



Bush Fire Hazard Assessment Report

For Proposed Construction of Alterations and Additions

42 Beatty St, Balgowlah Heights. NSW 2093



30th September 2020

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Abbreviations Used

TFC – The Fire Consultants

PBP 2019 – Planning for Bushfire Protection (NSW Rural Fire Service)

RFS - Rural Fire Service

BCA - Building Code of Australia

EP&A Act- Environmental Planning and Assessment Act 1979

BAL - Bushfire Attack Level

APZ - Asset Protection Zone

FRNSW - Fire Rescue NSW

AS3959-2018 – Construction of buildings in bushfire prone areas

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The assessment and recommendations contained in this Bush Fire Assessment are the views of TFC. The bushfire protection assessment, recommendations and strategies contained in this report are intended to address the submission requirements for developments on bush fire prone land as required by Section 100B of the RFS Act 1997 and or S 4.14 of the EP&A Act 1979.

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A bushfire may be unpredictable and, in many cases, perform differently to the measurements and assumptions of this report and AS3959. Therefore the information contained in this report cannot be used as a guarantee against any damages or losses resulting from any bushfire events.

Document Control

Document Name	Project Ref	Date	Author	Status
42 Beatty St	1	30/09/2020	S. Brooks	Complete

Contents

0 – Executive Summary	Page 5
1- Introduction	Page 6
2- Purpose of Report	Page 6
3- Proposal	Page 8
4– Report Scope	Page 8
5– Statement of Bushfire Prone Land	Page 9
6– Bushfire Hazard Assessment	Page 10
6.1– Preface	Page 10
6.2– Location	Page 11
6.3– Vegetation	Page 12
6.4- Slope under hazard	Page 14
6.5– Asset Protection Zones	Page 15
6.6– Access	Page 16
6.7– Water Supply	Page 16
6.8– Electricity	Page 16
6.9- Gas Services	Page 16
6.10– Environmental Impact	Page 16
6.11– Hazard Assessment Determination	Page 17
6.12 – Compliance with PBP 2019	Page 18
7– Recommendations	Page 23
8 - Conclusions	Page 24
References	Page 26
Appendix 1	Page 27
Appendix 2	Page 33

Executive Summary

This report has been prepared as a Bushfire Hazard Assessment for the proposed construction of alterations and additions to the existing dwelling on the subject Lot located at 42 Beatty St, Balgowlah Heights. NSW 2093 in the Northern Beaches Council LGA.

The proposal is “Residential Infill Development” and has been identified as being bushfire prone and is subject to consideration under Section 4.14 of the *Environmental Planning and Assessment Act 1979* (EP&A Act) (NSW RFS 2019).

The nearest Bushfire Hazard Vegetation – Forest Classified Vegetation (Category 1 Bushfire Hazard Vegetation) is located 31m North of the proposed alterations and additions to the existing dwelling within Wellings Reserve. The degree of effective slope under the Forest Classified Vegetation is Cross Slope/Flat.

The proposed construction of alterations and additions to the existing dwelling has been found to be in the BAL – 29 range of AS3959-2018 *Construction of buildings in bushfire prone areas* as per Table A1.12.5 of *Planning for Bushfire Protection* 2019. It will also need to meet the objectives, performance criteria and acceptable solutions of PBP 2019 (NSW RFS 2019).

This report makes recommendations to approve the proposal as it meets and exceeds the requirements of both the Building Code of Australia 2018 and *Planning for Bushfire Protection* 2019.

Building Elevation	Construction Standard (Bush Fire)
North	BAL -29 AS3959-2018
South	BAL -19
East	BAL -29
West	BAL -29

Table 1 – AS3959-2018 Construction Standards for the proposed additions to the existing dwelling

1. **Introduction**

This report forms a Bush Fire Assessment Report to Northern Beaches Council for the purposes of Section 4.14 of the *Environmental Planning and Assessment Act 1979* (EP&A Act). The report identifies that the proposal can meet the requirements of *Planning for Bush Fire Protection* (2019). This report has been prepared in accordance with the submission requirements of Appendix 2 of *Planning for Bush Fire Protection* (NSW RFS 2019). The site is identified as being within a Category 1 Bushfire Hazard Vegetation Buffer Zone as per Northern Beaches Council's Bushfire Prone Land Map and therefore compliance with Bushfire Legislation is required.

The proposed development is to construct alterations and additions to the existing dwelling on the subject Lot.

2. **Purpose of this Report**

The purpose of a Bush Fire Hazard Assessment report is to provide the consent authority, owners and RFS with a bushfire hazard determination consistent with the aim and objectives of *Planning for Bush Fire Protection* 2019 (RFS) and Section 4.14 of the EP&A Act 1979. Such report provides the necessary recommendations for new building construction standards and any further bushfire mitigation measures appropriate having regard the hazard and particular circumstances of the development.

The recommendations provided in this report will assist Council and the Owner in proving a construction standard consummate with bushfire safety standards so that a safer level is provided should a bushfire occur on or near the property.

Property Details

Council:	Northern Beaches
Council Reference	N/A
Address:	42 Beatty St, Balgowlah Heights. NSW 2093 Lot 17A DP 350345
Site Area:	844 sqm approx.
Zoning	E3 – Environmental Management

3. **Proposal**

The proponents seek to construct alterations and additions to the existing dwelling on the subject Lot located at 42 Beatty St, Balgowlah Heights. NSW 2093. The site is also known as Lot 17A DP 350345. It is bounded by residential development to the North, South and West. To the East is the waters of Port Jackson (Jilling Cove). To the North is Category 1 Bushfire Hazard Vegetation – Forest. The Northern Beaches Council LGA Bushfire Prone Land Map indicates that the proposed development is located within Category 1 Bushfire Hazard Vegetation Buffer Zone.

The land is zoned E3 – Environmental Management for residential purposes and the proposal is understood to comply with the requirements of Northern Beaches Council LEP and DCP. This report only addresses the planning and construction issues relevant to the proposal. The proposal constitutes “Residential Infill Development” as defined and as such must meet the performance criteria and acceptable solutions outlined in Table 7.4a in of *Planning for Bush Fire Protection* 2019 (NSW RFS 2019).

Type of Proposal PBP 2019

☐	New Building	☒	Urban	☐	Dual Occupancy
☐	Rural Residential	☒	Alterations/Additions	☐	Isolated Rural

4. **Scope of Report and Referenced Documents**

The scope of this report is limited to the actual property concerned. A representative of TFC has visited the site and surrounding area but did not enter neighbouring private lands. This report is based on requirements of the EP&A Act, *Planning for Bush Fire Protection* 2019, the Building Code of Australia (BCA) and AS3959 - 2018 *Construction of buildings in Bush Fire Prone areas*. The methodology for this report is outlined in Appendix 1 of PBP 2019. Vegetation and site information was gathered from site inspection, Council Vegetation data and Aerial Photos. The report used base drawings as provided by the applicant to TFC.



