

Wollongong Local Planning Panel Assessment Report | 16 October 2019

WLPP No.	Item No. 3
DA No.	DA-2019/595
Proposal	Residential - demolition of existing building and tree removals. Construction of multi-unit housing comprising of four (4) dwellings with one (1) level of basement carparking
Property	28 George Street, THIRROUL NSW 2515 Lot 28 DP 1099628
Applicant	Mr Marko Lisica
Responsible Team	Development Assessment & Certification – City Wide Planning Team (MB)

ASSESSMENT REPORT AND RECOMMENDATION

Executive Summary

Reason for consideration by Local Planning Panel

The proposal has been referred to the Wollongong Local Planning Panel **for determination** pursuant to Section 2(b) of Schedule 2 of the Local Planning Panels Direction of 1 March 2018, as the application is the subject of 10 or more unique submissions by way of objection.

Proposal

The proposal seeks demolition of the existing dwelling and garage on site and tree removals. Construction of multi-unit housing comprising of four (4) dwellings with one (1) level of basement carparking.

Permissibility

The proposed demolition and construction of multi dwelling housing is permissible in the R2 Low Density Residential zone of the Wollongong Local Environmental Plan (WLEP) 2009.

Consultation

The proposal was notified in accordance with Council's Notification Policy and re-notified following receipt of amended plans. 47 submissions by way of objection were received. These related to a variety of matters and discussed at Section 1.5.

Council's Traffic, Stormwater, Landscape and Community Safety officers have reviewed the application submission and provided satisfactory referral comments. Conditions of consent were recommended in each instance.

Main Issues

Throughout the assessment, concerns were raised in relation to the consistency of the proposal with the streetscape and character. The applicant amended the façade of the building and provided a pitched roof to integrate with the streetscape and better reflect the character of the area. The proposed pitched gable roof amendment has increased the height of the building; however, the application remains compliant. Solar access requirements are also compliant. In this regard, the changes to the design are considered to satisfactorily address streetscape/character matters.

Units 1 and 3 both have areas of the POS and the front courtyard elevated (one metre) above natural ground level (at the southernmost end) which is considered to pose potential overlooking impacts to adjoining properties on both the eastern boundary and the western boundary. A 1.8m high privacy screen (horizontal angled slats to provide sunlight penetration) has been proposed on the western side of the elevated private open space to ensure view lines are directed away from the neighbouring property to the west. A terrace/courtyard is proposed on the eastern side of both Units 1 and 3. The courtyard includes a pergola and neighbouring trees do provide screening;

however, it is considered that the extent of the terrace particularly for Unit 3, which is larger could be minimised or lowered. This matter is outlined at **Attachment 3**.

Likely impacts

There are not expected to be adverse environmental impacts on either the natural or built environments or adverse social or economic impacts in the locality following satisfactory amendments.

RECOMMENDATION

Development Application DA-2019/595 be **deferred** subject to the receipt of amended details for Units 1 and 3 addressing amenity matters as outlined in **Attachment 3**.

Should the amendments be satisfactory then consent be **granted** subject to the conditions provided at **Attachment 4** with condition 1 being updated to reflect the final plan set.

1 APPLICATION OVERVIEW

1.1 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

The proposal is satisfactory with regard to the applicable planning controls as discussed in the body of this report.

1.2 DETAILED DESCRIPTION OF PROPOSAL

The proposal comprises the demolition of the existing dwelling and structures, and the construction of a multi dwelling development being four (4) townhouses with one level of basement carparking. Tree removal is also proposed.

Each townhouse comprises of a living area at ground level with access to private open space at the rear and patio space at the front of each dwelling. Bedrooms and bathrooms are located on the upper level of each townhouse. The entrance to Unit 1 addresses George Street.

The proposed development has a façade treatment that will integrate with the streetscape. The pitched roof will be finished in colorbond.

Each unit has parking for two cars in the form of a secure double garage at basement level. A visitor space is provided at the front of the building at basement level.

The site has a 5.5 metre fall from the rear to George Street. The units will be stepped down the slope and divided across two buildings. The deep soil zone is positioned across the rear of the site. The boundaries with adjoining properties will be landscaped on each side to provide privacy and amenity. Both current driveways on site will be demolished and a driveway will be constructed to the basement level carparking area.

Three exotic trees are located on site and eight on the neighbouring properties. One tree is to be removed on the subject site.



Existing house on site



Above: DA-2018/1192 – Refused by WLPP

Above: Proposed development under current DA

1.3 BACKGROUND

The development history of the site is as follows:

Application No	Description	Date	Decision
DA-2018/1192	Residential - demolition of existing structures, tree removals and construction of multi dwelling housing - five (5) townhouses	21/09/2018	Refused (WLPP) 13/02/19
PL-2018/82	Demolition of existing dwelling / structures and proposed multi dwelling development (5 x units)	28/5/2018	Completed
TMO-2010/1677	Remove one tree	17/11/2010	Refused
BA-1969/1230	Garage	8/7/1969	Approved
BA-1977/1254	Addition and garage	23/6/1977	Approved

No pre-lodgement meeting was held for this proposal.

DA-2018/1192 was refused by Wollongong Local Planning Panel as a result of potential impacts on streetscape, local character, privacy and future occupant amenity. The Panel considered that these matters could be best resolved by reducing the number of units from 5 to 4.

In considering the public submissions and the applicant's response to these at the meeting together with design concerns, the Panel decided to refuse the application rather than offer the applicant an opportunity to amend it.

The following advice was provided by the Wollongong Local Planning Panel:

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.

Having reviewed the desired future character statement for Thirroul in Wollongong DCP 2009 and following inspection of the site and locality, the Panel is of the view that the design of the proposed development is out of character with both the existing and the desired future character of the area. The Panel also notes that matters of privacy impacts on adjoining properties, internal amenity for future occupants, window placement and dimensions have not been adequately resolved.

It is noted that in an attempt to resolve matters raised in response to the original DA plans, changes have been made which have resulted in a compromised internal amenity for the future occupants of the units. It

is considered that this is a symptom of an over-development of the site which may be able to be properly resolved by reducing the number of units.

The Panel determined to refuse the development application as described in Schedule 1 pursuant to section 4.16 of the *Environmental Planning and Assessment Act 1979*, on the following grounds:

- 1 The application fails to demonstrate consistency with Wollongong DCP 2009, in particular Chapters B1 and D1 (Section 3.14 Thirroul).
- 2 The application fails to demonstrate that the site is suitable for the development as proposed.
- 3 The application fails to demonstrate that the impacts of the development will not be adverse.
- 4 In the circumstances of the case and with submissions received, approval of the development would set an undesirable precedent which would not be in the public interest.

The decision was unanimous.

REASONS FOR THE DECISION

The reasons for the decision of the Panel are:

- the grounds for refusal numbered 1 to 4 above;
- the Panel considers that the design of the building is unacceptable as it is not consistent with the existing or desired future character of Thirroul, having regard to roof forms, eaves, materials, colours, finishes, window form and placement, landscaping and streetscape.

The applicant has responded to this advice as follows:

The proposed multi dwelling development has been substantially revised in response to the reasons for Council's refusal of DA 2018/1192. In particular, the development has been scaled back from five (5) dwellings to four (4).

Further amendments to the design in response to Council's refusal notice include:

- Provision of a basement car park, enabling less built form/building bulk above ground level
- Reduced overall building footprint on the site
- Improved street character with finishes and material more in keeping with modern dwellings in the locality
- Living areas downstairs and bedroom/bathroom areas upstairs
- 3 bedroom dwellings instead of 2-bedroom dwellings previously proposed.
- Increased amount of landscaping
- No variations

Customer service actions:

There are no outstanding customer service requests of relevance to the subject property.

1.4 SITE DESCRIPTION

The site is located at 28 George Street, THIRROUL NSW 2515 Lot 28 DP 1099628. The regular 1054m² site has a primary frontage to George Street. The site falls 5.5 metres from the rear boundary to the George Street frontage.

Single residential dwellings are located on adjacent sites to the west and north. A dual occupancy development is located to the east. The subject site contains an existing dwelling and a garage at the rear on the eastern side of the property. There are two mature trees and one large shrub growing near the western boundary of the site. There is one street tree located at the front of the property and seven trees / large shrubs growing on neighbouring properties adjacent to common boundaries.

Surrounding development in the immediate locality consists of one and two storey residential development. The street trees frame and screen many of the properties along this stretch of George Street softening the environment and providing character. Kelton Lane is located directly across the street. The site is within close proximity to Thirroul Railway Station (500 metres approximately).

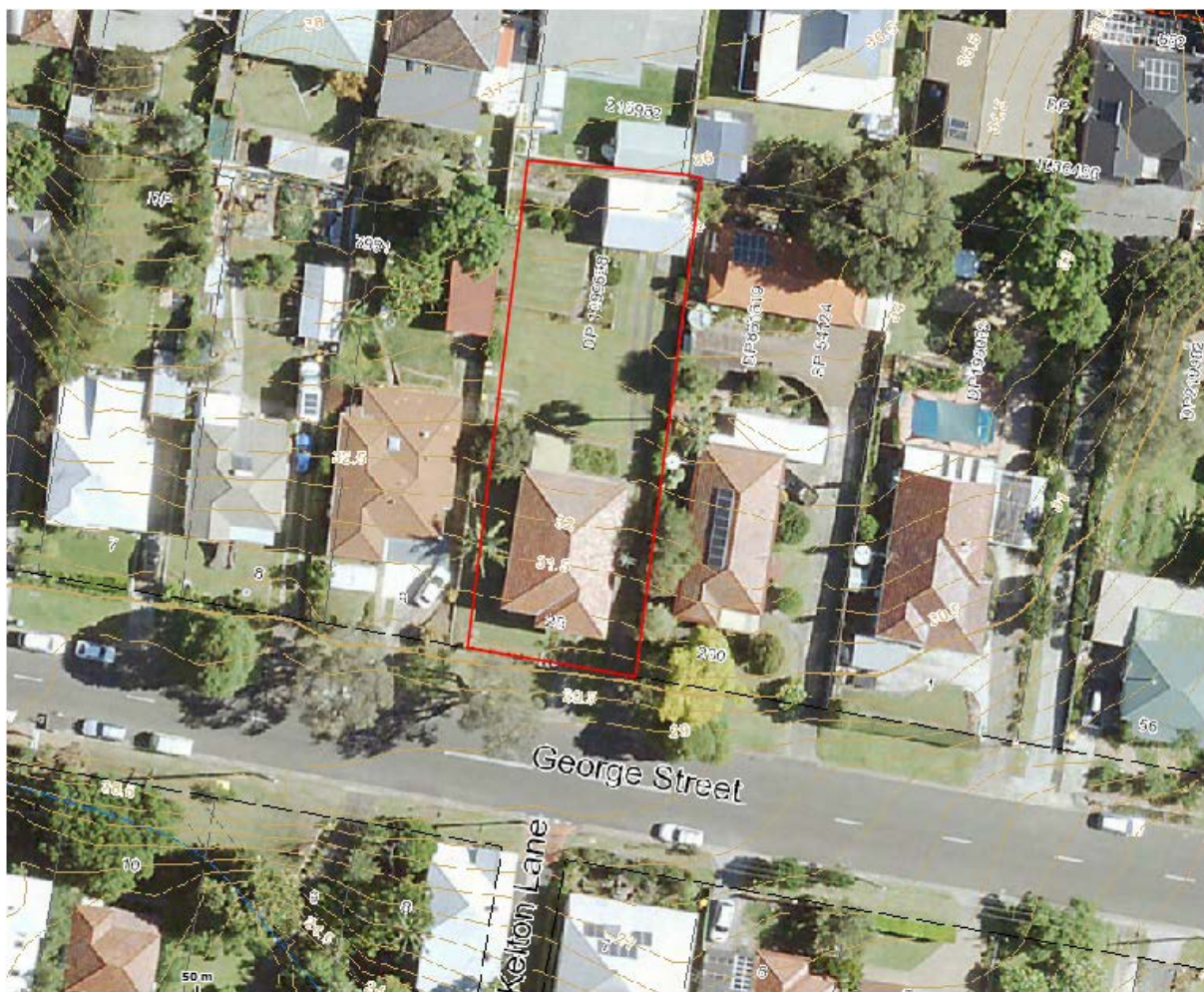


Figure 2: Aerial view (2016)

Property constraints

There are no constraints identified on site that would preclude the proposed development.

1.5 SUBMISSIONS

Details of the proposal were notified in accordance with Council's Notification Policy. The application received 47 submissions including a community submission. The issues raised in the submissions are summarised below:

Concern	Comment
1. Overdevelopment of Thirroul <ul style="list-style-type: none"> Ongoing development in Thirroul is unsustainable Thirroul not suited to medium density housing Existing traffic problems in Thirroul Don't need more units in Thirroul Does not meet the standard of development expected by Thirroul residents or people of the Illawarra 	<p>The proposed multi-dwelling housing development is permissible in the R2 Low Density Residential zone and complies with maximum floor space ratio and height as required under WLEP 2009.</p> <p>Restricting development in Thirroul and existing traffic problems are wider strategic matters outside the scope of the current DA. The proposal is permissible on the land under the Wollongong Local Environmental Plan 2009 (WLEP).</p> <p>Traffic concerns within the locality, which do not relate to this development application and are outside the scope of this application can be brought to the attention of Wollongong City Council's Traffic Committee.</p>
2. Overdevelopment of the site: <ul style="list-style-type: none"> Inappropriate scale/density of the development – number of dwellings is excessive/gross overdevelopment Five (5) multi dwelling developments already in George Street Not fair to other residents FSR traffic and environmental impacts subsidence/excavation/ excavation only way to achieve compliance Lack of geotechnical investigation Ground level manipulation Developer greed 	<p>The proposal is not considered to be an overdevelopment of the site. The proposal has been redesigned and is fully compliant with WLEP 2009 and with Council's DCP in relation to height, building setbacks, parking, manoeuvring and landscaping provisions required for such a proposal. The development is stepped in line with the slope and is divided across two buildings.</p> <p>Basement carparking is permissible. Nearby basement carparking is located at 36 George Street Thirroul. Excavation is required, which is considered to be acceptable. Conditions are proposed with regard to excavation and safeguarding neighbouring dwellings.</p>
3. Out of character for the street: <ul style="list-style-type: none"> Area is characterised by single dwelling character homes Design and proximity to neighbour Bulk, form, scale in this location Material list is too loose 	<p>The proposal has been redesigned with a pitched roof and colour scheme to blend with surrounding dwellings. The proposal is acceptable taking into account compliant height, number of storeys, floor space ratio, required setbacks (front, rear, side) to the building and proposed construction materials.</p> <p>On balance, the proposal is considered not unreasonable development in relation to character as outlined at Section 2.3.1, subject to the amendments to Units 1 and 3 as discussed at Attachment 3 .</p>
4. Amenity impacts to neighbouring	The proposal was redesigned to address issues raised by

Concern	Comment
properties: <ul style="list-style-type: none"> • Overshadowing • Privacy • Loss of views • Noise • Number of bedrooms increased 	<p>WLPP, and to achieve compliance with the WLEP and WDCP 2009.</p> <p>The submitted shadow diagrams demonstrate compliance with Council's solar access requirements to neighbouring properties. The neighbouring properties would retain the minimum 3 hours of solar access to their living rooms and 50% of their private open space in mid-winter.</p> <p>The proposal has been designed to minimise overlooking to the side boundary. Bedroom and bathrooms are located at the upper level to reduce amenity impacts on adjoining properties.</p> <p>Noise is not expected to be generated above normal domestic levels.</p>
5. Traffic and parking: <ul style="list-style-type: none"> • Local road network is already over capacity • Number of vehicles required under DCP. Number likely to occupy the site. • Will pose safety risk to pedestrians • Opposite a laneway with limited sightlines due to topography • Safety • No footpaths or lighting. • More cars will park on the street/amenity impacts • Underground/basement parking issues 	<p>The proposal complies with Council's parking requirements.</p> <p>Council's Traffic Officer is satisfied that traffic and car parking demand generated by the proposed development is unlikely to have a discernible impact on the local road network and sightlines for pedestrian safety can be achieved.</p> <p>Basement carparking has been proposed. The vehicles will enter and leave the site in a forward direction. The basement contains a double garage for each dwelling and a visitor car parking space is provided. Council's Traffic Officer is satisfied that the basement car park and the location of the driveway/crossover in relation to Kelton Lane.</p> <p>Traffic concerns within the locality, which do not relate to this development application can be brought to the attention of Council's Traffic Committee.</p>
6. Stormwater drainage concerns	<p>Council's Development Engineering Officer has reviewed the application and provided conditionally satisfactory referral advice in relation to stormwater matters.</p>
7. Waste servicing	<p>Council waste servicing has been assessed and is satisfactory. Street collection is acceptable.</p>
8. Inconsistent with requirements of EP&A Act, Council's DCP and WLEP 2009	<p>The proposal has been redesigned to address matters raised by the WLPP in relation to the previous application (DA-2018/1192), which was determined by way of refusal.</p> <p>The proposal is fully compliant with both the WLEP 2009 and WDCP 2009.</p> <p>The application is compliant with regard to the number</p>

Concern	Comment
	<p>of storeys as defined under WDCP 2009, which is the relevant legislation.</p> <p>The proposal has been assessed under the DCP and the proposal is compliant as outlined in this report. Council referral groups have provided satisfactory referral advice. The proposal is considered to be in the public interest.</p> <p>SEPP BASIX has been provided by the applicant with the appropriate certificate of compliance.</p> <p>Although the proposal may appear to local residents to lack environmental initiatives, the development has been assessed against ESD principles and requirements of WDCP 2009 Chapter A2 as compliant and what could reasonably be expected in this regard.</p> <p>Conditions are proposed to meet the requirements of the NCC/BCA.</p>
9. Landscaping requirements, tree removal, impacts on fauna and flora	Council's Landscape Officer is satisfied that landscaping meets requirements and conditionally satisfactory referral advice has been received. DSZ is compliant in that it is 6 metres wide and across the rear boundary as required. Conditions are recommended for both fauna management and trees numbered for retention.

Frequency of Issues Raised:

Issue No.	1	2	3	4	5	6	7	8	9
Frequency	4	14	23	19	38	3	2	10	5

Some of the issues identified in submissions received whilst technically unresolved are considered to have been adequately addressed by way of design changes or conditions of consent.

1.6 CONSULTATION

1.6.1 INTERNAL CONSULTATION

Council's Traffic, Stormwater and Landscape and Community Safety officers have reviewed the application submission and provided satisfactory referral comments. Conditions of consent were recommended in each instance.

1.6.1 EXTERNAL CONSULTATION

None required.

2 ENVIRONMENTAL PLANNING AND ASSESSMENT ACT 1979 – 4.15 EVALUATION

2.1 SECTION 4.15(1)(A)(1) ANY ENVIRONMENTAL PLANNING INSTRUMENT

2.1.1 STATE ENVIRONMENTAL PLANNING POLICY NO. 55 – REMEDIATION OF LAND

7 Contamination and remediation to be considered in determining development application

- (1) A consent authority must not consent to the carrying out of any development on land unless:
- (a) it has considered whether the land is contaminated, and

- (b) if the land is contaminated, it is satisfied that the land is suitable in its contaminated state (or will be suitable, after remediation) for the purpose for which the development is proposed to be carried out, and
- (c) if the land requires remediation to be made suitable for the purpose for which the development is proposed to be carried out, it is satisfied that the land will be remediated before the land is used for that purpose.

A review of Council records does not indicate any previous historic use that would contribute to the contamination of the site. The land has only been used for residential purposes and does not propose a change of use. No concerns are raised in regard to contamination as relates to the intended use of the land and the requirements of clause 7.

