Development Committee

Meeting Date: Tuesday, 10 April, 2018
Location: Council Chambers, City Administrative Building, Bridge Road, Nowra

Attachments (Under Separate Cover)

Index

90/1912 CCC.JES
Mr. C Crakanthorp

Cowman & Royston Pty Ltd
PO Box 738
NOWRA NSW 2541

November 6, 1990

Dear Sir,

ENVIRONMENTAL PLANNING AND ASSESSMENT ACT, 1979
NOTICE TO APPLICANT OF DETERMINATION OF A DEVELOPMENT APPLICATION

To Mr P. Cowman of Cowman & Royston Pty Ltd., being the applicant in respect of Development Application No.90/1912 (Proposed Quarry & Processing of Shale), relating to the land described as follows:

Lot 4, DP 775296 off Parnell Road, Portion 159,
Parish of Wandrawandian Tomerong

Pursuant to Section 92 of the Act, notice is hereby given that the Development Application has been determined by granting of consent, subject to conditions.

NOTE - When any construction work is involved, the granting of development consent is only the first part of a two-stage process. Before any such work is commenced, a Building Application must first be lodged and approved by Council. See "Advice" section of this letter.

The conditions of the consent and reasons for such conditions are set out as follows:-

Conditions of the City Planner

1. Compliance with Standard Conditions, where applicable, copy of which is attached.

GENERAL CONDITIONS

2. This consent relates to quarrying and processing of shale as illustrated on the plans submitted with development application number 90/1912, referred to as the submitted plans.

   Any alteration to the abovementioned plans shall be submitted for the approval of the City Planner prior to submission of the building application. No works, other than those approved under this consent, shall be carried out without first having obtained Council's written consent.

3. To ensure the future amenity of the location, and in order to properly assess the impact of the development at the appropriate time, the approved use shall be limited to a period of thirteen (13) years from the date of endorsement. Modified by D502/1087, D506/1039

   The applicant may, however, prior to the expiration date, write to Council seeking reconsideration of this condition.

LANDSCAPE & REHABILITATION PLAN

4. To maintain and enhance the amenity of the area, a detailed landscape and rehabilitation plan shall be submitted prior to submission of the building application for Council approval.

Such plan shall include and indicate the following measures which shall be immediately implemented -

(a) general landscape treatment;

(b) species, numbers and the location of trees and shrubs proposed;

(c) to reduce the visual impact of the quarry site on the southern approaches to the property, the provision of a heavily landscaped tree and shrub buffer screen along the southern boundary of the site;

(d) the provision of tree and shrub screen adjacent to the southern walls of the existing buildings and on the southern side of the quarry site;

(e) rehabilitation and revegetation of all areas on the subject land that have been affected by previous mining works which are not covered by this consent, including the Tomerong Creek area;

(f) no disturbance to vegetation or soil surface shall take place along the banks of Tomerong Creek. Rehabilitation and revegetation measures undertaken shall enhance the vegetated corridor along Tomerong Creek and the plan shall ensure that sedimentation and erosion does not occur along Tomerong Creek in the future;

(g) cattle shall be excluded from areas affected by this plan in order to optimise landscaping and rehabilitation potential.

In addition to the above requirements, the landscape and rehabilitation plan shall be prepared in accordance with guidelines endorsed by the Soil Conservation Service and the State Pollution Control Commission and any further requirements of these Authorities shall be included in the plan. Evidence of consultation with the abovementioned Authorities shall be submitted with this plan.

5. Trees shall not be removed other than those located within the area of approved works.

LONG TERM REHABILITATION

6. To ensure the future amenity of the area, the applicant shall submit a site rehabilitation management plan which shall be implemented at the

expiration of this consent or in the event approved works cease sooner. Such a plan shall be submitted, for Council approval, within three (3) months of the endorsement date of this consent.

The site rehabilitation plan shall be prepared in accordance with requirements of the Soil Conservation Service, the National Parks & Wildlife Service and the State Pollution Control Commission. Evidence of consultation with the abovementioned Authorities shall be submitted with the plan.

In addition to the above, the site rehabilitation plan shall include details of the following measures -

(a) establishment of the base level in the second year of operation;

(b) base level quarrying to keep pace with overburden stripping;

(c) overburden to be used to revegetate quarry walls;

(d) revegetation and rehabilitation to keep pace with quarrying operations;

(e) the final wall shape to be established by shattering vertical face using a major explosion to facilitate slumping and accelerate natural weathering;

(f) cattle to be excluded from the operational area to optimise revegetation potential.

SEDIMENTATION & EROSION CONTROL

7. To reduce and/or eliminate the occurrence of soil erosion and sedimentation, the applicant shall submit an erosion and sedimentation control plan for the approval of Council, prior to the submission of a building application. Such a plan shall comply with the requirements of the Soil Conservation Service and the State Pollution Control Commission (SPCC).

In addition to the requirements of the above Authorities, the plan shall incorporate the following measures which, together with the Soil Conservation Service and SPCC requirements, shall be implemented -

(a) the quarry floor is to be graded to ensure one discharge point;

(b) a silt trap, having a minimum capacity of five (5) cubic metres, shall be established in the quarry floor at the discharge point;

(c) silt build-up shall be regularly removed from the trap to ensure its capacity is not reduced to less than 50% at any time;

(d) a siltation dam shall be established immediately having a minimum capacity of 1,000 cubmic metres, or in accordance with SPCC requirements, whichever is greater;

(e) the dam walls shall be vegetated, together with all associated construction disturbance;

(f) a drain shall be established and contoured from the dam to ensure discharge is not concentrated and a maximum disposal area is achieved.

Evidence of consultation with the Soil Conservation Service and the SPCC shall be submitted with this plan.

DUST POLLUTION

8. The applicant shall apply to the SPCC for a licence under the SPCC Act, with regard to the Clean Air Act 1961.

9. In addition to any requirements of the SPCC in relation to the Clean Air Act 1961, the following requirements shall be complied with unless higher standards are required by the SPCC -

(a) the standard of dust concentration at the crushing plant is determined in accordance with the provisions of the Clean Air Regulations, 1964. The solid particles in each cubmic metre of residual gases before admixture with air shall not exceed 0.4 grams;

(b) all stockpiled soil and overburden shall be suitably shaped and revegetated;

(c) the crushing plant shall be fitted with a water spray system which shall be activated so as to prevent excessive dust build-up;

(d) the site shall be equipped with holding tanks (in addition to the water storage dam) with adequate storage capacity to spray all unsealed road areas within and adjacent to the site and to spray work areas as required for adequate dust suppression purposes;

(e) a water cart of adequate capacity shall be located on the site and all unsealed roads within and adjacent to the site shall be adequately sprayed to prevent dust pollution;

(f) the conveyors on the plant shall be covered on the top and to one side;

(g) the end of conveyor C4 (which feeds the stockpile) shall be fitted with a dust tube made of conveyor belting. The length of such belting shall be 3-4 metres to prevent dust becoming airborne before the material is formed on the stockpile;

(h) the stockpile shall be wet by a wide angle spray fitted to the end of the stockpile feeder conveyor C4;

(i) additional fine sprays are required at the end of conveyor C3 and at the outlet of the hammermill. The alternative to using sprays is to further enclose the material transfer points of the plan to minimise the emission of dust.

NOISE EMISSION

10. The applicant shall apply to the SPCC for a licence under the SPCC Act with regard to the Noise Control Act, 1974.

11. In addition to any requirements of the SPCC in relation to the Noise Control Act, 1974 the following shall be complied with unless higher standards are required by the SPCC -

(a) noise level at the nearest residences shall not be increased by more than 5dBA above existing background levels, that is, the measured L90 level;

(b) the new noise source shall be controlled to 10dBA below the L90 levels;

(c) no truck movements from the site prior to 7.00 am and later than 4.30 pm;

(d) the level of ground vibration shall be controlled to a maximum limit of 5mm/sec;

(e) blasting time is restricted to between 10.00 am and 4.00 pm on weekdays only;

(f) the time of operation for the approved activity shall be from 7.00 am to 4.30 pm Monday to Friday and 7.00 am to 12.00 noon Saturdays;

(g) a turfed earth mound of 2.5m minimum in height is to be maintained around the northern and eastern side of the quarry pit;

(h) the drill rig is to operate behind the earth barm at all times;

(i) the hydraulic rock breaker shall operate on the quarry floor at all times so noise emissions are shielded;

(j) the transfer chutes shall be lined between the end of the conveyor from the primary crusher and feed conveyor to the screen with hard rubber;

(k) a noise compliance measurement shall be taken when the implementation of all noise control conditions is completed;

(l) monitoring of explosions shall be carried out and the results submitted to the SPCC in order to optimise blast design;

(m) overpressure levels shall comply with SPCC criteria and guidelines with respect to comfort requirements for residential locations. This may require a reduction of maximum instantaneous charge (MIC) when blasting.

New condition 11 n) - DS02/1087

ARTIFACTS/RELICS

12. Should any aboriginal artifacts, archaeological relics or rare plants or animals be discovered on the subject site or uncovered as a result of carrying out approved works, the applicant shall notify the National Parks & Wildlife Service of NSW forthwith. No further disturbance to the location shall occur until a clearance has been obtained from that Authority.

BANK GUARANTEE

13. To ensure that the landscaping and initial rehabilitation is both carried out and maintained for at least twelve (12) months following the endorsement date of the consent, and to ensure that long-term site rehabilitation is carried out, the applicant shall enter into an irrevocable Bank Guarantee for the amount of $30,000 together with a landscape and rehabilitation completion and maintenance deed of agreement.

Such documents shall be completed and submitted with the building application.

CONDITIONS RELATIONS TO ROADWORKS

14. In the interests of traffic safety, the following requirements of the Local Traffic Committee and City Engineer shall be complied with -
New condition 14 i) a) & b) - DS02/1087 Condition 14 i) a) & b) modified by DS03/1325

(a) the existing junction of Pine Road and Parnell Roads shall be upgraded to NAASRA Type A, with 3m gravel shoulders;

(b) the Parnell Road link of the junction of Pine Forest and Parnell Roads shall be upgraded to a "Desirable Treatment" in accordance with Fig. 5.16 of Part 5 of NAASRA "Intersection at Grade". A flush seal at the junction shall also be extended to 30m to keep the pavement clean;

(c) On Parnell Road, just south of the Pine Forest Road junction, there is a sub-standard section of alignment created by a turn that restricts sight distance. The applicant shall carry out roadworks to improve the bend in this section of Parnell Road and to improve the sight distance, to the satisfaction of the City Engineer.

In this regard, Parnell Road shall be bitumen sealed from the Pine Forest Road intersection to the quarry access road to the satisfaction of the City Engineer;

(d) the Parnell Road access to the quarry shall be upgraded to at least a Type 2 driveway. The access road into the quarry from Parnell Road to the main office shall be sealed to a minimum width of 6.5m. The access to Parnell Road shall be widened to provide an 8m entry and a 6m exit, with a 1.0m separation at the property boundary;

(e) the applicant shall negotiate with the City Engineer the provision of an acceptable and safe sight distance to either side of the Parnell Road access point. A number of trees may need to be removed and the applicant shall consult with the City Engineer in this regard;

(f) the applicant shall widen the Railway Road carriageway to provide passing bays at maximum intervals of 100m to the satisfaction of the City Engineer and shall maintain a water cart of sufficient capacity to spray such road to reduce the dust nuisance from trucks.

(g) the Railway Road entrance to the quarry shall be widened and upgraded to a Type 2 Driveway to the City Engineer's satisfaction;

(h) the transportation of shale material from the quarry shall not exceed 1,000 tons per day. Should the applicant wish to exceed this tonnage, the proposal shall be submitted to the Regional Traffic Committee as major upgrading would be required on the access roads.

New conditions 14 i) & j) DS02/1987

PARKING & STANDING AREAS

15. The applicant shall provide an all-weather, dust-free carparking area on the site, capable of accommodating at least ten (10) vehicles. Such carparking facilities shall be constructed and drained to the satisfaction of the City Engineer.

16. All machinery standing/parking areas shall be constructed to an all-weather, dust-free standard and drained to the satisfaction of the City Engineer.

EXPLOSIVES & FUEL STORAGE

17. All explosives on-site shall be securely stored in accordance with the requirements of the Dangerous Goods Regulations 1978 as administered by the Workers Compensation and Rehabilitation Authority of NSW.

18. All fuel stored on the site shall be securely stored in accordance with any requirements under the Dangerous Goods Regulations as administered by the Workers Compensation and Rehabilitation Board.

19. The on-site fuel shall be stored in a manner so as to prevent seepage in the event of accidental spill. The storage area shall be adequately bunded to the satisfaction of the City Health Surveyor and

such bunding shall be capable of containing at least 110% of the stored fuel.
New conditions 20 & 21 DS02/1087

Endorsement of date of determination - 6th November, 1990

NOTES New condition 22 DS 06/1039

This consent is valid for thirteen years from the date hereon, unless an environmental planning instrument prohibiting the development is gazetted within one year of the date hereon. Then the consent is only valid for one year from the date that instrument comes into force.

Section 97 of the Act confers on an applicant who is dissatisfied with the determination of a consent authority a right of appeal to the Land and Environment Court exercisable within twelve (12) months after receipt of this notice.

Advice to Applicants

The following information is supplied to assist in the preparation of plans and specifications in accordance with Part XI of the Local Government Act, 1919 as amended.

(a) A building application, which is a requirement under Part XI of the Local Government Act, 1919 as amended, together with plans and specifications, in accordance with Ordinance 70 must be submitted to and approved by Council prior to works proceeding.

The following information is supplied to assist in the preparation of the Building Application.

(b) No signs or advertising shall be erected on or in conjunction with the proposed use of the premises without the prior consent of Council.

(c) To preserve the amenity of the area, the applicant shall take into account any emissions or discharges under the environmental acts, namely Clean Air Act 1961, Clean Waters Act 1970 and Noise Control (Amendment) Act 1983. Construction, siting and use of buildings and equipment shall comply with the requirements of Council and the State Pollution Control Commission, P.O. Box 1665 Wollongong (042 285755). Evidence of application for any required State Pollution Control Commission licence shall be submitted to Council with the building application.

Yours faithfully,

G. A. Napper,
TOWN CLERK.

Enc.

NOTICE TO APPLICANT OF MODIFICATION OF DEVELOPMENT CONSENT

Environmental Planning and Assessment Act, 1979

DA90/1912 (DS02/1087)

TO:
Cowman Stoddart Pty Ltd being the applicant with respect to DA90/1912 relating to:

Lot 4 DP 775296
Parnell Rd, Tomerong

APPROVED USE AND/OR DEVELOPMENT:

Proposed Quarry and Processing of Shale

DATE OF MODIFICATION: **29th October 2002**

In response to your request of 6th March 2002 and pursuant to section 96 of the Environmental Planning and Assessment Act, 1979, notice is hereby given that the development consent issued in respect of the abovementioned application and dated 6th November 1990 has been modified by:

a. Replacing Condition 3 with the following:

"3. To ensure the future amenity of the location, and in order to properly assess the impact of the development at the appropriate time, the approved use shall be limited to a period expiring on 6th November 2010."

b. New Condition 11 n)

"11 n) The hammer rig shall be restricted in its operation to between the hours of 9.00 am and 3.00 pm on Mondays to Fridays only with no operation of this plant on Saturdays, Sundays or Public Holidays."

c. New Condition 14 i)

"14 i) To minimise dust emissions, general environmental impact and to improve delineation and priority at the intersection of Gumden Lane and Bayly Road the applicant shall provide the following:-

a) The applicant is to comply with the programme of works as outlined in the letter dated 26th July 2002 as follows:-

a. *Sealing of Gumden Lane within 12 months from the date of this modified consent,*
b. *Construction of new crossing over Tomerong Creek within 2 years from the date of this modified consent,*
c. *Sealing of remainder of southern accessway between a. and b. above within 3 years form the date of this modified consent.*

b) *Gumden Lane shall be sealed on an approved pavement 7.0 m wide from the intersection of Island Point Rd and extended to a point 30m inside the property boundary. The 30 m extension of Gumden Lane shall be dedicated to Council, at no cost to Council, immediately upon the completion of the works. All works are to be completed within 12 months from the date of this modified consent.*

c) *Until such time as Gumden Lane is sealed, the existing traffic movements shall be maintained with priority given to trucks using Parnell Road.*

d) *Bayly Road shall be sealed for a distance of 10m from the intersection with Gumden Lane. The carriageway width shall be 5 m wide on an approved pavement with 0.5 m gravel shoulders.*

e) *The standard of construction for all roadworks shall be in accordance with Development Control Plan No 100 – Engineering Design Specifications.*

f) *Outside the hours of operation of the quarry, the property gate shall be closed and display a "Road Closed Hazard" sign in accordance with Roads and Traffic Authority unidirection signs and markings D4-4 or 2 x unidirection signs D4-4-1R and D4-1-1L.*

g) *Prior to undertaking works within the road reserve, the developer must obtain the approval of Council under Section 138 of the Roads Act, 1993. The developer shall submit the following to Council for approval prior to the issue of a construction certificate:*

- *Detailed plans*
- *Specifications*
- *Pavement design; and*
- *Traffic control plan (which must comply with the RTA's manual - "Traffic Control at Work Sites").*
- *Insurance details*

Where any works are carried out on or adjacent to a public road, adequate protection shall be provided for the travelling and pedestrian public. Warning and protective devices shall be provided which comply with the provisions of AS 1742.3-1966 Traffic Control Devices for Works on Roads. Details shall be submitted and approved by Council prior to the issue of a construction certificate.

h) The developer or his agent must check that the proposed works are not affected by any Council, Integral Energy or telecommunications service. Any required alterations to services will be at the developer's expense.

i) The design of road and car park pavements, both on site and on public land, shall be supported by test results for the insitu subgrade material. These tests shall be carried out by a NATA approved laboratory, or may be carried out by Council at the developer's expense.

j) Siltation and erosion controls to be inspected and approved prior to the commencement of civil works.

k) *All works shall be inspected and approved by Council's Development Works Inspector and a compliance certificate issued."*

Note – the works required in 14 i) a) b) and 14 i) a) c) require separate Development Consent.

d. New Condition 14 j

"14 j To ensure safe intersection sight distance is provided in both directions vegetation in the Parnell Road road reserve shall be underscrubbed and maintained."

e. New Condition 20:

"20. Trucks entering and leaving the site are required to drive at a speed that minimises the amount of dust generated from the roads."

f. New Condition 21:

"21 All surface water, draining from disturbed areas in the quarry site, is to be directed to the sediment dam."

All other conditions remain unaltered.

RIGHTS OF REVIEW AND APPEAL

Under section 82A of the Environmental Planning and Assessment Act, 1979 an applicant may request the council to review its determination except where it relates to a complying development certificate, designated development or integrated development. The request must be made ***within 28 days*** *of the date of the receipt of the determination, with a prescribed fee of 50% of the original DA fee.*

Section 97 of the Environmental Planning and Assessment Act, 1979 confers on an applicant who is dissatisfied with the determination of a consent authority in relation to

*this modification a right of appeal to the Land and Environment Court which must be exercised within **12 months** of the date of this notice.*

SIGNED on behalf of Shoalhaven City Council:

Signature

Name **Robert Russell**
Development Manager
Development & Environmental Services Division

NOTICE TO APPLICANT OF DETERMINATION OF DEVELOPMENT APPLICATION

MODIFICATION OF DEVELOPMENT CONSENT

Environmental Planning and Assessment Act, 1979
DA90/1912
(DS03/1325)

TO:
Cowman Stoddart Pty Ltd
P O Box 738
Nowra NSW 2541

being the applicant or persons entitled to act with respect to DA90/1912 relating to:

146 Parnell Rd Tomerong Lot: 4 DP: 775296

APPROVED DEVELOPMENT:

Proposed Quarry and Processing of Shale

MODIFICATION DATE: **6th February 2004**

In response to your request of 14th July 2003 and pursuant to Section 96(1A) of the Environmental Planning and Assessment Act, 1979, notice is hereby given that the development consent issued in respect of the abovementioned application and dated 6th November 1990 has been modified by:

a. Replacing Condition 14(1) (a) and (b) with the following:-

"14 i) To minimise dust emissions, general environmental impact and to improve delineation and priority at the intersection of Gumden Lane and Bayly Road the applicant shall provide the following:-

a) The applicant is to comply with the following programme of works as follows:-

a. Sealing of Gumden Lane to commence immediately upon approval of engineering plans and to be completed in a timely fashion, at least by 29th May 2004,

b. Sealing of remainder of southern accessway between a. and c. above within 15 months from the date of this modified consent.

c. Construction of new crossing over Tomerong Creek within 27 months from the date of this modified consent,

b) Gumden Lane shall be sealed on an approved pavement 6.0 m wide with 0.5 m gravel shoulders from the intersection of Island Point Rd and extended to a point 30m inside the property boundary. The 30 m extension of Gumden Lane shall be dedicated to Council, at no cost to Council, immediately upon the completion of the works. All works are to be completed within 3 months from the date of this modified consent.

All other conditions remain unaltered.

RIGHTS OF REVIEW AND APPEAL

Development Consent under Environmental Planning and Assessment Act, 1979

Under Section 82A of the Environmental Planning and Assessment Act, 1979 an applicant may request the council to review its determination except where it relates to a complying development certificate, designated development or integrated development. The request must be made ***within 60 days*** *of the date of the receipt of the determination, with the prescribed fee.*

Part 17, Rule 1(1) of the Land and Environment Court Rules confers on an applicant who is dissatisfied with this determination a right of appeal to the Land and Environment Court which can be exercised ***within 60 days*** *after receipt of this notice.*

SIGNED on behalf of Shoalhaven City Council:

Signature

Name **Stuart Dixon**
Senior Development Planner
Development & Environmental Services Group

DE18.23 - Attachment 1

City Administrative Centre
Bridge Road, Nowra NSW Australia 2541
Phone: (02) 4429 3111 • Fax: (02) 4422 1816 • DX 5323 Nowra
Address all correspondence to
The General Manager, PO Box 42, Nowra NSW Australia 2541

NOTICE TO APPLICANT OF DETERMINATION OF DEVELOPMENT APPLICATION

MODIFICATION OF DEVELOPMENT CONSENT

Environmental Planning and Assessment Act, 1979
DA90/1912
(DS06/1039)

TO:
The Manager
McDonald International Pty. Ltd.
49 Berry Street
NOWRA NSW 2541

being the applicant(s)or persons entitled to act with respect to **DA90/1912**

relating to:

146 Parnell Road, Tomerong

Lot 4, DP775296

APPROVED DEVELOPMENT:

Proposed Quarry and Processing of Shale

MODIFICATION DATE: **17 May 2006**

In response to your request of 27th January 2006 and pursuant to s96(2) of the Environmental Planning and Assessment Act, 1979, notice is hereby given that the development consent issued in respect of the abovementioned application and dated 6th November 1990 has been modified by:

a. Deleting condition 3 and inserting instead:

3. To ensure the future amenity of the location, and in order to properly assess the impact of the development at the appropriate time, the approved use shall be limited to a period expiring on the 06th November 2020.

The applicant may, however, prior to the expiration date, write to Council seeking reconsideration of this condition.

b. Add new condition 22 as follows:

Road Maintenance

22. *The additional 10 years of quarry operation will impact on the adjoining local public road system. The quarry operator shall maintain Parnell Road and Gumden*

Lane for the life of the development to a standard agreed upon between Council and the quarry operator. To determine the standard of maintenance, a joint inspection of Parnell Road and Gumden Lane is to be conducted annually on the date of this determination (or on the most convenient day closest to the date). The first of such inspection shall taken place in May, 2007.

All other conditions contained in DA90/1912 dated 06th November 1990, as modified by DS02/1087 dated 29th October 2002 and, DS03/1325 dated 06th February 2004 remain unaltered and must be complied with.

RIGHTS OF REVIEW AND APPEAL

Development Consent under Environmental Planning and Assessment Act, 1979

*Under Section 82A of the Environmental Planning and Assessment Act, 1979 an applicant may request the council to review its determination except where it relates to a complying development certificate, designated development or integrated development. The request must be made **within 60 days** of the date of the receipt of the determination, with the prescribed fee.*

*Part 17, Rule 1(1) of the Land and Environment Court Rules confers on an applicant who is dissatisfied with this determination a right of appeal to the Land and Environment Court which can be exercised **within 60 days** after receipt of this notice.*

SIGNED on behalf of Shoalhaven City Council:

Signature

Name **Robert Russell**
Development Manager
Development & Environmental Services Group

Attachment 1: Draft Amendment No. 10 - Contribution Plan 2010

The following document forms the proposed content of the revised Contributions Plan 2010 which is to be converted into a new website. Notes in red outline where additional content is to be included on the website for exhibition once the revised project list is endorsed for exhibition by Council.

Draft Amendment No. 10
Shoalhaven Contributions Plan 2010

The Shoalhaven Contributions Plan 2010 allows Shoalhaven City Council or an accredited certifier to levy contributions on development consents and complying development certificates issued for land within the City of Shoalhaven. These contributions are collected and then applied to provide community infrastructure and the additional infrastructure required to meet demand created by this development.

Development that increases the demand for community infrastructure in the Shoalhaven Local Government Area will, in accordance with this Plan, be levied contributions toward the cost of providing such infrastructure.

The Plan is set out in this website and contains detail on the infrastructure projects to be funded by development contributions and how these contributions are to be levied on development.

A preliminary estimate for monetary contributions for a proposed development can be obtained by using the "Contributions Calculator" page.

Further information
For further information on this Plan, please send an email "Attention Contributions Staff" to council@shoalhaven.nsw.gov.au or telephone 4429 5377.

If your enquiry relates to a specific development, such as a request for an estimate of the contributions payable for a certain development, please call Council and ask to speak to the:

- Duty Building Surveyor on 4429 3472 if the query relates to dwelling houses or dual occupancies; or
- Duty Planner on 4429 3531 if the query relates to commercial, industrial or residential developments other than dwelling houses or dual occupancies

Section 1 - Introduction

1.1 Shoalhaven Contributions Plan 2010

This Plan sets out the:

- Community infrastructure requirements within the Shoalhaven Local Government Area (LGA) to meet anticipated development demand.
- Relationship or nexus between development and the community infrastructure required to meet that development.
- Formulas used to determine the contribution project rates.
- Monetary contribution rates for contribution projects applying to different types of development.
- Background supporting information.

The Plan details the community infrastructure to be levied for different forms of development.

1.2 Shoalhaven Local Government Area

The Shoalhaven Local Government Area (LGA) is located on the NSW South Coast, approximately 2 hours from Sydney and 2.5 hours from Canberra. It covers an area of 4,660 km^2 and incorporates 49 towns and villages, as well as significant coastal and rural-residential areas. The main population centre is located in the major regional centre of Nowra Bomaderry.

For planning purposes, the towns and villages of the Shoalhaven are divided into five discrete planning areas. The five planning areas have been established by Shoalhaven City Council to provide a spatial basis for strategic planning considerations as well as for the delivery of services. Areas 1, 3 and 5 are based on the major urban areas of Nowra-Bomaderry, Jervis Bay Basin-St Georges Basin, and Milton-Ulladulla respectively. Areas 2 and 4 are secondary urban areas which include villages such as Culburra Beach, Callala Beach and Callala Bay, and Sussex Inlet. A map of the five planning areas and summary of towns and villages located in each planning area is provided in Section 2.3 of this Plan.

1.3 Legal basis for contributions

The *Environmental Planning and Assessment Act 1979* (EP&A Act) enables Council to levy contributions on development for the provision of community infrastructure which is required as a consequence of that development.

Contribution requirements may be satisfied by a monetary contribution, dedication of land to Council, the provision of a material public benefit or works-in-kind, or a combination of the above.

The EP&A Act allows Council to seek the following types of contributions from development:

- toward the provision, extension or augmentation of community infrastructure where development is likely to require the provision of or increase the demand for community infrastructure; and
- toward the recoupment of the cost of providing existing community infrastructure within the area if it is satisfied that:
    - the development concerned will, if carried out, benefit from the provision of the existing public infrastructure, and

- the existing public infrastructure was provided within the area by a consent authority in preparation for or to facilitate the carrying out of development in the area.

This Plan has been prepared in accordance with the relevant provisions of the *EP&A Act* and *Environmental Planning and Assessment Regulation 2000* (EP&A Regulation) and the most recent development contributions practice notes issued by a Secretary of the Department of Planning that were in place at the time this Plan was prepared.

This Plan enables Council to require contributions from development towards a range of community infrastructure. A list of contribution projects is shown in Schedule 1 of this Plan.

1.4 Initial estimate of development contributions

A preliminary estimate of contributions required under this Plan in relation to a specific land parcel and development proposal can be calculated using the Contributions Calculator. Estimates are then checked and finalised by Council staff or accredited certifier upon lodgement of a development application or complying development certificate.

When undertaking an enquiry, the property details and the scale of the proposed development will be needed. In terms of residential development, this may require entering the number of bedrooms per dwelling/unit, and for commercial/industrial development this may require entering the total area of the site to be developed. Once this information is entered into the enquiry system, a list of the contribution projects and the contribution rate for each project will provide an estimate of contributions payable to Council based on the above assumptions.

Estimates of development contributions using the Council's website are indicative and Council does not take responsibility for any assumptions based on this inquiry information.

Note: Contribution rates are indexed at the start of each financial year so estimates will increase from 1 July each year.

1.5 Infrastructure funding/delivery framework

There are a limited range of mechanisms available to Council to fund and deliver community infrastructure. One of the mechanisms available to provide community infrastructure demanded or generated by new development is development contributions. Other funding mechanisms available to Council include:

- General Revenue (i.e. Rate income)
- Special Rate Levy
- Grant funding

All contribution projects in this Plan are to be part or fully funded pursuant to the development contributions provisions of the EP&A Act and the provisions of this Plan. At the time this Plan was made, there were no grants or other external funding sources available for or applied to the contribution projects estimates detailed in this Plan unless otherwise specified. The result of Council accepting a grant for a contribution project will reduce both the overall project estimate and the overall project rate apportioned to development. Should such funding become available in the future, the project estimate will be reviewed and the contribution project rates may be adjusted accordingly.

Section 2 – Scope

2.1 Name of the Plan

This Plan is called *Shoalhaven Contributions Plan 2018.*

2.2 Purpose of this Plan

The primary purpose of the Plan is to authorise:

- Council, when granting consent to an application to carry out development to which this Plan applies; or
- an accredited certifier, when issuing a complying development certificate for development to which this Plan applies,

to require a development contribution to be made towards:

- the provision, extension or augmentation of community infrastructure; and
- the recoupment of the cost of providing, extending or augmenting community infrastructure within the area to which this Plan applies.

Other purposes of the Plan are to:

- ensure that adequate community infrastructure is provided for as part of any new development;
- provide an administrative framework under which community infrastructure contributions may be implemented and coordinated;
- provide a comprehensive plan for the assessment, collection, expenditure, accounting and review of development contributions on an equitable basis;
- ensure that the existing community is not burdened by the provision of community infrastructure required as a result of future development; and
- enable Council to be both publicly and financially accountable in its assessment and management of this Plan.

2.3 Land to which this Plan applies

This Plan applies to all of the land in the Shoalhaven LGA. A map of the land and five planning areas are shown in Figure 2.3.1. A list of the towns and villages which are located in the various planning areas is shown in Table 2.3.1.

Contributions payable to the Council under this plan are determined having regard to whether the development concerned is within a specific contribution project catchment identified in this plan. These contributions project catchments vary for each project and relate to planning areas shown in Figure 2.3.1 as well as smaller catchment areas.

The boundaries of these contributions project catchments are intended to align with the boundaries of land use zones under the Council's local environmental plan. However, the Council changes the boundaries of its land use zones from time to time through amendments to the local environmental plan. Where this occurs, this plan will apply as if the boundary of a contributions project catchment specified in this plan has been changed to align with the changed boundary of the land use zone.

Figure 2.3.1: Map of the City of Shoalhaven LGA showing its five planning areas

Planning Area 1	Planning Area 2	Planning Area 3	Planning Area 4	Planning Area 5
Berry	Callala Bay	Basin View	Berrara	Bawley Point
Bomaderry	Callala Beach	Bewong	Cudmirrah	Bendalong
Cambewarra Village	Culburra Beach	Erowal Bay	Sussex Inlet	Burrill Lake
Greenwell Point	Currarong	Huskisson	Swan Haven	Conjola Park
Kangaroo Valley	Myola	Hyams Beach		Cunjurong
Nowra	Orient Point	Old Erowal Bay		Depot Beach
Shoalhaven Heads		Sanctuary Point		Dolphin Point
Terara		St Georges Basin		Durras North
		Tomerong		Fishermans Paradise
		Vincentia		Kings Point
		Wandandian		Kioloa
		Woollamia		Lake Conjola
		Wrights Beach		Lake Tabourie
				Manyana
				Mollymook
				Milton
				Narrawallee
				Ulladulla

Table 2.3.1: Summary of Shoalhaven town and villages per planning area

A summary of the Shoalhaven's current population and population projections is shown in Section 3.1 of this Plan.

2.4 Development to which this Plan applies

This Plan authorises the imposition of contributions on development which are imposed at the subdivision or consolidation of land stage where subsequent development demands the provision of community infrastructure.

Council or an accredited certifier will require contributions under this Plan for any type of development that is deemed to increase the demand for the items of community infrastructure included in this Plan.

Schedule 4 shows the categories of development that may be levied a contribution under this Plan.

The total development contribution imposed will depend on:

- whether the development type generates a need for community infrastructure items (refer to Schedule 4);
- size of the development (i.e. how many Equivalent Tenement (ETs) is generated) (refer to Section 3.17);
- the location of the development site and whether the site is included in a contribution project catchment (refer Schedule 1);
- the monetary contribution rate pertaining to contribution projects that relates to the development and the development site (refer Schedule 1).

The sum of all contribution project rates relevant to a development type and development site can be calculated using the Contributions Calculator.

Residential development

In most circumstances, only newly created residential lots or increase in intensity/change of residential land use will be levied a contribution. In most circumstances these contributions have been paid at subdivision, with the exception of the following:

Old subdivision properties (listed in Schedule 2 of this Plan) where the subdivision has been approved prior to 1993 and subsequent rezoning has occurred to permit development of the land. This includes land with a Village zoning as contributions have not been levied for these properties at subdivision.

Due to these properties having paid rates over many years which amounts to far more than a "one-off" contribution project payment for community and recreation facilities, these "old subdivision properties" only pay contributions at the development application stage for plan management, road, fire and drainage projects which is a consequence of rezoning.

Dual occupancy in old subdivision areas (where a second dwelling is proposed) or further subdivision is considered "new" development which will generate demand for additional community infrastructure. As a result full development contributions will apply.

Nebraska Estate, St. Georges Basin (listed in Schedule 2 of this Plan) is where rezoning of land has occurred after subdivision. Subsequently, Council and the subdivision landowners entered into a Deed of Agreement that requires all current development contributions to be paid at the time of development approval for a residential dwelling.

DCP 41 Area, Callala Bay (listed in Schedule 2 of this Plan) is where zoning of land to allow residential development occurred after subdivision. Subsequently, land identified in the now repealed *Development Control Plan No. 41 - Callala Bay* requires development contributions to be paid for all current projects at the time of development approval for a residential dwelling.

Corks Lane (contribution project 05ROAD2058) where the need for road improvement has arisen after subdivision has occurred, contributions for a defined usage catchment area have been applied and are noted on the relevant s10.7 planning certificates.

Development in accordance with *State Environmental Planning Policy (Affordable Rental Housing) 2009* is charged on a per bedroom rate as per the rate for a dual occupancy development.

Commercial & industrial development

When commercial or industrial subdivision is proposed, contributions will be levied at a rate of 1 ET per lot created.

Additional contributions may be levied upon finalisation of a development application for a specific use of a lot (i.e. building, warehouse, storage facility, etc.) which is greater development than the original 1 ET credited to the lot. These contributions are levied as per the rate detailed in Section 3.7 of this Plan.

Mixed development

In circumstances when a mixed subdivision is proposed (i.e. combination of residential, commercial, etc.) contributions will be levied at a rate of 1 ET per lot created.

Additional contributions may be required upon finalisation of a development application for a specific use of a lot (e.g. building etc.) which is greater than the original 1 ET credited to the lot. These contributions are levied as per the rate detailed in Section 3.7 of this Plan. This may require separate contributions levied for each specific development type (i.e. separate contribution projects and rates for commercial & residential components).

2.5 Exemptions

This Plan shall not apply to development provided by or on behalf of State Government or the Council;

- for the purposes of community infrastructure included in this Plan or another contributions plan prepared under the EP&A Act;
- for infrastructure provided by water, sewer or energy providers;
- for Council projects that provide non-profit community facilities, such as sportsgrounds, parks, community centres, emergency services; or
- that in the opinion of Council does not increase the demand for the categories of community infrastructure addressed by this Plan.

The following Ministerial Directions details further exemptions that apply to this Plan:

- The Ministerial Direction of 14 September 2007 which exempts public amenities or public services in relation to social housing providers defined in *the State Environmental Planning Policy (Housing for Seniors or People with a Disability) 2004*.

In accordance with this policy, a *social housing provider* means any of the following:

a) The New South Wales Land and Housing Corporation,

b) The Department of Housing,

c) A community housing organisation registered with the Office of Community Housing of the Department of Housing,

d) The Aboriginal Housing Office,

e) A registered Aboriginal housing organisation within the meaning of the Aboriginal Housing Act 1998,

f) The Department of Ageing, Disability and Home Care,

g) A local government authority that provides affordable housing,

h) A not-for-profit organisation that is a direct provider of rental housing to tenants.

2.6 Relationship with other plans and polices

This Plan and its earlier versions replaced the original Shoalhaven Contributions Plan 1993 (as amended). Contributions collected but not yet expended, or contributions yet to be collected from current development consents issued under that Plan will be directed toward completing projects included in this Plan. Nothing in this Plan affects the operation and application of any other contributions plans that apply to land in the Shoalhaven LGA. This means that any condition of consent imposed in accordance with a contributions plan is not affected by the subsequent repeal of that plan.

This Plan supplements the provisions of, and should be read in conjunction with, the:

- EP&A Act and its Regulation
- Shoalhaven Local Environmental Plan 2014
- Shoalhaven Development Control Plan 2014
- Integrated Strategic Plan

Land use terms used in this plan are defined in Shoalhaven Local Environmental Plan – see Schedule 4 of this Plan.

Section 3 - Infrastructure demands and contribution projects

3.1 Population growth

Council has obtained population growth forecasts from Forecast.id and are outlined in the table below by planning area (see Figure 2.3.1 for planning areas).

Year/Area	2016	2021	2026	2031	2036
Planning Area 1	45,757	47,752	50,190	52,864	55,420
Planning Area 2	7,233	7,548	7,934	8,356	8,761
Planning Area 3	21,126	22,047	23,173	24,407	25,588
Planning Area 4	4,394	4,586	4,820	5,076	5,322
Planning Area 5	20,553	21,449	22,544	23,745	24,894
TOTAL	99,063	103,382	108,660	114,449	119,984

These projections forecast the Shoalhaven population will grow by approximately 20,000 people by 2036. Subject to land release, the areas that will experience substantial growth are Planning Areas 1, 3 & 5, being the land primary around Nowra-Bomaderry, Jervis Bay-St Basin, and Milton-Ulladulla respectively. In addition to these main growth areas, in Planning Area 4, land around Sussex Inlet will also support population growth while Planning Area 2 is predicted to go into decline unless additional land release occurs.

The Illawarra-Shoalhaven Regional Plan, developed by the New South Wales State Government, details that an additional 8,600 dwellings will be required in the Shoalhaven LGA to 2036, whilst Council's forecasts predict that 11,510 new dwelling will be required in this timeframe. The Illawarra-Shoalhaven Urban Development Program: Update 2016 identified that existing vacant urban land and existing investigation areas can potentially accommodate 12,600 additional dwellings. The majority of land is located around the major centre of Nowra Bomaderry and the major towns of Ulladulla and Vincentia (which includes the Jervis Bay and St Georges Basin areas). Additional dwelling supply will be accommodated through infill medium density development within the existing towns.

To assist in determining which land parcels are likely to contribute to development demand, Council has analysed the development potential of land parcels within the various defined contribution project catchment areas. This assessment for population projections up to 2036 and beyond, and supporting strategies or plans, has identified the need to provide community infrastructure in key planning areas or specific development precincts (i.e. new release areas and infill development). Therefore, the different contribution project catchments vary in size according to the extent of demand for the project generated by development. This is discussed further in Section 3 of this Plan.

The development apportionment for some projects detailed in this Plan (citywide and whole planning projects) is based on the above population projections and equivalent tenement (ET) is based on an average size of 2.31 persons per household (2.31 persons based on person counted in households/

number of households occupied) which was identified in the 2016 Australian Bureau of Statistics Census.

3.2 Development contributions

The contribution projects detailed in this Plan are based on the analysis of development capacity and development trends. If the pattern or rate of development changes, Council may update this Plan to alter or delay the priority of project delivery and/or the contribution rate applied to the project.

A contribution project is any infrastructure item included in this Plan that is required as a consequence of anticipated development addressed by this Plan.

A contribution project is the carrying out of the works and the acquisition of lands included in Schedule 1 of this Plan. Such projects may vary from provision of passive open space areas to road / traffic management improvements where a nexus has been identified with the development. Nexus is further discussed in Section 3.5.

In some circumstances a development not currently permissible in a zone may be permissible under a State Environmental Planning Policy due to the adjacent zone being permissible for that development. Recognising that the development demand for this land may have not been identified in this Plan, Council may levy the previously not permissible development contribution projects which are not identified in this site/zone however are levied in the adjacent zone.

3.3 Key community infrastructure demand

In accordance with this Plan, Council will require development contributions for the following categories of key community infrastructure which has been (or will be) provided to meet existing and future population demand. The project code reference for this infrastructure is shown in the brackets.

- Active Recreation (AREC)
- Car parking (CARP)
- Community Facilities (CFAC)
- Drainage (DRAI)
- Fire Control Centre (FIRE)
- Passive Recreation (OREC)
- Roads/Traffic management (ROAD)

3.4 Plan management and administration

In addition to key and additional community infrastructure, Council will require development contributions for:

- Management and administration activities associated with this Plan; and
- Supporting information and background studies for the contribution projects identified in this Plan.

The total amount of Plan management and administration fees that can be charged per development consent will not exceed 10% of the total cost of contribution infrastructure projects levied in the consent. The project code reference for contributions plan management is MGMT.

3.5 Determination of reasonable contributions

This Plan requires contributions from development. Such contributions are required to be reasonable in all circumstances. Two key principles underlying reasonableness in development contributions are *nexus* and *apportionment*.

Nexus is the relationship between the anticipated types of development in the area and the demonstrated need or demand for additional or augmented community infrastructure created by those developments. Council has considered the following in preparing this Plan:

- Whether the anticipated development actually creates a need or increases the demand for particular items of community infrastructure?
- What specific items of community infrastructure will be required to address that demand and where they are to be located?
- Are existing facilities suited to providing for that demand (or a component of it)?
- What area or catchment will be served by the required items of community infrastructure?
- When do the facilities need to be provided to meet the demand of the development (i.e. thresholds or timing)?

A description of the nexus between development and infrastructure has been prepared for each contribution project listed in Schedule 1 of this Plan.

Apportionment is concerned with identifying the demand and cost component of community infrastructure that is attributable to anticipated development. More information on how contribution project costs are apportioned is included in Section 3.8 of this Plan.

3.6 How are contribution project costs estimated?

For completed (that is, recoupment) projects, the contribution project cost is the completed cost of the project to Council, indexed from the date of completion to the date of preparing this Plan using the Consumer Price Index (All Groups) Index or CPI for Sydney.

For future projects, the contribution project cost is estimated at the time a project is included into this Plan. Contribution project costs may include land, works or building costs and are based on one or more of the following:

- relevant industry construction guide;
- construction rates from Council delivering similar projects; and
- construction industry quotes.

Land acquisition estimates identified in this Plan are based on an independent land valuation. These land acquisition estimates form part of the overall project estimate.

In determining the contribution project estimate, some or all of the following elements may be included:

- survey, design and other studies costs;
- acquisition of land costs;
- construction of capital works costs (which includes a project contingency amount for any unforeseen costs that is be determined in design investigations);
- costs of procuring buildings or works;
- service/utility provision and relocation costs;
- associated ancillary works costs;
- associated restoration works costs; and
- project management costs.

All contribution project costs are exclusive of GST.

Details of actual costs and estimates for all contribution projects are provided in Schedule 1 of this Plan.

3.7 How is existing and future demand measured?

In accordance with this Plan, existing and future development demand for community infrastructure is in most circumstances measured in equivalent tenements (ETs).

Apart from ETs:

- development demand for drainage is calculated as a metre square (m^2) rate to reflect the drainage catchment area for associated infrastructure;
- development demand for public parking facilities is based on the number of spaces that a development cannot provide onsite (in accordance *with Chapter 21 Car parking and Traffic* of *Shoalhaven Development Control Plan 2014*); and
- where a contribution project relates to a quarry site the development is levied an annual monetary contribution related to the annual tonne of material exported from the site which is in addition to the original contributions paid.

As detailed in Section 3.4 of this Plan, the total amount of plan management and administration fees that can be charged per development consent will not exceed 10% of the total cost of contribution infrastructure projects levied in the consent.

It is important to note that, in calculating a contribution under this Plan, credit (in ETs, m^2, or parking spaces) is given to recognise the original approved land use of the development site prior to subsequent development consent which requires contributions in accordance with this Plan.

Note: the equivalent tenement (ET) rates used in this plan are not calculated on the same ET rate used by Shoalhaven Water for Section 64 charges.

Drainage Calculations

For subdivision, drainage is calculated as per the total englobo land area with the relevant drainage catchment area. For building approvals, drainage is calculated as per the total development area (building footprint and/or car park/landscaped area) within the relevant drainage catchment

area. Developments that provide onsite stormwater detention to pre-development flows are not required to pay a contribution towards drainage projects.

Types of Development

It should also be noted different categories/types of development are to be levied for community infrastructure according to the demand attributable to that particular category or type (e.g. residential development may have different infrastructure demands to those generated by commercial/industrial development). The relationship between each of the contribution project categories and the different development categories and types that make up each of the development types are shown in Schedule 4.

The ET rate applied to each individual development type and the relevant community infrastructure levied is detailed in tables 3.7.1 - 3.7.4 below.

Table 3.7.1: ET rate applied to residential developments

Development type	ETs applied	Relevant community infrastructure levied
Single detached/rural dwelling residential subdivision lot	1.0	AREC (Active recreation) CFAC (Community facilities) FIRE (Fire & emergency serv.) MGMT (Plan management) OREC (Passive recreation) ROAD (Road & traffic)
Multi-unit dual occupancy 1 bedroom	0.4	
Multi-unit/dual occupancy 2 bedroom	0.6	
Multi-unit/dual occupancy 3 bedroom	0.8	
Multi-unit/dual occupancy 4 bedroom	1.0	
	DRAI (Drainage) – in m^2 (see 'Drainage calculations' above)	

The application of ETs for multi-units (i.e. based on the number of bedrooms per unit) applies a rate recognising demand for community infrastructure is less for this development type.

Development under with *State Environmental Planning Policy (Affordable Rental Housing) 2009* will be charged on a rate per bedroom as per the rate for a dual occupancy development.

Where a room in a development is proposed as "study" and is of similar size to other bedrooms within the development it is to be treated as a bedroom for the purposes of calculating a contribution under this Plan.

Table 3.7.2: ET rate applied to tourism accommodation developments

Development type	ETs applied	Relevant community infrastructure levied
1 bedroom unit/ relocatable dwelling/ motel room/cabin/ caravan park site/camp site/per Bed & Breakfast bedroom greater than 300m^2 or 3 guest bedrooms	0.4	AREC (Active recreation) FIRE (Fire & emergency serv.) MGMT (Plan management) OREC (Passive recreation) ROAD (Road & traffic)
2 bedroom unit/ relocatable dwelling/cabin	0.6	
3 bedroom unit/ relocatable dwelling/cabin	0.8	
4 bedroom unit/ relocatable dwelling cabin	1.0	
	DRAI (Drainage) – in m^2 (see 'Drainage calculations' above)	

Tourism accommodation development includes:

- Manufactured home park / estate developments
- Caravan / tourist parks both long and short term occupancy developments
- Motel developments
- Bed & breakfast developments
- Guesthouses
- Camping

No exemptions for contributions apply to seasonal fluctuations related to tourism accommodation developments due to the requirement for Council to provide community infrastructure for peak season usage.