Image 1 - Aerial View of the subject Lot (NSW Government 2020)

5. Statement that the site is Bush Fire Prone Land

The land has been identified on the Northern Beaches Council LGA Bush Fire Prone Land Map which covers the entire site.

A copy of the bush fire prone land status is shown below (Figure 1).



Image 2 – 42 Beatty St, Balgowlah Heights. NSW 2093 Bushfire Prone Land Map (NSW Government 2020).

It should be noted that the Bush Fire Prone Land Map above indicates that the subject Lot is identified as being within a Category 1 Bushfire Hazard Vegetation Buffer Zone.

Hazard

Bushfire Prone Land

- Vegetation Category 1
- Vegetation Category 2
- Vegetation Category 3
- Vegetation Buffer

6. Bush Fire Hazard Assessment

6.1 Preface.

This bushfire hazard assessment has been done according to the guidelines of *Planning for Bushfire Protection* 2019 (NSWRFS). Properties that are located within a designated Bushfire Prone Area as identified by a Council Area Bush Fire Prone Map and Registered with the NSWRFS, must have either a Bush Fire Hazard Assessment or a Bush Fire Hazard Certificate (in certain Complying Development instances) completed and submitted prior to Council or a Private Certifier being able to approve the development.

The proposed development is to construct alterations and additions to the existing dwelling on the subject Lot, which is Residential Infill Development and as such, must comply with Section 4.14 of the EP&A Act 1979 and Section 7 of PBP 2019.

The property is known as 42 Beatty St, Balgowlah Heights. NSW 2093 (Lot 17A DP 350345) and is within a residential area in the Northern Beaches Council Local Government Area. The property has direct access to Beatty St (via a driveway for Lots 34-46 Beatty St) which runs to the West of the subject Lot.

The Classified Bushfire Hazard Vegetation that is a potential bushfire hazard to the proposal is Forest Classified Vegetation and is located 31m to the North of the proposed development.

6.2 Location



Image 3 - Site Aerial. (NSW Government 2020)



Figure 1 - Street Location of Property (NSW Government 2020)

6.3 Vegetation.

The vegetation that effects the development and is deemed the "Hazard" is mapped by Council on the applicable Bush Fire Prone Land map as Category 1 Bushfire Hazard Vegetation. The subject Lot is located within other residential properties to the North, South and West.

The predominant Bushfire Hazard Vegetation formation using "Keith 2004" identification is Forest Classified Vegetation within the boundaries of Wellings Reserve located 31m North of the proposal.

For the purposes of this compliance report this assessment notes that the property does contain hazard upon it. The separation distance to the hazard is assessed as follows.

Direction	Distance to Hazard
North	31m
South	100+m
East	100+m
West	100+m

Table 2 – Distances to hazardous vegetation



Image 4 - Indicates that the separation distance to the Forest Classified Bushfire Hazard Vegetation (NSW Government 2020).



Photo 1 – Indicates the Forest Classified Vegetation located 31m North of the proposal (Steve Brooks 2020)



Photo 2 – Indicates the Forest Classified Vegetation to the North-West of the proposal (Steve Brooks 2020)

6.4 Slope

The effective slope that would most significantly affect a bushfire is assessed for 100 metres from the building. The slope that is measured is under the hazard. The effective slope under the Forest Classified Vegetation is Cross Slope/Flat 31m North of the proposed alterations and additions to the existing dwelling.

Direction	Effective Slope
North	Cross Slope/Flat
South	N/A >100m
East	N/A >100m
West	N/A >100m

Table 3 – Indicates the effective slope under the hazardous vegetation



Figure 3 - Indicates the degree of slope under Bushfire Hazard Vegetation (NSW Government 2020)

6.5 Asset Protection Zones (APZ)

The APZ for the proposed construction of alterations and additions to the dwelling on the subject Lot is 31m to the North, >100m to the South, >100m to the East and >100m to the West comprising of minimal distance on actual property and APZ made up of developed land in neighbouring Lots to the North, South and West which meets the intent of Section 3.2 Asset Protection Zones of PBP 2019.

Direction/Aspect	Effective Slope	Distance to Hazard	Required by PBP Table A1.12.2	Land-use	Vegetation type/Formation	Complies
North	Cross Slope/Flat	31m	24m	Residential/Bushland	Forest	Yes
South	N/A	>100m	N/A	Residential	Developed Land	Yes
East	N/A	>100m	N/A	Residential	Developed Land	Yes
West	N/A	>100m	N/A	Residential	Developed Land	Yes

Table 4 - APZ distances



Image 5 – Indicates the APZ distances to Bushfire Hazard Vegetation (NSW Government 2020)

6.6 Access for Fire Services and Escape

The subject property has direct access, via private driveway for Nos. 34-46, to Beatty St and allows an egress route to safety. Beatty St is a surfaced two-wheeled drive, all-weather road and suitable for fire appliances. The surfaced all-weather road allows occupants to evacuate the site whilst allowing oncoming emergency vehicles to pass safely. Should occupants be required to escape the area in emergency then they should be able to do so.

Access is therefore considered suitable.

6.7 Water Supply

The site is connected to mains pressure reticulated water supply and there are fire hydrants located along Beatty St.

Water supply is therefore considered suitable.

6.8 Electricity Services

The site is provided with electricity direct from underground transmission lines and the proposed secondary dwelling will be provided with electricity via underground supply. Electricity supply is therefore considered suitable.

6.9 Gas Services

Any future Gas supply is to be maintained in accordance with AS1596, metal piping should be used.

Gas supply is therefore considered suitable.

6.10 Environmental Impact

It must be noted that the subject Lot is within an area designated as being Scenic Protection Land and containing Terrestrial Biodiversity. However, it is not proposed that any environmental impact will occur due from the alterations and additions due to there being no vegetation to be removed and impacted by the proposal.

