

14 December 2023

Sutherland Shire Council  
4-20 Eton Street  
Sutherland NSW 2232

**Attention:** David Milliken, Director Planning and Growth

Dear Mr Milliken

**Letter of offer to enter into Planning Agreement**  
**Site: 251, 278, 260R, 280-282 Captain Cook Drive, Kurnell**

1. Besmaw Pty Ltd (**Besmaw**) intends to submit a planning proposal to Sutherland Shire Council (**Council**) seeking to amend the *Sutherland Shire Local Environmental Plan 2015 (Sutherland LEP)* and the *State Environmental Planning Policy (Precincts – Central River City) 2021 (Central River City SEPP)*.

2. The Planning Proposal will relate to the land outlined in the table below:

Site Address	Legal Description
251 Captain Cook Drive, Kurnell	Lot 2 DP 1030269
278 Captain Cook Drive, Kurnell	Lot 8 DP 586986
280 – 282 Captain Cook Drive, Kurnell	Lot 2 DP 559922
260R Captain Cook Drive, Kurnell	Lot 9 DP 586986

3. The above land is referred to as the **Site**. The total area of the Site is 2,102,123 sqm.

4. The planning proposal will seek to rezone the Site under the Sutherland LEP to a mix of the following zones:

- (a) C1 National Parks and Nature Reserves;
- (b) C2 Environmental Conservation;
- (c) E1 Local Centre;
- (d) R3 Medium Density Residential;
- (e) R4 High Density Residential;
- (f) SP2 Infrastructure;
- (g) SP3 Tourist,

generally in accordance with the zoning map contained at Appendix A (**Planning Proposal**).

5. If the Planning Proposal is supported, and the amendments to the Sutherland LEP and the Central River City SEPP are made, Besmaw intends to submit a staged development application seeking development consent to develop four precincts across the Site as a mixed use community consisting of a range of residential, retail, tourism, recreational uses as well as a range of open space and community facilities, to be delivered in eight stages (**Proposed Development**). The Proposed Development will be delivered in stages between 2029 and 2045.

6. As referred to in the offer below, there are a number of plans and additional materials included in Appendices C – H which will assist in Council's understanding of the Proposed Development, as well as providing some relevant calculations for site area.
7. Besmaw makes an offer on the terms of the below, to enter into a Planning Agreement (**Planning Agreement**) with respect to the Site in accordance with section 7.4 of the *Environmental Planning and Assessment Act 1979 (EP&A Act)*, should the Planning Proposal be supported and the amendments to the Sutherland LEP and corresponding changes to the Central River City SEPP be made and if development consent is granted for the Proposed Development.

**Terms of offer**

(a) **Parties to the Planning Agreement:**

- (i) Besmaw Pty Ltd
- (ii) Sutherland Shire Council

(b) **Land to which the Planning Agreement relates**

- (i) The Planning Agreement relates to the Site.

(c) **Development to which the Planning Agreement relates**

- (i) The Planning Proposal and the Proposed Development..

(d) **Nature and extent of development contributions, and timing of delivery**

*See Appendix B, as further particularised by Appendices C - H.*

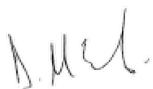
(e) **Application of sections 7.11 and 7.12 of the EP&A Act**

- (i) If this offer is accepted then then the application of s7.11 and 7.12 of the EP&A Act would be excluded in relation to the Proposed Development.

(f) **Costs**

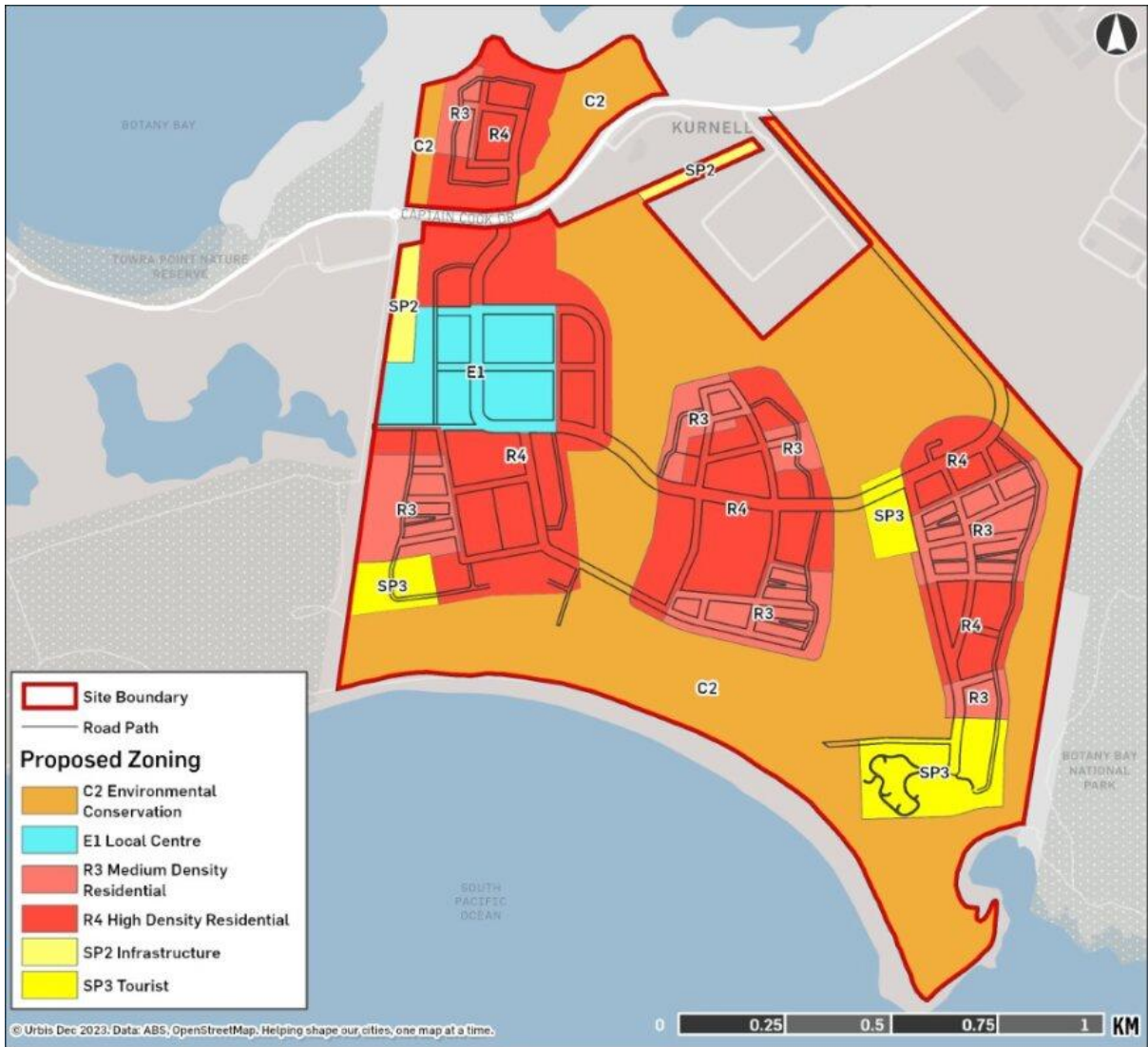
- (i) Besmaw must reimburse Council for the reasonable costs of preparing, negotiating, executing and registering the Planning Agreement.

