

20 September 2023

Chief Executive Officer
Douglas Shire Council
64-66 Front Street
MOSSMAN QLD 4873

Attn: Daniel Lamond (Assessing Officer)

Issued via email: enquiries@douglas.qld.gov.au;
daniel.lamond@douglas.qld.gov.au

RE: RESPONSE TO INFORMATION REQUEST A MATERIAL CHANGE OF USE (DWELLING HOUSE) OVER LAND AT 14 HIBISCUS COURT, ROCKY POINT, MORE FORMALLY DESCRIBED AS LOT 26 ON RP749732

COUNCIL REF: MCUC 2022_4956/I (Doc ID 1105534)

Aspire Town Planning and Project Services act on behalf of on behalf of Mr Stephen Marriott (the 'Applicant') in relation to the above described matter.

On behalf of the Applicant, please accept this correspondence as the Applicant's full response to the above referenced Request for Information pursuant to s13.2(a) of the Development Assessment Rules v1.3.

Since the issue of the Information Request on the 30 August 2022, the currency of the Development Application has been maintained through mutual agreement to extend the Information Response Period. As a result of the Information Request and other factors the proposed Dwelling House has been through a number of design iterations. The main notable change is a reduction in the size of the proposed cantilever deck. This now generally aligns with the existing top of bank. The revised plans are included under Attachment I.

Information Request Item 1: Bushfire Hazard

Provide a bushfire hazard assessment of the proposed house and demonstrate that the development is located and designed to ensure the house achieves a radiant heat flux level at any point on the building, of 29kW/m2.

The radiant heat flux level is achieved by separation to fuel. Note - The radiant heat levels and separation distances are to be established in accordance with method 2 set out in AS3959-2009. Clearing the hillslope is considered to not be an option for lowering radiant heat levels.

Applicant Response to Information Request Item 1

Prior to the current building redesign, the Applicant engaged Litoria Consulting Pty Ltd to undertake a Bushfire Attack Level Assessment in accordance with Method 2 of the Australian Standard 3959:2018 Construction of Buildings in a Bushfire-prone Area. A copy of the assessment, which is based on the original design included in the Development Application, is included for reference under Attachment 2, and concludes that the proposed Dwelling House is not located within a bushfire prone area and that planning and building mitigation measures are not required.

It is expected that the changes to the Dwelling House design would not alter the findings of this assessment.

Information Request Item 2: Slope Stability

The preliminary geotechnical investigation provided by GEO Group determined that the front portion of the house is a medium landslide hazard risk in accordance with the 2007 AGS guidelines. As discussed in the GEO Group report, this is not an acceptable level of risk that Council is willing to accept.

Provide a detailed and 'for construction' design for the slope stability which is RPEQ certified to make the proposal low to very low risk for landslide hazard in accordance with the 2007 AGS guidelines. Alternatively, move the house back from the edge of the hill to an area where the RPEQ Geotechnical Engineer can certify that the siting and design will be low to very low risk in accordance with the 2007 AGS guidelines.

Applicant Response to Information Request Item 2

It is acknowledged that the site and proposed development is assigned a medium risk under the GEO Design Geotechnical Investigation. However, under s4.7.1 states that following re-profiling, and the adoption of the drainage and erosion protection measures, that it is considered the batter would have a Low Risk in accordance with the AGS 2007 guidelines. The proposed extent of re-profiling is illustrated on the Revised Proposal Plans included under Attachment 1, i.e. 2m pullback of top of bank.

Information Request Item 3: Drainage Plan

Provide an PREQ certified drainage plan demonstrating that all concentrated stormwater flows can be lawfully discharged to Hibiscus Court in accordance with the Queensland Urban Drainage Manual. The certified drainage plan must include calculations for catchments and any pipes and drains.

Applicant Response to Information Request Item 3

Roof drainage and stormwater from the driveway and building pad area is designed to be directed to Hibiscus Court. It is noted that the Building Pad has between 250mm and 300mm towards Hibiscus Court.

The table drain along the western boundary has been removed as it is not proposed to alter the ground levels or concentrate drainage in this location.

If concerns remain, a condition of approval which requires an RPEQ Certified Drainage Plan to be provided to Council for endorsement prior to the issue of a Development Permit for Building Works would be acceptable.

Information Request Item 4: Water Supply

The site has substandard water pressure from Councils reticulated system. A tank and pressure pump system will need to be installed. Demonstrate where a water tanks of sufficient size can be accommodated on site.

Applicant Response to Information Request Item 4

The requirement for water storage and a pressure pump system are noted. With the amended design there are greater options for the accommodation of any necessary water storage and pumping infrastructure.

If concerns remain, a condition of approval requiring locational endorsement by Council prior to the issue of a Development Permit for Building Works would be acceptable.

Information Request Item 5: Visual Impact Assessment

Provide a Visual Impact Assessment in accordance with SC6.6 Planning scheme policy – Landscape values. The visual impact assessment should include a photo montage from vantage points on Captain Cook Highway to the South and West of the site.

Applicant Response to Information Request Item 5

A Visual Assessment has been carried out by Aspire Town Planning and Project Services. This is a basic photographic assessment from key vantage points and does not include photomontages. It was found that the site is not visible from closer vantage points and doesn't actually come into view until some distance away at which point the building features would be difficult to distinguish.

It is understood that the requirement for a Visual Assessment was likely driven by the proposed cantilevered building elements and with the amended design the building is now largely limited to the existing top of bank. It is proposed to pull back the existing top of bank by 2m in accordance with the GEO Design Report which will result in slight protrusion over the new top of bank.

Given the distance away at which point the site becomes visible, shifting the location of the Dwelling House further within the site would not change visual impact.

The proposed Dwelling House is appropriately designed as a single storey building, where a two storey building could be established. The building will be finished in a non-reflective natural colour scheme.

It is considered that the proposed Dwelling House is appropriate in terms of scale and location and will not draw visual attention. There are other more dominant focal points in the landscape.

Information Request Item 6: Fill and Retaining

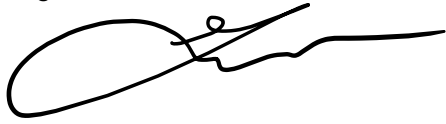
The Environmental Management Zone Code and the Filling and Excavation Development Code include acceptable outcomes which do not intend for filling and retaining in the order of 2000mm on common boundaries. Demonstrate compliance with the benchmarks of the code or provide an alternative solution. If a fence was constructed on top of the 2000mm retaining wall, a 4000mm high façade to the neighbouring allotments would not be appropriate for the Environmental Management Zone.

Applicant Response to Information Request Item 6

The proposed retaining wall along the western boundary has been removed from the current design. No changes are proposed to the ground levels in this area.

Thank you for your time in considering the attached Development Application. If you have any further queries, please contact the undersigned.

Regards,

A handwritten signature in black ink, consisting of a large, stylized loop followed by a series of horizontal strokes.

Daniel Favier

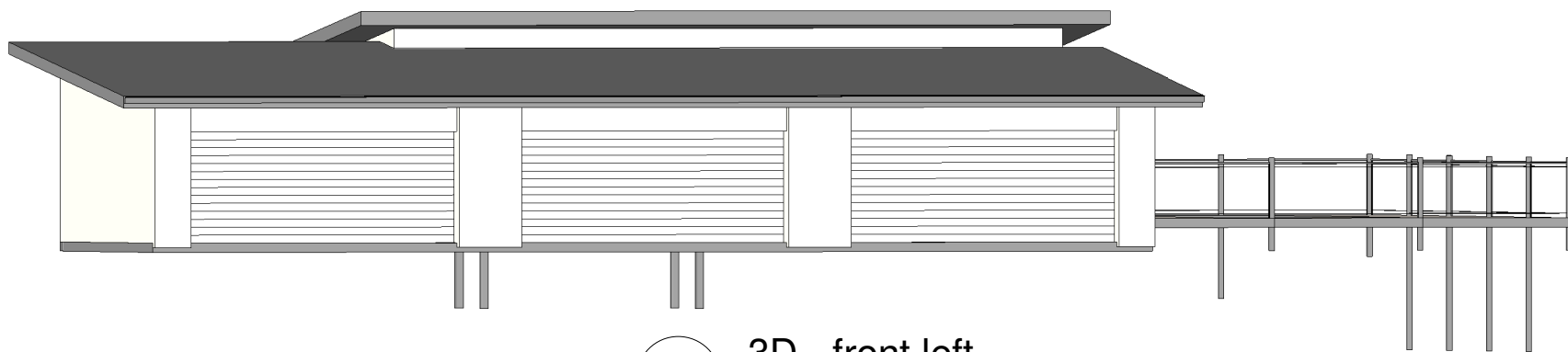
Senior Town Planner

ASPIRE Town Planning and Project Services

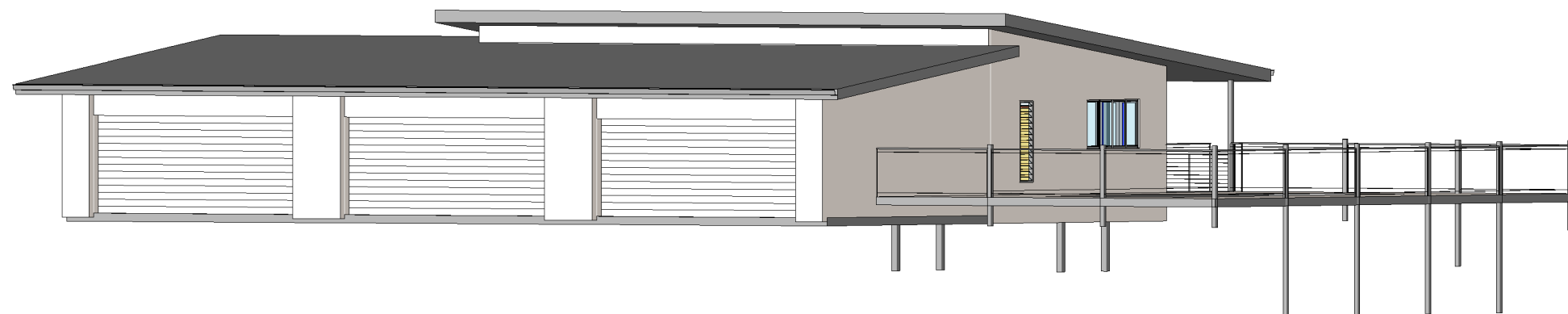
Attachment I:

