

Wollongong Local Planning Panel Assessment Report | 29 May 2019

WLPP No.	Item No. 2
DA No.	DA-2018/1071
Proposal	Residential - demolition of garage and tree removals, Subdivision - Torrens title - two (2) lots, construction of dual occupancy on rear lot and Subdivision of dual occupancy - Torrens title - two (2) lots
Property	2 Coast Street, THIRROUL NSW 2515 – Lot 13 Sec O DP 5418
Applicant	Mr Russell Brown, Mrs Carni Brown and Mr Steven Arnold
Responsible Team	Development Assessment & Certification – City Wide Planning Team (RT)

ADDENDUM REPORT

This report should be read in conjunction with the Council Assessing Officer's report as presented to the Wollongong Local Planning Panel on the 10 April 2019 at **Attachment 6**.

1 BACKGROUND AND EXECUTIVE SUMMARY

Reason for consideration by Wollongong Local Planning Panel (WLPP)

The proposal has been referred to the WLPP for **determination** pursuant to part 2(b) of Schedule 2 of the Local Planning Panels Direction, as the application is the subject of 10 or more unique submissions by way of objection.

Background

This matter was reported to the WLPP meeting on 10 April 2019. A copy of the Panel's recommendation is included at Attachment 1. The Panel determined to defer the development application to allow the applicant an opportunity to address the issues raised by the Panel as follows:

"The Panel is concerned that the following matters have not been adequately addressed by the proposal in its current form:

- The justification for the variation to single storey control within Wollongong DCP 2009 (Battle-axe allotments) is inadequate in terms of the current design;*
- The visual intrusion of proposed dwelling 2A upon 16A Seafoam Avenue;*
- The encroachment by dwelling 2A into the 7.2 metre tree protection zone of tree 20;*
- The manoeuvring space for the rear dwellings 2A and 2B should be wholly located within the proposed rear lot; and*
- Protection of privacy to the rear private open space of 16A Seafoam Avenue."*

Proposal

The proposal seeks consent for the following:

- Demolition of the existing garage and tree removals;
- Subdivision – Torrens title – two (2) residential lots (Lots 1 and 2) including access and services infrastructure;
- Construction of a detached dual occupancy on Lot 2; and
- Subdivision – Torrens title – two (2) residential lots (Lots 201 and 202) of existing dual occupancy.

Permissibility

The subject site is zoned R2 Low Density Residential pursuant to Wollongong Local Environmental Plan (WLEP) 2009. Dual Occupancy development and subdivision are permissible with consent in the

R2 zone. Demolition and tree removal are ancillary works to facilitate the proposal and as such are also permissible.

Planning Controls

The following planning controls apply to the proposal:

State Environmental Planning Policies:

- SEPP No. 55 – Remediation of Land
- SEPP (Building Sustainability Index: BASIX) 2004

Local Environmental Planning Policies:

- Wollongong Local Environmental Plan (WLEP) 2009

Development Control Plans:

- Wollongong Development Control Plan (WDCP) 2009

Other policies

- Wollongong City Wide Development Contributions Plan 2018
- Planning for Bushfire Protection 2006 (PBP 2006)

An assessment of the planning controls relevant to the amended proposal are provided at **Attachment 4**.

For the original assessment refer to Council Assessing Officer's report as presented to the Wollongong Local Planning Panel on the 10 November 2019 at **Attachment 6**.

Consultation

Details of the amended proposal were publicly exhibited in accordance with Appendix 1 of the Wollongong Development Control Plan (WDCP) 2009. Two (2) submissions were received. The issues identified are discussed at section 4 of this report

RECOMMENDATION

DA-2018/1071 be approved subject to the conditions provided in **Attachment 5**.

2 APPLICANTS RESPONSE TO THE WLPP RECOMMENDATIONS

The applicant has provided amended plans and additional information in response to the concerns raised by the Panel including:

- Amended Architectural Plans, Subdivision Plans and Landscape Plan;
- Amended BASIX certificate;
- Variation Statement for Clause 4.1.2(1) Number of Storeys in Chapter B1 Wollongong Development Control Plan (WDCP) 2009.

The amended plans and Variation Statement are provided at **Attachments 2 and 3** respectively.

The applicant provided the following correspondence in a letter of response to Council dated 30 April 2019:

a. The justification for the variation to single storey control within Wollongong DCP 2009 (Battle-axe allotments) is inadequate in terms of the current design;

A modified design has been prepared and a revised justification for variation is included in this resubmission addressing the panels concerns and its compliance with the objectives of the control to be varied.

b. The visual intrusion of proposed dwelling 2A upon 16A Seafoam Avenue;

The proposal has been redesigned to address the concerns of the neighbouring residents at 16A Seafoam Avenue and the LPP concerns about potential visual intrusion. To address this, Unit 2A has been relocated approx. 4m to the north to increase the rear setback and minimise the portion of two storey residence viewable from 16A Seafoam Avenue.

The single storey dining room area has been removed to increase the setback of Unit 2A from the adjoining boundary to 4.07m enabling the provision of substantial screen planting and the retention of tree 22, an established Illawarra flame tree.

The ground floor level of Unit 2A located behind the rear setback of 16A Seafoam Avenue is set below natural ground level to further reduce the height and bulk of the proposal the rear of the building has a wall height of 5.7m. The roof pitching point has been lowered from 2.7m to 2.55m.

It is noted that a stand of mature trees within the rear yard of 16A Seafoam Avenue obscures views to the west.

c. The encroachment by dwelling 2A into the 7.2 metre tree protection zone of tree 20;

The proposed unit 2A has been relocated northwards and the ground floor footprint reduced to ensure that the 4.1% encroachment is well within the AS4970 TPZ maximum allowable encroachment of 10%.

d. The manoeuvring space for the rear dwellings 2A and 2B should be wholly located within the proposed rear lot;

The proposed lot boundary has been amended to ensure that all vehicle manoeuvring areas to the rear lot are located within the lot.

e. Protection of privacy to the rear private open space of 16A Seafoam Avenue."

The revised proposal removes the east facing private open space deck and relocates this area to the rear of unit 2A setback 4.2m from the adjoining boundary. This area is at existing natural ground level and is located behind established and proposed screen planting.

All windows that can view the rear private open space yard of 16A Seafoam Avenue are high level or located at natural ground level.

In addition to addressing matters raised by the Panel in the letter of response the applicant provided the following correspondence in regards to landscaping matters:

It is requested that Council review the following draft conditions of consent:

Condition 18 – The proposal provides planter boxes to the eastern and northern side of the Private Open Space terrace. This was requested by Council to protect the privacy to the existing residence. A planter box has not been provided on the western façade of the POS deck as the proposal provides more substantial screen planting at natural ground level where the terrace is as close as practicable to ground level (approx. 500mm above). The proposal also provides a 1.8m high screen fence to the western boundary which will ensure no loss of privacy to the adjoining neighbour. We request that council amend the condition to the developer must provide planter boxes as indicate on plans.

Condition 38(a) – This condition requires a 1m wide turf strip to either side of the proposed driveway. The concept landscape plan provides screen planting between the proposed driveway alignment and the eastern boundary. This condition restricts this planting to grass only, we request that the provision of a 1m wide turf strip be removed.

The resubmitted landscape plan also revises the trees to be removed to accommodate the revised design.

Trees to be removed are trees 10, 11, 12, 13, 14 & 21. Permission is also sought to remove tree 18 which is dead and neighbours have requested its removal due to safety concerns.

The revised proposal allows for retention of tree 22.

3 COUNCIL'S ASSESSING OFFICER'S COMMENTS

Council's Assessing Officer has reviewed the Panel's recommendations from the 10 April WLPP meeting and the Applicant's response to the issues raised and provides the following comments.

a. The justification for the variation to single storey control within Wollongong DCP 2009 (Battle-axe allotments) is inadequate in terms of the current design;

The applicant has submitted an amended variation request statement with justification has been provided by the applicant in accordance with clause 8 of Chapter A1 of WDCP 2009 provided at **Attachment 3**. The variation has been considered and is capable of support in this instance as discussed at **Attachment 4**.

b. The visual intrusion of proposed dwelling 2A upon 16A Seafoam Avenue;

The Panel determined to defer the development application to allow the applicant the opportunity to re-site or redesign Unit 2A to lessen the visual intrusion from the adjoining property to the East and to provide design resolutions to matters detailed in the reasons for deferral.

The Panel considered that a reduction in the size of proposed Lot 1 would provide for a better design solution for the proposed dwellings 2A and 2B.

Unit 2A has been relocated further North on proposed Lot 201 and the footprint of the ground floor reduced so as to increase the rear setback from 9.74m to 13.685m at the closest point to the Eastern side boundary with 16A Sea Foam Avenue. This has enabled Unit 2A to align more with the adjoining dwelling on 16A Sea Foam Avenue. Unit 2A previously extended approximately 10.3m beyond the rear of the adjoining dwelling to the East amended plans indicate that this extension beyond the rear of the adjoining dwelling to the East has now been reduced to approximately 6.5m. The wall height for Unit 2A has been lowered in this area from approximately 6.3m to 5.7m through an increase in cut to the site and lowering the pitching point of the roof from 2.7m to 2.55m. Thus the visual intrusion from the adjoining property to the East 16A Sea Foam Avenue is considered to have been minimised through the amended proposal.

The separation distance between the ground floor and the Eastern side boundary where Unit 2A extends beyond the rear building line of the No.16A Sea Foam Avenue has been increased from 0.95m to 4.07m and the ground floor deck on the Eastern elevation of Unit 2A has been reduced in size increasing the setback of this deck from 1.5m to 4.07m. This deck was initially proposed to be used as the primary private open space for Unit 2A however the use of this deck as the primary area of private open space is no longer proposed due to its reduction in size. The private open space has now been relocated to the rear of the dwelling. Screen planting is proposed along the Eastern side boundary for the length of the dwelling so as to minimise and soften visual intrusion.

It is considered that the applicant has addressed the Panels concerns in relation to Item b.

c. The encroachment by dwelling 2A into the 7.2 metre tree protection zone of tree 20;

Unit 2A has been relocated further North on proposed Lot 201 and the footprint of the ground floor reduced so as to increase the rear setback within the immediate vicinity of Tree 20 from 9.74m to 13.685m. The relocation and reduction in footprint of Unit 2A results in a maximum encroachment of 4.1% of the Tree Protection Zone, 5.9% less than the maximum 10% encroachment permitted under AS4970 and has now enabled the retention of Trees 21 and 22.

Details of the application submission including the amended Landscape Plans and Addendum Arborist report were referred to Council's Landscape for comment. Advice received indicates that the proposal is conditionally satisfactory with amendments in particular recommended to Condition 10 specifying trees to be retained and trees for removal. It is noted that Council's Landscape Officer now recommends four (4) trees for removal based on the amended plans as opposed to six (6) trees as presented to the WLPP on 10 April 2019. The four (4) trees to be removed are considered to be in poor health or introduced species such that they are not worthy of retention.

It is considered that the applicant has addressed the Panels concerns in relation to Item c.

d. The manoeuvring space for the rear dwellings 2A and 2B should be wholly located within the proposed rear lot;

The applicant has submitted amended plans that detail a reduction in area of Lot 1 such that vehicular manoeuvring for the rear dwellings, Units 2A and 2B, can be undertaken entirely within the rear lot.

It is considered that the applicant has addressed the Panels concerns in relation to Item d.

e. Protection of privacy to the rear private open space of 16A Seafoam Avenue."

The separation distance between the ground floor and the Eastern side boundary where Unit 2A extends beyond the rear building line of the No.16A Sea Foam Avenue has been increased from 0.95m to 4.07m and the ground floor deck on the Eastern elevation of Unit 2A has been reduced in size increasing the setback of this deck from 1.5m to 4.07m. This deck was initially proposed to be used as the primary private open space for Unit 2A however the use of this deck as the primary area of private open space is no longer proposed due to its reduction in size. The private open space has now been relocated to the rear of the dwelling.

Highlight windows have been incorporated into the Eastern elevation where Unit 2A extends beyond the rear building line of No.16A Sea Foam Avenue so as to minimise overlooking impacts from rooms within the dwelling. There are no widows in the Eastern elevation of Unit 2A at its closest point to no.16A Sea Foam Avenue.

Screen planting is proposed along the Eastern side boundary for the length of the dwelling so as to minimise and soften privacy impacts.

It is considered that the applicant has addressed the Panels concerns in relation to Item e.

GENERAL COMMENTS

In addition to the specific recommendations of the panel, as discussed above, the applicant has made a number of amendments to the design and Council's Assessing Officer offers the following comments: (Note: An assessment of the amended proposal against the relevant WLEP and WDCP 2009 planning controls is provided at Attachment 4).

- The amended proposal in response to the Panels request has amended the minimum lot sizes resulting in a decrease in area for proposed Lots 1 and 202 and an increase in the minimum lot size for proposed Lot 201 compared to the proposal as presented to WLPP on 10 April.
- The amended proposal has reduced the Gross Floor Area of Unit 2A by approximately 9m². Therefore the floor space ratio and site coverage have been reduced and landscaped area increased for proposed Lot 201 compared to the proposal as presented to WLPP on 10 April.
- The amended proposal has increased the Gross Floor Area of Unit 2B by approximately 8m². Therefore the floor space ratio and site coverage have increased and landscaped area decreased for proposed Lot 202 due to the combination of the reduced minimum lot size and increase in gross floor area compared to the proposal as presented to WLPP on 10 April.
- Whilst no changes are proposed with this application to the existing dwelling the floor space ratio and site coverage have increased and the landscaped area reduced due to the minor change in area proposed to the minimum lot size of proposed Lot 1 as presented to WLPP on 10 April.
- The amended proposal has a reduced height for Unit 2 B and an increased height for Unit 2A due to the relocation of the dwellings further forward on the site, compared to the proposal as presented to WLPP on 10 April.
- The amended proposal has resulted in the following amendments to the boundary setbacks compared to the proposal as presented to WLPP on 10 April:
 - Rear setback of Unit 2A increased from 9.38m to 11.285m;
 - Rear setback of Unit 2B decreased from 7.82m to 7.635m;
 - Ground Floor Eastern side setback of Unit 2A minimum setback increased from 0.95m to 2.06m and the maximum setback increased from 2.06m to 4.07m.
- The dining room window (W 04) on the ground floor Eastern elevation of Unit 2A has been changed to a highlight window.
- The amended proposal now enables the retention of Trees 21 and 22. Landscaping conditions now indicate the removal of four (4) trees as opposed to the six (6) trees proposed to be removed under the original proposal as presented to WLPP on 10 April.

4 SUBMISSIONS

Details of the proposal were publicly exhibited in accordance with Appendix 1 of the Wollongong Development Control Plan (WDCP) 2009. Two (2) submissions were received. The main issues identified within the submissions are discussed below.

Table 1: Submissions

Concern	Comment
1. Proposed Tree Removals	Consideration was given to the proposed tree removal and impacts of the proposed development on trees to be retained. Council's Landscape Officer commissioned an independent arborist report included at Attachment 2 to

Concern	Comment
	<p>the Council's Assessing Officers original assessment report to the WWLPP to assess in particular Tree 12 (Magenta Lilly Pilly) and Tree 20 (Lemon Scented Gum).</p> <p>The independent arborist report considered Tree 12 to not be a long term specimen tolerant of extensive building works or safe enough to increase the target area below the canopy. Tree 20 was found to be significant tree with no reason for removal and provided the structural design of the footings for Unit 2A could be sympathetic to the Tree Protection Zone (TPZ) of this tree then should be possible to be retained. Amended plans provided the applicant to address concerns raised by the Panel detail a reduction in the ground floor of Unit 2A increasing the setback between the dwelling and Tree 20 and thus reducing the encroachment within the Tree Protection Zone (TPZ).</p> <p>The amended plans and documentation have been reviewed by Council's Landscape Officers in conjunction with the independent arborist report and are considered conditionally satisfactory.</p> <p>It was noted by Council's Environment Officer that although Tree 12 (Magenta Lilly Pilly) and Tree 21 (Wallangarra White Gum) are both threatened species, Tree 12 is considered a planted specimen based on its habit, location and review of aerial photos and Tree 21 is not considered endemic to the area therefore a 5 part test as per Section 7.3 of the Biodiversity Conservation Act is not required. Tree 21 was originally proposed to be removed however Council's Landscape Officer has recommended its retention which is reflected in Condition 10 at Attachment 5.</p> <p>Tree 11 is not listed as threatened under the NSW Biodiversity Conservation Act 2016 and has been delisted from the Commonwealth Environment Protection and Biodiversity Conservation Act 1999.</p> <p>With respect to Tree 10 Council's Landscape Officer has recommended its retention, this is reflected in Condition 10 at Attachment 5.</p> <p>The four (4) trees to be removed are considered to be in poor health or introduced species such that they are not worthy of retention.</p> <p>Amended Landscaping conditions are included at Attachment 5 specifying trees to be removed, trees to be retained, compensatory plantings, tree protection and management</p>
2. Subdivision of the Property	<p>Consideration was given to the proposed subdivision of the property. Subdivision of the subject site is permissible pursuant to Clause 2.6(1) of Wollongong Local</p>

Concern	Comment
	<p>Environmental Plan 2009.</p> <p>The proposed phase 2 two (2) lot Torrens title subdivision will result in Lot sizes of 705.6m² for Lot 1 and 875.97m² excluding the access handle for Lot 2 which are both compliant with Clause 4.1 Minimum Subdivision Lot Size of WLEP 2009.</p> <p>Phase 4 of the proposal involves a two (2) lot Torrens title subdivision of the newly constructed dual occupancy. WLEP 2009 Subclause 4.1(4C) identifies that Clause 4.1 does not apply in relation to the subdivision of an existing dual occupancy. A condition relating to the issue of an Occupation Certificate for the detached dual occupancy prior to the application for the phase 4 Torrens title subdivision so that the proposal satisfies subclause 4.1(4C) is included at Attachment 6.</p> <p>It is noted that Lot 201 with an area of 461.2m² excluding the access handle is compliant with Clause 4.1 Minimum Subdivision Lot Size of WLEP 2009.</p>
3. Construction of Dual Occupancy	<p>The proposed development is a permissible use in the R2 zone and satisfies controls for dual occupancy development under WDCP 2009. The proposal is considered to not detract from the existing character of Thirroul and is considered compatible with the desired future character for the locality.</p> <p>The proposed development satisfies Council's Floor Space Ratio and Building Height development standards as identified in the WLEP 2009, and overall the bulk and scale of the proposed development is considered acceptable in this circumstance.</p>
4. Number of Storeys	<p>The number of storeys for Units 2A and 2B are considered acceptable for the following reasons:</p> <ul style="list-style-type: none"> • It is considered that the proposed development will have minimal impact on the streetscape and the natural setting of the area. The proposed dwellings are separated by distance and roof form from each other and the existing dwelling on the relatively large site. This separation of the buildings is consistent with the built environment of the adjacent and surrounding land. The proposed dwellings fit below the tree canopy line and are screened from the street by existing dwelling to be retained, adjoining development and existing mature vegetation. • The variation for Unit 2B is considered to be a minor point encroachment as can be seen in Figure 1 below with the remainder of the dwelling presenting as a single storey

Concern	Comment
	<p>development.</p> <ul style="list-style-type: none"> • The proposed development will have minimal impact on the adjoining dwellings in terms of overlooking for the following reasons: <ul style="list-style-type: none"> - The upper level windows on the eastern elevation of Unit 2A consist of highlight windows within the hallway and bedroom window. Windows on the upper level of the rear elevation consist of bathroom windows. Amended plans now indicate that the dining room widow on the ground floor has been changed to highlight window so as to minimise overlooking impacts from higher usage areas. - Unit 2B presents as a single storey dwelling to the adjoining property to the West due to the topography of the site which results in a cross fall to the East. - Reasonable setbacks consisting of 1m (West) for Unit 2B and 0.95m to the ground floor and 4.07m to the first floor (East) for Unit 2A have been maintained to the side boundaries. The amended proposal has increased the ground floor setback of Unit 2A from a minimum of 0.95m to 2.06m and the maximum setback increased from 2.06m to 4.07m so as to minimise overlooking impacts. - The private open space has been set to the rear and the living areas have been set on the ground floor of Unit 2A and have been screened to the East by landscaping and privacy screens to minimise overlooking. • The proposed development will have minimal impact on the adjoining dwellings in terms of overshadowing for the following reasons: <ul style="list-style-type: none"> - Reasonable setbacks have been proposed to the site boundaries. - Reasonable separation distances have been maintained between the proposed dwellings and the adjoining dwellings to the North, East and West. - Reasonable building heights have been proposed. The proposed dwellings are approximately 2.45m for Unit 2A and 3.975m for Unit 2B below the 9m maximum building height.

Concern	Comment
	<ul style="list-style-type: none"> - The proposal complies with bulk and scale controls. • The proposed dwelling has been designed to be sympathetic to and address site constraints. • It is considered that the building character and form of the proposed dwelling is reasonable in this circumstance. There are dwellings of similar bulk and scale within the immediate vicinity of the subject site.
5. Overshadowing	<p>The proposed development will have minimal impact on the adjoining dwellings in terms of overshadowing for the following reasons:</p> <ul style="list-style-type: none"> - Reasonable setbacks have been proposed to the site boundaries. - Reasonable separation distances have been maintained between the proposed dwellings and the adjoining dwellings to the North, East and West. - Reasonable building heights have been proposed. The proposed dwellings are approximately 2.45m for Unit 2A and 3.975m for Unit 2B below the 9m maximum building height. - The proposal complies with bulk and scale controls. - Submitted shadow diagrams for June 21 are considered satisfactory when the effects of the Illawarra Escarpment and existing mature vegetation in the immediate locality are taken into account.
6. Loss of Lifestyle	<p>The proposal provides for retention of the existing dwelling, Torrens title subdivision creating a battle-axe allotment to the rear and dual occupancy development on the newly created rear lot on the subject site. The proposed dual occupancy dwellings are considered generally consistent with the future desired character of the leafy upper slopes of Thirroul.</p> <p>The proposed development satisfies Council's Floor Space Ratio and Building Height development standards as identified in the WLEP 2009, and boundary setbacks, landscaped area, site coverage and solar access controls as identified in WDCP 2009 so as to minimise amenity impacts on adjoining properties.</p> <p>In respect to concerns raised regarding noise from use of the property. The general noise from the use of the site for general residential purposes is considered to be consistent with the use and enjoyment of the residential character of the area.</p>

Concern	Comment
7. Traffic Safety and Parking	<p>Consideration was given to traffic safety in the assessment of the application. Details of the application were referred to Council's Development Engineering Officer for comment.</p> <p>Advice received indicates that the car parking, access and egress arrangements and manoeuvring are acceptable in this circumstance for the following reasons:</p> <ul style="list-style-type: none"> - Council's DCP requires five (5) parking spaces for the proposed development. The proposal provides five (5) onsite parking spaces. - The proposed development satisfies Council's driveway cross over width controls thus minimising impacts on street parking spaces. - The proposed development will result in a maximum of 1.3 additional trips in the peak hour based on RMS rates. Therefore it is considered that the traffic generated by the proposed development will not be unreasonable in this circumstance, and is within the capacity of the local road network. - The proposed access arrangement will improve existing egress arrangements for the site by allowing vehicles to now leave the site in a forward facing direction.
8. Site Drainage	<p>The application submission included a concept stormwater drainage plan which was referred to Council's Development Engineering Officer for comment.</p> <p>Advice received indicates that the stormwater drainage design is considered to be conditionally acceptable. The stormwater drainage design is in accordance with WDCP2009 Chapter E14 and incorporates the acceptance of flows from adjoining upstream properties and On Site Detention (OSD) so as to limit the flow rate and ensure there is no increase in flow rates from the site. The OSD will ensure that runoff volumes will discharge at a controlled rate.</p> <p>Conditions as at Attachment 5 account for the OSD design and stormwater run-off from the proposed development such that is not directed so as to have an adverse effect on adjoining properties.</p>

Table 2: Number of concerns raised in submissions

Concern	1	2	3	4	5	6	7	8
Frequency	1	1	1	2	1	1	2	1

CONSULTATION

INTERNAL CONSULTATION

Landscape Officer

Council's Landscape Officer has assessed the amended application submission and provided conditionally satisfactory advice.

It is noted that particular consideration was given to tree removal and impacts of the proposed development on trees to be retained by Council's Landscape Officer. It is noted that application proposes the removal of six (6) trees however Council's Landscape Officer has recommended removal of four (4) trees only.

The four (4) trees to be removed are considered to be in poor health or introduced species such that they are not worthy of retention.

Landscaping conditions are included at **Attachment 5** specifying trees to be removed, trees to be retained, compensatory plantings, tree protection and management.

AMENDED CONDITIONS

The following conditions from the report to WLPP of 10 April 2019 will need to be revised as a result of the amended proposal and advice from internal referral groups:

- Condition 1 'Approved Plans and Documents'
- Condition 10 'Tree Management' revised to remove Trees 11, 12, 13 and 18 with Trees 21 and 22 now to be retained.
- Condition 12 'Privacy Screen' revised to require the Eastern elevation of the ground floor deck off the living room of Unit 2A and the entire length of the Eastern boundary of the private open space for Unit 2A to be screened by a 1.5m high privacy screen.
- Condition 18 'Provision of Planter Boxes' revised to require planter boxes along the Northern and Eastern edges of terrace for Unit 2B;
- Condition 23 'Landscaping' delete sub point 'g - an area of private open space to be developed for Unit 2A associated with living spaces;'
- Condition 26 'Compensatory Planting' revised to require four (4) replacement trees.
- Condition 38 revised sub point a to read as follows:
 - 'a. A minimum of 3.0 metre wide with a 1m landscaping strip along the Eastern side and a 1m turf strip along the Western side.'

3 CONCLUSION

At the WLPP meeting of 10 April 2018, the Panel determined to defer the development application to allow the applicant an opportunity to address a number of concerns as described in Section 1 of this report.

Responding to the recommendations of the WLPP the applicant has provided amended plans and additional information. Council's Assessing Officer is of the view that the amended proposal has satisfactorily addressed the concerns previously raised.

Both subdivisions and dual occupancies are permitted in the R2 land use zone with development consent pursuant to the WLEP 2009. The proposal does not request exceptions to development standards.

The proposal does involve a variation to the number of storeys on a battle-axe allotment control for Units 2A and 2B. A variation request statement with justification has been provided by the applicant

in accordance with clause 8 of Chapter A1 of WDCP 2009. The variation has been considered and is capable of support in this instance as discussed at **Attachment 4**.

Some of the issues raised in the public submissions have been resolved by the applicant in the submission of amended plans/additional information. Any unresolved issues are not considered sufficient to warrant refusal of the application.

All internal and external referrals are satisfactory and there are no outstanding issues.

It is therefore considered that the proposed development is appropriate given the nature and characteristics of the site and is unlikely to result in significant adverse impacts on the character and amenity of the surrounding area, providing for the orderly development of land in the locality.

4 RECOMMENDATION

DA-2018/1071 be approved pursuant to Section 4.16(1) of the Environmental Planning & Assessment Act 1979 subject to the conditions provided at **Attachment 5**.

5 ATTACHMENTS

- 1 WLPP Recommendation from 10 April 2018
- 2 Amended Architectural Plans, Subdivision Plans, Landscape Plans and Addendum Arborist Report
- 3 Clause 8 Variation to Development Control Statement
- 4 Compliance table for Wollongong Local Environment Plan 2009 and Wollongong Development Control Plan 2009
- 5 Revised Conditions
- 6 Link to Original Council Assessing Officer's WLPP Report and Conditions as presented to WLPP meeting on 10 April 2019

[Click on the red line above for link to previous report](#)

DETERMINATION AND STATEMENT OF REASONS

WOLLONGONG CITY COUNCIL – WOLLONGONG LOCAL PLANNING PANEL (WLPP)

DATE OF DETERMINATION	10 April 2019
PANEL MEMBERS	Robert Montgomery (Chair), Helena Miller, Mark Carlon, Tina Christy (Community Representative)

Public meeting held at Wollongong City Council, Level 9 Function Room, 41 Burelli Street, Wollongong on 10 April 2019 opened at 5:00pm and closed at 6:00pm.