2.1.3 STATE ENVIRONMENTAL PLANNING POLICY (BUILDING SUSTAINABILITY INDEX: BASIX) 2004

The proposal is BASIX affected development to which this policy applies. In accordance with Schedule 1, Part 1, 2A of the Environmental Planning and Assessment Regulation 2000, a BASIX Certificate has been submitted in support of the application demonstrating that the proposed scheme achieves the BASIX targets.

The BASIX certificate was issued no earlier than 3 months before the date on which the development application was lodged.

2.1.5 WOLLONGONG LOCAL ENVIRONMENTAL PLAN 2009

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, as shown in Figure 4.



Figure 4: WLEP 2009 zoning map

Clause 2.3 – Zone objectives and land use table

The objectives of the zone 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.

The proposal is considered satisfactory with regard to the above objectives as it would provide for additional housing opportunities.

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

Attached dwellings; Bed and breakfast accommodation; Boarding houses; Boat launching ramps; Centre-based child care facilities; Community facilities; Dual occupancies; Dwelling houses; Environmental facilities; Exhibition homes; Exhibition villages; Group homes; Health consulting rooms; Home-based child care; 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; Respite day care centres; Roads; Semi-detached dwellings; Seniors housing; Shop top housing; Signage; Veterinary hospitals

The proposal is categorised as a **Multi dwelling housing** as defined below and is permissible in the zone with development consent.

Clause 1.4 Definitions

Multi dwelling housing means 3 or more dwellings (whether attached or detached) on one lot of land, each with access at ground level, but does not include a residential flat building.

Clause 2.6 Subdivision – consent requirements

Subdivision is not sought as part of this application.

Clause 2.7 Demolition requires development consent

Consent for the demolition of the existing dwelling house, rear garage, driveways/structures are sought as part of the subject application.

Part 4 Principal development standards

Clause 4.3 Height of buildings

The proposed building height of 8.95 metres does not exceed the 9 metre maximum permitted for the site.

Clause 4.4 Floor space ratio

Maximum FSR permitted for the zone:	0.5:1	
Site area:	1054 m ²	
	GFA	507.85 m ²
FSR:	507.85/1054 = 0.48:1	

The proposal is compliant.

	Upper Floor GFA m²	Ground Floor GFA m²	Basement (unexcluded areas) GFA m²	Total GFA m²
Units – 1 to 4 each	62.05 x 4	61.2 x 4	14.85 x 1	
Total	248.2	244.8	14.85	507.85

Clause 4.6 Exceptions to development standards

None proposed.

Part 7 Local provisions – general

Clause 7.1 Public utility infrastructure

The existing site is serviced by electricity, water and sewage services.

Clause 7.6 Earthworks

The proposal comprises earthworks to prepare the site and construct the basement. Conditions are recommended in this regard to safeguard excavations for adjoining properties.

Clause 7.14 Minimum site width

The site has a dimension of greater than 18 metres (20.115m), meeting the requirements of this clause.

2.2 SECTION 4.15(1)(A)(II) ANY PROPOSED INSTRUMENT

None applicable.

2.3 SECTION 4.15(1)(A)(III) ANY DEVELOPMENT CONTROL PLAN

2.3.1 WOLLONGONG DEVELOPMENT CONTROL PLAN 2009

See Attachment 2.

2.4 WOLLONGONG CITY-WIDE DEVELOPMENT CONTRIBUTIONS PLAN 2018

The estimated cost of works is >\$100,000 (\$674 000.00) and a levy is applicable under this plan.

2.5 SECTION 4.15(1)(A)(IIIA) ANY PLANNING AGREEMENT THAT HAS BEEN ENTERED INTO UNDER SECTION 7.4, OR ANY DRAFT PLANNING AGREEMENT THAT A DEVELOPER HAS OFFERED TO ENTER INTO UNDER SECTION 7.4

There are no planning agreements entered into or any draft agreement offered to enter into under S7.4 which affect the development.

2.6 SECTION 4.15(A)(IV) THE REGULATIONS (TO THE EXTENT THAT THEY PRESCRIBE MATTERS FOR THE PURPOSES OF THIS PARAGRAPH)

92 What additional matters must a consent authority take into consideration in determining a development application?

Conditions of consent will be imposed with regard to demolition.

93 Fire safety and other considerations

Not applicable.

94 Consent authority may require buildings to be upgraded

Not applicable

2.7 SECTION 4.15(1)(B) THE LIKELY IMPACTS OF DEVELOPMENT

Context and Setting:

The area is characterised by a mix of single storey and two storey dwelling-houses of traditional and contemporary construction. It is likely other older housing stock in the street will be modernised

over time. The development is within the allowable height and FSR for the site and acceptable considering number of storeys, required setbacks (front, rear, side) to the building, bulk and scale. The neighbouring properties will still receive the 3 hours of sunlight required by the DCP. In regard to the visual impact, the development is not considered to be unreasonable with regard to street character.

Access, Transport and Traffic:

The development provides for the required number of car parking spaces and manoeuvring. Council's Traffic officer has considered the development with regard to WDCP 2009 requirements and raised no objections to this proposal.

Public Domain:

The development is considered unlikely to result in impacts on the public domain with regard to the bulk and scale.

Utilities:

The proposal would not be envisaged to place an unreasonable demand on utilities supply.

Heritage:

The site is not located in the visual catchment of any nearby heritage items.

Other land resources:

The proposal would not be envisaged to impact upon valuable land resources.

Water:

The site is presently serviced by Sydney Water, which could be readily extended to meet the requirements of the proposed development.

The proposal would not be envisaged to have unreasonable water consumption.

Soils:

The proposed excavation is not expected to result in negative impact on soils.

Air and Microclimate:

The proposal would not be expected to result in negative impact on air or microclimate.

Flora and Fauna:

Councils Landscape Officer has considered the proposed development and raised no objection subject to conditions. Conditions are recommended with regard to tree removal and retention including compensatory planting and fauna management. The proposed deep soil zone at the rear of the lot is considered satisfactory.

Waste:

A condition will be attached to any consent granted that an appropriate receptacle be in place for any waste generated during the construction. Street garbage collection proposed.

Energy:

The proposal would not be expected to have unreasonable energy consumption. A BASIX Certificate has been provided. See Section 2.1.3.

Noise and vibration:

A condition will be attached to any consent granted, that nuisance be minimised during any construction, demolition, or works.

<p><u>Natural hazards:</u></p> <p>There are no natural hazards identified on site that would preclude the proposed development.</p>
<p><u>Technological hazards:</u></p> <p>There are no technological hazards identified on site that would preclude the proposed development.</p>
<p><u>Safety, Security and Crime Prevention:</u></p> <p>There are no concerns with regard to safety and security.</p>
<p><u>Social Impact:</u></p> <p>The proposal would not be envisaged to result in negative social impacts.</p>
<p><u>Economic Impact:</u></p> <p>The proposal is not expected to create negative economic impact.</p>
<p><u>Site Design and Internal Design:</u></p> <p>The application does not result in any departures from WLEP 2009 development standards. The proposal is compliant with regard to WDCP 2009 as outlined throughout this report. Site design, manoeuvring and internal design are considered to be satisfactory, subject to the design changes described at Attachment 3.</p>
<p><u>Construction:</u></p> <p>Conditions of consent are recommended in relation to construction impacts such as hours of work, erosion and sedimentation controls, works in the road reserve, excavation, demolition and use of any crane, hoist, plant or scaffolding.</p> <p>A condition would be attached to any consent granted that all works are to be in compliance with the National Construction Code/Building Code of Australia.</p>
<p><u>Cumulative Impacts:</u></p> <p>Considering the matters outlined in this report, the proposal is considered unlikely to result in adverse cumulative impacts.</p>

2.8 SECTION 4.15(1)(C) THE SUITABILITY OF THE SITE FOR DEVELOPMENT

Does the proposal fit in the locality?

The proposal is considered reasonable in relation to impacts on the amenity of the locality and/or adjoining developments as discussed in the body of this report.

Are the site attributes conducive to development?

The subject site is zoned R2 Low Density Residential zone and has been designed having regard to the provisions of WLEP 2009 and WDCP 2009. There are no natural hazards or environmental constraints affecting the land. There is unlikely to be any adverse cumulative impacts as a result of the proposed development, given that the proposal is consistent with the development standards of WLEP 2009, and with the development controls of WDCP 2009.

There are no site constraints that would prevent the proposal.

2.9 SECTION 4.15(1)(D) ANY SUBMISSIONS MADE IN ACCORDANCE WITH THIS ACT OR THE REGULATIONS

See section 1.5 of this report.

2.10 SECTION 4.15(1)(E) THE PUBLIC INTEREST

On review of the matters raised by submitters together with the compliant nature of the proposal, housing needs of the wider community and matters discussed above, the proposal is considered on balance to be in the public interest.

It is considered the facade treatment and minimisation of bulk by the basement carparking area will not adversely detract from the established character of the area. Moreover, the proposal is considered to be capable of integrating within the existing streetscape particularly when landscaping works are completed. The impacts on neighbouring properties have been discussed within the report and subject to the amendments described at **Attachment 3**, the impacts would be considered acceptable. The proposal is compliant with both the WLEP and WDCP, and is considered to be what could reasonably be anticipated for this zone.

3 CONCLUSION

This application has been assessed having regard to the Heads of Consideration under Section 4.15 of the Environmental Planning and Assessment Act 1979, the provisions of Wollongong Local Environmental Plan 2009 and all relevant Council DCPs, Codes and Policies.

The application is compliant with both the WLEP 2009 and WDCP 2009. There are no development departures sought to WLEP 2009 and no variations required to WDCP 2009.

Some of the issues identified in submissions received whilst technically unresolved are considered to have been adequately addressed by way of design changes or conditions of consent. Satisfactory referral advice was provided by internal referral groups.

It is considered that with amendments outlined at **Attachment 3** to Units 1 and 3 the proposed development can be considered as having been designed appropriately given the constraints and characteristics of the site, is not inconsistent with the existing and desired future character of the locality and is development that could reasonably anticipated in the area.

4 RECOMMENDATION

Development Application DA-2019/595 be **deferred** subject to the receipt of amended details for Units 1 and 3 addressing amenity matters as outlined in **Attachment 3**.

Should the amendments be satisfactory then consent be **granted** subject to the conditions provided at **Attachment 4** with condition 1 being updated to reflect the final plan set.

5 ATTACHMENTS

- | | |
|---|------------------------------------|
| 1 | Architectural Plans |
| 2 | DCP Compliance Table |
| 3 | Design matters relating to amenity |
| 4 | Conditions |

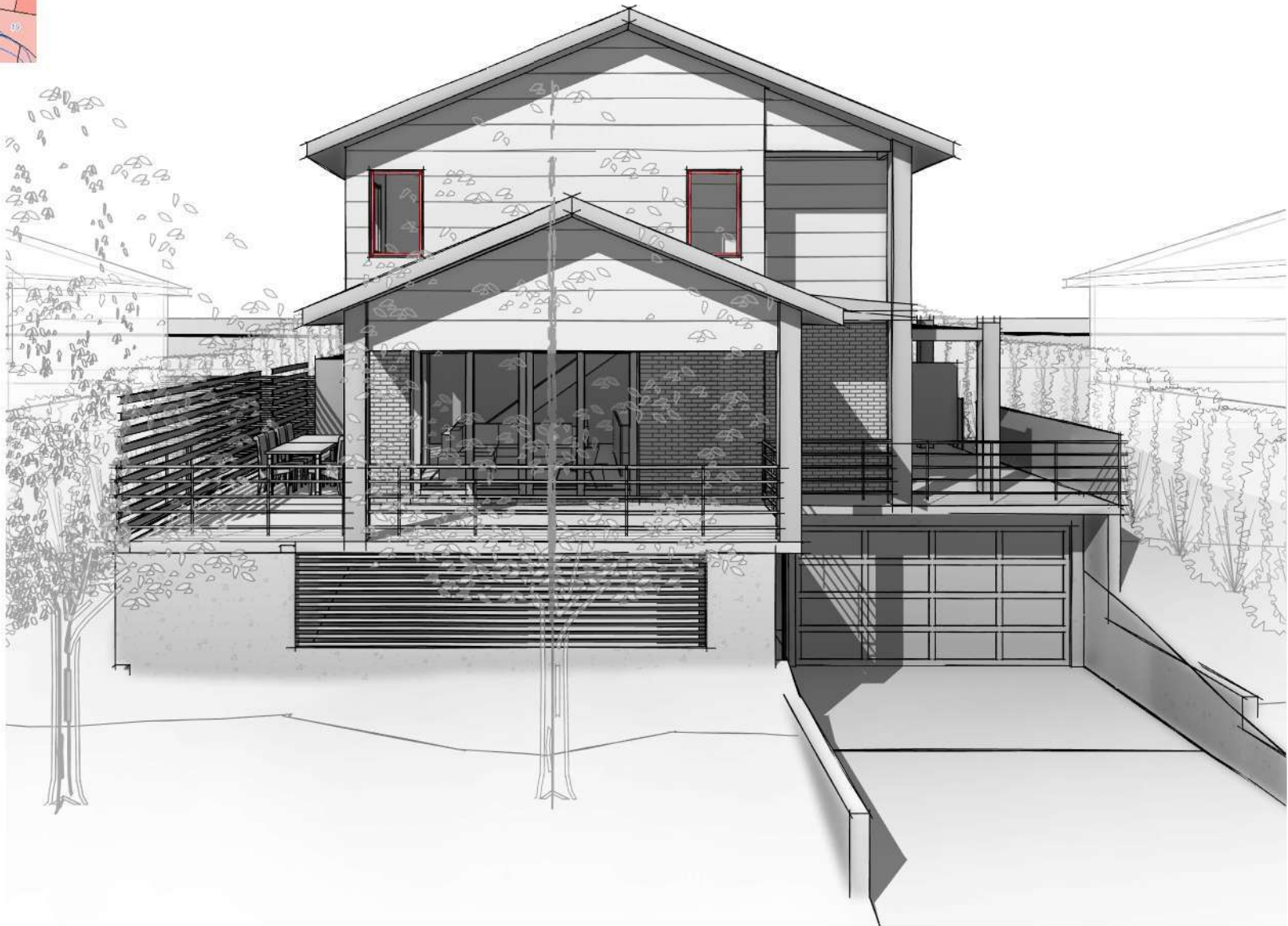
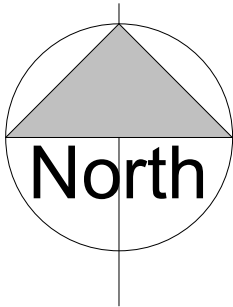
PROPOSED MULTI UNIT DEVELOPMENT

28 GEORGE STREET, THIRROUL, 2515, LOT 28 DP1099628

Sheet Number	Sheet Name
00	Cover Page
01	Site Analysis Plan
02	Site Plan
03	Basement Floor Plan
04	Ground Floor Plan - Unit 1 and 2
05	Ground Floor Plan - Unit 3 and 4
06	First Floor Plan - Unit 1 and 2
07	First Floor Plan - Unit 3 and 4
08	Roof Plan
09	South Elevation
10	North Elevation
11	East Elevation
12	West Elevation
13	East Elevation - Unit 1 and 2
14	East Elevation - Unit 3 and 4
15	West Elevation - Unit 1 and 2
16	West Elevation - Unit 3 and 4
17	Section AA
18	Section BB
19	Section CC
20	Landscape and Site Coverage Plan
21	Shadow Diagrams 9am - 12pm
22	Shadow Diagrams 1pm - 3pm
23	BASIX and Schedules
24	Site Waste Management Plan
25	3d Perspectives
26	Section DD



PROPOSED SITE



★10STAR★

PHONE
1300 10 STAR (7827)

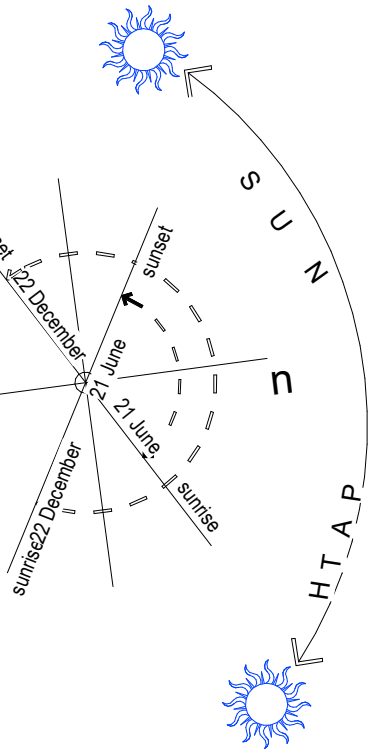
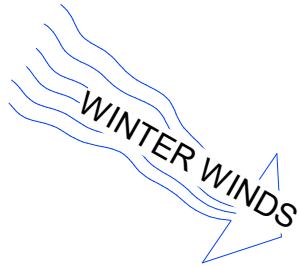
EMAIL
info@10starliving.com.au

WEBSITE
www.10starliving.com.au

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 4. ITEMS SPECIFIED TO MATCH EXISTING AS CLOSE AS POSSIBLE, NOT EXACT

Issue:	Issue details:	Date:
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6		

Project: Proposed Multi Unit Development		Client & Address: C. DREIZI 28 George Street, Thirroul 2515, Lot 28 DP 1099628	
Issue: A			
Drawn By: M.LISICA		Project number: 10STAR017	
Sheet Name: Cover Page		Date: 02/10/19	Sheet: 00
DEVELOPMENT APPLICATION		Scale:	



Site Analysis Plan

SCALE 1 : 200



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EMAIL
info@10starliving.com.au

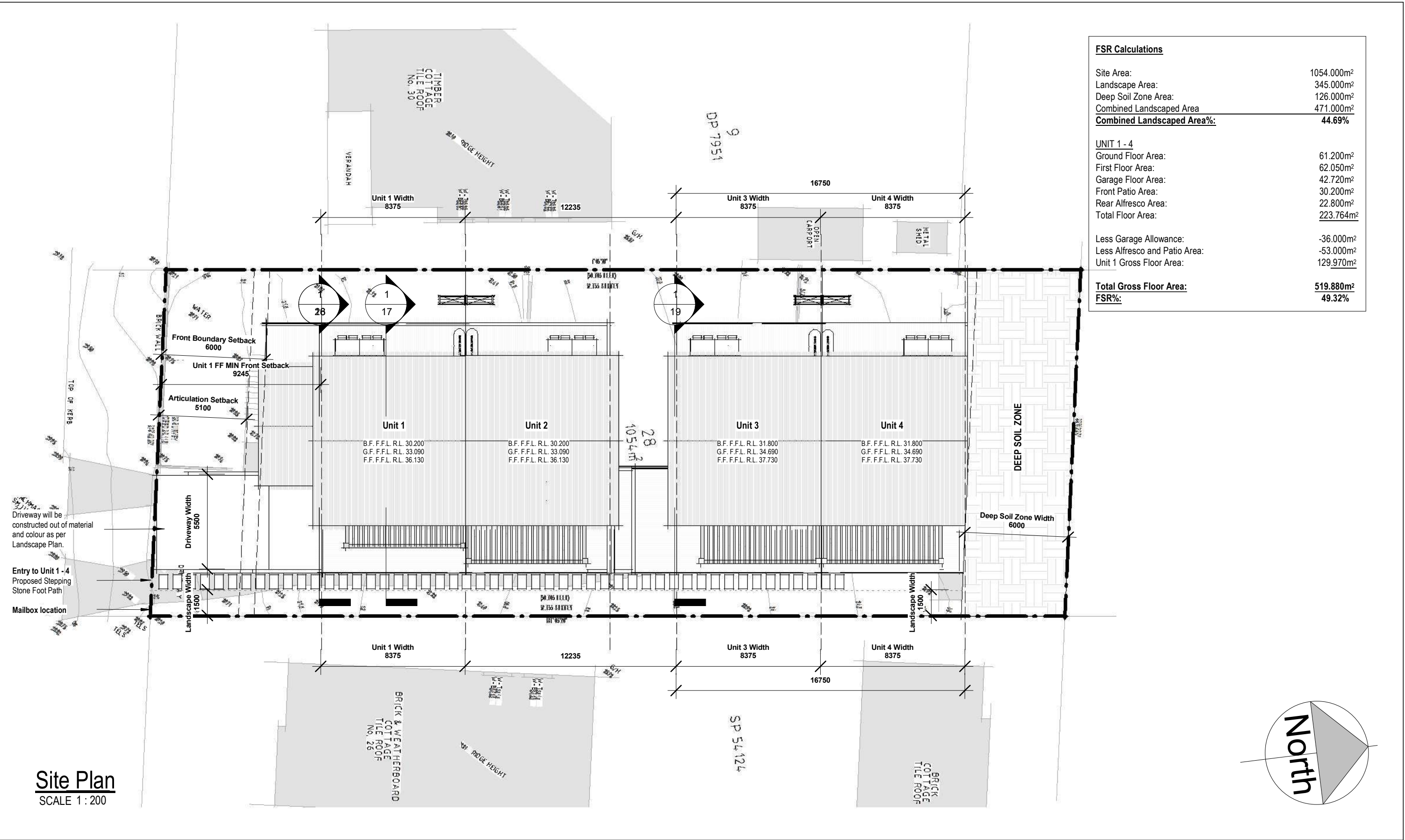
WEBSITE
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Project: Proposed Multi Unit Development		Client & Address: C. DREIZI 28 George Street, Thirroul 2515, Lot 28 DP 1099628	
Issue: A		Project number: 10STAR017	
Drawn By: M.LISICA		Date: 02/10/19	
Sheet Name: Site Analysis Plan		Scale: 1 : 200	
DEVELOPMENT APPLICATION		01	



