



ATTACHMENTS

LOCAL PLANNING PANEL MEETING

**Wednesday 30 September 2020
at 3:00PM**



TABLE OF CONTENTS

LOCAL PLANNING PANEL

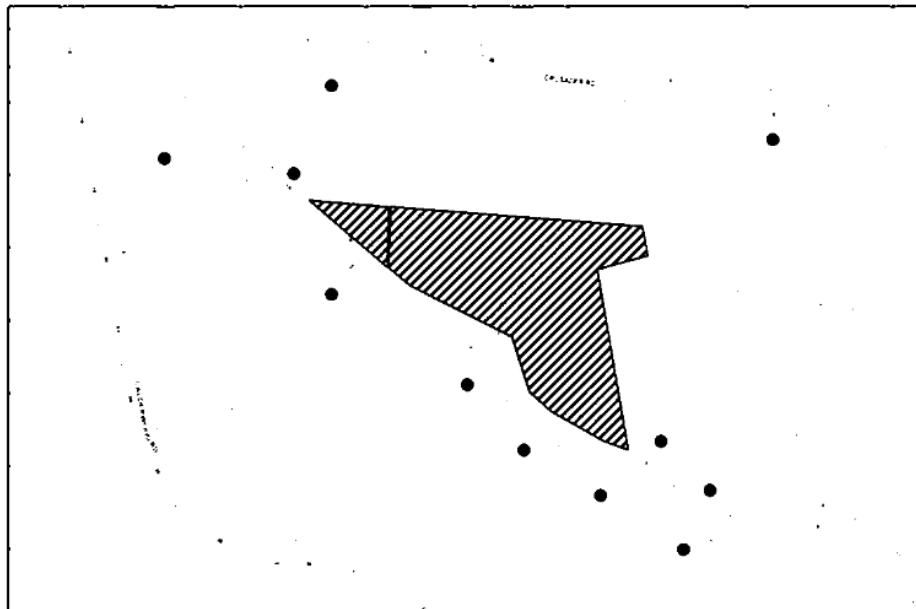
1	LPP18/20	Development Application - Boundary Adjustment between Two Torrens Title Allotments - Nos. 1B and 3 Pine Valley Road, Galston	
	Attachment 1:	Locality Map	2
	Attachment 2:	Clause 4.6 Variaton (within SEE)	3
	Attachment 3:	Proposed Subdivision Plans	26
2	LPP24/20	Development Application - Alterations and Additions to the Size and Capacity of an Existing Concrete Batching Plant - 11 - 17 Salisbury Road, Hornsby	
	Attachment 1:	Locality Map	30
	Attachment 2:	Clause 4.6 Variation Request	31
	Attachment 3:	Revised Site Plan	44
	Attachment 4:	Demolition Plan	46
3	LPP25/20	Development Application - Demolition of Existing Structures and Torrens Title Subdivision of Three Lots into Four - 1131 - 1133 Pacific Highway, Cowan	
	Attachment 1:	Locality Map	48
	Attachment 2:	Amended Subdivision Plan	49
	Attachment 3:	Amended Plans	51
4	LPP28/20	Development Application - Alterations and Additions - Carport and Replacement Deck - 2 Nicholas Crescent, Normanhurst	
	Attachment 1:	Locality Map	58
	Attachment 2:	Clause 4.6 Variation	59
	Attachment 3:	Architectural Plans and Tree Protection Plan	68
	Attachment 4:	Bushfire Report	74
	Attachment 5:	Arboricultural Impact Assessment Report	103
5	LPP27/20	Reporting Development Applications for Determination by the Hornsby Local Planning Panel over 180 Days	
	Attachment 1:	DAs over 180 days - September meeting	144

ATTACHMENT/S

REPORT NO. LPP18/20

ITEM 1

- 1. LOCALITY MAP**
- 2. CLAUSE 4.6 VARIATON (WITHIN SEE)**
- 3. PROPOSED SUBDIVISION PLANS**



LOCALITY PLAN

DA/293/2020

Nos. 1B & 3 Pine Valley Road, Galston

ATTACHMENT 1 - ITEM 1



**STATEMENT OF
ENVIRONMENTAL EFFECTS**

BOUNDARY ADJUSTMENT

1B & 3 PINE VALLEY ROAD, GALSTON

**On behalf of
Cornelius Schutte**

April 2020

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STATEMENT OF ENVIRONMENTAL EFFECTS

Boundary Adjustment

1B & 3 Pine Valley Road, Galston

**Prepared under instructions from
Survey Plus P/L**

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TABLE OF CONTENTS

1.	INTRODUCTION	4
2.	SITE DESCRIPTION	5
3.	THE SURROUNDING ENVIRONMENT	7
4.	PROPOSAL	8
5.	ZONING & DEVELOPMENT CONTROLS	9
6.	SECTION 4.15(1) ASSESSMENT	22
7.	CONCLUSION	23

ATTACHMENT 2 - ITEM 1

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1. INTRODUCTION

This Statement of Environmental Effects accompanies a Development Application lodged on behalf of Cornelius Schutte. The proposal seeks approval for a boundary adjustment of the existing boundary between two allotments of land identified as Lots 1 & 2 in DP 1088474 and known as 1B & 3 Pine Valley Road, Galston.

In consideration of this proposal reference has been made to:

- *Environmental Planning & Assessment Act 1979, as amended.*
- *Hornsby Local Environmental Plan 2013*
- *Hornsby Development Control Plan 2013*

In addition to this Statement of Environmental Effects, the proposal is supported by the following documentation:

- Survey Plan & Subdivision Plan prepared by SurveyPlus, Ref No. 17671_SUB_1C, Revision C and dated 19/3/20.
- Bushfire Assessment Report prepared by Building Code and Bushfire Hazard Solutions, Ref. No. 201263 and dated 7/4/20.

This Statement describes the subject site and the surrounding area, together with the relevant planning controls and policies relating to the site and the type of development proposed. It provides an assessment of the proposed development against the heads of consideration as set out in Section 4.15(1) of the *Environmental Planning and Assessment Act 1979*.

As a result of that assessment it is concluded that the development of the site in the manner proposed is considered to be acceptable and is worthy of the support of the Council.

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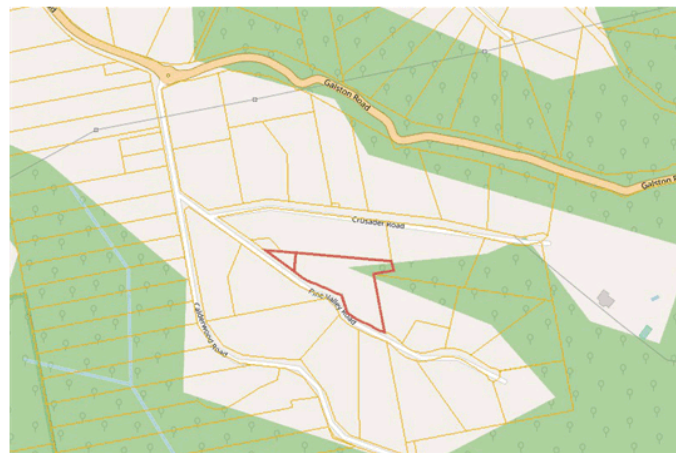
2. THE SITE

The subject sites are identified as Lots 1 & 2 in DP 1088474 and are known as 1B & 3 Pine Valley Road, Galston. The common boundary between the two allotments is currently aligned in a north-south direction.

Lot 1 is a triangular shaped street frontage allotment with an area of 1,598m² (by title). This lot has a frontage of 84.785m to Pine Valley Road.

Lot 2 is an irregular shaped street frontage allotment with an area of 2.1185ha (by title).

The site's location is depicted in the following site location plan.



Site Location Map

Easements exist upon each allotment for the purposes of drainage and minerals being owned by the Crown.

Lot 1 currently supports a dwelling house and an outbuilding, both of which have been recently constructed. Lot 2 supports a dwelling house and ancillary structures including detached buildings, tennis court and swimming pool.

None of the existing structures located upon either site are heritage listed or are considered to have any heritage significance which would affect the subject application.

Vegetation located upon the property comprises of a number of significant mature trees all of which are located upon Lot 2 along the rear boundary and eastern portion of the site. The remainder of the sites vegetation comprises of maintained lawns together with formal garden beds. All of the existing significant vegetation is proposed to be retained as part of this application.

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There are no other features of the site which it is considered are relevant to the proposal.



Aerial view of the Subject Site prior to the erection of the dwelling on Lot 1

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3. THE SURROUNDING ENVIRONMENT

The subject site is located in a rural area comprising of predominantly low density residential accommodation made up of large single storey detached dwelling houses.

The majority of the surrounding dwelling houses are considered to have formed part of the areas original housing stock and are gradually being replaced by new replacement dwellings.

There is no consistent subdivision pattern with a variety of allotment shapes and sizes comprising the surrounding subdivision layout.

The sites relationship with the surrounding environment is depicted in the following aerial photograph.



Aerial Photograph of Surrounding Locality

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4. THE PROPOSAL

This application seeks approval for a boundary adjustment of the existing boundary which separates the two Torrens Title allotments the subject of this application.

The proposed boundary adjustment seeks to relocate the common boundary by shifting the rear alignment of the boundary further to the east. The southern point of the boundary as it adjoins Pine Valley Road will remain the same.

The nett affect of the proposed boundary adjustment is that Lot 1 will increase in size by 219m².

Both allotments will retain their same general shapes and frontages to Pine Valley Road.

The development indices for the proposed subdivision are as follows:

Existing Lot 1:	1,598m ² (by title)
Existing Lot 2:	2.1185ha (by title)
Proposed Lot 11:	1,817m ²
Proposed Lot 12:	2.097ha

There are no physical works associated with this application other than the relocation of fencing so as to follow the new boundary alignment.

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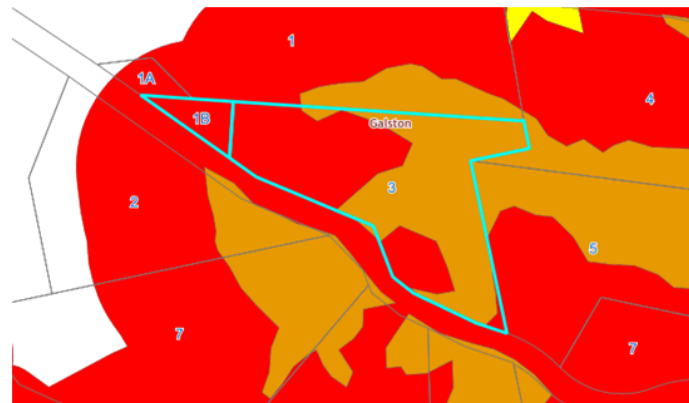
5. ZONING AND DEVELOPMENT CONTROLS

The proposed development is identified as development permissible with the consent of Council under the provisions of the Environmental Planning and Assessment Act 1979 and the Hornsby Local Environmental Plan 2013. The proposal also requires consent under Section 100B of the Rural Fires Act.

The following is an assessment of the proposal against the relevant provisions of the Act and all of the relevant planning instruments and policies of Hornsby Council.

5.1 Planning for Bushfire Protection

The subject site is identified as comprising bushfire prone land on Councils Bushfire Prone Lands Map. Therefore, the provisions of *Planning for Bushfire Protection Guidelines* do apply to the proposed development.



Extract from Council Bushfire Prone Map

A Bushfire Assessment Report has been prepared for the site by Building Code & Bushfire Hazard Solutions P/L and forms part of the information accompanying this application.

That report within its conclusion states that:

The subject site comprises of two (2) existing rural-residential allotments within an area of similar properties.

1B Pine Valley Road was found to contain an existing primary dwelling and granny flat which were assessed and approved under Planning for Bush Fire Protection 2006 (Council ref: DA/1567/2014/B, RFS ref: D15/3284). The primary dwelling was constructed to BAL 29 and the granny flat was constructed to BAL 19 under AS3959 - 2009. This application also enforced

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the relevant Asset Protection Zones, Water Supply (10,000l and fire-fighting pump set) and Access provisions under PBP 06.

3 Pine Valley Road was also found to contain an existing dwelling and ancillary structures. While the existing dwelling predates the application of PBP, works have occurred to an adjacent carport which under that development consent (DA/1554/2007) required the establishment of a 10 metre APZ around that structure and the relevant construction provisions.

In accordance with the bushfire safety measures contained in this report, and consideration of the site specific bushfire risk assessment and minor nature of the proposed boundary adjustment it is our opinion that when combined, they will provide a reasonable and satisfactory level of bushfire protection to the subject development.

We are therefore in support of the development application.

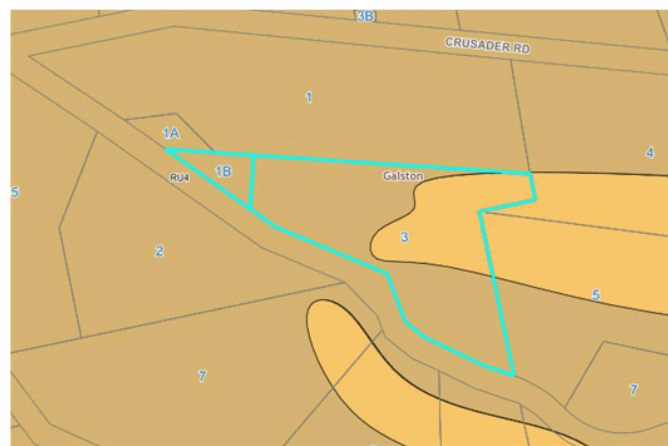
It is therefore considered that subject to compliance with the recommendations of the above report that the proposal is capable of satisfying the requirements of Planning for Bushfire Protection.

5.2 Hornsby Local Environmental Plan 2013

The subject land is zoned RU4 - Primary Production Small Lots and E3 - Environmental Management under the provisions of the Hornsby Local Environmental Plan 2013.

Under the RU4 - Primary Production Small Lots zone a range of uses including that of a subdivision is permissible with the consent of the Council.

Clause 2.6 of the LEP requires the consent of the Council for any subdivision.



Extract from Council Zoning Map

The objectives for development within the RU4 zone are:

- *To enable sustainable primary industry and other compatible land uses.*
- *To encourage and promote diversity and employment opportunities in relation to primary industry enterprises, particularly those that require smaller lots or that are more intensive in nature.*
- *To minimise conflict between land uses within this zone and land uses within adjoining zones.*
- *To encourage land uses that support primary production, including low-scale and low-intensity tourist and visitor accommodation and the provision of farm produce direct to the public.*
- *To ensure that development does not unreasonably increase the demand for public infrastructure, services or facilities.*

The objectives for development within the E3 zone are:

- *To protect, manage and restore areas with special ecological, scientific, cultural or aesthetic values.*
- *To provide for a limited range of development that does not have an adverse effect on those values.*
- *To protect the natural environment of steep lands and floodplains within the catchment of the Hawkesbury River.*

The proposal which seeks to adjust the location of the existing boundary between Lot 1 (proposed Lot 11) and Lot 2 (proposed Lot 12) is considered to be consistent with the above objectives in that the proposal will continue to provide for two rural-residential allotments.

The following provisions of the Hornsby Local Environmental Plan 2013 are considered to be applicable to the subject site.

Clause 4.1 - Minimum Subdivision Lot Size

The land zoned RU4 is located within minimum Lot Size Area “Z” under Council’s LEP and as such is subject to a minimum allotment size of 2ha excluding any access handle of right-of-carriageway.

The land zoned E3 is located within minimum Lot Size Area “AB2” under Council’s LEP and as such is subject to a minimum allotment size of 40ha excluding any access handle of right-of-carriageway.

The proposal is to provide for the following lot sizes:

Proposed Lot 11:	1,817m ²
Proposed Lot 12:	2.097ha

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Proposed Lot 12 complies with the minimum allotment size requirements of Clause 4.1B of the LEP as detailed below.

Lot 11 is an existing undersized allotment, the area of which will be increased via the proposal. On the basis that Lot 11 is an existing allotment and will not be reduce in size, the proposal is considered to comply with Clause 4.1.

A precautionary Clause 4.6 submission has been prepared in relation to this technical non-compliance and is included below.

The Clause 4.6 submission is considered to be well founded and is worthy of the support of the Council.



Extract from Council Minimum Allotment Size Map

Clause 4.1B - Minimum Lot Size for Certain Split Zone Lots

This clause applies to proposed Lot 12 which has a split zone between RU4 and E3.

Proposed Lot 12 complies with the minimum lot size for the RU4 zone. In addition, more than 20% of the site is located within the RU4 zone. Therefore, the proposal is considered to satisfy the development standard prescribed in Clause 4.1B of the LEP.

Clause 4.6 - Exceptions to Development Standards**Introduction**

The proposal seeks approval for a boundary adjustment between the two existing allotments which are the subject of this application.

Proposed Lot 11 is an existing undersized allotment and is subject to a minimum allotment size requirement of 2ha.

The existing allotment has an area of 1,598m² and which is proposed to be increased to 1,817m² as part of this application.

Given that the existing allotment size is less than the minimum requirement of the LEP a technical non-compliance exists. This Clause 4.6 submission is therefore provided on a precautionary basis.

It is submitted that the minimum allotment size requirement as required by Clause 4.1 of the LEP is a development standard as defined and that any variation of its requirements requires the preparation of a submission pursuant to Clause 4.6 of the LEP.

This Clause 4.6 variation has been prepared in accordance with recent judgments of the Land & Environment Court.

It is submitted that the variation is well founded and is worthy of the support of the Council.

The following assessment of the proposed variation against the requirements of Clause 4.6 is therefore provided.

1. **What are the objectives of Clause 4.6 and is the proposal consistent with them.**

The objectives of Clause 4.6 of the LEP are:

- (a) *to provide an appropriate degree of flexibility in applying certain development standards to particular development, and*
- (b) *to achieve better outcomes for and from development by allowing flexibility in particular circumstances.*

It is my opinion, as is demonstrated by the responses to the questions below, that the proposed variation is consistent with the objectives of this clause in that the proposal involves the increasing in size of an existing undersized allotment.

2. Is the standard to be varied a Development Standard to which Clause 4.6 applies.

Clause 4.1 is contained within Part 4 of the Hornsby LEP 2013 and which is titled Principal Development Standards provides;

41. Minimum subdivision lot size

(1) The objectives of this clause are as follows:

- (a) to provide for the subdivision of land at a density that is appropriate for the site constraints, development potential and infrastructure capacity of the land,*
- (b) to ensure that lots are of a sufficient size to accommodate development.*
- (2) This clause applies to a subdivision of any land shown on the [Lot Size Map](#) that requires development consent and that is carried out after the commencement of this Plan.*
- (3) The size of any lot resulting from a subdivision of land to which this clause applies is not to be less than the minimum size shown on the [Lot Size Map](#) in relation to that land.*
- (3A) If a lot is a battle-axe lot or other lot with an access handle, the area of the access handle is not to be included in calculating the lot size.*
- (4) This clause does not apply in relation to the subdivision of any land:*
 - (a) by the registration of a strata plan or strata plan of subdivision under the Strata Schemes Development Act 2015, or*
 - (b) by any kind of subdivision under the Community Land Development Act 1989.*

It is also considered that the wording of the Clause is consistent with previous decisions of the Land & Environment Court of NSW in relation to matters which constitute development standards.

It is also noted that Clause 4.1 does not contain a provision which specifically excludes the application of Clause 4.6.

On this basis it is considered that Clause 4.1 is a development standard for which Clause 4.6 applies.

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3. Is compliance with the development standard unreasonable or unnecessary in the circumstances of this case

It is my opinion that compliance with the requirements of Clause 4.1 is both unreasonable and unnecessary in the circumstances of this case for the following reasons:

- The proposal will result in the area of an existing undersized allotment having an area of 1,598m² being increased to have an area of 1,817m².
- The proposal will result in the existing donor property located at 3 Pine valley Road continuing to have an area which meets the minimum 2ha requirement.
- Both properties support existing dwelling houses and improvements which will be unaffected by the proposal.

On this basis it is my opinion that strict compliance with the standard is unreasonable and unnecessary in the circumstances of this case.

4. Are there sufficient environmental planning grounds to justify contravening the development standard.

It is considered that a contravention of the development standard is justified on environmental planning grounds given that:

- The proposal will result in the area of an existing undersized allotment having an area of 1,598m² being increased to have an area of 1,817m².
- The proposal will result in the existing donor property located at 3 Pine valley Road continuing to have an area which meets the minimum 2ha requirement.

5. Is the proposed development in the public interest because it is consistent with the objectives of the particular standard and the objectives for development within the zone in which the development is proposed to be carried out.

The proposed development is in my opinion in the public interest because it is compliant with the zone objectives and the objectives of the particular standard.

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In this regard the proposal is considered to be consistent with the relevant objectives of the RU4 - Primary Production Small Lots zone as detailed below.

- *To enable sustainable primary industry and other compatible land uses.*

Comment

The proposed boundary adjustment will not reduce or limit the ability for this objective to be satisfied.

- *To encourage and promote diversity and employment opportunities in relation to primary industry enterprises, particularly those that require smaller lots or that are more intensive in nature.*

Comment

The proposed boundary adjustment will not reduce or limit the ability for this objective to be satisfied.

- *To minimise conflict between land uses within this zone and land uses within adjoining zones.*

Comment

The proposed boundary adjustment will not reduce or limit the ability for this objective to be satisfied.

- *To encourage land uses that support primary production, including low-scale and low-intensity tourist and visitor accommodation and the provision of farm produce direct to the public.*

Comment

The proposed boundary adjustment will not reduce or limit the ability for this objective to be satisfied.

- *To ensure that development does not unreasonably increase the demand for public infrastructure, services or facilities.*

Comment

The proposed boundary adjustment will not reduce or limit the ability for this objective to be satisfied.

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In relation to the objectives of Clause 4.1 of the LEP the following assessment is provided:

- (a) *to provide for the subdivision of land at a density that is appropriate for the site constraints, development potential and infrastructure capacity of the land,*

Comment

The proposal will result in the area of an existing undersized allotment having an area of 1,598m² being increased to have an area of 1,817m².

The proposal will result in the existing donor property located at 3 Pine valley Road continuing to have an area which meets the minimum 2ha requirement.

It is not considered that there are any site constraints, development potential and infrastructure capacity of the land which will be affected by the proposal.

- (b) *to ensure that lots are of a sufficient size to accommodate development.*

Comment

Both properties support existing dwelling houses and improvements which will be unaffected by the proposal.

The proposal therefore in my opinion is consistent with the applicable objectives of both Clause 4.1 of the LEP and the RU4 Zone.

- 6. Whether contravention of the development standard raises any matter of significance for state or regional environmental planning.**

It is my opinion that contravention of the standard does not raise any matters of significance for State or Regional environmental planning.

- 7. What is the public benefit of maintaining the development standard.**

It is my opinion that there is no public benefit in maintaining the development standard in this instance given the absence of any unreasonable detrimental impacts.

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Conclusion

It is therefore my opinion based upon the content of this submission that a variation of the minimum allotment size requirement for proposed Lot 11 as required by Clause 4.1 of the Hornsby Local Environmental Plan 2013 is appropriate in this instance.

Clause 5.10 - Heritage Conservation

The subject lots are not heritage listed and are not considered to have any heritage significance which would be impacted upon by the proposed works. The site is also not located within a Heritage Conservation Area.

It is therefore my opinion that the proposal satisfies the heritage requirements of the Council.

There are no other provisions of Council's LEP which it is considered are relevant to the proposal.

Summary

It is my opinion based upon this assessment that the proposal is compliant with the aims, objectives and the prescriptive requirements of the Hornsby LEP and is therefore permissible upon the subject site with the consent of the Council.

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5.3 Hornsby Development Control Plan 2013

The following is an assessment of the proposed development against the relevant provisions of the Hornsby Development Control Plan 2013.

The following is an assessment of the proposed development against the relevant provisions of the Hornsby Development Control Plan 2013.

Part 6 - Subdivision

Part 6 of Council's DCP is titled Subdivision and applies to the subject application.

The following is an assessment of the proposal against the relevant provisions of the DCP.

Section 6.1.1 - General Provisions

The following provisions of this section apply:

Retention of Landscape Features

The subject property currently supports endemic vegetation. The proposed boundary adjustment will not require the removal of any vegetation.

Flood Prone Land

The subject property is not identified as constituting Flood Prone Land.

Bushfire Asset Protection Zones

A Bushfire Assessment Report has been prepared for the site by Building Code & Bushfire Hazard Solutions P/L and forms part of the information accompanying this application.

That report within its conclusion states that:

The subject site comprises of two (2) existing rural-residential allotments within an area of similar properties.

1B Pine Valley Road was found to contain an existing primary dwelling and granny flat which were assessed and approved under Planning for Bush Fire Protection 2006 (Council ref: DA/1567/2014/B, RFS ref: D15/3284). The primary dwelling

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was constructed to BAL 29 and the granny flat was constructed to BAL 19 under AS3959 - 2009. This application also enforced the relevant Asset Protection Zones, Water Supply (10,000l and fire-fighting pump set) and Access provisions under PBP 06.

3 Pine Valley Road was also found to contain an existing dwelling and ancillary structures. While the existing dwelling predates the application of PBP, works have occurred to an adjacent carport which under that development consent (DA/1554/2007) required the establishment of a 10 metre APZ around that structure and the relevant construction provisions.

In accordance with the bushfire safety measures contained in this report, and consideration of the site specific bushfire risk assessment and minor nature of the proposed boundary adjustment it is our opinion that when combined, they will provide a reasonable and satisfactory level of bushfire protection to the subject development.

We are therefore in support of the development application.

It is therefore considered that subject to compliance with the recommendations of the above report that the proposal is capable of satisfying the requirements of Planning for Bushfire Protection.

Section 6.3 - Rural Lands Subdivision

The following provisions of this section apply:

Lot Size

The land zoned RU4 is located within minimum Lot Size Area "Z" under Council's LEP and as such is subject to a minimum allotment size of 2ha excluding any access handle of right-of-carriageway.

The land zoned E3 is located within minimum Lot Size Area "AB2" under Council's LEP and as such is subject to a minimum allotment size of 40ha excluding any access handle of right-of-carriageway.

The proposal is to provide for the following lot sizes:

Proposed Lot 11:	1,817m ²
Proposed Lot 12:	2.097ha

Proposed Lot 12 complies with the minimum allotment size requirements of Clause 4.1B of the LEP as detailed above.

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Lot 11 is an existing undersized allotment, the area of which will be increased via the proposal. On the basis that Lot 11 is an existing allotment and will not be reduced in size, the proposal is considered to comply with Clause 4.1 of the LEP.

Lot Shape

Each lot supports a dwelling house with on-site waste water and stormwater disposal systems in place. Neither system will be impacted upon by the proposed boundary adjustment.

The boundary adjustment will not reduce the private open space area or reduce parking available to either property.

The boundary adjustment will increase the side setback for the dwelling that was recently constructed upon proposed Lot 11.

Summary

There are no other provisions of the DCP that apply to the proposed development.

It is therefore considered that the proposal satisfies the aims and objectives and prescriptive requirements of the Council's Subdivision DCP and is worthy of the support of the Council.

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6. SECTION 4.15(1) ASSESSMENT

Environmental Planning Instruments - Section 4.15(1)(a)

The subject site is zoned RU4 - Primary Production Small Lots and E3 - Environmental Management under the provisions of the Hornsby LEP 2013. The proposed development is permissible within the RU4 & E3 zone with the consent of Council. The proposal has been assessed against the objectives and provisions of both the Hornsby LEP and Council's DCP as detailed within this report and is considered to satisfy the requirements of these documents.

Impacts of the Development - Section 4.15(1)(b)

It is not considered that the proposal will result in any detrimental impacts upon the adjoining properties or upon the character of the surrounding area. The proposed boundary adjustment is compatible with other allotments within the immediate locality and the surrounding subdivision pattern.

The proposal does not require the removal of any vegetation from either property.

Suitability of the Site - Section 4.15(1)(c)

The boundary adjustment of the existing lots on land zoned RU4 & E3 under the Hornsby LEP 2013 is permissible with the consent of Council. The proposal will provide for a boundary adjustment without unreasonably impacting upon the character of the surrounding area or the amenity of adjoining properties.

Importantly it is submitted that the subject sites currently support a dwelling and ancillary facilities and features and that these will not be impacted upon by the proposed boundary adjustment.

It is not considered that there will be any adverse impacts as a result of the proposal and as such the subject site is considered suitable for the proposed development.

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7. CONCLUSION

The proposed development is development permissible with the consent of the Council under the terms of the Environmental Planning and Assessment Act 1979 and the Hornsby Local Environmental Plan and has been assessed against the requirements of Section 4.15(1) of the Act, the Hornsby LEP and Council's Policies.

In this regard it is considered that this Statement of Environmental Effects has demonstrated that the proposal satisfies the aims and objectives together with the applicable prescriptive requirements of the above controls.

It is considered that the proposal will not impact upon the amenity of adjoining properties or upon the character of the surrounding area.

It is therefore considered that the proposed boundary adjustment between land at 1B & 3 Pine Valley Road, Galston is worthy of the support of Council.

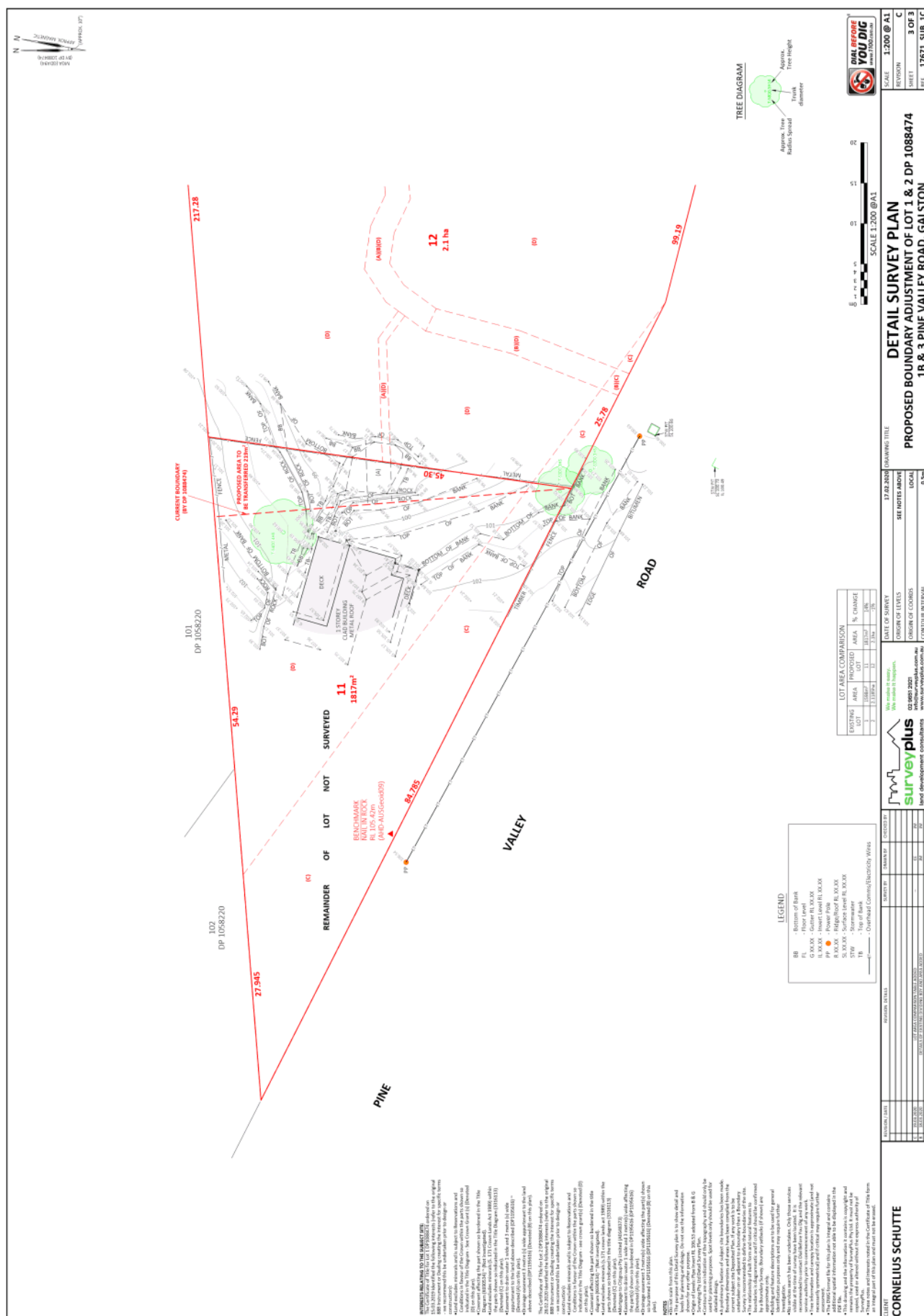


Andrew Minto
Graduate Diploma (Urban & Regional Planning), Associate Diploma (Health & Building Surveying). MPlA.
MINTO PLANNING SERVICES PTY LTD
April 2020





ATTACHMENT 3 - ITEM 1



ATTACHMENT/S

REPORT NO. LPP24/20

ITEM 2

- 1. LOCALITY MAP**
- 2. CLAUSE 4.6 VARIATION REQUEST**
- 3. REVISED SITE PLAN**
- 4. DEMOLITION PLAN**



LOCALITY PLAN
DA/1175/2018
11-17 Salisbury Road, Hornsby

ATTACHMENT 1 - ITEM 2



Benbow
ENVIRONMENTAL

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RTB/bm

Ref: Clause 4.6 Variation Request_Rev2

01 April 2019

Matthew Miles

Senior Town Planner

Planning Division

Hornsby Shire Council

PO Box 37

Hornsby NSW 1630

Email: mmiles@hornsby.nsw.gov.au

Dear Matthew,

Re: Applicant's Clause 4.6 variation request to vary height
Metromix Proposed Alterations and Additions to Concrete Batching Plant DA/1175/2018
11-17 Salisbury Road, Hornsby

The following request is made pursuant to Clause 4.6 *Exceptions to development standards* of the Hornsby LEP 2013, for a variation to the height control as contained in clause 4.3 of the Hornsby LEP.