A manager's residence as part of a tourism accommodation development is levied contribution projects as per a residential development.

Table 3.7.3: ET rate applied to commercial developments

Development type	ETs applied	Relevant community infrastructure levied
Retail (per 10m^2 gross floor area)	1	ROAD (Road & traffic)
Office (per 100m^2 gross floor area)	1	
Restaurant (per 15m^2 gross floor area)	1	
Bulky Goods (per 40m^2 gross floor area)	1	
Per 200m^2 of gross floor area	1	FIRE (Fire & emergency serv.) MGMT (Plan management)
	DRAI (Drainage) – in m^2 (see 'Drainage calculations' above)	
	CARP (Car park) – calculated as per DCP 18	

Recognising that a developer in some circumstances may not be able to determine the final building/land use of a commercial development, the lesser contribution rate will be levied and accordingly conditioned for this use in the consent. Should the developer then determine at a later stage that the final building/land use may change to higher use (e.g. retail use) a Section 4.55 modification will be required to change the use. Council will levy the difference in the contribution rates.

A manager's residence as part of a commercial development is levied contribution projects as per a residential development.

Table 3.7.4: ET rate applied to industrial developments

Development type	ETs applied	Relevant community infrastructure levied
Per 200m² of land to be developed (including car park and landscaped areas)	1	FIRE (Fire & emergency ser.) MGMT (Plan Management) ROAD (Road & traffic)
	DRAI (Drainage) – in m² (see 'Drainage caluclations' above)	

A manager's residence as part of industrial development is levied contribution projects as per a residential development.

Other requirements for commercial and industrial development

Commercial and industrial development which requires a traffic impact statement or traffic impact study may require specific ETs calculated based on an assessment of traffic generation from the development. This requirement is due to Council being unable in every instance to pre-empt the specific demands of some development. The greater of ETs determined by the rates applied in this Plan and the separate assessment of traffic generation will be levied on development.

Such development must also meet the requirements of *Chapter 21 Car parking and Traffic* of *Shoalhaven Development Control Plan 2014* and therefore car parking contributions will be calculated accordingly if the required car parks cannot be provided onsite in areas detailed in Schedule 1 of this Plan where Council proposes to provide centralised car parking facilities. The outcome of this calculation determines the car spaces which development will be levied.

Private residential care facility developments

- Residential care facility development other than facilities provided by social housing providers are only levied contributions for drainage, car parking, roads, fire, and plan management.
- The ET rate for a unit development will be measured as per multi-unit (i.e. number of bedrooms per unit) for residential development.
- A bed hostel will be charged 0.2 ET per bed.

Miscellaneous/other forms of development

Miscellaneous or other forms of development not identified above will be assessed on merit and the development demands created by the proposal. This may require an amendment of this Plan to include additional contribution projects that are required to meet development demands created by the proposal. This will require reviewing community infrastructure demand indicators from development such as Roads and Maritime Services guidelines for traffic generation.

Residential subdivisions which are not levied an open space contribution project

In some circumstances the open space (passive recreation) demands of a residential subdivision have not been identified in this Plan due to the unknown configuration and/or constraints of the subdivision area. In the absence of an open space (passive recreation) contribution project, a subdivision application may still need to provide open space provision in accordance with the requirements of *Chapter 11 Subdivision of Land* of *Shoalhaven Development Control Plan 2014* and Council's adopted *Community Infrastructure Strategic Plan* following an assessment of the application under Section 4.15 of the EP&A Act.

3.8 How is the demand and cost apportioned?

A contribution can only be imposed on a development if it is reasonable in the circumstances. Part of the assessment of reasonableness is to ensure that the contribution project only ever reflects development demands and not other demands. Therefore, only the costs of community infrastructure that is attributable to the anticipated demand created by future development can be levied on future development, and Council is responsible for provision of community infrastructure to meet demand generated by the existing development or development not located within Shoalhaven LGA. This division of responsibility to provide community infrastructure is known as *apportionment.*

The cost of contribution projects in this Plan will be either fully or partly met by anticipated development in a contribution area, depending on the above considerations. Where the cost is only partly met by future development, apportionment rate of percentage is shown in each of the contribution project descriptions in Schedule 1 of this Plan. In circumstances where a contribution project is required solely to meet future development demand, the project cost is apportioned 100% to future development projects.

Development is generally required to fully fund the following types of contribution projects:

- **Commercial area car parks** – where, instead of providing parking on the site of a commercial development, car parking is provided in centralised public facilities in a contribution area. Contributions are based on the number of deficient on site spaces assessed in accordance with *Chapter 21 Car Parking and Traffic* of *Shoalhaven Development Control Plan 2014*.
- **Rural residential roads** – where the demand to provide road improvements is directly associated with increasing development density in a rural contribution area.
- **Service lanes** – where the demand to provide a service lane is directly associated with increasing intensity of land use in a town centre contribution area.
- **Quarry road upgrade** - where the demand to provide road improvements is directly associated with a quarry activity.

The anticipated likely development demand yield has been assumed in accordance within the environmental planning instrument that applied to the land in the contribution project catchment at the time this Plan was made. When assessing the likely development demand yield, the following elements are considered:

- existing land use;
- development allowed for in accordance with existing zoning and other development controls;
- environmental constraints; and
- recent trends of development in the area.

Other elements impacting on development yield, such as threatened species, flooding, etc. may or may not have been taken into account depending on whether information about these constraints was available at the time this Plan was prepared. Detailed assessments of site planning constraints are ordinarily undertaken by the applicant at the development application stage. Where Council becomes aware of a significant development constraint that may influence the demand, delivery or apportionment of a contribution project, a subsequent review of this project and its inclusion in this Plan will be undertaken.

3.9 How is the contribution rate determined?

For most projects identified in this Plan, the contribution project rate is calculated by dividing the project estimate or (if completed) the actual project cost by the total ETs or m^2. This calculation is shown in the formula below for both existing and anticipated development within a defined contribution project catchment area.

Contribution project rate ($) =	Project estimate or cost ($) Total anticipated development demand yield ETs or m^2within a defined contribution project catchment area

Therefore, the contribution rate for these types of community infrastructure is determined by dividing the cost by the anticipated development demand yield within a defined demand catchment area. This calculation is shown below.

Contribution project rate ($) =	Project estimate or cost ($) Anticipated development demand yield ETs or m^2 within a defined contribution project catchment area

A summary of contribution rate calculations for all contribution projects is included in the Schedule 1, and a summary of all contribution project rates is provided in Schedule 3 of this Plan.

3.10 Land dedication or acquisition

Dedication of land

This Plan authorises Council, when granting development consent to an application to carry out development to which this Plan applies, to impose a condition under the EP&A Act requiring the dedication of land to Council towards the provision of community infrastructure. In such circumstances no compensation or offset monetary contributions is provided by Council.

Acquisition of land

This Plan authorises Council, when granting development consent to an application to carry out development to which this Plan applies, to impose a condition under the EP&A Act allowing Council to acquire land towards the provision of community infrastructure as detailed in this Plan. The value of the land to be acquired by Council has been estimated in this Plan, via a land valuation and will require re-valuation at time of acquisition. This land value may be used to offset monetary contributions of other projects detailed in this Plan. Schedule 7 shows the properties/areas identified for acquisition.

3.11 Timing and priority of contribution project delivery

The delivery of community infrastructure is programmed in its final design stages in Council's Delivery Program and Operational Plan (DPOP) which details a 3-4 year delivery program. Prior to infrastructure being detailed in the DPOP, an indicative timeframe for delivery of contribution projects, subject to the progress of development, is detailed in this Plan and is provided in Schedule 1 of this Plan.

Section 4 Administration

4.1 How is Council accountable for contributions?

Council is required to comply with a range of requirements for financial accountability and public access to information in relation to community infrastructure contributions. These are addressed in the EP&A Regulation and include:

- maintenance of, and public access to, a contributions register;
- maintenance of, and public access to, accounting records for contributions receipts and expenditure;
- annual financial reporting of contributions; and
- public access to contributions plans and supporting information.

These records are available at Council's Nowra Administrative Centre.

4.2 Residential development cap

The Plan contains monetary contribution rates which, when applied to certain residential development, will result in the total monetary contribution exceeding the residential development cap contained in the Minister's Environmental Planning and Assessment (Local Infrastructure Contributions) Direction 2012 (as amended). A list of contribution project rates which when included in the total contributions payable to Council that exceed the cap are detailed in Schedule 6 of this Plan.

4.3 Works in-kind and other material benefits

Council may accept an offer by the applicant to provide an "in-kind" contribution project (i.e. the applicant completes part or all of the project work identified in this Plan) or provide another kind of material public benefit as an alternative to making a community infrastructure contribution that is required as a condition of development consent.

Council may accept such alternatives in the following circumstances:

- the value of the works to be undertaken is at least equal to the value of the contribution project that would otherwise be required under this Plan;
- the value of the works to be substituted must be provided by the applicant at the time of the request and must be independently certified by a Quantity Surveyor who is registered with the Australian Institute of Quantity Surveyors or a person who can demonstrate equivalent qualifications;
- the standard of the works is to Council's full satisfaction;
- the applicant is willing to enter into a written agreement for the provision of the works;
- the provision of the material public benefit will not prejudice the timing or the manner of the provision of community infrastructure included in the works program; and
- acceptance of the offer will not result in piecemeal delivery of works or likely result in the need to reconstruct the works due to likely future adjacent developments (i.e. normally the works will need to relate to a whole street block or a discretely defined precinct).

Acceptance of any such alternative is at the sole discretion of Council. Council may review the valuation of works or land to be dedicated, and may seek the services of an independent person to verify their value. In these cases, all costs and expenses borne by Council in determining the value of the works or land must be paid for by the applicant.

4.4 Planning Agreements

A development applicant may voluntarily offer to enter into a Planning Agreement with Council in connection to a development application. Under a planning agreement, the applicant may offer to pay money, dedicate land, carry out works, or provide other material public benefit for public purposes. The applicant's provision under a planning agreement may be additional to, or instead of, making community infrastructure contributions of the type described in this or any other contributions plan. A copy of Council's *Planning Agreement Policy* is available on Council's website or from Council's Nowra Administrative Centre.

Planning Agreements which have been entered into by Council, or are the process of being prepared, can be viewed on Council's planning register.

4.5 When are contributions payable?

Contributions relating to development applications must be paid to Council at the time specified in the condition of development consent that imposes the contribution:

- Development applications involving subdivision - prior to the release of the Subdivision Certificate (linen plan).
- Development applications not involving subdivision but where a subsequent Construction Certificate is required - prior to the release of the Construction Certificate.
- Other development application – prior to the commencement of the construction or occupation of premises.

The timing specified shall generally be in accordance with the following:

- Contributions relating to complying development certificates must be paid to the Council prior to the issuing of the certificate.
- Development contributions requirements for staged developments proposed under Division 4.4 of Part 4 of the EP&A Act shall only be imposed as a condition on development consent where that consent also authorises the carrying out of stage 1 of that development. Consents for subsequent stages of the development shall be levied contributions commensurate with the increase in demand for community infrastructure attributable to each stage.

The total monetary contributions detailed in development consent will be adjusted between the date of consent and the date of payment in accordance with Section 4.9 of this Plan.

Should development consent lapse (i.e. development does not commence within the defined commencement period), with or without payment of relevant development contributions, a reassessment of applicable contribution projects will be required at the time of a new development application.

4.6 Goods and Services Tax

The costs of contributions projects included in this Plan and the monetary contribution rates are exempt from Goods and Services Tax (GST).

4.7 Deferred or periodic contribution payments

Deferred or periodic payment of contributions may be permitted in certain circumstances. Deferred payment is available to all applicants for a maximum of two years from the standard payment date and this amount is indexed annually as detailed in Section 4.9 of this Plan. Periodic payment is only available to tenants and businesses. A copy of Council's policy *Payment of Development Contributions and Section 64 Headwork Charges by Deferment or Instalments (under special circumstances)* which details the requirements for deferred or periodic payment of contributions is available on Council's website or from Council's Nowra Administrative Centre.

4.8 Pooling of contributions

To assist in the delivery of community infrastructure, this Plan authorises monetary development contributions paid for different contribution projects to be selectively pooled and applied progressively to priority projects within a defined planning area. Funds will be pooled based on project type and planning area e.g. road projects in Planning Area 1 will be pooled to allow the pooled funding to be applied to priority projects to allow them to be undertaken in a timelier manner. This will help to facilitate development that may otherwise be held up awaiting construction of essential infrastructure.

As detailed in Section 4.11 these priorities may be changed through future reviews of the Plan.

4.9 Indexation of contribution rates

The purpose of this clause is to ensure that the monetary contribution rates imposed at the time of development consent or complying development certificate are adjusted to reflect the indexed cost of the provision of infrastructure included in this Plan.

Council may, without the necessity of preparing a new or amending contributions plan, make changes to the monetary contribution rates set out in this Plan to reflect annual changes to the Consumer Price Index.

The contribution rates will be indexed as follows:

$$\$C_A \times \frac{\text{Current CPI}}{\text{Base CPI}}$$

Where:

- **$C_A** is the contribution rate for works schedule items at the time of adoption of the Plan expressed in dollars
- **Current CPI** is the *Consumer Price Index (All Groups Index) for Sydney* as published by the Australian Statistician at the time of the review of the contribution rate
- **Base CPI** is the *Consumer Price Index (All Groups Index) for Sydney* as published by the Australian Statistician at the date of adoption of this Plan

Note: The contribution rate will not be less than the contribution rate specified at the date of the adoption of this Plan or the rate that is subsequently indexed on 1 July. A list of past contribution rates applied by Council to this Plan is shown in Schedule 5 of this Plan.

An "indexed estimate" appears on all project pages to recognise the revised project estimate amount which has increased over time due to annual indexation.

4.10 Accredited certifiers obligations

Constructions Certificates and the obligation of accredited certifiers

In accordance with section 7.21 of the *Environmental Planning and Assessment Act 1979 (NSW)* and clause 146 of the *Environmental Planning and Assessment Regulation 2000 (NSW),* a certifying authority issuing a Complying Development Certificate for secondary dwellings under the *State Environmental Planning Policy (Affordable Rental Housing) 2009*, must impose a condition that requires payment of monetary contributions prior to commencement of works. This payment can be made to Council three working days after Council has received the consent from the accredited certifier.

In particular, the certifier must ensure that the applicant provides them a Council issued receipt(s) confirming that contributions have been fully paid upon following the requirements of clause 142(2) of the *Environmental Planning and Assessment Regulation 2000 (NSW).* Failure to follow this procedure may render such a certificate invalid, exposing the certifier to legal action.

The only exceptions to this requirement are where a works in kind, material public benefit, dedication of land and/or deferred payment arrangement has been agreed to by Council in writing. In such cases, Council will issue a letter confirming that it agrees to the alternative payment method.

Complying Development and the obligation of accredited certifiers

In accordance with section 7.21(1) of the *Environmental Planning and Assessment Act 1979 (NSW)*, accredited certifiers must impose a condition requiring monetary contributions in accordance with this Plan.

The conditions imposed must be consistent with the Council's standard development contributions consent conditions and be strictly in accordance with this Plan. It is the professional responsibility of accredited certifiers to accurately calculate the contributions and to apply the contribution condition correctly. Only conditions requiring monetary contributions can be imposed by an accredited certifier.

Accredited certifiers for complying development should refer particularly to section 3.9 of this Plan concerning the precise calculation of development contributions and the use of the on-line calculator.

In accordance with the *Environmental Planning and Assessment Act 1979*, when an accredited certifier imposes a condition on a complying development certificate, the condition must be in accordance with this Contributions Plan and comply with any relevant directions given by the Minister under section 7.17(1) (a), (b) or (d) of the *Environmental Planning and Assessment Act 1979*.

This Plan authorises contributions that are consistent with directions made by the Minister up to the date of the Plan coming into effect. The onus is on the accredited certifier to ensure that any condition imposed on a complying development certificate is consistent with any current direction issued by the Minister.

4.11 Review of this Plan

The Plan's assumptions (including its supporting strategies, anticipated development yield and project cost parameters) require monitoring and review on a regular basis.

Monitoring actual developments, population changes and community infrastructure demands will allow appropriate updating and amendment of contribution projects detailed in this Plan. The cost of works proposed by the Plan (including land values) will also need to be reviewed over time in addition to the cost indexing provisions in this Plan. These strategies are to ensure that at any particular time, contribution rates fairly and reasonably reflect development demand for infrastructure addressed by the Plan.

Council's aim is to undertake minor reviews of this Plan annually and major reviews at four yearly intervals after the date of adoption of this Plan. This timeframe is to link into Council's integrated reporting cycle and to consider revised population forecasts.

Amendments that have been made to the Contributions Plan can be viewed at Council's Planning Register: https://shoalhaven.nsw.gov.au/My-Council/Policies-plans-strategies/Planning-register

Inactive projects

Through undertaking a review of this Plan, Council may include some new or inactive contribution projects.

An inactive contribution project is a project for which Council has levied contributions on all of the anticipated development in the contribution project catchment. That is, it is assumed that all contributions relating to inactive projects have been made or will be made. Council shall not levy contributions on development for a contribution project after it has been declared inactive. However, contributions for projects that were imposed on consents that have been declared inactive subsequent to the issue of the consent are still required to be made. Consequently, payment of monetary contributions will still be expected if a project is made inactive after the date of consent but before payment is received.

Making a contribution project inactive in this Plan does not necessarily mean that the infrastructure item is completed. Rather, it is an indication that the contribution project cannot be funded from contributions beyond those already required under existing consents.

In such circumstances, Council may consider substituting an inactive project for works which are more appropriate to meet the identified development demand. This substitution could occur where:

- contributions are exhausted due to infrastructure cost increases between collection and delivery of the original contribution project;
- there is less demand for services than forecast; or
- demand has changed; or
- Council wishes to combine some types of community infrastructure (e.g. combining a child care centre and community centre to create a multi-purpose facility to respond to community needs).

However, should a project be made inactive in this Plan, and the contribution project has been fully funded, any surplus contributions collected or pending payment will be allocated by Council to a similar project that is provided by Council to meet the original development demand in the catchment area.

4.12 Refunds

Council is not obligated under legislation to refund development contributions. However, Council may consider refunding development contribution payments where a developer has surrendered their

consent, or where an error has been made by Council. A request for a refund must be made within 12 months of paying the contributions.

Council will only consider refunding contributions that have been paid if Council considers the refund will not materially impact on Council's cash flow and ability to deliver works in Council's Works Program. Where a project has commenced, money has been expended, or is a recoupment project, a refund will not be possible.

Section 5 - Definitions

In this Plan, the following words and phrases have the following meanings:

Applicant means a person(s) or organisation(s) submitting a development application, or a person(s) or organisation(s) entitled to act upon a development consent.

Apportionment means the process by which the assessed demand or cost is related specifically to the development from which contributions may be sought. Apportionment seeks to ensure that new development only pays its share or portion of the cost of the facility or work for which it has created a demand.

Complying development certificate has the same meaning as stated in the *EP&A Act*.

Construction certificate has the same meaning as stated in the *EP&A Act*.

Contribution area means the area of land that demands provision of a contribution project.

Community infrastructure means public amenities and public services but does not include water and sewerage services.

Contribution has the same meaning as "direct contribution".

Contributions plan means a contributions plan referred to in Part 7 of the EP&A Act.

Contribution project means a project for which contributions will be sought from development under this Plan.

Contribution rate means the contribution amount on a unit basis (for example, per ET, per m^2) payable by developments affected by this Plan and shown in Schedule 3 of this Plan.

Council means Shoalhaven City Council.

DCP means a Development Control Plan prepared by a relevant planning authority under section 3.43 of the EP&A Act.

Development has the meaning under Section 1.5 of the EP&A Act which in relation to land means:

(a) the use of land,

(b) the subdivision of land,

(c) the erection of a building,

(d) the carrying out of a work,

(e) the demolition of a building or work,

(f) any other act, matter or thing that may be controlled by an environmental planning instrument.

Development consent means consent under Part 4 of the EP&A Act to carry out development and includes, unless expressly excluded, a complying development certificate.

Direct contribution means a contribution defined in section 7.11 of the EP&A Act, which is:

(a) a reasonable development contribution for the provision, extension, or augmentation of community infrastructure within the area, and/or

(b) a reasonable monetary contribution towards recoupment of the cost of providing existing community infrastructure within the area

EP&A Act means the *Environmental Planning and Assessment Act 1979*.

EP&A Regulation means the *Environmental Planning and Assessment Regulation 2000.*

Equivalent Tenement (ET) means a measure of development demand based on Council's analysis of water supply and traffic generation for the various forms of development which is applied to most projects in this Plan.

Gross Floor Area means the sum of the areas of each floor of a building where the area of each floor is taken to be the area within the outer face of the external enclosing walls as measured at a height of 1400 millimetres above each floor level excluding:

- columns, fin walls, sun control devices and any elements, projections or walls outside the general line of the outer face of the external wall.
- lift towers, cooling towers, machinery and plant rooms and ancillary storage space and vertical air conditioning ducts.
- car parking specifications which meet the requirements of this development control plan.
- space for the loading and unloading of goods.

LGA means Local Government Area.

Material public benefit means something provided by an applicant, other than the dedication of land or the payment of a monetary contribution.

Nexus means the relationship between anticipated development and the demand for infrastructure generated by that development.

Plan means this contributions plan.

Planning agreement means a planning agreement referred to in Section 7.4 of the EP&A Act.

Works-in-kind means a type of material public benefit offered by a developer, being the carrying out of a work or works identified in the works schedules which form part of this contributions plan.

Schedule 1 – Infrastructure projects

Note 1: The individual project pages will be updated and included on the new website.

Note 2: Recent changes relating to the Shoalhaven Community and Recreation Precinct and the Bay and Basin District Community Library, including the new library at Sanctuary Point will be incorporated into the public exhibition if information and costings become available. If however, these cannot be completed in time, these changes will be incorporated into a future amendment and will be exhibited accordingly. Another report will be submitted once they have been reviewed reporting any changes.

Sch 1.1 Planning Area 1 Projects

Project code	Project name	Total value (Indexed)	Council amount	Development amount	Developer apportionment	Timeframe	Recoupment
01AREC2006	Northern Shoalhaven Sports Stadium	$13,698,959	$9,983,802	$3,715,158	27.12%	2020/24	No
01AREC3007	Nowra Swimming Pool Expansion	$2,644,251	$0	$2,644,251	100.00%	N/A The project has been completed.	Yes
01ARECXXXX	Planning Area 1 Community & Recreation Facilities Upgrades	$14,286,250	$11,268,994	$3,017,256	21.12%	Development dependent	No
01CARP2002	Berry Town Centre Car Parking	$7,744,372	$0	$7,744,372	100.00%	2020/24	No
01CARP3001	Car parking provision at Egans Lane 8 Lawrence Ave Collins Way Bridge Road Lamonds Lane 9 Haigh Avenue & 67 Kinghorne Street	$23,650,434	$0	$23,650,434	100.00%	2018/20	No
01CARP3003	Bomaderry car parking provision at 42-44 Coomea Street	$429,443	$0	$429,443	100.00%	Not applicable. The project has been completed.	Yes
01CARP3004	Kangaroo Valley car parking provision at 169 Moss Vale Road	$165,382	$0	$165,382	100.00%	2020/28	No
01CFAC0002	Community Hall North Nowra	$567,715	$309,915.67	$257,799	45.41%	Not applicable. The project has been completed.	Yes
01CFAC0014	Mundamia URA Community/Childcare Centre	$1,172,829	$0	$1,172,829	100.00%	Development Dependent	No
01CFAC2012	Nowra District Integrated Youth Services Centre	$211,618	$0	$211,618	100.00%	Not applicable. The project has been completed.	Yes

Project code	Project name	Total value (Indexed)	Council amount	Development amount	Developer apportionment	Timeframe	Recoupment
01DRAI0005	Hillcrest Ave Road & Drainage Works South Nowra	$1,418,308	$499,244	$919,063	64.80%	Development dependent	No
01DRAI2003	Illaroo Road Drainage North Nowra	$252,152	$215,338	$36,814	14.60%	2020/28	No
01OREC0009	Berry Garden Estate Passive Open Space	$1,591,046	$0	$1,591,046	100.00%	Development dependent	No
01OREC0011	Falcon Crescent North Nowra	$1,123,245	$0	$1,123,245	100.00%	Development dependent	No
01OREC0013	Old Southern Road Worrigee	$1,780,399	$0	$1,780,399	100.00%	Development dependent	No
01OREC0014	Mundamia URA Central Open Space	$909,443	$0	$909,443	100.00%	Development Dependent	No
01ROAD0145	Mundamia URA Access Roads	$2,238,566	$0	$2,238,566	100.00%	Development Dependent - At first stage of land release	No
01ROAD0146	Mundamia URA Shared Cycle/Pathway - George Evans Road	$184,160	$0	$184,160	100.00%	Development Dependent	No
01ROAD0149	Mundamia URA George Evans and Yalwal Road Intersection Upgrade	$657,649	$0	$657,649	100.00%	Development Dependent	No
01ROAD0150	Roundabouts - Yalwal Road/Rannoch Drive and Yalwal Road/Lightwood Drive	$1,163,448	$436,875	$726,573	62.45%	Development Dependent	No
01ROAD0152	Traffic signals and associated works at intersection of Albatross / Yalwal Roads.	$985,770	$752,931	$232,839	23.62%	Development Dependent	No
01ROAD0153	Worrigee URA (Road Widening)	$158,189	$57,043	$101,146	63.94%	Development Dependent	No
01ROAD2007	Beach (Tannery) Road - Strengthen Pavement & Bridge	$1,598,000	$982,291	$615,709	38.53%	2020/25	No
01ROAD2038	Old Southern Road upgrade (1km south from Quinns Lane)	$1,197,698	$175,942	$1,021,756	85.31%	Development dependent	No
01ROAD2039	Quinns Lane/Old Southern Rd - Construct Roundabout	$491,372	$302,390	$188,982	38.46%	2018/22	Yes
01ROAD2101	Nth Nowra Link Rd- Construct Rd Bridge & Traffic Facilities	$16,886,524	$10,755,027	$6,131,497	36.31%	2020/24	No
01ROAD2120	Judith Dr/Page Av Roundabout North Nowra	$479,274	$0	$479,274	100%	Not applicable. The project has been completed.	Yes

Project code	Project name	Total value (Indexed)	Council amount	Development amount	Developer apportionment	Timeframe	Recoupment
01ROAD2133	Tannery and Beach Roads Berry	$0	$0	$0	100.00%	Ongoing	No
01ROAD2143	Quinns/Browns Ind.Link Road South Nowra	$557,201	$181,648	$375,554	67.40%	Development dependent	No
01ROAD2144	Hillcrest Ave Road & Drainage Works South Nowra	$2,000,000	$196,000	$1,804,000	90.20%	Development dependent	No
01ROAD3102	Const Acc/Deceleration Lane & K&G - Eastern Side Of SH1	$698,076	$465,965	$232,110	33.25%%	Not applicable. Project has been completed	Yes
01ROAD3104	Construct Internal Service Rd & Loop Rd	$4,355,457	$332,321	$4,023,135	92.37%	2020/25	No
01ROAD3105	Construct Road Drainage - Internal Service	$1,449,585	$1,085,015	$364,571	25.15%	2020/25	No

Sch 1.2 Planning Area 2 Projects

Project code	Project name	Total value (Indexed)	Council amount	Developmen t amount	Developer apportionment	Timeframe	Recoupment
02AREC0002	Culburra & District Sporting Complex Site	$0	$0	$0	100.00%	Development dependent	No
02ARECXXXX	Planning Area 2 - Recreation facility upgrades	$1,286,000	$1,014,327	$271,673	21.13%	Development dependent	No
02CFAC0001	Callala District Community & Child Care Centre	$865,851	$407,123	$458,728	52.98%	Not applicable. The project has been completed.	Yes
02CFAC0004	Long Bow Point Village Community Hall	$814,944	$0	$814,944	100.00%	Development dependent	No
02OREC0005	CULBURRA EXPANSION AREA-Environmental Protection	$1,986,976	$0	$1,986,976	100.00%	Development dependent	No
02ROAD0011	East and West Crescent Culburra Beach	$2,222,219	$86,667	$2,135,552	96.10%	Development dependent.	No
02ROAD2007	DCP41 Area Roads	$1,436,697	$319,234	$1,117,463	77.78%	Development dependent	No

Sch 1.3 Planning Area 3 Projects

Project code	Project name	Total value (Indexed)	Council amount	Development amount	Developer apportionment	Timeframe	Recoupment
03AREC3003	Bay and Basin Leisure Centre Vincentia	$902,140	$0	$902,140	100.00%	Not Applicable. The project has been completed.	Yes
03ARECXXXX	Planning Area 3 - Recreation facility upgrades	$2,480,000	$1,956,202	$523,798	21.12%	Development dependent	No
03CARP0004	St Georges Basin Public Car Parking	$201,261	$0	$201,261	100.00%	Development dependent	No
03CARP2002	Huskisson Car Parking	$1,314,511	$0	$1,314,511	100.00%	Development dependent	No
03CARP3001	Car parking provision at Kerry Street St Georges Basin	$690,452	$0	$690,452	100.00%	Development dependent	No
03CFAC3001	Bay and Basin District Community Centre and Branch Library (Bay & Basin urban precinct)	$29,000,000	$22,428,600	$6,571,400	22.66%	2015/19	No
03DRAI2001	St Georges Basin Village Centre Drainage	$2,000,000	$538,400	$1,461,600	73.08%	Development dependent	No
03OREC0009	Tomerong	$188,162	$0	$188,162	100.00%	Development dependent	No
03OREC0011	Vincentia Expansion Area	$1,991,542	$0	$1,991,542	100.00%	Development dependent	No
03OREC0012	St Georges Basin Village Green	$342,470	$0	$342,470	100.00%	Development dependent	No
03ROAD0055	Northern Section of Currambene Street Huskisson	$1,806,583	$924,971	$881,613	48.80%	2026/2030	No
03ROAD0057	Currambene Street Service Lane Huskisson	$1,158,064	$558,187	$599,877	51.80%	Development Dependent	No
03ROAD0060	Kent Lane Huskisson	$500,000	$0	$500,000	100.00%	Development Dependent	No
03ROAD0061	Winnima Lane Huskisson	$500,000	$0	$500,000	100.00%	Development Dependent	No
03ROAD0062	Unnamed Lane (Huskisson)	$200,000	$0	$200,000	100.00%	Development Dependent	No
03ROAD0115	Sydney / Bowen Streets Huskisson	$1,329,000	$592,734	$736,266	55.40%	2020/25	No
03ROAD2011	Hart Road Falls Creek	$300,000	$240,000	$60,000	20%	2020/25	No
03ROAD2014	Sinclair (Part 1 and 2) Falls Creek	$68,271	$0	$68,271	100.00%	Not applicable. The project has been completed.	Yes
03ROAD2016	Port Jervis Estate Roads Tomerong	$1,163,192	$12,911	$1,150,280	98.89%	2022/27	No

Project code	Project name	Total value (Indexed)	Council amount	Development amount	Developer apportionment	Timeframe	Recoupment
03ROAD2019	Tasman Park Estate gravel upgrade (The Wool Rd, The Basin Road & Island Point Rd)	$107,773	$0	$107,773	100.00%	Not applicable. The project has been completed.	Yes
03ROAD2023	St Georges Basin Village Access Road & Traffic Facilities	$3,046,350	$0	$3,046,350	100.00%	Development dependent	No
03ROAD2025	Basin View Estate Roads Basin View	$291,474	$218,605	$72,868	25.00%	Not applicable. The project has been completed.	Yes
03ROAD2028	Wandean Road Wandandian	$604,042	$6,584.06	$597,458.	98.91%	2013/17	Yes
03ROAD2112	Anson Street Extension St Georges Basin	$2,339,139	$1,878,328	$460,810	19.70%	Not applicable. The project has been completed.	Yes
03ROAD2113	St Georges Basin Village Centre Service Lane	$193,249	$0	$193,249	100.00%	Development dependent	No
03ROAD3021	St Georges Basin Bypass	$8,000,000	$6,662,400	$1,337,600	16.72%	Not Applicable. The project has been completed.	Yes

Sch 1.4 Planning Area 4 Projects

Project code	Project name	Total value (Indexed)	Council amount	Development amount	Developer apportionment	Timeframe	Recoupment
04AREC2003	Sussex Inlet Aquatic Centre	$3,926,738	$2,862,592	$1,064,146	27.10%	No applicable. The project has been completed	Yes
04CARP3001	Car parking provision at 16 Nielson Road 45-47 Ellmoos Avenue Sussex Inlet	$896,378	$0	$896,378	100.00%	Development dependent	No
04CFAC2002	Sussex Inlet District Branch Library	$612,147	$446,255	$165,892	27.10%	2016/20	No
04CFACXXXX	Planning Area 4 - Community Facilities	$600,000	$473,282	$126,718	21.12%		No
04ROAD2003	Medlyn Avenue Sussex Inlet	$149,142	$110,066	$39,075	26.20%	Not Applicable. The project has been completed.	Yes
04ROAD2004	Badgee Bridge	$1,403,036	$900,749	$502,287	35.80%	Not Applicable. The project has been completed.	Yes

Sch 1.5 Planning Area 5 Projects

Project code	Project name	Total value (Indexed)	Council amount	Development amount	Development apportionment	Timeframe	Recoupment
05ARECXXXX	Planning Area 5 - Recreation facility upgrades	$7,099,200	$3,115,720	$1,900,800	21.12%	Development dependent	No
05CARP3001	Ulladulla car parking (19 Boree Street & 94-96 St Vincent Street)	$1,834,379	$0	$1,834,379	100.00%	Not applicable. The project has been completed.	Yes
05CARP3002	Car parking provision at 84 Princes Highway	$705,636	$0	$705,636	100.00%	Development dependent	No
05CFAC0011	Extension of Manyana Community Hall (Yulunga Drive)(Voluntary Planning Agreement for specific properties)	$133,392	$0	$133,391	100.00%	Development dependent	No
05CFAC2010	Southern Shoalhaven Branch Library	$5,183,902	$4,048,627	$1,135,274	21.90%	This project has been completed.	Yes
05OREC0004	Manyana/Cunjurong	$689,771	$0	$689,770	100.00%	Development dependent	No

Project code	Project name	Total value (Indexed)	Council amount	Development amount	Development apportionment	Timeframe	Recoupment
05OREC0007	Lake Conjola Entrance Road Killarney	$354,338	$0.00	$354,338	100%	Development dependent	No
05OREC0017	Dolphin Point Road Dolphin Point	$716,244	$0	$716,244	100%	Development dependent	No
05OREC0018	Manyana Foreshore facilities upgrade (Voluntary Planning Agreement for specific properties)	$148,207	$91,859	$56,348	38.02%	Development dependent	No
05ROAD0063	Dolphin Point/Burrill Lake Connector and Link Road	$2,144,662	$0	$2,144,662	100%	Not applicable. The project has been completed.	Yes
05ROAD0068	Bendalong Road and Inyadda Drive upgrade (voluntary Planning Agreement for specific properties)	$207,308	$0	$207,308	100%	Development dependent	No
05ROAD0069	Bendalong Road and Inyadda Drive intersection upgrade (Voluntary Planning Agreement for specific properties)	$123,501	$76,546	$46,955	38.02%	Development dependent	No
05ROAD2001	Bishop Drive extension (Northern Link Road)	$14,463,918	$9,647,434	$4,816,485	33.30%	Development dependent	No
05ROAD2003	Ocean Street Roundabout Mollymook	$802,839	$79,481	$723,358	90.10%	Not applicable. The project has been completed.	Yes
05ROAD2007	Kings Point Road Kings Point	$1,000,000	$0	$1,000,000	100%	2022/27	No
05ROAD2030	Croobyar Road Milton	$250,000	$110,200	$89,800	44.90%	2020/25	No
05ROAD2048	Murramarang Road - Kioloa Bridge	$740,827	$281,959	$458,868	61.94%	Not applicable. The project has been completed.	Yes
05ROAD2058	Corks Lane Link Road Milton	$3,100,000	$0	$3,100,000	100%	Development dependent.	No
05ROAD2061	Matron Porter Drive Milton	$3,500,000	$2,660,000	$840,000	24%	2021/25	No
05ROAD3008	St.Vincent Street Connector Road Ulladulla	$4,000,000	$914,400	$3,085,600	77.14%	2017/21	No

Sch 1.6 Citywide Projects

Project code	Project name	Total value (Indexed)	Council amount	Development amount	Development apportionment	Timeframe	Recoupment
CWARECXXXX	Shoalhaven Community and Recreational Precinct (SCaRP) Cambewarra Road Bomaderry	$80,000,000	$63,104,000	$16,896,000	21.12%	2018/19-2024	No
CWCFAC0006	Shoalhaven City Library Extensions	$10,000,000	$7,888,000	$2,112,000	21.12%	2020/24	No
CWCFAC2002	Shoalhaven Multi Purpose Cultural & Convention Centre	$14,045,937	$0	$14,045,937	100.00%	Not applicable. The project has been completed.	Yes
CWCFACXXXX	Shoalhaven City Arts, Multimedia & Music Centre	$3,000,000	$2,366,400	$633,600	21.12%	2020/24	No
CWFIRE2001	Citywide Fire & Emergency services	$2,109,282	$0	$2,109,282	100.00%	Ongoing	No
CWFIRE2002	Shoalhaven Fire Control Centre	$3,085,870	$0	$3,085,870	100.00%	Project part completed.	No
CWMGMT3001	Contributions Management & Administration	$8,771,411	$0	$8,771,411	100.00%	Ongoing	No

Schedule 2 - Old Subdivision Properties

As detailed in Section 2.4 of this Plan, old subdivision properties are where the subdivision has been approved prior to 1993 and subsequent rezoning has occurred to permit development of the land. * Indicates properties in the Nebraska Estate, St Georges Basin and DCP 41 area in Callala Bay where all current development contributions are to be paid at the time of development approval for a residential dwelling (as detailed in Section 2.4 of this Plan).

As a result development contributions will apply at lodgement of a Development Application.

Note: Properties will be removed from this list as development occurs and contributions are paid.

Location	Address	UTE	Description
Basin View	66 Waterpark Rd	6149	Lot 287 DP 8399
Callala Bay	Chisolm St	27471	Lot 23 DP 9063 Sec 5A*
Callala Bay	Chisolm St	27472	Lot 23 DP 9063 Sec 4A*
Callala Bay	Chisolm St	35345	Lot 12 DP 9063 Sec 22*
Callala Bay	Chisolm St	35346	Lot 13 DP 9063 Sec 22*
Callala Bay	Chisolm St	35347	Lot 14 DP 9063 Sec 22*
Callala Bay	Chisolm St	35365	Lot 10 DP 9063 Sec 21*
Callala Bay	Chisolm St	36384	Lot 24 DP 9063 Sec 5A*
Callala Bay	Chisolm St	48006	Lot 24 DP 9063 Sec 4A*
Callala Bay	Chisolm St	59599	Lot 1 DP 732631*
Callala Bay	Cook St	36293	Lot 26 DP 9063 Sec 19*
Callala Bay	Cook St	36294	Lot 27 DP 9063 Sec 19*
Callala Bay	Cook St	36295	Lot 28 DP 9063 Sec 19*
Callala Bay	Cook St	36259	Lot 9 DP 9063 Sec 8*
Callala Bay	Cook St	36260	Lot 10 DP 9063 Sec 8*
Callala Bay	Cook St	36261	Lot 11 DP 9063 Sec 8*
Callala Bay	Cook St	36262	Lot 12 DP 9063 Sec 8*
Callala Bay	Cook St	36263	Lot 13 DP 9063 Sec 8*
Callala Bay	Cook St	36264	Lot 14 DP 9063 Sec 8*

Location	Address	UTE	Description
Callala Bay	Cook St	28506	Lot 14 DP 9063 Sec 7*
Callala Bay	Cook St	28505	Lot 13 DP 9063 Sec 7*
Callala Bay	Cook St	36290	Lot 23 DP 9063 Sec 19*
Callala Bay	Cook St	36291	Lot 24 DP 9063 Sec 19*
Callala Bay	Cook St	36292	Lot 25 DP 9063 Sec 19*
Callala Bay	54 Emmett St	35363	Lot 7 DP 9063 Sec 21*
Callala Bay	56 Emmett St	27506	Lot 8 DP 9063 Sec 21*
Callala Bay	64 Emmett St	27509	Lot 20 DP 9063 Sec 5A*
Callala Bay	2 Emmett St	27498	Lot 11 DP 9063 Sec 6*
Callala Bay	6 Emmett St	27500	Lot 13 DP 9063 Sec 6*
Callala Bay	47 Lackersteen St	27787	Lot 12 DP 9063 Sec 4A*
Callala Bay	Sheaffe St	28523	Lot 8 DP 9063 Sec 8*
Callala Bay	Sheaffe St	28513	Lot 21 DP 9063 Sec 7*
Callala Bay	Sheaffe St	28526	Lot 7 DP 9063 Sec 19*
Callala Bay	Sheaffe St	28527	Lot 8 DP 9063 Sec 19*
Callala Bay	Sheaffe St	28528	Lot 1 DP 9063 Sec 22*
Callala Bay	Sheaffe St	36378	Lot 11 DP 9063 Sec 5*
Callala Bay	Sheaffe St	36379	Lot 12 DP 9063 Sec 5*
Callala Bay	Sheaffe St	36380	Lot 13 DP 9063 Sec 5*
Callala Bay	Sheaffe St	36381	Lot 14 DP 9063 Sec 5*
Callala Bay	Sheaffe St	36252	Lot 1 DP 9063 Sec 8*
Callala Bay	Sheaffe St	36253	Lot 2 DP 9063 Sec 8*
Callala Bay	Sheaffe St	36254	Lot 3 DP 9063 Sec 8*
Callala Bay	Sheaffe St	36255	Lot 4 DP 9063 Sec 8*
Callala Bay	Sheaffe St	36256	Lot 5 DP 9063 Sec 8*

Location	Address	UTE	Description
Callala Bay	Sheaffe St	36257	Lot 6 DP 9063 Sec 8*
Callala Bay	Sheaffe St	36258	Lot 7 DP 9063 Sec 8*
Callala Bay	Sheaffe St	28529	Lot 2 DP 9063 Sec 22*
Callala Bay	Sheaffe St	28530	Lot 3 DP 9063 Sec 22*
Callala Bay	Sheaffe St	28531	Lot 8 DP 9063 Sec 22*
Callala Bay	3 Sheaffe St	35414	Lot 3 DP 9063 Sec 6*
Callala Bay	Sheaffe St	28484	Lot 16 DP 9063 Sec 21*
Callala Bay	Sheaffe St	28525	Lot 6 DP 9063 Sec 19*
Callala Bay	Sheaffe St	28507	Lot 15 DP 9063 Sec 7*
Callala Bay	Sheaffe St	28508	Lot 16 DP 9063 Sec 7*
Callala Bay	Sheaffe St	28509	Lot 17 DP 9063 Sec 7*
Callala Bay	Sheaffe St	28510	Lot 18 DP 9063 Sec 7*
Callala Bay	Sheaffe St	28512	Lot 20 DP 9063 Sec 7*
Callala Bay	Sheaffe St	28524	Lot 1 DP 9063 Sec 19*
Callala Bay	Sheaffe St	36277	Lot 2 DP 9063 Sec 19*
Callala Bay	Sheaffe St	36278	Lot 3 DP 9063 Sec 19*
Callala Bay	Sheaffe St	36279	Lot 4 DP 9063 Sec19*
Callala Bay	Sheaffe St	36280	Lot 5 DP 9063 Sec 19*
Callala Bay	The Corso	36296	Lot 24 DP 9063 Sec 22*
Callala Bay	The Corso	36297	Lot 25 DP 9063 Sec 22*
Callala Bay	The Corso	36296	Lot 24 DP 9063 Sec 22*
Callala Bay	The Corso	38589	Lot 23 DP 9063 Sec 22*
Callala Bay	The Corso	38590	Lot 26 DP 9063 Sec 22*
Callala Bay	The Corso	38591	Lot 28 DP 9063 Sec 22*
Callala Bay	The Corso	36281	Lot 9 DP 9063 Sec 19*

Location	Address	UTE	Description
Callala Bay	The Corso	36282	Lot 10 DP 9063 Sec 19*
Callala Bay	The Corso	36283	Lot 11 DP 9063 Sec 19*
Callala Bay	The Corso	36284	Lot12 DP 9063 Sec 19*
Callala Bay	The Corso	36285	Lot 13 DP 9063 Sec 19*
Callala Bay	The Corso	36286	Lot 14 DP 9063 Sec 19*
Callala Bay	Watt St	28753	Lot 22 DP 9063 Sec 19*
Callala Bay	Watt St	28754	Lot 15 DP 9063 Sec 8*
Callala Bay	71 Watt St	28736	Lot 7 DP 9063 Sec 4A*
Callala Bay	Watt St	28755	Lot 16 DP 9063 Sec 8*
Callala Bay	Watt St	28756	Lot 1 DP 9063 Sec 5*
Callala Bay	Watt St	28757	Lot 2 DP 9063 Sec 5*
Callala Bay	73 Watt St	28735	Lot 8 DP 9063 Sec 4A*
Callala Bay	Watt St	28758	Lot 3 DP 9063 Sec 5*
Callala Bay	Watt St	28759	Lot 4 DP 9063 Sec 5*
Callala Bay	69 Watt St	28737	Lot 6 DP 9063 Sec 4A*
Callala Bay	67 Watt St	28738	Lot 5 DP 9063 Sec 4A*
Callala Bay	65 Watt St	28739	Lot 4 DP 9063 Sec 4A*
Callala Bay	63 Watt St	28740	Lot 3 DP 9063 Sec 4A*
Callala Bay	Watt St	28741	Lot 1 DP 9063 Sec 4A*
Callala Bay	Watt St	28742	Lot15 DP 9063 Sec 22*
Callala Bay	Watt St	28743	Lot16 DP 9063 Sec 22*
Callala Bay	Watt St	28744	Lot 17 DP 9063 Sec 22*
Callala Bay	Watt St	28745	Lot 19 DP 9063 Sec 22*
Callala Bay	Watt St	28746	Lot 20 DP 9063 Sec 22*
Callala Bay	Watt St	28747	Lot 21 DP 9063 Sec 22*

Location	Address	UTE	Description
Callala Bay	Watt St	28748	Lot 22 DP 9063 Sec 22*
Callala Bay	Watt St	28749	Lot 17 DP 9063 Sec 19*
Callala Bay	Watt St	28750	Lot 18 DP 9063 Sec 19*
Callala Bay	Watt St	28751	Lot 20 DP 9063 Sec 19*
Callala Bay	Watt St	28752	Lot 21 DP 9063 Sec 19*
Callala Bay	Watt St	36367	Lot 18 DP 9063 Sec 22*
Callala Bay	61 Watt St	35416	Lot 2 DP 9063 Sec 4A*
Callala Bay	Watt St	36265	Lot 17 DP 9063 Sec 8*
Callala Bay	Watt St	36266	Lot 18 DP 9063 Sec 8*
Callala Bay	Watt St	36267	Lot 19 DP 9063 Sec 8*
Callala Bay	Watt St	36268	Lot 20 DP 9063 Sec 8*
Callala Bay	Watt St	36269	Lot 21 DP 9063 Sec 8*
Callala Bay	Watt St	36270	Lot 22 DP 9063 Sec 8*
Callala Bay	Watt St	36287	Lot 15 DP 9063 Sec 19*
Callala Bay	Watt St	36288	Lot 16 DP 9063 Sec 22*
Callala Bay	Watt St	36289	Lot 17 DP 9063 Sec 19*
Callala Bay	Woodhill St	28515	Lot 23 DP 9063 Sec 7*
Callala Bay	11 Woodhill St	28516	Lot 24 DP 9063 Sec 7*
Callala Bay	12 Woodhill St	28838	Lot 6 DP 9063 Sec 6*
Callala Bay	Woodhill St	36271	Lot 23 DP 9063 Sec 8*
Callala Bay	Woodhill St	36372	Lot 5 DP 9063 Sec 5*
Callala Bay	Woodhill St	36373	Lot 6 DP 9063 Sec 5*
Callala Bay	Woodhill St	36374	Lot 7 DP 9063 Sec 5*
Callala Bay	Woodhill St	36375	Lot 8 DP 9063 Sec 5*
Callala Bay	Woodhill St	36376	Lot 9 DP 9063 Sec 5*