Yours faithfully  
Besmaw Pty Limited



Duncan McComb  
CEO

# APPENDIX A



## Appendix B

Item	Proposed works	Estimated value	Proposed delivery	Timeframe	Detailed description
1.	Land for Educational Establishment	\$37,500,000	Land dedication (if required)	To be dedicated prior to the Occupation Certificate for Stage 2 (if required)	<p>The relevant parcel of land forms part of Precinct A, Town Centre North, to be delivered as part of Stage 2. The land is indicatively identified as item 1 on Appendix C.</p> <p>The land is to be zoned R4 High Density Residential under the Planning Proposal.</p> <p>Schools Infrastructure NSW has indicated that the school catchment currently has sufficient capacity and no new school is required. However, SINSW would like to retain a school site so that they can reassess this at a future point in time.</p> <p>The zoning of the school site means that a school will still be permissible with development consent on that land (see clause 3.34 of the <i>State Environment Planning Policy (Transport and Infrastructure) 2021</i>), rather than zoning it for educational purposes pursuant to an SP2 zoning.</p> <p>The proponent proposes that it will dedicate the school site if SINSW/Department of Education gives the proponent written notice that it requires the school site, unless one of the following occurs (being the earlier of the two):</p> <ol style="list-style-type: none"> <li>a) 1,500 dwellings have been constructed; or</li> <li>b) ten years have passed since the adoption of the Planning Proposal..</li> </ol> <p>The value of the dedication is based on the following calculation:</p> <ul style="list-style-type: none"> <li>• Site Area: 2,500sqm</li> <li>• Value per square metre: \$1,500 per sqm</li> </ul>
2.	Enhancement of public transport services	\$2,700,000	Monetary contribution	To be made prior to issue of Occupation Certificate for Stage 1	<p>The monetary contribution offered is for \$15,000 per month, for an estimated 180 months. The monetary contribution would be made to an operator such as Transdev who provide bus services in the local area. They will provide an interim shuttle bus between the Site and Woollooware train station. The shuttle bus will operate until the development and population on the Site can sustain the increased frequency and change in route of the existing public bus service.</p>

3.	Environmental Conservation Works	\$15,500,000	Works in kind Dedication of land	<p><i>Works-in-kind</i></p> <p>Up until dedication</p> <p><i>Land dedication</i></p> <p>Dedicated prior to Occupation Certificate for Stage 1</p>	<p>The relevant parcel of land is identified on Appendices D and F as the land to be dedicated, to the north of Captain Cook Drive. The land is to be rezoned C1 – National Parks Nature Reserves. The land is 40,809sqm.</p> <p><i>Works-in-kind</i></p> <p>The works will be for bush regeneration and weed control, which will occur until the land is dedicated.</p> <p><i>Land dedication</i></p> <p>Dedication of the land to either Crown Lands or National Parks and Wildlife. The intention is to enter into a management agreement with the Kamay Rangers who will manage the land for environmental purposes.</p>
4.	Dedication of Dune (C2 land)	\$225,000,000	Land dedication Works in Kind	<p>To be dedicated in two phases:</p> <ol style="list-style-type: none"> <li>1. Western 1km – prior to OC for Stage 1B.</li> <li>2. Eastern 1km – prior to OC for stage 3A</li> </ol> <p>Works in Kind are set to occur prior to the dedication of the land.</p>	<p><i>Land dedication</i></p> <p>The relevant land to be dedicated is identified as "land to be dedicated" running along the southern part of the Site as illustrated in the Masterplan at Appendix D. The land is 212,832sqm, and will be dedicated to Council. The land is to be rezoned under the Planning Proposal as C2 Environmental Conservation.</p> <p>Alternatively, the land can be dedicated to either the Office of Strategic Lands or Crown Lands, depending on discussion and resolution with DPE.</p> <p><i>Works in kind</i></p> <p>Construction of viewing platforms, footpaths, community buildings or places, with such works to be completed prior to the dedication of the Land.</p>
5.	Widening of Captain Cook Drive	\$130,000,000	Works in kind	Prior to the issue of the Occupation Certificate for Stage 2 and 3A.	Based on modelling as set out in Appendix H, Captain Cook Drive in its current configuration will be able to manage increased traffic flow until the occupation of Stages 2 and 3A. As such, the proposal is to widen that part of Captain Cook Drive from the Elouera Rd roundabout to the Boat Harbour Track entrance. Item 2 in Appendix C provides an illustration of the approximate location of where the widening

					of Captain Cook Drive is intended to occur. The widening would change the road from 2 lanes to 4 trafficable lanes, plus cycle lanes and combined pedestrian cycleways.
6.	Upgrade to intersections	\$8,000,000	Monetary contribution	Prior to the issue of the Occupation Certificate for Occupation Certificate for Stage 2 and 3A.	The traffic report modelled the existing and future traffic loads in a large portion of the Sutherland Shire. It identified a number of intersections that may require upgrades either now or in the future (some of which have since been completed). The proponent is proposing a monetary contribution towards any future upgrades required, with Council maintaining discretion to determine the priority of the order in which upgrades are completed.
7.	Community Facility	\$2,000,000	Works-in-kind	Prior to issue of an Occupation Certificate for Stage 1B	Item 3 in Appendix C provides an approximate location of where the Community Facility is intended to be located. The community facility is proposed to be around 400sqm.  The facility will be leased to Council, at peppercorn rent. The use is anticipated to be a community hall or similar.
8.	Cultural Facility	\$2,000,000	Works-in-kind	Prior to the issue of the Occupation Certificate for Occupation Certificate for Stage 2 and 3A.	Item 4 in Appendix C provides an approximate location of where the Cultural Facility is intended to be constructed. The Cultural Facility consists of a lightweight, multipurpose structure that provides a location for educational activities, markets, events and similar, that includes amenities such as toilets and storage areas, and is managed by the Local Aboriginal Land Council. [ME Note: for instructions on timing for this one, and as to whether it is a separate deliverable to the "Community Facility"]
9.	Affordable Housing	\$243,750,000	Works-in-kind	7.5% of each stage to be dedicated as community housing before the issue of the Occupation Certificate for the relevant stage.	Proposal is to dedicate to a community housing provider, 7.5% of the total residential yield of the Proposed Development as affordable housing ( <b>Affordable Housing Contribution</b> ). This is anticipated to be 269 dwellings, each with an estimated market value of \$750,000.  The makeup of the 7.5% is: <ul style="list-style-type: none"> <li>• Precinct: Town Centre South, Stage: 1B: <ul style="list-style-type: none"> <li>○ 82 affordable dwellings</li> </ul> </li> <li>• Precinct: Town Centre North East, Stage: 2 <ul style="list-style-type: none"> <li>○ 68 affordable dwellings</li> </ul> </li> </ul>

					<ul style="list-style-type: none"> <li>• Precinct: Boat Harbour North, Stage: 3B <ul style="list-style-type: none"> <li>○ 42 affordable dwellings</li> </ul> </li> <li>• Precinct: Town Centre North West, Stage: 4 <ul style="list-style-type: none"> <li>○ 21 affordable dwellings</li> </ul> </li> <li>• Precinct: Bate Bay North, Stage: 5B <ul style="list-style-type: none"> <li>○ 56 affordable dwellings</li> </ul> </li> </ul> <p>Total affordable dwellings: 269</p> <p>The Affordable Housing Contribution part of the Proposed Development will be managed by a community housing provider. The proponent will retain the title.</p>
10.	Indigenous Seniors Housing	\$36,000,000	Dedication of item	Prior to the issue of occupation certificate for Stage 1A	<p>Dedication of 30 dwellings within the Precinct G, Quibray Bay, for indigenous seniors housing. To be delivered at Stage 1A.</p> <p>The ownership of the 30 dwellings to be transferred to the La Perouse Local Aboriginal Land Council.</p> <p>Item 5 in Appendix C provides an indicative location of where the Indigenous Seniors Housing is intended to be constructed.</p> <p>The anticipated market value of each of the 30 dwellings is \$1,200,000.</p>
11.	SES Depot	\$1,000,000	Works-in-kind	Prior to issue of occupation certificate for Stage 1A	<p>Facility to be constructed and dedicated to council, then leased to NSW SES for peppercorn rent.</p> <p>Item 6 in Appendix C provides an indicative location of where the SES Depot is intended to be constructed.</p>
12.	Surf Life Saving Facility	\$7,000,000	Works in kind Land dedication	Prior to issue of occupation certificate for Stage 1B	<p>Construction of a surf life saving facility at the southwestern end of the dune within the dedicated Local Open Space, above, for dedication to Council, with the following specifications:</p>

					<ul style="list-style-type: none"> <li>• Lifeguard Office</li> <li>• Fully equipped first aid room (6m x 5m)</li> <li>• Change rooms</li> <li>• Lunch room</li> <li>• Garage and storage area (7m x 13m)</li> <li>• Areas for commercial purposes (i.e., restaurant, café, gym, etc) up to an area of 500sqm)</li> <li>• Staff parking area</li> <li>• Vehicle access to the beach</li> </ul> <p>Item 7 in Appendix C provides an indicative location of where the surf lifesaving facility is intended to be constructed.</p>
13.	Local Open Space	\$52,500,000	Land dedication Works in kind	To be constructed and dedicated prior to the issue of the Occupation Certificate for each stage	<p>The proposal is to dedicate 37,210 sqm of land to pursuant to the Planning Proposal, as identified on Appendix F (which includes the relevant areas for each), as follows:</p> <p>Precinct A Town Centre North = 10,986</p> <p>Precinct B Town Centre South = 7,657</p> <p>Precinct C Bate Bay North = 4,576</p> <p>Precinct E Boat Harbour = 2,734</p> <p>Precinct F Quibray Bay = 11,257</p> <p><b>Total area (sqm) = 37,210 sqm</b></p>
14.	District Open Space	\$79,000,000	Land dedication Works in kind	A District Park to be completed prior to the issue of the Occupation	Three district parks are proposed to be embellished to Council's standard and dedicated to Council, as identified on the Open Space Plan at Appendix F. The District Parks are:



