"GROWING MY WAY"

Tree Consultants

Established 1977

EXCELLENCE in ALL ASPECTS OF TREE MANAGEMENT

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ARBORICULTURE IMPACT ASSESSMENT
for Development Application Submission

May 2016

Site:	**Lot 33A in DP 359416** **56 Central Road** **AVALON BEACH, NSW 2107**
Client:	**R & J Raine Family** **c/ Vaughan Milligan Development Consulting Pty Ltd** **PO Box 49** **NEWPORT BEACH, NSW 2106** **Ph: 02 99994922 / 61 412 448 088** **Email: vmilliga@bigpond.net.au**
Commissioned:	**Vaughan Milligan**
Author:	Kyle A Hill Founder of Growing My Way Tree Services (1977) Registered (Arb Aus #1884) Practising & Consulting Arborist Graduate Certificate in Arboriculture, University of Melbourne Diploma of Horticulture–Arboriculture TAFE, NSW Certificate of Horticulture, TAFE , NSW Certificate Advanced Tree Care TAFE, NSW International Society of Arboriculture TRAQ trained tree risk assessor Member of Arboriculture Australia Member of International Society of Arboriculture

1 Summary

Vaughan Milligan (Town Planner), representing ours (R & J Raine Family) secured the services of *Growing My Way Tree Consultants (GMW)* to prepare an *Arboriculture Impact & Management Assessment as part of a soon to be lodged Development Application (DA) for Alterations/Additions to the existing free standing single dwelling residence.*

Six (6) trees are discussed. Four (4) of the six (6) discussed trees are located within the subject site. Two (2) trees are located within the front of property roadside reserve.

Pittwater Council is the local government authority.

56 Central Road is not within a *Pittwater Council* designated *Heritage Conservation Area*. The discussed trees are not within a recognised "*wildlife corridor*" nor are they listed on any known "*significant tree register*".

This document is to accompany other documentation as part of the soon to be lodged *Development Application (DA)* for:

i. *Alterations/Additions to existing structures &*
ii. *Driveway reconfiguration with special need access to residence..*

I, Kyle A Hill, as a qualified Practising & Consulting Arborist, have prepared this document based on "*Visual Tree Assessment" (VTA)* undertaken on Monday, 18 April, 2016. K A Hill is the sole author of this document.

The sole consent authority is *Pittwater Council*.

The report discusses the necessity (relative to the proposed design) for tree management of the six (6) trees identified & discussed. Three (3) discussed trees are proposed to be Retained, Managed & Protected prior to & during the construction process. Three (3) discussed trees are proposed to be removed & replaced.

The aim of this report is:

i. *Provide valid reasons to support the proposed development relative to tree management;*
ii. *Provide an achievable Tree Management Strategy for all discussed to be retained trees;*
iii. *Provide a list of suitable to the subject site new tree species &*
iv. *Confirm no trees within adjoining private lands will be affected in any manner by the DA submission.*

2 Table of Contents

3 Introduction

This report contains observations & recommendations intended to act as the site specific developed "*Tree Management Strategy*" for the six (6) trees discussed.

The sole consent authority is *Pittwater Council (from herein PC).*

This report discusses the *DA submission* as it will be lodged relative to the discussed trees taking into account their "*landscape amenity (significance) & retention values*" with respect to the proposed *Alterations/Additions.*

Four (4) of the six (6) discussed trees are locally indigenous species.

The aim of this report is:

i. *Provide valid reasons to support the proposed development relative to tree management;*

ii. *Provide an achievable Tree Management Strategy for all discussed to be retained trees*

iii. *Provide a list of suitable to the subject site new tree species &*

iv. *Confirm no trees within adjoining private & public lands will be affected in any manner by the DA submission.*

Documents referenced include:

i. *Site Survey by Bee & Lethbridge Pty Ltd, dated 10 September 2015;*

ii. *Plans & Elevations by Sammy Fedele (Architectural Drafting Services), dated 16 February 2016;*

iii. *PC website, [All six (6) trees discussed are subject to the PC tree management provisions as outlined in the Pittwater 21 Development Control Plan, 2014 (see PC 21 DCP clause B4.22 Preservation of Trees & Bushland Vegetation, parts B & C, starting on page 103), the Pittwater Local Environment Plan 2014 (see PLEP 2014 Part 5, Clauses 5.9 & 5.9AA)].*

iv. *NSW Department of Lands* website, (*SixMaps property information tool*)

For all trees retained, establishment of *Tree Protection Zones (TPZ)* as described/specified within **Appendix B** is essential to assist in managing the trees during construction processes in a manner whereby any individual retained tree's *Useful Life Expectancy* (from herein *ULE*) is not compromised.

This report will support the proposed works as presented by documentation provided.

4 Methodology

Assessment Methodology for the discussed tree has been from ground level by eye, using *Visual Tree Assessment (VTA Stage 1)* techniques developed by Claus Mattheck. The principles of *VTA* are illustrated & explained in his widely used reference textbook *"The Body Language of Trees (1994)"*.

Assessment includes:

- *Tree's current condition & likely future health.*
- *Consideration of surrounding properties existing infrastructure with respect to the proposed development within the subject site.*
- *Species tolerance to root disturbance &/or development.*
- *Likely present & future risk to persons & property.*
- *Tree's (public & private landscape) amenity value, taking into account habitat potential.*

No root analysis, soil testing, 'Resistograph'® drilling or aerial canopy inspection was undertaken. See the following Appendices for further information:

- *Appendix A Glossary of Common Arboreal term;*
- *Appendix B Site Survey, Plans & Elevations &*
- *Appendix C Tree Management Strategy.*

5 Observations

5.1 The Site

The total site area of **56 Central Road, Avalon Beach (Lot 33A in DP 359416)** is 874.50m^2 by survey.

The site is presently developed to contain a free standing single dwelling residence.

Adjoining common boundary properties are mostly developed to contain single residences, a portion of the eastern boundary is linked to the Maria Regina School Complex.

The discussed site is presently only able to be accessed via Central Road by both pedestrians & motor vehicles.

The subject site is not within a *Heritage Conservation Area*. The discussed trees do not form part of any recognised "*wildlife corridor*" nor are any known to be on any "*significant tree register*".