MATTER DETERMINED

DA-2018/1071 – Lot 13 Section O DP 5418, 2 Coast Street, Thirroul (as described in detail in schedule 1).

PUBLIC SUBMISSIONS

The Panel was addressed by three submitters.

The Panel also heard from the applicants.

PANEL CONSIDERATION AND DECISION

The Panel considered the matters listed at item 7, and the material presented at the meeting and the matters observed at site inspections listed at item 8 in Schedule 1.

The Panel determined to defer the development application to allow the applicant the opportunity to re-site or redesign Unit 2A to lessen the visual intrusion from the adjoining property to the east and to provide design resolutions to the matters detailed in the reasons for deferral.

The Panel considers that by reducing the size of proposed Lot 1 a better design solution could be achieved for the proposed dwellings 2A and 2B.

The decision was unanimous.

REASONS FOR THE DEFERRAL

The Panel is concerned that the following matters have not been adequately addressed by the proposal in its current form:

- The justification for the variation to single storey control within Wollongong DCP 2009 (Battle-axe allotments) is inadequate in terms of the current design.
- The visual intrusion of proposed dwelling 2A upon 16A Seafoam Avenue;
- The encroachment by dwelling 2A into the 7.2 metre tree protection zone of tree 20;
- The manoeuvring space for the rear dwellings 2A and 2B should be wholly located within the proposed rear lot.
- Protection of privacy to the rear private open space of 16A Seafoam Avenue.

The Panel considers that any amended plans submitted by the applicant should be notified in accordance with Wollongong DCP 2009. Also, that the matter is to be referred back to a future Panel for decision.

PANEL MEMBERS

A handwritten signature in black ink, featuring a long horizontal stroke followed by a stylized, angular letter 'M'.

Robert Montgomery
(Chair)

A handwritten signature in blue ink, consisting of several overlapping, rounded loops.

Helena Miller

A handwritten signature in black ink, appearing as a cursive 'MC' followed by a long horizontal tail stroke.

Mark Carlon

A handwritten signature in blue ink, with the letters 'T' and 'C' being prominent and stylized.

Tina Christy
(Community Representative)

SCHEDULE 1		
1	DA NO.	2018/1071
2	PROPOSED DEVELOPMENT	Residential - demolition of garage and tree removals, Subdivision - Torrens title - two (2) lots, construction of dual occupancy on rear lot and Subdivision of dual occupancy - Torrens title - two (2) lots
3	STREET ADDRESS	2 Coast Street, THIRROUL NSW 2515
4	APPLICANT/OWNER	Mr R Brown, Mrs C Brown and Mr S Arnold
5	REASON FOR REFERRAL	The proposal has been referred to the WLPP for determination pursuant to part 2(b) of Schedule 2 of the Local Planning Panels Direction, as the application is the subject of 10 or more unique submissions by way of objection.
6	RELEVANT MANDATORY CONSIDERATIONS	<ul style="list-style-type: none"> Environmental planning instruments: <ul style="list-style-type: none"> State Environmental Planning Policy No 55 – Remediation of Land State Environmental Planning Policy (Building Sustainability Index: BASIX) 2004 Wollongong Local Environment Plan 2009 NSW Apartment Design Guide Wollongong Section 94A Development Contributions Plan Development control plans: <ul style="list-style-type: none"> Wollongong Development Control Plan 2009 Provisions of the <i>Environmental Planning and Assessment Regulation 2000</i>: demolition The likely impacts of the development, including environmental impacts on the natural and built environment and social and economic impacts in the locality The suitability of the site for the development Any submissions made in accordance with the <i>Environmental Planning and Assessment Act 1979</i> or regulations The public interest, including the principles of ecologically sustainable development
7	MATERIAL CONSIDERED BY THE PANEL	<ul style="list-style-type: none"> Council assessment report dated 10 April 2019 Written submissions during public exhibition: 16 Verbal submissions at the public meeting: 3
8	SITE INSPECTIONS BY THE PANEL	Site inspection 10 April 2019. Attendees: <ul style="list-style-type: none"> <u>Panel members</u>: Robert Montgomery (Chair), Helena Miller, Mark Carlon, Tina Christy (Community Representative) <u>Council assessment staff</u>: Jessica Saunders, Rodney Thew
9	COUNCIL RECOMMENDATION	Approve
10	DRAFT CONDITIONS	Attached to the council assessment report

Wollongong City Council
41 Burelli Street Wollongong

30th April 2019

**Attention: Rodney Thew
Development Project Officer**

RE: DA 2018/91071

Dear Rodney,

Please find attached revised plans and documents for this proposal addressing the concerns of the Wollongong Local Planning Panel in their commentary dated 10th April 2019 and Councils draft conditions of consent presented to the panel.

The redesign of this submission aims to address the panels concerns regarding the following key issues:

The justification for the variation to single storey control within Wollongong DCP 2009 (Battle-axe allotments) is inadequate in terms of the current design.

A modified design has been prepared and a revised justification for variation is included in this resubmission addressing the panels concerns and its compliance with the objectives of the control to be varied.

Visual intrusion of proposed dwelling 2A upon 16A Seafoam Avenue

The proposal has been redesigned to address the concerns of the neighbouring residents at 16A Seafoam Avenue and the LPP concerns about potential visual intrusion. To address this, Unit 2A has been relocated approx. 4m to the north to increase the rear setback and minimise the portion of two storey residence viewable from 16A Seafoam Avenue.

The single storey dining room area has been removed to increase the setback of Unit 2A from the adjoining boundary to 4.07m enabling the provision of substantial screen planting and the retention of tree 22, an established Illawarra flame tree.

The ground floor level of Unit 2A located behind the rear setback of 16A Seafoam Avenue is set below natural ground level to further reduce the height and bulk of the proposal the rear of the building has a wall height of 5.7m. The roof pitching point has been lowered from 2.7m to 2.55m.

It is noted that a stand of mature trees within the rear yard of 16A Seafoam Avenue obscures views to the west.

Encroachment by dwelling 2A into the 7.2 metre tree protection zone of tree 20

The proposed unit 2A has been relocated northwards and the ground floor footprint reduced to ensure that the 4.1% encroachment is well within the AS4970 TPZ maximum allowable encroachment of 10%.

Manoeuvring space for the rear dwellings 2A and 2B should be wholly located within the proposed rear lot.

The proposed lot boundary has been amended to ensure that all vehicle manoeuvring areas to the rear lot are located within the lot.

Protection of privacy to the rear private open space of 16A Seafoam Avenue

The revised proposal removes the east facing private open space deck and relocates this area to the rear of unit 2A setback 4.2m from the adjoining boundary. This area is at existing natural ground level and is located behind established and proposed screen planting.

All windows that can view the rear private open space yard of 16A Seafoam Avenue are high level or located at natural ground level.

It is requested that Council review the following draft conditions of consent:

Condition 18 – The proposal provides planter boxes to the eastern and northern side of the Private Open Space terrace. This was requested by Council to protect the privacy to the existing residence. A planter box has not been provided on the western façade of the POS deck as the proposal provides more substantial screen planting at natural ground level where the terrace is as close as practicable to ground level (approx. 500mm above). The proposal also provides a 1.8m high screen fence to the western boundary which will ensure no loss of privacy to the adjoining neighbour. We request that council amend the condition to the developer must provide planter boxes as indicate on plans.

Condition 38(a) – This condition requires a 1m wide turf strip to either side of the proposed driveway. The concept landscape plan provides screen planting between the proposed driveway alignment and the eastern boundary. This condition restricts this planting to grass only, we request that the provision of a 1m wide turf strip be removed.

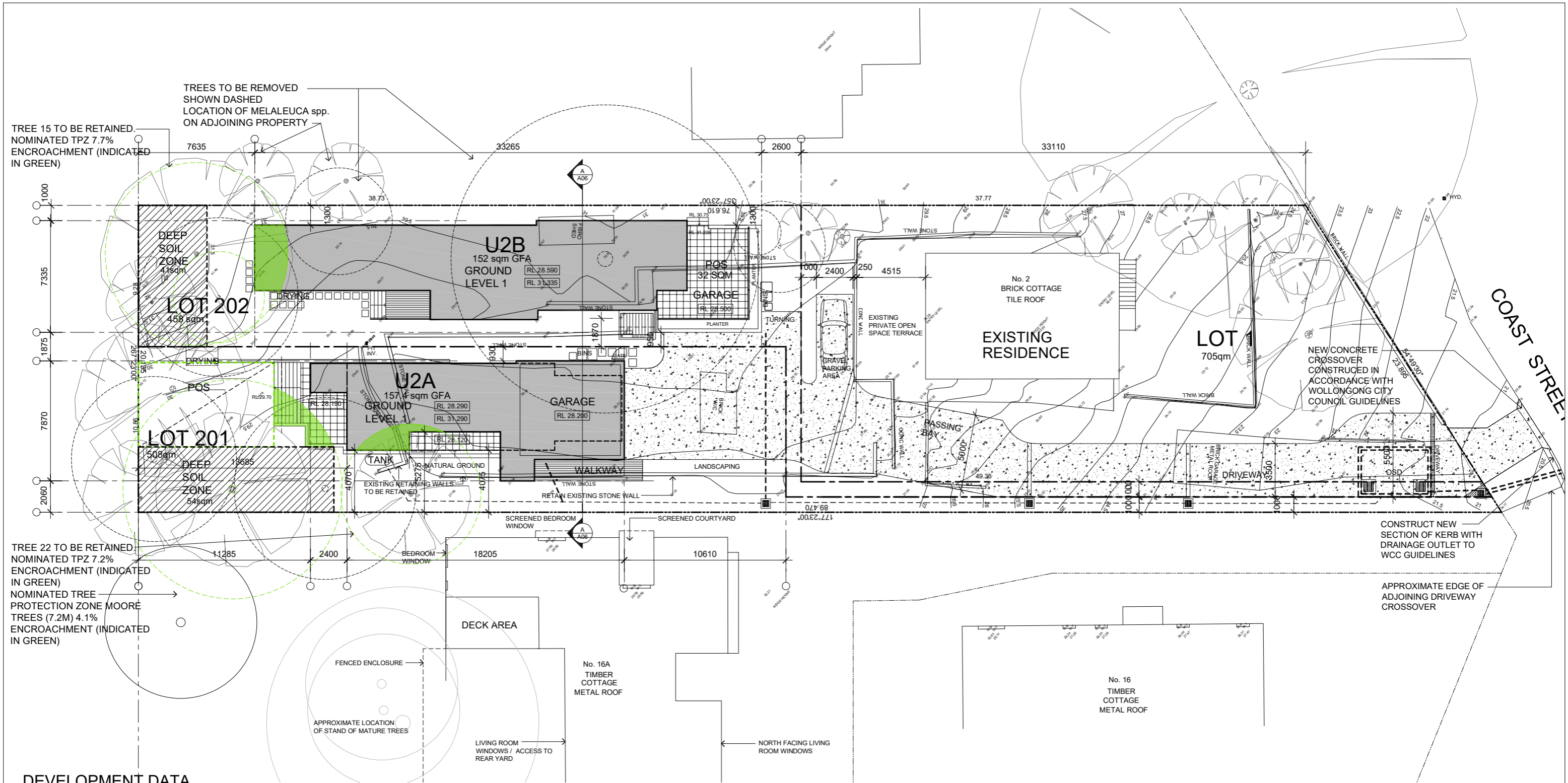
The resubmitted landscape plan also revises the trees to be removed to accommodate the revised design.

Trees to be removed are trees 10,11,12,13,14 & 21. Permission is also sought to remove tree 18 which is dead and neighbours have requested its removal due to safety concerns.

The revised proposal allows for retention of tree 22.

Kind Regards

Kate Lynch



DEVELOPMENT DATA

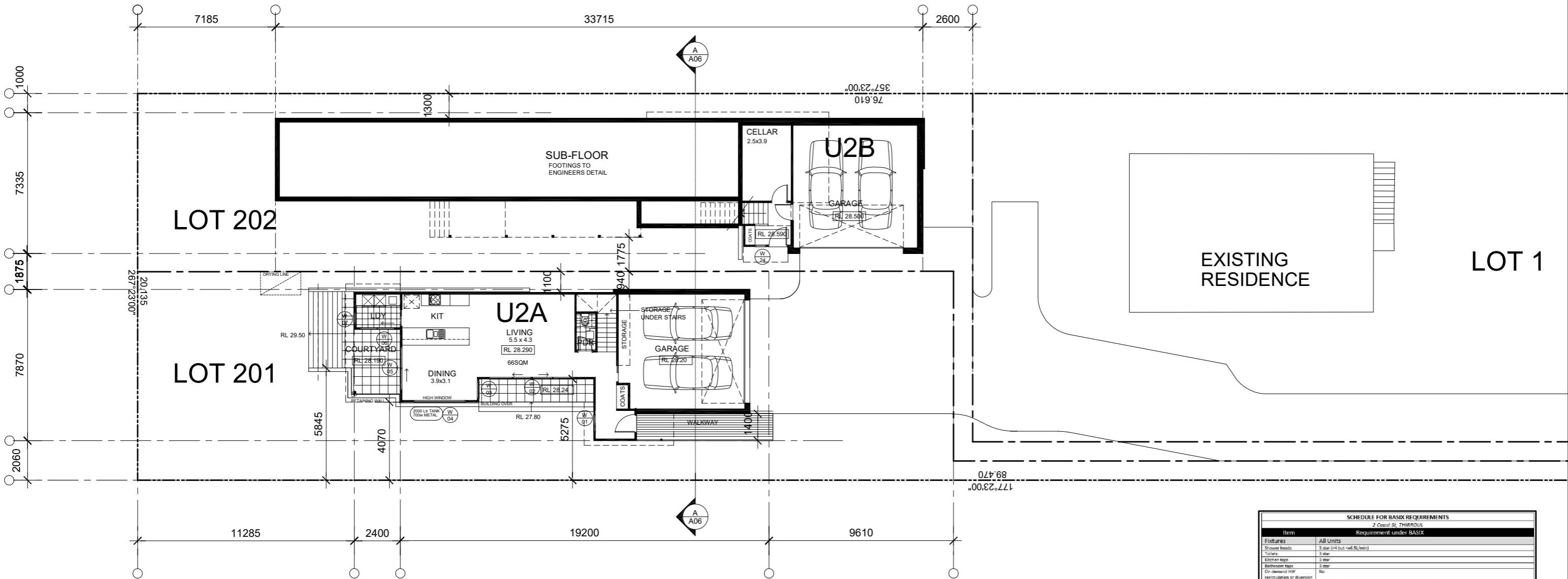
SITE AREA	1672sqm
PROPOSED LOT 1	705.7sqm
PROPOSED LOT 2	966.5sqm
PROPOSED LOT 2 (EXCL. ACCESS HANDLE)	876sqm
PROPOSED BUILDING AREA LOT 1	100 sqm
PROPOSED BUILDING AREA LOT 2	315.84 sqm
PROPOSED FSR LOT 1	0.127:1
PROPOSED FSR LOT 2 (EXCLUDES 36sqm GARAGE)	0.36.9:1
PROPOSED SITE COVERAGE LOT 2	307.5sqm (31.8%)
PROPOSED LANDSCAPE AREA LOT 2	354sqm (40%)
PROPOSED ON SITE CARPARKING (LOTS 1 & 2)	5 spaces

DEVELOPMENT DATA - LOT 201

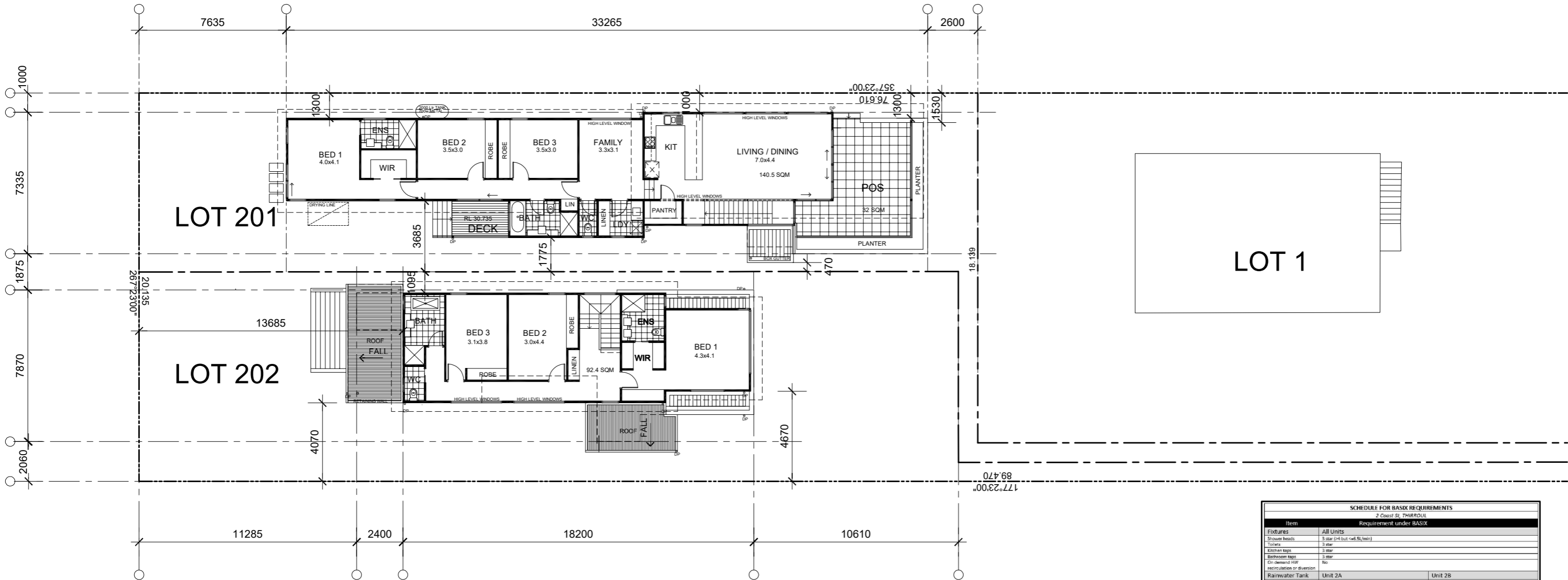
PROPOSED SITE AREA	508 sqm
PROPOSED SITE AREA EXCL. ACCESS HANDLE	461.2 sqm
PROPOSED BUILDING AREA / FSR	158sqm (0.34:1)
PROPOSED SITE COVERAGE	110sqm (23.8%)
PROPOSED LANDSCAPE AREA	208 sqm (45%)
PROPOSED DEEP SOIL AREA	50.8 sqm (11%)
PROPOSED ON SITE CARPARKING	2 SPACES

DEVELOPMENT DATA - LOT 202

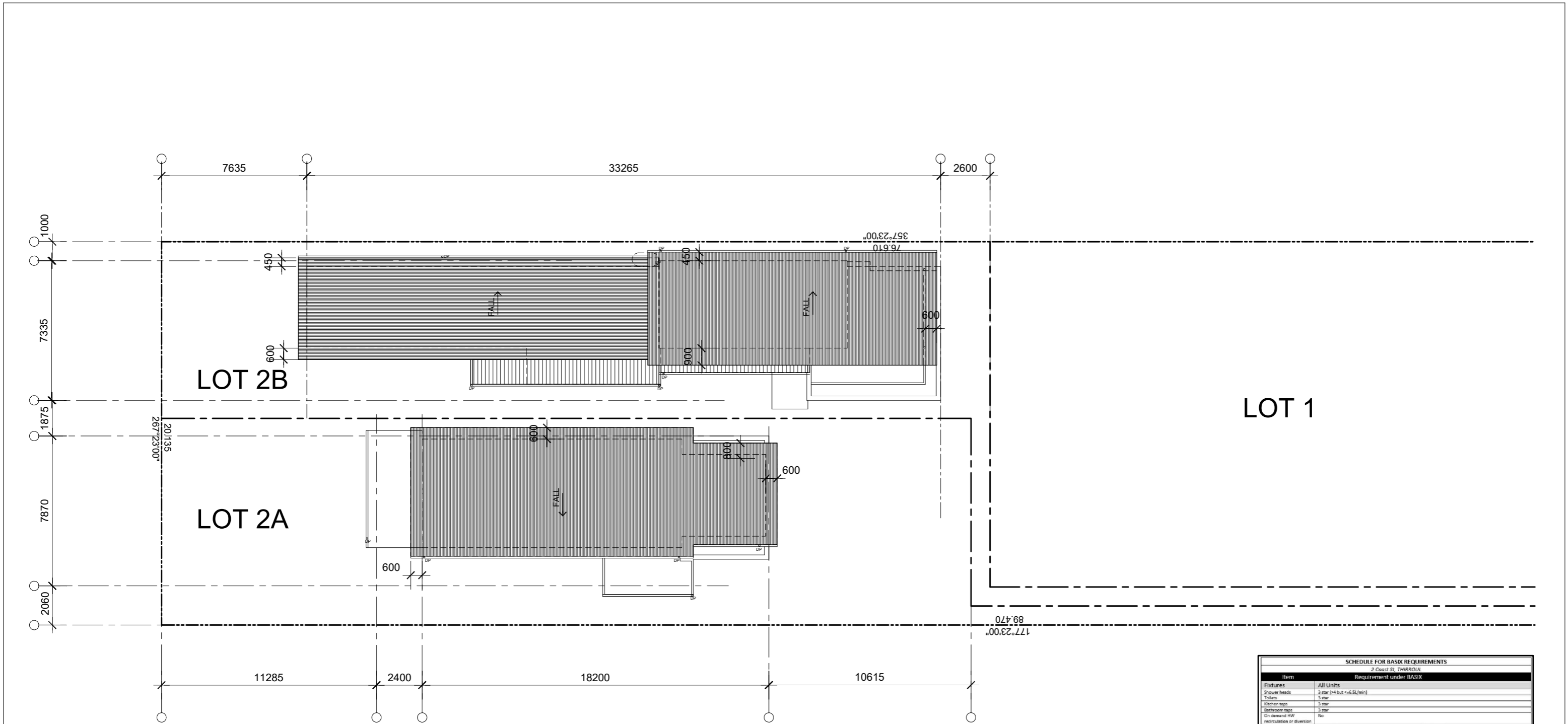
PROPOSED SITE AREA	458 sqm
PROPOSED SITE AREA EXCL. ACCESS HANDLE	403 sqm
PROPOSED BUILDING AREA / FSR	158.5 sqm (0.398:1)
PROPOSED SITE COVERAGE	191sqm (47.9%)
PROPOSED LANDSCAPE AREA	148 sqm (36%)
PROPOSED DEEP SOIL AREA	42 sqm (10%)
PROPOSED ON SITE CARPARKING	2 SPACES



