

21 July 2021
Our Ref: 21BRT0294
Your Ref:

Attention: Julian Kemp

RPS Australia Asia Pacific
PO Box 1559
FORTITUDE VALLEY QLD 4006

**PLANS AND DOCUMENTS
referred to in the PDA
DEVELOPMENT APPROVAL**

Approval no: DEV2012/284/51
Date: 15 October 2021



Dear Julian,

**RE: Lot 9968 on SP163061, Pub Lane, Greenbank – Proposed Residential Subdivision Development
Change Application
Traffic Engineering Assessment**

TTM has been engaged by Avid Property Group to undertake a traffic engineering assessment of the above-mentioned proposed development. It is understood that this report is to accompany a Change Development Application to Economic Development Queensland (EDQ).

The purpose of this report is to address the adequacy of the following traffic aspects of the proposal:

- Site access intersections to the local road network.
- Internal road hierarchy and layout.
- Traffic impacts on the local road network.

This assessment is based on the attached development concept plans prepared by RPS.

1. Background

On 31 January 2013 EDQ granted development approval for a residential subdivision over the subject site. The approval provided the following:

- Development permit for Reconfiguring a lot (1 lot into 1001 lots) and generally in accordance with:
 - Plan of Subdivision Precincts 1-4 Allotment Layout (plan no. 6493-205 to 6193-208, Rev C)
 - Plan of Development, Precincts 1-4 Allotment Layout (plan no. 6493-209 to 6493-212, Rev C)
- Development permit for Material change of use for houses, multiple residential (duplexes) and utility installation.

Other key documents and plans contained in the approval include:

- Letter of Advice (Traffic Engineering Report), dated 10 May 2012, prepared by TTM. This report includes TTM's initial traffic engineering report, dated January 2011, which was prepared for the initial development application.
- Addendum and amendment to Traffic Engineering Report, dated 5 July 2012, prepared by TTM.

Importantly, the TTM traffic impact assessment undertaken for the 2013 approval was based on a total development yield of 1,516 dwellings.

TTM subsequently prepared additional traffic engineering assessment reports that accompanied subsequent change applications and informed associated approvals granted by EDQ for the site, including:

- Traffic Engineering Assessment dated 16 December 2016, which considered a development yield of 1,502 dwellings; and
- Traffic Engineering Assessment dated 25 January 2017, which considered a potential increased development yield scenario of 1,650 dwellings.

The most recent approvals were granted by EDQ on 18 December 2020 (balance area having 432 lots) and 20 January 2021 (amendment area having 1,070 lots). The total approved number of lots is therefore 1,502. Relevant traffic-related conditions of the current approvals, some of which are duplicated between the approvals, include:

- Condition 5/12 – Early provision of public transport (bus)
 - Requires provision of public bus transport service prior to the occupation of the 200th residential lot.
- Condition 26/35 – Roads Internal
 - Requires all internal roads to be constructed in accordance with the approved development plans, EDQ design guidelines, and Logan City Council standards.
- Condition 27/36 – Roads External
 - Requires the construction of a primary access road intersection on Pub Lane to include:
 - Provision of a channelised right turn lane on Pub Lane (and associated road widening)
 - Provision of two stand-up lanes on the access road approach including dedicated left and right turn lanes.
 - Requires the construction of a left-in / left-out eastern access road intersection on Pub Lane.
- Condition 38 – Bus stops

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- Requires provision of bus stops and associated infrastructure on the internal neighbourhood connector road as indicated on the approved plans and in accordance with Translink standards.
- Condition 39 – Pedestrian / cycle network
 - Requires provision of a pedestrian / cycle network in accordance with Austroads standards.

2. Proposed Development Yield

The proposed plan of development includes a total of 1,565 residential lots including 1,090 lots in the 'Amendment Area' and 475 lots within the 'Balance Area'.

3. Site Access

The proposed site access arrangements are unchanged from the current development approval and include:

- A primary all-movements access road intersection on Pub Lane.
- A secondary left-in/left-out access road intersection on Pub Lane (east of the primary access).
- Connection to the existing Sentinel Drive, directly east of the Sandstone Rd intersection.

