

JOINT REGIONAL PLANNING PANEL

(Southern Region)

ASSESSMENT REPORT SUMMARY AND RECOMMENDATION COVER SHEET

JRPP No	2015STH027
DA Number	647/2015
Local Government Area	Shellharbour
Proposed Development	Staged residential subdivision comprising of 146 residential lots, 6 superlots, 1 public reserve and 2 residue lots
Location	Lots 1, 2 & 3 DP 1214606, Braemar Street Tullimbar
Applicant/Owner	Lot 1 – Balmoral Parade Pty Ltd Lots 2 & 3 – Shellharbour City Council <small>NOTE A</small>
Number of Submissions	Five
Regional Development Criteria (Schedule 4A of the Act)	Clause 4 Council related development over \$5 million Development that has a capital investment value of more than \$5 million if (b) the council is the owner of any land on which the development is to be carried out. The CIV for the proposed development is \$8 million.
List of All Relevant s79C(1)(a) Matters	<ul style="list-style-type: none"> • State Environmental Planning Policy No. 55 – Remediation of Land • State Environmental Planning Policy (State and Regional Development) 2011 • Shellharbour Local Environmental Plan 2000 • Draft Shellharbour Local Environmental Plan 2011 • Shellharbour Development Control Plan • The likely impacts of the development, including environmental impacts on the natural and built environment and social and economic impacts in the locality. • The suitability of the site for the development. • Any submissions made in accordance with the EPA Act & EPA Regulation. • The public interest.
List all documents submitted with this report for the panel's consideration	<ul style="list-style-type: none"> • Shellharbour Development Control Plan – Tullimbar chapter • Correspondence received from the NSW Rural Fire Service (dated 30 Jun 2016) • Additional information from applicant in reply to matters raised by Council (dated 24 Jun 2016) • Additional information from applicant in reply to matters raised by Council (dated 23 May 2016) • Additional information from applicant in reply to matters raised by Council (dated 11 Mar 2016) • Correspondence from NSW Transport, Roads & Maritime Services (16 Dec 2015) • Correspondence from NSW Department of Primary Industries, Water (15 Dec 2015) • Correspondence received from the NSW Department of Planning & Environment (23 Nov 2015) • Submissions (five) received during the public notification period

	<ul style="list-style-type: none">Environmental Impact Statement submitted with the development application.
Recommendation	That DA No. 647/2015 (JRPP Ref no. 2015STH027) be approved subject to the of conditions contained in Attachment 1.
Report by	Victoria Nicholson, Senior Development Assessment Officer
Report endorsed	Grant Meredith, Group Manager City Development

Note A The land is subject to a staged purchase from Shellharbour City Council to Balmoral Parade Pty Ltd subject to a binding put and call option deed over the next 2 financial years.

PLANNING REPORT

1 Development description

The proposed residential subdivision: **NOTE B**

- comprises of 146 residential lots, 6 superlots, 2 residue lots and 1 public reserve,
- provides residential lots with a range of lot areas as follows:
 - 117 lots between 450-550sqm,
 - 7 lots between 550-750sqm (in this subset, the largest lot has an area of 681sqm),
 - 21 lots > 751sqm; 5 of these larger lots are battle-axe lots and the other 16 lots adjoin the existing development on the western side of Noble Road. These lots will have extensive earthworks and a series of retaining structures at the interface of the existing development will retain the depth of cut. This approximates 2.5m at the steeper parts along this interface,
- provides superlots with lot areas which range from 1526sqm – 2833sqm. These will be later developed as either small lot housing (supported with Building Design Guidelines) or multi dwelling housing, to provide at least 6 dwellings on each superlot. Two of the superlot sites are located opposite the future local park and three are within 2-3 residential lots from the park,
- will be constructed in 5 stages,
- includes a public reserve with an area of 2909sqm to be developed as a local park. The local park will be completed with the stage 3 subdivision certificate. The provision of a local park at this stage of the overall development is considered appropriate as it is anticipated that enough dwellings would have been constructed on the lots to create both a demand for a local park and an adequate level of passive surveillance to the park,
- will pipe Digby Creek at the Noble Road headwall. Submissions made to this development proposal advise that this ephemeral water course and its riparian corridor has been managed by a local LandCare group for many years.
- is on land mapped as bushfire prone land and accordingly there are requirements to manage and minimise bush fire risk. The provision of the asset protection zone and the fire trails will not require vegetation clearing, and
- includes the construction of internal roads, interallotment drainage works and associated civil works and bulk earthworks.

Note B In response to matters raised with the proposal as originally lodged with Council the subdivision layout has been modified. To reduce the number of battle-axe allotments and address heavy rigid vehicle (HRV) manoeuvring, the loop road design has been

replaced with a straight road. This has also improved connectivity within the subdivision. Lots less than 450sqm in area have been deleted from the proposal; this has slightly reduced the footprint of the development with the deletion of 9 lots west of Road no. 1 (formerly shown on plan as Huskisson Street). Overall the number of residential lots proposed has decreased from 158 to 146 and the number of superlots has increased from 5 to 6.

2 Site description & surrounding land uses

The development site comprises of land that has been largely cleared for predominantly grazing and pasture land use activities with a number of dams created to support these activities; refer Attachment 5 for an aerial of the development site. The site has also been used as a firing range. To minimise the bush fire hazard risk to the proposed subdivision, an asset protection zone and fire trails will be required. These are also located on land that has been previously cleared. The development site contains an ephemeral watercourse at its south eastern end where it interfaces with Noble Road. This water course contains riparian vegetation and the proposed removal of this watercourse and its vegetation will be discussed through this report.

The development site falls within the Tullimbar development area and is a greenfield site as alluded to above. The site lies to the south of the Illawarra Highway, to the east of the existing and future Tullimbar development, to the west of an existing traditional low density residential area locally referred to as Regal Heights and to the north undulating vegetated areas of the lower foothill areas of the Escarpment. Through this vegetated area flows the Hazelton Creek to travel through the undeveloped lands of the Tullimbar area to drain into Macquarie Rivulet on the northern side of Illawarra Highway.

Further afield to the east of the site is the Albion Park commercial precinct, to the north of Illawarra Highway the major project Calderwood development, and about a 30 minute drive to west of the Illawarra Highway, the southern highlands region. A locality plan of the development site can be seen in Attachment 1.

The development will connect into the existing road network to its east via an extension of Sophia Street which is to be constructed as part of another development consent. The issue of a construction certificate for this road is imminent. The development will also connect to the existing and future road network of the Tullimbar development to its west which includes an existing school and future playing fields and a commercial precinct.

