




Reference number 2695

Member of the Fire Protection Association of Australia

Lot 1, DP 1132852, 18-20 Sturdee Lane, Lovett Bay, NSW 2105.

Tuesday, 26 November 2019

Prepared and certified by:	Matthew Willis <i>BPAD – Level3 Certified Practitioner</i> Certification No: BPD-PA 09337		26/11/2019
Can this proposal comply with AS3959-2009 (inc PBP addendum 3)?	Yes		
What is the recommended AS 3959-2009 level of compliance?	BAL-29		
Is referral to the RFS required?	At the discretion of council. Subjective opinion has been used in the APZ requirements for this proposal.		
Can this development comply with the requirements of PBP?	Yes		
Plans by "James De Soyres and Associates" (Appendix 1) dated.	25/11/2019		

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Bushfire Risk Assessment

Tuesday, 26 November 2019

Contact

James de Soyres

James De Soyres and Associates

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9979 1823

Subject Property

Lot 1, DP 1132852

18-20 Sturdee Lane

Lovett Bay NSW 2105

BUSHFIRE RISK ASSESSMENT CERTIFICATE

THIS FORM IS TO BE COMPLETED BY A RECOGNISED CONSULTANT IN BUSHFIRE RISK ASSESSMENT IN ACCORDANCE WITH SECTION 79BA 1(b) OF THE ENVIRONMENTAL PLANNING AND ASSESSMENT ACT 1979 NO 203

Property Address	Lot 1, DP 1132852, number 18-20 Sturdee Lane Lovett Bay
Description of the Proposal	Alterations and additions to an existing dwelling
Plan Reference	25/11/2019
BAL Rating	BAL-29
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 Appendix 4 of Planning for Bushfire Protection 2006 together with recommendations as to how the relevant Specifications and requirements are to be achieved.

I hereby certify, in accordance with Section 79BA 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 79 BA(1)(a) 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 2006.

REPORT REFERENCE	<i>Tuesday, 26 November 2019</i>
REPORT DATE	<i>Tuesday, 26 November 2019</i>
CERTIFICATION NO/ACCREDITED SCHEME	<i>FPA A BPAD A BPD-PA 09337</i>

Attachments:

- Bushfire Risk Assessment Report
- Recommendations

SIGNATURE: ---  ----- **DATE:** -----Tuesday, 26 November 2019

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1 Executive Summary

Bushfire Planning Services has been requested by Mr James de Soyres of James De Soyres and Associates to supply a bushfire compliance report on lot 1, DP 1132852, 18-20 Sturdee Lane, Lovett Bay.

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

The entire area surrounding and including the subject lot is mapped as a hazard in councils' bushfire prone land map (see page 7). The map does not consider the existing development, associated gardens and modified lands around the existing houses.

The general area surrounding the building site contains minimal mid story fuels and for the most part highly modified ground fuel however the area does contain a large amount of tree canopy. As such the surrounding area does not strictly comply with the DTS requirements for an Asset Protection Zone as outlined in the Rural Fire Service document Planning for Bushfire Protection 2006 (PBP).

Notwithstanding this, given the location of the proposal, its proximity to the waters of Pittwater, already established development and the topography of the area it is considered that the area will comply with the performance criteria of PBP.

With the exception of the tree canopy extent, the required APZ is achievable for this proposal to meet the requirements of AS3959.

Given the unique nature of the area and the minimal ground and mid story fuels, a canopy fire is considered unlikely. If the tree canopy is discounted as a fire source feature the main issue posed by the tree canopy comes from the potential for the trees to deposit leaves, twigs etc onto the dwelling and into the area in general.

The effects of this can be mitigated by the omitting of roof gutters and/or the use of gutter guard on the roof and a regular maintenance regime for the removal of accumulated litter in the APZ, both these measures are recommended in this assessment. It is understood that the use of gutter protection has previously been accepted by the Land and Environment court as an alternate solution to treat overhanging canopy as a substitute for tree removal.

The subject lot is on the side of Sturdee Lane and at its closest point to the hazard the proposed new work has a separation distance to the south of approximately 25m¹.

The vegetation that is considered to be the hazard to this proposal is situated on land that slopes up slope away from the property.

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

¹ To be established.

The remaining vegetation within the study area is contained within the boundaries of established residential allotments.

The calculations and assumptions outlined in this report show that the development will be required to comply with the construction requirements of AS 3959-2009 BAL-29 and the Rural Fire Services requirements contained within the addendum to appendix 3 of Planning for Bushfire Protection on all aspects.

It is my considered opinion that this development can comply with the requirements of AS 3959-2009 and Planning for Bushfire Protection 2009.

Table 1 is a summary of the relevant findings of this assessment.

Aspect	North	East	South	West
Vegetation type	Managed land	Managed land	Managed land/forest	Managed land
Slope	N/A	N/A	All up-slopes and flat land	N/A
Setback within lot 1	N/A	N/A	25m	N/A
Setback outside lot 1	N/A	N/A	0m	N/A
Total setback	N/A	N/A	25m	N/A
Bal level	N/A	N/A	29	N/A

Table 1 - Any aspect marked with "N/A" in the table above indicates that it is considered there is no hazard in that direction. Only the details for the aspect that is considered to be at the greatest risk from bushfire is shown in the table above. THIS TABLE IS NOT CONSTRUCTION ADVICE.

2 General

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

The proposal will remove an existing structure which was built with no consideration to the effects of bushfire and replace it with a new building that will be constructed to resist a fire described by AS3959 as being a "High" risk.

This will achieve a Better Bushfire Outcome for the lot in general and is in line with the RFS philosophy of creating a Better Bushfire Outcome.

The methodology used on this report is based on Planning for Bushfire Protection 2006 (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 2006. Some of the measurements used in this report have been taken from aerial photographs and as such are approximate only.

