. HAZARDOUS SUBSTANCES

For alterations to a building constructed prior to 1990:

If this existing building was constructed prior to: 1990 - it therefore may contain asbestos 1986 - it therefore is likely to contain asbestos

either in cladding material or in fire retardant insulation material. In either case, the builder should check and, if necessary, take appropriate action before demolishing, culling, sanding, drilling or otherwise disturbing the existing structure

#### POWDERED MATERIALS

Many materials used in the construction of this building con cause harm if inhaled in powdered form. Persons working on or in the building during construction, operational maintenance or demolition should ensure good ventilation and wear Personal Protective Equipment including protection against inhalation while using powdered material or when sanding, drilling, cutting or otherwise disturbing or creating powdered material.

#### TREATED TIMBER

The design of this building may include provision for the inclusion of treated limber within the structure. Dust or furmes from this material can be harmful. Persons working on or in the building during construction, operational maintenance or demolition should ensure good ventilation and wear Personal Protective Equipment including protection against inhalation of harmful material when sanding, drilling, cutting or using treated timber in any way that may cause harmful material lo be released. Do not burn treated timber.

#### VOLATILE ORGANIC COMPOUNDS

Many types of glue, exhemis, spray packs, paints, varnishes and some cleaning materials and disinfectants have dangerous emissions. Areas where these are used should be kept well verifielded while the material is being used and for a period after installation. Personal Protective Equipment may also be required. The manufacturer's recommendations for use must be certafulty considered at all times.

#### SYNTHETIC MINERAL FIBRE

Fibreglass, rockwool, ceramic and other material used for thermal or sound insulation may contain synthetic mineral fibre which may be harmful if inhaled or if it comes in contact with the skin, eyes or other sensitive parts or the body. Personal Protective Equipment including protection against inhalation of harmful material should be used when installing, removing or working near bulk insulation material.

#### TIMBER FLOORS

This building may contain timber floors which have an applied finish. Areas where finishes are applied should be kept well ventilated during sanding and application and for a period after installation. Personal Protective Equipment may also be required. The manufacturer's recommendations for use must be carefully considered at all times.

#### 7. CONFINED SPACES

#### EXCAVATION

Construction of this building and some maintenance on the building will require excavation and installation of items within excavations. Where practical, installation should be carried out using methods which do not require workers to enter the excavation. Where this is not practical, adequate support for the excavated area should be provided to prevent collapse. Warning signs and barriers to prevent accidental or unauthorised access to all excavations should be

#### ENCLOSED SPACES

Envictored SPACES

For buildings with enclosed spaces where maintenance or other access may be required: Enclosed spaces within this building may present a risk to persons

entering for construction, maintenance or any other purpose. The design documentation calls for warning signs and barriers to unauthorised access. These should be maintained throughout the life of the building. Where workers are required to enter enclosed spaces, air testing equipment and Personal Protective Equipment should be provided.

building will require access by construction or maintenance workers. The design documentation calls for warning signs and barriers to unauthorised access. These should be maintained throughout the life of the building. Where workers are required to enter small spaces they should be scheduled so that access is for short periods. Manual lifting and other manual activity should be restricted in small spaces

Public access to construction and demolition sites and to areas under maintenance causes risk to workers and public. Warning signs and secure barriers to unauthorised access should be provided. Where electrical installations, excavations, plan or loose materials are present they should be secured when not fully supervised.

#### 9. OPERATIONAL USE OF BUILDING RESIDENTIAL BUILDINGS

This building has been designed as a residential building. If it, at a later date, it is used or intended to be used as a workplace, the provisions of the Work Health and Safely Act 2011 or subsequent replacement Act should be applied the news.

#### NON-RESIDENTIAL BUILDINGS

NON-RESIDENTIAL BUILDINGS

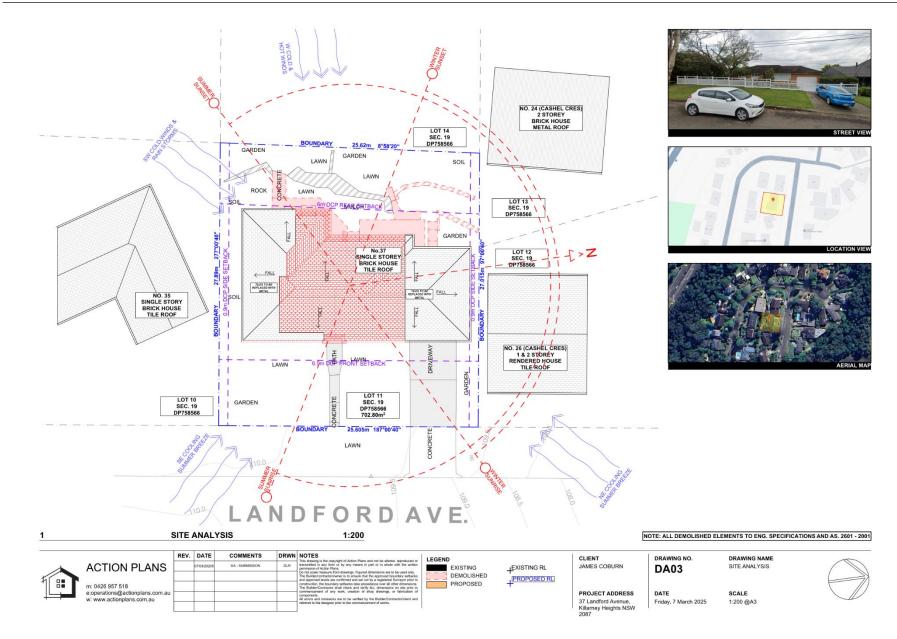
For non-residential buildings where the end-use has not been identified. This building has been designed to requirements of the dashigation identified on the drawngs. The specific, use of the buildings is known at the time of the design and suther assessment of the workplace health and safety, issues should be undertaken at the time of firend from the control of the control of the control of the end-user. For non-residential buildings where the end-use is known in this building has been designed for the specific use as identified on the drawings. Where a whange of use occurs at a later date a further assessment of the orkplace health and safety issues should be undertaken