Amended Proposal Plans

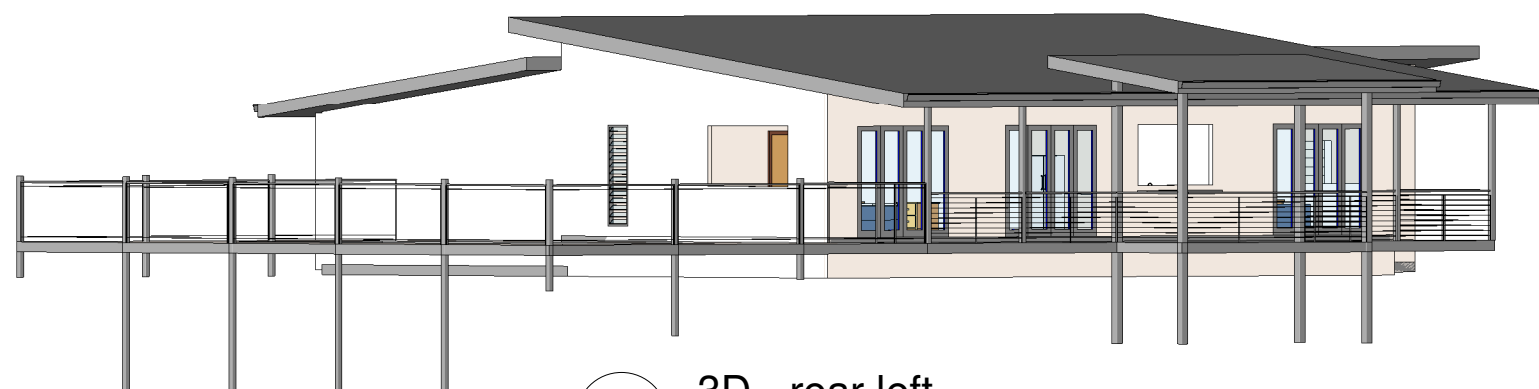
Prepared by Greg Skyring Design and Drafting



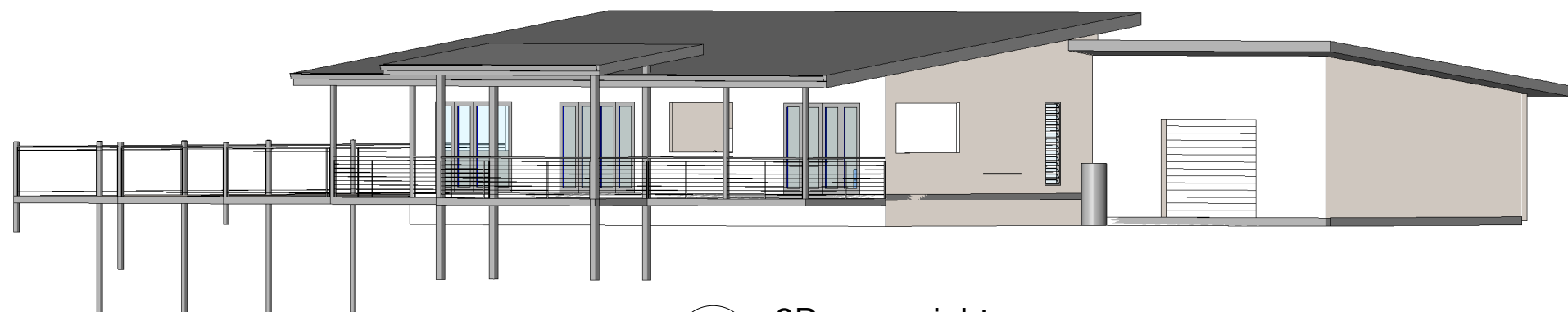
1 3D - front left



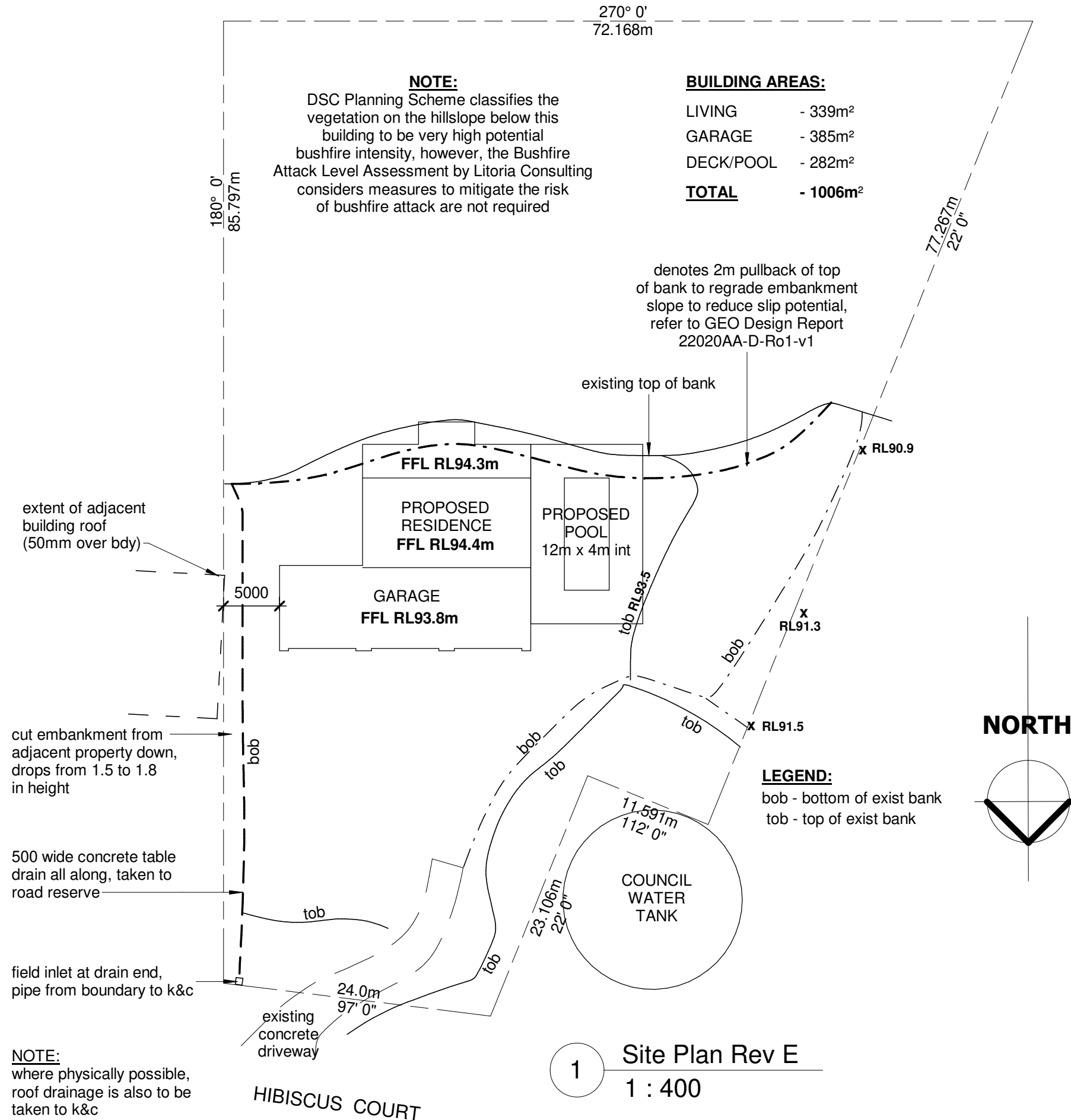
2 3D - front right



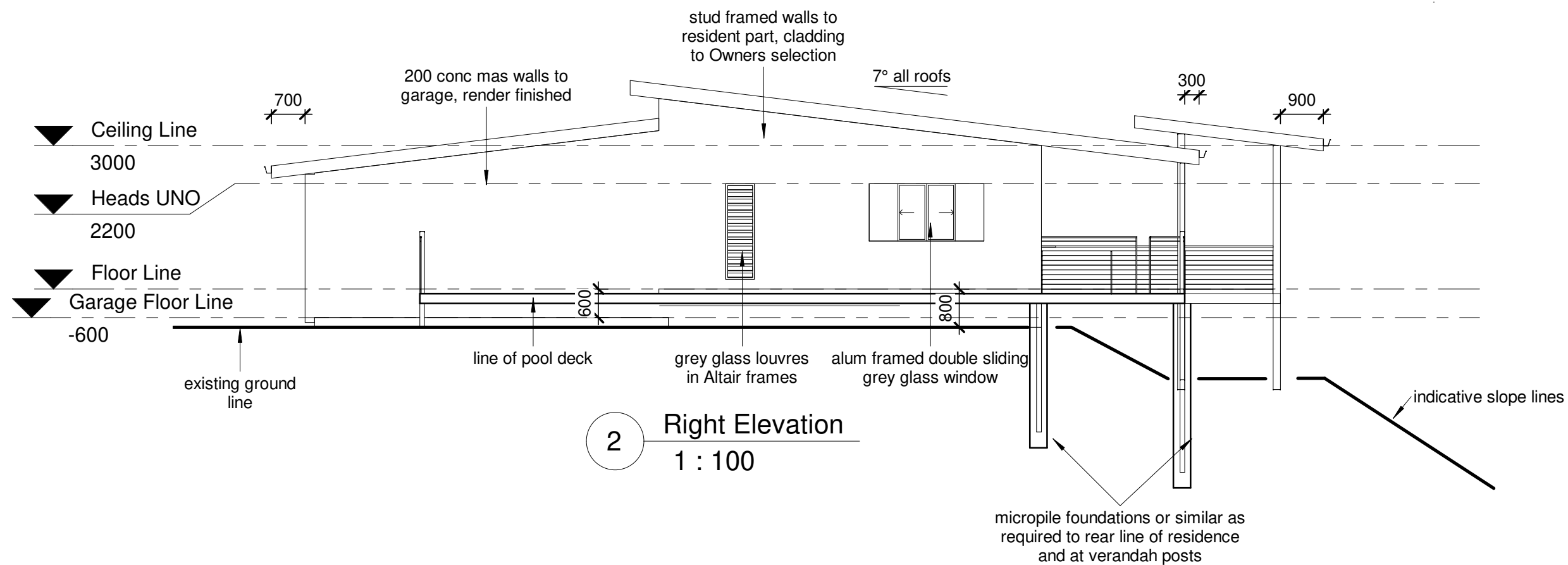
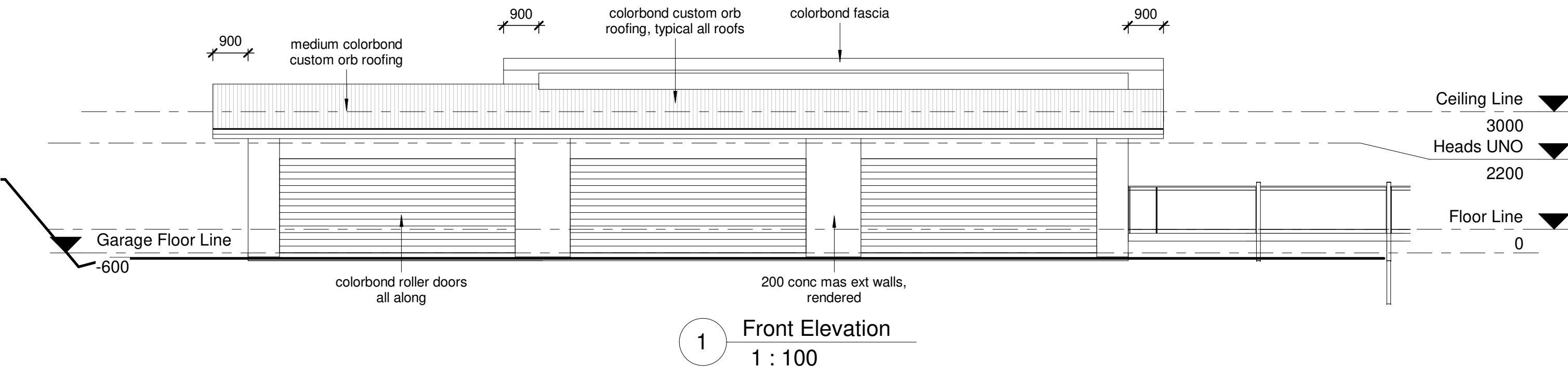
3 3D - rear left