Because the proposed development scale is effectively the same as that considered as part of TTM's previous assessment (current approval) the proposed access arrangements are considered to be suitable and acceptable. The current development approval conditions relating to site access are therefore appropriate and no changes are necessary.

4. Internal Road Network

The proposed internal road network is essentially the same as the currently approved development scheme aside from some minor variations in road alignment and intersection locations.

The most critical changes include:

- Removal of the previously proposed 4-leg intersection on the main east-west collector road located to the east of the central precinct park. A 3-leg intersection is now proposed which is more desirable from a traffic operations and safety perspective.
- Two 3-leg T-intersections are now proposed on the main east-west collector road located to the west of the central precinct park. The associated intersection separation is approximately 40m. Whilst this is less than the nominal separation for a 'Neighbourhood Connector' road in EDQ's PDA Guideline No. 06 *Street and Movement Network* it is anticipated to result in safe and efficient traffic operations. This is primarily due to the right-left stagger arrangement which separates the right turn movements from the collector road into the minor side roads. Additionally, the separation provides for adequate travel time between

intersections for motorist decisions and is in accordance with the separation requirements specified in QLD Streets Design Guidelines for Subdivisional Streetworks (1993).

The effective hierarchy of roads, and the associated reserve widths, remains unchanged from the current approval.

Three pairs of bus stops are proposed to be located on the two primary internal roads, located generally consistent with those currently approved. The north-east pair of bus stops have been relocated approximately 300m west of the initially approved location. This revised location achieves the nominal requirement of 90% of dwellings within 400m of a bus stop and is therefore appropriate.

The proposed internal road network is consistent with the currently approved development and is adequate for the proposed development.

5. Traffic Impacts

TTM's initial impact assessment was based on a development yield of 1,516 dwellings. The currently proposed development (1,565 dwellings) represents a proposed increase in yield of 49 dwellings.

Using the initially adopted peak hour traffic generation rate of 0.6 vph/dwelling the proposed increase would result in an additional 30 vehicle movements per hour during the AM and PM peak hour periods. This equates to a marginal increase of 1 vehicle movement per 2-minutes which is not substantial in the context of the overall developments traffic demands and does not warrant remodelling of the potential traffic impacts of the development.

Additionally, TTM's most recent assessment (Jan 2017) considered a sensitivity assessment relating to a potential development yield of 1,650 dwellings concluding that the external road network could accommodate such development yield.

Noting that the current development approval does not require any external road upgrades, beyond the two Pub Lane site access intersections (which have been constructed), no change to the current conditions of approval is therefore required.

I trust the information provided herein is adequate for your purposes. Should you require any further information, please contact me by phone on (07) 3327 9500 or by email at dgrummitt@ttmgroup.com.au.