FSR Calculations	
Site Area:	1054.000m ²
Landscape Area:	345.000m ²
Deep Soil Zone Area:	126.000m ²
Combined Landscaped Area	471.000m ²
Combined Landscaped Area%:	44.69%
UNIT 1 - 4	
Ground Floor Area:	61.200m ²
First Floor Area:	62.050m ²
Garage Floor Area:	42.720m ²
Front Patio Area:	30.200m ²
Rear Alfresco Area:	22.800m ²
Total Floor Area:	223.764m ²
Less Garage Allowance:	-36.000m ²
Less Alfresco and Patio Area:	-53.000m ²
Unit 1 Gross Floor Area:	129.970m ²
Total Gross Floor Area:	519.880m ²
FSR%:	49.32%

Site Plan
SCALE 1 : 200



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EMAIL
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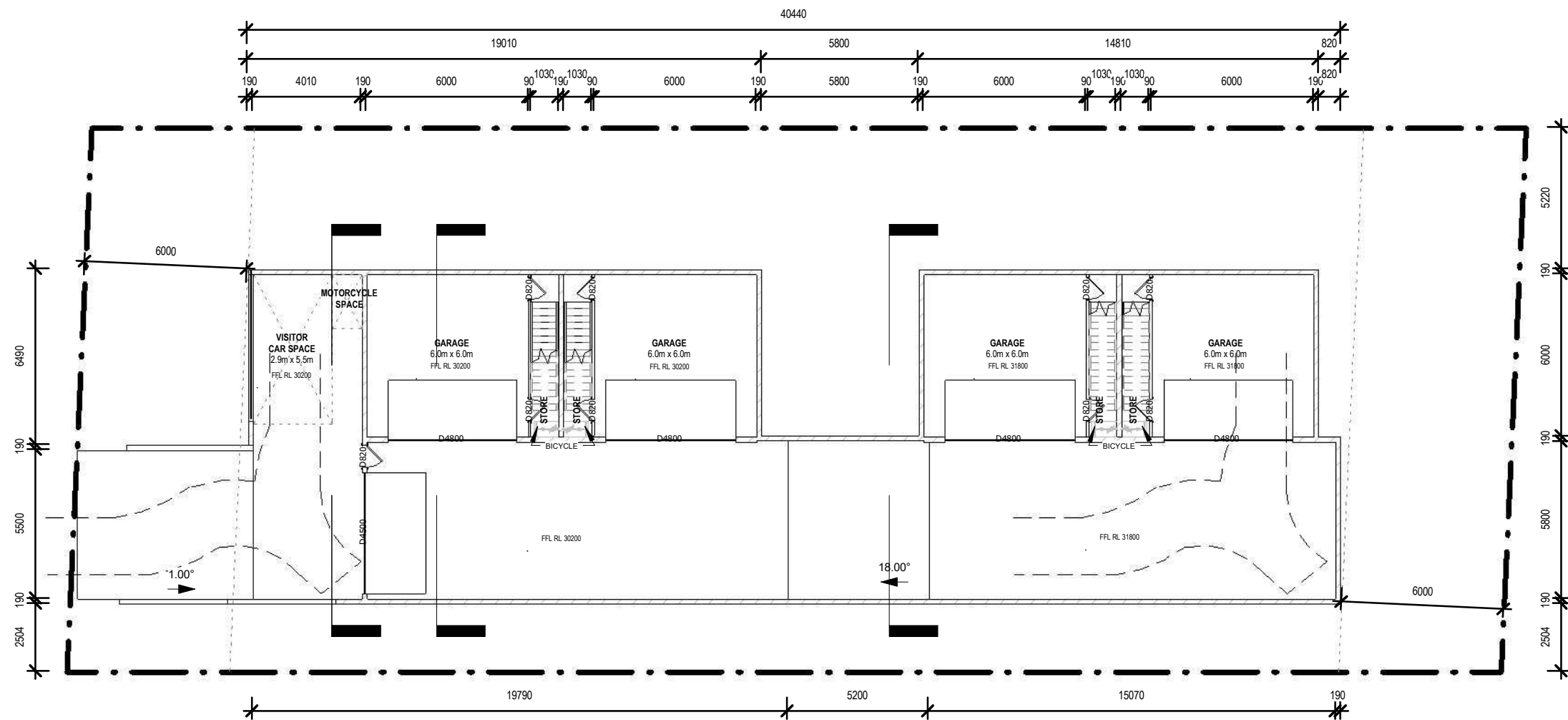
WEBSITE
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GENERAL NOTES:

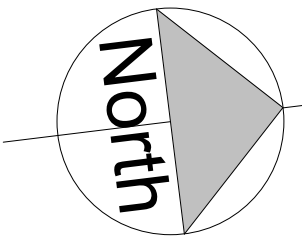
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Project: Proposed Multi Unit Development		Client & Address: C. DREIZI 28 George Street, Thirroul 2515, Lot 28 DP 1099628	
Issue: A		Project number: 10STAR017	
Drawn By: M.LISICA		Date: 02/10/19	
Sheet Name: Site Plan		Sheet: 02	
DEVELOPMENT APPLICATION		Scale: 1 : 200	



Basement Floor Plan
SCALE 1 : 200



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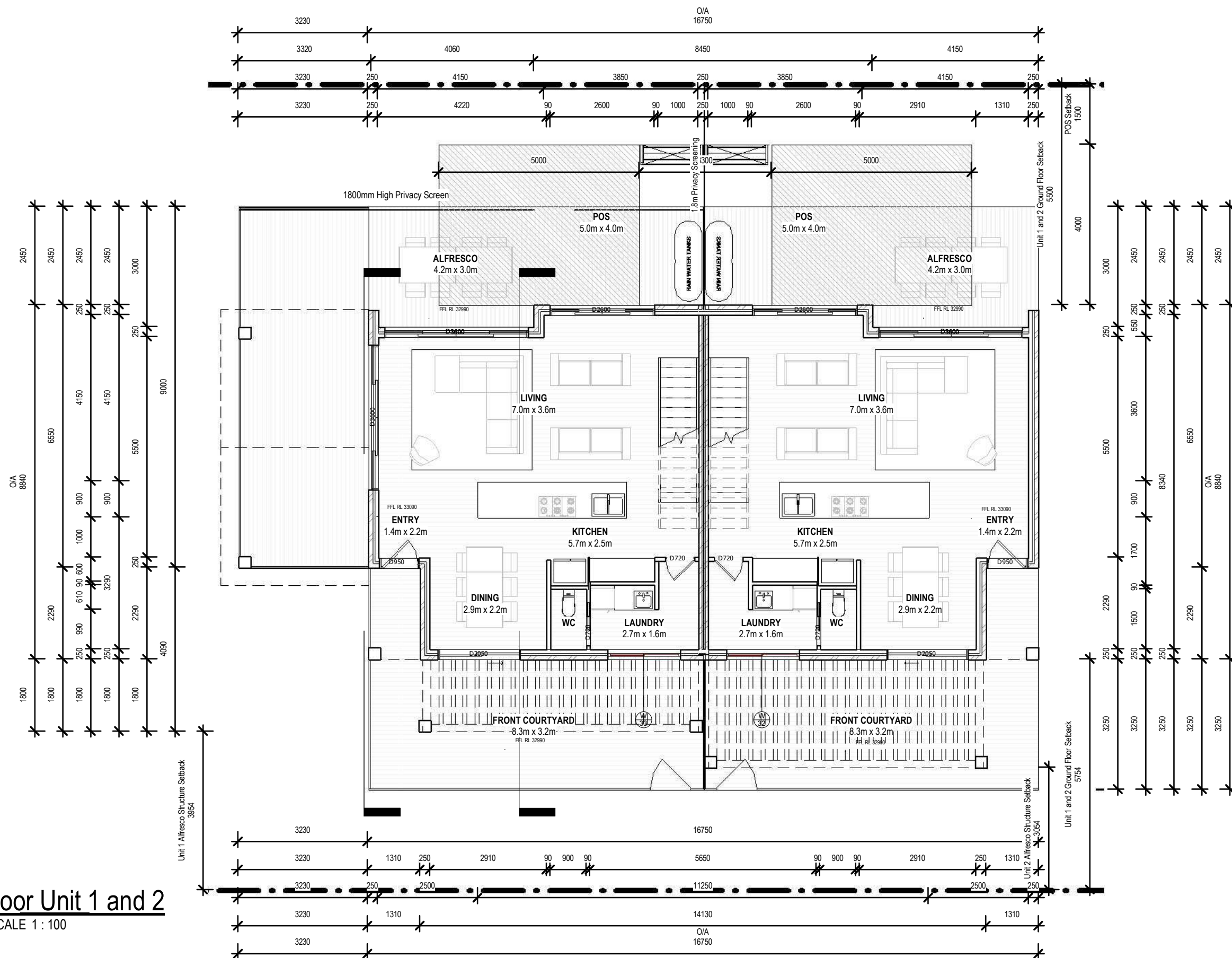
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Issue:	Issue details:	Date:
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Project: Proposed Multi Unit Development		Client & Address: C. DREIZI 28 George Street, Thirroul 2515, Lot 28 DP 1099628	
Issue: A			
Drawn By: M.LISICA		Project number: 10STAR017	
Sheet Name: Basement Floor Plan		Date: 02/10/19	Sheet: 03
DEVELOPMENT APPLICATION		Scale: 1 : 200	

Ground Floor Unit 1 and 2

SCALE 1 : 100



GENERAL NOTES:

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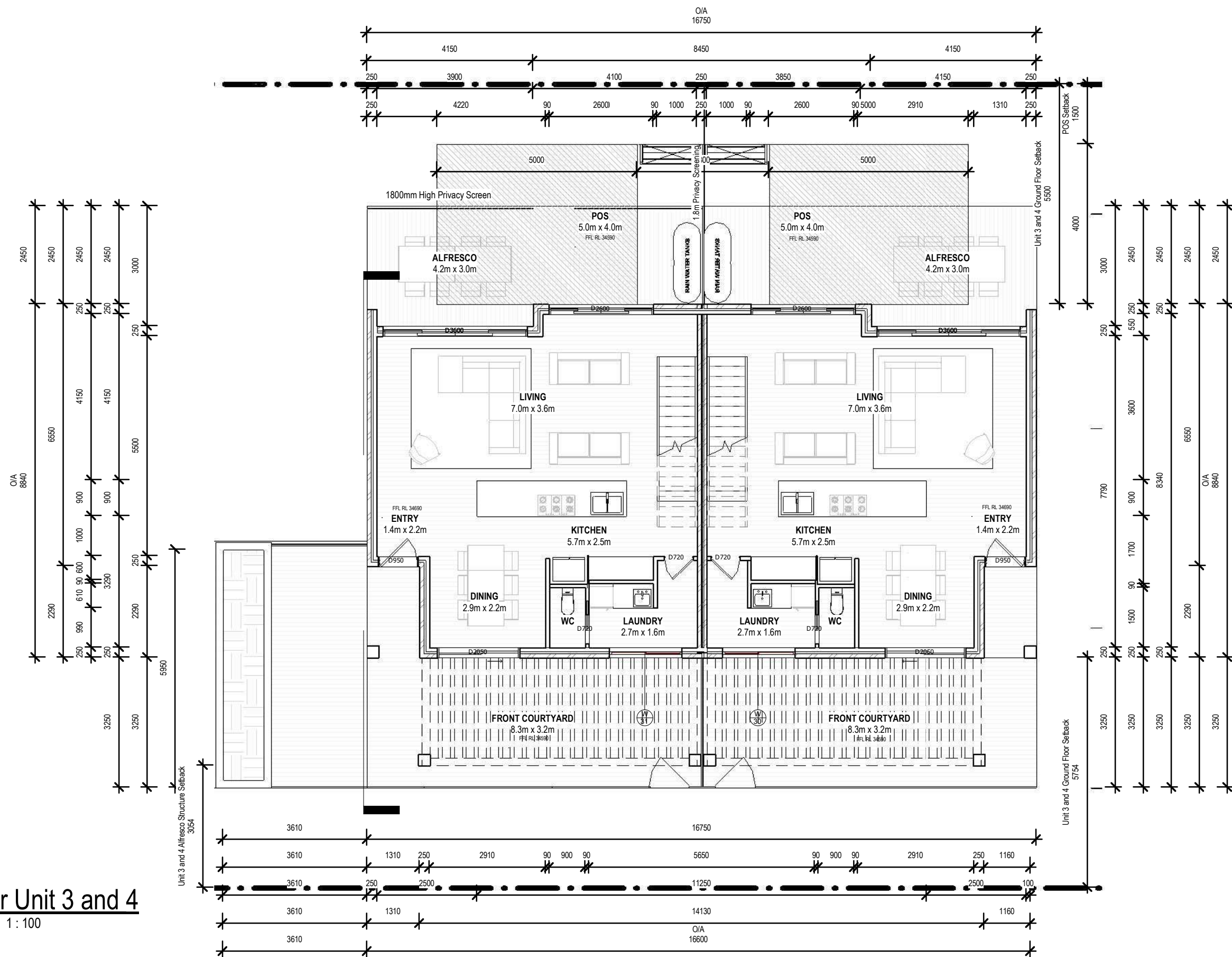
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Project: Proposed Multi Unit Development		Client & Address: C. DREIZI 28 George Street, Thirroul 2515, Lot 28 DP 1099628	
Issue: A		Project number: 10STAR017	
Drawn By: M.LISICA		Date: 02/10/19	
Sheet Name: Ground Floor Plan - Unit 1 and 2		Scale: 1 : 100	
DEVELOPMENT APPLICATION		04	

Ground Floor Unit 3 and 4

SCALE 1 : 100



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Issue:	Issue details:	Date:
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Project:
Proposed Multi Unit Development

Issue: A

Drawn By: M.LISICA

Sheet Name: Ground Floor Plan - Unit 3 and 4

DEVELOPMENT APPLICATION

Client & Address:
C. DREIZI
28 George Street, Thirroul
2515, Lot 28 DP 1099628

Project number: 10STAR017

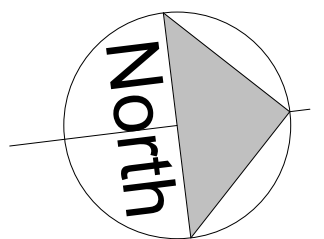
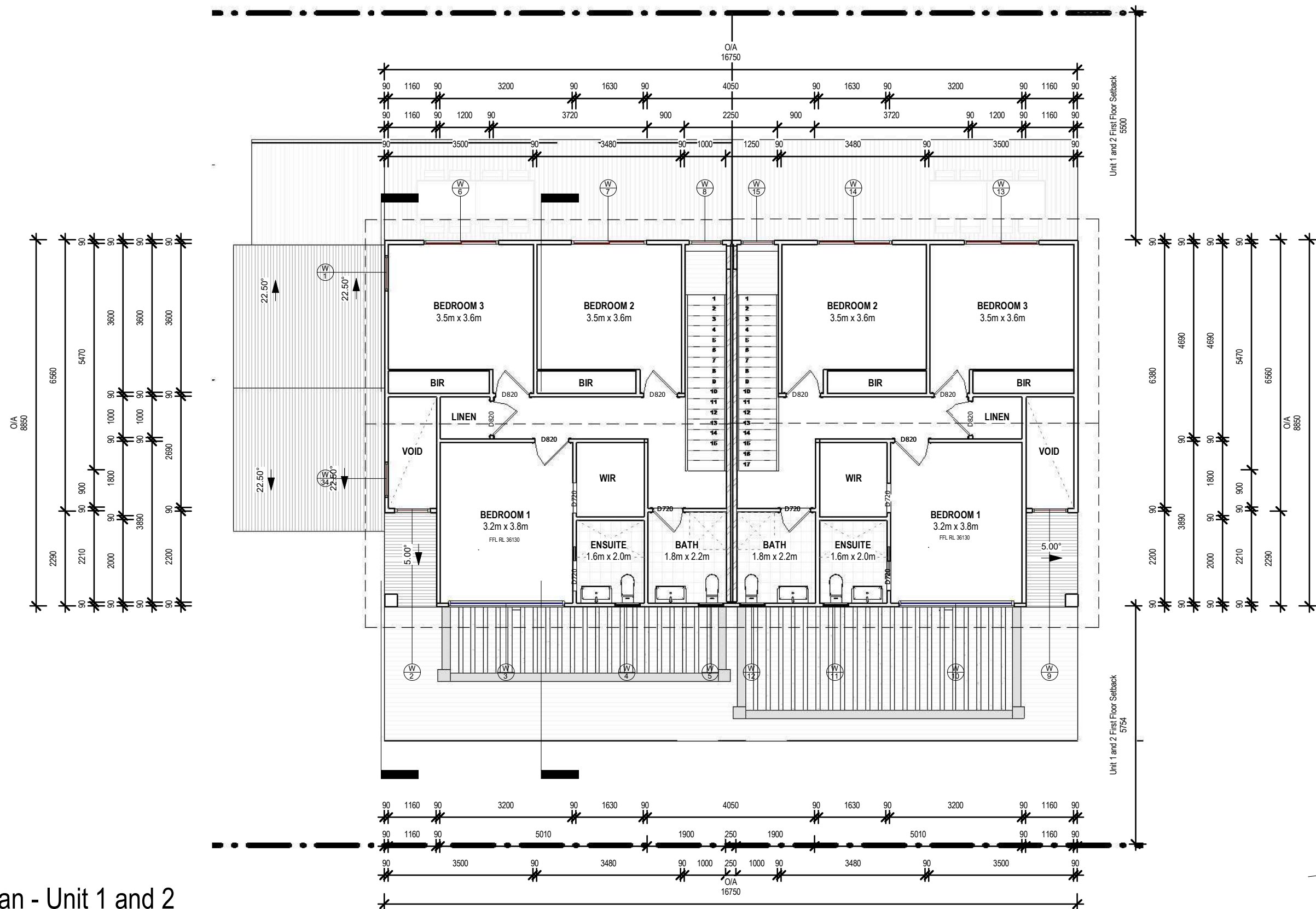
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Scale: 1 : 100