The Tullimbar development includes a north-south road named Balmoral Parade; this road will connect to the Sophia Road extension (to be named as Berrima Street). A residue lot lies between the proposed residential lots and road no. 1 and the future Balmoral Parade. This land, which will be the interface between the proposed development and the existing and future Tullimbar development, will be referred to later in section 4.6(a).

3 Background to site – Matters raised during JRPP site visit

Development Consent No. 741/2002

The land benefits from a development consent for the Tullimbar Village subdivision. This consent, no. 741/2002, was issued by the Land and Environment Court. During the briefing meeting at the site in March 2016, the JRPP queried how the current development application relates to Development Consent No. 741/2002, as amended. In response to this concern, the applicant has provided the following response:

‘The subject DA 647/2015 was lodged as a new DA on the land as per Council's advice. ... It is considered appropriate that the current application is a new DA over the land as a number of modifications have been made to the original consent and layout plan over the

last 12 years due to detailed survey and engineering requirements in the Tullimbar Miltonbrook Development, in the Yellow Rock Road area, to the Hazelton Creek Riparian Corridor and the Electricity Transmission Easement running along Balmoral Parade.

It is noted that the existing consent is based on a Development Application Layout Plan dated 17 September 2002, that is an indicative layout of how the Tullimbar Village Precincts can be developed over time. It is a conceptual plan and not based on detailed site surveys. The subject DA 647/2015 is generally consistent with the approved layout plan and Tullimbar Western Valley Village Structure Plan in the SDCP, however, some variations and refinements were made in the design process in response to:

- Detailed site survey information.
- Topography of the site along the eastern boundary.
- Function and efficiency of street layout and lot design.
- Staging considerations.
- Detailed engineering studies.

...
Under the provisions of the EP&A Act 1979, there can be a number of DA's applying to a site. The development consent that is acted upon and initiated then supersedes other consents on the land to the extent of that approved DA. The subject DA 647/2015 is just another DA applying to the subject land within the Tullimbar urban release area. If approved and acted upon it will supersede the original existing DA 741/2002 development consent for that portion of the Tullimbar site being Lots 1, 2 and 3 DP 1214606 and will be conditioned accordingly. Furthermore, a precedent has already been set on the land on the corner of the Princes Highway and Yellow Rock Road within the Tullimbar Village development approved under the existing consent DA 741/2002. It is understood that a new DA was lodged over the portion of the site on the corner of the (Illawarra) Highway and Yellow Rock Road, being DA 390/2013, which also proposed changes to the existing approved development layout and Structure Plan, and was approved by Council. That DA 390/2013, superseded the original existing consent DA 741/2002 for that portion of the Tullimbar Village.'

Piping of Digby Creek

The JRPP also questioned the removal of Digby Creek when Development Consent No. 741/2002 retained a creek. The applicant provides the following information in reply:

'The original DA 741/2002 and development layout were proposed based on a number of baseline studies, one of which was the Digby Creek Drainage Study prepared by Forbes Rigby for Shellharbour Council dated April 2000. That study indicates that the ephemeral stream known as Digby Creek had urban potential due to its relatively low environmental significance. The Study also stated that it was not desirable that the creek be left in its existing form with respect to public safety and ongoing scouring.

Its banks were too steep and unstable for the proposed urban context and the ongoing bed scour would lead to undercutting of the toes of the banks and subsequent bank collapse if unchecked. Some modification was considered necessary to ensure public safety. The Study came up with 5 modification options for Digby Creek ranging from minimal work with scour protection in the creek bed and reducing the batters of the embankments to excavation of the channel to increase capacity and batter the embankments and install a low flow pipe in the bottom of the channel. All options involved some or all vegetation removal and possible replanting.

The existing consent (DA 741 /2002) specifies that the design for Digby Creek must be generally in accordance with Option C of the Digby Creek Drainage Study. Option C requires the complete conversion of the creek into a floodway with substantial excavation and filling to improve the channel capacity and batter the banks and results in the removal of all the existing vegetation in the gully and riparian corridor except the identified *Angophora floribunda*. A review of the approved development layout plan shows that a

portion of the incised gully appears to be maintained but delivering the proposed 2 road crossings would result in approximately 50% of the creekline being lost and the gully being partially filled.

Therefore, the existing consent does not maintain the existing Digby Creek riparian corridor and protect the existing vegetation. It does not see any environmental value in the riparian vegetation and in fact it supports the removal of all the vegetation and the re-engineering of the channel as a floodway. Subsequent Stormwater Management Studies have identified that Digby Creek is not required for flood mitigation and stormwater management and Council Engineers support this position.

Therefore on any considered basis for the development of a successful residential subdivision in this location the channel of Digby Creek needs to be filled requiring the loss of a small stand of vegetation, and conservation efforts should be targeted at the significant vegetation on Lot 3 in the southern portion of the site from a regional perspective.'

4 Statutory development assessment framework

4.1 Permissibility

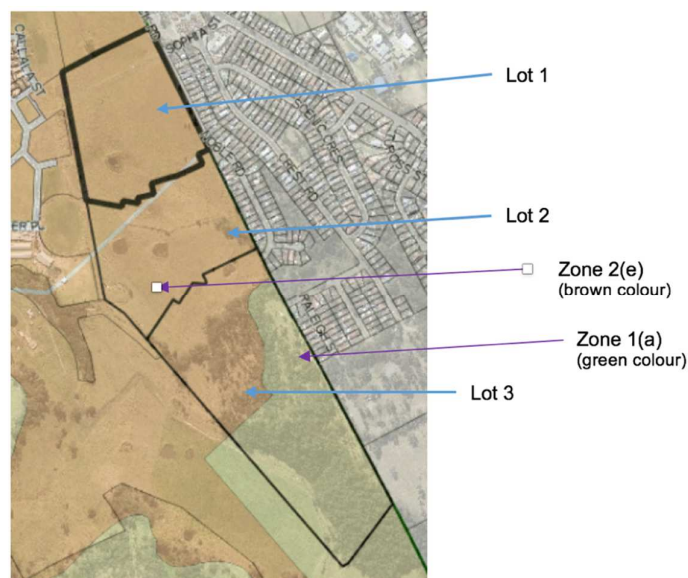
The development site is zoned Zone 2 (e) (the Mixed Use Residential E zone) and Zone 1 (a) (the Rural A zone) under *Shellharbour Local Environmental Plan 2000* (SLEP 2000). Pursuant to clause 77, development consent is required for the subdivision of land.

The figure below shows the development site. The lots to be created and associated roads fall within lots 1 and 2. Associated subdivision works within lot 3 are temporary works and include turning heads, an asset protection zone (APZ) and fire trails. A future residential subdivision development on lot 3 will see the bushfire requirements for fire management purposes relocated and the new roads will connect to the roads requiring the temporary turning heads.