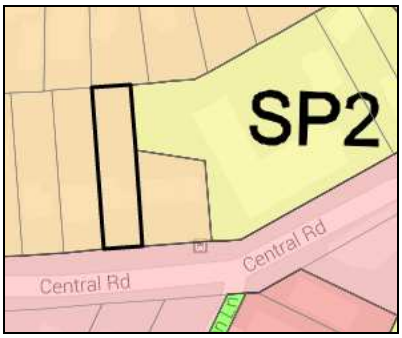


Figure 1: Above, street plan (courtesy of Whereis.com). Below, aerial photograph (courtesy of Dept of Lands, NSW, SixMaps)

5.2 The Proposal

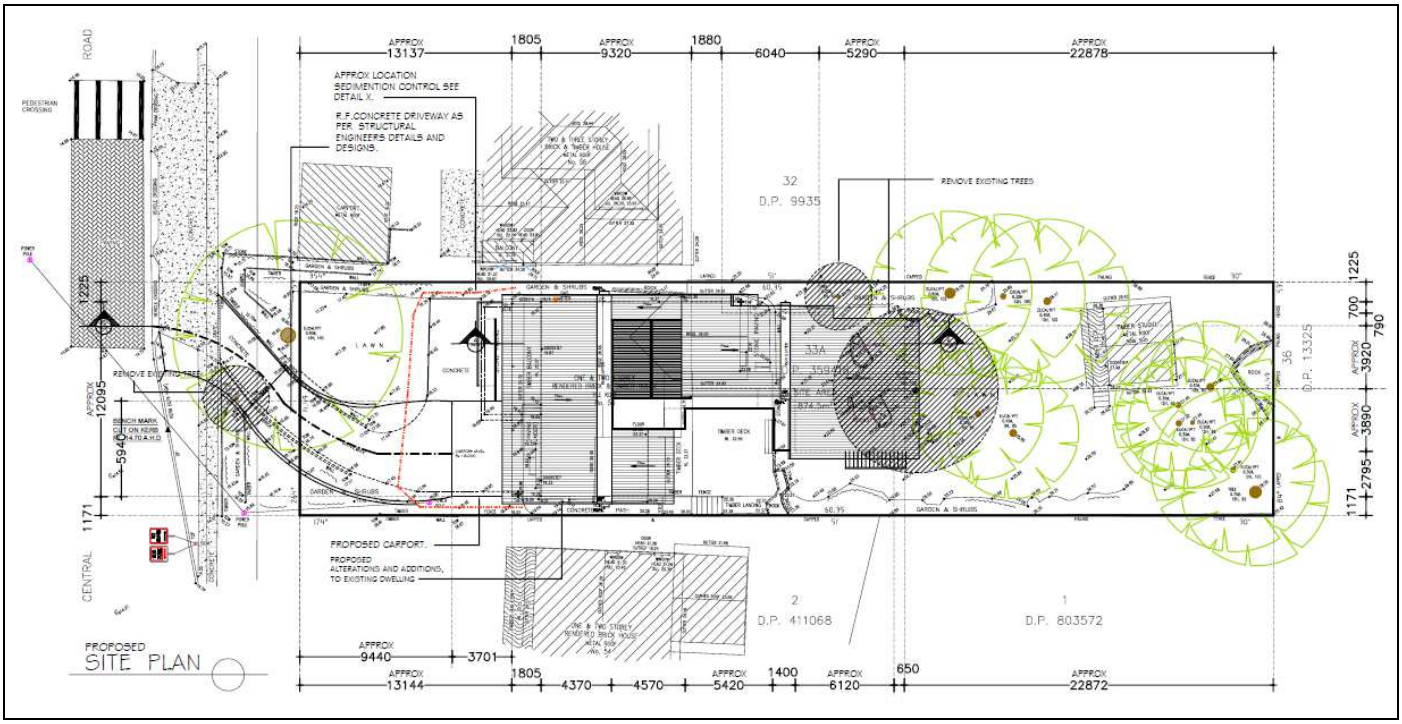
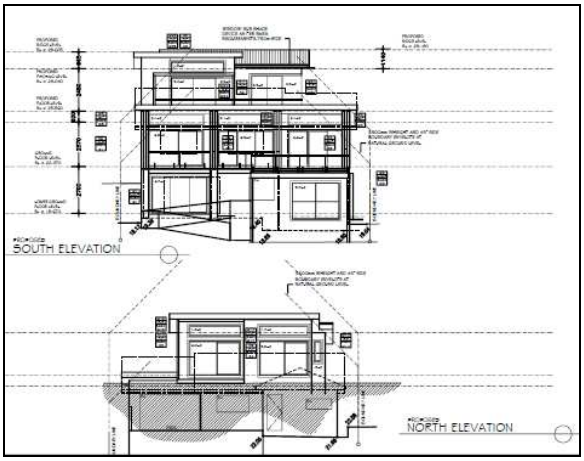
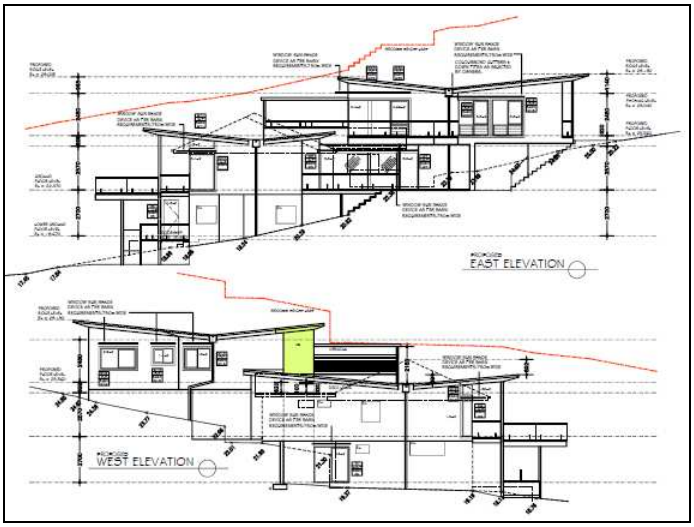


Figure 2: Illustrates proposed Site Plan & Elevations.