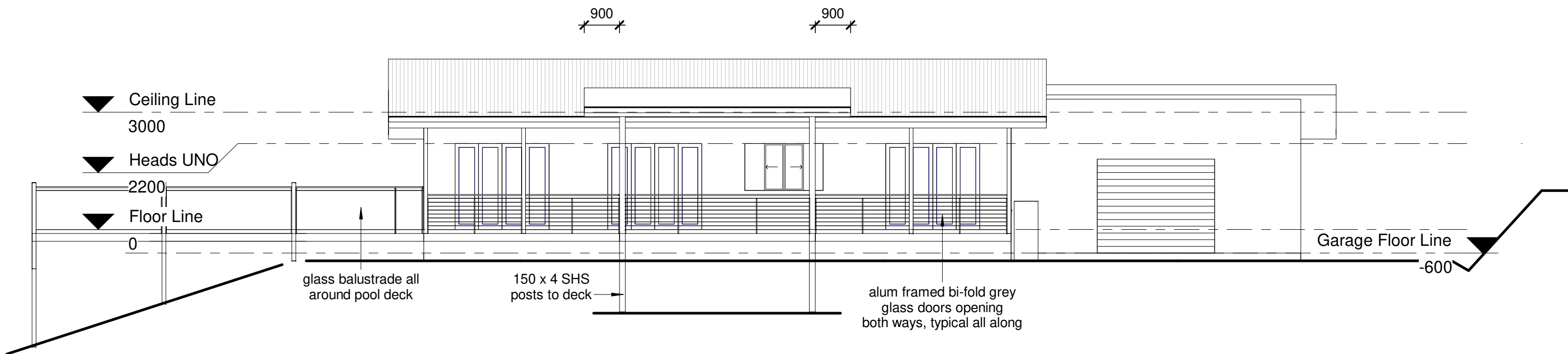


4 3D - rear right

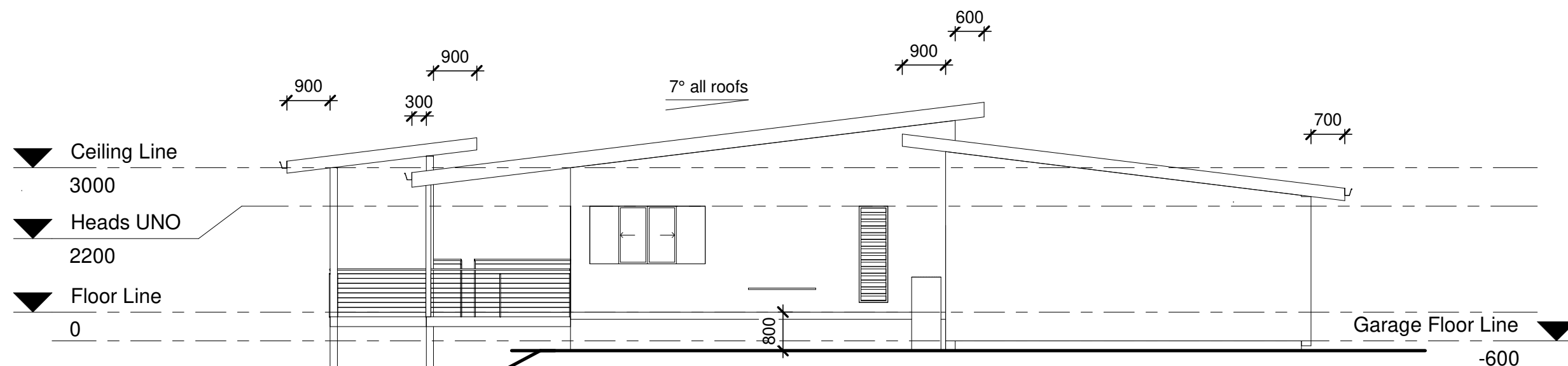


REV	DATE	DESCRIPTION
GREG SKYRING <i>Design</i> and DRAFTING Pty. Ltd. Lic Under QBSA Act 1991 - No 1040371 11 Noli Close, Mossman Q. 4873 Phone/Fax: (07) 40982061 Mobile: 0419212652 Email: greg@skyringdesign.com.au		
PROJECT Proposed Residence, L26 RP749732, 14 Hibiscus Court, ROCKY POINT		
PLAN TITLE Site Plan		
CLIENT S. Marriott		
SCALES 1 : 400	WIND CLASS C3	PLAN NO 211-21 REV. E
		SHEET NO 2 of 6





1 Rear Elevation
1 : 100



2 Left Elevation
1 : 100

Attachment 2:

Bushfire Attack Level Assessment

Prepared by Litoria Consulting

BUSHFIRE ATTACK LEVEL ASSESSMENT

14 Hibiscus Court, Rocky Point

7 March 2023



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DOCUMENT ISSUE & COPYRIGHT NOTICE

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Client:	Steve Marriott
Date:	7 March 2023
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This report may contain general information about building work made assessable under the Building Act 1975 (Qld), including Bushfire Attack Levels (BAL). Information relating to BAL contained in the report is for planning purposes only and does not constitute an assessment of BAL for the purposes of the National Construction Code or a building application under the Building Act 1975 (Qld). It should not be relied upon for building approval purposes.

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1 INTRODUCTION

The following Bushfire Attack Level (BAL) Assessment has been prepared by Litoria Consulting on behalf of Steve Marriott for land described as 14 Hibiscus Court, Rocky Point (Lot 26 on RP749732) (the subject land). Figure 1 shows an aerial photo of the site.

The BAL Assessment has been prepared in response to Council's information request (Council ref: MCUC 2022_4956/1, dated 30 August 2022), specifically the following:

Bushfire Hazard

1. *Provide a bushfire hazard assessment of the proposed house and demonstrate that the development is located and designed to ensure the house achieves a radiant heat flux level at any point on the building, of 29kW/m².*

The radiant heat flux level is achieved by separation to fuel. Note - The radiant heat levels and separation distances are to be established in accordance with method 2 set out in AS3959-2009. Clearing the hillslope is considered to not be an option for lowering radiant heat levels.

The BAL Assessment has been prepared in accordance with Method 2 of *Australian Standard 3959:2018 Construction of buildings in bushfire-prone areas*.

The BAL Assessment is divided into the following sections:

- i. Proposed development;
- ii. Regulatory requirements;
- iii. BAL assessment methods;
- iv. BAL assessment results; and,
- v. Summary.



FIGURE 1: RECTIFIED DIGITAL AERIAL PHOTOGRAPH OF THE SITE (SOURCE: STATE OF QUEENSLAND).

2 PROPOSED DEVELOPMENT

The subject land is located within the Douglas Shire Council local government area and is subject to the provisions of the Douglas Shire Planning Scheme (2018).

The proposed development seeks to establish a residential dwelling. Figure 2 shows the proposed development plan for the site.

A copy of the proposed plans is provided in Appendix 1.

