

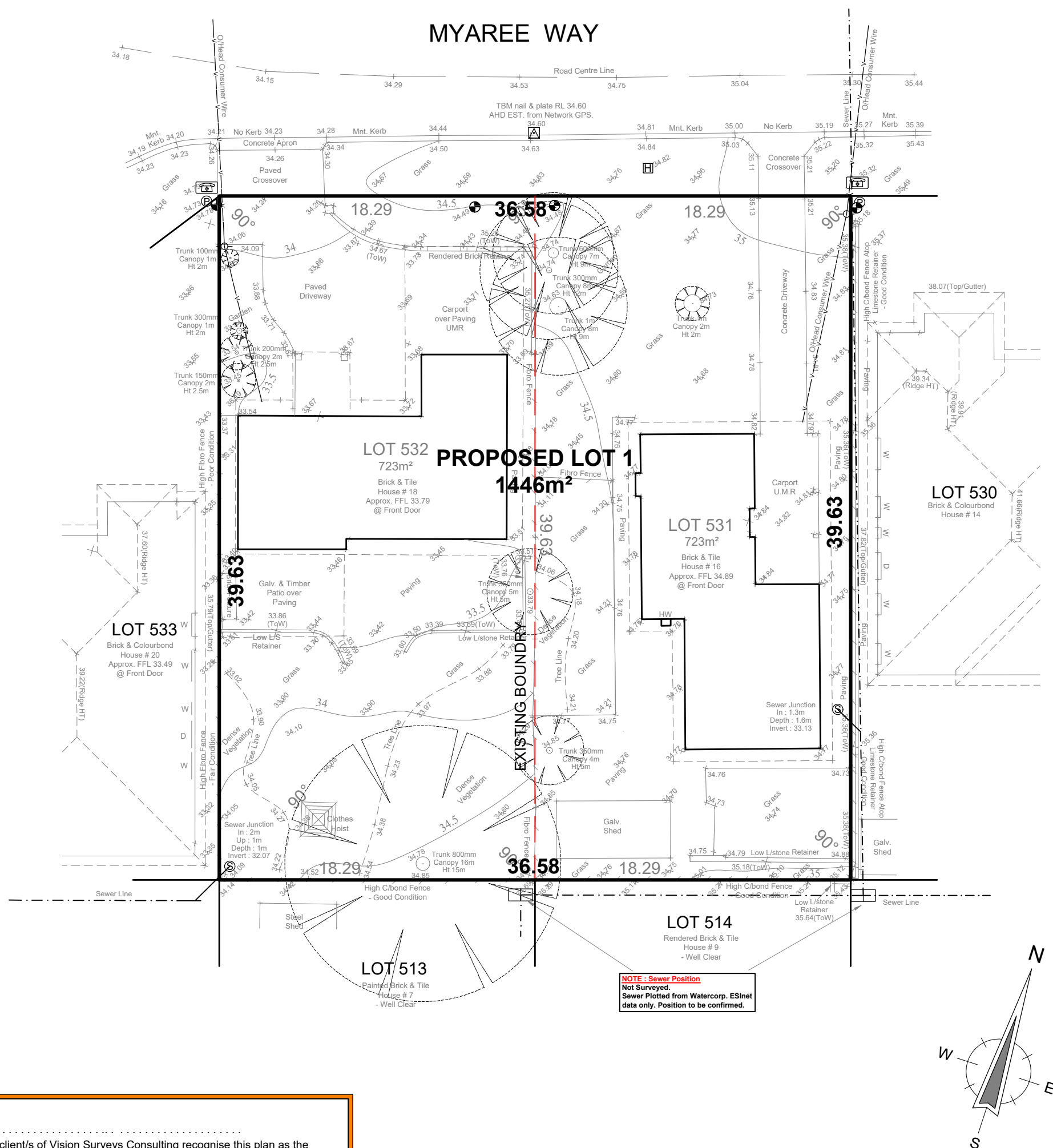


PROPOSED AMALGAMATION

CLIENT : JMB COASTAL PTY LTD

SUBJECT TO
WAPC CONDITIONS.
SEE FINAL STRATA-PLAN
OR DEPOSITED PLAN

TOTAL SITE CLEARANCE
ALL EXISTING STRUCTURES
TO BE DEMOLISHED



I,
the client/s of Vision Surveys Consulting recognise this plan as the
proposal to be submitted to the department of planning and infrastructure
for a Two Lot Amalgamation and
agree to the terms and conditions of this plan's use.

Client Signature/s

Date

TOTAL AREA : 1446m²

LOCAL AUTHORITY: City of Joondalup
RCODE ZONING: R20

LEGEND

WATER METER
 SEWER AC
 TELSTRA PIT
 POWER DOME
 TREE (TO SCALE)
 W WINDOW
 D DOOR
 TEMP. BENCHMARK
 SEWER CONN.
 HW HOT WATER UNIT
 CONSUMER POLE
 HYDRANT

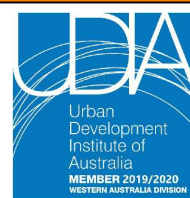


Title
Proposal to the WAPC for the Amalgamation of
LOTS 532 (18) & 531 (16) MYAREE WAY,
DUNCRAIG

TEL (08) 6144 0000 FAX (08) 6144 0099
59 SCARBOROUGH BEACH RD,
SCARBOROUGH WA 6019
Email: info@visionsc.com.au
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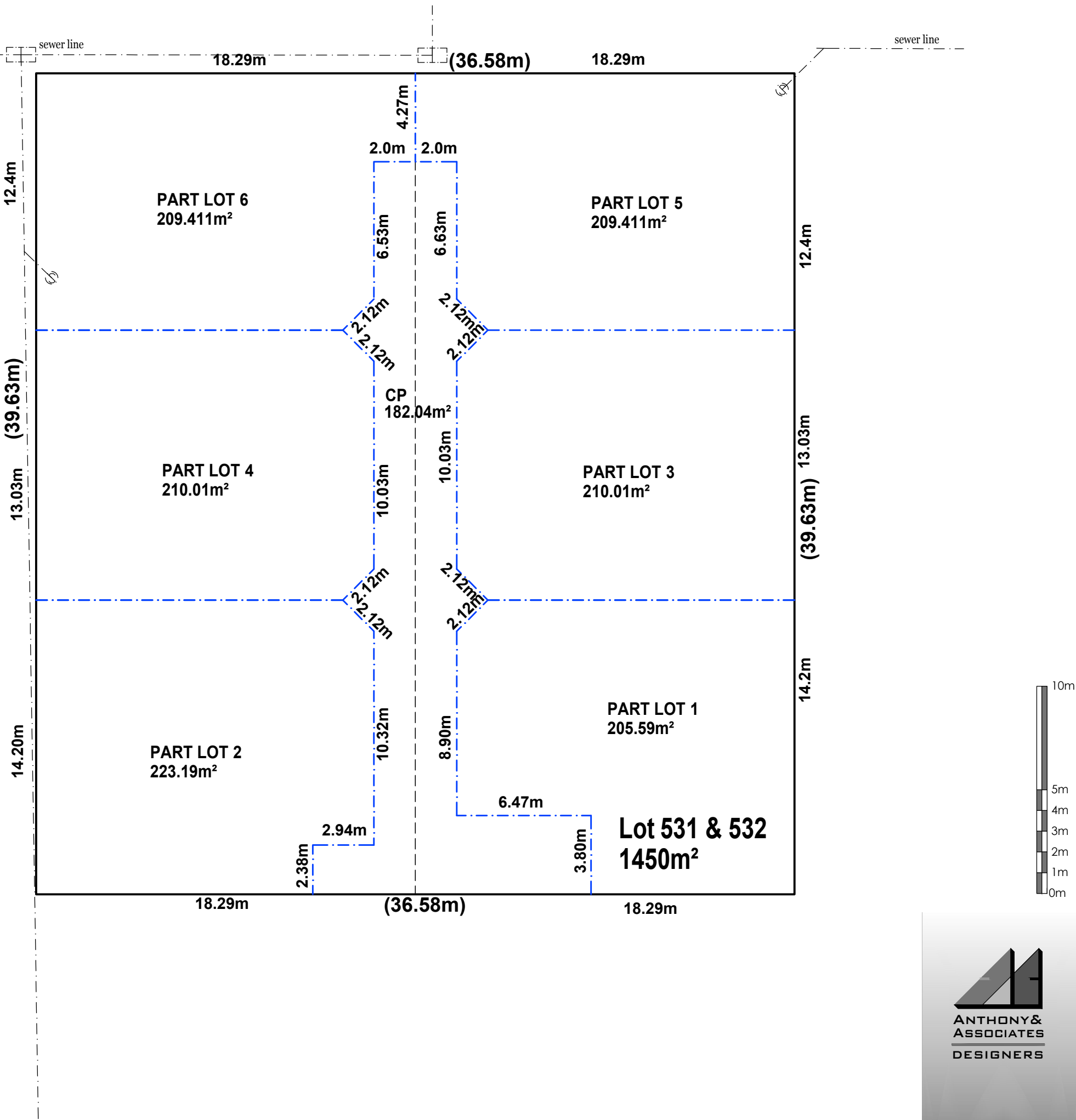
Level Datum AHD(Approx.)
Scale 1:250
Date 25/02/2020
Dwg Ref Myaree 16 & 18 P - v1.0
Surveyor
Drafter SH
Job # VS00xxxx
Sheet 1 of 1 A3