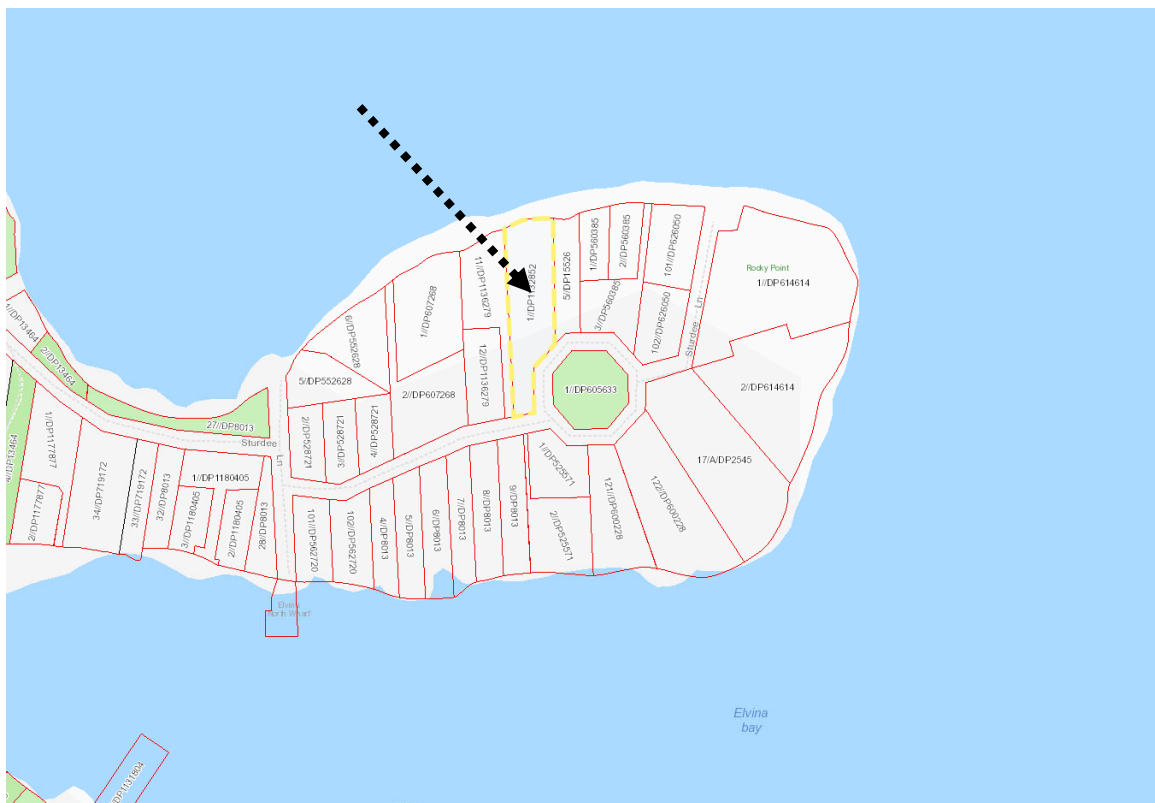
3 Block Description

The subject block is a waterfront allotment situated on the northern side of Sturdee Lane in an established area of Lovett Bay.

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

On completion of the development the lands surrounding the proposed site on the subject lot to a distance of at least 25m will contain existing residential development and associated gardens or land that is otherwise not considered to be a significant bushfire hazard.

- Lot; 1
- DP; 1132852.
- LGA; Northern Beaches.
- Area; 2538m².
- Address; 18-20 Sturdee Lane, Lovett Bay.



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 1 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 south.

For the purpose of this assessment and compliance with AS3959 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.



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

Table 2 outlines the vegetation orientation and distance from the development area.

Aspect	North	East	South	West
Vegetation type	Managed land	Managed land	Managed land/forest	Managed land
Setback within lot 1	N/A	N/A	25m	N/A
Off-site setback	N/A	N/A	0m	N/A
Total setback	N/A	N/A	25m ²	N/A

Table 2 - 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.

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 3.

² To be established



Table 3 shows the slope beneath the hazard.

Aspect	North	East	South	West
Slope	N/A	N/A	All up-slopes and flat land	N/A

Table 3 - 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 not be serviced by a reliable reticulated water supply.

7.2 Electricity

Mains electricity is available to the block.

7.3 Gas

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

8 Access/Egress

The area has minimal vehicle access to the site however has boat access to the private jetty on the northern aspect of the lot. Public access is available via the “Elvina” public wharf to the south west.

Pedestrian access is available from Sturdee Lane to the south. Limited pedestrian access is available along the foreshore.

Analysis of development and recommendation.

9 Compliance with AS 3959-2009

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 3959-2009 BAL-29 and the RFS requirements on all fire prone aspects.

The following table is an extract from table 2.4.2 of AS3959-2009. 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.

TABLE 2.4.2
DETERMINATION OF BUSHFIRE ATTACK LEVEL (BAL)—FDI 100 (1090 K)

Vegetation classification	Bushfire Attack Levels (BALs)				
	BAL—FZ	BAL—40	BAL—29	BAL—19	BAL—12.5
	Distance (m) of the site from the predominant vegetation class				
	All upslopes and flat land (0 degrees)				
A. Forest	<19	19—<25	25—<35	35—<48	48—<100
B. Woodland	<12	12—<16	16—<24	24—<33	33—<100
C. Shrubland	<7	7—<9	9—<13	13—<19	19—<100
D. Scrub	<10	10—<13	13—<19	19—<27	27—<100
E. Mallee/Mulga	<6	6—<8	8—<12	12—<17	17—<100
F. Rainforest	<8	8—<11	11—<16	16—<23	23—<100
G. Grassland	<6	6—<9	9—<13	13—<19	19—50

For the purpose of this assessment the southern 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 can provide 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 BCA and AS3959 2009. 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 AS3959-2009 "Construction of buildings in bush fire-prone areas" and,
2. New construction shall also comply with the requirements of BAL-29 Australian Standard AS3959-2009 "Construction of buildings in bush fire-prone areas" and section A3.7 Addendum Appendix 3 of "Planning for Bush fire Protection".

Recommendation; entire building.

3. Any new fencing to be property should be in accordance with Rural Fire Service "Fast Fact 2/06".
4. New roofing valleys and guttering should be fitted with a non-combustible leaf protection to stop the accumulation of debris.

12 Utilities

12.1 Water

The proposed development will not have access to a reliable reticulated water supply resulting in the need for a Static Water Supply (SWS) to be established on site for firefighting purposes.

The water supply is to be established in accordance with the following;

Recommendation;

5. A 10,000 L water supply is to be made available for firefighting purposes and be constructed in accordance with the following features.
 - Above ground tanks are manufactured of concrete or metal and raised tanks are to have their stands protected. Plastic tanks shall not be used.
 - A 65mm metal Storz outlet with a gate or ball valve shall be provided.

- A hardened ground surface for truck access is to be supplied up to and within 4 metres of the water source.
- The water source shall be made available or located within the inner protection area (IPA) and away from the structure.
- The gate or ball valve, pipes and tank penetration are adequate for full 50mm inner diameter water flow through the Storz fitting and are metal.
- A minimum 5hp or 3kW petrol or diesel-powered pump shall be made available to the water supply. The pump should be attached to a suitable firefighting hose.
- An 'SWS' marker shall be obtained from the local NSW Rural Fire Service and positioned for ease of identification by brigade personnel and other users of the SWS. In this regard:
 - a) Markers must be fixed in a suitable location so as to be highly visible; and
 - b) Markers should be positioned adjacent to the most appropriate access for the static water supply.

If the Lovett Bay is to be used as a static water supply recommendation 5 may be ignored however the following applies.

- A petrol or diesel-powered pump capable of delivering adequate water for firefighting purposes taking into consideration the head height and delivery distance from the proposed pump placement shall be made available to the water supply.
- The pump should be attached to a suitable suction hose to allow for drafting from Lovett Bay at all tide heights.
- Delivery hoses and/or suitable metal piping that is long enough to reach all areas of the proposed building are to be supplied.
- The hoses are to be fitted with fittings and nozzles to allow for RFS use.

12.2 Electricity and Gas

Recommendation;

6. Any new electricity or gas connections are to comply with the requirements of section 4.1.3 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;

7. At the commencement of building works and in perpetuity the property around the building shall be managed as follows as outlined within section 4.1.3 and

appendix 5 of Planning for Bushfire Protection 2006 and the New South Wales Rural Fire Service document standards for Asset Protection Zones.