All works are located on land zoned 2(e). With regard to the APZ requirement and the vegetation on the land mapped as Rural A zone, no vegetation modification or removal is required to provide an APZ that will meet *Planning for Bush Fire Protection 2006*.

Subdivision development is permissible development with consent on 2(e) zoned land pursuant to clause 23(4).

Figure 1 Development site and land use zoning



4.2 Integrated development

Pursuant to s91 of the *Environmental Planning & Assessment Act 1979*, the proposal is integrated development as approvals are required:

- for general terms of approval (a bush fire safety authority) under the *Rural Fire Act 1997* s100B, and
- for an activity approval under the *Water Management Act 2000* as works are proposed within 40m of a water course.

The NSW Rural Fire Service (RFS) has issued a conditional bush fire safety authority.

The NSW Department of Primary Industries – Water (DPI Water) has issued general terms of approval.

The correspondence from RFS and DPI Water form part of the draft schedule of conditions (Attachment 1).

4.3 Concurrence

At the time of DA lodgement with Council, the approved 3 lot subdivision of Lot 522 in DP 1168919, the subject site, had not been registered with NSW Land and Property Information (LPI). The proposed subdivision layout would result in a (residue) lot which includes land zoned 1 (a) - Rural A zone. SLEP 2000 clause 14(1) includes a minimum lot size development standard of 40 hectares for the subdivision of land with Zone 1(a). The proposed residue lot would have an approximate area of about 25 hectares.

The applicant sought the concurrence of the Secretary of the Department of Planning & Environment for a variation to this development standard to create an undersized lot as part of the subdivision proposal under *State Environmental Planning Policy No. 1 – Variations to development standards*. The Department granted their concurrence 23.11.2015.

The 3 lot subdivision was subsequently registered with the LPI. Had the DA for the 152 residential lots been lodged after the registration of the 3 lot subdivision of the parent lot, being lot 522, concurrence would not have been required in this regard.

4.4 Other government authorities / agencies

Although the site has access to a road that connects to a classified road, being Illawarra Highway, the access from the site is not within 90m. Accordingly, the subdivision proposal is not traffic generating development pursuant to clause 104(1)(b) of *State Environmental Planning Policy (Infrastructure) 2007*.

Notwithstanding written notice of the proposal was provided to the NSW Roads & Maritime Services (RMS). In reply RMS requested further information regarding the timing of the construction of the traffic lights at the intersection of Illawarra Highway and Church Street. The need for signalisation of this intersection will be triggered by the subdivision of land approved under Development Consent No. 741/2002, as amended; this area has in part been shaded green on the subdivision layout plan. The applicant is currently liaising with RMS regarding this requirement and advises that the traffic lights will be constructed prior to any subdivision of the subject land.

4.5 Notice of application

The DA was publicly notified pursuant to s89(3) of the Regulations for a period of 30 days from 13.11.2015 to 14.12.2015. Five written submissions were received.

In brief, matters raised in the submissions include:

- Piping of watercourse and loss of associated riparian flora and fauna,
- Inadequate public open space,
- Inappropriate street tree species selection,
- Plan information inconsistency with regard to watercourse retention and connectivity to Noble Road, and
- Road safety of Noble Road.

These submission matters are discussed later in the report.

4.6 Section 79C assessment

- (a) Section 79C (1) (a)(i)(ii)(iii)(iia)(iv)(v) - environmental planning instruments; any proposed instrument that is or has been the subject of public consultation under this Act and that has been notified to the consent authority, any development control plan, and any planning agreement entered into under Section 93F or any draft planning agreement that a developer has offered to enter into under Section 93F, the Regulations, any coastal zone management plan;**

- **State Environmental Planning Policy (State and Regional Development) 2011**

The provisions of this Policy apply to the development proposal, however only insofar as identifying the proposal as regional development where the consent authority is the Joint Regional Planning Plan.

- **State Environmental Planning Policy No. 55 – Remediation of Land**

The aim of SEPP 55 is to provide for the remediation of contaminated land for the purpose of reducing the risk of harm to human health or environment and requiring that any remediation work meet certain standards and notification requirements.

The contamination assessment prepared in support of this development proposal has been prepared in accordance with relevant industry guidelines. The assessment identifies areas of minor contamination resulting from previous land use. The report findings indicate that remediation is required to ensure that the development site is suitable for the intended land use. A Remediation Action Plan (RAP) is required to be prepared prior to the commencement of works that clearly outlines the necessary remedial process for the site. Remediation validation will also be required to satisfy SEPP 55 and demonstrate that the objectives outlined in the RAP have been achieved. These requirements form part of the recommended conditions of Attachment 1.

- **Draft Shellharbour Local Environmental Plan 2011 (draft SLEP 2011)**

The subject site is included in draft SLEP 2011. The gazettal of the exhibited SLEP 2011, as SLEP 2013, did not include the land identified as Tullimbar. The subject site forms part of the land that has been deferred from SLEP 2013. Pursuant to the land use tables of draft SLEP 2011, the land is zoned R2 Low Density Residential and E3 Environmental Management with the same interface boundary as the 2(e) and 1(a) zoned lands under SLEP 2000. The proposed subdivision is located on the land zoned R2 and is permissible development with consent.

It is noted that the riparian corridor of Digby Creek was not included on the Terrestrial Biodiversity layer in the draft SLEP 2011.

- **Shellharbour Local Environmental Plan 2000 (SLEP 2000)**

The land is zoned 2 (e) (the Mixed Use Residential E zone). The objective of the zone is 'to allow

for mixed use residential neighbourhoods to be developed on 'greenfields' sites providing for a range of household preferences and needs compatible with fully developed residential neighbourhoods'. (Clause 23 (2))

The proposal is consistent with the objective as the greenfield subdivision will facilitate future residential development as part of the Tullimbar urban release area. The subdivision as proposed will not undermine the Western Valley Village Structure Plan. (Figure A32 *Shellharbour Development Control Plan* (SDCP) June 2013). The proposal, as developed residential neighbourhood/s, will support the future village centre.

Relevant clauses in the LEP are discussed below.

Part 11 Heritage Conservation Provisions

The objectives of this plan in relation to heritage pursuant to clause 72 are:

- (a) to conserve the environmental heritage of the Shellharbour City local government area, and
- (b) to conserve the heritage significance of existing significant fabric, relics, Aboriginal objects, settings and views associated with the heritage significance of heritage items and heritage conservation areas, and
- (c) to ensure that archaeological sites and places of Aboriginal heritage significance are conserved, and
- (d) to ensure that the heritage conservation areas throughout the Shellharbour City local government area retain their heritage significance.