- BOUNDARY POSITION CANNOT BE VERIFIED DUE TO LACK OF SURVEY MARKS/PEGS. ALL BUILDING DIMENSIONS & FEATURES ARE APPROX. ONLY.
 BOUNDARY POSITIONS HAVE BEEN TAKEN FROM BUILDINGS, FENCING, RETAINING WALLS AND OTHER TYPICAL FEATURES LOCATED ON THE BOUNDARY
 WHICH MAY NOT BE ON THE CORRECT ALIGNMENT AND ARE TO BE VERIFIED WHEN REPEGGED.
 - BEFORE ANY WORK IS STARTED ON SITE OR PLANS ARE PRODUCED BY DESIGNERS/ARCHITECTS, THE BOUNDARIES MUST BE REPEGGED AND EXACT
 OFFSETS MEASURED TO EXISTING STRUCTURES AND FENCING.
 - VISIONS SURVEYS CONSULTING ACCEPTS NO RESPONSIBILITY FOR ANY CHANGES TO THE PARCEL OR PORTION OF THE PARCEL OF LAND SHOWN ON THIS
 SURVEY INCLUDING BUT NOT LIMITED TO ANY ADJOINING NEIGHBOURS LEVELS AND FEATURES THAT HAVE OCCURRED AFTER THE DATE ON THIS SURVEY.
 - SEWER / DRAINAGE MAY VARY FROM SCHEMATIC PRESENTATION / CHECK WITH APPROPRIATE AUTHORITY BEFORE ADOPTION OF POSITION.
 - THIS SURVEY DOES NOT GUARANTEE THE LOCATION OF BOUNDARY PEGS OR FENCES.
 - CHECK TITLE FOR EASEMENTS / COVENANTS ETC.
 - PROPOSED BOUNDARIES AND LOTS MAY BE SUBJECT TO WAPC CONDITIONS WHICH MAY VARY AND/OR ENCUMBER THE PROPOSAL.
 - PROPOSED BOUNDARIES AND LOTS MAY BE SUBJECT TO FUTURE EASEMENTS, RESTRICTIVE COVENANTS ETC WHICH MAY VARY AND/OR ENCUMBER THE
 PROPOSAL.



NOTE:

It is the builders responsibility to confirm all drawings and all dimensions on site prior to the commencement of any works or ordering materials.



PRE-CALC. PLAN
scale 1:200



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DA - PRE-CAL. PLAN

UNIT DEVELOPMENT AT
16-18 MYAREE WAY
DUNCRAIG FOR
JMB COASTAL

CONFIRM ALL DIMENSIONS ON SITE PRIOR TO THE COMMENCEMENT OF ANY WORK. TAKE WRITTEN DIMENSIONS IN PREFERENCE TO SCALE. SHOULD ANY DISCREPANCIES OCCUR, NOTIFY THE DESIGNER IMMEDIATELY. REFER TO ENGINEERS DRAWINGS FOR ALL STRUCTURAL REQUIREMENTS.

REV: Ai	RS	2 OF 7
JOB: 1243	11.08.2020	

SITE COVERAGE LOT 6:

LOT AREA (include CP):	239.75m ²
LOT ZONING:	R40
TOTAL FLOOR AREA :	132.04m ²
TOTAL SITE COVERAGE:	55%
TOTAL OPEN SPACE (45% req.):	45%

AREA CALCULATION - LOT 6

GF LIVING / PLOT RATIO:	100m ²
GARAGE :	18.27m ²
STORE :	13.77m ²
PORCH:	1.80m ²
ALFRESCO:	12.27m ²
TOTAL GF AREA:	146.11m ²

SITE COVERAGE LOT 5:

LOT AREA (include CP):	239.75m ²
LOT ZONING:	R40
TOTAL FLOOR AREA :	132.04m ²
TOTAL SITE COVERAGE:	55%
TOTAL OPEN SPACE (45% req.):	45%

AREA CALCULATION - LOT 5

GF LIVING / PLOT RATIO:	100m ²
GARAGE :	18.27m ²
STORE :	13.77m ²
PORCH:	1.80m ²
ALFRESCO:	12.27m ²
TOTAL GF AREA:	146.11m ²

SITE COVERAGE LOT 4

LOT AREA (include CP):	240.35m ²
LOT ZONING:	R40
TOTAL FLOOR AREA :	131.34m ²
TOTAL SITE COVERAGE:	55%
TOTAL OPEN SPACE (45% req.):	45%

AREA CALCULATION - LOT 4

GF LIVING / PLOT RATIO:	100m ²
GARAGE :	18.16m ²
STORE :	13.18m ²
PORCH:	1.61m ²
ALFRESCO:	12.95m ²
TOTAL GF AREA:	145.9m ²

SITE COVERAGE LOT 3

LOT AREA (include CP):	240.35m ²
LOT ZONING:	R40
TOTAL FLOOR AREA :	131.34m ²
TOTAL SITE COVERAGE:	55%
TOTAL OPEN SPACE (45% req.):	45%

AREA CALCULATION - LOT 3

GF LIVING / PLOT RATIO:	100m ²
GARAGE :	18.16m ²
STORE :	13.18m ²
PORCH:	1.61m ²
ALFRESCO:	12.95m ²
TOTAL GF AREA:	145.9m ²

SITE COVERAGE LOT 2:

LOT AREA (include CP):	253.58m ²
LOT ZONING:	R40
TOTAL FLOOR AREA :	135.59m ²
TOTAL SITE COVERAGE:	53%
TOTAL OPEN SPACE (45% req.):	47%

AREA CALCULATION - LOT 2

GF LIVING / PLOT RATIO:	100m ²
GARAGE :	31.59m ²
STORE :	4.0m ²
ALFRESCO:	9.63m ²
TOTAL GF AREA:	145.22m ²

OVERSHADOWING CALCULATIONS FOR LOT 5:

7 MARRI ROAD, TOTAL LOT SIZE :	810m ²
SHARE O/SHADOWING ALLOWED: 810 x 0.35 =	283.5
OVERSHADOWING :	43.19m ²
OVERSHADOWING % (35% max allowed):	5.33%

OVERSHADOWING CALCULATIONS FOR LOT 6:

9 MARRI ROAD, TOTAL LOT SIZE :	810m ²
SHARE O/SHADOWING ALLOWED: 810 x 0.35 =	283.5
OVERSHADOWING :	30.57m ²
OVERSHADOWING % (35% max allowed):	3.77%

SITE COVERAGE LOT 1:

LOT AREA (include CP):	235.98m ²
LOT ZONING:	R40
TOTAL FLOOR AREA :	135.59m ²
TOTAL SITE COVERAGE:	57%
TOTAL OPEN SPACE (45% req.):	43%

AREA CALCULATION - LOT 1


GF LIVING / PLOT RATIO:	100m ²
GARAGE :	31.59m ²
STORE :	4.0m ²
ALFRESCO:	9.63m ²
TOTAL GF AREA:	145.22m ²

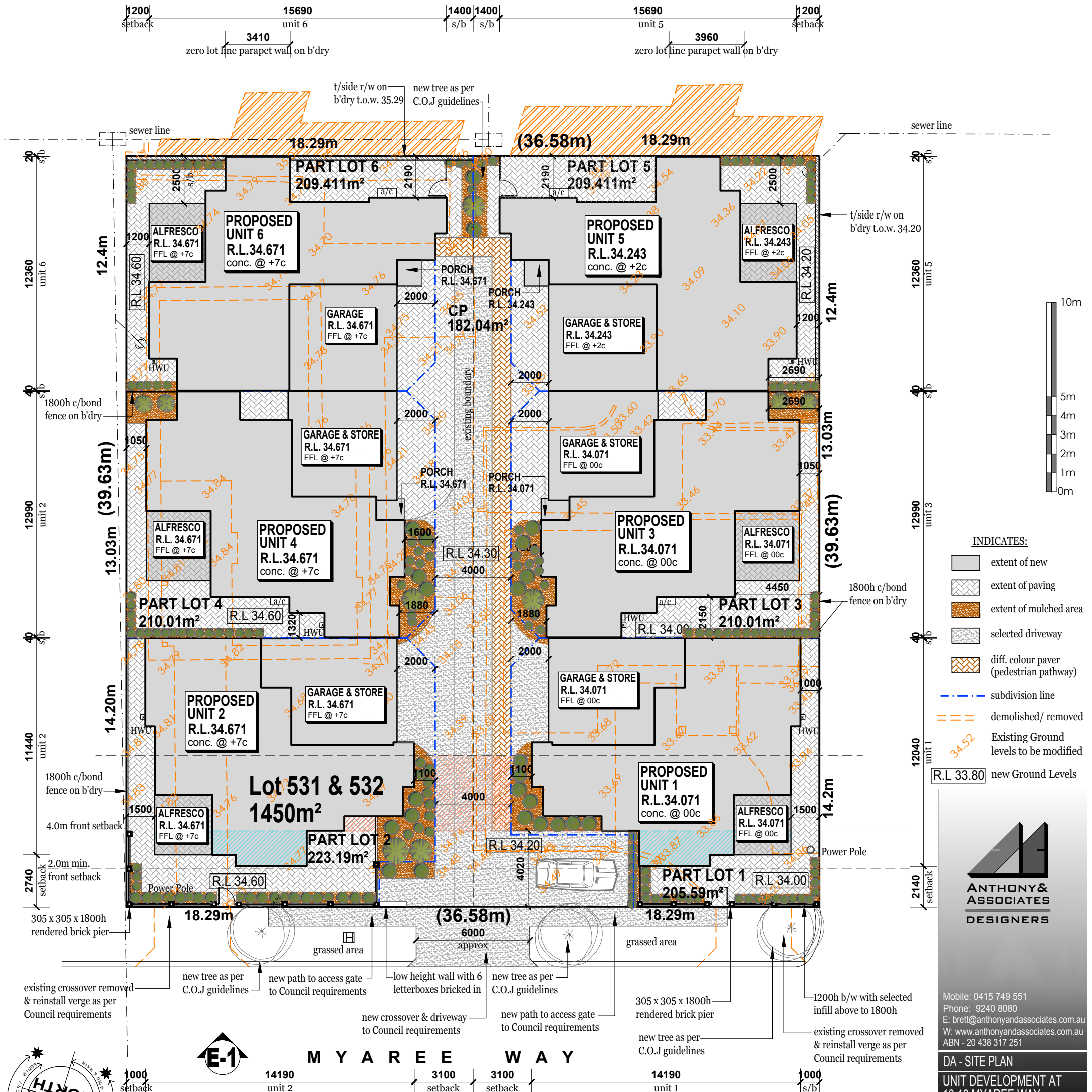
SITE COVERAGE PARENT LOT :