Sheet:
05

First Floor Plan - Unit 1 and 2

SCALE 1 : 100



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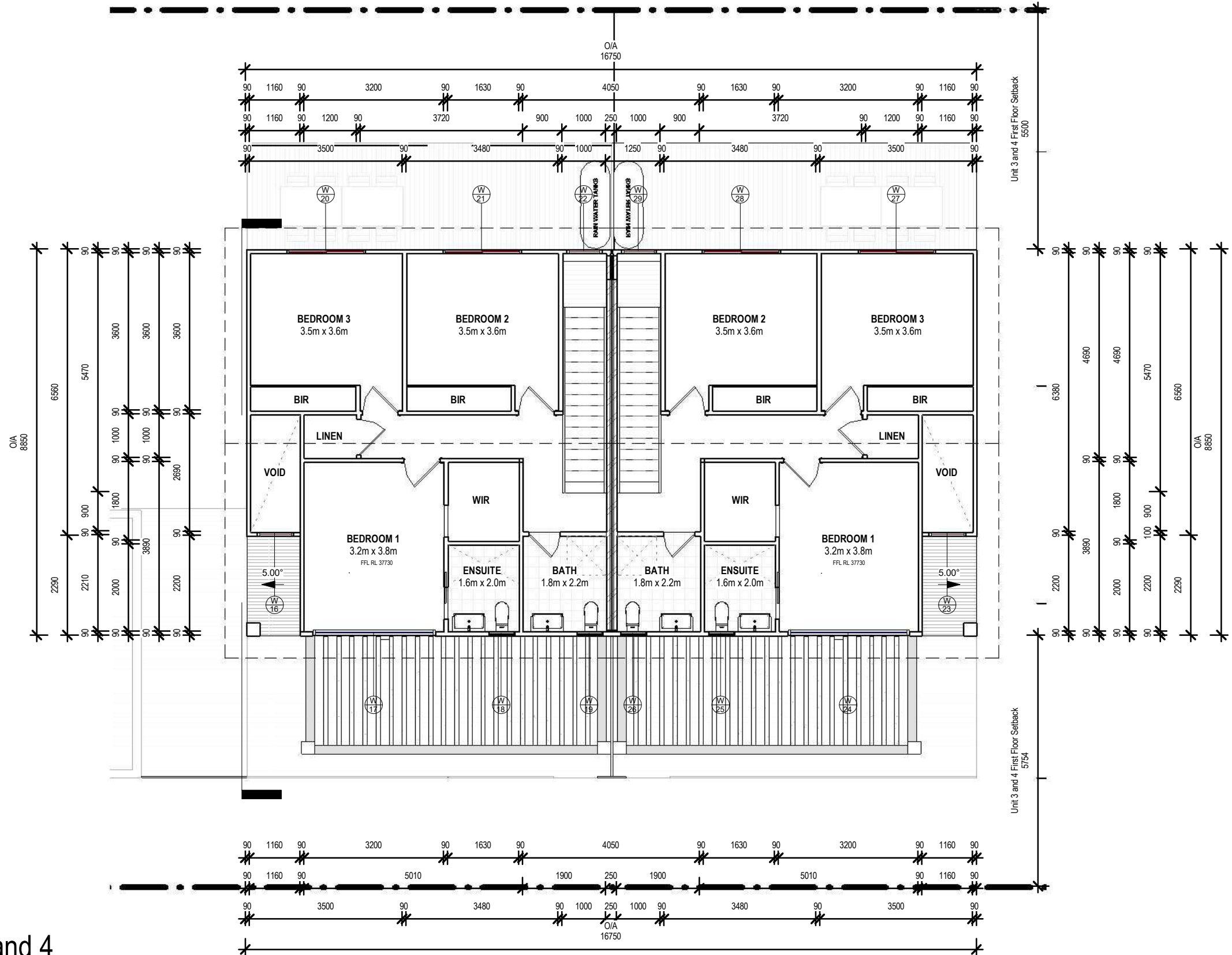
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Project: Proposed Multi Unit Development		Client & Address: C. DREIZI 28 George Street, Thirroul 2515, Lot 28 DP 1099628	
Issue: A		Project number: 10STAR017	
Drawn By: M.LISICA		Date: 02/10/19	Sheet: 06
Sheet Name: First Floor Plan - Unit 1 and 2		Scale: 1 : 100	

DEVELOPMENT APPLICATION

First Floor Plan - Unit 3 and 4

SCALE 1 : 100



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Issue:	Issue details:	Date:
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Project:
Proposed Multi Unit Development

Issue: A

Drawn By: M.LISICA

Sheet Name: First Floor Plan - Unit 3 and 4

DEVELOPMENT APPLICATION

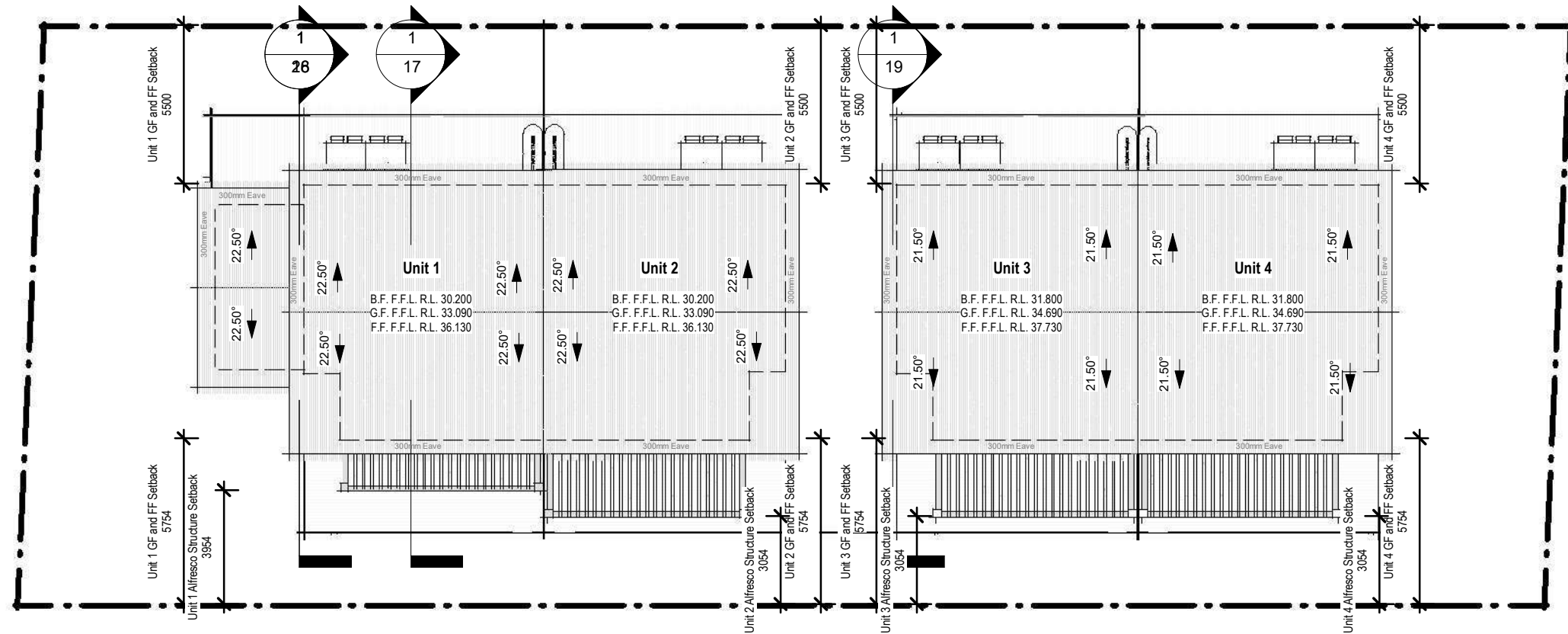
Client & Address:
C. DREIZI
28 George Street, Thirroul
2515, Lot 28 DP 1099628

Project number: 10STAR017

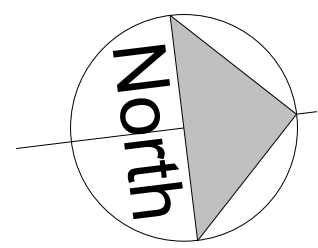
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Scale: 1 : 100

Sheet:
07



Roof Plan
SCALE 1 : 200



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Issue:	Issue details:	Date:
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Project:
Proposed Multi Unit Development

Issue:
A

Drawn By:
M.LISICA

Sheet Name:
Roof Plan

DEVELOPMENT APPLICATION

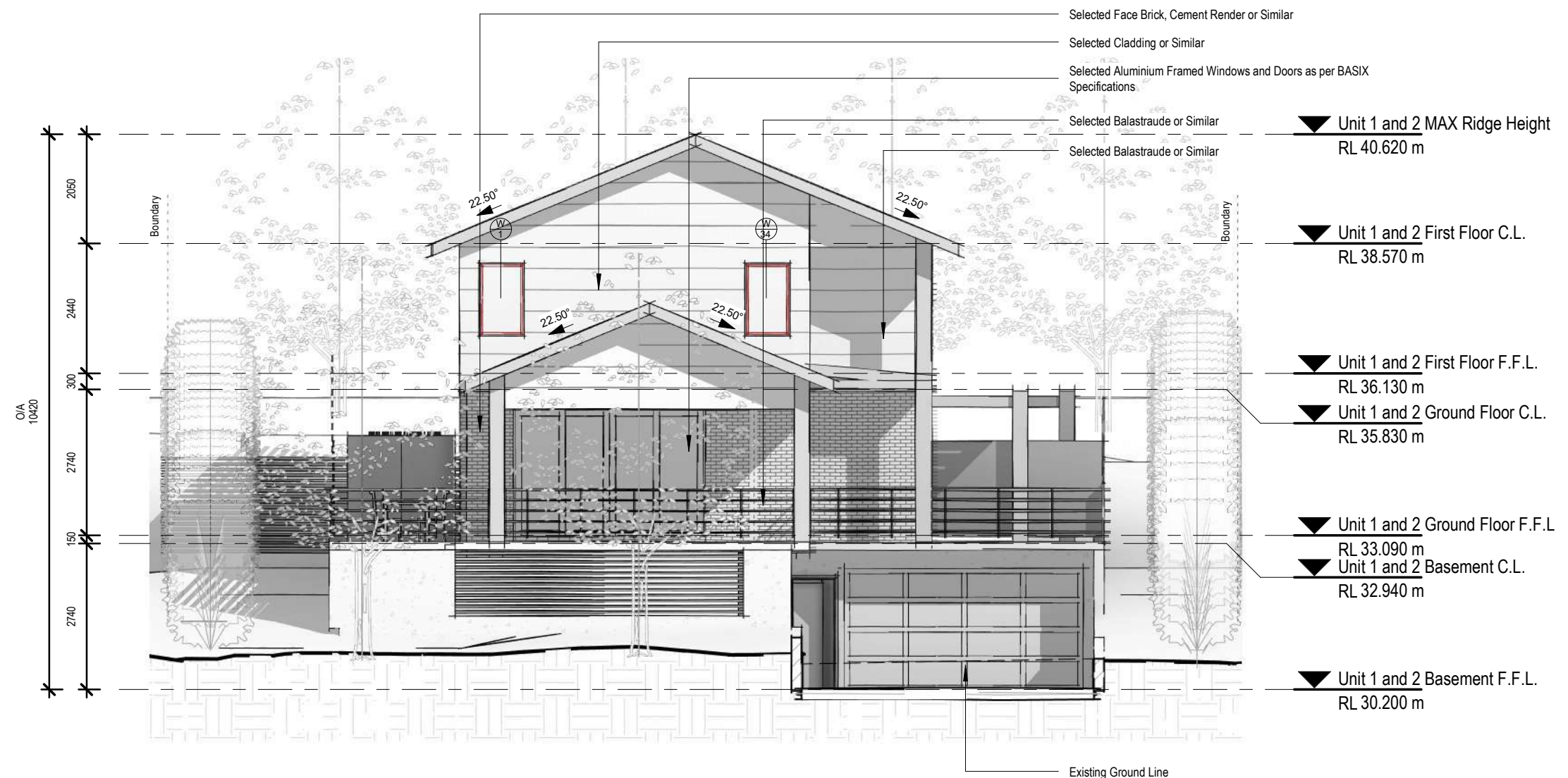
Client & Address:
C. DREIZI
28 George Street, Thirroul
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Project number:
10STAR017

Date:
02/10/19

Scale:
1 : 200

Sheet:
08



South Elevation

SCALE 1 : 100



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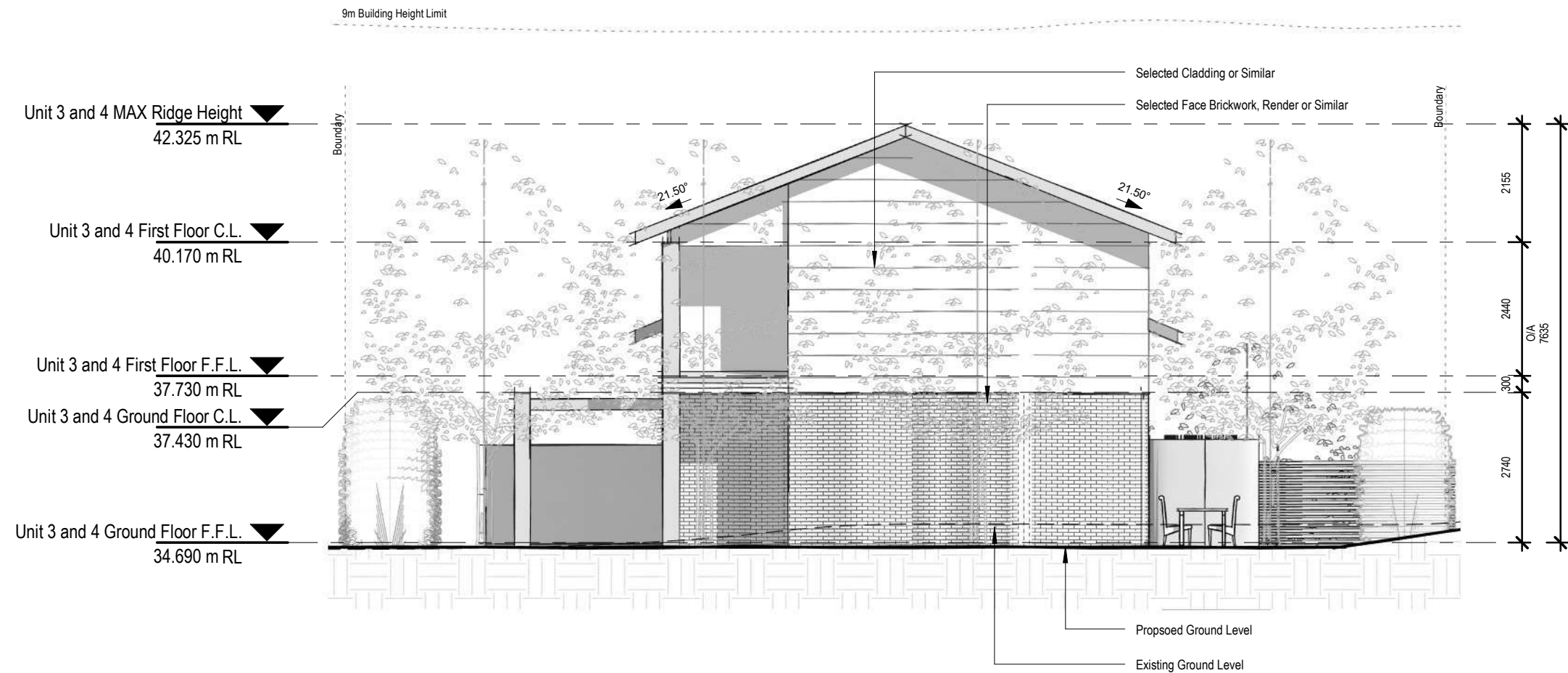
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Project: Proposed Multi Unit Development		Client & Address: C. DREIZI 28 George Street, Thirroul 2515, Lot 28 DP 1099628	
Issue: A		Project number: 10STAR017	
Drawn By: M.LISICA		Date: 02/10/19 Scale: 1 : 100	Sheet: 09
Sheet Name: South Elevation			
DEVELOPMENT APPLICATION			



North Elevation

SCALE 1 : 100



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Project: Proposed Multi Unit Development		Client & Address: C. DREIZI 28 George Street, Thirroul 2515, Lot 28 DP 1099628	
Issue: A		Project number: 10STAR017	
Drawn By: M.LISICA		Date: 02/10/19	
Sheet Name: North Elevation		Scale: 1 : 100	
DEVELOPMENT APPLICATION		Sheet: 10	



East Elevation Units 1 - 4

SCALE 1 : 125

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Issue:	Issue details:	Date:
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Project:
Proposed Multi Unit Development

Issue:
A

Drawn By:
M.LISICA

Sheet Name:
East Elevation

DEVELOPMENT APPLICATION

Client & Address:
C. DREIZI
28 George Street, Thirroul
2515, Lot 28 DP 1099628

Project number:
10STAR017

Date:
02/10/19

Scale:
1 : 125

Sheet:
11



West Elevation Units 1 - 4
SCALE 1 : 125

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Project: Proposed Multi Unit Development		Client & Address: C. DREIZI 28 George Street, Thirroul 2515, Lot 28 DP 1099628	
Issue: A		Project number: 10STAR017	
Drawn By: M.LISICA		Date: 02/10/19	Sheet: 12
Sheet Name: West Elevation		Scale: 1 : 125	
DEVELOPMENT APPLICATION			

5.3

NATIONWIDE
HOUSE

ENERGY RATING SCHEME

61.6 MJ/m²

www.nathers.gov.au

Certificate Number:
Assessor Name:
Accreditation number:
Certificate date:
Dwelling address:

1, 28 George Street
Thirroul NSW 2515

www.nathers.gov.au

T3JMVQH5X4

Marko Lisica

VIC/BD/V16/1728

21 Mar 2019

<https://www.nathers.gov.au/QRCodeLanding?PublicId=T3JMVQH5X4>

5.5

NATIONWIDE
HOUSE

ENERGY RATING SCHEME

57.4 MJ/m²

www.nathers.gov.au

Certificate Number:
Assessor Name:
Accreditation number:
Certificate date:
Dwelling address:

2, 28 George Street
Thirroul NSW 2515

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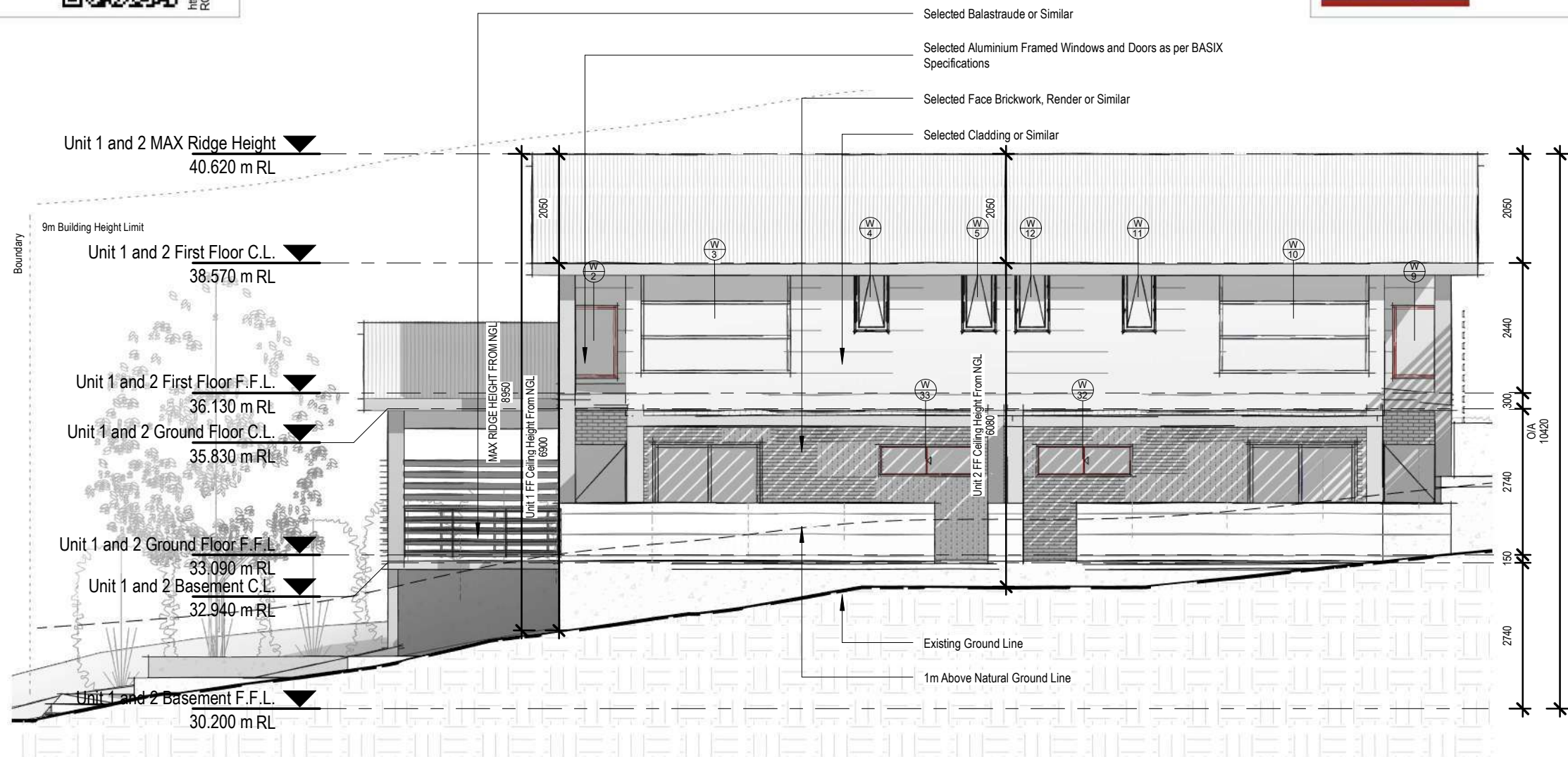
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Marko Lisica

VIC/BD/V16/1728

21 Mar 2019

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East Elevation - Unit 1 and 2

SCALE 1 : 100

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Issue:	Issue details:	Date:
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Project:
Proposed Multi Unit Development

Issue:
A

Drawn By:
M.LISICA

Sheet Name:
East Elevation - Unit 1 and 2

DEVELOPMENT APPLICATION

Client & Address:
C. DREIZI
28 George Street, Thirroul
2515, Lot 28 DP 1099628

Project number:
10STAR017

Date:
02/10/19

Scale:
1 : 100

Sheet:
13

5.4

NATIONWIDE
HOUSE

ENERGY RATING SCHEME

58.8 MJ/m²

www.nathers.gov.au

Certificate Number:
Assessor Name:
Accreditation number:
Certificate date:
Dwelling address:

3, 28 George Street
Thirroul NSW 2515

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05JQ5293HA

Marko Lisica

VIC/BD/V16/1728

21 Mar 2019


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5.4

NATIONWIDE
HOUSE

ENERGY RATING SCHEME

59.9 MJ/m²

www.nathers.gov.au

Certificate Number:
Assessor Name:
Accreditation number:
Certificate date:
Dwelling address:

4, 28 George Street
Thirroul NSW 2515

www.nathers.gov.au

XIYAEJGCYR

Marko Lisica

VIC/BD/V16/1728

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East Elevation - Unit 3 and 4

SCALE 1 : 100

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Issue:	Issue details:	Date:
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Project:
Proposed Multi Unit Development

Issue:
A

Drawn By:
M.LISICA

Sheet Name:
East Elevation - Unit 3 and 4

DEVELOPMENT APPLICATION

Client & Address:
C. DREIZI
28 George Street, Thirroul
2515, Lot 28 DP 1099628

Project number:
10STAR017

Date:
02/10/19

Scale:
1 : 100

Sheet:
14

5.3

NATIONWIDE
HOUSE

ENERGY RATING SCHEME

61.6 MJ/m²

www.nathers.gov.au

Certificate Number:
Assessor Name:
Accreditation number:
Certificate date:
Dwelling address:

1, 28 George Street
Thirroul NSW 2515

www.nathers.gov.au

T3JMVQH5X4

Marko Lisica

VIC/BDAY/16/1728

21 Mar 2019

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5.5

NATIONWIDE
HOUSE

ENERGY RATING SCHEME

57.4 MJ/m²

www.nathers.gov.au

Certificate Number:
Assessor Name:
Accreditation number:
Certificate date:
Dwelling address:

2, 28 George Street
Thirroul NSW 2515

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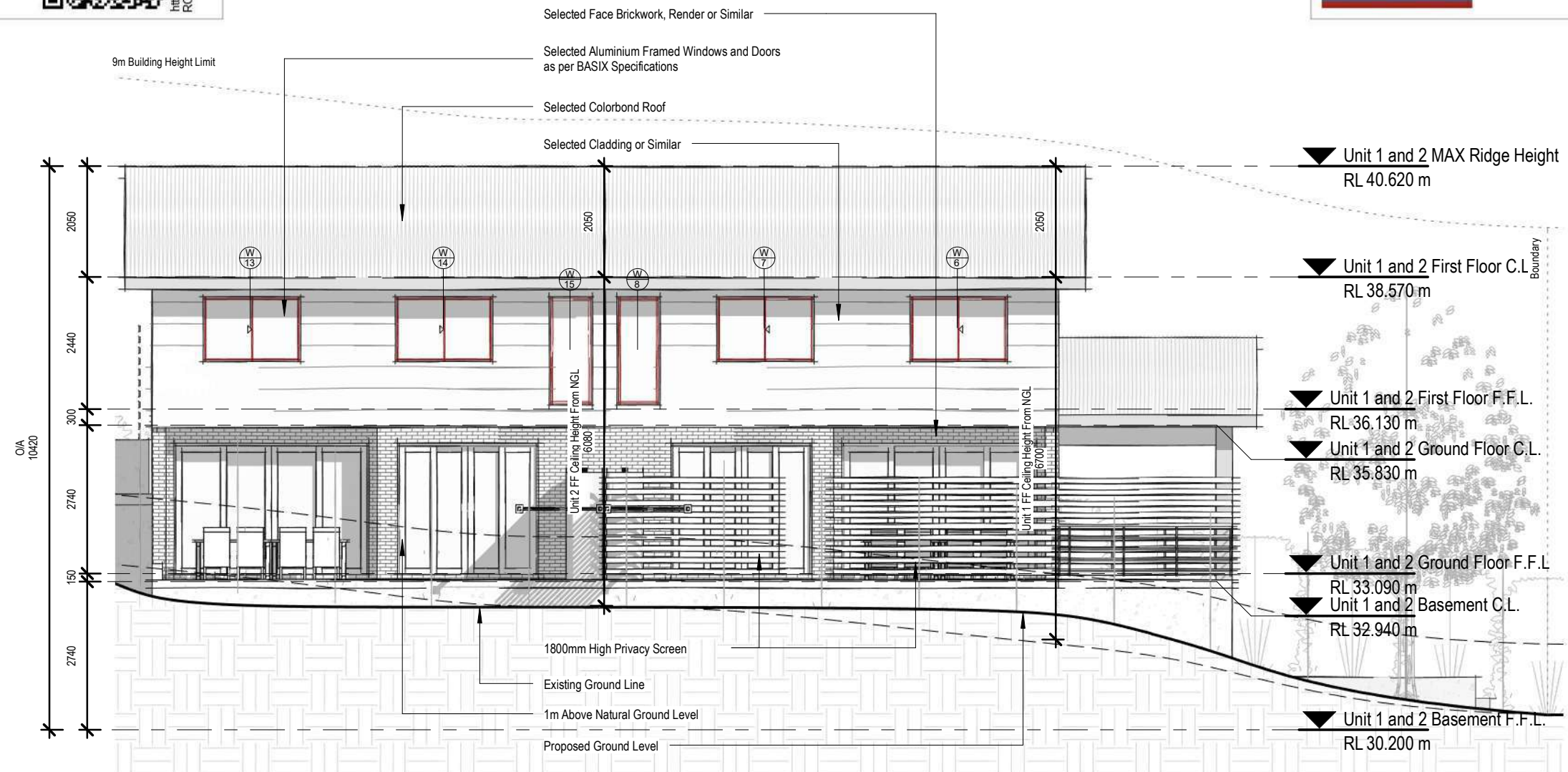
0Q1CMLMO56

Marko Lisica

VIC/BDAY/16/1728

21 Mar 2019

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West Elevation - Unit 1 and 2
SCALE 1 : 100

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Project:
Proposed Multi Unit Development

Issue:
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Drawn By:
M.LISICA

Sheet Name:
West Elevation - Unit 1 and 2

DEVELOPMENT APPLICATION

Client & Address:
C. DREIZI
28 George Street, Thirroul
2515, Lot 28 DP 1099628

Project number:
10STAR017

Date:
02/10/19

Scale:
1 : 100

Sheet:
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5.4

NATIONWIDE
HOUSE

ENERGY RATING SCHEME

58.8 MJ/m²

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Certificate Number:
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Accreditation number:
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Marko Lisica
VIC/BDV/16/1728
21 Mar 2019

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5.4

NATIONWIDE
HOUSE

ENERGY RATING SCHEME

59.9 MJ/m²

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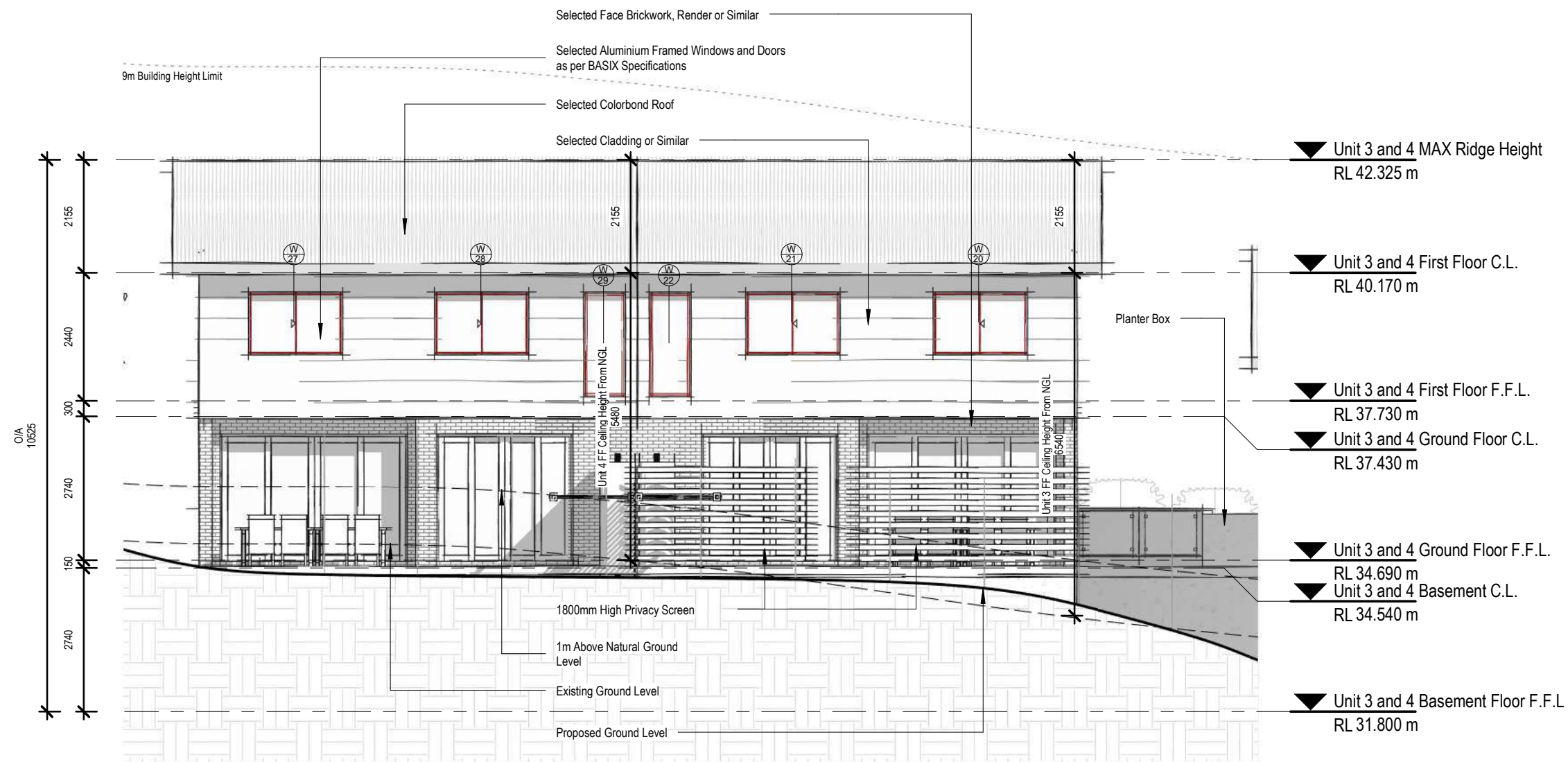
Certificate Number:
Assessor Name:
Accreditation number:
Certificate date:
Dwelling address:

4, 28 George Street
Thirroul NSW 2515

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XIYAEJGCYR
Marko Lisica
VIC/BDV/16/1728
21 Mar 2019

<https://www.nathers.gov.au/QRCodeLanding?PublicId=XIYAEJGCYR>



West Elevation - Unit 3 and 4
SCALE 1 : 100

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Issue:	Issue details:	Date:
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Project:
Proposed Multi Unit Development

Issue:
A

Drawn By:
M.LISICA

Sheet Name:
West Elevation - Unit 3 and 4

DEVELOPMENT APPLICATION

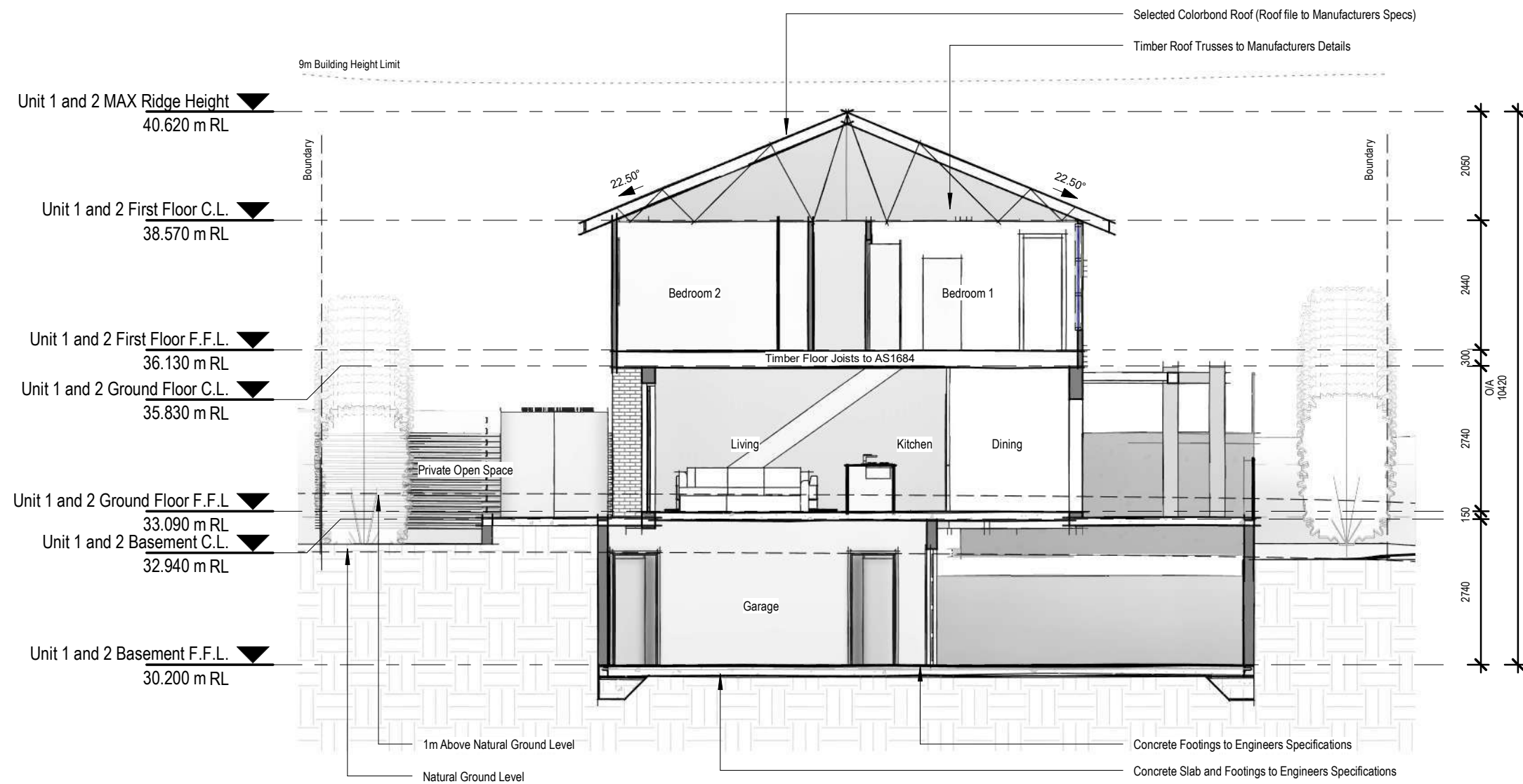
Client & Address:
C. DREIZI
28 George Street, Thirroul
2515, Lot 28 DP 1099628