5.3 The Trees – Summary Table & Tree Location Plan

Read this table in conjunction with Appendix A– Common Arboreal Terms

Trees Recommended for removal | Trees Recommended for retention

Exempt species | Trees retainable but of low amenity/significance

	Identification	Height (approx in m)	Crown (approx in m)	DBH (approx in m))	TPZ (approx in m)	SRZ (approx in m)	Age	Health/ Vigour	Retention & Significance Value	Structure/Form	Comments
1	***Grevillea banksii* Bank's Grevillea**	3.00–3.50	3.50–4.00	<0.10 (multi)	2.00	1.50	M	Good & Good	Low & Low	Typical	**Remove & Replace: Tree is within roadside reserve driveway reconfigured footprint.**
2	***Angophora costata* Sydney Red Gum**	10.00–10.50	11.00–11.50	0.60/ 0.24	7.80	3.00	SM	Good & Good	High & High	Typical	**Retain, Manage & Protect: Tree is easily isolated by standard TPZ establishment practices.**
3	***Angophora costata* Sydney Red Gum**	10.00–10.50	5.50–6.00	0.27/ 0.20	4.20	2.20	SM	Poor & Poor	High & Low	Typical	**Remove & Replace: Tree is within proposed rear yard expanded footprint.**
4	***Buckinghamia cellsissima* Ivory Curl Tree**	4.50–5.00	2.00–2.50	0.08	2.00	1.50	J	Good & Good	Medium & Low	Typical	**Remove & Replace: Tree is within proposed rear yard expanded footprint.**

5	***Eucalyptus haemastoma* Scribbly bark Gum**	9.00–9.50	7.50–8.00	0.42 (1/2 canopy)	5.00	2.40	M	Good & Good	High & High	½ canopy only, Unnatural bend in trunk base	**Retain, Manage & Protect: Tree is easily isolated by standard TPZ establishment practices.**
6	***Corymbia gummifera* Red Bloodwood Gum**	7.50–8.00	4.00–4.50	0.20/ 0.19	3.60	2.00	OM	Fair & Fair	High & High	Typical	**Retain, Manage & Protect: Tree is easily isolated by standard TPZ establishment practices.**

5.4 Tree & Site Images

Site Photographs taken on 18 April 2015, (Canon G7 digital camera)

Figure 5: Illustrates subject & adjoining sites as seen from Central Road.

Figure 6: Left: illustrates location & condition of Tree #1, (right) illustrates location of Tree #2.

Figure 7: illustrates location of Tree #3, Tree #4, Tree #5 & Tree #6.

6 Discussion

General Discussion

The proposed development proposes to retain three (3) of the six (6) discussed trees.

One (1) identified & discussed tree is a locally indigenous species. Tree #1 & Tree #4 trees are planted specimens. Tree #2, Tree #3, Tree #5 & tree #6 whilst not likely to have predated site development are all likely self sown specimens.

Tree #1 is located within the proposed driveway crossover footprint reconfiguration.

Tree #2 is EASILY viably retained as NO CHANGE WITHIN IT'S *Structural Root Zone Radial (from herein SRZ)* distance is proposed.

Tree #3 regardless of any *DA* proposal is NOT considered to have a long term *Useful life Expectancy* on the basis of *"decay organism activity, termite damage as well as recent if not present conductive tissue pest (borers) damage"* noted at the time of onsite data collection.

Figure 3: Illustrates described defects of Tree #3.

Tree #4 is NOT able to be viably retained as it has no *ULE* relative to how close it is to both proposed below ground level disturbance as well as inability to develop into an example typical of its species by virtue of its location relative to new above ground building footprint.

Tree #5 is EASILY viably retained as NO EXCAVATION IS PROPOSED WITHIN IT'S *SRZ* distance of 2.40m. Excavation for footings/piers required to support the upper level must be manually excavated. None are allowed to be located within its SRZ radial distance of 2.40m.

Tree #6 is EASILY viably retained as NO CHANGE WITHIN IT'S *Tree Protection Zone (from herein TPZ)* radial distance of 3.60m *or SRZ* distance is proposed.

"Site Specific Tree Management Strategy"

Tree #1:

- ***Remove & Replace***
- ***Replacement tree should be no larger than forty-five (45) container size, (topsoil depth is very shallow).***

Tree #2:

- ***Retain, Manage & Protect; Install standard TPZ temporary metal mesh fencing in the frontyard as close as possible to the calculated TPZ radial distance of 7.80m.***
- ***No builders material of any description is to be stored within its calculated TPZ radial distance.***

Tree #3:

- ***Remove & Replace***
- ***Replace with tree selected from suggested suitable to the subject site new tree species list.***
- ***Replacement tree should be no larger than forty-five (45) container size, (topsoil depth is very shallow).***

Tree #4:

- ***Remove & Replace***
- ***Replace with tree selected from suggested suitable to the subject site new tree species list.***
- ***Tree should be no larger than forty-five (45) container size, (topsoil depth is very shallow).***

Tree #5:

- ***Retain, Manage & Protect; Install standard TPZ temporary metal mesh fencing in the frontyard as close as possible to the calculated TPZ radial distance of 7.80m.***

- ***Excavation for footings/piers required to support the upper level must be manually excavated. None are allowed to be located within its SRZ radial distance of 2.40m.***
- ***No builders material of any description is to be stored within its calculated TPZ radial distance.***

<u>Tree #6</u>:

- ***Retain, Manage & Protect; Install standard TPZ temporary metal mesh fencing in the frontyard as close as possible to the calculated TPZ radial distance of 7.80m.***
- ***No builder's material of any description is to be stored within its calculated TPZ radial distance.'***

TPZ establishment for each specified to be retained, managed & protected tree must be documented & photographed (site manager responsibility) then provided to the site's retained Principal Certifying Authority (from herein PCA).

7 Recommendations/Specifications

- **The** *DA submission* **is lodged for determination by council officers as per plans referenced taking into account the specified site specific "***Tree Management Strategy***".**
- **Replacement tree specimens are to be sourced from growers/suppliers whose stock meets the production benchmarks of the *Australian Standard (AS2303.2015 Tree stock for landscape use)* or *NATSPEC* specification for the production of quality container produced trees.**
- **New tree specimens are to be professionally planted & maintained for a minimum period of six (6) months once installed.**

<u>Below is a list of suggested suitable new tree species compatible with the local environment</u> & <u>the subject site</u>.

- *Eucalyptus haemastoma (Scribbly Bark Gum)*
- *Glochidion ferdinandi (Cheese Tree)*
- *Banksia integrifolia (Coast Banksia)*
- *Acacia binervia (Coast Myall)*
- *Alphitonia excelsa (Red Ash)*
- *Backhousia myrtifolia (Grey Myrtle)*
- *Backhousia citriodora (Lemon Scent Myrtle)*
- *Angophora floribunda (Sydney Red Gum)*
- *Melaleuca linariifolia (Snow in Summer)*

- **Any tree approved for removal must be removed by persons that abide at all times to the** "*WorkCover NSW Industry Code of Practice, (1998)*".

If you have any questions relating to this report or implementation of recommendations, please contact Kyle Hill on 0412-221-962.