LOT AREA:	1450m ²
LOT ZONING:	R40
TOTAL FLOOR AREA :	797.94m ²
TOTAL SITE COVERAGE:	55%
TOTAL OPEN SPACE (45% req.):	45%

NOTE:



It is the builders responsibility to confirm all drawings and all dimensions on site prior to the commencement of any works or ordering materials.

 Extent of Overshadowing





SITE PLAN
scale 1:200



Setback Legend

	Incursion Area = 19.18m ²
	Compensating Area = 32.50m ²

Setback Legend :- LOT 2

	Incursion Area = 9.59m ²
	Compensating Area = 16.25m ²

Setback Legend :- LOT 1

	Incursion Area = 9.59m ²
	Compensating Area = 16.25m ²



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DA - SITE PLAN

UNIT DEVELOPMENT AT
16-18 MYAREE WAY
DUNCRAIG FOR
JMB COASTAL

CONFIRM ALL DIMENSIONS ON SITE PRIOR TO THE COMMENCEMENT OF ANY WORK. TAKE WRITTEN DIMENSIONS IN PREFERENCE TO SCALE. SHOULD ANY DISCREPANCIES OCCUR, NOTIFY THE DESIGNER IMMEDIATELY. REFER TO ENGINEERS DRAWINGS FOR ALL STRUCTURAL REQUIREMENTS.

REV: Ai	RS	1 OF 7
JOB: 1243	11.08.2020	



NOTE:
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- INDICATES:**
- brickwall
 - studwall
 - roofline
 - bulkhead @ 28c
 - line of subdivision
 - extent of mulched area
 - extent of paving
 - Existing Ground levels to be modified
 - contour lines
 - selected driveway
 - diff. colour paver (pedestrian pathway)

SITE COVERAGE PARENT LOT :

LOT AREA:	1450m ²
LOT ZONING:	R40
TOTAL FLOOR AREA :	797.94m ²
TOTAL SITE COVERAGE:	55%
TOTAL OPEN SPACE (45% req.):	45%

SITE COVERAGE LOT 6:

LOT AREA (include CP):	239.75m ²
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TOTAL FLOOR AREA :	132.04m ²
TOTAL SITE COVERAGE:	55%
TOTAL OPEN SPACE (45% req.):	45%

AREA CALCULATION - LOT 6

GF LIVING / PLOT RATIO:	100m ²
GARAGE :	18.27m ²
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PORCH:	1.80m ²
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SITE COVERAGE LOT 4

LOT AREA (include CP):	240.35m ²
LOT ZONING:	R40
TOTAL FLOOR AREA :	131.34m ²
TOTAL SITE COVERAGE:	55%
TOTAL OPEN SPACE (45% req.):	45%

AREA CALCULATION - LOT 4

GF LIVING / PLOT RATIO:	100m ²
GARAGE :	18.16m ²
STORE:	13.18m ²
PORCH:	1.61m ²
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TOTAL GF AREA:	145.53m ²

SITE COVERAGE LOT 2:

LOT AREA (include CP):	253.58m ²
LOT ZONING:	R40
TOTAL FLOOR AREA :	135.59m ²
TOTAL SITE COVERAGE:	53%
TOTAL OPEN SPACE (45% req.):	47%

AREA CALCULATION - LOT 2

GF LIVING / PLOT RATIO:	100m ²
GARAGE :	31.59m ²
STORE :	4.0m ²
ALFRESCO:	9.63m ²
TOTAL GF AREA:	145.22m ²

PART SITE & FLOOR PLAN
scale 1:100

ANTHONY & ASSOCIATES DESIGNERS

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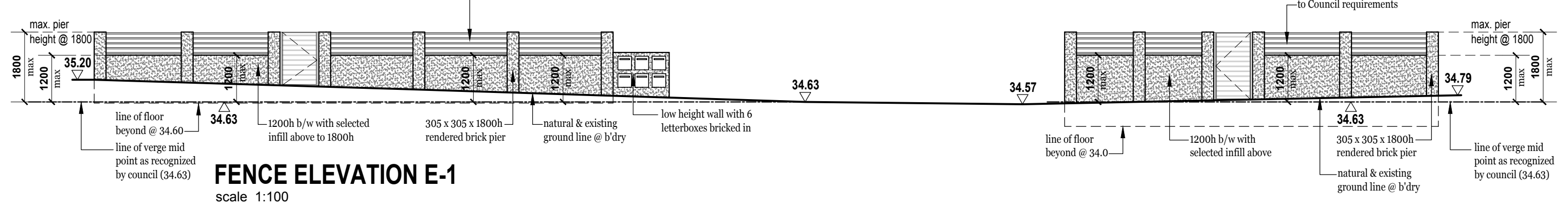
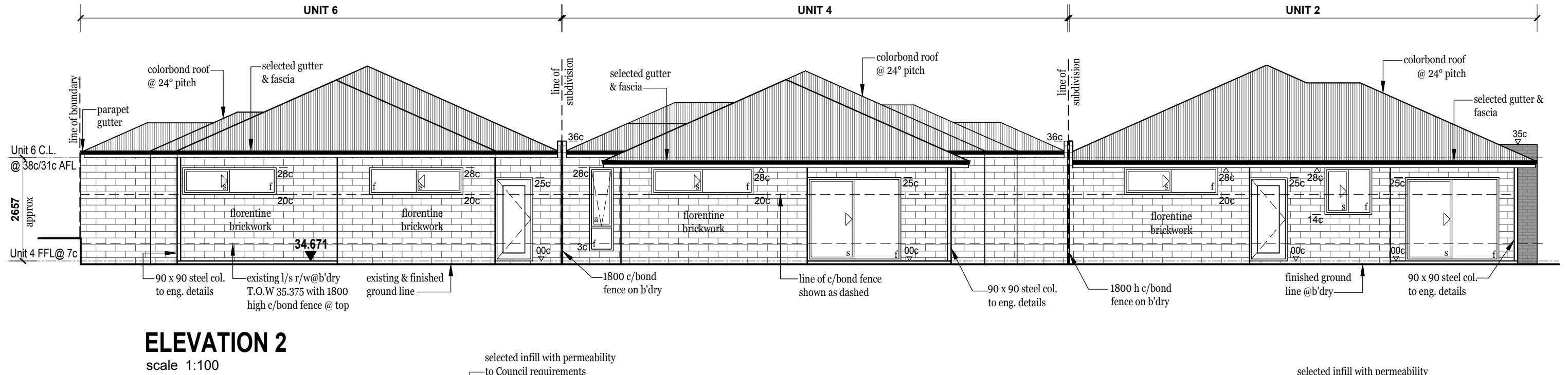
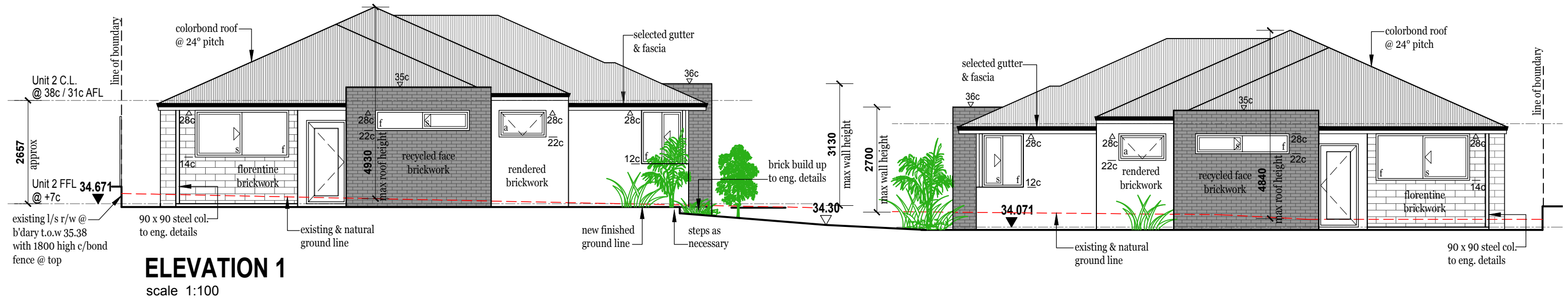
DA - PART SITE / FLOOR PLAN

UNIT DEVELOPMENT AT 16-18 MYAREE WAY DUNCRAIG FOR JMB COASTAL

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REV: Ai	RS	3 OF 7
JOB: 1243	11.08.2020	

NOTE:
All window & door
heights depicted as AFL.