#### 10. OTHER HIGH RISK ACTIVITY

All electrical work should be carried out in accordance with Code of Practice: Managing Electrical Risks at the Workplace, ASV IR.2 312 and all licensing requirements. All work using Plant should be carried out in accordance with Code of Practice: Managing Risks of Plant at the Workplace. All work should be carried out in accordance with Code of Practice: Managing Noise and Preventing Hearing Loss at Work. Due to the history of serious incidents it is recommended that particular care be exercised when undertaking work involving steel construction and concrete

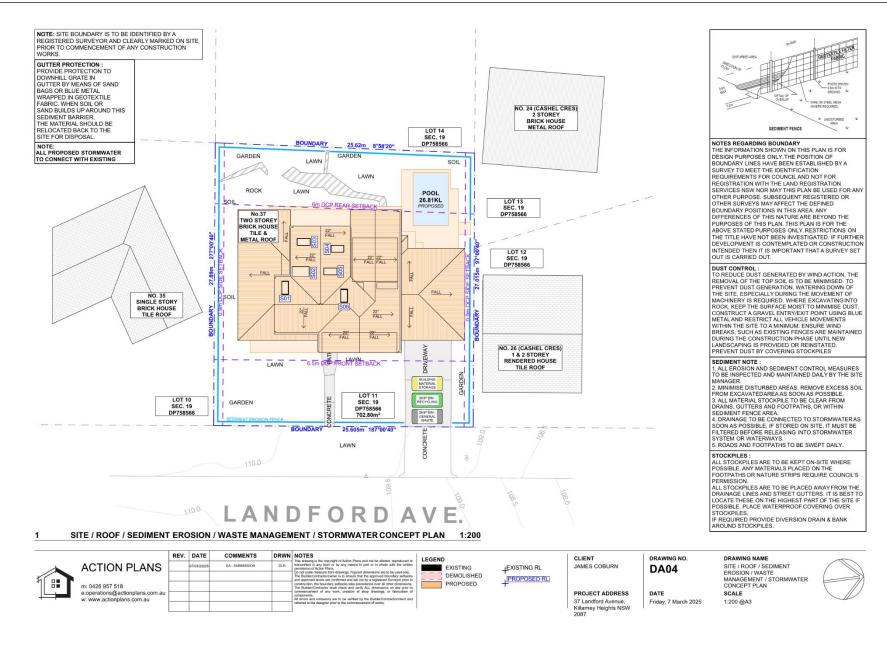






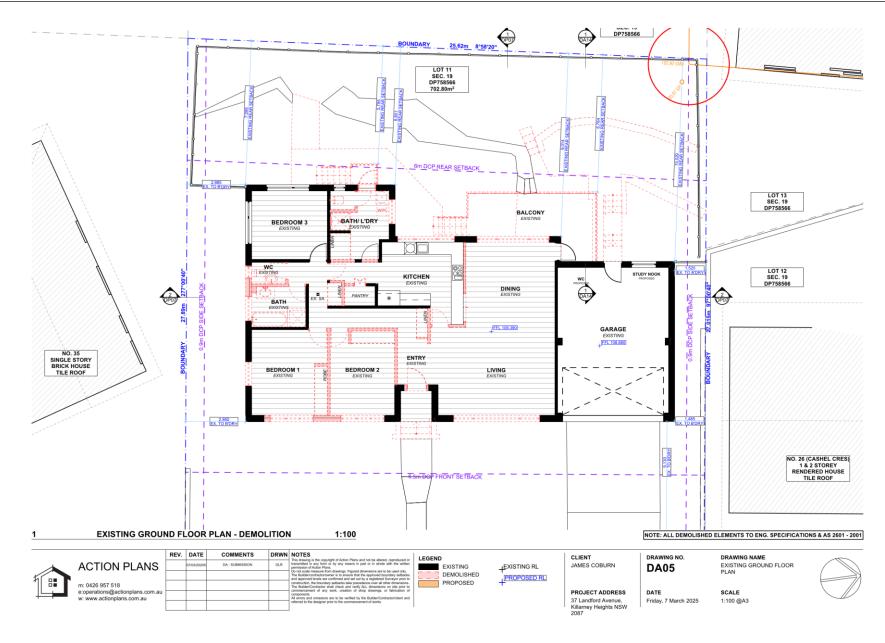