Pursuant to schedules 2 and 3 of SLEP 2000, the site is not within a heritage conservation area or contains any items of European heritage. Having regard to any visual curtilage of a heritage item and future development on the residential lots, the site is also not within close proximity to a heritage item.

A due diligence archaeological study for the proposal investigated both European and Aboriginal heritage. Earlier archaeological assessment of the Tullimbar Village development area identified two Aboriginal sites and four areas of Aboriginal archaeological potential. The study:

- did not identify any historical European heritage items,
- found that the proposed development does not encroach onto the Aboriginal sites however are within 20m of the development footprint, and
- includes recommendations to minimise the potential for inadvertent impact to Aboriginal sites.

The proposal is not considered to undermine the objectives of this clause subject to condition/s.

- *Shellharbour Development Control Plan (SDCP)*

Tullimbar has locality specific development objectives and development provisions within the SDCP. These objectives and development provisions are the outcomes of the Western Valley Charrette conducted in 1996 to develop an urban design for the future development of Tullimbar. The urban design is based on ecologically sustainable principles and embraces the goal of mixed use, relatively dense community that minimizes dependence on the private car by providing for a range of services, activities and employment whilst respecting and preserving the natural habitat and resources.

The Tullimbar village is divided into urban development precincts, the purpose of which is to identify the dominate land use or activity and other compatible development within each precinct. For this application, the precincts that apply to the development site relate to predominantly low density and medium residential development. The adjoining land to the north (the area has been

shown as green on the layout plan) is a mixed use precinct close to and functionally related to the village centre.

Of particular relevance to the proposal, subdivision design considerations that underpin the urban design philosophy include:

- the provision of a highly interconnected and safe street network that supports shortened local car trips, walking, cycling and public transport to reduce car dependence within the village and neighbouring urban areas,
- the achievement of at least 1500 lots so as to support the village centre, the school and other facilities. To this end, the minimum dwelling yields and lot sizes for the precincts are defined, and
- the preparation of building design guidelines (BDGs) with each stage of the subdivision for lots less than 450sqm in area to facilitate optimal streetscape and neighbourhood amenity.

With regard to the last point, the submitted BDGs did not adequately demonstrate that the objectives relating to BDGs could be satisfied in particular 'to optimise streetscape values, neighbourhood amenity and parking'. In addition, the requirement for rear lanes was not provided for those lots with widths less than 12m. The amended layout plan has deleted all small lots and so BDGs and specific road layout requirements will not apply for the current proposal. In assessing the suitability of the size and dimensions of the superlots, the ability of future development on these lots to achieve these objectives of the DCP was considered.

The subdivision layout, in particular the internal road network and siting of the local park, is generally consistent with the Western Valley Village Structure Plan of SDCP (figure A13.1 on page 432). Most streets are aligned north-south or east-west which will facilitate in the design of good solar access of future dwellings (and is an improvement on the structure plan). The structure plan shows three connection points to Noble Road with the intent to provide good connectivity to the surrounding residential development. The subdivision layout however has reduced the number of road access points for reasons explained more fully elsewhere in this report which include the steep topography of the land, and of any future road, where the middle access point is shown on the structure plan. Instead, the development will intersect with Noble Road at its existing intersection with Sophia Street. Part A13.5 acknowledges that the structure plan may need to be refined subject to, in part, further studies and detailed survey information. An overlay of the proposal on the structure plan, where it applies to the subject site, is provided in Attachment 6.

The following table identifies the variations being sought by the applicant and Council's consideration of the variation. Part 2.5 of SDCP outlines the matters that must be addressed where a variation to a development provision is being sought. The applicant has adequately addressed these requirements.

DCP provision / objective	Assessment
Development provision A13.16.1 refers to the range of lot sizes within each precinct to achieve a dwelling yield of at least 1500. It also notes that this may be achieved by reducing the average lot sizes referred to in Table A13.2. For this development site Table A13.2 shows the range of lot sizes varying between 360sqm to 450sqm.	The average lot size is considerably higher than the figures shown in Table A13.2. The applicant has provided information to support a dwelling yield estimation that exceeds the minimum dwelling yield requirement shown in Figure A13.13 for the precinct that applies to the land, being all three lots of DP1214606. This figure refers to DP1214606 as precinct E with a minimum dwelling yield of 262 dwellings. The figure does note that some precincts will be able to achieve greater development yield. The estimated dwelling yield is some 404 dwellings with 100 dwellings to be provided as small lots in

DCP provision / objective	Assessment
	the 'interface' land between road no. 1 and Balmoral Parade.
<p>Objective 13.4.4 To minimise dependence on the private car by locating and supporting many daily activities within the project area, with detailed design that supports walking, cycling and bus use.</p> <p>This objective is reiterated in the street network objectives, namely A13.14.1.</p>	<p>Shareways and/or cycle lanes have not been provided for the proposal. The applicant argues that there is not an existing cycle way for any new cycle lanes/shareways to connect to. Whilst it would be appropriate for shareways to be provided to at least the commercial precincts and to the community facilities such as the school, local parks and playing fields, the applicant's argument has some merit. It is noted that the existing Tullimbar development has not included cycle lanes or even shareways.</p> <p>The proposal will provide footpaths along most of the street frontages which will connect to the future footpath network.</p> <p>The development provision, A13.11.15, requires parks to be either substantially bounded by streets or shareways and fronted by development. The proposed local park has 3 road frontages and the footpath plan shows that a footpath will be provided along one road frontage. The absence of a shareway around the park should not restrict safe access to the park.</p> <p>Although the provision of cycle lanes/shareways would enhance the intent of this objective, the absence of this facility will not undermine the objective. It is noted there are other influences in providing an environment that supports a reduction in car dependence such as a highly connected street network and footpaths which this development has in addition to having a diverse and functioning commercial precinct in close proximity.</p>
<p>Battle axe lots are restricted to where they front bushland, creek reserves or public open space. (development provision A13.16.11)</p>	<p>None of the battle-axe lots meet this requirement. Where the intent of this requirement relates to future amenity for residents, the location of the battle-axe lots as proposed will not undermine the intent where future development relates to single dwelling development only. However multi dwelling housing development on lots that front (useable) open space is likely to significantly enhance the amenity of future residents.</p>
<p>Allotments which utilize part of the full length of a battle-axe type of driveway or access handle must design to allow adequate frontage for kerbside collection so there is no adverse impact on neighbouring properties. (development provision no. 4.1.17).</p>	<p>Battle-axe lots are undesirable where they can be developed with more than one dwelling. One reason relates to the inadequate width of the access handle to provide an unimpeded kerb length in front of the property boundary for kerbside collection of waste.</p> <p>Amended plans have reduced the number of battle-axe lots from 11 to 6 by changing the</p>

DCP provision / objective	Assessment
	road network. Regarding the issue of battle-axe lots being able to service waste collection, the applicant has proposed to provide restrictions on the sales contract to ensure single dwelling development. This does not address however future development and as such may restrict development potential on the land and/or result in ongoing complaints being made to Council regarding the placement of bins presented for kerbside collection.