Location	Address	UTE	Description
Callala Bay	Woodhill St	36377	Lot 10 DP 9063 Sec 5*
Callala Bay	Woodhill St	36272	Lot 24 DP 9063 Sec 8*
Callala Bay	Woodhill St	36273	Lot 25 DP 9063 Sec 8*
Callala Bay	7 Woodhill St	28518	Lot 26 DP 9063 Sec 7*
Callala Bay	Woodhill St	36274	Lot 26 DP 9063 Sec 8*
Callala Bay	Woodhill St	36275	Lot 27 DP 9063 Sec 8*
Callala Bay	Woodhill St	36276	Lot 28 DP 9063 Sec 8*
Culburra Beach	104 West Cres	4995	Lot 311 DP 11892
Falls Creek	9 Stapleton St	42703	Lot 52 DP 206448
Falls Creek	4 Linnane St	42716	Lot 38 DP 206448
Falls Creek	Hart Rd	43285	Lot 19 DP 15461
Falls Creek	Hart Rd	43286	Lot 20 DP 15461
Kangaroo Valley	Moss Vale Road	38069	Lot 17 DP 207410
Kangaroo Valley	238 Moss Vale Road	38070	Lot 12 DP 207410
Kangaroo Valley	Moss Vale Rd	38080	Lot 1 DP 589813
Kangaroo Valley	Nugents Creek Road	38330	Lot 25 DP 207410
Kangaroo Valley	Moss Vale Road	38334	Lot B DP 374733
Kangaroo Valley	Moss Vale Road	38335	Lot 3 DP 386532
Kangaroo Valley	250 Moss Vale Road	63241	Lot 102 DP 749886
Kangaroo Valley	11 Rectory Park Way	84365	Lot 10 DP 285133
Nowra Hill	18 Calymea St	43628	Lot 48 DP 29970
Nowra Hill	16 Calymea St	43629	Lot 49 DP 29970
St Georges Basin	Grange Road	6394	Lot 7 DP 9699 Sec A
St Georges Basin	Grange Road	6395	Lot 8 DP 9699 Sec A

Location	Address	UTE	Description
St Georges Basin	Grange Road	6396	Lot 9 DP 9699 Sec A
St Georges Basin	Grange Road	6397	Lot 10 DP 9699 Sec A
St Georges Basin	The Basin Rd	7041	Lot 60 DP 8082
St Georges Basin	191 Island Point Rd	38562	Lot 39 DP 8082
St Georges Basin	5 Park Road	19246	Lot 1 DP 9699 Sec K*
St Georges Basin	The Wool Road	93705	Lot 1 DP 1052202*
Sussex Inlet	Sussex Inlet Rd	45341	Part Lot 170 DP 26730
Sussex Inlet	495 Sussex Inlet Rd	45361	Lot 151 DP 26732
Sussex Inlet	Sussex Inlet Rd	45362	Lot 149 DP 26732
Sussex Inlet	Sussex Inlet Rd	45370	Lot 141 DP 26732
Sussex Inlet	Sussex Inlet Rd	45381	Lot 130 DP 26732
Sussex Inlet	Sussex Inlet Rd	45385	Lot 126 DP 26732
Sussex Inlet	Sussex Inlet Rd	45388	Lot 123 DP 26732
Sussex Inlet	Sussex Inlet Rd	45410	Lot 97 DP 26638
Sussex Inlet	Sussex Inlet Rd	45416	Lot 91 DP 26638
Sussex Inlet	Sussex Inlet Rd	45420	Lot 87 DP 26638
Sussex Inlet	Sussex Inlet Rd	45453	Lot 65 DP 26637
Sussex Inlet	574 Sussex Inlet Rd	45469	Lot 49 DP 26637
Sussex Inlet	Sussex Inlet Rd	45471	Lot 48 DP 26637
Sussex Inlet	Sussex Inlet Rd	45475	Lot 43 DP 26637
Sussex Inlet	432 Sussex Inlet Rd	45483	Lot 32 DP 26636
Sussex Inlet	Old Berrara Rd	45503	Lot A DP 410550

Location	Address	UTE	Description
Sussex Inlet	Old Berrara Rd	45509	Lot 14 DP 26636
Sussex Inlet	Old Berrara Rd	86099	Lot 15 DP 658723
Sussex Inlet	108 Old Berrara Rd	96116	Lot 2 DP 1080500
Sussex Inlet	Sussex Inlet Rd	100171	Lot 1 DP 1076384
Tomerong	Cambourne Rd	43747	Lot 38 DP 10814
Tomerong	Cambourne Rd	43748	Lot 39 DP 10814
Tomerong	Cambourne Rd	43751	Lot 34 DP 10814
Tomerong	37 Evelyn Rd	43757	Lot 6 DP 10814
Tomerong	83 Evelyn Rd	43760	Lot 9 DP 10814
Tomerong	Evelyn Rd	43765	Lot14 DP 10814
Tomerong	Evelyn Rd	43766	Lot 15 DP 10814
Tomerong	Evelyn Rd	43767	Lot 16 DP 10814
Tomerong	Evelyn Rd	43776	Lot 45 DP 10814
Tomerong	Evelyn Rd	43779	Lot 75 DP 10814
Tomerong	Parnell Rd	43790	Lot 65 DP 10814
Tomerong	Parnell Rd	43795	Lot 60 DP 10814
Tomerong	Parnell Rd	43801	Lot 53 DP 10814
Tomerong	Parnell Rd	43803	Lot 33 DP 10814
Tomerong	38 Hill St	43811	Lot 50 DP 10814
Woollamia	41 Edendale St East	29062	Lot 198 DP 13768
Woollamia	730 Woollamia Rd	38225	Lot 7 DP 23221
Woollamia	761 Woollamia Rd	38229	Lot 2 DP 9289
Woollamia	Sunnyside Ave	38238	Lot 7 DP 28453
Woollamia	Streamside St	38618	Lot 69A DP 15266
Woollamia	Woollamia Rd	42285	Lot 1 DP 9289

Location	Address	UTE	Description
Woollamia	Woollamia Rd	42289	Lot 11 DP 9289
Woolamia	2 Allora Cl	57022	Lot 5 DP 717481

Schedule 3 - Contribution project rates

Planning Area 1

Project Code	Description	Type	Contribution	Contribution Area
01AREC2006	Northern Shoalhaven Sports Stadium	ET	$ 551.71	01
01AREC3007	Nowra Swimming Pool Expansion (Scenic Drive)	ET	$ 392.73	01
01CARP2002	Berry Town Centre Car Parking (Queen Street)	SP	$ 37,232.56	01
01CARP3001	Nowra car parking (Egans Lane, 8 Lawrence Ave, Collins Way, Bridge Road, Lamonds Lane, 9 Haigh Avenue & 67 Kinghorne Street)	SP	$ 26,278.26	01
01CARP3003	Bomaderry car parking (42-44 Coomea Street)	SP	$ 7,952.64	01
01CARP3004	Kangaroo Valley car parking (169 Moss Vale Road)	SP	$ 3,445.46	01
01CFAC0014	Mundamia URA Community/Childcare Centre	ET	$ 2,458.76	01
01DRAI2003	Illaroo Road Drainage (Judith Drive)	M2	$ 1.15	01
01OREC0014	Mundamia URA - Central Open Space	ET	$ 1,906.59	01
01ROAD0145	Mundamia URA Access Roads	ET	$ 4,693.01	01
01ROAD0146	Mundamia URA Shared Cycle/Pathway - George Evans Road	ET	$ 386.08	01
01ROAD0149	Mundamia URA George Evans and Yalwal Road Intersection Upgrade	ET	$ 1,378.72	01
01ROAD0150	Roundabouts - Yalwal Road/Rannoch Drive and Yalwal Road/Lightwood Drive	ET	$ 918.55	01
01ROAD0152	Traffic signals and associated works at intersection of Albatross / Yalwal Roads.	ET	$ 294.36	01
01ROAD0153	Worrigee URA (Road Widening)	ET	$ 879.53	01
01ROAD2007	Beach & Tannery Road upgrade (Entire road length)	ET	$ 21,040	01
01ROAD2007	Beach & Tannery Road upgrade (Entire road length)	ET	$ 6,601	02
01ROAD2038	Old Southern Road upgrade (For 1km south from Quinns Lane)	ET	$ 1,606.45	01
01ROAD2039	Old Southern Road/Quinn's Lane intersection roundabout	ET	$ 316	01
01ROAD2101	North Nowra Link Road (construct road, bridge and traffic facilities)	ET	$ 3,184.90	01
01ROAD2101	North Nowra Link Road (construct road, bridge and traffic facilities)	ET	$ 2,201.43	02
01ROAD2101	North Nowra Link Road (construct road, bridge and traffic facilities)	ET	$ 4,288.73	03
01ROAD2101	North Nowra Link Road (construct road, bridge and traffic facilities)	ET	$ 7,366.41	04
01ROAD2101	North Nowra Link Road (construct road, bridge and traffic facilities)	ET	$ 5,330.26	05
01ROAD2101	North Nowra Link Road (construct road, bridge and traffic facilities)	ET	$ 6,524.05	06
01ROAD2101	North Nowra Link Road (construct road, bridge and traffic facilities)	ET	`24	07
01ROAD2120	Judith Drive/Page Avenue roundabout	ET	$ 2,793.65	01
01ROAD2120	Judith Drive/Page Avenue roundabout	ET	$ 4,326.39	02
01ROAD2120	Judith Drive/Page Avenue roundabout	ET	$ 1,675.28	03
01ROAD2133	Beach and Tannery Road upgrade (road and bridge) related to quarry works	TO	$ 0.38	01
01ROAD2143	Quinns Lane/Browns Road - link road	ET	$ 2,041.03	01
01ROAD2144	Internal Access Road (adjoining Hillcrest Avenue)	ET	$ 13,564	01
01ROAD3102	Princes Highway - South Nowra (kerb/gutter & acceleration/deceleration lane)	ET	$ 575.97	01
01ROAD3104	Quinns/Old Southern Link (internal service road)	ET	$ 2,215.39	01
01ROAD3105	Quinns/Old Southern Link (construct drainage for internal service road)	ET	$ 1,121.97	01

Planning Area 2

Project Code	Description	Type	Contribution	Contribution Area
02CFAC0001	Callala Bay Community and Child Care Centre (Emmett Street)	ET	$ 295.21	01
02CFAC0004	Culburra Community Centre (proposed Long Bow Point Subdivision)	ET	$ 1,018.68	01
02OREC0005	Land acquisition for passive open space (Proposed Long Bow Point Subdivision - no specific area within development site / contribution area determined)	ET	$ 620.93	01
02ROAD0011	East and West Crescents upgrade (Culburra)	ET	$ 17,226.50	01
02ROAD2007	Development Control Plan 41 Road construction (Callala Bay)	ET	$ 15,963.30	01

Planning Area 3

Project Code	Description	Type	Contribution	Contribution Area
03AREC3003	Bay and Basin Leisure Centre (The Wool Road, Vincentia)	ET	$ 398.12	01
03CARP0004	St Georges Basin Village Centre car parking (Island Point Road)	SP	$ 10,063.04	01
03CARP2002	Huskisson car parking (Owen Street & Huskisson Central Business Area)	SP	$ 15,109.32	01
03CARP3001	Sanctuary Point car parking (Kerry Street)	SP	$ 5,851.29	01
03CFAC3001	Bay & Basin Community Centre and Branch Library	ET	$ 2,898	01
03DRAI2001	St Georges Basin Village Centre Drainage	M2	$ 18	01
03DRAI2001	St Georges Basin Village Centre Drainage	M2	$ 15	02
03DRAI2001	St Georges Basin Village Centre Drainage	M2	$ 11	03
03OREC0009	Land acquisition for passive open space (Pine Forest Road)	ET	$ 2,162.78	01
03OREC0011	Land acquisition for passive open space (Vincentia Expansion Area - no specific area within development site / contribution area determined)	ET	$ 2,845.06	01
03OREC0012	Land acquisition for passive open space (St Georges Basin Village Centre Green)	ET	$ 844.77	01
03ROAD0055	Northern Section of Currambene Street	ET	$ 1,067.09	01
03ROAD0057	Currambene Street Service Lane	ET	$ 4,577.33	01
03ROAD0060	Kent Lane	ET	$ 13,079	01
03ROAD0061	Winnima Lane	ET	$ 14,604	01
03ROAD0062	Unnamed Lane (Huskisson)	ET	$ 14,997	01
03ROAD0115	Sydney/Bowen Streets construction (From Owen to Hawke Streets)	ET	$ 472	01
03ROAD2011	Hart Road bitumen upgrade (Entire road length)	ET	$ 19,936	01
03ROAD2014	Sinclair Road upgrade Parts 1 & 2 (Princes Highway to Hart Road)	ET	$ 9,752.97	01
03ROAD2016	Port Jervis Estate upgrade and seal (Evelyn Rd, Parnell Rd, Cambourne Rd & Hill St)	ET	$ 17,927.90	01
03ROAD2016	Port Jervis Estate upgrade and seal (Evelyn Rd, Parnell Rd, Cambourne Rd & Hill St)	ET	$ 3,805.12	02
03ROAD2019	Tasman Park Estate gravel upgrade (The Wool Rd, The Basin Road & Island Point Rd)	ET	$ 6,735.82	01
03ROAD2023	St. Georges Basin Village access road and traffic facilities	ET	$ 7,514.43	01
03ROAD2025	Basin View Estate gravel upgrade (Sections of Reserve Road, Waterpark, Clarendon Cresent & Riverside Esplanade South)	ET	$ 10,409.78	01
03ROAD2028	Wandean Road upgrade (For 2.05km from Princes Highway)	ET	$ 8,822.63	01
03ROAD2028	Wandean Road upgrade (For 2.05km from Princes Highway)	ET	$ 6,565.66	02
03ROAD2028	Wandean Road upgrade (For 2.05km from Princes Highway)	TO	$ 0.09	03

Project Code	Description	Type	Contribution	Contribution Area
03ROAD2112	Anson Street Extension (St Georges Basin)	ET	$ 2,968.45	01
03ROAD2113	St Georges Basin Village Centre Service Lane (Village Access Road to Island Point Road)	ET	$ 12,154.01	01
03ROAD3021	The Wool Road Bypass	ET	$ 171	01
03ROAD3021	The Wool Road Bypass	ET	$ 1,024	02
03ROAD3021	The Wool Road Bypass	ET	$ 171	03
03ROAD3021	The Wool Road Bypass	ET	$ 407	04

Planning Area 4

Project Code	Description	Type	Contribution	Contribution Area
04AREC2003	Sussex Inlet Aquatics Centre (Thomson Street)	ET	$ 1,567.56	01
04CARP3001	Sussex Inlet car parking (16 Nielson Road & 45-47 Ellmoos Avenue)	SP	$ 7,114.11	01
04CFAC2002	Sussex Inlet Branch Library (Sussex Inlet urban precinct)	ET	$ 244.37	01
04ROAD2003	Medlyn Avenue upgrade (For 750m from The Springs Road)	ET	$ 3,550.99	01
04ROAD2004	Badgee Creek Bridge upgrade (River Road)	ET	$ 2,474.49	01

Planning Area 5

Project Code	Description	Type	Contribution	Contribution Area
05CARP3001	Ulladulla car parking (19 Boree Street & 94-96 St Vincent Street)	SP	$ 19,724.51	01
05CARP3002	Milton car parking (84 Princes Highway)	SP	$ 10,855.94	01
05CFAC0002	Lake Conjola multi-purpose community hall (Lake Conjola Entrance Road)	ET	$ 796.05	01
05CFAC0011	Extension of Manyana Community Hall (Yulunga Drive)(Voluntary Planning Agreement for specific properties)	ET	$ 247.94	01
05CFAC2010	Southern Shoalhaven Branch Library (Ulladulla Town Centre precinct)	ET	$ 498.50	01
05OREC0004	Land acquisition for passive open space (Berringer Road, Manyana - no specific area within development site / contribution area determined)	ET	$ 2,322.46	01
05OREC0007	Land acquisition for passive open space (Lake Conjola Entrance Road, Killarney / Conjola Park)	ET	$ 2,443.71	01
05OREC0017	Land acquisition for passive open space (Dolphin Point Road, Dolphin Point)	ET	$ 2,387.48	01
05OREC0018	Manyana Foreshore facilities upgrade (Voluntary Planning Agreement for specific properties)	ET	$ 104.74	01
05ROAD0063	Construction of roundabout, internal roundabout and link road at Dolphin Point (Princes Highway to Dolphin Point Road)	ET	$ 4,297.92	01
05ROAD0068	Bendalong Road and Inyadda Drive upgrade (Voluntary Planning Agreement for specific properties)	ET	$ 385.33	01
05ROAD0069	Bendalong Road and Inyadda Drive intersection upgrade (Voluntary Planning Agreement for specific properties)	ET	$ 87.28	01
05ROAD2001	Bishop Drive (Matron Porter Drive to Princes Highway)	ET	$ 5,246.25	01
05ROAD2001	Bishop Drive (Matron Porter Drive to Princes Highway)	ET	$ 1,748.76	02
05ROAD2001	Bishop Drive (Matron Porter Drive to Princes Highway)	ET	$ 17,487.50	03
05ROAD2001	Bishop Drive (Matron Porter Drive to Princes Highway)	ET	$ 12,241.24	04
05ROAD2003	Ocean Street / Maisie Williams Drive/ Ilett Street roundabout	ET	$ 580.90	01

05ROAD2003	Ocean Street / Maisie Williams Drive/ Ilett Street roundabout	ET	$ 2,323.61	02
05ROAD2007	Kings Point Drive (For 2kms from Princes Highway)	ET	$ 5,010	01
05ROAD2030	Croobyar Road upgrade (Princes Highway to Corks Lane)	ET	$ 260	01
05ROAD2030	Croobyar Road upgrade (Princes Highway to Corks Lane)	ET	$ 104	02
05ROAD2030	Croobyar Road upgrade (Princes Highway to Corks Lane)	ET	$ 83	03
05ROAD2030	Croobyar Road upgrade (Princes Highway to Corks Lane)	ET	$ 52	04
05ROAD2058	Corks Lane (Princes Highway link road and associated works)	ET	$ 19,985	01
05ROAD2061	Matron Porter Drive (Princes Highway to Leo Drive)	ET	$ 6,944	01
05ROAD2061	Matron Porter Drive (Princes Highway to Leo Drive)	ET	$ 1,751	02
05ROAD2061	Matron Porter Drive (Princes Highway to Leo Drive)	ET	$ 584	03
05ROAD2061	Matron Porter Drive (Princes Highway to Leo Drive)	ET	$ 2,334	04
05ROAD3008	St Vincent Street extensions to Princes Highway & roundabout	ET	$ 4,809	01

Citywide

Project Code	Description	Type	Contribution	Contribution Area
CWCFAC0006	Shoalhaven City Library Extensions (Berry Street, Nowra)	ET	$ 841	01
CWCFAC2002	Shoalhaven Entertainment Centre (Bridge Road, Nowra)	ET	$ 1,460.30	01
CWCFAC2002	Shoalhaven Entertainment Centre (Bridge Road, Nowra)	ET	$ 1,460.30	02
CWCFAC2002	Shoalhaven Entertainment Centre (Bridge Road, Nowra)	ET	$ 953.87	03
CWCFAC2002	Shoalhaven Entertainment Centre (Bridge Road, Nowra)	ET	$ 953.87	04
CWCFAC2002	Shoalhaven Entertainment Centre (Bridge Road, Nowra)	ET	$ 616.86	05
CWFIRE2001	Rural Fire and Emergency Service Plant and Equipment (various locations)	ET	$ 130.93	01
CWFIRE2002	Shoalhaven Fire Control Centre (Albatross Road, Nowra)	ET	$ 191.55	01
CWMGMT3001	Contributions management & administration	ET	$ 544.47	01

Schedule 4 - Development types & land use terms

Table Schedule 4.1 summarises the type of community infrastructure for which contributions are levied for the different development types detailed in this Plan.

Table Schedule 4.1

Community Infrastructure	Development Categories				
	Residential	Tourism	Commercial	Industrial	Miscellaneous/ other forms of development
Active Recreation	♦	♦			To be determined
Car Parking			♦	♦	To be determined
Community facilities	♦				To be determined
Drainage	♦	♦	♦	♦	To be determined
Fire & emergency services	♦	♦	♦	♦	To be determined
Passive recreation	♦	♦			To be determined
Roads & traffic	♦	♦	♦	♦	To be determined

In addition to the above community infrastructure, plan management is levied for all development categories.

Miscellaneous /other forms of development

As detailed in Section 3.7 of this Plan, miscellaneous or other forms of development will be assessed on merit and the development demands created by the proposal. This may require an amendment of this Plan to include additional contribution projects that are required to meet development demands created by the proposal.

A summary of land use and development definitions and their equivalent development categories under this Plan (see above table and Section 3.7 of this Plan) are shown in Table Schedule 4.2 below.

Table Schedule 4.2

Shoalhaven Local Environmental Plan 2014 Land Use Terms		Contributions Rate
(LAND USE terms WITHIN agriculture group term)		
agriculture		Assessed on merit and development demands
aquaculture		Assessed on merit and development demands
extensive agriculture [eg grazing of livestocks etc]		Assessed on merit and development demands
	bee keeping	Assessed on merit and development demands
	dairy (pasture-based)	Assessed on merit and development demands
intensive livestock agriculture [eg poultry farms etc]		Assessed on merit and development demands
	feedlots	Assessed on merit and development demands
	dairies (restricted)	Assessed on merit and development demands
intensive plant agriculture [eg cultivation of irrigated crops]		Assessed on merit and development demands
	horticulture	Assessed on merit and development demands
	turf farming	Assessed on merit and development demands
	viticulture	Assessed on merit and development demands
(LAND USE terms OUTSIDE agriculture group term)		
animal boarding or training establishments		Assessed on merit and development demands
farm buildings		Assessed on merit and development demands
forestry		Assessed on merit and development demands
(LAND USE terms WITHIN residential accommodation group term)		
residential accommodation		Residential
attached dwellings		Residential
boarding houses		Residential
dual occupancies		Residential
	dual occupancies (attached)	Residential
	dual occupancies (detached)	Residential
dwelling houses		Residential
group homes		Residential
	group homes (permanent)	Residential
	group homes (transitional)	Residential
hostels		Tourism
multi dwelling housing		Residential
residential flat buildings		Residential
rural worker's dwellings		Residential
secondary dwellings		Residential
semi-detached dwellings		Residential
seniors housing		See note for "Private residential care facility developments" under Section 3.7 of this Plan
	residential care facilities	See note for "Private residential care facility developments" under Section 3.7 of this Plan
shop top housing		Residential
(LAND USE terms OUTSIDE residential accomodation group term)		
home business		Exempt
home occupations		Exempt
home occupation (sex services)		Assessed on merit and development demands
(LAND USE terms WITHIN tourist and visitor accomodation group term)		
tourist and visitor accommodation		Tourism
backpackers' accommodation		Tourism
bed & breakfast accommodation		Tourism
farm stay accommodation		Tourism
hotel or motel accommodation		Tourism

serviced apartments		Tourism
(LAND USE terms OUTSIDE tourist and visitor accomodation group term)		
camping grounds		Tourism
caravan parks		Tourism
eco-tourist facilities		Tourism
(LAND USE terms WITHIN commercial premises group term)		
commercial premises		**Commercial**
business premises [eg banks, post offices, hairdressers, etc]		**Commercial**
funeral homes		**Commercial**
office premises		Commercial
retail premises		Retail
bulky goods premises		Bulky Goods
cellar door premises		Retail
food & drink premises		Retail
	pubs	Assessed on merit and development demands
	restaurants or cafes	Restaurant
	take-away food & drink premises	Retail
	small bars	Restaurant
garden centres		Bulky Goods
hardware & building supplies		Bulky Goods
kiosks		Retail
landscaping material supplies		Bulky Goods
markets		Retail
plant nurseries		Bulky Goods
roadside stalls		Exempt
rural supplies		Bulky goods
shops		Retail
	neighbourhood shops	Retail
timber yards		Industrial
vehicle sales or hire premises		Assessed on merit and development demands
(LAND USE terms OUTSIDE commercial premises group term)		
amusement centres		Assessed on merit and development demands
entertainment facilities		Assessed on merit and development demands
function centres		Commercial
highway service centres		Retail
industrial retail outlets		Retail
registered clubs		Assessed on merit and development demands
restricted premises		Retail
service stations		Retail
sex services premises		Commercial
veterinary hospitals		Commercial
wholesale supplies		Bulky Goods
(LAND USE terms WITHIN rural industry group term)		
rural industries [eg use of composting facilities and works]		Industrial
agricultural produce industries		Industrial
livestock processing industries		Industrial
sawmill or log processing industries		Industrial
stock & sale yards		Industrial
(LAND USE terms WITHIN industry group term)		
industries		Industrial
heavy industries		Industrial
	hazardous industry	Industrial
	offensive industry	Industrial
light industries		Industrial
	high technology industries	Industrial

home industry	Industrial
general industries	Industrial
(LAND USE terms OUTSIDE industry group term)	
boat building and repair facilities	Assessed on merit and development demands
vehicle body repair workshops	Commercial
vehicle repair stations	Commercial
(LAND USE terms WITHIN heavy industrial storage establishment group term)	
heavy industrial storage establishments	Industrial
hazardous storage establishments	Industrial
liquid fuel depots	Industrial
offensive storage establishments	Industrial
(LAND USE terms WITHIN storage premises group term)	
storage premises	Industrial
self storage units	Industrial
(LAND USE terms OUTSIDE storage premises group term)	
depots	Industrial
warehouse or distribution centres	Industrial
(LAND USE terms WITHIN sewerage system group term)	
sewerage systems	Exempt
biosolids treatment facilities	Assessed on merit and development demands
sewage reticulation systems	Exempt
sewage treatment plants	Assessed on merit and development demands
water recycling facilities	Assessed on merit and development demands
(LAND USE terms WITHIN waste or resource management facility group term)	
waste or resource management facilities	Assessed on merit and development demands
resource recovery facilities	Assessed on merit and development demands
waste disposal facilities	Assessed on merit and development demands
waste or resource transfer stations	Assessed on merit and development demands
(LAND USE terms WITHIN water supply system group term)	
water supply systems	Exempt
water reticulation systems	Exempt
water storage facilities	Assessed on merit and development demands
water treatment facilities	Assessed on merit and development demands
(LAND USE terms WITHIN air transport facility group term)	
air transport facilities	Assessed on merit and development demands
airport	Assessed on merit and development demands
heliport	Assessed on merit and development demands
(LAND USE terms OUTSIDE air transport facility group term)	
airstrip	Assessed on merit and development demands
helipad	Assessed on merit and development demands
(Other LAND USE terms relating to infrastructure)	
car parks	Exempt if done by or on behalf of Council. Included in industrial landscape calculations.
electricity generating works	Assessed on merit and development demands
freight transport facilities	Assessed on merit and development demands
passenger transport facilities	Commercial
port facilities	Assessed on merit and development demands
roads	Community Infrastructure
transport depots	Industrial
truck depots	Industrial
wharf or boating facilities	Assessed on merit and development demands
(LAND USE terms WITHIN educational establishment group term)	
educational establishments [eg TAFE establishment etc]	Assessed on merit and development demands
schools	Assessed on merit and development demands
(LAND USE terms WITHIN health services facility group term)	

health services facilities	Commercial - Office
hospitals	Commercial - Office
medical centres	Commercial - Office
health consulting rooms	Commercial - Office
(Other LAND USE terms relating to community infrastructure)	
early education & care facilities	Assessed on merit and development demands
centre-based child care facilities	Assessed on merit and development demands
home-based child care	Exempt
school-based child care	Assessed on merit and development demands
community facilities	Exempt if provided by Council or State Government
correctional centres	Assessed on merit and development demands
emergency services facilities	Assessed on merit and development demands
industrial training facilities	Industrial
information and education facilities	Commercial - Office
places of public worship	Assessed on merit and development demands
public administration building	Commercial - Office
research stations	Assessed on merit and development demands
respite day care centres	Commercial - Office
(LAND USE terms WITHIN signage group term)	
signage	Exempt
advertising structure	Exempt
building identification sign	Exempt
business identification sign	Exempt
(LAND USE terms relating to recreation)	
boat launching ramps	Assessed on merit and development demands
boat sheds	Assessed on merit and development demands
charter & tourism boating facilities	Commercial
environmental facilities	Assessed on merit and development demands
jetties	Assessed on merit and development demands
marinas	Assessed on merit and development demands
mooring	Assessed on merit and development demands
mooring pens	Assessed on merit and development demands
recreation areas	Assessed on merit and development demands
recreation facilities (indoor)	Assessed on merit and development demands
recreation facilities (major)	Assessed on merit and development demands
recreation facilities (outdoor)	Assessed on merit and development demands
water recreation structures	Assessed on merit and development demands
(Other miscellaneous LAND USE terms)	
cemetery	Assessed on merit and development demands
crematorium	Assessed on merit and development demands
environmental protection works	Exempt
exhibition homes	Residential + Commercial component
exhibition villages	Residential + Commercial component
extractive industries	Industrial
flood mitigation works	Exempt
mortuaries	Assessed on merit and development demands
open cut mining	Assessed on merit and development demands

Schedule 5 – Indexation rates summary

As detailed in Section 4.9 of this Plan, all the following percentages and CPI numbers have been rounded and therefore can be used for indicative estimates only.

Indexation rate used from July 2011

Consumer Price Index (All Groups Index) for Sydney		
Date	**Percentage**	**CPI Number**
1 July 2017	2.40%	111.3 (March 2017)
1 July 2016	1.30%	108.7 (March 2016)
1 July 2015	1.61%	107.3 (March 2015)
1 July 2014	2.82%	105.6 (March 2014)
1 July 2013	2.8%	102.7 (March 2013)
1 July 2012	1.65%	178.8 (March 2012)
1 July 2011	3.17%	175.9 (March 2011)

Schedule 6 - Projects exempt from residential cap

In accordance with Section 4.2 of this Plan, when the following projects are included in the total contributions payable to Council for a residential development they have approval from the Minister of Planning to exceed the residential developmental cap.

Project Code	Description	Type	Contribution	Contribution Area
03ROAD2011	Hart Road bitumen upgrade (Entire road length)	ET	$19,936	01

Schedule 7 – Land Acquisition

Note: website to include interactive map identifying land to be acquired and relevant project.

Project Code	Description
01CARP2002	Berry Town Centre Car Parking (Queen Street)
01CARP3001	Nowra car parking (Egans Lane, 8 Lawrence Ave, Collins Way, Bridge Road, Lamonds Lane, 9 Haigh Avenue & 67 Kinghorne Street)
01DRAI0005	Hillcrest Avenue Drainage (Hillcrest Avenue, South Nowra)
01OREC0009	Land acquisition for passive open space (Princes Highway, Berry)
01OREC0011	Land acquisition for passive open space (Falcon Crescent, North Nowra - no specific area within development site / contribution area determined)
01OREC0013	Land acquisition for passive open space (Old Southern Road, Worrigee)
01OREC0014	Mundamia URA - Central Open Space
01ROAD0145	Mundamia URA Access Roads
01ROAD2143	Quinns Lane/Browns Road - link road (South Nowra)
01ROAD2144	Internal Access Road (adjoining Hillcrest Avenue, South Nowra)
01ROAD3104	Quinns/Old Southern Link, South Nowra (internal service road)
02CFAC0004	Culburra Community Centre (proposed Long Bow Point Subdivision)
02OREC0005	Land acquisition for passive open space – Culburra Beach (Proposed Long Bow Point Subdivision - no specific area within development site / contribution area determined)
03CARP0004	St Georges Basin Village Centre car parking (Island Point Road)
03CFAC3001	Bay & Basin Community Centre and Branch Library
03ROAD0057	Currambene Street Service Lane, Huskisson
03ROAD0061	Winnima Lane, Huskisson
03ROAD2023	St. Georges Basin Village access road and traffic facilities
03ROAD2113	St Georges Basin Village Centre Service Lane (Village Access Road to Island Point Road)
04CARP3001	Sussex Inlet car parking (16 Nielson Road & 45-47 Ellmoos Avenue)
05OREC0004	Land acquisition for passive open space (Berringer Road, Manyana - no specific area within development site / contribution area determined)
05OREC0007	Land acquisition for passive open space (Lake Conjola Entrance Road, Killarney / Conjola Park)
05OREC0017	Land acquisition for passive open space (Dolphin Point Road, Dolphin Point)
05ROAD2001	Bishop Drive, Mollymook (Matron Porter Drive to Princes Highway)
05ROAD2058	Corks Lane, Milton (Princes Highway link road and associated works)

Schedule 8 - Inactive projects

The following contribution projects, as detailed in Section 4.11 of this Plan, are inactive projects and require payment of contributions based on past conditions of consent that may still be outstanding.

The column with the heading "Contribution" refers to the contribution rate that is current as per the current financial year for the relevant contribution area (i.e. some contribution projects may have more than one contribution area).

Note: Projects proposed to be deleted will be included in this list for exhibition.

Project Code	Description	Type	Contribution	Contribution Area
01AREC0001	Tennis, Football,Cricket (Area 1)	ET	$ 2,942.42	01
01AREC0001	Tennis, Football,Cricket (Area 1)	ET	$ 2,674.95	1A
01AREC0001	Tennis, Football,Cricket (Area 1)	ET	$ 2,857.26	1B
01AREC0001	Tennis, Football,Cricket (Area 1)	ET	$ 2,593.72	1C
01AREC0001	Tennis, Football,Cricket (Area 1)	ET	$ 2,829.49	1D
01AREC0001	Tennis, Football,Cricket (Area 1)	ET	$ 2,835.43	1E
01AREC0001	Tennis, Football,Cricket (Area 1)	ET	$ 2,589.74	1F
01AREC0001	Tennis, Football,Cricket (Area 1)	ET	$ 2,591.70	1G
01AREC0002	Basketball & Netball (Areas 1 & 2)	ET	$ 590.47	01
01AREC0002	Basketball & Netball (Areas 1 & 2)	ET	$ 536.93	1A
01AREC0002	Basketball & Netball (Areas 1 & 2)	ET	$ 572.62	1B
01AREC0002	Basketball & Netball (Areas 1 & 2)	ET	$ 519.15	1C
01AREC0002	Basketball & Netball (Areas 1 & 2)	ET	$ 566.70	1D
01AREC0002	Basketball & Netball (Areas 1 & 2)	ET	$ 568.69	1E
01AREC0002	Basketball & Netball (Areas 1 & 2)	ET	$ 519.15	1F
01AREC0002	Basketball & Netball (Areas 1 & 2)	ET	$ 519.15	1G
01AREC0002	Basketball & Netball (Areas 1 & 2)	ET	$ 467.61	1H
01AREC0002	Basketball & Netball (Areas 1 & 2)	ET	$ 420.06	1I
01AREC0002	Basketball & Netball (Areas 1 & 2)	ET	$ 431.94	1J

Project Code	Description	Type	Contribution	Contribution Area
01AREC0002	Basketball & Netball (Areas 1 & 2)	ET	$ 556.78	1K
01CFAC0001	Multi Purpose Child Care Centre North Nowra	ET	$ 206.14	01
01CFAC0004		ET	$ 112.93	01
01CFAC0006	Multi Purpose Child Care Centre East Nowra	ET	$ 215.97	01
01CFAC0009	Long-Day Child Care Centre Bomaderry	ET	$ 43.67	01
01CFAC0010	Community Centre: Toilets/Car Parking Bomaderry	ET	$ 65.50	01
01CFAC0011	Shoalhaven Heads Home and Community Care Centre (Shoalhaven Heads Road)	ET	$ 81.26	01
01FIRE0001	Falls Creek - Fire Control	ET	$ 225.88	01
01FIRE0002	Illaroo - Fire Control	ET	$ 59.43	01
01FIRE0003	Greenwell Point - Fire Control	ET	$ 237.76	01
01FIRE0004	Cambewarra - Fire Control	ET	$ 190.22	01
01FIRE0005	Kangaroo Valley - Fire Control	ET	$ 372.51	01
01FIRE0006	Beaumont - Fire Control	ET	$ 382.42	01
01FIRE0007	Shoalhaven Heads - Fire Control	ET	$ 85.20	01
01FIRE0008	Broughton Vale/Berry - Fire Control	ET	$ 180.31	01
01FIRE0009	City Wide - Fire Control/State Emergency Services	ET	$ 41.64	01
01FIRE0010	Nowra - Fire Control	ET	$ 5.93	01
01OREC0001	North Nowra Passive Open Space	ET	$ 253.97	01
01OREC0002	Bomaderry Passive Open Space	ET	$ 211.80	01
01OREC0003	Nowra Passive Open Space	ET	$ 300.24	01
01OREC0004	Greenwell Point Open Space	ET	$ 959.01	01
01OREC0005	Kangaroo Valley Open Space	ET	$ 2,490.70	01
01OREC0006	Berry Open Space	ET	$ 5,444.98	01

Project Code	Description	Type	Contribution	Contribution Area
01OREC0007	Shoalhaven Heads Open Space	ET	$ 4,430.50	01
01OREC0008	Cambewarra Open Space	ET	$ 461.68	01
01ROAD0001	Bryces Road & Back Forest Road - Upgrade & Seal	ET	$ 18,855.49	01
01ROAD0002	OKeefes Lane - Upgrade Gravel Pavement	ET	$ 4,957.58	01
01ROAD0003	Mullers Lane - Upgrade Culvert & Gravel Pavement	ET	$ 7,291.72	01
01ROAD0004	Austral Park Road - Upgrade Gravel Pavement	ET	$ 1,081.87	01
01ROAD0005	Agars Lane - Upgrade & Seal	ET	$ 7,287.76	01
01ROAD0006	Wire Lane (Sth) - Upgrade Gravel Pavement	ET	$ 2,558.02	01
01ROAD0008	Turners Lane - Upgrade Gravel Pavement	ET	$ 2,976.12	01
01ROAD0009	Morschels Lane - Upgrade Gravel Pavement	ET	$ 1,791.21	01
01ROAD0010	Lamonds Lane - Upgrade Gravel Pavement	ET	$ 3,954.96	01
01ROAD0011	Fletchers Lane - Upgrade Gravel Pavement	ET	$ 3,344.69	01
01ROAD0012	Pestells Lane - Upgrade Gravel Pavement	ET	$ 2,589.74	01
01ROAD0013	Grahams Road - Upgrade & Seal	ET	$ 2,912.73	01
01ROAD0014	Devitts Lane - Upgrade Gravel Pavement	ET	$ 5,153.73	01
01ROAD0015	Strongs Road - Upgrade & Seal & Upgrade Culvert (Part)	ET	$ 11,674.71	01
01ROAD0016	Schofields Lane - Upgrade Gravel Pavement	ET	$ 2,328.22	01
01ROAD0017	Croziers Road - Upgrade Bridge	ET	$ 32,452.15	01
01ROAD0018	Croziers Road - Upgrade Gravel Pavement	ET	$ 3,128.71	01
01ROAD0019	Bong Bong Road - Upgrade & Seal (Part)	ET	$ 6,392.15	01
01ROAD0020	Bundewallah Road - Upgrade Gravel Pavement	ET	$ 1,822.94	01
01ROAD0021	Irvines Road - Upgrade Gravel Pavement	ET	$ 3,057.37	01

Project Code	Description	Type	Contribution	Contribution Area
01ROAD0024	Taylors Lane - Upgrade Gravel Pavement	ET	$ 1,886.34	01
01ROAD0029	Old Boxsells Road - Upgrade Gravel Pavement	ET	$ 1,898.23	01
01ROAD0030	Oceanview Road - Upgrade Gravel Pavement	ET	$ 6,451.59	01
01ROAD0031	Tannery Road - Upgrade & Seal	ET	$ 12,318.64	01
01ROAD0032	Barfield Road - Upgrade Gravel Pavement	ET	$ 2,353.95	01
01ROAD0033	Main Road - Upgrade Pavement West of Bangalee Road	ET	$ 4,012.43	01
01ROAD0034	Main Road - Upgrade Timber Bridge	LS	$ 175,833.23	01
01ROAD0035	Hillcrest Ave - Improvements, including Upgrading Hwy Intn	ET	$ 198.17	01
01ROAD0035	Hillcrest Ave - Improvements, including Upgrading Hwy Intn	ET	$ 106.98	02
01ROAD0036	Greenwell Point Rd / Worrigee Rd - Upgrade Intersection	ET	$ 324.96	01
01ROAD0036	Greenwell Point Rd / Worrigee Rd - Upgrade Intersection	ET	$ 150.59	02
01ROAD0037	Old Southern Rd - Upgrade & Seal, Hillcrest Ave - Greenwell Pt Rd	ET	$ 503.28	01
01ROAD0037	Old Southern Rd - Upgrade & Seal, Hillcrest Ave - Greenwell Pt Rd	ET	$ 1,022.44	02
01ROAD0041	Tullouch Rd - Upgrade Gravel Pavement	ET	$ 3,144.58	01
01ROAD0044	Wattamolla Rd (1) - Strengthen Pavement	ET	$ 390.34	01
01ROAD0046	Wattamolla Rd (3)-Strengthen Pavement	ET	$ 576.57	01
01ROAD0047	Foremans Rd - Upgrade Gravel Pavement	ET	$ 4,327.46	01
01ROAD0048	Priddles Lane - Upgrade Gravel Pavement	ET	$ 963.00	01
01ROAD0050	T-Junction Wattamolla/Brogers Creek/Woodhill Mt Rd - Upgrade Intersection	ET	$ 1,749.63	01

Project Code	Description	Type	Contribution	Contribution Area
01ROAD0051	Kangaroo Valley Rd - Strengthen Pavement Sh1 to Bundewalla Rd (1.6km)	ET	$ 1,242.37	01
01ROAD0052	Tourist Road - Upgrade & Seal	ET	$ 4,894.21	01
01ROAD0055	Gerringong Creek Bridge - Construct Bridge	ET	$ 25,608.20	01
01ROAD0056	Gerringong Ck Rd-Upgrade Grav Pvt,Gerrgong Ck Br-Kings Ck	ET	$ 1,081.87	01
01ROAD0057	Kings Ck Bridge - Gerringong Ck Rd - Construct Bridge	ET	$ 53,114.64	01
01ROAD0058	Gerringong Ck Rd - Upgrade Grav Pavt - Kings Ck Br to end Rd	ET	$ 1,495.98	01
01ROAD0059	Kellys Road - Upgrade Gravel Pavement	ET	$ 6,530.86	01
01ROAD0060	Battys Road - Upgrade Gravel Pavement	ET	$ 6,925.14	01
01ROAD0061	Jarretts Road - Upgrade Gravel Pavement	ET	$ 1,848.69	01
01ROAD0062	Scotts Road- Upgrade Gravel Pavement	ET	$ 1,161.13	01
01ROAD0063	Mackays Road Upgrade Gravel Pavement	ET	$ 5,574.46	01
01ROAD0065	Upper River Rd-Upgrade Grav Pvt Township-Scotts Rd Hmix 100m	ET	$ 3,501.21	01
01ROAD0066	Upper River Rd - Upgrade Grav pavt (Scotts Rd to bend)	ET	$ 30,294.36	01
01ROAD0069	Glenmurray Rd - Upgrade Gravel Pavement	ET	$ 6,746.82	01
01ROAD0070	Bunkers Hill Road:Upgrade Pavement & Culvert	ET	$ 35,183.48	01
01ROAD0076	Main and Tapitallee Roads - Strengthen Pavement	ET	$ 3,276.85	01
01ROAD0084	Yalwal Road - Const.Calymea Crk Br & Upgrade Approa	ET	$ 2,397.55	01
01ROAD0086	Yalwal Rd-Upgrd Grav Pav 1k from Burrier Rd-Danjera Dam(16k)	ET	$ 17,347.54	01

Project Code	Description	Type	Contribution	Contribution Area
01ROAD0087	Upgrade Grav Pavt from Yalwal Rd-Burrier Quarry	ET	$ 3,501.21	01
01ROAD0088	Wogamia Rd - Upgrade Gravel Pavement	ET	$ 9,499.05	01
01ROAD0089	Yerriyong Rd - Upgrade Gravel Pavement	ET	$ 10,997.06	01
01ROAD0092	Hames Rd - Upgrade Gravel Pavement	ET	$ 8,084.34	01
01ROAD0094	Mulgen Creek Crossing (DCP34) - Construct Culvert	ET	$ 717.27	01
01ROAD0095	Braidwood Rd - (Albatross - Hames Rd) Upgrade & Seal	ET	$ 9,992.43	01
01ROAD0097	Mayfield Road - Replace Bridge	ET	$ 14,203.02	01
01ROAD0097	Mayfield Road - Replace Bridge	ET	$ 7,101.50	02
01ROAD0098	Springbank Road - Replace Bridge	ET	$ 9,736.84	01
01ROAD0122	Abernethys Road - Upgrade Gravel Pavement	ET	$ 13,481.54	01
01ROAD0123	Mt Scanzi Road - Upgrade Gravel Pavement	ET	$ 5,839.64	01
01ROAD0130	Chalmers Road	ET	$ 18,833.73	01
01ROAD2068	Green Valley Road gravel upgrade (For 2.4kms from Moss Vale Road)	ET	$ 35,364.61	01
01ROAD2072	Graham's Road / unnamed road gravel upgrade (For 2.5kms from Moss Vale Road)	ET	$ 26,919.80	01
01ROAD2077	Selby's Road gravel upgrade (For 700ms from Bugong Road)	ET	$ 14,322.04	01
01ROAD2078	Lower Bugong Road gravel upgrade (For 3.65kms from Bugong Road)	ET	$ 35,559.33	01
01ROAD2079	Lower Bundanon Road gravel upgrade	ET	$ 56,506.05	01

Project Code	Description	Type	Contribution	Contribution Area
01ROAD2081	Hughes Road gravel upgrade (For 3.5km from Illaroo Road)	ET	$ 42,121.07	01
01ROAD2126	Nowra Central Business District traffic facility upgrades (various locations)	LS	$ 163,217.56	01
01ROAD2126	Nowra Central Business District traffic facility upgrades (various locations)	LS	$ 414,547.87	02
01ROAD2127	Moss Vale Road/Carters Road intersection upgrade	ET	$ 2,929.70	01
01ROAD3141	Central Avenue/Princes Highway roundabout	ET	$ 23.96	01
01ROAD3141	Central Avenue/Princes Highway roundabout	ET	$ 95.81	02
01ROAD3141	Central Avenue/Princes Highway roundabout	ET	$ 95.81	03
02AREC0001	Tennis, Football & Cricket (Area 2)	ET	$ 1,432.55	01
02AREC0001	Tennis, Football & Cricket (Area 2)	ET	$ 1,135.35	1A
02AREC0001	Tennis, Football & Cricket (Area 2)	ET	$ 1,020.47	1B
02AREC0001	Tennis, Football & Cricket (Area 2)	ET	$ 1,052.15	1C
02AREC0001	Tennis, Football & Cricket (Area 2)	ET	$ 1,351.33	1D
02CARP2001	Culburra car park	SP	$ 6,588.39	01
02CFAC0002	Culburra Community Centre	ET	$ 575.57	01
02CFAC0003	Culburra Home & Community Care Centre	ET	$ 54.70	01
02FIRE0001	Callala - fire control	ET	$ 200.12	01
02FIRE0002	Culburra - fire control	ET	$ 59.43	01
02FIRE0003	Currarong - fire control	ET	$ 356.68	01
02FIRE0004	Const. Fire Radiation Zone Buffer in DCP41 Area	ET	$ 1,925.98	01
02OREC0001	Culburra passive open space	ET	$ 992.68	01
02OREC0002	Callala Bay passive open space	ET	$ 828.24	01
02OREC0003	Callala Beach/Myola pasive open space	ET	$ 3,540.85	01