Clause 4.3 provides a 14.5 m height control for development on the subject site. The proposed development complies with the height control with the exception of the cement silos at a maximum 20.28 m. The variation to the height control is illustrated in the following Figures.

Engineering a Sustainable Future for Our Environment

ATTACHMENT 2 - ITEM 2

- 2 -

Figure 1: Proposed Cement Silos showing variation to height control

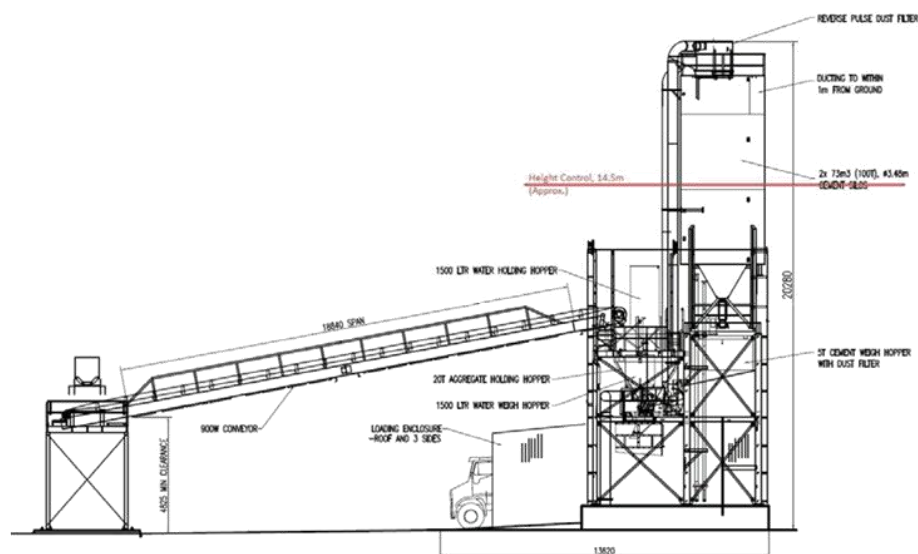


Figure 2: Existing Site – View from Salisbury Road



Engineering a Sustainable Future for Our Environment

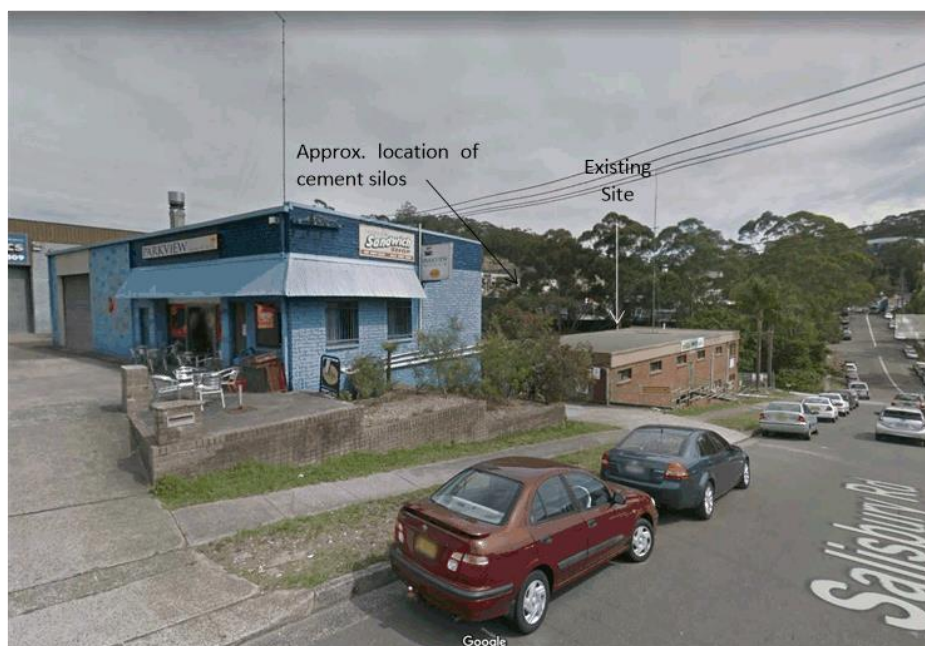
ATTACHMENT 2 - ITEM 2

- 3 -

Figure 3: Existing Site – View from Leighton Place (East)



Figure 4: Existing Site – View from South



Engineering a Sustainable Future for Our Environment

- 4 -

Figure 5: Existing Site – View from Corner of King Rd (Further South) – Silos would be barely visible from this viewpoint.



Clause 4.6 enables the development standard to be varied. The following considers the proposed variation in respect of the Clause 4.6 provisions.

4.6 Exceptions to development standards

(1) The objectives of this clause are as follows:

- (a) To provide an appropriate degree of flexibility in applying certain development standards to particular development
- (b) To achieve better outcomes for and from development by allowing flexibility in particular circumstances.

Comment: Clause 4.6 provides flexibility when applied to development standards. The proposed development will be situated at the bottom of a slope with the height of the silos appearing to be lower than the maximum height allowable of 14.5 m. Hornsby LEP 2013 Part 4 clause 4.3 gives an explanation for the setting of height restrictions being *appropriate for the site constraints, development potential and infrastructure capacity of the locality*. The topographic nature of the site permits a greater development potential, giving the silos an appearance of being lower than the allowable council height, at the nearest

Engineering a Sustainable Future for Our Environment

- 5 -

resident and industrial receivers surrounding the site. Due to the small footprint and proposed location of the silos shadowing over neighbouring premises would be unlikely. The proposed silos have a greater storage capacity than those presently in use, which means, conversely, less site deliveries (by truck) and thus less traffic per unit of production. Any reduction of trucking frequency, reduces associated noise impacts.

This fulfils clause 4.6(1)b by, providing a better outcome for the proponent, that respects the amenity of neighbouring residents and businesses, with a development that is compatible with the character and nature of the locality (light industrial IN2).

The 'flexibility' provided by Clause 4.6 of the LEP facilitates a good planning outcome for the site.

(2) Development consent may, subject to this clause, be granted for development even though the development would contravene a development standard imposed by this or any other environmental planning instrument. However, this clause does not apply to a development standard that is expressly excluded from the operation of this clause.

Comment:

Height exceedance is not expressly excluded from the operation of Clause 4.6.

(3) Development consent must not be granted for development that contravenes a development standard unless the consent authority has considered a written request from the applicant that seeks to justify the contravention of the development standard by demonstrating:

- (a) That compliance with the development standard is unreasonable or unnecessary in the circumstances of the case.*
- (b) That there are sufficient environmental planning grounds to justify contravening the development standard.*

Comment:

For the reasons outlined above, strict compliance with the development standard is unreasonable and unnecessary for this site's circumstances. The variation would enable the construction of silos exceeding the height control such that given the site's topography would have negligible impact on the surrounding receivers in terms of overshadowing and visual amenity.

It is reasonable to conclude that 'there are sufficient environmental planning grounds to justify contravening the development standard' given the site's settings and the design of the proposed development is compatible with the height, bulk and scale of the surrounding properties and would result in no loss of visual amenity, privacy or solar access at surrounding premises.

(4) Development consent must not be granted for development that contravenes a development standard unless:

- (a) The consent authority is satisfied that:*
 - (i) The applicant's written request has adequately addressed the matters required to be demonstrated by Subclause (3)*

Engineering a Sustainable Future for Our Environment

– 6 –

(ii) The proposed development will be in the public interest because it is consistent with the objectives of the particular standard and the objectives for development within the zone in which the development is proposed to be carried out.

(b) The concurrence of the Director-General has been obtained.

Comment:

Clause 4 a(i) has been addressed in this letter.

Clause 4 a(ii) The proposed development will be in the public interest because it is consistent with the objectives of the particular standard and the objectives for development within the zone in which the development is proposed to be carried out. The objectives of height development standards are to minimise visual impact, loss of privacy, loss of solar access by surrounding premises and the adjoining public space from buildings. It also to ensure buildings are compatible with the height, bulk and scale of the surrounding residential localities and commercial/light industrial centres within Hornsby Shire and that do not alter the nature and character of the surrounding locality.

The proposal furthers the objectives of the height control particularly noting that:

- The height of the silos is compatible with the character of the locality. There is no adverse view loss, privacy or solar access impact arising from the variation.
- No heritage impacts arise as the site is not within a heritage conservation area, and no heritage items are listed for adjoining or opposite properties.
- The site comfortably accommodates the proposed height.

The site is within the Zone IN2 Light Industrial. The objectives of this zone are:

- *To provide a wide range of light industrial, warehouse and related land uses.*
- *To encourage employment opportunities and to support the viability of centres.*
- *To minimise any adverse effect of industry on other land uses.*
- *To enable other land uses that provide facilities or services to meet the day to day needs of workers in the area.*
- *To support and protect industrial land for industrial uses.*

This proposal fulfils the zone objectives by:

- providing a business service to local, shire and surrounding communities
- providing work and employment opportunities.
- The site's redevelopment and modernisation will add further protection to surrounding natural and human environments such as the installation of the 50,000 L retention tank that captures and recycles first flush stormwater and a reduction in truck movements resulting in less noise.

(5) In deciding whether to grant concurrence, the Director-General must consider:

- (a) whether contravention of the development standard raises any matter of significance for State or regional environmental planning, and*
- (b) the public benefit of maintaining the development standard, and*
- (c) any other matters required to be taken into consideration by the Director-General before granting concurrence.*

Engineering a Sustainable Future for Our Environment

- 7 -

Comment:

The variation does not raise any matter of significance for State or regional environmental planning. There is no public benefit that would be achieved by maintaining the development standard in this instance.

The proposed development is within the public interest because it is consistent with the objectives of Clause 4.3 and the objectives of the IN2 land zone.

Variation to the height control as contained in Clause 4.3 of the Hornsby LEP is therefore requested under Clause 4.6 of the LEP.

Yours faithfully,



R T Benbow
Principal Consultant



Emma Hansma
Senior Engineer



Damien Thomas
Graduate Environmental Scientist

Engineering a Sustainable Future for Our Environment

ATTACHMENT 2 - ITEM 2

ATTACHMENT 2 - ITEM 2

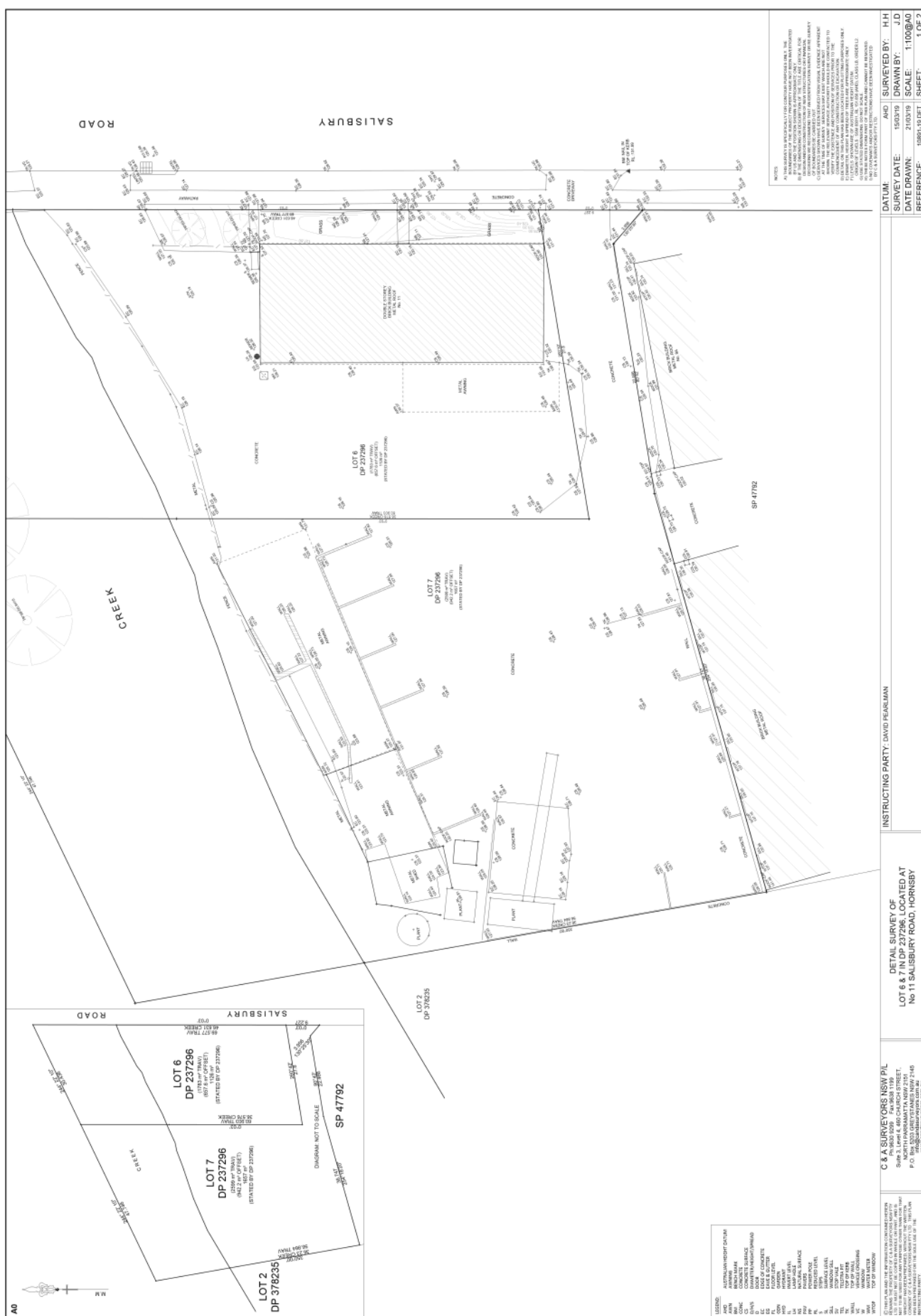
Attachment 2: Site Plans



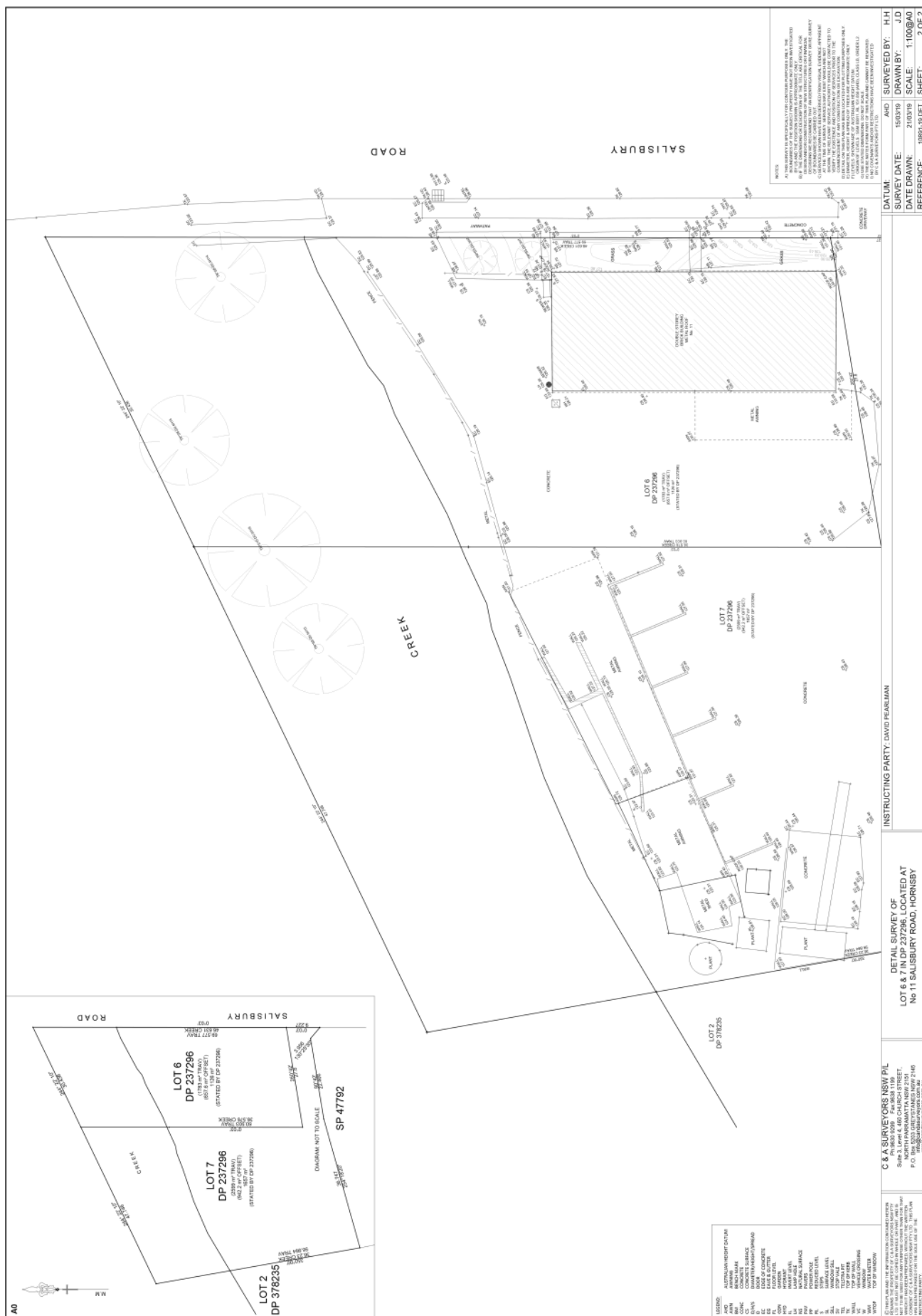


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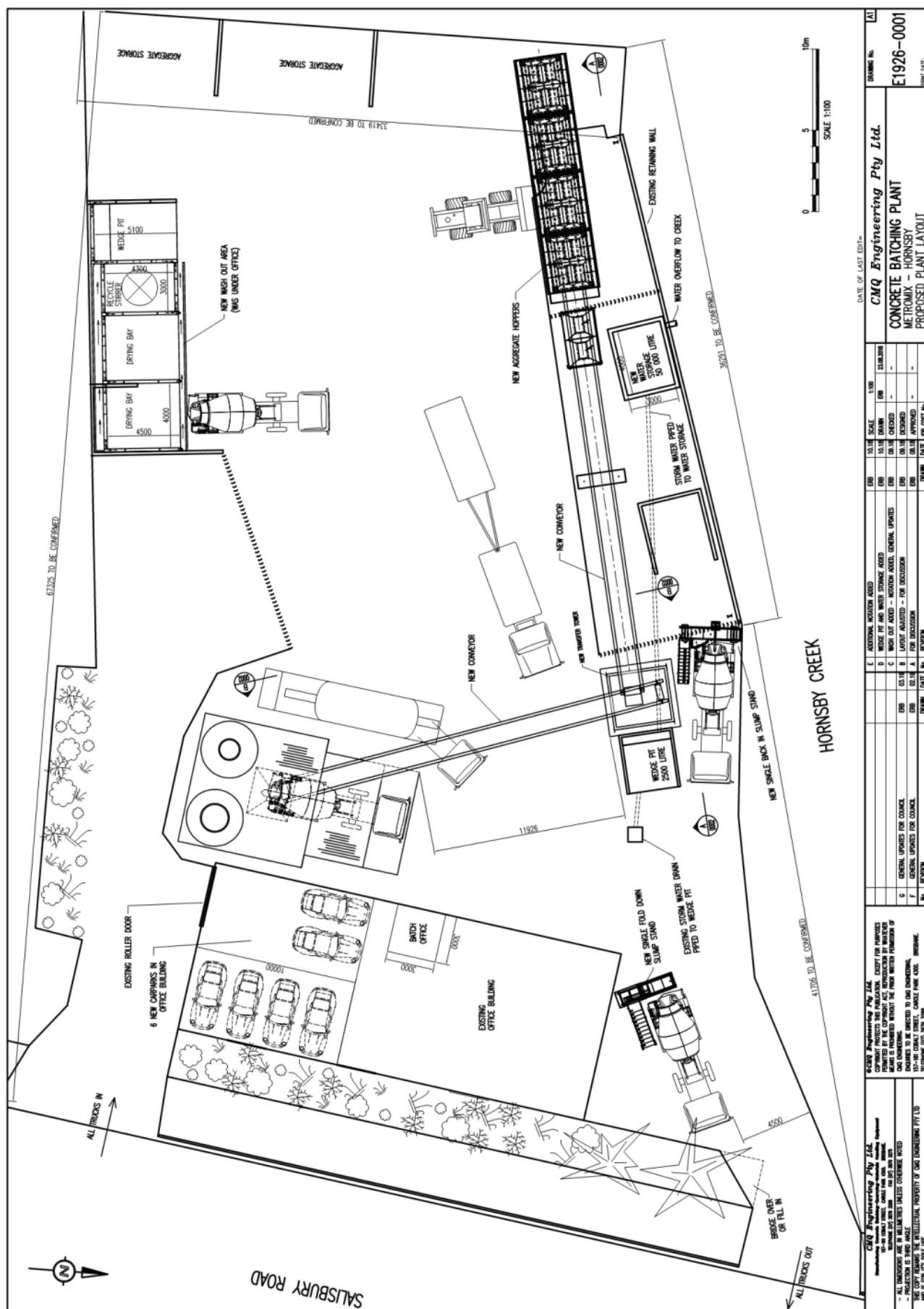
Attachment 3: Survey Plan



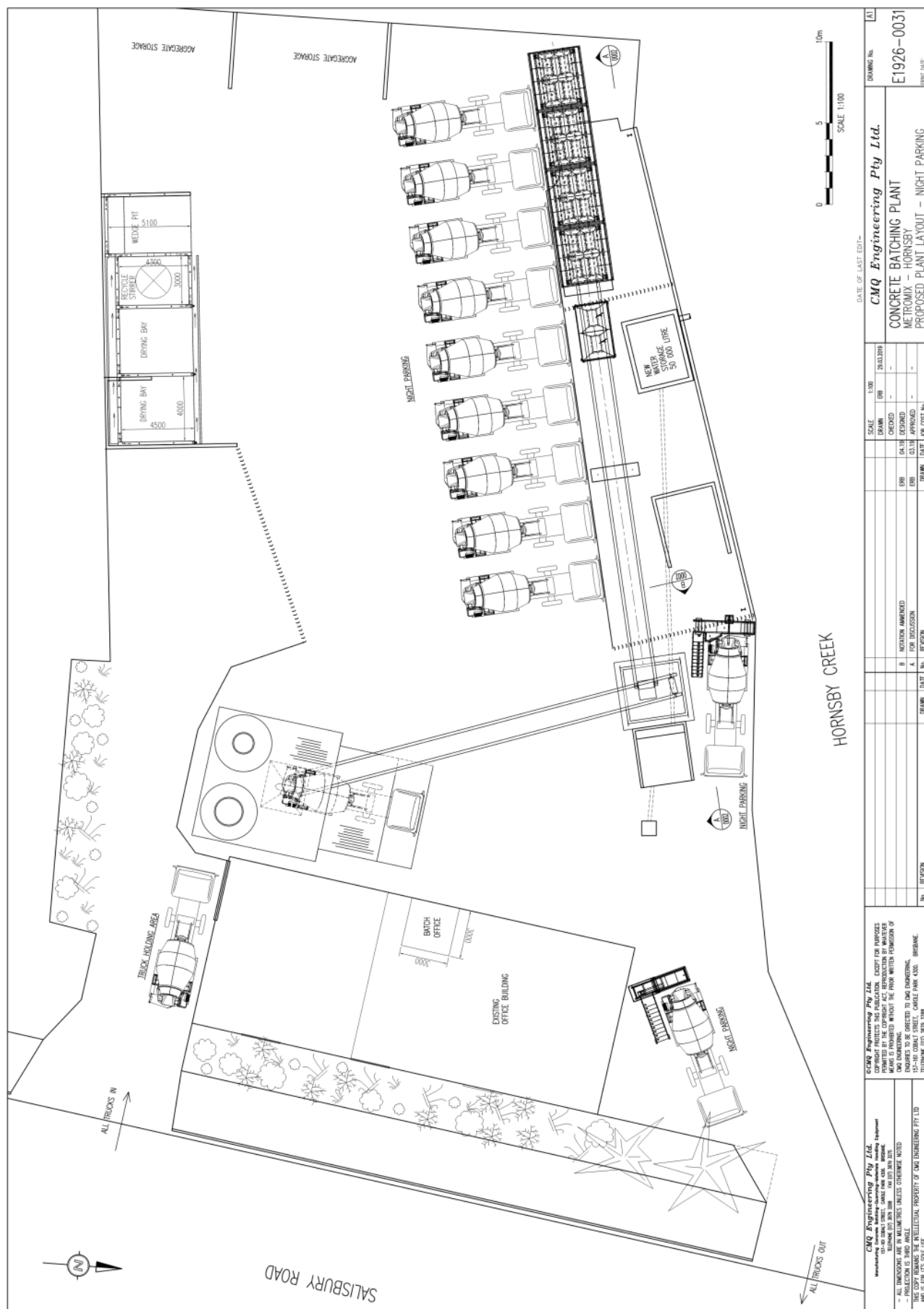
ATTACHMENT 2 - ITEM 2



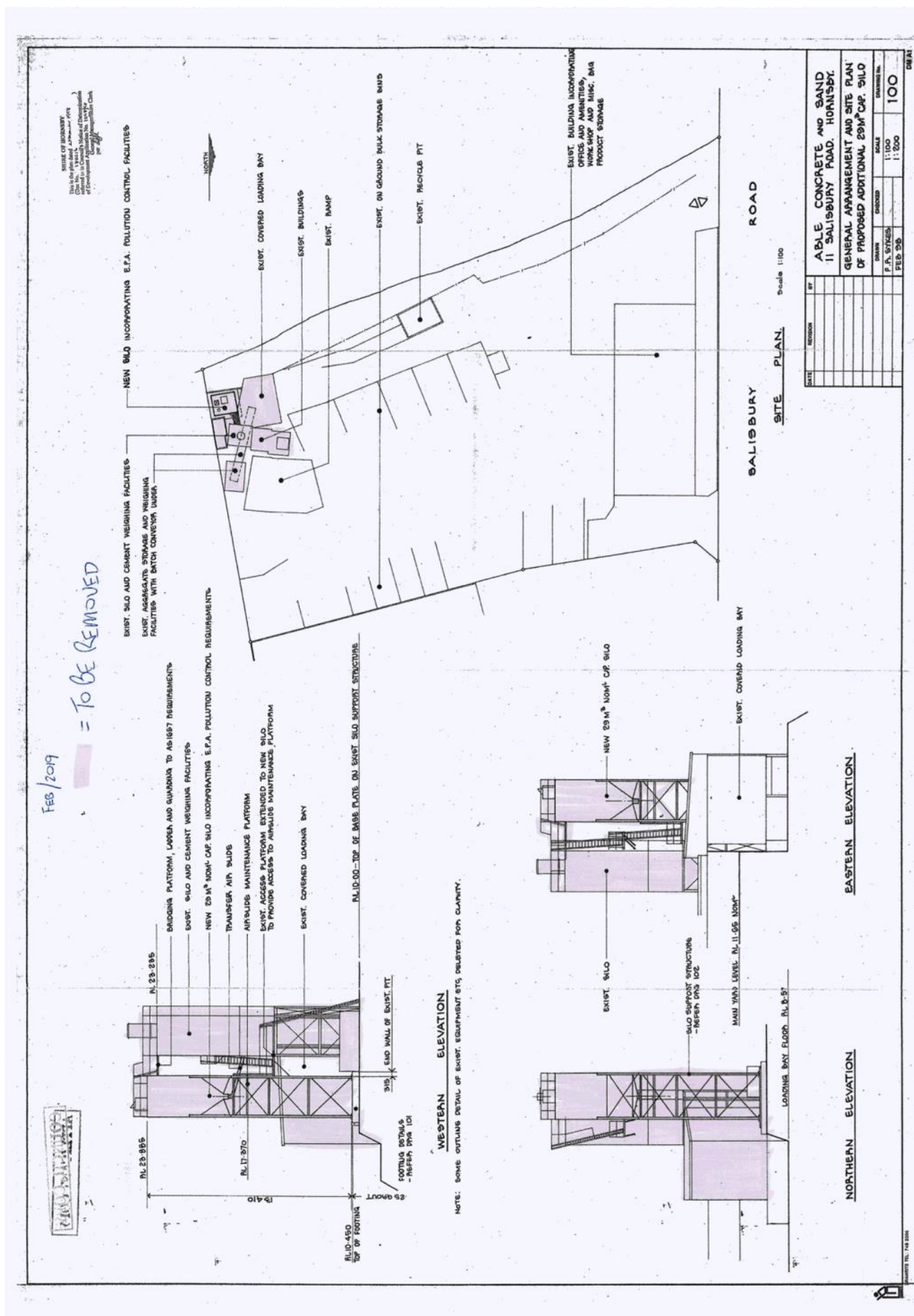
ATTACHMENT 2 - ITEM 2



ATTACHMENT 3 - ITEM 2



ATTACHMENT 3 - ITEM 2



ATTACHMENT 4 - ITEM 2

ATTACHMENT/S

REPORT NO. LPP25/20

ITEM 3

- 1. LOCALITY MAP**
- 2. AMENDED SUBDIVISION PLAN**
- 3. AMENDED PLANS**

LOCALITY PLAN

DA/1072/2018

Nos. 1131 - 1133 Pacific Highway, Cowan 2081

ATTACHMENT 2 - ITEM 3

1. THIRER FRAMING AND WIND BRACING TO COMPLY WITH AS/NZS 4684 AND TO NSW THIRER FRAMING MANUAL AMENDED TO SUIT WIND TERRAIN CATEGORY 3 AND DOORS TO SUIT DESIGNATED WIND TERRAIN CATEGORY.
2. CHECK ALL DIMENSIONS ON SITE BEFORE CONSTRUCTION.
3. ALL SITE CONDITIONS INCLUDING LEVELS TO BE CONFIRMED, AND ANY DISCREPANCIES TO BE RECORDED ON A PROFESSIONAL FORM OF RECORD.
4. DO NOT SCALE THE DRAWING, USE FIGURED DIMENSIONS.
5. CHECK ALL DIMENSIONS ON SITE BEFORE CONSTRUCTION.
6. DRAWINGS TO BE CHECKED AND CERTIFIED BY A PRACTISING STRUCTURAL ENGINEER PRIOR TO CONSTRUCTION.
7. THESE DRAWINGS ARE SUBJECT TO COPYRIGHT.
8. DRAWINGS ARE NOT TO BE REPRODUCED OR USED FOR ANY OTHER PROJECT WITHOUT THE WRITTEN PERMISSION OF THE DESIGNER.
9. OTHER SITE WORK UNDER COMPLYING DEVELOPMENT APPLICATION.