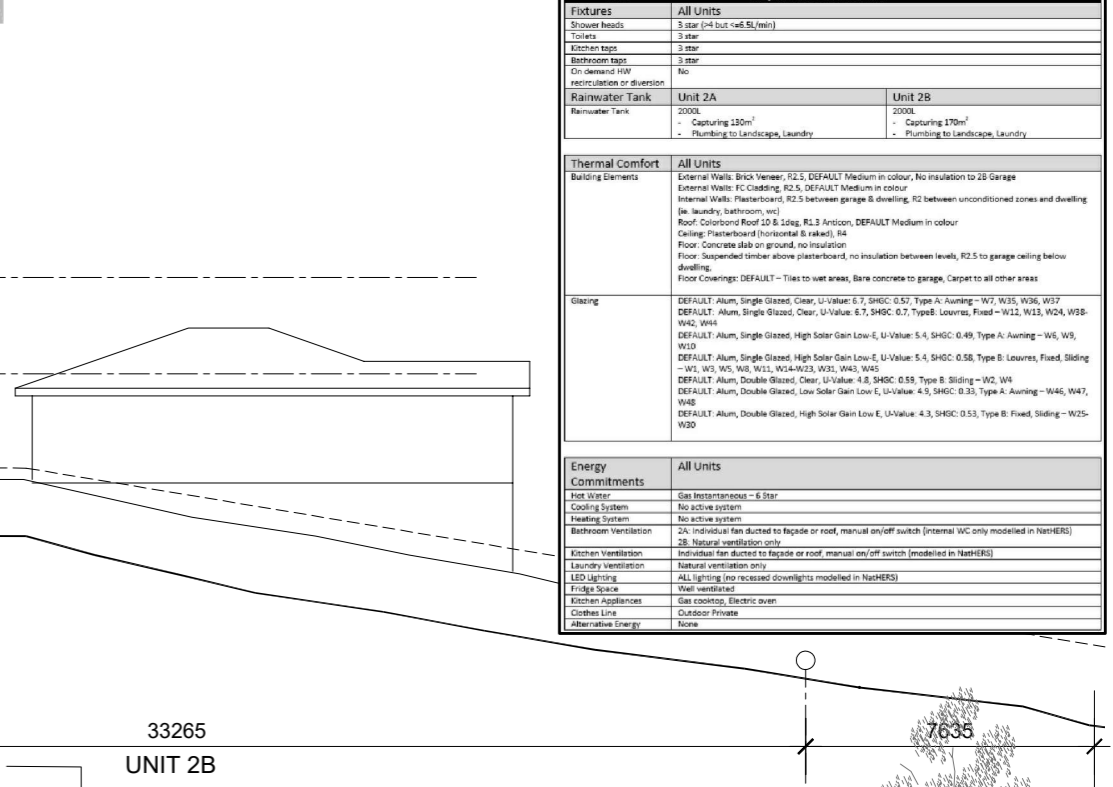
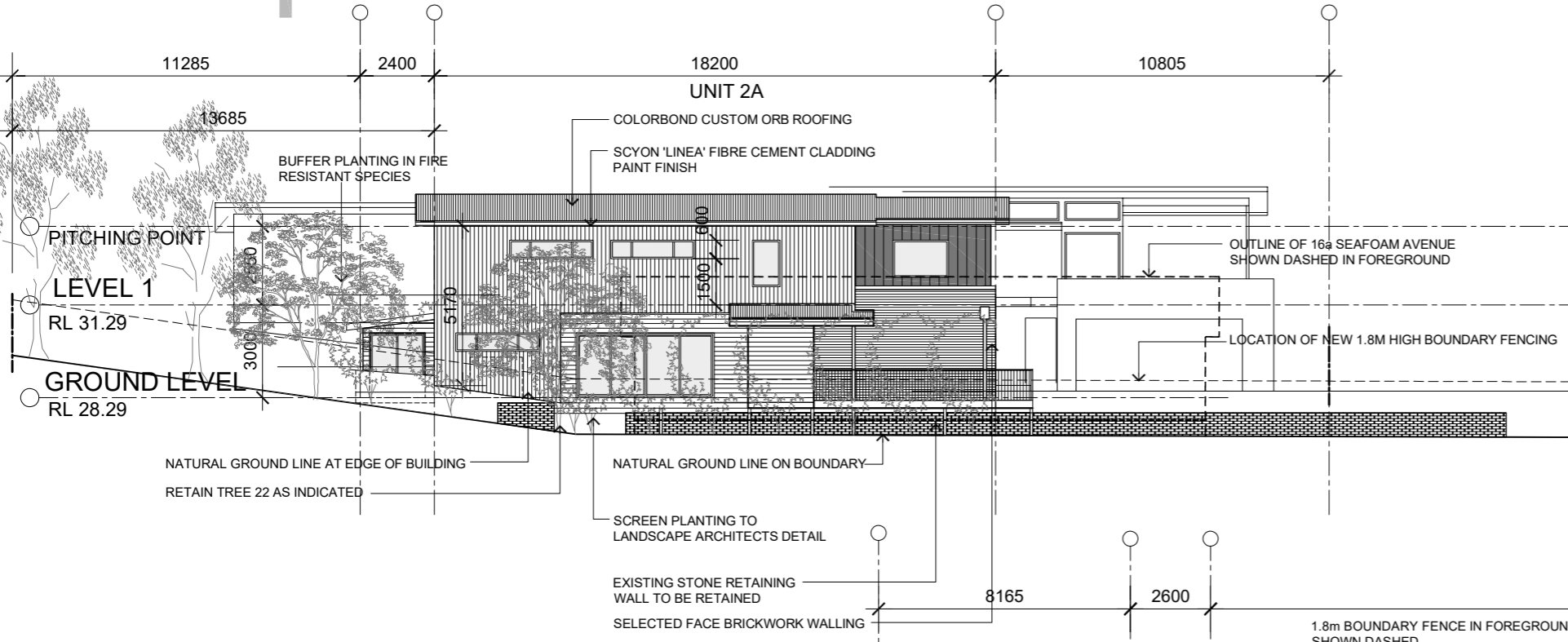
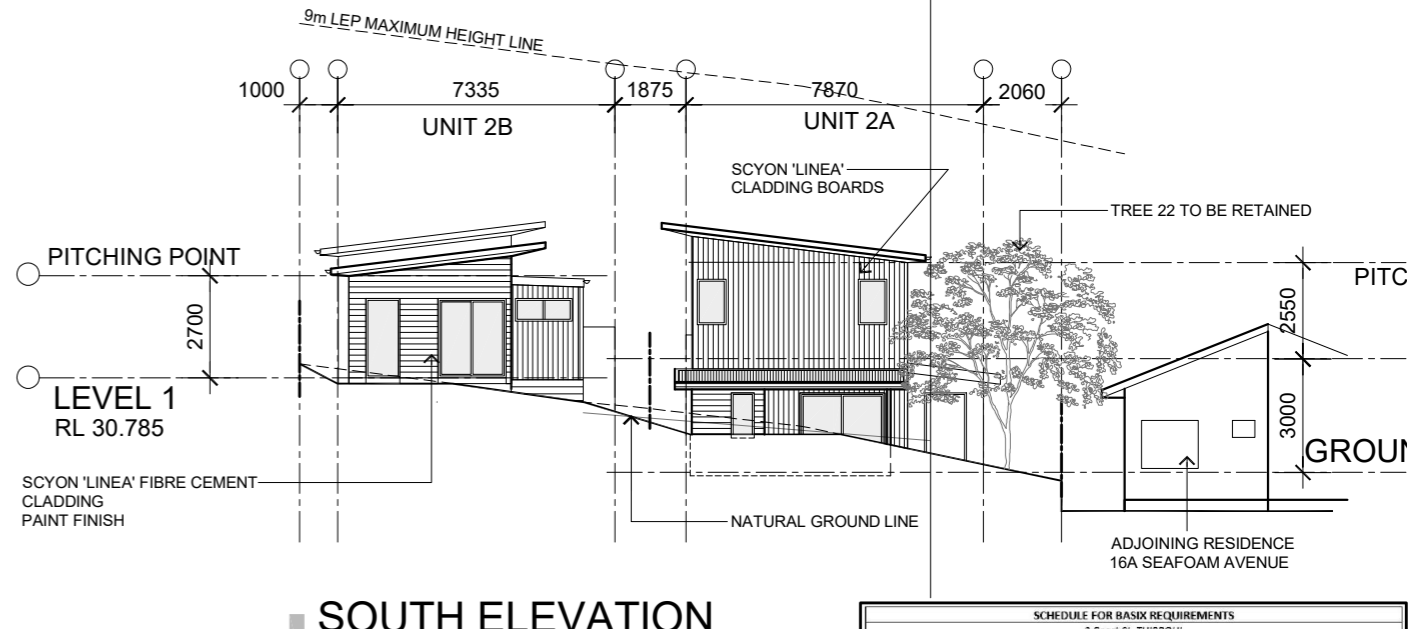
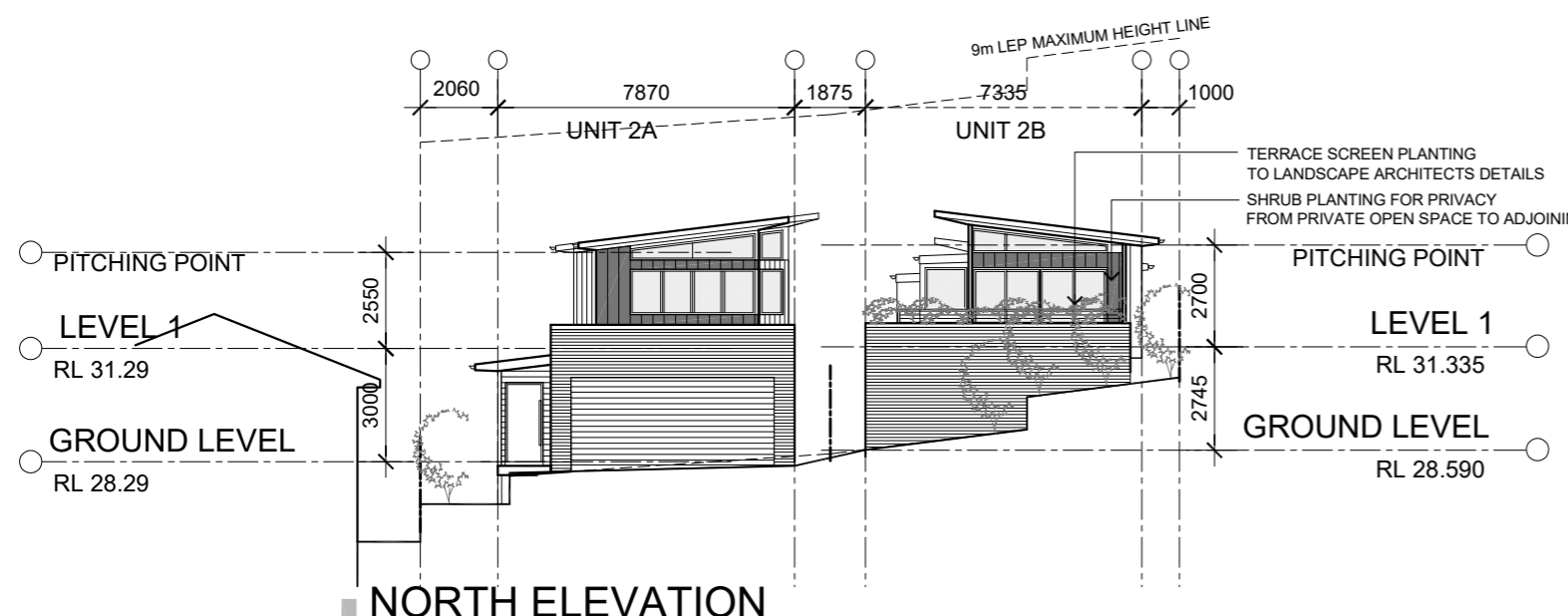
SCHEDULE FOR BASIX REQUIREMENTS		
2 Coast St, THIRROUL		
Item	Requirement under BASIX	
Fixtures	All Units	
Shower heads	3 star (4 bar c/w 5L/min)	
Toilets	3 star	
Kitchen taps	3 star	
Bathroom taps	3 star	
On demand HW recirculation or diversion	No	
Rainwater Tank	Unit 2A	Unit 2B
Rainwater Tank	2000L - Capturing 150m ³ - Plumbing to Landscape, Laundry	2000L - Capturing 170m ³ - Plumbing to Landscape, Laundry
Thermal Comfort	All Units	
Building Elements	External Walls: Brick Veneer, R2.5, DEFAULT Medium in colour, No insulation to 2B Garage External Walls: FC Cladding, R2.5, DEFAULT Medium in colour Internal Walls: Plasterboard, R2.5 between garage & dwelling, R2 between unconditioned zones and dwelling (ie. laundry, bathroom, wc) Roof: Colorbond Roof 10 B. Sdpg, R1.3 Aridson, DEFAULT Medium in colour Ceiling: Plasterboard (horizontal & raked), R4 Floor: Concrete slab on ground, no insulation Floor: Suspended timber above plasterboard, no insulation between levels, R2.5 to garage ceiling below dwelling Floor Coverings: DEFAULT - Tiles to wet areas, Bare concrete to garage, Carpet to all other areas	
Glazing	DEFAULT: Alum, Single Glazed, Clear, U-Value: 6.7, SHGC: 0.57, Type A: Asuming - W7, W35, W36, W37 DEFAULT: Alum, Single Glazed, Clear, U-Value: 6.7, SHGC: 0.7, TypeB: Louvers, Fixed - W12, W13, W24, W26, W42, W44 DEFAULT: Alum, Single Glazed, High Solar Gain Low-E, U-Value: 5.4, SHGC: 0.49, Type A: Asuming - W6, W9, W10 DEFAULT: Alum, Single Glazed, High Solar Gain Low-E, U-Value: 5.4, SHGC: 0.58, Type B: Louvers, Fixed, Sliding - W2, W3, W5, W6, W12, W24-W23, W32, W43, W45 DEFAULT: Alum, Double Glazed, Clear, U-Value: 4.8, SHGC: 0.59, Type B: Sliding - W2, W4 DEFAULT: Alum, Double Glazed, Low Solar Gain Low-E, U-Value: 4.9, SHGC: 0.33, Type A: Asuming - W46, W47, W48 DEFAULT: Alum, Double Glazed, High Solar Gain Low-E, U-Value: 4.3, SHGC: 0.53, Type B: Fixed, Sliding - W25, W29	
Energy Commitments	All Units	
Hot Water	Gas Instantaneous - 6 Star	
Cooling System	No active system	
Heating System	No active system	
Bathroom Ventilation	2A: Individual fan ducted to facade or roof, manual on/off switch (Internal WC only modelled in NatHERS)	
Kitchen Ventilation	2B: Natural ventilation only	
Laundry Ventilation	Individual fan ducted to facade or roof, manual on/off switch (modelled in NatHERS)	
LED Lighting	ALL lighting (no recessed downlights modelled in NatHERS)	
Energy Space	Well ventilated	
Kitchen Appliances	Gas cooktop, Electric oven	
Clothes Line	Outdoor Private	
Alternative Energy	None	



SCHEDULE FOR BASIX REQUIREMENTS		
2 Coast St, THIRROUL		
Item	Requirement under BASIX	
Fixtures	All Units	
Shower heads	3 star (4-lit + max 5L/min)	
Toilets	3 star	
Kitchen taps	3 star	
Bathroom taps	3 star	
On demand HRV recirculation or diversion	No	
Rainwater Tank	Unit 2A	Unit 2B
Rainwater Tank	2000L - Capturing 130m ³ - Plumbing to Landscape, Laundry	2000L - Capturing 170m ³ - Plumbing to Landscape, Laundry
Thermal Comfort	All Units	
Building Elements	External Walls: Brick Veneer, R2.5, DEFAULT Medium in colour, No insulation to 2B Garage External Walls: FC Cladding, R2.5, DEFAULT Medium in colour Internal Walls: Plasterboard, R2.5 between garage & dwelling, R2 between unconditioned zones and dwelling (ie laundry, bathroom, wc) Roof: Colorbond Roof LD & 2 deg, R1.3 Anticon, DEFAULT Medium in colour Ceiling: Plasterboard (horizontal & raked), R4 Floor: Concrete slab on ground, no insulation Floor: Suspended timber above plasterboard, no insulation between levels, R2.5 to garage ceiling below dwelling Floor Coverings: DEFAULT – Tiles to wet areas, Bare concrete to garage, Carpet to all other areas	
Glazing	DEFAULT: Alum, Single Glazed, Clear, U-Value: 6.7, SHGC: 0.57, Type A: Awning – W7, W35, W36, W37 DEFAULT: Alum, Single Glazed, Clear, U-Value: 6.7, SHGC: 0.7, Type B: Louvers, Fixed – W12, W13, W24, W3B, W42, W45 DEFAULT: Alum, Single Glazed, High Solar Gain Low-E, U-Value: 5.4, SHGC: 0.49, Type A: Awning – W5, W5, W10 DEFAULT: Alum, Single Glazed, High Solar Gain Low-E, U-Value: 5.4, SHGC: 0.58, Type B: Louvers, Fixed, Sliding – W1, W5, W5, W8, W11, W14-W23, W31, W43, W45 DEFAULT: Alum, Double Glazed, Clear, U-Value: 4.8, SHGC: 0.58, Type B: Sliding – W2, W4 DEFAULT: Alum, Double Glazed, Low Solar Gain Low-E, U-Value: 4.9, SHGC: 0.33, Type A: Awning – W46, W47, W48 DEFAULT: Alum, Double Glazed, High Solar Gain Low-E, U-Value: 4.3, SHGC: 0.53, Type B: Fixed, Sliding – W25, W30	
Energy Commitments	All Units	
Hot Water	Gas instantaneous – 6 star	
Cooling System	No active system	
Heating System	No active system	
Bathroom Ventilation	2A: Individual fan ducted to facade or roof, manual on/off switch (internal WC only modelled in NatHERS) 2B: Natural ventilation only	
Kitchen Ventilation	Individual fan ducted to facade or roof, manual on/off switch (modelled in NatHERS)	
Laundry Ventilation	Natural ventilation only	
LED Lighting	ALL lighting (no recessed downlights modelled in NatHERS)	
Fridge Space	Well ventilated	
Kitchen Appliances	Gas cooking, Electric oven	
Clothes Line	Outdoor Private	
Alternative Energy	None	



SCHEDULE FOR BASIX REQUIREMENTS	
2 Coast St, THIRROUL	
Item	Requirement under BASIX
Fixtures	All Units
Shower heads	3 star (≥4 but <4.5 l/min)
Toilets	3 star
Kitchen taps	3 star
Bathroom taps	3 star
On demand HW	No
recirculation or diversion	No
Rainwater Tank	Unit 2A 2000L - Capturing 150m ³ - Plumbing to Landscape, Laundry
	Unit 2B 2000L - Capturing 170m ³ - Plumbing to Landscape, Laundry
Thermal Comfort	All Units
Building Elements	External Walls: Brick Veneer, R2.5, DEFAULT Medium in colour, No insulation to 2B Garage External Walls: FC Cladding, R2.5, DEFAULT Medium in colour Internal Walls: Plasterboard, R2.5 between garage & dwelling, R2 between unconditioned zones and dwelling (ie. laundry, bathroom, wc) Roof: Colorbond Roof 10 B. Sdpg. R1.3 Anticon, DEFAULT Medium in colour Ceiling: Plasterboard (horizontal & raked), R4 Floor: Concrete slab on ground, no insulation Floor: Suspended timber above plasterboard, no insulation between levels, R2.5 to garage ceiling below dwelling Floor Coverings: DEFAULT – Tiles to wet areas, Bare concrete to garage, Carpet to all other areas
Glazing	DEFAULT: Alum, Single Glazed, Clear, U-Value: 6.7, SHGC: 0.57, Type A: Asuming – W7, W35, W36, W37 DEFAULT: Alum, Single Glazed, Clear, U-Value: 6.7, SHGC: 0.7, TypeB: Louvers, Fixed – W12, W13, W24, W26, W42, W44 DEFAULT: Alum, Single Glazed, High Solar Gain Low-E, U-Value: 5.4, SHGC: 0.49, Type A: Asuming – W6, W9, W10 DEFAULT: Alum, Single Glazed, High Solar Gain Low-E, U-Value: 5.4, SHGC: 0.58, Type B: Louvers, Fixed, Sliding – W2, W3, W5, W6, W12, W24-W23, W32, W43, W45 DEFAULT: Alum, Double Glazed, Clear, U-Value: 4.8, SHGC: 0.59, Type B: Sliding – W2, W6 DEFAULT: Alum, Double Glazed, Low Solar Gain Low E, U-Value: 4.9, SHGC: 0.33, Type A: Asuming – W46, W47, W48 DEFAULT: Alum, Double Glazed, High Solar Gain Low E, U-Value: 4.3, SHGC: 0.53, Type B: Fixed, Sliding – W25, W20
Energy Commitments	All Units
Hot Water	Gas instantaneous – 6 Star
Cooling System	No active system
Heating System	No active system
Bathroom Ventilation	2A: Individual fan ducted to facade or roof, manual on/off switch (Internal WC only modelled in NatHERS)
Kitchen Ventilation	2B: Natural ventilation only
Laundry Ventilation	Individual fan ducted to facade or roof, manual on/off switch (modelled in NatHERS)
LED Lighting	Natural ventilation only
Living Space	ALL lighting (no recessed downlights modelled in NatHERS)
Kitchen Appliances	Gas cooktop, Electric oven
Clothes Line	Outdoor Private
Alternative Energy	None



SCHEDULE FOR BASIS REQUIREMENTS	
2 Coast St, THIRROUL	
Requirement under BASIS	
Item	All Units
Fixtures	All Units
Shower heads	3 star (≥4 but ≤6 L/min)
Toilets	3 star
Kitchen taps	3 star
Bathroom taps	3 star
On demand HW	No
recirculation or diversion	
Rainwater Tank	Unit 2A
Rainwater Tank	Unit 2B
	2000L
	- Capturing 120m ²
	- Plumbing to Landscape, Laundry
Thermal Comfort	All Units
Building Elements	External Walls: Brick Veneer, R2.5, DEFAULT Medium in colour, No insulation to 25 Garage
	External Walls: FC Cladding, R2.5, DEFAULT Medium in colour
	Internal Walls: Plasterboard, R2.5 between garage & dwelling, R2 between unconditioned zones and dwelling
	(ie. laundry, bathroom, etc)
	Roof: Colorbond Roof 12 & 14 deg, R5.3 Anticon, DEFAULT Medium in colour
	Ceiling: Plasterboard (horizontal & raked), R4
	Floor: Concrete slab on ground, no insulation
	Floor: Suspended timber above plasterboard, no insulation between levels, R2.5 to garage ceiling below
	dwelling
	Floor Coverings: DEFAULT - Tiles to wet areas, Bare concrete to garage, Carpet to all other areas
Glazing	DEFAULT: Alum, Single Glazed, Clear, U-Value: 6.7, SHGC: 0.57, Type A: Awning - W7, W35, W36, W37
	DEFAULT: Alum, Single Glazed, Clear, U-Value: 6.7, SHGC: 0.7, Type B: Louvers, Fixed - W12, W13, W24, W38-
	W40, W41
	DEFAULT: Alum, Single Glazed, High Solar Gain Low-E, U-Value: 5.4, SHGC: 0.48, Type A: Awning - W5, W9,
	W10
	DEFAULT: Alum, Single Glazed, High Solar Gain Low-E, U-Value: 5.4, SHGC: 0.58, Type B: Louvers, Fixed, Sliding
	- W1, W3, W5, W8, W11, W14-W23, W31, W43, W45
	DEFAULT: Alum, Double Glazed, Clear, U-Value: 4.8, SHGC: 0.55, Type B: Sliding - W2, W4
	DEFAULT: Alum, Double Glazed, Low Solar Gain Low-E, U-Value: 4.3, SHGC: 0.35, Type A: Awning - W46, W47,
	W48
	DEFAULT: Alum, Double Glazed, High Solar Gain Low-E, U-Value: 4.3, SHGC: 0.53, Type B: Fixed, Sliding - W25-
	W26
Energy	All Units
Commitments	
Hot Water	Gas instantaneous - 6 Star
Cooling System	No active system
Heating System	No active system
Bathroom Ventilation	2A: Individual fan ducted to facade or roof, manual on/off switch (internal WC only modelled in NHERS)
	2B: Natural ventilation only
Kitchen Ventilation	Individual fan ducted to facade or roof, manual on/off switch (modelled in NHERS)
Laundry Ventilation	Natural ventilation only
LED Lighting	ALL lighting (no recessed downlights modelled in NHERS)
Fridge Space	Well ventilated
Kitchen Appliances	Gas cooktop, Electric oven
Clothes Line	Outdoor Private
Alternative Energy	None

PRELIMINARY
NOT FOR CONSTRUCTION

Date	Issue	Revision
25.08.18	A	Issued for development approval
25.02.19	B	Revised DA Issue
15.04.19	C	Revised DA Issue

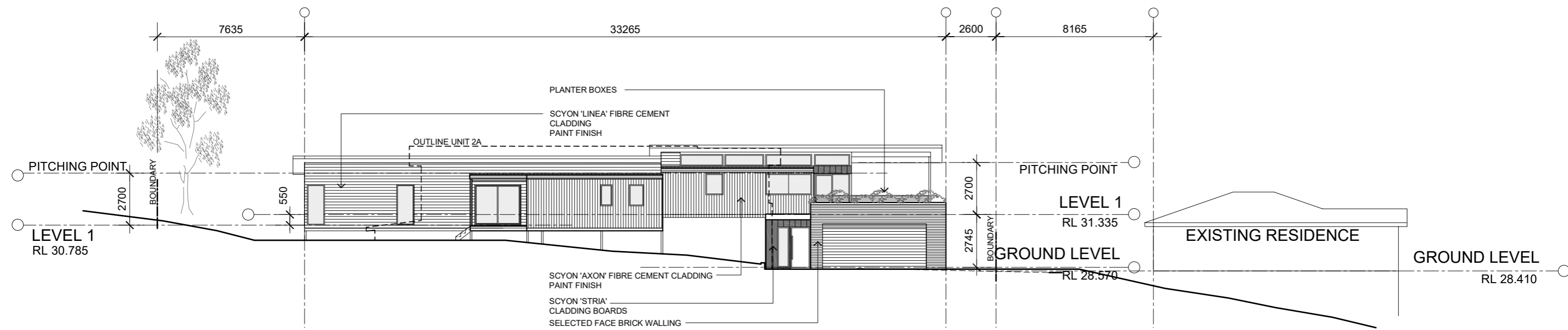
Legend

Develop My Land

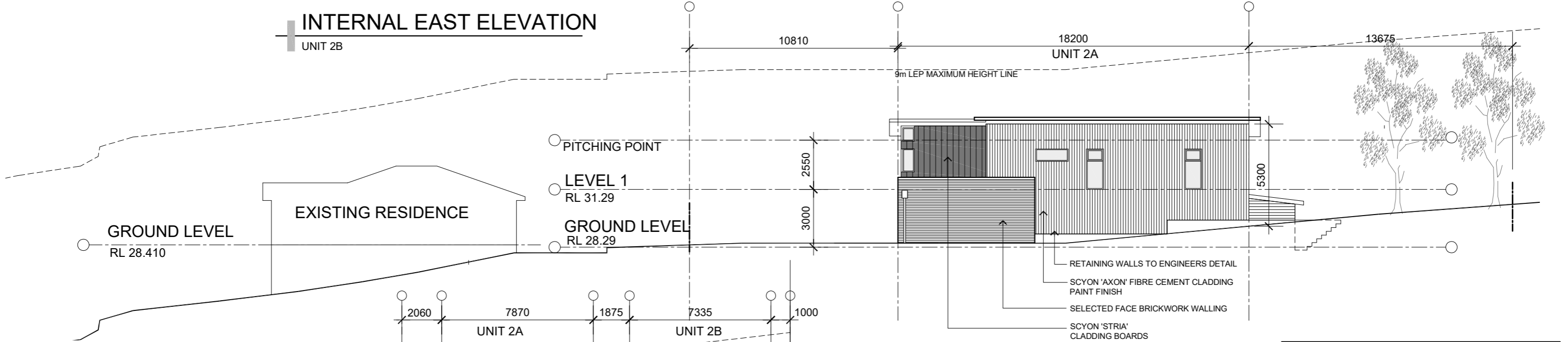
management · consultancy · landscape architecture · urban design ·

PO Box 119, Thirroul, NSW, 2515. Tel: 0449 255488 e: steve@developmyland.com.au

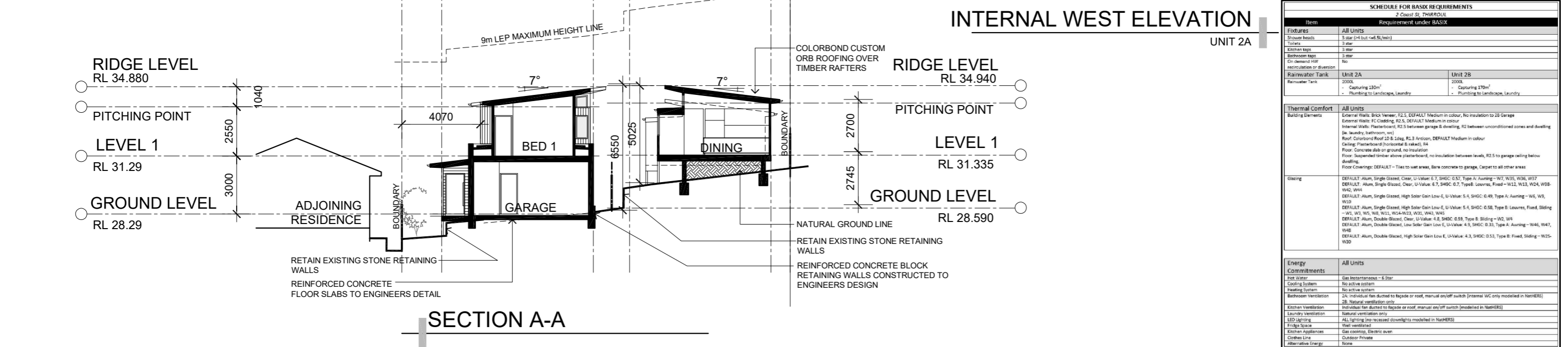
PROJECT: Two lot subdivision and Dual Occupancy Development 2 COAST STREET THIRROUL			
Drawing Name: ELEVATIONS	Job No. DML 17/028	Dwg.No A-05	
FOR: Arnold & Brown	Scale 1:200 (A3)	Date 01.02.18	Rev. C



INTERNAL EAST ELEVATION



INTERNAL WEST ELEVATION



SECTION A-A

SCHEDULE FOR BASIC REQUIREMENTS	
2 Coast St, THIRROUL	
Item	Requirement under BASIX
Fixtures	All Units
Shower heads	3 star (≥4 but <4.5 l/min)
Toilets	3 star
Kitchen taps	3 star
Bathroom taps	3 star
On demand HW	No
Water conservation or diversion	No
Rainwater Tank	Unit 2A 2000L - Capturing 130m³ - Plumbing to Landscape, Laundry
	Unit 2B 2000L - Capturing 170m³ - Plumbing to Landscape, Laundry
Thermal Comfort	All Units
Building Elements	External Walls: Brick Veneer, R2.5, DEFAULT Medium in colour, No insulation to 25 Garage External Walls: FC Cladding, R2.5, DEFAULT Medium in colour Internal Walls: Plasterboard, R2.5 between garage & dwelling, R2 between unconditioned zones and dwelling (ie. laundry, bathroom, wc) Roof: Colorbond Roof 10 & 14kg, R1.3 Anticon, DEFAULT Medium in colour Ceiling: Plasterboard (horizontal & raked), R4 Floor: Concrete slab on ground, no insulation Floor: Suspended timber above plasterboard, no insulation between levels, R2.5 to garage ceiling below dwelling Floor Coverings: DEFAULT - Tiles to wet areas, Bare concrete to garage, Carpet to all other areas
Glazing	DEFAULT: Alum, Single Glazed, Clear, U-Value: 6.7, SHGC: 0.57, Type A: Awning - W2, W35, W36, W37 DEFAULT: Alum, Single Glazed, Clear, U-Value: 6.7, SHGC: 0.7, Type B: Louvers, Fixed - W12, W13, W24, W38, W42, W44 DEFAULT: Alum, Single Glazed, High Solar Gain Low-E, U-Value: 5.4, SHGC: 0.49, Type A: Awning - W6, W8, W10 DEFAULT: Alum, Single Glazed, High Solar Gain Low-E, U-Value: 5.4, SHGC: 0.58, Type B: Louvers, Fixed, Sliding - W1, W5, W9, W45, W46, W47, W48, W49, W50, W51, W52, W53, W54, W55 DEFAULT: Alum, Double Glazed, Clear, U-Value: 4.8, SHGC: 0.59, Type B: Sliding - W2, W4 DEFAULT: Alum, Double Glazed, Low Solar Gain Low-E, U-Value: 4.9, SHGC: 0.33, Type A: Awning - W46, W47, W48 DEFAULT: Alum, Double Glazed, High Solar Gain Low-E, U-Value: 4.3, SHGC: 0.53, Type B: Fixed, Sliding - W25, W30
Energy Commitments	All Units
Hot Water	Gas Instantaneous - 6 Star
Cooling System	No active system
Heating System	No active system
Bathroom Ventilation	2A: Individual fan ducted to facade or roof, manual on/off switch (Internal WC only modelled in NatHERS)
Kitchen Ventilation	2B: Natural ventilation only
Laundry Ventilation	Individual fan ducted to facade or roof, manual on/off switch (modelled in NatHERS)
LED Lighting	Natural ventilation only
LED Lighting	ALL lighting (no recessed downlights modelled in NatHERS)
Kitchen Appliances	Gas cooktop, Electric oven
Clothes Line	Outdoor Private
Alternative Energy	None