To achieve the design objectives and dwelling yield, lot sizes for about two-thirds of Tullimbar would be less than 450sqm, with future development on these lots guided by detailed BDGs, and an average lot area of 540sqm would be provided along the interface with existing traditional low density residential areas. The provision of small lots that satisfy the overarching urban design objectives would result in a distinct urban form and streetscape. Integral to this vision is a street network inclusive of rear lanes. The urban outcome of the existing Tullimbar development is a product of this approach. The proposed subdivision layout however excludes rear lanes and small lots and as such is likely to result in a built environment that varies from the existing Tullimbar built environment.

The proposed layout can be supported where it can be demonstrated that there is, or will be, a transition in urban form, streetscape and subdivision pattern from the existing Tullimbar development (having lots serviced by a rear laneway) to the traditional low density urban form of the adjoining development to the east of the site.

It is considered that the above transition can be achieved without diminishing the unique character of the existing Tullimbar development on the basis of the following:

- the siting of the superlots, which is envisaged to be developed in the future as small lot housing possibly serviced with rear lanes,
- the siting on the superlots is generally consistent with the urban development precinct plan (figure A13.2) which shows those precincts to be developed as medium or low density residential, and
- the future development of the residue land between road no. 1 and Balmoral Parade to be developed with small lot housing. The owner has prepared a number of concepts to show that an urban form can be achieved that is consistent with the Tullimbar provisions of SDCP with a mix of rear loaded and front loaded lots and an example can be seen in Attachment 7.

Notwithstanding the above variations to SDCP, the proposed subdivision is considered to be generally consistent with the many and varied development objectives and related development provisions. As such, the variations will not undermine the objectives relating to development in Tullimbar as detailed in A13.4.

• Other matters

No planning agreement under Section 93F applies to the site or any draft planning agreement. No coastal zone management plan applies to the site.

(b) Section 79C (1)(b) - the likely impacts of the development, including environmental impacts on both the natural and built environments, and social and economic impacts on the locality;

An impact assessment of the proposal that has not been discussed elsewhere in this report is discussed below.

Biodiversity

The vast majority of the site contains exotic grassland with a number of scattered paddock trees. Aerial photos from 1948 show the entire site, including riparian corridor, clear of all but scattered paddock trees. Patches of regrowth trees occur along the 100m drainage line of Digby Creek amongst an understory of lantana. Three hollow bearing trees were located during surveys. There are 6 dams on the site which support wetland plants, most of which are native species. No threatened flora or fauna communities, populations or species are mapped as occurring on the site, nor were located during surveys.

The applicant's ecologist states in his report of September 2015 that 'The trees and other plants, some of which have been planted, along the small gully in the southeast are associated with the endangered ecological communities (of Illawarra Subtropical Rainforest and Illawarra Lowlands Grassy Woodland) but are not considered to be a significant stand of either community'.

The proposed subdivision layout shows the piping of Digby Creek and loss of all riparian vegetation, including hollow bearing trees. A request was put forward to the applicant to retain riparian vegetation through redesign of the subdivision layout. The applicant responded with the following:

'The creek was identified back in the original DA 741/2002 and now as an unstable and migrating channel. It cannot be retained in its current form, so close to new dwellings on the subject land, and would require significant reconstruction to stabilise it and make it safe resulting in substantial loss of vegetation. In fact the steep profile of the channel and creek bed would make maintenance and regeneration of the channel very difficult.'

Additionally, the consultant has provided a number of documents which justify the loss of the riparian vegetation which include the following statements:

- The land associated with the current Development Application does not contain any listed threatened entities and therefore the proposed subdivision is not likely to have a significant impact upon any listed matter under the *Threatened Species Conservation Act 1995*.
- Whilst stands of native trees should be retained where possible, the long term viability of such stands must be considered. In this case, trying to retain this small stand within an urban environment would be quite difficult because of its very small size and surrounding housing.
- It is much better to target effort into another more viable area of native vegetation (being that to the south of the development on Lot 3).

The consultant concluded that the proposed subdivision will not have a significant impact upon any listed matter or any other important biota.

Therefore, there is no legal requirement to retain, nor offset, the loss of a heavily degraded small stand of vegetation in this instance as endangered ecological communities, threatened or regionally significant flora or fauna were not present or utilising the stand of vegetation during surveys. The loss of hollow bearing trees was also deemed to be not significant and is being offset by the installation of habitat boxes within vegetation on Lot 3; in this regard, relevant conditions form part of the recommended conditions in Attachment 1.

The riparian vegetation does not form part of a continuous corridor, is not identified as being present on Council's vegetation mapping, nor proposed to be included on the Terrestrial Biodiversity Layer in Council's LEP 2013. Additionally, it is not identified for retention in the Tullimbar chapter of the DCP. Further, the Digby Creek Flood Study recommends major modification of the stream bed in order for the creek to adequately withstand current flow rates. Works recommended would result in the loss or modification of the majority of vegetation.

It is undesirable to lose riparian vegetation in any circumstance, however in this instance, the size and degraded condition are threatening the long term viability of the riparian corridor. Given the

lack of recognition and protection in Council's LEP & DCP, and studies into biodiversity and flooding, the riparian corridor is not considered significant enough to justify retention.

Traffic

All traffic from the proposed development will, in the short term, enter and exit the site, subject to this application, via Sophia Street. The intersection of Sophia Street and Noble Road will be upgraded to a roundabout as part of stage 3 of the Tullimbar subdivision development (Development Consent No. 741/2002, as amended).

In the longer term, two further road connections will be completed on the western edge of this current development which will link with the existing stages to the west, allowing for traffic movements to and from the development via additional access points.

As part of stage 3 of the Tullimbar subdivision development, the RMS has required the upgrading of the intersection of Sophia Street and Church Street with a roundabout, and the installation of traffic signals at the intersection of Illawarra Highway and Church Street.

The intersections have been designed for the projected 2025 traffic volumes. Based on these projected annual growth of traffic volumes, the applicant's traffic report found that the Illawarra Highway/Church Street intersection, which is currently priority controlled, will reach capacity by 2016. The report concludes that this intersection should be signalised after the first year of development, which equates to stage 3 of the Tullimbar subdivision development. Therefore, all of these works will commence prior to the works covered by current proposal.

The applicant's traffic report recommended that bus services be extended into the development. At this stage, the only proposed bus route is via the extension of Sophia Street, via Berrima Street, ultimately connecting with the existing section of Tullimbar to the west when the connecting portion of land is developed. The vast majority of the proposed development falls within 400 m from this planned bus route, however any variations would be negotiated between developer and the local bus proprietor.