TOTAL SQUARE METERS
ON PLAN

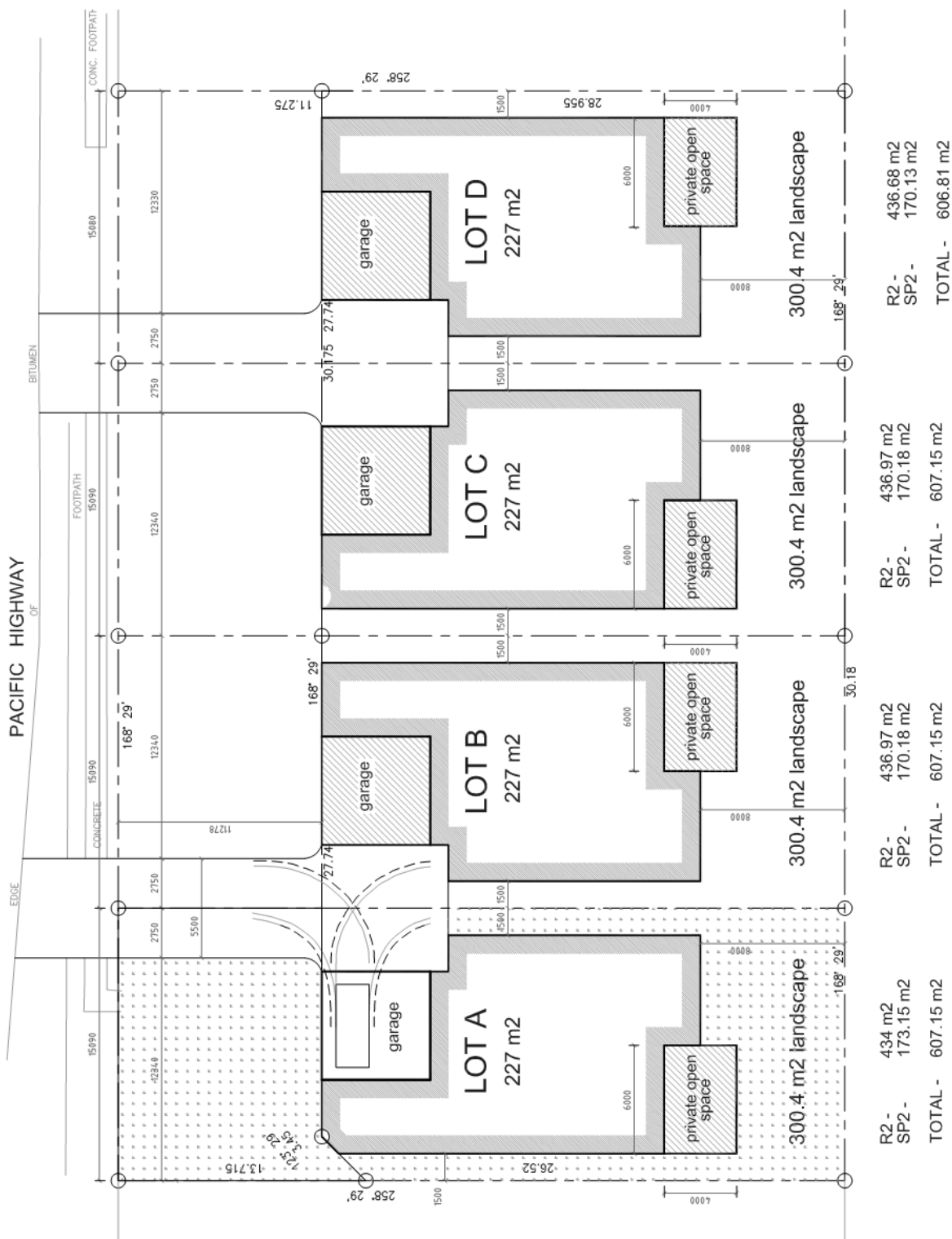
REVISION	DATE
A	24/03/20

PROJECT
PROPOSED SUBDIVISION

ADDRESS
1131 PACIFIC HIGHWAY,
COWAN.
LOT 1 AND 2 DP 576 031
AND LOT 1 DP 203 139

CLIENT
STUART CRABB

DATE 11/11/19
SCALE 1/100
SHEET 3 OF 3
DRAWN CR



PROPOSED SUBDIVISION PLAN 1:200

1. THIRER FRAMING AND WIND BRACING TO COMPLY WITH AS1684 AND TO NSW THIRER FRAMING MANUAL AMENDED TO SUIT WIND TERRAIN CATEGORY.
2. STAIRS, DOORS AND WINDOWS TO SUIT DESIGNATED WIND TERRAIN CATEGORY.
3. ALL SITE CONDITIONS INCLUDING LEVELS TO BE CONFIRMED, AND ANY DISCREPANCIES TO BE REFERRED TO DESIGN PROFESSIONAL FOR CLARIFICATION.
4. DO NOT SCALE THE DRAWING, USE FIGURED DIMENSIONS.
5. CHECK ALL DIMENSIONS ON SITE BEFORE CONSTRUCTION.
6. DRAWINGS TO BE CHECKED AND CERTIFIED BY A PRACTISING STRUCTURAL ENGINEER PRIOR TO CONSTRUCTION.
7. THESE DRAWINGS ARE SUBJECT TO COPYRIGHT.
8. DRAWINGS ARE NOT TO BE REPRODUCED OR USED FOR ANY OTHER SITE WORK UNDER COMPLYING DEVELOPMENT APPLICATION.

TOTAL SQUARE METERS	
SITE	562.4
EXISTING RESIDENCE	82.6
PROPOSED ADDITION	49.6
SECONDARY DWELLING	37.8
TOTAL ADDITION	87.4
TOTAL FLOOR AREA	170
PROPOSED FSR	0.31

REVISION	
A	ISSUED FOR DA
	24/03/20

PROJECT
PROPOSED SUBDIVISION

ADDRESS

1131 PACIFIC HIGHWAY,
COWAN.

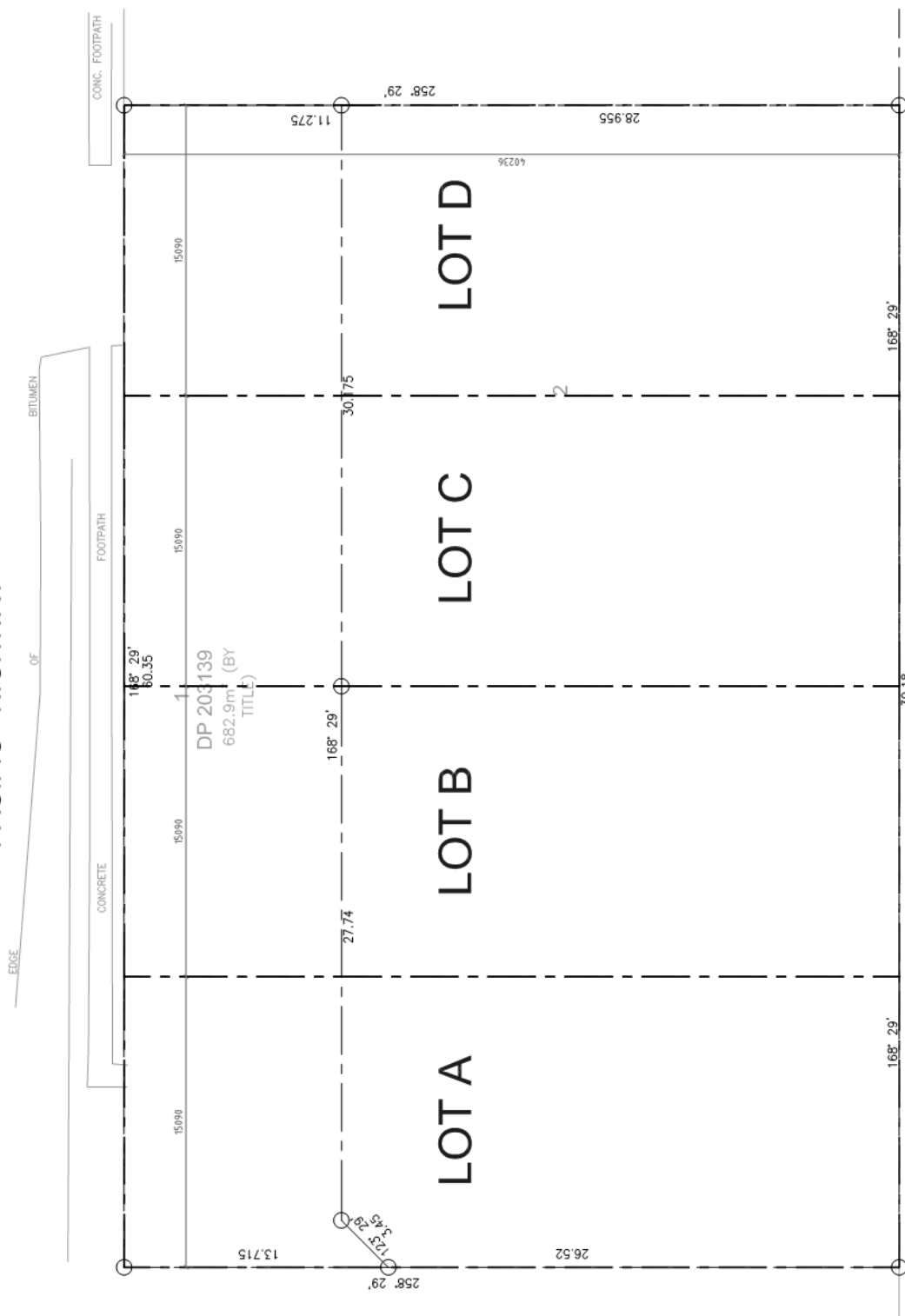
LOT 1 AND 2 DP 576 031
AND LOT 1 DP 203 139

CLIENT

STUART CRABB

DATE 11/11/19
SCALE 1/100
SHEET 2 OF 3
DRAWN CR

PACIFIC HIGHWAY



PROPOSED SITE PLAN 1:200

ATTACHMENT 2 - ITEM 3

PUBLIC DOMAIN WORKS CIVIL ENGINEERING PLANS

FOR RMS APPROVAL

1131-1133 PACIFIC HIGHWAY, COWAN

GENERAL NOTES

1. ALL WORKS ARE CARRIED OUT IN ACCORDANCE WITH THE CITY OF HORNSBY PUBLIC DOMAIN WORKS MANAGEMENT POLICY. THE CITY COUNCIL IS NOT RESPONSIBLE FOR THE DESIGN OR CONSTRUCTION OF ANY WORKS.
2. ALL EROSION AND SEDIMENTATION CONTROL MEASURES ARE TO BE CARRIED OUT IN ACCORDANCE WITH COUNCIL'S CODE OF PRACTICE FOR EROSION AND SEDIMENTATION CONTROL. THE CONTRACTOR IS RESPONSIBLE FOR THE MAINTENANCE OF EROSION AND SEDIMENTATION CONTROL MEASURES.
3. ALL PUBLIC UTILITIES ARE TO BE CLEARLY IDENTIFIED IN THE FIELD PRIOR TO CONSTRUCTION. THE CONTRACTOR IS RESPONSIBLE FOR THE LOCATION OF ALL PUBLIC UTILITIES PRIOR TO CONSTRUCTION. THE CONTRACTOR IS RESPONSIBLE FOR THE LOCATION OF ALL PUBLIC UTILITIES PRIOR TO CONSTRUCTION.
4. SURVEYING ENGINEER IS TO BE NOTIFIED PRIOR TO THE COMMENCEMENT OF ANY WORKS.
5. IT IS THE CONTRACTOR'S RESPONSIBILITY TO ENSURE THAT ALL WORKS ARE CARRIED OUT IN ACCORDANCE WITH WORK HEALTH AND SAFETY ACT 2011.
6. PERMISSION TO ENTER, CONSTRUCT WORKS AND DISCHARGE STOREWATER MUST BE OBTAINED FROM COUNCIL PRIOR TO COMMENCEMENT OF ANY WORKS.
7. ALL WORKS AS A RESULT OF THE SUBMITTED PLANS IS TO BE CARRIED OUT TO THE SATISFACTION OF THE SURVEYING ENGINEER.
8. ANY DISTURBED LANDSCAPING AREA IS TO BE SHARPED AND TIERED TO MATCH THE EXISTING LANDSCAPING.
9. ALL REMAINING GRADES TO BE BUILT UP TO A MINIMUM OF 100MM ABOVE THE EXISTING GRADE. GRADES TO BE 100MM ABOVE THE EXISTING GRADE.
10. RETAINED TREES TO BE FENCED WITH A 1.8M HIGH CHAINWIRE LINK FENCE AND TO BE MAINTAINED IN GOOD CONDITION. THE CONTRACTOR IS RESPONSIBLE FOR THE MAINTENANCE OF THE FENCE AND TO BE AT THE LOCATION OF THE FENCE PRIOR TO CONSTRUCTION.
11. A ROAD-OPENING PERMIT SHALL BE OBTAINED FOR WORKS IN THE ROAD PRIOR TO COMMENCEMENT OF WORKS IN THE ROAD. THE CONTRACTOR IS RESPONSIBLE FOR THE OBTAINING OF THE PERMIT AND FOR THE MAINTENANCE OF THE ROAD PRIOR TO CONSTRUCTION.
12. THE CONTRACTOR IS RESPONSIBLE FOR THE OBTAINING OF THE PERMIT AND FOR THE MAINTENANCE OF THE ROAD PRIOR TO CONSTRUCTION.
13. SERVICES SHOWN ON THIS PLAN HAVE BEEN LOCATED FROM INFORMATION PROVIDED BY THE CLIENT. THE CONTRACTOR IS RESPONSIBLE FOR THE LOCATION OF ALL SERVICES PRIOR TO CONSTRUCTION. THE CONTRACTOR IS RESPONSIBLE FOR THE LOCATION OF ALL SERVICES PRIOR TO CONSTRUCTION.
14. NO CONSTRUCTION SHALL BE PERMITTED PRIOR TO THE OBTAINING OF THE PERMIT AND FOR THE MAINTENANCE OF THE ROAD PRIOR TO CONSTRUCTION.
15. CERTIFICATION FROM PRACTISING ENGINEER TO BE SUBMITTED TO COUNCIL.

Drawing No.	DESCRIPTION	Rev
C000	GENERAL NOTES, LOCALITY PLAN & DRAWING SCHEDULE	C
C001	CIVIL WORKS LAYOUT PLAN	B
C002	DRIVEWAY PROFILE, LONGITUDINAL SECTION	B
C003	CONSTRUCTION NOTES AND DETAILS SHEET	A
C401	VEHICLE TURNING PATH SHEET 1 OF 2	C
C402	VEHICLE TURNING PATH SHEET 2 OF 2	C

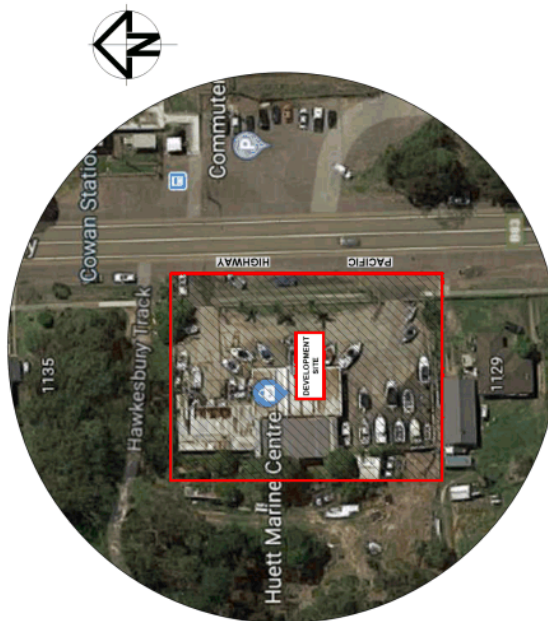
DANGER

LOCATION OF ALL EXISTING UNDERGROUND SERVICES SHOWN ARE APPROXIMATE AS TAKEN OFF DIAL INFO. THE CONTRACTOR IS RESPONSIBLE FOR THE LOCATION OF ALL SERVICES PRIOR TO CONSTRUCTION. THE CONTRACTOR IS RESPONSIBLE FOR THE LOCATION OF ALL SERVICES PRIOR TO CONSTRUCTION.

IT IS THE CONTRACTOR'S RESPONSIBILITY TO CONTACT "DIAL BEFORE YOU DIG" OR PHONE 1100 FOR THE LOCATION OF EXISTING PUBLIC UTILITIES PRIOR TO EXCAVATION.

DISCLAIMER

ALL INFORMATION SHOWN ON THIS PLAN (MANHOLE, SEWER, PIPES ETC.) IS DERIVED FROM DIAL BEFORE YOU DIG RECORDS. EVERY EFFORT WAS MADE TO ENSURE ACCURACY OF THESE RECORDS WHEN COMPILED. NO WARRANTY IS GIVEN TO CURRENCY OF DEPTHS AND LEVELS DUE TO THE POSSIBILITY OF SUBSEQUENT ALTERATION OF LEVELS. THE CONTRACTOR IS RESPONSIBLE FOR THE LOCATION OF ALL SERVICES PRIOR TO CONSTRUCTION. THE CONTRACTOR IS RESPONSIBLE FOR THE LOCATION OF ALL SERVICES PRIOR TO CONSTRUCTION.

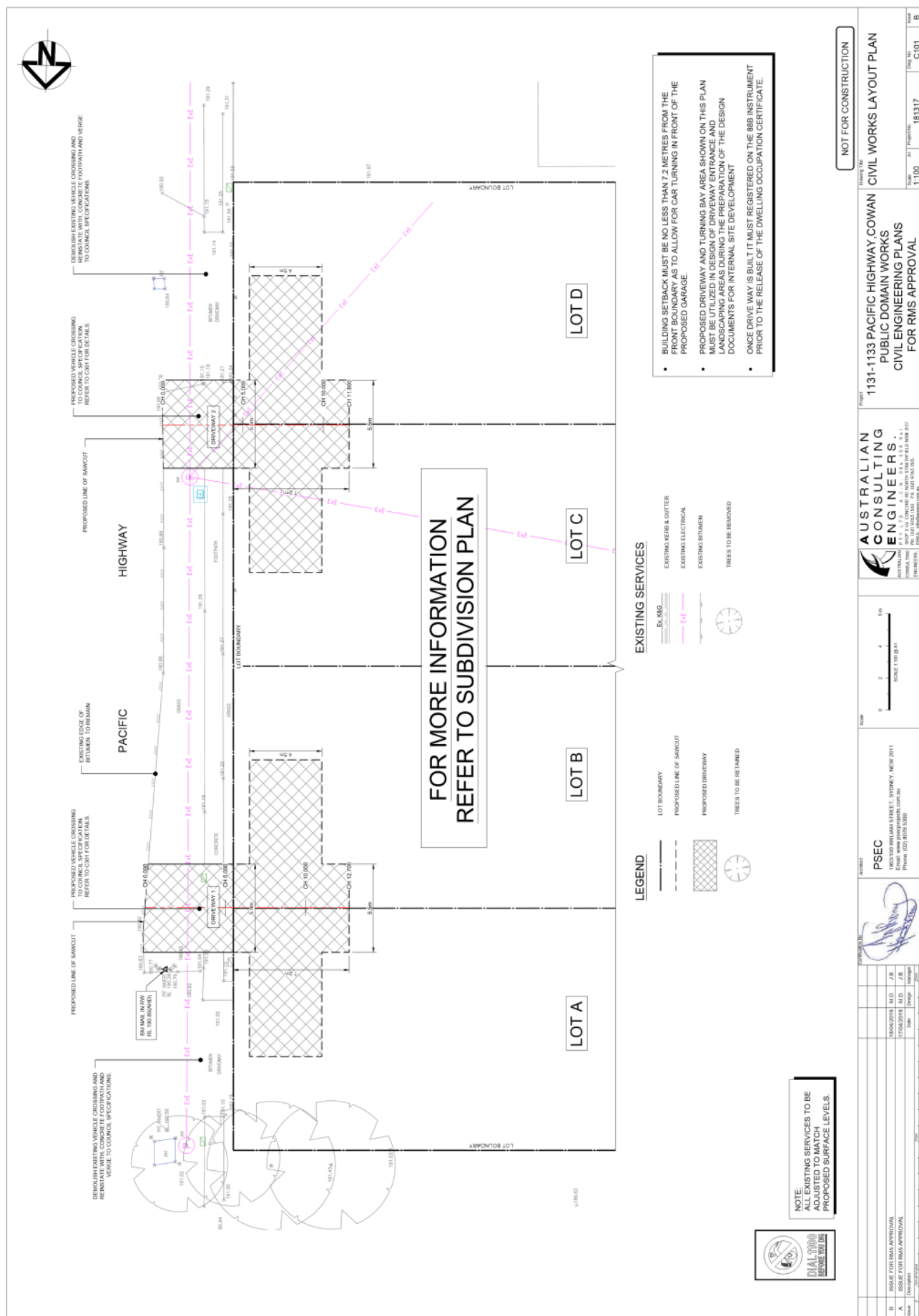


LOCALITY PLAN
N.T.S.

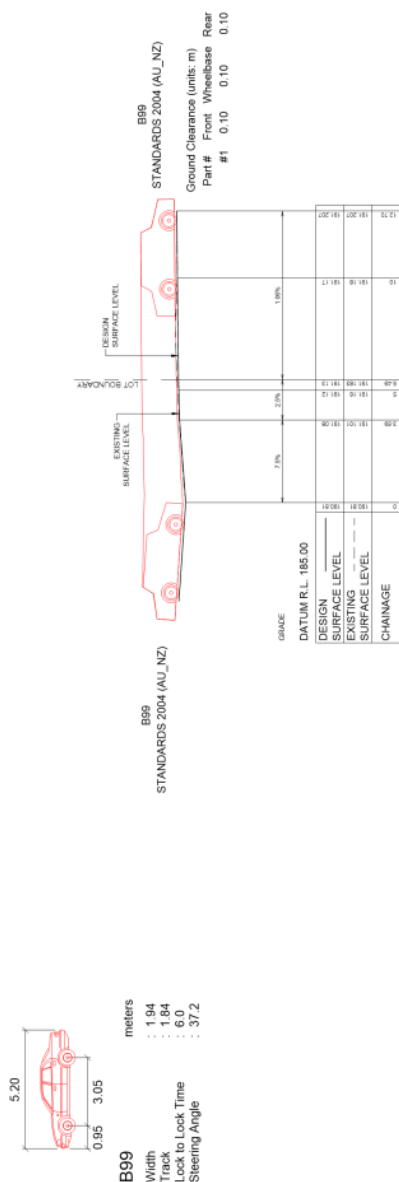


NOT FOR CONSTRUCTION	
AUSTRALIAN CONSULTING ENGINEERS 1131-1133 PACIFIC HIGHWAY, COWAN CIVIL ENGINEERING PLANS FOR RMS APPROVAL	GENERAL NOTES, LOCALITY PLAN AND DRAWING SCHEDULE CIVIL ENGINEERING PLANS FOR RMS APPROVAL
PROJECT NO: 1131-1133 PACIFIC HIGHWAY, COWAN DRAWING NO: 1131-1133 PACIFIC HIGHWAY, COWAN DATE: 11/05/2019 BY: [Signature] CHECKED: [Signature] APPROVED: [Signature]	PROJECT NO: 1131-1133 PACIFIC HIGHWAY, COWAN DRAWING NO: 1131-1133 PACIFIC HIGHWAY, COWAN DATE: 11/05/2019 BY: [Signature] CHECKED: [Signature] APPROVED: [Signature]

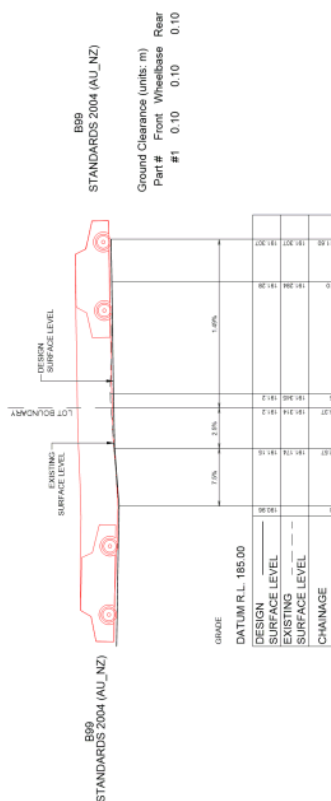
ATTACHMENT 3 - ITEM 3



ATTACHMENT 3 - ITEM 3



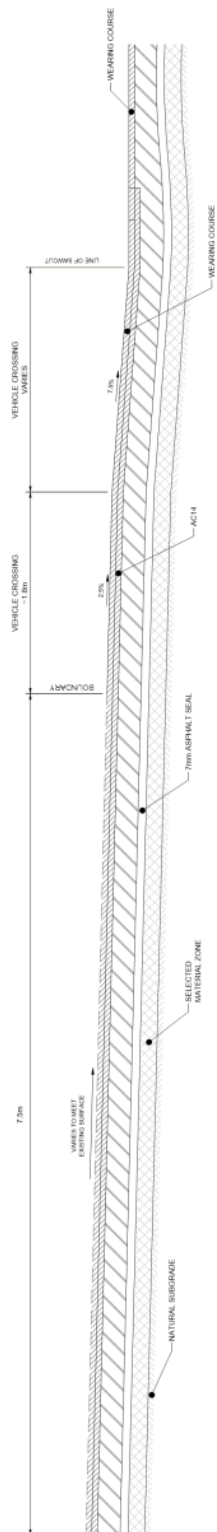
DRIVEWAY PROFILE SECTION 1 - LONGITUDINAL SECTION
SCALE 1:100 (NATURAL)



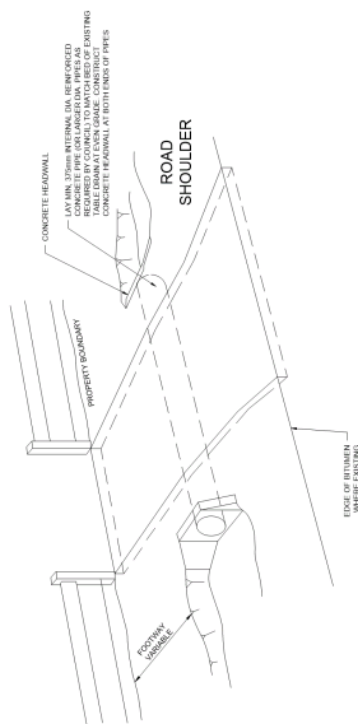
DRIVEWAY PROFILE SECTION 2 - LONGITUDINAL SECTION
SCALE 1:100 (NATURAL)

NOT FOR CONSTRUCTION		DRIVEWAY PROFILE LONGITUDINAL SECTIONS	
Project No. 1131-1133 PACIFIC HIGHWAY, COWAN PUBLIC DOMAIN WORKS CIVIL ENGINEERING PLANS FOR RMS APPROVAL		Project No. 1131-1133 PACIFIC HIGHWAY, COWAN PUBLIC DOMAIN WORKS CIVIL ENGINEERING PLANS FOR RMS APPROVAL	
Scale: 1:100		Scale: 1:100	
Drawn: J.B.		Drawn: J.B.	
Check: J.B.		Check: J.B.	
Issue: J.B.		Issue: J.B.	
Date: 17/04/2019		Date: 17/04/2019	
By: J.B.		By: J.B.	
For: J.B.		For: J.B.	
Project: 1131-1133 PACIFIC HIGHWAY, COWAN PUBLIC DOMAIN WORKS CIVIL ENGINEERING PLANS FOR RMS APPROVAL		Project: 1131-1133 PACIFIC HIGHWAY, COWAN PUBLIC DOMAIN WORKS CIVIL ENGINEERING PLANS FOR RMS APPROVAL	
Scale: 1:100		Scale: 1:100	
Drawn: J.B.		Drawn: J.B.	
Check: J.B.		Check: J.B.	
Issue: J.B.		Issue: J.B.	
Date: 17/04/2019		Date: 17/04/2019	
By: J.B.		By: J.B.	
For: J.B.		For: J.B.	

ATTACHMENT 3 - ITEM 3



TYPICAL VEHICLE CROSSING SECTION
SCALE 1:20



RURAL VEHICLE CROSSING SECTION
SCALE 1:10

NOT FOR CONSTRUCTION		Project No. 101317		Sheet No. A	
Project Name: 1131-1133 PACIFIC HIGHWAY, COWAN		Project No. 101317		Sheet No. A	
Project Description: PUBLIC DOMAIN WORKS CIVIL ENGINEERING PLANS FOR RMS APPROVAL		Project No. 101317		Sheet No. A	
Project Location: 1131-1133 PACIFIC HIGHWAY, COWAN		Project No. 101317		Sheet No. A	
Project Date: 17/04/2019		Project No. 101317		Sheet No. A	
Project Status: ISSUE FOR RMS APPROVAL		Project No. 101317		Sheet No. A	
Project Author: PSEC		Project No. 101317		Sheet No. A	
Project Engineer: PSEC		Project No. 101317		Sheet No. A	
Project Designer: PSEC		Project No. 101317		Sheet No. A	
Project Checker: PSEC		Project No. 101317		Sheet No. A	
Project Approver: PSEC		Project No. 101317		Sheet No. A	
Project Date: 17/04/2019		Project No. 101317		Sheet No. A	
Project Status: ISSUE FOR RMS APPROVAL		Project No. 101317		Sheet No. A	
Project Location: 1131-1133 PACIFIC HIGHWAY, COWAN		Project No. 101317		Sheet No. A	
Project Description: PUBLIC DOMAIN WORKS CIVIL ENGINEERING PLANS FOR RMS APPROVAL		Project No. 101317		Sheet No. A	
Project Date: 17/04/2019		Project No. 101317		Sheet No. A	
Project Status: ISSUE FOR RMS APPROVAL		Project No. 101317		Sheet No. A	
Project Author: PSEC		Project No. 101317		Sheet No. A	
Project Engineer: PSEC		Project No. 101317		Sheet No. A	
Project Designer: PSEC		Project No. 101317		Sheet No. A	
Project Checker: PSEC		Project No. 101317		Sheet No. A	
Project Approver: PSEC		Project No. 101317		Sheet No. A	

ATTACHMENT 3 - ITEM 3



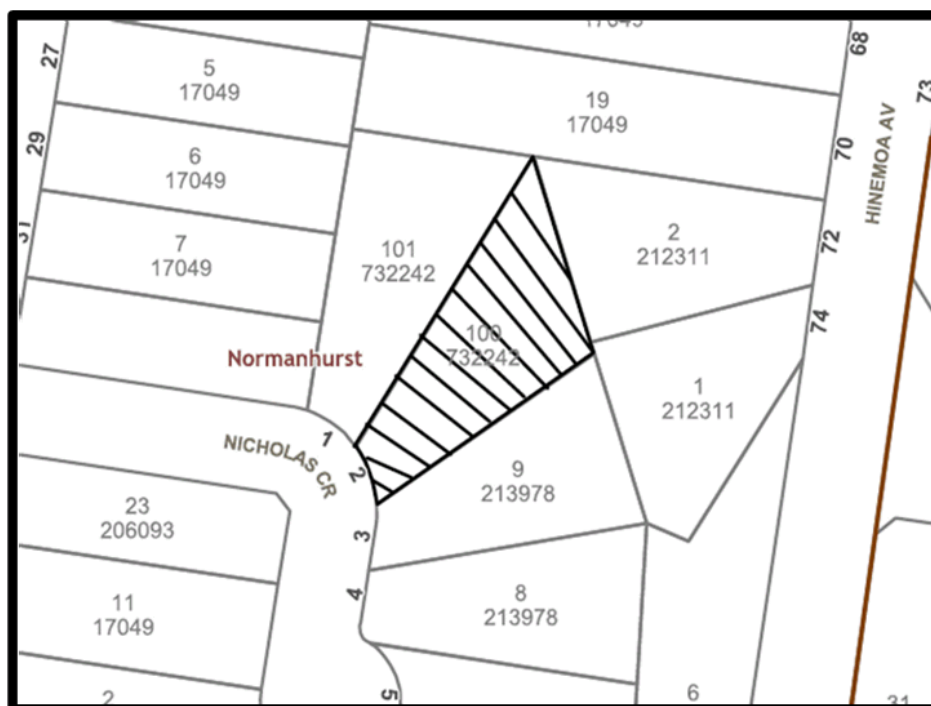
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ATTACHMENT 3 - ITEM 3

ATTACHMENT/S
REPORT NO. LPP28/20

ITEM 4

- 1. LOCALITY MAP**
- 2. CLAUSE 4.6 VARIATION**
- 3. ARCHITECTURAL PLANS AND TREE PROTECTION
PLAN**
- 4. BUSHFIRE REPORT**
- 5. ARBORICULTURAL IMPACT ASSESSMENT REPORT**



LOCALITY PLAN

DA/579/2020

Lot 100, DP 732242, No. 2 Nicholas Crescent Normanhurst

ATTACHMENT 1 - ITEM 4

Clause 4.6 Variation**Clause 4.3 - Building Height****2 Nicholas Crescent Normanhurst****Proposed Alterations and Additions to an Existing Dwelling****(Replacement Deck and Carport)****1.0 Introduction**

This submission is prepared pursuant to Clause 4.6 of *Hornsby Local Environmental Plan 2013* ('HLEP') to support the proposed alterations and additions to the existing dwelling on the site.