Yours faithfully,

(Kyle A. Hill, AQF level 8 Practicing & Consulting Arborist)

8 Limitations on the use of this report

This report is to be utilised in its entirety only. Any written or verbal submission, report or presentation that includes statements taken from the findings, discussions, conclusions or recommendations made in this report, may only be used where the whole of the original report (or a copy) is referenced in, & directly attached to that submission, report or presentation.

9 Assumptions

Care has been taken to obtain information from reliable resources. All data has been verified insofar as possible; however, Growing My Way Tree Services, can neither guarantee nor be responsible for the accuracy of information provided by others.

Unless stated otherwise:

Information contained in this report covers only the trees that were examined & reflects the condition of the trees at the time of inspection.

The inspection was limited to visual examination of the subject trees without dissection, excavation, probing or coring. There is no warranty or guarantee, expressed or implied, that problems or deficiencies of the subject trees may not arise in the future.

10 Recommended References

Barrell, J. 1993. '*Preplanning Tree Surveys: Safe Useful Life Expectancy (SULE) is the Natural Progression*', Arboricultural Journal 17:1, February 1993, pp.

Barrell, J. 1995, '*Pre-development Tree Assessments*', in Trees & Building Sites, Proceedings of n International Conference Held in the Interest of Developing a Scientific Basis for Managing Trees in Proximity to Buildings, International Society of Arboriculture, Illinois

Dr. G. Watson & Dr. D. Neely, '*Trees & Building Sites*', LSA Illinois USA 1995

Dr. N. Matheny & Dr. J.R. Clark, '*Trees & Development*', ISA Illinois USA 1998

Phillip J. Craul, '*Urban Soil in Landscape Design*', J. Wiley & Sons, New York USA 1992

11 Selected Bibliography

Hitchmough, J.D. 1994. '*Urban Landscape Management*', Inkata Press, Sydney.

Mattheck, C. & Breloar, H. 1994 '*Body Language of Trees*', The Stationery Office, London.

AS 4373:2007, '*Pruning of Amenity Trees*', Standards Australia.

AS 4970:2009, 'Protection of Trees on Development Sites", Standards Australia.

BS 5837:2005, '*Guide for Trees in Relation to Construction*', Standards Board, UK.

Appendix A – Glossary

Glossary of common Arboreal terms

Age: **I** *Immature* refers to a refers to a well-established but juvenile tree

SM *Semi-mature* refers to a tree at growth stages between immaturity & full size

M *Mature* refers to a full sized tree with some capacity for further growth

LM *Late Mature* refers to a full sized tree with little capacity for growth that is not yet about to enter decline

OM *Over-mature* refers to a tree about to enter decline or already declining

LS *Live Stag* refers to a tree in a significant state of decline. This is the last life stage of a tree prior to death

Hth & Vig Health & Vigour

Health refers to the tree's form & growth habit, as modified by its environment (aspect, suppression by other tree, soils) & the state of the scaffold (ie. trunk & major branches), including structural defects such as cavities, crooked trunks or weak trunk/branch junctions. These are not directly connected with health & it is possible for a tree to be healthy but in poor condition/vigour. **Classes are:**

Excellent (E), V. Good (VG), Good (G), Fair (F), Declining (D), Poor (P), Very Poor (VP)

Vigour refers to the tree's growth rate/condition as exhibited by the crown density, leaf colour, presence of epicormic shoots, ability to withstand disease invasion & the degree of dieback. **Classes are:**

Excellent (E), V. Good (VG), Good (G), Fair (F), Declining (D), Poor (P), Very Poor (VP)

Useful Life Expectancy (ULE) refers to any individual tree specimen's potential life

expectancy (viability) based on VTA assessment, three groups are described,

Short = Less than Five years

Medium = Five–Fifteen years

Long = more than Fifteen years

Significant diameter roots are defined as those being greater than 0.05m/50mm in diameter.

Diameter at Breast Height (DBH) refers to the tree trunk diameter at breast height (1.4 metres above ground level)

Structural Root Zone (SRZ) refers to a radial offset which relates to tree stability. This zone is presumed to be main location of the tree's structural support roots. It is calculated using the formula *SRZ radius= (D x 50)$^{0.42}$ x 0.64.*

Primary Root Zone (PRZ) refers to a radial offset of ten (10) times the trunk DBH measured from the centre of the trunk. This zone often contains a significant amount of (but by no means all of a tree's) fine, non-woody roots required for uptake of nutrients, oxygen & water.

Tree Protection Zone (TPZ) is ideally a "No Go Zone" surrounding a tree to aid in its ability to cope with disturbances associated with construction works. **TPZ = DBH x 12**. Tree protection involves minimising root damage that is caused by activities such as construction. Tree protection also reduces the chance of a tree's decline in health or death & the possibly damage to structural stability of the tree from root damage.

To limit damage to the tree, protection within a specified distance of the tree's trunk must be maintained throughout the proposed development works. No excavation, stockpiling of building materials or the use of machinery is permitted within the TPZ.

A TPZ is required for each tree or group of trees within five metres (unless otherwise specified) of building envelopes.

Stem/bark inclusion refers to a genetic fault in the tree's structure. This fault is located at the point where the stems/branches meet. In the case of an inclusion this point of attachment is potentially weak due to bark obstructing healthy tissue from joining together to strengthen the joint.

Decay refers to the break down tissues within the tree. There are numerous types of decay that affect different types of tissues, spread at different rates & have different affect on both the tree's health & structural integrity.

Point of Attachment refers to the point at which a stem/branch etc join.

Dead wood refers to any whole limb that no longer contains living tissues (eg live leaves &/or bark). Some dead wood is common in a number of tree species.

Die back refers to the death of growth tips/shoots & partial limbs. Die back is often an indicator of stress & tree health.

One dimensional crown refers to branching habits & leaves that extend/grow in One direction only. There are many causes for this growth habit such as competition & pruning.

Crown Foliage Density of Potential (CFDP) refers to the density of a tree's crown in relation to the expected density of a healthy specimen of the same species. CFDP is measured as a percentage.

Epicormic growth/shoots refers to growth/shoots that are/have sprouted from axillary buds within the bark. Epicormic growth/shoots are a survival mechanism that often indicates the presence of a current or past stress even such as fire, pruning, drought etc.