				Certificate for each of stages 2, 5A, and 3B	<ul style="list-style-type: none"> <li>Precinct A: Town Centre North = 25,065</li> <li>Precinct D: Bate Bay South = 26,170</li> <li>Precinct E: Boat Harbour = 27,350</li> </ul> <p>Total: 78,585 sqm</p>
15.	Regional Parks/Managed Lands, Regional walkways and cycleways (to connect into the walking network)	\$798,000,000	Land dedication Works in kind	Prior to the issue of an Occupation Certificate for the relevant stage	<p>Land to be dedicated to Council, the Office of Strategic Lands or Crown Lands, as appropriate.</p> <p>Council and Besmaw to engage in discussions in relation to appropriate timing, level of embellishment at time of dedication, future governance and maintenance arrangements.</p> <p>Total area is 1,302,048sqm</p> <p>Precinct A, Town Centre North = 184,436</p> <p>Precinct B, Town Centre South = 154,325</p> <p>Precinct C, Bate Bay North = 79,792</p> <p>Precinct D, Bate Bay South = 129,992</p> <p>Precinct E, Boat Harbour = 469,142</p> <p>Precinct F, Quibray Bay = 64,989</p>
16.	Upgrades to Wanda Reserve – active transport connection and emergency access	\$6,900,000	Monetary Contribution	Prior to the issue of occupation certificate for Stage 1B	Value is indicative only - the value of the monetary contribution to be negotiated during the course of preparing the planning agreement.
17.	Public parking for 200 spaces adjacent to Local Open Space	\$26,000,000	Works in kind	Prior to issue of Occupation Certificate for Stage 1B and Stage 3A	The sites for the public parking are identified on the Appendices D and F, located just north of the dune. There are two proposed car parks, which are indicatively identified at items 8 in Appendix C.

					Besmaw and Council to engage in discussion in relation to appropriate tenure (namely whether the land be dedicated, or subject to a long term leasing arrangement)
18.	Indigenous Heritage works to Lot 8 DP 586986 and Lot 2 DP 559922	\$5,000,000	Works in Kind and Land Dedication	Progressively	<p>This component is comprised of:</p> <ul style="list-style-type: none"> <li>• Restoration of Lot 8 (WIK component)</li> <li>• Construction and dedication of a community centre within Lot 8, precise location to be determined, to be managed by a community association in conjunction with the La Perouse Local Aboriginal Land Council.</li> <li>• Construction/embellishment of a cultural trail within Lot 8 and the southern portion of Lot 2, for dedication to Council or Crown Land.</li> </ul>

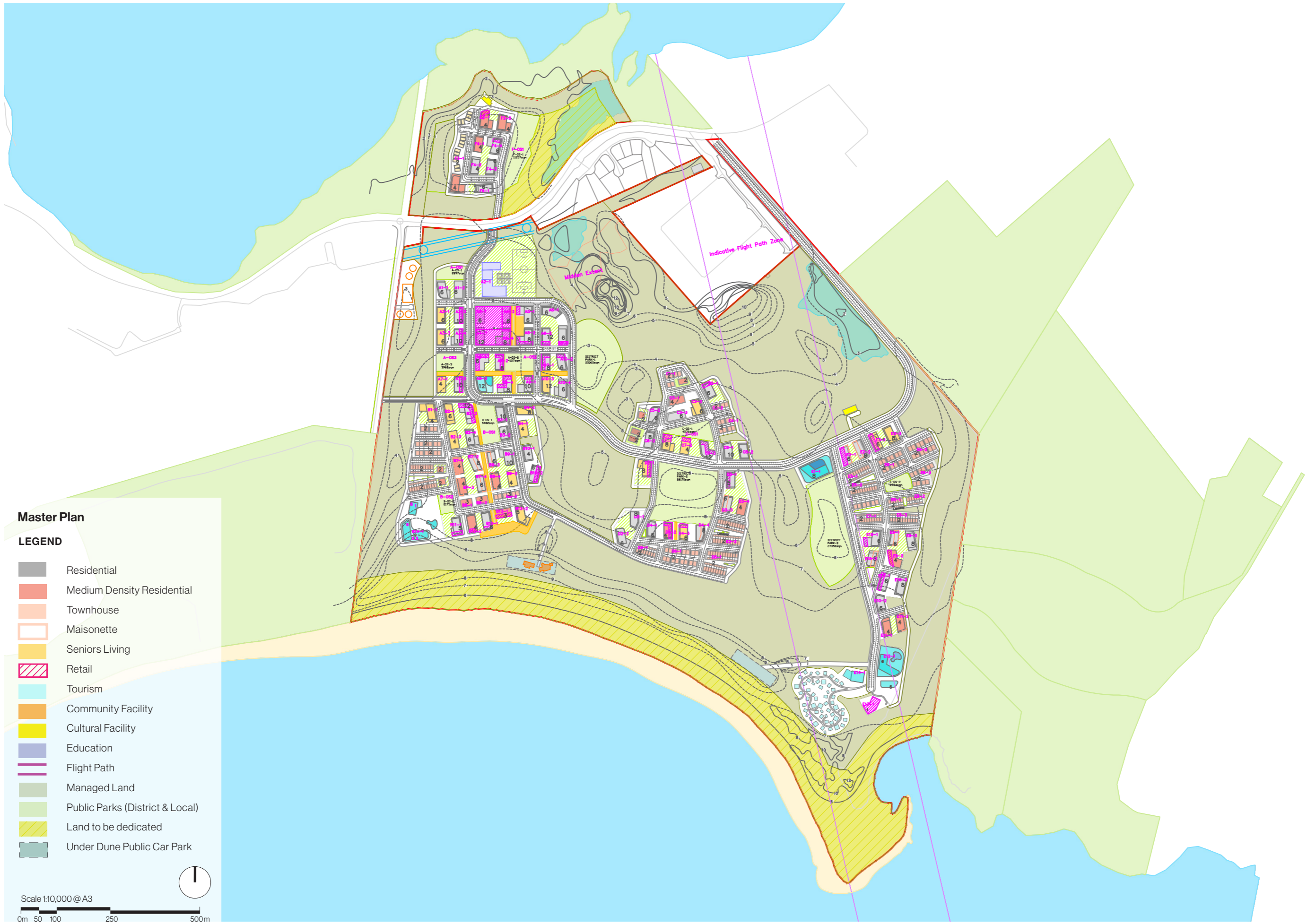
# APPENDIX C



## Facilities and Infrastructure Public Benefits

1. Land For Educational Purposes
2. Widening of Captain Cook Drive & Upgrade to intersection at Lindum Road
3. Community Facility
4. Cultural Facility
5. Indigenous Seniors Housing
6. SES Depot
7. Surf Club
8. Car Parks