The proposal comprises the construction of a new carport, new covered deck at first floor level and new rainwater tank, at 2 Nicholas Crescent, Normanhurst ('the site').

Part of the proposed roofing to the new deck seeks a variation to the Height of Building (HOB) Development Standard. This is having regard for a steep dip/sudden drop in the topography, directly underneath the rear most part of the deck.

A section of the rear deck roof/covering does not comply with the Height of Building (HOB) Development Standard (8.5m) having a maximum height from the ridgeline of the new deck to the natural ground level immediately below the outer edge of the deck of 9.5m.

It is noted that the existing dwelling is also over the HOB for the site (being 9.25m from the ridgeline of the upper level to the ground level below. Both of the HOB breaches (existing and proposed minor) are the result of the fall of the site towards the rear of the land, as noted. Overall, the existing dwelling and new deck are considered to comply with the HOB development standard. The 2 small areas of variation are detailed in *Figure 2 in Section 2* below.

The relevant Height of Building control is a development standard for the purposes of the *EP&A Act 1979*. This request to vary the height development standard considers the judgment in *Initial Action Pty Ltd v Woollahra Municipal Council [2018] NSWLEC 118* ("Initial Action") and *SJD DB2 Pty Ltd v Woollahra Council [2020] NSWLEC 1112* (SJD DB2).

The relevant plans relied upon are those submitted by Smith & Sons, dated 16 July 2020.

2.0 The Proposal

The proposal comprises the construction of a new carport, new covered deck at first floor level and new rainwater tank. The works are summarised as:

- Construction of new double carport on western side of existing house.
- Construction of new roofed deck off living area – towards the rear yard, removal of existing deck.
- Installation of new rainwater tank at ground level under the new deck.
- Retention and, where necessary, protection of all identified and assessed trees.

The proposal respects Council's planning objectives and controls and is considered to improve the residential space for the owners with minimal external impact on adjoining properties and is not visible from the street. On merit, the proposal represents significant improvements for the functionality and enjoyment of the home. The proposal aligns with DCP merit controls and area planning objectives (as detailed in the accompanying Statement of Environmental Effects).

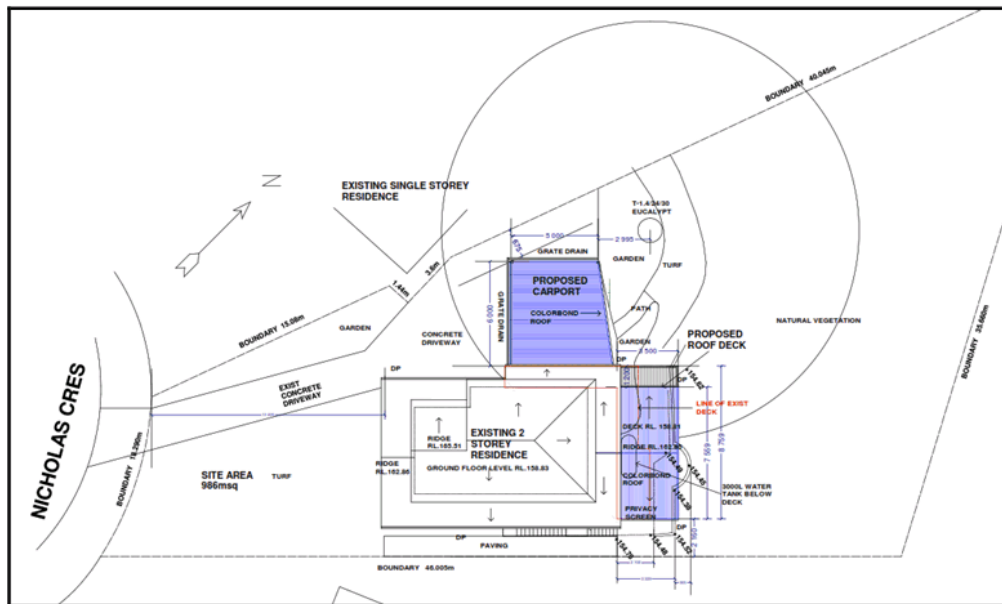


Figure 1: Site Plan, showing location of proposed works with the new deck at the rear of the house

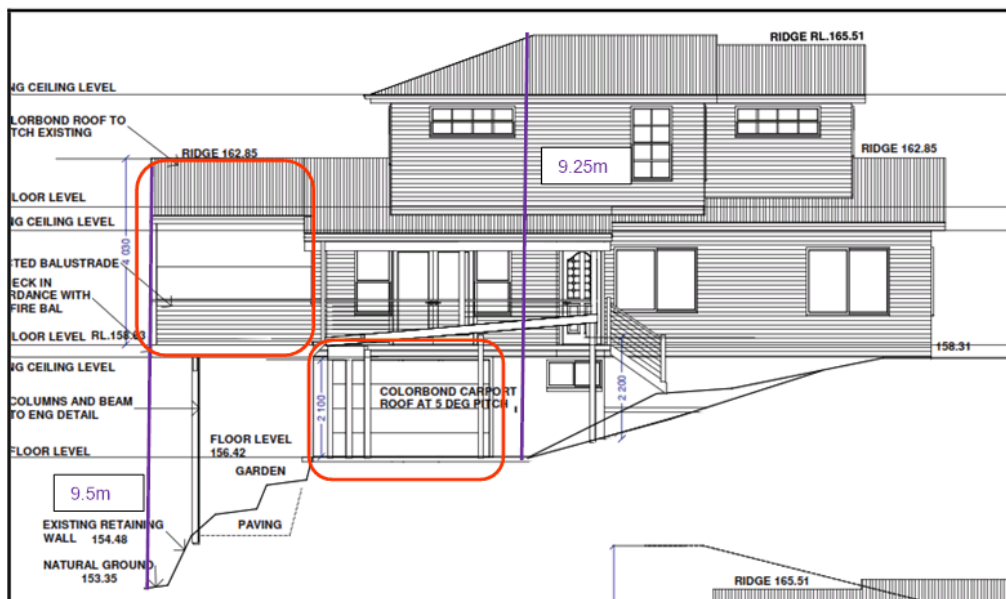


Figure 2: Elevation Plan of the existing dwelling showing the 2 areas of HOB exceedance (purple lines) and the 2 areas of the proposed works (red rectangles)

3.0 Clause 4.6

Clause 4.6 of the HLEP relates to *Exceptions to Development Standards*. The clause provides an opportunity to vary development standards where it can be demonstrated that the strict application of the standard is unreasonable and unnecessary under the circumstances, and that the flexibility will achieve a better development outcome.

This Clause 4.6 variation is prepared to address Clause 4.6 of the LEP and relevant case law guidelines recently established in *Four2Five Pty Ltd v Ashfield Council* [2015] NSWLEC 1009, *Four2Five Pty Ltd v Ashfield Council* [2015] NSWLEC 90, *Four2Five Pty Ltd v Ashfield Council* [2015] NSWCA 248, *Micaul Holdings Pty Ltd v Randwick City, Council* [2015] NSWLEC 1386, *Moskovich v Waverley Council* [2016] NSWLEC 1015 and *Initial Action Pty Ltd v Woollahra Municipal Council* [2018] NSWLEC 118, *Initial Action Pty Ltd v Woollahra Municipal Council* [2018] NSWLEC 118.

4.0 The Development Standard Being Varied

The Development Standard in question is *Clause 4.3 – Height of Buildings*. The maximum height limit for this site is 8.5m under Clause 4.3(2) and the associated LEP map series.

The pitched roof/covering at proposed outer edge of the proposed new deck, at the rear of the existing dwelling exceeds the HOB for the site as the site drops quickly at the rear of the house. The maximum height of the deck roofing above the topographical drop (minimal worst-case scenario) is 9.5m. There are 2 topographical steps which exist below the deck. The rearmost ground level RL 153.35 (worst case height/drop) and higher up where there is paving at RL 154.48 (where there is existing paving and the height is 8.37m). These are indicated with a height plane on the plans. Therefore, predominately, the deck complies and it is the dip which creates a small section of roofing which would not technically comply.

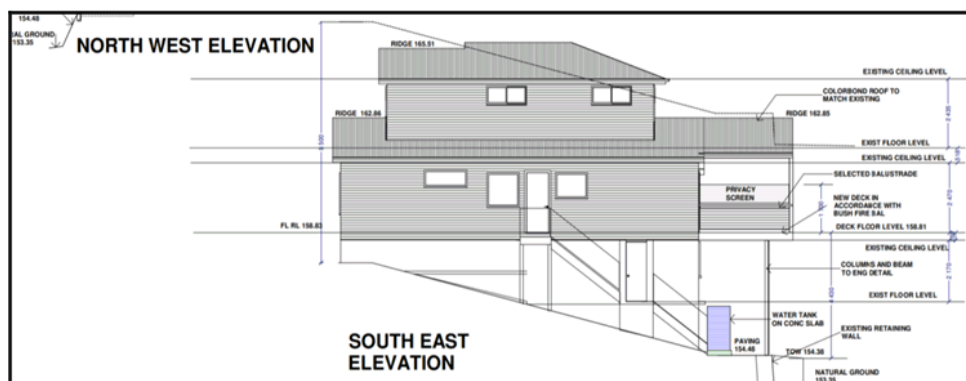


Figure 3: Height plane shown across the existing dwelling

The highest part of the *existing dwelling* (not proposed to change) also exceeds the HOB for the site. It is 9.25m and was previously approved by Council (refer to Figures 2 & 3). There is no change to this part of the dwelling and therefore not change to any potential impacts that may arise from the existing variation.

Figure 2 above shows the measurements of the 2 areas that exceed the height limit (shown in purple).

5.0 The Form and Detail Required for a Clause 4.6 Submission

This submission has been prepared in accordance with the provisions of the LEP, Department of Planning Guidelines and recent case law to consider the following points:

3

2 Nicholas Crescent Normanhurst - Clause 4.6 Submission – Building Height/Cl 4.3 – 17 July 2020

1. The objectives and purposes of the development standard and the zone;
2. Will the objectives of the LEP, the Building Height standard and R2 zone be upheld, despite the non-compliance;
3. Is the Building Height objective relevant to the proposal;
4. Is strict compliance with the standard unreasonable or unnecessary in the circumstances of the case;
5. Would the objectives be defeated or thwarted if compliance was required;
6. Is the zoning of the land unreasonable or inappropriate;
7. Are there sufficient environmental planning grounds to justify contravening the development standard, and is the variation well founded;
8. Would a compliant development result in an inferior design and planning outcome;
9. Is there a public benefit in maintaining the development standard;
10. Is the development is consistently applied and whether strict compliance with the standard in the circumstances of the case would be unreasonable or unnecessary or tend to hinder the attainment of the objectives of the LEP, the clause and the Environmental Planning and Assessment Act (EPA).
11. The clause does not require that a development that contravenes a development standard must have a *neutral or better* environmental planning outcome than one that does not.

1. Objectives of the HELP 2013, the Standard, and Clause 4.6

The HLEP 2013 aims:

The aims of the HLEP 2013 are as follows:

- (2) The particular aims of this Plan are as follows—
- (a) to facilitate development that creates—
 - (i) progressive town centres, thriving rural areas and abundant recreation spaces connected by efficient infrastructure and transport systems; and
 - (ii) a well-planned area with managed growth to provide for the needs of future generations and people enriched by diversity of cultures, the beauty of the environment and a strong economy;
 - (b) to guide the orderly and sustainable development of Hornsby, balancing its economic, environmental and social needs;
 - (c) to permit a mix of housing types that provide for the future housing needs of the community near employment centres, transport nodes and services;
 - (d) to permit business and industrial development that meets the needs of the community near housing, transport and services, and is consistent with and reinforces the role of centres within the subregional commercial centres hierarchy;
 - (e) to maintain and protect rural activities, resource lands, rural landscapes and biodiversity values of rural areas;
 - (f) to provide a range of quality passive and active recreational areas and facilities that meet the leisure needs of both the local and regional community;
 - (g) to facilitate the equitable provision of community services and cultural opportunities to promote the well being of the population of Hornsby;
 - (h) to protect and enhance the scenic and biodiversity values of environmentally sensitive land, including bushland, river settlements, river catchments, wetlands and waterways;
 - (i) to protect and enhance the heritage of Hornsby, including places of historic, aesthetic, architectural, natural, cultural and Aboriginal significance;
 - (j) to minimise risk to the community in areas subject to environmental hazards, including flooding and bush fires.

The proposal is consistent with the general aims in that it improves the site in terms of the existing high quality, high amenity environment which protects the important natural character of the area.

The new deck is sized to provide the occupants of the existing dwelling with a new, more functional private open space directly connected to the living area of the dwelling. This replaces an existing external elevated deck, which is weathered and in need of replacement. The proposed replacement deck has been designed with bushfire expertise to improve the bushfire resilience of the dwelling in this direction (the direction of the threat). It is considered reasonable to have a roof for weather protection and to maximise useability given that this is an elevated property at the rear of the site. This is considered to be a reasonable upgrade which has planning and environmental merit.

4

2 Nicholas Crescent Normanhurst - Clause 4.6 Submission – Building Height/Cl 4.3 – 17 July 2020

As noted, the replacement deck does not seek a significant change to the situation but would provide an improved external covered open space area which would improve the amenity of the house, increase the useability and enjoyment of the rear bushland and provide a private open space area (POS) which accords with Council's DCP controls. This area, being covered, increases the useability, is consistent with surrounding rear decks and allows the space to be used in various weather situations. The rear deck is well separated from properties and has appropriate screening to ensure privacy.

The deck is commensurate in scale with the dwelling, accords with the balance of other design and scale controls and is suitable for the subject R2 zone and the setting. Despite the minor numeric variation which occurs above the steep topography, the outcome is reasonable and consistent with the objectives of the LEP.

Zone R2 Low Density Residential

1 Objectives of zone

- *To provide for the housing needs of the community within a low-density residential environment.*
- *To enable other land uses that provide facilities or services to meet the day to day needs of residents.*

As discussed, the proposal, being ancillary and incidental to the existing dwelling is permissible and consistent with the first objective as it will improve the functionality and amenity of the existing dwelling without impacting adjoining properties. The HOB variation for the new deck is minor in the actual extent/area of non-compliance and is a function of the slope of the site. The new deck is sized to provide improved POS area directly connected to the living area of the dwelling.

The variation is not considered to create any material external issue in terms of scale, privacy or shadowing. Privacy is designed in and shadow plans indicate that the structure would not cause unreasonable impacts within this low density zone.

The second objective is not applicable to this application.

Therefore, the proposal is compatible with the character and amenity of the surrounding area and the height and scale is consistent with the desired future character of the area.

Clause 4.3 of the HLEP 2013

4.3 Height of buildings

- (1) The objectives of this clause are as follows:*
- (a) to permit a height of buildings that is appropriate for the site constraints, development potential and infrastructure capacity of the locality.*

As stated previously in Section 2 the proposed HOB variation for the outer edge of the new deck. This is a function of the existing fall of the land at the rear of the existing dwelling. It is a replacement deck to improve the liveability of the existing dwelling and is function of the site constraint. It does not seek to increase the density of development on the site, rather to improve the amenity of the site for its residents. This objective is satisfied.

Given the site presentation, the scope of the work which does not increase the overall height of the dwelling, its bulk or scale, the merits of the proposal and lack of adverse impacts, the proposed variation is supportable given the benefits and overall compliance. As detailed, the proposal is consistent with objectives of aims of the HELP 2013, the R2 zone and the Clause 4.3 HOB objectives.

Clause 4.6 Exceptions to Development Standards

Clause 4.6 aims to provide for flexibility in certain demonstrated circumstances and to promote better planning outcomes which may not necessarily be achieved by strict compliance.

5

2 Nicholas Crescent Normanhurst - Clause 4.6 Submission – Building Height/Cl 4.3 – 17 July 2020

Given the prevailing merit of improving the amenity and function of the home, the neutral/minimal external change, and given the minor scope of alterations provided in the documents, the proposal is considered to represent a high quality, overall improvement to the subject site and the area.

The proposal does not change the overall height of the existing building and the proposal presents a neutral outcome in relation to external impacts and compliance.

The proposed changes do not alter or worsen the existing varied height. This Clause 4.6 is to address a technical issue, addressing minor work being undertaken within the non-compliant area, to allow approval of a renovation and improvement to an existing POS area.

2. Are the objectives of the zone and standard upheld despite the non-compliance?

As the existing height maximum/variation is not changed or exacerbated, the proposal will not change the Nicholas Crescent character or the streetscape. The proposal will improve the quality of dwelling and is responsive to the site and context, as desired by the LEP objectives.

The internal and minor external changes are considered to improve the built environment, with a neutral and non-detrimental impact on the natural and built environment, as demonstrated in the plans and SEE. The proposal is considered to improve environmental sustainability and energy efficiency with the improvement of spaces, doors and outdoor private open space connected directly to the indoor living area of the dwelling.

Therefore, the objectives of the zone and standard are upheld despite the existing variation (as also detailed above).

3. Are the Building Height objectives relevant to the proposal?

The objectives are relevant to the proposal in so far as balancing built form and ensuring it is in keeping with the prevailing and desired character of the area. Also, to manage impacts associated with scale and height.

As discussed, there is no change in the overall height bulk or scale of the existing dwelling. The ridgeline of the new deck is lower than the ridgeline of the main living area of the dwelling and the desired roof profile for weather protection above the deck. This is considered reasonable for the space proposed.

The HOB exceedance is only a function of the steep drop-off at the rear of the dwelling, noting that only the outer edge of the balcony is numerically non-compliant, the remainder is compliant as the ground level steps up towards the house via the existing retaining wall and paved area under the house. Consequently, the proposal which involves only a minor change to the existing deck in terms of width and is not considered to create any adverse amenity or scale impacts.

The proposal will not create any additional scale or visual issues. A privacy screen is proposed along the outer edge of the side of the balcony to ensure privacy for occupants of the dwelling and their neighbours. The deck is not visible from the street and screen to the rear by the existing mature trees.

The objectives are relevant and as the proposal is consistent with the objectives, it is worthy of support.

4. Is strict compliance with the standard be unreasonable and unnecessary in the circumstances of the case?

The strict application of the numeric standard is considered to be unreasonable and unnecessary in this case given:

- The existing building does not currently comply due to the slope and fall of the land. There is no impact as a result of this existing variation and it is technical breach created by the land drop.

6

2 Nicholas Crescent Normanhurst - Clause 4.6 Submission – Building Height/Cl 4.3 – 17 July 2020

- No change is proposed to increase the overall height of the living area of the dwelling. (therefore, there is no change to that existing HOB variation).
- The new deck exceeds the HOB at the outer edge only and is a function of the drop-off of ground level at the rear of the dwelling. the remainder of the deck is compliant.
- The area of the deck that is non-compliant is relatively small and inconsequential when viewed from outside of the dwelling. It is not considered to contribute to any unreasonable external impact (including shadowing – as this has been modelled).
- Numeric compliance in this situation is not considered to be reasonable or necessary and the proposal has a neutral impact on the bulk and scale of the dwelling.
- The new deck is sized to improve the private open space that is available to the residents immediately connected to the internal living area of the dwelling. This connectivity of indoor and outdoor spaces is a general design principal for all residential development and is to be promoted in terms of outcome for residents, to enjoy the environment on a steep site where there is minimal external impact. The proposal is therefore considered to achieve good quality design.
- The existing technical non-compliance does not change as part of the DA but requires consideration as part of the assessment and approval of the DA for modest and reasonable additions and alterations.
- The general consistency of the application with the objectives of the HLEP and the standard and the height, site planning, residential and environmental/character controls as detailed in this submission, and the overall modesty of the proposal.
- The fact that the proposal will considerably improve residential space on site without adversely affecting the streetscape or natural setting of the site.
- The changes proposed in the non-compliant area are not considered to be significant.
- The proposal provides for the protection of the existing streetscape presentation (no change to existing) and the reasonable protection of adjoining properties.
- The proposal has been demonstrated within this submission and the SEE to be consistent with the relevant HLEP and HDCP provisions and objectives and to be generally compliant with numeric controls.

5. *Would the objective of the standard be defeated or thwarted if compliance was required?*

The objectives of the standard are considered to be met. The design would be compromised if strict compliance was required. In this case, the proposal is considered to present a better outcome.

The objectives of the standard seek to balance built form and to ensure that amenities for the public domain and other residents are protected. The proposal represents minor and reasonable changes which will protect the existing public domain and the amenities of adjoining/surrounding properties.

6. *Is the zoning of the land unreasonable or inappropriate?*

The zoning of the land is not considered to be unreasonable or inappropriate. It reflects the desired low-density intention of this area, the heritage significance and desired residential composition.

7. *Are there sufficient environmental planning grounds to justify contravening the development standard/is the variation well founded?*

Refer to the points listed in No. 4 above. Further:

- No change is proposed to the built form as viewed from the street.
- The height of the deck is acceptable to and commensurate with that which is characteristic of adjoining properties.
- No change is proposed to the total height of the non-compliant section of the existing dwelling. This is a modest and reasonable, ancillary roofed structure which provides benefit without unreasonable impact.
- The new rear deck is generally compliant with the height standard, except for the outer edge directly above the ground level that is a drop-off at the rear of the house. This is therefore a technical non-compliance due to the site constraints and natural fall of the site.
- The existing streetscape and character will be protected.

7

2 Nicholas Crescent Normanhurst - Clause 4.6 Submission – Building Height/Cl 4.3 – 17 July 2020

- The proposal is generally consistent with the site and area specific DCP controls to represent the ideal outcome for reasonable alterations and additions to improve functionality and liveability of the existing dwelling.
- The proposed improvements support the existing and ongoing low density residential/family use of the site.
- The development upgrades the house, promoting space, efficiency and amenity. There is minimal change to the exterior of the building and changes are at the rear, being the new deck.
- Design and site development outcomes are preferable to strict numeric compliance and the proposal results in no change to the building height and a neutral planning outcome (it is considered that there would be no exacerbation of perceived bulk or scale of the development).
- Therefore, with consideration for the planning objectives, there is no reason that the proposal should not be supported to allow the dwelling update.
- For the above reasons, the variation is considered to represent a quality planning outcome, supported by reasonable environmental planning grounds.

8. *Would a compliant development result in an inferior design and planning outcome?*

Given the minor scope of work, the benefits offered in terms of amenity improvements and the overall compliance, the variation is considered supportable. Strict compliance would be unreasonable, given the existing constructed building/roof height which is not proposed to be increased.

9. *Is there a public benefit in maintaining the development standard?*

The proposal is consistent with the design controls and objectives of the DCP and height standard. The proposed development protects the natural environment, improves bushfire safety and overall safety/amenity and is considered to be in the public interest.

Given the merits put forward in the SEE and this submission, there is not considered to be a particular public benefit in strictly maintaining the development standard in this case, particularly given the extent of the existing variation.

10. *Whether the development is consistently applied and whether strict compliance with the standard in the circumstances of the case would be unreasonable or unnecessary or tend to hinder the attainment of the objectives of the LEP, the clause and s5(a)(i) and (ii) of the Environmental Planning and Assessment Act (EPAA).*

Section 1.3 of the Act seeks to encourage development which enables the proper management, development and conservation of natural and artificial resources and the promotion and co-ordination of the orderly and economic use and development of land.

The standard is consistency applied for new development. However, this building was approved some time ago with a varied height. In this instance, strict application is unreasonable and unnecessary as the proposed development will not exacerbate the existing height and will create a range of positive outcomes for the house without any additional scale, height or adverse impact.

The proposal is consistent with planning objectives. The new rear deck improves connectivity of living area and open space and outdoor living, in an economically and environmentally efficient way and allows on-going protection of vegetation and the natural setting of the site in creating a high-quality built environment without adverse impacts.

Summary

- The proposal is considered to provide a quality planning outcome in terms of the proposed improvements and has a neutral impact on the existing height, bulk and scale of the existing dwelling.
- Providing height compliance for the new rear deck, in this case, is unnecessary and unreasonable as the variation is relatively minor.

8

2 Nicholas Crescent Normanhurst - Clause 4.6 Submission – Building Height/Cl 4.3 – 17 July 2020

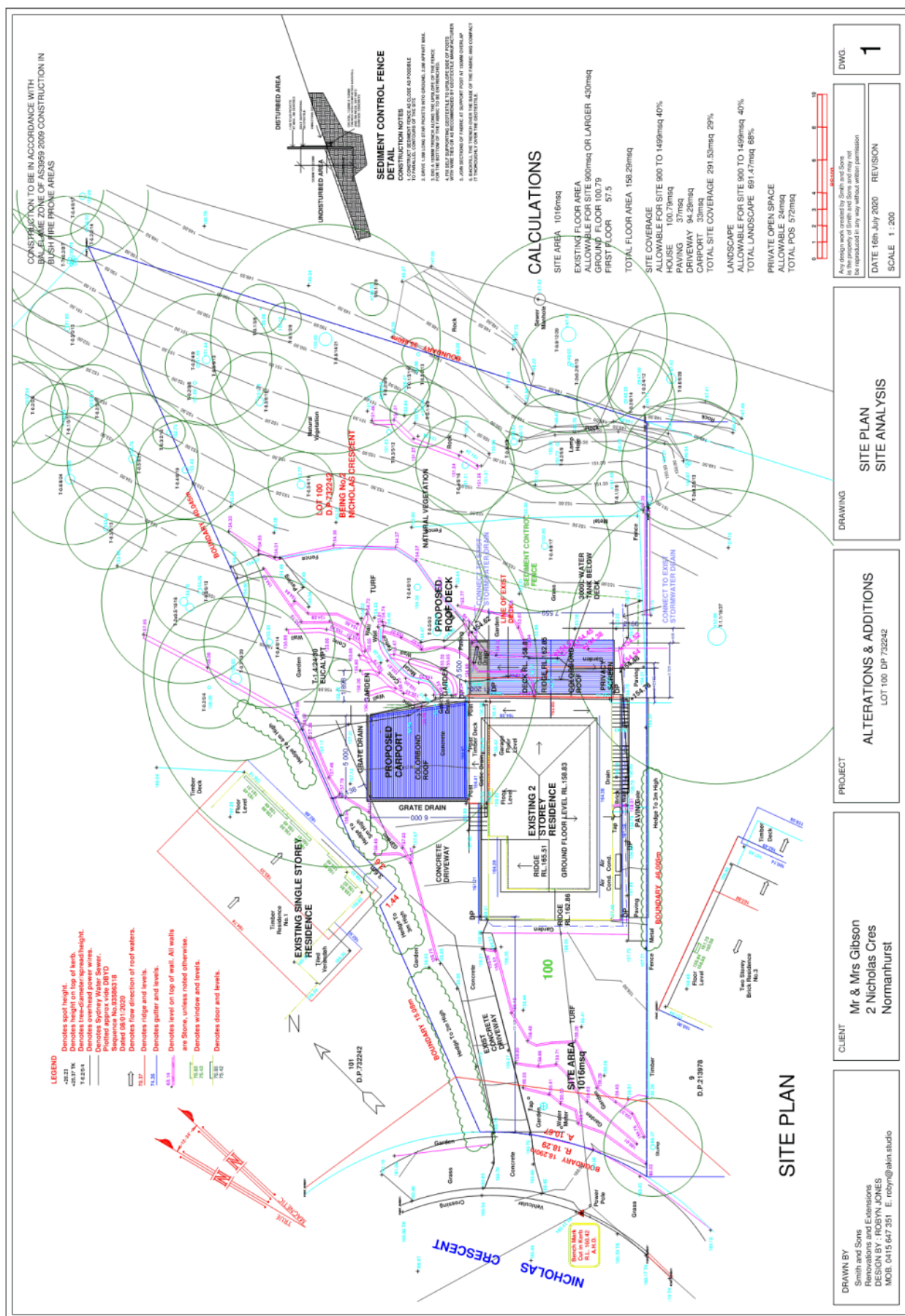
- The proposal does not increase the overall height of the dwelling and does not create any external change to the view of the dwelling from Nicholas Crescent. The new deck is at the rear of the dwelling, is not visible from the street and is well separated from adjoining properties.
- The proposal is consistent with the objectives of the height standard which are to manage form and scale and to protect amenity and area character.
- The proposal is considered to be consistent with the objectives of the HLEP 2013, the R2 zone, the building height objectives of Clause 4.3 and Clause 4.6, as detailed.
- The proposal has been designed to respect the objectives of the residential planning controls and will improve residential amenity of the dwelling.
- The proposal respects the form of surrounding properties and the amenities of directly adjoining houses. Minimal external changes are proposed. The rear deck is generally compliant and is modest and reasonable having regard for the existing house and surrounding structures.
- The development is consistent with the objective of Clause 4.6 in providing flexibility in certain circumstances. The merits have been demonstrated and a quality planning outcome is considered to be achieved, despite the variation, with the practical upgrade to improve the dwelling and with minimal external impacts and no streetscape change.
- Strict numeric compliance would not materially change the development or improve the residential living amenity of the house. It would unduly constrain the indoor/outdoor living amenity of the dwelling without reasonable cause.
- Strict numeric compliance would result in the detrimental changes and is not considered necessary as the proposal will not change the appearance or scale of the site within the local context and the dwelling is consistent with the relevant planning objectives.
- The application provides for the orderly and economic development of land, improvement of living conditions of the existing low-density residence and adequate protection of the environment and public interest.
- The variation is considered to be well-founded and will create a satisfactory planning outcome which is consistent with the range of applicable planning controls as detailed in the SEE.

