BARLINGS BEACH SUBDIVISION

LOTS 178 AND 179
GEORGE BASS DRIVE, TOMAKIN

Assessment of Traffic and Parking Implications

February 2011

Reference 09224

TRANSPORT AND TRAFFIC PLANNING ASSOCIATES
Transportation, Traffic and Design Consultants
Suite 502, Level 5
282 Victoria Avenue
CHATSWOOD 2067
Telephone (02) 9411 5660
Facsimile (02) 9904 6622
Email: ttpa@ttpa.com.au

TABLE OF CONTENTS

1. INTRODUCTION 1

2. PROPOSED DEVELOPMENT SCHEME 2

2.1 Site, Context and Current Use 2
2.2 Approved Subdivision 2
2.3 Proposed s96 Application 3

3. ROAD NETWORK AND TRAFFIC CONDITIONS 4

3.1 Road Network 4
3.2 Road Geometry 4
3.3 Traffic Controls 4
3.4 Traffic Conditions 5

4. ACCESS, CIRCULATION AND SERVICING 7

5. TRAFFIC 8

6. CONCLUSION 9

APPENDIX A **TRAFFIC SURVEY RESULTS**
APPENDIX B **TURNING PATH ASSESSMENT**

LIST OF ILLUSTRATIONS

FIGURE 1 LOCATION
FIGURE 2 SITE
FIGURE 3 ROAD NETWORK

1. INTRODUCTION

This report has been prepared for the President Property Group to accompany an Application to the Department of Planning in relation to Lots 178 and 179 of the Barlings Beach residential subdivision at Tomakin (Figure 1).

The subdivision of the former Barlings Beach Tourist Park is located on the southern side of George Bass Drive to the east of the existing residential area of Tomakin and will involves 180 lots (including 2 medium density lots and a community lot) together with an access road system. The Application proposes to change the 2 medium density lots to normal residential lots.

The purpose of this report is to:

* describe the approved subdivision scheme and the proposed modification
* describe the road network serving the site and the prevailing traffic conditions
* assess the potential traffic outcome
* assess the suitability of the proposed vehicle access arrangements.

LEGEND

LOCATION

FIG 1

2. PROPOSED DEVELOPMENT SCHEME

2.1 SITE, CONTEXT AND CURRENT USE

The site (Figure 2) is the former Barlings Beach Tourist Park which is located on the eastern side of the existing Tomakin residential area. The site is bounded to the north by George Bass Drive, to the south by the coastal shoreline and to the east by an Aboriginal Place and the Guerilla Bay residential precinct further to the east.

The Tomakin residential area comprises approximately 552 dwellings served by Ainslie Parade which intersects to George Bass Drive. Access for the site to George Bass Drive is provided by Ainslie Parade and the new direct connection of Oceanview Way.

2.2 APPROVED SUBDIVISION

The approved subdivision comprised:

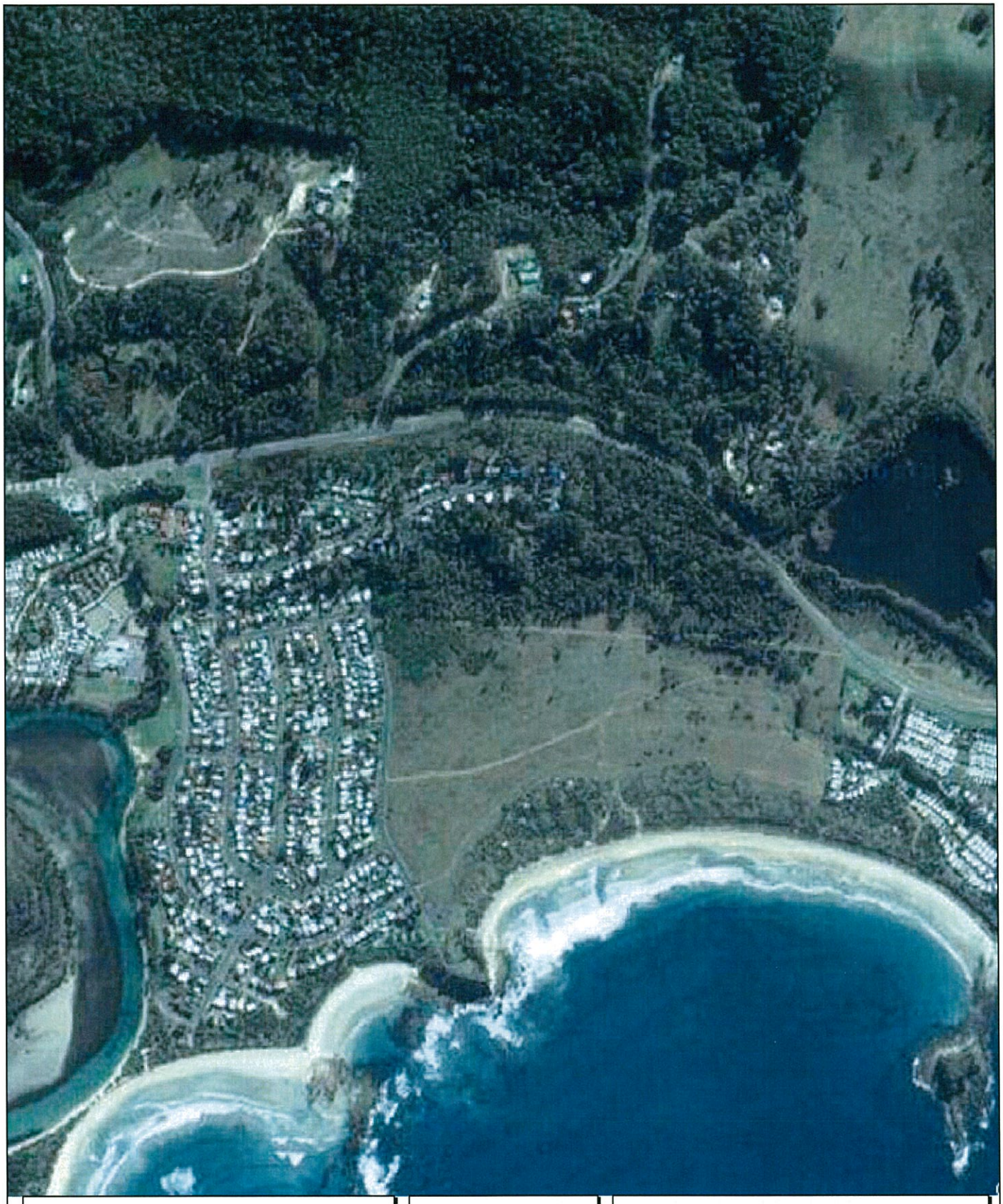
* 177 normal residential lots
* 2 medium density lots
* a community centre lot
* an access road system which connects to George Bass Drive, Ainslie Parade and Red Hill Parade
* a number of dead end access lanes.

The envisaged total households comprised:

* 177 single dwellings
* 61 integrated dwellings

  Total – 238 dwellings

Details of the proposed approved subdivision (Modification 5) are provided on the staging plans reproduced overleaf together with details of the George Bass Drive/ Oceanview Way intersection.