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DA - ELEVATIONS

UNIT DEVELOPMENT AT
16-18 MAREE WAY
DUNCRAG FOR
JMB COASTAL

CONFIRM ALL DIMENSIONS ON SITE PRIOR TO THE
COMMENCEMENT OF ANY WORK. TAKE WRITTEN
DISCREPANCY RECORDS. NO PARTY SHOULD ANY
IMMEDIATELY. REFER TO ENGINEERS DRAWINGS FOR ALL
STRUCTURAL REQUIREMENTS.

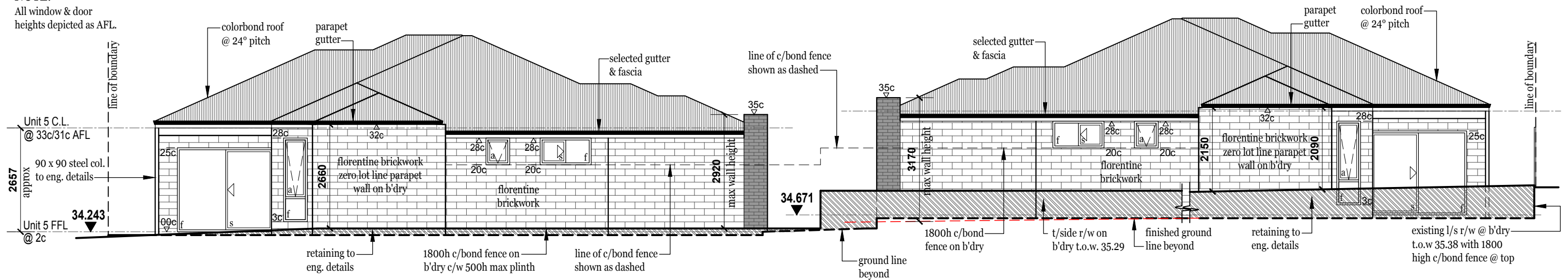
REV: AI RS 5 OF 7
JOB: 1243 11.08.2020

ANTHONY & ASSOCIATES
DESIGNERS

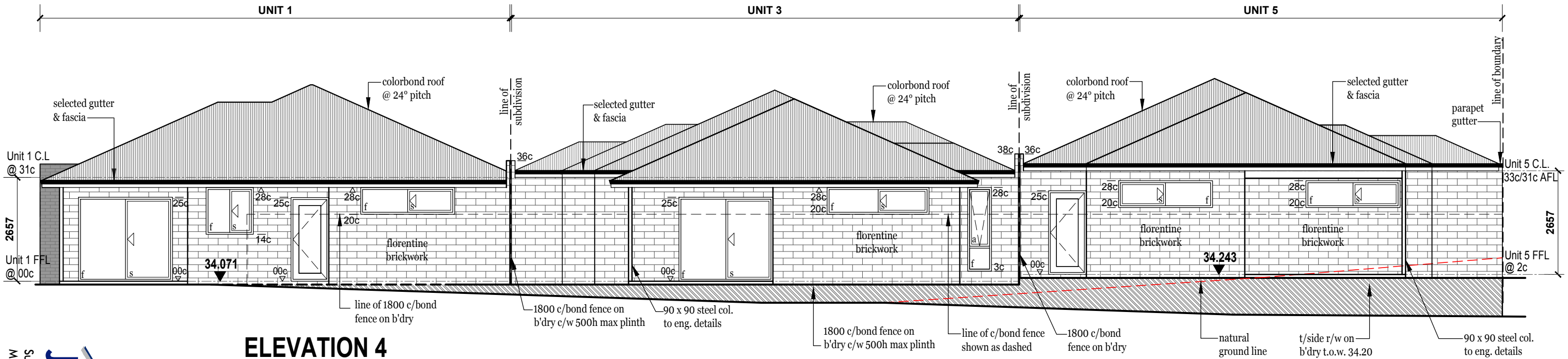
JMB Coastal

Suite 7/20 Gilbert Road, Belconnen WA 6021
M: 0409 206 093 E: jmbcoastal@jmbcoastal.com.au

NOTE:
All window & door
heights depicted as AFL.



ELEVATION 3
scale 1:100



ELEVATION 4
scale 1:100

JMB Coastal
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M: 0409 206 093 E: jarrad@jmbcoastal.com.au

ANTHONY & ASSOCIATES DESIGNERS

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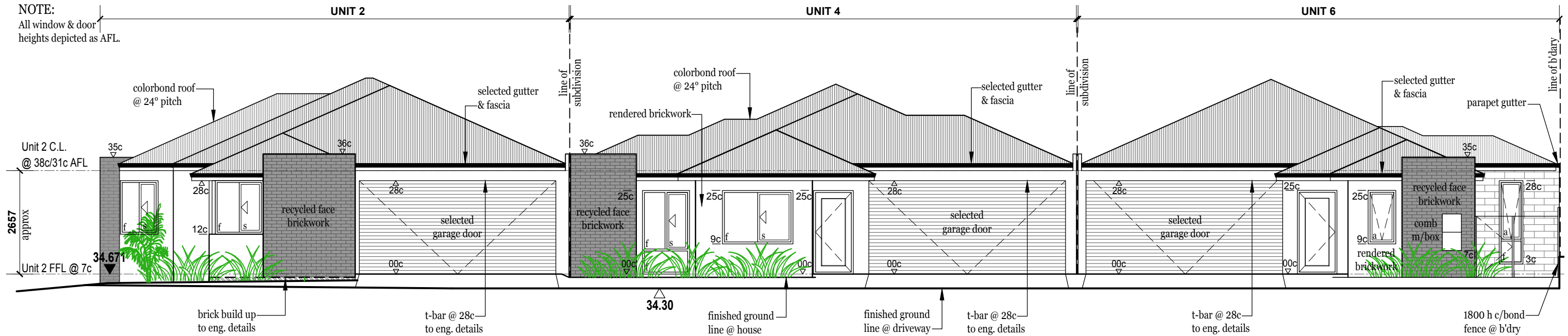
DA - ELEVATIONS

UNIT DEVELOPMENT AT 16-18 MAREE WAY DUNCRAG FOR JMB COASTAL

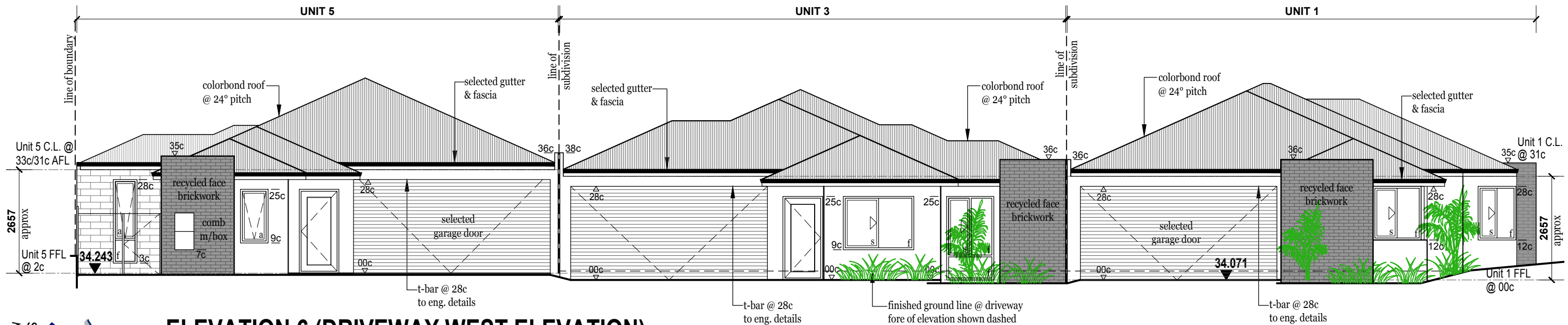
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REV: A1	RS	6 of 7
JOB: 1243 11.08.2020		