With the exception of tree canopy which should be thinned/removed as much as possible within environmental allowances;

- *North as an inner protection area to the property boundary.*
 - *East as an inner protection area to the property boundary.*
 - *West as an inner protection area to the property boundary.*
 - *South as an inner protection area for at least 25m.*
8. The maintenance of the Asset Protection Zone should pay special attention to the collection of tree litter from on and around the new and existing works.

14 Landscaping

No specific landscaping plan has been provided as part of this assessment.

Recommendation;

9. Any new landscaping to the site is to comply with the principles of Appendix 5 of Planning for Bush Fire Protection 2006. In this regard the following landscaping principles are, where applicable, to be incorporated into the development:
- 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.

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

<p>APZ</p> <p>A defendable space is provided onsite.</p> <p>An APZ is provided and maintained for the life of the development.</p>	<p>Achievable with the implementation of the recommendations in section 13</p>
<p>SITING AND DESIGN:</p> <p>Buildings are sited and designed to minimise the risk of bush fire attack.</p>	<p>Achievable with the implementation of the recommendations in section 10</p>
<p>CONSTRUCTION STANDARDS:</p> <p>It is demonstrated that the proposed building can withstand bush fire attack in the form of wind, smoke, embers, radiant heat and flame contact.</p>	<p>Achievable with the implementation of the recommendations in section 11</p>
<p>ACCESS</p> <p>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).</p>	<p>Achievable with the implementation of the recommendations in section 16</p>

WATER AND UTILITY SERVICES: <ul style="list-style-type: none"> • adequate water and electricity services are provided for firefighting operations • Gas and electricity services are located so as not to contribute to the risk of fire to a building. 	Achievable with the implementation of the recommendations in section 12
LANDSCAPING: <ul style="list-style-type: none"> • 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 3959-2009 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*

19 References

Australian Building Codes Board

*National Construction Code
Volumes 1&2
Canprint*

NSW Government Environmental Planning and Assessment Act [1979]

*Part 79BA – Consultation and development Consent – Certain Bushfire Prone Land
NSW Government Printer*

Planning NSW [2006]

*Planning for Bushfire Protection
A Guide for Councils, Planners, Fire Authorities, Developers and Home Owners*

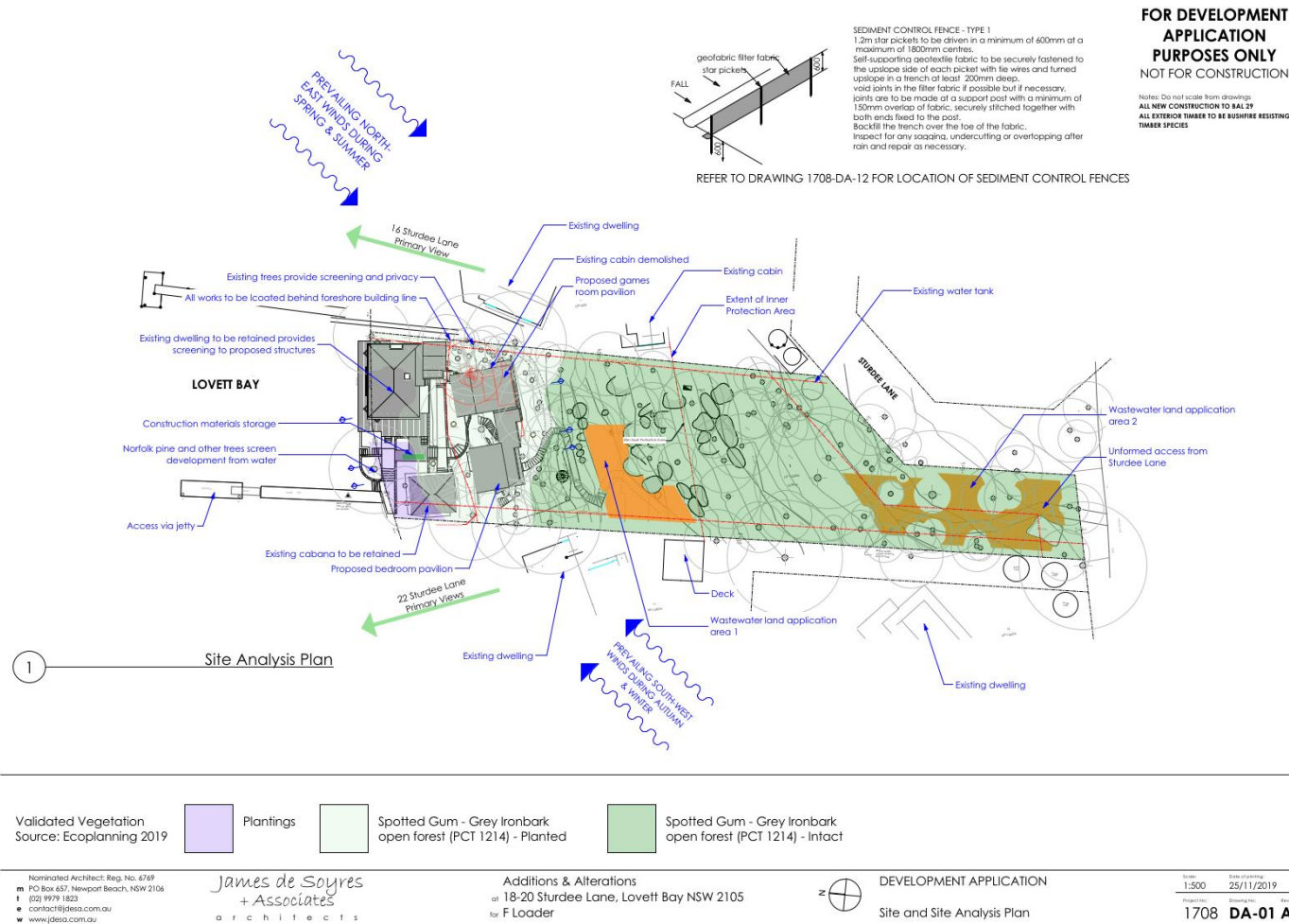
Ramsay C & Rudolph L [2003]

*Landscape and Building Design for Bushfire Prone Areas
CSIRO Publishing*

Standards Australia [2009]

*Australian Standards 3959 (amendments 1, 2 and 3)
Standards Australia*

20 Appendix 1 - Plans



**FOR DEVELOPMENT
APPLICATION
PURPOSES ONLY
NOT FOR CONSTRUCTION**

Notes: Do not scale from drawings.
ALL NEW CONSTRUCTION TO BAL 29
ALL EXISTING TIMBER TO BE BUSHFIRE RESISTING
TIMBER SPECIES