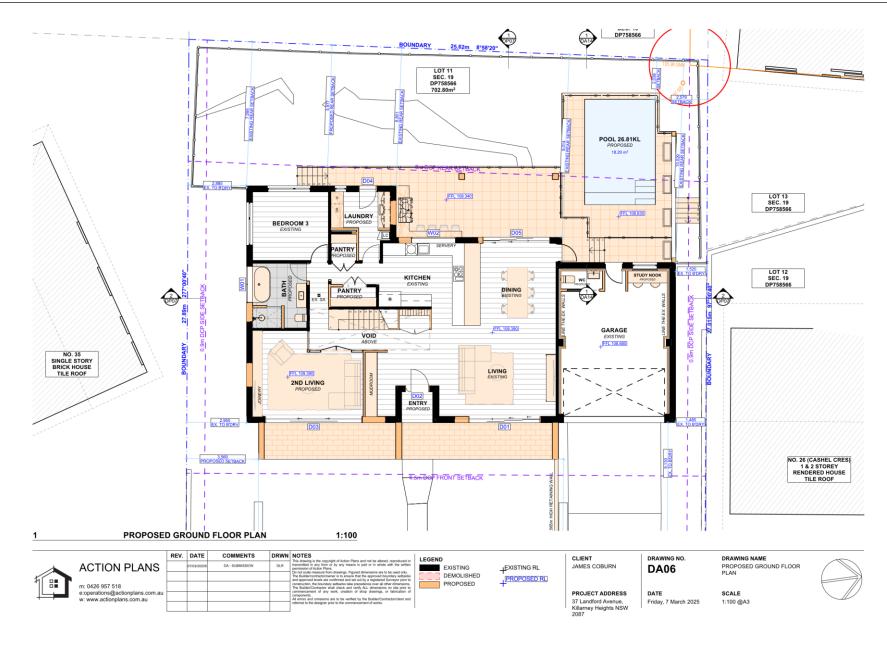






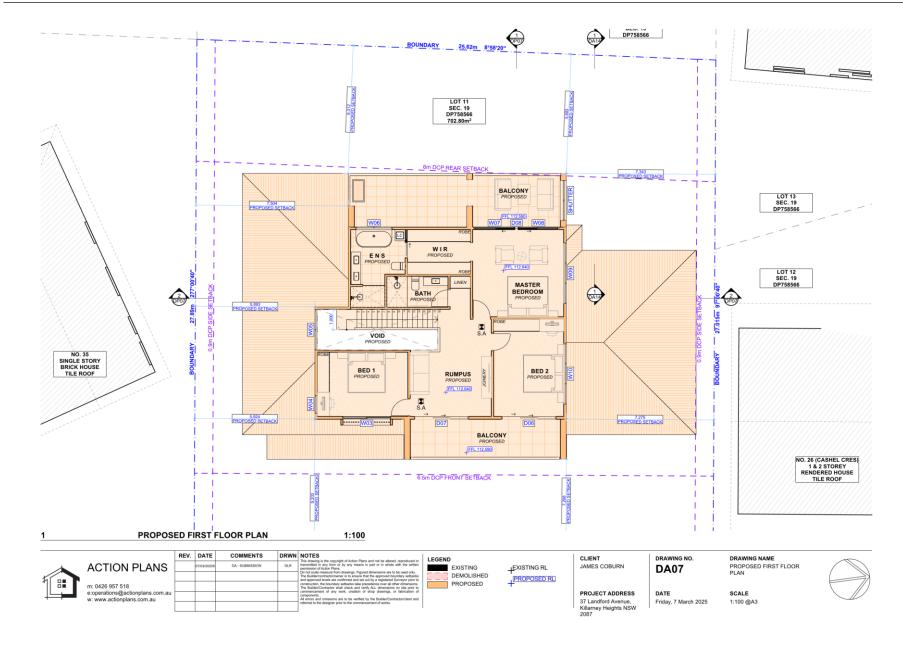






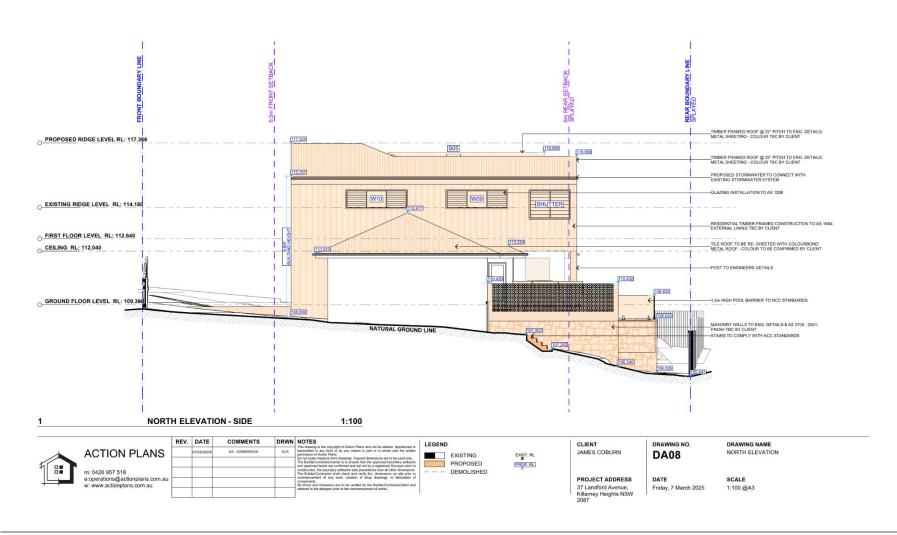






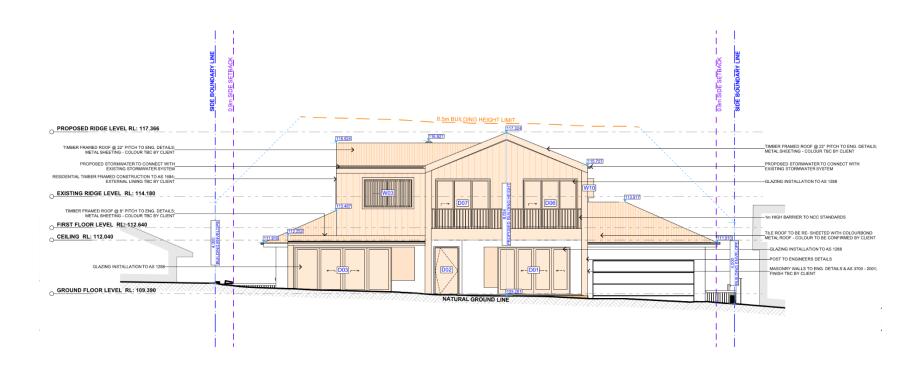








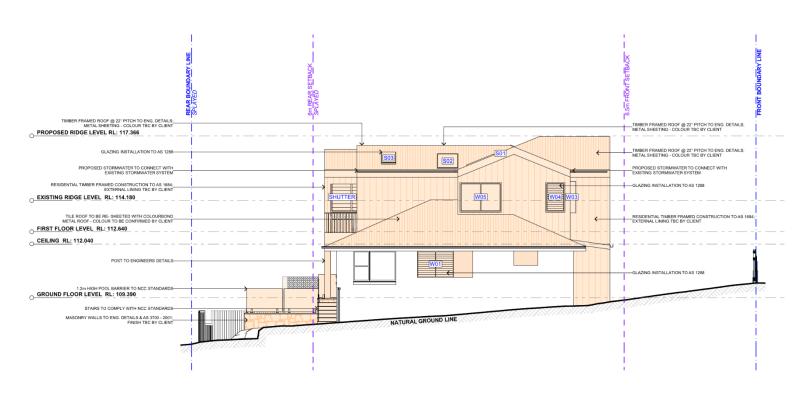


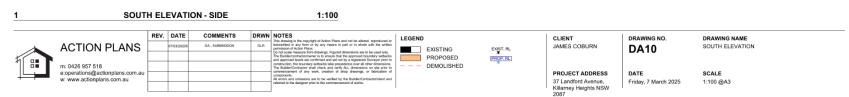






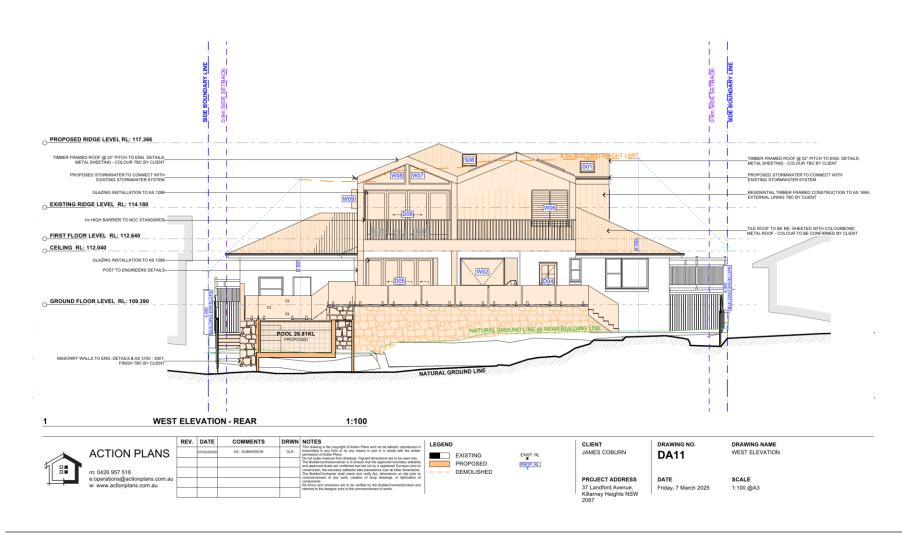






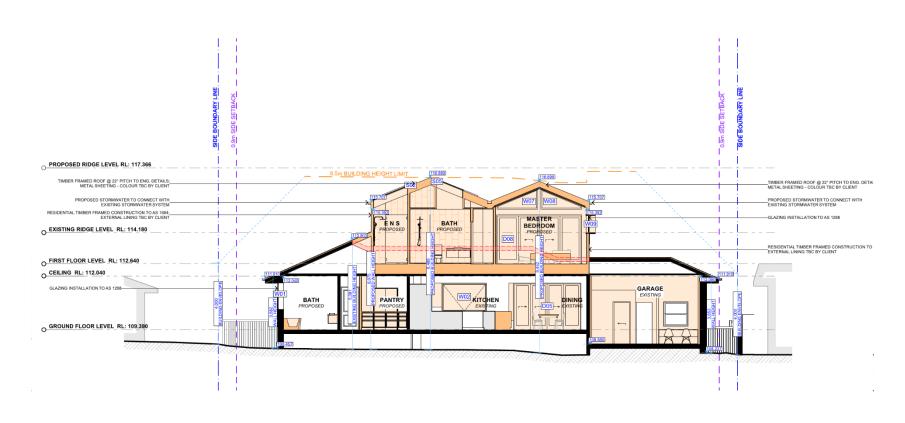








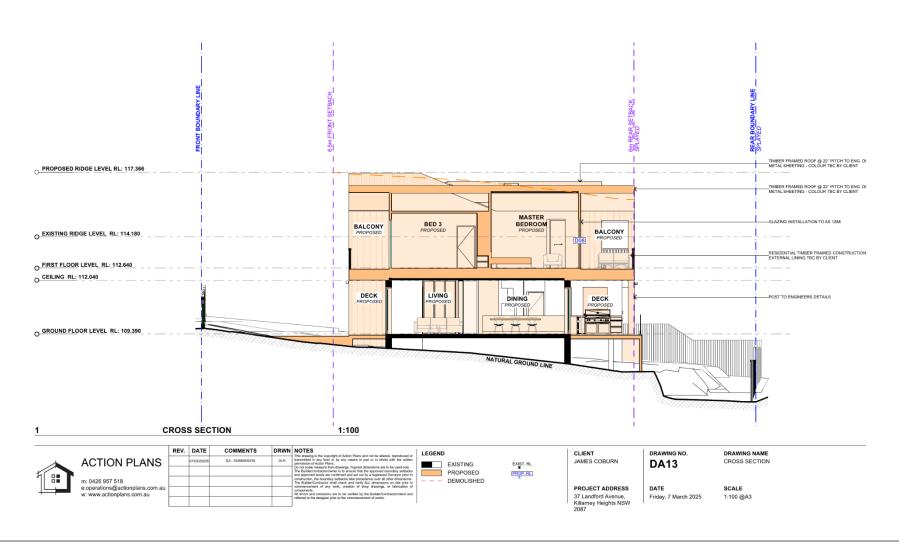






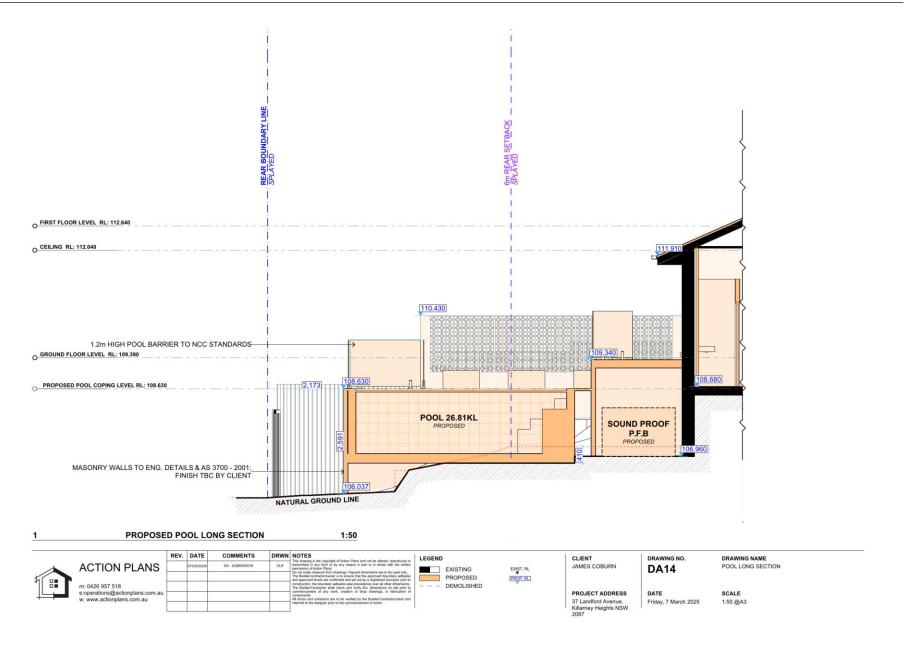
















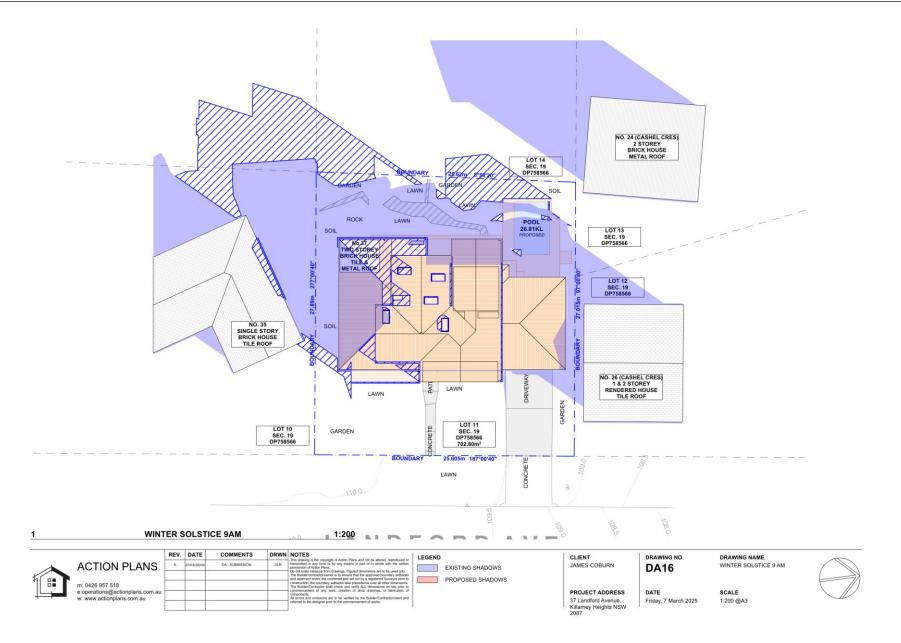
CONTROL TABLE								
SITE AREA 702.8m <sup>2</sup>								
	REQUIRED	EXISTING	PROPOSED					
LANDSCAPED AREA	40% (281.12m²)	51% (359.66m²)	45% (319.06m²)					