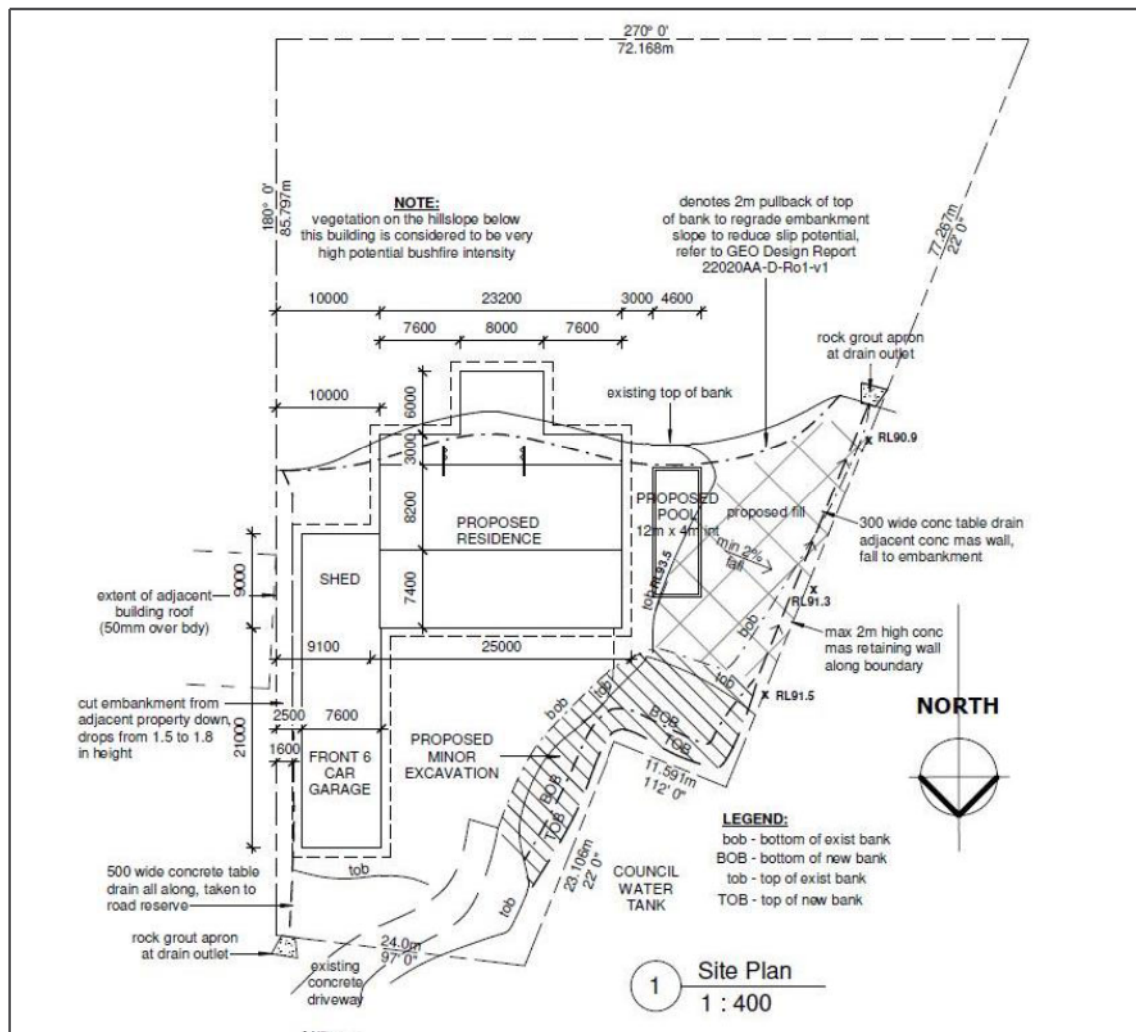


FIGURE 2: PROPOSED DEVELOPMENT (SOURCE: SITE PLAN, GREK SKYRING DESIGN AND DRAFTING, 211-21).

3 REGULATORY REQUIREMENTS

3.1 STATE PLANNING POLICY

Management of bushfire hazard in Queensland is considered an integral component of land use planning and development decisions given the potential significant impact on people, social wellbeing, property, the economy, the environment and infrastructure.

The SPP identifies the Queensland Government's policies about matters of state interest in land use planning and development (Department of Infrastructure Local Government and Planning 2017). The SPP is a broad and comprehensive statutory planning instrument which sits above regional plans, standard planning scheme provisions and local government planning schemes within the hierarchy of planning instruments outlined in the *Planning Act 2016* (Qld).

The SPP identifies the State interest in relation to bushfire hazard planning and management outcomes for development in bushfire prone areas. It sets out, *inter alia*, development assessment requirements for certain applications where a local planning scheme has not yet appropriately integrated the SPP and includes a State-wide map of bushfire prone areas. The State-wide map of bushfire prone areas (SPP map) is based on modelled potential fire line intensity according to the method described by Leonard *et al.* (2014). The SPP identifies land that could support a significant bushfire or be subject to significant bushfire attack. It includes areas of hazardous vegetation with a Very High, High or Medium Potential Bushfire Intensity, together with land within 100m of *bushfire prone areas* as a *potential impact buffer*. The potential impact buffer identifies land that may be subject to significant flame attack, radiant heat or ember attack. Research indicates that not only does a very high intensity bushfire have the potential to cause injury from radiant heat exposure up to 100m away, but over 80% of housing loss and human life loss occurs within 100m of bushland (Leonard *et al.* 2014). The subject land does not occur within a bushfire prone area or the potential impact buffer on the SPP map of bushfire prone areas (Refer to Figure 3).

The SPP is supported by:

- State Planning Policy - state interest guideline - Natural hazards, risk and resilience (SPP Guidance Material) (Department of State Development 2019) which contains the relevant assessment benchmarks, and
- Bushfire Resilient Communities (Queensland Fire and Emergency Services 2019) which includes Queensland-specific potential fuel loads for the purposes of assessing bushfire hazard and, if required, bushfire attack level (BAL) under the *Building Act 1975* (Qld).

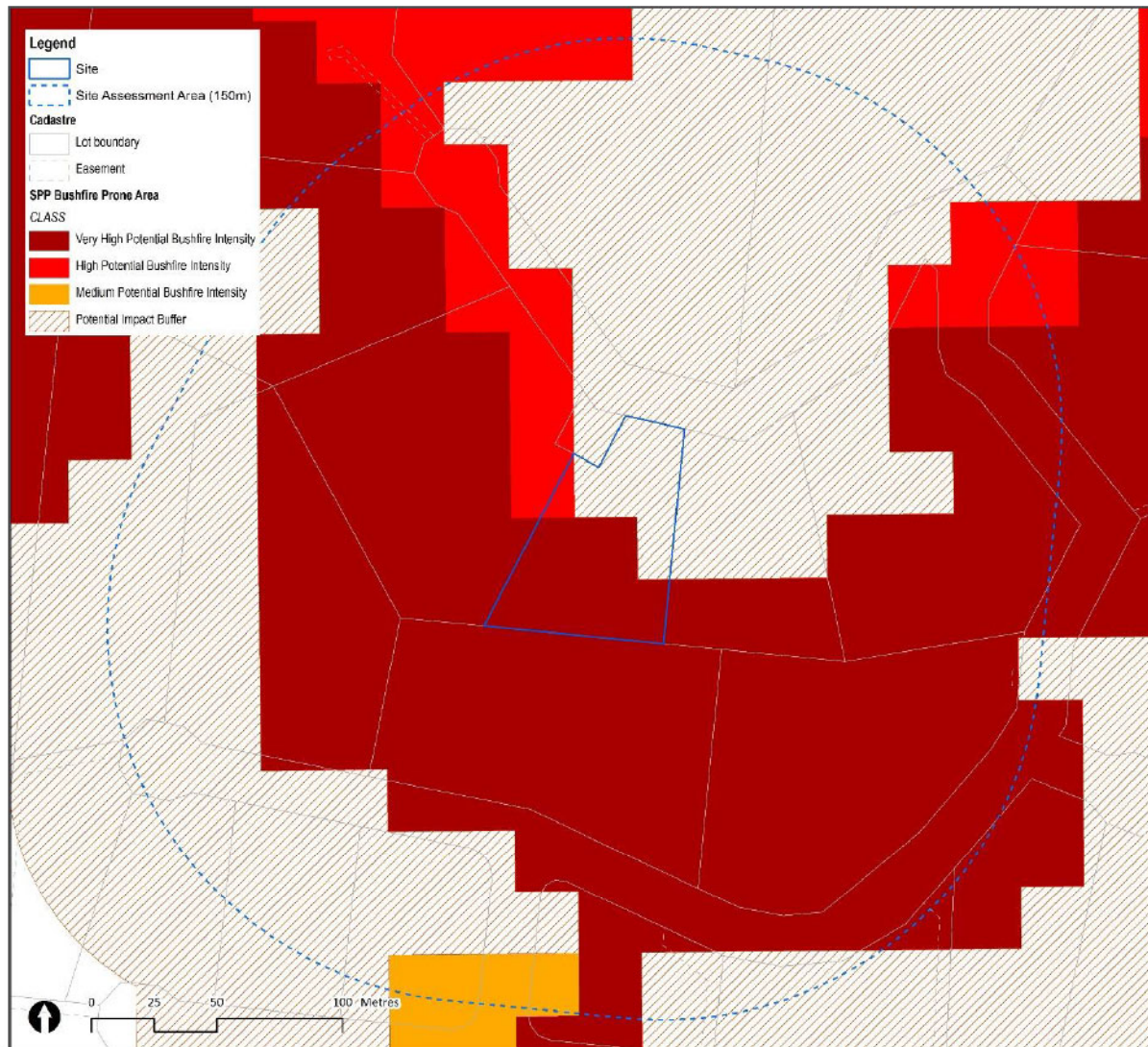


FIGURE 3: EXCERPT FROM STATE PLANNING POLICY (SPP) MAP OF BUSHFIRE PRONE AREAS (STATE DEVELOPMENT INFRASTRUCTURE LOCAL GOVERNMENT AND PLANNING 2020).

3.2 DOUGLAS SHIRE PLANNING SCHEME

The Douglas Shire Planning Scheme 2018 identifies areas subject to bushfire hazard on the Bushfire overlay. An extract from the Bushfire overlay map for the site is indicated in Figure 4.

Certain assessable development in areas subject to the Bushfire overlay requires assessment against the Bushfire overlay code (8.2.2). The purpose of the Bushfire overlay code is to, *inter alia*, provide for the assessment of the suitability of development in the Bushfire overlay. The purpose is achieved by ensuring that development does not expose people and property to an unacceptable risk of bushfire attack and, where applicable, provide treatments which reduce bushfire risk and provide for a safe environment for emergency services. Amongst other things, the Bushfire overlay code requires the preparation of a site-specific bushfire hazard assessment and management plan, prepared in accordance with the Planning Scheme Policy (PSP) – Natural Hazards (SC6.9.4.2). The PSP identifies the methodology for undertaking bushfire hazard assessment using the qualitative methodology prescribed in the superseded SPP 1/03: Mitigating the Adverse Impacts of Flood, Bushfire and Landslide.