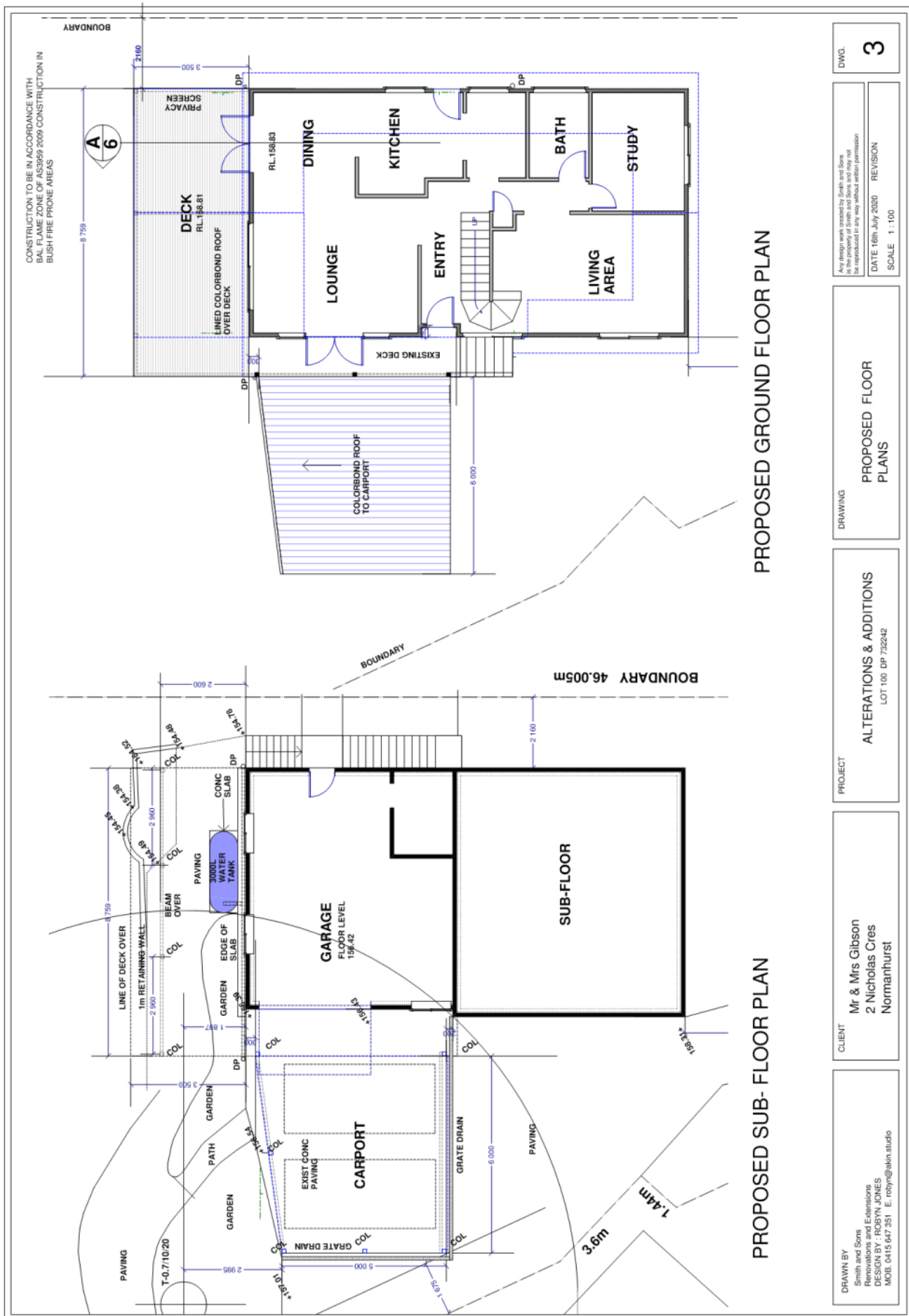


Natalie Richter (B. Town Planning, UNSW), 17 July 2020

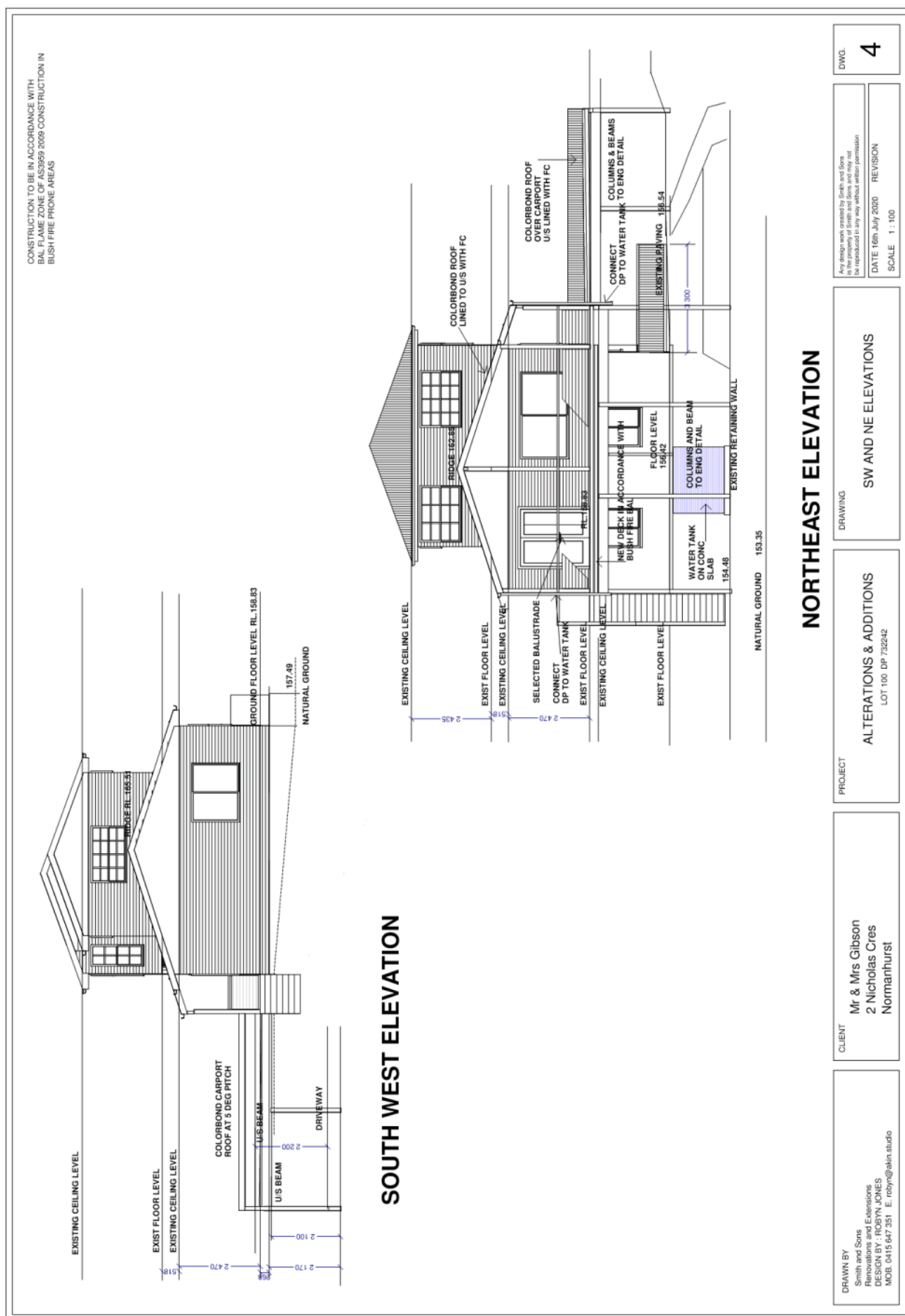
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ATTACHMENT 3 - ITEM 4

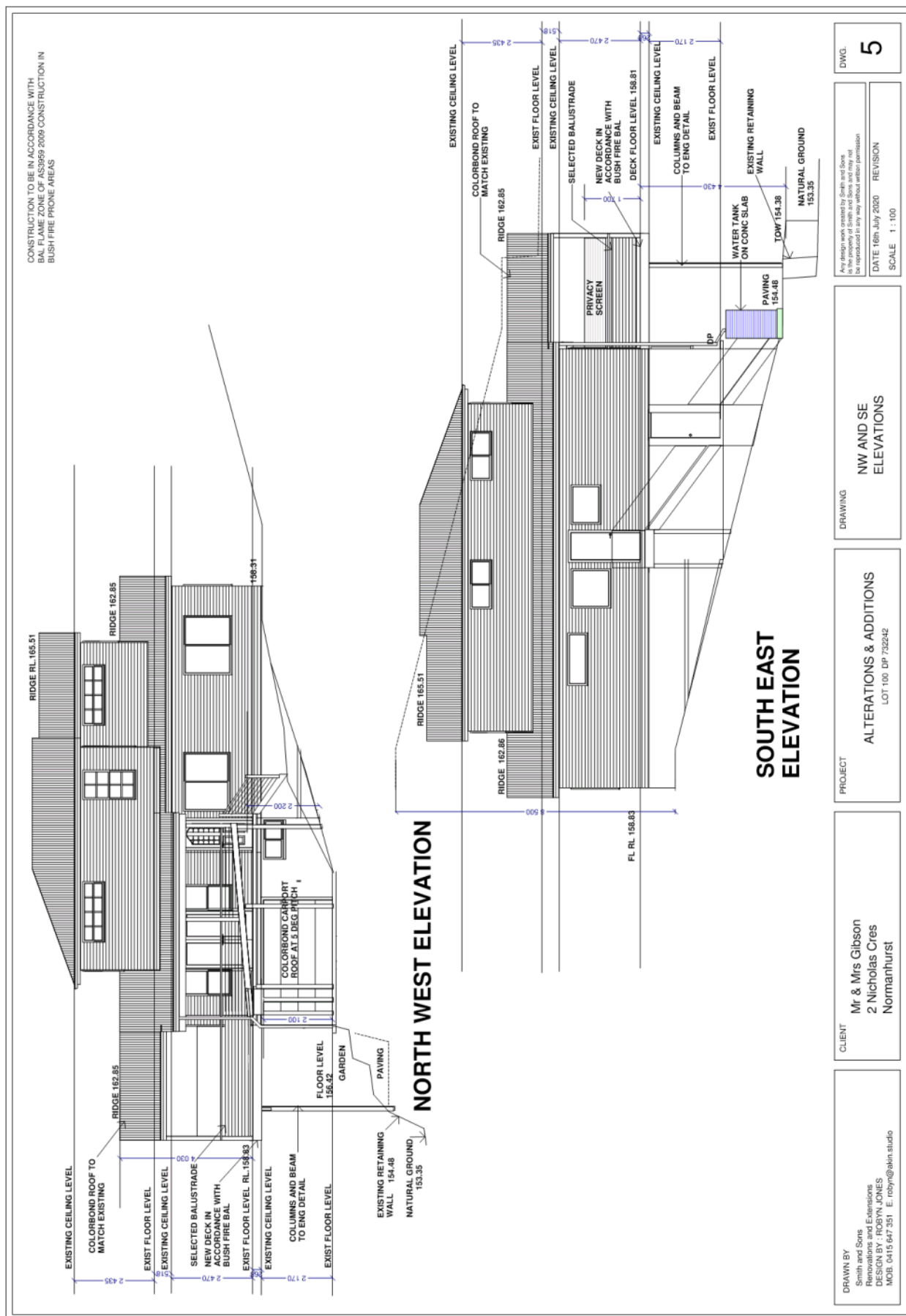




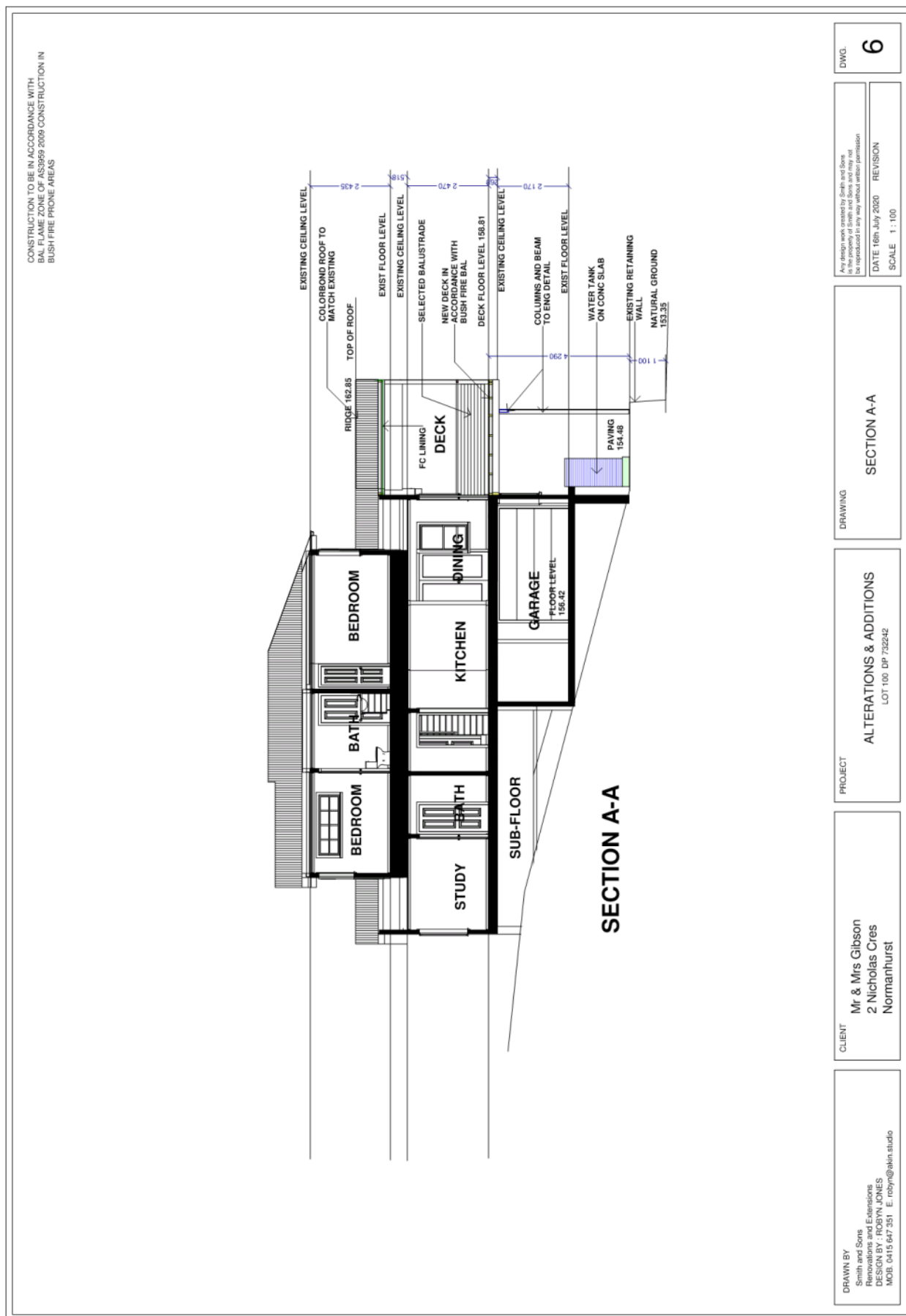
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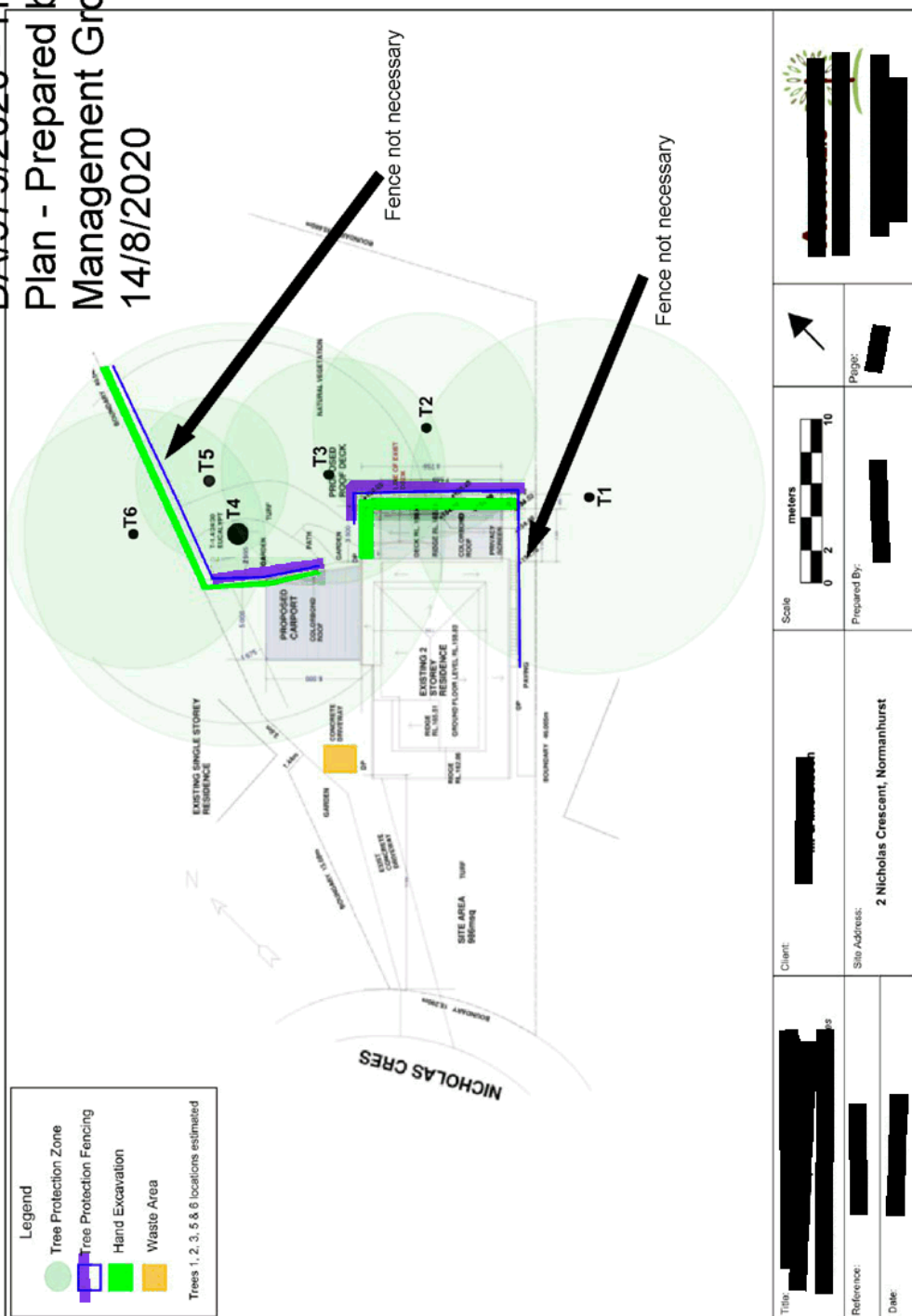


ATTACHMENT 3 - ITEM 4



ATTACHMENT 3 - ITEM 4

DA/579/2020 - Tree Protection
Plan - Prepared by Tree
Management Group dated
14/8/2020



4 May 2020

2 Nicholas Crescent, Normanhurst
Australis Reference 20201639.2

ATTACHMENT 3 - ITEM 4



Bushfire Assessment Report Residential Infill Development – 2 Nicholas Cres, Normanhurst

Prepared for

Mrs. and Mr. Gibson

11 March 2020 | Version 1.0



ATTACHMENT 4 - ITEM 4



Document Tracking:

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Contents

1. Abbreviations	4
2. Glossary	4
3. Property, Proposal & Summary	5
4. Compliance with Planning for Bushfire Protection 2006	5
5. Introduction	6
6. Site Description & Proposal	9
7. Bushfire Prone Land	11
8. Infill Development	13
9. Limitations within the System	14
10. Bushfire Assessment Requirements	16
10.1. Methodology	17
10.2. Bushfire Hazard	17
10.3. Fire weather	18
10.4. Vegetation	18
10.5. Slopes influencing bushfire	18
11. Bushfire Attack Levels	20
12. Asset Protection Zones	23
12.1. Bush Fire Protection Measures for Infill Development	24
13. Access	25
14. Water Supply	25
15. Gas and electrical supplies	25
16. PBP Specific Objectives	26
17. Recommendations	27
18. Conclusion	28
Appendix 1 References	29

ATTACHMENT 4 - ITEM 4

1. Abbreviations

APZ	Asset protection zone
AS2419	Australian Standard – Fire hydrant installations
AS3745	Australian Standard – Planning for emergencies in facilities
AS3959	Australian Standard – Construction of buildings in bushfire-prone areas 2009
BAL	Bushfire Attack Level
NCC	National Construction Code
BFSA	Bushfire safety authority
EP&A Act	Environmental Planning & Assessment Act 1979
EPA Reg	Environmental Planning and Assessment Regulation 2000
GTA	General terms of approval
PBP	Planning for Bush Fire Protection 2006
RF Act	Rural Fires Act 1997
RFS	NSW Rural Fire Service
RFR	Rural Fires Regulation 2013
SFPP	Special fire protection purpose

2. Glossary

AS3959	Australian Standard AS 3959 Construction of buildings in bushfire-prone areas, Standards Australia, 1999, that outlines construction standards applicable to residential developments in bush fire prone areas
Bushfire Prone Area	An area of land that can support a bush fire or is likely to be subject to bush fire attack.
Bush fire safety authority	An approval of the Commissioner of the RFS required for a subdivision for residential or rural residential purpose or for a special fire protection purpose listed under section 100B of the RF Act.
Infill Development	Refers to the development of land by the erection of or addition to a residential building (or buildings) which does not require the spatial extension of services including public roads, electricity or water and is within an existing allotment.



3. Property, Proposal & Summary

Address:	2 Nicholas Cres, Normanhurst
Lot/ DP:	Lot 100 DP373242
Suburb, town or locality:	Normanhurst
Local Government Area:	Hornsby Council
Type of development:	Infill development. Application for alterations and additions to an existing residential house
NCC Categorisation	1A single detached house
Existing use	Residential house
Intended use	Single residential dwelling

4. Compliance with Planning for Bushfire Protection 2006

Type of Development	Infill
Aim of PBP	Yes
Objectives of PBP	Yes
Specific Objectives for Infill	Yes
BAL	BAL Flame Zone
Alternate Solution or Deemed to Satisfy?	Alternate Solution BAL Flame Zone

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5. Introduction

Mr and Mrs Gibson have commissioned Blackash Bushfire Consulting (Blackash) to prepare a bushfire assessment for proposed alterations and additions to the existing residential house at 2 Nicholas Cres, Normanhurst (**the site**) which is legally known as Lot 100 DP373242 (See Figure 1).

The site is zoned R2 - Low Density Residential and is appropriately zoned for alterations and additions to the existing house new residential house. The Hornsby Local Environmental Plan 2013 is applicable to the site.

Section 4.14 of the *Environmental Planning and Assessment Act 1979 (EP&A Act)* requires compliance with the RFS document *Planning for Bushfire Protection 2006 (PBP 2006)*. The NSW Rural Fire Service (**RFS**) document PBP 2006 applies to all new development on bushfire prone land.

A new draft version of *Planning for Bushfire Protection 2019 (PBP 2019)* is expected to be gazetted in March 2020. Until then, PBP 2019 is in a 'pre-release' stage, also known as the transitional period. Until PBP 2019 becomes legislated, PBP 2006 will remain the legally referenced document and PBP 2019 can be used on a performance basis in consultation with NSW RFS only.

The house is in an existing Lot which sits above Coups Creek and a small tributary feeding into the creek. Land within the rear of the adjoining blocks is not managed as an asset protection zone, and while narrow, potential exists for fire to push up the creek and into the site.

The house is in the flame zone and the bushfire assessment has been undertaken as an alternative solution to meet the performance requirements of PBP 2019.

Blackash have discussed the likely effects of bushfire with the owner explaining that the site and house may be exposed to high intensity bushfires. The clients are aware of this and have put measures into place that provide for life safety which will include a Bushfire Survival Plan.

The Hornsby Council as the consent authority, is required to consult with the RFS under section 4.14 of the EPA Act when a proposed residential dwelling (infill development) does not comply with the "acceptable solutions" within section 4.3 of PBP and or is in the flame zone. Referral to RFS is recommended.

PBP recognises that infill development proposals will be constrained by existing situations – pre-existing subdivision patterns and existing built forms surrounding the subject site. Consequently, each proposal



must be considered on its merits and in accordance with the intent and performance criteria for infill development.

Lew Short (FPAA BPAD-A Level 3 Certified Practitioner No. 16373) has completed this report. Lew is recognised by the RFS as a suitably qualified consultant in bushfire risk assessment. A site inspection was completed on 28 February 2020.

ATTACHMENT 4 - ITEM 4

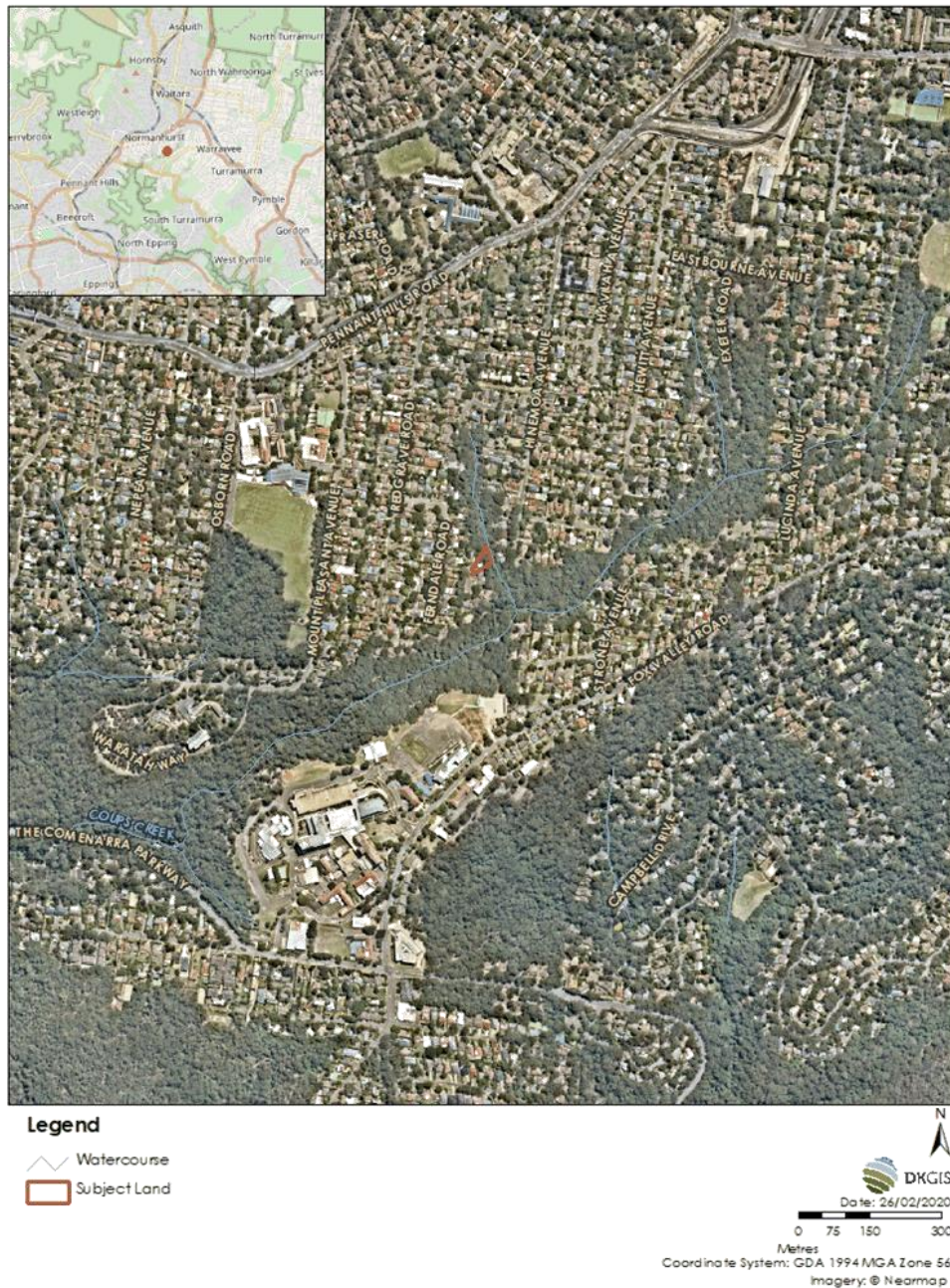
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7

Figure 1 Site Location



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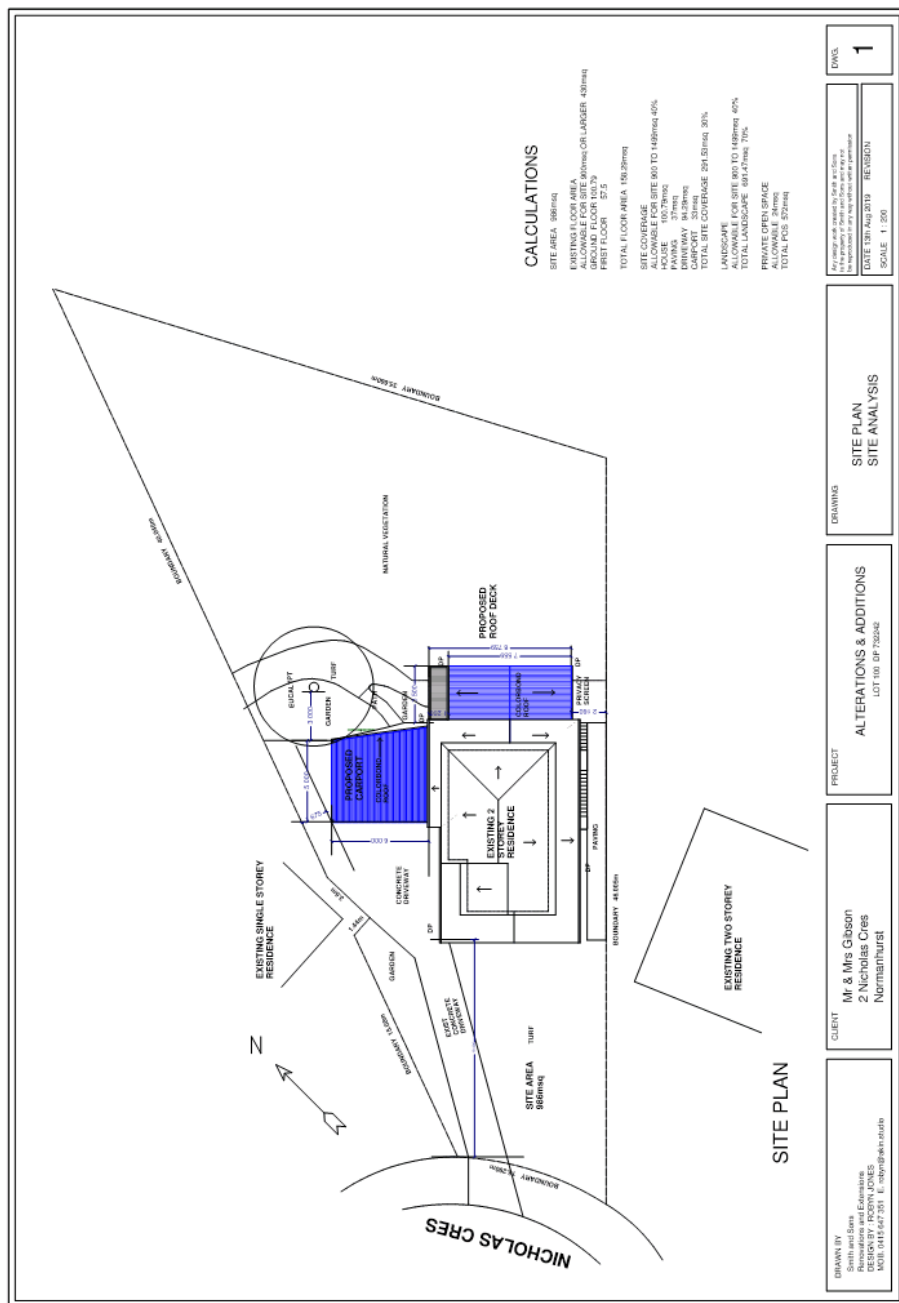
6. Site Description & Proposal

The proposed house renovation is provided at Figure 2. The proposed renovation is to replace the existing timber deck with a new deck. The existing deck has weakened beams. A new car port is proposed at the end of the existing driveway which will be nattached to the house.

The Lot is well managed and kept as an APZ. This will be continued.

The configuration of the site and adjoining unmanaged bushland provides a moderate likelihood that the site will be impacted by high intensity bushfire. There is potential for the site and house to be impacted from the south east with bushfire attack in the form of ember attack, smoke, radiant heat and direct flame contact.