Project number:
10STAR017

Date:
02/10/19

Scale:
1 : 100

Sheet:
16



Section AA
SCALE 1 : 100

★ **10STAR** ★

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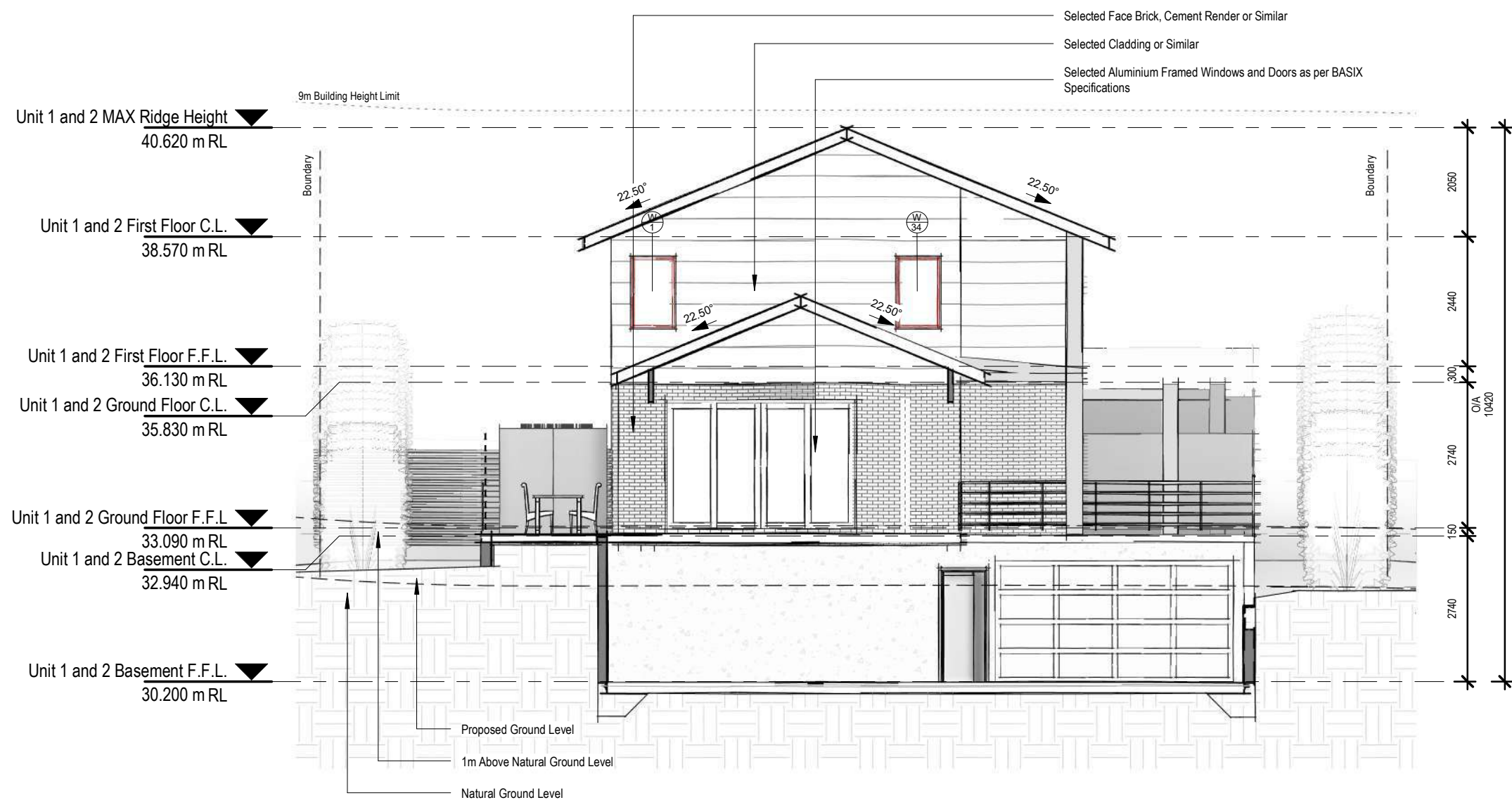
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4. ITEMS SPECIFIED TO MATCH EXISTING AS CLOSE AS POSSIBLE, NOT EXACT	

Issue:	Issue details:	Date:
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Project: Proposed Multi Unit Development		Client & Address: C. DREIZI 28 George Street, Thirroul 2515, Lot 28 DP 1099628	
Issue: A		Project number: 10STAR017	
Drawn By: M.LISICA		Date: 02/10/19	
Sheet Name: Section AA		Scale: 1 : 100	
DEVELOPMENT APPLICATION		Sheet: 17	



Section BB

SCALE 1 : 100



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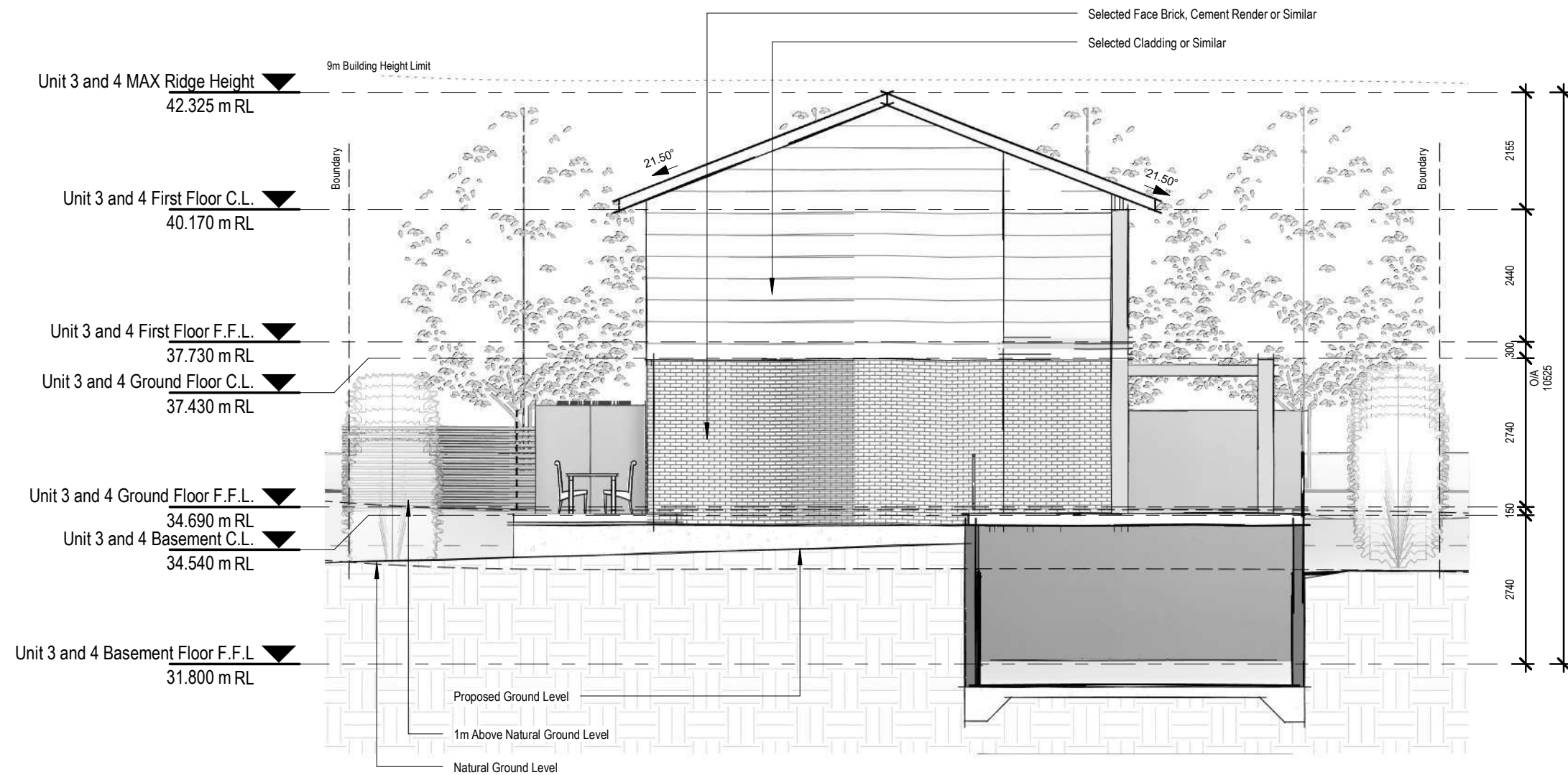
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Issue: A		Project number: 10STAR017	
Drawn By: M.LISICA		Date: 02/10/19	Sheet: 18
Sheet Name: Section BB			
DEVELOPMENT APPLICATION			



Section CC

SCALE 1 : 100



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Project: Proposed Multi Unit Development		Client & Address: C. DREIZI 28 George Street, Thirroul 2515, Lot 28 DP 1099628	
Issue: A		Project number: 10STAR017	
Drawn By: M.LISICA		Date: 02/10/19	Sheet: 19
Sheet Name: Section CC			
DEVELOPMENT APPLICATION			

Landscape and Site Coverage Plan

SCALE 1 : 200



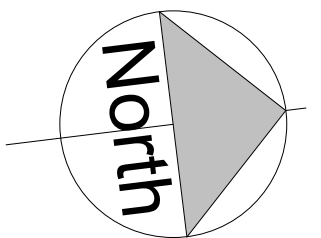
FSR Calculations

Site Area:	1054.000m ²
Landscape Area:	345.000m ²
Deep Soil Zone Area:	126.000m ²
Combined Landscaped Area	471.000m ²
Combined Landscaped Area%:	44.69%

UNIT 1 - 4	
Ground Floor Area:	61.200m ²
First Floor Area:	62.050m ²
Garage Floor Area:	42.720m ²
Front Patio Area:	30.200m ²
Rear Alfresco Area:	22.800m ²
Total Floor Area:	223.764m²

Less Garage Allowance:	-36.000m ²
Less Alfresco and Patio Area:	-53.000m ²
Unit 1 Gross Floor Area:	129.970m²

Total Gross Floor Area:	519.880m²
FSR%:	49.32%



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Issue: A		Project number: 10STAR017	
Drawn By: M.LISICA		Date: 02/10/19	Sheet: 20
Sheet Name: Landscape and Site Coverage Plan			
DEVELOPMENT APPLICATION			

SOLAR ACCESS

At least 50% of the private open areas of adjoining residential properties must receive at least 3 hours of sunlight between 9.00am and 3.00pm on June 21.

26 George Street - 9am -12pm

COMPLIES

30 George Street - 10am -12pm COMPLIES

The primary private open area of at least 70% of the dwellings within a multi dwelling housing development must receive a minimum of three hours of direct sunlight between 9.00am and 3.00pm on June 21.

11am - 5/5 POS Areas comply

12pm - 5/5 POS Areas comply

1pm - 5/5 POS Areas comply

2pm - 5/5 POS Areas comply

3pm - 5/5 POS Areas comply

Therefore the proposed development complies with solar access requirements.



Shadow Diagram 1 - 9am

SCALE 1 : 500



Shadow Diagram 2 - 10am

SCALE 1 : 500



Shadow Diagram 3 - 11am

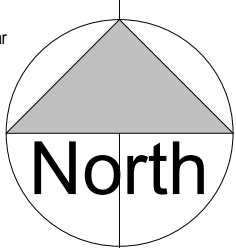
SCALE 1 : 500



Shadow Diagram 4 - 12pm

SCALE 1 : 500

5/5 POS Areas have greater then 50% solar access during this hour.



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Project: Proposed Multi Unit Development		Client & Address: C. DREIZI 28 George Street, Thirroul 2515, Lot 28 DP 1099628	
Issue: A			
Drawn By: M.LISICA		Project number: 10STAR017	
Sheet Name: Shadow Diagrams 9am - 12pm		Date: 02/10/19	Sheet: 21
DEVELOPMENT APPLICATION		Scale: 1 : 500	

SOLAR ACCESS

At least 50% of the private open areas of adjoining residential properties must receive at least 3 hours of sunlight between 9.00am and 3.00pm on June 21.

26 George Street - 9am -12pm

COMPLIES

30 George Street - 10am -12pm COMPLIES

The primary private open area of at least 70% of the dwellings within a multi dwelling housing development must receive a minimum of three hours of direct sunlight between 9.00am and 3.00pm on June 21.

11am - 5/5 POS Areas comply

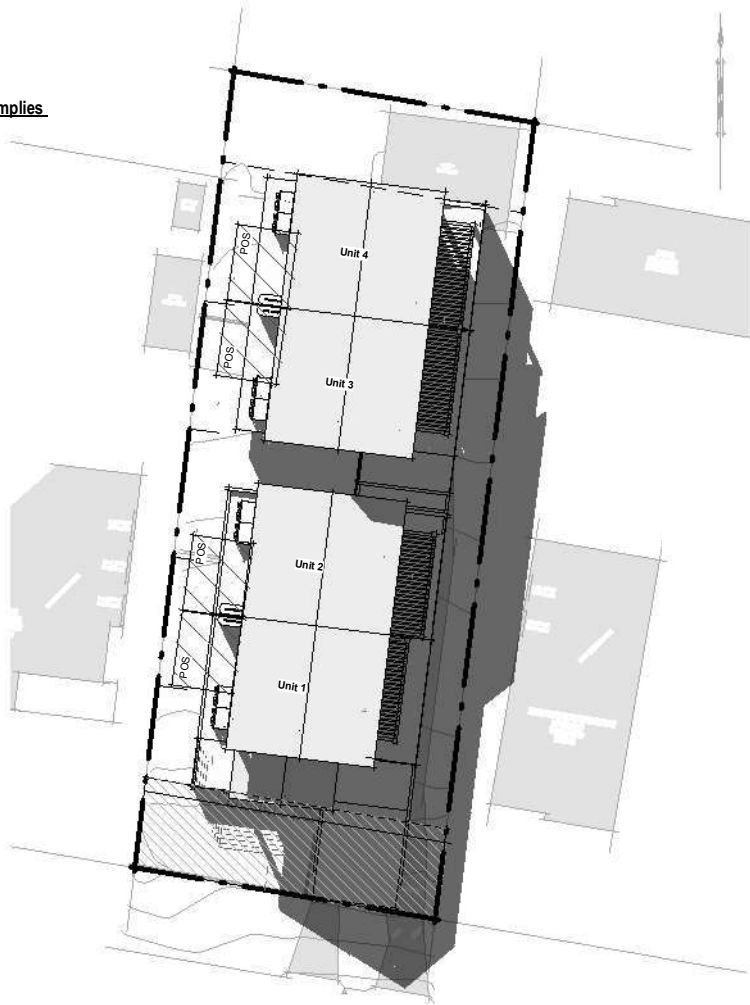
12pm - 5/5 POS Areas comply

1pm - 5/5 POS Areas comply

2pm - 5/5 POS Areas comply

3pm - 5/5 POS Areas comply

Therefore the proposed development complies with solar access requirements.



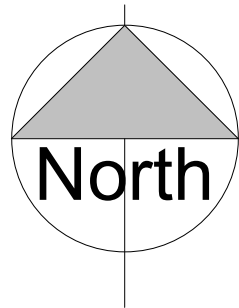
Shadow Diagram 5 - 1pm
SCALE 1 : 500



Shadow Diagram 6 - 2pm
SCALE 1 : 500



Shadow Diagram 7 - 3pm
SCALE 1 : 500



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Project: Proposed Multi Unit Development		Client & Address: C. DREIZI 28 George Street, Thirroul 2515, Lot 28 DP 1099628	
Issue: A		Project number: 10STAR017	
Drawn By: M.LISICA		Date: 02/10/19	
Sheet Name: Shadow Diagrams 1pm - 3pm		Sheet: 22	
DEVELOPMENT APPLICATION		Scale: 1 : 500	

Window Schedule				
Mark	Height	Width	Model	Comments
1	1370	850	Aluminium Fixed Window	
2	1370	850	Aluminium Fixed Window	
3	2000	2800	Aluminium Awning Window	
4	1200	600	Aluminium Awning Window	Obscured
5	1200	600	Aluminium Awning Window	Obscured
6	1200	1800	Aluminium Sliding Window	
7	1200	1800	Aluminium Sliding Window	
8	2000	800	Aluminium Fixed Window	
9	1370	850	Aluminium Fixed Window	
10	2000	2800	Aluminium Awning Window	
11	1200	600	Aluminium Awning Window	Obscured
12	1200	600	Aluminium Awning Window	Obscured
13	1200	1800	Aluminium Sliding Window	
14	1200	1800	Aluminium Sliding Window	
15	2000	800	Aluminium Fixed Window	
16	1370	850	Aluminium Fixed Window	
17	2000	2800	Aluminium Awning Window	
18	1200	600	Aluminium Awning Window	Obscured
19	1200	600	Aluminium Awning Window	Obscured
20	1200	1800	Aluminium Sliding Window	
21	1200	1800	Aluminium Sliding Window	
22	2000	800	Aluminium Fixed Window	
23	1370	850	Aluminium Fixed Window	
24	2000	2800	Aluminium Awning Window	
25	1200	600	Aluminium Awning Window	Obscured
26	1200	600	Aluminium Awning Window	Obscured
27	1200	1800	Aluminium Sliding Window	
28	1200	1800	Aluminium Sliding Window	
29	2000	800	Aluminium Fixed Window	
30	600	1810	Aluminium Sliding Window	
31	600	1810	Aluminium Sliding Window	
32	600	1810	Aluminium Sliding Window	
33	600	1810	Aluminium Sliding Window	
34	1370	850	Aluminium Fixed Window	

BAMC Planning & Environment | www.bamc-travel.gov.uk | Version 3.0 (20090524_3.0_R_3) | Caribbean Ltd, 185,07014 | Monday, 11 April 2016 | page 173

BACC	Planning & Environment	www.bacc.hk/en/govinfo	Version: 5.1 (20090924_2_R_3)	Certificate No.: 18030702	Monday, 16 April 2018	page 273
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LMDC	Planning & Environment	www.lmcdc.gov.hk	Version: 1.0 (13/09/2014, 2.0_3)	Cartesian file: 18030701	Monday, 11 April 2016	page 10/3
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 <p>NATIONWIDE HOUSE ENERGY RATING SCHEME</p> <p>57.4 MJ/m²</p> <p>www.nathers.gov.au</p>	<p>Certificate Number:</p> <p>Assessor Name:</p> <p>Accreditation number:</p> <p>Certificate date:</p> <p>Dwelling address:</p>	<p>0Q1CMLMO56</p> <p>Marko Lisica</p> <p>VIC/BDAV/16/1728</p> <p>21 Mar 2019</p>
	<p>2, 28 George Street</p> <p>Thirroul NSW 2515</p>	
	<p>www.nathers.gov.au</p>	
	<p>https://www.i15.com.au/Q/RCcodeLanding?PublicId=0Q1CMLMO56</p>	
	<p>0Q1CMLMO56</p>	



Certificate Number:
Assessor Name:
Accreditation number:
Certificate date:
Dwelling address:

XYIAEJGCRYR
Marko Lisica
VIC/BDAAV/16/1728
21 Mar 2019

4, 28 George Street
Thirroul NSW 2515

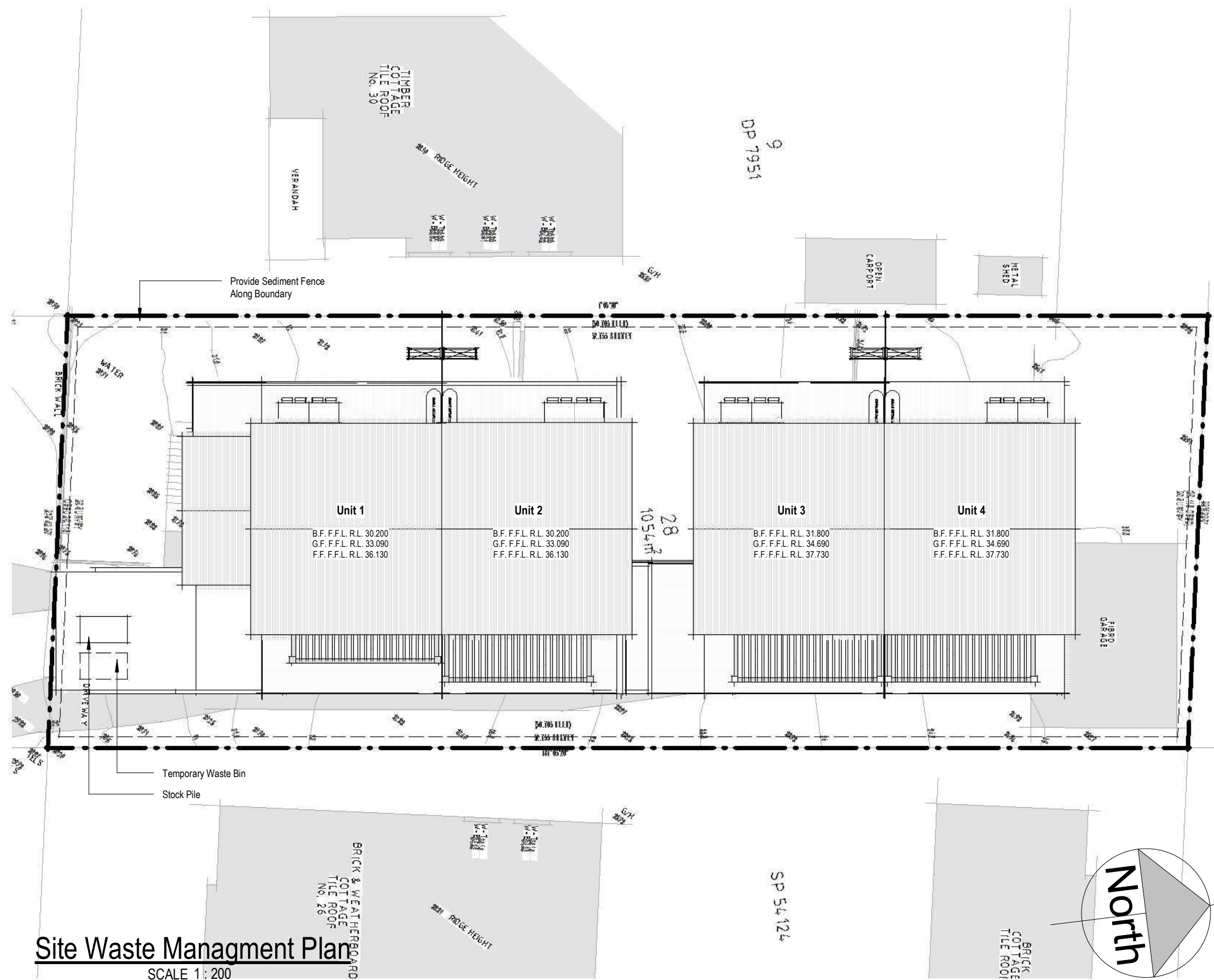
www.nathers.gov.au



<https://www.r5.com.au/QRCcodeLanding?PublicId=XYIAEJGCRYR>

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Project: Proposed Multi Unit Development		Client & Address: C. DREIZI 28 George Street, Thirroul 2515, Lot 28 DP 1099628	
Issue: A			
Drawn By: M.LISICA		Project number: 10STAR017	
Sheet Name: BASIX and Schedules		Date: 02/10/19	Sheet:
DEVELOPMENT APPLICATION		Scale:	23



SOIL EROSION/SEDIMENT CONTROL

-SEDIMENT FABRIC SUCH AS TERRAAM 100, POLFELT TS 500, BIDIM U24, GEOFAB, ENVIROFENCE OR EQUIVALENT TO BE PROVIDED ON ALL BOUNDARIES AS REQUIRED.