PRIVATE OPEN SPACE AREA	<b>60</b> m <sup>2</sup>	60m²	60m <sup>2</sup>					



1	EXISTING I	LAND	OSCA	PE AREA PLAN		1:200		2 PROPOSED LANDS	CAPE AREA PLA	N 1:200	
		REV.	DATE	COMMENTS	DRWN	NOTES	LEGEND	CLIENT	DRAWING N	IO. DRAWING NAME	
	<b>ACTION PLANS</b>	A	07/03/20205	DA - SUBMISSION	DLR	This drawing is the copyright of Action Plans and not be altered, reproduced or transmitted in any form or by any means in part or in whole with the written permission of Action Plans.  Do not scale measure from drawings. Figured dimensions are to be used only.		JAMES COBUR		AREA CALCULATIONS	,
1 :: 1	m: 0426 957 518					The Builder/contractor/owner is to ensure that the approved boundary setbacks and approved levels are confirmed and set out by a registered Surveyor prior to construction, the boundary setbacks take precedence over all other dimensions. The Builder/Contractor shall check and verify ALL dimensions on site prior to					
	e:operations@actionplans.com.au					commencement of any work, creation of shop drawings, or fabrication of components.		PROJECT ADDI	ESS DATE	SCALE	\ ///
	w: www.actionplans.com.au					All errors and omissions are to be verified by the Builder/Contractoriclient and referred to the designer prior to the commencement of works.		37 Landford Ave Killarney Heights 2087		rch 2025 1:200 @A3	