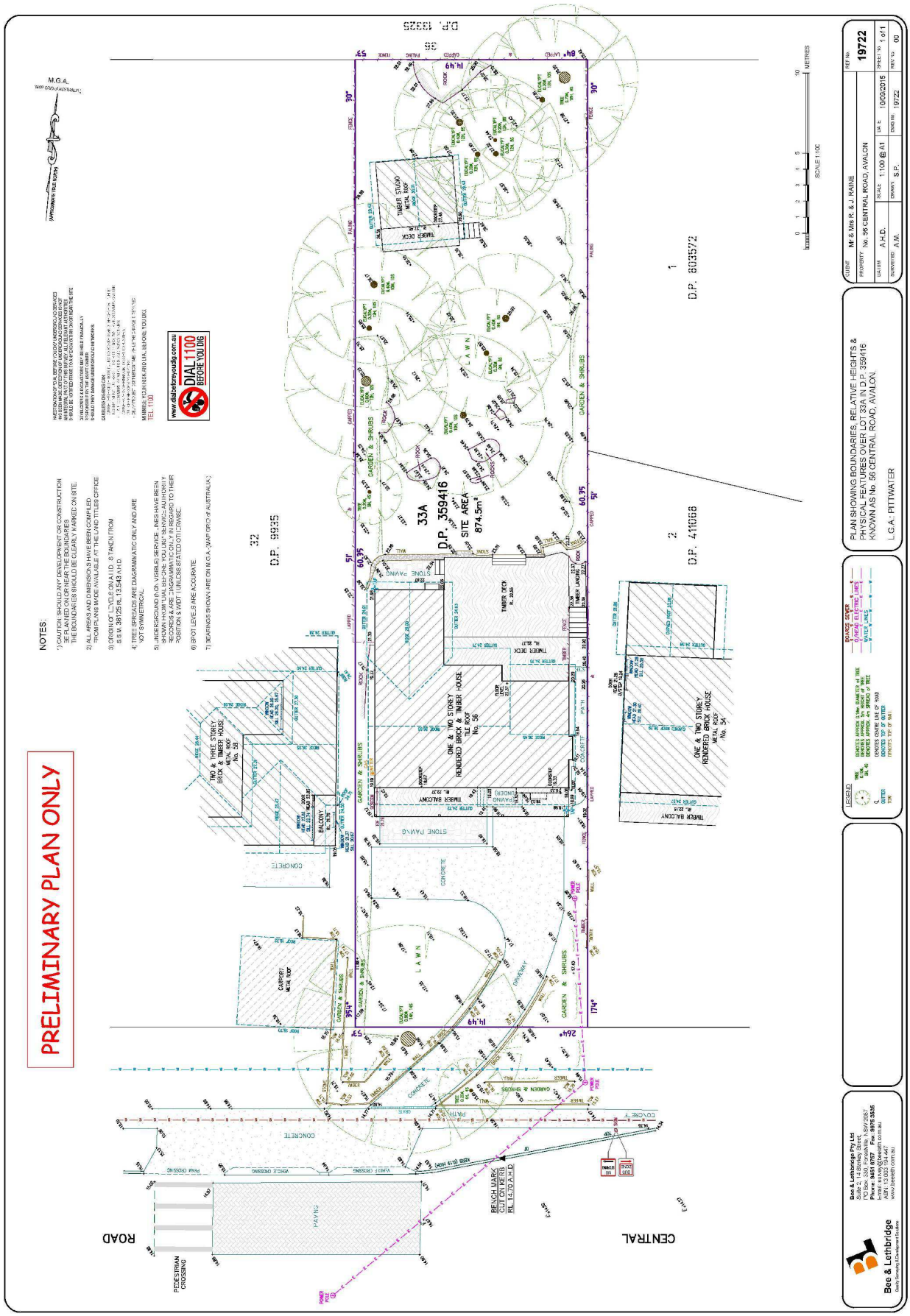
Over Head Powerlines (OHP) Over head electricity wiring.

