



Ref: 13056

18 August 2018

Keiley Hunter Planning
Victoria Street,
COFFS HARBOUR NSW 2450

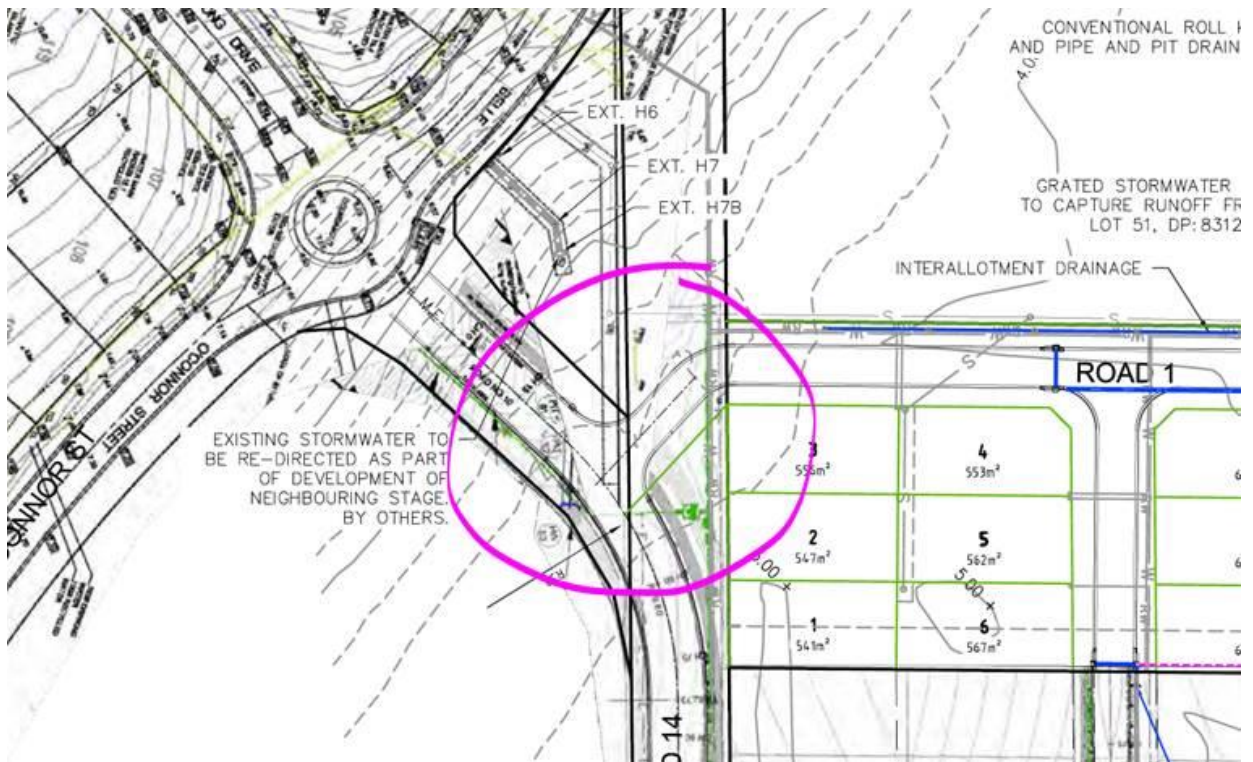
**de Groot &
Benson Pty Ltd**

**Consulting
Engineers &
Planners**

Dear Keiley

Lot 36 - MP10 0167 MOD 2 Belle O'Conner Street Subdivision South West Rocks
Assessment of New Intersection with Road No 10 of Original DA

As part of the above DA modification a new intersection has been proposed with Road No 1 in Lot 36 and Road No 10 of the main DA as shown below. We have been asked to comment on traffic matters relating to this new intersection.



Some key information relating to the intersection:

1. The DA Mod proposes a 42 lot subdivision on Lot 36. Based on a traffic generation rate of 7.4 veh/lot/day, the Average Annual Daily Traffic (AADT) for Road No 1 would be 310 vehicles per day. The peak hourly traffic is assessed at 31 vehicles per hour.