The Bushfire overlay code prescribes the assessment benchmarks for development subject to the Bushfire overlay. The Bushfire overlay code is supported by the Planning Scheme Policy (PSP) – Natural Hazards which provides guidance on the preparation of a bushfire hazard assessment and/or management plan. The current PSP was developed after the State Planning Policy and incorporates State mapping and requirements into the code.

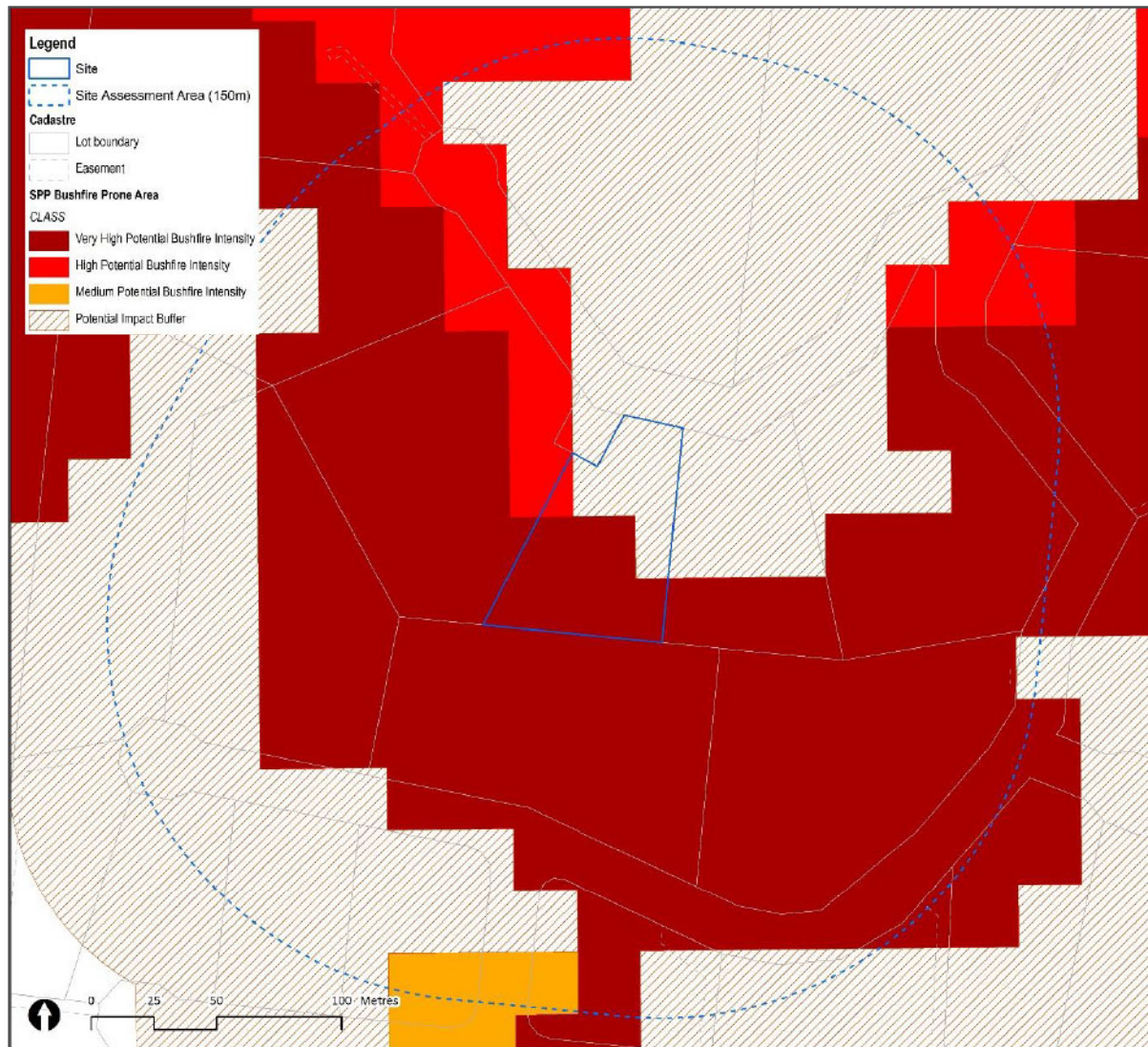


FIGURE 4: EXCERPT FROM DOUGLAS SHIRE COUNCIL PLANNING SCHEME 2018 BUSHFIRE HAZARD OVERLAY (DOUGLAS SHIRE COUNCIL, 2018).

3.3 BUILDING ACT

Certain new buildings within *designated bushfire prone areas* require assessment against the National Construction Code (NCC) pursuant to section 12 of the *Building Regulation 2006* (Qld). In the Douglas Shire local government area, *designated bushfire prone areas* are areas mapped as medium, high or very high bushfire risk areas on the Douglas Shire Planning Scheme 2018 Bushfire Hazard overlay, together with potential impact buffers around hazard areas.

The NCC performance requirements relating to construction of buildings in bushfire prone areas apply to Class 1, 2, 3 and 10a buildings and structures. The performance requirements are deemed to have been met where the building complies with either *AS 3959:2018 Construction of buildings in bushfire prone areas* (AS 3959:2018) or the *NASH Standard - Steel Framed Construction in Bushfire Areas*¹ (NASH Standard) (National Association of Steel Framed Housing 2014). Both AS 3959:2018 and the NASH Standard contain provisions which can be used for construction to resist bushfires in order to reduce the risk of bushfire attack. These provisions include requirements for burning debris and ember protection, controls on the combustibility of exterior materials, and the protection of openings, such as windows and doors. The NCC requirements do not apply to non-residential buildings (Class 4-9) such as offices, shops, hospitals and schools.

Both AS 3959:2018 and the NASH Standard are concerned with improving the ability of buildings in designated bushfire-prone areas to better withstand attack from bushfire, thus giving a measure of protection to the building occupants (until the fire front passes) as well as to the building itself. Table 1 outlines current Bushfire Attack Levels, radiant heat flux thresholds and relevant sections of AS 3959:2018 which specifies building design and construction features. Figure 5 illustrates the relationship between BAL, radiant heat and bushfire attack mechanisms.

¹ Applies to steel-framed construction only.

TABLE 1: BALS AND REPRESENTATIVE HEAT FLUX THRESHOLDS, LEVELS OF EXPOSURE AND RELEVANT SECTIONS OF AS 3959:2018 OUTLINING RELEVANT CONSTRUCTION REQUIREMENTS (STANDARDS AUSTRALIA 2018).

Bushfire Attack Level (BAL)	Heat flux exposure thresholds	Relevant sections of AS 3959:2018
BAL 12.5	< 12.5kW/ m2	3 and 5
BAL 19	>12.5 kW/m2 to 19 kW/m2	3 and 6
BAL 29	>19 kW/m2 to 29 kW/m2	3 and 7
BAL 40	>29 kW/m2 to 40 kW/m2	3 and 8
BAL FZ	>40 kW/m2	3 and 9

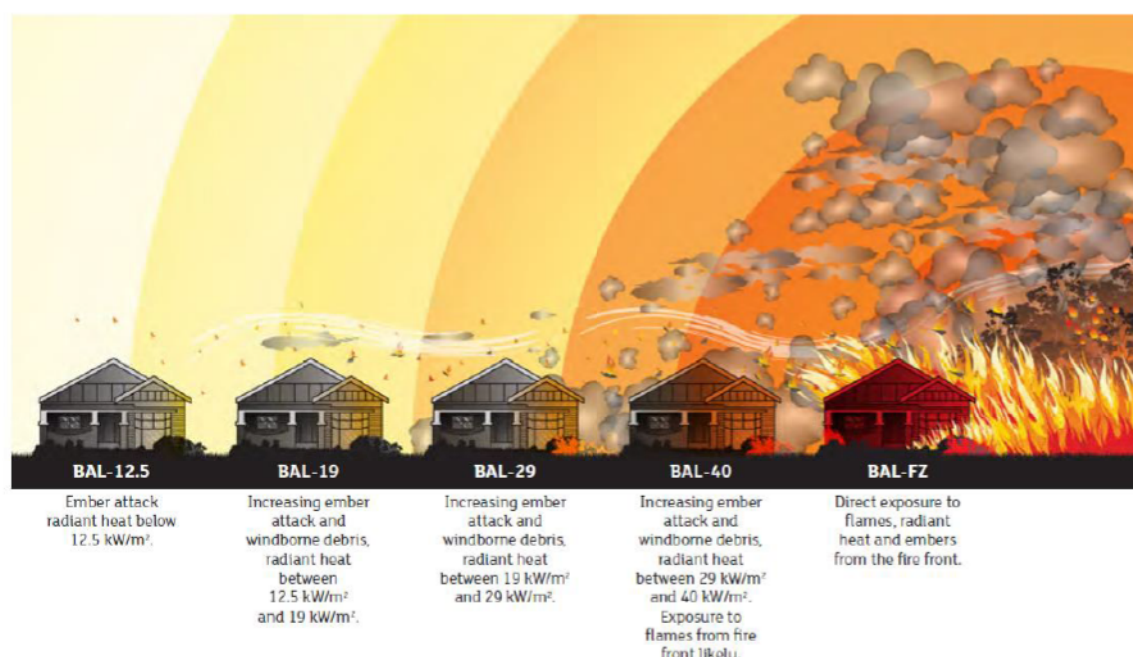


FIGURE 5: BAL/RADIANT HEAT LEVEL AND BUSHFIRE ATTACK MECHANISMS (SOURCE: COUNTRY FIRE AUTHORITY 2012).

The subject land is located within the *Very High Potential Bushfire Intensity* area, the *High Potential Bushfire Intensity* area and the *Potential Impact Buffer* area on the Douglas Shire Council Planning Scheme Mapping 2018 Bushfire Hazard overlay (Figure 4) and includes a Class 1 structure (Appendix 1). As such, assessment of BAL is required in accordance with AS 3959:2018.