# APPENDIX D

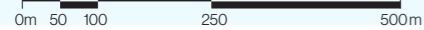


## Master Plan

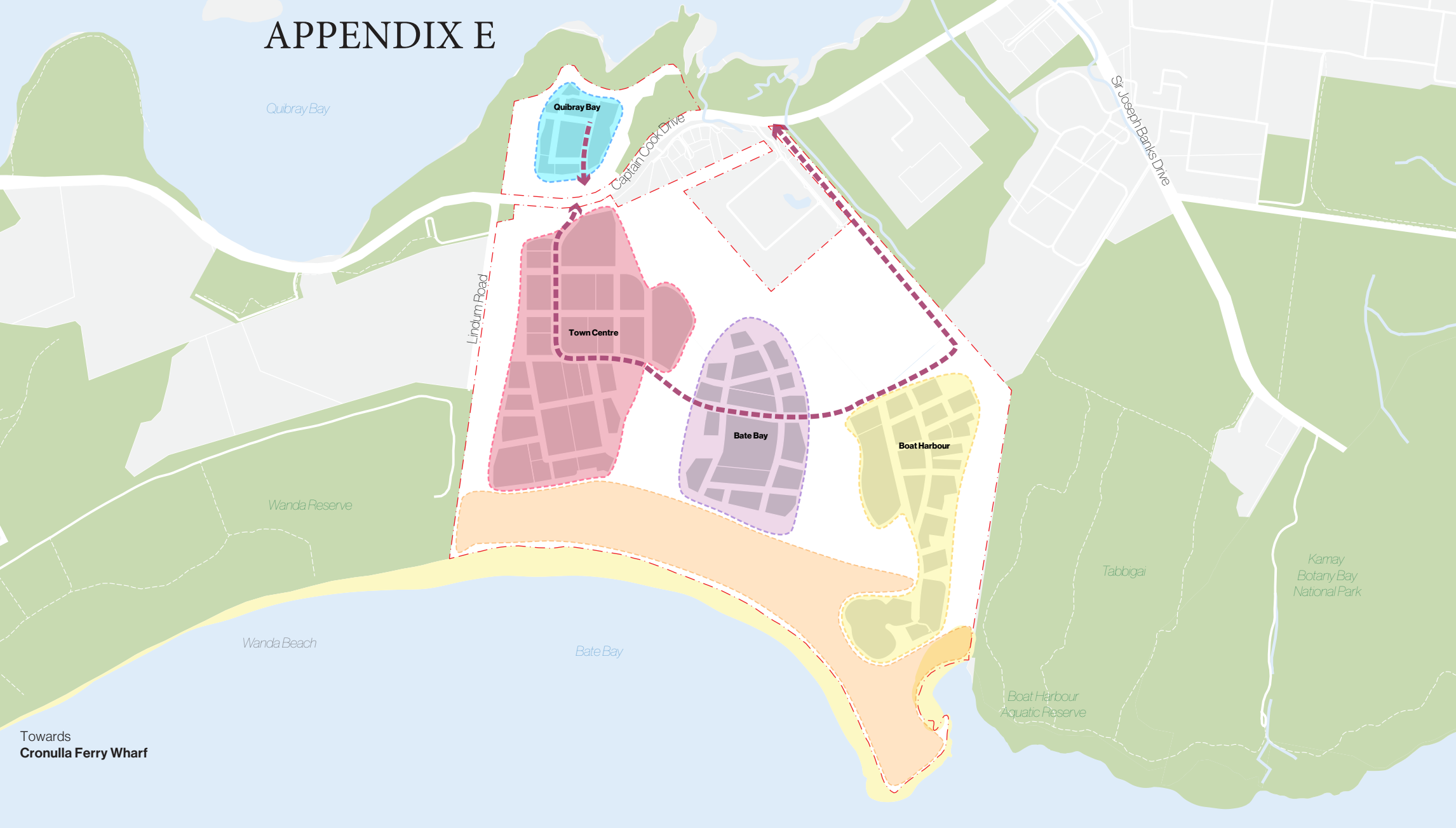
### LEGEND

- Residential
- Medium Density Residential
- Townhouse
- Maisonette
- Seniors Living
- Retail
- Tourism
- Community Facility
- Cultural Facility
- Education
- Flight Path
- Managed Land
- Public Parks (District & Local)
- Land to be dedicated
- Under Dune Public Car Park











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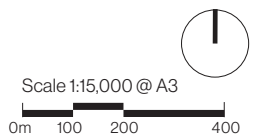


# APPENDIX E



**LEGEND**

	Subject Site		Waterfront Dune		Boat Harbour
	Open Space		Bate Bay		Quibray Bay
	Lots		Town Centre		Strengthen Through-Site Connectivity
	Water				



# APPENDIX F



**Open Space Plan**

**LEGEND**

**PUBLIC OPEN SPACE**

- District Park
- Local Park
- Land to be dedicated

**PRIVATE OPEN SPACE**

- Privately Owned Public Space
- Communal Open Space
- Managed Land

Under Dune Public Car Park

Scale 1:10,000 @ A3  
 0m 50 100 250 500m



# OPEN SPACE SUMMARY

## Open Space

Precinct	Local Parks	District Parks	Managed Land (Private)	Land to be dedicated	Total Open Space (incl. local parks, district parks, managed land, land to be dedicated)	Total Open Space %	Communal Open Space (Private)	Privately owned Public Space (Private)
Precinct A - Town Centre North	10,986	25,065	184,438	224,412			12,874	
Precinct B - Town Centre South	7,657		149,573				16,732	
Precinct C - Bate Bay North	4,576		79,792				7,295	
Precinct D - Bate Bay South	0	26,170	129,860				8,964	
Precinct E - Boat Harbour	2,734	27350	425017				8375	
Precinct F - Quibray Bay	11,257		64,989				40,809	
<b>TOTAL Area(sqm)</b>	<b>37,210</b>	<b>78,585</b>	<b>1,033,669</b>	<b>265,221</b>	<b>1,414,685</b>	<b>67.3%</b>	<b>57,697</b>	<b>11,772</b>

# APPENDIX G

## SUMMARY

### GFA

Precinct	Retail (GFA)	Medium Density Residential (GFA)	Residential (GFA)	Townhouses (GFA)	Seniors - ILUs (GFA)	Seniors - Indigenous (GFA)	Seniors - RACF (GFA)	Tourism (GFA)	Education (GFA)	Cultural (GFA)	TOTAL GFA (sqm)
Precinct A - Town Centre North	6,885	0	125,997	0	19,970	0	0	15,226	15,771	0	183,847
Precinct B - Town Centre South	0	30,478	56,457	11,810	21,699	0	10,385	13,639	0	610	145,078
Precinct C - Bate Bay North	1,057	4,745	38,270	2,881	13,875	0	0	0	0	0	60,828
Precinct D - Bate Bay South	1,395	5,305	24,917	13,194	10,434	0	0	0	0	0	55,244
Precinct E - Boat Harbour	0	8,339	40,448	21,167	10,618	0	0	33,479	0	453	114,504
Precinct F - Quibray Bay	469	12,727	16,804	0	0	2,520	0	0	0	262	32,782
<b>TOTAL GFA (sqm)</b>	<b>9,806</b>	<b>61,594</b>	<b>302,892</b>	<b>49,052</b>	<b>76,595</b>	<b>2,520</b>	<b>10,385</b>	<b>62,344</b>	<b>15,771</b>	<b>1,324</b>	<b>592,283</b>
	9,806	413,538			89,501			62,344			575,188
<i>Targets</i>	<b>20,000</b>	<b>350,000</b>			<b>110,000</b>			<b>70,000</b>			<b>550,000</b>

### Dwellings

Precinct	Medium Density Residential	Residential	Townhouses	Seniors - ILUs	Seniors - Indigenous	Seniors - RACF	Tourism (Hotel rooms/ Eco cabins)	TOTAL NO. of Dwellings
Precinct A - Town Centre North	0	1,177	0	158	0	0	98	1,335
Precinct B - Town Centre South	293	469	62	172	0	122	115	1,118
Precinct C - Bate Bay North	42	350	16	106	0	0	0	514
Precinct D - Bate Bay South	48	222	72	80	0	0	0	422
Precinct E - Boat Harbour	79	372	108	82	0	0	374	641
Precinct F - Quibray Bay	120	153	0	0	30	0	0	303
<b>TOTAL NO. of Dwellings</b>	<b>582</b>	<b>2,743</b>	<b>258</b>	<b>598</b>	<b>30</b>	<b>122</b>	<b>587</b>	<b>4,333</b>
				*manually adjusted for Indigenous Seniors			Including Tourism	<b>4,920</b>

Unit numbers rounded to the nearest whole number

### Open Space

Precinct	Local Parks	District Parks	Regional Park	Open Space	Open Space %	COS	Privately owned Public Space	Land to be dedicated
Precinct A - Town Centre North	10,986	25,065	184,436			12,874		212,832
Precinct B - Town Centre South	7,657		154,325			16,732		
Precinct C - Bate Bay North	4,576		79,792			7,295		
Precinct D - Bate Bay South	0	26,170	129,992			8,964		
Precinct E - Boat Harbour	2,734	27350	469142			8375		
Precinct F - Quibray Bay	11,257		64,989			3,457	40,809	
<b>TOTAL Area (sqm)</b>	<b>37,210</b>	<b>78,585</b>	<b>1,302,048</b>	<b>1,417,843</b>	<b>67.4%</b>	<b>57,697</b>	<b>11,772</b>	<b>253,641</b>