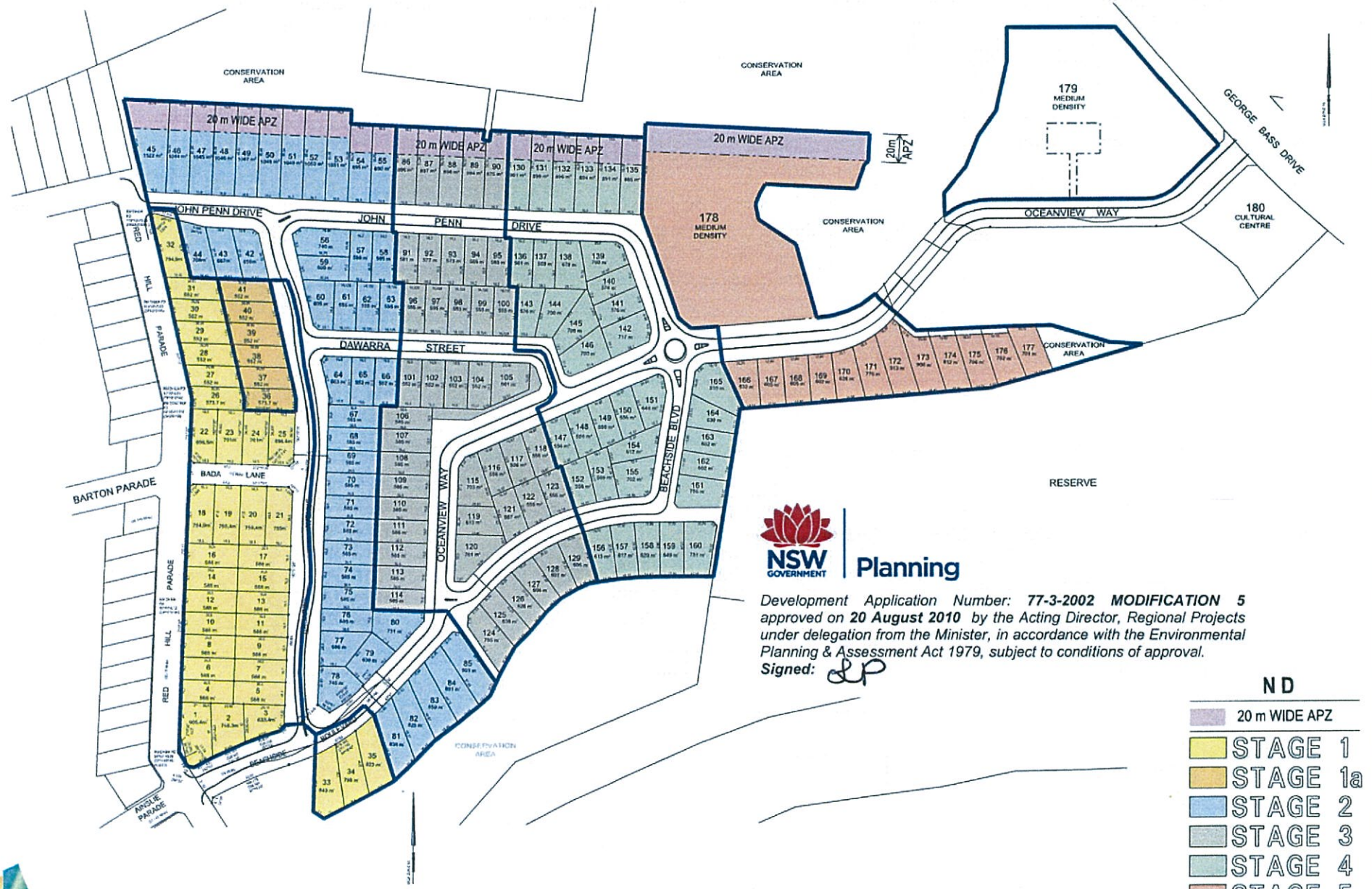


LEGEND

N

SITE

FIG 2

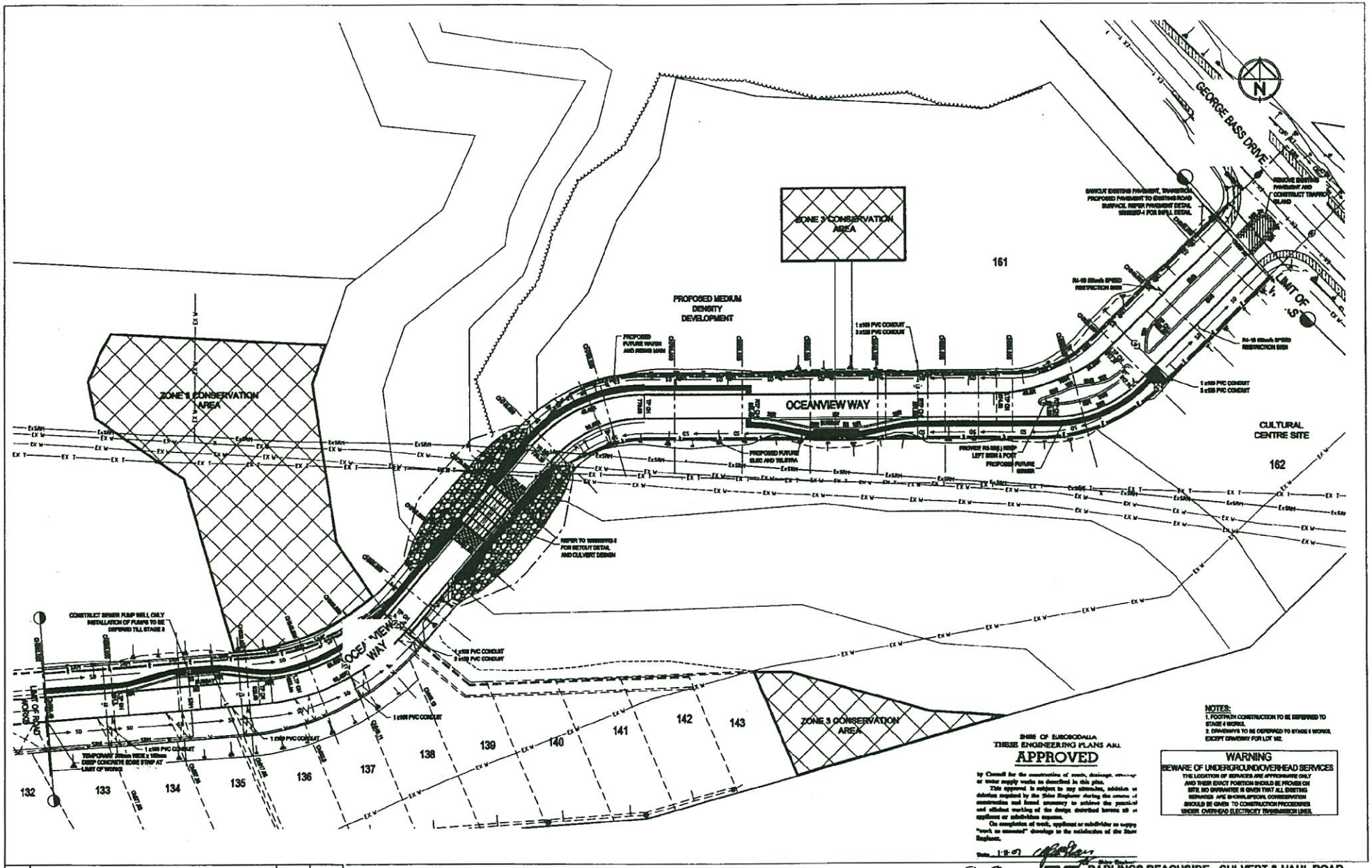


REFLECTIONS BARLINGS BEACH

BARLINGS BEACH - REVISED SUBDIVISION MASTERPLAN

drawn	scale	date	drawing no.
GC	1:2500 @ A3	14.07.10	MA-01 rev E

Barlings Beach.dgn 14/07/2010 4:14:29 PM



SHIRE OF EUROBODALLA
THESE ENGINEERING PLANS ARE
APPROVED
by Council for the construction of roads, drainage, sewerage or water supply works as described in this plan.
This approval is subject to any alterations, additions or deletion required by the Shire Engineer during the course of construction and found necessary to achieve the practical and efficient working of the design described hereon all at applicant or subdivision expense.
On completion of work, applicant or subdivider to supply "work as executed" drawings to the satisfaction of the Shire Engineer.
Date 1-8-07

NOTES:
1. FOOTPATH CONSTRUCTION TO BE DEFERRED TO STAGE 4 WORKS.
2. DRIVEWAYS TO BE DEFERRED TO STAGE 5 WORKS EXCEPT DRIVEWAY FOR LOT 162.

WARNING
BEWARE OF UNDERGROUND/OVERHEAD SERVICES
THE LOCATION OF SERVICES ARE APPROXIMATE ONLY AND THEIR EXACT POSITION SHOULD BE PROVEN ON SITE. NO GUARANTEE IS GIVEN THAT ALL EXISTING SERVICES ARE SHOWN. SPECIAL CONSIDERATION SHOULD BE GIVEN TO CONSTRUCTION PROCEDURES UNDER OVERHEAD ELECTRICITY TRANSMISSION LINES.

Rev	Amendments	App'd	Date
C	AMENDED AS PER COUNCIL COMMENTS	C.J.S.	16-10-07
B	ISSUED TO COUNCIL FOR CONSTRUCTION CERTIFICATE	C.J.S.	11-05-07
(A)	ISSUED FOR TENDER	C.J.S.	26-09-07