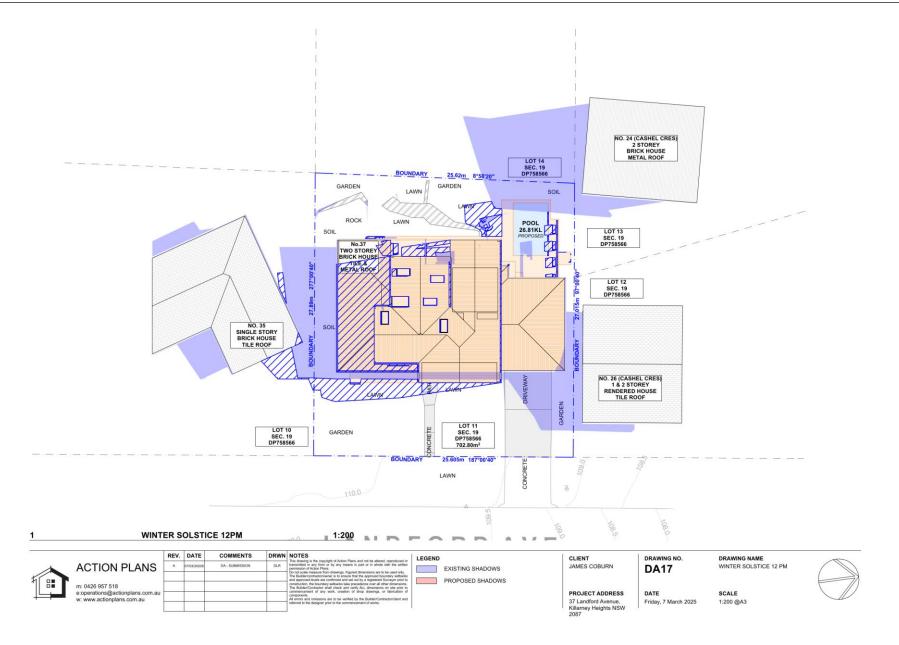






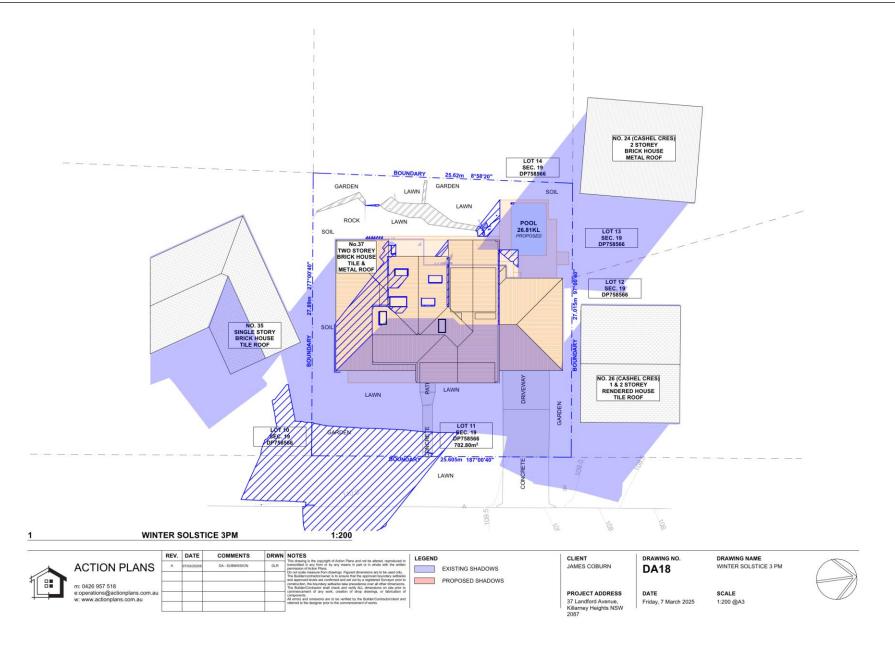
























#### Alterations and Additions

Certificate number: A1785693

This certificate confirms that the proposed development will meet the NSW government's requirements for sustainability, if it is built in accordance with the commitments set out below. Term used in this certificate, or in the commitments, have the meaning given by the document entitled "BASIX Definitions" dated 100/90/2007 published by the Department. This document is available at www.basix.nsw.gov.au

Secretary
Date of issue: Monday, 03 March 2025
To be valid, this certificate must be lodged within 3 months of the date of issue.

NSW

Local Government Area Ni Plan type and number D Lot number 11 Section number 15 Project type Dwelling type D Dype of afteration and addition 17	
Plan type and number	aposited Plan DP758566
Lot number         11           Section number         16           Project type           Dwelling type         Dr.           Type of alteration and addition         Tr.	
Section number 15 Project type Dwelling type Dr. Type of alteration and addition Tf.	
Project type  Dwelling type  Type of alteration and addition  Tr	
Dwelling type Dr. Type of alteration and addition Th	welling house (detached)
Type of alteration and addition Th	welling house (detached)
	ne estimated development cost for my enovation work is \$50,000 or more, and actudes a pool (and/or spa).
N/A N	'A
Certificate Prepared by (please con	splete before submitting to Council or PCA)
Name / Company Name: ACTION PLANS P	TYLTD