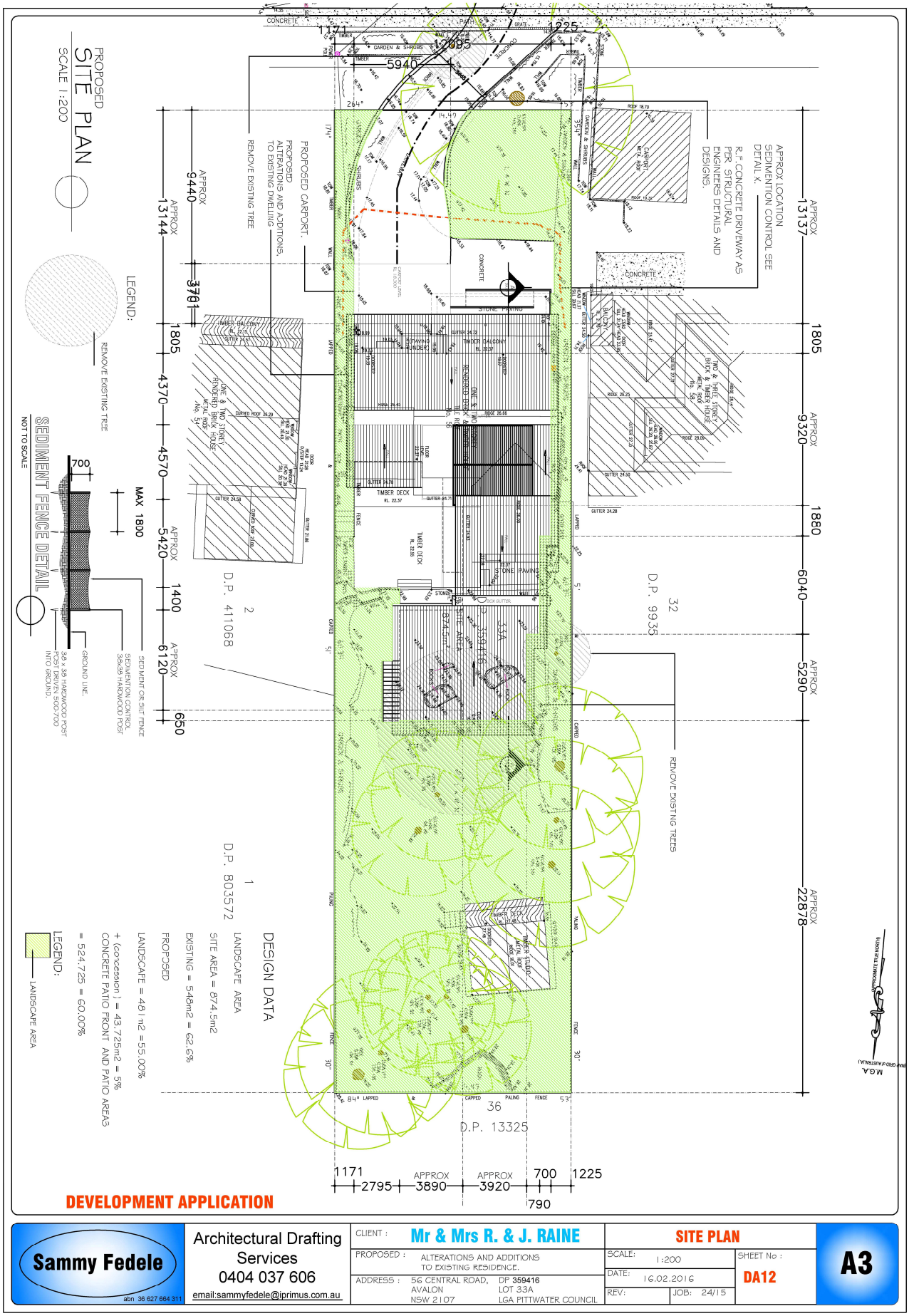
LVOHP Low Voltage Over head Powerlines

HVOHP High Voltage Over head Powerlines

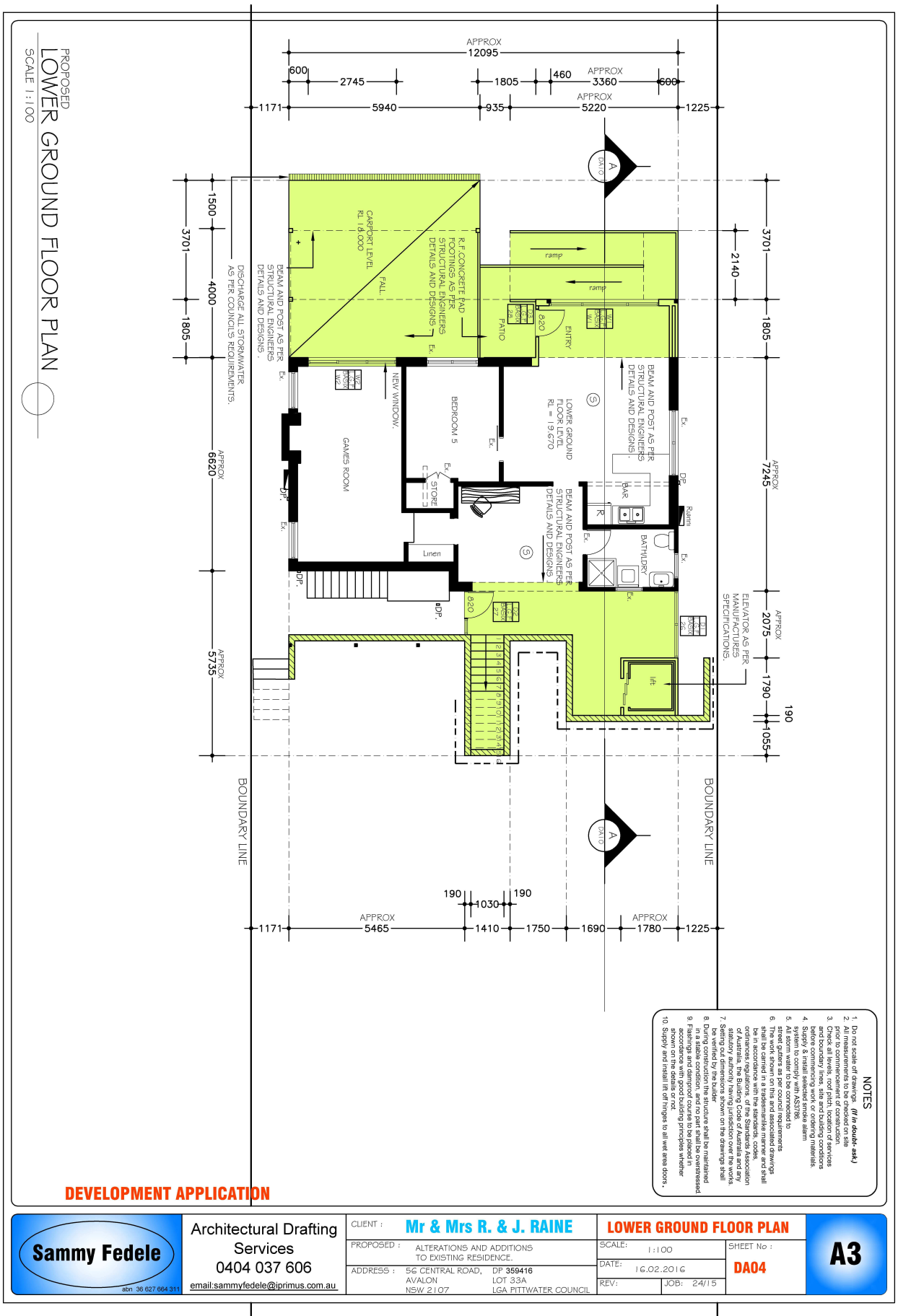
ABC Aerial Bundled Cable

Appendix B – Site Survey & Plans





Sammy Fedele abn 36 627 664 311	Architectural Drafting Services 0404 037 606 email:sammyfedele@iprimus.com.au	CLIENT : Mr & Mrs R. & J. RAINE	SITE PLAN	A3
		PROPOSED : ALTERATIONS AND ADDITIONS TO EXISTING RESIDENCE.	SCALE: 1:200	SHEET No : DA12
		ADDRESS : 56 CENTRAL ROAD, AVALON NSW 2107 — DP 359416 LOT 33A LGA PITTWATER COUNCIL	DATE: 16.02.2016	
			REV: JOB: 24/15	