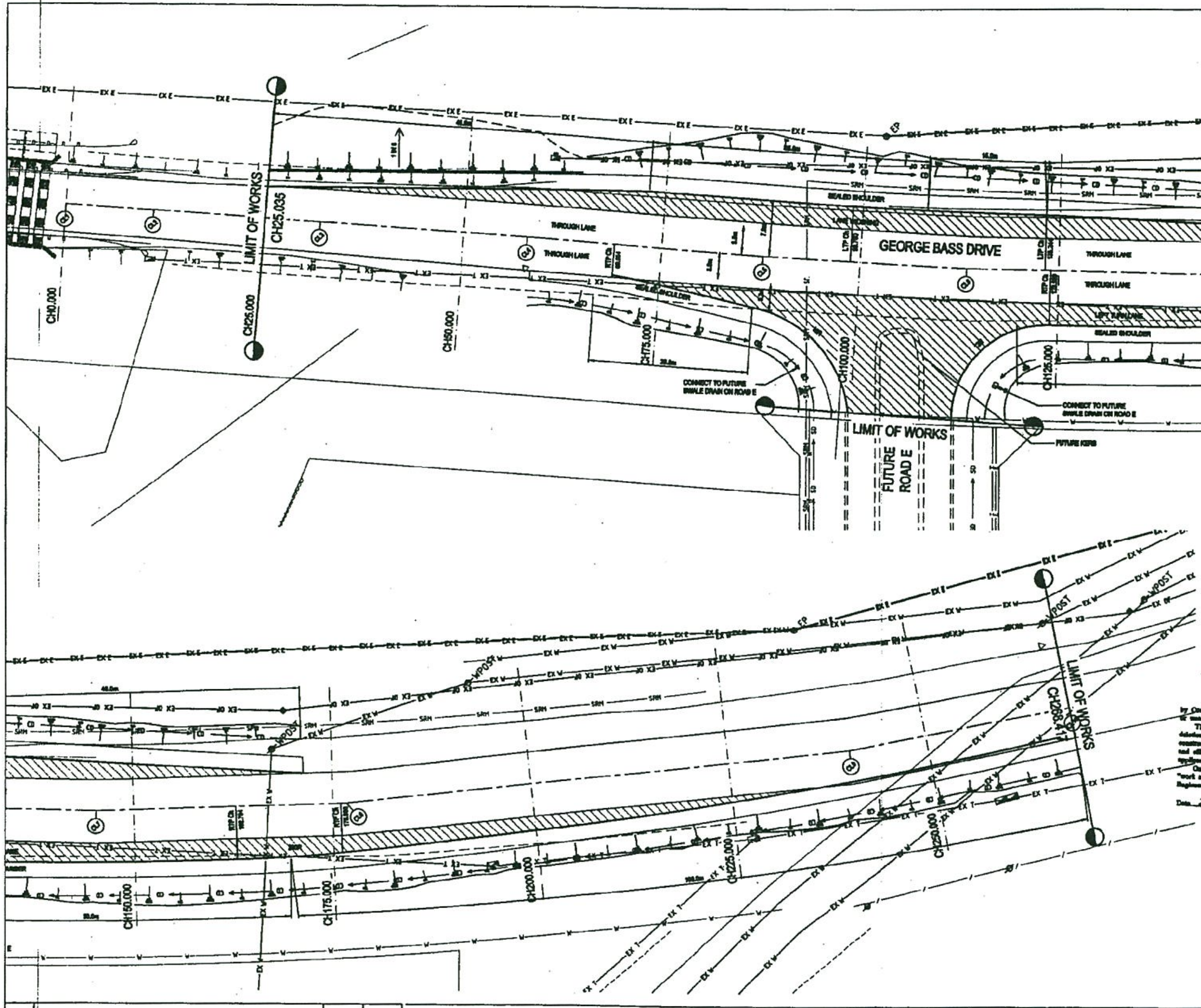
Designed L.STRAUCH 31/7/07
Checked S.HODGSON 31/7/07
Authorised C.BURKE 31/7/07

Map Reference -
Sheet Number 2
Eng Status PRELIMINARY

BARLINGS BEACHSIDE

BARLINGS BEACHSIDE - CULVERT & HAUL ROAD
FACE PLAN
D.A. 77-3-2002
BARLINGS BEACH COMMUNITY Pty. Ltd. Rev C
EUROBODALLA SHIRE COUNCIL 00.4935.S Drg No 180332R2-1

coomes consulting



SHIRE OF EUROBODALLA
THESE ENGINEERING PLANS ARE
APPROVED

Date 28-8-07 for Shire Engineer

ALIGNMENT CL

POINT NO	EASTING	NORTHING	RL	CHAINAGE
CL1	[illegible]	[illegible]	4.222	0.000
CL2	[illegible]	[illegible]	[illegible]	10.000
CL3	[illegible]	[illegible]	[illegible]	[illegible]
CL4	[illegible]	[illegible]	[illegible]	[illegible]
CL5	[illegible]	[illegible]	[illegible]	87.770
CL6	[illegible]	[illegible]	4.201	112.410
CL7	[illegible]	[illegible]	4.201	145.421
CL8	[illegible]	[illegible]	[illegible]	[illegible]
CL9	[illegible]	[illegible]	4.204	[illegible]
CL10	[illegible]	[illegible]	4.204	268.417

4774

Rev	Amendments	App'd	Date
B	AMENDED FOR COUNCIL COMMENTS	CJB	16/7/2007
A	ISSUED TO COUNCIL FOR CC	CJB	2/7/2007

File name 150331R2-R00.dwg layout name 150331R2-1
File location G:\15\150331\ACAD
plotted by Leah Strauch plot date 16/7/2007 6:02 PM
© Coomes Consulting Group Pty Ltd
Standard Drawing RDA1 - Version 20070420

Scale 1:250,A1
Horizontal 0 2.5 5 7.5 10 12.5
Vertical 0 2.5 5 7.5 10 12.5

Designed 2/7/2007
L. STRAUCH
Checked 2/7/2007
B. HODGSON
Authorised 2/7/2007
C. BURKE

Map Reference .
Sheet Number 2
Drg Status PRELIMINARY

Coomes Consulting Group Pty Ltd coomes.com.au
Melbourne Shepparton Bendigo Albury Geelong
34 Albert Road South Melbourne Victoria 3205 Australia T 61 3 9993 7888 F 61 3 9993 7999
Engineering Surveying Planning Urban Design Landscape Architecture
Sustainability and Environment Agribusiness Project Management Strategic Consulting

BARLINGS BEACHSIDE

GEORGE BASS DRIVE INTERSECTION

FACE PLAN .

BARLINGS BEACH COMMUNITY Pty. Ltd.
EUROBODALLA SHIRE COUNCIL

Rev B
Drg No 150331R2-1

coomes consulting

2.3 PROPOSED S96 APPLICATION

The proposed modification involves conversion of the medium density lots (178 and 179) to normal residential lots as follows:

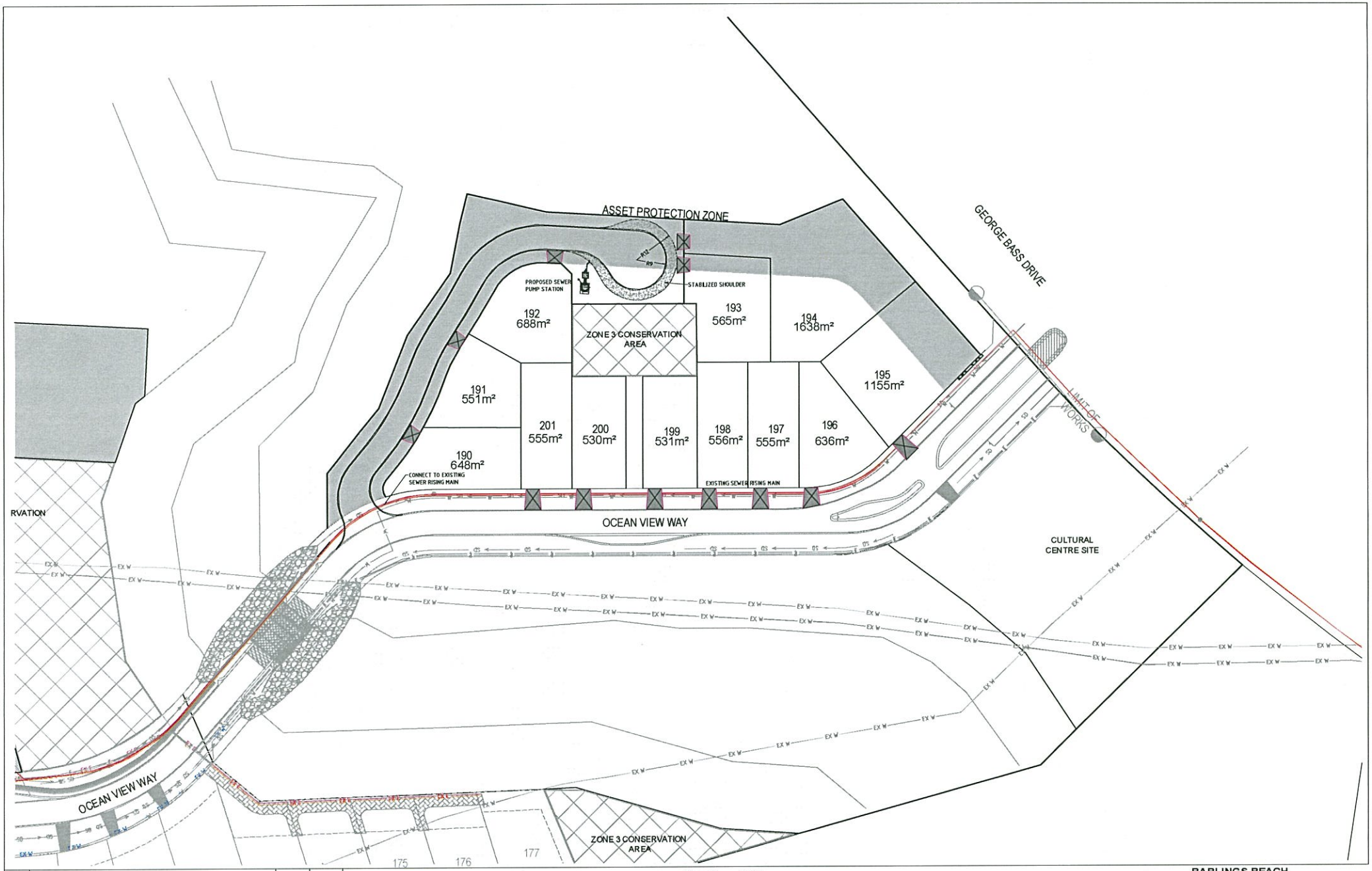
Lot 178	-	12 lots
Lot 179	-	12 lots

Thus, the former yield of 61 integrated dwellings on the medium density lots will be replaced with 24 normal residential lots.