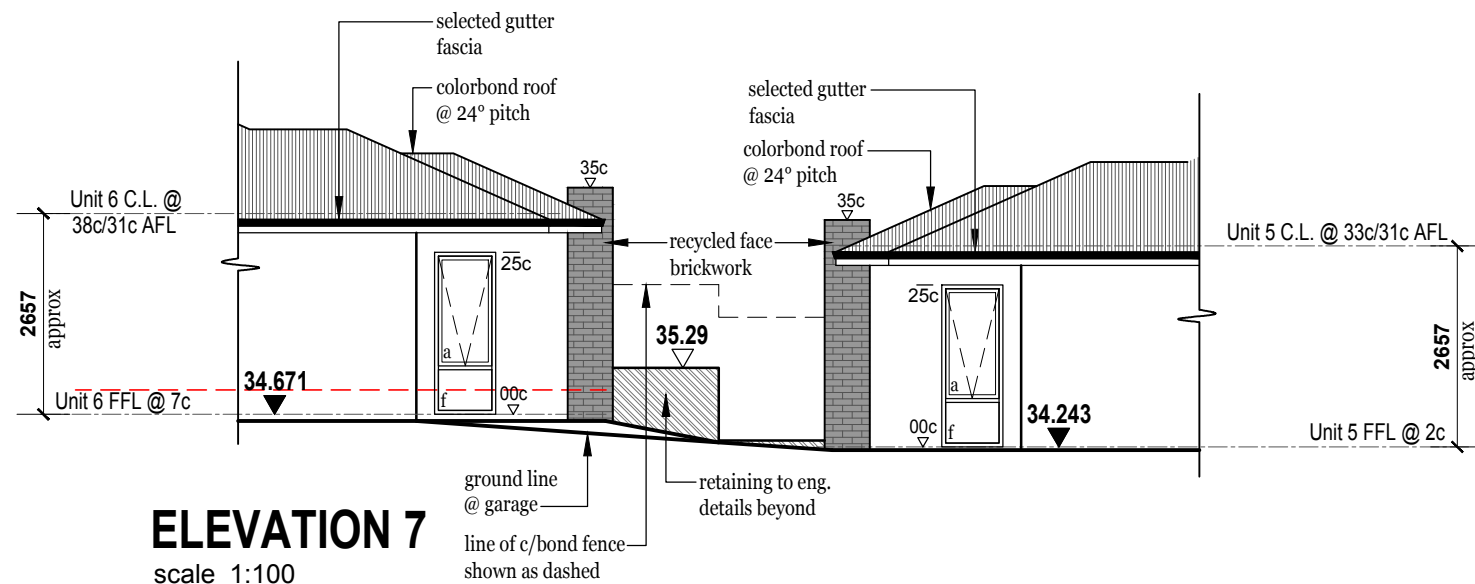
NOTE:
All window & door
heights depicted as AFL.



ELEVATION 5 (DRIVEWAY EAST ELEVATION)
scale 1:100



ELEVATION 6 (DRIVEWAY WEST ELEVATION)
scale 1:100



ELEVATION 7
scale 1:100

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REV: AI RS 7 OF 7

JMB COASTAL

UNIT DEVELOPMENT AT
16-18 MAREE WAY
DUNCRAG FOR
JMB COASTAL

DA - ELEVATIONS

ABN - 20 438 317 251

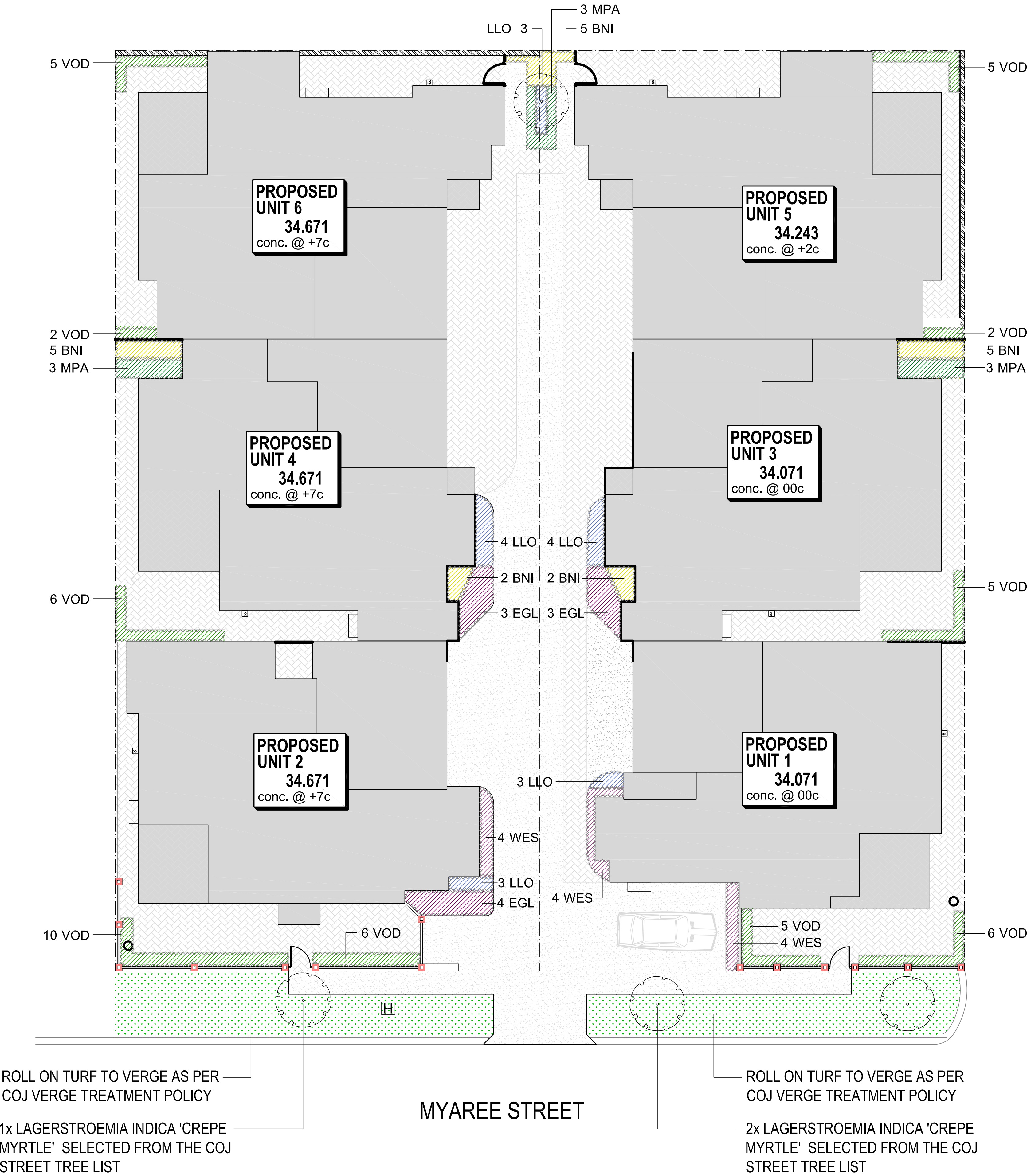
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Phone: 9240 8080

Mobile: 0415 749 551

**ANTHONY &
ASSOCIATES
DESIGNERS**



TREE PLANTING LEGEND

KEY	BOTANIC NAME	QTY.	SPACING	POT SIZE
Feature/Tree				
LIN	Lagerstroemia indica 'Crepe Myrtle'	4	as shown	100lt

SHRUB PLANTING LEGEND

KEY	BOTANIC NAME	QTY.	SPACING	POT SIZE
Ground Covers				
EGL	Eremophila glabra 'Tar Bush'	10	1/m2	130 mm
MPA	Myoporum parvifolium 'Boobialla'	9	1/m2	130 mm
Shrubs/Hedge				
BNI	Banksia nivea	19	2/m2	130 mm
VOD	Viburnum odoratissium 'Sweet Viburnum'	52	1.5/m2	130 mm
LLO	Lomandra longifolia 'Tanika'	17	2/m2	130 mm
WES	Westringia 'Coastal Rosemary'	12	2/m2	130 mm



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State Planning Policy 7.0 assessment statement – 16/18 Myaree Way, Duncraig

The following document sets out how our proposed grouped dwelling development at 16 and 18 Myaree Way, Duncraig addresses the 10 Design Principles of the abovementioned Policy. Each Design Principle is outlined below with a brief statement explaining how our proposed design aligns. Words underlined in italics are direct excerpts from the Policy.

1. Context and character

Our design enhances the current characteristic of the area. The brand-new dwellings will positively contribute to the streetscape of Myaree Way. The new residences will tie in well with the relatively modern neighbouring houses. In addition this development delivers appropriate densities that are consistent with projected population growth. City of Joondalup has a higher proportion of residents aged 60 or older than that of Greater Perth, meaning this over-55's proposal will assist in meeting the demand from older residents. Given the close proximity to community facilities, shops and parks as well as the servicing from a major public transport bus route the location is able to be sustained by existing transport, green and social infrastructure.

It should be noted that our proposal is considerate of local context as we see it as complimentary to the over-55 approved apartment complex at 57 Marri Road, Duncraig (600m away).

2. Landscape quality

We have shown proposed landscaping for the project in our submission. The tree and plant species adopted will be in line with Council regulations with a focus on hearty plants that don't require significant watering. We have focused a large amount of soft landscaping on the streetscape to soften the impact of the development, including the required visitor car bay. The inclusion of 4 verge trees and a significant volume of garden beds at the front of the property will improve the existing streetscape.

In our view the amount of landscaping being adopted preserves the green infrastructure of the area and once mature will be an improvement on the volume of greenery on the block currently. All areas will be reticulated, ensuring the ease of long-term management and maintenance.