6.11 Hazard Assessment Determination

PBP refers to the appropriate construction standard for a development as determined by Table A1.12.5 of PBP 2019. This provides a recommendation for the Bush Fire Attack (BAL) Level required for a development. The following Bush Fire Attack Levels have been determined for the proposed alterations and additions to the existing dwelling at 42 Beatty St, Balgowlah Heights. NSW 2093

FDI Appropriate to Development – Northern Beaches Council LGA 100

Direction/ Aspect	Distance to Vegetation	Vegetation Formation	Slope in degrees	Construction Requirements AS3959-2018
North	31 metres	Forest	Cross Slope/Flat	BAL-29
South	>100 metres	N/A	N/A	BAL-LOW
East	>100 metres	N/A	N/A	BAL-LOW
West	>100 metres	N/A	N/A	BAL-LOW

Table 5 - Summary of Building Compliance Requirements AS3959-2018.

The site has been found to be in the BAL-29 range and will have to comply with requirements for BAL Construction -Sections 3, 6 & 7 of AS3959-2018 "*Construction of buildings in Bush Fire Prone Areas*".

It must be highlighted that the BAL Rating for the Eastern and Western facades will be also rated as BAL-29 due to these facades possibly being exposed to Radiant Heat and Ember Attack from a potential bushfire in the Forest Classified Vegetation in the Northern aspect.

The final BAL Ratings for the proposal is BAL-29 in the Northern aspect, BAL-19 in the Southern aspect, BAL-29 in the Eastern aspect and BAL-29 in the Western aspect.

PBP allows where more than one facade is exposed to a hazard, then the facade with the highest requirement is used to determine the appropriate level of construction. Other facades may be reduced by one level of construction unless that facade is also subject to the same level of bush fire attack. Should the highest level be BAL-12.5 then the entire site shall be deemed as BAL - 12.5

6.12 Compliance with PBP 2019

The proposed dwelling must also comply with the Performance Criteria and Acceptable Solutions of Table 7.4a of PBP 2019 for Infill Development. This assessment is provided below in detail.

Performance Criteria	Acceptable Solutions	Compliance
Asset Protection Zones APZs are provided commensurate with the construction of the building; and A defendable space is provided.	An APZ is provided in accordance with Table A1.12.2 or A1.12.3 in Appendix 1.	Complies – The APZs in the Northern, Southern, Eastern and Western aspects meet the required distances in Table A1.12.2.
APZs are managed and maintained to prevent the spread of a fire to the building.	APZs are managed in accordance with the requirements of Appendix 4 of PBP.	Complies – The APZ will be managed/maintained as an IPA within the subject Lot, and OPA in neighbouring developed Lots to the North, South and West which meets the intent of Section 3.2 Asset Protection Zones of PBP 2019. The IPA APZ will be managed in accordance with Appendix 4 of PBP.
The APZ is provided in perpetuity and the APZ maintenance is practical, soil stability is not compromised and the potential for crown fires is minimised	APZs are wholly within the boundaries of the development site, and are located on lands with a slope less than 18 degrees.	Complies – the APZs are on Developed Maintained Lands. The APZ is on a slope <18 degrees Downslope and the APZ is made up of maintained within the subject Lot and maintained land on neighbouring Lots which meets the intent of Section 3.2 Asset Protection Zones of PBP 2019
In relation to access/egress: Firefighting vehicles are provided with safe, all-weather access to structures and hazard vegetation.	Property access roads are two-wheel drive, all-weather roads.	Complies - The subject Lot has direct access to Beatty St which allows occupants an egress route to safety. Beatty is a surfaced all-weather road and is suitable for fire appliances.

The capacity of access roads is adequate for firefighting vehicles	The capacity of road surfaces and any bridges/causeways is sufficient to carry fully loaded firefighting vehicles (up to 23 tonnes), bridges and causeways are to clearly indicate load rating.	Complies - The capacity of Beatty St and surrounding roads is enough to carry fully loaded firefighting vehicles (up to 23 tonnes).
There is appropriate access to water supply	Hydrants are provided in accordance with the relevant clauses of AS 2419.1:2005.	Complies - Fire hydrants are provided in accordance with the relevant clauses of AS 2419.1:2005. There are fire hydrants are located along Beatty St.
Firefighting vehicles can access the dwelling and exit the property safely	There are no specific access requirements in an urban area where an unobstructed path (no greater than 70m) is provided between the most distant external part of the proposed dwelling and the nearest part of the public access road (where the road speed limit is not greater than 70kph) that supports the operational use of emergency firefighting vehicles	Complies – There is less than 70m from the existing dwelling and alterations and additions to Beatty St.
In relation to Water Supplies An adequate water supply is provided for firefighting purposes.	Reticulated water is to be provided to the development, where available; and a static water supply is provided where no reticulated water is available.	Complies - The site is connected to reticulated mains pressure water supply. The nearest reticulated mains pressure fire hydrant is located adjacent to No. 46 Beatty St at the end of the cul-de-sac.

Water supplies are located at regular intervals; and the water supply is accessible and reliable for firefighting operations.	Fire hydrant spacing, design and sizing comply with the relevant clauses of AS 2419.1:2005; hydrants are not located within any road carriageway; and reticulated water supply to urban subdivisions uses a ring main system for areas with perimeter roads.	Complies with AS2419.1 2005 and the fire hydrants are located on nature strips and off the road.
Flows and pressure are appropriate.	Fire hydrant flows and pressures comply with the relevant clauses of AS 2419.1:2005.	Complies with AS2419.1 2005
The integrity of the water supply is maintained.	All above-ground water service pipes external to the building are metal, including and up to any taps.	Complies - All above-ground service pipes to the existing dwelling, including taps, are metal. All above-ground services pipes to the alterations and additions will be metal.
In relation to Electricity Supply: The Location of electricity services limits the possibility of ignition of surrounding bushland or the fabric of buildings.	Where practicable, electrical transmission lines are underground; and where overhead, electrical transmission lines are proposed as follows: lines are installed with short pole spacing (30m), unless crossing gullies, gorges or riparian areas; and no part of a tree is closer to a power line than the distance set out in accordance with the specifications in ISSC3 Guideline for Managing Vegetation Near Power Lines	Complies – The proposed alterations and additions to the existing dwelling is provided with electricity via existing above ground supply which is clear of trees and branches