PRELIMINARY
NOT FOR CONSTRUCTION

Date	Issue	Revision
25.08.18	A	Issued for development approval
25.02.19	B	Revised DA Issue
15.04.19	C	Revised DA Issue

Legend

Develop My Land
management · consultancy · landscape architecture · urban design ·
PO Box 119, Thirroul NSW 2515. Tel: 0449 255488 e: steve@developmyland.com.au



PROJECT: Two lot subdivision and Dual Occupancy Development
2 COAST STREET THIRROUL

Drawing Name: INTERNAL ELEVATIONS & SECTION	Job No. DML 17/028	Dwg.No A-06
FOR: Arnold & Brown	Scale: 1:200 (A3)	Date 01.02.18
		Rev. C



9AM

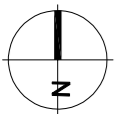
JUNE 22

12PM

JUNE 22

3PM

JUNE 22



PRELIMINARY
NOT FOR CONSTRUCTION

Date	Issue	Revision
25.08.18	A	Issued for development approval
25.02.19	B	Revised DA Issue
15.04.19	C	Revised DA Issue

Legend

Develop My Land

management · consultancy · landscape architecture · urban design ·
PO Box 119, Thirroul, NSW, 2515. Tel: 0449 255488 e: steve@developmyland.com.au



PROJECT: Two lot subdivision and Dual Occupancy Development
2 COAST STREET THIRROUL

Drawing Name:
SHADOW DIAGRAMS

FOR:
Arnold & Brown

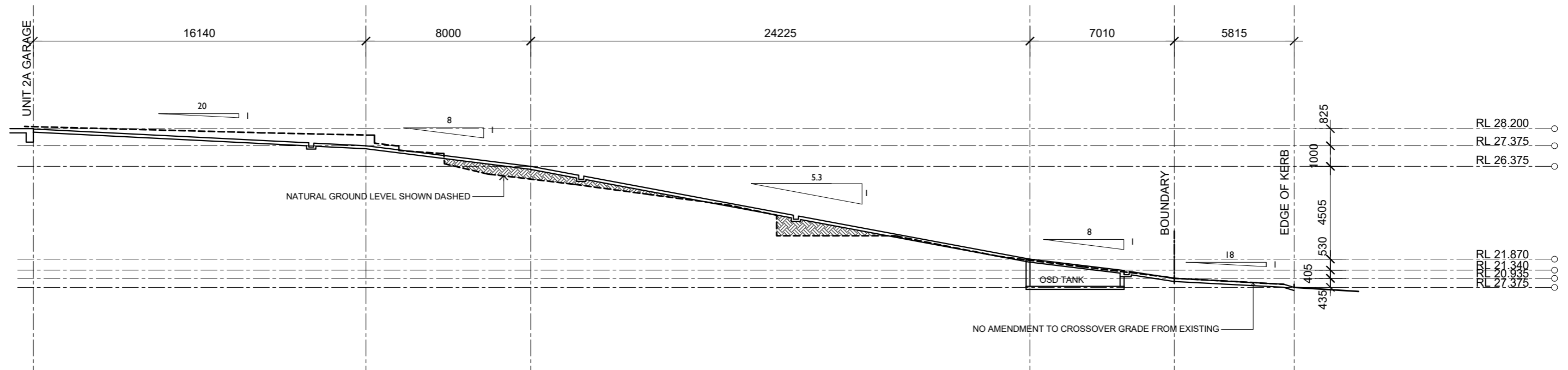
Scale
1:200 (A3)

Job No.
DML 17/028

Date
01.02.18

Dwg.No
A-07

Rev.
C



LONGITUDINAL DRIVEWAY SECTION

PRELIMINARY
NOT FOR CONSTRUCTION

Date	Issue	Revision
25.08.18	A	Issued for development approval
25.02.19	B	Revised DA Issue
15.04.19	C	Revised DA Issue

Legend

Develop My Land
management · consultancy · landscape architecture · urban design ·
PO Box 119, Thirroul, NSW, 2515. Tel: 0449 255488 e: steve@developmyland.com.au



PROJECT: Two lot subdivision and Dual Occupancy Development
2 COAST STREET THIRROUL

Drawing Name:
DRIVEWAY CROSS SECTION

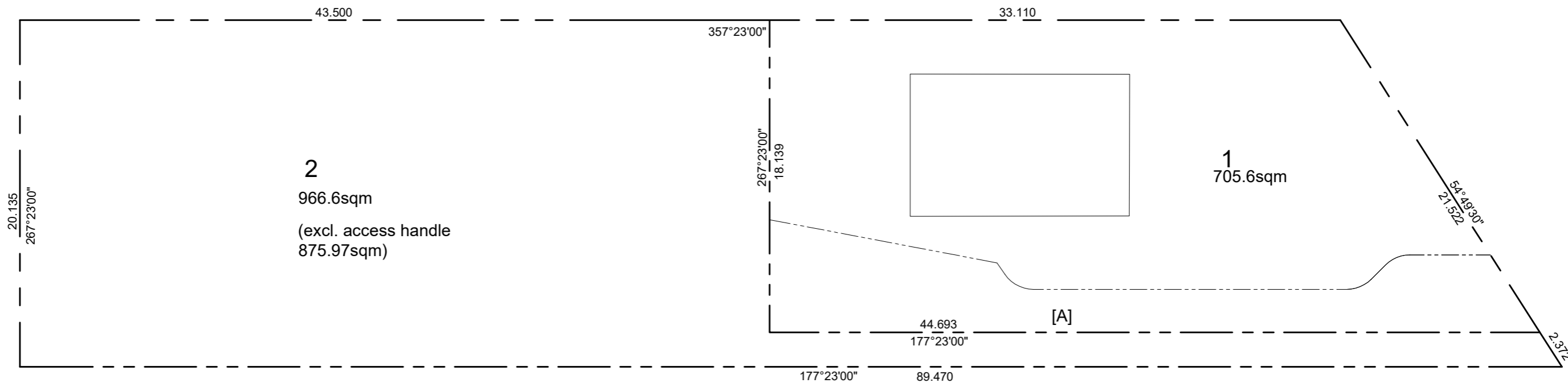
Job No.
DML 17/028
Dwg.No
A-09

FOR:
Arnold & Brown

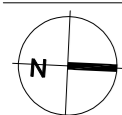
Scale
1:200 (A3)

Date
01.02.18

Rev.
C



[A] PROPOSED RIGHT OF
CARRIAGEWAY VARIABLE
WIDTH



PRELIMINARY
NOT FOR CONSTRUCTION

Date	Issue	Revision
25.08.18	A	Issued for development approval
25.02.19	B	Revised DA Issue
27.03.19	C	Revised DA Issue
15.04.19	D	Revised DA Issue

Legend

Develop My Land
management • consultancy • landscape architecture • urban design •
PO Box 119, Thirroul, NSW, 2516 Tel. 0449 269488 e. dave@developmyland.com.au



PROJECT: Two lot subdivision and Dual Occupancy Development
2 COAST STREET THIRROUL

Drawing Name:
PHASE 1 - SUB-DIVISION PLAN

Job No.
DML 17/028

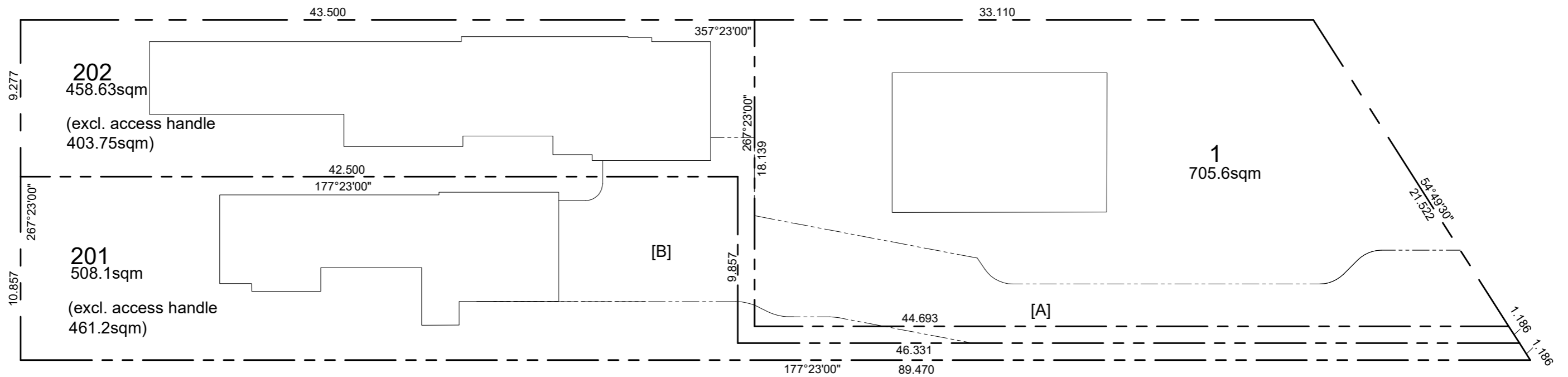
Dwg.No
SD-01

FOR:
Arnold & Brown

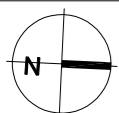
Scale
1:250 (A3)

Date
01.02.18

Rev.
D



- [A] PROPOSED RIGHT OF CARRIAGEWAY VARIABLE WIDTH
- [B] PROPOSED RIGHT OF CARRIAGEWAY VARIABLE WIDTH



PRELIMINARY
NOT FOR CONSTRUCTION

Date	Issue	Revision
25.08.18	A	Issued for development approval
25.02.19	B	Revised DA Issue
27.03.19	C	Revised DA Issue
15.04.19	D	Revised DA Issue

Legend

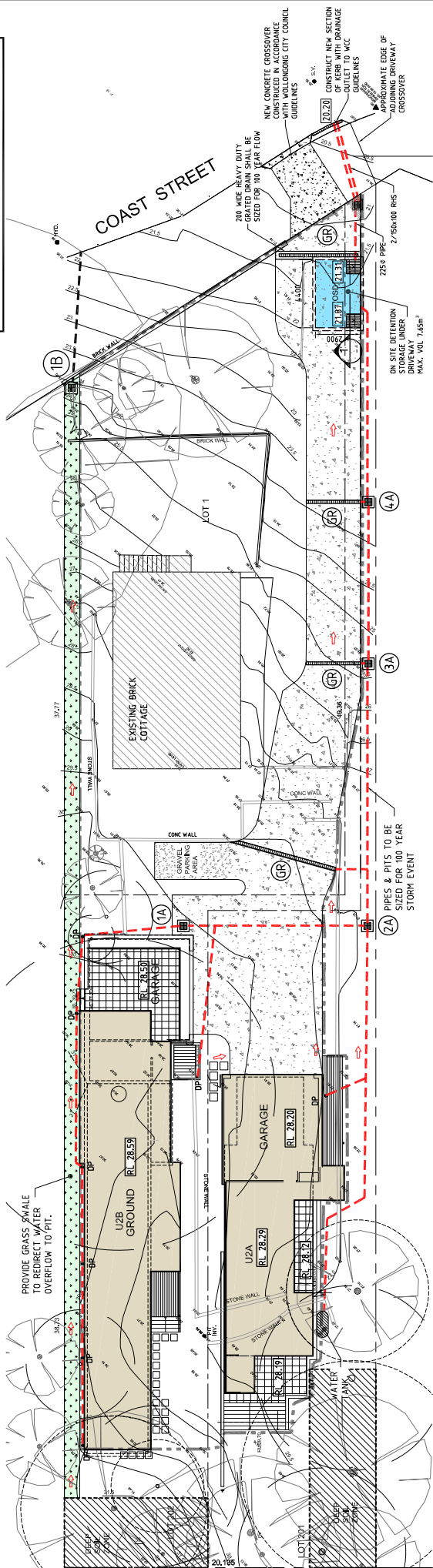
Develop My Land
management · consultancy · landscape architecture · urban design ·
PO Box 119, Thirroul, NSW, 2515. Tel. 0449 255488 e. steve@developmyland.com.au



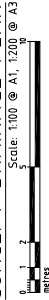
PROJECT: Two lot subdivision and Dual Occupancy Development
2 COAST STREET THIRROUL

Drawing Name: PHASE 2 - SUB-DIVISION PLAN	Job No. DML 17/028	Dwg.No SD-02
FOR: Arnold & Brown	Scale 1:250 (A3)	Date 01.02.18
		Rev. D

NOT FOR CONSTRUCTION
FOR DA APPROVAL ONLY



CONCEPT DRAINAGE PLAN



STEP 1

SITE INFORMATION		GRAPHS	
SITE AREA	1672.4 m ²	F ₁	1.11
TRIBUTARY AREA	1316.5 m ²	F ₂	0.13
DEV. IMP. AREA	697 m ²	F ₃	0.60
SSR ₁₀₀	99.5 mm/hr	F ₄	1.05L
F ₁₀₀		F ₅	1.043

OSD REQUIREMENTS	
PSD ₁	40.9 L/s
PSD ₂	70.8 L/s
SSR ₁	6.6 m ³
SSR ₂	11.5 m ³

STEP 2

SITE INFORMATION		GRAPHS	
SITE AREA	1672.4 m ²	F ₁	1.11
TRIBUTARY AREA	1316.5 m ²	F ₂	0.05
DEV. IMP. AREA	212.5 m ²	F ₃	2.3 m ³
SSR ₁	99.5 mm/hr	F ₄	1.00
F ₁₀₀		F ₅	1.00

OSD REQUIREMENTS	
PSD ₁	38.8 L/s
PSD ₂	67.8 L/s
SSR ₁	2.3 m ³
SSR ₂	4.0 m ³

FINAL OSD REQUIRED

OSD REQUIREMENTS	
PSD ₁	40.9 L/s
PSD ₂	70.8 L/s
SSR ₁	6.6-2.3+4.35m ³
SSR ₂	11.5-4.0+7.45m ³

VOLUME

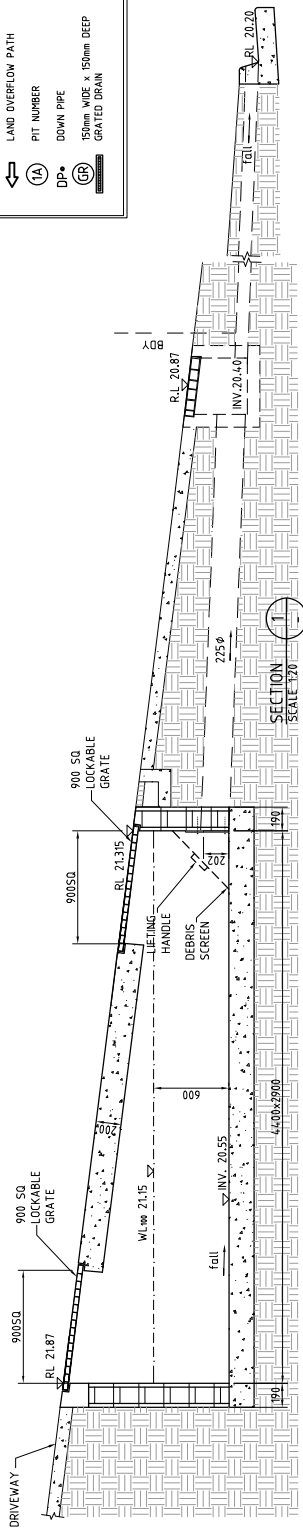
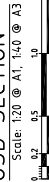
OSD TANK UNDER DRIVEWAY
VOL = (4.4 x 2.9)m² x 0.4m = 7.65m³
REQUIRED STORAGE = 7.49m³
TOTAL AVAILABLE STORAGE = 7.65m³

ORIFICE SIZING

$Q_1 = 40.9 \text{ L/s}$
 $TWL_1 = .$
HEAD = 0.34m
D = 20mm
ADOPT 20mm Ø CIRCULAR ORIFICE

$$D = \left(\frac{0.0409}{1.62 \times 0.34^{0.5}} \right)^{\frac{1}{0.5}}$$

OSD SECTION



LEGEND	
x [28.20]	PROPOSED SURFACE LEVEL
—	EXISTING CONTOUR LEVEL
—	PROPERTY BOUNDARY
—	DRAINAGE PIPE AND PIT
←	LAND OVERFLOW PATH
①A	PIT NUMBER
DP	DOWN PIPE
150mm WIDE x 150mm DEEP	GRADED DRAIN

NOTE:	
1. THIS DRAWING IS FOR INFORMATION ONLY AND IS NOT TO BE USED FOR CONSTRUCTION. 2. THE DESIGNER ACCEPTS NO LIABILITY FOR ANY DAMAGE OR LOSS OF ANY KIND ARISING FROM THE USE OF THIS DRAWING. 3. THE DESIGNER ACCEPTS NO LIABILITY FOR ANY DAMAGE OR LOSS OF ANY KIND ARISING FROM THE USE OF THIS DRAWING. 4. THE DESIGNER ACCEPTS NO LIABILITY FOR ANY DAMAGE OR LOSS OF ANY KIND ARISING FROM THE USE OF THIS DRAWING. 5. THE DESIGNER ACCEPTS NO LIABILITY FOR ANY DAMAGE OR LOSS OF ANY KIND ARISING FROM THE USE OF THIS DRAWING.	



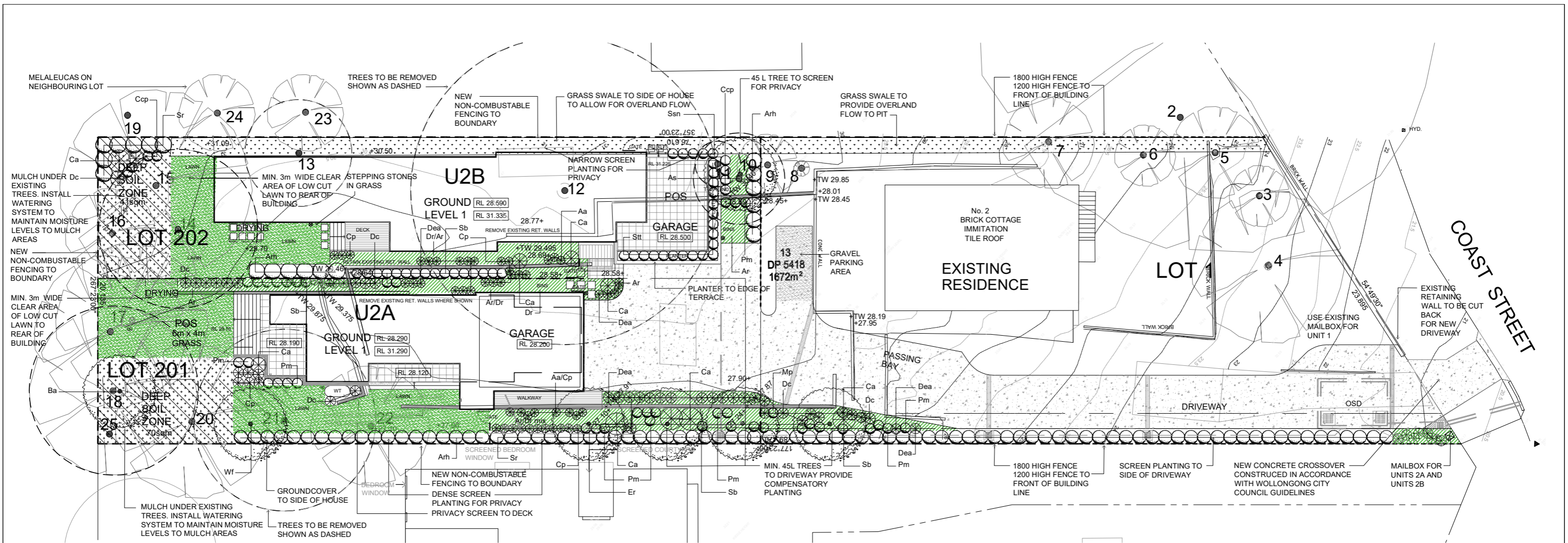
CLIENT:
ARNOLD & BROWN

PROJECT: PROPOSED DUAL OCCUPANCY
SITE: 2 COAST STREET THRUOL

DRAWING: C.01 - CONCEPT DRAINAGE
DWG. No: OCE12998/C01/DA/B

SCALE: AS SHOWN
DATE: JULY 2018
DRAWN: R.J.
CHECKED: I.O.

SHEET 01
No IN SET 1



LEGEND

	PROPERTY BOUNDARY		PARKING WITH PERMEABLE SURFACE
	EXISTING TREE TO BE RETAINED		CONCRETE PAVERS SET IN GRASS OR GROUNDCOVER
	EXISTING TREE TO BE REMOVED - REFER TO ARBORIST REPORT		PROPOSED 1800 HIGH FENCE
	PROPOSED TREE		PROPOSED 1200 HIGH FENCE
	PROPOSED SHRUB AND GROUNDCOVER PLANTING		PROPOSED GATE
	MULCH UNDER EXISTING TREES. MAINTAIN MOISTURE LEVELS - REFER TO PLAN.		RETAINING WALL
	LOW CUT LAWN		PROPOSED DRAINAGE
	GRASS SWALE		PROPOSED MAILBOX
	EXISTING LEVELS AND CONTOURS		PROPOSED HOSEBIB
	PROPOSED SPOT LEVELS		
	DEEP SOIL ZONE		
	PROPOSED CONCRETE DRIVEWAY		

TREE SPECIES TO BE REMOVED (REFER ALSO TO ARBORIST REPORT):
TREE 10 - *Leptospermum petersonii*
TREE 11 - *Callistemon viminalis*
TREE 12 - *Syzygium paniculata*
TREE 13 - *Melaleuca armillaris*
TREE 14 - *Cassia sp.*
TREE 18 - *Brachychiton acerifolius* (DEAD)
TREE 21 - *Eucalyptus scoparia*

PROPOSED PLANT SCHEDULE

SYM	BOTANICAL	COMMON NAME
As	<i>Acmena smithii</i>	Lilly Pilly
Ba	<i>Brachychiton acerifolius</i>	Flame Tree
Arh	<i>Acmena 'Red Head'</i>	Lilly Pilly
Ca	<i>Cyathea australis</i>	Tree Fern
Er	<i>Elaeocarpus reticulatus</i>	Blueberry Ash
Sr	<i>Syzygium 'Resilience'</i>	Lilly Pilly
Ssn	<i>'Straight & Narrow'</i>	Lilly Pilly
Wf	<i>Waterhousia floribunda</i>	Weeping Lilly Pilly
SMALL SHRUBS AND ACCENT PLANTS		
Aa	<i>Asplenium australasicum</i>	Birds Next Fern
Ccp	<i>Correa 'Coastal Pink'</i>	Pink Correa
Pm	<i>Philotheca myoporoides</i>	Wax Flower
Sb	<i>Syzygium 'Blaze'</i>	Dwarf Lilly Pilly
Stt	<i>Syzygium 'Tiny Trev'</i>	Dwarf Lilly Pilly

GROUND COVERS, NATIVE GRASSES AND SMALL ACCENTS		
Ar	<i>Ajuga reptans</i>	Blue Bugle
Cp	<i>Crinum pendunculatum</i>	Swamp Lily
Dea	<i>Dianella 'Emerald Arch'</i>	Flax Lily
Dc	<i>Dianella caerulea</i>	Flax Lily
Dr	<i>Dichondra repens</i>	Kidney Weed

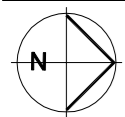
DEVELOPMENT DATA

TOTAL LOT AREA UNIT 2A (LOT 201) = 461.2sqm
TOTAL LANDSCAPE AREA UNIT 2A = 208sqm (92.2sqm REQ.)
TOTAL DEEP SOIL UNIT 2A = 55.0sqm (50.8sqm REQ.)
TOTAL LOT AREA UNIT 2B (LOT 202) = 403.75sqm
TOTAL LANDSCAPE AREA UNIT 2B = 148sqm (80.6sqm REQ.)
TOTAL DEEP SOIL ZONE UNIT 2B = 42.0sqm (40.3 REQ.)

NOTE: REFER ALSO TO STORMWATER CONCEPT PLAN BY OPTIMA ENGINEERING. LANDSCAPE PLAN HAS BEEN COORDINATED WITH STORMWATER CONCEPT PLAN

AN APZ IS REQUIRED TO BE ESTABLISHED AND SHOULD BE MAINTAINED FOR PERPETUITY. REFER TO LANDSCAPE REQUIREMENTS IN SECTION 6 OF THE BUSHFIRE ASSESSMENT REPORT BY HARRIS ENVIRONMENTAL. THE LANDSCAPE PLAN IS COMPATIBLE WITH THE BUSHFIRE REPORT.

COMPENSATORY PLANTING: SEVEN TREES (MIN.45L) ARE PROPOSED.