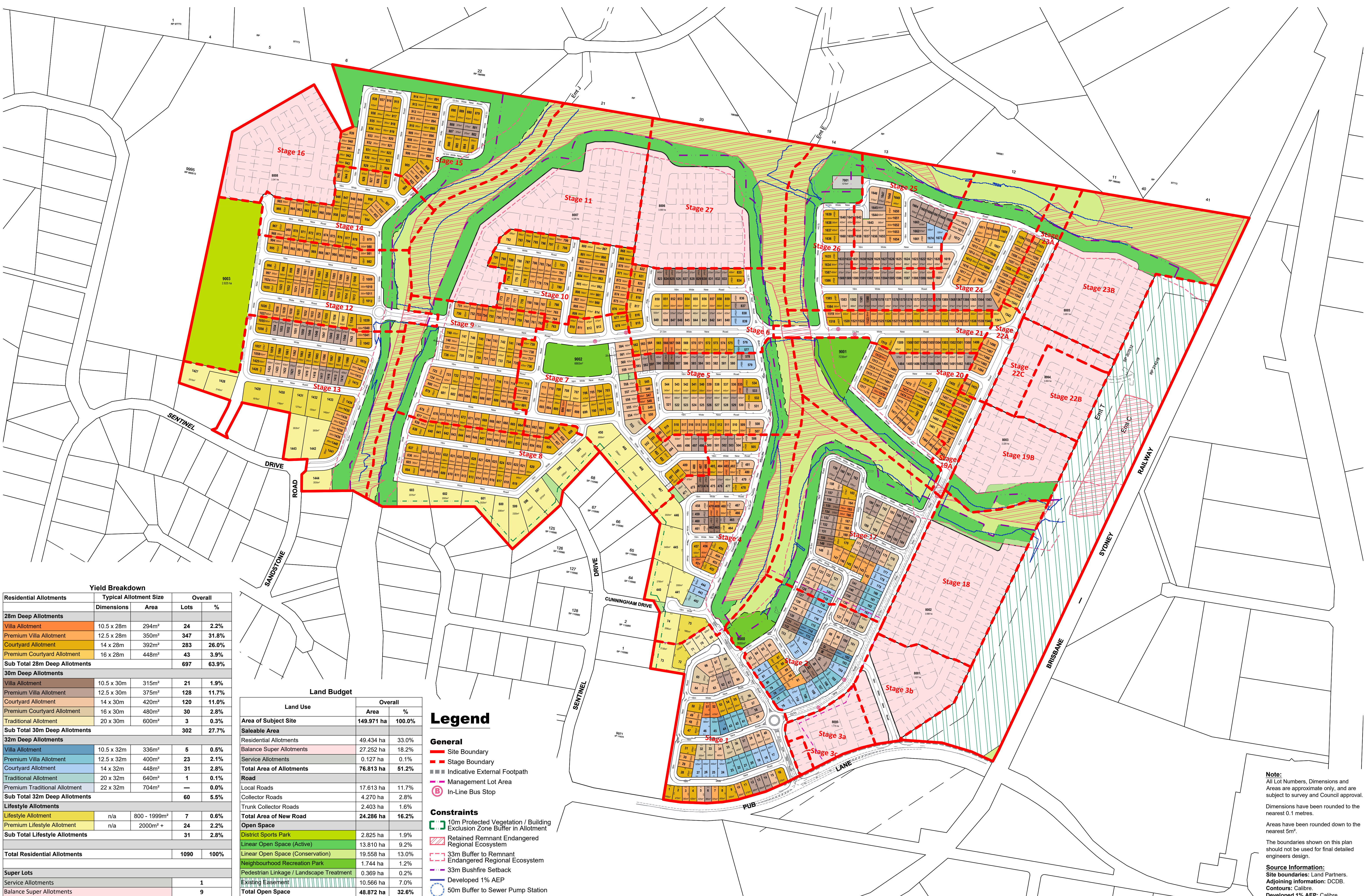
Yours sincerely,

A handwritten signature in black ink, appearing to read 'D. Grummitt', with a stylized, cursive script.

David Grummitt | RPEQ MIEAust NER
Director
TTM Consulting Pty Ltd

Attachments:

- RPS Plan Reference 132965-09 Revision M, dated 15th July 2021, titled “Plan of Subdivision Overall Allotment Layout Application 1 (Amendment)”
- RPS Plan Reference 132965-15 Revision M, dated 15th July 2021, titled “Plan of Subdivision Overall Allotment Layout Application 2 (Balance)”



Yield Breakdown				
Residential Allotments	Typical Allotment Size	Overall		
	Dimensions	Area	Lots	%
28m Deep Allotments				
Villa Allotment	10.5 x 28m	294m ²	24	2.2%
Premium Villa Allotment	12.5 x 28m	350m ²	347	31.8%
Courtyard Allotment	14 x 28m	392m ²	283	26.0%
Premium Courtyard Allotment	16 x 28m	448m ²	43	3.9%
Sub Total 28m Deep Allotments			697	63.9%
30m Deep Allotments				
Villa Allotment	10.5 x 30m	315m ²	21	1.9%
Premium Villa Allotment	12.5 x 30m	375m ²	128	11.7%
Courtyard Allotment	14 x 30m	420m ²	120	11.0%
Premium Courtyard Allotment	16 x 30m	480m ²	30	2.8%
Traditional Allotment	20 x 30m	600m ²	3	0.3%
Sub Total 30m Deep Allotments			302	27.7%
32m Deep Allotments				
Villa Allotment	10.5 x 32m	336m ²	5	0.5%
Premium Villa Allotment	12.5 x 32m	400m ²	23	2.1%
Courtyard Allotment	14 x 32m	448m ²	31	2.8%
Traditional Allotment	20 x 32m	640m ²	1	0.1%
Premium Traditional Allotment	22 x 32m	704m ²	—	0.0%
Sub Total 32m Deep Allotments			60	5.5%
Lifestyle Allotments				
Lifestyle Allotment	n/a	800 - 1999m ²	7	0.6%
Premium Lifestyle Allotment	n/a	2000m ² +	24	2.2%
Sub Total Lifestyle Allotments			31	2.8%
Total Residential Allotments			1090	100%
Super Lots				
Service Allotments			1	
Balance Super Allotments			9	