Figure 2 Proposed House - Site Plan





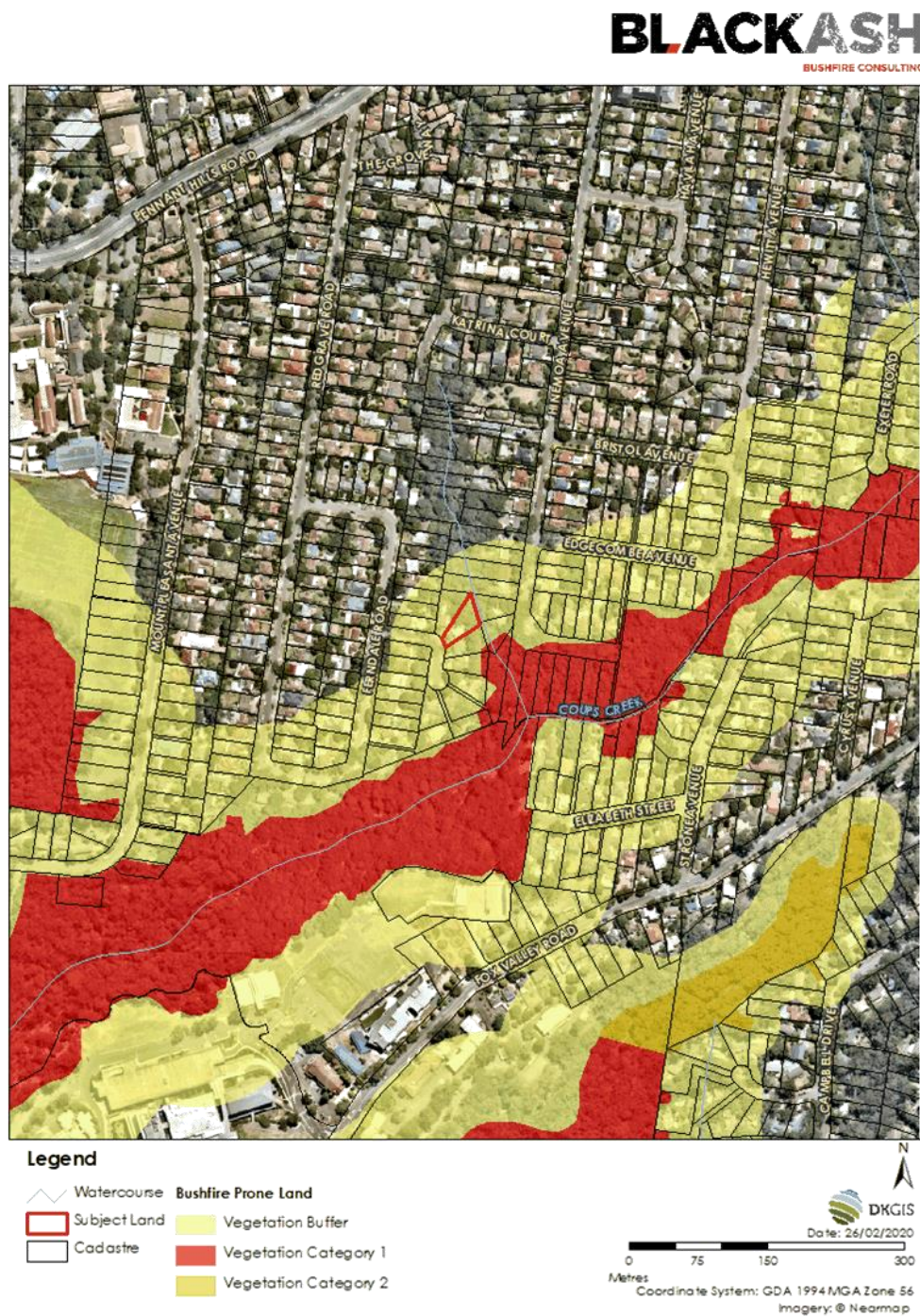
7. Bushfire Prone Land

The site is identified as 'bushfire prone land' (see Figure 3) for the purposes of Section 10.3 of the EPA Act and the legislative requirements for building on bushfire prone lands are applicable.

Bushfire prone land maps provide a trigger for the development assessment provisions and consideration of sites that are bushfire prone. Bushfire prone land (**BFPL**) is land that has been identified by council, which can support a bushfire or is subject to bushfire attack. Bushfire prone land maps are prepared by local council and certified by the Commissioner of the RFS.

The site is identified as being in the buffer of Category 1 vegetation. This designation is supported.

Figure 3 Bushfire Prone Land Map



8. Infill Development

PBP 2019 acknowledges that Infill development proposals will be constrained by existing situations – pre-existing subdivision patterns and existing built forms surrounding the subject site. Consequently, each proposal must be considered on its merits and in accordance with the intent and performance criteria for infill development.

PBP 2019 provides an outcome-based approach to infill development which honours the expectation to build on a lawfully created lot with an expectation to build.

The Land Zoning is R2 - Low Density Residential, that provides for dwelling houses with consent. PBP 2006 (p. 42) states:

Where a development expectation arises from the zoning of the land to build, rebuild, alter or add to a dwelling(s) in pre-existing subdivisions, attempts should be made to find a solution taking into account the level of risk present. The expectation of building or altering a house is recognised even though the ability to provide for APZs or access requirements now required for residential development may not be possible.

Where a development falls 'outside of the scope' of the construction requirements of PBP 2019 (i.e. the deemed-to-satisfy arrangements of the BCA applicable in NSW), then a performance solution will need to be developed for the construction aspects of the building.

While NSW does not provide a deemed to satisfy solution using the *Australian Standard for Construction of Buildings in Bushfire Prone Areas (AS3959)*, the site assessment has been completed using assessment Method 1 of AS3959 and BAL Flame Zone has been used as the acceptable solution for development in the Flame Zone.

Due to the nature of the site, no opportunities are provide for a building footprint outside of BAL FZ. The house sited to maximise the views and the design has been based on BAL Flame Zone. Access within the site complies with PBP 2006.



9. Limitations within the System

Bushfire is a normal part of Australia's natural environment, particularly in eucalypt forests and grasslands. However, the frequency and intensity of bushfires varies throughout the landscape and the seasons. Bushfires are a common occurrence during the drier periods of the year in most places. Climate change is expected to bring longer bushfire seasons to parts of Australia, an increasing number of extreme fire weather days, and increasing fire intensity.

Bushfires of low or moderate intensity often pose little threat to life, property and community assets, but the potential for changes in wind direction can be a significant hazard. However, bushfires that burn in heavy fuels, steep terrain or on hot, dry and windy days often spread rapidly, crown in forests, produce powerful convection columns and create extensive spot fires ahead of the fire front, often making their control impossible until weather conditions moderate.

As the Fire Danger Rating reaches 'Extreme', bushfires are often described as 'firestorms' and become impossible to control. When the Fire Danger Rating approaches 'Catastrophic', the risk of serious injury or death to people in the path of a bushfire increases significantly, and many properties and other community infrastructure can become difficult or impossible to defend¹. Isolated developments will be at higher risk under lower Fire Danger Ratings.

The safety of people may be improved if they have prepared a bushfire survival plan, including contingency plans in the event their primary plan fails or cannot be carried out, and have taken adequate steps to prepare for bushfire. A Bushfire Survival Plan can reduce the potential risk of bushfire to the family. In line with the national fire services position, the safest action to protect life is for people to be away from the bushfire or threat of bushfire as early as possible. Leaving a high risk bushfire location is the safest action, and leaving before a bushfire threatens is always safer than remaining until a bushfire starts. Leaving becomes increasingly appropriate with higher Fire Danger Ratings.

Limitations of AS3959

The measure contained in AS 3959 cannot guarantee that a building will survive a bushfire event on every occasion. This is substantially due to the degree of vegetation management, the unpredictable nature and behaviour of fire, and extreme weather conditions.

The Standard is primarily 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

¹ AFAC Position Paper on Community Safety p. 4



ATTACHMENT 4 - ITEM 4

occupants (until the fire front passes) as well as to the building itself (AS3959 p. 7). As such, the Standard seeks to construct a house to survive the passage of the fire and not necessarily to absolutely survive the fire. AS3959 notes that:

It should be borne in mind that the measures contained in this Standard cannot guarantee that a building will survive a bushfire event on every occasion. This is substantially due to the degree of vegetation management, the unpredictable nature and behaviour of fire, and extreme weather conditions. (AS3959 p. 7)

Importantly, AS3959 is not applicable for fires burning under weather conditions above Fire Danger Index of 100. Under this scenario, it is anticipated that houses will ignite during the passage of the fire and will not provide any refuge for occupants.

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10. Bushfire Assessment Requirements

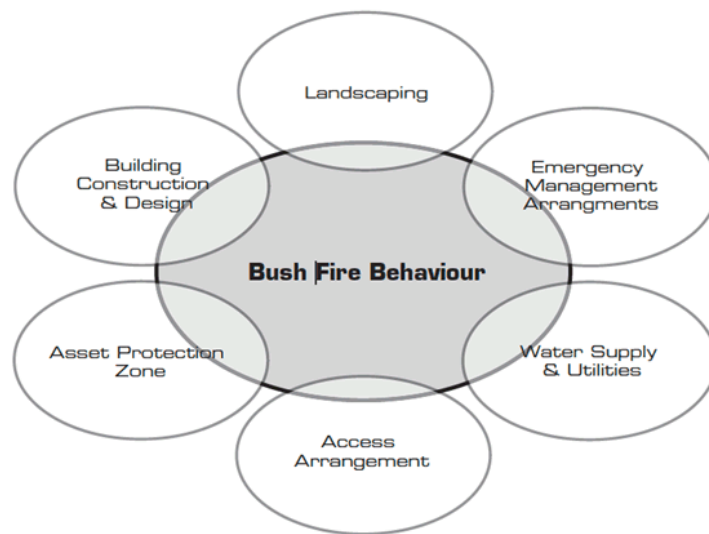
As infill development, the proposed development is to be assessed by Council under the provision of Section 4.14 of the EP&A Act, which includes the consideration of the PBP 2019. The following detailed assessment is based on the methodology and requirements of PBP 2019 and supporting RFS policy.

PBP 2019 recognises the unique attributes of infill development and promotes detailed site analysis and the application of a combination of bushfire protection measures (**BPMs**) to achieve an acceptable outcome.

The BPMs work in combination to provide a suite of measures that meet the aim and objective and Section 4.3 of PBP 2006. The BPMs are shown in Figure 4.

Appropriate combinations depend upon geographic location and site circumstances.

Figure 4 Bushfire Protection Measures in Combination (source PBP 2019 p. 24)



10.1. Methodology

PBP 2006 provides a methodology to determine the bushfire threat posed to a site and Australian Standards for the *Construction of Buildings in Bushfire Prone Areas* (**AS3959**) is used to determine the construction requirement to reduce potential bushfire attack.

The following assessment is prepared in accordance with PBP 2006 and Method 1 from AS3959. This assessment is based on a site inspection and desktop assessment of the site assessment utilising the following resources:

- *Planning for Bushfire Protection* (NSW RFS, 2006);
- Aerial mapping;
- GIS analysis;
- House plans

10.2. Bushfire Hazard

An assessment of the bushfire hazard is necessary to determine the application of bushfire protection measures such as Asset Protection Zone (**APZ**) locations and dimensions and future building construction requirements in accordance with AS3959. The vegetation formations (bushfire fuels) and the topography (effective slope) combine to create the bushfire threat that may affect bushfire behaviour at the site and which determine the building response of PBP 2006.

10.3. Fire weather

The fire weather is dictated by PBP and assumes a credible worst-case scenario and an absence of any other mitigating factors relating to aspect or prevailing winds. The site has a Fire Danger Index (FDI) of 100 as per PBP 2019.

10.4. Vegetation

Predominant Vegetation is classified by structure or formation using the system adopted by Keith (2004) and by the general description using PBP 2019.

Vegetation types give rise to radiant heat and fire behaviour characteristics. There are 12 vegetation formations (with sub-formations) identified in PBP. The predominant vegetation has been determined over a distance of at least 140 metres in all directions from the proposed property boundary or building footprint on the site. Where a mix of vegetation types exist the type providing the greater hazard is said to predominate.

As shown in Figure 5, the site is affected by forest vegetation. The 'predominant vegetation' within the study is Dry Sclerophyll Forest and is shown in Figure 5.

10.5. Slopes influencing bushfire

The 'effective slope' influencing fire behaviour approaching the sites has been assessed in accordance with the methodology specified within PBP. This is conducted by measuring the worst-case scenario slope where the vegetation occurs over a 100 m transect measured outwards from the development boundary or the existing/ proposed buildings.

The slope under the hazard is down slope from the dwelling and shown in Figure 5. The slope runs a short distance down to the creek and then up the other side.

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Figure 5 Vegetation

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19

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11. Bushfire Attack Levels

The Bushfire Attack Levels (**BAL**) is a means of measuring the ability of a building to withstand attack from bushfire. The form of bushfire attack and the severity will vary according to the conditions (FDI, vegetation, slope and setback) on the site.

The BAL assesses the severity of a building's potential exposure to ember attack, radiant heat and direct flame contact, using increments of radiant heat expressed in kilowatts per square metre, which is the basis for establishing the requirements for construction to improve protection of a building from potential attack by a bushfire, as defined in *Australian Standard AS 3959-2009 Construction of buildings in bushfire-prone areas (AS 3959-2009)*.

The BAL ratings are used as the basis for establishing the requirements for construction to improve protection of a (proposed) building from potential bushfire attack. Table 1 shows the BAL assessment for the proposed house and Figure 6.

Table 1 BAL Assessment

Direction ¹	Slope ²	Vegetation ³	APZ/ Separation of Proposed dwelling ⁴	AS3959 Bushfire Attack Level (BAL) ⁵
North	Managed lands within existing residential houses. North east is forest vegetation	Forest	10m	BAL Flame Zone
East	Downslope then Upslope	Forest	10m	BAL Flame Zone
South	Managed lands within existing residential houses. South east is forest vegetation	Forest	6m	BAL Flame Zone
West	Managed land	NA	NA	BAL 40

Key to Table 1

¹ Direction of bushfire prone land from proposed development.

² Effective slope: assessed over 100 m from proposed development to bushfire prone land.

³ Predominant vegetation: classification over 140 m from proposed development.

⁴ Separation in the form of an APZ of the proposed dwelling from the bushfire prone land.

⁵ Bushfire Attack Level (**BAL**) corresponding to construction requirements under AS 3959-2009

'Construction of Buildings in Bushfire Prone Areas'.



The Bushfire Attack Levels (**BAL**) is a means of measuring the ability of a building to withstand attack from bushfire. The form of bushfire attack and the severity will vary according to the conditions (FDI, vegetation, slope and setback) on the site.

The BAL assesses the severity of a buildings exposure to ember attack, radiant heat and direct flame contact, using increments of radiant heat expressed in kilowatts per square metre, which is the basis for establishing the requirements for construction to improve the protection of a building from potential attack by a bushfire, as defined in AS3959.

There are six BAL ratings in total: LOW, 12.5, 19, 29, 40 and FZ. Table 1 and Figure 8 shows the BAL assessment from the proposed house to provide complying APZs. The development is rated as BAL-Flame Zone. By virtue of the siting of the house at the top of the ridgeline, the house will be in BAL Flame Zone.

It is proposed to build the alterations and additions and the new car port to BAL Flame Zone. It is demonstrated that the proposed building can withstand bush fire attack in the form of wind, smoke, embers, radiant heat and flame contact by meeting BAL Flame Zone.

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Figure 6 BAL Assessment

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Level 3

22

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12. Asset Protection Zones

An essential component of infill developments is the provision of a defensible space, particularly for isolated development. This is a space to ensure the safety of fire fighters and residents following the passage of a fire front and will reduce radiant heat loads onto the structures.

Defendable space will be provided around the existing house to the property boundaries. The defendable space will be managed intensively to Inner Protection Zone Standards. No trees are required to be removed.

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12.1. Bush Fire Protection Measures for Infill Development

The specifications and requirements for Bush Fire Protection Measures for Infill Development are to:

minimise the risk of bush fire attack and provide protection for emergency services personnel, residents and others assisting firefighting activities.

The performance requirements and solutions are provided in Table 3.

Table 3

Performance Criteria	Evidence
The intent may be achieved where:	
in relation to Asset Protection Zones: <ul style="list-style-type: none"> a defensible space is provided onsite. an asset protection zone is provided and maintained for the life of the development. 	A defensible space and asset protection zone is provided to the house is provided onsite.
in relation to siting and design: <ul style="list-style-type: none"> buildings are sited and designed to minimise the risk of bush fire attack. 	The existing house remains. The alterations and additions are to replace an aging deck and provide a new car port.
in relation to construction standards: <ul style="list-style-type: none"> it is demonstrated that the proposed building can withstand bush fire attack in the form of wind, smoke, embers, radiant heat and flame contact. 	Construction is in accordance with AS3959 for BAL Flame Zone.
in relation to access requirements: <ul style="list-style-type: none"> 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). 	Not required
in relation to 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. 	The site is serviced by reticulated water. No additional water is required for fire fighting purposes.
in relation to 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. 	Landscaping will be managed to minimise flame contact and radiant heat to buildings, and the potential for wind driven embers to cause ignitions.

13. Access

No new driveway access is proposed. Fire appliances will operate from the street. In accordance with PBP 2019, access will be suitable for fire management purposes.

14. Water Supply

The subject land is serviced by reticulated water.

15. Gas and electrical supplies







The electrical supply can comply with PBP 2019. Gas and electricity services are located so as not to contribute to the risk of fire to a building.

Any gas services are to be installed and maintained in accordance with AS/NZS 1596:2008 *The storage and handling of LP gas* (Standards Australia, 2008).

16. PBP Specific Objectives

PBP provides Specific Objectives for Infill development (Section 4.3.2). Table 2 is an assurance approach using expert judgement by a Level 3 certified BPAD Practitioner.

Table 2 Specific Objectives for Infill Development

Specific Objective for Infill	Compliance	Comment
Ensure that the bush fire risk to adjoining lands is not increased;		The risk to adjoining lands is not increased.
Provide a minimum defendable space;		The alterations and additions provide defendable space around the dwelling. Access is provided around the dwelling providing defendable space. The defendable space will be managed to Inner Protection Zone standards.
Provide better bush fire protection, on a re-development site, than the existing situation. This should not result in new works being exposed to greater risk than an existing building;		The new dwelling will be built in accordance with AS3959 BAL Flame Zone providing modern building standards to mitigate the impact of fire on the structure.
Ensure that the footprint of the proposed building does not extend towards the hazard beyond existing building lines on neighboring land;		Replacing the existing deck with the inclusion of a simple roof.
Not result in an increased bush fire management and maintenance responsibility on adjoining land owners unless they have agreed to the development;		Adjoining residential land will not be burdened and does not place any burden for bushfire prone land to be managed other than the requirements associated with S.52 and 63 of the RF Act.
Ensure building design and construction enhance the chances of occupant and building survival.		The alterations will be built in accordance with AS3959 which provides protection for the dwelling and occupants during the passage of a fire.



17. Recommendations

The following recommendations have been made within this report to ensure the proposed development is compliant with Section 4.14 of the EPA Act and *Planning for Bush Fire Protection 2006*:

Recommendation 1 – The alterations to the existing house is to be constructed to comply with BAL Flame Zone of AS3959 2009 *Construction of buildings in bushfire-prone areas*;

Recommendation 3 - Any gas services are to be installed and maintained in accordance with AS/NZS 1596:2008 *The storage and handling of LP gas* (Standards Australia, 2008).

Recommendation 4 – Asset Protection Zone and defensible space from the house and other structures will be provided to the Lot boundary.

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18. Conclusion

This assessment has demonstrated that the proposed alterations and additions to the existing house can provide compliance with *Planning for Bushfire Protection 2006 and 2019*.

As an existing residential house, the strategies provide for a better bushfire risk outcome than currently exists for the site.

Recommendations have been provided that will provide compliance with *Planning for Bushfire Protection, 2019*.



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Appendix 1 References

Australian Building Codes Board (2014) *Performance Standard: The design and construction of private bushfire shelters*

NSW Rural Fire Service (RFS). 2006. *Planning for Bushfire Protection: A Guide for Councils, Planners, Fire Authorities, Developers and Home Owners*. Australian Government Publishing Service, Canberra

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Standards Australia. 2008. *The storage and handling of LP Gas*, AS/NZS 1596:2008, Fourth edition 2005, SAI Global, Sydney.

Standards Australia. 2009. *Construction of buildings in bushfire-prone areas*, AS 3959-2009. SAI Global, Sydney.

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USTRALIS



***Arboriculture
Impact
Assessment***

**Lot 100 in DP732242
2 Nicholas Crescent, Normanhurst**

Commissioned By: Mr & Mrs Gibson
2 Nicholas Crescent,
NORMANHURST NSW 2076

Date: 4 May 2020
File Reference: 20201639.2

Prepared By: Meredith Gibbs (Dip. Hort. Arb.)

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ATTACHMENT 5 - ITEM 4

Document Details

Document Title	Arboriculture Impact Assessment		
ATM Reference	20201639.2		
Client	Mr & Mrs Gibson		
Site Details	2 Nicholas Crescent, Normanhurst Lot 100 in DP732242		
Date	30 April 2020		
Written By	Meredith Gibbs		
Australis Reference	Version Number	Date	Details
20201639.1	1	30 April 2020	For Client Review
20201639.2	2	4 May 2020	Minor amendments



Meredith Gibbs
Australis Tree Management
4 May 2020

Disclaimer

Australis Tree Management has no affiliation with any private contractors, associations or nurseries involved in the tree removal and pruning business. This ensures an impartial approach to all recommendations given regarding tree removals, tree hazard inspections and surveys. The Principal of the business, Meredith Gibbs, has a certificate level 5 in Arboriculture obtained from Northern Sydney Institute, Ryde TAFE College, NSW in 2003.

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Any required updates, reassessments or re-examinations of the original report required by any other party will incur a fee.

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Summary

Australis Tree Management has been commissioned by Mr & Mrs Gibson to complete an arboriculture impact assessment. This report aims to identify the health and condition of the trees, potential impacts from proposed works and to provide recommendations regarding tree retention, protection and removals.

The development proposed is for the additions and alterations with associated works. This includes extending the existing deck and constructing a carport over an existing concrete slab.

The inspection at 2 Nicholas Crescent, Normanhurst was performed on the 22 April 2020 by visibly inspecting the selected trees from accessible points at ground level from the subject site and public areas only. The inspection included trees located within 5m of the boundaries of the site located on adjoining properties. I completed a modified Tree Survey Form (Matheny & Clark, 1994), applied 'TreeAZ' ratings (Barrell, 2016) as well as taking supporting photographs of the trees.

In total six (6) trees were assessed.

- Four (4) trees are located on the subject site and proposed for retention.
- Two (2) trees are located on adjoining properties (including nature strips) and must be retained and protected throughout the proposed development activities.
- Five (5) trees are protected by council.
- One (1) tree is exempt from council protection.

Trees proposed for retention within the subject sites and within adjoining properties will require tree protection measures throughout the development works to ensure their long-term survival.

The tree defects and symptoms that were encountered have been discussed and a detailed tree schedule is included in Appendix A. A Tree Protection Plan has been prepared containing specifications related to the proposed works.

Subject to the tree protection recommendations in this report, the proposed development is unlikely to adversely impact the trees.

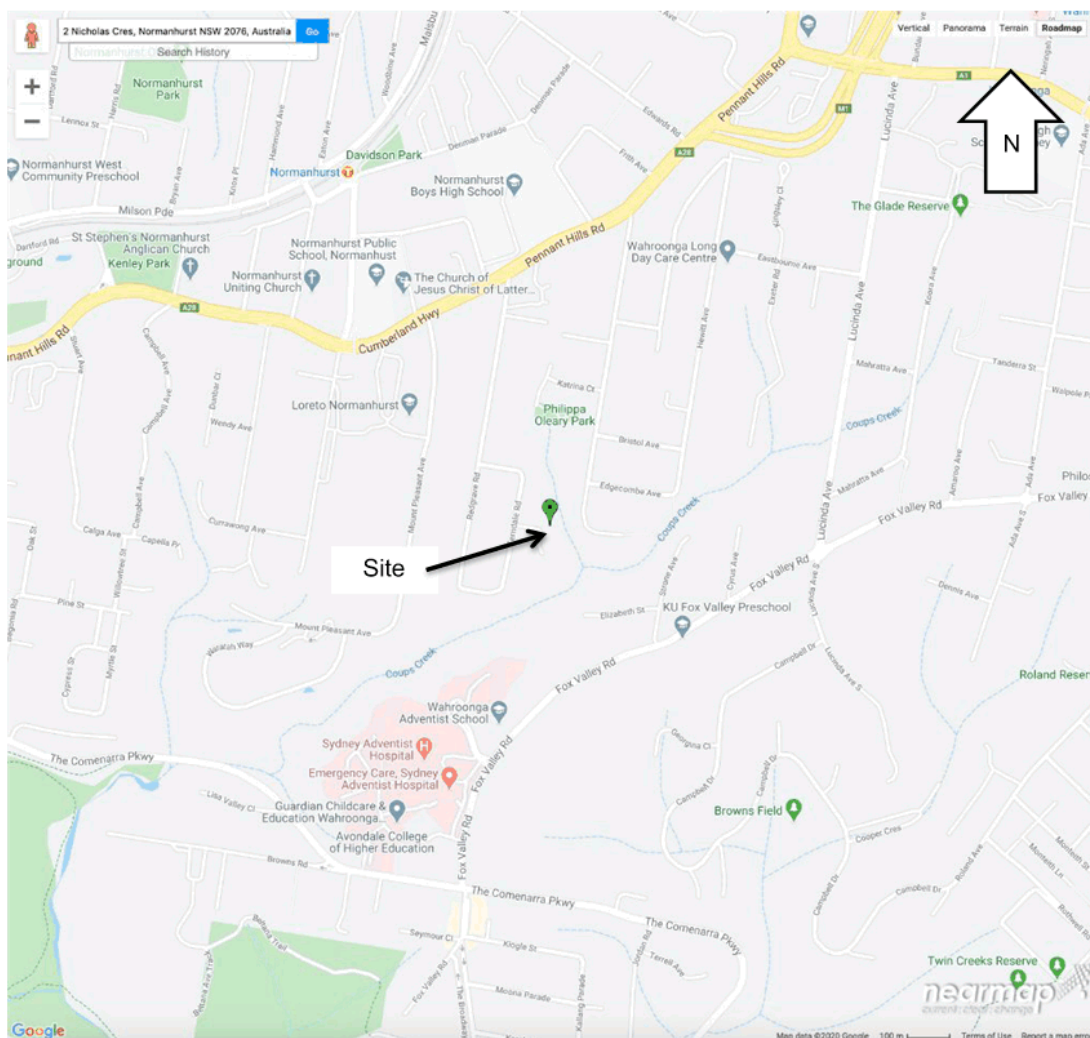
Table of Contents

1 Introduction	8
1.1 Brief	8
1.2 The Proposed Development.....	8
1.3 Aims.....	8
1.4 Qualifications and Experience	8
1.5 Documents Provided	8
1.6 Scope	8
2 Methodology	9
2.1 Methods.....	9
2.2 TreeAZ (Barrell, 2016).....	9
2.3 Information Collected.....	9
2.4 Species Identification.....	9
2.5 Tree Measurements- AS 4970-2009	9
2.6 Tree Protection Zone - AS 4970-2009.....	9
2.7 Photography	9
2.8 Proposed Pruning.....	10
2.9 Vegetation in Non-Rural Areas [NSW] (2017)	10
2.10 Tree Protection	10
2.11 Vegetation	11
2.12 Wildlife	11
3 Site Visit and Observations	12
3.1 Field Visit	12
3.2 Brief Site Description	12
3.3 Location of the Trees.....	12
3.4 On Site Vegetation	12
3.5 The Benefits of Trees	12
3.6 Threatened Species	12
3.7 Biodiversity Values	13
3.8 Biosecurity Act 2015.....	13
4 Results	14
4.1 Tree AZ & Life Expectancy.....	14
4.2 Trees Proposed for Retention	14
5 The Proposed Development	15
5.1 Deck Construction	15
5.2 Vehicle Access	15
5.3 Service Locations	15
5.4 Car Port	15
5.5 Drainage Channel.....	15
5.6 Landscaping	15
5.1 Tree Tolerance	16
6 Discussion	17
6.1 On Site Trees Proposed for Retention	17
6.2 Adjoining Properties Trees	18

7 Conclusion & Recommendations	19
7.1 Trees Proposed for Retention	19
8 Tree Protection Measures	21
8.1 Tree Protection	21
8.2 Excavation Within Tree Protection Zones	23
8.3 Project Arborist Monitoring	23
8.4 Project Arborist Supervision	24
8.5 Project Arborist Hold Points.....	24
Appendix	
Appendix A - Tree Schedule.....	25
Appendix B - Tree Schedule Definitions & Information	26
Appendix C - Trees Impacted by Proposed Works	27
Appendix D - Thumbnail Photographs.....	28
Appendix E - Additional Images	29
Appendix F - Proposed Site Plan	31
Appendix G - Tree Protection Plan.....	32
Appendix H - Glossary.....	35
Appendix I - TreeAZ (Barrell 2016).....	36
Appendix J - Tree Protection Zones AS4970-2009	37
Appendix K - Tree Protection Zone Encroachments AS4970-2009	38
Appendix L - Qualifications & Experience	39
Appendix M - References	40
Figures	
Figure 1. Location Map.....	6
Figure 2. Site Map	7
Figure 3. Tree Anatomy.....	16
Figure 4. Existing obstructions for tree no. 1	29
Figure 5. Proposed deck footing area for tree no 2.	29
Figure 6. Proposed deck footing area for tree no 3.	30
Figure 7. Proposed carport area for tree no 4.	30
Tables	
Table 1. Tree AZ and Life Expectancy	14
Table 2. Trees Proposed for Retention	14
Table 3. Project Arborist Monitoring	23
Table 4. Project Arborist Supervision	24
Table 5. Project Arborist Hold Points.....	24
Abbreviations	
DCP.....Development Control Plan	
LEP.....Local Environmental Plan	
LGA.....Local Government Authority	
SRZ.....Structural Root Zone	
TPO.....Tree Preservation Order	
TPZ.....Tree Protection Zone	

Location Map

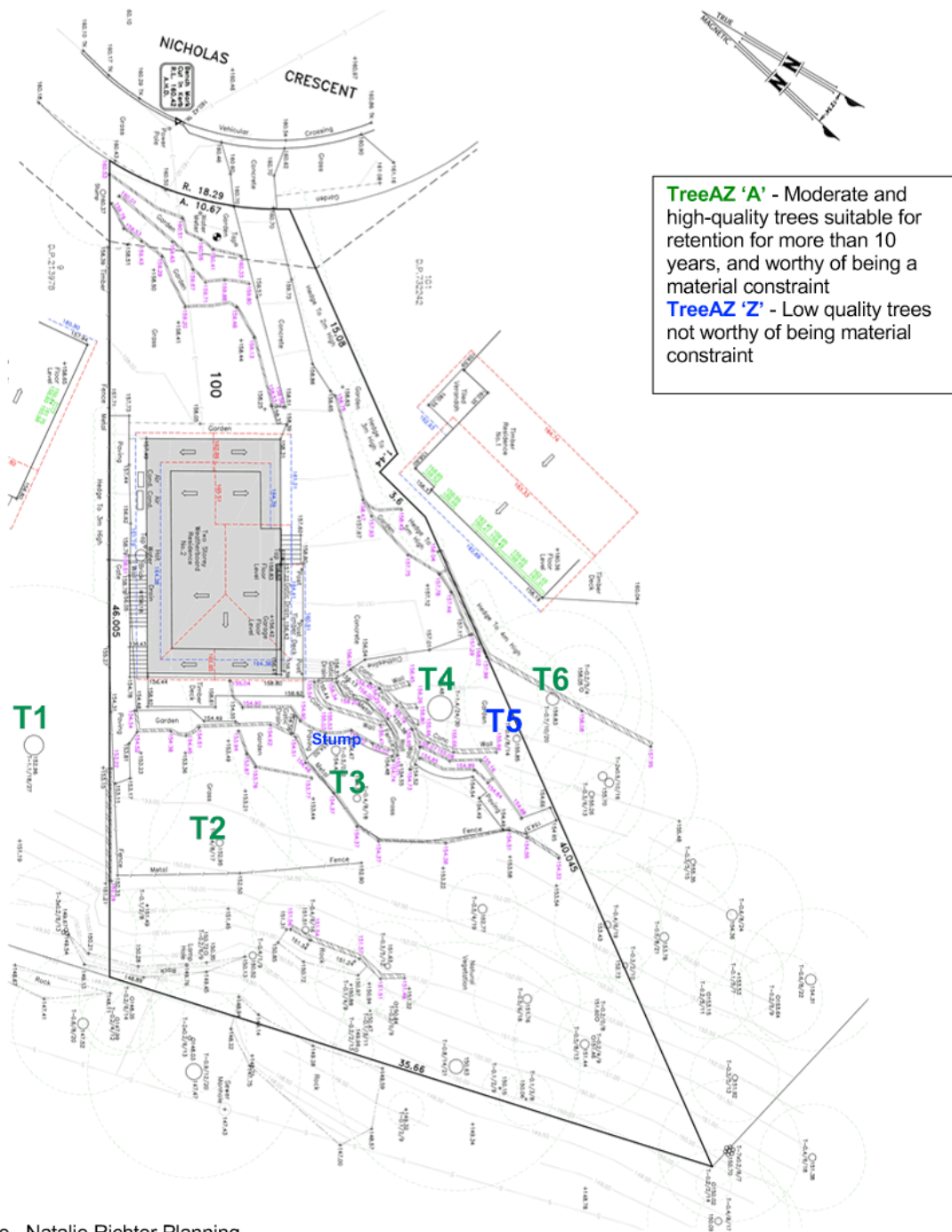
2 Nicholas Crescent, Normanhurst



Source –Near Map 30 April 2020
Figure 1. Location Map

Site Map

2 Nicholas Crescent, Normanhurst



Source –Natalie Richter Planning
Figure 2. Site Map

2 Nicholas Crescent, Normanhurst
Australis Reference 20201639.2

4 May 2020

1 Introduction

1.1 Brief

Mr & Mrs Gibson provided instructions to inspect and assess the health and condition of the trees at 2 Nicholas Crescent, Normanhurst, including any tree within the vicinity of the proposed works including trees on adjoining properties. I have prepared an Arboriculture Impact Assessment on the proposed impacts of the development works on the subject trees. The report will provide recommendations regarding tree protection during the development process.