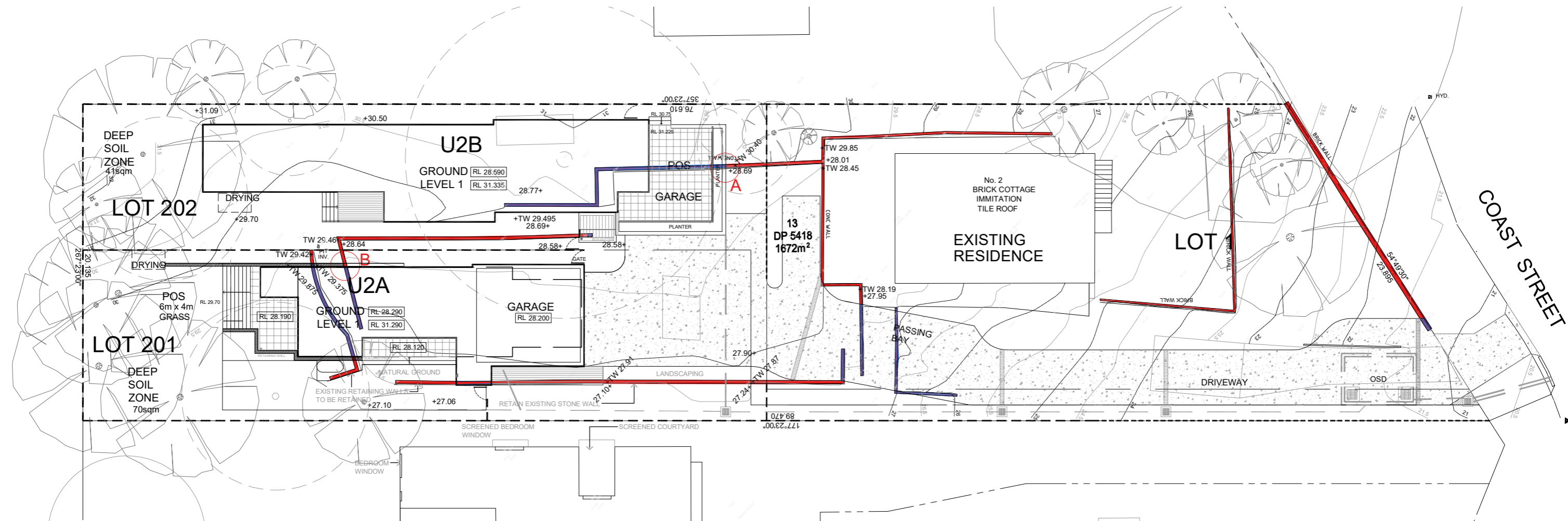


PRELIMINARY
NOT FOR CONSTRUCTION

Date	Issue	Revision
17.07.18	A	DA
17.02.19	B	ADDITIONAL INFORMATION
17.04.19	C	ADDITIONAL INFORMATION

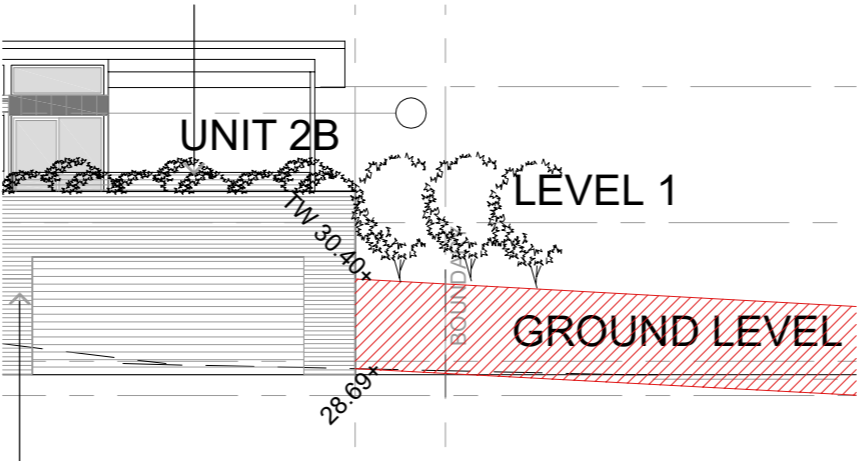
Develop My Land
management · consultancy · landscape architecture · urban design
PO Box 113, Thirroul, NSW, 2515. Tel: 0449 254488 e: steve@developmyland.com.au

PROJECT: 2 COAST STREET THIRROUL			
Drawing Name: LANDSCAPE PLAN	Job No. DML 17/028	Dwg.No. L-01	
CLIENT: ARNOLD AND BROWN	Scale 1:250 (A3)	Date 17/07/18	Rev. C

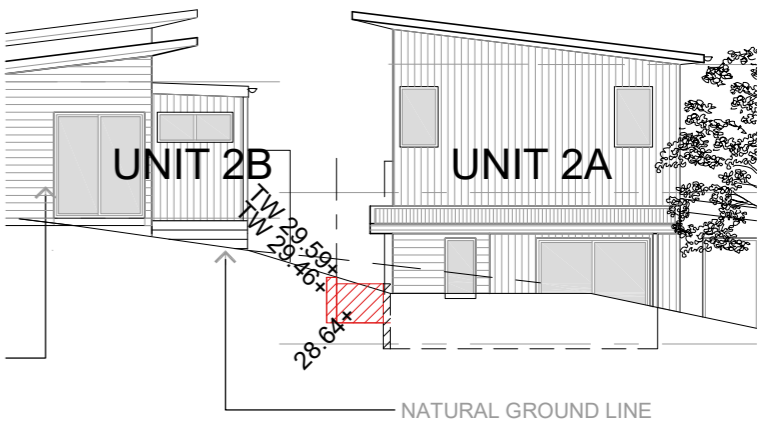


LEGEND

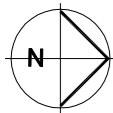
- EXISTING RETAINING WALL TO BE RETAINED
- SECTION OF EXISTING RETAINING WALL TO BE REMOVED
- PROPOSED RETAINING WALL
- PROPOSED FINISHED LEVELS



SECTION A - INTERFACE OF EXISTING RETAINING WALL WITH UNIT 2B LOOKING WEST
SCALE 1:150@A3



SECTION B - INTERFACE OF EXISTING RETAINING WALL WITH UNIT 2A LOOKING NORTH
SCALE 1:150@A3



PRELIMINARY
NOT FOR CONSTRUCTION

Date	Issue	Revision
17.02.19	A	ADDITIONAL INFORMATION
17.04.19	C	ADDITIONAL INFORMATION

Develop My Land
management · consultancy · landscape architecture · urban design

PROJECT: 2 COAST STREET THIRROUL			
Drawing Name: RETAINING WALL PLAN	Job No. DML 17/028	Dwg.No. L-02	
CLIENT: ARNOLD AND BROWN	Scale 1:250 (A3)	Date 17/07/18	Rev. 1



Level 5 and 8 Arboriculturist

A PO Box 456, WOLLONGONG NSW 2520
P 1300 767 414
E admin@alliedtrees.com.au
W www.alliedtrees.com.au

Reference: **3347B**
14th May 2019

Develop My Land

Arborist Addendum

Re: Lot 13, (D.P. 5418), No. 2 Coast Street, THIRROUL, NSW

Introduction

The following addendum has been requested by *Develop My Land*, based upon a response from Wollongong City Council, via a request for additional information, and specifically for a design amendment that will modify the impact on the majority of the trees. This addendum is based on the data provided in the Arboricultural Impact Assessment issued with the initial application and referenced D3347A, dated February 2019. The following discussion refers to the design modification and encroachment and is in reference to amending Section 7.1 of the initial arborist report.

The following amended documentation has been provided to *Allied Tree Consultancy* and utilised within the report.

4.4.2 Design

Drawn by *Develop My Land P/L*
Date: 15 April 2019
Reference: DML 17/028
Drawing DA01, Revision D

4.4.4 Landscape

Drawn by *Develop My Land P/L*
Date: 17 April 2019
Reference: DML 17/028
Drawing L-01, Revision C

7.1 Proposed development

The proposed development consists of the retention of the existing dwelling at the front of the lot and subdivision of the rear of the lot and construction of two residential units development, drive access, and drainage infrastructure.

Observation 1: Trees no. 8, 9, 10, 11, 23 and 24. The calculations of the zones of protection (TPZ, SRZ) are based on the arbitrary formulae provided in the AS 4970, and

this document provides scope for modifying this zone, however with supporting evidence. The existing retaining wall has acted as a barrier, therefore reducing root extension and forming a semi-circular root system that is confined to the western side of the wall only. No root ingress will proceed beyond the wall.

Assumption 1: The existing retaining wall supporting the root zones of trees no. 8, 9, 10 and 11 have not been referenced for replacement. Therefore it is assumed that this structure is to be retained and no further work will occur in this area.

This report discusses the impact of the proposed design on the trees. Twenty-two (22) trees have been listed within this report based upon the vicinity of the lot. This has included neighbouring trees that would pose part of the TPZ to encroach into the lot. Recommendations based on the tree significance and condition, together with the impact on these trees regarding the development for this lot follow;

7.1.1 Trees and zones of protection (TPZ/SRZ) outside of the proposed design

Trees no. 1, 2, 3, 4, 5, 6, 7, 16, 17, 18, 19, 23, 24 and 25

Based on Assumption 1, none of the proposed works conflict with the location of these trees or respective zones of protection. These trees can be retained.

7.1.2 Trees providing a limited useful life expectancy

Trees no. 6, 12, 13, 18 and 21

These trees provide low significance based on the species, habit and rating and could be removed due to the low amenity value and limited useful life expectancy.

7.1.3 Trees directly conflicting with the design

Trees no. 10, 11, 12 and 13

These trees are located in the footprint of the proposed design and would require removal based on this premise alone. The conflict is summarised as follows;

Trees no. 10, 11, 12 and 13; within the footprint of the proposed dwelling listed as U2B.

7.1.4 Trees subject to a minor encroachment

Trees no. 8, 14, 15 and 20

These trees are not directly located in the footprint of the proposed dwelling, however, are subject to a *minor encroachment*. That is, the proportion (<10%) of encroachment provided by design will not adversely impact on the tree. These trees could be retained relative to the design.

Tree no. 8: Encroachment: 2%; based on Assumption 1 and Observation 1. The encroachment (based on drawing A-01) consists of the construction of the proposed planter for the dwelling listed as U2B.

Tree no. 14: Encroachment: 4%; based on drawing A-01 the encroachment consists of the construction of the dwelling footprint listed as U2B.

Tree no. 15: Encroachment: 8%; based on drawing A-01 the encroachment consists of the construction of the dwelling footprint listed as U2B.

Tree no. 20: Encroachment: 4%; based on drawing A-01 the encroachment consists of the construction of the dwelling footprint listed as U2A.

7.1.5 Trees subject to a major encroachment

Trees no. 9 and 22

These trees are not directly located in the footprint of the proposed design, however, are located close and adjacent to the dwelling footprint and subject to a *major encroachment*, that is, in excess of 10% of the TPZ. The extent and type of encroachment for each tree are discussed and the relative implications.

Tree no. 9: Encroachment: 33%; based on drawing A-01, the encroachment consists of excavation garage of Unit U2B. This will encroach up to 1000mm from the tree and will not allow for the retention of this tree.

Tree no. 22: Encroachment: 17%; based on drawing A-01 the encroachment is divided between the footprint of the dwelling footprint listed as U2A (seven percentage points) and the remaining (ten percentage points) encroachment consists of the porch. The porch is proposed to be paved and is 330mm above grade, therefore will not require excavation and can retain the root system in this area, therefore reducing the impact related to such an encroachment. The encroachment is not considered to hamper the vitality or impact adversely on this tree.

In addition and not included as part of the encroachment calculation is the stormwater pipe that extends flush with the base of the tree and the SRZ. Based on the retention of this tree, the route of the stormwater pipe will require to be rerouted along the perimeter of the building footprint and remove any further encroachment.

7.1.6 Landscape

The landscape drawing (Section 4.4.4) does not illustrate a design that forms any further encroachment on those trees referenced in Sections 7.1.1 to 7.1.5. The predominant areas of the Tree Protection Zones have turf nominated for use, and this will not impact adversely on the trees, however alternative ground covers will offer an increased benefit, although are not suitable for bushfire protection.

9.0 Summary of tree impact

Based on the design supplied, the following summary provides the impacts imposed on the trees included in this report.

9.1 Trees No. 1, 2, 3, 4, 5, 6, 7, 8, 14, 15, 16, 17, 18, 19, 20, 23, 24 and 25

These trees are not adversely impacted by the design, that is, they conform to a minor encroachment or less and the nominated zones of protection (TPZ, SRZ) based on the requirements of the Protection Specification, Section 8.0. The proposed design does not adversely affect these trees.

9.2 Trees No. 9, 10, 11, 12 and 13

The proposed design will impact adversely on these trees and are unable to be retained based on the design.

9.3 Trees No. 6, 12, 13, 18 and 21

These trees provide poor form and a limited useful life expectancy and would require removal irrespective of the proposed works.

9.4 Tree No. 22

These trees are subject to a major encroachment, although could be retained pending the following conditions/design modification.

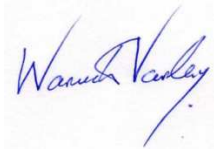
9.4.1 Tree No. 22

Based on the retention of this tree, the route of the stormwater pipe will require to be rerouted along the perimeter of the building footprint and remove any further encroachment.

9.5 Sub-surface utilities

No drawings have been provided for the proposed route of sub-surface utilities, other than drainage. Any trenching, other than what has been allowed for should be avoided within the area of the TPZ's for any tree nominated for retention. Any proposed route shall be re-routed outside of the TPZ. Under boring may be required if a limitation for the route of a service is restricted to an area that falls within the TPZ from any tree. Any excavation in the area of a TPZ must be authorised and conditioned by the project arborist.

The opinions expressed in this brief by the author have been provided within the capacity of a Consulting Arborist. Any further explanation or details can be provided by contacting the author.



Warwick Varley
Consulting Arborist
Level 5 and 8; Arboriculturist
MIACA; Reg. #18,
MISA,
MIAH; Reg. # 32



APPENDIX 2

VARIATION TO DEVELOPMENT CONTROLS

**DEVELOPMENT APPLICATION FOR PROPOSED TWO LOT TORRENS TITLE SUBDIVISION,
CONSTRUCTION OF A DUAL OCCUPANCY ON REAR LOT AND TORRENS TITLE SUBDIVISION
ON REAR LOT WITH DUAL OCCUPANCY.**

2 COAST STREET THIRROUL

VARIATION TO DEVELOPMENT CONTROLS

1.0 Development Control Being Varied

The development control being varied in this instance is control 4.1.2.1 of Wollongong Development Control Plan 2009, Chapter B1 – Residential Development restricting *‘dwelling houses on battle-axe allotments to 1 storey unless it can be demonstrated that the proposed development achieves the objectives in Clause 4.1.1 and complies with the maximum height maps in the LEP’*.

Development control 4.1, Number of storeys permits a maximum of 2 storeys within R2 zones. The control states *‘The number of storeys acceptable will be dependent on the surrounding development, the future desired character of the area, the impacts that the proposed development has on solar access, privacy, visual amenity and overshadowing’*

Approval is sought to vary this control to allow two storey development on a rear battle-axe and this variation statement seeks to demonstrate that the proposed development achieves the objectives in clause 4.1.1.

The proposed unit 2A is two-storey. The proposed unit 2B has a small portion of habitable area located above a non-habitable store area which is located predominantly below existing ground level

2.0 Objectives of the development control

The objectives of Development Control 4.1 are:

- a) *To encourage buildings which integrate within the streetscape and the natural setting whilst maintaining the visual amenity of the area.*
- b) *To minimise the potential for overlooking on adjacent dwellings and open space areas.*
- c) *To ensure that development is sympathetic to and addresses site constraints.*
- d) *To encourage split level stepped building solutions on steeply sloping sites.*
- e) *To encourage a built form of dwellings that does not have negative impact on the visual amenity of the adjoining residences.*
- h) *To encourage positive solar access outcomes for dwellings and the associated private open spaces.*

3.0 The proposals' compliance with the objectives of the control

The proposal is located on a rear battle-axe allotment (Lot 2) located behind an existing single storey dwelling house located on the proposed Lot 1.

Proposed Lot 2 slopes from west to east with a fall across the site of approximately 4m over a width of approximately 20m. The buildings have been designed in response to the site constraints in particular ensuring that on each side boundary the dwellings present sympathetically to the natural and built setting.

Unit 2A

Unit 2A is two storey with the eastern wall, closest to the adjoining neighbour, located 4.07m from the adjoining boundary. This large setback enables retention of two mature trees (tree 20 & 22) which will screen the proposed development from the adjoining neighbour. The setback also allows for significant additional screen planting. Note: privacy screens to protect the west facing windows of the neighbouring residence are currently installed, possibly to screen the western façade from sunlight. Please see attached image. **Figure 1**



Figure 1. Existing window screening to western façade windows 16A Seafoam Avenue

The upper level of Unit 2A contains bedrooms and bathrooms only. The design has sympathetically located any windows facing the adjoining boundary to ensure no overlooking from active windows towards the closest adjoining neighbour at 16A Seafoam Avenue.

Refer to **Figure 2** which indicates proximity of 16a Seafoam Avenue to the proposed residence.

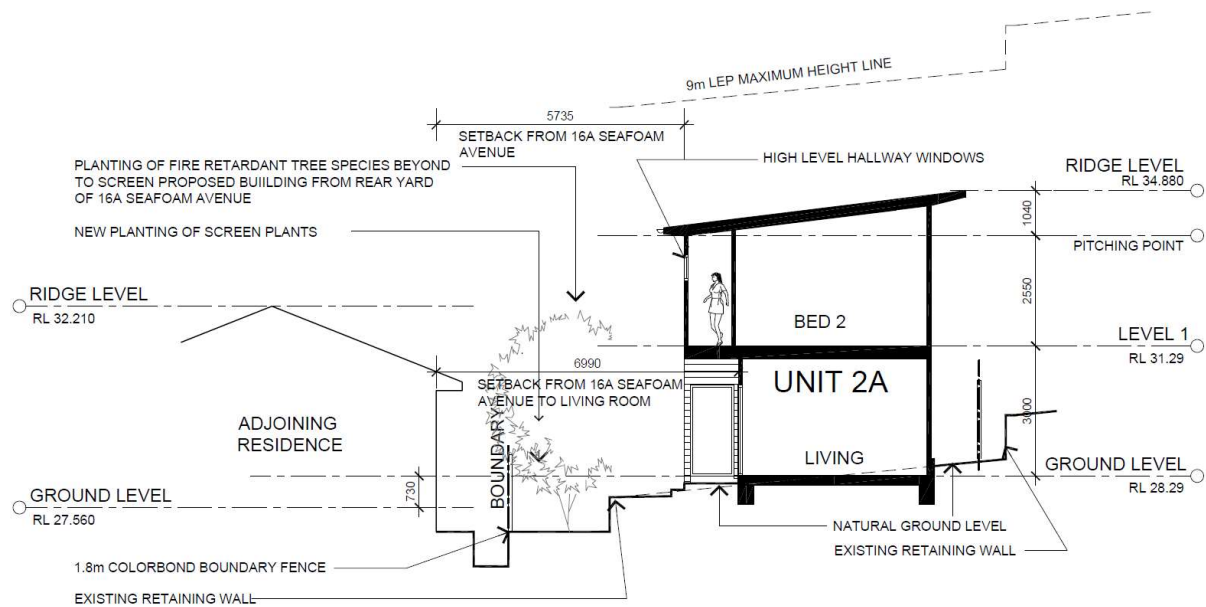


Figure 2. Site Cross Section – 16a Seafoam Avenue indicated as 'Adjoining residence'.

Unit 2B

Unit 2B has a portion of habitable areas located over the non-habitable store room and the garage. The design takes advantage of the site slope which falls approx. 2.4m over the 7.5m building zone. (Refer to **Figure 3** for area of encroachment.) enabling parking at the lower level and habitable floor levels located close to natural ground level on the western boundary.

The design has been incorporated to integrate the building into the natural landform and does not have an adverse impact on overshadowing or overlooking to adjacent lots.

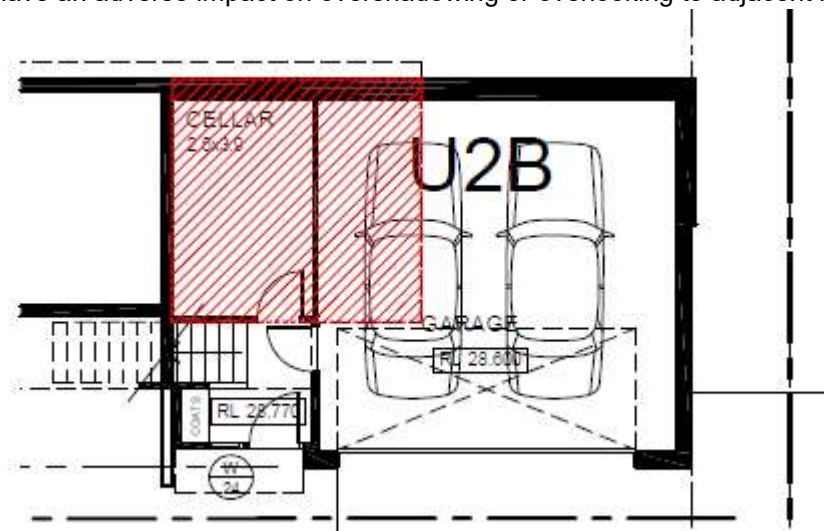


Figure 3. Location of two storey area over garage and store room – Unit 2B

The proposal satisfies the objectives of the control as follows.

To encourage buildings which integrate within the streetscape and the natural setting whilst maintaining the visual amenity of the area

The proposed siting of the two-storey residential component of this proposal allows for retention of significant trees and feature stone retaining walls. The floor level has been kept as close to natural ground level to reduce the bulk and scale of the proposal. Proposed tree plantings along the eastern property boundary will further reduce any potential visual intrusion on neighbouring properties and integrate the development into the natural setting.

To minimise the potential for overlooking on adjacent dwellings and open space areas.

The proposal has been designed with all living areas located at the lower level at natural ground level or partially excavated under natural ground level.

The upper level windows on the eastern façade which faces the residence located to the east at 16A Seafoam Avenue, consist of two (2) hallway windows with a sill height of 1.5m and one (1) window located at the top of the stairwell. These windows are located approx. 4.07m from the eastern boundary.

There is a single bedroom window facing the eastern boundary, this window is located approx. 4.7m from the eastern boundary and will have views over the roof of 16A Seafoam Ave.

These sympathetically located windows ensure that any potential for overlooking to the neighbouring dwelling and the rear open space area has been mitigated.

Refer to Figure 4 for window locations.

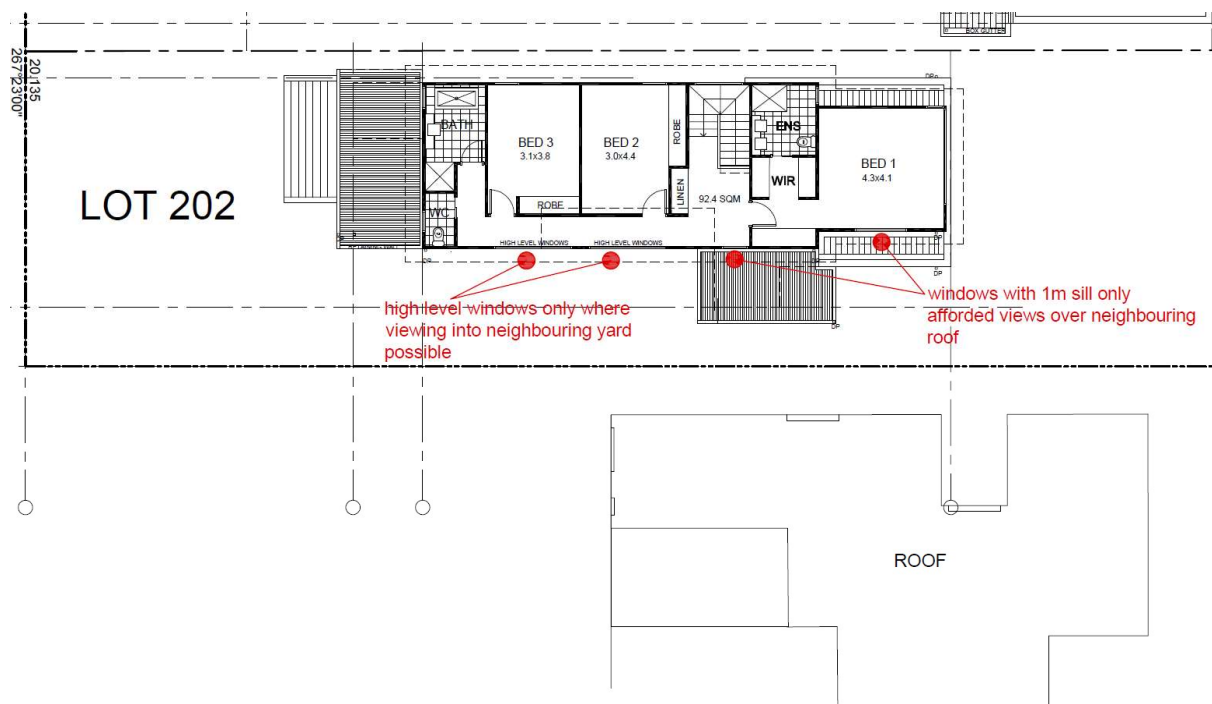


Figure 4. Location of windows with potential to overlook 16a Seafoam Avenue

Unit 2B has only a minor two-level encroachment over a non-habitable store which is predominantly below natural ground level. There is no potential for overlooking to adjacent dwellings. This building appears single storey when viewed from the west.

To ensure that development is sympathetic to and addresses site constraints.

The site has a crossfall of approximately 4m which is currently retained by a series of stone retaining walls many of which have been incorporated into the proposal.

The site also has several significant mature trees which have been retained for habitat retention and to minimise potential impacts from the development on surrounding properties. Six (6) trees are recommended for removal (one of which is dead) which will be compensated by new trees.

Particular care has been taken to ensure easy access from each dwelling to natural ground to encourage connection between indoor spaces and the private open space areas.

Each building has been designed to address the slope with minimal site works. The proposal aims to retain the maximum number of existing trees on site of high retention value. Six (6) trees are proposed to be removed as part of this proposal. Of the six, five have an IACA significance rating (STARS) of LOW, one tree has a medium rating, however this tree is significantly flawed as confirmed by Councils independent arborist report.

To encourage split level stepped building solutions on steeply sloping sites.

The site is steeply sloping from west to east (approx 1:5) therefore the dwellings have been designed to take advantage of the varying natural ground levels to enable access for vehicles with minimal excavation or fill and retention of natural forms and protection of trees.

Unit 2B has been designed so that the floor level is split to enable access to natural ground with minimal steps.

To encourage a built form of dwellings that does not have negative impact on the visual amenity of the adjoining residences.

The proposal has been designed to minimise any potential negative impacts on the visual amenity of adjoining residences by responding to the site context.

Unit 2A has been setback a significant distance from the adjoining residences to the East & South with the retention of significant trees to the side and rear of the proposal ensuring that the visual amenity of these residences will be protected. Further screen planting will be provided to maintain visual amenity of adjoining residences.

Unit 2B has been sympathetically designed to ensure that the residence is set low relative to the adjoining boundaries, with a low-pitched roof and windows located and sized appropriately to ensure no loss of amenity to adjoining residences.

To encourage positive solar access outcomes for dwellings and the associated private open spaces.

The attached mid-winter shadow diagrams demonstrate that the proposal has negligible impact on neighbouring primary private open space areas and the impact fully complies with Council's DCP requirements for solar access.

Conclusion

WDCP Chapter B1, Development control 4.1.2.1 Chapter B1 restricts buildings to a single storey on a battle-axe allotment unless it can be demonstrated that the proposed development achieves the objectives of clause 4.1.1 and is lower than the maximum height of 9m in accordance with the WLEP height maps.

This document demonstrates that the proposal meets the objectives of the DCP & LEP controls and has been designed to integrate into the natural setting of the area and has been sympathetically designed to minimise any negative impacts on existing surrounding residences in regard to visual intrusion, loss of privacy and overshadowing.

Attachment 4: WLEP 2009 and WDCP 2009 compliance table

WOLLONGONG LOCAL ENVIRONMENTAL PLAN 2009

Part 1 Preliminary

Clause 1.4 Definitions

Demolition: In relation to a building means wholly or partly destroy, dismantle or deface the building.

Dual Occupancy is defined as two (2) dwellings (whether attached or detached) on one lot of land (not being an individual lot in a strata plan or community title scheme), but does not include a secondary dwelling.

Dual occupancy (detached) means 2 detached dwellings on one lot of land, but does not include a secondary dwelling.

Note. Dual occupancies (detached) are a type of **dual occupancy**—see the definition of that term in this Dictionary.

Subdivision of land for the purposes of the Environmental Planning & Assessment Act 1979, means the division of land into two or more parts that, after the division, would be obviously adapted for separate occupation, use or disposition. The division may (but need not) be effected:

- (a) by conveyance, transfer or partition, or
- (b) by any agreement, dealing, plan or instrument rendering different parts of the land available for separate occupation, use or disposition.

Part 2 Permitted or prohibited development

Clause 2.2 – zoning of land to which Plan applies

The zoning map identifies the land as being zoned **R2 Low Density Residential**.

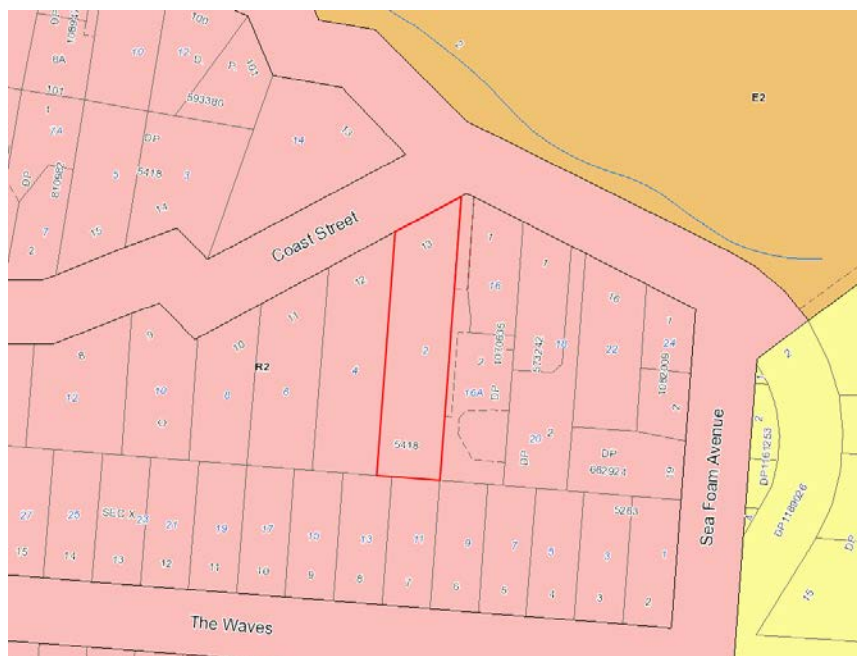


Figure 1: WLEP 2009 zoning map

Clause 2.3 – Zone objectives and land use table

The objectives of the zone R2 Low Density Residential are as follows:

- *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.*

It is considered that the proposed dual occupancy is generally satisfactory with regards to the above objectives for Zone R2 Low Density Residential.