Project Code	Description	Type	Contribution	Contribution Area
02OREC0004	Currarong passive open space	ET	$ 3,501.18	01
02OREC0006	Culburra Beach Expansion Area - Access Road Buffer	ET	$ 8.51	01
02OREC0007	Culburra Beach Expansion Area - Local Playgrounds	LS	$ 119,988.13	01
02ROAD0006	Coonemia Rd - Replace Bridge	ET	$ 178.30	01
02ROAD0006	Coonemia Rd - Replace Bridge	ET	$ 148.62	02
02ROAD0008	Culburra Link Road	ET	$ 940.65	01
02ROAD0008	Culburra Link Road	ET	$ 940.65	02
02ROAD0009	Culburra link Road Land	ET	$ 22.76	01
02ROAD0010	Wollumboola Subdivision - Gravel Access Roads	ET	$ 3,659.54	01
02ROAD0010	Wollumboola Subdivision - Gravel Access Roads	ET	$ 11,887.19	02
02ROAD0010	Wollumboola Subdivision - Gravel Access Roads	ET	$ 14,123.77	03
02ROAD0010	Wollumboola Subdivision - Gravel Access Roads	ET	$ 31,007.72	04
02ROAD0010	Wollumboola Subdivision - Gravel Access Roads	ET	$ 132,608.89	05
02ROAD0010	Wollumboola Subdivision - Gravel Access Roads	ET	$ 8,461.15	06
02ROAD0010	Wollumboola Subdivision - Gravel Access Roads	ET	$ 12,560.34	07
02ROAD0010	Wollumboola Subdivision - Gravel Access Roads	ET	$ 13,607.48	08
02ROAD0010	Wollumboola Subdivision - Gravel Access Roads	ET	$ 72,494.32	09
03AREC0001	Tennis, Football, Cricket, Basketball & Netball (Area 3)	ET	$ 3,128.70	01

Project Code	Description	Type	Contribution	Contribution Area
03AREC0001	Tennis, Football, Cricket, Basketball & Netball (Area 3)	ET	$ 2,530.28	1A
03AREC0001	Tennis, Football, Cricket, Basketball & Netball (Area 3)	ET	$ 2,130.04	1B
03AREC0001	Tennis, Football, Cricket, Basketball & Netball (Area 3)	ET	$ 2,482.71	1C
03AREC0001	Tennis, Football, Cricket, Basketball & Netball (Area 3)	ET	$ 2,906.75	1D
03AREC0001	Tennis, Football, Cricket, Basketball & Netball (Area 3)	ET	$ 2,867.16	1E
03CFAC0003	Bay and Basin District Recreational & Cultural Hall	ET	$ 22.14	01
03CFAC0004	Huskisson/Vincentia H&CC Centre	ET	$ 209.57	01
03CFAC0005	St Georges Basin District H&CC Centre	ET	$ 116.81	01
03FIRE0001	St Georges Basin - fire control	ET	$ 103.06	01
03FIRE0002	Sanctuary Point - fire control	ET	$ 51.50	01
03FIRE0003	Wandandian - fire control	ET	$ 396.27	01
03FIRE0004	Tomerong - fire control	ET	$ 426.02	01
03FIRE0005	Erowal Bay - fire control	ET	$ 219.92	01
03FIRE0006	Hyams Beach - fire control	ET	$ 350.74	01
03FIRE0007	Huskisson / Vinentia Bushfire Control	ET	$ 129.46	01
03OREC0001	Huskisson passive open space	ET	$ 4,174.90	01
03OREC0002	Erowal Bay/Wrights Beach passive open space	ET	$ 2,524.36	01
03OREC0003	Sanctuary Point passive open space	ET	$ 2,171.65	01
03OREC0004	St.Georges Basin passive open space	ET	$ 3,251.57	01
03OREC0005	Basin View passive open space	ET	$ 1,900.22	01
03OREC0006	Vincentia expansion area passive open space	ET	$ 275.73	01

Project Code	Description	Type	Contribution	Contribution Area
03OREC0007	Hyams Beach passive open space	ET	$ 420.06	01
03OREC0008	Old Erowal Bay passive open space	ET	$ 1,769.44	01
03OREC0010	Bewong/Wandandian passive open space	ET	$ 1,717.89	01
03ROAD0002	Fall Road-Upgrade 800m Gravel Pavement from Hwy	ET	$ 5,353.29	01
03ROAD0003	Falls Road-Upgrade 450x6m Gravel Pavement	ET	$ 2,163.74	01
03ROAD0004	Edendale St - Upgrade Gravel Pavement	ET	$ 1,692.13	01
03ROAD0005	Willowford Rd - Upgrade Gravel Pavement	ET	$ 7,917.84	01
03ROAD0006	Jevis Bay/The Wool Road Roundabout	ET	$ 88.43	01
03ROAD0007	Jervis Bay Road-Strengthen Pavement for 1km	ET	$ 39.83	01
03ROAD0008	The Wool Road-CH100	ET	$ 41.91	01
03ROAD0009	Watt Rd (Pt2) - Upgrade & Seal	ET	$ 14,625.08	01
03ROAD0010	Willowgreen Rd - Upgrade & Seal	ET	$ 4,878.36	01
03ROAD0012	Sinclair Rd - Upgrade Gravel Pavement (Pt4)	ET	$ 33,274.46	01
03ROAD0015	Sinclair Rd - Upgrade & Seal (Pt1)	ET	$ 2,577.87	01
03ROAD0017	Suffolk Rd - Upgrade Gravel Pavement	ET	$ 2,970.20	01
03ROAD0018	Andrews Rd - Upgrade Gravel Pavement	ET	$ 2,595.69	01
03ROAD0020	Railway Road (Gumden Lane) - Upgrade Gravel Pavement	ET	$ 4,210.58	01
03ROAD0026	Wool Road Ch 350 - 700 (from SH1) - Strengthen Pavement	ET	$ 132.76	01
03ROAD0027	Bollerong Rd - Upgrade and Seal Pavement	ET	$ 32,688.38	01
03ROAD0027	Bollerong Rd - Upgrade and Seal Pavement	ET	$ 22,739.77	02

Project Code	Description	Type	Contribution	Contribution Area
03ROAD0029	Tolwong Rd - Upgrade Gravel Pavement	ET	$ 27,068.54	01
03ROAD0030	Touga Rd - (Touga - Tolwong Rd) Upgrade Gravel Pavement	ET	$ 29,636.52	01
03ROAD0031	Touga Rd (Tolwong - TR92) Upgrade Gravel Pavement	ET	$ 7,573.08	01
03ROAD0032	Douglas Paddock Rd - Upgrade Gravel Pavement	ET	$ 28,740.89	01
03ROAD2033	Naval College Road realignment and construction	ET	$ 1,985.97	01
04AREC0001	Tennis, Football, Cricket & netball (Area 4)	ET	$ 2,203.37	01
04AREC0001	Tennis, Football, Cricket & netball (Area 4)	ET	$ 1,735.72	1A
04AREC0001	Tennis, Football, Cricket & netball (Area 4)	ET	$ 1,553.44	1B
04AREC0001	Tennis, Football, Cricket & netball (Area 4)	ET	$ 1,822.94	1C
04FIRE0001	Sussex Inlet - fire control	ET	$ 103.06	01
04OREC0001	Sussex Inlet passive open space	ET	$ 2,042.85	01
04OREC0002	Berrara / Cudmirrah / Swan Lake Passive Open Space	ET	$ 2,734.39	01
05AREC0001	Tennis, Football, Cricket & Netball (Area 5)	ET	$ 2,373.80	01
05AREC0001	Tennis, Football, Cricket & Netball (Area 5)	ET	$ 1,551.49	1A
05AREC0001	Tennis, Football, Cricket & Netball (Area 5)	ET	$ 1,830.89	1B
05AREC0001	Tennis, Football, Cricket & Netball (Area 5)	ET	$ 2,003.26	1C
05AREC0001	Tennis, Football, Cricket & Netball (Area 5)	ET	$ 1,878.39	1D
05AREC0001	Tennis, Football, Cricket & Netball (Area 5)	ET	$ 1,644.60	1E
05AREC0001	Tennis, Football, Cricket & Netball (Area 5)	ET	$ 2,054.78	1F
05CFAC0004	West Ulladulla Community Hall	ET	$ 835.89	01
05CFAC0005		ET	$ 346.73	01

Project Code	Description	Type	Contribution	Contribution Area
05CFAC2007	Southern Shoalhaven District Childrens Services Centre	ET	$ 70.33	01
05CFAC2008	Ulladulla District H&CC Centre	ET	$ 18.09	01
05DRAI0001	Princes Highway Drainage - Construct Drainage Pipeline	M2	$ 3.97	01
05DRAI0003	St Vincent St South of Deering St Drainage	M2	$ 5.94	01
05DRAI0004	Interallotment Drainage Deering St	M2	$ 5.94	01
05DRAI0006	Drainage of Land off Princes Hway	M2	$ 7.95	01
05DRAI0007	Drainage of Land off Princes Highway	M2	$ 5.94	01
05DRAI0008	Drainage of Land off Princes Highway	M2	$ 7.95	01
05DRAI0011	North Street Drainage	M2	$ 3.97	01
05DRAI0013	South St/Burrill St/Jubilee Av Drainage	M2	$ 3.97	01
05DRAI2002	Camden & Deering Streets interallotment drainage	M2	$ 5.99	01
05DRAI2009	Boree Street drainage	M2	$ 4.36	01
05DRAI2010	Kingsley Avenue drainage	M2	$ 5.28	01
05DRAI2012	St. Vincent Street drainage	M2	$ 6.65	01
05FIRE0001	Depot Beach - fire control	ET	$ 616.24	01
05FIRE0002	Bawley Point - fire control	ET	$ 186.23	01
05FIRE0003	Lake Tabourie - fire control	ET	$ 126.82	01
05FIRE0005	Lake Conjola - fire control	ET	$ 380.44	01
05FIRE0006	Fishermans Paradise - fire control	ET	$ 259.55	01
05FIRE0007	Cunjarong Point/Bendalong - fire control	ET	$ 194.17	01
05FIRE0008	Milton/Ulladulla - fire control	ET	$ 9.89	01
05FIRE2004	Milton/Ulladulla - fire control	ET	$ 122.61	01
05MGMT2001	Ulladulla Town Centre supporting studies	ET	$ 114.36	01

Project Code	Description	Type	Contribution	Contribution Area
05OREC0001	Narrawallee / Mollymook passive open space	ET	$ 387.97	01
05OREC0002	Ulladulla passive open space	ET	$ 712.14	01
05OREC0003	Bendalong / North Bendalong passive open space	ET	$ 3,303.07	01
05OREC0005	Fishermans Paradise passive open space	ET	$ 2,074.58	01
05OREC0006	Kings Point passive open space	ET	$ 2,550.11	01
05OREC0008	Lake Conjola	ET	$ 2,833.47	01
05OREC0009	Milton passive open space	ET	$ 4,032.24	01
05OREC0010	Burrill Lake / Dolphin Point passive open space	ET	$ 3,249.60	01
05OREC0011	Lake Tabourie passive open space	ET	$ 1,999.26	01
05OREC0012	Bawley Point passive open space	ET	$ 2,883.01	01
05OREC0013	Kioloa passive open space	ET	$ 2,627.39	01
05OREC0014	West Lake Conjola	ET	$ 223.90	01
05ROAD0002	Ocean Street Link to Princes Highway	ET	$ 455.72	01
05ROAD0002	Ocean Street Link to Princes Highway	ET	$ 828.24	02
05ROAD0002	Ocean Street Link to Princes Highway	ET	$ 1,034.28	03
05ROAD0002	Ocean Street Link to Princes Highway	ET	$ 206.06	04
05ROAD0004	Princes Hwy/Village Dr - Upgrade Intersection	ET	$ 275.42	01
05ROAD0004	Princes Hwy/Village Dr - Upgrade Intersection	ET	$ 85.20	02
05ROAD0004	Princes Hwy/Village Dr - Upgrade Intersection	ET	$ 51.51	03
05ROAD0004	Princes Hwy/Village Dr - Upgrade Intersection	ET	$ 57.44	04
05ROAD0004	Princes Hwy/Village Dr - Upgrade Intersection	ET	$ 39.66	05
05ROAD0004	Princes Hwy/Village Dr - Upgrade Intersection	ET	$ 51.51	06
05ROAD0004	Princes Hwy/Village Dr - Upgrade Intersection	ET	$ 55.49	07
05ROAD0005	Village Dr/North St Intersection - Provide Roundabout	ET	$ 93.13	01

Project Code	Description	Type	Contribution	Contribution Area
05ROAD0005	Village Dr/North St Intersection - Provide Roundabout	ET	$ 210.03	02
05ROAD0005	Village Dr/North St Intersection - Provide Roundabout	ET	$ 291.28	03
05ROAD0005	Village Dr/North St Intersection - Provide Roundabout	ET	$ 116.92	04
05ROAD0005	Village Dr/North St Intersection - Provide Roundabout	ET	$ 136.71	05
05ROAD0005	Village Dr/North St Intersection - Provide Roundabout	ET	$ 194.17	06
05ROAD0005	Village Dr/North St Intersection - Provide Roundabout	ET	$ 116.92	07
05ROAD0005	Village Dr/North St Intersection - Provide Roundabout	ET	$ 130.79	08
05ROAD0005	Village Dr/North St Intersection - Provide Roundabout	ET	$ 136.71	09
05ROAD0005	Village Dr/North St Intersection - Provide Roundabout	ET	$ 59.45	10
05ROAD0005	Village Dr/North St Intersection - Provide Roundabout	ET	$ 55.49	11
05ROAD0005	Village Dr/North St Intersection - Provide Roundabout	ET	$ 87.19	12
05ROAD0005	Village Dr/North St Intersection - Provide Roundabout	ET	$ 79.24	13
05ROAD0005	Village Dr/North St Intersection - Provide Roundabout	ET	$ 311.08	14
05ROAD0005	Village Dr/North St Intersection - Provide Roundabout	ET	$ 237.77	15
05ROAD0005	Village Dr/North St Intersection - Provide Roundabout	ET	$ 174.39	16
05ROAD0006	St. Vincent St - Construct Southern Extension	LM	$ 1,396.93	01

Project Code	Description	Type	Contribution	Contribution Area
05ROAD0009	Mitchell Pde - Hotmix Overlay to Strengthen Pavement	ET	$ 69.35	01
05ROAD0009	Mitchell Pde - Hotmix Overlay to Strengthen Pavement	ET	$ 51.51	02
05ROAD0012	Murrays Rd - Upgrade Gravel Pavement	ET	$ 3,471.50	01
05ROAD0014	Porters Creek Rd - Upgrade & Seal 1.1 km from Highway	ET	$ 5,674.89	01
05ROAD0015	Porters Creek Rd - Upgrade Gravel Pavement (1.2km)	ET	$ 2,353.95	01
05ROAD0016	Currowar Lane - Upgrade Gravel Pavement	ET	$ 5,645.12	01
05ROAD0017	Martins Ridge Rd - Upgrade Gravel Pavement	ET	$ 4,234.35	01
05ROAD0018	Egans Farm Lane - Upgrade Gravel Pavement	ET	$ 4,075.84	01
05ROAD0019	Lake Conjola Entrance Rd - Strengthen Pavemt & Construct VC	ET	$ 257.57	01
05ROAD0027	Cedar Hills Road - Upgrade Gravel Pavmt and Drainage (2.4km) Access to Kilfeacle	ET	$ 19,609.83	01
05ROAD0031	Slaughterhouse Road - Upgrade & Seal	ET	$ 3,911.38	01
05ROAD0033	Ringlands Rd - Upgrade Gravel Pavement	ET	$ 2,928.55	01
05ROAD0034	Evans Lane - Upgrade Gravel Pavement	ET	$ 5,900.73	01
05ROAD0044	The River Rd (The Sheep Track-Currowan Ck) Upgrade Gravel	ET	$ 4,602.91	01
05ROAD0044	The River Rd (The Sheep Track-Currowan Ck) Upgrade Gravel	ET	$ 2,302.42	02
05ROAD0049	Maisie Williams Dr - Upgrade & Seal(Settlers W - cul de sac	ET	$ 1,828.86	01
05ROAD0049	Maisie Williams Dr - Upgrade & Seal(Settlers W - cul de sac	ET	$ 1,828.86	02
05ROAD0049	Maisie Williams Dr - Upgrade & Seal(Settlers W - cul de sac	ET	$ 1,828.86	03

Project Code	Description	Type	Contribution	Contribution Area
05ROAD0064	Ulladulla Town Centre roads and traffic management facilities (various locations)	ET	$ 729.83	01
05ROAD0065	Ulladulla Town Centre road environment improvements (various locations)	ET	$ 1,423.61	01
05ROAD0067	Ulladulla Town Centre local bus facilities (Ulladulla Central Business District)	ET	$ 187.38	01
05ROAD2013	Bendalong Mountain Road upgrade (For 600ms from Benalong Road)	ET	$ 24,148.07	01
05ROAD2023	Pointer Road upgrade (For 2.75kms from Princes Highway)	ET	$ 27,693.31	01
05ROAD2023	Pointer Road upgrade (For 2.75kms from Princes Highway)	ET	$ 21,759.04	02
05ROAD2024	Little Forest Rd Hwy Intersection Upgrade	ET	$ 4,258.09	01
05ROAD2025	Little Forest Road upgrade (2.3 kms from Princes Highway for 2.3kms)	ET	$ 12,820.56	01
05ROAD2025	Little Forest Road upgrade (2.3 kms from Princes Highway for 2.3kms)	ET	$ 7,381.53	02
05ROAD2057	Parsons Street and Princes Highway roundabout	m2	$ 12.19	01
05ROAD2057	Parsons Street and Princes Highway roundabout	m2	$ 11.53	02
05ROAD2059	Cashman Road & Green Street roundabout	ET	$ 3,721.57	01
05ROAD2060	Gordon Street upgrade (north of Gumley Lane)	ET	$ 1,067.09	01
05ROAD3011	Southern Link Road	ET	$ 499.32	01
CWAREC2003	Hockey sporting facilities improvements and construction.	ET	$ 327.63	1V

NOWRA CBD FRINGE
MEDIUM DENSITY STUDY

Background Report (Revision 1)

October 2017
Prepared for Shoalhaven City Council
by Studio GL

Document Information

Job title	Nowra CBD Medium Density Study
Client	Shoalhaven City Council
Job number	1415
Report title	Background Report
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Revision	Date	Prepared by	Approved by
Final	22/09/2017	FL, RE, DG, BB, AN	FL, DG
Rev1	11/10/2017	DG, BB	DG

NOTE: The location and height of existing built form and trees has been approximated from high resolution aerial photography (nearmap.com) site visits and Google Streetview. The cadastre boundaries are based on Council's LEP mapping. The information in this document has been provided for context purposes and is indicative only. This document takes into account the particular instructions and requirements of our client. It is not intended for and should not be relied upon by any third party and no responsibility is undertaken to any third party.

STUDIO GL
Studio GL Pty Ltd
PO Box 832
Broadway NSW 2007

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SITE ANALYSIS

01 SITE ANALYSIS

The study area

The study area, to the west and south of the CBD business core, is one of the oldest parts of Nowra. The street pattern, laid out in the early 1850's is a regular 200 x 200m grid running north-south, east-west, typical for the time and based on Governor Darling's set of rules for laying out of towns. To the west of the study area lies the Nowra Creek natural bushland, walking tracks and the hanging rock lookout.

In total, the study area comprises approximately 25 blocks with one arterial road (Princes Highway), 21 collector streets (20m wide), 13 secondary streets (15m wide), one lane (5m wide) and approximately 1,000 buildings. Most of the properties are residential typologies but the study area also includes schools, churches, a cemetery, a number of parks and some utility areas.

Overall, the land slopes towards the eastern flood plain and the Shoalhaven River to the north. Significantly steeper terrain lies to the west of the study area towards Nowra Creek, offering long distance views across the river valley towards the mountain ranges and escarpment.

The urban grid of Nowra was laid out by the Surveyor, Thomas Mann, in 1852 at the edge of the floodplains adjacent to the Shoalhaven River. After major floods in 1860 and 1870 which destroyed parts of the settlements of Terara and Numbaa, Nowra was situated on higher ground and grew in size.

Existing heritage listed building supporting the local character

Image of new development supporting the local character

Timber, single storey building with gable roof

Single storey buildings & tall street trees line the wide roads

01 SITE ANALYSIS

Figure 1 Aerial map

01 SITE ANALYSIS

Existing built form

Predominant building heights

Generally buildings in the study area are single storey. This is shown on the adjacent **Figure 2** Built form heights map which indicates the heights of properties within the study area at the end of 2016.

Two storey buildings only make up a small proportion of the properties and the majority are more recent development, often with integrated garaging on the ground floor. Older housing is typically taller than an equivalent modern development due to an elevated ground floor, higher ceiling heights and more steeply pitched roofs.

Footprints

A study of the footprints of buildings within the study area highlights the grid structure of Nowra and illustrates the ratio of building coverage to land.

Lots and buildings are generally rectilinear in shape. The majority of lots have good solar access (orientated north facing or east west). Approximately 25% face south and a small number are orientated at 45° to the road network.

The predominant built form is the detached free standing dwelling house. Front setbacks to these dwelling houses vary considerably, as do the size of the buildings.

The predominant residential dwelling typology in the study area is a detached, timber or brick single storey dwelling with a gable or hipped roof. These dwellings were generally built before the 1940's.

01 SITE ANALYSIS

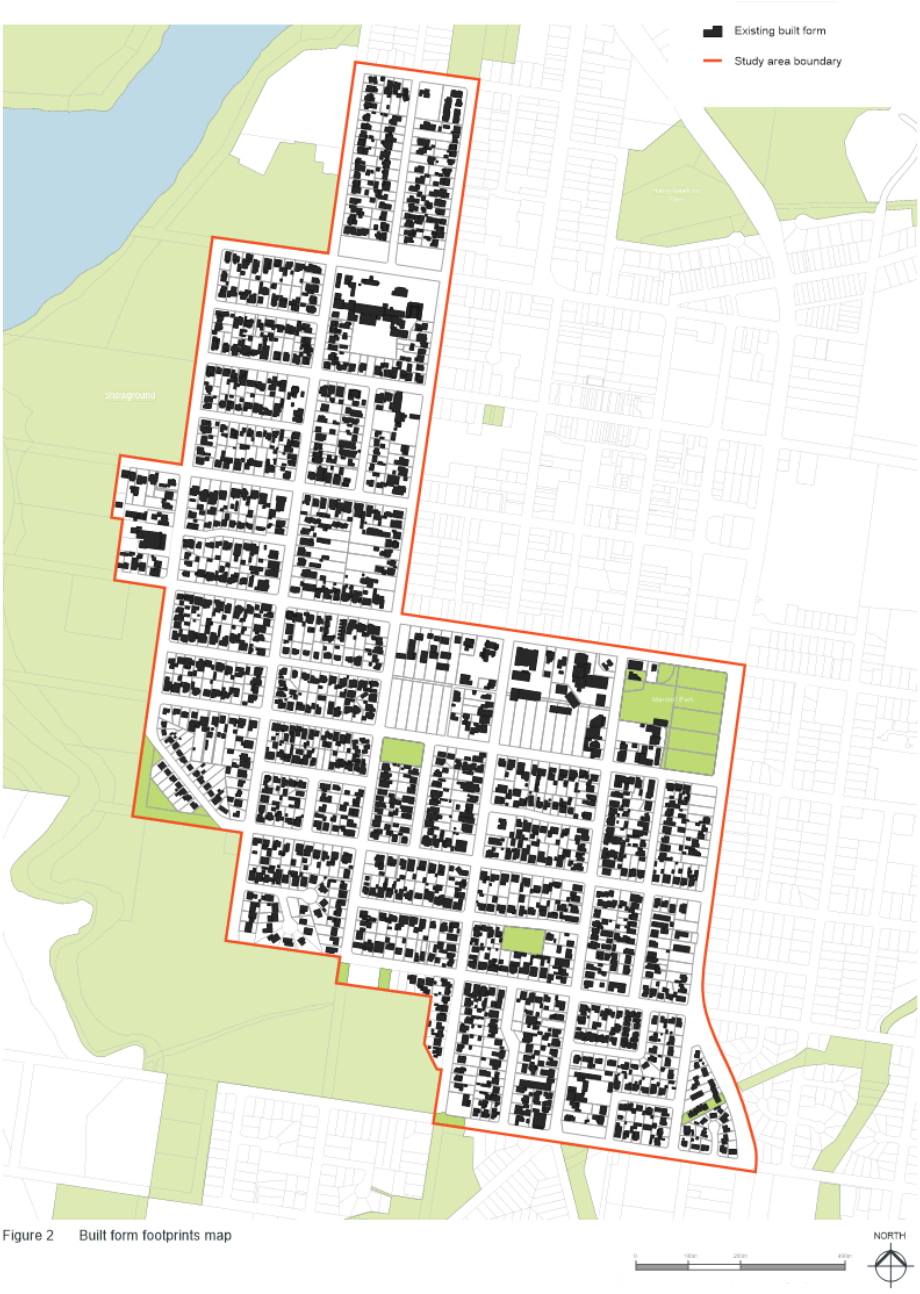


Figure 2 Built form footprints map

01 SITE ANALYSIS

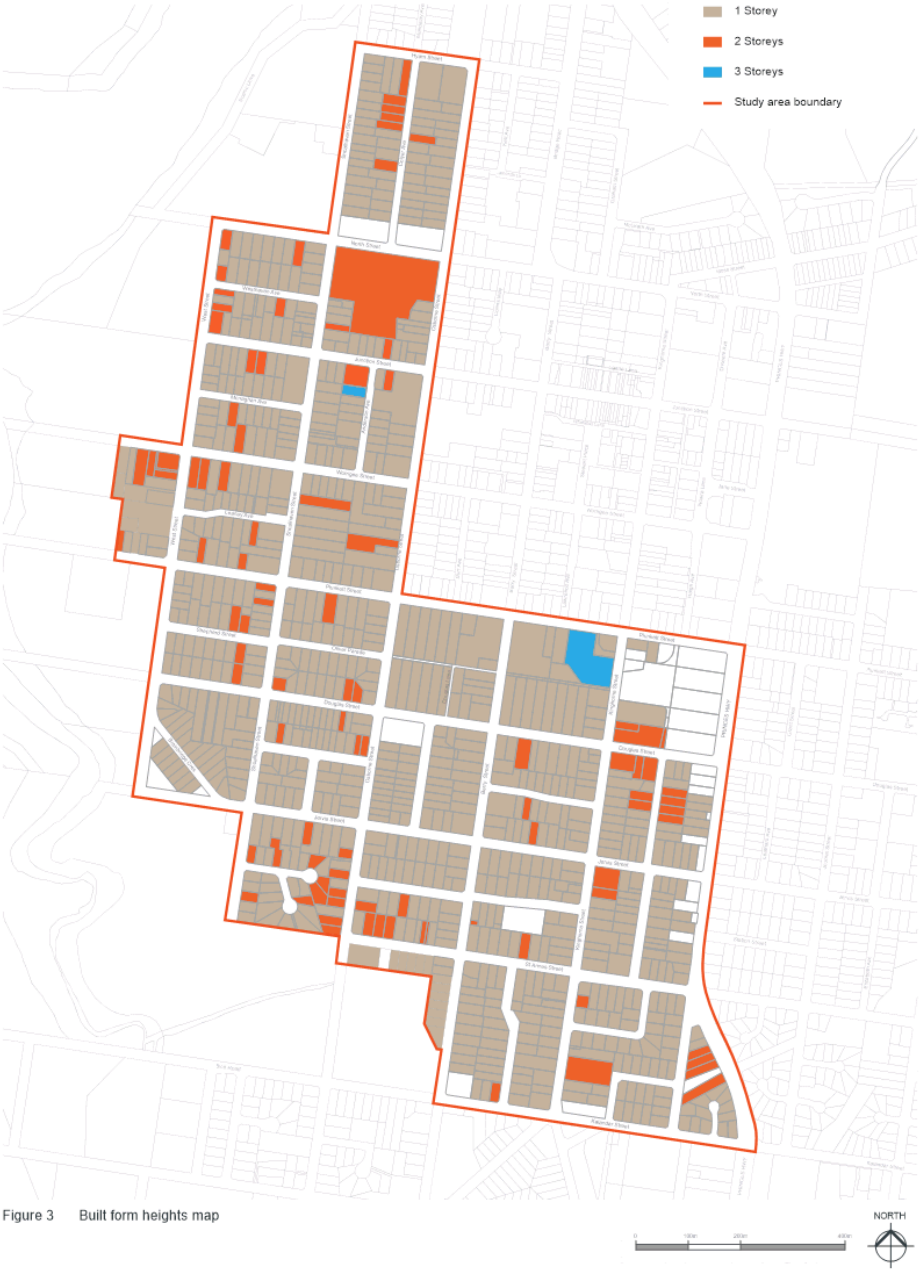


Figure 3 Built form heights map

01 SITE ANALYSIS

Built form, age and materials

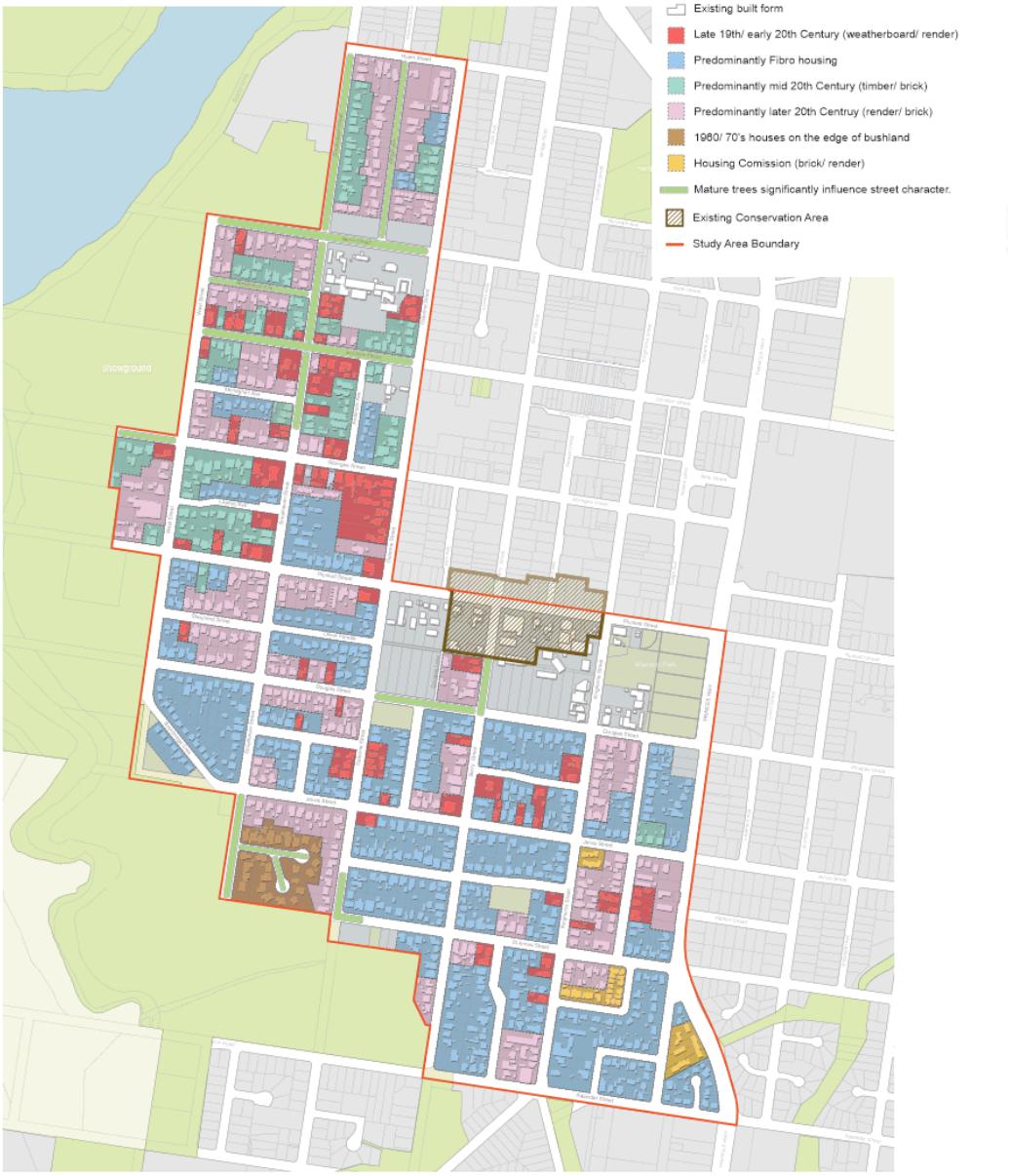


Figure 4 Built form age & materials map

Note: assessment indicative only based on approximate visual survey, does not reflect heritage status of individual buildings or areas

01 SITE ANALYSIS

Building use

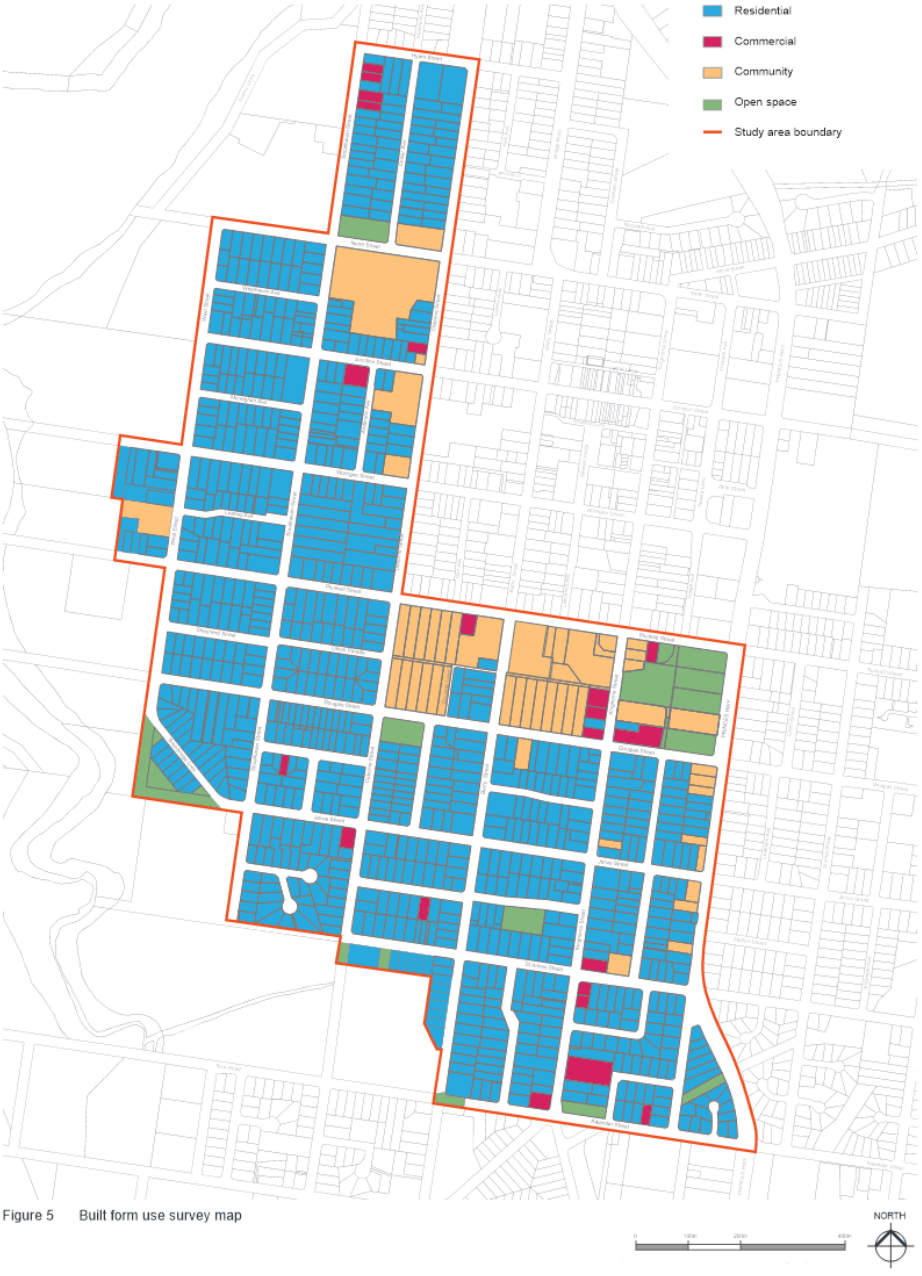


Figure 5 Built form use survey map

01 SITE ANALYSIS

Heritage character

Nowra features a number of individual local heritage listed items as well as a small heritage conservation area along Plunkett Street.

The items of heritage significance in this area are almost all houses although street character along Junction Street is also protected. Some of these buildings are currently open to the public for tourist ventures including perennial gardens and living museums while others remain purely residential in nature. There are no identified archaeological or aboriginal sites within the study area.

Figure 6 identifies these items currently listed in the Shoalhaven LEP. It also shows items and zones previously identified as worthy of listing in Nowra's draft Local Environment Plan in 1985.

01 SITE ANALYSIS

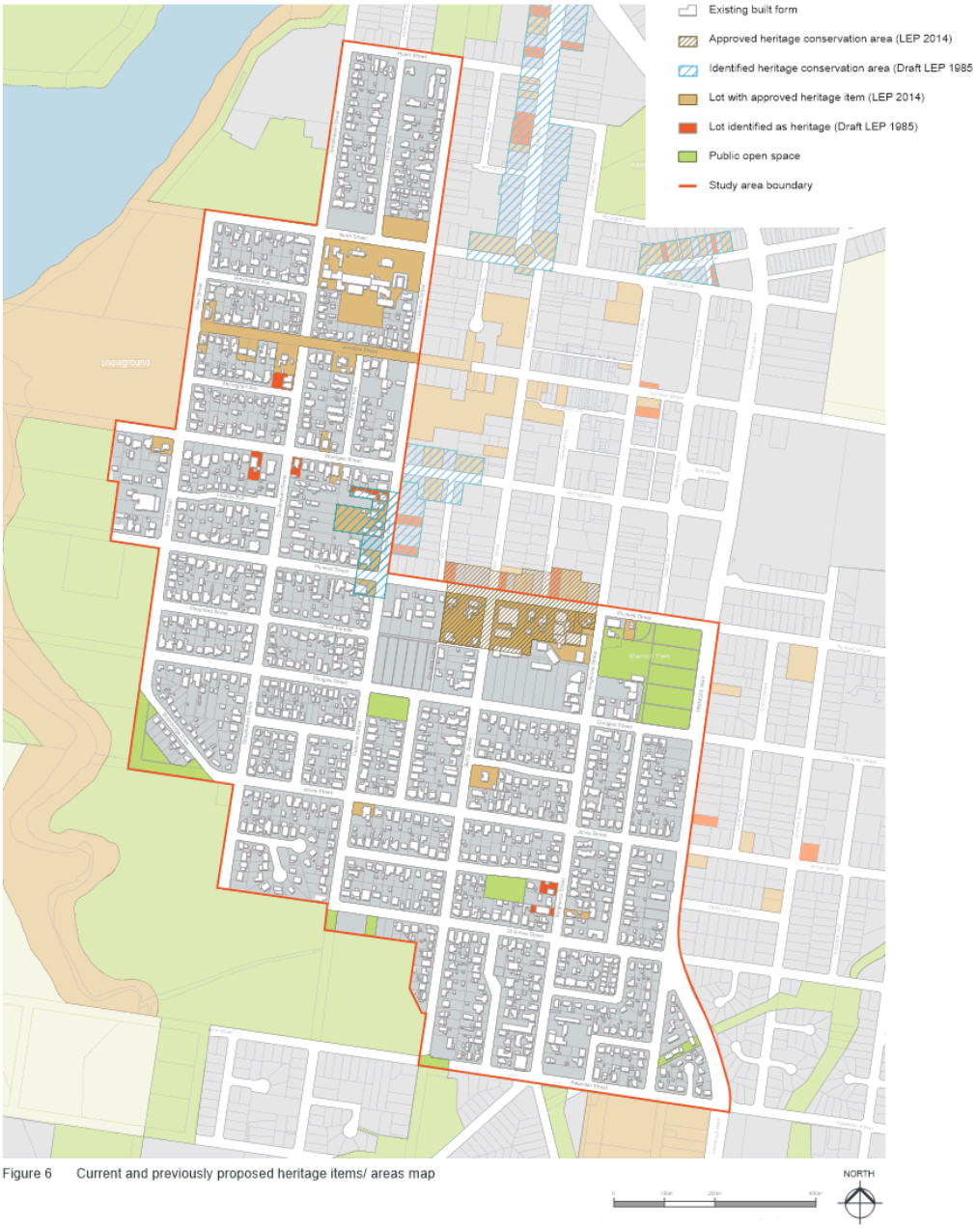


Figure 6 Current and previously proposed heritage items/ areas map

01 SITE ANALYSIS

Streetscape character

The streetscape character is influenced by the width of the road and lots, building setbacks, front fences, location of garages and off street parking, building heights, age and style, and the materiality and quality of built form.

The study area generally consists of low scale, residential dwellings with a wide variety of building styles. The majority of the streets have 20m wide road reserves, predominately single storey development with diverse setbacks and some have limited street tree planting. Most front setbacks are landscaped but there are few large trees to the front of properties.

Front fences

Local character is also influenced by the delineation of the front boundary. Many houses in the study area have low picket fences, particularly if the house is of a Victorian or weatherboard style. Hedges also are common often being used to increase the privacy above a low front fence.

Some properties in the study area do not have front fences. When this occurs along adjacent properties there is no clear delineation between the private property and the road and the architecture of the house is more prominent.

01 SITE ANALYSIS

Corner buildings

Corner buildings and buildings on a terminating street view tend to be more prominent and play a greater role in defining local character. Within the study area a number of the identified heritage items are located on corner properties. These are often single residences with generous setbacks on large blocks of land.

Newer development has generally taken less advantage of corner sites, other than to utilize the benefit of dual frontage for access to the property, and do not always provide an attractive frontage to both streets.

Garage locations

Off street parking in older properties is typically provided via a long driveway that leads from the street to parking along the side of the building, a covered carport and sometimes to a stand alone garage located in the rear yard. Driveway crossovers and driveways may be concrete, gravel or grass or a mixture of different materials.

More recent developments typically contain garages (single or double) integrated into the house design and wide concrete driveways. Some development locates visitor parking in the front setback although there is generally sufficient street parking along Nowra's wide roads.

01 SITE ANALYSIS

Street widths

The majority of roads in the study area are 20m wide. The original grid pattern of 200 x 200 metre blocks is apparent and forms a strong base layout with all the roads that bound the 200x200m block, being 20m wide.

Intermediate, or intra-block, roads are generally a narrower 15m wide in the northern study zone whilst to the south they have generally been developed at 20m width. There are some exceptions especially in the south west area which was developed in the 1970's, which provides 15m wide roads.

Wider roads are more flexible and can accommodate more street parking (i.e. 45/90 degree parking). Depending on the front setback, development on either side of a wide road is more distant and generally feels less "intense". Figure 7 indicates the road reserve width for all streets within the study area and the following page provides examples of typical street sections, that illustrate the effect of differing road reserve widths and differing front setback distances.

Identifying the density of road intersections is a way of indicating the permeability of the urban structure of a particular area. An area with a high intersection density provides options for people and cars to move from one point to another easily while an area with a low intersection density concentrates traffic flows on a few streets and makes it less attractive to walk from one place to another as there is usually a requirement to circumnavigate the large blocks.

Figure 8 identifies the density of intersections within the study area. It shows that while the study area has a networked grid structure it does not have a particularly intense intersection density due to a lack of permeability created in the original town road layout.