Total Site Area

2,102,123 m2

Townhouses	Medium Density	Medium + Townhouses	Medium Density Dwellings	Seniors
9.8%	12.2%	22.0%	840	628

Gross FSR 0.27 : 1

Residents 5018  
OS / Resident 23 m2






## STAGING SUMMARY

### GFA

Stage	Retail (GFA)	Medium Density Residential (GFA)	Residential (GFA)	Townhouses (GFA)	Seniors - ILUs (GFA)	Seniors - Indigenous (GFA)	Seniors - RACF (GFA)	Tourism (GFA)	Cultural (GFA)	Education (GFA)		
Stage 1A	469	12,727	16,804	0	0	2,520	0	0	262	0		
Stage 1B	0	30,478	56,457	11,810	21,699	0	10,385	13,639	610	0		
Stage 2	6,162	0	95,422	0	8,428	0	0	14,911	0	15,771		
Stage 3A	0	0	0	0	0	0	0	4,042	0	0		
Stage 3B	0	8,339	40,448	21,167	10,618	0	0	29,437	453	0		
Stage 4	723	0	30,575	0	11,542	0	0	315	0	0		
Stage 5A	1,395	5,305	24,917	13,194	10,434	0	0	0	0	0		
Stage 5B	1,057	4,745	38,270	2,881	13,875	0	0	0	0	0		
<b>TOTAL GFA (sqm)</b>	<b>9,806</b>	<b>61,594</b>	<b>302,892</b>	<b>49,052</b>	<b>76,595</b>	<b>2,520</b>	<b>10,385</b>	<b>62,344</b>	<b>1,324</b>	<b>15,771</b>	592,283	
	<b>9,806</b>	<b>413,538</b>			<b>89,501</b>			<b>62,344</b>				<b>575,188</b>
<i>Targets</i>	<i>20000</i>	<i>350000</i>			<i>110000</i>			<i>70000</i>				<i>550,000</i>
												New Target <b>600,000</b>

## Technical Advisory Note

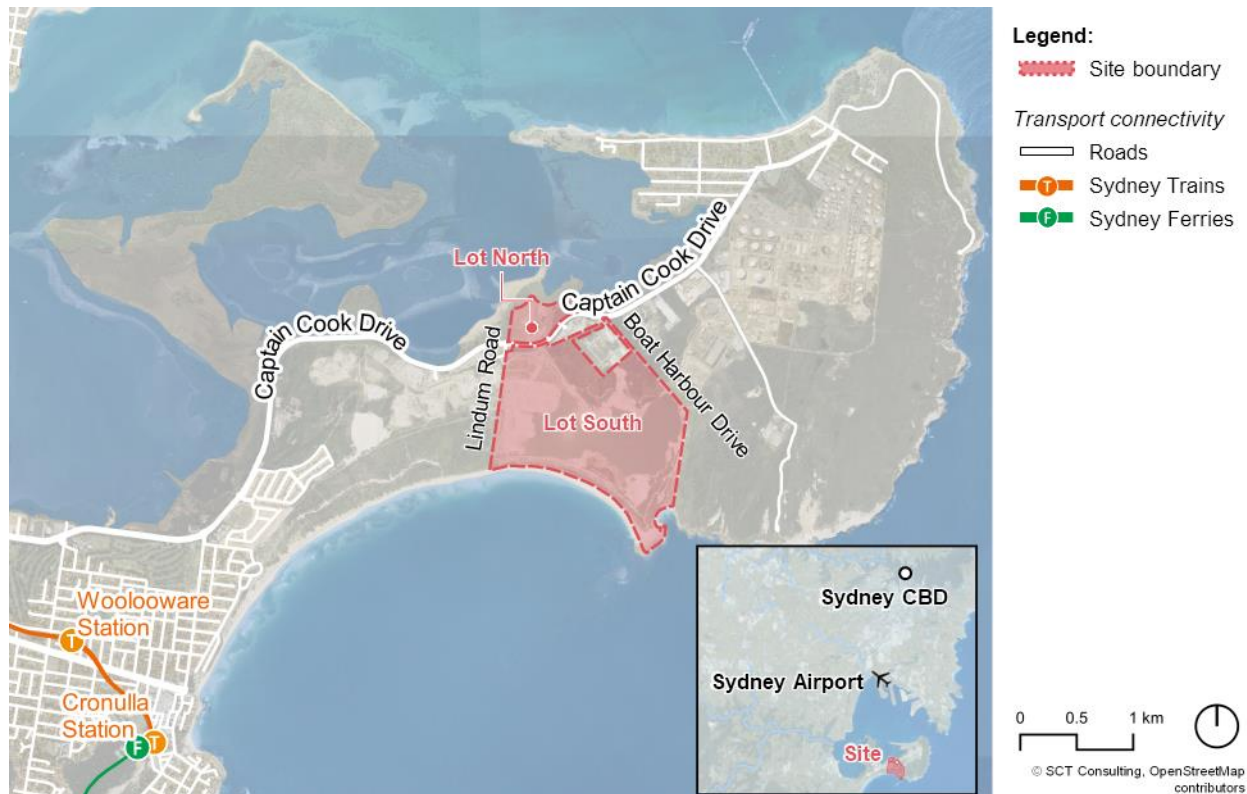
<b>Project</b>	Kurnell Peninsula Planning Proposal	<b>Project Number</b>	SCT_00399
<b>Client</b>	Besmaw Pty Ltd		
<b>Document Name</b>	Captain Cook Drive Staging Considerations		
<b>Version</b>	2.0	<b>Date</b>	22 November 2023
<b>Author</b>	Ravi Kaberwal	Principal Consultant	
<b>Reviewer</b>	Andy Yung	Director	
<b>Authoriser</b>	Andy Yung	Director	

### Background

Besmaw Pty Ltd (Besmaw) is in the process of preparing and submitting a proponent-initiated Planning Proposal at 251, 260R, 278, and 280-282 Captain Cook Drive, Kurnell within the Sutherland Shire Local Government Area (LGA).

The project site is envisaged as a mixed-use community consisting of a range of residential, retail, tourism, recreational uses as well as a range of open space and community facilities (including a school). The site is located approximately 4.5 kilometres north-east of Cronulla and is serviced by Captain Cook Drive (**Figure 1**).

Figure 1 Site location



In support of the earlier phases of the SEPP amendment process, a master plan and associated technical studies, including a transport study, were prepared. The transport study, *Kurnell Peninsula Phase 1 Transport Assessment* (TTPP, March 2020), identified the need to upgrade Captain Cook Drive from its existing 2 lane (1 lane in each direction) arrangement to 4 lanes (2 lanes in each direction).

Since these earlier studies, the project has evolved and responded to feedback from ongoing consultation with key stakeholders including Sutherland Shire Council (SSC), Transport for NSW, Government Architect NSW (GANSW as part of the Department of Planning, Housing and Infrastructure), which has resulted in an updated master plan with revised yields and more granular detail on the staging of the development.

This technical note has been prepared to establish the trigger points for the future upgrade of Captain Cook Drive.

### Development staging

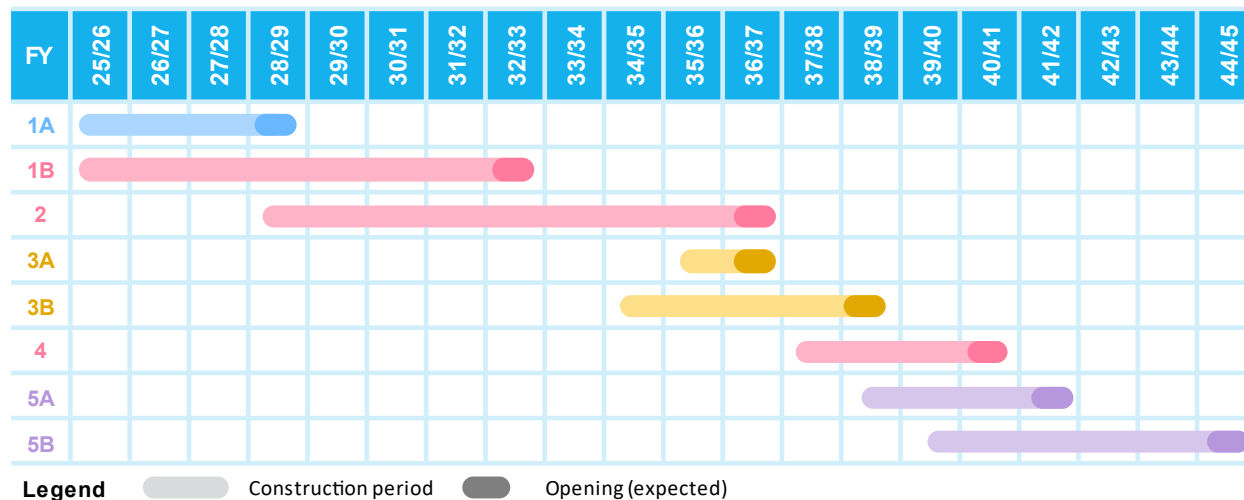
The development will be delivered in stages between 2029 and 2045 as summarised in **Figure 2** and **Figure 3**. Construction is expected to commence in the Financial Year (FY) 2025/26, with a year of opening in FY2028/29 with only Stage 1A completed and potentially Stage 1B partially completed. The development is expected to be fully completed and operational in 2045.