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2. The main development area has had an assessed AADT of around 2500 vehicles per day and a peak hourly traffic of 250 vehicles per hour.
3. Road No 10 is a Collector Class road with an 11m carriageway. Lot 36 Road No 1 is a Local Street with an 8m carriageway.
4. The speed environment for both roads is and will be 50 km/hr.
5. The intersection is approximately 60m north of the roundabout at the Belle O'Conner Street.
6. In addition, the intersection is over 120m to the next intersection along Road No 10 (ie Road no 2 in the main DA).
7. Drawing 13056-L36-MOD08 shows the intersection in the larger context of the existing and proposed development. The drawing shows the available sight distances:
 - *Sight distance to the south is approximately 55m*
 - *Sight distance to the east is in excess of 120m.*
8. Kempsey Council's DCP Chapter D3 sets out technical requirements for intersections. In particular, Clause D3- 5.3.2 (b) states " Roads and intersections shall be designed in accordance with [Council's Engineering Guidelines for Subdivision and Development](#) ...". Section D1 – Geometric Design of Roads is most applicable to the intersection being examined:
9. Key requirements of Section D1 and how the proposed intersection complies is set out below.

Requirement	Compliance	Comment
Intersection Type – Clause D1-17 (2) requires that "Intersection design for the junction of subdivision roads should generally be designed in accordance with the publication AUSTROADS Guide to Traffic Engineering Practice, PART 5, Intersections at Grade.	COMPLIES	<p>Figure 4.9 of Guide to Road Design – Part 4A: Unsignalised and Signalised Intersections sets out the required traffic warrants for intersection types. Based on the traffic volumes identifies in Items 1 and 2 above, the required intersection is a type BAR or BAL (ie a Basic Right and left turn intersection) – See below</p> <p>(a) Design speed ≥ 100 km/h</p>
Intersection Spacing – Clause D1-17 (5) requires that two side streets intersect a major street in a staggered pattern should have a minimum centre-line spacing	COMPLIES:	Belle O'Conner Street intersection is approx. 60m to the south and Main Subdivision Road No 2 is over 120m to the east.