Osborne and Plunkett Streetview

Worigee Streetview

01 SITE ANALYSIS

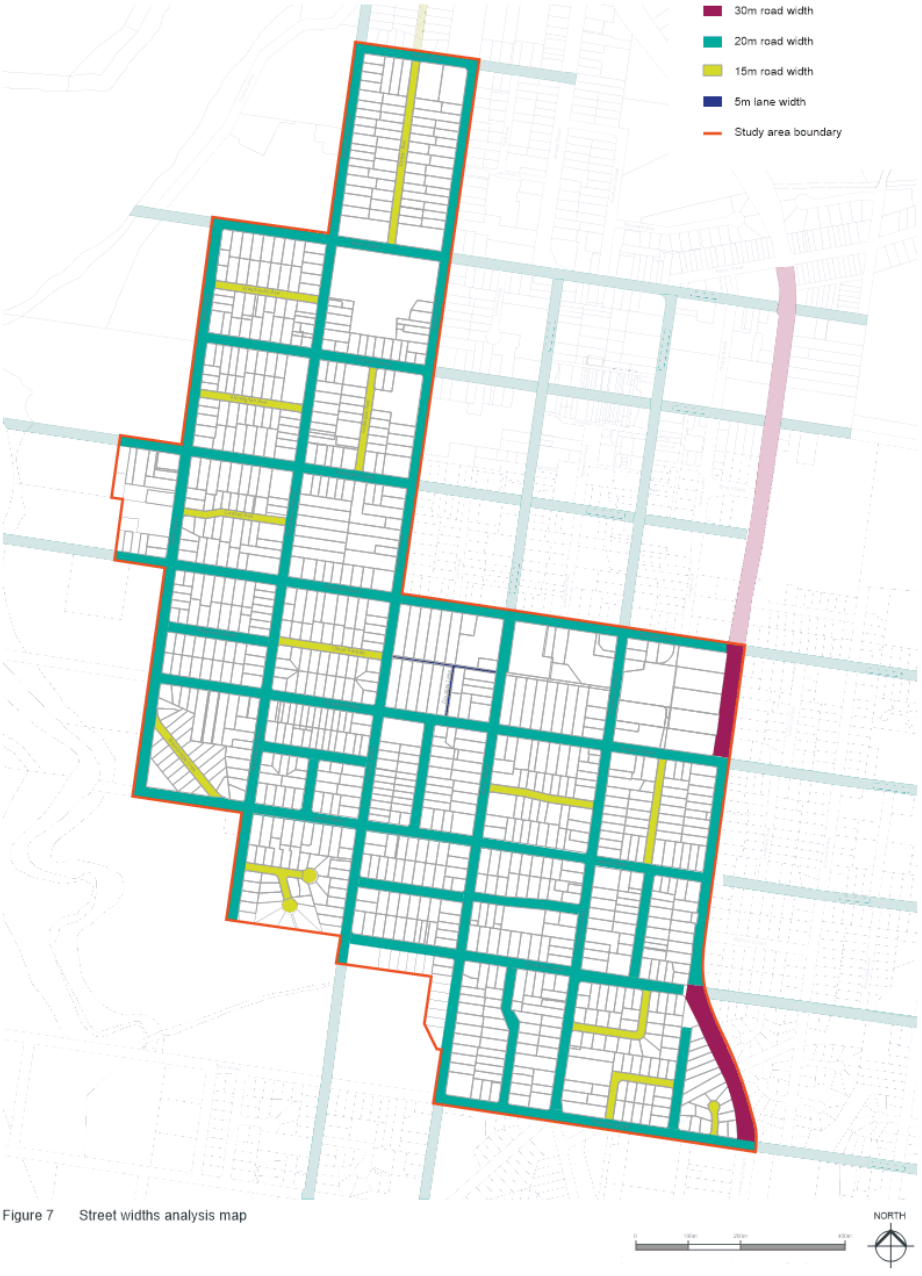


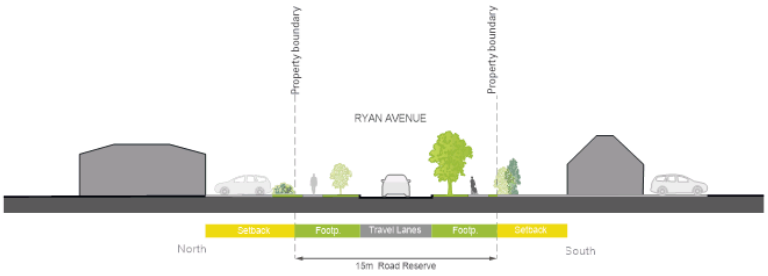
Figure 7 Street widths analysis map

01 SITE ANALYSIS

Streetscape sections

Section A: Junction Street near the corner of Shoalhaven Street

Section B: Plunkett Street near the corner of Osborne Street



Section C: Ryan Avenue near the corner of Kinghorne Street

01 SITE ANALYSIS

Urban structure and permeability

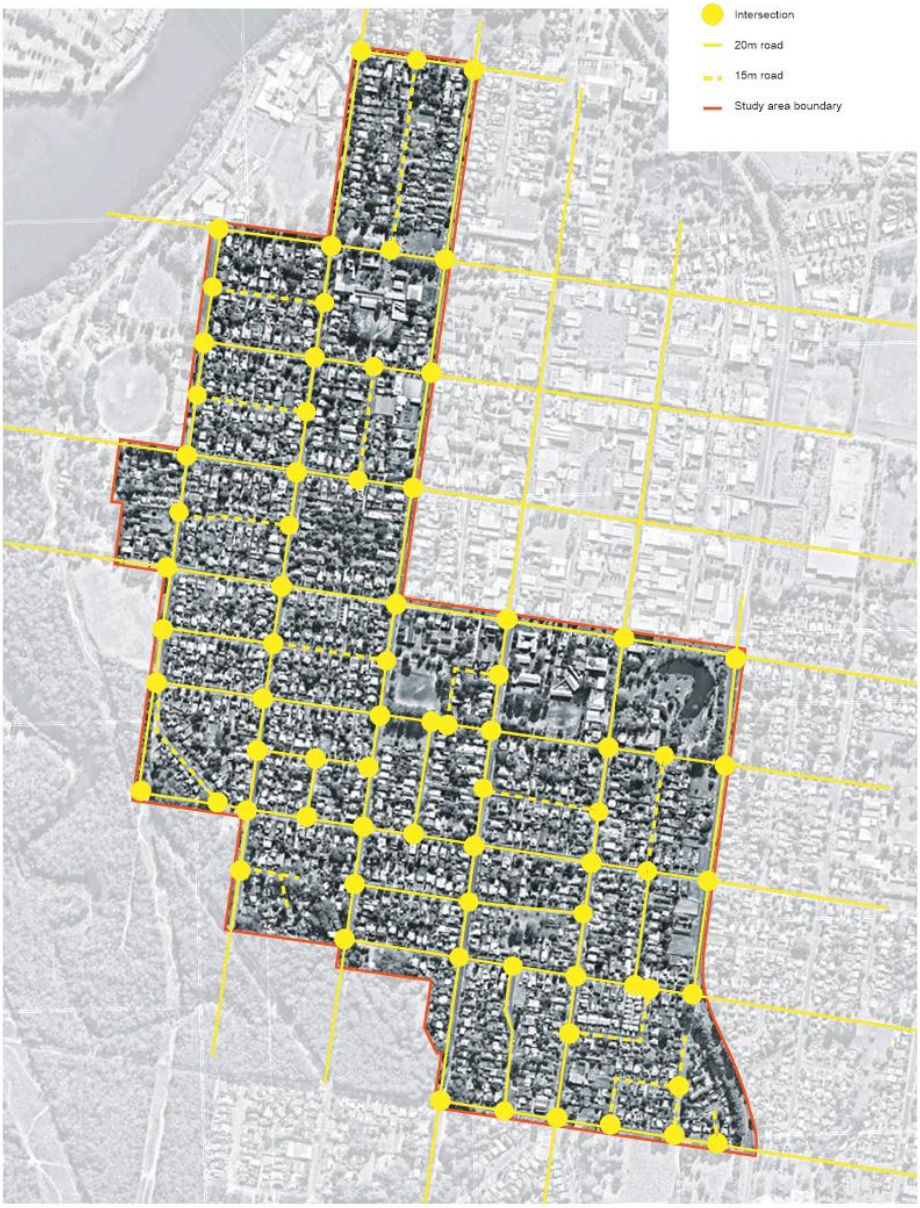


Figure 8 Intersection density analysis map

01 SITE ANALYSIS

Topography and landform

The topography of the study area generally slopes gently to the east and the north. The two main high points are situated at the intersections of West Street and Plunkett Street and Kinghorne Street and St Annes Street. Steeper land is located at the southern end of Osbourne Street, and near the intersection of Shepard Street and Shoalhaven Street.

As the urban grid structure is overlayed over the landform, it helps to reveal the high points, ridges and valleys. Many streets or street segments offer views to the scenic rural landscape, the river or the escarpment, while other areas feel more enclosed and are more affected by the quality of surrounding built form.

Some streets capture views to the Cambewarra Range in the north and towards the open district views to the east. The far distant view along these streets draws attention away from the buildings. Some streets in the study area also have attractive street trees including Worrigee, Junction and Kinghorne Streets.

01 SITE ANALYSIS

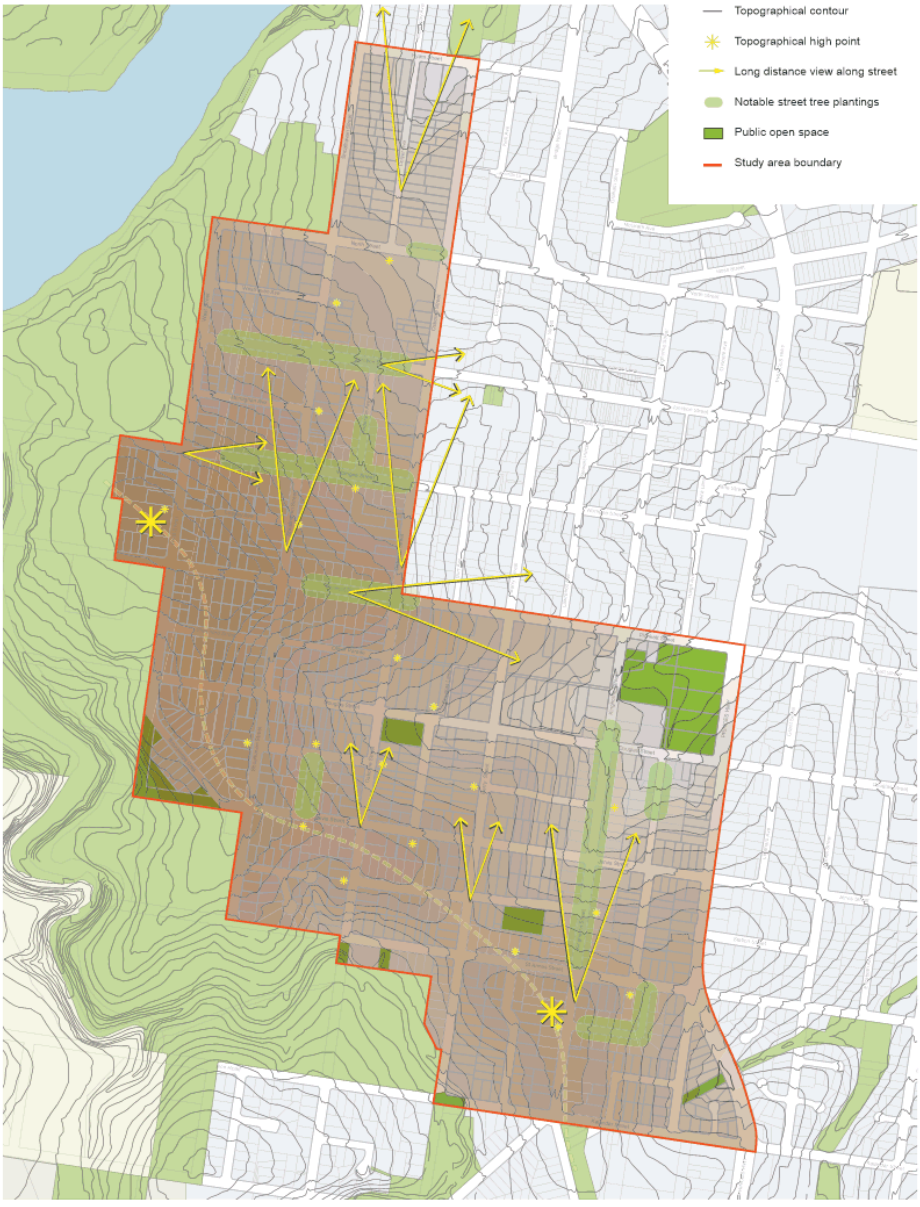


Figure 9 Topography and landform map

01 SITE ANALYSIS

Lot orientation

Lot orientation is an important consideration to ensure that living rooms and areas of private open space receive adequate sunshine. Lot orientation (especially when combined with slope) is also critical to the likelihood of development overshadowing of neighbouring properties.

The diagram below, sourced from the Tweed Shire Council DCP, outlines recommendations for development on different block orientations in order to maximise solar access.

The figure below identifies the primary orientation of all properties within the study area. It indicates that approximately fifty percent of the blocks are predominately orientated east west. Properties with this orientation can be vulnerable to overshadowing from taller development to the north.

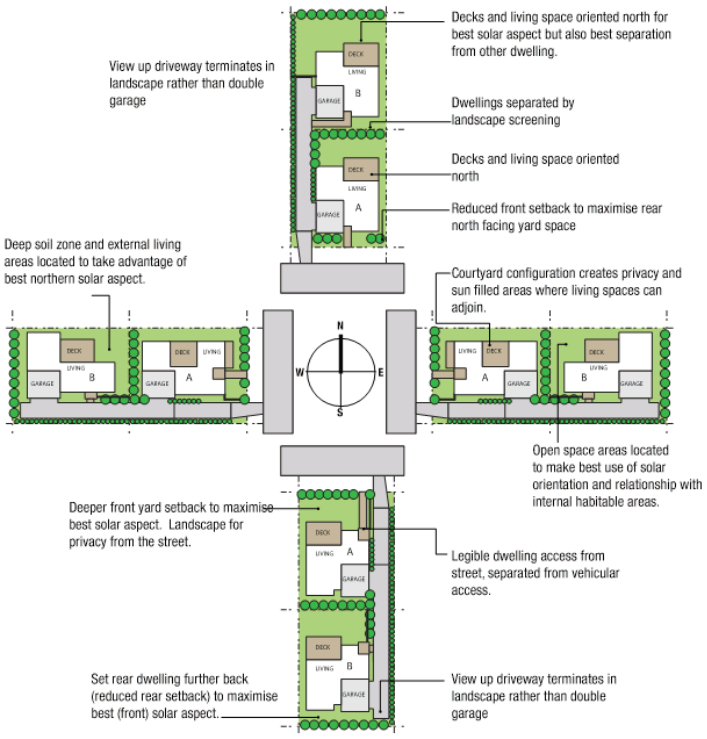


Figure 10 Indicative site configurations for different lot orientations (Source: Tweed Shire DCP)

01 SITE ANALYSIS

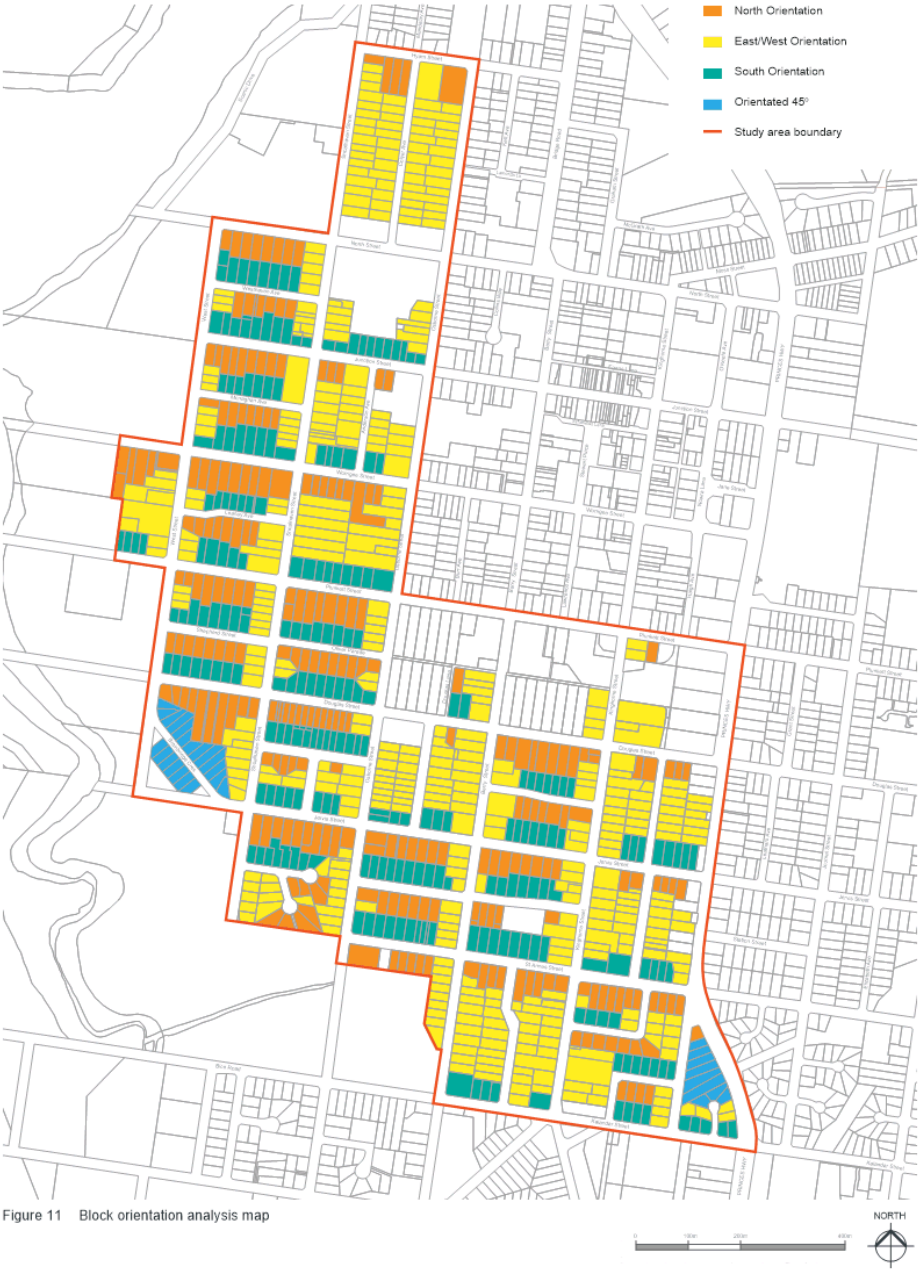


Figure 11 Block orientation analysis map

CHAPTER 2
POLICY CONTEXT

02 POLICY CONTEXT

Shoalhaven LEP 2014

The Shoalhaven Local Environmental Plan (SLEP) commenced in April 2014 and is a statutory plan under Part 3 of the Environmental Planning and Assessment Act 1979.

The document follows the 'Standard Instrument' template provided by the NSW Department of Planning & Environment and incorporates strategic objectives established by State Government and Council, including the implementation of the Nowra-Bomaderry Structure Plan.

The following pages provide overlays of the study area over selected maps of the LEP for easy reference. Below is a summary of the key and most relevant items and provisions.

Land use zones

The predominant land use zoning in the study area is residential. Permitted residential building types within the land use zones R1 General residential, R2 Low density residential and R3 Medium density residential are:

Relevant Uses - permitted with consent	Land Use Zones		
	R1	R2	R3
Dwelling Houses	X	X	
Dual occupancies	X	X	X
Attached Dwellings	X		X
Semi-Detached Dwelling	X		
Multi Dwelling Housing	X		X
Residential Flat Buildings	X		X

Height of buildings

A small portion of the study area has a maximum building height of 7.5m. Approximately a fifth of the study area has a maximum building height of 8.5m. The remainder of the study area has the default maximum building height of 11m.

Lot sizes

Applies To:	Minimum Lot Size
Dual Occupancy development within 'Area1'	350m²
Multi Dwelling Houses within 'Zone R1'	350m²

Dual occupancy

Dual occupancy development is discouraged in zone R3 (medium density Residential) in order to encourage greater dwelling density. Plots must be less than 800sqm and amalgamation with an adjoining lot not considered feasible.

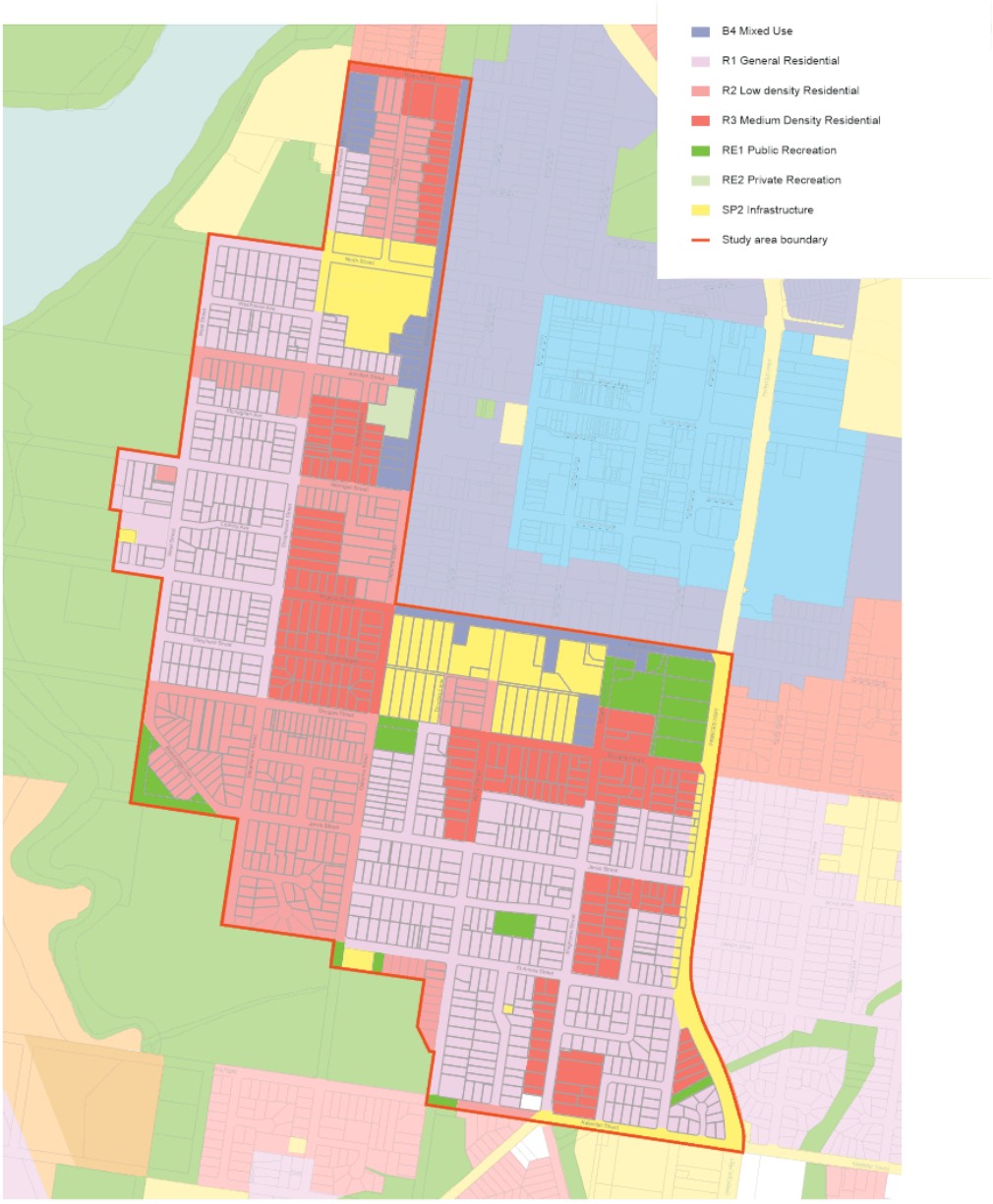


Figure 13 Land use zoning map (information sourced from SLEP 2014)

Figure 12 SLEP 2014 Land Use Zoning diagram

02 POLICY CONTEXT

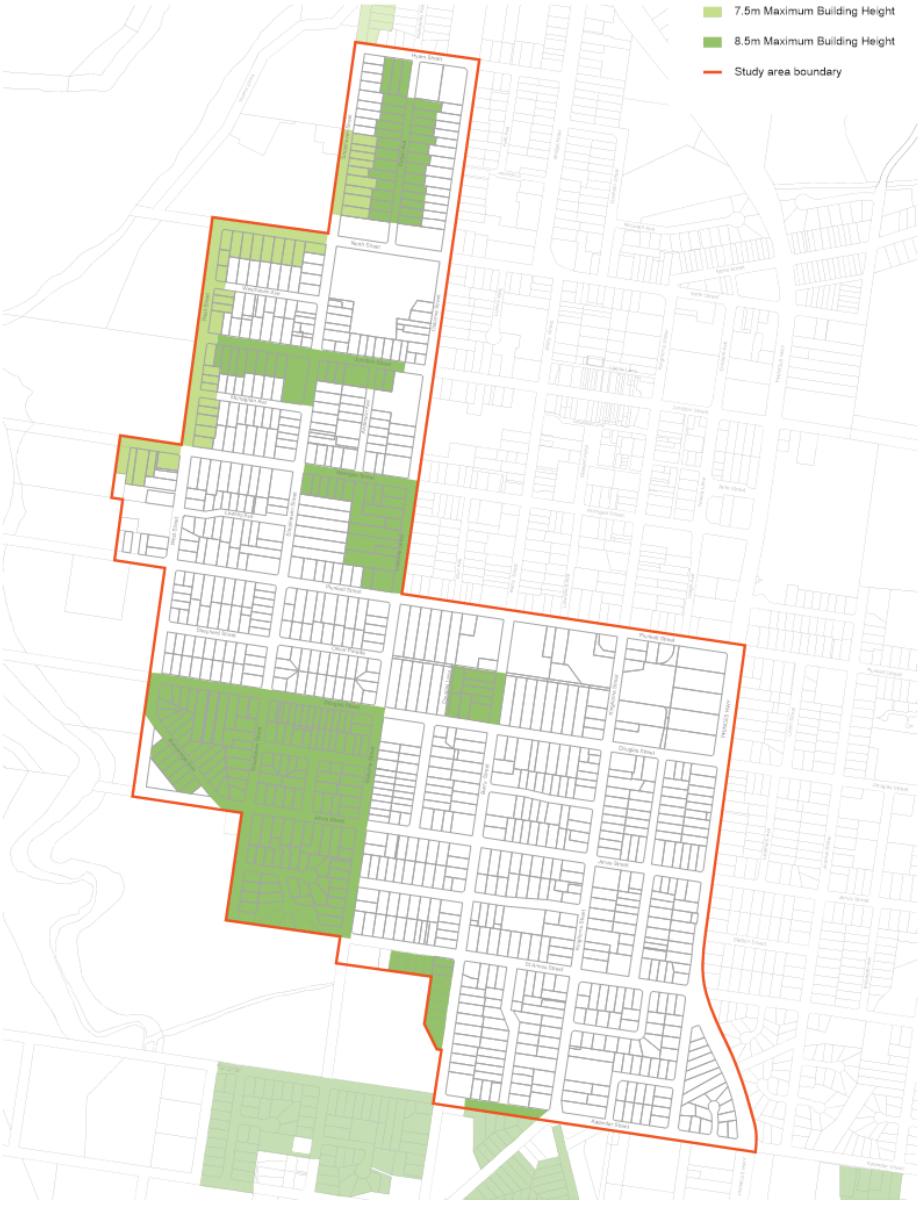


Figure 14 Maximum heights of buildings map (information sourced from SLEP 2014)

02 POLICY CONTEXT

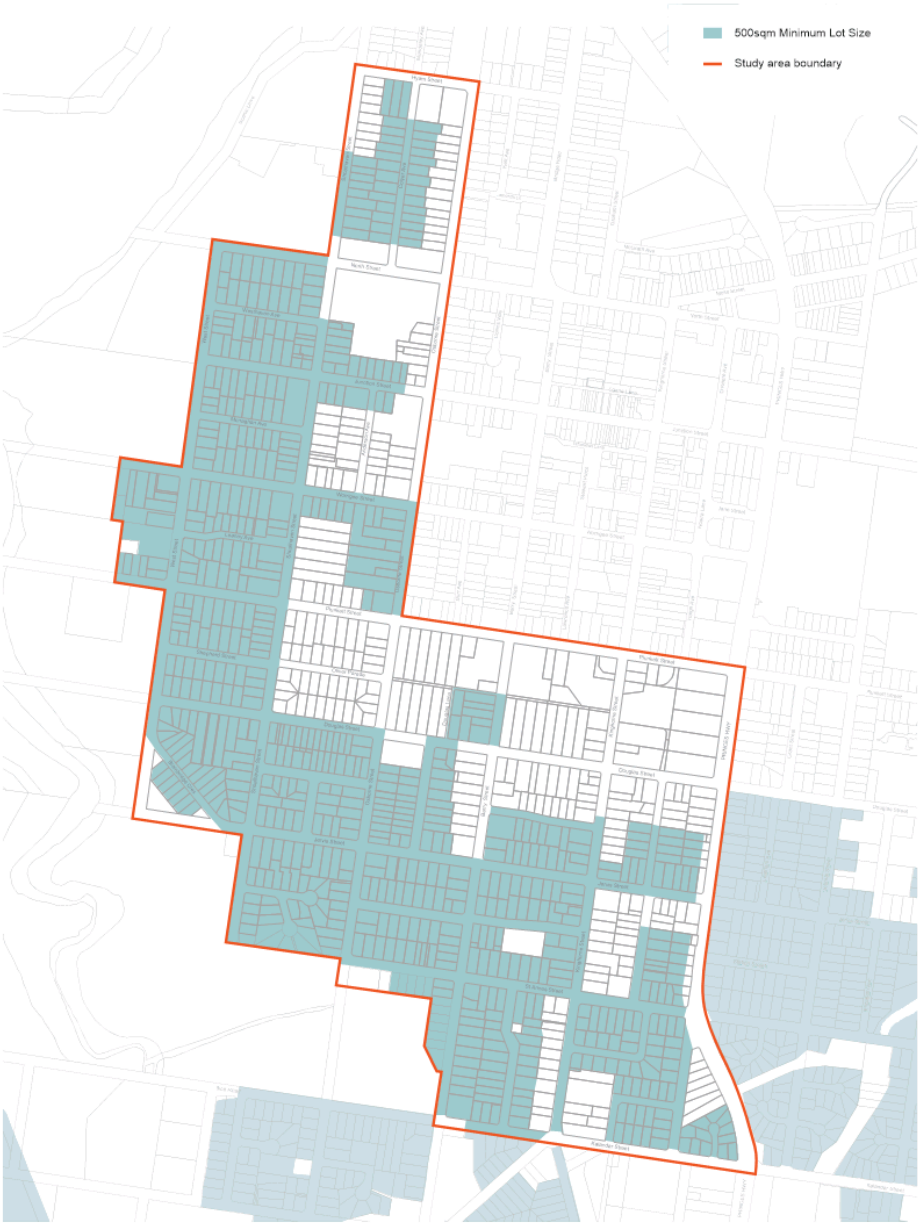


Figure 15 Minimum lot size map (information sourced from SLEP 2014)

02 POLICY CONTEXT

Shoalhaven DCP 2014

The Shoalhaven City Council Development Control Plan (DCP) came into effect in October 2014. Key policies from the most relevant chapters are summarised in the sections listed below:

- Chapter G13 Dual Occupancy Development
- Chapter G14 Other Residential Accommodation
- Chapter G21 Car Parking and Traffic

G13 Dual Occupancy development

Minimum lot sizes

Applies To:	Requirement
Attached Dwellings	>500m²
Dual Occupancy	>700m²
Dual Occupancy (Battle Axe Lots)	>1000m²

Height and bulk

The maximum building envelope is set by projecting 45 degree plane at 5m above existing ground level at the front, side and rear boundaries. For detached dual occupancy dwellings the dwelling furthest from the street should be single storey.

Density

The maximum FSR (floor space ratio) for sites up to 1,000m² is 0.5:1.

Cumulative impact

No more than 3 consecutive dual occupancy developments within a street.

Landscaping

A minimum of 30% of the total site area is to be provided as landscaping.

Setbacks

Minimum setback distances within zones R1, R2, R3, and RU5 are as follows:

Applies To:	Front	Side	Rear
New subdivisions, lots in groups, or clusters in subdivisions, approved prior to Feb 2002, and <600sqm	5m	0.9m	3m
New subdivisions >600sqm	6m		
Infill development in existing subdivisions plot depth <30.5m.	6m		
Infill development in existing subdivisions plot depth >30.5m.	7.5m		

Vehicular access

Both dwellings are to use a common access point on single frontage sites.

Private recreation areas

A minimum 50m² private recreation area is required for each dwelling (min. dimension 2m). A portion of this area is required to have minimum dimensions of 5.0x 6.0m.

Design and materials

The cumulative width of Garage façades does not exceed 9m or 50% of the site frontage whichever is the lesser.

Each dwelling is to include at least two of the following elements on the street elevation:

- Front entry door
- Living room window
- Portico, verandah, deck or patio

G14 other residential accommodation

Site planning and layout

Private open space and garages should be located to the rear of dwellings. The driveway alignment should be designed to avoid a gun barrel effect down the side boundary.

Scale and site density

The maximum floorspace ratio is 0.35:1.

A minimum of 35% of the total site area is to be provided as landscaping.

Streetscape and building appearance

Street elevations for all buildings facing public and communal streets show:

- A front door and/or living room windows facing the street.
- Buildings detailed or articulated to enable individual dwellings to be identified from public roads.

Setbacks

Minimum setback distances

Applies to:	Front	Side	Rear
1 Storey	5.5m	1m (1.5m with window to habitable room)	3m
> 1 storey	9m		
Secondary Frontage on corner sites	3m		

In integrated housing developments, walls may be built to internal side and rear boundaries where:

- Maximum wall height is 3.5m unless matching an existing or simultaneously constructed wall; and
- Maximum wall length is 50% of each of the abutting property boundaries.

Building envelope and siting

The maximum building envelope is set by projecting 45 degree plane at 5m above existing ground level at the front, side and rear boundaries.

Views visual privacy and acoustic privacy

Minimum separation distances between windows of habitable rooms of facing dwellings that abut a public or communal street.

Applies to:	Requirement
Ground Floor	9m
1st Floor +	12m

Useable open space

A minimum of 35m² of private open space is to be provided per dwelling with a minimum dimension of 2.5m. One part of the minimum private open space area must have a usable minimum area of 25m² and a minimum dimension of 4m. This space must be directly accessible from a living area of the dwelling.

Car parking

Vehicles are able to enter and exit the site in a forward direction and stack (tandem) parking arrangements are avoided. Minimum dimension of entrance ways and driveways to be 3.0m.

Fencing and walls

Front fences and walls should not be higher than 1.2m if solid. (1.8m permeable fences may be permitted in specific situations)

G21 Car Parking and Traffic

Dual occupancy dwellings

Applies to:	Requirement
Dwellings GFA <125m² (except 3 bed units)	1 parking space on site behind the building line
Dwellings GFA >125m²	2 parking spaces on site behind the building line

Multi dwelling housing

Applies to:	Requirement
Dwellings <55m²	1 parking space on site
Dwellings 56-85m²	1.5 parking spaces on site
Dwellings >85m²	2 parking spaces on site

A 30% car parking space discount is to be applied to development within a 200m radius of Nowra CBD.

Parking layout & dimensions:

Stack (tandem) parking of vehicles in not supported by Council unless part of a mixed use, commercial, managed residential development or a mix of these uses with a management plan in place.

Access

Development must be designed so that vehicles enter and leave the premises in a forward direction. Each site must minimise the number of ingress and egress points to any street frontage. Driveways must be located a minimum of 6.0m from the corner of a building located on corner lots.

Loss of on street parking

Where major development/ redevelopment is proposed that has frontage to two or more streets, Council will take into account the loss of on-street car parking spaces arising from the construction of access, bus embayments and car parking restrictions, where these are directly related to the development proposal and will require these to be replaced on site.

Works in kind

The provision of car parking spaces in the road reserve may be considered in lieu of onsite provision. (subject to detailed justification.)

02 POLICY CONTEXT

Draft Medium Density Design Guide

In October 2016, the NSW Department of Planning and Environment published the draft Medium Density Design Guide, with the aim to encourage more low rise medium density housing to be built in NSW, providing greater housing choice, more housing affordability and better quality design.

The Design Guide provides benchmarks for designing and assessing low rise (up to 3 storeys) medium density housing types including:

- Terrace style housing on small lots (attached dwellings)
- Dual occupancies and semi-detached dwellings
- Multi-dwelling housing (strata titled terrace housing, villas and townhouses)
- Community titled master-planned medium density developments, and
- Manor homes (comprising 3-4 dwellings)

Where is it likely to be relevant.

The Department states that the Design Guide will be legally enforceable for complying development in areas zoned Medium Density Residential. The following medium density development is expected to be assessable as complying development under the MDDG within the SEPP (Exempt and Complying Development Codes) 2008:

- Two dwellings side by side
- Terrace Houses
- Manor houses

Cover and extract of the recently released draft Medium Density Guide prepared by DP&I

Explanation of intended effects

The Medium Density Design Guide (MDDG) was accompanied by a document intended to explain the effects of the modification to the SEPP. This states that the MDDG would not automatically override council controls and would need to be adopted by reference in a DCP. If the MDDG is adopted it is to be adopted in its entirety to ensure a consistent approach across the state.

This document also states that the MDDG is intended to encourage best practice design of low rise medium density dwellings and that it is used as a tool for designers and councils to encourage high quality, liveable and attractive homes.

Figure 16 Medium density development in the spectrum of residential accommodation (source: Draft Medium Density Guide, page 4)

02 POLICY CONTEXT

Selected relevant key design criteria

7.	Private courtyards within the front setback are only to be located within the articulation zones and / or behind the required front building line.
9.	Direct visibility is to be provided to the front door and garage door along paths and driveways from the public domain.
11.	The maximum fence height within the front setback is 1.5m,with an average no greater than 1.2m.
12.	No more than 50% of the allowable fence area should be solid (masonry, timber, metal or stone).
15.	Courtyard fences and walls to secondary street frontages are to align with the facade fronting the street. Where solid it should be the same material as the building facade.
16.	Retaining walls greater than 0.6m within the front setback are to be softened by planting for a minimum depth of 600mm on the low side of the retaining wall
20.	Where driveways are provided as a battle-axe the: • setback from a fence is to be at least 1m • setback from another dwelling is to be at least 1m • setback from a habitable room window is to be at least 3m if the window exceeds 1m².
43.	Measured from finished floor level to finished ceiling level, minimum ceiling heights are: • 2.7m to ground floor habitable rooms • 2.7m to upper level living rooms • 2.4m to upper level habitable rooms (excluding living rooms)
45.	The minimum internal areas include only one bathroom. Additional bathrooms increase the minimum internal area by 5m² each.
53.	All dwellings are required to have a primary private open space of at least 16m².
54.	The minimum dimension of the included area is 3m, and excludes any storage space.
63.	On-grade car parking, garages and car ports are setback from the boundary to the primary or secondary road by: • If the setback of dwelling is more than 4.5m: 1m behind building line • If the setback of dwelling is less than 4.5m: 5.5m
64.	The maximum aggregated garage door width that has a frontage to a primary road:
81.	An articulation zone of 1.5m is provided forward of the building line. The articulation zones includes one or more of the following: • Verandah / Porch • Balcony • Pergola • Entry feature or portico • Awnings or other features over windows • Eaves and sun shading • Window box treatment • Recessed or projecting architectural elements • Bay window

Lot width	Aggregate garage door width
7.5 - 12.5m	max. 3.2m wide
wider than 12.5m	max. 6.0m wide

02 POLICY CONTEXT

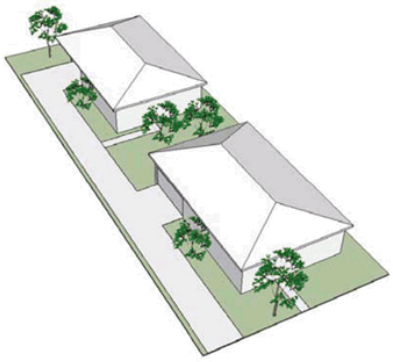
Two Dwellings Detached

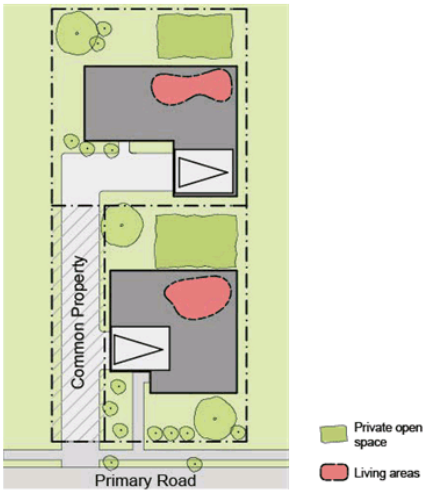
Relevance	Reason
Medium	Will not automatically fall under SEPP but recommended for land zoned low density development

Relevance to Nowra Medium Density Study

- Recommended for land zoned low density development (some of these areas in Nowra have a concentration of heritage buildings).
- Encouraged on corner sites (which generally have a higher visibility)
- The minimum lot size/FSR would generate small dwellings (ie. 200m² lot would generally allow a 2 bed dwelling).
- Recommends that controls for setback, bulk, scale, FSR , building height, landscape and private open space should be kept the same as what is prescribed for a single dwelling house in the area. This would result in significantly higher impacts on open space/tree canopy loss due to high impact of car access.
- It is suggested that at a minimum battle-axe access needs to be excluded from calculations.

Typical principal development controls	
Land title:	Torrens or strata
Minimum Lot size	Corner: 200m² (each lot) Battleaxe: 300m² (each lot)
FSR:	0.4 - 0.5:1
Landscaped area	20 - 50% increases with lot size
Building height	8.5m
Front setback	Average of neighbourhood or 5.5m
Rear setback	3 - 6m
Side Setbacks	Front 15m: 1.2m at front Rear: 2.5m plus 45° height plane
Car parking	1-2 spaces





02 POLICY CONTEXT

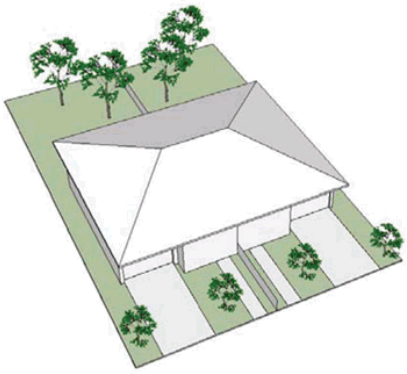
Two Dwellings Side By Side

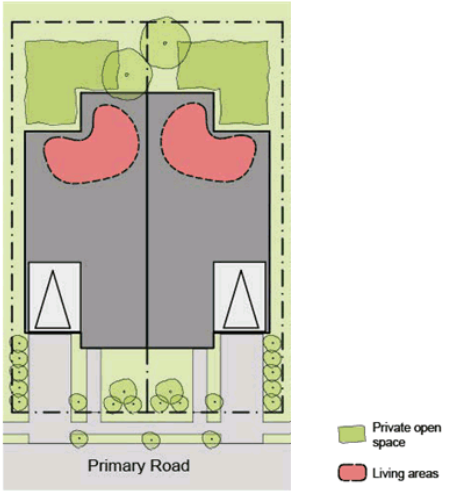
Relevance	Reason
High	Will automatically fall under SEPP in areas zoned for medium density development.

Relevance to Nowra Medium Density Study

- Could be assessed as complying development under SEPP (Exempt and Complying Development Codes) 2008 even if adjoining a heritage building.
- The minimum lot size/FSR would generate medium size dwellings (ie 200m² lot would generally allow a 3+ bed dwelling).
- Minimum lot width (7.5m) very narrow for the area.
- Minimum setbacks (side and rear) very small for the local area.
- Minimum lot width/car parking in current DCP could encourage tandem parking arrangements. (ie on lots <12.5m only allow a single width garage but minimum width of lot is 7.5m).

Typical principal development controls	
Land title:	Torrens or strata
Minimum Lot size	200m²
FSR:	0.55 - 0.70:1
Landscaped area	20 - 50% increases with lot size
Building height	8.5m
Front setback	Average of neighbourhood or 5.5m
Rear setback	3 - 6m
Side Setbacks	Front 15m: 1.2m at front Rear: 3.6m plus 45° height plane
Car parking	1-2 spaces





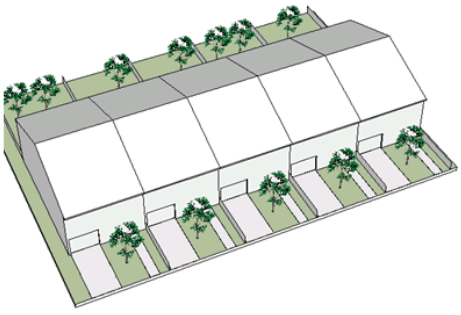
Terrace Houses

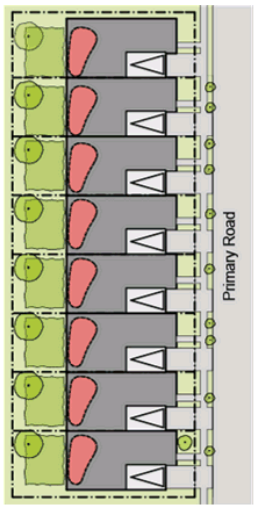
Relevance	Reason
High	Will automatically fall under SEPP in areas zoned for medium density development.

Relevance to Nowra Medium Density Study

- Could be assessed as complying development under SEPP (Exempt and Complying Development Codes) 2008 even if adjoining a heritage building.
- The minimum lot size/FSR would generate higher density of development (ie 150m² lot may allow a 3 bed dwelling).
- Minimum lot width (7.5m) very narrow for the local area.
- Minimum setbacks (side and rear) very small for the local area.
- Minimum lot width/car parking in current DCP could result in significant dominance of garaging along the street.
- Could encourage tandem parking arrangements. (ie on lots <12.5m only allow a single width garage but minimum width of lot is 7.5m).

Typical principal development controls	
Land title:	Torrens or strata
Minimum Lot size	150m²
FSR:	0.55 - 0.75:1
Landscaped area	20 - 50% increases with lot size
Building height	8.5m (2 storey) - 10m (3 storey)
Front setback	Average of neighbourhood or 5.5m 3.5m min allows for landscaped front setback.
Rear setback	3 - 6m
Side Setbacks	Front 15m: 1.2m at front Rear: 3.6m plus 45° height plane Om setbacks for internal boundaries
Car parking	1-2 spaces





02 POLICY CONTEXT

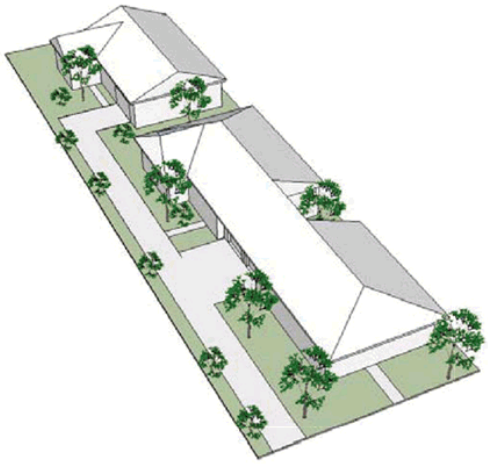
Row Housing

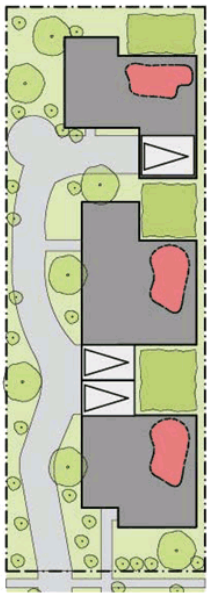
Relevance	Reason
High	This is a popular type of development in the area

Relevance to Nowra Medium Density Study

- This typology is common when lots are long and narrow (which occurs frequently in this part of Nowra).
- The MDDG notes this type of development can enable preservation of the existing streetscape
- The MDDG notes that 17-20m lot width is needed to efficiently plan this type of development.
- Minimum setbacks (side and rear) very small for the local area.
- A large proportion of the site area could become driveway and parking, creating stormwater/ heat island issues and very little deep soil/landscaped areas.

Typical principal development controls	
Land title:	Torrens or strata
Minimum Lot size	on average about 300m² per dwelling
FSR:	0.45-0.5:1
Landscaped area	20 - 50% increases with lot size
Building height	8.5m
Front setback	Average of neighbourhood or 5.5m
Rear setback	3 - 6m
Side Setbacks	Front 15m: 1.2m at front Rear: 4m
Car parking	1-2 spaces





02 POLICY CONTEXT

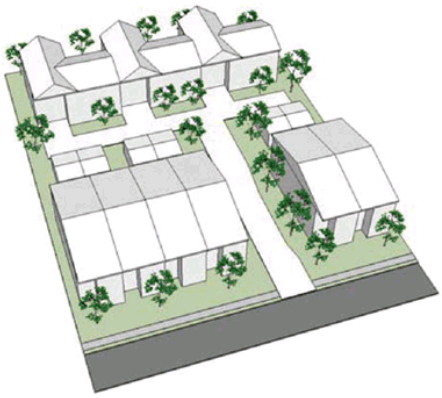
Mews Housing

Relevance	Reason
Medium	Will not automatically fall under SEPP but is efficient for deep lots (45-50m) especially with lots over 40m wide.

Relevance to Nowra Medium Density Study

- Potentially an efficient development type in Nowra particularly in areas with large deep lots.
- Often requires amalgamation to create efficient layouts as smaller sites tend to have a large amount of vehicular circulation.
- Could provide opportunity for new mid block streets/lanes.
- May require a site specific response to test orientation, densities, retention of trees etc
- A well designed scheme could result in less dominance of garaging along the street.

Typical principal development controls	
Land title:	Torrens or strata
Minimum Lot size	1250m²
FSR:	0.45-0.7:1
Landscaped area	20 - 50% increases with lot size
Building height	8.5m (2 storey) - 10m (3 storey)
Front setback	Average of neighbourhood or 5.5m
Rear setback	3 - 6m
Side Setbacks	Front 15m: 1.2m at front Rear 15m: 2.5m plus 45° height plane
Car parking	1-2 spaces



02 POLICY CONTEXT

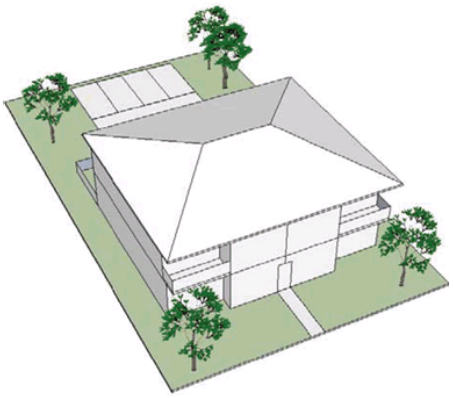
Manor House

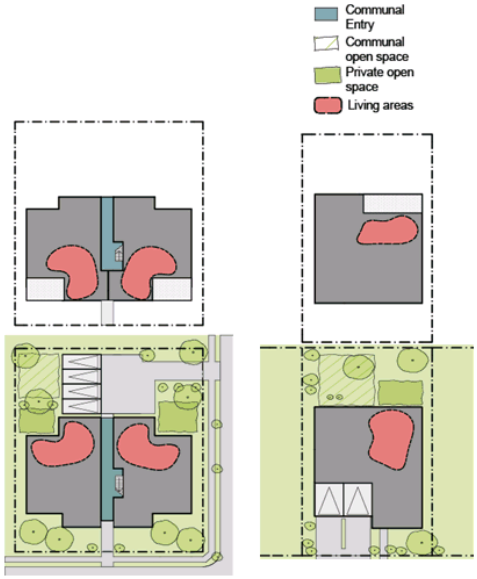
Relevance	Reason
High	Will automatically fall under SEPP in areas zoned for medium density development.