SW RIMENT		ABN (if applicable): 55660046711				
Pool and Spa			Show on DA Plans	Show on CC/CDC Plans & specs	Certifier Check	
Outdoor swimming pool						
The swimming pool must be outdoors.					-	
The swimming pool must not have a capaci	y greater than 26.81 kilolitres.				J	
The swimming pool must have a pool cover			+*	1	Ť	
		-	~			
The applicant must install a pool pump time		_	-			
The applicant must not incorporate any hea	ting system for the swimming pool that is part	of this development.		~	~	
Fixtures and systems			Show on DA Plans	Show on CC/CDC Plans & specs	Certifier Check	
Lighting						
The applicant must ensure a minimum of 40 emitting-diode (LED) lamps.	% of new or altered light fixtures are fitted wit	h fluorescent, compact fluorescent, or light-		~	~	
Fixtures					,	
The applicant must ensure new or altered s	The applicant must ensure new or altered showerheads have a flow rate no greater than 9 litres per minute or a 3 star water rating.					
The applicant must ensure new or altered to rating.		~	-			
The applicant must ensure new or aftered to	ps have a flow rate no greater than 9 litres pe	er minute or minimum 3 star water rating.		~		
Construction			Show on DA Plans	Show on CC/CDC Plans & specs	Certifier Check	
Insulation requirements			_			
listed in the table below, except that a) add	ered construction (floor(s), walls, and ceilings/ flonal insulation is not required where the are of altered construction where insulation airea	a of new construction is less than 2m2, b)	~	~	~	
	Additional insulation required (R- value)	Other specifications				
suspended floor above garage: framed (R0.7).	nii	N/A	1			
floor above existing dwelling or building.	nil	N/A	]			
external wall: framed (weatherboard, fibro, metal clad)	R1.30 (or R1.70 including construction)					
flat ceiling, pitched roof	ceiling: R0.95 (up), roof: foil backed blanket (75 mm)	medium (solar absorptance 0.475 - 0.70)	11			
	Dianket (75 mm)	0.70)	11			

Glazing requirements	Show on DA Plans	Show on CC/CDC Plans & specs	Certifier Check
Windows and glazed doors			
The applicant must install the windows, glazed doors and shading devices, in accordance with the specifications listed in the table below. Relevant overshadowing specifications must be satisfied for each window and glazed door.	~	~	~
The following requirements must also be satisfied in relation to each window and glazed door:		~	~
Each window or glazed door with standard aluminium or timber frames and single clear or toned glass may either match the description, or, have a U-value and a Solar heat Gain Coefficient (SHGC) no greater than that listed in the table below. Total system U-values and SHGCs must be calculated in accordance with haltonial Fenestration Rating Council (NFC) conditions.		~	~
Each window or plazed door with improved farmers, or pyrolytic low-e glass, or clear/air papic/lear plazing, or tone-dair papiclear plazing, or tone-dair papiclear plazing, or tone-dair papiclear plazing must have a U-lawlae and a Solar Head Solar Confederier (SFRC) or greater than that Isted in the balle below. Total system U-values and SHI-OS must be calculated in accordance with National Fenestration Rating Council (NFRC) conditions. The description is provised for information only. Alternative systems with complying U-value and SHI-OS may be substituted.		~	~
For projections described in millimetres, the leading edge of each eave, pergola, verandah, balcorry or awning must be no more than 500 mm above the head of the window or glazed door and no more than 2400 mm above the sill.	~	~	~
Pergolas with polycarbonate roof or similar translucent material must have a shading coefficient of less than 0.35.		~	~
Pergolas with fixed battens must have battens parallel to the window or glazed door above which they are situated, unless the pergola also shades a perpendicular window. The spacing between battens must not be more than 50 mm.		~	~

Blazing requir							Show on DA Plans	Show on CC/CDC Plans & specs	Certific Check
indows and gla	zed doors glazing	requirements							
Window/door number	Orientation	Area of glass including frame (m2)	Overshadowing height (m)	Overshadowing distance (m)	Shading device	Frame and glass type			
W01	N	2.34	0	0	eave/ verandah/ pergola/balcony >=750 mm	standard aluminium, single clear, (or U-value: 7.63, SHGC: 0.75)			
W02	N	3.08	0	0	eave/ verandah/ pergola/balcony >=750 mm	standard aluminium, single clear, (or U-value: 7.63, SHGC: 0.75)			
W03	N	3.36	0	0	none	timber or uPVC, double Lo-Tsoliair gapiclear, (U-value: 2.3, SHGC: 0.19)			
W04	N	1.26	0	0	none	timber or uPVC, double Lo-Tsol/air gap/clear, (U-value: 2.3, SHGC: 0.19)			
W05	N	2.8	0	0	none	timber or uPVC, double Lo-Tsol/air gap/clear, (U-value: 2.3, SHGC: 0.19)			
W06	N	3.24	0	0	eave/ verandah/ pergola/balcony >=900 mm	standard aluminium, single clear, (or U-value: 7.63, SHGC: 0.75)			
W07	N	2	0	0	eave/ verandah/ pergola/balcony >=900 mm	standard aluminium, single clear, (or U-value: 7.63, SHGC: 0.75)			
W08	N	2	0	0	eave/ verandah/ pergola/balcony >=900 mm	standard aluminium, single clear, (or U-value: 7.63, SHGC: 0.75)			
W09	N	2.7	0	0	none	timber or uPVC, double Lo-Tsol/air gap/clear, (U-value: 2.3, SHGC: 0.19)			
W10	N	2.7	0	0	none	timber or uPVC, double Lo-Tsol/air gap/clear, (U-value: 2.3, SHGC: 0.19)			