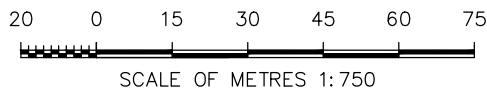
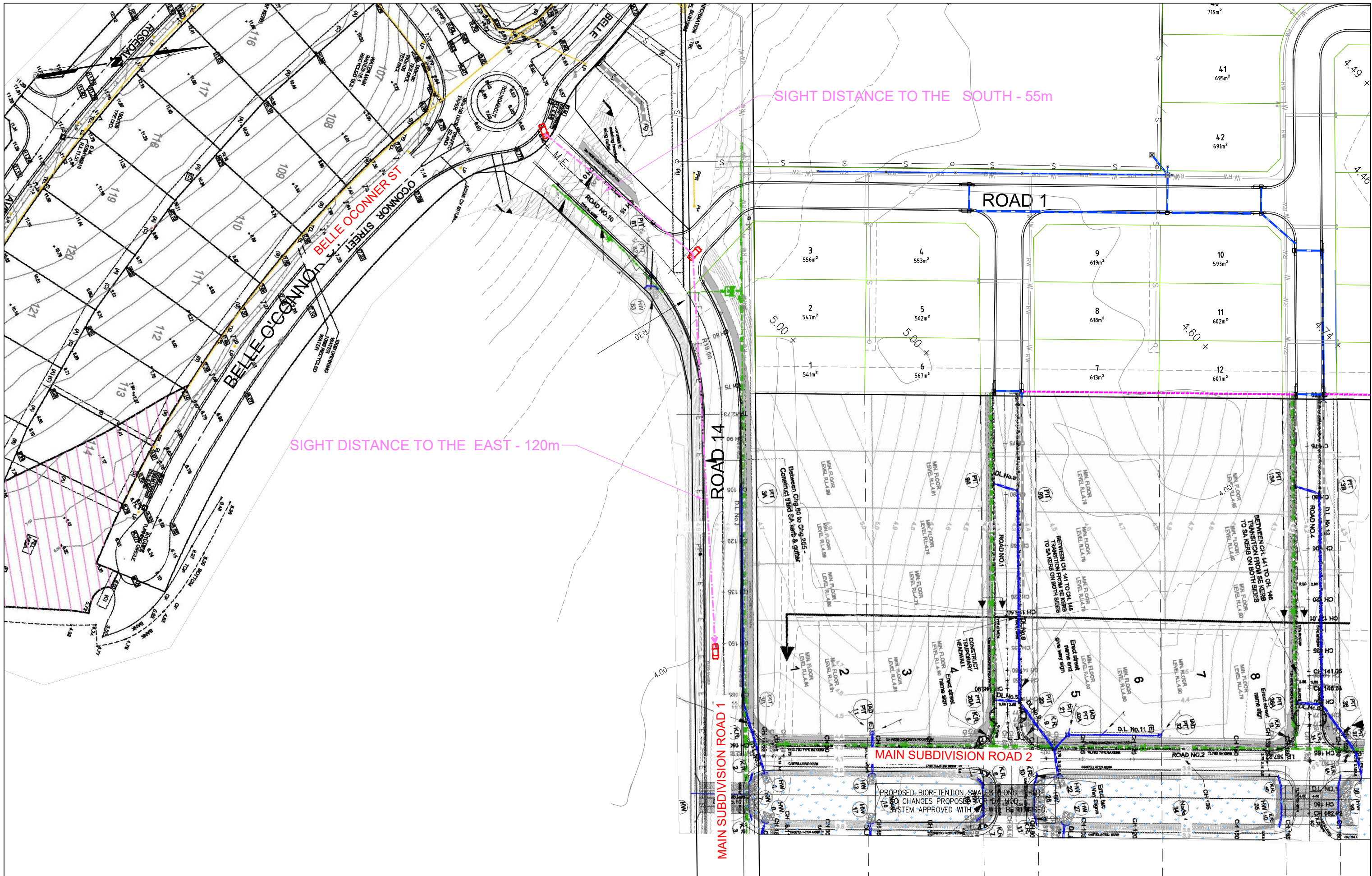


of 50 m minimum where a left turn/right turn manoeuvre between the streets is likely to occur frequently.		
Sight Distance – Clause D1-17 (6) requires that “Adequate stopping and sight distances are to be provided for horizontal and vertical curves at all intersections”	COMPLIES	<p>The speed environment is 50 km/hr. The two key criteria are Safe Intersection Sight Distance (SISD) and Approach Sight Distance (ASD). For a 50km/hr speed environment, the key distances are 97m and 55m respectively.</p> <p>SOUTH: Belle O’Conner St roundabout is approx. 60m to the south of the intersection. As traffic northbound traffic on Road No 10 will have slowed to negotiate the roundabout, Approach Sight Distance is the appropriate measure in this instance. <i>Required ASD is 55m - Intersection complies</i></p> <p>EAST: Vehicles travelling on Road 10 in a westerly direction towards the intersection have in excess of 120m sight distance. <i>Required ASD is 97m - Intersection complies</i></p>

Given the above, it is our opinion that the proposed intersection complies with the requirements of Kempsey Shire Council’s DCP and associated “Engineering Guidelines for Subdivision and Development”

Yours faithfully

R J de Groot.



DA2	08/03/18	FOR DA APPROVAL	KWW	RDG
REV.	DATE	REVISION	DR.BY	AP.BY

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Scale	AS SHOWN		Cad File No.	
			13056_Civil - LOT 36 2018-03-07a.dwg	
Surveyed		MR		Datum
				AHD
Drawn	KWW	Designed	KWW	Approved
				RDG
Checked	RDG	Date	JAN 2017	No. of dwgs

Project:
**SALTWATER DEVELOPMENT
SOUTH WEST ROCKS, NSW**

Client:
S W R Developments Pty Ltd

Title:	TRAFFIC MANAGEMENT	Project No.	13056
		Drawing No.	L36-MOD08
		Amendment No.	DA2

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