Vehicle access arrangements for the proposed lots will involve:

Lot 178	-	a 15 metre wide access road reserve with a cul-de-sac connecting to John Penn Drive
Lot 179	-	a 15 metre wide access road reserve with a cul-de-sac connecting to Oceanview Way.

Details of the proposed modifications are provided on the revised subdivision plans reproduced overleaf.



Rev	Amendments	App'd	Date
A	ISSUED TO CLIENT FOR REVIEW	S. NEAVE	31/01/11

file name 142468G1-FLP.dwg layout name G1-2
file location C:\14\142468\ACAD
plotted by Ray Pitcairn plot date 1/2/2011 8:34 AM
© CPG Australia Pty Ltd
Standard Drawing RDA1-CPG - Version 20080618

Scale 1:500 A1
Horizontal 0 5 10 15 20 25
Vertical 0 5 10 15 20 25

Designed	R. PLOURDE	24-01-11
Checked	S. NEAVE	24-01-11
Authorised	S. NEAVE	24-01-11
Map Reference	MELWAY ---	
Sheet Number	2	
Drg Status	PRELIMINARY	

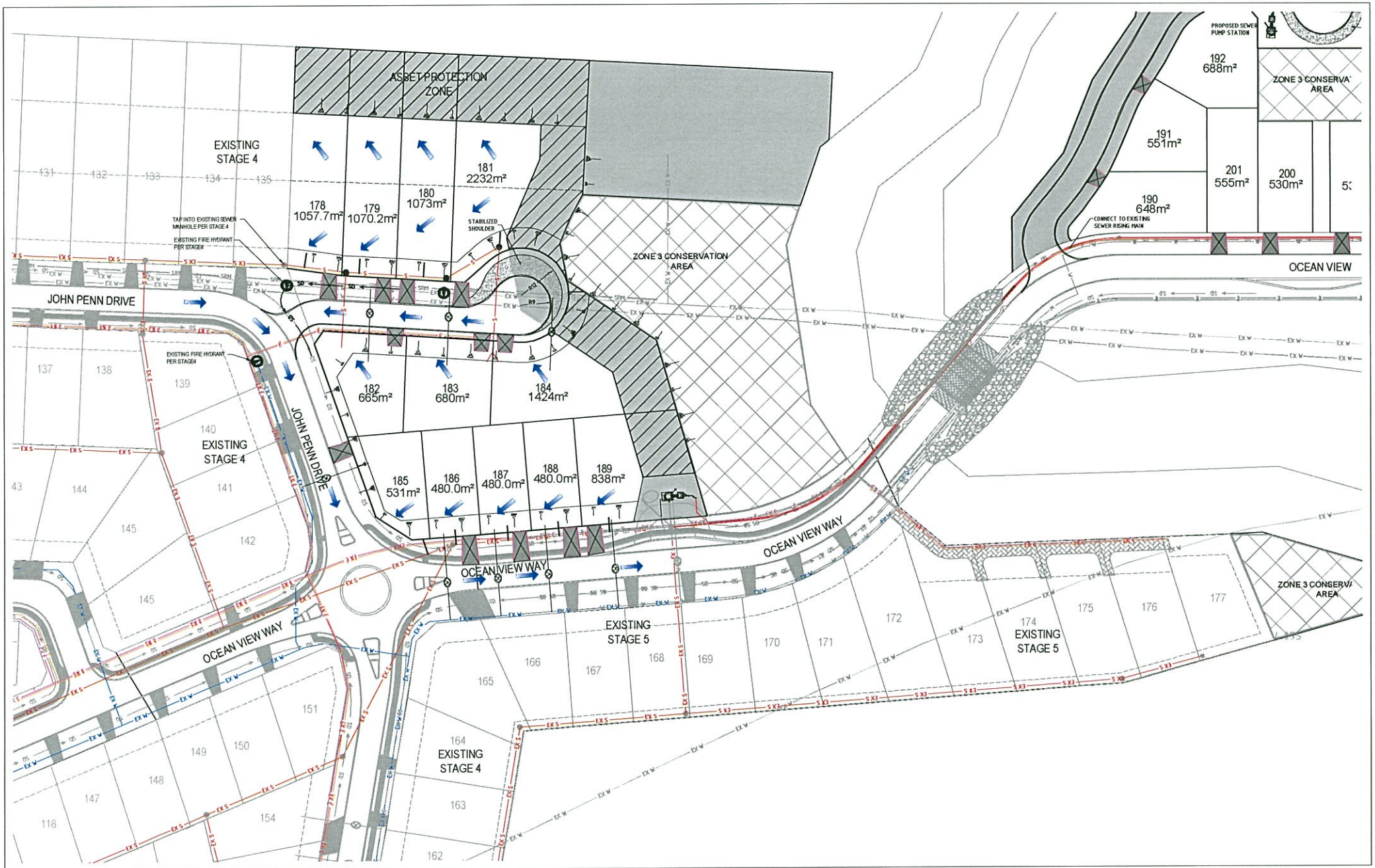
CPG ABN 55 050 029 635
445 Townsend Street Albury NSW 2640 Australia T 61 2 6051 1300 F 61 2 6041 2986
cpg-global.com A subsidiary of Downer EDI Limited

BARLINGS BEACH STAGE 5A

FUNCTIONAL LAYOUT PLAN

BARLINGS BEACH COMMUNITY PTY. LTD
EUROBODALLA SHIRE COUNCIL

Rev A
Drg No 142468G1-2



Rev	Amendments	App'd	Date
A	ISSUED TO CLIENT FOR REVIEW	S. NEAVE	31/01/11

file name 142468G1-FLP.dwg layout name G1-1
file location G:\14\142468\ACAD
plotted by Ray Plourde plot date 1/2/2011 8:34 AM
© CPG Australia Pty Ltd
Standard Dapeing REA1-CPG - Version 20080618

Scale 1:500 A1
Horizontal 0 5 10 15 20 25
Vertical 0 5 10 15 20 25

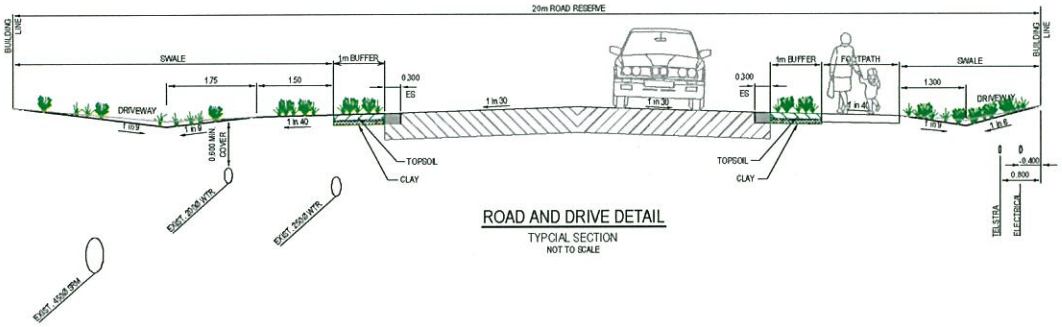
Designed	24-01-11	R. PLOURDE
Checked	24-01-11	S. NEAVE
Authorised	24-01-11	S. NEAVE
Map Reference	MELWAY ---	
Sheet Number	1	
Drg Status	PRELIMINARY	

CPG ABN 55 050 029 635
445 Townsend Street Albury NSW 2640 Australia T 61 2 6051 1300 F 61 2 6041 2986
cpg-global.com A subsidiary of Downer EDI Limited

BARLINGS BEACH STAGE 5A
FUNCTIONAL LAYOUT PLAN

BARLINGS BEACH COMMUNITY PTY. LTD
EUROBODALLA SHIRE COUNCIL

Rev A
Drg No 142468G1-1



ROAD AND DRIVE DETAIL

TYPCIAL SECTION

NOT TO SCALE

ROAD AND DRIVE DETAIL

TYPCIAL SECTION

NOT TO SCALE

Rev	Amendments	App'd	Date
A	ISSUED TO CLIENT FOR REVIEW	S. NEAVE	31/01/11

file name 142468G2-TYP.dwg layout name G2-1
file location C:\11\142468\ACAD
plotted by Ray Pizzarde plot date 2/2/2011 8:44 AM
© CPG Australia Pty Ltd
Standard Drawing RDA1-CPG - Version 20080618