The land use table permits the following uses in the zone.

ZONE R2 Low Density Residential permitted uses:

Attached dwellings; Bed and breakfast accommodation; Boarding houses; Boat launching ramps; Child care centres; Community facilities; **Dual occupancies**; Dwelling houses; Environmental facilities; Exhibition homes; Exhibition villages; Group homes; Health consulting rooms; Hospitals; Hostels; Information and education facilities; Jetties; Multi dwelling housing; Neighbourhood shops; Places of public worship; Recreation areas; Recreation facilities (indoor); Recreation facilities (outdoor); Residential flat buildings; Roads; Semi-detached dwellings; Seniors housing; Shop top housing; Signage; Veterinary hospitals

The proposal is categorised as a dual occupancy and subdivision and is permissible in the R2 Low Density Residential zone with development consent. Demolition and tree removal are ancillary works to facilitate the proposal and as such are also permissible.

Clause 2.6 Subdivision—consent requirements

Subdivision is permissible with consent as the subject site is on land to which the Wollongong Local Environmental Plan 2009 applies.

Clause 2.7 Demolition requires development consent

Demolition of a building may be carried out only with development consent. The demolition of the existing detached garage on the land is required to facilitate access to the development as proposed.

Part 4 Principal development standards

Clause 4.1 Minimum subdivision lot size

The minimum allotment size for the subdivision of land under Part 4.1 of WLEP2009 is 449m². The proposed phase 2 two (2) lot Torrens title subdivision will result in Lot sizes of 705.6m² for Lot 1 and 875.97m² excluding the access handle for Lot 2 which are both compliant with the clause.

Phase 4 of the proposal involves a two (2) lot Torrens title subdivision of the newly constructed dual occupancy. Subclause 4.1(4C) identifies that clause 4.1 does not apply in relation to the subdivision of an existing dual occupancy. A condition relating to the issue of an Occupation Certificate for the detached dual occupancy prior to the application for the phase 4 Torrens title subdivision so that the proposal satisfies subclause 4.1(4C) is included at **Attachment 5**.

Clause 4.3 Height of buildings

The proposed building height of 6.55m for Unit 2A and 5.025m Unit 2B does not exceed the maximum of 9m permitted for the site.

The proposal does not alter the building height of the existing dwelling.

Clause 4.4 Floor space ratio

Maximum FSR permitted for the site:	0.5:1
Resultant FSR provided for Lot 1:	104.8m ² /705.6m ² = 0.15:1 (existing dwelling)
Resultant FSR provided for Lot 2	323.44m ² /966.6m ² = 0.335:1 (dual occupancy)
Resultant FSR provided for Lot 201:	158.437m ² /508.1m ² = 0.31:1 (Unit 2A)
Resultant FSR provided for Lot 202:	165.003m ² /403.75m ² = 0.41:1 (Unit 2B)

The proposed floor space ratio does not exceed the maximum permissible for the site.

Part 7 Local provisions – general

Clause 7.1 Public utility infrastructure

The proposal has been assessed against Clause 7.1 of WLEP2009 and it is considered that the subject site is already serviced by public utilities which can be augmented to service the new proposal.

Clause 7.2 Natural resource sensitivity – biodiversity

A small portion of the site is identified as “Natural Resource Sensitivity – Biodiversity”. No works are proposed within the area of the site mapped as “Natural Resource Sensitivity – Biodiversity”.

Details of the application submission including the Arborist report, Bushfire report and the NSW Rural Fire Services referral response were referred to Council’s Environment and Landscape Officers for comment.

Conditionally satisfactory referral advice was received and conditions are included at **Attachment 5**.



Figure 2: WLEP 2009 “Natural Resource Sensitivity – Biodiversity” map

Clause 7.3 Flood planning area

The land is identified as being flood affected. Council’s Development Engineering Officer has assessed the application submission in this regard and has not raised any objections subject to conditions.

Clause 7.5 Acid Sulfate Soils

The subject site is identified as being affected by Class 5 acid sulphate soils and is less than 100m from a Class 4 acid sulphate soils area. However as the proposed works for the development are to be located at and above 21m A.H.D and are not likely to lower the water table beyond 1m it is considered that there is minimal impact. The application submission has been assessed by Council’s Environment Officer in this regard and is considered satisfactory.

Clause 7.6 Earthworks

Earthworks associated with the proposal are considered minor, reflective of normal residential construction and thus acceptable in this circumstance. Council's Geotechnical Officer has assessed the application submission and considered it satisfactory subject to conditions.

CHAPTER A1 – INTRODUCTION

8 Variations to development controls in the DCP

The applicant proposes variations to Clauses 4.1.2(1) of Chapter B1. The variation request is considered justified and supportable. See considerations at Chapter B1 Residential Development table below.

CHAPTER A2: ECOLOGICALLY SUSTAINABLE DEVELOPMENT

Development controls to improve the sustainability of development throughout Wollongong are integrated into the relevant chapters of this DCP.

Generally speaking, the proposal could be considered to be consistent with the principles of Ecologically Sustainable Development.

CHAPTER B1 – RESIDENTIAL DEVELOPMENT

4.0 General Residential controls

<i>Controls/objectives</i>	<i>Comment</i>	<i>Compliance</i>
4.1 Maximum Number of Storeys		
<ul style="list-style-type: none">Battle axe allotments - 1 storeyR2 where development occurs within the 8m rear setback the development is limited to single storey.Built form that has a positive impact on the visual amenity of the area and addresses site constraints and overlooking of neighbouring properties	<p>Proposed Unit 2A: Two (2) Storeys (6.55m overall height)</p> <p>Proposed unit 2B: Two (2) Storeys (5.025m overall height)</p> <p>Rear Setback:</p> <p>Unit 2A: 11.285m to first floor</p> <p>Unit 2B: 7.635m (single storey component)</p> <p>The proposed dwellings will have minimal impact on the visual amenity of the area and on the amenity of the adjoining properties.</p>	<p>No -refer to considerations below</p> <p>Yes</p> <p>Yes</p>
Justification for Number of Storeys Variation:		
<p>The applicant has proposed two (2) storey dwellings, Units 2A and 2B on proposed Lot 2 a battle-axe allotment requesting a variation to Council's controls. A copy of the variation request statement is provided at Attachment 3. It is considered that the variation can be supported for the following reasons:</p> <ul style="list-style-type: none">It is considered that the proposed development will have minimal impact on the streetscape and the natural setting of the area. The proposed dwellings are separated by distance and roof form from each other and the existing dwelling on the relatively large site. This separation of the buildings is consistent with the built environment of the adjacent and surrounding land. The proposed dwellings fit below the tree canopy line and are screened from the street by existing dwelling to be retained, adjoining development and existing mature vegetation.The variation for Unit 2B is considered to be a minor point encroachment as can be seen in Figure 1 below with the remainder of the dwelling		<p>Variation request considered and capable of support</p>

presenting as a single storey development.

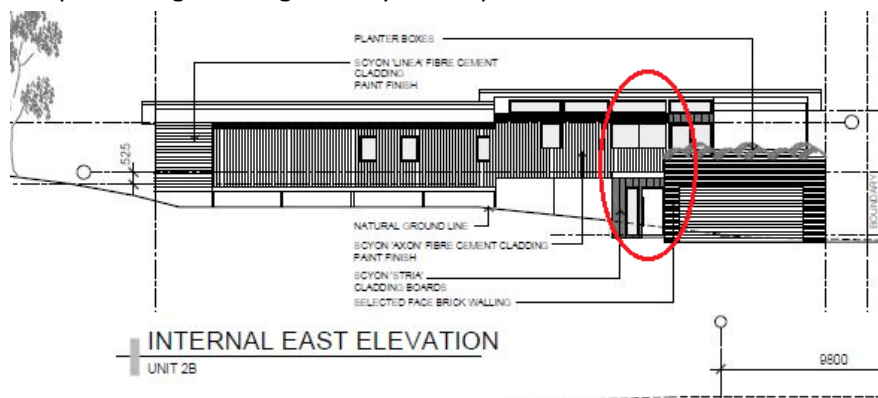


Figure 3: Extent of side setback variation highlighted in yellow.

- The proposed development will have minimal impact on the adjoining dwellings in terms of overlooking for the following reasons:
 - The upper level windows on the eastern elevation of Unit 2A consist of highlight windows within the hallway and bedroom window. Windows on the upper level of the rear elevation consist of bathroom windows. Amended plans now indicate that the dining room window on the ground floor has been changed to highlight window so as to minimise overlooking impacts from higher usage areas.
 - Unit 2B presents as a single storey dwelling to the adjoining property to the West due to the topography of the site which results in a cross fall to the East.
 - Reasonable setbacks consisting of 1m (West) for Unit 2B and 0.95m to the ground floor and 4.07m to the first floor (East) for Unit 2A have been maintained to the side boundaries. The amended proposal has increased the ground floor setback of Unit 2A from a minimum of 0.95m to 2.06m and the maximum setback increased from 2.06m to 4.07m so as to minimise overlooking impacts.
 - The private open space has been set to the rear and the living areas have been set on the ground floor of Unit 2A and have been screened to the East by landscaping and privacy screens to minimise overlooking.
- The proposed development will have minimal impact on the adjoining dwellings in terms of overshadowing for the following reasons:
 - Reasonable setbacks have been proposed to the site boundaries.
 - Reasonable separation distances have been maintained between the proposed dwellings and the adjoining dwellings to the North, East and West.
 - Reasonable building heights have been proposed. The proposed dwellings are approximately 2.45m for Unit 2A and 3.975m for Unit 2B below the 9m maximum building height.
 - The proposal complies with bulk and scale controls.
- The proposed dwelling has been designed to be sympathetic to and address site constraints.
- It is considered that the building character and form of the proposed

dwelling is reasonable in this circumstance. There are dwellings of similar bulk and scale within the immediate vicinity of the subject site.

- Although the numerical requirements have not been strictly met in this circumstance it is considered that the objectives of the clause have been met ensuring minimal impact on the street scene and on the amenity of the adjoining dwellings. It is considered that the maximum number of storeys of the proposed dwellings is acceptable in this circumstance in order to satisfy the objectives of the clause.

4.2 Front Setbacks

• Infill 6m min or dependent on street character	Proposed Lot 1: 12m (Existing dwellings front setback is to remain unchanged).	Yes
• Less than 6 metres where the prevailing street character permits and the future desired character of the area is not prejudiced.	Unit 2A: 48.648m from the Coast Street boundary.	Yes
• Garages and carports 5.5m min	Unit 2B: 35.71m to the Coast Street boundary	Yes

4.3 Side and Rear Setbacks

• Wall Setback: 0.9m min	Unit 2A	
• 3m where the wall height exceeds 7m	Proposed to Wall: 2.06m (East) 1.095m (West)	Yes Yes
• Eave Setback: 0.45m	Unit 2B	
• Rear Setback 8m	Proposed to Wall: 0.9m (East) 1m (West)	Yes Yes
	<u>Rear setbacks</u>	
	Unit 2A: 11.285m	Yes
	Unit 2B: 7.185m	Yes

4.4 Site Coverage

The maximum site coverage for a dwelling, dual occupancy, and combined maximum coverage for a principle dwelling and secondary dwelling, is as follows:

• 55% of the area of the lot, if the lot has an area less than 450m ² .	Proposed site coverage:	
• 50% of the area of the lot, if the lot has an area of at least 450m ² but less than 900m ² .	Lot 1: 14.98% (105.7m ² /705.6m ²).	Yes
• 40% of the area of the lot, if the lot has an area of at least 900m ² .	Lot 201: 21.8% (111.035m ² /508.1m ²).	Yes
	Lot 202: 45.75% (184.697m ² /403.75m ²).	Yes

4.5 Landscaped Area

• Minimum Required 20% permeable area capable of growing trees, shrubs, groundcover and/or lawn.	Proposed Lot 1: Approximately 59.8%.	Yes
• 50% behind the building line to the primary road	Proposed Lot 201: Approximately 51%	Yes
	Proposed Lot 202: Approximately 29%	Yes
	The proposed development satisfies the objectives of Council's landscaped area	

- Integrated with drainage design

controls and policies.

Council's Landscape Officer has raised no objections to the proposed landscaping.

4.6 Private Open Space

- 24m² of private open space must be directly accessible from the living areas; min width of 4m and no steeper than 1:50.
- Not to be located on side boundaries or front yards without variation.

Unit 2A has a 24m² area of private open space. Amended plans indicate that this private open space previously located on the Eastern elevation of Unit 2A of has now been relocated to the rear of Unit 2A.

Unit 2B has a 24m² area of private open space in the form of a deck over the lower ground floor garage. This deck does not project forward of the building line of Unit 2B and has been oriented North on the lot so as to maximise solar access. It is considered that the private open space will have minimal impact on the adjoining property to the West in terms of overlooking as Unit 2B presents as a single storey dwelling to the West due to the topography of the site. A condition at **Attachment 5** requires a continuous hedge along the entire length of the Western side of the Private Open Space for Unit 2B so as to minimise privacy impact on the adjoining property to the West.

The proposed development satisfies the objectives and standards of Council's private open space controls.

Yes

4.7 Solar Access Requirements

- Windows to living rooms of adjoining dwellings must receive at least 3hrs continuous sunlight between 9.00am - 3.00pm on 21 June.
- At least 50% of the private open areas of adjoining residential properties must receive at least 3hrs continuous sunlight between 9.00am - 3.00pm on June 21.

The proposed dual occupancy development will have minimal impact on adjoining properties in terms of Solar Access as reasonable setbacks and building heights have been maintained.

The dwellings have been oriented so as to maximise the amount of sunlight received by the living areas and private open space.

It is considered that the proposed development can receive a reasonable amount of sunlight to private open space areas.

Yes

4.8 Building Character and Form

- Design, height and siting of a new dwelling-house or secondary dwelling must respond to its site context
- New dwelling-houses within established residential areas should be sympathetic with the existing character of the immediate locality.
- All residential buildings must be designed with building frontages and entries clearly addressing the street frontage.
- Where garages are proposed on the front elevation they must be articulated from the front façade.
- Where the garage door addresses the street they must be a maximum of 50% of the width of the dwelling.

The proposed development will have minimal impact on the established residential character of the area.

The proposed dwelling frontages and entries for Unit 2A though set well to the rear of the existing dwelling clearly have been orientated to address Coast Street.

Unit 2B is predominantly screened from Coast Street by the existing dwelling to be retained on the subject site. The entries of Unit 2B have been oriented to address the Right of Way accessing the dwelling.

The open parking space for the existing dwelling is screened from the streetscape.

The proposal is considered to satisfy the built form requirements

Yes

4.9 Fences

- Fences must be constructed to allow natural flow of stormwater or runoff.
- Fences within front and secondary building lines should be mainly constructed of transparent fence materials.
- Any fence or related retaining wall within the front setback from the primary road frontage must be a max 1.2m in height

Existing front boundary fencing/walls are to be retained.

A condition at **Attachment 5** requires the development to be provided with fencing not exceeding 1.8m on side and rear boundaries.

Yes

4.10 Car parking and Access

- 2 spaces per dwelling with a GFA of greater than 125m²
- Car parking spaces may be open hard stand space, driveway, carport or a garage.
- Garage door facing roads—not greater than 50% of the width of the dwelling.
- Garages must be setback min of 5.5m from front boundary.
- Driveways shall be separated from side boundaries by a minimum of 1m.
- Driveways shall have a max cross-

The proposal includes a double garage in each dwelling and an open hard stand space for the existing dwelling. It is considered the proposed garages satisfy AS2890.

The proposed garages are setback greater than 5.5m from the front boundary.

The proposed dwelling frontages and entries for Unit 2A though set well to the rear of the existing dwelling clearly have been orientated to address Coast Street.

Council's Development Engineering Officer has raised no objections to the

Yes

Yes

over width of 3m.	proposed access arrangements. The proposed development satisfies the objectives of Council's Car Parking and Access controls and policies.	
<u>4.11 Storage Facilities</u>		
<ul style="list-style-type: none"> 3 bedroom- 10m³ storage volume to 5m² storage area 	The proposed development will provide adequate storage facilities.	Yes
<u>4.12 Site Facilities</u>		
<ul style="list-style-type: none"> letterboxes in an accessible location air-con, satellite dishes and other ancillary structures to be located away from street frontage, not in a place where they are a skyline feature and adequately setback 	The necessary site facilities have been provided and are acceptable in this circumstance.	Yes
<u>4.13 Fire Brigade Servicing</u>		
<ul style="list-style-type: none"> All dwellings located within 60m of a fire hydrant 	The subject site can be adequately serviced by fire fighting vehicles in this circumstance.	Yes
<u>4.14 Services</u>		
<ul style="list-style-type: none"> Encourage early consideration of servicing requirements 	Water, electricity, sewage and telephone services are available to the site	Yes
<u>4.15 Development near the coastline</u>		
<ul style="list-style-type: none"> Must minimise built intrusions into coastal landscape Retain views to the ocean from roads and public spaces Maintain buildings consistent with coastal character 	Not Applicable	Yes
<u>4.16 View sharing</u>		
<ul style="list-style-type: none"> To protect and enhance view sharing, significant view corridors A range of view sharing measures to be considered for building design 	The proposed development will have minimal impact on view corridors of existing development.	Yes
<u>4.17 Retaining walls</u>		
<ul style="list-style-type: none"> To ensure well designed retaining walls that are structurally sound 	The proposed retaining walls are considered acceptable in this circumstance.	Yes
<u>4.21 Additional controls for Dual Occupancies minimum site width</u>		
<ul style="list-style-type: none"> Provide sites adequate for buildings, car parking, POS, landscaping Sites must not be significantly 	The subject site has a minimum width of 20.134m. The minimum depth of the subject site 76.609m.	Yes

constrained by flood, geotechnical or other environmental hazards	Proposed Lot 2 on which it is proposed to locate the proposed dual occupancy has a minimum site width of 20.134m and minimum depth of 38.832m. The proposed development satisfies the objectives of Council's additional controls for dual occupancies site width in this circumstance.	
<p><u>4.22 Additional controls for Dual Occupancies –building character and form</u></p> <ul style="list-style-type: none"> Controls for corner allotments Controls for garages proposed on the front elevation Design compatibility between each dual occupancy in relation to alterations and additions Existing garages and outbuildings can not be used as a dual occupancy <p><u>4.23 Additional Controls for Dual Occupancy's – Deep Soil Zones</u></p> <ul style="list-style-type: none"> A minimum of half of the landscaped area must be provided as a deep soil zone. The deep soil zone may be located in any position on the site, subject to this area having a minimum dimension of 3m. The deep soil zone must be located outside the minimum private open space required. 	<p>The proposed development satisfies the objectives and standards of Council's additional controls for dual occupancies – building character and form in this circumstance.</p> <p>Lot 201 (Unit 2A) Deep Soil Zone: 4.3m wide and 10.63% of site area.</p> <p>Lot 202 (Unit 2B) Deep Soil Zone: 4.5m wide and 10.15% of site area.</p> <p>The deep soil zones have been densely planted with trees and shrubs and/or include the retention of existing mature trees.</p> <p>Council's Landscape Officer has raised no objections to the proposed landscaping.</p>	<p>Yes</p> <p>Yes</p> <p>Yes</p>

CHAPTER B2 – RESIDENTIAL SUBDIVISION

<i>Controls/objectives</i>	<i>Comment</i>	<i>Compliance</i>
<u>5 Topography & natural landform</u>	It is considered that the proposed subdivisions takes into account the site constraints and will have minimal impact on the significant features of the site in this circumstance.	Yes

6 Subdivision layout – aspect & solar access orientation

The proposed lots allow for reasonable siting of the proposed dwellings to satisfy the objectives of Council's boundary setback requirements so as to have minimal impact on the adjoining properties in terms of overshadowing and to allow reasonable solar access to the proposed dwellings.

It is considered that the proposed subdivision lot layout satisfies the objectives of clause 6 subdivision lot layout – aspect and solar access orientation in this circumstance.

Yes

7 Minimum allotment size requirements

The minimum allotment size for the subdivision of land under Part 4.1 of WLEP2009 is 449m². The proposed phase 2 two (2) lot Torrens title subdivision will result in Lot sizes of 705.6m² for Lot 1 and 875.97m² excluding the access handle for Lot 2 which are both compliant with the clause.

Phase 4 of the proposal involves a two (2) lot Torrens title subdivision of the newly constructed dual occupancy. Subclause 4.1(4C) identifies that clause 4.1 does not apply in relation to the subdivision of an existing dual occupancy. A condition relating to the issue of an Occupation Certificate for the detached dual occupancy prior to the application for the phase 4 Torrens title subdivision so that the proposal satisfies subclause 4.1(4C) is included at **Attachment 5**.

Yes

8 Lot width & depth requirements

The Phase 2 two (2) lot Torrens title subdivision will result in lot width of 18.139m and depth of 33.11m for the front lot (Lot 1) and a battle axe allotment with a maximum width of 20.135m and minimum depth of 43.5m

The minimum lot size does not apply to the proposed subdivision of the dual occupancies once constructed to create the proposed lots 201 and 202 therefore it is considered that the minimum lot widths and depths are not required for the Phase 4 two (2) lot Torrens title subdivision of Units 2A and 2B.

Advice received from Council's Development Engineering Officer indicates there are no issues with the proposed lots widths and depths.

Yes

9 Battle-axe allotments

The proposed Phase 2 Torrens Title subdivision will create a battle-axe allotment, Lot 2. The lot configuration is considered acceptable in

Yes

	<p>this circumstance.</p> <p>The access handle is 2m in width and has direct connectivity to Coast Street. Advice received from Council's Development Engineering Officer is such that there are no issues with the proposed access arrangements.</p> <p>The proposed Phase 4 Torrens Title subdivision will create two (2) battle-axe allotments, Lots 201 and 202. The lot configurations are considered acceptable in this circumstance.</p> <p>The access handle for each lot is 1m in width with direct connectivity to Coast Street. Advice received from Council's Development Engineering Officer is such that there are no issues with the proposed access arrangements.</p> <p>A road pavement with a minimum width of 3.5m is maintained for the length of the proposed Right of Carriage Way accessing the proposed lots.</p> <p>A 1m landscaping strip has been provided along the entire Eastern side of the road pavement.</p> <p>Council's Landscape Officer has raised no issues with the proposed landscaping.</p> <p>Advice provided by Council's Development Engineering Officer indicates there are no issues with the proposed battle-axe lots.</p>	
<u>10 Building envelopes</u>	<p>It is considered that a suitable building envelope is available on the proposed lots with natural site constraints and flooding matters having been taken into account.</p> <p>The proposed lots allow for reasonable siting of the proposed dwellings to satisfy the objectives of Council's boundary setback requirements so as to have minimal impact on the adjoining properties in terms of overshadowing and to allow reasonable solar access to the proposed dwellings.</p>	Yes
<u>13 Cut and fill land re-shaping works</u>	<p>The proposal involves earthworks to facilitate the proposed development.</p> <p>The application submission was referred to Council's Geotechnical, Development Engineering and Environment Officers for comment and no objections were raised</p>	Yes

	subject to conditions. It is considered that the earthworks will have minimal detrimental impact on environmental functions and processes, neighbouring uses items and features of the surrounding land.	
<u>17 Street tree planting</u>	The application submission was referred to Council's Landscape Officer and no street tree planting was considered necessary in this circumstance.	N/A
<u>33 NSW fire brigade access - fire hydrants</u>	<p>It is considered that the subject site can be adequately serviced by fire fighting vehicles in this circumstance.</p> <p>A condition at Attachment 5 requires hydrant servicing provision should a hydrant be required under the NSW Fire & Rescue guidelines.</p> <p>It is noted that a condition of the NSW Rural Fire Services Bushfire Safety Authority as at Attachment 5 is that water for fire-fighting purposes be provided in accordance with the requirements of Planning for Bushfire Protection 2006.</p>	Yes
<u>34 Bush fire protection</u>	Details of the application submission were referred to the NSW Rural Fire Service for a bushfire safety authority under Section 100B of the Rural Fires Act 1997 as the application submission proposed subdivision on bushfire prone land. Advice received indicates the proposal is considered conditionally satisfactory and the Bushfire Safety Authority issued.	Yes
<u>35 Stormwater drainage (including water sensitive urban design infrastructure)</u>	<p>The proposed development satisfies the objectives of Council's stormwater drainage controls in this circumstance.</p> <p>Advice provided by Council's Development Engineering Officer indicates there are no issues with the proposal subject to conditions.</p>	Yes
<u>37 Servicing arrangements</u>	Conditions at Attachment 5 require the	Yes

<u>38 Monetary contributions towards the provision of public services and amenities</u>	submission of documentary evidence from the relevant authorities relating to the connection of electricity, telecommunications, water and sewage to service the proposed lots.	
	A condition for S94A development contributions is included at Attachment 5 .	Yes
<u>40 Street numbering</u>	A condition in regards to street numbering is included at Attachment 5 .	Yes

CHAPTER D1: THIRROUL

Chapter D1 indicates that for the treed upper slopes of Thirroul moderately pitched roof lines are preferred, new dwellings on sloping sites should be stepped down the slope to minimise disturbance of the natural contours and designed to fit below the tree canopy line.

The proposal provides for retention of the existing dwelling, Torrens title subdivision creating a battle-axe allotment to the rear and dual occupancy development on the newly created rear lot on the subject site. The proposed dual occupancy dwellings are considered generally consistent with the future desired character of the leafy upper slopes of Thirroul proposing clad dwellings with moderately pitched iron roofing separated by distance and roof form from each other and the existing dwelling on the relatively large site. This separation of the buildings is consistent with the built environment of the adjacent and surrounding land. The proposed dwellings are considered to have been stepped to follow the cross fall of the site and minimise disturbance of the natural contours and fit below the tree canopy line.

Development within the vicinity of the subject site is characterised by residential development within a leafy setting. Adjoining development consists of a double storey dwelling to the West. The adjoining lot to the East has been subdivided and has a two (2) storey dwelling on the front lot and a two (2) storey dwelling on the rear, battle-axe allotment created by the subdivision. Site Inspection Photos are provided at **Attachment 3** to the original assessment report presented to WLPP on 10 April. Further examples of larger being subdivided to create battle-axe allotments with large dwellings constructed on the rear lot can be found within close proximity to the site as can be seen at **Figure 1** of the original assessment report presented to WLPP on 10 April.

The proposed development is a permissible use in the R2 zone and satisfies controls for dual occupancy development under Wollongong Development Control Plan 2009. The proposal is considered to not detract from the existing character of Thirroul and is compatible with the desired future character for the locality.

CHAPTER E3: CAR PARKING, ACCESS, SERVICING/LOADING FACILITIES AND TRAFFIC MANAGEMENT

Council's Development Engineering Officer has reviewed the proposal in relation to this chapter and provided a satisfactory response commenting that the number of parking spaces, access arrangements and manoeuvring are acceptable. Conditions have been included at **Attachment 5** relating to these matters.

CHAPTER E6: LANDSCAPING

The proposed landscape plan was referred to Council's Landscape Officer for comment with referral advice indicating the proposal as satisfactory subject to conditions.

CHAPTER E7: WASTE MANAGEMENT

It is considered that the proposed development satisfies the objectives of this Chapter. Council's street waste collection service is to be utilised.