Land Budget		
Land Use	Area	%
Area of Subject Site	149.971 ha	100.0%
Saleable Area		
Residential Allotments	49.434 ha	33.0%
Balance Super Allotments	27.252 ha	18.2%
Service Allotments	0.127 ha	0.1%
Total Area of Allotments	76.813 ha	51.2%
Road		
Local Roads	17.613 ha	11.7%
Collector Roads	4.270 ha	2.8%
Trunk Collector Roads	2.403 ha	1.6%
Total Area of New Road	24.286 ha	16.2%
Open Space		
District Sports Park	2.825 ha	1.9%
Linear Open Space (Active)	13.810 ha	9.2%
Linear Open Space (Conservation)	19.558 ha	13.0%
Neighbourhood Recreation Park	1.744 ha	1.2%
Pedestrian Linkage / Landscape Treatment	0.369 ha	0.2%
Existing Easement	10.566 ha	7.0%
Total Open Space	48.872 ha	32.6%

Legend

General

- Site Boundary
- Stage Boundary
- Indicative External Footpath
- Management Lot Area
- In-Line Bus Stop

Constraints

- 10m Protected Vegetation / Building Exclusion Zone Buffer in Allotment
- Retained Remnant Endangered Regional Ecosystem
- 33m Buffer to Remnant Endangered Regional Ecosystem
- 33m Bushfire Setback
- Developed 1% AEP
- 50m Buffer to Sewer Pump Station

Note:
All Lot Numbers, Dimensions and Areas are approximate only, and are subject to survey and Council approval. Dimensions have been rounded to the nearest 0.1 metres. Areas have been rounded down to the nearest 5m². The boundaries shown on this plan should not be used for final detailed engineers design.

Source Information:
Site boundaries: Land Partners.
Adjoining information: DCDB.
Contours: Calibre.
Developed 1% AEP: Calibre.

COVELLA

PLAN OF SUBDIVISION
OVERALL ALLOTMENT LAYOUT
APPLICATION 1 (AMENDMENT)

AVID
Property Group

URBAN DESIGN
Level 4 HQ South
520 Wickham Street
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Legend

General

- Site Boundary
- Stage Boundary
- Indicative External Footpath
- Management Lot Area

Constraints

- Retained Remnant Endangered Regional Ecosystem
- 33m Buffer to Remnant Endangered Regional Ecosystem
- 33m Bushfire Setback
- Developed 1% AEP

Land Budget												
Land Use	Stage 3	Stage 11	Stage 16	Stage 18	Stage 19B	Stage 22B	Stage 22C	Stage 23B	Stage 27	Overall		
	Area	Area	Area	Area	Area	Area	Area	Area	Area	Area	%	
Area of Subject Site	4.007 ha	8.259 ha	3.341 ha	5.197 ha	2.966 ha	1.663 ha	1.341 ha	6.654 ha	6.765 ha	40.193 ha	100.0%	
Saleable Area												
Residential Allotments	2.895 ha	2.768 ha	2.159 ha	2.980 ha	1.645 ha	0.985 ha	1.140 ha	2.288 ha	2.371 ha	19.231 ha	47.8%	
Total Area of Allotments	2.895 ha	2.768 ha	2.159 ha	2.980 ha	1.645 ha	0.985 ha	1.140 ha	2.288 ha	2.371 ha	19.231 ha	47.8%	
Road												
Local Roads	1.112 ha	1.458 ha	1.109 ha	0.981 ha	0.575 ha	0.389 ha	0.047 ha	0.773 ha	1.183 ha	7.627 ha	19.0%	
Collector Roads	—	—	—	—	—	0.289 ha	0.107 ha	—	—	0.396 ha	1.0%	
Trunk Collector Roads	—	—	—	—	—	—	0.047 ha	—	—	0.047 ha	0.1%	
Total Area of New Road	1.112 ha	1.458 ha	1.109 ha	0.981 ha	0.575 ha	0.678 ha	0.201 ha	0.773 ha	1.183 ha	8.070 ha	20.1%	
Open Space												
Linear Open Space (Active)	—	1.377 ha	—	0.465 ha	0.649 ha	—	—	0.624 ha	1.068 ha	4.183 ha	10.4%	
Linear Open Space (Conservation)	—	2.556 ha	—	0.603 ha	0.036 ha	—	—	2.969 ha	2.107 ha	8.271 ha	20.6%	
Pedestrian Linkage / Landscape Treatment	—	0.100 ha	0.073 ha	0.168 ha	0.061 ha	—	—	—	0.036 ha	0.438 ha	1.1%	
Total Open Space	—	4.033 ha	0.073 ha	1.236 ha	0.746 ha	—	—	3.593 ha	3.211 ha	12.892 ha	32.1%	