**Figure 2 Master Plan staging overview**



Source: GroupGSA with SCT annotations

Figure 3 Master Plan staging overview – delivery program



Based on the delivery program dated 23 October 2023 (Urbis).

### Vehicle trip generation

Based on the proposed land-use types and their respective yields, the AM and PM peak-hour trips generated by the site have been estimated to inform the assessment of Captain Cook Drive.

Vehicle-based trips have been estimated based on the rates agreed with Transport for NSW (previously RMS) as per the previous study (extract included in **Appendix A**), and the directional splits as summarised in **Table 1**.

Table 1 Development vehicle trip generation rates

Land use	Trip rate		AM split		Directional split	
	AM	PM	In	Out	East	West
<b>Residential</b>						
Seniors Housing	0.16	0.31	50%	50%	20%	80%
Aged care	0.12	0.24	50%	50%	20%	80%
High density residential	0.35	0.43	20%	80%	20%	80%
Medium density residential	0.85	0.85	20%	80%	20%	80%
Townhouses	0.85	0.85	20%	80%	20%	80%
Eco Tourist Villas/ Hotel	0.35	0.43	20%	80%	20%	80%
<b>Non-residential</b>						
Retail	0.03	0.06	50%	50%	20%	80%
Community Facilities	0.02	0.02	50%	50%	20%	80%
Education*	0.60	0.32	50%	50%	20%	80%

Note: Education land use added since the previous study, and trip rate based on Trip Generation Surveys - Schools Analysis Report (GTA 2014)

The above is based on trips generated directly by the site and does not include additional trips generated by the public beach and other open space. However, the recreational trips will generally be higher on the weekend and off-peak, which would not correspond with the site's weekday commuter peak.

The rates and splits from **Table 1** result in the external vehicle trips (heading to/from the west on Captain Cook Drive) as summarised in **Table 2**.

**Table 2 Development vehicle trip generation by stage**

Year	Stage	Description	AM peak hour		PM peak hour	
			In	Out	In	Out
2029	1A	Quibray	32	107	120	40
2033	1B	Town Centre South	102	345	391	125
2037	2 & 3A	Town Centre North + Boat Harbour South	161	375	494	231
2039	3B	Boat Harbour North	75	277	320	90
2041	5A	Bate Bay South	45	131	159	64
2045	5B	Bate Bay North	43	125	158	62
Total			458	1,360	1,642	612

The site currently generates 1,400 vehicle movements per day (including 700 ingress and 700 egress movements), which equates to approximately 140 vehicle movements per hour based on a 10-hour working day (TTPP, 2020). These existing trips have been retained as a conservative allowance for construction traffic for the staged delivery of the site.

### Timing for road upgrade

From the development staging and vehicle trip generation, it is evident that the traffic volumes generated by the initial stages are a small proportion of the end-state project trip generation, and hence there is an opportunity to deliver the Captain Cook Drive upgrade after the initial year of opening (2029) of the project site.

Given the project is at a planning proposal stage, the capacity assessment has been undertaken based on mid-block capacity assessment of Captain Cook Drive near the intersection with Lindum Road (which is west of the site). Detailed traffic modelling can be undertaken at the DA stage to verify these findings (if required).

Though mid-block capacity can be an overestimate compared to intersection capacity, Captain Cook Drive currently serves as a thoroughfare to Kurnell Peninsula with minor movements on/off the road via roundabouts during the typical weekday peak periods. Hence the mid-block assessment is an appropriate proxy to inform the upgrade time with respect to the proposed delivery program of the development.

Based on the proposed staging, the expected traffic volumes on Captain Cook Drive (east of Lindum Road) do not exceed the nominal free-flow lane capacity of 1,200 vehicles per hour until after the opening of Stages 2 and 3A (Town Centre and Boat Harbour South) in 2037 for either the AM (**Figure 4**) or PM (**Figure 5**) peak hour.

**Figure 4 Captain Cook Drive midblock traffic volume forecast – AM peak hour**

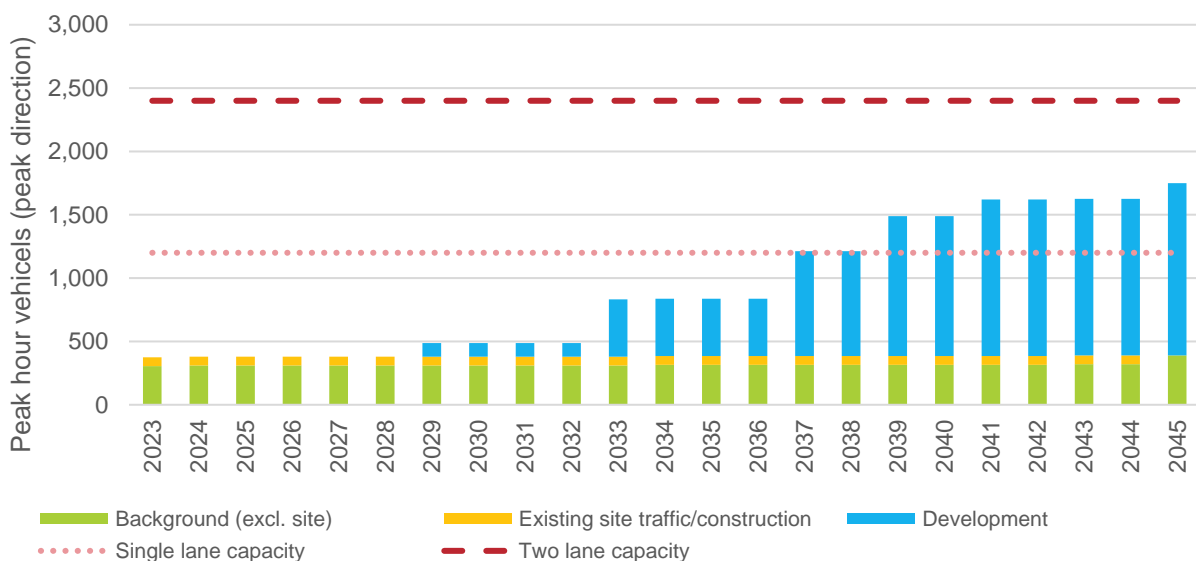
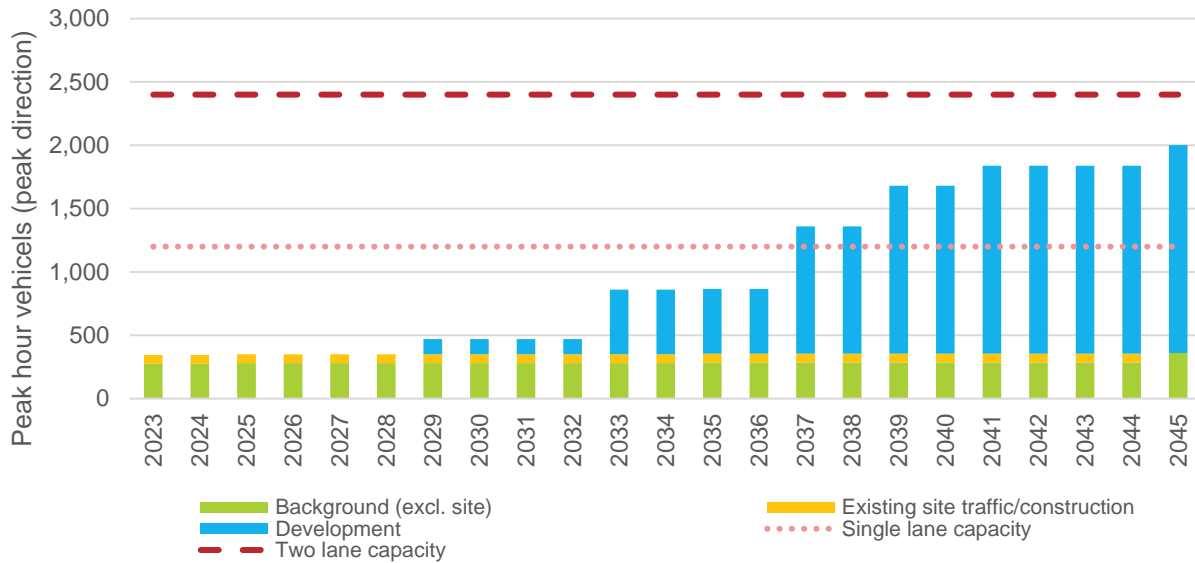