CHAPTER E12 GEOTECHNICAL ASSESSMENT

The application has been reviewed by Council's Geotechnical Officer in relation to site stability and the suitability of the site for the development. Appropriate conditions have been recommended and are included at **Attachment 5**.

CHAPTER E13 FLOODPLAIN MANAGEMENT

Council's Development Engineering Officer has assessed the application in this regard against the submitted flood study and has not raised any issues subject to draft conditions.

CHAPTER E14 STORMWATER MANAGEMENT

Council's Development Engineering Officer has assessed the application in this regard against the submitted concept stormwater drainage plan and has not raised any issues subject to draft conditions.

CHAPTER E16 BUSHFIRE MANAGEMENT

Council records indicate that the subject site is located within a bushfire prone area therefore the proposal has been assessed having regard to the provisions of Planning for Bushfire Protection (PBP) 2006.

Details of the application submission were referred to the NSW Rural Fire Service as required under Section 100B of the NSW Rural Fires Act 1997 for a Bushfire Safety Authority. Advice received indicates the proposal is considered conditionally satisfactory.

The NSW Rural Fire Service recommended conditions are contained in the conditions at **Attachment 5** of this report.

CHAPTER E17 PRESERVATION AND MANAGEMENT OF TREES AND VEGETATION

The application proposes the removal of several trees to facilitate the proposal. Council's Landscape and Environment Officers have assessed the application submission, which included an Arborist Report in conjunction with an independent Arborist Report commissioned by Council's Landscape Officer. Conditionally satisfactory referral advice was received and conditions as at **Attachment 6** specify trees to be removed, trees to be retained, compensatory plantings and tree protection and management.

CHAPTER E18 THREATENED SPECIES

The application submission has been assessed in regards to threatened species. It is noted that particular consideration was given to Tree 12 (Magenta Lilly Pilly) and Tree 21 (Wallangarra White Gum) both threatened species and Tree 20 (Lemon Scented Gum) in the original assessment report presented to WLPP on 10 April.

Tree 21 was originally proposed to be removed however Council's Landscape Officer has recommended its retention which is reflected in Condition 10 at **Attachment 5**.

It is noted by Council's Environment Officer that although Tree 12 (Magenta Lilly Pilly) and Tree 21 (Wallangarra White Gum) are both threatened species, Tree 12 is considered a planted specimen based on its habit, location and review of aerial photos and Tree 21 is not considered endemic to the area therefore a 5 part test as per Section 7.3 of the Biodiversity Conservation Act is not required.

CHAPTER E19 EARTHWORKS (LAND RESHAPING WORKS)

The proposal involves earthworks to facilitate the proposed development. A geotechnical report and information regarding the earthworks to reshape the land were submitted with the application.

The application submission was referred to Council's Geotechnical, Development Engineering and Environment Officers for comment and no objections were raised subject to conditions. It is considered that the earthworks will have minimal detrimental impact on environmental functions and processes, neighbouring uses items and features of the surrounding land.

CHAPTER E21 DEMOLITION AND ASBESTOS MANAGEMENT

The proposal will require demolition works. Appropriate conditions are included in **Attachment 5** of this report to minimise impacts and ensure that demolition is carried out to Council's and Work Safe NSW requirements.

CHAPTER E22 SOIL EROSION AND SEDIMENT CONTROL

Conditions are included in **Attachment 5** in this regard so as to minimise the impacts of the proposed works on the environment.

Attachment 5: Conditions

The development proposed is integrated development and approval is required from the approval bodies listed below:

NSW Rural Fire Service (RFS)

Pursuant to s100B – authorisation under the Rural Fires Act 1997 – General Terms of Approval issued by the NSW RFS dated 19 October 2018 as attached shall form part of this Notice of Determination.

Conditions imposed by Council as part of this Integrated Development Consent are:

Approved Plans and Specifications

- 1 The development shall be implemented substantially in accordance with the details and specifications set out on Job No DML 17/028 Drawing A-01-D and A02-C to A-06-C dated 15 April 2019, SD-01-D and SD-02-D dated 15 April 2019 and L-02-C dated 17 April 2019 prepared by Develop My Land and any details on the application form, and with any supporting information received, except as amended by the conditions specified and imposed hereunder.

General Matters

2 Phased Development

The development is to be undertaken in four (4) phases comprising the following:

Phase 1: Demolition of existing garage and tree removal.

Phase 2: Subdivision – Torrens title – two (2) residential lots (Lots 1 and 2) including access and services infrastructure.

Phase 3: Construction of a detached dual occupancy on Lot 2.

Phase 4: Subdivision – Torrens title – two (2) residential lots (Lots 201 and 202) of existing dual occupancy.

Separate Construction Certificates required for **Phases 2 and 3** with conditions as relevant to each phase to be met.

Separate Subdivision Certificates required for **Phases 2 and 4** with conditions as relevant to each phase to be met.

3 Phase 2 Subdivision

The Phase 2 subdivision creating Lot 1 and Lot 2 must be registered prior to the issue of the Construction Certificate for the **Phase 3** dual occupancy development. Proof of registration must be provided to Principal Certifying Authority.

4 Protection of Public Infrastructure

Council must be notified in the event of any existing damage to any of its infrastructure such as the road, kerb and gutter, road shoulder, footpath, drainage structures and street trees fronting the development site, prior to commencement of any work.

Adequate protection must be provided for Council infrastructure prior to work commencing and during building operations.

Any damage to Council's assets shall be made good, prior to the issue of any Occupation Certificate or commencement of the operation.

5 Geotechnical

- a All work is to be in accordance with the geotechnical recommendations contained in the report dated 24 August 2018 by Construction Sciences and any subsequent geotechnical report required to address unanticipated conditions encountered during construction.
- b Foundation systems are to be designed for Class P soils with all footings to be founded within the underlying hard natural clay or as recommended by the geotechnical consultant.
- c All excavations for foundations are to be inspected by the geotechnical consultant and certified that the ground has been suitably prepared for the placement of footings.

- 6 **Building Work - Compliance with the Building Code of Australia**
All building work must be carried out in compliance with the provisions of the Building Code of Australia.
- 7 **Construction Certificate**
A Construction Certificate must be obtained from Council or an Accredited Certifier prior to work commencing.

A Construction Certificate certifies that the provisions of Clauses 139-148 of the Environmental Planning and Assessment Amendment Regulations, 2000 have been satisfied, including compliance with all relevant conditions of Development Consent and the Building Code of Australia.

Note: The submission to Council of two (2) copies of all stamped Construction Certificate plans and supporting documentation is required within **two (2)** days from the date of issue of the Construction Certificate, in the event that the Construction Certificate is not issued by Council.
- 8 **Mailboxes**
The developer must install mailboxes along street frontage of the property boundary in accordance with Australia Post Guidelines. Prominent house numbers are to be displayed, with a minimum number size of 150 mm in height for each number and letter in the alphabet. The developer must install minimum two (2 No.) reflective paint house number on face of kerb along street frontage of the property to assist emergency services/deliveries/visitors
- 9 **Occupation Certificate**
An Occupation Certificate must be issued by the Principal Certifying Authority prior to occupation or use of the development. In issuing an Occupation Certificate, the Principal Certifying Authority must be satisfied that the requirements of section 6.9 of the Environmental Planning and Assessment Act 1979, have been complied with as well as all of the conditions of the Development Consent.
- 10 **Tree Management**
The developer shall retain existing trees indicated on Concept Landscape Plan by DML Dwg. No. L01 Issue C dated 17 Apr 19 consisting of tree numbered 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 14, 15, 16, 17, 19, 20, 21, 22, 23, 24 & 25. Total number: twenty-one (21 No.)

Any branch or root pruning which has been given approval, must be carried out by a qualified arborist in accordance with Australian Standard AS4373 (2007).

All tree protection measures are to be installed in accordance with Australian standard AS4790-2009 Protection of Trees on development Sites.

Recommendations in arborist's report Ref. No. D3347B dated Aug 2018 Amended Feb 2019 & 14 May 19 by Allied Tree Consultancy Author Matthew Reed & checked Warwick Varley to be implemented including and not restricted to: project arborist being present during work within Structural Root Zone (SRZ) and supervising work within Tree Protection Zones (TPZ), site induction with reference to tree protection, referring matters to project arborist, re routing of sub surface utilities to avoid TPZ & SRZs in particular re-routing stormwater pipe near tree 22, hand excavation within TPZ near tree roots, remedial tree pruning, deadwooding, fencing and signage, sediment buffer, stem protection, establishing TPZs, mulching and watering and root hormone application if required. Soil levels within the TPZ must remain the same.

The developer shall remove existing trees numbered 11, 12, 13 & 18. Total number: four (4 No.)
No other trees shall be removed without prior written approval of Council.

Prior to the Issue of the Construction Certificate

- 11 **Overland Flows from Adjoining Properties**
Stormwater flows from adjoining properties shall be accepted, contained and directed to the proposed stormwater management system on site. Finished ground/surface levels (including structures such as kerbs, walls etc.) shall be no higher than the existing upslope adjacent ground levels. Fences provided along the upslope boundaries shall include a suitable and continuous gap

under the fence to allow for surface runoff. Overflow paths shall be maintained to cater for flows in excess of the capacity of the underground stormwater system.

12 Privacy Screen

The Eastern elevation of the ground floor deck off the living room of Unit 2A and the entire length of the Eastern boundary of the private open space for Unit 2A shall be screened by a 1.5m high privacy screen.

These details shall be reflected on the Construction Certificate plans and supporting documentation for the endorsement of the Principal Certifying Authority prior to the issue of the Construction Certificate.

13 Structural Engineering Details

Structural engineering details prepared by a suitably qualified and experienced structural engineer (with appropriate insurance coverage) shall be submitted to the Principal Certifying Authority prior to the release of the Construction Certificate addressing the following matters:

- a Footings;
- b reinforced concrete slabs;
- c retaining walls;
- d structural steelwork;
- e wall bracing and tie-down requirements;
- f the structural engineer, in producing a design is to complement the Geotechnical Engineer's Stability Report (Reference No.5017190061 LT:mrw dated 24 August 2018 prepared by Network Geotechnics Pty Ltd) to make a clear statement that "any structure designed and erected in accordance with the plans and specifications will achieve the performance requirements described in Clause 1.3 of AS2870 (1996) and any other relevant codes and standards."

14 Present Plans to Sydney Water

Approved plans must be submitted online using Sydney Water Tap, available through www.sydneywater.com.au to determine whether the development will affect Sydney Water's sewer and water mains, stormwater drains and/or easements, and if further requirements need to be met.

The Certifying Authority must ensure that Sydney Water has issued an approval receipt prior to the issue of a Construction Certificate.

Visit www.sydneywater.com.au or telephone 13 20 92 for further information.

15 Endeavour Energy Requirements

The submission of documentary evidence from Endeavour Energy to the Principal Certifying Authority is required confirming that satisfactory arrangements have been made with Endeavour Energy for the provision of electricity supplies to the development, prior to the release of the Construction Certificate.

Note: Applications should be made to Customer Connections – South Coast, Endeavour Energy PO Box 811 Seven Hills NSW 1730.

16 Telecommunications

The submission of documentary evidence from an approved telecommunications carrier to the Principal Certifying Authority confirming that underground telecommunication services are available for this development is required prior to the issue of the Construction Certificate.

17 Obscure Glazing for all Bathroom and WC Windows

The bathroom and WC windows for each dwelling in the development shall be frosted or opaque glass. This requirement shall be reflected on the Construction Certificate plans.

18 Provision of Planter Boxes

The provision of planter boxes is required along the outer Northern and Eastern edges of the balconies/terrace areas for Units U2B in the development. Minimum dimensions of planter boxes to be 750mm deep x 1200mm wide. The planter box drainage must be connected to the

stormwater drainage system. This requirement is to be reflected on the Construction Certificate plans and final landscape plan.

19 **Fencing**

The development is to be provided with fencing and screen walls at full cost to the applicant/developer as follows:

- a where a screen wall faces the road, pedestrian walkway, reserve or public place that wall shall be constructed of the same brickwork as that used in the external wall of the building;
- b rear and side property boundaries (behind the building line) and private rear courtyards are to be provided with minimum 1.8 metre high brick, timber lapped and capped, palisade or colorbond fences;
- c any new fences or screens constructed on the site shall be of a type that will not obstruct the free flow of surface runoff from adjoining properties and be compatible with stormwater drainage requirements;
- d comply with the principles in Appendix 5 of Planning for Bush Fire Protection 2006 and Standards for Asset Protection Zones (NSW Rural Fire Service) and recommendations included in Bushfire Assessment report by Harris Environmental Author Kate Harris dated 3 Aug 2018; and;
- e fencing to suit character of local area.

This requirement is to be reflected on the Construction Certificate plans.

- 20 The parking dimensions, internal circulation, aisle widths, kerb splay corners, head clearance heights, ramp widths and grades of the car parking areas are to be in conformity with the current relevant Australian Standard AS2890.1, except where amended by other conditions of this consent. Details of such compliance are to be reflected on the Construction Certificate plans.

21 **Structures Adjacent to Driveway**

Any proposed structures adjacent to the driveway shall comply with the requirements of the current relevant Australian Standard AS2890.1 (figure 3.2 and 3.3) to provide for adequate pedestrian and vehicle sight distance. This includes, but is not limited to, structures such as signs, letterboxes, retaining walls, dense planting etc. This requirement shall be reflected on the Construction Certificate plans.

- 22 The depth and location of all services (ie gas, water, sewer, electricity, telephone, traffic lights, etc) must be ascertained and reflected on the Construction Certificate plans and supporting documentation.

23 **Landscaping**

The submission of a final Landscape Plan to the Principal Certifying Authority, prior to the release of the Construction Certificate. The final Landscape Plan shall address the following requirements:

- a planting of indigenous plant species typical of the Illawarra Region such as: *Syzygium smithii* (formerly *Acmena smithii*) Lilly pilly, *Archontophoenix cunninghamiana* Bangalow palm, *Backhousia myrtifolia* Grey myrtle, *Elaeocarpus reticulatus* Blueberry ash, *Glochidion ferdinandii* Cheese tree, *Livistona australis* Cabbage palm tree, *Brachychiton acerifolius* Illawarra Flame Tree. A further list of suitable suggested species for the Thirroul area may be found in Wollongong Development Control Plan 2009 – Chapter E6: Landscaping;
- b a schedule of proposed planting, including botanic name, common name, expected mature height and staking requirements as well as number of plants and pot sizes;
- c the location of all proposed and existing overhead and underground service lines. The location of such service lines shall be clear of the dripline of existing and proposed trees;
- d any proposed hard surface under the canopy of an existing trees shall be permeable and must be laid such that the finished surface levels match the existing level. Permeable paving is to be installed in accordance with the manufacturer's recommendations;

- e the developer shall ensure that proposed planting is child friendly and must **not** include any of the types of plants listed below: **i)** plants known to produce toxins; **ii)** plant with high allergen properties; **vi)** any weed or potential weed species; and;
- f landscaping to the site is to comply with the principles in Appendix 5 of Planning for Bush Fire Protection 2006 and Standards for Asset Protection Zones (NSW Rural Fire Service), take into consideration PBP 2018 and recommendations included in Bushfire Assessment report by Harris Environmental Author Kate Harris dated 3 August 2018;
- g retaining walling near trees 8 – 11 to be retained, and furthermore some portion of existing sandstone stone walling to be retained/refurbished/ re used within new works exhibiting high degree of workmanship;
- h where turf is proposed adjacent to built structures and garden beds the applicant shall install a 110mm wide brick mowing edge with concrete footing to minimise maintenance; and;
- i any fill material should not cover topsoil. Topsoil shall be removed, stockpiled, ameliorated and replaced over any fill material to a minimum depth of 100mm.

The completion of the landscaping works as per the final approved Landscape Plan is required, prior to the issue of Occupation Certificate or commencement of the development.

- 24 The submission of certification from a suitably qualified and experienced landscape designer and drainage consultant to the Principal Certifying Authority prior to the release of the Construction Certificate, confirming that the landscape plan and the drainage plan are compatible.

- 25 The implementation of a landscape maintenance program in accordance with the approved Landscape Plan for a minimum period of 12 months to ensure that all landscape work becomes well established by regular maintenance. Details of the program must be submitted with the Landscape Plan to the Principal Certifying Authority prior to release of the Construction Certificate.

26 **Compensatory Planting**

The developer must make compensatory provision for the trees required to be removed as a result of the development. In this regard, four (4 No.) 75 litre container advanced mature plant stock shall be placed within the property boundary of the site in appropriate locations. The suggested species are to be selected from the following list: *Elaeocarpus reticulatus* Blueberry ash, *Livistona australis* Cabbage palm tree, or *Brachychiton acerifolius* Illawarra Flame Tree. A further list of suitable suggested species may be found in Wollongong Development Control Plan 2009 – Chapter E6: Landscaping.

27 **Tree Protection Measures**

The existing trees are to be retained upon the subject property and any trees on adjoining properties shall not be impacted upon during the excavation or construction phases of the development. This will require the installation and maintenance of appropriate tree protection measures, including (but not necessarily limited to) the following:

- a Installation of Tree Protection Fencing - Protective fencing shall be 1.8 metre cyclone chainmesh fence, with posts and portable concrete footings. Details and location of protective fencing must be indicated on the architectural and engineering plans to be submitted to the Principal Certifying Authority prior to release of the Construction Certificate.
- b Mulch Tree Protection Zone: Areas within a Tree Protection Zone are to be mulched with minimum 75 mm thick 100% recycled hardwood chip/leaf litter mulch.
- c Irrigate: Areas within the Tree Protection Zone are to be regularly watered in accordance with the arborist's recommendations.

The submission of a final Site Plan to the Principal Certifying Authority indicating required tree protection fencing is required, prior to the release of the Construction Certificate.

28 **Bushfire Attack Level (BAL)**

- a Construction of the new dwellings on proposed Lot 201 and 202 shall comply with the Sections 3 and 5 (BAL 12.5) Australian Standard AS3959-2009 'Construction of

buildings in bush fire-prone areas' or NASH Standard (1.7.14 updated) 'National Standard Steel Framed Construction in Bushfire Areas – 2014' and section A3.7 Addendum Appendix 3 of 'Planning for Bush Fire Protection'.

The construction requirements for BAL 12.5 Australian Standard AS3959-2009 'Construction of buildings in bush fire-prone areas' or NASH Standard (1.7.14 updated) 'National Standard Steel Framed Construction in Bushfire Areas – 2014' and section A3.7 Addendum Appendix 3 of 'Planning for Bush Fire Protection' for the new dwellings on proposed Lot 201 and 202 shall be reflected on the Construction Certificate plans and supporting documentation for the endorsement of the Principal Certifying Authority prior to the issue of the Construction Certificate.

- b The existing building on proposed Lot 1 is required to be upgraded to improve ember protection. This is to be achieved by enclosing all openings (excluding roof tile spaces) or covering openings with a non-corrosive metal screen mesh with a maximum aperture of 2mm. Where applicable, this includes any sub floor areas, openable windows, vents, weepholes and eaves. External doors are to be fitted with draft excluders.

These details shall be reflected on the Construction Certificate plans and supporting documentation for the endorsement of the Principal Certifying Authority prior to the issue of the Construction Certificate.

29 Engineering Plans and Specifications - Retaining Wall Structures Greater than One (1) Metre

The submission of engineering plans and supporting documentation of all proposed retaining walls greater than 1m to the Principal Certifying Authority for approval prior to the issue of the Construction Certificate. The retaining walls shall be designed by a suitably qualified and experienced civil and/or structural engineer. The required engineering plans and supporting documentation shall include the following:

- a A plan of the wall showing location and proximity to property boundaries;
- b An elevation of the wall showing ground levels, maximum height of the wall, materials to be used and details of the footing design and longitudinal steps that may be required along the length of the wall;
- c Details of fencing or handrails to be erected on top of the wall;
- d Sections of the wall showing wall and footing design, property boundaries and backfill material. Sections shall be provided at sufficient intervals to determine the impact of the wall on existing ground levels. The developer shall note that the retaining wall and footing structure must be contained wholly within the subject property;
- e The proposed method of subsurface and surface drainage, including water disposal;
- f Reinforcing and joining details of any bend in the wall at the passing bay of the accessway;
- g The assumed loading used by the engineer for the wall design.
- h Flows from adjoining properties shall be accepted and catered for within the site. Finished ground and top of retaining wall levels on the boundary shall be no higher than the existing upslope adjacent ground levels.

30 Roof Water Connection to Kerb

Connection across footways shall be by means of one or two (maximum), sewer grade UPVC pipe(s), 100mm diameter pipes with a continuous downslope gradient to the kerb. Connection to the kerb shall be made with a rectangular, hot dipped galvanised mild steel weephole(s) shaped to suit the kerb profile, with each weephole having the capacity equal to a 100mm diameter pipe. Alternatively, a maximum of two 150mm x 100mm hot dipped galvanised steel pipes may be used across footways, with the 150mm dimension being parallel to the road surface to suit the kerb profile.

31 Property Addressing Policy Compliance

Prior to the issue of any construction certificate, the developer must ensure that any site addressing complies with Council's **Property Addressing Policy** (as amended). Where appropriate, the developer must also lodge a written request to Council's **Infrastructure**

Systems & Support – Property Addressing (propertyaddressing@wollongong.nsw.gov.au), for the site addressing prior to the issue of the construction certificate. Please allow up to 3-5 business days for a reply. Enquiries regarding property addressing may be made by calling 4227 8660.

32 Roofwater Drainage

All roof gutters and downpipes shall be designed to cater for a 1 in 100 year ARI storm event in accordance with the current version of AS 3500.3 - Plumbing and Drainage (Stormwater Drainage). Details of gutter/downpipe sizes and downpipe locations shall be reflected on the Construction Certificate plans.

33 Stormwater Drainage Design

A detailed drainage design for the development must be submitted to and approved by the Principal Certifying Authority prior to the release of the Construction Certificate. The detailed design is to form part of the construction certificate drawings. The detailed drainage design must satisfy the following requirements:

- a be prepared by a suitably qualified civil engineer in accordance with Chapter E14 of Wollongong City Council's Development Control Plan 2009, Subdivision Policy, conditions listed under this consent, and generally in accordance with the concept plan/s lodged for development approval, prepared by OPTIMA Consulting Engineers, Dwg No. OCE12998/C01/DA, issue A, dated July 2018.
- b Include details of the method of stormwater disposal. Stormwater from the development must be piped to the existing Council's culvert.
- c Engineering plans and supporting calculations for the stormwater drainage system are to be prepared by a suitably qualified engineer and be designed to ensure that stormwater runoff from upstream properties is conveyed through the site without adverse impact on the development or adjoining properties. The plan must indicate the method of disposal of all stormwater and must include rainwater tanks, existing ground levels, finished surface levels on all paved areas, estimated flow rates, invert levels and sizes of all pipelines,
- d Overflow paths shall be provided to allow for flows of water in excess of the capacity of the pipe/drainage system draining the land. Blocked pipe situations with 1 in 100 year ARI events shall be incorporated in the design. Overflow paths shall also be provided in low points and depressions. Each overflow path shall be designed to ensure no entry of surface water flows into any building and no concentration of surface water flows onto any adjoining property. Details of each overflow path shall be shown on the detailed drainage design.

34 On-Site Stormwater Detention (OSD) Design

The developer must provide on-site stormwater detention (OSD) storage for stormwater runoff from the development. The design and details of the OSD system must be provided in conjunction with the detailed drainage design and approved by the Principal Certifying Authority prior to the release of the Construction Certificate. The OSD design and details must satisfy the following requirements:

- a Must be prepared by a suitable qualified engineer in accordance with Chapter E14 of the Wollongong DCP 2009.
- b Must include details of the Site Storage Requirement (SSR) and Permissible Site Discharge (PSD) values for the site in accordance with Section 12.2.4 of Chapter E14 of the Wollongong DCP2009.
- c The OSD facility must be designed to withstand the maximum loadings occurring from any combination of traffic (with consideration to residential and heavy vehicles), hydrostatic, earth, and buoyancy forces. Details must be provided demonstrating these requirements have been achieved.
- d The OSD facility shall incorporate a minimum 900mm x 900mm square lockable grate for access and maintenance purposes, provision for safety, debris control screen, and a suitably graded invert to the outlet to prevent ponding.

- e Must include discharge control calculations (i.e. orifice/weir calculations) generally in accordance with Section 12.2.6 and 12.5.4 of Chapter E14 of the Wollongong DCP2009.
- f Details of the orifice plate including diameter of orifice and method of fixing shall be provided.
- g Must include details of a corrosion resistant identification plaque for location on or close to the OSD facility. The plaque shall include the following information and shall be installed prior to the issue of the occupation certificate:
 - The structure is an OSD facility, being part of the stormwater drainage network, and is not to be tampered with.
 - Identification number DA-2018/1071;
 - Any specialist maintenance requirements.
- h Must include a maintenance schedule for the OSD system must, generally in accordance with Chapter E14 of the Wollongong DCP2009.

35 Designated Overland Flow Paths

Details of each overland flow path located on the site shall be provided with the detailed drainage design. Each overland flow path shall be capable of catering for the 1 in 100 year storm event flows from the contributing catchment area, and where required, direct these flows to the on-site stormwater detention facility. The overland flow path shall be free of any vegetation and/or structures that are likely to impede natural overland flow, or make provision for such obstructions, so there will be no adverse stormwater impacts upon the subject land and adjoining properties. Full Manning's calculations shall be provided on the capacity of each overland flow path. These requirements shall be reflected on the Construction Certificate plans and supporting documentation.

36 Council Footpath Reserve Works

All redundant vehicular crossings and laybacks rendered unnecessary by this development must be reconstructed to normal kerb and gutter or existing edge of carriageway treatment to match the existing. The verge from the back of kerb to the boundary must be removed and the area appropriately graded, topsoiled and turfed in a manner that conforms with adjoining road reserve. The area forward of the front boundary must be kept smooth, even and free from any trip hazards. All alterations of public infrastructure where necessary are at the developer's expense.

All new driveway laybacks and driveway crossings must be designed in accordance with Wollongong City Council Standards. Details and locations are to be shown on the Construction Certificate Plans.

37 Driveway Width

The driveway crossover within Council's Road reserve is to be a maximum of 5.5 metres wide. This requirement shall be reflected on the Construction Certificate plans.

38 Accessway Design

A concrete accessway must be provided to the rear allotment to the following standards:

- a A minimum of 3.0 metre wide with a 1m landscaping strip along the Eastern side and a 1m turf strip along the Western side;
- b A minimum of 150mm thick, with a minimum 25MPa compressive strength after 28 days; and
- c Reinforced with a minimum SL72 mesh from the kerb for the full length of the access corridor underlain by a minimum 75 mm thickness of DGS20 compacted to 95% of modified density.
- d All accessways must be designed so that they have a minimum clearance of 4.5 metres from any overhanging eaves and obstructions.
- e Provision for the utility servicing of the rear/battleaxe lots with the installation of service conduits or provision of a minimum 0.5 metre wide unformed strip.

Drainage over the accessway must be contained in a kerb or central dish and conveyed to a public road or piped drainage system. Details of the accessway, including long-section, cross-

sections, typical cross-sections and the effect on adjoining land must be provided with the Construction Certificate.

39 Fire Hydrants

Each lot must be adequately serviced by a fire hydrant. Section 7 of *Fire Hydrants for Minor Residential Development, Version 2 dated 1 September 2016 produced by NSW Fire & Rescue* outlines the requirements in relation to private fire hydrants. Should a fire hydrant(s) be required under these guidelines, it must be shown on the construction certificate plans.

40 Development Contributions

Pursuant to Section 4.17 of the Environmental Planning and Assessment Act 1979 and the Wollongong City-Wide Development Contributions Plan (2018), a monetary contribution of \$6,000.00 (subject to indexation) must be paid to Council towards the provision of public amenities and services, prior to the release of any associated Construction Certificate.

This amount has been calculated based on the estimated cost of development and the applicable percentage rate.