Yield Breakdown												
Residential Allotments	Typical Allotment Size		Stage 3	Stage 11	Stage 16	Stage 18	Stage 19B	Stage 22B	Stage 22C	Stage 23B	Stage 27	Overall
	Dimensions	Area	Lots	Lots	Lots	Lots	Lots	Lots	Lots	Lots	Lots	%
28m Deep Allotments												
Villa Allotment	10.5 x 28m	294m ²	4	1	—	3	1	1	2	1	2	15
Premium Villa Allotment	12.5 x 28m	350m ²	9	29	17	16	4	8	7	3	23	116
Courtyard Allotment	14 x 28m	392m ²	14	16	21	3	11	5	8	8	20	106
Premium Courtyard Allotment	16 x 28m	448m ²	8	7	—	—	1	—	3	—	9	28
Sub Total 28m Deep Allotments			35	53	38	22	17	14	20	12	54	265
30m Deep Allotments												
Villa Allotment	10.5 x 30m	315m ²	1	—	—	4	7	—	—	—	—	12
Premium Villa Allotment	12.5 x 30m	375m ²	15	3	13	31	11	5	5	14	3	100
Courtyard Allotment	14 x 30m	420m ²	12	9	3	20	5	6	2	13	3	73
Premium Courtyard Allotment	16 x 30m	480m ²	3	1	—	—	1	—	—	3	—	8
Traditional Allotment	20 x 30m	600m ²	—	—	—	—	—	—	—	—	—	0.0%
Sub Total 30m Deep Allotments			31	13	16	55	24	11	7	30	6	193
32m Deep Allotments												
Villa Allotment	10.5 x 32m	336m ²	—	—	—	—	—	—	—	6	—	6
Premium Villa Allotment	12.5 x 32m	400m ²	—	—	—	—	—	—	1	6	—	7
Courtyard Allotment	14 x 32m	448m ²	—	1	—	—	—	—	1	2	—	4
Traditional Allotment	20 x 32m	640m ²	—	—	—	—	—	—	—	—	—	0.0%
Premium Traditional Allotment	22 x 32m	704m ²	—	—	—	—	—	—	—	—	—	0.0%
Sub Total 32m Deep Allotments			—	1	—	—	—	—	2	14	—	17
Total Residential Allotments			66	67	54	77	41	25	29	56	60	475

PLAN REF: 132965 – 15

Rev No: M
DATE: 15 JULY 2021
CLIENT: AVID
DRAWN BY: JC
CHECKED BY: PHE



0 30 60 90 120 150 1:3,000 @ A1

COVELLA

PLAN OF SUBDIVISION
OVERALL ALLOTMENT LAYOUT
APPLICATION 2 (BALANCE)

AVID
Property Group

URBAN DESIGN
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Note:
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Dimensions have been rounded to the nearest 0.1 metres.
Areas have been rounded down to the nearest 5m².
The boundaries shown on this plan should not be used for final detailed engineers design.
Source Information:
Site boundaries: Land Partners.
Adjoining information: DCDB.
Contours: Calibre.
Developed 1% AEP: Calibre.