3. Built form and scale

The built form and scale of this development is appropriate for its setting as our design was heavily focused on mitigating the potential for negative amenity impacts on the neighbouring properties. The following points emphasise this:

- Minimal boundary walls, and only adopted to ensure house orientation maximises natural light exposure. When adopted they abut non-sensitive areas of the neighbour properties.
- Building heights are compliant and consistent with the area
- Orientation of the houses has been done to define open spaces by enclosing them
- Minimal front setback variation and the open space at the front of the dwellings was done for good solar exposure but also to reduce the effect of building bulk on the streetscape

4. Functionality and build quality

- Our design has ensured flexible and adaptable spaces that maximise their utilisation. The units are designed to be forever homes for their residents and accommodate future requirements. Minor modifications can be made as residents age with all disabled access and living requirements being met.
- The buildings will be constructed with materials that are easy to maintain and weather well over time. The double brick construction accompanied with colorbond steel roofing will ensure the long-term viability of the build. Upgrading is easily achievable in the future.
- The open plan design with internal living areas flowing out to the outdoor living is an example of providing spaces to facilitate good relationships to other spaces. The flush door levels and minimal gradients around the whole site also enable ease of use.

5. Sustainability

- Water usage will be minimised across the developments with the use of dual flush toilets, minimal turf usage (other than Council verge) and adopting water efficient plants.
- The orientation of the units ensures maximum solar penetration to the living areas, via the outdoor living areas.
- The adoption of roof solar systems will significantly reduce the grid power energy consumption.
- R4 insulated ceilings assists with thermal performance. We have also ensured that the level of glazing throughout the development is sufficient for natural light but not excessive to the point of undermining thermal performance

6. Amenity

- Mitigating negative impacts on surrounding buildings was a major focus of our design. We have ensured that boundary walls only abut non-sensitive areas of the surrounding neighbours. The scale of the design was maintained to ensure no overshadowing issues.
- We consider the rooms to be adequately sized and believe we have struck the right balance between the size of the dwellings and functionality of their use. All room sizes are appropriate for dwellings of this type, are easily accessible for the elderly / disabled future residents and are easy to use and furnish, as evidenced by the furniture placement on the floorplans. We have ensured good levels of daylight with building orientation that captures the northern sun whilst also maintaining the visual privacy of future residents and neighbours.
- Internal storage was a focus with each unit having a designated store area
- Ease of access was a major focus and is achieved via flush external door openings and the adoption of site levels that enable easy access for visitors and residents.

7. Legibility

- Both pedestrian and vehicle access through the development is well defined and compliant with relevant regulations.
- The ground levels of the lot were considered extensively to ensure easy access around the site, especially to allow for wheelchair access, which is a must for a development of this nature.
- Internally each unit has clearly identifiable spaces with easy to follow layouts. The open plan living areas adopted are considered essential in a development targeting the over-55 / dependent person community. Secondary bathrooms and bedrooms are grouped together and each unit has a designated drying court area plus areas for services (air-conditioning units, hot water systems) that are tucked away, not hindering aesthetics.

- The use of front fences and fence separation to the rear provides clear distinction between public (common property) and private spaces.

8. Safety

- The design of each unit ensures that passive street surveillance is possible from a habitable room in each dwelling as well as through the translucent entry doors. The plan for this development is to incorporate a security alarm system to all units. The entry points are clearly defined, and front movement sensors will ensure they are well-lit.
- Sight lines to driveway traffic from the entry points of the houses and from the front visitor bay were a focus to ensure pedestrian safety. The visitor bay is located at the front of the lot for convenience and to reduce traffic flow to the communal driveway.

9. Community

- This proposal has been initiated to respond to a clear need for the City of Joondalup to provide affordable housing options for its ageing population. Given the location of these lots in such close proximity to shops, community facilities and public transport we believe that this development will respond to local community needs
- The dwellings are suitable for people with disability and can accommodate change over time as they are designed to enable assistance infrastructure to be easily installed (e.g. handrails) in the future.
- There are slight variations in design between the units that allows this development to cater for the full spectrum of people that fall within the “aged / dependent person” category.
- Having like minded and aged residents within the same lot also facilitates social interaction.

10. Aesthetics

- The dwellings will be aesthetically pleasing and a vast improvement on those currently located at the addresses. The materials being adopted and the colour schemes being proposed will benefit the area.
- The scale of the buildings, orientation and extensive natural vegetation at the front streetscape will ensure that they are inviting to the eye.
- Finished examples of our previous projects can be seen at our website www.jmbcoastal.com.au. We pride ourselves on the quality and aesthetic appeal of our houses as well as their architectural design features.

Marshall Day Acoustics Pty Ltd
ABN: 53 470 077 191
6/448 Roberts Road
Subiaco WA 6008
Australia
T: +618 9779 9700
www.marshallday.com

25 June 2020

JMB Coastal
Suite 9 / 20 Gibberd Road
Balcatta WA 6021

Attention: Jarrad Tate

Dear Jarrad,

16-18 MYAREE WAY – SPP 5.4 REQUIREMENTS

JMB Coastal have requested that Marshall Day Acoustics (MDA) provide acoustic advice in relation to a proposed residential development at 16-18 Myaree Way, Duncraig.

The proposed development comprises 6 residential units and is located approximately 70 metres east of Marmion Avenue within the City of Joondalup. The site plan is included as Appendix A of this letter.

The PlanWA online planning maps provided by the Department of Planning, Lands and Heritage indicate that Marmion Avenue would be classified as 'Other significant freight/traffic route' under *State Planning Policy No. 5.4 Road and Rail Noise* (SPP 5.4) and the proposed development site is within the trigger distance for SPP 5.4.

MDA have reviewed the site and undertaken a screening assessment in accordance with the SPP 5.4 *Road and Rail Noise Guidelines* (September 2019). Based on the site location relative to Marmion Ave and the noise screening that would be provided by houses between, the relevant Exposure Category applicable to the development is Quiet House A. The requirements for Quiet House A are included as Appendix B of this letter.

We understand that JMB Coastal have already implemented most of the Quiet House A construction requirements to the satisfaction of the City of Joondalup, however there are some residual concerns regarding incomplete implementation of the package for some of the outdoor living areas. MDA has been engaged to provide professional advice and guidance regarding the application of the policy in regard to this aspect of the project.

The example construction for Quiet House A is:

At least one outdoor living area located on the opposite side of the building from the transport corridor and/or at least one ground level outdoor living area screened using a solid continuous fence or other structure of minimum 2 metres height above ground level.

We understand that JMB Coastal have provided the City with reasons why they cannot fully implement this aspect of Quiet House A at all outdoor areas, including incompatibility with other applicable planning policies (i.e. fence height and locations).

SPP 5.4 allows for deviations from the standard Quiet House packages and MDA have been requested to review the site layout including locations of outdoor living areas and advise as to whether the outdoor noise targets are likely to be achieved.

MDA review comments

As deemed-to-comply measures, the SPP 5.4 Quiet House packages are nominated based on a conservative assessment approach, with the intention being that this would address a typical worst-case situation. However, the policy does allow for more detailed, site specific assessments to be carried out by a suitably qualified professional¹ to determine the noise mitigation requirements needed to meet the noise targets. While a full detailed assessment has not been conducted, professional judgement based on a desktop analysis has been used to assess noise at the most affect outdoor areas.

Figure 1 shows an aerial photograph with a cross section of the terrain between Marmion Avenue and the development site (highlighted blue).

Figure 1: Aerial photograph and terrain cross section (Source: Google Earth)

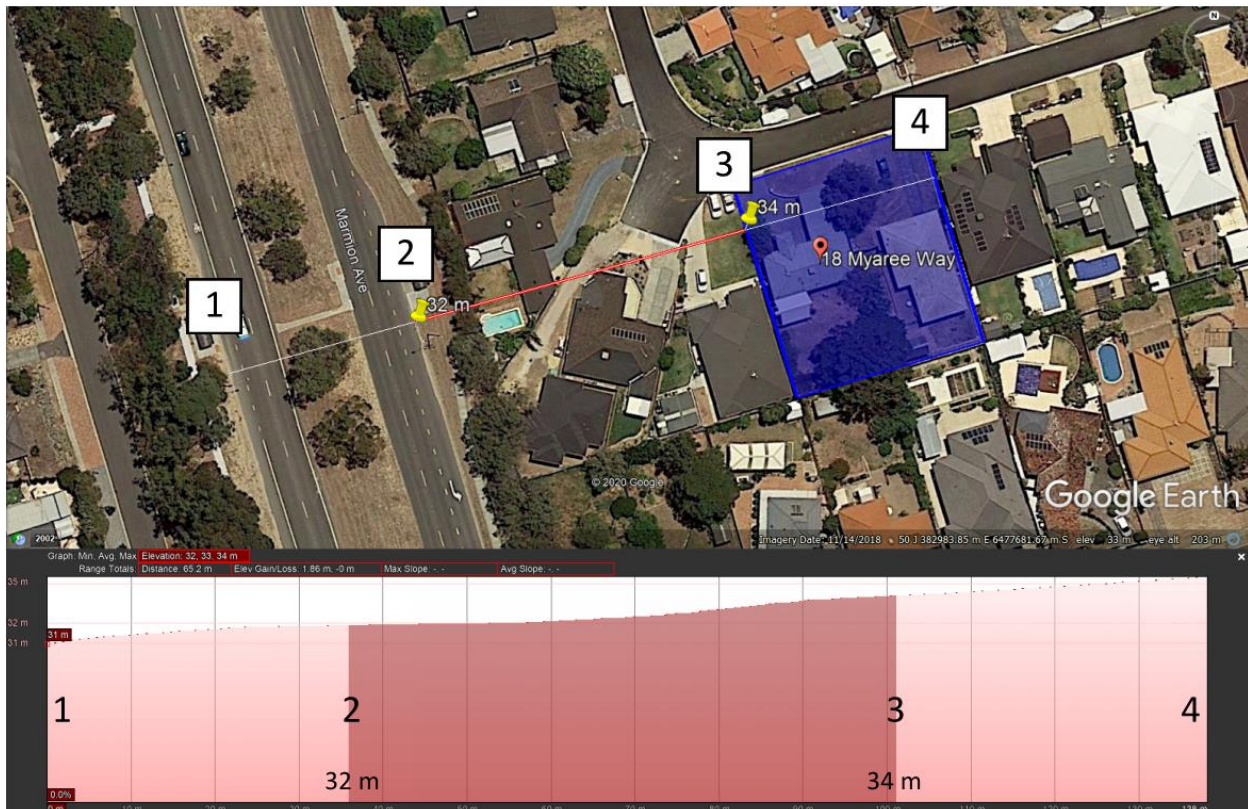


Figure 1 shows the following:

- There are houses and fences between Marmion Avenue and the development site, which will provide effective shielding of traffic noise
- Online mapping indicates that Marmion Avenue sits at an elevation below the development site (estimated to be around 2 m). This will improve the effective shielding provided by buildings and fences, further reducing noise levels at the site

Whilst a detailed assessment would be required to confirm the specific noise levels, we consider the site to be a low risk of exceeding the noise targets due to the topographical layout and distance from the road, the screening provided by existing buildings, and the traffic speed and volumes on Marmion Avenue. Furthermore, once the proposed building is complete, additional screening due to the built form would be provided to all but one of the outdoor areas (Unit 6 alfresco area).

¹ Marshall Day Acoustics satisfies all the requirements that are listed in the SPP 5.4 Guidelines.

Since a detailed assessment has not been conducted, it is considered appropriate to apply the Quiet House A packages to ensure that acceptable indoor noise levels are achieved; however, we do not consider that it is appropriate to strictly apply the package requirements for all the outdoor areas given the site constraints regarding fence heights/locations, and the relatively low risk of exceeding the noise target. This approach is considered to be consistent with the 'reasonable and practical' considerations referred to in Section 6 of SPP 5.4

Yours sincerely,

MARSHALL DAY ACOUSTICS PTY LTD



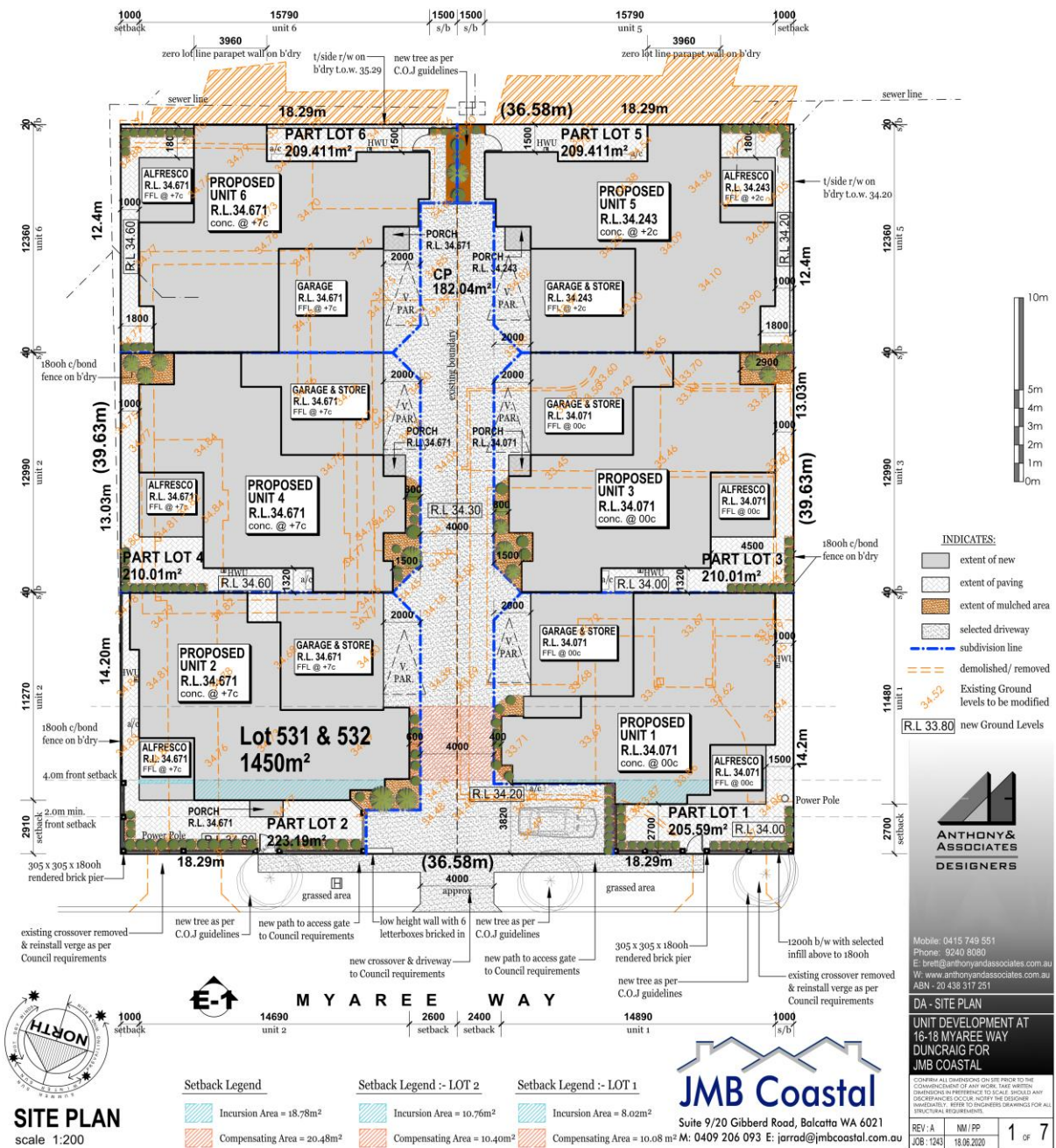
Ben Beverley

Senior Consultant

APPENDIX A SITE PLAN

SITE COVERAGE LOT 6: LOT AREA (include CP): 239.75m ² LOT ZONING: R40 TOTAL FLOOR AREA: 143.87m ² TOTAL SITE COVERAGE: 60.01% TOTAL OPEN SPACE (45% req.): 39.99%	SITE COVERAGE LOT 5: LOT AREA (include CP): 239.75m ² LOT ZONING: R40 TOTAL FLOOR AREA: 143.87m ² TOTAL SITE COVERAGE: 60.01% TOTAL OPEN SPACE (45% req.): 39.99%	SITE COVERAGE LOT 4: LOT AREA (include CP): 240.35m ² LOT ZONING: R40 TOTAL FLOOR AREA: 143.87m ² TOTAL SITE COVERAGE: 59.83% TOTAL OPEN SPACE (45% req.): 40.17%	SITE COVERAGE LOT 3: LOT AREA (include CP): 240.35m ² LOT ZONING: R40 TOTAL FLOOR AREA: 143.87m ² TOTAL SITE COVERAGE: 59.7% TOTAL OPEN SPACE (45% req.): 40.3%	AREA CALCULATION - LOT 2 GF LIVING / PLOT RATIO: 106.84m ² GARAGE: 32.09m ² STORE: 3.86m ² PORCH: 1.65m ² ALFRESCO: 10.14m ² TOTAL GF AREA: 154.58m ²	OVERSHADOWING CALCULATIONS FOR LOT 5: 7 MARRI ROAD, TOTAL LOT SIZE: 810m ² SHARE O/SHADOWING ALLOWED: 80 x 0.35 = 283.5 OVERSHADOWING: 31.82m ² OVERSHADOWING % (35% max allowed): 3.92%
AREA CALCULATION - LOT 6 GF LIVING / PLOT RATIO: 111.83m ² GARAGE: 18.27m ² STORE: 13.77m ² PORCH: 1.81m ² ALFRESCO: 10.49m ² TOTAL GF AREA: 156.17m ²	AREA CALCULATION - LOT 5 GF LIVING / PLOT RATIO: 111.83m ² GARAGE: 18.27m ² STORE: 13.77m ² PORCH: 1.81m ² ALFRESCO: 10.49m ² TOTAL GF AREA: 156.17m ²	AREA CALCULATION - LOT 4 GF LIVING / PLOT RATIO: 106.82m ² GARAGE: 30.86m ² STORE: 4.0m ² PORCH: 1.38m ² ALFRESCO: 12.08m ² TOTAL GF AREA: 157.79m ²	AREA CALCULATION - LOT 3 GF LIVING / PLOT RATIO: 106.62m ² GARAGE: 30.86m ² STORE: 4.0m ² PORCH: 1.38m ² ALFRESCO: 12.08m ² TOTAL GF AREA: 156.94m ²	SITE COVERAGE LOT 2: LOT AREA (include CP): 253.58m ² LOT ZONING: R40 TOTAL FLOOR AREA: 142.79m ² TOTAL SITE COVERAGE: 56.31% TOTAL OPEN SPACE (45% req.): 43.69%	OVERSHADOWING CALCULATIONS FOR LOT 6: 6 MARRI ROAD, TOTAL LOT SIZE: 810m ² SHARE O/SHADOWING ALLOWED: 80 x 0.35 = 283.5 OVERSHADOWING: 44.57m ² OVERSHADOWING % (35% max allowed): 5.50%
SITE COVERAGE LOT 1: LOT AREA (include CP): 235.98m ² LOT ZONING: R40 TOTAL FLOOR AREA: 141.14m ² TOTAL SITE COVERAGE: 59.81% TOTAL OPEN SPACE (45% req.): 40.19%	AREA CALCULATION - LOT 1 GF LIVING / PLOT RATIO: 106.08m ² GARAGE: 31.06m ² STORE: 4.0m ² ALFRESCO: 10.39m ² TOTAL GF AREA: 151.52m ²	SITE COVERAGE LOT 1: LOT AREA: 149.0m ² LOT ZONING: R40 TOTAL FLOOR AREA: 860.88m ² TOTAL SITE COVERAGE: 59.37% TOTAL OPEN SPACE (45% req.): 40.63%	NOTE: It is the builders responsibility to confirm all drawings and all dimensions on site prior to the commencement of any works or ordering materials.		