Designed	R. PLOURDE	24-01-11
Checked	S. NEAVE	24-01-11
Authorised	S. NEAVE	24-01-11
Map Reference	MELWAY ---	
Sheet Number	4	
Drg Status	PRELIMINARY	

CPG ABN 55 050 029 635
24 Albert Road South Melbourne Victoria 3205 Australia T 61 3 9993 7888 F 61 3 9993 7999
cpg-global.com A subsidiary of Downer EDI Limited

CPG

BARLINGS BEACH
STAGE 5A
TYPICAL ROAD SECTIONS

BARLINGS BEACH COMMUNITY PTY. LTD
EUROBODALLA SHIRE COUNCIL

Rev A
Drg No 142468G2-1

3. ROAD NETWORK AND TRAFFIC CONDITIONS

3.1 ROAD NETWORK

The road network serving the site (Figure 3) comprises:

* *Princes Highway* – a State Highway route serving the east coast of NSW between Sydney and the Victorian border, where it continues through Victoria to Melbourne

* *Broolee Road* – provides a connection between the Princes Highway and George Bass Drive to the south of Tomakin

* *George Bass Drive* - a Regional Road connecting between Surf Beach and Moruya (as North Head Drive)

* *Ainslie Parade* – a local access road serving the Tomakin residential area.

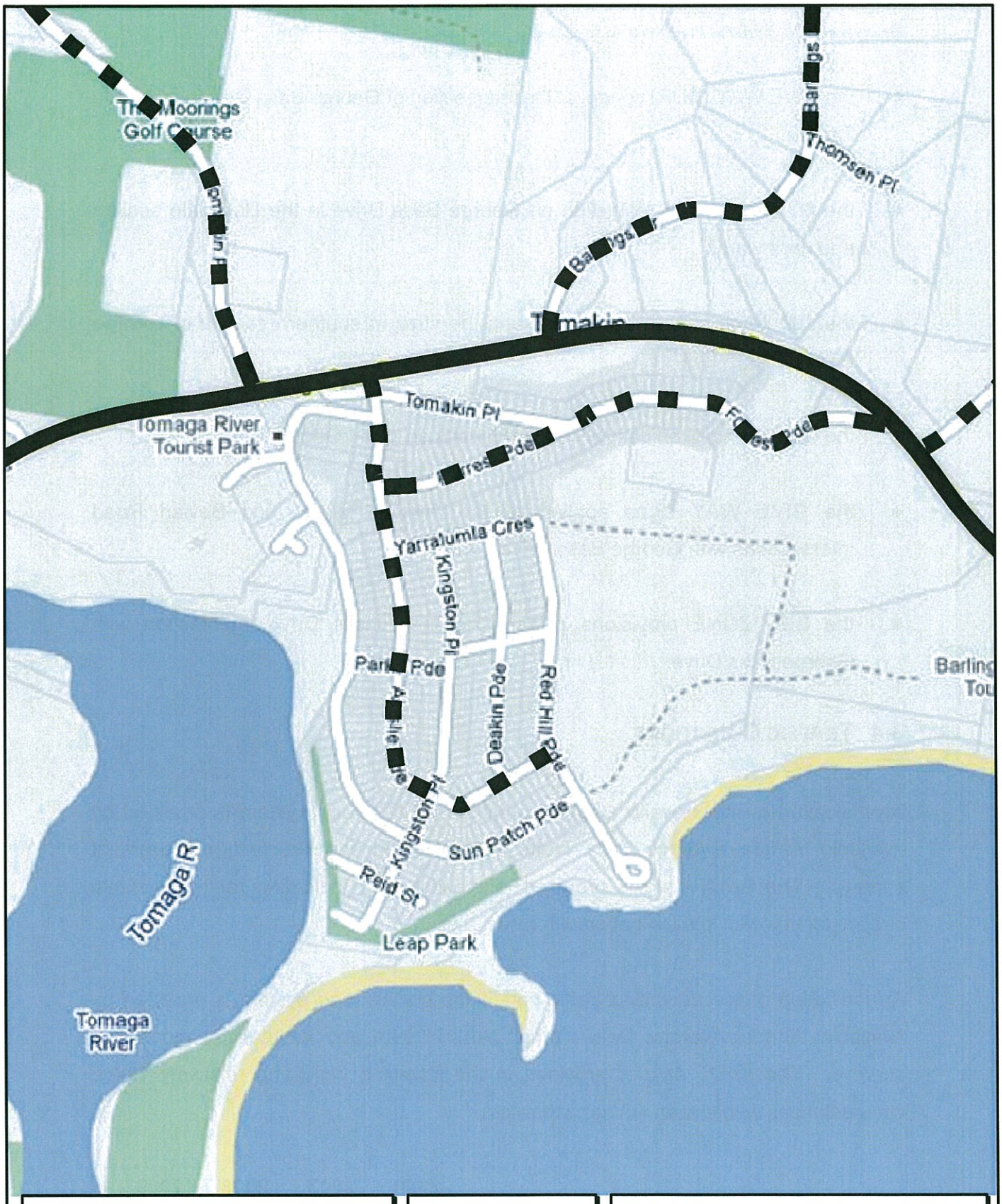
There are numerous local access roadways connecting along George Bass Drive including those leading to Rosedale, Tomakin, Guerilla Bay and Mossy Point.

3.2 ROAD GEOMETRY

George Bass Drive generally has a 7.0 metre wide rural road carriageway, which is relatively straight except for the section of curvilinear alignment past Tomakin where it follows the coastline in a series a large radius curves.

3.3 TRAFFIC CONTROLS

The existing traffic controls which have been applied to the roads in the vicinity of the site include:



LEGEND

- ARTERIAL
- SUB-ARTERIAL
- COLLECTOR

N

ROAD NETWORK

FIG 3

* the GIVE WAY (AUR) control at the intersection of George Bass Drive and Ainslie Parade

* the 80 kmph speed restriction on George Bass Drive in the Rosedale section and northwards

* the 100 kmph speed restriction along the straight southern section of George Bass Drive

* the double unbroken centreline in many places along George Bass Drive

* the GIVE WAY signs applied to the Ainslie Parade and Bevian Road intersections with George Bass Drive

* the BUS ZONE provisions adjacent to the Ainslie Drive intersection with George Bass Drive.

3.4 TRAFFIC CONDITIONS

An indication of the prevailing traffic conditions on the road system is provided by available 'Annual Average Daily Traffic' (AADT) data and intersection movement surveys. The AADT data is provided in the following indicating relatively stable circumstances with low annual growth rates.

An indication of the prevailing traffic conditions on the road system is provided by available 'Annual Average Daily Traffic' (AADT) data and intersection movement surveys. The AADT data is provided in the following indicating relatively stable circumstances with low annual growth rates.

	2000	2003	2006	2009
George Bass Drive north of Moruya	2,375	2,644	2,826	-
George Bass Drive north of Bevian Road	-	3049	-	2251

Traffic surveys have been undertaken at the intersection of George Bass Drive and Ainslie Parade and the results of the traffic surveys are provided in Appendix A indicating:

Traffic Flows in George Bass Drive (north of Ainslie Parade)

	AM	**PM**
Northbound	69	126
Southbound	115	110

The operation of this intersection is quite satisfactory during the peak traffic periods.

4. ACCESS, CIRCULATION AND SERVICING

Access

Oceanview Parade and Beachside Boulevard connecting between George Bass Drive and Ainslie Parade will provide the principal access route for the subdivided land and this remains unchanged for the s96 scheme. Access for the changed subdivision of Lots 178 and 179 will involve:

* Lot 178 – a short 'cul de sac' connecting to John Penn Drive. This access place utilises the 15 metre wide road reserve and has a 9 metre radius bulb

* Lot 179 – a short 'cul-de-sac' connecting to Oceanview Way. The access road utilises the 15 metre wide road reserve and has a 9 metre radius 'bulb'. Driveway accesses for the subdivided lots will be located along the new cul-de-sacs, John Penn Drive and Oceanview Way frontages.

Circulation

The proposed short cul-de-sacs will facilitate ready access to the access road system and there will be no adverse circulation circumstances.

Servicing

Refuse will be removed from the street frontage by Council's collection service. The 9 metre radius cul-de-sac bulbs provide for Council's truck turning requirements and provide for a single turn manoeuvre by MRV 8.8 metre vehicles as indicated on the turning path diagrams provided in Appendix B.

5. TRAFFIC

The existing consent provides for a total of 238 dwellings comprising 177 single dwellings and 61 integrated dwellings. The proposed s96 modification will provide for a total of 201 dwellings (ie 37 fewer than the existing consent).