	REV.	DATE	COMMENTS	DRWN
3	А	07/03/20205	DA - SUBMISSION	DLR
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The Subdistricturated relative is to be easier that the approved boundary stabilish and approved levels are confirmed and set out by a registered. The Subdistricturated relative that and verify ALL dimensions on alle prior to commonweast of any work, creation of step drawings, or blanksion of components. All errors and omissions are to be verified by the Subdistricturated relative that the drawings are to be verified by the Subdistricturation of components. All errors and omissions are to be verified by the Subdistricturation of components. All errors are domissions are to be verified by the Subdistricturation operating bytes are to be designed prior to the commonweast of works. All windows 4 odd references, relationship, operating bytes are to be designed from the designed prior to the designed prio

JAMES COBURN

PROJECT ADDRESS 37 Landford Avenue, Killarney Heights NSW 2087 DRAWING NO. DA20

Friday, 7 March 2025

DRAWING NAME BASIX COMMITMENTS







#### Alterations and Additions

Certificate number: A1785693

This certificate confirms that the proposed development will meet the NSW government's requirements for sustainability, if it is built in accordance with the commitments set out below. Term used in this certificate, or in the commitments, have the meaning given by the document entitled "BASIX Definitions" dated 100/90/2007 published by the Department. This document is available at www.basix.nsw.gov.au

Secretary
Date of issue: Monday, 03 March 2025
To be valid, this certificate must be lodged within 3 months of the date of issue.



Project address	
Project name	DA_37 LANFORD AVE, KILLARNEY HEIGHTS 2087
Street address	37 LANFORD Avenue KILLARNEY HEIGHTS 2087
Local Government Area	Northern Beaches Council
Plan type and number	Deposited Plan DP758566
Lot number	11
Section number	19
Project type	
Dwelling type	Dwelling house (detached)
Type of alteration and addition	The estimated development cost for my renovation work is \$50,000 or more, and includes a pool (and/or spa).
N/A	N/A
Certificate Prepared by pla	ase complete before submitting to Council or PCA)
Name / Company Name: ACTION PL	ANS PTY LTD
ABN (if applicable): 55660046711	

Glazing requir	ements						Show on DA Plans	Show on CC/CDC Plans & specs	Certifier Check
indows and gla	zed doors glazing	requirements							
Window/door number	Orientation	Area of glass including frame (m2)	Overshadowing height (m)	Overshadowing distance (m)	Shading device	Frame and glass type			
D01	N	8.21	0	0	eave/ verandah/ pergola/balcony >=900 mm	standard aluminium, single clear, (or U-value: 7.63, SHGC: 0.75)			
D02	N	2.76	0	0	eave/ verandah/ pergola/balcony >=900 mm	standard aluminium, single clear, (or U-value: 7.63, SHGC: 0.75)			
D03	N	11.04	0	0	eave/ verandah/ pergota/balcony >=900 mm	standard aluminium, single clear, (or U-value: 7.63, SHGC: 0.75)			
D04	N	1.67	0	0	eave/ verandah/ pergola/balcony >=600 mm	standard aluminium, single pyrolytic low-e, (U- value: 5.7, SHGC: 0.47)			
D05	N	7.67	0	0	eave/ verandah/ pergola/balcony >=900 mm	standard aluminium, single clear, (or U-value: 7.63, SHGC: 0.75)			
D06	N	6.45	0	0	eave/ verandah/ pergota/balcony >=900 mm	standard aluminium, single clear, (or U-value: 7.63, SHGC: 0.75)			
D07	N	6.45	0	0	eave/ verandah/ pergola/balcony >=900 mm	standard aluminium, single clear, (or U-value: 7.63, SHGC: 0.75)			
D08	N	10.08	0	0	eave/ verandah/ pergota/balcony >=900 mm	standard aluminium, single clear, (or U-value: 7.63, SHGC: 0.75)			

Glazing requirements	Show on DA Plans	Show on CC/CDC Plans & specs	Certifier Check			
Skylights						
The applicant must install th	e skylights in accordance with the spec	ifications listed in the table below.		~	~	~
The following requirements	must also be satisfied in relation to each	h skylight:			~	~
Each skylight may either ma listed in the table below.		~	~			
External awnings and louvre						
Skylights glazing requiren	nents					
Skylight number	Area of glazing inc. frame (m2)	Shading device	Frame and glass type			
S01	0.98	external adjustable awning or blind	aluminium, moulded plastic single clear, (or U-value: 6.21, SHGC: 0.808)			
802	1.8	external adjustable awning or blind	aluminium, moulded plastic single clear, (or U-value: 6.21, SHGC: 0.808)			
S03	0.98	external adjustable awning or blind	aluminium, moulded plastic single clear, (or U-value: 6.21, SHGC: 0.808)			
804	0.98	external adjustable awning or blind	aluminium, moulded plastic single clear, (or U-value: 6.21, SHGC: 0.808)			
S05+S06	1.96	external adjustable awning or blind	aluminium, moulded plastic single clear, (or U-value: 6.21, SHGC: 0.808)			

Legend	
In these commitments, "applicant" means the person carrying out the development.	
Commitments identified with a 🛩 in the "Show on DA plans" column must be shown on the plans accompanying the development application for the proposed development (if a development application is to be lodged for the proposed development).	
Commitments identified with a 💅 in the "Show on CCICDC plans & specs" column must be shown in the plans and specifications accompanying the application for a construction certificate / complying development certificate for the proposed development.	
Commitments identified with a 🇹 in the "Certifier check" column must be certified by a certifying authority as having been fulfilled, before a final occupation certificate for the developminary be issued.	ment



	REV.	DATE	COMMENTS	DRWN
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JAMES COBURN

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Friday, 7 March 2025

DRAWING NAME BASIX COMMITMENTS