PROPOSED
LOWER GROUND FLOOR PLAN
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APPROX 12095
600
2745
1805
460
APPROX 3360
600
APPROX 5220
1171
5940
935
1225
CARPORT LEVEL RL 18.000
FALL
R.F.CONCRETE PAD FOOTINGS AS PER STRUCTURAL ENGINEERS DETAILS AND DESIGNS.
ramp
PATIO
ENTRY
820
BEAM AND POST AS PER STRUCTURAL ENGINEERS DETAILS AND DESIGNS.
DISCHARGE ALL STORMWATER AS PER COUNCILS REQUIREMENTS.
NEW WINDOW.
BEDROOM 5
LOWER GROUND FLOOR LEVEL RL = 19.670
GAMES ROOM
STORE
BAR
Ramp
BATH/DRY
Linen
ELEVATOR AS PER MANUFACTURERS SPECIFICATIONS.
lift
1500
3701
4000
1805
APPROX 6620
APPROX 5735
2140
APPROX 7245
APPROX 2075
1790
190
1055
BOUNDARY LINE
190
1030
APPROX 5465
1410
1750
1690
APPROX 1780
1225
DEVELOPMENT APPLICATION
NOTES
1. Do not scale off drawings. (If in doubt- ask.)
2. All measurements to be checked on site prior to commencement of construction.
3. Locate all existing services and boundary lines, site and building conditions before commencing work or ordering materials.
4. Supply & install selected smoke alarm system to comply with AS3786.
5. All storm water to be connected to approved point of discharge.
6. The work shown on this and associated drawings shall be carried in a tradesmanlike manner and shall be in accordance with the standards, codes, ordinances, regulations, of the Standards Association of Australia, the building code of Australia and any statutory authority having jurisdiction over the works.
7. Setting out dimensions shown on the drawings shall be verified by the builder
8. During construction the structure shall be maintained in a stable condition and no part shall be overstressed.
9. Flashings and damp proof courses are to be placed in accordance with good building principles whether shown on the details or not.
10. Supply and install lift of hinges to all wet area doors.
Sammy Fedele
abn 36 627 664 311
Architectural Drafting Services
0404 037 606
email:sammyfedele@iprimus.com.au
CLIENT : Mr & Mrs R. & J. RAINE
PROPOSED : ALTERATIONS AND ADDITIONS TO EXISTING RESIDENCE.
ADDRESS : 56 CENTRAL ROAD, AVALON NSW 2107
DP 359416
LOT 33A
LGA PITTWATER COUNCIL
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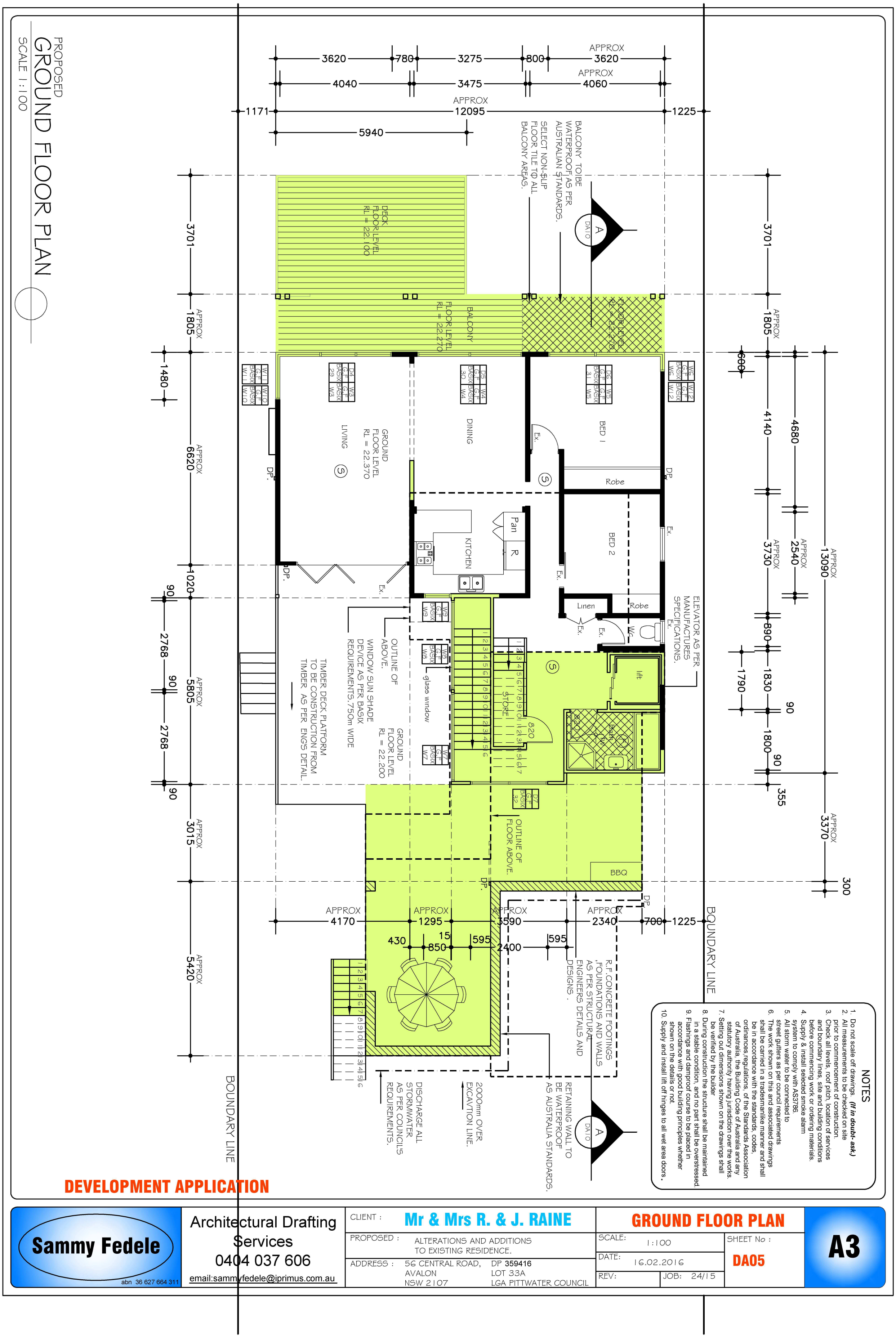
SCALE: 1:100
DATE: 16.02.2016
REV:
JOB: 24/15
SHEET No : DA04
A3


DEVELOPMENT APPLICATION
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ADDRESS : 56 CENTRAL ROAD, AVALON NSW 2107
DP 359416
LOT 33A
LGA PITTWATER COUNCIL
GROUND FLOOR PLAN
SCALE: 1:100
DATE: 16.02.2016
REV:
JOB: 24/15
SHEET No : DA05
A3