4 BAL ASSESSMENT

4.1 METHODS

An assessment of BAL was undertaken by a tertiary-qualified environmental scientist and experienced bushfire science practitioner. The assessment included the subject land and all land within 150m of the subject land. The assessment was carried out in accordance with procedures described in Method 2 of AS 3959:2018 (Standards Australia 2018), including:

- **Step 1:** Fire weather severity (FFDI) in accordance with Bushfire Resilient Communities (Queensland Fire and Emergency Services 2019).
- **Step 2:** Classification of vegetation according to Clause 2.2.3 of AS 3959:2018 (Standards Australia 2018) according to potential fuel load based on site-based assessment of vegetation hazard classes (VHCs) according to Bushfire Resilient Communities (Queensland Fire and Emergency Services 2019).
- **Steps 3 and 4:** Site and effective slope values used in the assessment derived from contour mapping.
- **Step 5:** Assessment of separation distance(s) between the closest edge of the proposed building extension and adjacent hazardous vegetation in accordance with Clause 2.2.4 and Method 2 of AS 3959:2018. Distance was measured in plan using GIS to ensure a high level of precision.
- Method 2 parameterisation in accordance with Bushfire Resilient Communities (Queensland Fire and Emergency Services 2019)² including:
 - Ambient temperature (T_a): 308 K (35 degrees C)
 - Heat of combustion: 18,600 kJ/kg
 - Flame temperature (T): 1200K
 - Flame emissivity (ϵ): 0.95
 - Flame width (W_f): 100 m

Where proposed buildings were located within 100m of bushfire prone areas, radiant heat flux (kW/m^2), flame length (m), flame angle (degrees) and elevation of the receiver (m) was calculated according to the View Factor Method (**Steps 6-9**), utilising the input data described above. For each potential combination of attack vectors, the maximum view factor and radiant heat exposure was calculated i.e. the combination of fuel, FFDI and site and effective slopes which maximise radiant heat flux.

² The parameterisation adopted by Bushfire Resilient Communities is more conservative than AS 3959:2018.

4.2 RESULTS

4.2.1 STEP 1: FIRE WEATHER SEVERITY

Fire behaviour and intensity is influenced by a range of weather variables such as wind speed, relative humidity, temperature and atmospheric conditions, as well preceding drought conditions³.

These variables are summarised as an index value which can be used by proxy to estimate and predict fire behaviour: Fire Weather Severity (FWS). The McArthur Forest Fire Danger Index (FFDI) (McArthur 1967) is the most widely used proxy of fire weather severity in Australia and is used for both bushfire hazard assessment, emergency management and in regulations such as in AS 3959:2018 *Construction of buildings in bushfire-prone areas*. Unlike AS 3959:2018, which adopts a single FFDI for all of Queensland (40), fire weather conditions vary spatially according to temperature, wind, relative humidity and precipitation. Although FWS is equivalent to the Forest Fire Danger Index (FFDI) defined in AS 3959:2018; spatially explicit FWS values for Queensland have been calibrated by Leonard *et al.* (2014) based on a gridded prediction of the FFDI from long term spatial weather products produced by the Australian Bureau of Meteorology. Adopted FWS values reflect a 1:20 year or 5% annual exceedance probability (AEP) weather event.

Climate change projections suggest that the likelihood, intensity and extent of bushfires are likely to increase, together with longer, hotter and drier fire seasons (Bureau of Meteorology 2019). The gridded fire weather severity values for Queensland have been adjusted to reflect the expected climate in 2050 using the Intergovernmental Panel on Climate Change A1FI climate scenario⁴ (Queensland Fire and Emergency Services 2019).

The fire weather severity used for the purpose of calculating fireline intensity was based on 1 in 20 year weather conditions (i.e. 5% annual exceedance probability) to reflect the severity of fires and events suited to mitigation through land use planning in Queensland and was based on advice from the Queensland Fire and Emergency Services.

An FFDI of 47 was adopted based on the 5% AEP event as per Leonard *et al.* (2014).

4.2.2 STEP 2: VEGETATION HAZARD CLASS AND POTENTIAL FUEL LOAD

Fuel load was derived from an estimate of potential fuel load (tonnes/ha) for 25 grouped *vegetation hazard classes* (VHCs). VHCs have been categorised from a combination of regional ecosystem maps, pre-clearing regional ecosystem maps (where no remnant

³ Days since last rainfall.

⁴ The SRES A1FI scenario is most similar to the current RCP 8.5 scenario.

vegetation is mapped), foliage projection cover maps, land use maps, water body maps, air photo interpretation (API) and tree plantation maps (Leonard *et al.* 2014).

As per Leonard *et al.* (2014), the *Potential Fuel Load assigned to each Vegetation Hazard Class is generally representative of the higher fuel load expected for the typical vegetation types, landscape and site conditions within each Vegetation Hazard Class. This Potential Fuel Load of each Vegetation Hazard Class would approximate the 80th percentile fuel load of the “long unburnt condition” for the class (generally greater than 10 years without burning).* Modelled fuel loads for each of the amended VHCs were unchanged from the loads recommended by Bushfire Resilient Communities (Queensland Fire and Emergency Services 2019). Fuel loads for modelled VHCs were as per the Bushfire Resilient Communities (Queensland Fire and Emergency Services 2019); with hybrid or complex communities receiving the sum of the proportional fuel load of each constituent VHC (e.g. remnant vegetation containing a mix of regional ecosystems). Areas containing unmanaged regrowth or revegetation were mapped according to “*long unburnt condition*” for the class i.e. the potential fuel load of the vegetation type at maturity.

The results of the site-based assessment of vegetation hazard classes and classification of vegetation within 100m of the lot boundaries in accordance with Clause 2.2.3 of AS 3959:2018 indicated the following:

- Land within 100m of the proposed dwellings contained a mixture of vegetation hazard classes including:
 - Non-hazardous vegetation comprised of cultivated gardens and lawns and other non-remnant vegetation which showed evidence of disturbance e.g. exotic palms in cultivated gardens adjacent to established dwellings. The latter vegetation types are classified as low-threat vegetation in accordance with AS 3959:2018 Clause 2.2.3.2 Exclusions—Low threat vegetation and non-vegetated areas.
 - Remnant vegetation comprised of:
 - rainforest vegetation located within depressions and gullies equivalent to RE 7.11.1a.
 - mesophyll vine forest with eucalypt emergents equivalent to RE 7.11.5b.
- In terms of Vegetation Hazard Class and potential fuel loads:
 - RE 7.11.1a is classified as VHC 2.1 *Mesophyll vine forest on very wet and wet lowlands and foothills on metamorphics* and has a potential fuel load of 3.5 tonnes per hectare. VHC 2.1 is a non-bushfire prone vegetation hazard class i.e. does not contribute to bushfire hazard (Queensland Fire and Emergency Services 2019).
 - RE 7.11.5b is classified as VHC 9.1 *Moist to dry eucalypt open forests on coastal lowlands and ranges* and has a potential fuel load of 24.2 tonnes per hectare (Queensland Fire and Emergency Services 2019).

Figure 6 shows an extract from the current Vegetation Management Regional Ecosystem map for the subject land and areas within 150m of the subject land.

- Desktop and site-based investigations indicated that the observed distribution of Vegetation Hazard Classes (Figure 8) differed from the extents indicated by the

current State Government regional ecosystem mapping and the SPP VHC input map (c.f. Figure 6, Figure 7 and Figure 8). In particular:

- the extent of RE 7.11.1a / VHC 2.1 was greater than the extent indicated by the current State Government regional ecosystem mapping and the SPP VHC input map.
- the extent of RE 7.11.5b / VHC 9.1 was less than the extent indicated by the current State Government regional ecosystem mapping and the SPP VHC input map.
- to the west and south of the proposed dwelling, the vegetation is more of a hybrid of RE 7.11.1a (80%) and RE 7.11.5b (20%); whereas to the east and southeast of the proposed dwelling, the vegetation was predominantly RE 7.11.5b (80%), with elements of RE 7.11.1a (20%).
- The observed extents of RE 7.11.1a and RE 7.11.5b were classified as low-threat vegetation in accordance with AS 3959:2018 Clause 2.2.3.2 Exclusions—Low threat vegetation and non-vegetated areas. Although RE 7.11.5b / VHC 9.1 is classified as a bushfire prone vegetation type according Bushfire Resilient Communities (Queensland Fire and Emergency Services 2019), evidence indicated the vegetation community within 100m of the proposed dwellings was comprised of mesophyll vine forest as the ecologically dominant layer (EDL) with *Eucalyptus pellita* and *Corymbia intermedia* as emergents only. Site observations indicated that the areas of RE 7.11.5b were not likely to be bushfire prone as:
 - the vegetation community is predominantly comprised of mesophyll vine forest.
 - bark fuels were minimal and generally restricted to eucalypt emergents only.
 - near-surface vegetation was sparse and comprised predominantly of woody vines, ferns and palms which do not support running fires.
 - although the patch contained significant leaf litter there was no evidence of fine fuel accumulation or significant surface fuel i.e. characteristic sclerophyllous fine fuel was absent.
 - the combination of mesic elements is such that even if a fire was to establish within the patch, the ability of the fire to achieve a sufficient length and breadth such that it resulted in a significant fireline intensity is extremely low.

Consequently, it is improbable that the vegetation would support a running wildfire of significant intensity. Any wildfire which was to occur within RE 7.11.5b (80%) / RE 7.11.1a (20%) to the south east of the proposed building, e.g., via lightning strike/arson, is unlikely to reach a fireline intensity such that the vegetation could be considered bushfire prone.

Overall, results of the assessment of vegetation indicated that the proposed development is not located within 100m of hazardous vegetation in accordance with Clause 2.2.3.2 Exclusions—Low threat vegetation and non-vegetated areas of AS 3959:2018. As such, the proposed dwellings are not located within a bushfire prone area and planning or building design measures to mitigate the risk of bushfire attack are not required.

Further assessment of site slopes (Steps 3-4), calculation of separation distances (Step 5) and calculation of radiant heat flux and BAL (Steps 6-10) is not required.