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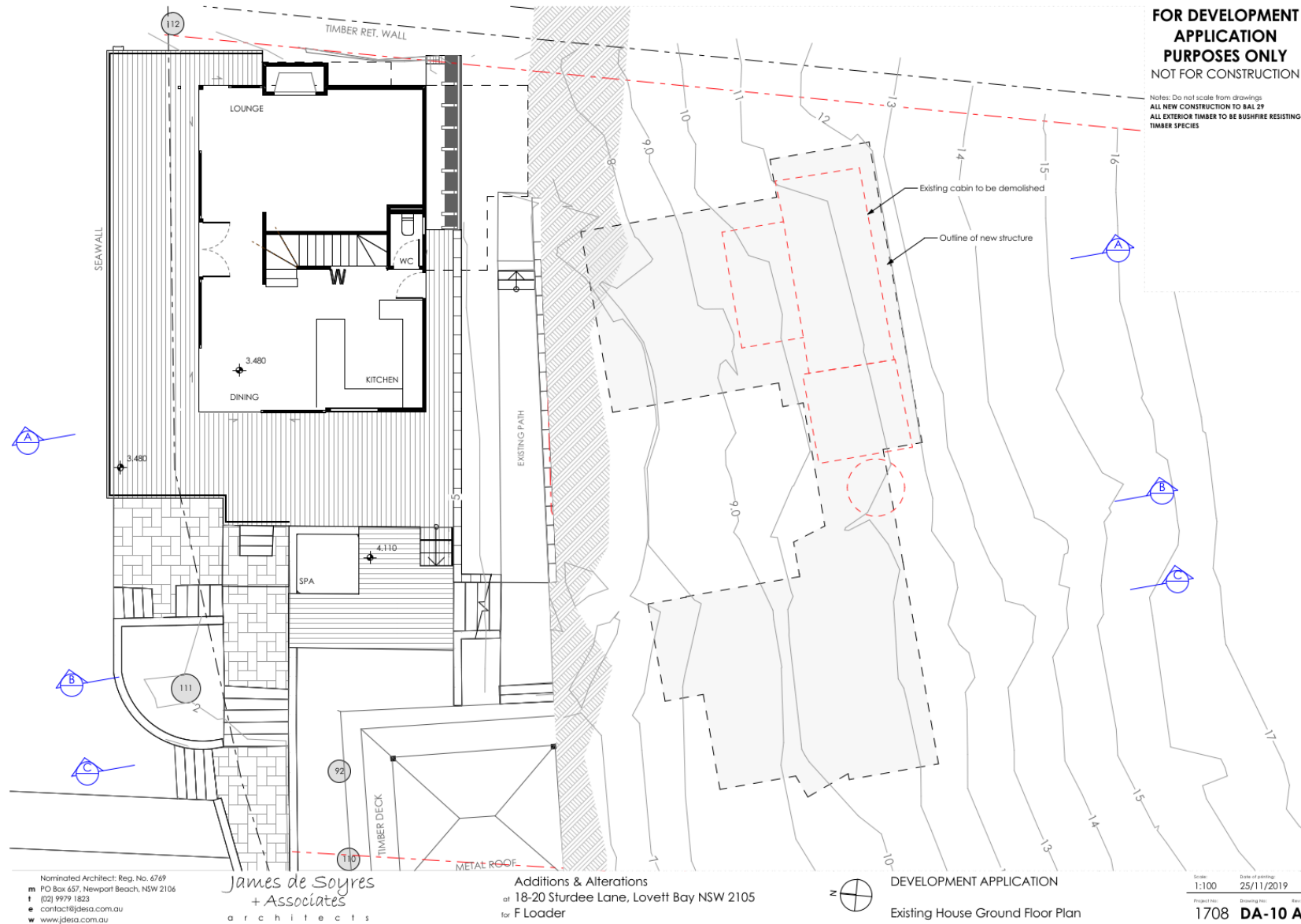
James de Soyres
+ Associates
architects