Figure 5 Captain Cook Drive midblock traffic volume forecast – PM peak hour



This analysis is based on the weekday peak and trips generated directly by the site and does not include additional trips generated by the public beach and other open space. However, the recreational trips will generally be higher on the weekend and off-peak, which would not correspond with the site's weekday commuter peak.

Based on the most onerous period, the PM (Figure 5) peak hour, there is approximately 17% (or 400 vehicles per hour) worth of vehicle capacity still available on the upgraded Captain Cook Drive following the full delivery of the project site (in 2045). This additional capacity can support further growth along the corridor.

### Key outcomes

Based on the proposed master plan (and associated yields) and the project delivery program, this study finds:

- The existing traffic and the staged development can be accommodated by the existing Captain Cook Drive arrangement (1 lane in each direction) for the year of opening (2029).
- The upgrade to 2 lanes in each direction is required after the opening of Stages 2 and 3A (Town Centre and Boat Harbour South) in 2037, hence should be delivered before their opening.
- Following the full delivery of the development (2045), there is approximately 17% (or 400 vehicles per hour) worth of vehicle capacity still available on the upgraded Captain Cook Drive which can support further growth along the corridor.

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APPENDIX A

# APPROVED TRIP GENERATION RATES

**From:** Wayne Johnson  
**To:** HALL, James C  
**Cc:** Ken Holroyd; Jessica Szeto; development\_sydney@rms.nsw.gov.au; Rachel.NICHOLSON@rms.nsw.gov.au  
**Subject:** RE: Kurnell Peninsula - Year 2026 and Year 2036 STM With and Without Development Traffic  
**Date:** Tuesday, 27 March 2018 8:31:00 PM  
**Attachments:**

Evening James,

Following our meeting last week, TTPP have revised the trip rates and provided further justification for:

- Traffic generation rates for seniors housing and aged care housing development – i.e. separate rates for each use
- Retail AM traffic generation assumptions – i.e. 50% of PM trips (rather than the 25% proportion previously proposed)

The project team would like RMS to review the development trip generation rates and run both yields (upper and lower) in their STM for Year's 2026 and 2036 with and without development traffic. As discussed, it would be greatly appreciated if RMS could run both yield options with and without development traffic and provide results within **2-3 weeks**, noting that the project is already well behind schedule.

**Table 1: Kurnell Masterplan – Development Yield**

Land Use	Lower Yield	Upper Yield
Seniors Housing	293 dwellings	440 dwellings
Aged care	147 dwellings	220 dwellings
High Density Residential	1362 dwellings	2043 dwellings
Mid Density Residential	714 dwellings	1071 dwellings
Prestige Housing	100 dwellings	149 dwellings
High Density Hospitality	174 dwellings	262 dwellings
Eco Tourist Villas	55 dwellings	82 dwellings
Serviced Apartment	441 dwellings	661 dwellings
Commercial	3028 sqm	4542 sqm
Retail	4314 sqm	6471 sqm
Community Facilities	1400 sqm	2400 sqm

#### Traffic Generation Assumptions

The traffic generation estimates for the Kurnell masterplan have been sourced from the Roads and Maritime's *Guide to Traffic Generating Developments* (2002) and in their technical direction TD12013/04a containing revised rates. In addition to this, the proposed high density residential traffic generation rates for the masterplan have been sourced from the recent 2017 traffic generation surveys conducted at Cronulla (Site 6) as part of Roads and Maritime's *High Density Residential (Car Based) Analysis Report* for high density residential developments not well served by public transport services.

The proposed traffic generation rates for the Kurnell masterplan traffic assessment are as follows:

#### Residential

##### • Low density dwellings

Roads and Maritime's updated technical direction suggests the following traffic generation rates:

- AM peak hour vehicle trips = 0.95 trips per dwelling
- PM peak hour vehicle trips = 0.99 trips per dwelling.

##### • Medium density dwellings

Consideration has been given to private car dependency for drivers that reside in medium density dwellings. Although the Roads and Maritime Guide (2002) recommends a rate of 0.4-0.65 trips/dwelling in the peak hour, the following adjustment has been applied to the Roads and Maritime rates given the subject site is not located near a railway station:

- AM peak hour vehicle trips = 0.85 trips per dwelling
- PM peak hour vehicle trips = 0.85 trips per dwelling.

##### • High density dwellings (Cronulla 2017 Surveys – Site 6)

The traffic generation rates based on recent 2017 surveys at the Cronulla site (Site 6) conducted as part of Roads and Maritime's *High Density Residential (Car Based) Analysis Report* are as follows:

- AM peak hour vehicle trips = 0.35 trips per dwelling
- PM peak hour vehicle trips = 0.43 trips per dwelling.

##### • Seniors Housing

Roads and Maritime's updated technical direction provides traffic generation rates for seniors living development – which comprises a mix of self-contained, hostel (low care) and aged care (high care) accommodation types. The proposed seniors housing development is expected to be largely self-contained seniors housing (e.g. independent living units) and as such, the traffic generation rates have been derived from the Roads and Maritime surveyed sites, which are solely self-contained accommodation sites (i.e. Sites 6-9). The surveyed sites suggest the following network peak hour traffic generation rates:

- AM peak hour vehicle trips = 0.16 trips per dwelling\*
- PM peak hour vehicle trips = 0.31 trips per dwelling (0.03-0.31 trips per dwelling, upper rate used).

\*N.B. AM site peak does not generally coincide with the network peak hour. As such, for the purpose of this traffic generation analysis, it has been assumed that 50% of PM trips would occur in the AM.

##### • Aged Care Housing

Similar to the above, the traffic generation rates for aged care seniors living accommodation types have been derived from the Roads and Maritime surveyed sites (i.e. Sites 3 and 4). It should be noted that these sites include a mix of accommodation types, i.e. self-contained, hostel and aged care accommodation types. For aged care housing (i.e. high care facilities), it is noted that lower traffic generation would be expected compared to self-contained/hostel (low care) accommodation types as aged care facilities would generally attract less mobile senior residents, who require high level personal assistance and care and thus, are unlikely to own a car/travel by car. Although, as a conservative measure, the traffic generation rates from the Roads and Maritime surveyed sites (Sites 3 and 4) have been used to estimate the likely traffic generation arising from aged care housing (noting that this may in fact be lower in reality as the surveyed sites include lower care senior accommodation types), which are as follows:

- AM peak hour vehicle trips = 0.12 trips per dwelling\*
- PM peak hour vehicle trips = 0.24 trips per dwelling (0.05-0.24 trips per dwelling, upper rate used).

\*N.B. AM site peak does not generally coincide with the network peak hour. As such, for the purpose of this traffic generation analysis, it has been assumed that 50% of PM trips would occur in the AM.

#### Commercial/Office

The Roads and Maritime's updated technical direction suggests a trip rate of 1.2-1.6 trips per 100 sqm for commercial developments. However, as the subject site is not located near a railway station, the 'old' Roads and Maritime trip rates for commercial land use is considered more appropriate and is as follows:

- AM and PM peak hour vehicle trips = 2 trips per 100 sqm.

#### Serviced Apartments/Tourist Villas

Roads and Maritime do not have any trip rates for serviced apartment developments. For the purpose of estimating the traffic generation from the serviced apartments, the trip rates for high density residential dwellings has been adopted:

- AM peak hour vehicle trips = 0.35 trips per dwelling
- PM peak hour vehicle trips = 0.43 trips per dwelling.