Surveys of the existing 552 dwellings in Tomakin undertaken by Roar Data Pty Ltd in December 2009 revealed traffic generation rates per dwelling of 0.27 vtph in the morning peak and 0.31 vtph in the afternoon peak (actually somewhat lower as the activity generated by the Club and Caravan Park are included). There has not been any previous assessment in relation to the likely difference between the traffic generation rate of normal single dwellings and that of integrated (medium density dwellings), although it is likely that the latter would be slightly less.

Irregardless, it is quite apparent that the proposed s96 modification with 37 fewer dwellings will result in a significantly lower traffic generation than that which would occur under the existing consent (ie 10 vtph in the morning and 12 vtph in the afternoon). Accordingly, there will not be any unsatisfactory traffic implications resulting from the proposed s96 modification.

6. CONCLUSION

Assessment of the proposed adaptive reuse development scheme has confirmed that:

* there will not be any unsatisfactory traffic implications

* the proposed parking provision will be appropriate to the circumstances

* the proposed vehicle access, internal circulation and servicing arrangements will be suitable and practical.

APPENDIX A

TRAFFIC SURVEY RESULTS

R.O.A.R. DATA

Reliable, Original & Authentic Results

Ph.88196847, Fax 88196849.
Mobile.0418239019

Client : T.T.P.A.
Job No/Name : 2933 TOMAKIN Ainslie Pde
Day/Date : Tuesday 15th December 2009

PEDS

Time Per	WEST George Bass	SOUTH Ainslie Pde	EAST George Bass	TOT
0700 - 0715				0
0715 - 0730				0
0730 - 0745		NOT		0
0745 - 0800		REQUIRED		0
0800 - 0815				0
0815 - 0830				0
0830 - 0845				0
0845 - 0900				0
0900 - 0915				0
0915 - 0930				0
0930 - 0945				0
0945 - 1000				0
Per End	0	0	0	0

PEDS

Peak Per	WEST George Bass	SOUTH Ainslie Pde	EAST George Bass	TOT
0700 - 0800	0	0	0	0
0715 - 0815	0	0	0	0
0730 - 0830	0	0	0	0
0745 - 0845	0	0	0	0
0800 - 0900	0	0	0	0
[illegible]	0	0	0	0
0830 - 0930	0	0	0	0
0845 - 0945	0	0	0	0
0900 - 1000	0	0	0	0
PEAK HR	0	0	0	0

Lights

Time Per	WEST George		SOUTH Ainslie Pde		EAST George		TOT
	T	R	L	R	L	T	
0700 - 0715	7	2	13	2	1	14	39
0715 - 0730	18	2	7	1	1	19	48
0730 - 0745	15	6	15	0	0	21	57
0745 - 0800	9	13	12	2	1	24	61
0800 - 0815	12	4	22	1	3	33	75
0815 - 0830	11	8	28	0	0	26	73
0830 - 0845	14	11	22	1	1	32	81
0845 - 0900	18	15	23	2	1	25	84
0900 - 0915	17	14	23	2	3	23	82
0915 - 0930	14	8	14	1	3	18	58
0930 - 0945	19	14	27	4	1	28	93
0945 - 1000	20	23	11	2	3	26	85
Per End	174	120	217	18	18	289	836

Heavies

Time Per	WEST George Bass		SOUTH Ainslie Pde		EAST George Bass		TOT
	T	R	L	R	L	T	
0700 - 0715	0	0	0	0	0	0	0
0715 - 0730	0	1	0	0	0	1	2
0730 - 0745	1	1	0	0	0	0	2
0745 - 0800	1	3	3	1	2	0	10
0800 - 0815	0	0	2	0	0	2	4
0815 - 0830	0	3	2	1	0	0	6
0830 - 0845	2	1	0	0	0	2	5
0845 - 0900	0	2	2	0	0	0	4
0900 - 0915	0	2	1	1	0	0	4
0915 - 0930	0	0	0	0	0	2	2
0930 - 0945	0	1	1	0	0	0	2
0945 - 1000	0	0	0	1	0	1	2
Per End	4	14	11	4	2	8	43

Combined

Time Per	WEST George Bass		SOUTH Ainslie Pde		EAST George Bass		TOT
	T	R	L	R	L	T	
0700 - 0715	7	2	13	2	1	14	39
0715 - 0730	18	3	7	1	1	20	50
0730 - 0745	16	7	15	0	0	21	59
0745 - 0800	10	16	15	3	3	24	71
0800 - 0815	12	4	24	1	3	35	79
0815 - 0830	11	11	30	1	0	26	79
0830 - 0845	16	12	22	1	1	34	86
0845 - 0900	18	17	25	2	1	25	88
0900 - 0915	17	16	24	3	3	23	86
0915 - 0930	14	8	14	1	3	20	60
0930 - 0945	19	15	28	4	1	28	95
0945 - 1000	20	23	11	3	3	27	87
Per End	178	134	228	22	20	297	879

Lights

Peak Per	WEST George Bass		SOUTH Ainslie Pde		EAST George Bass		TOT
	T	R	L	R	L	T	
0700 - 0800	49	23	47	5	3	78	205
0715 - 0815	54	25	56	4	5	97	241
0730 - 0830	47	31	77	3	4	104	266
0745 - 0845	46	36	84	4	5	115	290
0800 - 0900	55	38	95	4	5	116	313
[illegible]	60	48	96	5	5	106	320
0830 - 0930	63	48	82	6	8	98	305
0845 - 0945	68	51	87	9	8	94	317
0900 - 1000	70	59	75	9	10	95	318
PEAK HR	60	48	96	5	5	106	320

Heavies

Peak Per	WEST George Bass		SOUTH Ainslie Pde		EAST George Bass		TOT
	T	R	L	R	L	T	
0700 - 0800	2	5	3	1	2	1	14
0715 - 0815	2	5	5	1	2	3	18
0730 - 0830	2	7	7	2	2	2	22
0745 - 0845	3	7	7	2	2	4	25
0800 - 0900	2	6	6	1	0	4	19
[illegible]	2	8	5	2	0	2	19
0830 - 0930	2	5	3	1	0	4	15
0845 - 0945	0	5	4	1	0	2	12
0900 - 1000	0	3	2	2	0	3	10
PEAK HR	2	8	5	2	0	2	19

Combined

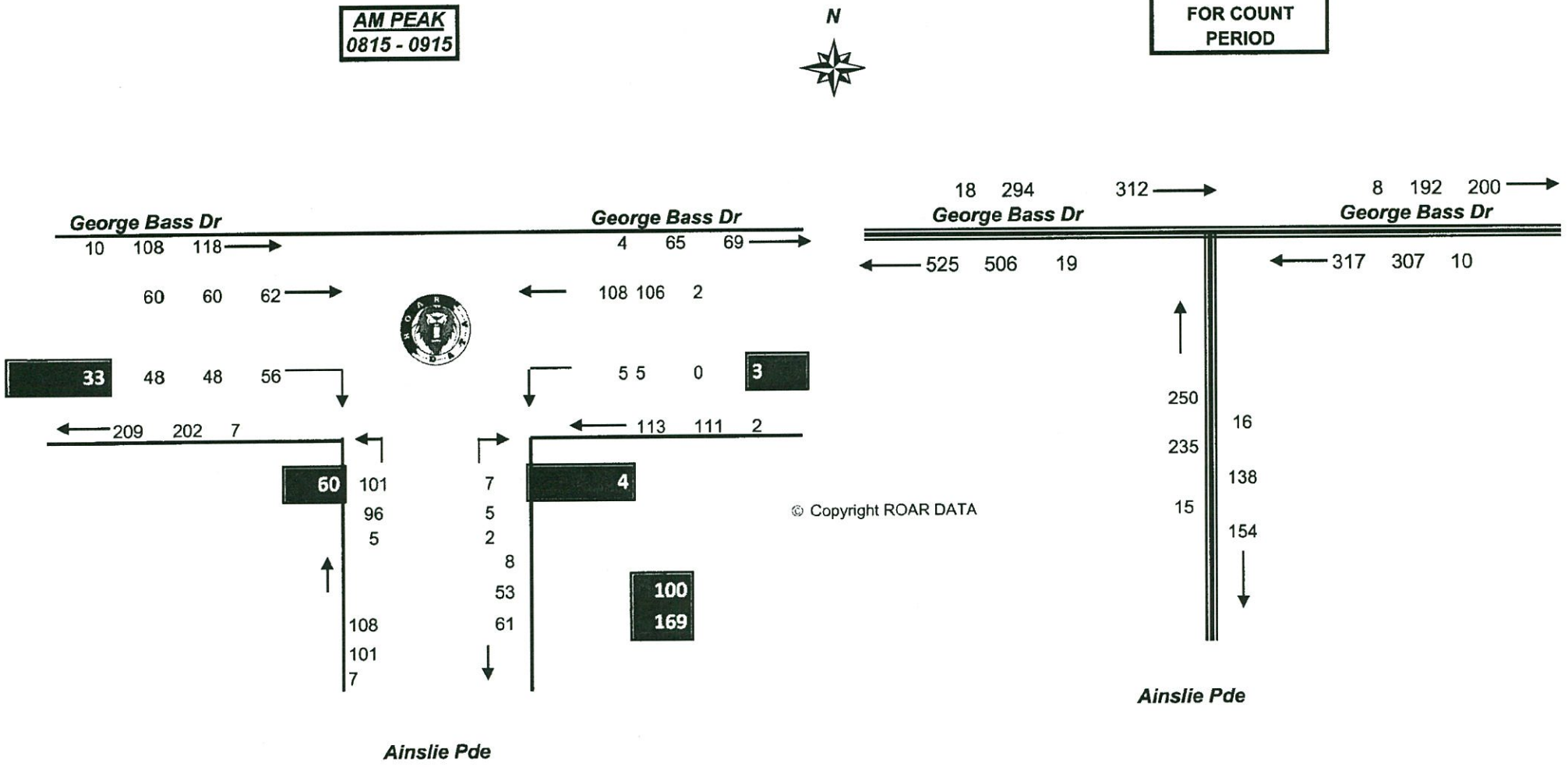
Peak Per	WEST George Bass		SOUTH Ainslie Pde		EAST George Bass		TOT
	T	R	L	R	L	T	
0700 - 0800	51	28	50	6	5	79	219
0715 - 0815	56	30	61	5	7	100	259
0730 - 0830	49	38	84	5	6	106	288
0745 - 0845	49	43	91	6	7	119	315
0800 - 0900	57	44	101	5	5	120	332
[illegible]	62	56	101	7	5	108	339
0830 - 0930	65	53	85	7	8	102	320
0845 - 0945	68	56	91	10	8	96	329
0900 - 1000	70	62	77	11	10	98	328
PEAK HR	62	56	101	7	5	108	339