Bulk earthworks and associated retaining walls

The current development features a proposal for an almost 400 m long retaining wall, with a maximum total height of 2.5m; the wall will be terraced with landscaping in the setback areas as shown in Attachment 5. The wall retains the ground to the east of lots 230-233, 328-335, 412-413 and 444-446. The wall also extends westward, between lots 36 and 230. The engineering of the wall will be provided by the developer and assessed by Council as part of the Construction Certificate application process. However, there are concerns regarding the practicality of the proposal in terms of access to the top of the wall for maintenance of the proposed catch drain, which will collect runoff from the upstream properties on Noble Road and possibly the piped drainage from the same properties. These concerns also feed into the detail of how the properties will be adequately fenced and whether this aspect will negatively affect the drainage. However, these issues, along with the details of easements for access and maintenance can be negotiated and finalised within the Construction Certificate process.

Drainage reserve

The application includes a proposal to create a 3.0 m wide drainage reserve between lots 233 and 328. The reserve will contain a 600 mm diameter pipeline, taking stormwater from Noble Road and the proposed catch drain which runs along the top of the retaining wall on the eastern boundary of the property. The reserve will also convey major storm overflow from time to time.

While the Council's engineering Subdivision Code requires any stormwater pipe of 600 mm diameter or larger to be placed in public land, in this instance it's application would create a narrow strip of grassed land between two private allotments which would be an ongoing maintenance burden and, because it is bounded on the eastern end by a 2.0 m high retaining wall, there is a

risk that the reserve may attract anti-social behaviour and crime. In order to elevate these risks and mitigate against the maintenance burden, the drainage reserve should be relocated into one of the adjoining properties and protected by an easement.

Further detail will be required to support the Construction Certificate application to ensure that the drainage line and any major storm overflows can be safely conveyed through private property. This will need to include further details of proposed pits and an allowance for blockage at the sag point on the top edge of the proposed retaining wall. This will also include consideration of the adjacent sag points on Noble Road, immediately to the east, which will flow to this point should the road drainage system block or otherwise not be able to fully convey stormwater.

Water quality

During the planning of the overall Tullimbar Village, Forbes Rigby undertook water quality and quantity modelling. Their 2004 report explains that stormwater from the area currently under consideration for development approval, including the Digby Creek catchment, was designed to flow to Hazelton Creek, where the planned, at that stage, Village Ponds and Hazelton Creek Wetland would provide water quality treatment.

Various reports detailing the water quality and quantity treatment across Tullimbar Village were accepted in support of DA741/2002, as amended, with the ponds and wetland being constructed during the earlier stages of Tullimbar Village. The current proposal benefits from this earlier work and no further submissions are required in regard to water quality treatment of stormwater flowing from or through the site subject to the current development application.

Flood planning

Catchment wide flood analysis of Tullimbar Village has been undertaken in support of earlier stages of the overall development. A series of reports completed by Forbes Rigby have studied the undeveloped condition and designed measures to be constructed within the completed development to minimise the impact of urbanisation across the entire site. As a result, flood peak mitigation works have been completed in earlier stages of Tullimbar Village. The current application benefits from these earlier works. As part of the catchment wide design, stormwater flows from this development will be diverted to Hazelton Creek, where peak flows are retarded to predevelopment levels, so as not to increase flooding downstream of the development.

As part of the earlier studies undertaken by Forbes Rigby, the treatment of Digby Creek, which runs diagonally across lot 2, was considered. The report recommended a number of potential options for developing around the existing ephemeral channel. None of these options included piping Digby Creek through the site, as is currently being proposed from the south-western corner of lot 2, where it discharges from an existing pipe immediately downstream of a small public reserve, through the development and discharges to a proposed drainage channel on the western side of lot 2. Further detail will be required in support of this proposal during the assessment of the Construction Certificate application, considering both minor and major stormwater flows, to ensure that they can be adequately catered for without adversely impacting upon either allotments within the current application, or any others.

(c) Section 79C (1)(c) - the suitability of the site for development;

The site is considered suitable as the proposal is permissible development on the land, can be provided with essential services and can satisfy relevant statutory requirements.

(d) Section 79C (1)(d) - any submissions made in accordance with the Act or the Regulations;

The application was advertised and notified in accordance with the statutory requirements. Five written submissions were made to Council. The planning matters raised in the submissions and the response to these matters are detailed in the table below.

Issues raised in submissions	Response
<p>1. Piping of Digby Creek from Noble Road to Hazelton Creek is objected to.</p> <ul style="list-style-type: none"> The intermittent watercourse provides habitat for native fauna. Protection of this creek was a major reason for the formation of the local LandCare group in 1999 who have undertaken regeneration works in the area. Protection of the watercourse would provide a link to the natural landscape of the area. In this regard, how is the proposal consistent with the SEE clause 4.1 that the development is based on "ecological sustainable development principles" and the plan capitalises on the natural setting. Digby Creek, once vegetated, would provide a buffer between Regal Heights and Tullimbar, where children can play instead of in the streets. ... the vegetation to the south of the site forms an important bushland corridor between the subtropical rainforest of Elizabeth Brownlee Reserve and Stockyard Mountain. The increase in yield from the original DA approved master plan should allow the developer to develop as per the approved plan. Increased yield should not be as a result of piping the creek. Flood risk will increase when piping a creek. 	<p>Digby Creek is an ephemeral water course in a deeply incised gully about 2m deep with steep channel walls and about 4-5m wide at the top of the embankment.</p> <p>The subdivision as proposed is consistent with the Western Valley Village Structure Plan of SDCP which does not show the retention of Digby Creek.</p> <p>It is noted that the site already benefits from a development consent for subdivision. The drainage options relating to this consent do not retain Digby Creek in its current form (at the time); options included realigning the creek with removal of all vegetation and so losing any ecological value the creek may have had, for example.</p> <p>Refer comment under 'biodiversity' section above.</p> <p>The dwelling yield exceeds the yield requirements of SDCP. The resulting yield does not rely on the additional developable land created by the filling of the creek .</p> <p>Digby Creek is proposed to be piped from the south-western corner of lot 2, where it discharges from an existing pipe immediately downstream of a small public reserve, through the development and discharge to a proposed drainage channel on the western side of lot 2. Further detail will be required in support of this proposal during the assessment of the Construction Certificate application. Significant assessment of flood behaviour across the entire Tullimbar development was supplied in support of the original development applications. This work, carried out by Forbes Rigby allowed for all of the drainage from lot 2 and part of lot 1 to be directed wetwards to Hazelton Creek. It is not expected that the piping of the portion of Digby Creek within this development will have any significant negative impact upon flooding levels or flood behaviour based on the previous flood study reports. However, the applicant will be required, by condition, to study the overland flows during the major storm event (1 in 100 year ARI), to ensure that it can be safely passed through the site. This information, which will be assessed during the Construction Certificate application to ensure that there are no significant negative effects on either existing or proposed allotments.</p>