-FABRIC IS ATTACHED TO A STRAND WIRE (ORDINARY FENCE WIRE) OR WIRE MESH (14 GAUGE AND 150MM X 150MM OPENING).

-THE LOWER END OF THE FABRIC AND MESH TO BE EMBEDDED 200MM INTO THE GROUND.

-FILTER CLOTH TO BE FASTENED SECURELY TO WIRE FENCE WITH TIES SPACED EVERY 600MM.

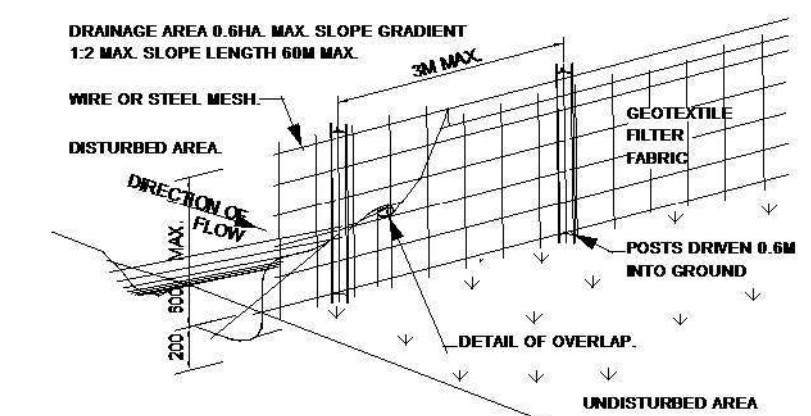
-GENERALLY FOLLOW THE CONTOUR OF THE LAND.

-WHEN 2 SECTIONS OF FILTER CLOTH ADJOIN EACH OTHER THEY SHALL BE OVERLAPPED BY 150MM AND FOLDED OVER.

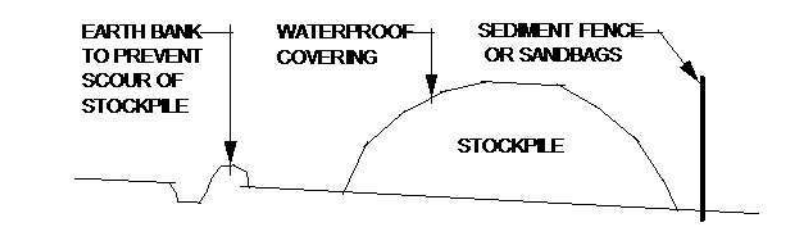
-POSTS HOLDING THE MESH ARE EITHER STEEL Y OR U TYPE OR 45-50MM HARDWOOD 900-1200MM LONG POSTS. THESE ARE TO BE SPACED 2-3M APART.

-STOCK PILES ARE TO BE SET UP WITH SEDIMENT CONTROL DEVICES ON THE LOWER SLOPE.

-TEMPORARY BARRIERS CONSTRUCTED FROM TIMBER, SYNTHETIC FABRICS, JUTE, STRAW BALES, BRUSH OR SIMILAR MATERIALS CAN BE USED TO CONTROL AIR CURRENTS AND BLOWING SOIL. THEY SHOULD BE PLACED AT RIGHT ANGLES TO THE PREVAILING WIND AND SPACED AT INTERVALS EQUIVALENT TO ABOUT 15 TIMES THEIR HEIGHT.



SEDIMENT FENCE DETAIL
NTS



BUILDING MATERIAL STOCKPILES DETAIL
NTS

Site Waste Managment Plan
SCALE 1 : 200

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Issue: A		Project number: 10STAR017	
Drawn By: M.LISICA		Date: 02/10/19	
Sheet Name: Site Waste Management Plan		Scale: 1 : 200	
DEVELOPMENT APPLICATION		24	

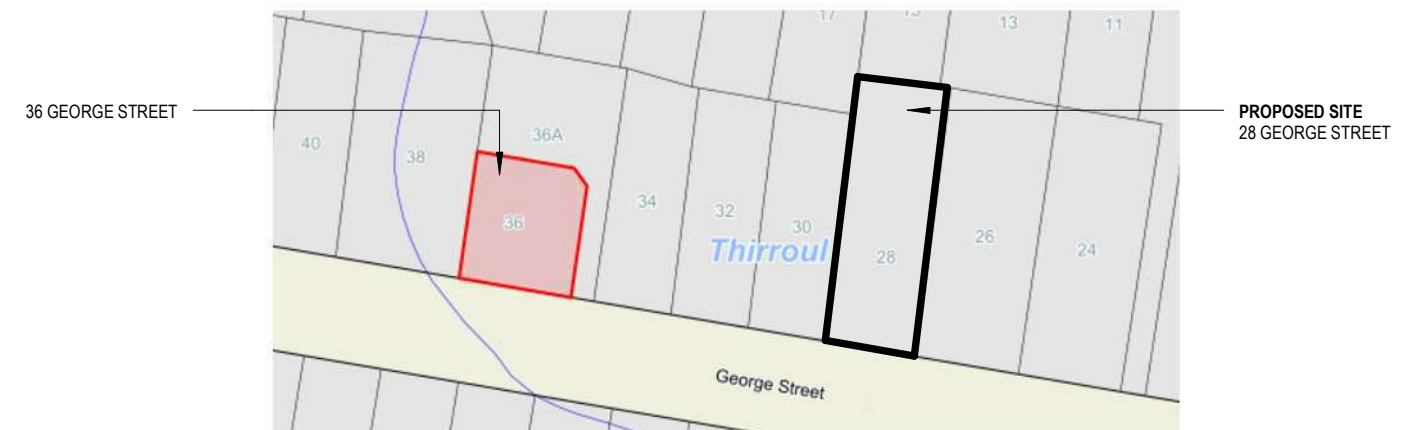


36 George Street, Thirroul

DA Approved 2017 - DA-2017/39

Completed - Late 2018

- 1 - BLACK COLOUR WINIDOWS AND DOORS OR SIMILAR
- 2 - CLADDING COLOUR GREY OR SIMILAR
- 3 - BRICKWORK OR RENDER COLOUR LIGHT GREY OR SIMILAR
- 4 - POSTS AND FEATURE CLADDING OF SIMILAR



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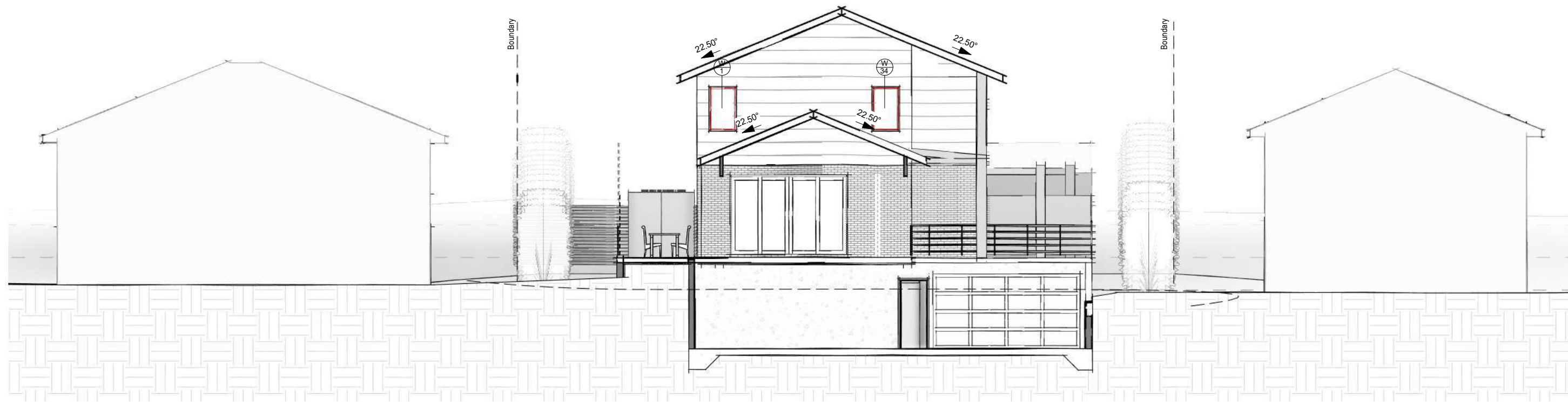
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Issue: A		Project number: 10STAR017	
Drawn By: M.LISICA		Date: 02/10/19	
Sheet Name: 3d Perspectives		Sheet: 25	
DEVELOPMENT APPLICATION			



Section DD
SCALE 1 : 125



South Perspective
SCALE

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Issue: C		Project number: 10STAR017	
Drawn By: M.LISICA		Date: 02/10/19	Sheet: 26
Sheet Name: Section DD		Scale: 1 : 125	
DEVELOPMENT APPLICATION			

ATTACHMENT 2

DCP Compliance Table

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 is considered to be consistent with the principles of Ecologically Sustainable Development as a BASIX certificate has been submitted detailing the energy and water saving targets that will be implemented in the development.

CHAPTER B1 – RESIDENTIAL DEVELOPMENT

4.0 General Residential controls

<i>Controls/objectives</i>	<i>Comment</i>	<i>Compliance</i>
<u>4.12 Site Facilities</u>	The proposal has adequate area for the provision of the site facilities for the development.	Yes
<u>4.13 Fire Brigade Servicing</u>	Established neighbourhood with existing fire brigade servicing.	Yes
<u>4.14 Services</u>	The site is already serviced.	Yes
<u>4.15 Development near the coastline</u>	The site is not located near the coastline.	Yes
<u>4.16 View sharing</u>	It is considered the proposal will not adversely impact significant views from public places and/or adjoining/nearby properties.	Yes
<u>4.17. Retaining walls</u>	Compliant retaining walls are proposed.	Yes
<u>4.18 Swimming pools and spas</u>	No swimming pools or pas are proposed.	N/A
<u>4.19 Development near railway corridors and major roads</u>	The site is not located near a railway corridor or major road.	N/A

5.0 Attached dwellings and multi -dwelling housing

<i>Controls/objectives</i>	<i>Comment</i>	<i>Compliance</i>
----------------------------	----------------	-------------------

<u>5.1 Minimum Site Width Requirement</u>	The site has a width of 20 115 metres and exceeds the minimum 18m width requirement.	Yes
<u>5.2 Number of Storeys</u>	The site is located in a R2 zone and allows a maximum of 2 storeys. The proposal does not exceed 2 storeys.	Yes
<u>5.3 Front Setbacks</u>	A minimum building setback to George Street of 6 metres on the lower level of Unit One. The upper storey is setback 9.245 metres to George St.	Yes
<u>5.4 Side and Rear Setbacks</u>	Side setbacks are achieved; however, Units 1 and 3 both have extended areas of POS and courtyards, which are elevated above natural ground level (one metre at the southern end) which is considered to pose potential overlooking impacts to adjoining properties on both the eastern boundary and the western boundary. A 1.8m high privacy screen (horizontal angled slats to provide sunlight penetration) has been proposed on the western side of the elevated private open space to ensure view lines are directed away from the neighbouring property to the west. A terrace/courtyard is proposed on the eastern side of both Units 1 and 3. The courtyard includes a pergola and neighbouring trees do provide screening; however, it is considered that the extent of the terrace particularly for Unit 3 could be reduced or lowered.	Yes meets numerical requirements; however, objectives are not primarily achieved
5.4.1 Objectives		
(a) To provide adequate setbacks from boundaries and adjoining dwellings to retain privacy levels, views, sunlight and daylight access and to minimise overlooking.		

For an attached and multi-dwelling housing, the rear boundary setbacks are measured from the wall of the building or the outer edge of a balcony/deck, to the adjacent property boundary. The minimum rear boundary setbacks are as follows:

Side and Rear Boundary Setbacks Attached and Multi-Dwelling Development		
Zone	Minimum side and rear setback	Minimum side and rear setbacks where balconies or windows of living areas face the rear boundary at first floor level or above
All zones	1.5m	1.5m
R2 Low Density Residential Zone	0.8 x ceiling height	1.0 x ceiling height

Note: Eastern GF setback is to courtyard

Unit 1	required	provided
East GF	3.92m	3.95m
East FF	5.5m	5.5m
West GF	3.52m	5m
West FF	5.36m	5.75m

Unit 2	required	provided
East GF	2.8m	3.054m
East FF	4.8m	5.5m
West GF	2.8m	5m
West FF	4.8m	5.75m

Unit 3	required	provided
East GF	3m	3.054m
East FF	5.3m	5.5m
West GF	1.92m	2.74m
West FF	3m	5m

Unit 4	required	provided
East GF	2.4m	3.05m
East FF	4.6m	5.5m
West GF	2.4m	5m
West FF	4.48m	5m
Northern boundary	4.24m	6.0m

5.5 Building Character and Form

Unit 1 presents as a single dwelling to George Street. Direct pedestrian entrance is provided via a pathway from the road reserve along the eastern side of the property to the front porch of Unit 1 (and Units 2- 4 beyond).

Yes

The family room at ground floor level opens up onto a deck which overlooks the street. The front door entry for each unit is accessed from the courtyard.

The dwellings incorporate a range of features, materials and finishes (including panel cladding and face brickwork). The combination of landscaping together with materials and finishes at ground floor ensure that the basement car park entry and podium is articulated to provide visual interest to the streetscape.

5.6 Access / Driveway Requirements

The subject site has one street frontage and utilises the existing driveway crossover - Unit 1 is oriented towards George Street with one driveway access provided to the basement level which services Units 1 – 4.

The number of access points will be maintained at one (1). The driveway, whilst straight, is not excessive in length as it leads to the basement behind a secure roller door.

Landscaping is provided forward of the basement podium and adjacent to the entry of the driveway, which softens the presentation and provides separation between the driveway and adjoining dwellings.

The driveway is located directly opposite the intersection with Kelton Lane, a single lane access road that connects George Street to Lachlan Street to the south. Given the site is utilising the existing driveway access and adequate manoeuvring is provided in the basement for forward egress, the access is considered satisfactory. The subject site is setback in excess of 100m from the intersection of George Street and Soudan Street to the east.

The driveway is setback in excess of 2.5m from any side property boundary. There is adequate manoeuvring area within the basement for the vehicles to enter and exit in a forward direction.

The application has also been reviewed by Council's Traffic Officer and no objections were raised subject to recommended conditions.

<p><u>5.7 Car Parking Requirements</u></p> <p><u>Required:</u></p> <p>Units 1- 4 < 110m² : 2.0 each</p> <p>Visitors Carparking Required: 1</p> <p>Car parking must be located behind the building setback and be screened from view with well-designed structures and vegetation.</p>	<p>All resident car parking spaces are located behind the building line within the basement. Each unit is provided with a double garage. A single visitor car space and motorcycle space is forward of the security gate within the George Street frontage.</p> <p>Total Carparking Required and provided: 9 spaces, which includes 2 spaces for each unit and a visitor space.</p> <p>All four units are provided with a two car basement garage. 8 x spaces in total</p> <p>1 x Visitor Car space</p> <p>1 x Motorcycle Space</p> <p>Bicycle –provided</p>	<p>Yes</p>
<p><u>5.8 Landscaping Requirements</u></p> <p>1. A minimum of 30% of the total site area must be provided as landscaped area. Any landscaped area on the site which is less than 1.5 metres in width is not included within the landscaped area calculations.</p> <p>Any landscaped or grassed areas within the front setback area will be included in the landscaped area calculations.</p> <p>The required landscaped area must include a minimum 1.5 metre wide landscaping bed, which is provided along the side and rear boundaries of the site.</p>	<p>Landscaped area: 345m²</p> <p>Deep Soil Zone: 126m²</p> <p>Total Landscape area: 471m²</p> <p>30% required & 44.69% provided</p> <p>1.5 metre wide landscaping bed is provided along both side boundaries of the site and screen planting will provide privacy to residents and neighbouring properties.</p> <p>Council's Landscape officer has reviewed the proposal and has provided conditionally satisfactory landscape advice.</p> <p>Trees have been nominated for removal and retention. One tree on the site is to be removed (Tree 11 - Palm) and all other trees are to be retained via a consent condition.</p>	<p>Yes</p>
<p><u>5.9 Deep Soil Planting</u></p> <p>... the deep soil may extend along the full length of the rear of the site, with a minimum width of 6m. The area of deep soil planting must be continuous.</p> <p>The deep soil zone shall be densely planted with trees and shrubs.</p>	<p>A compliant area of deep soil zone is located across the rear of the site and has a depth of 6 metres.</p> <p>Council's Landscape officer has reviewed the proposal and has provided conditionally satisfactory landscape advice.</p>	<p>Yes</p>

<p><u>5.10 Communal Open Space</u></p>	<p>Communal open space is required for developments with more than 10 dwellings. The proposal is for 4 dwellings.</p>	<p>N/A</p>
<p><u>5.11 Private Open Space</u></p> <p>1. Private open space must be provided for each dwelling within an attached dwelling development in the form of a balcony, courtyard, terrace and/or roof garden.</p> <p>2. Private open space for each dwelling within an attached dwelling housing development must comply with the following:</p> <p>(a) Private open space must be provided at the ground level or podium level. The courtyard or terrace must have a minimum dimension of 4 metres x 5 metres. This area must be separated from boundaries by at least 1.5 metres with a vegetated landscaping bed and must not encroach upon deep soil zone landscaping areas. Where a level courtyard is not possible, a deck or split level courtyard must have a minimum depth of 3 metres.</p> <p>(b) The primary private open area of at least 70% of the dwellings within a multi dwelling housing development must receive a minimum of three hours of direct sunlight between 9.00am and 3.00pm on June 21.</p> <p>(c) Private open space areas (courtyards) must not extend forward of the front building setback by greater than 900mm.</p> <p>(d) Private open space should be sited in a location, which provides privacy, solar access, and pleasing outlook and has a limited impact upon adjoining neighbours.</p> <p>(e) Design private open spaces so that they act as direct extensions of the living areas of the dwellings they serve.</p> <p>(f) Clearly define private open space through use of planting, fencing or landscaping features.</p> <p>(g) Screen private open space where appropriate to ensure privacy.</p>	<p>An area of private open space (greater than the required 5 x 4m²) for each unit is provided in the form of an 'alfresco' at the rear of each dwelling directly accessible from the combined dining/family room. A courtyard on the eastern side of each dwelling is also provided. At the southern end these areas are elevated above natural ground level for both Units 1 and 3 particularly on the southern end due to the slope of the land. As discussed at Attachment 3, it is considered that the POS areas for Units 1 and 3 require further redesign to minimise edge effects to adjoining properties, and to ensure compliance with part (d) of the control.</p> <p>Each POS area meet the minimum dimension (5x4) and are separated from side and rear boundaries by a minimum 1.5m landscape bed (western boundary) or deep soil zone (northern boundary). Each courtyard is separated by a 1.8m high privacy fence and are clearly defined.</p> <p>All POS areas receive direct sunlight after 11am in midwinter.</p>	<p>Yes</p>

5.12 Solar Access Requirements

1. Windows to living rooms of adjoining dwellings must receive 3 hours of sunlight between 9.00am and 3.00pm on 21 June.

2. At least 50% of the private open areas of adjoining residential properties must receive at least 3 hours of sunlight between 9.00am and 3.00pm on June 21.