R.O.A.R. DATA
Reliable, Original & Authentic Results
Ph.88196847, Fax 88196849, Mob.0418-239019

Client : T.T.P.A.
Job No/Name : 2933 TOMAKIN Ainslie Pde
Day/Date : Tuesday 15th December 2009

AM PEAK
0815 - 0915

TOTAL VOLUMES FOR COUNT PERIOD



R.O.A.R. DATA

Reliable, Original & Authentic Results

Ph.88196847, Fax 88196849.

Mobile.0418239019

Client : T.T.P.A.

Job No/Name : 2933 TOMAKIN Ainslie Pde

Day/Date : Tuesday 15th December 2009

PEDS	WEST	SOUTH	EAST	
Time Per	George Bass	Ainslie Pde	George Bass	TOT
1530 - 1545				0
1545 - 1600				0
1600 - 1615		NOT		0
1615 - 1630		REQUIRED		0
1630 - 1645				0
1645 - 1700				0
1700 - 1715				0
1715 - 1730				0
1730 - 1745				0
1745 - 1800				0
1800 - 1815				0
1815 - 1830				0
Per End	0	0	0	0

PEDS	WEST	SOUTH	EAST	
Peak Per	George Bass	Ainslie Pde	George Bass	TOT
[illegible]	0	0	0	0
1545 - 1645	0	0	0	0
1600 - 1700	0	0	0	0
1615 - 1715	0	0	0	0
1630 - 1730	0	0	0	0
1645 - 1745	0	0	0	0
1700 - 1800	0	0	0	0
1715 - 1815	0	0	0	0
1730 - 1830	0	0	0	0
PEAK HR	0	0	0	0

Lights	WEST		SOUTH		EAST		
	George		Ainslie Pde		George		
Time Per	T	R	L	R	L	T	TOT
1530 - 1545	25	18	17	7	3	28	98
1545 - 1600	27	24	19	2	5	23	100
1600 - 1615	31	23	11	2	6	23	96
1615 - 1630	41	17	15	3	1	19	96
1630 - 1645	16	24	14	2	2	17	75
1645 - 1700	18	42	25	4	3	19	111
1700 - 1715	33	25	11	1	9	17	96
1715 - 1730	30	41	11	3	2	11	98
1730 - 1745	13	23	10	4	6	11	67
1745 - 1800	18	26	12	3	5	13	77
1800 - 1815	12	23	6	1	4	10	56
1815 - 1830	24	28	9	3	2	16	82
Per End	288	314	160	35	48	207	1052

Heavies	WEST		SOUTH		EAST		
	George Bass		Ainslie Pde		George Bass		
Time Per	T	R	L	R	L	T	TOT
1530 - 1545	1	0	0	0	0	0	1
1545 - 1600	0	2	1	0	0	1	4
1600 - 1615	1	0	1	0	0	0	2
1615 - 1630	0	0	1	0	1	0	2
1630 - 1645	0	0	0	0	0	1	1
1645 - 1700	0	1	0	0	0	0	1
1700 - 1715	0	0	0	1	0	0	1
1715 - 1730	0	0	0	0	0	0	0
1730 - 1745	0	0	0	0	0	0	0
1745 - 1800	0	0	0	0	1	0	1
1800 - 1815	0	0	1	0	0	0	1
1815 - 1830	0	0	0	0	0	0	0
Per End	2	3	4	1	2	2	14

Combined	WEST		SOUTH		EAST		
	George Bass		Ainslie Pde		George Bass		
Time Per	T	R	L	R	L	T	TOT
1530 - 1545	26	18	17	7	3	28	99
1545 - 1600	27	26	20	2	5	24	104
1600 - 1615	32	23	12	2	6	23	98
1615 - 1630	41	17	16	3	2	19	98
1630 - 1645	16	24	14	2	2	18	76
1645 - 1700	18	43	25	4	3	19	112
1700 - 1715	33	25	11	2	9	17	97
1715 - 1730	30	41	11	3	2	11	98
1730 - 1745	13	23	10	4	6	11	67
1745 - 1800	18	26	12	3	6	13	78
1800 - 1815	12	23	7	1	4	10	57
1815 - 1830	24	28	9	3	2	16	82
Per End	290	317	164	36	50	209	1066

Lights	WEST		SOUTH		EAST		
	George Bass		Ainslie Pde		George Bass		
Peak Per	T	R	L	R	L	T	TOT
[illegible]	124	82	62	14	15	93	390
1545 - 1645	115	88	59	9	14	82	367
1600 - 1700	106	106	65	11	12	78	378
1615 - 1715	108	108	65	10	15	72	378
1630 - 1730	97	132	61	10	16	64	380
1645 - 1745	94	131	57	12	20	58	372
1700 - 1800	94	115	44	11	22	52	338
1715 - 1815	73	113	39	11	17	45	298
1730 - 1830	67	100	37	11	17	50	282
PEAK HR	124	82	62	14	15	93	390

Heavies	WEST		SOUTH		EAST		
	George Bass		Ainslie Pde		George Bass		
Peak Per	T	R	L	R	L	T	TOT
[illegible]	2	2	3	0	1	1	9
1545 - 1645	1	2	3	0	1	2	9
1600 - 1700	1	1	2	0	1	1	6
1615 - 1715	0	1	1	1	1	1	5
1630 - 1730	0	1	0	1	0	1	3
1645 - 1745	0	1	0	1	0	0	2
1700 - 1800	0	0	0	1	1	0	2
1715 - 1815	0	0	1	0	1	0	2
1730 - 1830	0	0	1	0	1	0	2
PEAK HR	2	2	3	0	1	1	9