Relevance to Nowra Medium Density Study

- Could be assessed as complying development under SEPP (Exempt and Complying Development Codes) 2008 even if adjoining a heritage building.
- Recommended for land zoned low and medium density development. Some areas of low density in Nowra have a concentration of heritage buildings and new development would require careful design to fit into the streetscape.
- Depending on car parking requirement and design controls this typology could "fit" into the streetscape.
- Recommends that controls for setback, bulk, scale, FSR , building height, landscape and private open space should be kept the same as what is prescribed for a single dwelling house in the area.

Typical principal development controls	
Land title:	Torrens or strata
Minimum Lot size	600m²
FSR:	0.45 - 0.60:1
Landscaped area	20 - 50% increases with lot size
Building height	8.5m
Front setback	Average of neighbourhood or 5.5m
Rear setback	3 - 6m
Side Setbacks	Front 15m: 1.2m at front Rear 15m: 3.6m plus 45° height plane
Car parking	0.5 - 1 space per dwelling





CHAPTER 3
CASE STUDIES

03 CASE STUDIES

Methodology

The challenge of managing increased demand for medium density development in close proximity to a CBD is not unique to Nowra. Many Councils around NSW are faced with similar issues.

The following case studies were selected for their relevance to the situation as it exists in Nowra. Emphasis was placed on developments of a similar scale to that which is likely to occur within the Study Area, the case studies that fall into this category are: Kiama, which is a neighbouring LGA of similar scale and Berry, which is within the Shoalhaven LGA.

The next category were areas that have a well defined character with a heritage component, the case studies which fit this category include Hunters Hill and Bathurst.

Two greenfield case studies were included for comparison to enable consideration of what is possible when there are no restrictions and there is no existing character to reference. The case studies for this category include Tullimbar, located within the Shellharbour LGA, and Casuarina Beach, a new beachfront development within the Tweed Shire LGA.

In order to assess the case studies a series of criteria were identified, to enable comparison and to reflect the components that were deemed most influential on the design outcome. The criteria that were selected included the following streetscape specific elements;

- setbacks (primarily front setbacks),
- the location of car parking and vehicular access requirements,
- front fences, and
- building materials and colour selection.

03 CASE STUDIES

Case Study 1 - Short Street, Hunters Hill

The Hunter's Hill DCP (2013) aims to assist with efficient planning and assessment of development while maintaining the rich heritage characteristics within the LGA. This DCP was selected for review for the following reasons:

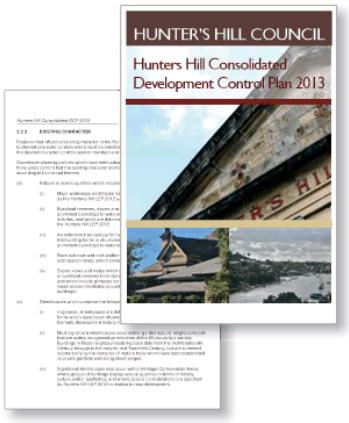
- The DCP and its objectives are clear, providing a concise document which is easy to read.
- The document uses performance based controls.
- The area has several building types and infrastructure, including heritage items.
- The centre has interesting development types, allowed for within the existing planning controls.
- The area includes a range of unique character areas.
- Streetscape is considered, including setbacks, fencing and housing frontages.
- Heritage and landscape are prominent in the area and this is reflected in the controls.

Relevant controls

The emphasis is on retention of 'garden suburb' characteristics and the maintenance of established setbacks. Buildings and especially driveways and parking are not to dominate the streetscape. There is a recognition that front elevations should be 'animated' through the use of verandahs, living room windows and front doors.

Setbacks are defined by averaging the setbacks for the adjacent developments. Parking is to be unobtrusive and preferably permeable, and is not generally to be located in the front setback. The number of parking spaces required relates to the size of the units being built and there is a requirement for designated visitor parking.

Vehicles are to enter and exit in a forward direction. Front fences to a height of 1.2 m are allowable and are to be of sympathetic materials - stone, timber, brick if suitable. Colours and materials are to be compatible with the immediate townscape and colours are to be medium to dark earthy tones.



Relevance to the Nowra medium density study

- Hunters Hill has a significant heritage character which is articulated in the DCP through an existing character statement.
- The document considers heritage and heritage impact in detail and identifies ways to ensure that the heritage value is retained.
- Controls are based on the concept of retaining reference to established development, which is particularly relevant for infill situations.
- Built form height is generally to a maximum of two storey.

Development case study: 11 Short Street, Hunters Hill

This site is within a Heritage Conservation Zone, and is in close proximity to transport and shops. The development consists of three single storey attached courtyard style houses built in 1991.

- This development is compliant with the streetscape controls - the front setbacks are landscaped, the buildings are not dominant and the front facades are 'animated' through the use of visible front doors, verandahs and habitable room windows (although not living rooms in this case).

03 CASE STUDIES

View from Short Street (source: Google)

- Determination of existing adjacent setbacks was difficult given its corner site adjacent to a park, but the front setback does match the immediate adjacent property to the west.
- Regarding parking and driveways, this site shows a variation from the stated controls in that three separate car spaces are located in the front setback, with reverse exiting. Whilst generally not permitted, this site appears to have been given exemption.
- Front fence maintains a 1.2m classic 'picket fence' style common to the neighbourhood.
- Building height is maintained at 1 storey across all 3 lots and fits with the surrounding building heights and the 8.5m height limit.
- The courtyard house design reduces privacy issues and overlooking of private open space from the apartment building to the south.

Overall this development in Hunters Hill has used design elements and clever layout to create three medium density units that are well suited to the area from a character perspective, even though the design does not meet all DCP controls.

Aerial Map, 9-11 Short Street, Hunters Hill (source: nearmap.com)

Case Study 2 - Lambert Street, Bathurst

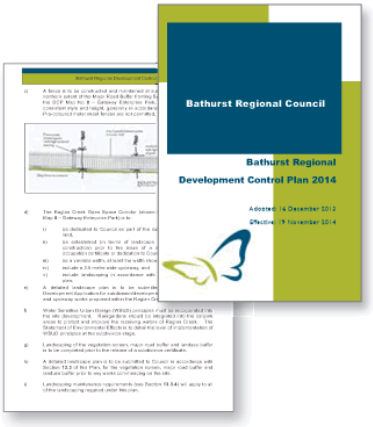
The Bathurst DCP (2014) aims to encourage development within the Bathurst area, whilst protecting and strengthening the areas that have a strong existing character. This DCP was selected for review for the following reasons:

- The DCP clearly sets out objectives.
- The document uses a mix of numerical and performance based controls.
- Broad precincts have been identified, which controls can then reference, enabling different controls to be instated over different parts of the LGA at a broad scale.
- This LGA is diverse and the DCP is relevant for a wide range of block sizes.

Relevant controls

There are no specific streetscape controls. Setbacks are dependant on location, and if the property is within the Heritage Conservation Zone (HCZ), they are to compliment existing setbacks. For properties outside the HCZ, the front setback is set at 6m, unless there is an established existing 8m setback, which needs to be adhered to.

Parking is to be located behind the building line, or must complement surrounding setbacks. For medium density developments in Precinct 1, the parking space requirements are 1 covered space for a 1 or 2 Bed unit, with 1 visitor space per 4 dwellings or part thereof. For 3 Bed units the requirement is 1 covered car space per dwelling and 1 visitor space per 2 dwellings. Roller doors are not to be visible from the street within the HCZ.



Relevance to the Nowra medium density study

- Bathurst is a significant regional centre.
- There are well defined Heritage Conservation Zones, and the DCP acknowledges the need for sympathetic development in these areas.
- There is a diversity of typologies being developed within the LGA.
- The majority of development is single storey.
- Lot and block sizes are similar to those found in the Nowra study area.

03 CASE STUDIES

View from Lambert Street (source: Google)

Development case study:
95-107, Lambert St, Bathurst- Analysis

The site is located within the heritage conservation area and this determines much of the streetscape aesthetic.

- Front setbacks along the street reflect that of existing development.
- Parking has exceeded the required allotment of one covered car space and one visitor space per two sites. Two enclosed garages are provided for each unit. A concession has been made to allow two of the four front sites to each present two single roller doors to the street.
- The site appears to have a mix of titles: the four lots that front the street are on Torrens Title (separate addresses and individual letterboxes) while the remaining 10 units to the rear seem to be Strata Titled.

Overall this development has sought to retain a 'heritage' feel through the proportions and style of the design, especially the roof, and through the details used for elements such as the window sills, verandahs and picket fences.

View of the central driveway (source: Google)

Aerial Map, 95-107 Lambert Street, Bathurst (source: nearmap.com)

03 CASE STUDIES

Case Study 3 - North & Albert Street, Berry

Overview

The DCP for the Shoalhaven LGA (2014) has recently amalgamated a diverse range of controls into a single document. Chapters G13 (dual occupancy), and G14 (other residential accommodation) are included in this review to provide an understanding of the current controls under which development is occurring, with a specific focus on the study area.

Relevant controls

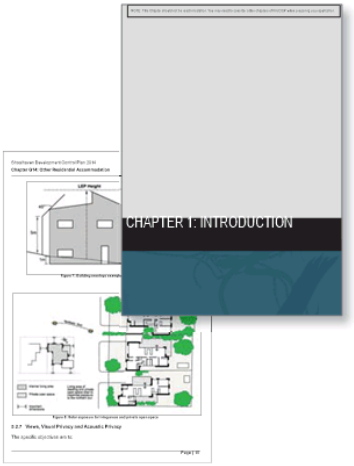
The emphasis of these DCP chapters is on the creation of a sense of address with regard to streetscape controls. New development is to make a 'positive contribution', with parking and garages not to be dominant. The front facade is to incorporate two of the following elements - front door, living room window and verandah, portico or the like.

Setbacks are to be 5-6m and 7.5m if the block is deeper than 30.5m for dual occupancy, and 5.5m for single story multi residential development.

Vehicles are to enter and exit in a forward direction, with car space requirements for dual occupancies being: 1 on-site car space for <125 m² GFA, and 2 spaces if development is >125 m² or 3+ bedrooms. For multi residential developments the ratios are: 1 space for units <55 m², 1.5 spaces for units between 56 and 85 m² and 2 spaces for units >86 m², inclusive of visitor spaces, with at least one space being for the sole use of each dwelling.

Front fences are to be less than 1.2m if of solid construction, and up to 1.8m if 50% transparent. Materials for the fence is to be similar to those used by attractive buildings in the locality.

For the Shoalhaven DCP three developments have been selected for further analysis.



18 Albert St, Berry - Analysis

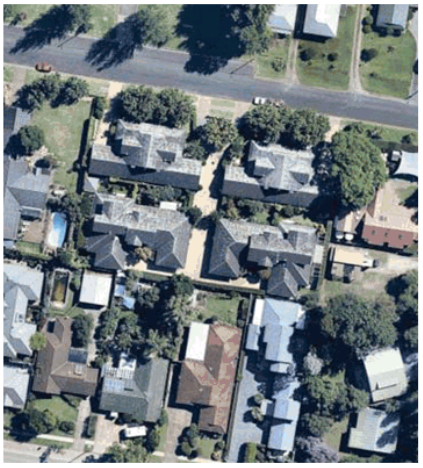
This development has utilised several interesting and unusual elements to provide street presence. Controls have generally been met and have generated some successful outcomes.

- Architectural features such as the dormer windows generate a facade that addresses the street, whilst additional dormers address the driveway, which is the actual entry to the residence.
- The two elements addressing the street, required under the controls, are actually the living room window/ doors and a verandah.
- Private open spaces in the 5.5m front setback work together with the 1.5m hedged fence to create a functional space.
- Two of the eight sites are not able to exit parking in a forward direction and visitor parking appears to be informal.

03 CASE STUDIES

View of street frontage addressing Albert Street

- A significant design element is that the central driveway splits around a tree at the street frontage, which reducing the visual impact of the vehicular access and asphalt/ concrete. The use of a higher front fence combined with the tree in this location limits views down the driveway.
- The high box hedged landscaping and is not generally consistent with the local area.
- The timber shingles and chalet style building form are not typical of the area, however the development is well considered and finished to a high quality.



Aerial Map, 18 Albert Street, Berry (source: nearmap.com)

03 CASE STUDIES

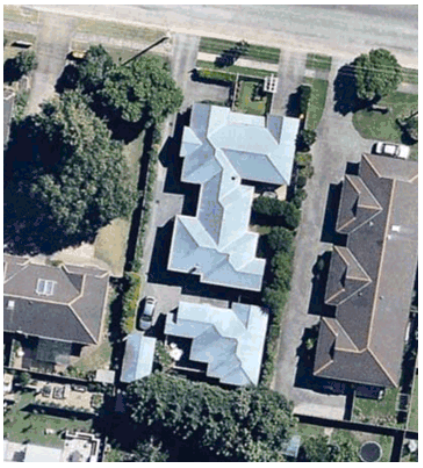
View from North Street

130 North St, Berry

Designed and built by a local builder, the details and finishes of this development are of a high standard.

- The street is addressed by a front door, a verandah and a living room window. The glazed panels in the garage door are effective in reducing the typical visual impact of garages facing the street.
- Sight lines down the driveway terminate in a single free standing garage, which adds to the appearance of a single residential development.
- The front setback is less than the proscribed 5.5m, at 4.5m, and provision is made for visitor parking space within the setback. A second driveway serves the street facing house, yet the overall contribution of the development is such that it makes a positive contribution to the street.
- Colours are a consistent palette and materials suit the character of the neighbourhood.
- Roof form is varied and displays two gables which break up building bulk and add interest.
- The front fence is low, semi-transparent and combined with a slighlty higher hedge.

View of the front garage and driveway (source: Google)



Aerial Map, 130 North Street Berry (source: nearmap.com)

03 CASE STUDIES

View from North Street

140 North & 69 Albert St, Berry

Another recent development by a local builder:

- The development addresses the street and driveway through chamfered entry elements, along with verandahs and windows.
- Garages are located towards the centre of the development and set back, therefore hidden from view. Each unit has a single garage and a car space, which exceeds the control requirements, however has no detrimental effect on the character of the streetscape.
- Front setbacks are the required 5.5m and front fences are picketed and maintain the village feel and character of the area.
- Colours and materials vary yet maintain a consistent neutral palette.
- There is a variety of dwelling sizes, including 3 and 4 bedroom properties, under a community title arrangement.
- A key characteristic of this site is the deep block and two street frontages which allows for a through-site link for pedestrians. A tree, located in the middle of the link, terminates views and mitigates the visual impact of the vehicular driveway and hard surfaces.

Aerial Map (source: Nearmap.com)

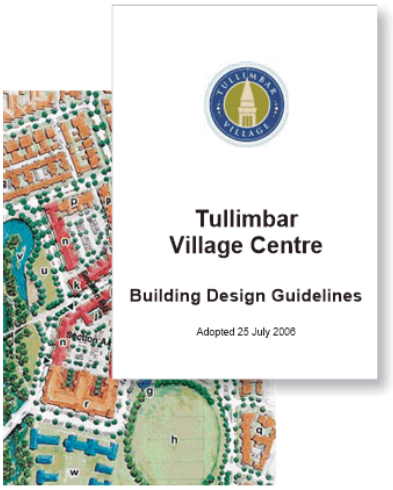
Case Study 4 - Tullimbar Village Centre, Shellharbour

Overview

The Tullimbar Village Centre Guidelines (2006) by Shellharbour City Council set out how development will proceed as this greenfield village is established.

Seeking to create a township based on diversity and vibrancy, with a focus on walkability, attention has been paid to how controls can support these aspirations. These design guidelines were selected for review for the following reasons:

- This development is being built based on 'New Urbanist' principles of walk-ability and community.
- Specific attention has been placed on controls for medium density developments.
- Setback controls are driven by a focus on building use.
- The built form outcome displays a desirable balance of both diversity and cohesion.



Relevant controls

Controls that apply to the village centre seek to create an 'urban core feel' with a sense of enclosure along the new streets. Setback requirements have been developed to ensure good solar access, with a front setback of up to 4m, and an allowance for features such as a verandah or entry portico able to project forward of the building line.

Each development block was required to comply with the Building and Access Guidelines, that specifically set out how the buildings are to be located on the properties and how vehicular access would be achieved. Generally garages were to be unobtrusive, with minimal driveway crossings. The use of rear lanes for access was encouraged.

The landscaping of front setbacks was not to create a barrier between the street and the residence, with a maximum fence height of 1m. Higher fences would be considered for approval dependant on them being 75% transparent.

Relevance to the Nowra medium density study

- Due to the greenfield site, these controls are an example of what can be possible when the need to match existing development is not an issue.
- These controls have focused on the creation of a specific 'feel' for this development, based on the desire for an urban core.
- Variety and innovation have been achieved within clearly defined controls.

03 CASE STUDIES

View of the street frontage addressing Broughton Avenue

Aerial Map (source: Nearmap.com)

Broughton Avenue, Tullimbar Village Centre

Covered by site specific building design guidelines, Tullimbar takes a different approach on several issues:

- The streetscape is characterised by houses that address the street with awnings and verandahs.
- Low level front setback landscaping creates a focus on the architectural design of buildings.
- On street parking is integrated into the street design, and on-site parking is generally to the rear of buildings.
- Picket fences and hedges are on the front boundary and clearly frame the public space which includes a wide verge and carefully selected street trees. Front fences can be built elements (picket fences etc) or landscaped elements (hedges) or a combination of both. Front fences are limited to 1m in height.
- Building height influences the character of the neighbourhood. A **minimum** height of two storeys applies, with exceptions for schools and civic buildings which can be one storey.

Case Study 5 - Manning Street, Kiama

Overview

The Kiama DCP (2012) aims to assist with efficient planning and assessment of development proposals, whilst maintaining the desired character of this area. Located on the south coast of NSW it is a neighbouring LGA to Shoalhaven.

This DCP was selected for review for the following reasons:

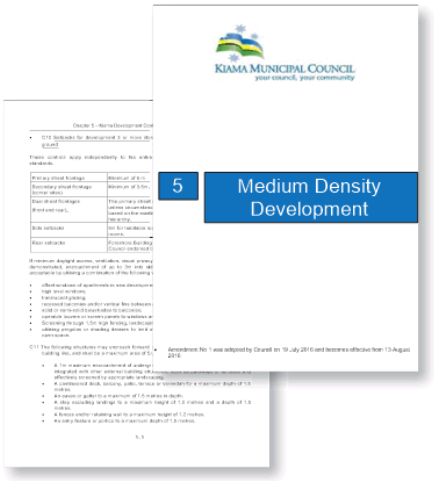
- Developed in response to similar issues to those facing Shoalhaven City Council.
- Controls cover a wide variety of block sizes, building typologies and development scenarios.
- Interesting developments have resulted from these controls.

Relevant controls

Controls focus on the creation of an 'active' streetscape. Habitable rooms are required to provide clear views over the street and entries etc. Architectural features, such as entry porticos and verandahs, are encouraged on the front elevation.

The front setback is to be 4.5m for buildings up to 8.5m high. For buildings between 8.5m and 11m, this is increased to 6m, with an allowance for encroachments of up to 1.5m for elements such as entry features and porticos.

Access points for parking are not to dominate the facade, and materials and colour palettes are to be used to minimise the visibility of driveways. Front fences are limited to a height of 1m, and the length of solid walls along a facade is also limited.



Relevance to the Nowra medium density study

- Kiama is a neighbouring council, with a similar climate and local characteristics.
- Controls have been developed to address similar issues to those facing Shoalhaven Council.
- Developments occurring in Kiama are of a similar scale to those being proposed in the Nowra area.
- The majority of the medium density development occurring in Kiama is happening within areas of established low density residential character.

03 CASE STUDIES

View of the street frontage addressing Manning Street

101 Manning Street, Kiama

This is a small scale, medium density development of four dwellings.

- The street facade displays a mix of materials which effectively breaks up bulk and scale. Vertical blade walls create a strong rhythm along the street.
- Parking is accessed via a driveway to the north-east of the site utilising the topography (lowest part of the site) to provide undercover parking, which is semi recessed.
- The front setback of this development is particularly successful, with a layering of stone wall and vegetation providing an attractive streetscape whilst also catering for private outdoor space for residents.
- Front doors are clearly visible from the street and individual pedestrian paths lead to each door.

Aerial Map (source: Nearmap.com)

Case Study 6 - Casuarina Beach, Tweed Shire

Overview

Casuarina Beach is a master planned community with a focus on environmental planning and management and urban and landscape design, combined with an understanding of the significance of its coastal site.

Created initially via an agreement with Council in the late 1990's, the controls that apply to the Casuarina Beach development area fall into two categories, those that form part of the general Tweed Shire Council DCP (2008), and those created under the Specific Sites section which relate exclusively to this site.

This DCP was selected for review for the following reasons:

- The Tweed Shire Council general section very clearly sets out, via the extensive use of diagrams, what is permissible and desirable development.
- Tweed Shire Council recognises, and has controls specifically relating to, medium density typologies such as townhouses and rowhouses.
- Casuarina Beach has had to implement controls to create the desired character as there was no existing character to create a blueprint for on-going development.

Significant controls

The controls assessed are a combination of those required by Tweed Council, with those specifically required for development within the Casuarina Beach development.

Tweed Council has specifically identified terraces, townhouses and rowhouses as a development typology, with specific controls applied. Generally, streetscape controls require consideration of the existing character, which was not possible at Casuarina, so a desired character was identified.

Front setbacks are to be 6m, with special elements being allowed to encroach up to 3m into this space. The front facade is to be well designed, with prominent front doors and the provision of habitable rooms with adjacent open space at ground level.

Parking is to be to the rear wherever possible and entry and exit is to be in a forward direction. Front fences can be up to 1.5m high, with a solid element to a height of 600mm and a 60% transparent zone above.

Relevance to the Nowra medium density study

- The recognition of the townhouse and rowhouse typology is an innovative direction for a regional council.
- Casuarina Beach is a greenfield development, but it has recognised the role that medium density development can play as a transition between the scale of moderate high rise unit development and the more dominant single storey detached residential development.
- Tweed Council has specifically zoned for rowhouses to transition between the commercial core zones and low density residential zones.

03 CASE STUDIES

View of the street frontage addressing Canthium Way

1-8 Canthium Way, Casuarina Beach

A greenfield masterplanned site, Casuarina Beach, has developed a consistent streetscape with some innovative approaches.

- Requirement of one habitable room at ground level adjacent to an external private open space. This creates a streetscape with an element of connection to the community.
- Generally front doors should be prominent but in this case entry gates have been utilised.
- Front setbacks comply with the 6.0m requirement with verandahs and other elements possible to 4.0m. The upper storey facade is articulated along with the roof line and blade walls. This creates variety in the streetscape facade.
- Tweed Council requires that front setbacks are landscaped and designed to give consideration to the existing area.
- Consistent landscaping along the street, due to the masterplanned nature of the site, adds to coherency throughout the neighbourhood.
- Car parking is accessed via a rear lane, which minimises driveways. The lanes allow space for for visitor parking.

Aerial Map (source: Nearmap.com)

- Front fences are up to 1.5m high and provide sufficient privacy to private outdoor spaces.
- The second storey is required to be recessed and, in this case study, well modulated.
- The use of materials and the articulation of the form further enhances the human scale of this development.

CHAPTER 4
CONSULTATION

04 CONSULTATION

Identifying the issues

The character of the study area has been identified by the local community as one that is worth saving, however given the existing planning controls and the expected pressure for more development in the future there is a real and perceived risk that the character of these areas will be altered over time with future development.

The majority of the study area is not located within a heritage conservation zone and the concerns of development changing the character needs to be balanced with the desire not to preclude all development in such a well located area.

The overarching aim is to support appropriate, well designed, well integrated development that enhances and supports the character of these areas, whilst also recognising the need for diversity of building typologies and the benefits that can be gained by the creation of medium density dwellings, from both an affordability and liveability perspective.

Workshop 1: Council

In order to clarify the "local character" of the study area Studio GL ran a workshop with Council staff in December 2016. The workshop included a presentation on the existing character and then participants were involved in group visioning exercise to identify the existing character of the study area and indicate what they would like it to look like in the future.

Participants were provided with a collection of words, phrases and images to help them discuss options and identify what was important. This was followed by a presentation on case studies from other areas and a facilitated discussion on opportunities and challenges.

EDITORIAL - Nowra's grand old streets are worth saving

30 Aug 2016, 11:37 a.m.

All too often, Nowra gets a bad press. Its CBD is dull, it's poorly maintained, its town planning is a disaster – or so the critics say. However, take a walk around its old precinct between Berry Street and the showground and all those negative assessments quickly fall away.

This part of town is home to some lovely streets and grand old homes that eclipse those in many of our neighbouring towns, Berry included.

For visitors passing down the highway, there is no inkling of the beauty secreted behind the ugly facades, car yards and concrete overpass. Even for residents, it's all too easy to overlook the charms of old Nowra.

For those who live in the old part of town, it's a different story. They know exactly how special their little patch of ground is – how the town's history is ingrained in the high ceilinged weatherboard homes that line the streets. Naturally, they want to preserve their neighbourhood.

Pressure is mounting on the old neighbourhood with many of its blocks zoned for medium density development. That means apartment blocks.

Nowra is facing some tough choices. To prosper it needs to grow. That means more housing. However, hemmed in by flood plains and forests, land is scarce. The argument goes that building out is problematic so building up is an increasingly attractive option. But the question must be asked: is destroying the old to make way for the new the right way to go? Will we regret choices we make now in years to come, just as we have with the destruction of beautiful CBD hotels to make way for unlovely modern buildings? Should there be a more considered approach to balancing the needs of growth with the desire to retain history and character?

The future of old Nowra has become a council election issue, with the Greens calling for a rezoning that would preserve the old precinct. They argue that the old part of town could easily translate into tourist dollars.

Nowra is an undersold destination. Very few people who visit the Shoalhaven's beaches are aware of the hinterland drawcards – apart from the ice cream stops in Berry and Kangaroo Valley.

We rightly focus on making more of the river but we should not lose sight of our other assets, including old Nowra. It would be a crying shame if we lost it forever, replacing it with characterless unit blocks.

Comments

Anon · 19 hours ago

The problem starts when we start trying to declare boring run of the mill fibro shacks as heritage items, instead of the classic 1880's-1920's built homes. Fight for the things worth fighting for and request council to amend the Local building controls to require any new home or building be built in the federation style of home. We have some fantastic builders like Strongbuilt who do amazing styled homes that look direct from that era but hold modern requirements internally

04 CONSULTATION

Existing Character

LANDSCAPED

WIDE STREETS

HEDGES

PITCHED ROOF

TIMBER

STREET TREES

WEATHERBOARD

HERITAGE

GRAND OLD HOMES

ELEGANT

FRONT PORCH

PICKET FENCES

VICTORIAN STYLE

FEDERERATION STYLE

04 CONSULTATION

Desired Future Character - What Council Staff Would Like To See

04 CONSULTATION

APARTMENTS

AFFORDABLE

MEDIUM DENSITY

TERRACES

04 CONSULTATION

Desired Future Character - What Council Staff Think The Community Would Like To See

SHALLOW SETBACKS

PEDESTRIAN FRIENDLY

WELL KEPT

MAINTAINED

DIVERSE

04 CONSULTATION

STREETSCAPE

LOVELY STREETS

VERANDAH

ENTRY

INTERACTIVE

AMBIENCE

YOUTH FRIENDLY

04 CONSULTATION

Workshop 2: Community

04 CONSULTATION

A 2.5 hour workshop with local residents, and members of the community was held on 18 May 2017. The purpose of the workshop was to understand in more detail the key issues for the local community and to help to identify opportunities and challenges for the study area.

The workshop was facilitated by Diana Griffiths, Felicity Lewis and Robert Ellis from Studio GL and involved over 20 participants who generously contributed their time and shared their knowledge and views about the site's character and their aspirations for the area.

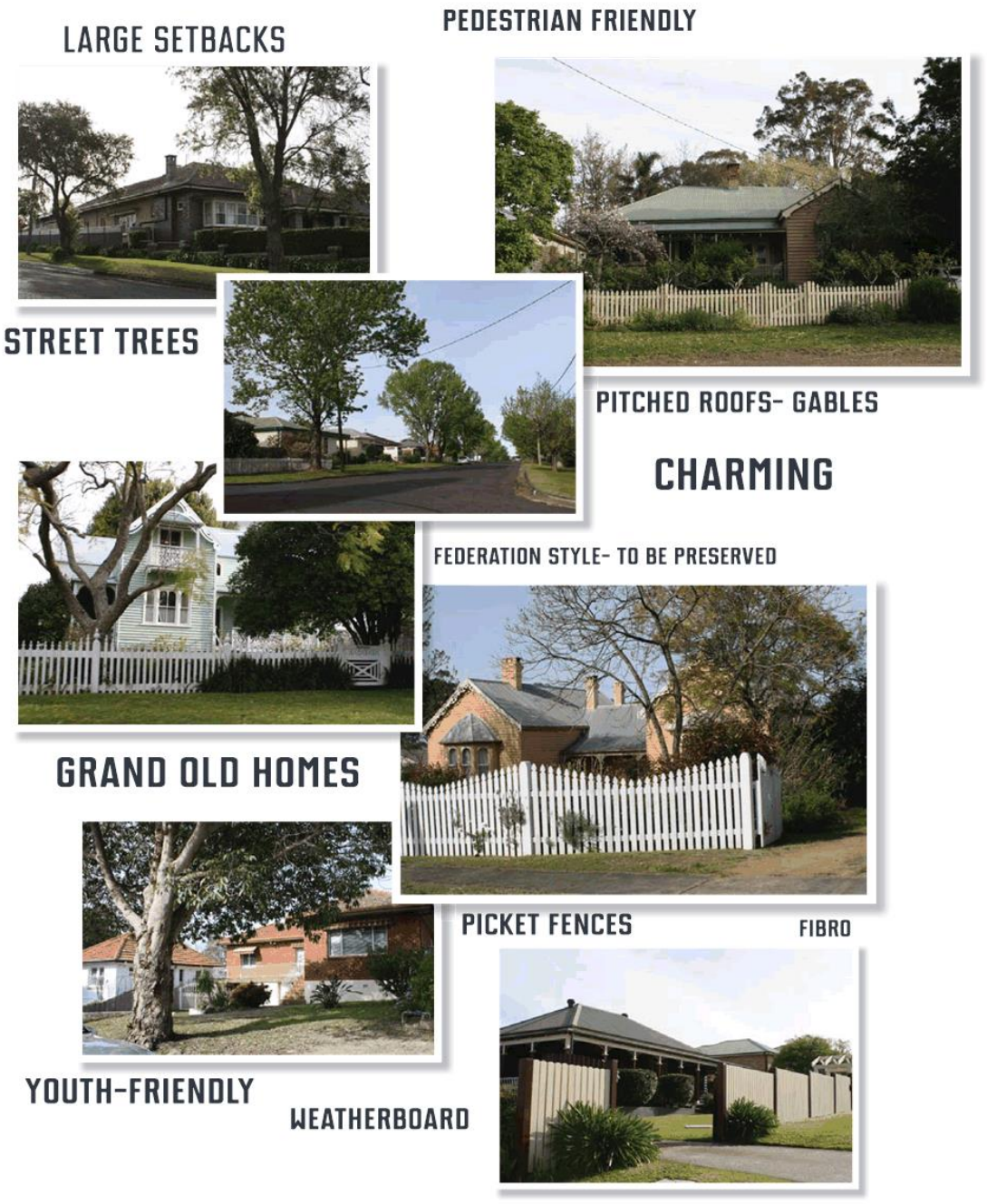
The following activities were undertaken during the workshop:

- An introduction by Studio GL to the project including objectives and program, showing the study area in context and presenting mapping of existing planning controls.
- Group discussion: workshop participants were divided into five groups and using a placecheck map, aerial photos, study area photos, and 'visioning' text.
- As a conclusion, a representative from each group presented their findings of their vision for the study area, including the desired future character and emerging ideas to the wider group.
- A further presentation by Studio GL included the NSW Medium Density Design Guide, and key challenges and opportunities for central Nowra.
- Finally participants were asked to summarise key visions/opportunities/challenges for the area on post it notes, these were then displayed to facilitate group discussion.

04 CONSULTATION

Existing Character - What The Community Think Is Important

04 CONSULTATION



04 CONSULTATION

Existing/ Future Character - What The Community Dislike

ZERO SETBACK

URBAN FEEL

NEEDS GARDEN

BUILDING MATERIALS (NOT IN KEEPING)

THREE STOREY

04 CONSULTATION

04 CONSULTATION

Community visions/ opportunities/ ideas

Key individual visions, opportunities and ideas, presented on post it notes, are summarised below from most noted to least:

1	Retain existing old houses
2	Maintain existing buildings/ retain façades, and incorporate sensitive development behind.
3	Expand conservation area (possibly for whole study area).
4	Preserve the existing streetscape
5	No new car parking in the street
6	Consistency (of character & new development)
7	No development in the area

04 CONSULTATION

Community opportunities and challenges

The key opportunities and challenges for central Nowra identified by the five workshop groups are captured below:

1	Early 20th/ late 19th Century historic houses within the study area are highly valued.
2	The character of the area is important for Nowra.
3	Consistency of character is important for future development.
4	'Fibro' homes have influenced the character of the area.
5	'Fibro' homes appearance can be improved and made more consistent with more historic buildings by weatherboard cladding.
6	Opportunities for sympathetic development through facade retention and modern development in rear of properties.
7	Recent developments are out of character with the area.
8	'Modern' developments considered not appropriate by some participants.
9	Principle of some new development and change to the area not supported by some participants.
10	The importance of attracting young people to the town noted by some participants.
11	Concerns were raised about the quality of the re-development of housing commission owned homes.

04 CONSULTATION

Workshop 3: Developers & Agents

About the workshop

A 1.5 hour workshop with developers, consultants, and agents working on local developments was held on 22 June 2017. The purpose of the workshop was to gain knowledge and insight into the local development market, and identify barriers and constraints to development within existing planning policy.

The workshop was facilitated by Felicity Lewis and Robert Ellis from Studio GL and involved 7 participants who were encouraged to share their knowledge and experience of residential developments in Nowra.

The workshop took the format of a presentation by Studio GL, including an introduction to the project, and presenting mapping of existing planning controls.

A discussion was then held around participants experience of the current development market in Nowra. Studio GL then presented information on potential future planning policy for medium density development in New South Wales, and a summary of community views from Workshop 2.

A discussion was then facilitated around possible future changes to planning controls.

04 CONSULTATION

The Residential Development Market in Nowra

Key points raised in the discussion of the existing development market in Nowra are highlighted below:

- Duplex developments are currently popular, with smaller rear gardens due to maintenance and upkeep.
- 3 bedroom single level units with a double garage between 130-170sqm have been a standard new build development type in Nowra.
- Smaller sized units are becoming more popular with younger couples.
- The yield for developers is generally less on a 2 bed than a 3 bedroom property
- Larger sites have been coming to the market recently, but are still being generally developed for 3 bedroom houses.
- A number of 4 storey larger scale 50-100 unit apartment developments are being proposed on the edge of the CBD (outside the study area).
- The development market in Nowra has picked up in recent years due to increased investment and improved transport links.
- It is envisaged that there will be more single person households wanting to live near the CBD in the future.

04 CONSULTATION

Future residential development in Nowra

Discussion around possible changes to existing planning controls focused on the following themes:

FSR (floor space ratio)

- Some participants considered that the existing 0.35 FSR restricts development in Nowra, and is not consistent with the 0.5 FSR permissible for dual occupancy developments.
- The combination of 0.35 FSR and 35% landscaping requirements was noted as being often unachievable. A variation was often sort to reduce the landscaping requirement to 30%.

Landscaping

- Concerns were raised about increasing the required area of landscaping due to larger gardens not being viewed as important or desirable by purchasers.
- Retaining areas of deep-soil landscaping to maintain existing mature trees and provide planting areas for new trees was discussed and viewed more positively.
- The quality of landscaping was noted as generally poor in new developments in Nowra. Some participants viewed the quality of landscaping as more important than the quantity.

Outdoor Space

- There was a general consensus that the requirements for outdoor space were inflexible.
- It was suggested that the provision of outdoor space could be averaged across a development, and that this could enable the provision of 1 bedroom units without gardens.
- It was suggested that possible reasons for the lack of 1 bedroom units being developed in Nowra could be due to parking and outdoor space requirements.

04 CONSULTATION

Minimum Lot Size

- Some participants note that the existing 350sqm minimum lot size can be an issue and that variations are regularly sort from Council.
- It was noted that there is still a preference for Torrens Title dwellings, but that community titling also works well if communal space is kept to a minimum.
- Cubic Strata was raised as an alternative titling system which is being more widely used and incorporates ownership of a units external walls.
- It was noted that 300-350sqm was considered a good lot size for a 2 bedroom house.

Parking

- Parking was seen as a key constraint to development.
- It was generally agreed that stack parking for individual units should be permissible, as should the ability for individual units to reverse in to the road reserve.
- The requirement to locate parking behind the building line was seen as an issue as it requires additional length of driveway and reduces the development footprint.
- Some participants believed the council should be working towards improving public transport and reducing minimum car parking requirements within Nowra

04 CONSULTATION

Setbacks

- It was noted that private open space is often provided within the front setback in new developments due to space constraints, and/or block orientation.
- Wollongong Council's setback controls were highlighted as a good example. it set a minimum front setback distance of 5m or the same as adjacent buildings, whichever is less.

Materials

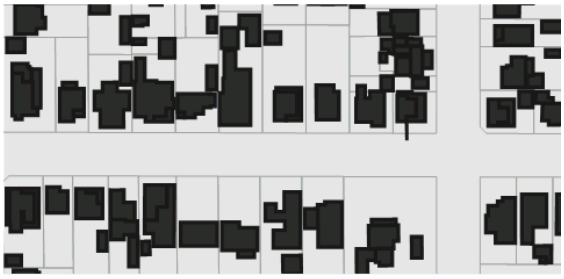
- It was noted that timber and other lightweight cladding systems (not brick or render) may have increased capital and maintenance costs.
- It was noted that detailing of materials is key to achieve a high quality outcome, and that well detailed materials which relate well to the context can increase sales values.

Retention of existing dwellings

- Retention of existing houses on a site has been generally considered by developers in their development appraisals, however, the cost of renovation and the restrictions on the remaining developable area often meant that this was not viable.
- There was a generally positive response to the suggestion that development to the rear of existing houses could be incentivised through an FSR bonus or relaxation of other controls if the existing house was retained.

Streetscape controls

- Having living room windows and doors facing the street and/ or driveway was highlighted as an important feature for future purchasers, and generally incorporated within current development design.



04 CONSULTATION

Summary

- It was generally agreed that planning controls should change to encourage high quality medium density that better relates to the study area's character.
- Some participants suggested that controls should generally be reduced, and trust put in the development industry.
- The idea of relaxing strict numerical controls, and providing stricter 'design based' controls was generally welcomed, however it was acknowledged that performance based controls are subjective.

CHAPTER 5
SCENARIO TESTING

05 SCENARIO TESTING

Controls testing 'by design'

The scenarios on the following pages illustrate testing of development options on a variety of lot shapes and sizes that can be found in the Nowra CBD study area. Two scenarios have been developed for each site, the first one taking a 'business as usual approach', the second one outlining a design that achieves better urban design outcomes.

The purpose of this testing was to identify what controls were driving the outcomes and the impact and benefits of changing the controls. The four typologies tested were as follows:

- Scenario 1 is a dual occupancy (attached) standard site fronting Oliver Parade
- Scenario 2 is row housing on a single standard site along Junction Street
- Scenario 3 tests row housing on a typical corner site at the intersection of Plunkett Street and Shoalhaven Street
- Scenario 4 is row housing on a deep and narrow lot along Shoalhaven Street

The investigation focused on the medium density housing typology of row housing (3 out of 4 test scenarios). Row housing, also known as villa development, is the most typical type of new development in the study area and appears to be popular with local builders.

This typology presents a number of benefits as it is relatively simple construction making it more affordable to build and it generates single storey dwellings that are generally low scale (ie one storey) towards the street and can blend into the streetscape.

The challenges for this typology are that development tends to side onto the block with long driveways creating privacy issues between dwellings on site and with neighbours. On narrow sites there is also limited landscaped area and little opportunity for deep soil planting and substantial vegetation (e.g. larger trees) and a lack of permeable areas creating increased stormwater runoff.

When medium density typologies are allowed in established lower density neighbourhoods and there is an expectation that there will continue to be a diverse mix of typologies (as is the case for the study area) it is recommended that the development controls have to become more sophisticated (and complex). There are three main reasons for this:

1. Different typologies can create a different streetscape or neighbourhood character. Development controls need to "tie" the different typologies together so new development is compatible with the local character of the area. The impact of these controls is mainly visible from the street.

2. Medium density typologies typically involve a more intensive use of the site and this can impact the amenity of adjoining (lower scale) neighbours as well as within the development. The key issues are typically the impact of the medium density development on privacy and on access to light and sunshine.

3. The third consideration is environmental as higher density may result in higher proportion of built area resulting in less permeable soil, less vegetation and fewer large trees unless the planning controls specifically address this.

Scenario 1 - Dual occupancy (attached)

Typical design compliant with current controls

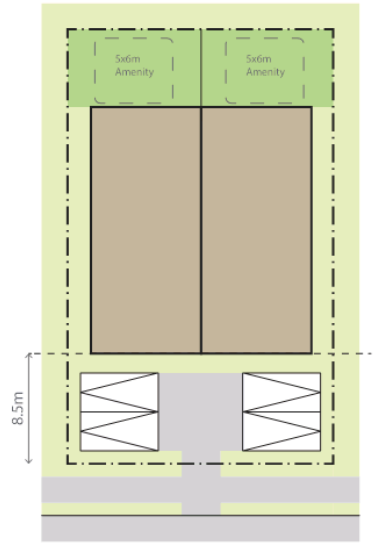


Figure 17 Typical design ground floor plan

Scenario achieving better design outcome

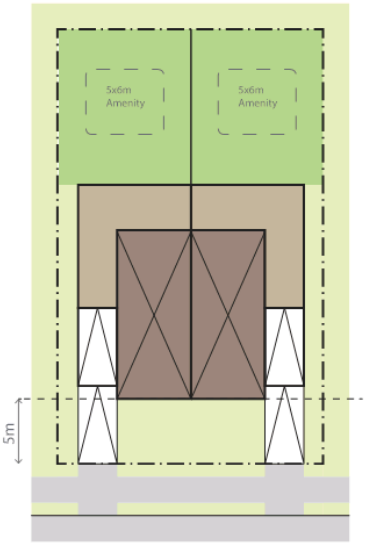


Figure 18 Better design scenario ground floor plan

The plan above shows a typical dual occupancy, site design providing two new single storey dwellings. An 8.5m street setback accommodates two parking spaces per dwelling parallel to the street. The primary private open space is located to the rear of the dwellings.

From an urban design point of view, the issues associated with this design include limited amount of landscaped area, large areas of paving and non-permeable soil, large building footprints due to single storey development and carparking that visually dominates the front setback. The impact of parking is even greater if, as is usually the case, the double garages are located within the building footprint and fronting the street.

The 'better design' scenario identifies a two storey built form located closer to the street by applying reduced front setback. As with the typical design shown adjacent, two car spaces are provided for each dwelling. The difference is the arrangement of these spaces as tandem (or stacked parking) with one car able to be parked behind the other. This design also has part of the dwelling as two storey.

The benefits of this design are a significant increase in usable landscaped area while also increasing the overall dwelling size. There is improved visual amenity from the street due to less intrusive car parking and reduced area needed for vehicle manoeuvring and a two storey frontage which provides better surveillance to the street.

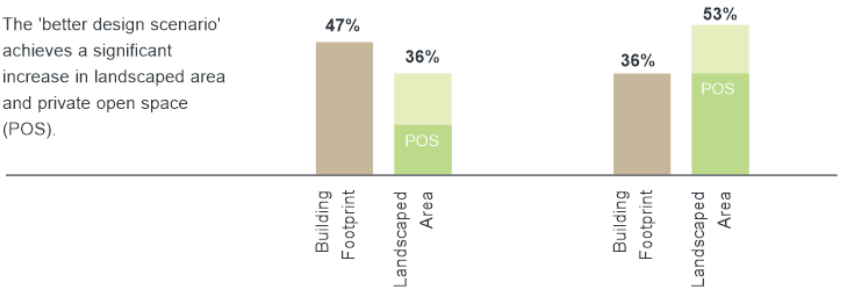
05 SCENARIO TESTING

Data comparison

Area	Typical design scenario	Better design scenario
Site area	680m²	680m²
Subdivision	2 lots	2 lots
No. of storeys	1 storey	2 storeys
Building footprint	320m² (47%)	245m² (36%)
Landscaped area	245m² (36%)	365m² (53%)
GFA	270m²	320m²
FSR (gross)	**0.4:1**	**0.47:1**

Landscaped area

The 'better design scenario' achieves a significant increase in landscaped area and private open space (POS).



Recommendations

	Current controls*	Recommended controls
Lot size	min. 500m²	min. 500m²
FSR	max. 0.5:1	max. 0.5:1
Landscaped area	min. 30%	**min. 35%**
Front setback	6.0 to 7.5m (8.5m drawn)	**min. 4.5m** (5.0m drawn)
Side setback	min. 0.9m (1.5m drawn)	**min. 1.2m** (1.5m drawn)
Rear setback	min. 3.0m (6m drawn)	**min. 5m** (12m drawn)
Parking arrangement	Tandem parking not allowed Entry/ exit in forward direction	**Tandem parking permissible** **Exit in reverse direction permissible**

* Current controls: Shoalhaven DCP 2014 Chapter G13: Dual Occupancy Development

Scenario 2 - Row housing (standard lot)

Typical design compliant with current controls

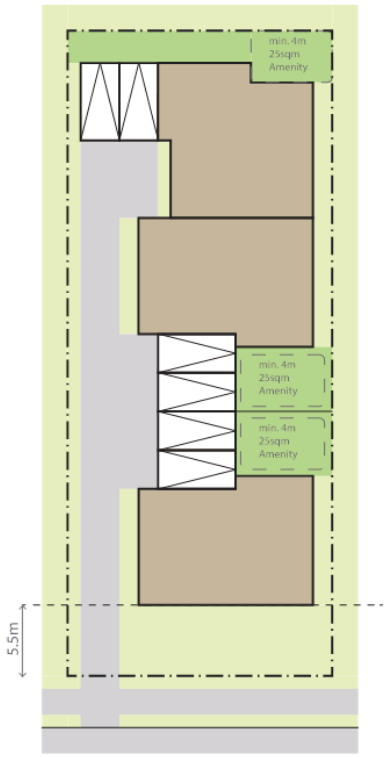


Figure 19 Typical design ground floor plan

The 'business as usual' design shows three, single storey dwellings, located on a typical lot (50m x 20.5m). Each dwelling has two car parking spaces on site which are accessed via a shared driveway. A 5.5m front setback is provided. The private open space for each dwelling has been provided towards the side boundary.

Key issues include the large area dedicated to vehicle access and parking, the poor quality outlook for dwellings and the small area of useable private open space.

Scenario achieving better design outcome

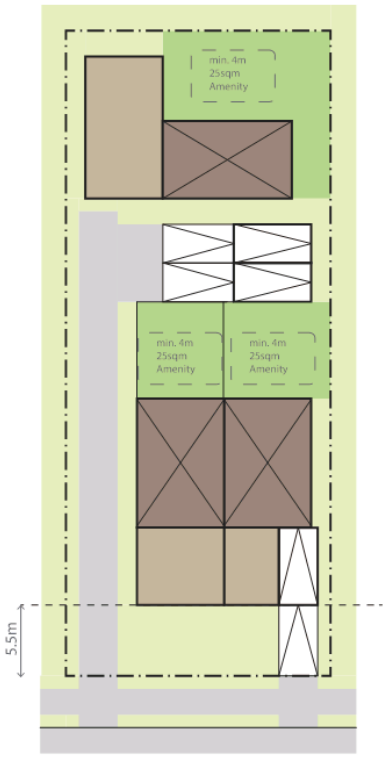


Figure 20 Better design scenario ground floor plan

The 'better design' scenario applies the same front setback, but adds a second floor and rotates two of the three dwellings so that they address the street. A single garage fronting the street is provided to one dwelling near the side boundary. On the other side of the lot, two dwellings share a shorter driveway (compared with the BAU scenario) for vehicle access and parking is in a tandem arrangement.