Issues raised in submissions	Response
2. Inadequate public open space for the number of lots proposed. Retention of Digby Creek will provide additional open space as a nature reserve.	A local park will be provided as part of the stage 2 works. The amount of open space as a local park is in accordance with Council's <i>s94 Contributions Plan</i> . In addition, the location and area of the local park is generally consistent with the Tullimbar Village structure plan as shown in SDCP.
3. Inclusion of inappropriate landscape species (street trees and open space vegetation); either noxious weeds, have longterm management implications, will result in environmental degradation of existing bushland. Why not plant trees that are native to the area	The species selected for street trees and the local park will consider for example: <ul style="list-style-type: none"> • their suitability with regard to ongoing maintenance and associated ongoing costs (as a Council asset), • endemic species where appropriate, • the theme of the existing street tree species in established areas of Tullimbar, and • the desired character of the locality which can be shaped by its street tree species and/or iconic local park planting design. Weed species will not be used; this would be inconsistent with SDCP and relevant legislation.
4. Difficult to comment on streets as submitted information and plans are inconsistent, with regard to the road connections to Noble Road. Inconsistency in plans with a plan showing Digby Creek whilst other plans show it being piped.	The concept plan numbered 1501.DA.P01 formed part of Appendix B which included information relating to the 3 lot subdivision of the parent lot to create the 3 lots of the subject development site. It is noted that the DA information uploaded onto Council's website did not make this clear.
5. Use of Noble Road as access to the site not supported as Noble Road cannot handle existing traffic loads and already raises safety concerns will be compromised as 1) the road only functions as a one way street as various vehicles, trailers, caravan are parked on the street; 2) street has bends and blind spots; 3) street is used by children.	Regarding residents concerns with the potential for increased traffic flows on Noble Road it is noted that while the western termination of Noble Road would easily accommodate its extension into the development site, the applicant has indicated that they will not extend Noble Road. This is partly in response to resident concerns.
6. Is Noble Road to be extended to connect to the southern part of the Tullimbar development?	There is no proposal to extend Noble Road by the developer. The developer is cognisant of the objections raised by residents in any potential increase in traffic along Noble Road and has limited the number of access points to Noble Road to its existing intersection with Sophia Street at its northern most end. Future development proposal on Lot 3 is likely to include a pedestrian link from Noble Road to the local park.

In conclusion, the matters raised in the submissions are not considered to provide adequate grounds to require a significant redesign of the development proposal or to refuse the development proposal.

(e) Section 79C (1)(e) - the public interest.

The proposal will provide orderly economic development of the land to provide growth in the supply of residential housing in the local government area. The proposed development is consistent with the relevant statutory requirements and planning objectives. Accordingly, development consent of this proposal will not undermine the public interest subject to appropriate conditions being imposed on any development consent.

5 Recommendation

It is recommended that development application no. 2015STH027 (Council reference no. DA No.647/2015) be approved subject to the draft conditions contained in Attachment 1.

5 Attachments

Attachment 1 – Draft Schedule of Conditions

Attachment 2 – Locality Plan

Attachment 3 – Subdivision Layout Plan

Attachment 4 – Subdivision Layout Plan - Aerial Overlay

Attachment 5 – Retaining Wall Detail

Attachment 6 – Subdivision Layout Plan – Village Structure Plan Overlay

Attachment 7 – Preliminary Concept Small Lot Development between Balmoral Parade and Road No.1 (Stage 5)

Attachment 1 – Draft Schedule of Conditions

PART A - ADMINISTRATIVE CONDITIONS

A1 Construction Certificate (Subdivision) & PCA Notification *Environmental Planning & Assessment Act 1979 Section 81A*

Before any site works, building or use is commenced, the person having the benefit of the development consent must:

- a. obtain a Construction Certificate from Shellharbour City Council or other accredited certifier, and
- b. appoint a Principal Certifying Authority.

Note: For Torrens Title Subdivision, the appointed Principal Certifying Authority must be Shellharbour City Council.

A2 Prescribed Conditions

This development consent is subject to the prescribed conditions made under the *Environmental Planning & Assessment Regulation 2000*.

A3 Development in Accordance with Plans

The development must be in accordance with the following approved Development Application plans and documents as endorsed by Council's stamp **except where modified by conditions of this consent**.

Name of Plan/Document	Prepared By	Reference	Date
Subdivision Plan	siteplus	1501.D3.P01 Revision G	22.06.2016
Staging Plan	siteplus	1501.D3.P03 Revision G	22.06.2016
Detailed Subdivision Plans 1-3	siteplus	1501.D3.P04-P06 Revision G	22.06.2016
Retaining Wall Plan	siteplus	1501.D3.C22 Revision C	07.03.2016
Concept Retaining Wall Landscape	groundink	20150317 LDA-016 Revision A	25.02.2016
Pedestrian Footpath Network	siteplus	1501.D3.P09 Revision C	07.03.2016

Name of Plan/Document	Prepared By	Reference	Date
Tree Survey	Project Surveyors	D2401-DETAIL-TREES Sheet 1 of 1	14.03.2016
Unanticipated Discovery Protocols, Appendix 2 of Due Diligence Archaeological Assessment	Navin Officer heritage consultants Pty Ltd	Issue No. v2	September 2015

A4 Compliance with Notations on Drawings

Works must comply with any annotations on the approved plans.

A5 NSW Rural Fire Service

The development must comply with the advice of the NSW Rural Fire Service, as contained in their letter dated 30 June 2016, consisting of three (3) pages, and which forms part of this Notice of Determination.

A6 NSW Department of Primary Industry - Water

The development must comply with the advice of the DPI - Water, as contained in their letter dated 15 December 2015, consisting of four (4) pages, and which forms part of this Notice of Determination.

A controlled activity approval will be required prior to any Subdivision Construction Certificate being issued.

A7 Staging of Development

The development must be generally staged as follows:

Stage	Development
1	44 residential lots.
2	38 residential lots, 1 superlot & 1 local park lot, a total of 40 lots.
3	8 residential lots & 3 superlots, a total of 11 lots
4	46 residential lots & 2 superlots, a total of 48 lots
5	10 residential lots

All conditions of this consent apply to each stage, unless otherwise specified.