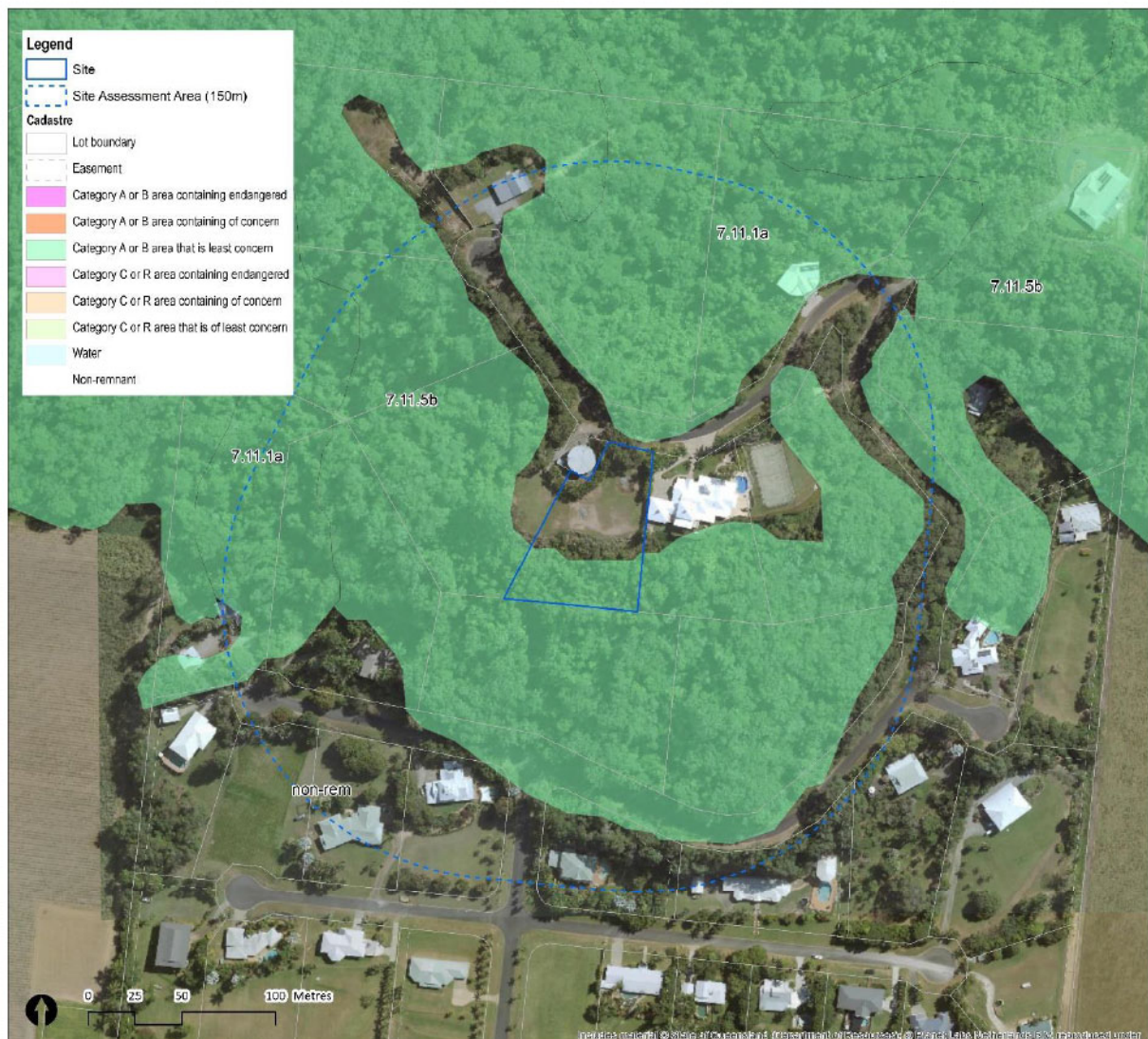


FIGURE 6: VEGETATION MANAGEMENT REGIONAL ECOSYSTEM MAP V.12.0 (STATE OF QUEENSLAND (DEPARTMENT OF RESOURCES) 2021).

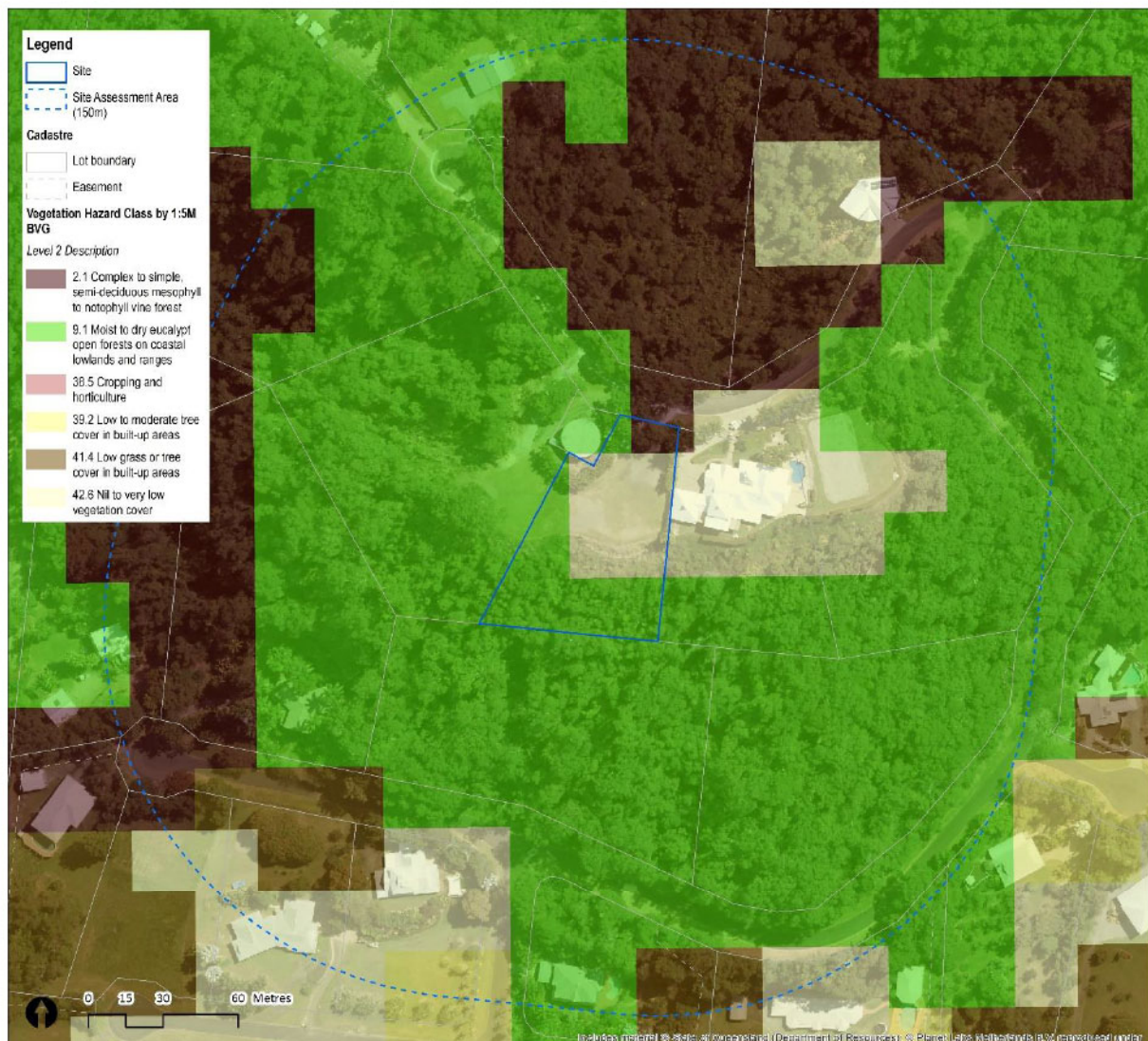


FIGURE 7: SPP VEGETATION HAZARD CLASS INPUT MAP (PUBLIC SAFETY BUSINESS AGENCY 2014).



FIGURE 8: OBSERVED VEGETATION HAZARD CLASSES WITHIN SITE ASSESSMENT AREA.

5 SUMMARY

The Bushfire Attack Level (BAL) Assessment was prepared by Litoria Consulting on behalf of Steve Marriott for land described as 14 Hibiscus Court, Rocky Point (Lot 26 on RP749732).

The BAL assessment included the subject land and all land within 150m of the subject land and was carried out in accordance with procedures described in Method 2 of AS 3959:2018 (Standards Australia 2018); having regard to parameterisation prescribed in Queensland by Bushfire Resilient Communities (Queensland Fire and Emergency Services 2019).

The BAL assessment included assessment of vegetation hazard classes for land within 150m of the subject land. Results indicated that most of the vegetation within 150m of the subject land was comprised of rainforest vegetation and other non-hazardous (or low threat) vegetation in accordance with Clause 2.2.3.2 of AS 3959:2018.

Whilst hazardous vegetation is present within the landscape, it occurs as part of a heterogeneous mosaic with, or predominantly comprised of, mesophyll vine forest. Consequently, it is improbable that the vegetation would support a running wildfire of significant intensity.

As such the proposed dwellings are not located within a bushfire prone area and planning or building design measures to mitigate the risk of bushfire attack are not required.