In relation to Gas Supply: The location and design of gas services will not lead to ignition of surrounding bushland or the fabric of buildings	Reticulated or bottled gas is installed and maintained in accordance with AS/NZS 1596:2014 and the requirements of relevant authorities, and metal piping is used; all fixed gas cylinders are kept clear of all flammable materials to a distance of 10m and shielded on the hazard side; Connections to and from gas cylinders are metal. Polymer-sheathed flexible gas supply lines are not used; and above-ground gas service pipes are metal, including and up to any outlets	Complies – Any reticulated gas supply and any gas cylinders used shall comply with AS/NZS 1596:2014.
In relation to Construction Standards: The proposed building can withstand bush fire attack in the form of embers, radiant heat and flame contact. Proposed fences and gates are designed to minimise the spread of bush fire. Proposed Class 10a buildings are designed to minimise the spread of bush fire.	BAL is determined in accordance with Tables A1.12.5 to A1.12.7; and construction provided in accordance with the NCC and as modified by section 7.5 (please see advice on construction in the flame zone). Fences and gates are constructed in accordance with section 7.6. Class 10a buildings are constructed in accordance with section 8.3.2	Complies - The proposed construction of alterations and additions to the existing dwelling on the subject Lot has been found to be in the BAL-29 as per Table A1.12.5 of PBP and will comply with the construction standards Sections 3, 6 & 7 of AS3959-2018 “Construction of buildings in bushfire prone areas”. N/A N/A

In relation to Landscaping: Landscaping is designed and managed to minimise flame contact and radiant heat to buildings, and the potential for wind-driven embers to cause ignitions	Compliance with the NSW RFS 'Asset protection zone standards' (see Appendix 4); a clear area of low-cut lawn or pavement is maintained adjacent to the house; fencing is constructed in accordance with section 7.6; and trees and shrubs are located so that: the branches will not overhang the roof; the tree canopy is not continuous; and any proposed windbreak is located on the elevation from which fires are likely to approach	Complies – The APZ will be managed as an Inner Protection Area within the boundaries of the subject Lot. Developed land on neighbouring Lots to the North, South and West meet the standards outlined in Appendix 4 of PBP 2019 in relation to APZ Standards and meet the intent of Section 3.2 Asset Protection Zones of PBP 2019 The proposed alterations and additions to the existing dwelling footprint is in a clear area with no trees or shrubs around the perimeter
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Table 6 – Performance Criteria and Acceptable Solutions of PBP 2019

Furthermore, the proposal must also meet the requirements of Section 7.5 Additional construction requirements of PBP 2019. To ensure the performance criteria for construction standards given in section 7.4 can be met, PBP adopts additional measures over and above AS 3959 and NASH Standard as follows:

Clause 3.10 of AS 3959 is deleted and any sarking used for BAL-12.5, BAL-19, BAL-29 or BAL-40 shall: be non-combustible; or comply with AS/NZS 4200.1, be installed on the outside of the frame and have a flammability index of not more than 5 as determined by AS 1530.2.

Clause 5.2 and 6.2 of AS 3959 is replaced by clause 7.2 of AS 3959 for Sub-floor Supports, except that any wall enclosing the subfloor space need only comply with the wall requirements for the respective BAL.

Clause 5.7 and 6.7 of AS 3959 is replaced by clause 7.7 of AS 3959 for Verandas – Decks – Steps - Landings, except that any wall enclosing the subfloor space need only comply with the wall requirements for the respective BAL

7 Recommendations

The proposed construction of alterations and additions to the existing dwelling on the subject Lot has been assessed as BAL-29 and must be constructed to meet the requirements of Sections 3, 6 & 7 of AS3959 2018.

Therefore, the construction of alterations and additions to the existing dwelling shall comply with Section 3 Construction General, Section 6 BAL-19 Construction Standards and Section – 7 BAL-29 Construction Standards.

The existing APZ surrounding the proposed alterations and additions is deemed an Inner Protection Area within the subject Lot and as such any landscaping gardens and the like should comply with Appendix 4 PBP 2018.

The occupants develop a Bushfire Emergency Plan to be able to be prepared for a bushfire event in the vicinity.

It is recommended Northern Beaches Council and the NSW Rural Fire Service approve the proposed construction of alterations and additions to the existing dwelling on the subject Lot located at 42 Beatty St, Balgowlah Heights. NSW 2093 in respect to Bush Fire Requirements.

Measure	Environmental Impact	Comment
APZ	Minimal	APZ already in existence and no change planned
Construction	No Impact	Constructed on existing envelope
Water Supply	No Impact	Dedicated supply for firefighting
Utilities	No Impact	Existing supplies
Vehicle Access	No Impact	Direct access to road

Table 7 - Environmental Impact of any proposed bushfire measures

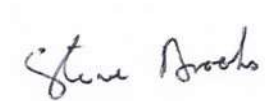
8. Conclusion

The proposed construction of alterations and additions to the existing dwelling on the subject Lot at 42 Beatty St, Balgowlah Heights. NSW 2093 can meet the planning requirements of *Planning for Bush Fire Protection* (NSW RFS 2019) and, are capable of meeting Australian Standard AS3959-2018 *Construction of buildings in bushfire prone areas* and the *Building Code of Australia* in relation to construction (ABCB 2019).

In accordance with the bushfire measures contained with this report and the site-specific assessment as per PBP and AS3959, it is our opinion that combined will provide a satisfactory level of bush fire safety to the property and satisfies the requirements of the RFS and Councils obligations for this area.

*The **Council** can determine the matter as complying with the specifications and requirements Planning for Bush Fire Protection* (NSW RFS 2019) and *Section 4.14 of the EP&A Act 1979*

Prepared by Steve Brooks



BPAD - Certification No. 40765

Graduate Diploma Bushfire Planning and Design (UWS)

Graduate Certificate in Fire Investigation (CSU)



FPA Australia Corporate Member

References.

- Australian Building Codes Board (ABCB), 2019, *Building Code of Australia*, Volume 2, Canberra.
- Keith David, 2004, *Ocean Shores to Desert Dunes: the native vegetation of NSW and the ACT*, Dept of Environment and Conservation, NSW Government.
- NSW Rural Fire Service, 2019, *Planning for Bush Fire Protection*. Sydney
- NSW Rural Fire Service, 2020, website – www.rfs.nsw.gov.au :
- Standards Australia, AS 3959-2018 *Construction in Bushfire Prone Areas* (amended 2001) SAI Global, Melbourne.
- NSW Government *E-Planning Spatial Viewer* 2020
- NSW Government *Six Maps* 2020