Additions & Alterations
at 18-20 Sturdee Lane, Lovett Bay NSW 2105
for F Loader

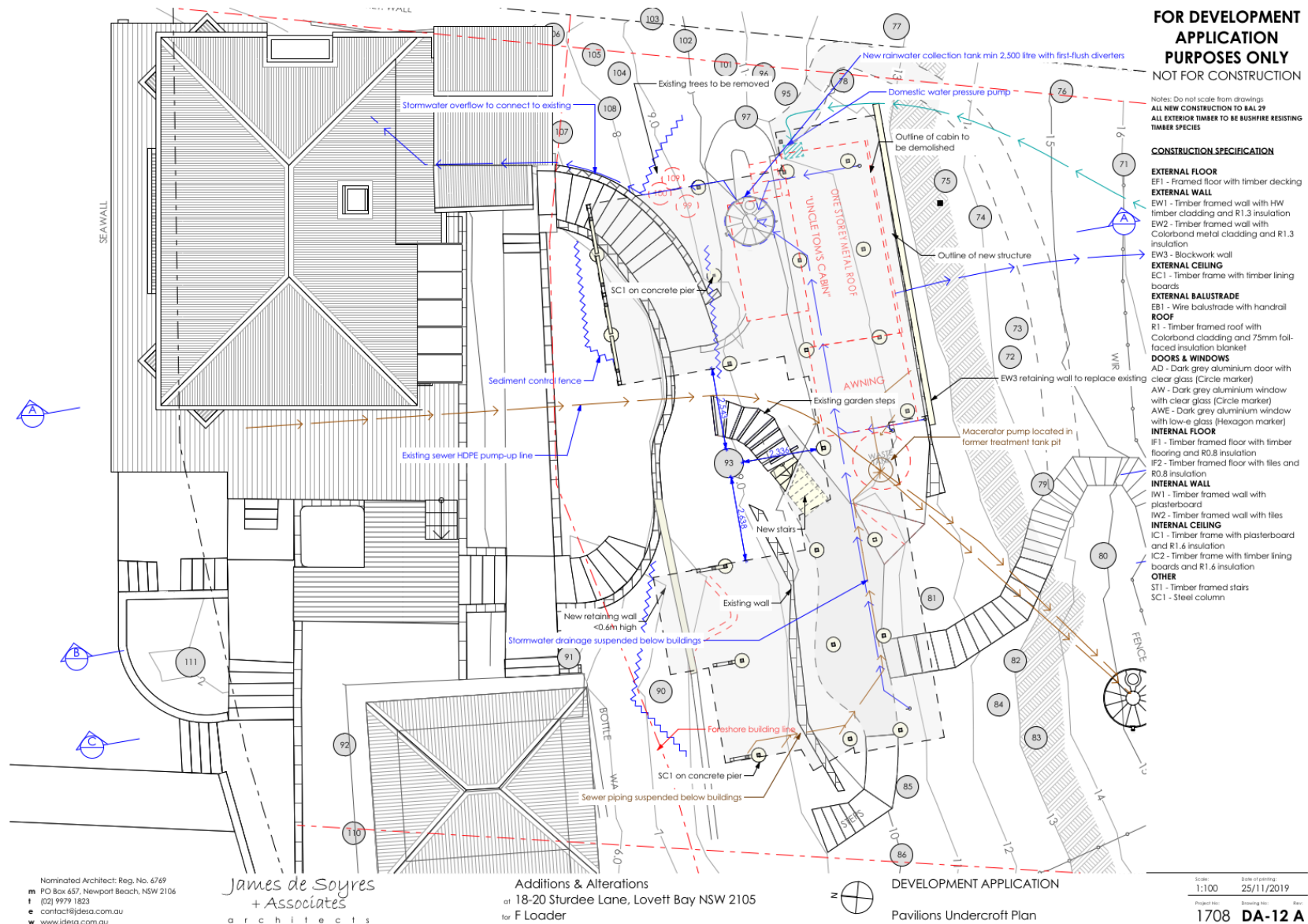


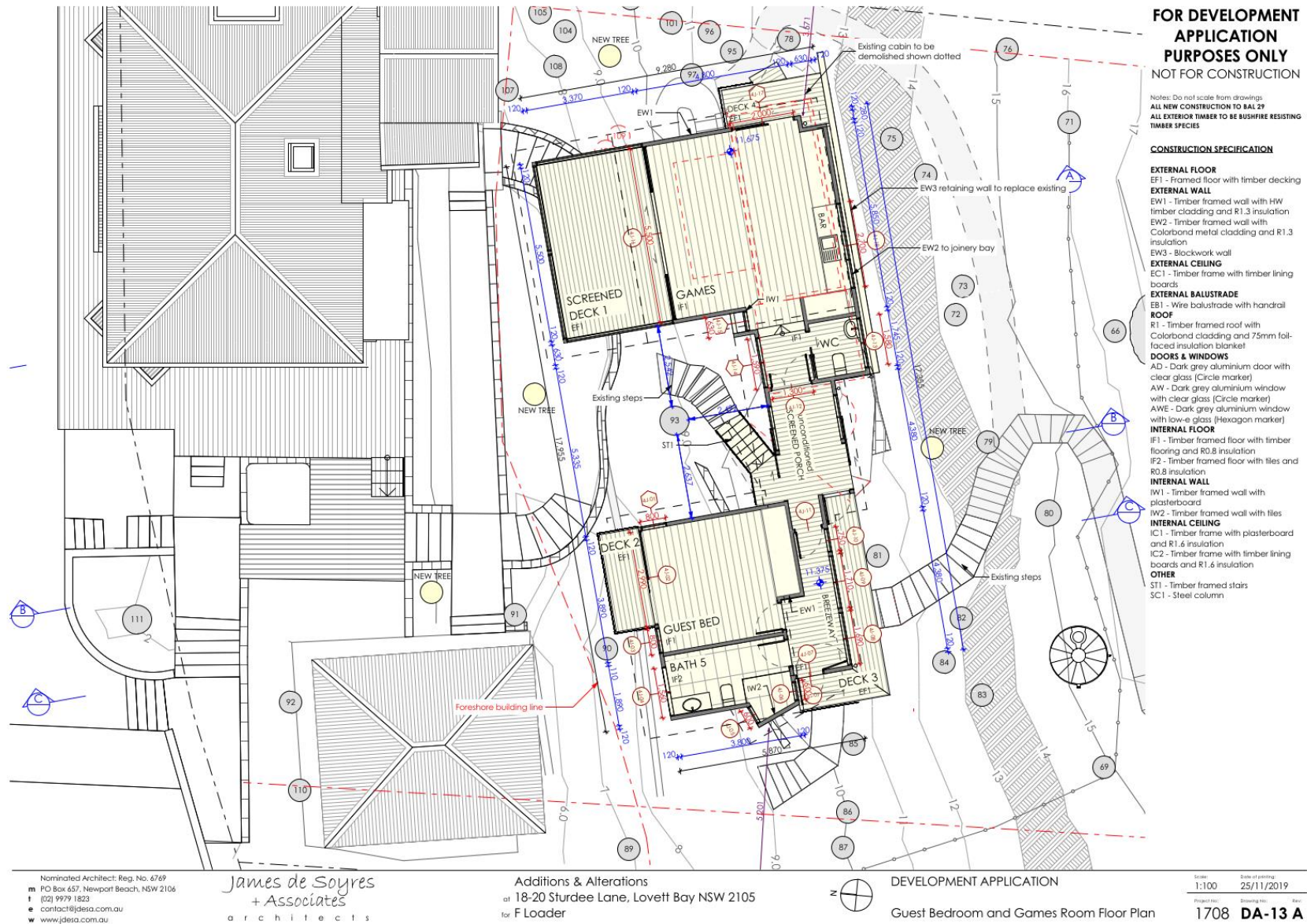
DEVELOPMENT APPLICATION
Site Plan - North

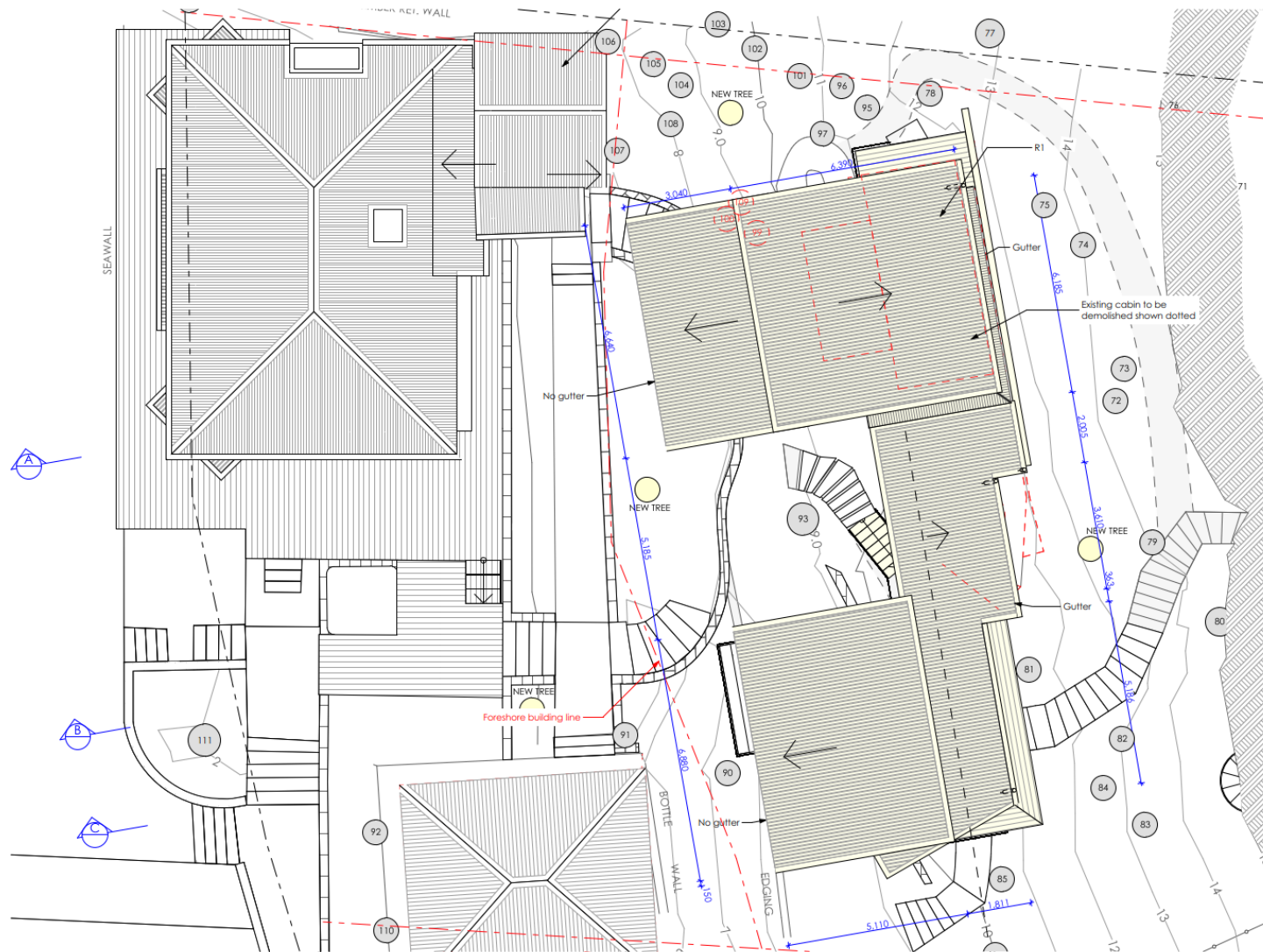
Scale: 1:200 Date of printing: 25/11/2019
Project no: 1708 Drawing no: DA-02 A