1.2 The Proposed Development

The proposed works involve the additions and alterations with associated works. This includes extending the existing deck and constructing a carport over an existing concrete slab.

1.3 Aims

- Undertake field surveys for tree health and condition.
- Conduct a literature review on the tree defects and symptoms.
- Search databases for relevant tree species information including Tree Preservation Orders.

1.4 Qualifications and Experience

This report has been based upon site observations and the assessment of the subject trees. Conclusions have been reached from experience and follow up research. Qualification details are included in the appendix.

1.5 Documents Provided

- Provided by Natalie Richter Planning (8 April 2020)
 - 2 Nicholas Cres Revised Drawings 25th Mar 2020.pdf
 - Survey plan.pdf

1.6 Scope

This report is only concerned with the health and condition of the subject trees and the potential impacts from the proposed development. Root mapping, invasive structural strength of the trees, soils assessments or aerial inspections were not performed. This report has been prepared in accordance with Hornsby Shire LGA. It includes a detailed assessment based on the site visit and the documents provided. Recommendations may be provided regarding alterations to the proposed design or construction methods to mitigate detrimental impacts on the subject trees.

2 Methodology

2.1 Methods

The following relevant information was compiled for consideration of the proposed works. Details are located in the appendices.

- AS 4970- 2009 Protection of trees on development sites
- AS 4373 - 2007 Pruning of amenity trees
- Tree Survey Form (Matheny & Clark, 1994)
- Visual Tree Assessment (Mattheck & Breloer, 1994)

2.2 TreeAZ (Barrell, 2016)

- **TreeAZ 'A'** - Moderate and high-quality trees suitable for retention for more than 10 years, and worthy of being a material constraint
- **TreeAZ 'Z'** - Low quality trees not worthy of being material constraint

2.3 Information Collected

Information collected includes tree species, dimensions, tree health and condition, tree assessment ratings and tree protection zones etc. Trees located on adjoining properties will be inspected from the ground on the subject site or public land only. All relevant information is included in the Tree Schedule (Appendix A). The inspection was of a preliminary nature and did not involve any climbing or detailed investigation beyond what was visible from accessible points at ground level.

2.4 Species Identification

Identification of the subject trees are determined by visible features only at the time of the inspection. Every effort is made to correctly identify the subject trees where time permits. Photographs are compared with varying text listed in 'References'.

2.5 Tree Measurements- AS 4970-2009

In accordance with AS 4970-2009 tree trunk diameters were measured with a diameter tape at 1.4m high (unless stated). Tree heights are measured with a clinometer and canopy spreads estimated accordingly.

2.6 Tree Protection Zone - AS 4970-2009

The tree protection zone (TPZ) is the principal means of protecting trees on development sites. The TPZ is a combination of the root area and crown area requiring protection. It is an area isolated from construction disturbance, so that the tree remains viable. If the proposed encroachment is less than 10% of the area of the TPZ and is outside the SRZ, detailed root investigations should not be required. The area lost to this encroachment should be compensated for elsewhere and contiguous with the TPZ.

2.7 Photography

A Nikon D5200 SLR camera or an iPhone were used. In low light levels photographs maybe altered to improve visual quality, this involves adjustments to exposure, contrast,

reduction of shadows and increased sharpness. No adjustments to vibrancy that alter colours were applied.

2.8 Proposed Pruning

All pruning specifications are written in compliance of AS 4373 - 2007 *Pruning of amenity trees* and should be carried out in accordance with AS 4373 - 2007 and Workcover NSW Code of Practice '*Amenity Tree Industry*', 1998. Definitions for all terminology used in this report are taken from AS 4373 - 2007 *Pruning of amenity trees*, AS 4970- 2009 *Protection of trees on development sites* and the International Society of Arboriculture's Glossary of Arboricultural Terms.

A separate permit to prune any trees within or adjacent to the property and/or any pruning of tree roots must be obtained from Council prior to any works being undertaken.

2.9 Vegetation in Non-Rural Areas [NSW] (2017)

The State Environmental Planning Policy (Vegetation in Non-Rural Areas) 2017 includes provisions requiring the preservation of trees and bushland within Hornsby Shire LGA.

3 Aims of Policy

The aims of this Policy are:

- (a) *to protect biodiversity values of trees and vegetation in non-rural areas of the State, and*
- (b) *to preserve the amenity of non-rural areas of the State through the preservation of trees and other vegetation.*

2.10 Tree Protection

The State Environmental Planning Policy (Vegetation in Non-Rural Areas) 2017 includes provisions requiring the preservation of trees and bushland within Hornsby Shire LGA. This report relies on the information contained within Hornsby Shire Council's Vegetation Preservation. This report may include trees on adjoining properties that are likely to be impacted by the proposed development regardless of the definition contained in the *Vegetation Preservation*.

1B.6.2 Vegetation Preservation

Prescribed Vegetation

The prescribed vegetation that is protected by State Environmental Planning Policy (Vegetation in Non-Rural Areas) 2017 (the Vegetation SEPP) and/or Clause 5.10 of the HLEP and this Section of the DCP includes:

Native vegetation except subject to the Biodiversity Offset Scheme (BOS), and vegetation on heritage listed properties under the HLEP.

To damage or remove any vegetation protected under this DCP is prohibited without the written consent of Council, except in accordance with the exemptions prescribed in this part (under the heading 'Exempt Vegetation Work').

For the purposes of this part:

A tree is defined as a long lived woody perennial plant with one or relatively few main stems with the potential to grow to a height greater than 3 metres.

Exempt Species

The following tree species are listed in councils' list of exempt species, exempt of works or undersized.

- Tree no. 5 *Cinnamomum camphora* (Camphor Laurel)

2.11 Vegetation

Vegetation types have been determined using a variety of methods depending on the location and LGA. Depending on the sources results can vary and should be used as a guide only.

2.12 Wildlife

Interactions between the tree and possible fauna were examined to the best of my ability through text listed in the references. An expert opinion may be required confirm or deny any fauna activities.

3 Site Visit and Observations

3.1 Field Visit

The unaccompanied site visit was conducted on 22 April 2020. All observations were from ground level without detailed investigations. The weather at the time of the inspection was partly cloudy with average visibility.

3.2 Brief Site Description

Nicholas Crescent is located in the suburb of Normanhurst approximately 29km north west from Sydney CBD. The site is on the northeastern side of the road surrounded by similar residential developments. The property consists of a dwelling that is set to the front of the block. The site is zoned as R2 Low Density Residential and does not located within the Hornsby Shire Heritage conservation area and does not contain any heritage items.

3.3 Location of the Trees

The trees in question are located predominately around the boundaries of the site. The trees have been located on the supplied site plan and numbered accordingly. These plans are illustrative purposes only and should not be used directly for scaling measurements.

3.4 On Site Vegetation

The site contains indigenous, planted native and exotic tree species. They are of varying ages and stages of maturity. There is some remnant vegetation on site and mapped as Blackbutt Gully Forest (Smith & Smith 2010). The subject site has been partially modified with the removal of some of the native under storey, ground cover plants and shrubs. The subject dominant trees together with other indigenous trees in the surrounding residences are connected to the remainder of the ecological communities nearby. According to NSW Property the subject site does not contain Riparian Lands & Watercourses, Wetlands, Terrestrial Biodiversity, Environmentally Sensitive Land or Existing Green Asset. It does contain significant biodiversity according to Hornsby Council.

3.5 The Benefits of Trees

- Reduce urban heat island effects
- Purify and oxygenate the air
- Sequester carbon through photosynthesis
- Intercepting rainfall and modifying runoff
- Enhance biodiversity
- Providing habitat and wildlife corridors

3.6 Threatened Species

The subject tree species are not listed in the NSW Biodiversity Conservation Act (2016).

3.7 Biodiversity Values

The subject site is mapped as not having Biodiversity Values according to The Biodiversity Values Map (BV Map) defined by the *Biodiversity Conservation Regulation 2017*.

3.8 Biosecurity Act 2015

The following tree species are listed in the Biosecurity Act 2015 and classed as 'General'. *Any person who deals with any plant, who knows (or ought to know) of any biosecurity risk, has a duty to ensure the risk is prevented, eliminated or minimised, so far as is reasonably practicable.*

- Tree no. 5 *Cinnamomum camphora* (Camphor Laurel)

4 Results

* Tree located in adjoining properties

4.1 Tree AZ & Life Expectancy

- **TreeAZ 'A'** - Moderate and high-quality trees suitable for retention for more than 10 years, and worthy of being a material constraint
- **TreeAZ 'Z'** - Low quality trees not worthy of being material constraint

Tree no.	Species	Life Expectancy
1	<i>Eucalyptus pilularis</i> (Blackbutt) *	40+yrs
2	<i>Syncarpia glomulifera</i> (Turpentine)	40+yrs
3	<i>Syncarpia glomulifera</i> (Turpentine)	40+yrs
4	<i>Eucalyptus pilularis</i> (Blackbutt)	40+yrs
5	<i>Cinnamomum camphora</i> (Camphor Laurel)	40+yrs
6	<i>Angophora costata</i> (Smooth-barked Apple) *	40+yrs

Table 1. Tree AZ and Life Expectancy

4.2 Trees Proposed for Retention

Tree no.	Species	TPZ	Proposed Encroachment
1	<i>Eucalyptus pilularis</i> (Blackbutt) *	9.6m	0%
2	<i>Syncarpia glomulifera</i> (Turpentine)	5.4m	0%
3	<i>Syncarpia glomulifera</i> (Turpentine)	5.4m	0%
4	<i>Eucalyptus pilularis</i> (Blackbutt)	14.0m	0%
5	<i>Cinnamomum camphora</i> (Camphor Laurel)	3.6m	0%
6	<i>Angophora costata</i> (Smooth-barked Apple) *	7.2m	0%

Table 2. Trees Proposed for Retention

5 The Proposed Development

The proposed works involve the additions and alterations with associated works. This includes extending the existing deck and constructing a carport over an existing concrete slab.

5.1 Deck Construction

- 5.1.1 The proposed deck construction activities are likely to result in minor site disturbances and are unlikely to be detrimental to the subject trees. Soil compaction can occur with foot traffic as well as machinery. This reduces available water and oxygen to penetrate the root zone resulting in death to fibrous roots used for moisture and nutrient uptake. Footings shall be relocated or realigned if any tree root greater than 30mm in diameter is encountered during excavations. A minimum of 150mm clearance shall be provided between the tree root and footing.

5.2 Vehicle Access

- 5.2.1 All construction access and deliveries will be made from Nicholas Crescent. Adequate access exists with the existing concrete driveway remaining within the TPZ for trees 4 and 6.

5.3 Service Locations

- 5.3.1 Services locations should not enter any TPZ's.
- 5.3.2 Trenching for services is not expected.

5.4 Car Port

- 5.4.1 The existing driveway is located within the TPZ' for trees 4 and 6. The existing concrete driveway is to be left in-situ and will act as ground surface protection. Carport support posts can be attached to the concrete with stirrups therefore no excavations are proposed.

5.5 Drainage Channel

- 5.5.1 A drainage channel is proposed around the carport. No drawing or detail has been provided. Excavations for this channel must be as minimal as possible and must not cut or damage any root over 30mm in diameter. The channel should be lined with a heavy plastic to prevent concrete entering the root zone.

5.6 Landscaping

- 5.6.1 Proposed landscaping installation must NOT alter soil levels within TPZ's, this includes the addition of garden mixes, planter boxes and raised vegetable gardens. By raising existing soils levels gaseous exchange is reduced resulting in stress to the tree and can significantly reduce the trees life expectancy. These signs may not be visible for some time. The installation of new plants can significantly damage fibrous roots, therefore reducing the trees ability to absorb

moisture and nutrients. All new plantings within the SRZ must be tube stock or envirocells size and within the TPZ no larger than 140mm pot size.

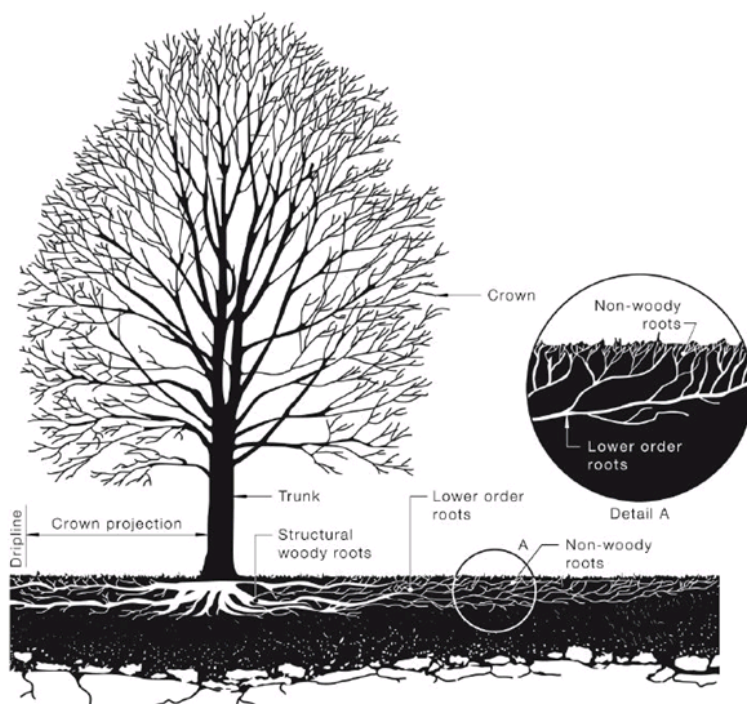


Figure 3. Tree Anatomy

5.1 Tree Tolerance

- 5.1.1 Generally, older and larger trees tolerate construction impacts less. Different species also have different tolerance of injury and disturbance. Importantly it needs to be stressed, that a tree does not “heal” from injury as animals do. Any injury made to a tree results in the tree expending considerable energy reserves to create new growth that “seals” and surrounds a wound and then attempting to compensate structurally and physically for any losses. Impacts to trees are therefore cumulative and a series of otherwise small and unrelated impacts can easily result in the death of a tree.
- 5.1.2 A tree that is already compromised or showing signs of stress is far less likely to tolerate construction impacts due to its lower levels of energy reserves and already weakened state. Therefore, a tree that is only in a fair condition or poor condition is less likely to tolerate construction impacts than a young tree in good or excellent condition.
- 5.1.3 Weakened or stressed trees are also far less able to combat the myriad of normal environmental stresses and pathogens that are naturally imposed against them such as drought, decay, fungi, bacteria and insect pests.

6 Discussion

6.1 On Site Trees Proposed for Retention

6.1.1 Tree no. 2 *Syncarpia glomulifera* (Turpentine)

6.1.1.1 This indigenous tree is located on site and is protected by council. This tree is semi mature in age and appears to be in good (4) health with no significant issues sighted. It has a 'TreeAZ' rating of 'A' and an estimated life expectancy of 40+yrs.

6.1.1.2 The tree has a previously constructed landscaping and paved areas obstructing the TPZ by 10.7%. The proposed deck is located 4.0m from the trunk, which is inside the 5.4m TPZ therefore footings within the TPZ must be excavated by hand avoiding roots over 30mm in diameter. No canopy pruning is required for the proposed works.

6.1.2 Tree no. 3 *Syncarpia glomulifera* (Turpentine)

6.1.2.1 This indigenous tree is located on site and is protected by council. This tree is semi mature in age and appears to be in good (4) health with some whipper snipper damage at the base of the tree and a tie around the trunk that should be removed. It has a 'TreeAZ' rating of 'A' and an estimated life expectancy of 40+yrs.

6.1.2.2 The tree also has a previously constructed landscaping and paved areas obstructing the TPZ by 63.3%. The proposed deck is located 3.0m from the trunk, which is inside the 5.4m TPZ therefore footings within the TPZ must be excavated by hand avoiding roots over 30mm in diameter. No canopy pruning is required for the proposed works.

6.1.3 Tree no. 4 *Eucalyptus pilularis* (Blackbutt)

6.1.3.1 This indigenous tree is located on site and is protected by council. This tree is mature in age and appears to be in average (3) health with some epicormic growth, which is typical for a tree of this age and there is also some deadwood throughout the canopy. It has a 30cm diameter pruning wound from a low limb with 5cm diam hollow within the wound. The tree also has self-corrected lean in an easterly direction. At this stage no soil heaving was sighted. It has a 'TreeAZ' rating of 'AA1' and an estimated life expectancy of 40+yrs.

6.1.3.2 The tree also has a previously constructed driveway within the TPZ as well as landscaping. The driveway obstructs the TPZ by 28.6%. The proposed carport is located 2.7m from the trunk, which is inside the 14.0m TPZ. The proposed carport support posts can be attached to the concrete with stirrups therefore no excavations are proposed.

6.1.3.3 Excavations for the proposed drainage channel around the carport must not cut or damage any root over 30mm in diameter. The channel should be lined with a heavy plastic to prevent concrete entering the root zone.

6.1.4 Tree no. 5 *Cinnamomum camphora* (Camphor Laurel)

- 6.1.4.1 This exotic tree is located on site. It is not protected by council and the species is listed under the Biosecurity Act 2015 as having 'General Biosecurity Duty'. This tree is semi mature in age and appears to be in average (3) health with evidence of previous failures and has watersprout growth near s failed limb. It has a 'TreeAZ' rating of 'Z2' and an estimated life expectancy of 40+yrs. There are no proposed works within the 3.6m TPZ for this tree.

6.2 Adjoining Properties Trees

6.2.1 Tree no. 1 *Eucalyptus pilularis* (Blackbutt)

- 6.2.1.1 This indigenous tree is located on the southern adjoining private property and protected by council. This tree is mature in age and appears to be in average (3) health with the typical amount of epicormic growth and deadwood within the canopy. The tree has also had pruning events in the past. It has a 'TreeAZ' rating of 'AA1' and an estimated life expectancy of 40+yrs.
- 6.2.1.2 The tree has a previously constructed landscaping and paved areas obstructing the TPZ by 15.9%. The proposed deck is located 5.8m from the trunk, which is inside the 9.6m TPZ therefore footings within the TPZ must be excavated by hand avoiding roots over 30mm in diameter. No canopy pruning is required for the proposed works.

6.2.2 Tree no. 6 *Angophora costata* (Smooth-barked Apple)

- 6.2.2.1 This indigenous tree is located on the adjoining private property and is also protected by council. This tree is semi mature in age and appears to be in average (3) health with deadwood, a trunk hollow with a 15cm diameter opening. It has a 'TreeAZ' rating of 'A' and an estimated life expectancy of 40+yrs.
- 6.2.2.2 Excavations for the proposed drainage channel around the carport must not cut or damage any root over 30mm in diameter. The channel should be lined with a heavy plastic to prevent concrete entering the root zone.

7 Conclusion & Recommendations

Given the existing structures the proposed development will have minimal impacts on the subject trees and will require the recommended protection measures for construction. Subject to the following tree protection recommendations, the proposed development is unlikely to adversely impact the trees.

7.1 Trees Proposed for Retention

7.1.1 Tree no. 1 *Eucalyptus pilularis* (Blackbutt) is a mature, indigenous tree located on the adjoining private property with a 'TreeAZ' rating of 'AA1' and a 40+yrs life expectancy. The proposed deck is within the TPZ and within existing paved areas and landscaped areas. The tree will not be detrimentally affected by the proposed works. No canopy pruning is required.

- Recommendations
 - Hand excavation within TPZ
 - Do not cut roots over 30mm in diameter
 - Properly prune roots under 30mm sharply
 - No soil level changes within TPZ
 - Apply general tree protection methods (section 7)

7.1.2 Tree no. 2 *Syncarpia glomulifera* (Turpentine) is a semi mature, indigenous tree located on site with a 'TreeAZ' rating of 'A' and a 40+yrs life expectancy. The proposed deck encroaches the TPZ by a minor 8%. No canopy pruning is required.

- Recommendations
 - Hand excavation within TPZ
 - Do not cut roots over 30mm in diameter
 - Properly prune roots under 30mm sharply
 - No soil level changes within TPZ
 - Apply general tree protection methods (section 7)

7.1.3 Tree no. 3 *Syncarpia glomulifera* (Turpentine) is a semi mature, indigenous tree located on site with a 'TreeAZ' rating of 'A' and a 40+yrs life expectancy. The proposed deck is within the TPZ and within existing paved areas and landscaped areas. The tree will not be detrimentally affected by the proposed works. No canopy pruning is required.

- Recommendations
 - Hand excavation within TPZ
 - Do not cut roots over 30mm in diameter
 - Properly prune roots under 30mm sharply
 - No soil level changes within TPZ
 - Apply general tree protection methods (section 7)

7.1.4 Tree no. 4 *Eucalyptus pilularis* (Blackbutt) is a mature, indigenous tree located on site with a 'TreeAZ' rating of 'AA1' and a 40+ yrs life expectancy. The proposed car port is within the TPZ and within the existing concreted area where stirrups, will be used for support posts. The proposed drainage channel is also within the TPZ and channel must be hand excavated. No canopy pruning in required.

- Recommendations
 - Hand excavation within TPZ for drainage channel
 - Do not cut roots over 30mm in diameter
 - Properly prune roots under 30mm sharply
 - No soil level changes within TPZ
 - Apply general tree protection methods (section 7)

7.1.5 Tree no. 6 *Angophora costata* (Smooth-barked Apple) is a semi mature, indigenous tree located on the adjoining private property with a 'TreeAZ' rating of 'A' and a 40+ yrs life expectancy. The proposed drainage channel is also within the TPZ and channel must be hand excavated. No canopy pruning in required.

- Recommendations
 - Hand excavation within TPZ for drainage channel
 - Do not cut roots over 30mm in diameter
 - Properly prune roots under 30mm sharply
 - No soil level changes within TPZ
 - Apply general tree protection methods (section 7)

7.1.6 Tree no. 5 *Cinnamomum camphora* (Camphor Laurel) is a semi mature, exotic tree located on site with a 'TreeAZ' rating of 'Z2' and a 40+ yrs life expectancy. This tree is not protected by council. There are no proposed works within the TPZ. The owners would like to remove the tree.

- Recommendations
 - No soil level changes within TPZ
 - Apply general tree protection methods (section 7)

8 Tree Protection Measures

These specifications are for the trees identified and selected for retention including any tree located on adjoining properties.

8.1 Tree Protection

- 8.1.1 **All tree parts must be protected** - This includes roots, trunks and branches.
- 8.1.2 **Trunk Protection** - If working within TPZ, trunk protection shall consist of hessian or padding wrapped around the trunk, two metre lengths of timber (100 x 50mm) spaced at 100-150mm centres secured together with 2mm galvanised wire. These shall be strapped around the trunk and not fixed to the tree in any way to avoid mechanical injury or damage.
- 8.1.3 **Fencing** - A 1.8m chain wire fence, secured and fastened to prevent movement be installed in accordance with AS4970-2009 and AS 4687-2007. The TPZ distances are located within the tree schedule. Woody roots must not be damage during fencing TPZ fencing installation. The installation of all required tree protection fencing must include shade cloth attached to the fencing to reduce transport of dust, particulates and liquids from entering the tree protection zone. No fence relocation is permitted without Arborist permission.
- 8.1.4 **Ground Protection** - Ground surface protection must be installed if construction access is required through any TPZ. Protected with boarding (ie scaffolding board or plywood sheeting or similar material), placed over a layer of mulch to a depth of at least 75mm and geotextile fabric. The protective boarding must be left in place for the duration of the construction and development. The existing concrete driveway is to be left in-situ and forms part of the ground surface protection
- 8.1.5 **Signage** - "Tree Protection Zone, No Entry". With project arborist contact details to be attached to the protective fencing.
- 8.1.6 **Machinery Movements** - When machinery movements are required within the TPZ then a geotextile permeable membrane to be laid under mulch or crushed rock under rumble boards must be in place.
- 8.1.7 **Foot Traffic** - Raised platforms using scaffolding and boards or similar must be constructed if foot traffic occurs within TPZ. Scaffold with boards is sufficient.
- 8.1.8 **AS4970-2009** - Activities generally excluded from the TPZ include but are not limited to;
- soil cutting or fill including trenching
 - machine excavation including trenching;
 - excavation for silt fencing;
 - soil cultivation, disturbance or compaction;
 - stockpiling, storage or mixing of materials;
 - preparation of chemicals, including preparation of cement products;

- parking of vehicles and plant;
- disposal of liquids and refuelling;
- dumping of waste;
- disposal of building materials;
- wash down and cleaning of equipment;
- placement of fill;
- lighting of fires;
- soil level changes;
- temporary or permanent installation of utilities and signs, and
- physical damage to the tree.
- site offices or shed locations

8.1.9 **Scaffolding** - All construction scaffolding must be erected around all branches not approved for pruning/removal.

8.1.10 **Pruning** - Remove of all dead stubs and failed branches leaving a clean cut with no splinters or pieces of wood that may prevent wound wood closure. This will enable wound wood development and reduce the risk of fungal infection. Any pruning required must be in accordance with AS 4373-2007 *Pruning of Amenity Trees*, Standards Australia and completed by level 3 qualified arborist or higher. Climbing spikes **MUST NOT** be used.

8.1.11 **Mulch** - Within the TPZ fencing up to 50mm of **COMPOSTED** organic mulch must be applied to help retain moisture levels, suppress weed growth and reduce tree stress. Mulch must be in accordance with AS4454-2012 *Composts, soil conditioners and mulches*.

8.1.12 **Irrigation** - All trees must be thoroughly watered regularly throughout the development process. This is dependent on weather conditions where more water applied during hot and or winding weather. Micro-irrigation lines must be connected to a designated water source that remains connected throughout the development works.

8.1.13 **Tree Damage** - If any tree is damaged the project arborist should be notified, engaged to inspect and provide advice as well as written documentation to be supplied to the certifying authority.

8.1.14 Tree Monitoring Schedule

- During site occupation all TPZ's and trees must be monitored, assessed and recorded by the project arborist according to council's determinations.
- Any work that must occur within a TPZ must be witnessed and directed by the project arborist
- In the event that any tree is declining in health the project arborist shall be engaged to supply written remedial applications that must be applied immediately.

8.2 Excavation Within Tree Protection Zones

8.2.1 Monitoring

- Any excavation work within a Tree Protection Zone must be monitored by the project arborist.

8.2.2 Root Pruning

- Roots measuring over 30mm in diameter must **not** be pruned within the Structural Root Zone unless directed by the project arborist ONLY.
- Roots measuring over 30mm in diameter within the Tree Protection Zone and outside the Structural Root Zone may be pruned at the discretion of the project arborist.
- Root exposure must be applied with hand tools or Air Spade to prevent damage to the root system.
- Root pruning can be performed by a level 3 arborist or higher.
- All pruning equipment must be sharp and clean. Secateurs, loppers or pruning saws should be used and can be cleaned with methylated spirits to prevent disease and pathogen spread.
- Bolt or wire cutters must not be used for root pruning.

8.2.3 Root Care

- Any roots exposed must be wrapped or covered with hessian or cloth and kept moist to prevent drying out and sunburn until backfilling occurs.
- Backfill must be watered in and mulched with composted leaf mulch.

8.3 Project Arborist Monitoring

1	Project arborist (level 5) must oversee tree retention
2	All tree related matters must be discussed with the project arborist
3	The builder / site manager is responsible to inform the project arborist of any issues during works
4	Project arborist must maintain a monthly log including site visits, notes and photographs.
5	Project arborist must provide feedback the builder / site manager / council.

Table 3. Project Arborist Monitoring

8.4 Project Arborist Supervision

An Arborist with minimum qualifications in Arboriculture of Level 5 (under the Australian Qualification Framework) must oversee various stages of work within the Tree Protection Zone of any tree listed for retention. The Arborist must certify compliance with each key milestone as detailed below

1	Installation of tree protection measures
2	During demolition of any ground surface materials (paving, concrete, grass etc) within the Tree Protection Zone (TPZ) of any tree to be retained
3	During construction of all pier and beam footings within any Tree Protection Zones. Footings shall be relocated / realigned if any tree root greater than 30mm in diameter is encounter during excavations. A minimum of 150mm clearance shall be provided between the tree root and footing
4	During any excavation and trenching which has been approved by Council within the TPZ of any tree to be retained
5	During any Landscape works within the TPZ of any tree to be retained

Table 4. Project Arborist Supervision

8.5 Project Arborist Hold Points

Hold Point	Task	Timing	Certification
1	Appoint project arborist to ensure protection of trees	Prior to demolition of structures	Project Arborist
2	Tree Protection Plan be onsite prior to works (Sect 5, AS4970-2009)		
3	Inspect Tree Protection Fencing with signage. (App C, AS4970-2009)	Prior to demolition of structures	
4	Supervise all work within any TPZ's	As required prior to works proceeding	
5	Install Trunk Protection where applicable (Sect 7.2.)		
6	Tree Inspection	Bi-monthly during all construction works	
7	Final Tree Inspection	Post construction	

Table 5. Project Arborist Hold Points

Australis Tree Management

25 / 40

Appendix A - Tree Schedule

Tree no.	Species	Location	DBH DGL	Height Canopy	Age Life Expec	Crown Class Crown Cond	Type	Root Zone Structures	Tree AZ	TPO Protected	Tree Protection Zone	Proposed Status	Health & Condition
1	Eucalyptus pilularis (Blackbutt)	adjoining	80cm 90cm	26m 20m	mature 40+ yrs	dominant average (3)	indigenous	garden dwelling	AA1	yes	9.6m	Retain	pruning events / epicormic growth / deadwood
2	Syncarpia glomulifera (Turpentine)	on site	45cm 50cm	14m 12m	semi mature 40+ yrs	dominant good (4)	indigenous	grass no structures	A	yes	5.4m	Retain	no significant issues
3	Syncarpia glomulifera (Turpentine)	on site	45cm 50cm	16m 12m	semi mature 40+ yrs	dominant good (4)	indigenous	grass no structures	A	yes	5.4m	Retain	whipper snipper damage
4	Eucalyptus pilularis (Blackbutt)	on site	117cm 130cm	30m 24m	mature 40+ yrs	dominant average (3)	indigenous	grass dwelling	AA1	yes	14.0m	Retain	epicormic growth / deadwood / pruning events 30cm diam wound with 5cm
5	Cinnamomum camphora (Camphor Laurel)	on site	30cm 40cm	9m 11m	semi mature 40+ yrs	codominant average (3)	exotic	garden driveway	ZZ	no	3.6m	Retain	previous failures / watersprouts
6	Angophora costata (Smooth-barked Apple)	adjoining	60cm 70cm	16m 14m	semi mature 40+ yrs	suppressed average (3)	indigenous	garden dwelling	A	yes	7.2m	Retain	deadwood / pruning events / hollow 15cm diam

2 Nicholas Crescent, Normanhurst
Australis Reference 20201639.2

4 May 2020

ATTACHMENT 5 - ITEM 4

Appendix B - Tree Schedule Definitions & Information

Location	Adjoining Property / Nature Strip / On Site	
Dimensions	Diameter at breast height (1.4m) (mm) DBH	
	Diameter at ground level (mm) DGL	
Age Class	Approximate height x canopy spread (m) H x C	
	Sapling / Young / Semi mature / Mature / Over mature / Senescent	
Life Expectancy	>5 years / 5-15 years / 15-40 years / 40+ years	
Crown Class	Dominant	Crown extends above general canopy; not restricted by other trees.
	Co-dominant	Crown forms the bulk of the general canopy but crowded by other trees.
	Intermediate	Crown extends into dominant / co dominant canopy but quite crowded on all sides.
	Suppressed	Crown development restricted from overgrowing trees.
Crown Condition / Vitality	Dead Tree	
	1 Severe decline	<20% canopy density; major dead wood
	2 Declining	20-60% canopy density; twig and branch dieback
	3 Average / low vigour	60-90% canopy density; twig dieback
	4 Good	90-100% canopy density; little or no dieback or other problems
Tree Type	5 Excellent	100% canopy density; no deadwood or other problems
	Endemic	Species that occur naturally and are restricted to a given area.
	Exotic	An introduced plant from outside Australia.
	Indigenous	Species that occur naturally to a given area but may not be restricted to only that area.
Root Zone	Native	A general term referring to any plant indigenous to Australia including cultivars.
	Compacted / Garden / Grass / Mulched / Natural Bush / Paved / Soil level lowered / Soil level raised	
Structures	Fence / Garage / Footpath / Verandah / Dwelling / Road / Driveway / Seat	

Australis Tree Management

27 / 40

Appendix C - Trees Impacted by Proposed Works

Tree no.	Species	Location	Tree AZ	TPO Pro	TPZ	SRZ	Proposed Works	Distance	Encroachment	Existing Obstruction	Proposed
1	Eucalyptus pilularis (Blackbutt)	adjoining	AA1	yes	9.6m	3m	deck	5.8m	0.0%	landscaping paved area	16% Retain
2	Syncarpia glomulifera (Turpentine)	on site	A	yes	5.4m	2m	deck	4.0m	8.2%	landscaping paved area	11% Retain
3	Syncarpia glomulifera (Turpentine)	on site	A	yes	5.4m	2m	deck	3.0m	0.0%	landscaping paved area	63% Retain
4	Eucalyptus pilularis (Blackbutt)	on site	AA1	yes	14.0m	4m	car port deck	2.7m 7.0m	0.0%	landscaping driveway dwelling paved area	29% Retain
5	Cinnamomum camphora (Camphor Laurel)	on site	Z2	no	3.6m	2m	car port	3.0m	0.0%		0% Retain
6	Angophora costata (Smooth-barked Apple)	adjoining	A	yes	7.2m	3m	car port	5.0m	0.0%	driveway	3% Retain

2 Nicholas Crescent, Normanhurst
Australis Reference 20201639.2

4 May 2020

ATTACHMENT 5 - ITEM 4

Appendix D - Thumbnail Photographs

Appendix E - Additional Images



Figure 4. Existing obstructions for tree no. 1



Figure 5. Proposed deck footing area for tree no 2.