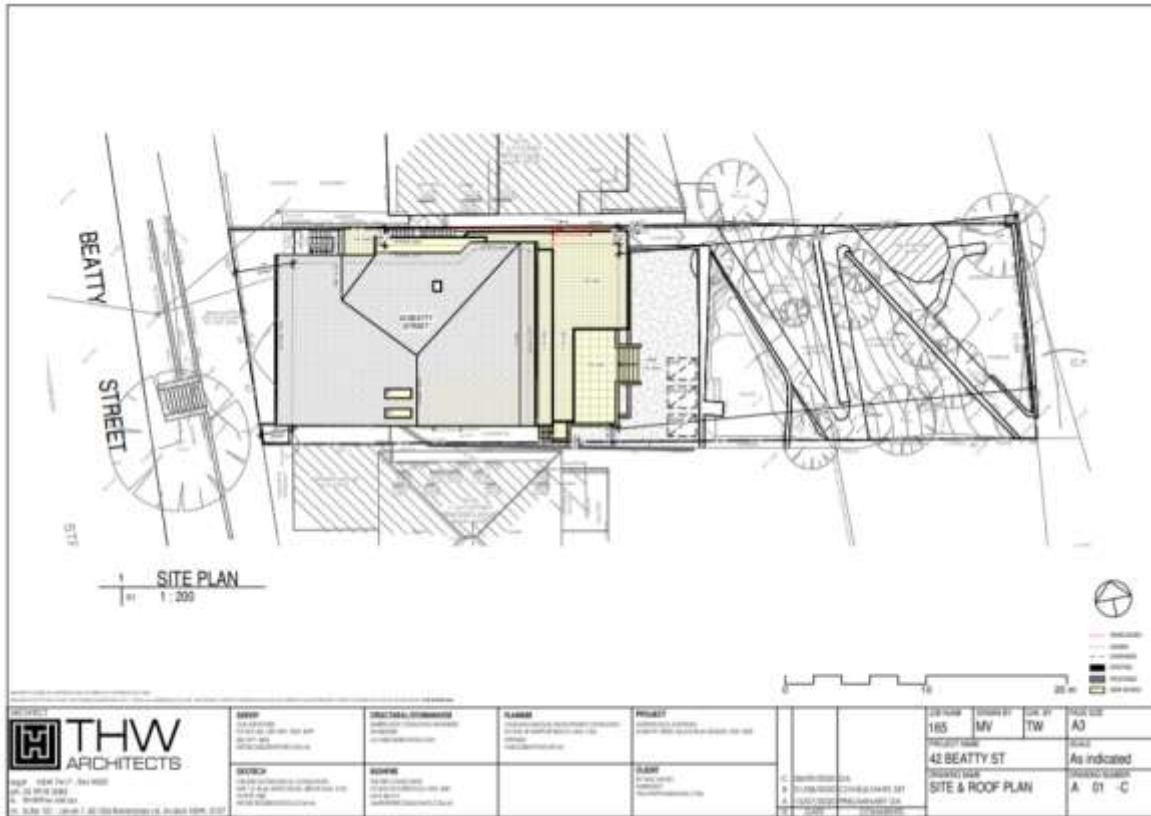
Disclaimer

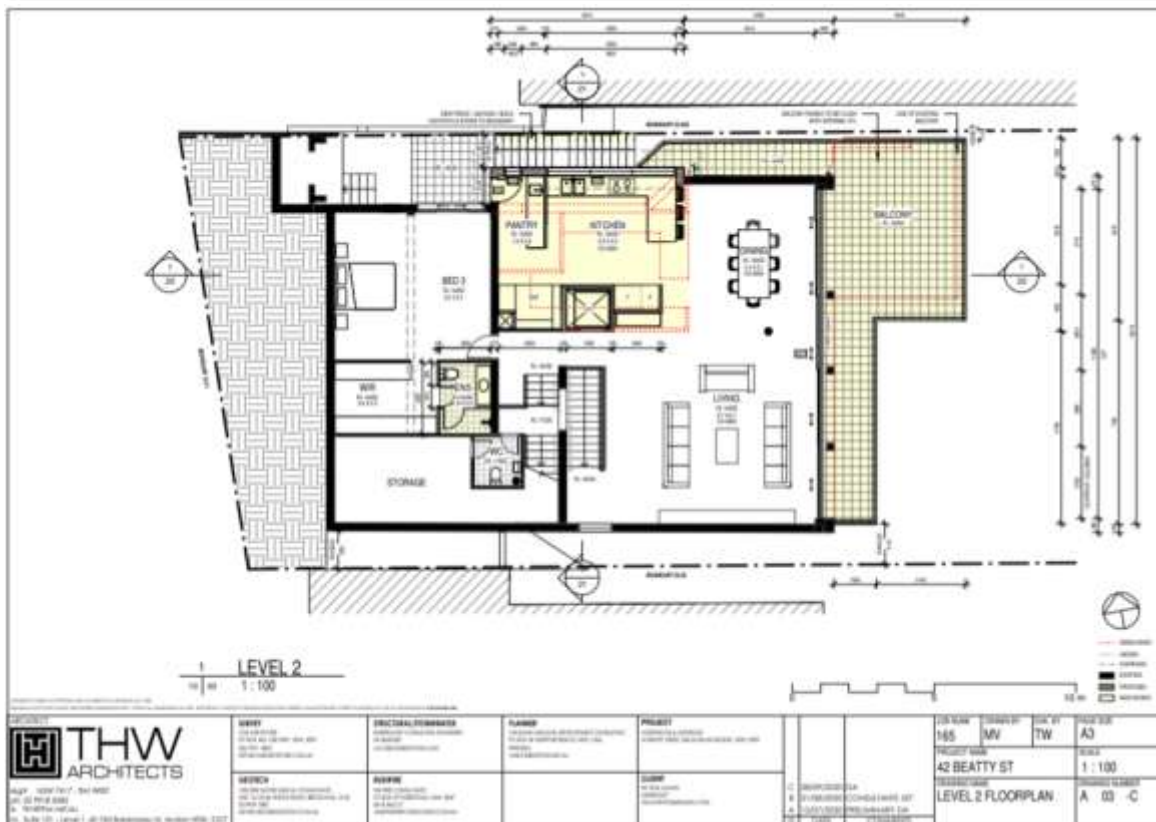
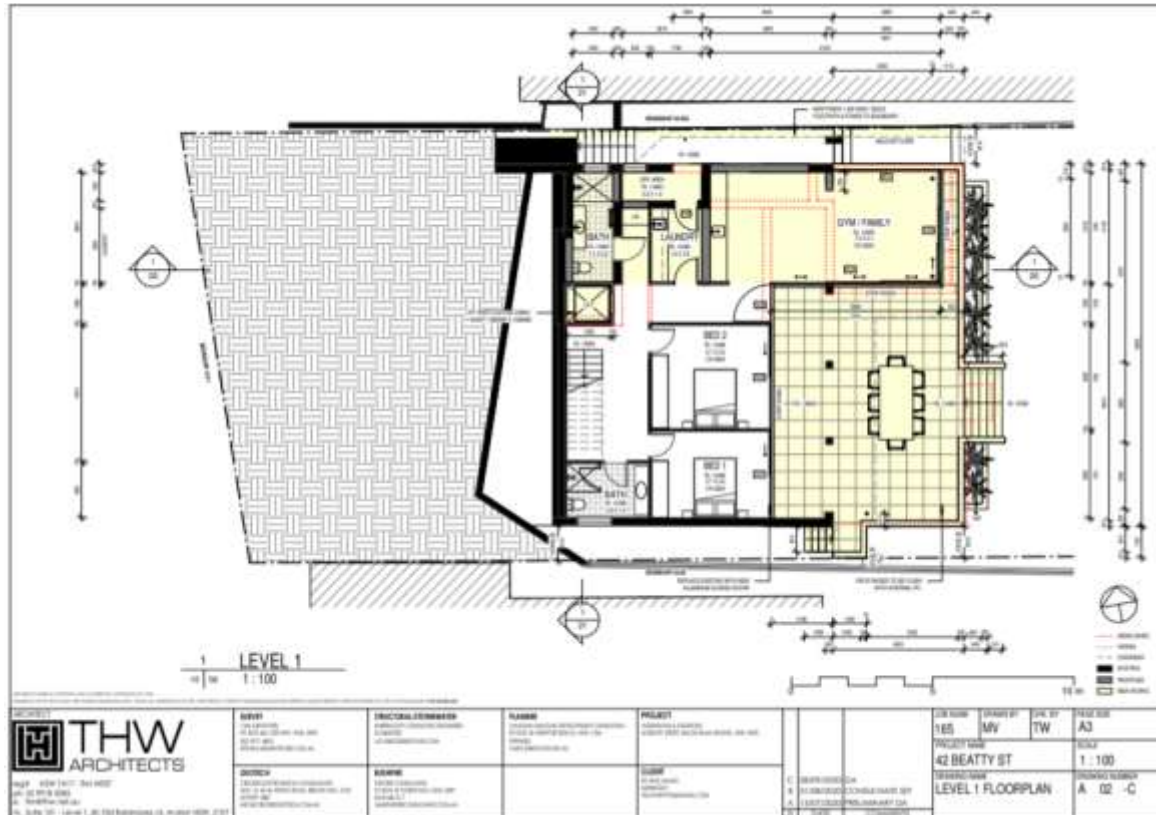
Disclaimer: Quote from Planning for Bushfire Protection, “notwithstanding the precautions adopted, it should always be remembered that bushfires burn under a wide range of conditions and an element of risk, no matter how small always remains”. Although the standard is designed to improve the performance of the building, there can be no guarantee, because of the variable nature of bushfires that any one building will withstand bushfire attack on every occasion.