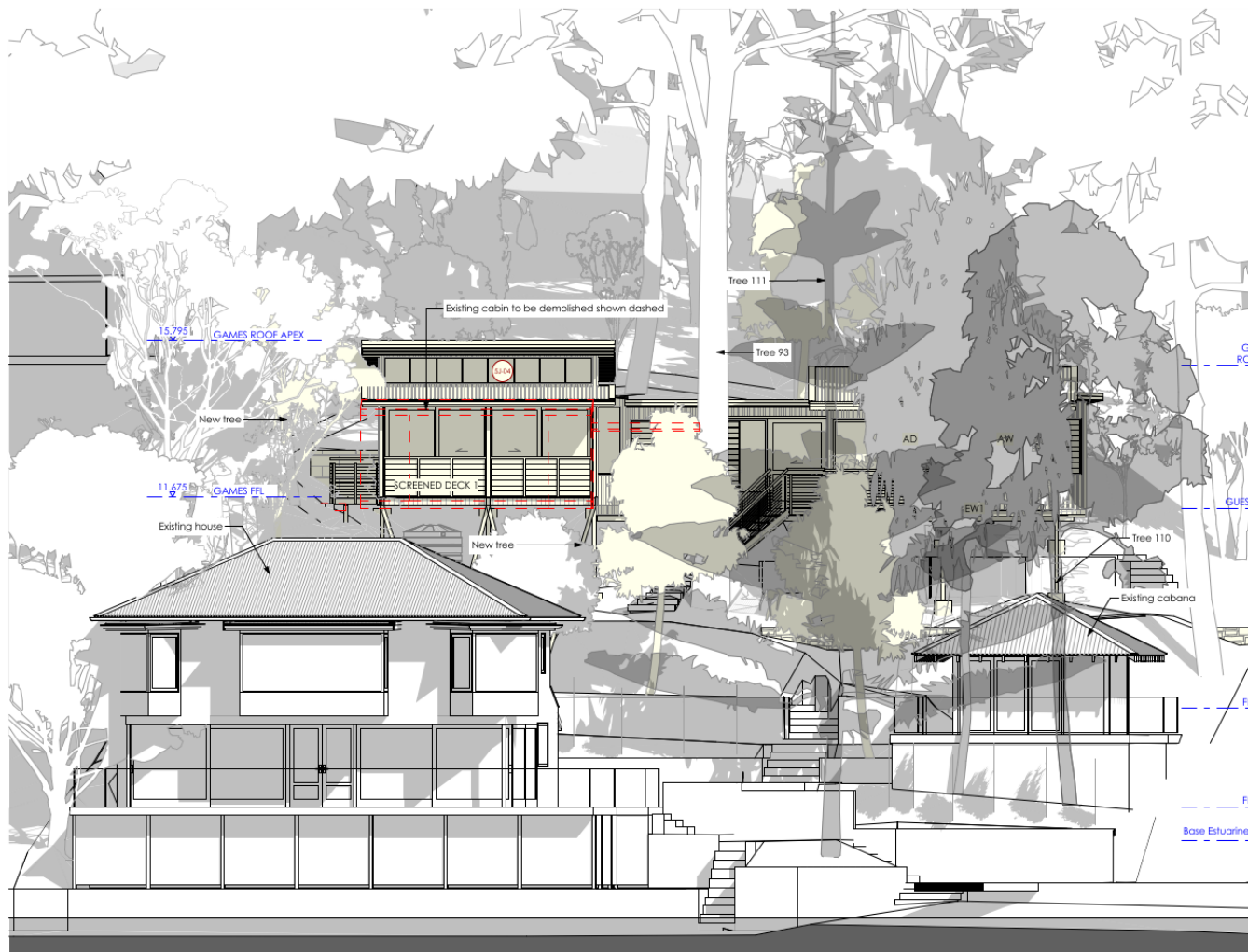












**FOR DEVELOPMENT
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Notes: Do not scale from drawings.
ALL NEW CONSTRUCTION TO BAL 29
ALL EXTERIOR TIMBER TO BE BUSHFIRE RESISTING
TIMBER SPECIES

CONSTRUCTION SPECIFICATION

EXTERNAL FLOOR
EF1 - Framed floor with timber decking

EXTERNAL WALL
EW1 - Timber framed wall with HW timber cladding and R1.3 insulation
EW2 - Timber framed wall with Colorbond metal cladding and R1.3 insulation
EW3 - Blockwork wall

EXTERNAL CEILING
EC1 - Timber frame with timber lining boards

EXTERNAL BALUSTRADE
EB1 - Wire balustrade with handrail

ROOF
R1 - Timber framed roof with Colorbond cladding and 75mm foil-faced insulation blanket

DOORS & WINDOWS
AD - Dark grey aluminium door with clear glass (Circle marker)
AW - Dark grey aluminium window with clear glass (Circle marker)
AWE - Dark grey aluminium window with low-e glass (Hexagon marker)

INTERNAL FLOOR
IF1 - Timber framed floor with timber flooring and R0.8 insulation
IF2 - Timber framed floor with tiles and R0.8 insulation

INTERNAL WALL
IW1 - Timber framed wall with plasterboard
IW2 - Timber framed wall with tiles

INTERNAL CEILING
IC1 - Timber frame with plasterboard and R1.6 insulation
IC2 - Timber frame with timber lining boards and R1.6 insulation

OTHER
ST1 - Timber framed stairs
SC1 - Steel column

ROOF / WALL CLADDING
COLORBOND
'Basalt'