PROPOSED
FIRST FLOOR PLAN
SCALE 1:100
BOX GUTTER
FALL
1800 HIGH PRIVACY SCREEN
PROPOSED FLOOR LEVEL RL = 25.560
SITTING ROOM
TIMBER STAIRCASE AS PER AUSTRALIAN STANDARDS.
VENEER (TIMBER) CONSTRUCTION WITH 13mm PLASTERBOARD INTERNAL FINISH AND SELECTED TIMBER ARCHITRAVE.
BED 1
BEDROOM 2
ROBE
DECK 3
FIRST FLOOR PLATFORM TO BE CONSTRUCTION FROM TIMBER TO ENGS DETAIL.
BALCONY FLOOR PLATFORM TO BE CONSTRUCTION FROM TIMBER TO ENGS DETAIL.
PROPOSED FLOOR LEVEL RL = 25.270
ALL WETS AREA TO BE WATERPROOF AS PER AUSTRALIAN STANDARDS.
SELECT NON-SLIP FLOOR TILE TO ALL WET AREAS
Sammy Fedele
abn 36 627 664 311
Architectural Drafting Services
0404 037 606
email:sammyfedele@iprimus.com.au
CLIENT : Mr & Mrs R. & J. RAINE
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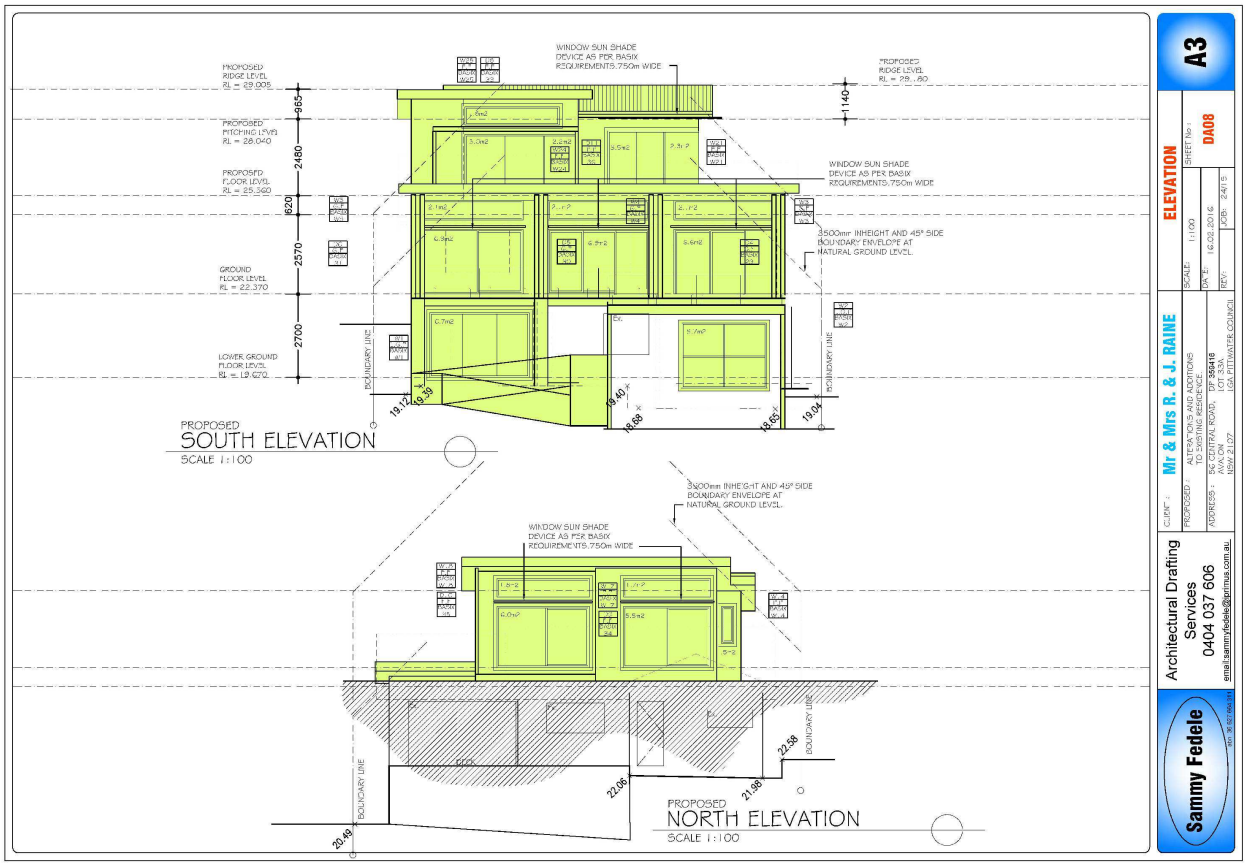
SCALE: 1:100
DATE: 16.02.2016
REV:
JOB: 24/15
SHEET No : DA06
A3


PROPOSED SOUTH ELEVATION
SCALE 1:100
PROPOSED NORTH ELEVATION
SCALE 1:100
WINDOW SUN SHADE DEVICE AS PER BASIX REQUIREMENTS.750m WIDE
3500mm INHEIGHT AND 45° SIDE BOUNDARY ENVELOPE AT NATURAL GROUND LEVEL.
BOUNDARY LINE
A3
ELEVATION
DA08
Mr & Mrs R. & J. RAINE
Architectural Drafting Services
0404 037 606
Sammy Fedele


PROPOSED EAST ELEVATION
SCALE 1:100
PROPOSED WEST ELEVATION
SCALE 1:100
8500mm HEIGHT LIMIT
WINDOW SUN SHADE DEVICE AS PER BASIX REQUIREMENTS.750m WIDE
COLOURBOND GUTTERS & DOWN PIPES AS SELECTED BY OWNERS.
VERGOLA
DECK LEVEL
A3
ELEVATION
DA09
Mr & Mrs R. & J. RAINE
Architectural Drafting Services
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Sammy Fedele

Appendix C – Tree Protection & Management

Tree Protection & Management Prior to Excavation & During Construction

The installation of Tree Protection Zone (TPZ) fencing is to be carried out prior to commencement of all works. The most suitable fencing material is 1.8m tall chain link mesh with 50mm metal pole supports, see **detail 1: tree protection fencing**.

Trunk protection "Tree Guards" are detailed (below) by generic diagram.

A mulch layer of composted leaf & woodchip to a depth of 75mm is required within the TPZ to aid in retention of soil moisture & to protect soil from contaminants. Water is to be applied by handheld or soaker/leaky hose within TPZ as required & in Accordance with Stage 3 Water Restrictions. Watering is to be carried out by either an Arborist or is to form part of the Builder's/Contractor's contract, with recommended fortnightly checks by an Arborist.

There is to be no stock piling of building material (including waste), machinery or any other item within the TPZ of any retained tree. Access to personnel, machinery, & storage of fuel, chemicals, cement or site sheds is prohibited

Regular monitoring of protected trees during development works for unforeseen changes or decline, will aid in the success & longevity of the retained trees.