The opinions and assessment in regard to bushfire development in a Bushfire Prone Area given by TFC are therefore given in good faith.

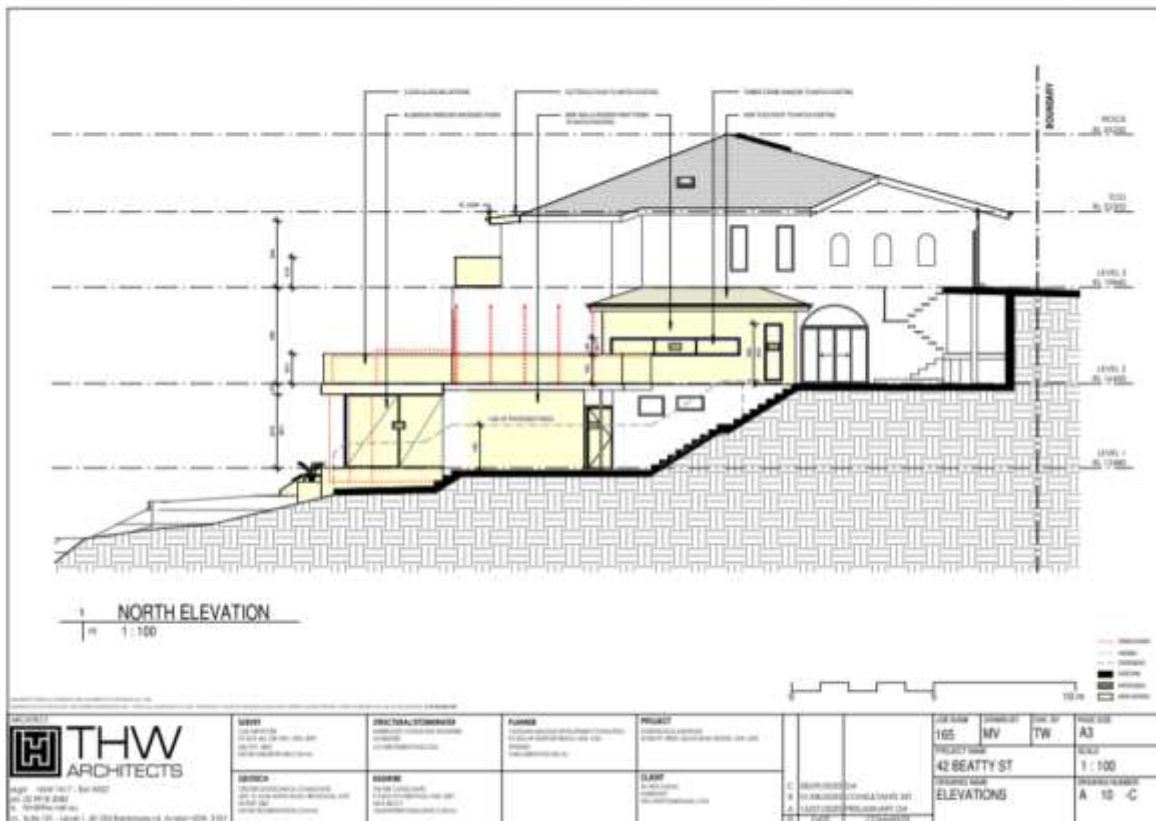
Appendix 1

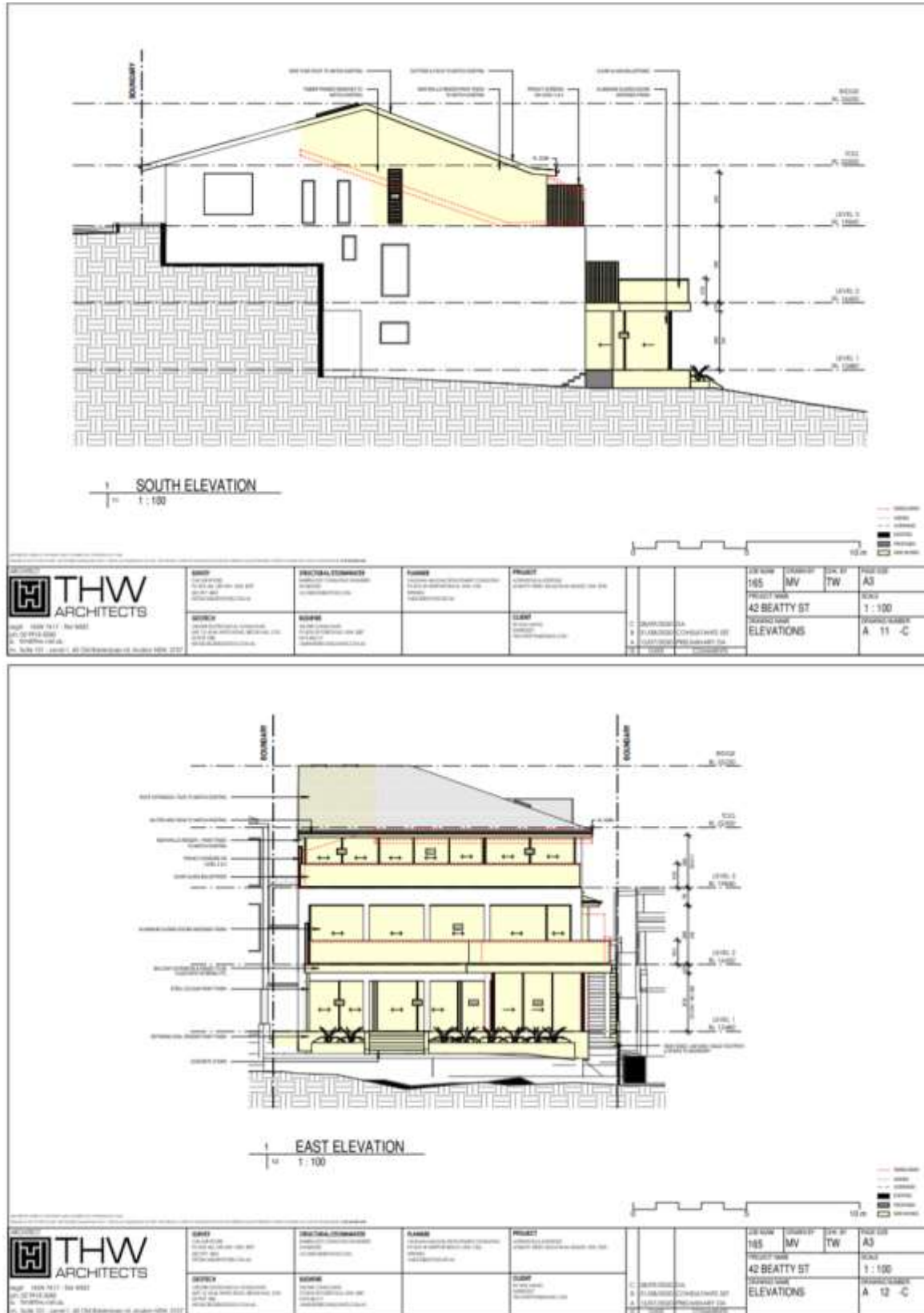
Plans provided by the applicant

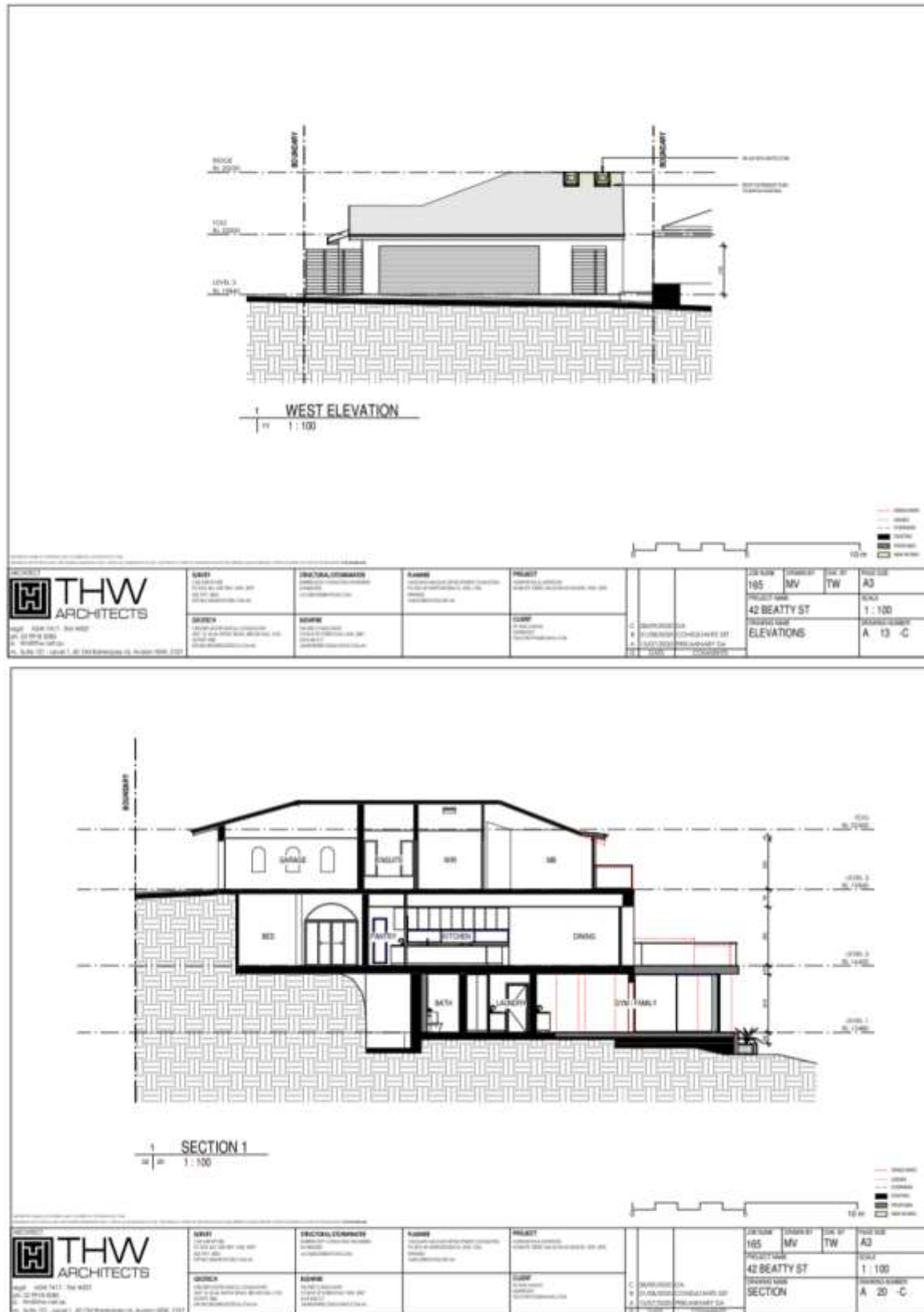


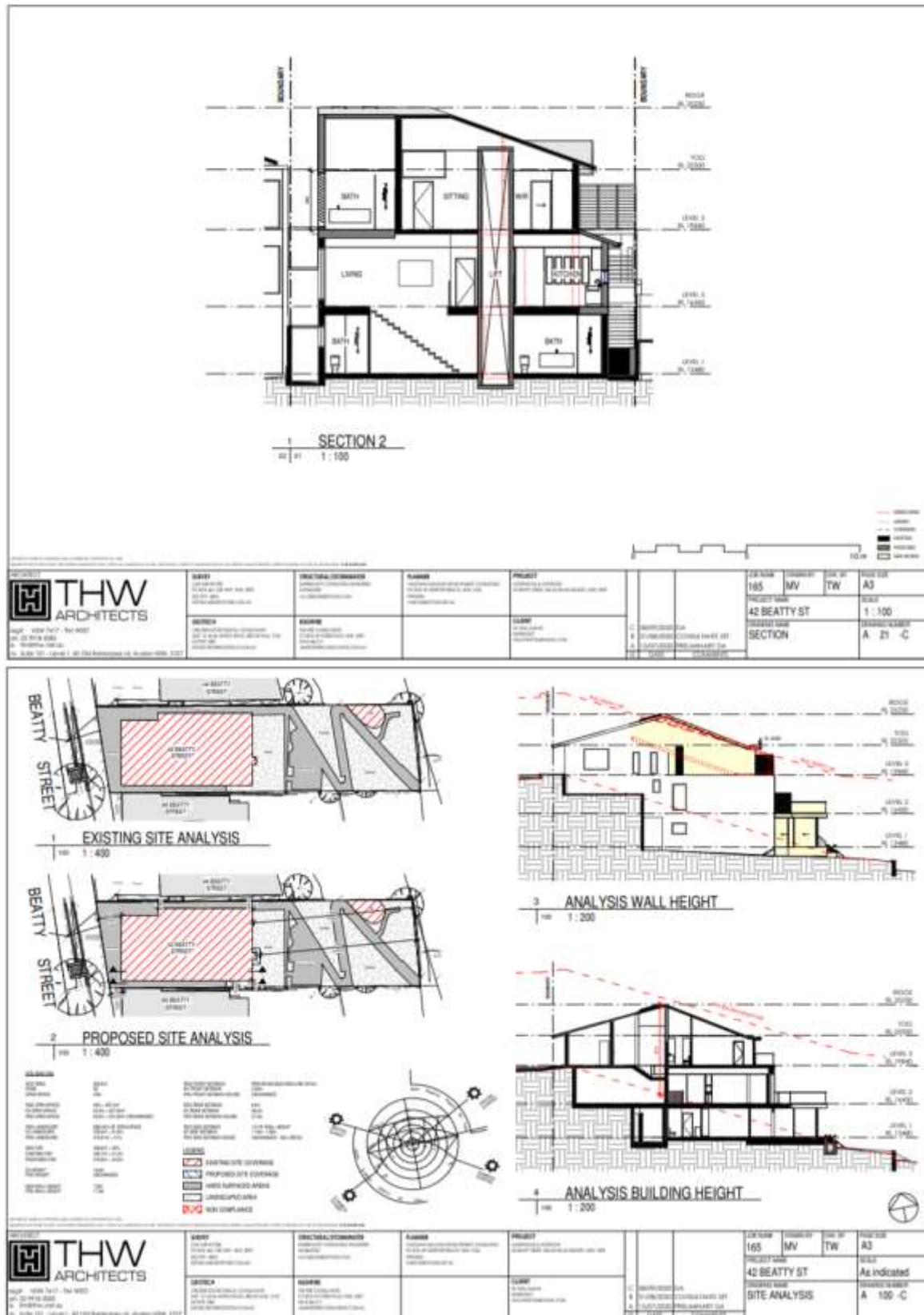


Bushfire Hazard Assessment 42 Beatty St, Balgowlah Heights. NSW 2093
30th September 2020









Appendix 2 -Site Photos



Photo 3 – Indicates Beatty St looking South (Steve Brooks 2020)



Photo 4 – Indicates the location of the nearest reticulated mains pressure fire hydrant adjacent to No.46 Beatty St at the end of the cul-de-sac (Steve Brooks 2020)



Photo 7 – Indicates the all-weather driveway, providing access to Beatty St, surfacing Nos 34-46 Beatty St to the West of the subject Lot (Steve Brooks 2020)