TIMBER WALL CLADDING
Charred Bushfire Resisting
Timber

1 North Elevation from Pittwater

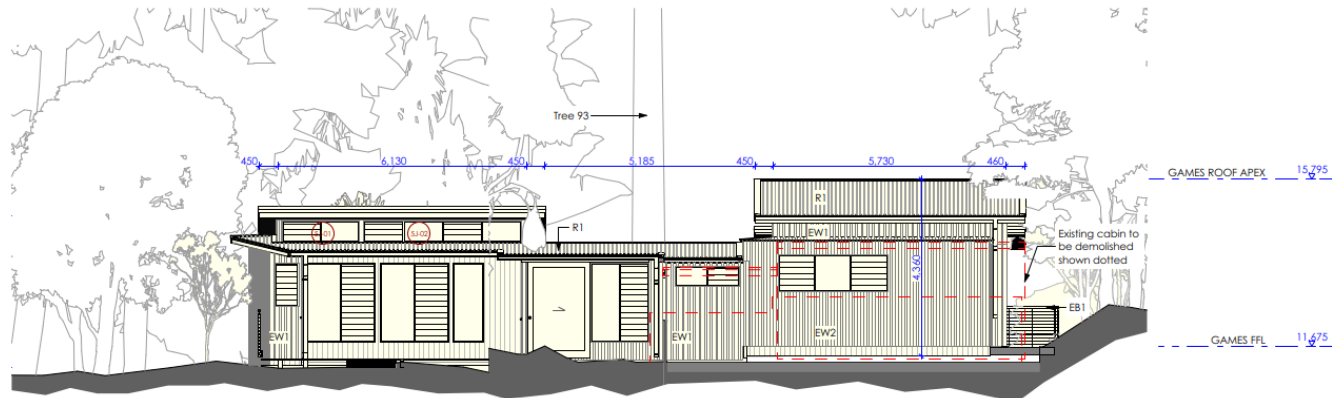
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James de Soyres
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architects

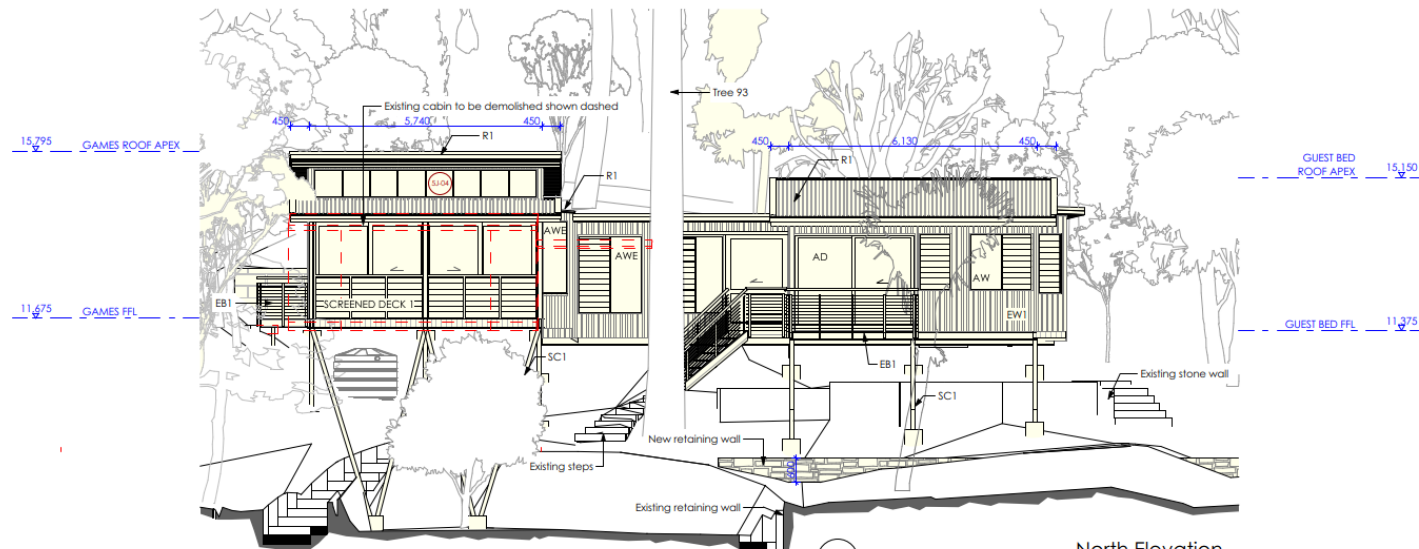
Additions & Alterations
at 18-20 Sturdee Lane, Lovett Bay NSW 2105
for F Loader

DEVELOPMENT APPLICATION
North Elevation from Pittwater

Scale: 1:100 Date of printing: 25/11/2019
Product No: 1708 Drawing No: DA-20 A



1 South Elevation



2 North Elevation

FOR DEVELOPMENT APPLICATION PURPOSES ONLY NOT FOR CONSTRUCTION

Notes: Do not scale from drawings
ALL NEW CONSTRUCTION TO BAL 29
ALL EXTERIOR TIMBER TO BE BUSHFIRE RESISTING
TIMBER SPECIES

CONSTRUCTION SPECIFICATION

EXTERNAL FLOOR

EF1 - Framed floor with timber decking

EXTERNAL WALL

EW1 - Timber framed wall with HW

timber cladding and R1.3 insulation

EW2 - Timber framed wall with

Colorbond metal cladding and R1.3

insulation

EW3 - Blockwork wall

EXTERNAL CEILING

EC1 - Timber frame with timber lining

boards

EXTERNAL BALUSTRADE

EB1 - Wire balustrade with handrail

ROOF

R1 - Timber framed roof with

Colorbond cladding and 75mm foil-

facied insulation blanket

DOORS & WINDOWS

AD - Dark grey aluminium door with

clear glass (Circle marker)

AW - Dark grey aluminium window

with clear glass (Circle marker)

AWE - Dark grey aluminium window

with low-e glass (Hexagon marker)