#### Mixed Retail Use / Neighbourhood Centre

The proposed mixed retail use is expected to be ancillary, such as a neighbourhood centre to serve local residents/employees within the Kurnell Peninsula. As such, the following traffic generation is proposed:

- AM peak hour vehicle trips = 3 trips per 100 sqm\*
- PM peak hour vehicle trips = 6 trips per 100 sqm

\*N.B. AM site peak does not generally coincide with the network peak hour, plus some retail shops would not likely be open during the network peak hour (i.e. before 9am). As such, it has been assumed that 50% of PM trips would occur in the AM to account for staff/retail AM trips.

#### Community Facilities

The proposed community facilities will most likely be an ancillary use to the Kurnell masterplan. Additionally, the site peak hour traffic generation patterns for such uses are unlikely to coincide with the network peak hour. As such, for the purpose of estimating the traffic generation patterns, the following trip rate has been assumed for the community facility use based on the commercial trip rates:

- AM and PM peak hour vehicle trips = 2 trips per 100 sqm.

#### Directional Splits Assumptions

The following directional splits (i.e. inbound/outbound vehicle movement proportions) for each land use has been assumed as follows:



- **Residential:** 20% inbound and 80% outbound (AM Peak); 80% inbound and 20% outbound (PM Peak)
- **Commercial/office:** 80% inbound and 20% outbound (AM Peak); 20% inbound and 80% outbound (PM Peak)
- **Serviced Apartments/Tourist Villas:** 15% inbound and 85% outbound (AM Peak); 85% inbound and 15% outbound (PM Peak)
- **Mixed Retail:** 50% inbound and 50% outbound (AM and PM Peak)
- **Community Facilities:** 50% inbound and 50% outbound (AM and PM Peak)

#### Internal Trip Containment Assumptions

It is assumed that 10% of the potential external traffic movements generated from the subject site would be internalised as a result of the mix of land uses.

Initially, an internal trip reduction of 25% was proposed, however, this has since been conservatively reduced to 10% as a result of feedback from Roads and Maritime in the meeting.

#### Trip Generation Estimates

Estimates of the AM and PM peak hour traffic generation for the proposed upper and lower masterplan options are provided in the Table 2 and Table 3, respectively.

**Table 2: Kurnell Masterplan Traffic Generation Potential (Upper Yield)**

Land Use	Size	Trip Generation Rate		AM Peak		PM Peak	
		AM Peak	PM Peak	Inbound	Outbound	Inbound	Outbound
Seniors Housing	440 dwellings	0.16 trips per dwelling	0.31 trips per dwelling	14 trips	55 trips	110 trips	28 trips
Aged care	220 dwellings	0.12 trips per dwelling	0.24 trips per dwelling	6 trips	22 trips	43 trips	11 trips
High Density Residential*	2043 dwellings	0.35 trips per dwelling	0.43 trips per dwelling	144 trips	573 trips	703 trips	176 trips
Mid Density Residential	1071 dwellings	0.85 trips per dwelling	0.85 trips per dwelling	183 trips	729 trips	729 trips	183 trips
Prestige Housing	149 dwellings	0.95 trips per dwelling	0.99 trips per dwelling	29 trips	114 trips	119 trips	30 trips
High Density Hospitality*	262 dwellings	0.35 trips per dwelling	0.43 trips per dwelling	19 trips	74 trips	91 trips	23 trips
Eco Tourist Villas*	82 dwellings	0.35 trips per dwelling	0.43 trips per dwelling	5 trips	25 trips	30 trips	6 trips
Serviced Apartment*	661 dwellings	0.35 trips per dwelling	0.43 trips per dwelling	35 trips	197 trips	242 trips	43 trips
Commercial	4542 sqm	2 trips per 100sqm	2 trips per 100sqm	73 trips	19 trips	19 trips	73 trips
Retail / Neighbourhood Centre	6471 sqm	3 trips per 100sqm	6 trips per 100sqm	98 trips	98 trips	195 trips	195 trips
Community Facilities**	2400 sqm	2 trips per 100sqm	2 trips per 100sqm	24 trips	24 trips	24 trips	24 trips
<b>Sub-Total</b>				<b>630 trips</b>	<b>1,930 trips</b>	<b>2,305 trips</b>	<b>792 trips</b>
					<b>AM Peak</b>	<b>-</b>	<b>PM Peak</b>
<b>Total Two-Way Traffic Movements</b>					<b>2,560 trips</b>	<b>-</b>	<b>3,097 trips</b>
<b>Internal Trip Reduction (-10%)</b>					<b>-256 trips</b>	<b>-</b>	<b>-310 trips</b>
<b>Existing Site Traffic Generation*</b>					<b>-140 trips</b>	<b>-</b>	<b>-140 trips</b>
<b>Net Proposed Development Traffic Generation Estimate</b>					<b>2,164 trips</b>	<b>-</b>	<b>2,647 trips</b>

\* The previous traffic assessment conducted for the site found that the existing site currently generates up to 1,400 vpd. For the purpose of the above assessment, it has assumed that the peak hour traffic generation of the site equates to 140 vph (=1,400/10 hours).

**Table 3: Kurnell Masterplan Traffic Generation Potential (Lower Yield)**

Land Use	Size	Trip Generation Rate		AM Peak		PM Peak	
		AM Peak	PM Peak	Inbound	Outbound	Inbound	Outbound
Seniors Housing	293 dwellings	0.16 trips per dwelling	0.31 trips per dwelling	10 trips	37 trips	73 trips	19 trips
Aged care	147 dwellings	0.12 trips per dwelling	0.24 trips per dwelling	4 trips	15 trips	29 trips	8 trips
High Density Residential*	1362 dwellings	0.35 trips per dwelling	0.43 trips per dwelling	96 trips	382 trips	469 trips	118 trips
Mid Density Residential	714 dwellings	0.85 trips per dwelling	0.85 trips per dwelling	122 trips	486 trips	486 trips	122 trips
Prestige Housing	100 dwellings	0.95 trips per dwelling	0.99 trips per dwelling	19 trips	76 trips	80 trips	20 trips
High Density Hospitality*	174 dwellings	0.35 trips per dwelling	0.43 trips per dwelling	13 trips	49 trips	60 trips	15 trips
Eco Tourist Villas*	55 dwellings	0.35 trips per dwelling	0.43 trips per dwelling	3 trips	17 trips	21 trips	4 trips
Serviced Apartment*	441 dwellings	0.35 trips per dwelling	0.43 trips per dwelling	24 trips	132 trips	162 trips	29 trips
Commercial	3028 sqm	2 trips per 100sqm	2 trips per 100sqm	49 trips	13 trips	13 trips	49 trips
Retail / Neighbourhood Centre	4314 sqm	3 trips per 100sqm	6 trips per 100sqm	65 trips	65 trips	130 trips	130 trips
Community Facilities**	1600 sqm	2 trips per 100sqm	2 trips per 100sqm	16 trips	16 trips	16 trips	16 trips
<b>Sub-Total</b>				<b>421 trips</b>	<b>1,288 trips</b>	<b>1,539 trips</b>	<b>530 trips</b>
					<b>AM Peak</b>	<b>-</b>	<b>PM Peak</b>
<b>Total Two-Way Traffic Movements</b>					<b>1,709 trips</b>	<b>-</b>	<b>2,069 trips</b>
<b>Internal Trip Reduction (-10%)</b>					<b>-171 trips</b>	<b>-</b>	<b>-207 trips</b>
<b>Existing Site Traffic Generation*</b>					<b>-140 trips</b>	<b>-</b>	<b>-140 trips</b>
<b>Net Proposed Development Traffic Generation Estimate</b>					<b>1,398 trips</b>	<b>-</b>	<b>1,722 trips</b>

\* The previous traffic assessment conducted for the site found that the existing site currently generates up to 1,400 vpd. For the purpose of the above assessment, it has assumed that the peak hour traffic generation of the site equates to 140 vph (=1,400/10 hours).

The proposed masterplan is estimated to generate:

- **Upper Yield:** 2,164 two-way trips in the AM peak hour and 2,647 two-way trips in the PM peak hour
- **Lower Yield:** 1,398 two-way trips in the AM peak hour and 1,722 two-way trips in the PM peak hour.

Please let me know if you have any queries in relation to the above traffic generation assumptions or if you require further information.

Thanks in advance.

Regards,

Wayne Johnson

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