Bushfire Risk Assessment Certificate

This certificate has been completed by a recognised consultant in Bushfire Risk Assessment in Accordance with Section 4.14 of the Environmental Planning and Assessment Act 1979 No 203

<i>Property Address</i>	42 Beatty St, Balgowlah Heights. NSW 2093
<i>Description of Development</i>	Construct alterations and additions to the existing dwelling
<i>References</i>	Plans as provided by owner
<i>BAL Rating as per AS3959 Table 2.4.2</i>	BAL 29
<i>Does Proposal rely on Alternate Solutions</i>	No
<i>Is Referral to NSW RFS Required</i>	No
<i>Date</i>	07/09/2020

I, Steve Brooks of The Fire Consultants have carried out a bushfire risk assessment on the above property and its proposal for development. A detailed report is attached.

I certify that I am a person recognised by the NSW Rural Fire Service as a qualified consultant in bushfire risk management and that subject to any conditions contained in the attached bushfire risk assessment report the development conforms to the relevant specifications and requirements of Planning for Bush Fire Protection 2019 (NSWRFS) and any other document as prescribed by Section 4.14 of the Environmental Planning and Assessment Act 1979.

The Bushfire Assessment Report prepared for the above property will be relied upon by Council and may be submitted in support of the proposed Development Application for the property in ensuring that the bush fire requirements have been met in accordance with Planning for Bush Fire Protection 2019 (NSWRFS).

BPAD - Certification No. 40765
Graduate Diploma Bushfire Planning and Design (UWS)
Graduate Certificate in Fire Investigation (CSU)
Wattlegrove Services Pty Ltd T/as The Fire Consultants