INTERNAL FLOOR

IF1 - Timber framed floor with timber

flooring and R0.8 insulation

IF2 - Timber framed floor with tiles and

R0.8 insulation

INTERNAL WALL

IW1 - Timber framed wall with

plasterboard

IW2 - Timber framed wall with tiles

INTERNAL CEILING

IC1 - Timber frame with plasterboard

and R1.6 insulation

IC2 - Timber frame with timber lining

boards and R1.6 insulation

OTHER

ST1 - Timber framed stairs

SC1 - Steel column

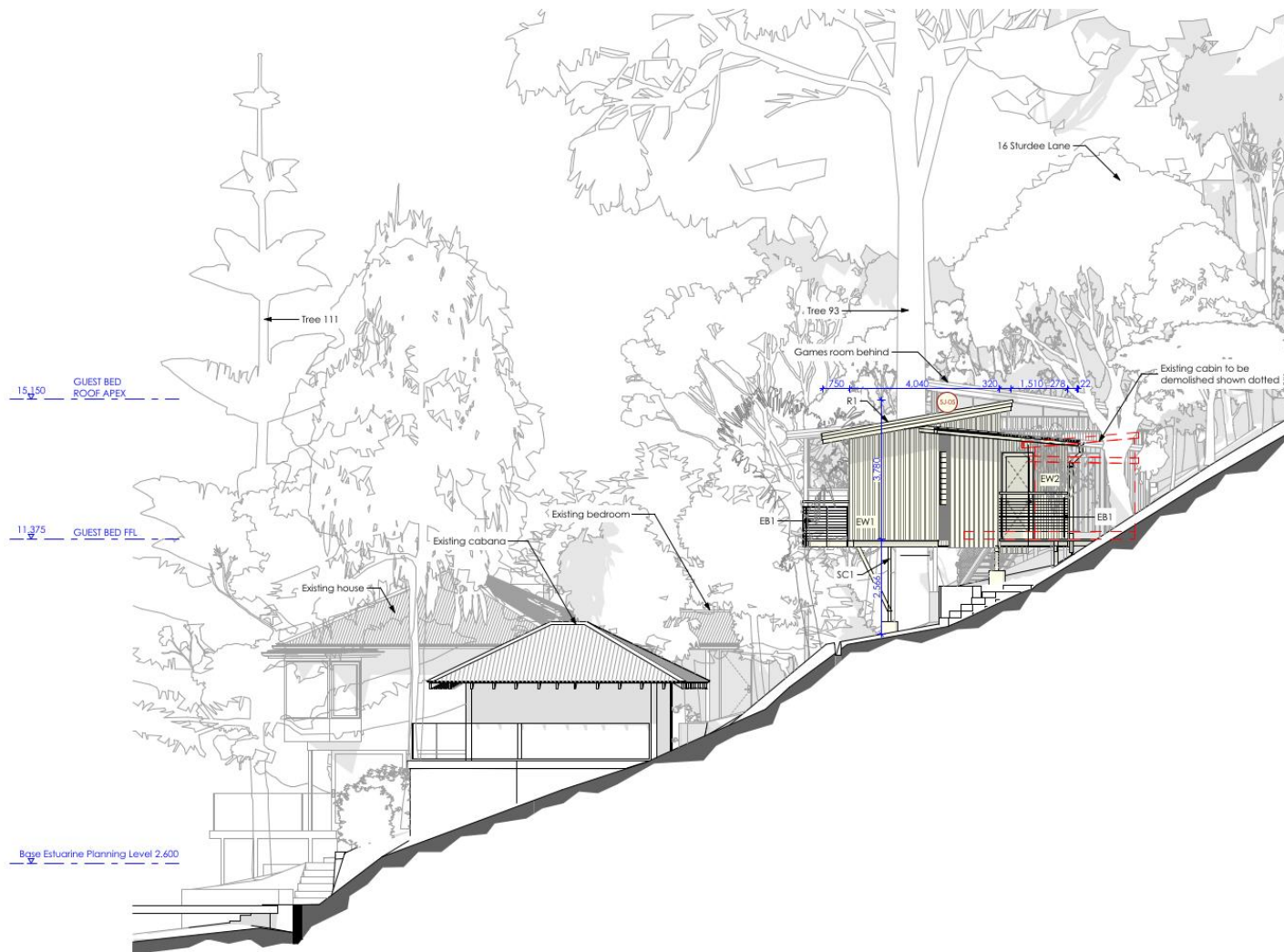
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James de Soyres
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Additions & Alterations
at 18-20 Sturdee Lane, Lovett Bay NSW 2105
for F Loader

DEVELOPMENT APPLICATION
North and South Elevations

Scale: 1:100 Date of printing: 25/11/2019
Product No: 1708 Drawing No: DA-21 A



**FOR DEVELOPMENT
APPLICATION
PURPOSES ONLY
NOT FOR CONSTRUCTION**

Notes: Do not scale from drawings.
ALL NEW CONSTRUCTION TO BAL 29
ALL EXTERIOR TIMBER TO BE BUSHFIRE RESISTING
TIMBER SPECIES

CONSTRUCTION SPECIFICATION

EXTERNAL FLOOR
EF1 - Framed floor with timber decking

EXTERNAL WALL
EW1 - Timber framed wall with HW timber cladding and R1.3 insulation
EW2 - Timber framed wall with Colorbond metal cladding and R1.3 insulation
EW3 - Blockwork wall

EXTERNAL CEILING
EC1 - Timber frame with timber lining boards

EXTERNAL BALUSTRADE
EB1 - Wire balustrade with handrail

ROOF
R1 - Timber framed roof with Colorbond cladding and 75mm foil-faced insulation blanket

DOORS & WINDOWS
AD - Dark grey aluminium door with clear glass (Circle marker)
AW - Dark grey aluminium window with clear glass (Circle marker)
AWE - Dark grey aluminium window with low-e glass (Hexagon marker)

INTERNAL FLOOR
IF1 - Timber framed floor with timber flooring and R0.8 insulation
IF2 - Timber framed floor with tiles and R0.8 insulation

INTERNAL WALL
IW1 - Timber framed wall with plasterboard
IW2 - Timber framed wall with tiles

INTERNAL CEILING
IC1 - Timber frame with plasterboard and R1.6 insulation
IC2 - Timber frame with timber lining boards and R1.6 insulation

OTHER
ST1 - Timber framed stairs
SC1 - Steel column

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DEVELOPMENT APPLICATION
West Elevation

Scale: 1:100 Date of printing: 25/11/2019
Product no: 1708 Drawing no: DA-22 A



**FOR DEVELOPMENT
APPLICATION
PURPOSES ONLY
NOT FOR CONSTRUCTION**

Notes: Do not scale from drawings.
ALL NEW CONSTRUCTION TO BAL 29
ALL EXTERIOR TIMBER TO BE BUSHFIRE RESISTING
TIMBER SPECIES

CONSTRUCTION SPECIFICATION

EXTERNAL FLOOR

EF1 - Framed floor with timber decking

EXTERNAL WALL

EW1 - Timber framed wall with HW

timber cladding and R1.3 insulation

EW2 - Timber framed wall with

Colorbond metal cladding and R1.3

insulation

EW3 - Blockwork wall

EXTERNAL CEILING

EC1 - Timber frame with timber lining

boards

EXTERNAL BALUSTRADE

EB1 - Wire balustrade with handrail

ROOF

R1 - Timber framed roof with

Colorbond cladding and 75mm foil-

facied insulation blanket

DOORS & WINDOWS

AD - Dark grey aluminium door with

clear glass (Circle marker)

AW - Dark grey aluminium window

with clear glass (Circle marker)

AWE - Dark grey aluminium window

with low-e glass (Hexagon marker)

INTERNAL FLOOR

IF1 - Timber framed floor with timber

flooring and R0.8 insulation

IF2 - Timber framed floor with tiles and

R0.8 insulation

INTERNAL WALL

IW1 - Timber framed wall with

plasterboard

IW2 - Timber framed wall with tiles

INTERNAL CEILING

IC1 - Timber frame with plasterboard

and R1.6 insulation

IC2 - Timber frame with timber lining

boards and R1.6 insulation

OTHER

ST1 - Timber framed stairs

SC1 - Steel column

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Additions & Alterations
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for F Loader

DEVELOPMENT APPLICATION
East Elevation

Scale:
1:100 Date of printing:
25/11/2019
Product No.: 1708 Drawing No.: DA-23 A