The dwelling to the rear has been moved and rotated so it faces the driveway, increasing safety, surveillance and visual amenity from the street. This design achieves more floor space and significantly more useable landscaped area.

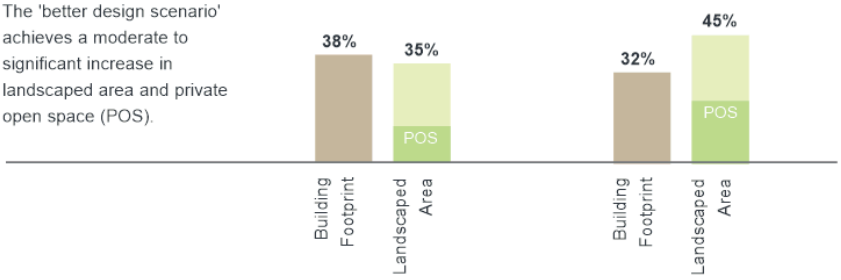
05 SCENARIO TESTING

Data comparison

Area	Typical design scenario	Better design scenario
Site area	1,025m²	1,025m²
Subdivision	3 lots	3 lots
No. of storeys	1 storey	2 storeys
Building footprint	390m² (38%)	330m² (32%)
Landscaped area	355m² (35%)	460m² (45%)
GFA	330m²	445m²
FSR (gross)	**0.32:1**	**0.43:1**

Landscaped area

The 'better design scenario' achieves a moderate to significant increase in landscaped area and private open space (POS).



Recommendations

	Current controls*	Recommended controls
Lot size	min. 500m²	**min. 1,000m²**
FSR	max. 0.35:1	**max. 0.5:1**
Landscaped area	min. 35%	**min. 35%**
Front setback	6 to 7.5m (5.5m drawn)	**min. 4.5m** (5.5m drawn)
Side setback	min. 0.9m (1.0-1.5m drawn)	**min. 1.2m** (1.0-1.5m drawn)
Rear setback	min. 3m (2.5m drawn)	**min. 4m** (2.0-7.0m drawn)
Parking arrangement	Tandem parking not allowed Entry/ exit in forward direction	**Tandem parking permissible** **Exit in reverse direction permissible**

* Current controls: Shoalhaven DCP 2014 Chapter G12: Dwelling Houses

Scenario 3 - Row housing (corner lot)

Typical design compliant with current controls

Figure 21 Typical design ground floor plan

Scenario achieving better design outcome

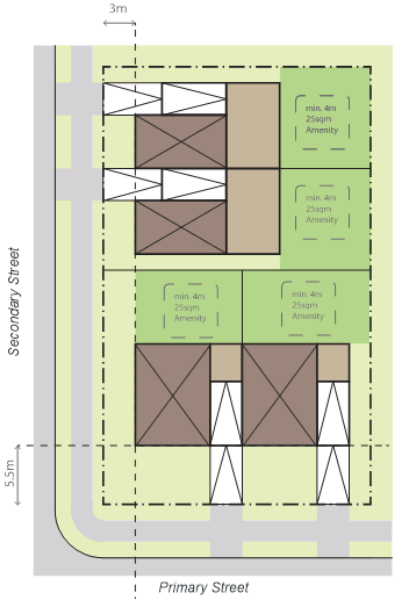


Figure 22 Better design scenario ground floor plan

The BAU design for this typical corner site shows three new single storey dwellings with two parking spaces each. A 5.5m setback has been provided on the primary street and a 3.0m setback to the secondary street. Private open space is located to the rear of the dwellings along the side boundary. Vehicle access is provided via two driveways, one of which is shared. All vehicles can exit in a forward direction.

Key issues include the large footprints of the single storey dwellings, the large area dedicated to vehicle access, poor quality outlook for dwellings, a low amount of landscaped area and the small size of the useable private open spaces.

The 'better design' scenario applies the same front setback, but adds a second floor. This, combined with the dual street frontage, allows additional density while still providing increased landscaped area. All dwellings address the street. An internal driveway is not required as vehicle access and parking is in a tandem arrangement.

Reduces the area required for vehicle manoeuvring on site, creates more efficient layouts and additional space for landscaping. More of the dwellings face the street increasing safety, surveillance and visual amenity from the street. This design achieves increased floor space and significantly more useable landscaped area.

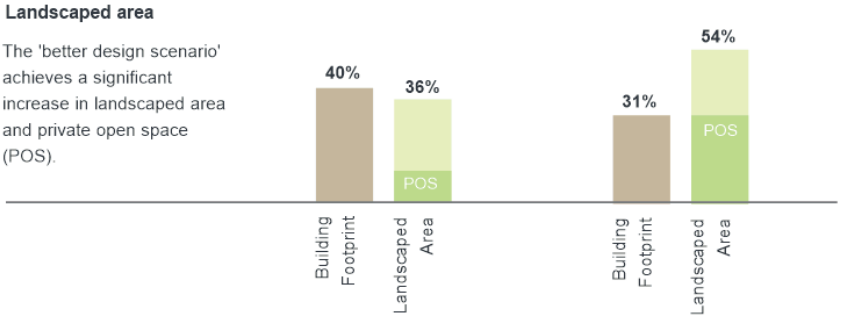
05 SCENARIO TESTING

Data comparison

Area	Typical design scenario	Better design scenario
Site area	1,020m²	1,020m²
Subdivision	3 lots	4 lots
No. of storeys	1 storey	2 storeys
Building footprint	410m² (40%)	320m² (31%)
Landscaped area	375m² (36%)	560m² (54%)
GFA	350m²	455m²
FSR (gross)	**0.34:1**	**0.44:1**

Landscaped area

The 'better design scenario' achieves a significant increase in landscaped area and private open space (POS).



Recommendations

	Current controls*	Recommended controls
Lot size	min. 500m²	**min. 1,000m²**
FSR	max. 0.35:1	**max. 0.5:1**
Landscaped area	min. 35%	**min. 35%**
Front setback (primary street)	6.0 to 7.5m (5.5m drawn)	**min. 4.5m** (5.5m drawn)
Front setback (secondary street)	min. 3.5m (3.0m drawn)	**min. 3.0m** (3.0m drawn)
Side setback	min. 0.9m (1.5m drawn)	**min. 1.2m** (1.5m drawn)
Rear setback	min. 3.0m (8.0m drawn)	**min. 5m** (8.5m drawn)
Parking arrangement	Tandem parking not allowed Entry/ exit in forward direction	**Tandem parking permissible** **Exit in reverse direction permissible**

* Current controls: Shoalhaven DCP 2014 Chapter G12: Dwelling Houses

Scenario 4 - Row housing (deep, narrow lot)

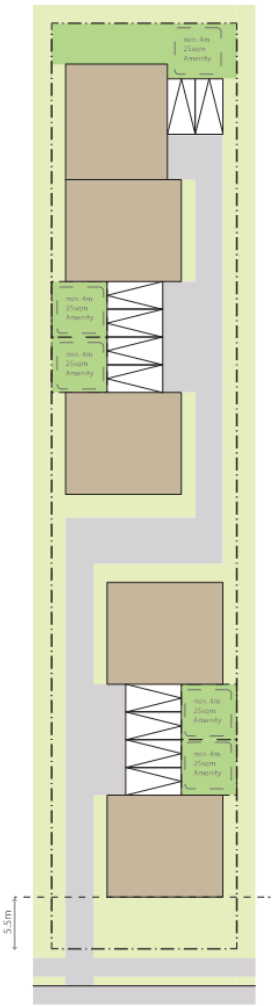
The BAU design for this deep and narrow site (100x20m) provides 5 new single storey units, with 2 parking spaces per unit. Each dwelling has two car parking spaces on site which are accessed via a shared driveway. A 5.5m front setback is provided. The private open space for each dwelling has been provided towards the side boundary and at the rear of the site. The driveway flips sides mid block to avoid a long view of the driveway from the street.

Key issues include the large area dedicated to vehicle access and parking, the poor quality outlook for dwellings and the small area of useable private open space.

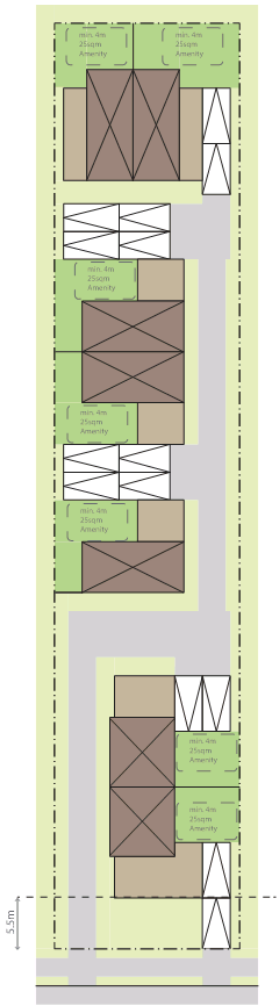
The 'better design' scenario applies the same front setback, but adds a second floor and rotates the front dwelling so it addresses the street. A single garage fronting the street is provided to this dwelling near the side boundary.

Other dwellings share a shorter driveway (compared with the BAU scenario) for vehicle access and parking is in a tandem arrangement. This allows additional density while still providing increased landscaped area.

Typical design compliant with current controls



Scenario achieving better design outcome



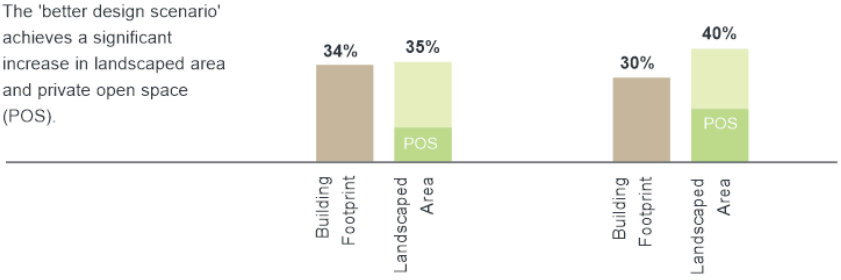
05 SCENARIO TESTING

Data comparison

Area	Typical design scenario	Better design scenario
Site area	2,000m²	2,000m²
Subdivision	5 lots	7 lots
No. of storeys	1 storey	2 storeys
Building footprint	690m² (34%)	600m² (30%)
Landscaped area	700m² (35%)	790m² (54%)
GFA	585m²	855m²
FSR (gross)	**0.29:1**	**0.43:1**

Landscaped area

The 'better design scenario' achieves a significant increase in landscaped area and private open space (POS).



Recommendations

	Current controls*	Recommended controls
Lot size	min. 500m²	**min. 1,000m²**
FSR	max. 0.35:1	**max. 0.5:1**
Landscaped area	min. 35%	**min. 35%**
Front setback (primary street)	6.0 to 7.5m (5.5m drawn)	**min. 4.5m** (5.5m drawn)
Side setback	min. 0.9m (1.5m drawn)	**min. 1.2m** (1.0m drawn)
Rear setback	min. 3.0m (4.5m drawn)	**min. 5.0m** (5.0m drawn)
Parking arrangement	Tandem parking not allowed Entry/ exit in forward direction	**Tandem parking permissible** **Exit in reverse direction permissible**

* Current controls: Shoalhaven DCP 2014 Chapter G12: Dwelling Houses

NOWRA CBD FRINGE
MEDIUM DENSITY STUDY

Recommendations Report

February 2018
Prepared for Shoalhaven City Council
by Studio GL

Document Information

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Final 3	14/02/2018	DG, FL, RE, BB, AN	DG

NOTE: The location and height of existing built form and trees has been approximated from high resolution aerial photography (nearmap.com) site visits and Google Streetview. The cadastre boundaries are based on Council's LEP mapping. The information in this document has been provided for context purposes and is indicative only. This document takes into account the particular instructions and requirements of our client. It is not intended for and should not be relied upon by any third party and no responsibility is undertaken to any third party.

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TABLE OF CONTENTS

CHAPTER 1
INTRODUCTION

01 INTRODUCTION

1-1 Overview

Purpose of this study

In 2016 Council recognised that a large area to the west and south of the Nowra CBD was starting to experience significant change. The area contained a mix of dwelling types of different ages and had been zoned to allow a wide variety of dwelling types.

The purpose of this study is to assist Council in identifying answers to three key questions:

1. *Are recent development applications typical of what can be expected under the current controls and what is the likely impact of leaving the current controls unchanged?*
2. *How have other Councils addressed similar challenges in encouraging greater variety and increased medium density housing without fundamentally damaging the existing character of an area?*
3. *What controls are needed to encourage an appropriate mix of density and high quality housing in the study area going forward?*

Background

The character of the study area has been identified by local community members as one that is worth saving, however, given the existing planning controls and the expected pressure for more development in the future, there is a real and perceived risk that the "existing character" of these areas will be fundamentally changed.

As the majority of the study area is not identified as a heritage conservation zone, and well located close to the Nowra CBD, the Shoalhaven District Memorial Hospital and large amounts of open space, it is also a logical and desirable area for increased density.

The overarching aim is to encourage appropriate, well designed and well integrated development that enhances and supports the character of the study area, whilst also recognising the benefits that can be gained by providing attractive medium density dwellings in this location.

Process

The process began with a wide ranging and comprehensive review of the current Local Environmental Plan (LEP) and Development Control Plan (DCP) planning documents and relevant case studies from other Local Government Area DCPs. The review highlighted key issues on development that was occurring in the Local Government Area (LGA) and the impact on local character.

A photographic study of the study area was also undertaken which has helped to identify the character of the area (i.e. building heights, setbacks, driveways, fences and materials) and provided insights into potential applicable development controls for the area.

This study was supported by a spatial analysis of the study area which identified existing urban design qualities such as the street and block structure, built form patterns, street proportions (width and height), heritage character, built form age and use, and the topography, landform and intersection density.

A series of workshops were held with Councillors, Council staff, local community members, landowners and developers. These workshops allowed the findings and preferred direction to be discussed and tested.

Structure of this document

This document is structured into four parts:

- Chapter 1 provides an introduction to the report.
- Chapter 2 is a review of key issues related to neighbourhood character, both generally and specifically as they relate to the study area.
- Chapter 3 identifies recommended changes to LEP controls.
- Chapter 4 identifies recommended changes to DCP controls.

This report is supported by a *Background Report* that summarises the analysis and process undertaken to identify the recommendations.

CHAPTER 2
LOCAL CHARACTER

02 LOCAL CHARACTER

2-1 Defining local character

The Contributing Elements

In order to understand and define neighbourhood or local character, it is necessary to understand that character is influenced by more than just built form. Character is comprised of a number of different elements which can be grouped into three domains:

1. The underlying land form
2. The urban structure
3. The buildings

1. The underlying land form

The character of any place starts with the underlying quality of the land. The geology defines what can be built, the character of the vegetation and the maximum height of any trees. The topography determines the areas of steep and flat land, where the water flows along natural drainage lines and where it collects, the views from the high points and up to local features. The location of the land influences the climate of the area, the natural ecology and what will grow where.

2. The urban structure

The next layer is the urban structure of streets, blocks and lots that is overlaid over the land. The streets can be laid in a gridded and regular pattern - or organic and curving, often following the topography. Streets can be narrow or wide, generally equal in size or hierarchical with wide main roads and narrower minor roads and lanes. The blocks of land created by the pattern of streets can be square, rectangular or highly irregular. Lots within the blocks can be wide and shallow or deep and narrow or a wide combination of sizes.

Areas that have developed over time, like Nowra, often have a wide mix of lot sizes. The urban structure also defines where the retail and commercial centres are located and the community infrastructure of open spaces, public transport, education facilities and community facilities.

3. The buildings

The buildings form the final element. The type of building use (i.e. residential, commercial), the type of dwelling (detached, attached, villa, townhouse or apartment) and the style and age of the building all play a role in defining the character of a place. The height of a building, the roof form and the materials all play their part.

Where the building is located on the site, the front, rear and side setbacks and the quality and character of public private interfaces (materials, style, fence, height) also contribute. In suburban areas that rely on private cars, the location of car parking and its arrangement are also critical.

"Neighbourhood character is essentially the combination of the public and private realms. Every property, public place or piece of infrastructure makes a contribution, whether great or small. It is the cumulative impact of all these contributions that establishes neighbourhood character."

Understanding Neighbourhood Character. Planning Practice Note 43 (Vic)

02 LOCAL CHARACTER

2-2 The study area

The neighbourhood character of the study area can be described as 'mixed traditional garden residential' with a predominance of small houses in a garden/ landscape setting.

At the start of the review it was expected that the study area would contain a number of clearly identifiable and separate character areas. What the analysis revealed instead is that there is a wide diversity of characteristic features which are scattered across the area, making it difficult to clearly separate sections into different character areas.

In effect the area has one character - however, certain areas have different concentrations of certain features such as older buildings or dwellings of fibro construction.

1. The underlying land form

The physical characteristics that define the neighbourhood.

The study area is undulating, falling predominantly from the west to the north and east. High points have views to the mountains to the north. Key streets including Junction Street, North Street, sections of Shoalhaven Street, Douglas Street and Berry Street are tree-lined.

2. The urban structure

The underlying structure of streets, blocks, open space and infrastructure.

The area has a dominant grid-based structure based on a 200m x 200m north/south, east/west grid with 20m wide road reserves. Most blocks are further divided with a mid block road (15m or 20m wide). While the majority of lots are narrow (15m-20m wide) and deep (35m-45m) there is a large variety in lot size and shape. Streets have upright kerbs, wide grassed verges and some have concrete footpaths. Public parks and open spaces tend to lie on the edges of the study area and open space has an informal, bushland character.

3. The buildings

The built environment including the buildings and the spaces between the buildings

Dwelling styles are diverse, ranging from timber Victorian houses, brick and timber Californian Bungalows, and simple mid century fibro houses to latter 70's, 80's and 90's dwellings. The vast majority of dwellings are detached single storey dwellings although more recent developments include slab on ground, brick veneer villas and townhouses. Front fences, when they occur, are predominantly low and partially open.

Dwellings have a variable front setback. Side setbacks are often small, although they can be wider on one side. Generous rear setbacks often contain large trees. Parking is generally to the side or the rear.

02 LOCAL CHARACTER

Figure 1 Aerial map of the Nowra CBD fringe study area

02 LOCAL CHARACTER

Topography and views

- The area is gently sloping with streets overlaid in a grid pattern revealing the topography.
- Local views down streets and towards the mountains to the north.

Geology and natural features

- High land with few natural watercourses.
- Topography creates different catchment areas i.e. north of Plunkett Street, south of Jervis/ west of Osborne Street.
- The area has an underlying sandstone geology.
- Mix of exotic and native trees but trees can grow to significant height.

Street pattern

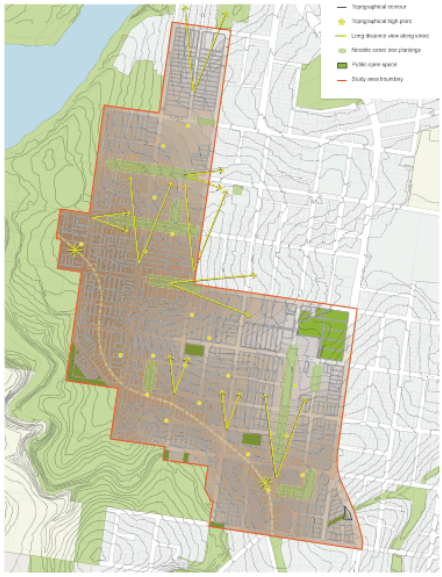
- Regular connected grid street structure with few laneways.

Street character

- Street widths typically 20m with some 15m wide.
- Wide carriageways with parking lanes on both sides of the street and upright kerb.
- Wide grassed verge some with footpaths. Some street trees.
- Open, suburban street proportion (i.e. width of street to height of buildings).
- Heritage buildings with large setbacks on a number of corner sites. Few terminating views (grid street structure).

Street hierarchy

- No major roads through the area with a network of streets and multiple optional routes.



Topography and landform analysis map
(Source: Background Report)

Street width analysis map
(Source: Background Report)

02 LOCAL CHARACTER

Block pattern

- Rectangular street blocks (long and narrow) with mid-range intersection density (i.e. large blocks).

Lot pattern

- Typical lot is narrow and deep, but wide range of sizes and shapes.
- High number of narrow E/W lots which can create overshadowing issues.

Open space

- Extensive network of open spaces on the edges of the area (i.e. Showgrounds). Open space has an informal, bushland character.
- Marriott Park has a more formal character with facilities.

Community facilities

- Community and civic facilities within the study area include two schools, several churches, a bowling club, local court, police station, museum and a youth centre.
- The focus of the neighbourhood, which is the Nowra CBD, lies outside the study area.

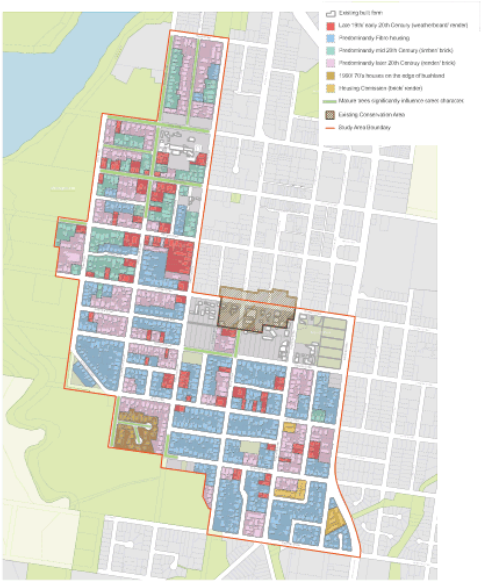
Dwelling type

- Predominantly, detached dwelling (traditional) with increasing numbers of villa, dual occupancy and townhouse developments more recently.

Architectural style

- Wide range of ages and architectural styles (Victorian, Federation, Californian Bungalow, PreWar, Interwar, 1970's, contemporary).

Building footprint analysis map
(Source: Background Report)



Built form age and materials analysis map
(Source: Background Report)

02 LOCAL CHARACTER

Materials

- Predominant materials in older buildings are light weight (weatherboard / fibro) with raised ground floor level. Some brick buildings, often rendered and/or painted.
- Recent development is typically slab on ground, brick veneer.

Roof

- Most dwellings have a pitch roof of between 20-30 degrees.
- Light coloured metal roofs are popular with a few tiled roofs.

Height

- Predominant building height is 1 storey.

Setbacks

- Front setbacks generally range between 3-6m.
- Narrow side setback often wider on one side.
- Generous rear setbacks with established gardens and large trees.

02 LOCAL CHARACTER

Front fencing

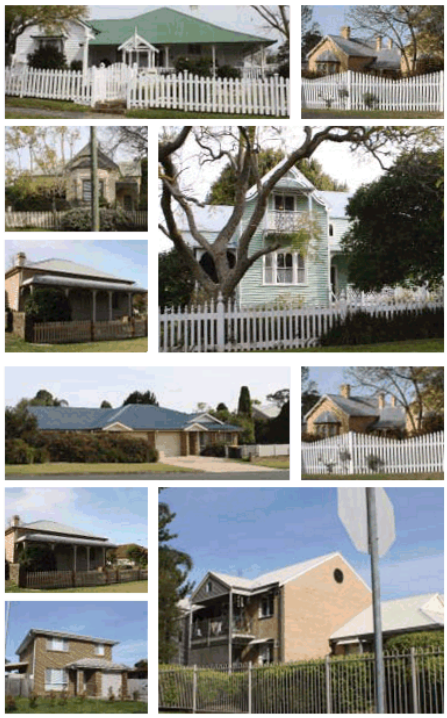
- Older areas tend to have low front fences (timber picket, low brick walls). Higher colorbond fences are present in more recent developments.

Garden style

- Traditional established front gardens. Lawns with limited planting is also popular.

Car Parking

- Majority of parking at rear or side of property.
- Wide concrete driveways and double garages facing the street and parking spaces in front setback occur in some recent developments.



CHAPTER 3
LEP RECOMMENDATIONS

03 LEP RECOMMENDATIONS

3-1 Review of planning controls

Planning controls establish the scale, intensity and use of future buildings, and outline where a particular type of development is encouraged and seen as desirable, for example by defining land use zones and maximum building heights. In NSW each LGA has a LEP that guides development. LEPs are prepared by local Councils and the current Shoalhaven LEP 2014 commenced on 22 April 2014.

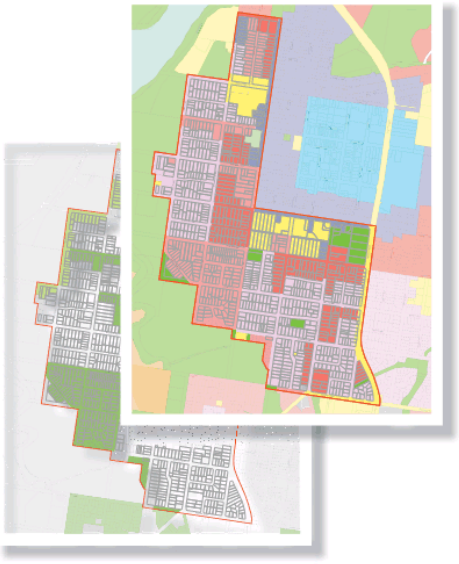
The DCP supports the LEP and identifies additional development controls and standards for addressing development issues at a more detailed level. Development controls build on the overarching LEP planning controls and go into more detail, aiming to ensure that buildings are designed in such a way that their location, size and appearance all help to improve the character of a street or entire area. For example, they may identify minimum setbacks, upper level setbacks, the location of car parking or the minimum landscaped area of a site.

Unlike a master plan or structure plan, which establishes the strategic direction for an area, DCPs are primarily concerned with private land and set the rules within which new development can occur.

In order to define the future development controls for the study area, the following LEP level planning controls have been reviewed as part of this study:

- Heritage and conservation area(s)
- Building heights
- Land use zoning

As local character is important for this area, heritage



and conservation area controls are likely to have the greatest impact, as they require developments to thoroughly consider the local context. Building height controls affect the visual impact of buildings when viewed from the street and also influence future character.

Land Use Zones are likely to have a lesser impact in controlling the future character of the study area if permitted building types are required to respond to heritage, height and DCP controls.

Outcomes of the review of selected LEP controls are summarised on the following pages.

03 LEP RECOMMENDATIONS

3-2 Heritage and conservation

Heritage in the study area

The study area contains a high number of late 19th and early 20th Century houses (weatherboard/ render/ brick), particularly in the area to the west of the CBD. During the workshops it was noted that these buildings and areas with substantially intact streetscapes have an attractive character that was highly valued.

The Nowra CBD and this study area have few listed heritage items and the conservation areas are relatively small in comparison with other centres (see *Figure 2* map of Bathurst CBD). The analysis phase revealed that a number of lots proposed in the Local Plan (LP)264 as having heritage value (following a heritage study in 1998 by Peter Freeman) did not become listed heritage items in Amendment No. 212 to LEP 1985 nor are they identified as heritage items in the current LEP 2014. A similar situation occurred for some of the Conservation Areas identified in the (LP)264.

Defining heritage

The Environmental Planning and Assessment Act 1979 identifies that the responsibility for heritage is shared by state and local government agencies. The Act provides local government with the power to protect items and places of heritage significance in the local area through Local Environmental Plans and Development Control Plans.

To identify a heritage conservation area, historical research is undertaken that assesses an area's heritage significance and the collective nature of buildings and components which contribute to the quality of the area and streetscape. These may include the historical subdivision pattern, consistency in building form, siting and scale, materials or common age of building stock which reflect a particular period or periods in the history and growth of the area.

Recommendation

The study area has a number of historic buildings and intact streetscapes that are currently not identified as heritage items and/or located within a conservation area, therefore it may be advisable to:

1. Undertake an assessment of the area's heritage significance and, if justified, extend the number of properties listed and/or expand the amount of land that is within a conservation area. Areas immediately to the west and south of the study area have the highest concentration of older dwellings. The potential extent of an extended heritage conservation zone is shown in the adjacent Figure 3 but this may alter following heritage advice.
2. Consider whether boundaries to any future conservation zone(s) should run to the rear of properties or along streets. Locating the boundary to the rear of properties ensures both sides of a street are encompassed within the zone(s), but may have additional impacts on adjoining properties to the rear. It is also noted that properties across the street from a conservation zone may be required to produce a heritage assessment under clause 5.1 of the Shoalhaven LEP 2014.
3. Identify items of heritage value as well as contributory and non-contributory items within any future conservation zone, to help future development respect the character of the zone.

03 LEP RECOMMENDATIONS

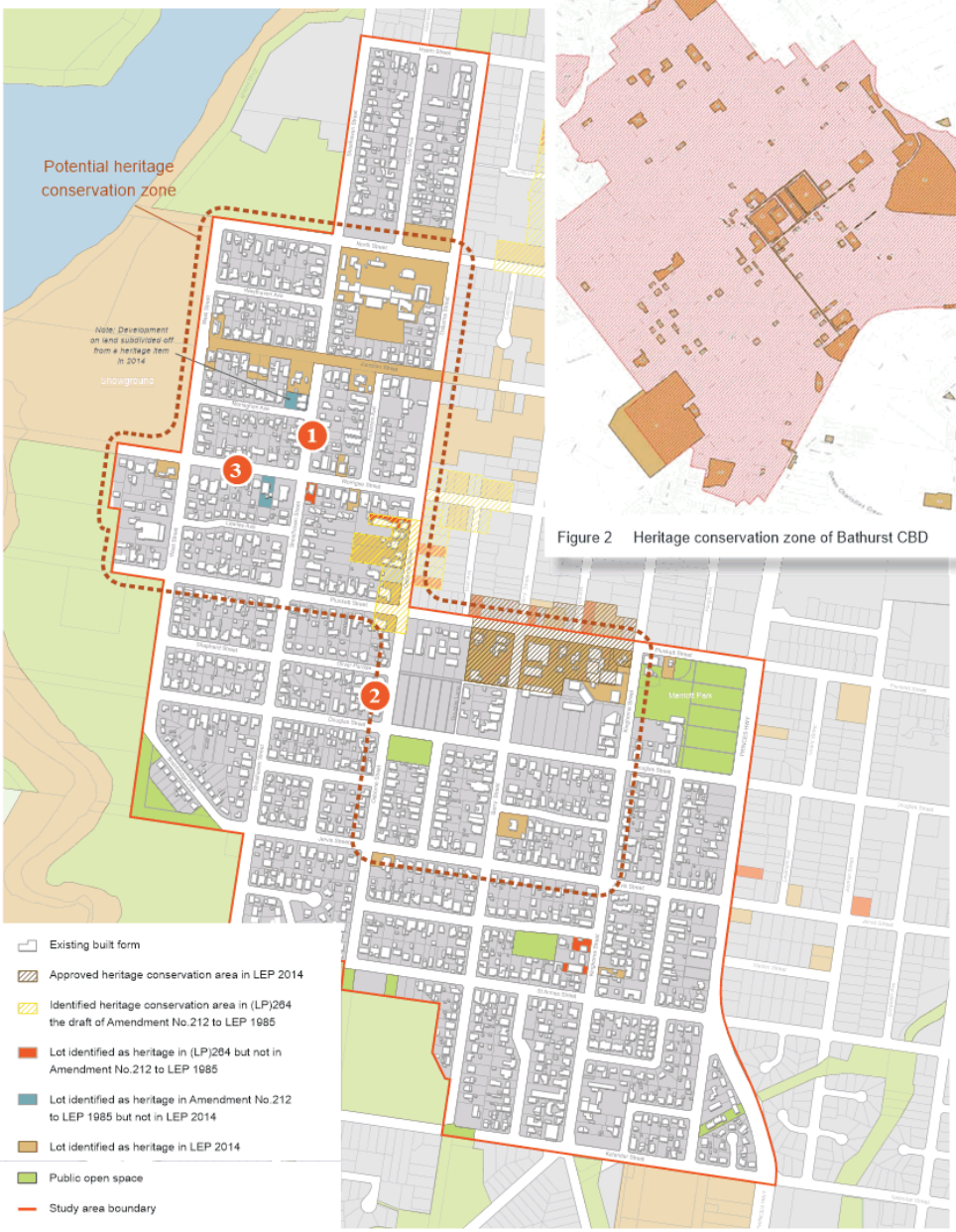


Figure 2 Heritage conservation zone of Bathurst CBD

Figure 3 Potential extended heritage conservation area diagram

03 LEP RECOMMENDATIONS

3-3 Building heights

Under the current LEP the majority of the study area has a default maximum building height of 11m. Areas within the study area that are zoned R2 Low Density Residential typically have a maximum building height of 8.5m. Lots along Worrigee Street and West Street facing the Nowra Showground, and along North Street and Shoalhaven Street facing public open space, have a maximum building height of 7.5m.

Residential buildings typically have ceilings between 2.4m-2.7m high which creates a floor to floor height of between 2.8-3.1m. A maximum building height of 7.5-8.5m accommodates a two storey building with a pitch roof while a maximum height of 11m can accommodate a 3 storey building, including a three storey apartment building.

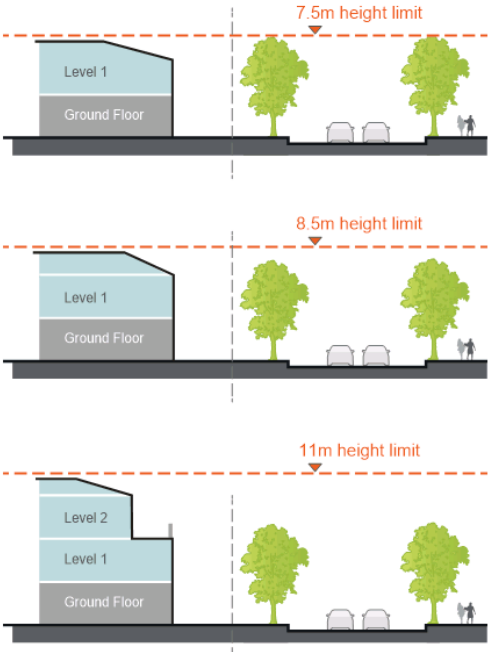


Figure 4 Indicative built form within height limits

Recommendation

Depending on the findings of the heritage study it may be advisable to:

1	Reduce the maximum building height to the west of the CBD between North Street and Plunkett Street to a maximum of 8.5m. As noted previously this area has the highest concentration of older dwellings
2	Reduce the maximum building height to the south of the CBD between Plunkett Street, Jervis Street, Osbourne and Kinghorne Street to 8.5m. This area also has a concentration of older dwellings.
3	Increase the maximum building height along Shoalhaven Street and along Colyer Street north of North St and south of Hyam St to 11m to be closer to the 12m height limit of the adjoining mixed use area to the north.
4	Increase the height of the blocks bounded by Bainbridge Crescent, Douglas Street, Osborne Street, and Jervis Street, to 11m.
5	Increase the maximum building height of the plots with a current height limit of 7.5m along the north west edge of the study area to 8.5m.

03 LEP RECOMMENDATIONS

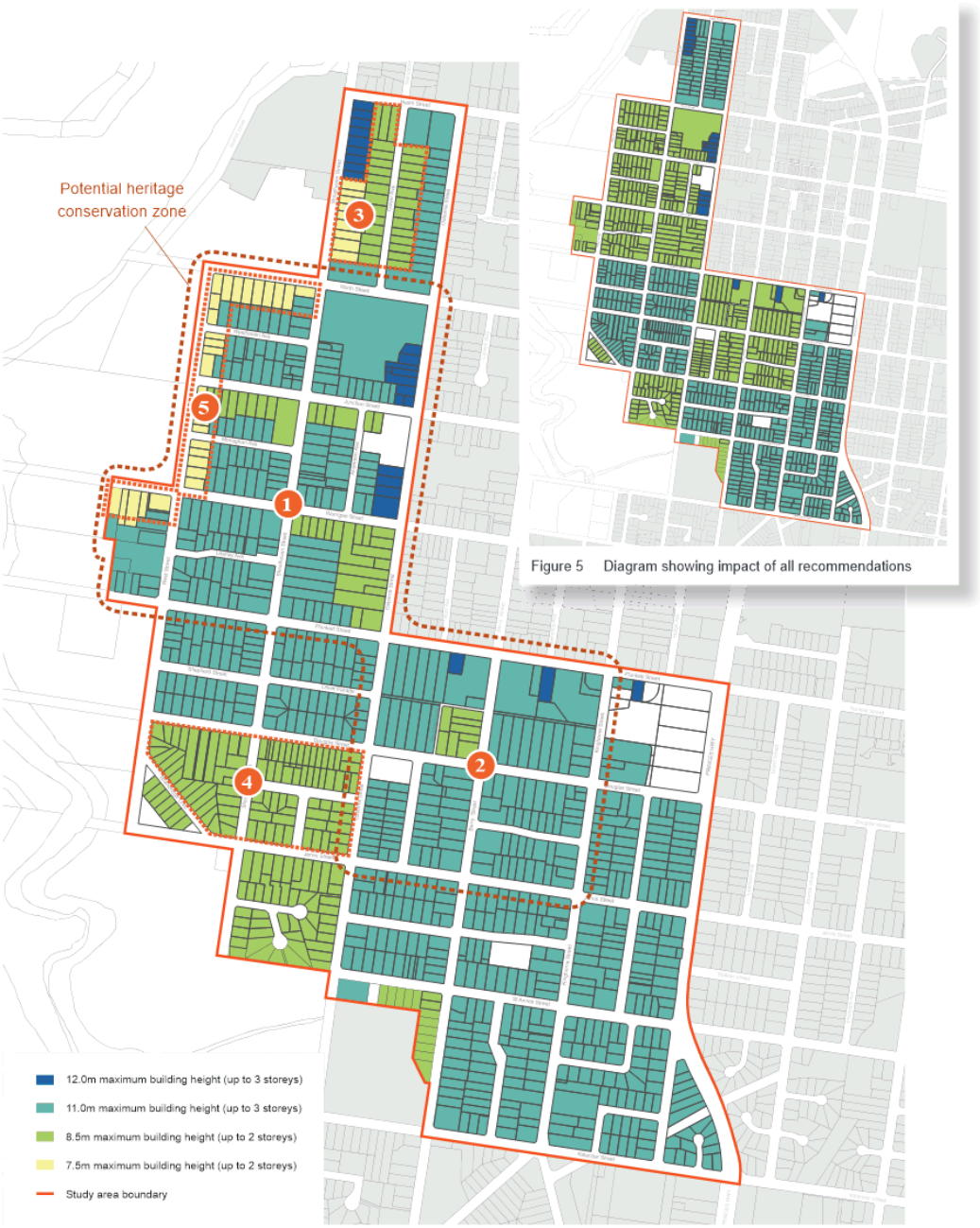


Figure 5 Diagram showing impact of all recommendations

Figure 6 Building heights diagram and recommendations

03 LEP RECOMMENDATIONS

3-4 Land use zoning

Under the current LEP the three predominant land use zones within the study area are R1 General Residential, R2 Low Density Residential and R3 Medium Density Residential. There are also areas of SP2 Infrastructure (mainly civic uses such as schools), RE1 Public Recreation and B4 Mixed Use.

The majority of the study area is zoned R1 General Residential which is a flexible zoning with a wide range of potential uses permitted with consent (see table below) from Dwelling Houses to Residential Flat Buildings. The key difference between R1 General Residential and R3 Medium Density is that Dwelling Houses and Semi-Detached Dwelling houses are not permissible in R3 Medium Density.

Relevant Uses - permitted with consent	Land Use Zones		
	R1	R2	R3
Dwelling Houses	X	X	
Dual occupancies	X	X	X
Attached Dwellings	X		X
Semi-Detached Dwelling	X		
Multi Dwelling Housing	X		X
Residential Flat Buildings	X		X

One option considered to help protect areas with a higher concentration of older properties was to expand the area of R2 Low Density Residential to the west of the CBD between North Street and Plunkett Street and between Douglas St and Jarvis Street. However it was decided that the combination of a future conservation zone, reduced building heights and new DCP controls should be sufficient to ensure new development considers and respects existing local character whilst still enabling additional development in these well located areas.

Recommendation

Depending on the findings of the heritage study it may be advisable to:

1. Retain the area of R3 Medium Density as this is well located land in close proximity to the town centre. Increase consideration of the local character by locating these areas within a Conservation Area, reduce building height and create new DCP controls.
2. Change the zone of the blocks bound by Bainbridge Crescent, Douglas Street, Osborne Street, and Jervis Street to R1 General Residential. This area has fewer older dwellings, some very large lots and a concentration of fibro dwellings. This change would need to be subject to bushfire advice and will need additional requirements before a change is allowed (i.e. minimum lot size, frontage) due to some unusual lot shapes and sizes.
3. Change the zoning of the block to the west of the Princes Highway from R1 General Residential to R3 Medium Density. Changing the zoning of areas with fewer heritage items that are outside the conservation zones should provide the incentive to replace individual dwelling houses with purpose built development that can create a buffer to the highway. Rezoning of this area would be subject to RMS advice regarding vehicle access from Princes Highway.
4. Change the zoning of the block to the north of North St, south of Hyam St and west of the hospital to either R1 or B4 to enable greater development in this well located area close to the hospital. A B4 Mixed Use zoning could be appropriate if future medical uses are envisioned for the area. A R1 General Residential zoning is more appropriate if purely residential uses are preferred. Consider an incentive to create through site links as this area has a very large block sizes (over 300m long).

   The option to up-zone will change the existing character of Colyer Avenue, which is defined by wide front setbacks and 1960/70's houses, however the wide front setbacks are an inefficient use of land.

03 LEP RECOMMENDATIONS

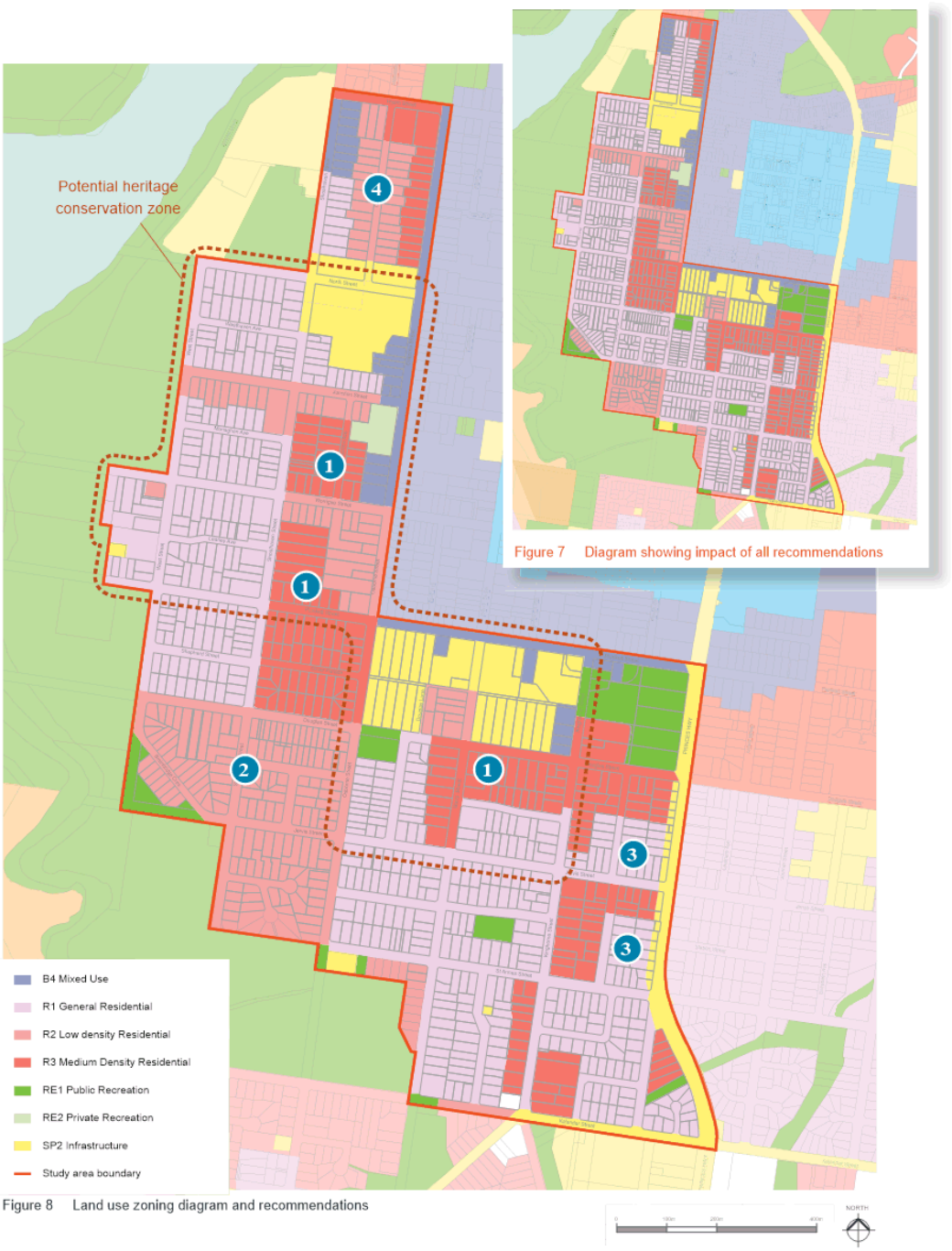


Figure 7 Diagram showing impact of all recommendations

Figure 8 Land use zoning diagram and recommendations

CHAPTER 4
DCP RECOMMENDATIONS

04 DCP RECOMMENDATIONS

4-1 Building and floor heights

Potential additional controls/ wording

Building heights shape the desired future character of neighbourhoods and define the level of enclosure and the scale and proportions of streets and public spaces. In conjunction with setbacks and site coverage requirements, they are the key control that sets up the basic building envelope within which development can occur and provide certainty around the intensity of future built form to the community, landowners and developers.

Objectives

i) To ensure the height of buildings is appropriate to the residential scale and character of the street and the local area.

ii) To facilitate adequate daylight access to neighbouring properties, streets and public places.

iii) To minimise impacts of new development on privacy, solar access and views to or from the dwelling or adjoining dwellings.

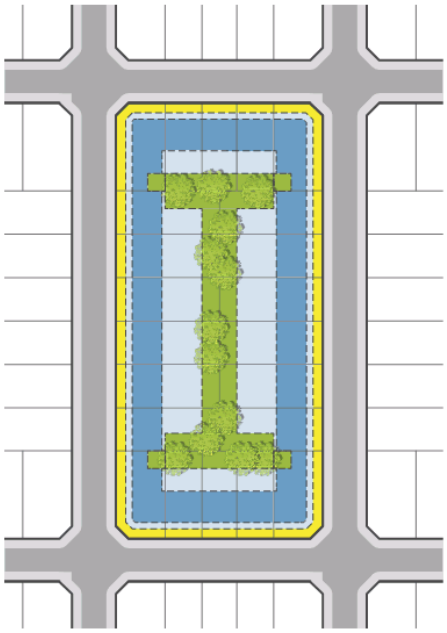


Figure 9 Indicative height limit and front and rear setback zones shown at a neighbourhood block level

Performance Criteria	
01	*Development responds sensitively to the context and supports the desired future character (residential 1-2 storey scale) of the street and local area.*
Acceptable Solutions	
a)	Development is to conform with the maximum building heights as outlined in the *Shoalhaven Local Environmental Plan (SLEP 2014).*
b)	Where a third storey is permissible, it must sit within a 45 degree plane projected from 7.5m (two storeys) height above existing ground level at the minimum primary street setback.
c)	Where a third storey is permissible it must not extend further than 22.0m in depth measured from the street boundary. (refer to Figure 9 and Figure 10 *Section 4-2 Street setbacks).*
d)	Development in a heritage conservation zone, or in close proximity to a heritage item, should respect the local character and respond appropriately to the visual curtilage of heritage items. Development may be required to have lower heights and increased setbacks and/or landscaping.