3. The primary balcony of at least 70% of the dwellings within a multi dwelling housing development shall receive a minimum of three hours of direct sunlight between 9.00am and 3.00pm on June 21.

4. Windows to north facing living rooms for each of the subject dwellings in the development must receive at least 3 hours of sunlight between 9.00am and 3.00pm on 21 June.

5. At least 50% of the private open space area for each of the subject dwellings in the development must receive at least 3 hours of sunlight between 9.00am and 3.00pm on 21 June.

6. Shadow diagrams will be required for hourly intervals between 9.00 am and 3.00 pm for the 21 June winter solstice period which show the extent of overshadowing upon dwellings and rear private open space areas of adjoining dwellings.

The applicant has provided shadow diagrams for the proposal between 9am to 3pm on June 21 demonstrating compliance with this clause. The property to the east will experience minor overshadowing from 1pm, however no impacts are expected in the morning. The property to the west will experience minor overshadowed in the morning at 9am but thereafter there is no overshadowing by the development.

The windows to living rooms and POS areas of adjoining properties will retain in excess of 3 hours of sunlight on June 21.

An assessment of the solar access received for the POS of the proposed dwellings on June 21 has demonstrated that all units will receive required solar access between 12 noon and 3pm.

Yes

5.13 Additional Control for Multi Dwelling Housing - Dwelling Mix and Layout

This is control is applicable for development with 10 or more dwellings therefore not applicable for this proposal.

N/A

5.14 Additional Control for Multi Dwelling Housing - Adaptable Housing

Adaptable housing is required where there are 6 or more dwellings in the development. The proposal comprises of 4 dwellings and such adaptable housing is not required.

N/A

5.15 Additional Control for Multi Dwelling Housing – Crime Prevention through Environmental Design

Refer to discussion of CPTED in Chapter E2

Yes

CHAPTER D1 – CHARACTER STATEMENTS

Thirroul

Future Desired Character

...Residential development will remain primarily low density in nature. Some restricted medium density within close vicinity to the Thirroul village centre and the railway station is envisaged. Any new housing must be sympathetic with the existing Thirroul village built form and streetscape, particularly in older areas with weatherboard housing, pitched roofs and wide eaves...

The proposal is in an older area of Thirroul, which is characterised by generally single storey weatherboard housing with pitched roofs. On the northern side of George Street these single storey dwellings are elevated with front balconies and enclosed sub-floor areas due to the slope of the land. Newer buildings tend to be two storey utilising a range of building materials. It is noted that in more recent times development such as, townhouses have been established at No. 42-44 to the west and 12, 14 and 16 to the east.

The proposed multi dwelling is split across two buildings and has a pitched roof, balconies and landscaping that is considered to integrate into the streetscape. Two Blueberry Ash trees are proposed to be planted within the front setback to reflect the existing character of the street. The building provides articulation and utilises a variety of building materials. The proposal provides secure parking at basement level via a driveway from George Street. The basement level steps up the slope and is barely discernible from the street but for the entry.

The locality is not a conservation area, and the proposed building is considered acceptable having regard to design features, height and scale. On balance, the proposal is not considered an undesirable or unreasonable development proposal in relation to the requirements of this Chapter.

CHAPTER E2: CRIME PREVENTION THROUGH ENVIRONMENTAL DESIGN

<i>Control/objective</i>	<i>Comment</i>	<i>Compliance</i>
<u>3.1 Lighting</u>	Indicative lighting details have been proposed.	Yes
<u>3.2 Natural surveillance and sightlines</u>	The dwellings have been designed to provide natural surveillance within the site. The design of the development provides for passive surveillance and good sightlines to the entries of each unit.	Yes
<u>3.3 Signage</u>	Not applicable	N/A
<u>3.4 Building design</u>	The design of the dwellings has the entries clearly defined and easily identifiable. No blank walls are proposed. Overall it is considered the proposal minimises the potential areas for entrapment and provides for casual surveillance internally within the site. The basement garage and visitors car parking space is designed to reduce visual impact of parking whilst providing required secure parking for each unit as well as visitor parking.	Yes
<u>3.5 Landscaping</u>	Landscaping proposed within the front building line generally comprises of lawn area, low shrubs such that entry points and windows	Yes

<u>3.6 Public open space and parks.</u>	will not be obscured. The proposal does not adjoin public open space/park.	N/A
<u>3.7 Community facilities and public amenities</u>	The proposal is for a multi dwelling development.	N/A
<u>3.8 Bus stops and taxi ranks</u>	The proposal does not relate to a bus stop/taxi rank.	N/A

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

Access and parking is provided in accordance with this Chapter. Council's Traffic Officer has no objections subject to recommended conditions.

The proposal provides a total of eight (8) garaged car parking spaces and one (1) visitor space. The number of spaces provided for the proposal complies with the requirements in this chapter. There is adequate manoeuvring within the site for vehicles to enter and exit the site in a forward direction.

Council's Traffic Officer is satisfied that traffic and car parking demand generated by the proposed development is unlikely to impact adversely on local traffic and that pedestrian safety in the vicinity of the development is not compromised. The access design and car parking provision meets AS2890.1 and Council requirements.

CHAPTER E6: LANDSCAPING

Proposed landscaping is compliant with the requirements of this Chapter. Council's Landscape officer has reviewed the application and provided satisfactory referral advice with the imposition of conditions including compensatory planting.

CHAPTER E7: WASTE MANAGEMENT

A Demolition Plan and Site Waste Minimisation and Management Plan provided as required by this Chapter outlining ways to manage waste during demolition/construction and operational waste.

CHAPTER E14 STORMWATER MANAGEMENT

Council's Development Engineering officer has assessed the application and is satisfied the proposal meets the requirements of this Chapter. Conditions have been provided for stormwater management.

CHAPTER E17 PRESERVATION AND MANAGEMENT OF TREES AND VEGETATION

The proposal requested the removal of a number of trees and an arborist report accompanied the application, which was referred to Council's Landscape Division for advice. Council's Landscape Officer has reviewed the application submission. Conditionally satisfactory referral advice was received, and conditions specify trees to be removed, trees to be retained, tree protection and management and compensatory plantings. One tree (Tree 11) only is to be removed from the site.

CHAPTER E19 EARTHWORKS (LAND RESHAPING WORKS)

The proposal involves earthworks to prepare the site for the development and excavation of a single level of basement carparking. Conditions will be imposed.

CHAPTER E20 CONTAMINATED LAND MANAGEMENT

No concerns are raised in regard to contamination. See Section 2.1.1.

CHAPTER E21 DEMOLITION AND HAZARDOUS BUILDING MATERIALS MANAGEMENT

The proposal involves demolition of all structures on site and a Site Waste Management Plan has been submitted. Standard demolition and asbestos management conditions will be imposed on any consent to be issued.

CHAPTER E22 SOIL EROSION AND SEDIMENT CONTROL

Conditions of consent are recommended in regard to appropriate sediment and erosion control measures to be in place during works.

ATTACHMENT 3

Design matters relating to amenity

Side setbacks are fully compliant with numerical controls under Chapter B1 WDCP 2009; however, the objectives of the clause have not been met in relation to overlooking/amenity impacts.

The front door entry for each unit on the eastern boundary is not in alignment with the courtyard entry. This could be remedied by:

- aligning the front door entry with the courtyard entry for each unit, which may require reconfiguration of the ground floor layout

Units 1 and 3 are both proposed with Private Open Space areas in excess of the minimum required area and a front courtyard. The POS areas in particular are elevated up to one metre above natural ground level, which is considered to pose potential overlooking impacts to adjoining properties on both the eastern and the western boundaries.

A 1.8m high privacy screen (horizontal angled slats to provide sunlight penetration) has been proposed along the private open space on the western boundary for both units. In this case, it is not considered that a privacy screen is adequate to mitigate potential impacts and design changes are required. This could be achieved by:

- Removing the extended areas of POS that are above ground level.

A terrace/courtyard is also proposed on the eastern side of both Units 1 and 3. The courtyard is partially covered with a pergola and trees on the neighbouring property will provide screening at this point in time; however, it is considered that the extent of the terrace particularly for Unit 3 should be minimised or lowered. This could be achieved by:

- Reducing the size of the front courtyard at the southern end to create a screened walkway for Unit 3 and,
- Removal of access to the parapet from Dwelling 3 or the extension of the planter box to remove the ability for overlooking from the parapet **or**,
- Removal of the proposed front courtyard to Units 1 and 3

Amended plans should be provided addressing the above.

ATTACHMENT 4

Conditions

Approved Plans and Specifications

- 1 The development shall be implemented substantially in accordance with the details and specifications set out on Project No 10STAR017 Drawing sheet 02-A to 20-A and 24-A dated 2 October 2019 prepared by 10STAR 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 **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.

- 3 **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 certifying authority must cause notice of its determination to be given to the consent authority, and to the council, by forwarding to it, within two (2) days after the date of the determination, the plans and documentation referred to in clause 142 (2) of the Environmental Planning and Assessment Regulation 2000.

- 4 **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.

- 5 **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.

- 6 **Tree Management**

The developer shall retain existing trees indicated on Concept Landscape Plan Dwg. No. MS2019120 Issue E dated 6 July 2019 consisting of tree numbered 1, 2, 3, 4, 5, 6, 7, 8, 9 and 10. Total number: ten (10 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 AS4970-2009 Protection of Trees on development Sites.

Recommendations in arborist's report dated Revised June 2019 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 TPZs,

root mapping, 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 transplant tree numbered 11. Total number: one (1 No.) to an appropriate location on site by an experienced and qualified contractor.

7 **Height Restriction**

The development shall be restricted to a maximum height of 8.95 metres AHD from the natural ground level (inclusive of the lift tower and any air conditioning plant). Any alteration to the maximum height of the development will require further separate approval of Council.

Prior to the Issue of the Construction Certificate

8 **Flows from Adjoining Properties**

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. The above requirements must be clearly shown on construction certificate plans prior to the release of the construction certificate.

9 **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.

10 **Water/Wastewater Entering Road Reserve**

Provision shall be made for a minimum 200mm wide grated box drain along the boundary of the property at the vehicular crossing/s to prevent surface water entering the road reserve. This requirement shall be reflected on the Construction Certificate plans.

11 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.

12 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.

13 **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 one (1) metre 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, subsoil drainage 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, subsoil drainage and footing structure must be contained wholly within the subject property;

- e The proposed method of subsurface and surface drainage, including water disposal. This is to include subsoil drainage connections to an inter-allotment drainage line or junction pit that discharges to the appropriate receiving system;
- f The assumed loading used by the engineer for the wall design.
- g 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.

14 **Stormwater 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.

15 **Pier and Beam Footings Adjacent to any Drainage Easement**

Buildings and structures (including brick fences) adjacent to easements shall be supported on pier and beam footings outside the easement. The base of the piers shall be a minimum 900 mm below ground level and shall extend below the invert level of the drainage pipelines within the easement. Structural engineers details are required detailing the size and levels of the existing drainage pipelines and the design levels for the base of the piers adjacent to the easement.

16 **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.

17 **Sizing of Drainage**

All roof gutters, downpipes, pits, and pipelines draining roof areas and other impervious surfaces with no deliberate overflow path to the on-site stormwater detention (OSD) facility, shall be designed to cater for a 1 in 100 year ARI storm event in accordance with AS 3500.3 – Plumbing and Drainage (Stormwater Drainage). Details of gutter/downpipe/pipeline sizes and locations shall be reflected on the Construction Certificate plans.

18 **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 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 the Concept Stormwater Plans lodged for development approval, prepared by Gary Marsh and Associates, Reference No 1806-06-01, revision D, and 1806-06-02 revision C dated June 2018.
- b Include details of the method of stormwater disposal. Stormwater from the development must be piped to Council's existing stormwater drainage system.
- 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, as well as from any detention storage on 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.

19 **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-2019/595.
 - Any specialist maintenance requirements.
- h Must include a maintenance schedule for the OSD system, generally in accordance with Chapter E14 of the Wollongong DCP2009.

20 **Council Footpath Reserve Works – Driveways and Crossings**

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.

21 **Car Parking and Access**

The development shall make provision for a total of 8 car parking spaces, 1 motorcycle parking space, a minimum of 2 secure (Class B) residential bicycle spaces and a minimum of 1 visitor bicycle space (Class C). This requirement shall be reflected on the Construction Certificate plans. Any change in the above parking numbers shown on the approved DA plans shall be dealt with

via a section 96 modification to the development. The approved parking spaces shall be maintained to the satisfaction of Council, at all times.

- 22 Bicycle parking facilities must have adequate weather protection and provide the appropriate level of security as required by the current relevant Australian Standard AS2890.3 - Bicycle Parking Facilities. This requirement shall be reflected on the Construction Certificate plans.

- 23 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.

- 24 A change in driveway paving is required at the entrance threshold within the property boundary to clearly show motorists they are crossing a pedestrian area. Between the property boundary and the kerb, the developer must construct the driveway pavement in accordance with the conditions, technical specifications and levels to be obtained from Council's Manager Works. This requirement shall be reflected on the Construction Certificate plans and any supporting documentation.

25 **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.

26 **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; and;
- 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.

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

- 27 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.

- 28 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.

29 **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.

30

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 each unit to have tree planting incorporated into planting proposal in rear yards. Suggested species *Waterhousea floribunda* 'Sweeper', *Elaeocarpus reticulatus* Blueberry ash or *Livistona australis* Cabbage palm tree;
- g 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;
- h 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.
- i proposed planting of *Diets iridioides* Wild Iris to be substituted with *Lomandra fluvialis* 'Shara'; and;
- j proposed planting list to be expanded to contain a minimum of twelve (12 No.) appropriate species.

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.

31

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 \$6,740.00 (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: 1122801	• 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

32 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.

33 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.

34 **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.

35 **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.

36 **Structural Engineer's Details**

Structural engineer's details for all structurally designed building works such as reinforced concrete footings, reinforced concrete slabs and structural steelwork must be submitted to the Principal Certifying Authority, prior to the commencement of any works on the site.

37 **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.

38 **Demolition Works**

The demolition of the existing structures 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 SafeWork NSW.

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.

39 **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.

40 **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.

41 **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.

42 **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.

43 **Tree Protection**

Prior to commencement of any work on the site, including any demolition, all trees not approved for removal as part of this consent that may be subjected to impacts of this approved development must be protected in accordance with Section 4 of the Australian Standard Protection of Trees on Development Sites (AS 4970-2009).

Tree protection zones must be established prior to the commencement of any work associated with this approved development.

No excavation, construction activity, grade changes, storage of materials stockpiling, siting of works sheds, preparation of mixes or cleaning of tools is permitted within Tree Protection Zones.

44 **Support for Neighbouring Buildings**

This consent requires the preservation and protection of neighbouring buildings from any damage and if necessary, requires the underpinning and support of any neighbouring building in an approved manner. The applicant or the contractor carrying out the work must at least seven days in advance of any excavation works below the level of the base of the footings of a building on an adjoining allotment, including a public road or place, give written notice of intention to carry out such works to the property owner of the affected adjoining building and furnish specific written details and supporting plans or other documentation of the proposed work.

The adjoining property owner of land is not liable for any part of the cost of work carried out for the purposes of this condition, whether carried out on the allotment of land being excavated or on the adjoining allotment of land.

45 **Survey Report – Siting of Development within Property Boundaries**

A survey report prepared by a registered surveyor is required to be submitted to the Principal Certifying Authority to ensure that the proposed development is located on the correct allotment and at the approved distances from the boundary. This must be verified by pegging the site prior to commencement of works.

46 **Tree Protection Implementation**

The existing trees 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.

47 **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.

48 **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.

49 **Dilapidation Report**

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

During Demolition, Excavation or Construction

50 **Piping of Stormwater to Existing Stormwater Drainage System**

Stormwater from the land must be piped to street kerb and gutter.

51 **Survey Report**

The submission of a survey report by a registered Land Surveyor to the Principal Certifying Authority is required, prior to the work proceeding beyond each of the following respective stages so as to guarantee that each stage of the development is completed in accordance with the approved plans:

- a footing excavation:
- b slab formwork;
- c walls and completed eaves/gutter/fascia/ridge

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

The design and construction 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.

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

During tree protection works, all care shall be taken to avoid cruelty and harm to 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).

54 **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.

55 **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.

56 All proposed cut and filling works must be adequately retained with all battered slopes being no steeper than 2H: 1V.

57 **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>).

58 **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.

59 **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.

60 **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.”

61 All excavations and backfilling associated with the erection of a building must be executed safely and in accordance with appropriate professional standards.

- 62 **Fencing**
Fencing must be constructed using hot dipped galvanised powder coated posts with galvanised wire meshing, PVC coated in black or an alternative approved by the Principal Certifying Authority. No barbed wire is to be used in the construction.
- 63 **Support for Excavations Geotechnical**
There is to be no unsupported excavations with all cuts to be immediately supported by retaining wall construction.
- 64 **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.
- 65 **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.
- 66 **Screen Planting**
To mitigate impact to adjoining dwellings a continuous hedge is to be established along both the eastern and western boundary for the length of property boundary. 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. 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

- 67 **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.
- 68 **Retaining Wall Certification**
The submission of a certificate from a suitably qualified and experienced structural engineer or civil engineer to the Principal Certifying Authority is required, prior to the issue of the Occupation Certificate or commencement of the use. This certification is required to verify the structural adequacy of the retaining walls and that the retaining walls have been constructed in accordance with plans approved by the Principal Certifying Authority.
- 69 **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.
- 70 **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.

71 **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.

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

73 **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.

74 **Compensatory Planting**

The developer must make compensatory provision for the trees required to be removed as a result of the development. In this regard, three (3 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. Installation of compensatory planting is required prior to the issue of Occupation Certificate.

75 **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.

Operational Phases of the Development/Use of the Site

76 **Site Facilities**

Site facilities, such as air-conditioning units, satellite dishes and other ancillary structures are to be adequately setback from neighbouring properties, located away from the street frontage and not in a place where they are a skyline feature. Space shall be provided for clothes lines and waste/recycling bins for all dwellings behind the front building line but outside of the private open space area.

77 **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.

78 **Retention of Screening**

Privacy screens as approved shall be retained in place and maintained fit for purpose for the life of the development.