The contribution amount will be subject to indexation until the date of payment. The formula for indexing the contribution is:

$$\text{Contribution at time of payment} = \$C \times (CP2/CP1)$$

Where:

\$C is the original contribution as set out in the Consent

CP1 is the Consumer Price Index; All Groups CPI; Sydney at the time the consent was issued

CP2 is the Consumer Price Index; All Groups CPI; Sydney at the time of payment

Details of CP1 and CP2 can be found in the Australian Bureau of Statistics website – Catalogue No. 6401.0 - Consumer Price Index, Australia.

The following payment methods are available:

METHOD	HOW	PAYMENT TYPE
Online	http://www.wollongong.nsw.gov.au/applicationpayments Your Payment Reference: 1026166	• Credit Card
In Person	Wollongong City Council Administration Building - Customer Service Centre Ground Floor 41 Burelli Street, WOLLONGONG	• Cash • Credit Card • Bank Cheque
PLEASE MAKE BANK CHEQUE PAYABLE TO: Wollongong City Council (Personal or company cheques are not accepted)		

A copy of the Wollongong City-Wide Development Contributions Plan (2018) and accompanying Fact Sheet may be inspected or obtained from the Wollongong City Council Administration Building, 41 Burelli Street, Wollongong during business hours or on Council's web site at www.wollongong.nsw.gov.au

Prior to the Commencement of Works

41 Tree Removal

Prior to removal, the trees approved for removal under this development consent shall be closely inspected for native vertebrate fauna occupation, and if occupied by native vertebrate fauna, then the NSW Wildlife Information, Rescue and Education Service (WIRES) shall be contacted for advice (phone 1300 094 737).

42 Appointment of Principal Certifying Authority

Prior to commencement of work, the person having the benefit of the Development Consent and a Construction Certificate must:

- a Appoint a Principal Certifying Authority (PCA) and notify Council in writing of the appointment irrespective of whether Council or an accredited private certifier is appointed; and
- b notify Council in writing of their intention to commence work (at least two days notice is required).

The Principal Certifying Authority must determine when inspections and compliance certificates are required.

43 Residential Building Work – Compliance with the Requirements of the Home Building Act 1989

Building work involving residential building work within the meaning of the Home Building Act 1989 must not be carried out unless the Principal Certifying Authority for the development to which the work relates

- a in the case of work to be done by a licensee under that Act:
 - i has been informed in writing of the licensee's name, contractor license number and contact address details (in the case of building work undertaken by a contractor under the Home Building Act 1989); and
 - ii is satisfied that the licensee has complied with the requirements of Part 6 of the Home Building Act 1989; or
- b in the case of work to be done by any other person:
 - i has been informed in writing of the persons name, contact address details and owner-builder permit number; and
 - ii has been given a declaration signed by the property owner(s) of the land that states that the reasonable market cost of the labour and materials involved in the work is less than the amount prescribed for the purposes of the definition of owner-builder work in Section 29 of the Home Building Act 1989 and is given appropriate information and declarations under paragraphs (a) and (b) whenever arrangements for the doing of the work are changed in such a manner as to render out of date any information or declaration previously given under either of those paragraphs.

Note: A certificate issued by an approved insurer under Part 6 of the Home Building Act 1989 that states that the specific person or licensed contractor is the holder of an insurance policy issued for the purposes of that Part of the Act is, for the purposes of this condition, sufficient evidence that the person has complied with the requirements of that Part of the Act.

44 Sign – Supervisor Contact Details

Before commencement of any work, a sign must be erected in a prominent, visible position:

- a stating that unauthorised entry to the work site is not permitted;
- b showing the name, address and telephone number of the Principal Certifying Authority for the work; and
- c showing the name and address of the principal contractor in charge of the work site and a telephone number at which that person can be contacted at any time for business purposes.

This sign shall be maintained while the work is being carried out and removed upon the completion of the construction works.

45 Temporary Toilet/Closet Facilities

Toilet facilities are to be provided at or in the vicinity of the work site on which work involved in the erection or demolition of a building is being carried out at the rate of one toilet for every 20 persons or part of 20 persons employed at the site.

Each toilet provided must be:

- a a standard flushing toilet; and
- b connected to either:
 - i the Sydney Water Corporation Ltd sewerage system or

- ii an accredited sewage management facility or
- iii an approved chemical closet.

The toilet facilities shall be provided on-site, prior to the commencement of any works.

46 Enclosure of the Site

The site must be enclosed with a suitable security fence to prohibit unauthorised access, to be approved by the Principal Certifying Authority. No building work is to commence until the fence is erected.

47 Demolition Works

The demolition works associated with this development shall be carried out in accordance with Australian Standard AS2601 (2001): The Demolition of Structures or any other subsequent relevant Australian Standard and the requirements of the NSW WorkCover Authority.

No demolition materials shall be burnt or buried on-site. The person responsible for the demolition works shall ensure that all vehicles leaving the site carrying demolition materials have their loads covered and do not track soil or waste materials onto the road. Any unforeseen hazardous and/or intractable wastes shall be disposed of to the satisfaction of the Principal Certifying Authority. In the event that the demolition works may involve the obstruction of any road reserve/footpath or other Council owned land, a separate application shall be made to Council to enclose the public place with a hoarding or fence over the footpath or other Council owned land.

48 Demolition Notification to Surrounding Residents

Demolition must not commence unless at least two (2) days written notice has been given to adjoining residents of the date on which demolition works will commence.

49 Consultation with SafeWork NSW – Prior to Asbestos Removal

A licensed asbestos removalist must give written notice to SafeWork NSW at least five (5) days before licensed asbestos removal work is commenced.

50 Public Liability Insurance

All contractors working in Council's road reserve and/or public reserve areas shall take out public liability insurance for a minimum amount of \$10 Million. The policy shall specifically indemnify Council from all claims arising from the execution of the works. Written evidence of this insurance shall be supplied to the Principal Certifying Authority and Council (in the event that Council is not the Principal Certifying Authority) prior to the commencement of any such works in any road reserve or public reserve area.

51 Temporary Sediment Fences

Temporary sediment fences (eg haybales or geotextile fabric) must be installed on the site, prior to the commencement of any excavation, demolition or construction works in accordance with Council's guidelines. Upon completion of the development, sediment fencing is to remain until the site is grassed or alternatively, a two (2) metre strip of turf is provided along the perimeter of the site, particularly lower boundary areas.

52 All-weather Access

An all-weather stabilised access point must be provided to the site to prevent sediment leaving the site as a result of vehicular movement. Vehicular movement should be limited to this single accessway.

53 Tree Protection Implementation

The existing trees are to be retained upon the subject property and any trees on adjoining properties shall not be impacted upon during the excavation or construction phases of the development. This will require the installation and maintenance of appropriate tree protection measures, including (but not necessarily limited to) the following:

- a installation of Tree Protection Fencing - Protective fencing shall be 1.8 m cyclone chainmesh fence, with posts and portable concrete footings;
- b mulch Tree Protection Zone: Areas within a Tree Protection Zone are to be mulched with minimum 75 mm thick 100% recycled hardwood chip/leaf litter mulch;

- c irrigate: Areas within the Tree Protection Zone are to be regularly watered in accordance with the arborist's recommendations.

The tree protection fencing shall be installed prior to the commencement of any demolition, excavation or construction works and shall be maintained throughout the entire construction phases of the development.

54 **Supervising Arborist – Tree Inspection and Installation of Tree Protection Measures**

Prior to the commencement of any demolition, excavation or construction works, the supervising arborist must certify in writing that tree protection measures have been inspected and installed in accordance with the arborist's recommendations and relevant conditions of this consent.

55 **Notification to Council of any Damage to Council's Infrastructure**

Council must be notified in the event of any existing damage to any of Council's infrastructure including, but not limited to the road, kerb and gutter, road shoulder, footpath, drainage structures and street trees fronting the development prior to the commencement of work. Adequate protection must be provided to Council infrastructure prior to work commencing and during the construction period. Any damage to Council's assets shall be restored in a satisfactory manner prior to the issue of the Occupation Certificate.

56 **Application for Occupation, Use, Disturbance or Work on Footpath/Roadway**

Any occupation, use, disturbance or work on the footpath or road reserve for construction purposes, which is likely to cause an interruption to existing pedestrian and/or vehicular traffic flows requires Council consent under Section 138 of the Roads Act 1993. An application must be submitted and approved by Council prior to the works commencing where it is proposed to carry out activities such as, but not limited to, the following:

- a Digging or disruption to footpath/road reserve surface;
- b Loading or unloading machinery/equipment/deliveries;
- c Installation of a fence or hoarding;
- d Stand mobile crane/plant/concrete pump/materials/waste storage containers;
- e Pumping stormwater from the site to Council's stormwater drains;
- f Installation of services, including water, sewer, gas, stormwater, telecommunications and power;
- g Construction of new vehicular crossings or footpaths;
- h Removal of street trees;
- i Carrying out demolition works.

- 57 The arrangements and costs associated with any adjustment to a public utility service shall be borne by the applicant/developer. Any adjustment, deletion and/or creation of public utility easements associated with the approved works are the responsibility of the applicant/developer. The submission of documentary evidence to the Principal Certifying Authority which confirms that satisfactory arrangements have been put in place regarding any adjustment to such services is required prior to any works commencing on site.

58 **Bushfire – Inner Protection Area**

At the commencement of building works and in perpetuity the entire property shall be managed as an inner protection area (IPA) as outlined within section 4.1.3 and Appendix 5 of 'Planning for Bush Fire Protection 2006' and the NSW Rural Fire Service's document 'Standards for asset protection zones'.

59 **Relocation of State Survey Marks**

In accordance with Section 24(1) of the Surveying and Spatial Information Act 2002 a person must not remove, damage, destroy, displace, obliterate or deface any survey mark unless authorised to do so by the Surveyor General. In this regard any proposed construction work that may affect a State Survey Mark cannot be undertaken until a registered surveyor is engaged to arrange its relocation, in accordance with the requirements of the NSW Government Land and Property Information.

60 **Dilapidation Report**

The developer shall submit a Dilapidation Report recording the condition of the existing streetscape, street trees and adjoining properties prior to work commencing and include a detailed description of elements and photographic record.

61 **Works in Road Reserve - Minor Works**

Approval, under Section 138 of the Roads Act must be obtained from Wollongong City Council's Development Engineering Team prior to any works commencing or any proposed interruption to pedestrian and/or vehicular traffic within the road reserve caused by the construction of this development.

The application form for Works within the Road Reserve – Section 138 Roads Act can be found on Council's website. The form outlines the requirements to be submitted with the application, to give approval to commence works under the roads act. It is advised that all applications are submitted and fees paid, five (5) days prior to the works within the road reserve are intended to commence. The Applicant is responsible for the restoration of all Council assets within the road reserve which are impacted by the works/occupation. Restoration must be in accordance with the following requirements:

- a All restorations are at the cost of the Applicant and must be undertaken in accordance with Council's standard document, "Specification for work within Council's Road reserve".
- b Any existing damage within the immediate work area or caused as a result of the work/occupation, must also be restored with the final works.

62 **Protection of Public Infrastructure**

Council must be notified in the event of any existing damage to any of its infrastructure such as the road, kerb and gutter, road shoulder, footpath, drainage structures and street trees fronting the development site, prior to commencement of any work.

Adequate protection must be provided for Council infrastructure prior to work commencing and during building operations.

Any damage to Council's assets shall be made good, prior to the issue of any Occupation Certificate or commencement of the operation.

During Demolition, Excavation or Construction and Tree Removals

63 **Avoidance of Cruelty and Harm to Fauna**

During tree removal works, all care shall be taken to avoid cruelty and harm to fauna.

64 **Injured Native Fauna**

In the event any native fauna are injured during tree removal works, then the NSW Wildlife Information, Rescue and Education Service (WIRES) shall be contacted (phone 1300 094 737) for assistance.

65 **No Adverse Run-off Impacts on Adjoining Properties**

The design of the development shall ensure there are no adverse effects to adjoining properties as a result of flood or stormwater run-off. Attention must be paid to ensure adequate protection for buildings against the ingress of surface run-off.

Allowance must be made for surface run-off from adjoining properties. Any redirection or treatment of that run-off must not adversely affect any other property.

66 **Copy of Consent to be in Possession of Person carrying out Tree Removal**

The applicant must ensure that any person carrying out tree removal is in possession of this development consent and the approved landscape plan, in respect to the vegetation which has been given approval to be removed in accordance with this consent.

67 **Restricted Hours of Construction Work**

The developer must not carry out any work, other than emergency procedures, to control dust or sediment laden runoff outside the normal working hours, namely, 7.00 am to 5.00 pm, Monday to Saturday, without the prior written consent of the Principal Certifying Authority and Council. No work is permitted on public holidays or Sundays.

Any request to vary these hours shall be submitted to the **Council** in writing detailing:

- a the variation in hours required (length of duration);
- b the reason for that variation (scope of works);
- c the type of work and machinery to be used;
- d method of neighbour notification;
- e supervisor contact number;
- f any proposed measures required to mitigate the impacts of the works.

Note: The developer is advised that other legislation may control the activities for which Council has granted consent, including but not limited to, the Protection of the Environment Operations Act 1997.

68 Excavation/Filling/Retaining Wall Structures

Any proposed filling on the site must not:

- a encroach onto the adjoining properties, and
- b adversely affect the adjoining properties with surface run-off.

69 All proposed cut and filling works must be adequately retained with all battered slopes being no steeper than 2H: 1V and comply with Council's Development Control Plan.

70 If an excavation associated with the erection or demolition of a building extends below the level of the base of the footings of a building on adjoining allotment of land, the person causing the excavation to be made:

- a must preserve and protect the adjoining building from damage; and
- b if necessary, must underpin and support the building in an approved manner; and
- c must, at least seven (7) days before excavation below the level of the base of the footings of a building on an adjoining allotment of land, give notice of intention to do so to the owner of the adjoining allotment of land and furnish particulars of the excavation.

71 Asbestos – Removal, Handling and Disposal Measures/Requirements Asbestos Removal by a Licensed Asbestos Removalist

The removal of any asbestos material must be carried out by a licensed asbestos removalist if over 10 square metres in area of non-friable asbestos, or if any type of friable asbestos in strict accordance with SafeWork NSW requirements (< <http://www.safework.nsw.gov.au> >).

72 Asbestos Waste Collection, Transportation and Disposal

Asbestos waste must be prepared, contained, transported and disposed of in accordance with SafeWork NSW and NSW Environment Protection Authority requirements. Asbestos waste must only be disposed of at a landfill site that can lawfully receive this type of waste. A receipt must be retained and submitted to the Principal Certifying Authority, and a copy submitted to Council (in the event that Council is not the Principal Certifying Authority), prior to commencement of the construction works.

73 Provision of Waste Receptacle

The developer must provide an adequate receptacle to store all waste generated by the development, pending disposal. The receptacle must be regularly emptied and waste must not be allowed to lie or accumulate on the property other than in the receptacle. Consideration should be given to the source separation of recyclable and re-usable materials.

74 BASIX

All the commitments listed in each relevant BASIX Certificate for the development must be fulfilled in accordance with Clause 97A(2) of the Environmental Planning & Assessment Regulation 2000.

A relevant BASIX Certificate means:

- A BASIX Certificate that was applicable to the development when this development consent was granted (or, if the development consent is modified under section 4.55 of the

Environmental Planning & Assessment Act 1979, a BASIX Certificate that is applicable to the development when this development consent is modified); or

- if a replacement BASIX Certificate accompanies any subsequent application for a construction certificate, the replacement BASIX Certificate; and
- BASIX Certificate has the meaning given to that term in the Environmental Planning & Assessment Regulation 2000.”

75 Provision of Taps/Irrigation System

The provision of common taps and/or an irrigation system is required to guarantee that all landscape works are adequately watered. The location of common taps and/or irrigation system must be implemented in accordance with the approved Landscape Plan.

76 Screen Planting

To mitigate impact to adjoining dwelling a continuous hedge is to be established along western boundary for the length of Unit U2B POS Recommended species: *Callistemon viminalis* ‘Slim’, *Photinia glabra* Rubens, *Viburnum tinus*, *Syzygium australe* Aussie Southern, *Syzygium*, ‘Resilience’, *Viburnum odoratissimum* Dense Fence or *Waterhousea floribunda* Sweeper. Minimum spacing 1000mm. Minimum pot size 5 lt.

All planting box areas are to have a waterproofing membrane that can provide a minimum 10 year warranty on product. Protective boarding is to be installed to protect membrane from damage.

All planting box areas to be provided with free draining planter box soil mix.

If selected mulch is decorative pebbles/gravel, the maximum gravel pebble size is 10mm diameter.

A further list of suitable suggested species may be found in Wollongong Development Control Plan 2009 – Chapter E6: Landscaping.

Prior to the Issue of the Occupation Certificate

77 A Section 73 Certificate must be submitted to the Principal Certifying Authority prior to occupation of the development/release of the plan of subdivision.

78 Drainage

The developer must obtain a certificate of Hydraulic Compliance (using Council’s M19 form) from a suitably qualified civil engineer, to confirm that all stormwater drainage and on-site detention works have been constructed in accordance with the approved plans. In addition, full works-as-executed plans, prepared and signed by a Registered Surveyor must be submitted. These plans and certification must satisfy all the stormwater requirements stated in Chapter E14 of the Wollongong DCP2009. This information must be submitted to the Principal Certifying Authority prior to the issue of the final Occupation Certificate.

79 Restriction on Use – On-site Detention System

The applicant must create a restriction on use under the Conveyancing Act 1919 over the on-site detention system. The following terms must be included in an appropriate instrument created under the Conveyancing Act 1919 for approval of Council:

“The registered proprietor of the lot burdened must not make or permit or suffer the making of any alterations to any on-site stormwater detention system on the lot(s) burdened without the prior consent in writing of the authority benefited. The expression ‘on-site stormwater detention system’ shall include all ancillary gutters, pipes, drains, walls, kerbs, pits, grates, tanks, chambers, basins and surfaces designed to temporarily detain stormwater as well as all surfaces graded to direct stormwater to those structures.

Name of the authority having the power to release, vary or modify the restriction referred to is Wollongong City Council.”

The instrument, showing the restriction, must be submitted to the Principal Certifying Authority for endorsement prior to the issue of the final Occupation Certificate and the use of the development.

80 Occupation Certificate

A Occupation Certificate must be issued by the Principal Certifying Authority prior to occupation or use of the development. In issuing an Occupation Certificate, the Principal Certifying Authority must be satisfied that the requirements of section 6.9 of the Environmental Planning and Assessment Act 1979, have been complied with as well as all of the conditions of the Development Consent.

81 BASIX

A final occupation certificate must not be issued unless accompanied by the BASIX Certificate applicable to the development. The Principal Certifying Authority must not issue the final occupation certificate unless satisfied that selected commitments have been complied with as specified in the relevant BASIX Certificate. NOTE: Clause 154B of the Environmental Planning and Assessment Regulation 2000 provides for independent verification of compliance in relation to certain BASIX commitments.

82 Positive Covenant – On-Site Detention Maintenance Schedule

A positive covenant shall be created under the Conveyancing Act 1919, requiring the property owner(s) to undertake maintenance in accordance with the Construction Certificate approved On-Site Stormwater Detention System and Maintenance Schedule (application number to be referenced).

The instrument, showing the positive covenant must be submitted to the Principal Certifying Authority for endorsement prior to the issue of the final Occupation Certificate and the use of the development.

83 On-Site Detention – Structural Certification

The submission of a certificate from a suitably qualified practising civil and/or structural engineer to the Principal Certifying Authority is required prior to the issue of the final Occupation Certificate. This certification is required to verify the structural adequacy of the on-site detention facility and that the facility has been constructed in accordance with the approved Construction Certificate plans.

84 Bushfire – Compliance Certificate

A Compliance Certificate shall accompany any Occupation Certificate for Bushfire construction works as have been completed, verifying that the development has been constructed in accordance with the relevant Bushfire Attack Level (BAL) requirements of the Development Consent and Construction Certificate.

85 Completion of Landscape Works

The completion of the landscaping works as per the final approved Landscape Plan is required prior to the issue of Occupation Certificate.

Prior to the Issue of the Subdivision Certificate

86 Occupation Certificate Prior to Subdivision Certificate

An Occupation Certificate for the dwelling/s must be issued prior to the release of the Subdivision Certificate for the Torrens Title subdivision. A copy of the Occupation Certificate shall be lodged to Council with the subdivision certificate application.

87 Fire Hydrant

Documentary evidence of compliance with section 7 of *Fire Hydrants for Minor Residential Development, Version 2 dated 1 September 2016 produced by NSW Fire & Rescue* is required to be submitted to the Principal Certifying Authority prior to the issue of the Subdivision Certificate. Should a fire hydrant be required, a plumber's certificate showing that the fire hydrant has been provided must be submitted to the Principal Certifying Authority prior to the issue of the Subdivision Certificate. The location of the fire hydrant must be shown on the works-as-executed drawings.

- 88 **Existing Easements**
All existing easements must be acknowledged on the final subdivision plan.
- 89 **Existing Restriction as to Use**
All existing restriction on the use of land must be acknowledged on the final subdivision plan.
- 90 **Encroaching Pipes**
A minimum one (1) metre wide easement to drain water shall be created over any encroaching drainage pipes.

For all drainage easements proposed over the subject lots, a works as executed/survey plan of all stormwater drainage within the site is to be submitted with the Subdivision Certificate Application to confirm this.
- 91 **88B Instrument Easements/Restrictions**
Any easements or restrictions required by this consent must nominate Wollongong City Council as the authority to vary, modify or release/extinguish the easements or restrictions. The form of the easement(s) or restriction(s) created as a result of this consent must be in accordance with the standard format for easements and restrictions as accepted by the Land and Property Information Office.
- 92 **Final Documentation Required Prior to Issue of the Phases 2 and 4 Subdivision Certificates**
The submission of the following information/documentation to the Principal Certifying Authority, prior to the issue of a Subdivision Certificate:
- a Completed Subdivision Certificate application form and fees in accordance with Council's fees and charges;
 - b Original Construction Certificates and approved drawings (where issued by an accredited Private Certifying Authority);
 - c Certificate of Practical completion from Wollongong City Council or an accredited Private Certifying Authority (if applicable);
 - d Administration sheet prepared by a registered surveyor;
 - e Section 88B Instrument covering all necessary easements and restrictions on the use of any lot within the subdivision;
 - f Final plan of Subdivision prepared by a registered surveyor plus four (4) equivalent size paper copies of the plan;
 - g Original Subdivider/Developer Compliance Certificate pursuant to Section 73 of the Water Board (Corporatisation) Act 1994 from Sydney Water;
 - h Original Notification of Arrangement from an Endeavour Energy regarding the supply of underground electricity to the proposed allotments;
 - i Original Compliance Certificate from Telstra or another Telecommunications Service Provider which confirms that the developer has consulted with the Provider with regard to the provision of telecommunication services for the development.
 - j Payment of section 94 fees (Pro rata) (if applicable).

Operational Phases of the Development/Use of the Site

- 93 **Loading/Unloading Operations/Activities**
All loading/unloading operations are to take place at all times wholly within the confines of the site or within the road reserve under an approved traffic control plan.
- 94 **Maintenance of Inner Protection Area**
The Inner Protection Area must be maintained at all times as follows:
- There shall be minimal fine fuel at ground level which could be set alight by a bushfire.
 - Use of non combustible ground surfaces such as gravel roads, paved areas, in-ground pools, etc is acceptable.
 - Lawn areas shall be maintained low cut and clear.
 - Areas under fences, fence posts, gates and trees shall be raked and kept clear of fine fuel.

- Gutters, roofs and roof gullies shall be kept free of leaves and other debris.
- Verandahs, decks, carports, etc shall not be used to store combustible materials and shall be kept free of leaves and other debris.
- Areas within courtyards shall be maintained free of leaves and other debris.
- Reticulated or bottle gas services shall be installed and maintained in accordance with AS 1596.
- Gas cylinder relief valves shall be directed away from the building and away from any hazardous materials such as firewood, etc.
- Trees may be retained within the IPA where:
 - no part of the tree overhangs within two (2) metres of any building.
 - the canopy is discontinuous such that tree crowns are separated by a minimum of 10 metres where the APZ adjoins tall open forest, open forest or low open forest.
 - the canopy is discontinuous such that tree crowns are separated by a minimum of five (5) metres where the APZ adjoins woodland or other vegetation type.
 - they are smooth barked species or, if rough barked, shall be maintained free of decorticated bark and other ladder fuels (rough barked species are not encouraged).
 - a well-watered and maintained vegetable garden may be located within the IPA.
 - no part of a tree shall be closer to a power line than the distances set out in the current edition of "Planning for Bush Fire Protection".
 - the use of local native plants with features that minimise the extent to which they contribute to the spread of bush fires is encouraged within the above constraints.

All communications to be addressed to:

Headquarters
15 Carter Street
Lidcombe NSW 2141

Telephone: 1300 NSW RFS
e-mail: records@rfs.nsw.gov.au

Headquarters
Locked Bag 17
Granville NSW 2142

Facsimile: 8741 5433



The General Manager
Wollongong City Council
Locked Bag 8821
WOLLONGONG DC NSW 2500

Your Ref: DA-2018/1071
Our Ref: D18/7272
DA18091815153 AJ

ATTENTION: Rodney Thew

19 October 2018

Dear Sir

Integrated Development Application - 2 Coast Street Thirroul 2515

I refer to your correspondence dated 7 September 2018 seeking general terms of approval for the above Integrated Development Application.

The New South Wales Rural Fire Service (NSW RFS) has considered the information submitted. General Terms of Approval, under Division 4.8 of the 'Environmental Planning and Assessment Act 1979', and a Bush Fire Safety Authority, under Section 100B of the 'Rural Fires Act 1997', are now issued subject to the following conditions:

1. The development proposal is to generally comply with the subdivision layout identified on the drawing prepared by Develop My Land numbered DML 17/028, dated 25/08/2018.

Asset Protection Zones

The intent of measures is to provide sufficient space and maintain reduced fuel loads so as to ensure radiant heat levels of buildings are below critical limits and to prevent direct flame contact with a building. To achieve this, the following conditions shall apply:

2. At the issue of subdivision certificate and in perpetuity the entire property shall be managed as an inner protection area (IPA) as outlined within section 4.1.3 and Appendix 5 of 'Planning for Bush Fire Protection 2006' and the NSW Rural Fire Service's document 'Standards for asset protection zones'.

Water and Utilities

The intent of measures is to provide adequate services of water for the protection of buildings during and after the passage of a bush fire, and to locate gas and

electricity so as not to contribute to the risk of fire to a building. To achieve this, the following conditions shall apply:

3. Water, electricity and gas are to comply with section 4.1.3 of 'Planning for Bush Fire Protection 2006'.

Access

The intent of measures for property access is to provide safe access to/from the public road system for fire fighters providing property protection during a bush fire and for occupants faced with evacuation. To achieve this, the following conditions shall apply:

4. Property access roads shall comply with section 4.1.3 (2) of 'Planning for Bush Fire Protection 2006'.

Design and Construction

The intent of measures is that buildings are designed and constructed to withstand the potential impacts of bush fire attack. To achieve this, the following conditions shall apply:

5. The existing building on proposed Lot 1 is required to be upgraded to improve ember protection. This is to be achieved by enclosing all openings (excluding roof tile spaces) or covering openings with a non-corrosive metal screen mesh with a maximum aperture of 2mm. Where applicable, this includes any sub floor areas, openable windows, vents, weepholes and eaves. External doors are to be fitted with draft excluders.
6. Construction of dwellings on proposed Lots 2A and 2B shall comply with Sections 3 and 5 (BAL 12.5) Australian Standard AS3959-2009 'Construction of buildings in bush fire-prone areas' or NASH Standard (1.7.14 updated) 'National Standard Steel Framed Construction in Bushfire Areas – 2014' as appropriate and section A3.7 Addendum Appendix 3 of 'Planning for Bush Fire Protection 2006'.

Landscaping

7. Landscaping to the site is to comply with the principles of Appendix 5 of 'Planning for Bush Fire Protection 2006'.

Should you wish to discuss this matter please contact Anna Jones on 1300 NSW RFS.

Yours sincerely



Martha Dotter

A/Team Leader Development Assessment & Planning

For general information on bush fire protection please visit www.rfs.nsw.gov.au