Performance Criteria	
02	*Development supports internal residential amenity such as solar access and ventilation.*
Acceptable Solutions	
a)	Compliance with the ADG for residential flat buildings. For other residential buildings, a floor to ceiling height of 2.7m and shallower building depths of less than 16m are encouraged.

Legend
- Front setback zone (can vary)
- Rear setback zone (can vary)
- 2-storey built form zone
- 3-storey built form zone (where permissible)

04 DCP RECOMMENDATIONS

4-2 Street setbacks

Selected existing controls for consideration

Minimum primary street setback	Current DCP control	Recommended control
Standard dwelling	5.0m	4.5m
Dual occupancy	6.0m for lot depth < 30.5m 7.5m for lot depth > 35m	
Other residential (med dens)	5.5m for single storey 9.0m for over one storey	

Minimum secondary street setback	Current DCP control	Recommended control
Standard dwelling	3.5m	3.0m for the side of buildings facing the secondary street, and where the building fronts the principle road. For a building fronting a secondary street the setback from the street should be 4.5m. See 'Figure 12 Secondary street setback requirements'.
Dual occupancy	3.5m	
Other residential (medium density)	3.0m	

Additional 45 degree plane	Current DCP control	Recommended control
Standard dwelling	45 degrees projected plane from 5m height above existing ground level at boundary	45 degrees projected plane from 7.5m (two storeys) height above existing ground level at the minimum primary street setback. See 'Figure 10 Front setback requirements'.
Dual occupancy	45 degrees projected plane from 5m height above existing ground level at boundary	
Other residential accommodation	n/a	
Conservation area(s)	n/a	45 degrees projected plane from 4.5m (one storey) height above existing ground level at the minimum primary street setback. See 'Figure 11 Front setback requirements in heritage conservation zones'.

04 DCP RECOMMENDATIONS

Rationale:

It is recommended that the minimum street setback distances to primary and secondary streets is consistent across **all** permissible residential development in the study area (i.e. standard, dual occupancy and medium density residential). This will support a unified streetscape character and not distinguish between single detached dwellings or medium density typologies.

Smaller setbacks tend to enhance the streetscape because the built form is located closer to the street which creates spatial enclosure and offers interest and passive surveillance. Smaller setbacks are also more typical in older areas like this part of Nowra.

'Pulling the buildings forward' also allows space for more flexible layouts within the site and greater rear (landscaped) setbacks.

Setbacks for new buildings fronting secondary streets on corner sites should be consistent with minimum street setbacks for adjoining properties. This will help to tie the development in to neighbouring developments and provide adequate space for landscaping and building articulation such as porches and verandahs associated with dwelling entrances.

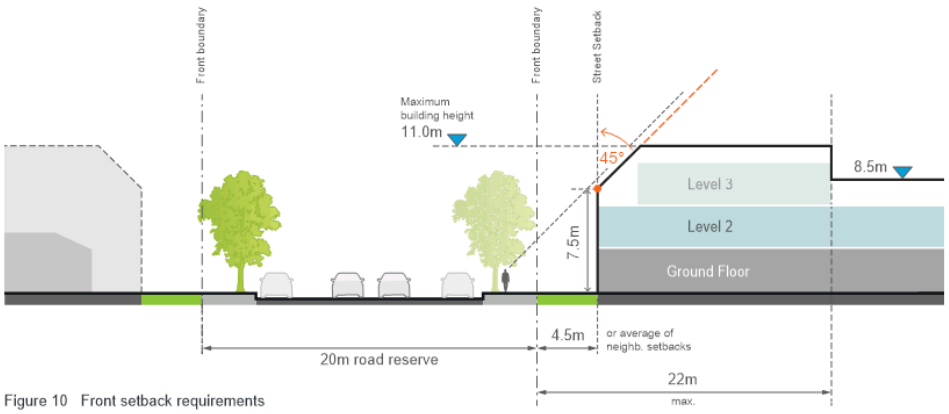


Figure 10 Front setback requirements

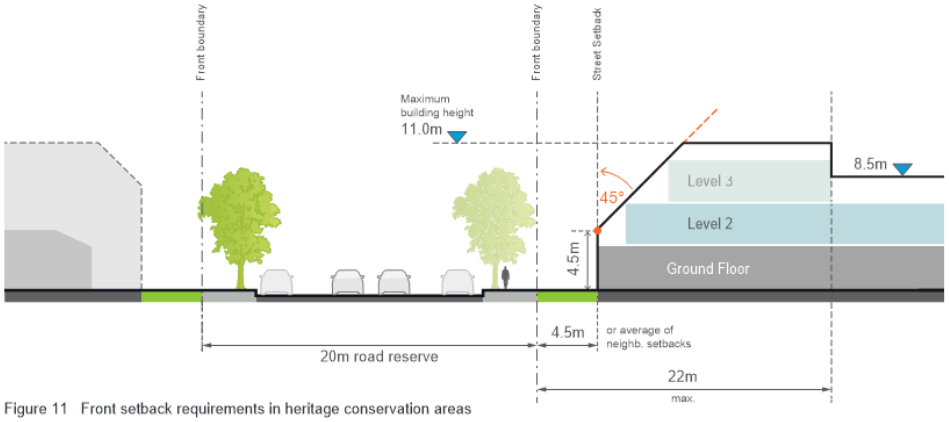


Figure 11 Front setback requirements in heritage conservation areas

04 DCP RECOMMENDATIONS

Potential additional controls/ wording

Street setback areas are an integral part of the streetscape and their treatment is fundamental to the amenity and character of a neighbourhood. Combined with building height and road reserve width, they define the proportion, scale and visual enclosure of the street.

Street setbacks not only establish the alignment of buildings along the street, they also provide for landscaping, entries to dwellings and deep soil areas, enhance the setting of the dwelling(s), are free from buildings and structures to enable views from the building to and from the street, and provide a transition between public and private space (the treatment of the front setback is further outlined in "4-7 Streetscape interface").

Objective

i) To ensure new development reinforces the desired streetscape character.

ii) To create a transition between public and private space which balances passive surveillance of the street and residential privacy.

iii) To create a landscape setting for residential buildings and ensure compatibility with other buildings in the street.

Requiring new development to be setback to the average of neighbouring development or 4.5m, whichever is the **lesser** will change the character of some streets with generous existing setbacks by bringing the buildings forward. However this control will help establish the future desired character, outside of any future conservation zone(s), within the study area.

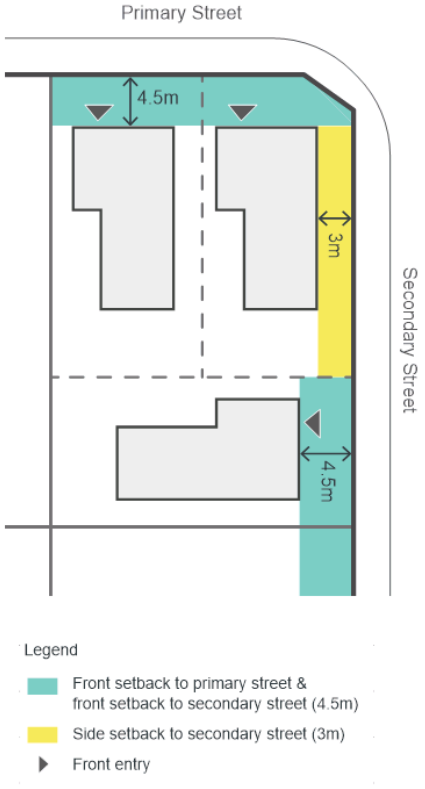


Figure 12 Secondary street setback requirements

04 DCP RECOMMENDATIONS

Performance Criteria	
03	*New development establishes the desired spatial proportions of the street and defines the street edge.*
Acceptable Solutions	
a)	Setbacks are to be the average of neighbouring built form on each side or a minimum of 4.5m whichever is **the lesser.**
b)	Within conservation area(s) setbacks are to closely relate to the neighbouring built form, and character of the street.
c)	For corner lots, the primary front boundary is determined by the postal address. The front setback to the secondary street is a minimum of 4.5m. The side of buildings facing the secondary street can be set back a minimum of 3.0m, where the building fronts the primary road. See "Figure 11 Secondary street setback requirements".
d)	Where a third storey is permissible, it must sit within a 45 degree plane projected from 7.5m (two storeys) height above existing ground level at the minimum primary street setback. (see also "4-1 Building and floor heights")
e)	Garages and carports are located a minimum of 1.0m behind the front building line and a minimum of 6.5m behind the front boundary.
f)	Basements may not protrude into a front setback area.
g)	If located adjacent to heritage item, the front setback is to respect and respond appropriately to the visual curtilage of this item and the local character.

04 DCP RECOMMENDATIONS

4-3 Side setbacks

Selected existing controls for consideration

Minimum side setbacks	Current DCP control	Recommended control
Standard dwelling	0.9m	Increase to 1.2m for wall lengths of less than 50% of side boundary. Maintain a 2.0m setback for wall lengths greater than 50% of side boundary. 4.0m to primary living room windows/ doors.
Dual occupancy	0.9m	
Other residential accommodation	1.0m (wall length <50% of side bndry) 1.5m to habitable room windows 2.0m (wall length >50% of side bndry)	

Additional 45 degree plane	Current DCP control	Recommended control
Standard dwelling	45 degrees projected plane from 5m height above existing ground level at boundary	45 degrees projected plane from 5m height for first portion of the lot <22m from street 45 degrees projected plane from 3.6m height for remainder of the lot >22m from street
Dual occupancy	45 degrees projected plane from 5m height above existing ground level at boundary	
Other residential accommodation	45 degrees projected plane from 5m height above existing ground level at boundary	

Side setbacks are recommended to be consistent for all residential development and slightly increased compared to the current requirement to allow for more functional side passages and greater access to light and air. Towards the rear of the lot, side setbacks for upper levels should increase compared with the part of the lot that is closer to the street frontage.

04 DCP RECOMMENDATIONS

Potential additional controls/ wording

Side setbacks are particularly important in residential neighbourhoods that experience an increase in density as they facilitate appropriate separation to neighbouring sites to allow for sunlight access, and visual and acoustic privacy.

Objectives

i) To support the desired streetscape character with appropriate massing and space between buildings.

ii) To provide adequate privacy and access to daylight, ventilation and outlook for residential dwellings on the site and adjoining properties.

iii) To create landscaped areas that are able to support mature vegetation and water infiltration.

Performance Criteria	
04	*Side setbacks allow adequate daylight, ventilation and privacy to neighbouring properties.*
Acceptable Solutions	
a)	The minimum setback from the side boundary for all development is 1.2m. In addition, built form including roofs must be within the 45 degree angular plane as illustrated in **Figures 10 and 11.**
b)	Primary living room windows on the ground floor can face the side boundary only if set back by a minimum of 4.0m.
c)	Primary living room windows on the first floor or higher can face the side boundary only if set back by a minimum of 6.0m, to maintain visual privacy from neighbouring developments.

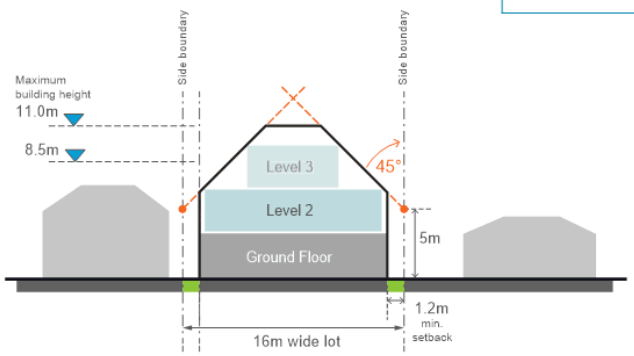


Figure 13 Side setbacks for portion of the lot <22m from front boundary

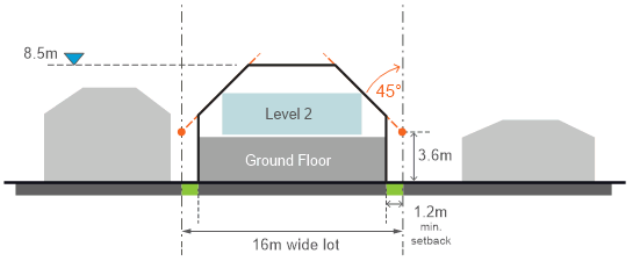


Figure 14 Side setbacks for portion on the lot >22m from front boundary

04 DCP RECOMMENDATIONS

4-4 Rear setbacks

Selected existing controls for consideration

Minimum rear setbacks	Current DCP control	Recommended control
Standard dwelling	3.0m	4.0m
Dual occupancy		
Other residential accommodation		

Additional 45 degree plane	Current DCP control	Recommended control
Standard dwelling	45 degrees projected plane from 5m height above existing ground level at boundary	45 degrees projected plane from existing ground level at rear boundary
Dual occupancy	45 degrees projected plane from 5m height above existing ground level at boundary	
Other residential accommodation	n/a	

Rear setbacks are recommended to be consistent for all residential development and increased compared to the current requirement to allow the opportunity to locate landscaped and deep soil areas. This will create landscaped corridors to the rear of properties in conjunction with neighbouring sites.

04 DCP RECOMMENDATIONS

Potential additional controls/ wording

In addition to achieving adequate building separation and privacy, rear setbacks offer the opportunity for deep soil zones that are able to establish landscaped corridors in conjunction with rear areas of adjoining properties.

Connected areas of deep soil enable mature trees and habitat corridors which increase biodiversity, residential amenity and improve the local micro climate. Often these mature trees can be seen from the street which adds to the desired 'garden suburb' neighbourhood character.

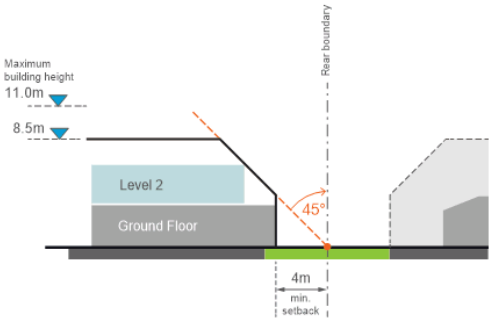


Figure 15 Minimum rear setback requirements

Performance Criteria	
05	*Development allows for adquate amenity to neighbouring properties and future buildings and creates consolidated landscaped corridors.*
Acceptable Solutions	
a)	The minimum setback from the rear boundary for all development is 4.0m. In addition, built form including roofs must be within the 45 degree angular plane as illustrated in **Figures 12 and 13.** Note: setbacks may need to be greater to achieve residential amenity, retain significant vegetation and/ or protect the visual curtilage of a heritage item. Note: Minimum rear boundary setbacks may be reduced for single storey ancillary structures, such as carports, garages or sheds (subject to Council approval).
b)	Rear setbacks are landscaped with a preference for native planting species, refer to the Shoalhaven Plant Species List for the relevant area.
c)	Deep soil zones are located next to other deep soil zones of adjoining properties to create consolidated landscaped corridors (refer to "4-5 Landscaped area" for further requirements).

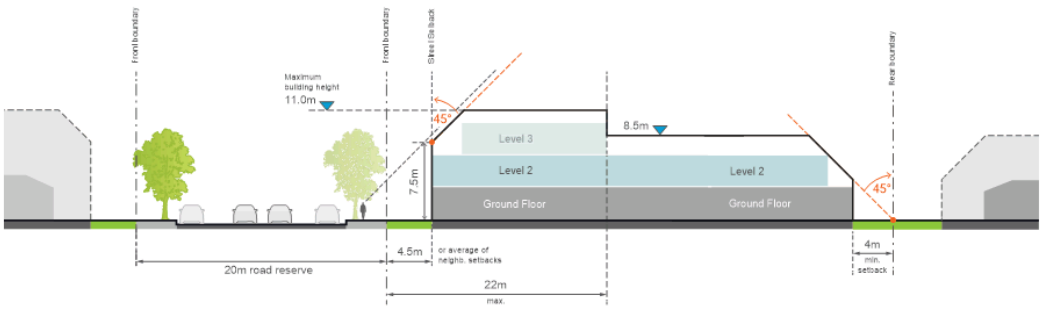


Figure 16 Section showing the maximum building envelope on a typical site

04 DCP RECOMMENDATIONS

Illustrative comparison of current and proposed controls

Side setbacks

For illustrative purposes and testing, the sections on the following four pages show the current DCP controls and recommended future controls for easy comparison.

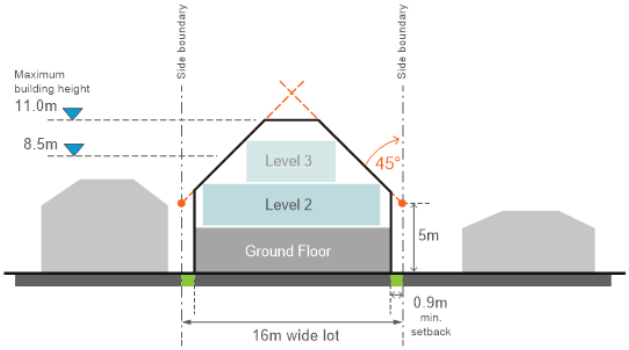


Figure 17 Existing DCP controls (dual occupancy, infill) - standard lot width

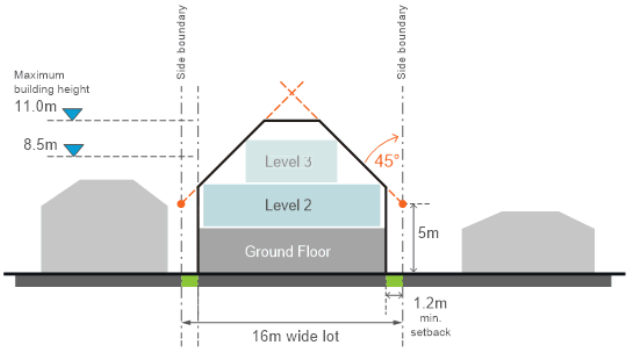


Figure 18 Proposed DCP controls - standard lot width
applies to portion of the lot <22m from front boundary

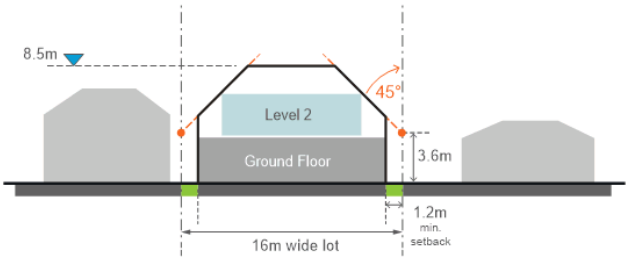


Figure 19 Proposed DCP controls - standard lot width
applies to portion of the lot >22m from front boundary

04 DCP RECOMMENDATIONS

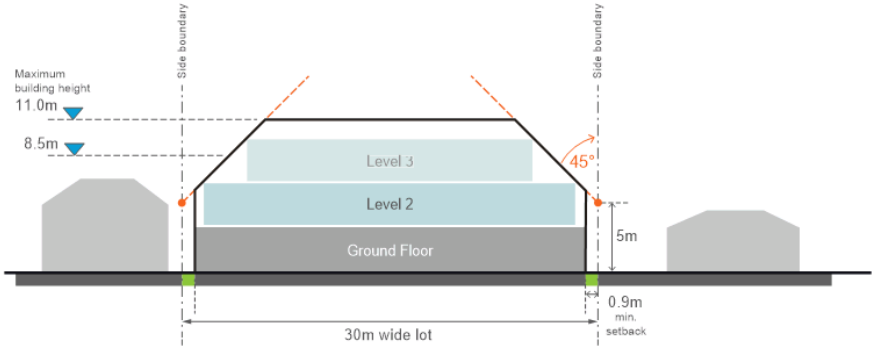


Figure 20 Existing DCP controls (dual occupancy, infill) - wide (amalgamated) lot

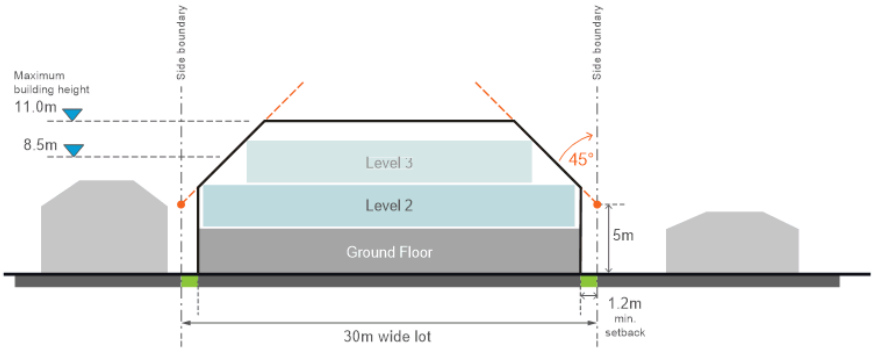


Figure 21 Proposed DCP controls - wide (amalgamated) lot
applies to portion of the lot <22m from front boundary

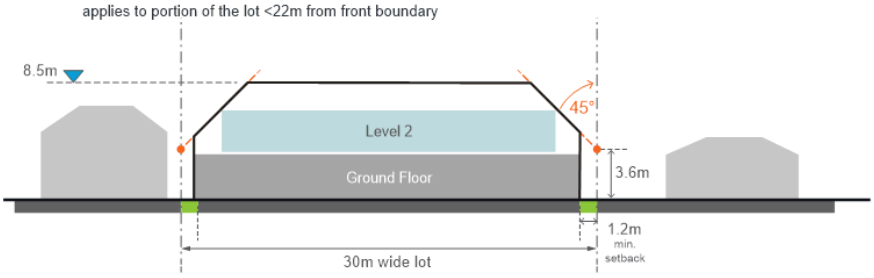


Figure 22 Proposed DCP controls - wide (amalgamated) lot
applies to portion of the lot >22m from front boundary

04 DCP RECOMMENDATIONS

Illustrative comparison of current and proposed controls

Front setbacks

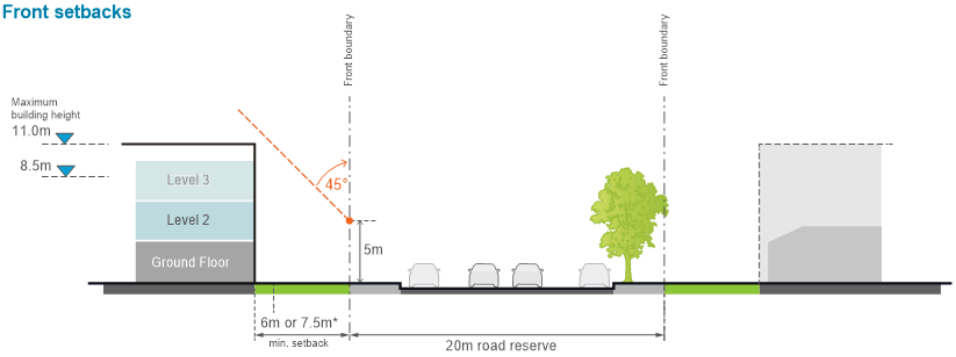


Figure 23 Existing DCP controls for dual occupancy development

Figure 24 Proposed DCP controls

Figure 25 Proposed DCP controls within conservation zone(s)

04 DCP RECOMMENDATIONS

Illustrative comparison of current and proposed controls

Rear setbacks

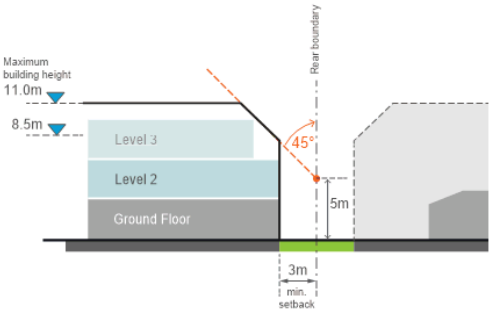


Figure 26 Existing DCP controls

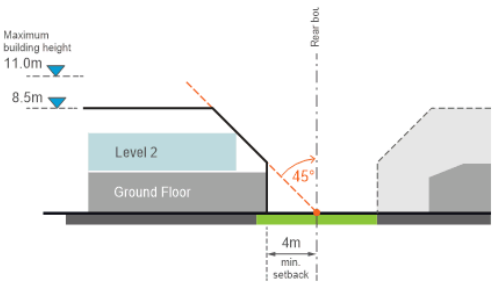
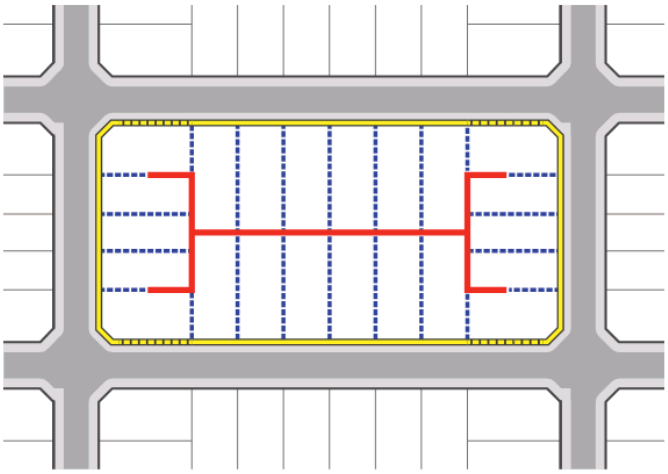


Figure 27 Proposed DCP controls



Legend
- Front boundary to primary street
- Front boundary to secondary street
- Side boundary
- Rear boundary

Front, side and rear setbacks for standard lots are straightforward. Corner lots typically have a frontage to a secondary road and a portion of the longer side boundary is defined as 'rear'. The relevant setback dimensions for each boundary type apply.

Figure 28 Boundary types at a neighbourhood block level

04 DCP RECOMMENDATIONS

4-5 Landscaped area

Selected existing controls for consideration

Minimum landscaped area	Current DCP control	Recommended control
Standard dwelling	Where the area of buildings, pavement and other impervious areas exceeds 65% of the site area, the applicant must submit details of the methods used to harvest rainwater and provide landscaping to minimise increased runoff to surrounding land and public stormwater infrastructure.	Require minimum 35% of site area
Dual occupancy	A minimum of 30% of the total site area is to be provided as a landscaped area.	Increase to minimum 35% of site area (before subdivision)
Other residential accommodation	Minimum 35% of site area	Keep at minimum 35% of site area (before subdivision)

Deep soil provision	Current DCP control	Recommended control
Standard dwelling	50% of landscaped area	Keep at 50% of landscaped area
Dual occupancy	50% of landscaped area	Keep at 50% of landscaped area
Other residential accommodation	n/a	Require 50% of landscaped area

Testing of 'business as usual' and better practice design undertaken as part of this study (see Background Report, Chapter 5 Scenario Testing) has identified that a landscape area of up to 45% is achievable on most sites if part of the built form is two storeys. Two storey typologies are a desirable outcome because they have a smaller footprint, help define the street edge and offer increased surveillance to the street and opportunity for landscaped areas.

In order to respond sensitively to the existing predominantly single storey context the massing of two storey buildings should be articulated and broken down. Within conservation zone(s) two storey developments are to appear as predominantly single storey massing from the street as described within "4-2 Street setbacks" and "4-9 Architectural appearance".

It is recommended that a consistent percentage of minimum landscaped area is required across all residential development in the study area. It is important that this metric is not reduced during the application process as it operates in tandem with a recommended and consistent FSR for all residential development (see *Chapter 3 LEP recommendations*).

The aim is to encourage 2-storey built form and avoid single storey developments (e.g. villa/ row housing) that cover the majority of the lot and leave little space for vegetation and separation between dwellings.

04 DCP RECOMMENDATIONS

Potential additional controls/ wording

Landscaping of medium density developments plays an important role in their integration into the surrounding streetscape and context, which greatly increases the amenity for neighbours and future residents. Landscaping and buildings need to be integrated and designed together. As such, landscaped areas should not be generated by 'left-over spaces' resulting from building siting.

A portion of the landscaped area is required to be deep soil which are zones of natural ground with a natural soil profile. They are free of structures (including underground structures), suitable for the growth of mature trees and vegetation and allow water to be absorbed by the soil (infiltration).

Objective

i) To soften the appearance of new buildings from streets, public places and neighbouring properties.

ii) To protect and retain existing mature trees and other significant vegetation.

iii) To maximise the amount of rainwater that can soak into the ground and minimise run-off into adjoining areas or drains.

iv) To improve the local micro-climate and control climatic impacts on buildings and outdoor spaces.

Performance Criteria	
06	*Development maximises landscaped areas that soften the appearance of new development, facilitate water infiltration, interface appropriately with adjoining areas, and supports canopy trees that help ameliorate the heat island effect and increase privacy between properties .*
Acceptable Solutions	
a)	A minimum of 35% of the total site area is to be provided as landscaped area.
b)	50% of the required landscaped area is deep soil with deep soil planting (trees, shrubs).
c)	Calculation of landscaped and deep soil areas is not to include any land that has a length or a width of less than 1.5m.
d)	All development is to provide landscaped areas, tree planting and deep soil zones in the front setback that relate to the scale of proposed buildings and complement the existing streetscape character. The minimum amount of deep soil in the front setback is 35% of the front setback area.
e)	Front setbacks are landscaped with a preference for native planting species. Where the front setback does not have a mature tree at least 10m high a minimum of one canopy tree is to be planted in the front setback. The tree is to be capable of a mature height of at least 10m.
f)	Where the rear of the lot does not have a mature tree at least 15m high, a minimum of one large canopy tree is to be planted in the rear setback area. The tree is to be capable of a mature height of at least 15m and is to have a spreading canopy.

04 DCP RECOMMENDATIONS

4-6 Private open space

Selected existing controls for consideration

Private open space (POS)	Current DCP control	Recommended control
Standard dwelling	n/a	minimum 50m² with a minimum dimension of 6.0m x 5.0m
Dual occupancy	minimum 50m² with a minimum dimension of 6.0m x 5.0m	minimum 50m² with a minimum dimension of 6.0m x 5.0m
Other residential accommodation	minimum 35m² with a minimum dimension of 2.5m One part of the minimum private open space area must have a usable minimum area of 25m² and a minimum dimension of 4m.	Dwellings on ground floor: • Studio/ one bedroom: min. 20m² • Two bedroom: min. 28m² • Three or more bedrooms: 35m² • Minimum dimension: 4.0m x 4.0m Dwellings on upper levels (i.e. balconies): • Studio/ one bedroom: min. 10m² • Two bedroom: min. 14m² • Three or more bedrooms: min. 18m² • Minimum dimension: 2.0m x 3.0m

The amount of private open space (POS) for 'other residential accommodation' in the current DCP has been highlighted by local builders/ developers as an issue during consultation (see *Background Report, Chapter 4, Workshop 3*).

It is recommended that the required POS is linked to the dwelling size (i.e. reduced rates for studios, one and two bedroom dwellings). This is aimed at encouraging the delivery of smaller units (responding to the demographic trend in smaller households) to offer greater housing diversity and choice close to the Nowra CBD.

In addition, it is anticipated that more two to three storey development may occur in the study area in the future. The recommendations above therefore include suggested POS requirements for upper level dwellings (balconies/ outdoor terraces).

For greater consistency, the POS requirements for standard dwellings are recommended to be the same as the current provision required for dual occupancy dwellings.

04 DCP RECOMMENDATIONS

4-7 Streetscape interface

Selected existing controls for consideration

Addressing the street	Current DCP control	Recommended control
Standard dwelling	---	Buildings adjacent to the street have a front door **and** at least one window of a habitable room facing the street.
Dual occupancy	Each dwelling is to include at least two of the following building elements in the street elevation: front entry door; living room window; portico, verandah, deck or patio.	
Other residential accommodation	Buildings adjacent to the street have a front door and/or a living room window facing the street.	

Building height	Current DCP control	Recommended control
Standard dwelling	---	---
Dual occupancy	For dual occupancy (detached), the dwelling furthest from the street (or adjacent to a side street in the case of a corner lot) should: • Be of single storey construction. • Have a maximum height from existing ground level to the underside of eaves at any point of 3.6m. Development on wedged-shaped lots within cul-de-sacs must maintain a single dwelling street presentation.	Within the Nowra Fringe area '*clause 5.2 Height and Bulk, chapter G13 Dual Occupancy Development of the Shoalhaven DCP 2014*' is replaced by building setback controls as described within "4-1 Building and floor heights", "4-2 Street setbacks" and "4-3 Side setbacks".
Other residential accommodation	The difference in building height between existing buildings and new development is not more than one storey when viewed from the public street.	Within the Nowra Fringe area '*clause 5.2.4 Streetscape and building appearance, chapter G14 Other Residential Accommodation, of the Shoalhaven DCP 2014*' is replaced by controls as described within "4-7 Streetscape interface" "4-8 Access and parking" and "4-9 Architectural appearance".

04 DCP RECOMMENDATIONS

Selected existing controls for consideration

Fencing	Current DCP control	Recommended control
Standard dwelling	*Primary street frontage:* Solid fences or walls are a maximum height of 1.2m; OR fences or walls higher than 1.2m have a maximum height of 1.8m with a solid component of up to 0.7m and be transparent for at least 50% for the remaining height; OR are landscaped with architectural treatment *Secondary street frontage:* Fences or walls have a maximum height of 1.8m and may be solid	*Primary street frontage:* Fences are a maximum height of 1.0m with posts or piers able to extend above this height by 0.2m. Fences are at least 25% transparent. *Secondary street frontage:* Fences or walls have a maximum height of 1.5m and are at least 25% transparent.
Dual occupancy	---	
Other residential accommodation	Front fences and walls should not be higher than 1.2m if solid. This height may be increased to 1.8m if the fence has openings that make it at least 50% transparent.	

Parking	Current DCP control	Recommended control
Standard dwelling	The width of garage façades addressing the street does not exceed 9.0m or 50% of the length of the frontage, whichever is the lesser.	Consider to allow one single garage only for lots less than 14m wide with a maximum permissible width of 4.0m. Two garages facing the street are permissible for lots wider than 14m with a maximum combined width of 8.0m. Tandem/ stack parking arrangement is encouraged/ permissible.
Dual occupancy	The width of garage façades addressing the street does not exceed 9.0m or 50% of the length of the frontage, whichever is the lesser.	
Other residential accommodation	---	

Facade length	Current DCP control	Recommended control
Standard dwelling	minimise the length of unbroken walls	Façades that address the street have no more than 5.0m of ground floor wall length without a door or window.
Dual occupancy	minimise the length of unbroken walls	
Other residential accommodation	maximum unarticulated length of 15m to the public street frontage	

04 DCP RECOMMENDATIONS

Potential additional controls/ wording

The way private development addresses the public street has a direct influence on the character and safety of the neighbourhood. Every development needs to be a 'good neighbour' by 'giving back' and contributing to the streetscape and wider context.

Doors, windows and balconies that clearly address and overlook the public domain and the careful design of fences and front gardens improve the area's character and the surveillance of the street.

Objective

i) To contribute to the desired future character of the streetscape and neighbourhood.

ii) To enhance the safety and passive surveillance of the street.

iii) To clearly define the boundaries between public and private land and between neighbouring properties.

iv) To provide a transition zone that balances privacy to the dwelling and surveillance of the street.

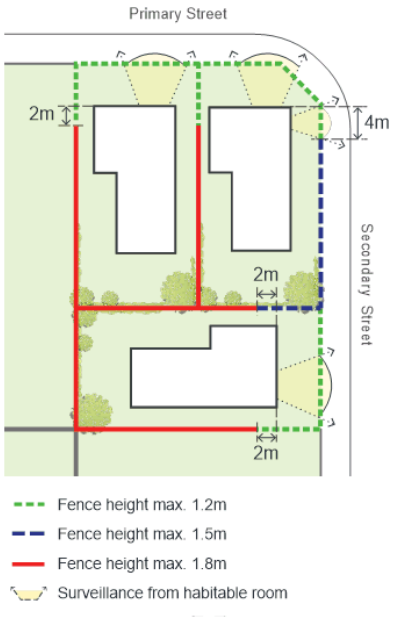


Figure 29 Fence height requirements

Performance Criteria	
07	*New development addresses and defines the street through entrances, lobbies, windows, balconies and thoughtful facade design.*
Acceptable Solutions	
a)	Each dwelling that has a street frontage is to be designed so that access to the front door is clearly identifiable and visible from the public street and has at least one habitable room with a window overlooking the street.
b)	Façades that address the street have no more than 5.0m of wall length without a door or window.
c)	Residential uses on the ground floor can be raised to a maximum of 1.2 metres above the footpath level to improve internal privacy. Direct access from the footpath to individual dwellings is required.

Performance Criteria	
08	*Fences, in particular along the public street, support the neighbourhood character and maximise passive surveillance of the street.*
Acceptable Solutions	
a)	Front fences are either picket fence style or masonry fence style with a minimum transparency of 25% and a maximum height of 1.0m. Posts or piers may extend above this height by 0.2m. Hedges behind the fence can be to a height of 1.2m maximum.
b)	For corner lots, front fences to a portion of the secondary street frontage can be up to 1.5m high (see "Figure 27 Fence height requirements") so long as the fence is 25% transparent.
c)	Fence materials are to be timber or metal pickets/ battens, timber, natural stone, face-brick or rendered brick. Corrugated iron, ColorbondTM or similar metal fences are not permitted.
d)	Return fences (the side fence between the front boundary and front elevation of the house) are to be the same height and design as front fences/ or coordinated with neighbour.

04 DCP RECOMMENDATIONS

4-8 Access and parking

Selected existing controls for consideration

Parking provision	Current DCP control	Recommended control
Standard dwelling	2 car spaces on site	no change recommended
Dual occupancy	1 car space on site for each dwelling less than 125m² GFA; 2 car spaces on site for each dwelling more than 125m² GFA; 2 car spaces for each 3+ bedroom dwelling; Car spaces to be located behind front building line	no change recommended
Other residential accommodation	1 space per small dwelling (<55m²); 1.5 spaces per medium dwelling (56-85m²), 2 spaces per dwelling of 86m² or greater; above parking rates includes visitor spaces	Change wording to be consistent with dual occupancy control above. Additional wording: 'no on site visitor parking required for development of 4 dwellings or less when the street reserve is 15m or greater.'

Stack/ tandem parking	Current DCP control	Recommended control
Standard dwelling	Stack parking of vehicles in not supported unless part of a mixed use, commercial, managed residential development or a mix of these uses with a management plan in place.	Stack/ tandem parking is permissible for residential development where parking spaces are: • for no more than 2 vehicles parked behind each other • both spaces are assigned to the same dwelling • if visible from the street only one stacked parking arrangement is permissible for every 20m of lot frontage, ideally located towards the side boundary
Dual occupancy		
Other residential accommodation		

Vehicle access direction	Current DCP control	Recommended control
Standard dwelling	Development must be designed so that vehicles enter and leave the premises in a forward direction.	For garages and carports that face the street and where driveways within the site are less than 8.0m long, vehicles can enter or leave in a reverse direction on to non RMS roads.
Dual occupancy		
Other residential accommodation		

04 DCP RECOMMENDATIONS

Vehicle access point	Current DCP control	Recommended control
Standard dwelling	Vehicle entry and exit points to the site should be clearly marked with pavement, arrows and signage.	Paving and landscape treatments should clearly indicate vehicular access points and driveways. The use of signage should be minimised. Painted arrows and markings are not permitted.
Dual occupancy		
Other residential accommodation		

Driveway width and splay	Current DCP control	Recommended control
Standard dwelling	Minimum driveway width is 3 to 6m and splay at kerbline of 0.5m	Maximum driveway width of 3.5m for development of 4 dwellings or less. New development is to provide/ construct a concrete footpath along the public street frontage of the lot. The footpath must be continuous (across driveway) and to Council specifications. (Council may accept or prefer a cash contribution)
Dual occupancy		
Other residential accommodation		

04 DCP RECOMMENDATIONS

Potential additional controls/ wording

The location and design of car access and parking areas has a significant impact on the character of a neighbourhood (sometimes it can be greater than the actual built form). It is critical that new infill development is not dominated by car related uses.

Vehicle access and movement areas must not dominate the streetscape nor compromise the privacy and amenity of the site or neighbouring dwellings. At the same time, car parking needs to be convenient and be designed to meet the needs of residents. For more information and provisions, refer to *Chapter G21 Car Parking and Traffic, Shoalhaven DCP 2014.*

Objective

i) To minimise the physical and visual impact of vehicles, garages, driveways and hard surfaces.

ii) To minimise footpath and street reserve crossings.

iii) To provide for the safe and sufficient provision of car and bicycle parking onsite.

Poor design outcome: Individual finish to driveway crossing gives the impression of vehicle priority. (Source: Google)

Better design outcome: Plain concrete finish to driveway crossing and footpath.

Performance Criteria	
09	*Access points are designed to minimise visual intrusion and disruption of streetscape continuity.*
Acceptable Solutions	
a)	New development is to construct a concrete footpath along the public street frontage of the lot. The footpath and the section of driveway within the road reserve should be a plain concrete finish to Council specifications. Individual finishes to driveways crossing public footpaths within the road reserve can result in a perception of vehicle priority (see photographs adjacent).
d)	Up to two driveway crossings may be permitted for residential developments where: • the property is located on a corner block or has dual access to front and rear • the development contains 4+ dwellings and the lot width is more than 22m. The minimum separation of driveways is 13m. The second driveway has a maximum width of 3.5m and a maximum length of 8.0m see "Figure 29 Two driveway crossings requirements". For all other residential developments a maximum of one vehicle crossing is permitted.

Performance Criteria	
10	*Where parking is located in a basement structure it is visually unobtrusive to the street frontage.*
Acceptable Solutions	
a)	Basement car parking cannot extend more than 1.0m above ground and is screened or integrated with the building design so as to be visually recessive from a public street or public space.
b)	Basement car parking is not to extend within the front setback.

04 DCP RECOMMENDATIONS

Performance Criteria	
11	*Garages and carports are not to be visually prominent features and the area for vehicle access and manoeuvering is minimised.*
Acceptable Solutions	
a)	The minimum front setback for a garage or carport perpendicular to a primary or secondary street frontage is 6.5m from the front boundary AND all garages and carports are set back from the front building line by a minimum of 1.0m.
b)	Parking cannot be located parallel to the street and within the front setback.
c)	Stack (tandem) parking is permissible for residential development where parking spaces are: • maximum two vehicles parked behind each other • both spaces are assigned to the same dwelling • if visible from the street only one stacked parking arrangement is permissible every 20m of lot frontage.
d)	Carports and garages visible from the public street are to: • be compatible with the building design, including roofs; and • be treated with materials and colours and windows which ensure the garage or carport is less visibly intrusive to the streetscape.
e)	Garage doors to a street frontage cannot be more than 50% of the street frontage or • maximum 8.0m wide for lots >14m wide • maximum 4.0m wide for lots <14m wide which ever is the lesser.
f)	Carports cannot be wider than one car space.
g)	The provision of garages and car ports as smaller scale ancillary structures is encouraged where this supports the desired streetscape character.

Performance Criteria	
12	*Vehicular movement, driveways and parking areas are to be designed to minimise dimensions, reduce hard surfaces on the lot, and increase the area available for landscaping.*
Acceptable Solutions	
a)	Driveways should be constructed of visually unobtrusive materials that would be compatible with their landscaped surroundings, for example sandstone flagging or paving, oxided or patterned concrete.
b)	Permeable driveway surface treatments are encouraged.

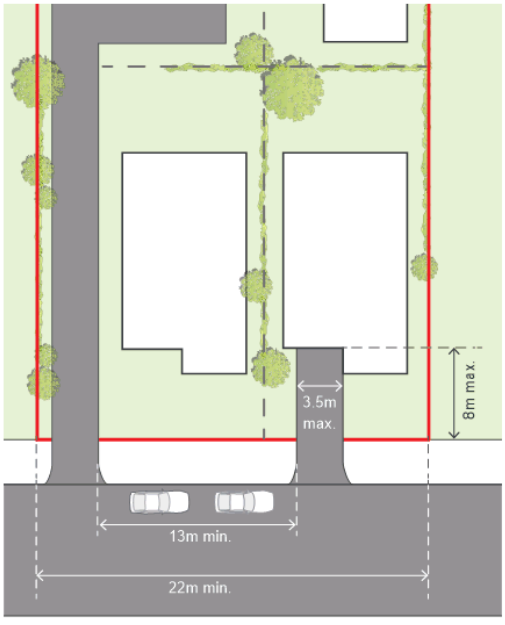


Figure 30 Two driveway crossings requirements

04 DCP RECOMMENDATIONS

4-9 Architectural appearance

Selected existing controls for consideration

Articulation	Current DCP control	Recommended control
Standard dwelling	---	maximum unarticulated length of **8m** to the public street frontage.
Dual occupancy	---	
Other residential accommodation	maximum unarticulated length of 15m to the public street frontage.	

Materials	Current DCP control	Recommended control
Standard dwelling	Most Colorbond colours are appropriate in general building design depending on glare levels. Traditional building materials, such as galvanised steel, may be permitted.	It is recommended to add that the use of bright feature colours is avoided/ minimised. See suggested control 14b).
Dual occupancy	Proposals, if including external metallic walls and roof surfaces, should consist of colours that will minimise the reflectivity of the surface when viewed from a public place or another dwelling.	
Other residential accommodation		

Architectural elements	Current DCP control	Recommended control
Standard dwelling	---	In addition to a front door and a window to a habitable room (see Section 4-7 Streetscape interface), each dwelling is to include at least two of the following building elements in the street elevation: • awnings or other features over windows; • eaves and sun shading; • roof overhangs; • window box treatment; • recessed or projecting architectural elements including verandahs and porticos; • bay window. These elements may intrude into the front setback area by a maximum of 1.0m (articulation zone).
Dual occupancy	Each dwelling is to include at least two of the following building elements in the street elevation: • front entry door; • living room window; • portico, verandah, deck or patio.	
Other residential accommodation	---	
Conservation Zone(s)	---	Roof forms within conservation zone(s) are to be compatible with the steeper pitches of older late 19th and early 20th century houses.

04 DCP RECOMMENDATIONS

Potential additional controls/ wording

Each building visible from the street makes a contribution to the streetscape character of the neighbourhood. The quality of these contributions depend not only on the scale of the development, but also on the architectural expression and appearance.

The form, scale, proportion and pattern of building elements, including roof forms, overhangs, doors, windows, balconies and decorative elements is important. So is the careful choice of materials, textures, finishes and colours, which need to be selected for their robustness, durability, energy performance and compatibility to the surrounds.

Objectives

i) To ensure the architectural appearance of new development provides interest and contributes to the streetscape character.

ii) To reduce visual bulk and scale of development, in particular for any future three storey built form.

Performance Criteria	
13	*Building form, composition and facade design break up the built form and bulk and provide visual interest.*
Acceptable Solutions	
a)	The composition of façades balances solid and void elements and does not display large areas of a single material, in particular reflective glass.
b)	Shadow is created on the facade throughout the day with building articulation, balconies, roof overhangs and/or deep window reveals.
c)	Sidewalls, if visible from the street, are designed as an architecturally finished surface that complements the main building facade.
d)	The architectural form should emphasise the building entry, e.g. by building massing, changes in roof line and/ or architectural elements and features.
e)	Development must integrate building services, such as drainage pipes, vent shafts, air conditioning and any security devices within the overall facade.
f)	Adjoining buildings are considered in terms of setbacks, awnings, eaves, ridge lines, selection of materials and finishes, and façade proportions.
g)	Roof pitches are to generally be at least 25 degrees or complement the streetscape character of adjoining buildings. Roof pitches greater than 45 degrees are not permitted.
h)	Views of both street façades are well considered on corner sites. The building form must consider how it 'turns' the corner and responds to prominent views from different angles.
i)	Where a site forms a terminating view to a street, view(s) of the proposal from the street framing the terminating view must be submitted with a development application.
j)	Buildings should present a predominantly single or two storey appearance to the street within the Nowra CBD Fringe area.
k)	Buildings should present a predominantly single storey appearance to the street within conservation zone(s).

Performance Criteria	
14	*The selection of building materials and colours is sympathetic to the streetscape and neighbourhood.*
Acceptable Solutions	
a)	External walls are constructed of high quality and durable materials sympathetic to the context, such as painted weatherboard.
b)	Colours should be consistent with predominant colours of existing buildings. Bright feature colours are avoided where possible and only permitted for a maximum of 5% of the facade.

DE18.27 - Attachment 2