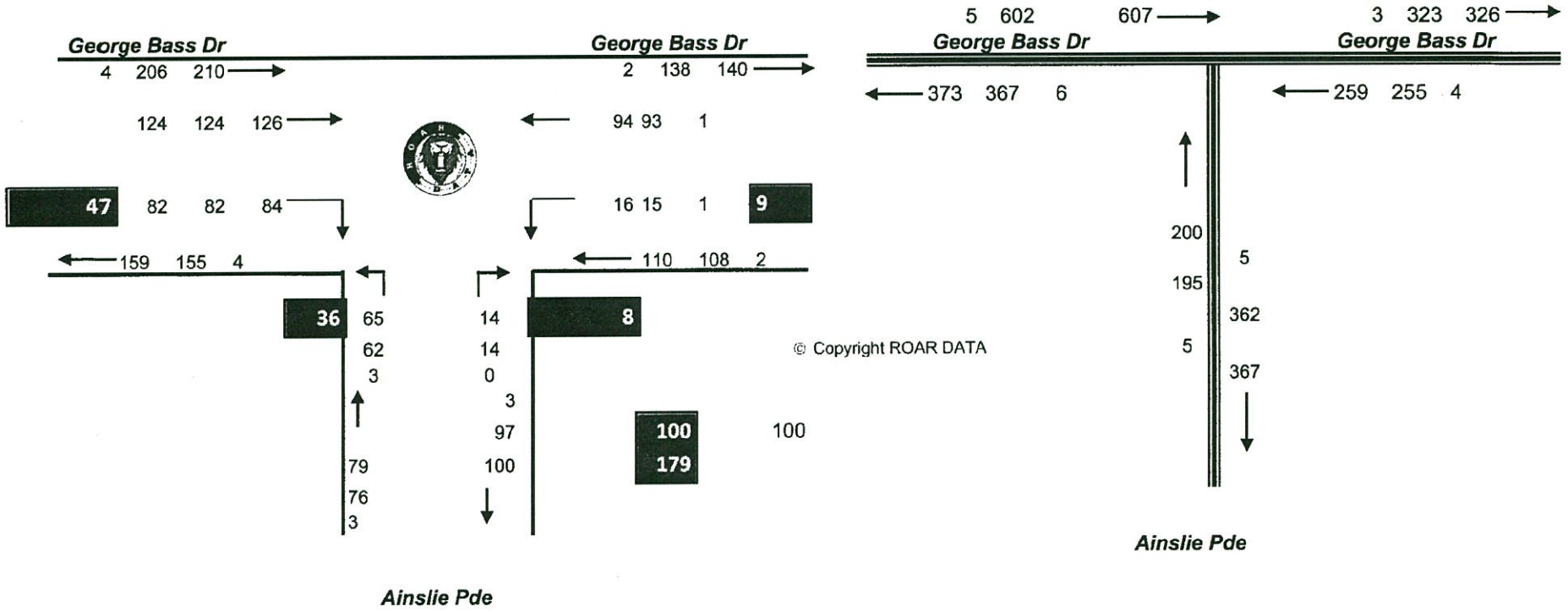
Combined	WEST		SOUTH		EAST		
	George Bass		Ainslie Pde		George Bass		
Peak Per	T	R	L	R	L	T	TOT
[illegible]	126	84	65	14	16	94	399
1545 - 1645	116	90	62	9	15	84	376
1600 - 1700	107	107	67	11	13	79	384
1615 - 1715	108	109	66	11	16	73	383
1630 - 1730	97	133	61	11	16	65	383
1645 - 1745	94	132	57	13	20	58	374
1700 - 1800	94	115	44	12	23	52	340
1715 - 1815	73	113	40	11	18	45	300
1730 - 1830	67	100	38	11	18	50	284
PEAK HR	126	84	65	14	16	94	399

R.O.A.R. DATA
Reliable, Original & Authentic Results
Ph.88196847, Fax 88196849, Mob.0418-239019

Client : T.T.P.A.
Job No/Name : 2933 TOMAKIN Ainslie Pde
Day/Date : Tuesday 15th December 2009

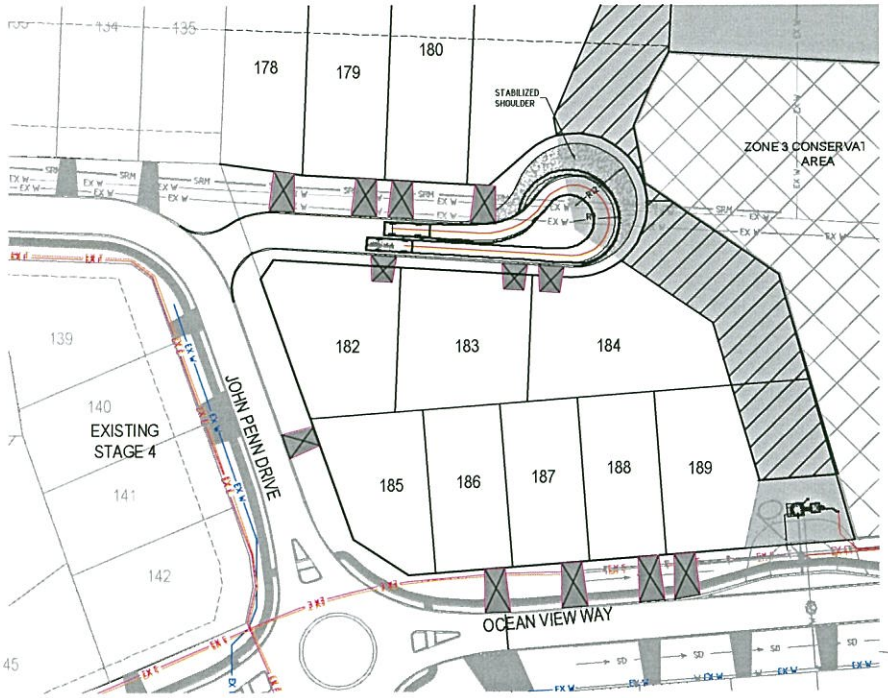
PM PEAK
1530 - 1630

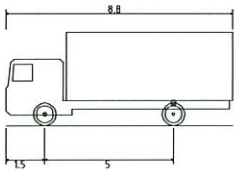
TOTAL VOLUMES FOR COUNT PERIOD



APPENDIX B

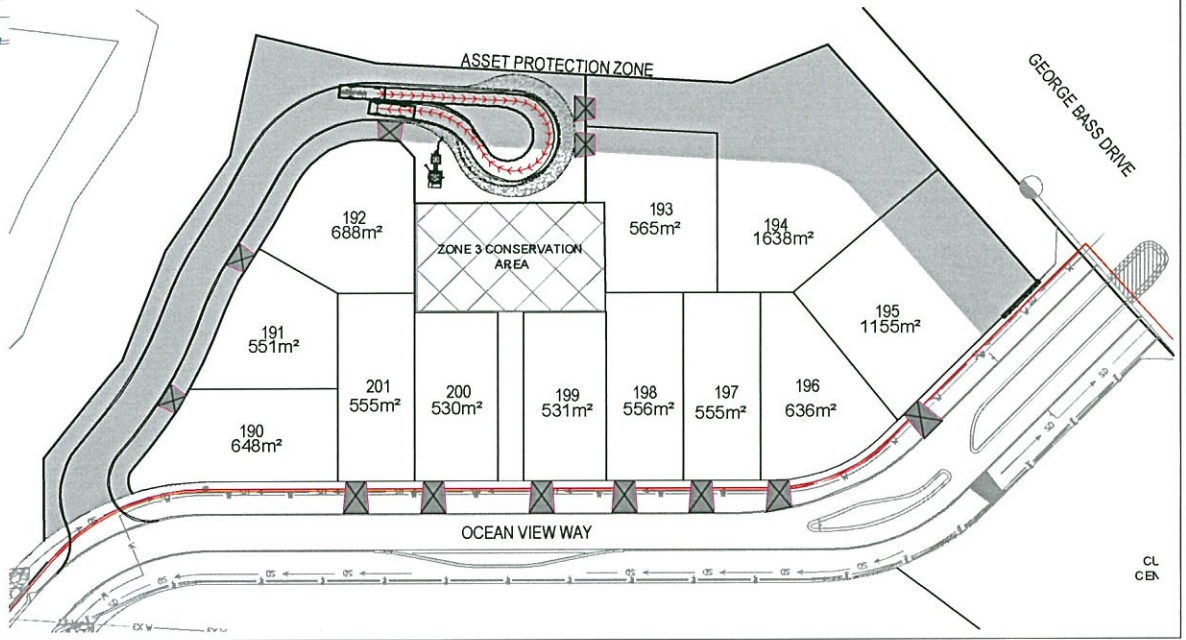
TURNING PATH ASSESSMENT





Service Vehicle (8.8 m) - Mandatory Stop

Overall Length	8.800m
Overall Width	2.500m
Overall Body Height	3.632m
Min Body Ground Clearance	0.427m
Track Width	2.500m
Lock to Lock Time	4.00 sec
Curb to Curb Turning Radius	9.000m



Rev	Amendments	App'd	Date
B	REVISED VIEWPORT PER CLIENTS REQUEST	S. NEAVE	28/01/11
A	SENT TO CLIENT FOR REVIEW	S. NEAVE	24/01/11

file name 142466G01-FLP.dwg layout name G1-3
file location C:\11\142466\ACAD
plotted by Ray Plourde plot date 11/2/2011 8:34 AM
© CPG Australia Pty Ltd
Standard Drawing RDA1-CPG - Version 20060518

Scale 1:500 A1
Horizontal 0 5 10 15 20 25
Vertical 0 5 10 15 20 25

Designed	24-01-11	R. PLOURDE
Checked	24-01-11	S. NEAVE
Authorised	24-01-11	S. NEAVE
Map Reference	MELWAY —	
Sheet Number	3	
Drg Status	PRELIMINARY	

CPG ABN 55 050 029 635
445 Townsend Street Albury NSW 2640 Australia T 61 2 6051 1300 F 61 2 6041 2986
cpg-global.com A subsidiary of Downer EDI Limited

BARLINGS BEACH
STAGE 5A
FUNTIONAL LAYOUT
TURNING MOVEMENTS
BARLINGS BEACH COMMUNITY PTY. LTD
EUROBODALLA SHIRE COUNCIL

Rev B
Drg No 142466G01-3