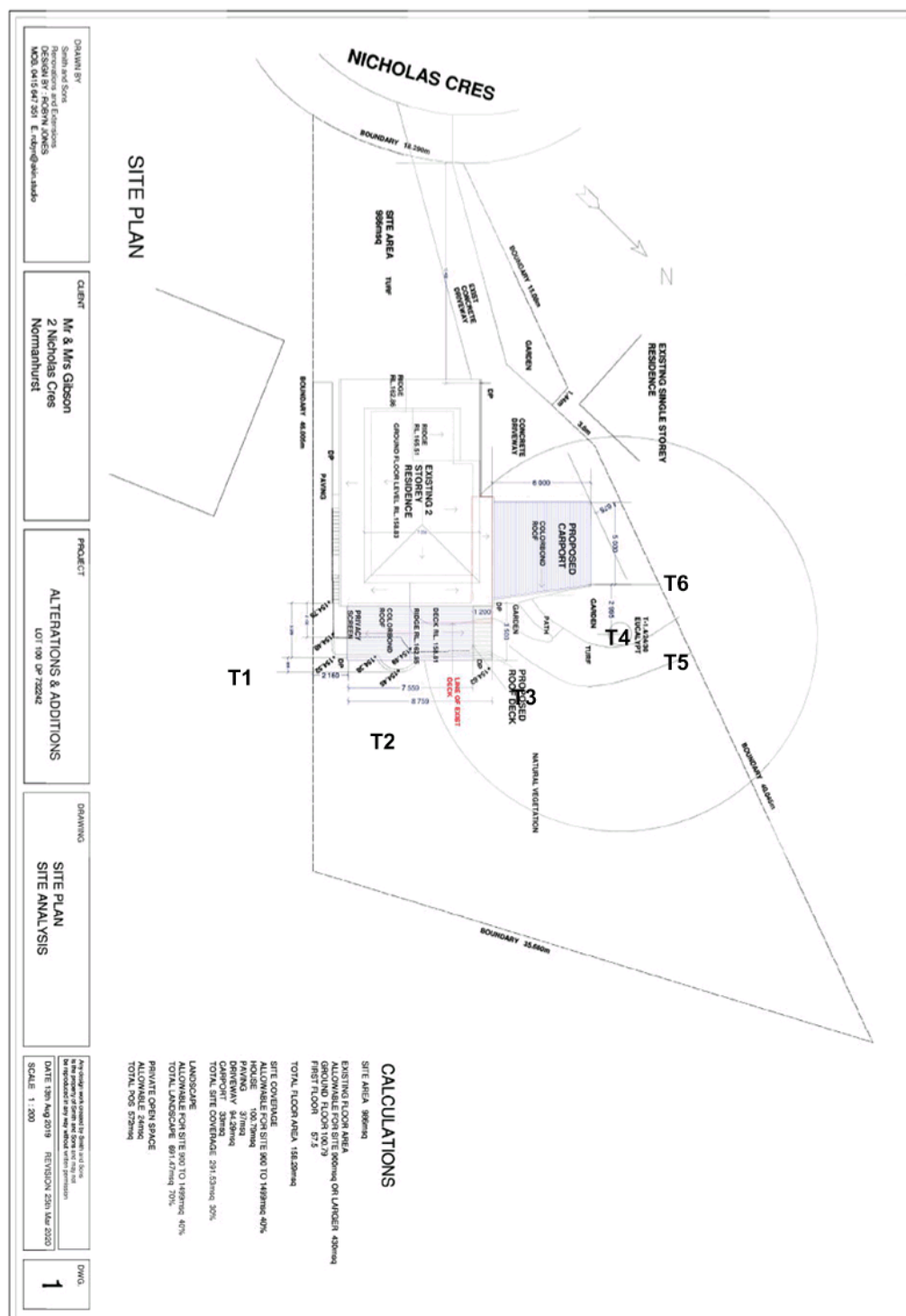


Figure 6. Proposed deck footing area for tree no 3.



Figure 7. Proposed carport area for tree no 4.

Appendix F- Proposed Site Plan



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Appendix G - Tree Protection Plan



**Tree Protection Plan
& Specifications**

AS 4970-2009 Protection of trees on development sites

Site Address:
2 Nicholas Crescent, Normanhurst

Client:
Mr & Mrs Gibson

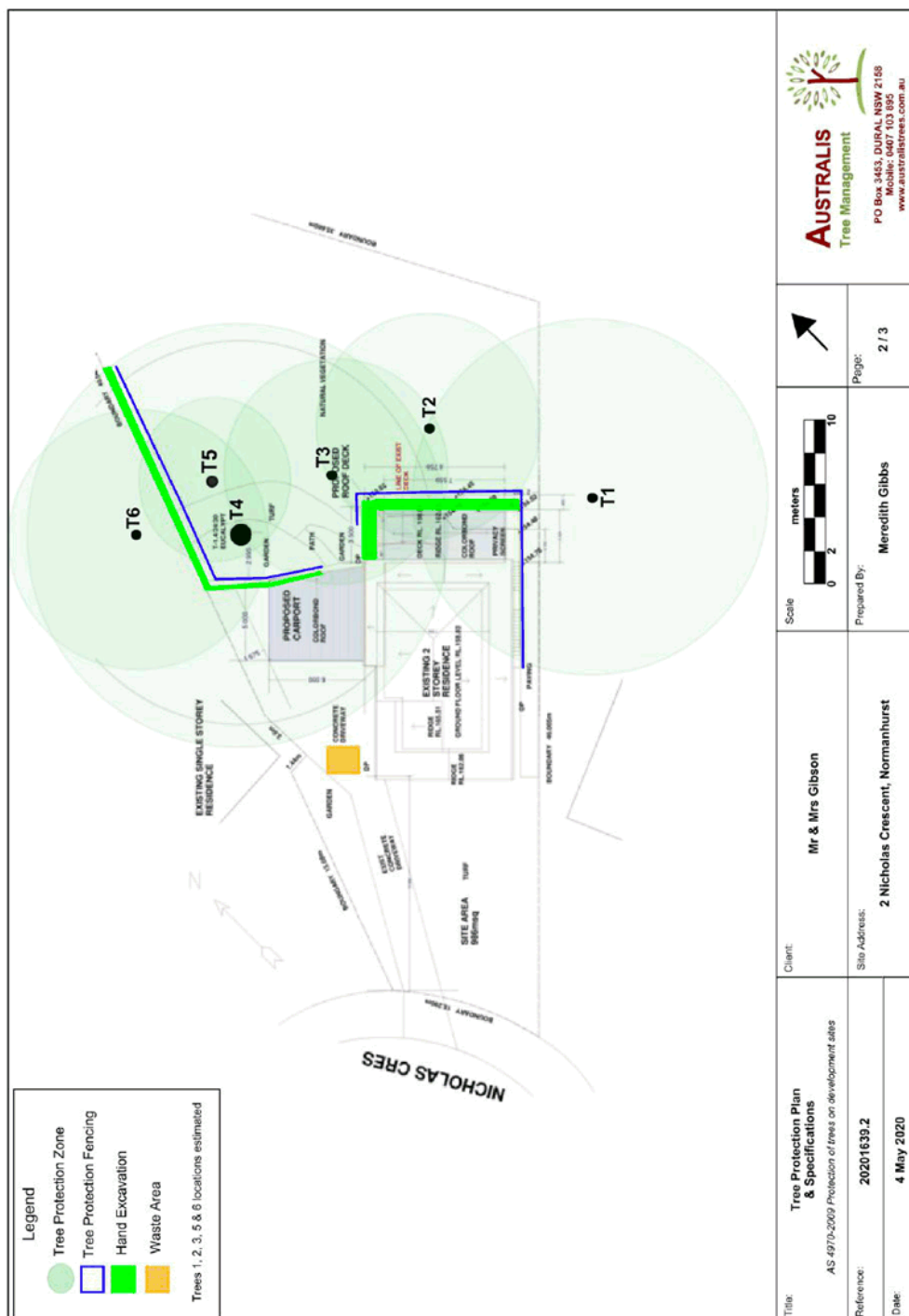
Date:
4 May 2020

Reference:
20201639.2

Prepared By:
Meredith Gibbs

PO Box 3453, DURAL NSW 2158
Mobile: 0407 163 895
www.australistrees.com.au

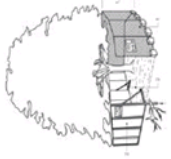
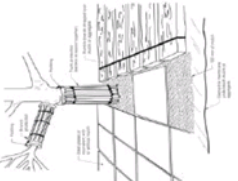
Tree Schedule	
1	Eucalyptus piliifera (Blackbutt)
2	Syncarpia glomulifera (Turpentine)
3	Syncarpia glomulifera (Turpentine)
4	Eucalyptus piliifera (Blackbutt)
5	Cinnamomum camphora (Camphor Laurel)
6	Angophora costata (Smooth-barked Apple)



2 Nicholas Crescent, Normanhurst
 Australis Reference 20201639.2

4 May 2020

ATTACHMENT 5 - ITEM 4

Tree Species 1. Eucalyptus allaria (Blackbutt) 2. Syzygium glauca (Tupelo) 3. Syzygium glauca (Tupelo) 4. Eucalyptus allaria (Blackbutt) 5. Cinnamomum camphora (Camphor Laurel) 6. Angophora costata (Smooth-barked Apple)	TREE TPZ Proposed AA1 9.0 Retain A 5.4 Retain A 5.4 Retain AA1 14.0 Retain Z2 3.6 Retain A 7.2 Retain	Project Arborist Monitoring 1. All tree related matters must be discussed with the project arborist. 2. The arborist must be responsible to inform the project arborist of any issues during works. 3. The project arborist MUST supervise all work within any Tree Protection Zone. 4. The project arborist must maintain a diary log including site visits, notes and photos. 5. The project arborist must provide feedback to the owner / builder / notes and site manager / council. 6. All tree related matters must be discussed with the project arborist. 7. Any pruning required must be in accordance with AS 4373-2007 Pruning of Amenity Trees, Standards Australia. All pruning must be supervised by the arborist or higher. Climbing Spikes MUST NOT be used.	Activities Excluded From Tree Protection Zones 1. No soil level changes 2. Machine excavation including trenching 3. Excavation for all fencing 4. Cultivation 5. Preparation of chemicals 6. Parking of vehicles and machinery 7. Refuelling 8. Dumping of waste 9. Wash down and cleaning of equipment 10. Placement of fill 11. Lighting of fires 12. Temporary or permanent installation of utilities 13. Physical damage to the tree 14. Bolt cutters or wire cutters must not be used for root pruning	Tree Protection Fencing 1. A 1.8m chain wire fence with concrete footings placed in accordance to tree protection zones and AS 4887. The TPZ boundaries are located within the tree schedule. All trees must be protected. This includes roots, trunks and branches. 2. Signs - "Tree Protection Zone, No Entry" With project arborist contact details to be attached to the protective fencing. 3. When the TPZ fencing is up to 50mm of COMPOSTED organic mulch must be applied to help retain moisture levels, suppress weed growth and reduce tree stress. Mulch must be applied in accordance with AS4454-2012 Composts, soil conditioners and mulches. 4. All trees must be thoroughly watered regularly throughout the development process. This is dependent on weather conditions. A drip hose water applied during hot and or windy weather. 5. Tree protection fencing must include shade cloth attached to the fencing to reduce transport of dust, particulates and liquids from entering the TPZ.	
Project Hold Points 1. Tree Protection Plan & Specifications must be finalised prior to works. 2. Project arborist must oversee tree retention. 3. Fencing including adequate signage. 4. The arborist / site manager is responsible for ensuring the project is in compliance with the TPZ during works. 5. Project arborist must inspect trees monthly. 6. Final Tree Inspection.	Timing Prior to construction of structures. As required. During all construction works. Post construction.	Trunk Protection 1. Trunk protection shall consist of heatshrink wrapped around the trunk. 2. Two metre lengths of timber (100 x 50mm) spaced at 100-150mm centres wrapped together with 2mm galvanneal wire. 3. These shall be staggered around the trunk and not fixed to the tree in any way to avoid mechanical injury or damage.	Rumble Boards 1. Ground protection if temporary access for machinery is required within the TPZ ground protection measures will be required. 2. The purpose of ground protection is to prevent compaction of soil and soil compaction within the TPZ. 3. Measures may include a permeable membrane such as geotextile fabric beneath a layer of mulch or crushed rock below rumble boards. 4. These measures may be applied to root zones beyond the TPZ.		
Foot Traffic Platforms 1. Ground protection against foot traffic is required within the TPZ. Scaffolding with timber boards attached.	Foot Traffic Platforms 1. Ground protection against foot traffic is required within the TPZ. Scaffolding with timber boards attached.	Footer AUSTRALIS Tree Management PO Box 3453, DURAL NSW 2158 Mobile: 0407 103 895 www.australistrees.com.au			

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Australis Reference 20201639.2

4 May 2020

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Appendix H - Glossary

Shigo, A.L. (1986) A New Tree Biology Dictionary.

*Docktor, D (2001) City of Palo Alto, Tree Technical Manual.

Bark*	All tissue outside the vascular cambium. Bark is usually divided into inner bark active phloem and aging and dead crushed phloem.
Basal	Lower trunk area of the tree.
Branch*	Organ which supports leaves, flowers and fruit.
Branch collar*	Trunk tissue that forms around the base of a branch between the main stem and the branch wood and trunk wood to meet. Formed by compaction or expansion as the girth of the branch and trunk increase.
Canopy	The part of the crown composed of the leaves and small twigs.
Cavity	An open wound, characterized by the presence of decay and resulting in a hollow (Matheny & Clarke, 1994).
Codominant stems*	Stems or trunks of about the same size originating from the same position from the main stem.
Compaction	Compaction of soils causes roots to die due to lack of oxygen and water.
Compartmentalization*	Dynamic tree defense process involving protection features that resist the spread of pathogens.
Crown*	Portion of the tree consisting of branches and leaves and any part of the trunk from which branches arise.
Decay*	Degeneration and delignification of plant tissue, including wood, by pathogens or microorganisms.
Dieback	Dieback is the reduction in the dynamic mass of a tree as twigs and branches die and are walled off by protection boundaries.
Epicormic shoots*	Shoots produced by dormant buds within the bark or stems of a tree as a result of stress, lopping or increase light. Epicormic shoots usually have a weaker form of branch attachment.
Included bark*	Inwardly formed bark at the junction of branches or codominant stems.
Kino	A dark red to brown resin-like substance produced by the trees in the genera Eucalyptus and other related genera. Kino forms when living cells are injured and infected.
Lopping*	Random cutting of branches or stems between branch union or at internodes on young trees.
Mycorrhiza	A symbiotic, nonpathogenic, or weakly pathogenic association of fungi and non woody, absorbing roots of plants. The common belief is that the mycorrhiza help the tree with mineral absorption, especially phosphorus.
Microorganisms	An organism of microscopic size. Bacteria, the tree pathogens, may be as small as 3 microns wide by 5 microns long.
Pathogen	Any agent that causes disease.
Photosynthesis	A process where chlorophyll in plants traps the energy of the sun in a molecule of carbon dioxide and water that is called sugar.
Roots	An organ of a tree that serves to maintain mechanical support, to provide water and essential elements from the soil through absorption, and to store energy reserves.
Stem*	Organ which supports branches, leaves flowers and fruit.
Tree*	Long lived woody perennial plant greater than (or potentially greater than) 3m in height with one or relatively few stems.
Trunk*	The main stem.
Wound*	An opening that is created when the bark is cut, removed or injured.

Appendix I - TreeAZ (Barrell 2016)

TreeAZ Field Sheet

Heritage: Each tree is assessed by a visual check. If it is a designated heritage tree, then it is automatically categorized as AA, and is not subjected to any of the category ZZ, Z or A considerations.

Category ZZ (unsuitable for retention): Any remaining trees that are severely compromised and unsuitable for retention, even short term, are categorized as ZZ, i.e. Dead; irreversibly declining health; irremediable structural conditions; or, causing severe inconvenience to people or structural damage.

Category Z (low quality): Any remaining trees are systematically reviewed to decide if they fit into any of the four Z subcategory groups listed in the table below.

Category A (moderate quality): Any remaining trees are automatically category A, with the possibility of being promoted to category AA.

Category AA (high quality): If a category A tree is already Large, or has the potential to become so with limited intervention, it can be promoted to category AA, at the discretion of the assessor.

Category Z: Low quality trees not worthy of being material constraint

Z	Local policy exemptions: Trees that are unsuitable for legal protection for local policy reasons including size, proximity and species	
	1	Size: Young or insignificant small trees, e.g. below the local size threshold for legal protection, etc
	2	Proximity, hedge or species: Exempt from legal protection because of proximity to structures, a maintained hedge or unsuitable species, e.g. scheduled noxious weed, out of character in a setting of acknowledged importance, etc
	Deteriorating health/condition: Trees that are likely to be removed within 10 years because of deteriorating health and/or structural condition	
	3	Health: Deteriorating health with little realistic prospect of recovery
	4	Crown instability: Deteriorating structural conditions where an increasing risk of failure can be temporarily addressed by reasonable intervention, e.g. storm damage, cavities, decay, included bark, wounds, excessive imbalance, etc
	5	Root instability: Deteriorating whole tree stability through poor anchorage, increased exposure to weather, etc
	Ongoing nuisance: Trees that are likely to be removed within 10 years because of unsuitable impact on people	
	6	Inconvenience: Ongoing and increasing inconvenience to residents to the extent that a locally recognised court or tribunal would be likely to authorise removal, e.g. dominance, debris, interference, etc
	7	Damage: Ongoing and increasing structural damage to property to the extent that a locally recognised court or tribunal would be likely to authorise removal, e.g. worsening damage to surfacing and structures, etc
	Good management: Trees that are likely to be removed within 10 years through responsible management of the tree population	
	8	No future potential: Poor condition or location with no realistic potential for recovery or improvement, e.g. dominated by adjacent trees or buildings, poor architectural framework, etc
	9	Benefit nearby trees: Removal would benefit better adjacent trees, e.g. relieve physical interference, suppression, etc
	10	Maintenance costs: Unacceptably high maintenance costs, e.g. structural conditions requiring high levels of regular pruning, etc

NOTE: Although Z trees are not worthy of influencing new designs, urgent removal is not essential and they could be retained in the short term, if appropriate

Categories A and AA: Moderate and high quality trees suitable for retention for more than 10 years, and worthy of being a material constraint

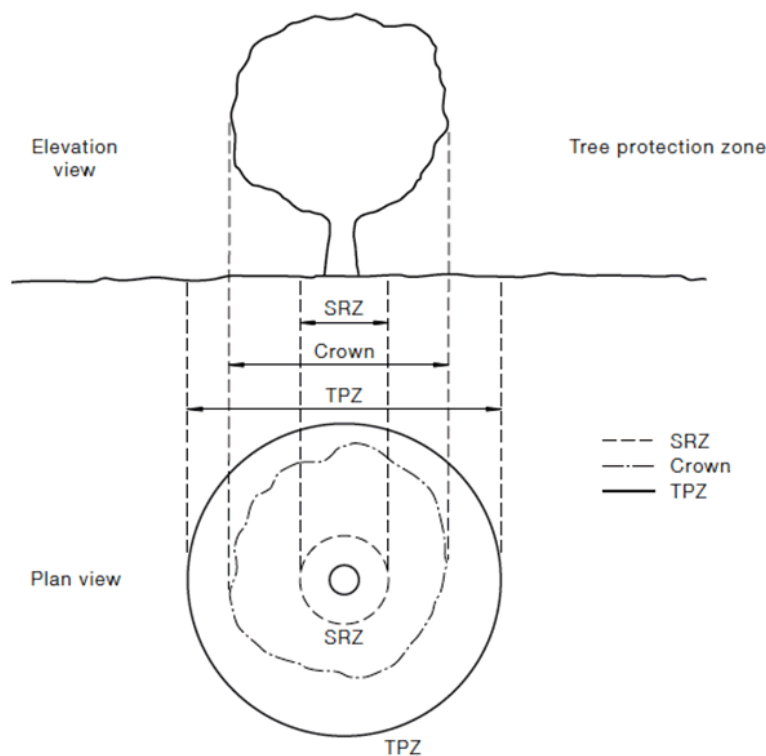
10 years, and worthy of being a material constraint		
A	All trees that are not categories ZZ or Z that can be retained with limited intervention	
NOTE: Category A trees that are already large, or have the potential to become so, with limited intervention, can be promoted to category AA(1), at the discretion of the assessor. Designated heritage trees are automatically category AA(2). Although all category AA and A trees are sufficiently important to be material constraints, category AA trees are at the top of the categorization hierarchy and should be given the most weight in any selection process.		
AA	1	Single category A trees or small groups which, at the discretion of assessor, can be promoted to category AA because they are already large, or have the potential to become large
	2	Designated heritage tree

© 2016 Barrell Tree Consultancy (Free to reproduce as long as the source is acknowledged) Further explanation of TreeAZ can be found at www.TreeAZ.com (Version 16.08-Singapore)

Appendix J - Tree Protection Zones AS4970-2009

Tree Protection Zone

The tree protection zone (TPZ) is the principal means of protecting trees on development sites. The TPZ is a combination of the root area and crown area requiring protection. It is an area isolated from construction disturbance, so that the tree remains viable.



Determining the TPZ

The **radius** of the TPZ is calculated for each tree by multiplying its DBH $\times 12$.
 $TPZ = DBH \times 12$
 Where DBH = trunk diameter measured at 1.4 m above ground

Radius is measured from the centre of the stem at ground level.

A TPZ should not be less than 2m nor greater than 15m (except where crown protection is required). Clause 3.3 covers variations to the TPZ.

The TPZ of palms, other monocots, cycads and tree ferns should not be less than 1 m outside the crown projection.

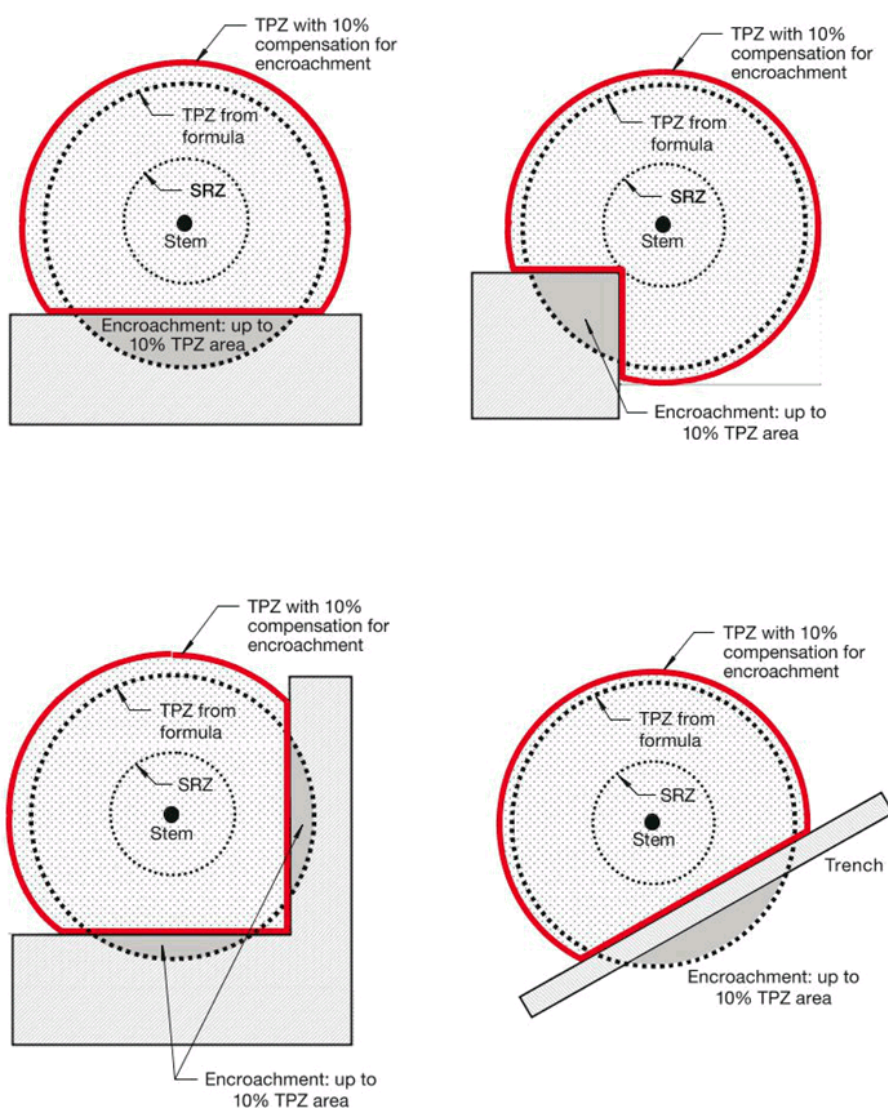
Appendix K - Tree Protection Zone Encroachments AS4970-2009

Minor Encroachments

The proposed encroachment is less than 10% of the area of the TPZ and is outside the SRZ. The area lost to this encroachment should be compensated for elsewhere and contiguous with the TPZ.

Major Encroachments

The proposed encroachment is greater than 10% of the TPZ or inside the SRZ, the project arborist must demonstrate that the tree(s) would remain viable. The area lost to this encroachment should be compensated for elsewhere and contiguous with the TPZ. This may require root investigation by non-destructive methods.



Appendix L - Qualifications & Experience



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ABN: 71 324 020 793

Meredith Gibbs (January 2020)

Qualifications:

- 1999 Advanced Certificate in Urban Horticulture
- 2002 Horticulture Diploma (Arboriculture) Level 5
- 2002 Occupational Health & Safety course
- 2002 Risk Management course
- 2002 Smart Train 008397
- 2010 Collecting Catchment Data
- 2011 Quantified Tree Risk Assessment
- 2014 Quantified Tree Risk Assessment
- 2015 Horticulture Diploma (Arboriculture), Level 5
- 2018 White Card Number 2234996

Practical experience:

- 1996 - 1998 Nursery Hand - Horticulturist
- 1988 - 2001 Garden Maintenance - Horticulturist
- 1997 - 2004 Silver Springs Nursery (Owner/Operator)
- 2000 - Australis Tree Management (Owner/Operator)

Memberships and affiliations:

- Arboriculture Australia
- Australian Institute of Horticulture
- Australian Plant Society of NSW
- Burrendong Botanic Garden & Arboretum
- International Society of Arboriculture
- Quantified Tree Risk Assessment Registered User
- Society of Municipal Arborists
- Women in Arboriculture

Insurance:

- Professional Indemnity Insurance
- Liberty International Underwriters
- \$5,000,000.00
- Policy No. HC-ME-SPC-01-104260
- Public Liability Insurance
- Liberty International Underwriters
- \$20,000,000.00
- Policy No. 463763

Pro Bono Work:

- Middle Dural Public School

Continuing Professional Development:

- NAAA Conference, Mature Trees, 2001
- Claus Mattheck Seminar 2001
- ISAAC Conference - Parramatta 2004
- AILA Tree Management Forum 2005
- Jeremy Barrell Tree AZ & Report Writing Workshop 2006
- A Practitioner's Guide to Visual Tree Assessment - Mike Ellison 2007
- Quantified Tree Risk Assessment Workshop - Mike Ellison 2007
- ISAAC Conference - Brisbane 2008
- ISAAC Conference Workshop Dr. David Lonsdale 2008
- ISAAC Conference Workshop Dr. Phillip Gibbons 2008
- ISAAC Conference - Newcastle 2009
- ISAAC Conference - Adelaide 2010
- ISA International Conference Parramatta 2011
- ISA International Conference Workshop Dr. Ken James 2011
- Arboriculture Australia Annual Conference - Sunshine Coast 2014
- Arboriculture Australia Annual Conference - Adelaide 2015
- Arboriculture Australia Annual Conference - Canberra 2017
- Jeremy Barrell Arboriculture Australia Workshop 2017
- Arboriculture Australia Annual Conference - Hobart 2018
- Arboriculture Australia Annual Conference - Alice Springs 2019

Past Projects

- Pennant Street Castle Hill (Castle Towers) 2006
- Fairway Drive, Kellyville 2012
- Summit Care, Baulkham Hills 2013
- 105-115 Portman Street, Zetland 2016
- 114 Tallawong Road, Rouse Hill 2016
- 2 Lexington Dr Bella Vista 2016
- The Hermitage - Gledswood Hills 2010-2019
- 105 Cudgegong Rd Rouse Hill Development 2018
- 33 Greenwich Road, Greenwich Redevelopment 2017-2019
- Gosford Park Redevelopment 2019
- Blacktown Workers Sports Club Redevelopment 2016-2019
- Gregory Hills Industrial Estate 2019



Appendix M – References

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- Fairley, A. & Moore, P. (1989) *Native Plants of the Sydney District*. Kangaroo Press, Kenthurst NSW Australia.
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<https://www.lmbc.nsw.gov.au/Maps/index.html?viewer=BVMap> Visited 30 April 2020
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<https://www.planningportal.nsw.gov.au/spatialviewer/#/find-a-property/address> Visited 30 April 2020
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- Smith, P. & Smith, J. (2010) *Native Vegetation Communities of Hornsby Shire Map*. Report Prepared For Hornsby Shire Council. P & J Smith Ecological Consultants, Blaxland, NSW, Australia.
State Environmental Planning Policy No 19 - *Bushland in Urban Areas* :(pub1986-10-24)

ATTACHMENT/S

REPORT NO. LPP27/20

ITEM 5

1. DAS OVER 180 DAYS - SEPTEMBER MEETING

List of development applications required to be determined by the LPP that are over 180 calendar days from lodgement

DA/1030/2018	Alterations and additions to Galston Club	19-25 Arcadia Rd Arcadia	A	> 10 submissions	November	Awaiting submission of arborist report, landscape plan and details of proposed acoustic fence. Additional information is due 29 September 2020. The amended plans will then be renotified for a period of 14 days.	722
DA/1344/2017	Review - construction of a dwelling house and driveway	65D Malton Road Beecroft	C	S8.2 Review of LPP Decision	December	Application subject to Appeal in the LEC. Amended plans to be submitted & re-notified. Review under assessment	685
DA/1566/2014/B	Section 4.55(2) applicant to amend conditions relating to use of premises and noise	130-132A Boundary Road North Epping	C	>10 Submissions	November	Traffic report to be prepared and referred to independent consultant for assessment	266
DA/123/2020	Subdivision of two lots into five lots	18 Turner Road and 67 Woodcourt Road, Berowra Heights	A	>10 submissions	November	Application subject to Appeal in the LEC. Amended plans to be submitted by 15 October. The amended plans will then be renotified for a period of 14 days.	223
DA/192/2020	Extension to existing seniors RCF	1-3 Myra Street Wahroonga	B	>10% variation height, Non-compliance with rear 25% development Standard	October	Under assessment.	202

ATTACHMENT 1 - ITEM 5