Extent of Overshadowing



APPENDIX B SPP 5.4 – QUIET HOUSE A TREATMENTS

Exposure Category	Orientation to corridor	Acoustic rating and example constructions					Mechanical ventilation / air conditioning considerations
		Walls	External doors	Windows	Roofs and ceilings of highest floors	Outdoor living areas	
A Quiet House A	Facing	Bedroom and indoor living and work areas to Rw+Ctr 45dB <ul style="list-style-type: none"> One row of 92mm studs at 600mm centres with: <ul style="list-style-type: none"> Resilient steel channels fixed to the outside of the studs; and 9.5mm hardboard or 9mm fibre cement sheeting or 11mm fibre cement weatherboards or one layer of 19mm board cladding fixed to the outside of the channels; and 75mm glass wool (11kg/m³) or 75mm polyester (14kg/m³) insulation, positioned between the studs; and Two layers of 16mm fire-protective grade plasterboard fixed to the inside face of the studs. Single leaf of 150mm brick masonry with 13mm cement render on each face. Double brick: two leaves of 90mm clay brick masonry with a 20mm cavity between leaves. 	Bedrooms: <ul style="list-style-type: none"> Fully glazed hinged door with certified Rw+Ctr 28dB rated door and frame including seals and 6mm glass Other external doors to Rw+Ctr 25dB, e.g. <ul style="list-style-type: none"> 35mm solid core timber hinged door and frame system certified to Rw 28dB including seals Glazed sliding door with 10mm glass and weather seals 	Bedrooms: <ul style="list-style-type: none"> Total external door and window system area up to 40% of room floor area: Sliding or double hung with minimum 10mm single or 6mm-12mm-10mm double insulated glazing (Rw+Ctr 28 dB). Sealed awning or casement windows may use 6 mm glazing instead. Up to 60% floor area: as per above but must be sealed awning or casement type windows (Rw+Ctr 31dB). Indoor living and work areas <ul style="list-style-type: none"> Up to 40% floor area: Sliding, awning, casement or double hung with minimum 6mm single pane or 6mm-12mm-6mm double insulated glazing (Rw+Ctr 25dB). Up to 60% floor area: As per Bedrooms at up to 40% area (Rw+Ctr 28 dB). Up to 80% floor area: As per Bedrooms at up to 60% area (Rw+Ctr 31dB). 	To Rw+Ctr 35dB <ul style="list-style-type: none"> Concrete or terracotta tile or metal sheet roof with sarking and at least 10mm plasterboard ceiling 	At least one outdoor living area located on the opposite side of the building from the transport corridor and/or at least one ground level outdoor living area screened using a solid continuous fence or other structure of minimum 2 metres height above ground level.	<ul style="list-style-type: none"> Acoustically rated openings and ductwork to provide a minimum sound reduction performance of Rw 40dB into sensitive spaces Evaporative systems require attenuated ceiling air vents to allow closed windows Refrigerant-based systems need to be designed to achieve National Construction Code fresh air ventilation requirements Openings such as eaves, vents and air inlets must be acoustically treated, closed or relocated to building sides facing away from the corridor where practicable
	Side on						
	Opposite						
A Quiet House A+	All	As per Quiet House A, except double leaf masonry / brick construction only.	As per Quiet House A.	As per Quiet House A, except that <ul style="list-style-type: none"> 'Side-on' requirements same as 'Facing'. All windows comprise minimum 6 mm thick laminated or toughened glass in sealed awning or casement frames. Polymer (e.g. uPVC) window framing should be used. Evaporative air conditioning systems are not recommended. No external doors for bedrooms with entry 'Facing' transport corridor 	No specific requirements		



Environmentally Sustainable Design – Checklist

Under the City's planning policy, *Environmentally Sustainable Design in the City of Joondalup*, the City encourages the integration of environmentally sustainable design principles into the construction of all new residential, commercial and mixed-use buildings and redevelopments (excluding single and grouped dwellings, internal fit outs and minor extensions) in the City of Joondalup.

Environmentally sustainable design is an approach that considers each building project from a 'whole-of-life' perspective, from the initial planning to eventual decommissioning. There are five fundamental principles of environmentally sustainable design, including: siting and structure design efficiency; energy efficiency; water efficiency; materials efficiency; and indoor air quality enhancement.

For detailed information on each of the items below, please refer to the *Your Home Technical Manual* at: www.yourhome.gov.au, and *Energy Smart Homes* at: www.clean.energy.wa.gov.au.

This checklist must be submitted with the planning application for all new residential, commercial and mixed-use buildings and redevelopments (excluding single and grouped dwellings, internal fit outs and minor extensions) in the City of Joondalup.

The City will seek to prioritise the assessment of your planning application and the associated building application if you can demonstrate that the development has been designed and assessed against a national recognised rating tool.

Please tick the boxes below that are applicable to your development.

Siting and structure design efficiency

Environmentally sustainable design seeks to affect siting and structure design efficiency through site selection, and passive solar design.

Does your development retain:

- ☐ existing vegetation; and/or
- ☐ natural landforms and topography

Does your development include:

- ☒ northerly orientation of daytime living/working areas with large windows, and minimal windows to the east and west
- ☒ passive shading of glass
- ☒ sufficient thermal mass in building materials for storing heat
- ☒ insulation and draught sealing
- ☐ floor plan zoning based on water and heating needs and the supply of hot water; and/or
- ☐ advanced glazing solutions

Energy efficiency

Environmentally sustainable design aims to reduce energy use through energy efficiency measures that can include the use of renewable energy and low energy technologies.

Do you intend to incorporate into your development:

- ☒ renewable energy technologies (e.g. photo-voltaic cells, wind generator system, etc); and/or
- ☒ low energy technologies (e.g. energy efficient lighting, energy efficient heating and cooling, etc); and/or
- ☐ natural and/or fan forced ventilation

Water efficiency

Environmentally sustainable design aims to reduce water use through effective water conservation measures and water recycling. This can include stormwater management, water reuse, rainwater tanks, and water efficient technologies.

Does your development include:

- ☐ water reuse system(s) (e.g. greywater reuse system); and/or
- ☐ rainwater tank(s)

Do you intend to incorporate into your development:

- ☒ water efficient technologies (e.g. dual-flush toilets, water efficient showerheads, etc)

Materials efficiency

Environmentally sustainable design aims to use materials efficiently in the construction of a building. Consideration is given to the lifecycle of materials and the processes adopted to extract, process and transport them to the site. Wherever possible, materials should be locally sourced and reused on-site.

Does your development make use of:

- ☐ recycled materials (e.g. recycled timber, recycled metal, etc)
- ☐ rapidly renewable materials (e.g. bamboo, cork, linoleum, etc); and/or
- ☒ recyclable materials (e.g. timber, glass, cork, etc)
- ☐ natural/living materials such as roof gardens and "green" or planted walls

Indoor air quality enhancement

Environmentally sustainable design aims to enhance the quality of air in buildings, by reducing volatile organic compounds (VOCs) and other air impurities such as microbial contaminants.

Do you intend to incorporate into your development:

- ☐ low-VOC products (e.g. paints, adhesives, carpet, etc)

'Green' Rating

Has your proposed development been designed and assessed against a nationally recognised "green" rating tool?

- ☐ Yes
- ☒ No

If yes, please indicate which tool was used and what rating your building will achieve:

If yes, please attach appropriate documentation to demonstrate this assessment.

If you have not incorporated or do not intend to incorporate any of the principles of environmentally sustainable design into your development, can you tell us why:

Is there anything else you wish to tell us about how you will be incorporating the principles of environmentally sustainable design into your development:

Renewable energy technology will be roof solar systems installed on each unit.

When you have checked off your checklist, sign below to verify you have included all the information necessary to determine your application.

Thank you for completing this checklist to ensure your application is processed as quickly as possible.

Applicant's Full Name: Jarrad Tate (Director, JMB Coastal) Contact Number: 0409 206 093

Applicant's Signature:  Date Submitted: 01/05/20

Accepting Officer's Signature: _____

Checklist Issued: March 2011