6 REFERENCES

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APPENDIX 1: PROPOSED DEVELOPMENT

Attachment 3:

Visual Impact Assessment

Prepared by Aspire Town Planning and Project Services

MEMO



Town Planning and Project Services

To: Daniel Lamond, Douglas Shire Council

From: Daniel Favier, Aspire Town Planning and Project Services

CC:

Date: 22 March 2023

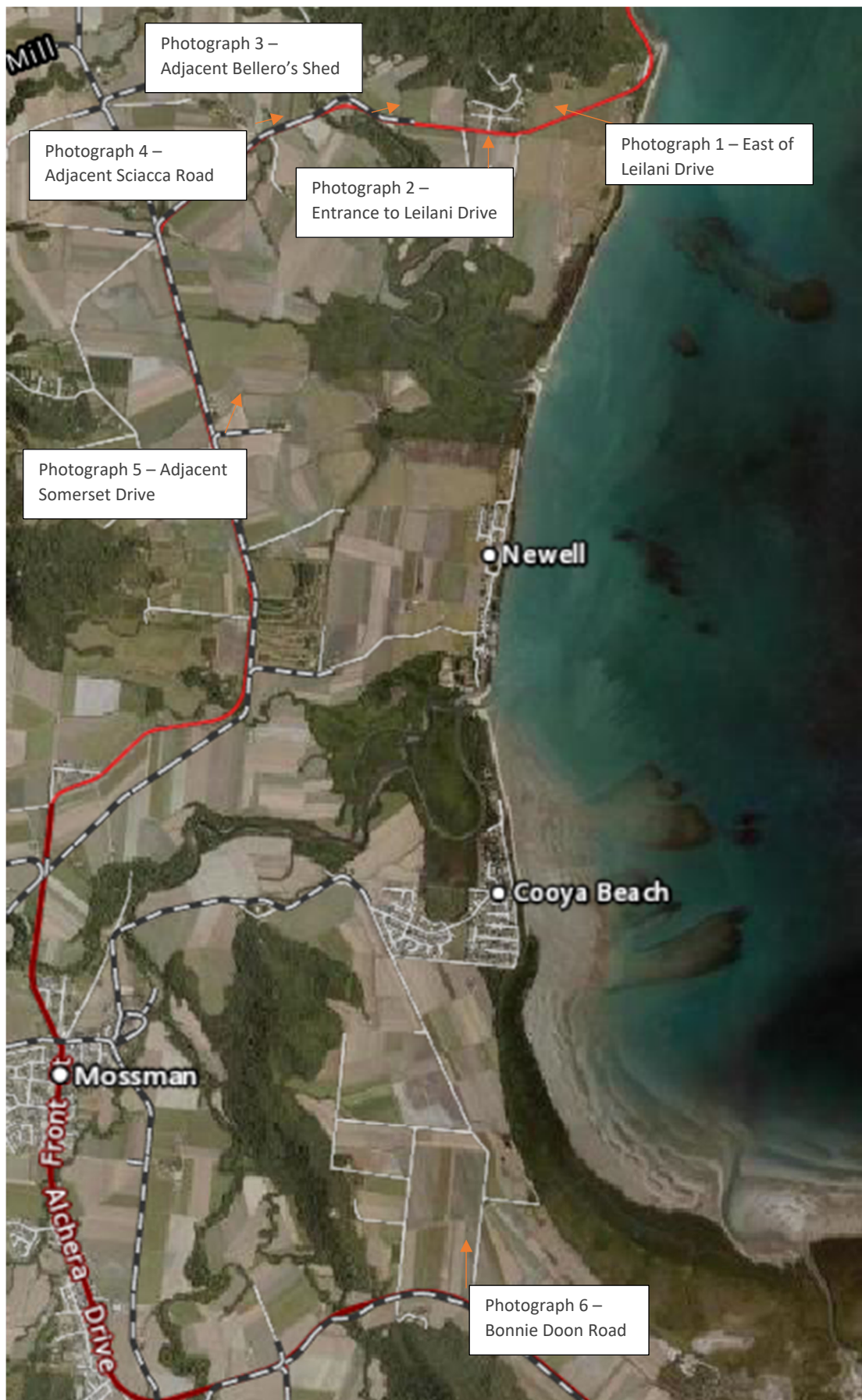
Re: Visual Impact Assessment
Development Application for a Material Change of Use (Dwelling House) – 14
Hibiscus Court, Rocky Point

We refer to Douglas Shire Council's Information Request dated 30 August 2022 (Council ref: MCUC 2022_4956/1 (1105534)). In response to Item 5 Visual Impact Assessment we provide the following series of photographs to illustrate the visibility of the site and provide comment in relation to the likely Visual Impact of the proposed development.

In summary, photographs have been captured of the site between east of Leilani Drive, Rocky Point and the southern access to Bonnie Doon Road, Killaloe. The site is not visible from east and north of Leilani Drive, or south of Bonnie Doon Road along the Captain Cook Highway. We acknowledge that the site is visible from other public vantage points in and around Port Douglas, however at this distance (for example 11.5km line of sight from Rex Smeal Park) the positioning of the Dwelling House entirely within the existing building pad or cantilevered over the top of bank, the visual impact at that distance would be negligible.

At no point does the proposed Dwelling House alter the ridgeline / skyline.

The proposed Dwelling House would be less of a focal point in the landscape than other existing building in the locality.

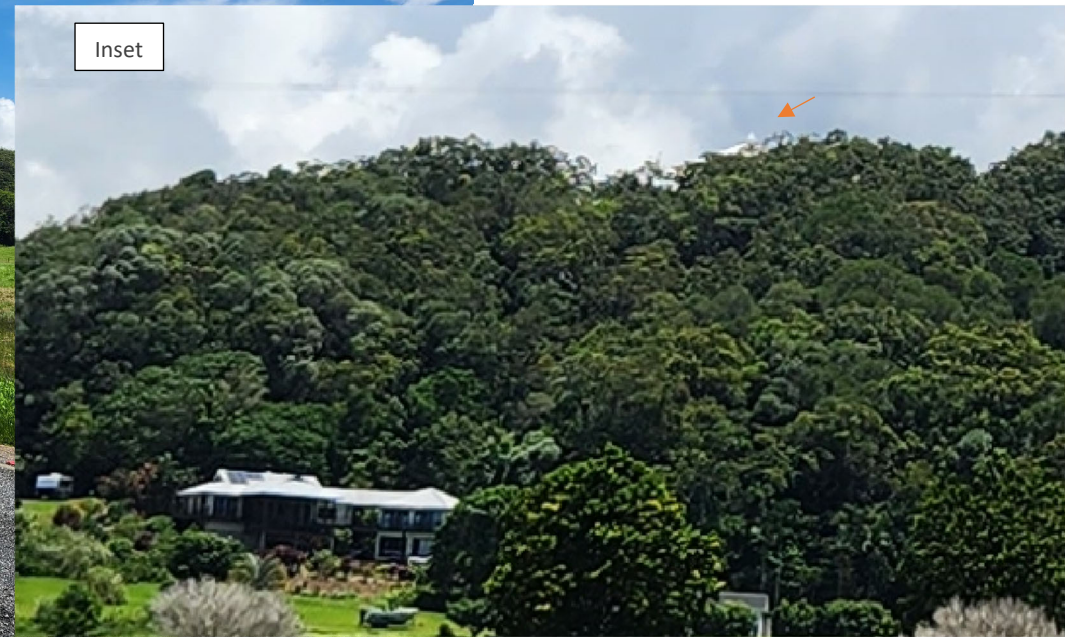


Key Map (source: Qld Globe, March 2023)



Comments:

The second storey roof is only just visible through the vegetation indicated by the arrow. The proposed development is located to the left of this and is designed with a much lower roof line. The proposed development will be screened by existing vegetation.



Photograph 1: East of Leilani Drive along the Mossman Daintree Road



Photograph 2: Entrance to Leilani Drive from Mossman Daintree Road

Comments:

At the intersection of Leilani Drive and the Mossman Daintree Road, the adjacent Dwelling House at 12 Hibiscus Court is only just visible through the tree line. The proposed Dwelling House will not be visible at this location given the view angle, lower roofline and existing screening vegetation below the subject site.



Comments:

From adjacent Beller's Shed only the upper roofline of the adjacent Dwelling House at 12 Hibiscus Court is visible. The proposed Dwelling House has a lower roofline and would be screened by existing vegetation within the adjacent property at 16 Hibiscus Court. From this location the proposed Dwelling House would not be visually prominent or alter the skyline. A cantilevered section of the Dwelling House would not be visible.

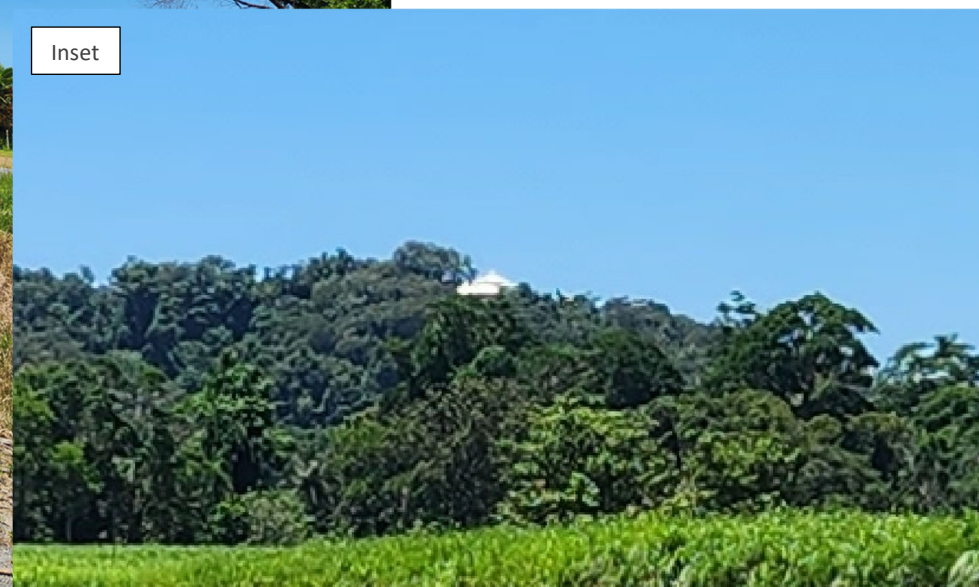
Photograph 3: View from adjacent Beller's Shed on the Mossman Daintree Road



Comments:

From adjacent Sciacca Road the upper roofline and garage of the adjacent Dwelling House at 12 Hibiscus Court is visible. The proposed Dwelling House will be finished in appropriate external colours and the roofline will not likely be visible from this location. From this distance and perspective, detailed finishes including cantilevered sections of the Dwelling House would not be visible.

Inset



Photograph 4: Adjacent Sciacca Road



Comments:

The site is visible from this location however as the Dwelling House will be finished in an appropriate external colour scheme it will not be the focal point of the landscape. At this distance, detailed finishes including proposed cantilevered sections of the Dwelling House would not be visible.

Photograph 5: View along the Mossman Daintree Road adjacent Somerset Drive



Comments:

The site is visible from this location however as the Dwelling House will be finished in an appropriate external colour scheme it will not be the focal point of the landscape. At this distance, the proposed Dwelling House would be barely visible, especially on overcast or hazy days. Detailed finishes including proposed cantilevered sections of the Dwelling House would not be noticeable at this distance.

Inset



Photograph 6: Bonnie Doon Road