PART B - PRIOR TO ISSUE OF SUBDIVISION CONSTRUCTION CERTIFICATE

B1 Initial Geotechnical Report

A geotechnical report, prepared by a suitably qualified and experienced geotechnical engineer, must be submitted to the Certifying Authority for approval prior to the issue of the Construction Certificate.

The report must cover, but not be limited to, the following:

- a. extent and stability of proposed embankments including those acting as retarding basins,
- b. recommended Geotechnical testing requirements,
- c. level of geotechnical supervision for each part of the works as defined under AS 3798 - *Guidelines on Earthworks for Commercial and Residential Developments*,
- d. an analysis of the level of risk to existing adjacent structures/buildings including the scenario of a construction contractor using vibratory rollers anywhere within the site the subject of these works. In the event that vibratory rollers could affect adjacent structures/buildings, high risk areas must be identified on a plan and the approved engineering plans must be amended to indicate that vibratory rollers must not be used within that zone,
- e. the impact of the installation of services on overall site stability and recommendations on short term drainage methods, shoring requirements and other remedial measures that may be appropriate during installation,
- f. the recommended treatment of any unstable areas within privately owned allotments,
- g. requirement for subsurface drainage lines, and
- h. overall assessment of the engineering plans for the proposed development and their suitability in relation to the site's geotechnical characteristics.

B2 Soil and Water Management Plan (SWMP)

Prior to the issue of the Construction Certificate, a SWMP must be submitted to and approved by the Certifying Authority.

The SWMP must clearly identify site features, constraints and soil types together with the nature of the proposed land disturbing activities and specify the type and location of erosion and sediment control measures. In addition, rehabilitation techniques that are necessary to deal with such activities shall be referred to where applicable.

The SWMP must take into account the requirements of Landcom's publication *Managing Urban Stormwater - Soils and Construction (2004)* thus ensuring the following objectives are achieved, namely:

- a. minimise the area of soils exposed at any one time,
- b. conserve topsoil for reuse on site,
- c. identify and protect proposed stockpile locations,
- d. preserve existing vegetation and identify revegetation techniques and materials,
- e. control surface water flows through the development construction site in a manner that:
 - i. diverts clean run-off around disturbed areas,
 - ii. minimises slope gradient and flow distance within disturbed areas,
 - iii. ensures surface run-off occurs at non-erodible velocities, and
 - iv. ensures disturbed areas are promptly rehabilitated.
- f. trap sediment on site to prevent off site damage. Hay bales are not to be used as sediment control devices. To ensure regular monitoring and maintenance of erosion and sediment control measures and rehabilitation works until the site is stabilised (includes landscaping),
- g. specifies measures to control dust generated as a result of construction activities on site,
- h. temporary sediment ponds must be fenced where the batter slope exceeds 1 vertical to 5 horizontal,
- i. design scour protection for the 20 year ARI event at all inlet and outlet structures, and
- j. include measures to prevent the tracking of sediment off the site.

B3 Soil and Water Management Plan (SWMP) Bond

The developer must lodge a bond to the amount of \$200 per lot to ensure compliance with erosion and sediment control measures incorporated in the approved Soil and Water Management Plan (SWMP). This bond must be in the form of an irrevocable bank guarantee made out in favour of Shellharbour City Council, and must operate as follows:

- a. the bond must be submitted to Council prior to the release of the Subdivision Construction Certificate,
- b. the bond must be held by Council until the expiration of the defects liability period for the subdivision, which commences at the completion of all engineering works, including placement of the final seal on all new roads, and
- c. if Council is to advise the developer that maintenance work is required on the erosion and sediment control measures, remedial work shall be substantially commenced within forty eight (48) hours from the time of advice. Failure to comply with this direction will give Council the right to employ an appropriate contractor, (which could include the Soil Conservation Service) to undertake such measures as deemed necessary and fund these works from the bond guarantee.

B4 Road Design

The road design must comply with the following:

- a. the grading and layout of all roads and lots must not allow for trapped low points and in addition ensure that overland flow is passed safely over public land,
- b. the road pavement must be designed with one layer of asphalt having a minimum thickness of 40mm AC 14. The pavement design for the proposed roads must be carried out by a qualified Geotechnical/Civil engineer in accordance with *AUSTROADS Guide to Pavement Technology*,
- c. all vertical and horizontal alignment of all streets and all street intersections within the development must have adequate sight distance provided in accordance with AUSTROADS requirements,
- d. the geometric design of all roads, traffic facilities, intersection treatments, mid-block devices and entry features must be such as to permit a 12.5m single unit vehicle to manoeuvre in order to enter and leave each road travelling in a forward direction and without leaving the carriageway, and
- e. the relevant drawings must be annotated and properly referenced showing compliance with this condition. The drawings must be submitted with application for a Subdivision Construction Certificate for approval by the Certifying Authority.

B5 Road Drainage Plans

Road and drainage plans must be prepared by a suitably qualified engineer in accordance with Council's *Subdivision Design Code*. The plans must be submitted to the Certifying Authority for approval prior to the release of the Subdivision Construction Certificate. All road and drainage work must then be constructed in accordance with Council's construction standards and approval at no cost to Council.

All stormwater pipes within the road reserves and within drainage easements intended to be dedicated to Council must be installed generally to the HS3 standard in accordance with the current edition of AS 3725 - *Design for Installation of Buried Concrete Pipe*.

B6 Pram Ramps

Access ramps shall be provided at all intersections of pathways with a public road in accordance with AS 1428.1 2009, as amended from time to time. Details to be provided with the Subdivision Construction Certificate application.

B7 Pit Grates

All pits must have flush fitting grates. All pits larger than 600mm x 600mm must be grated galvanised steel grid hinges and be heavy duty type where traffic loading is expected. Details to be provided with the Subdivision Construction Certificate application.

B8 Structural Design of Deep Pits

All pits deeper than 0.9 metres shall be designed by a certified structural engineer and be in accordance with AS3600-2009. Pits deeper than 1.2 metres must have galvanised steel step irons (plastic coated black steel step irons will not be accepted) and pits deeper than 1.8 metres must be reinforced concrete. Step irons are to be at 300mm interval spacing from bottom of pit. Top step is to be a minimum 500mm below top surface level. Details to this effect must be incorporated on the detailed drainage design that is submitted to the Certifying Authority for the Subdivision Construction Certificate.

B9 Flood Analysis

Prior to the issue of a Subdivision Construction Certificate, a flood analysis must be submitted, and approved by, Council. A flood analysis of a variety of events up to and including the Probable Maximum Flood (PMF) must demonstrate:

- a. the effect of the proposed development on downstream properties and proposed measures to ensure downstream properties are not subject to additional flooding as a result of the development,
- b. flow velocities together with the extent of the area inundated by the 1 in 100 year ARI flood,
- c. how the PMF can be safely passed through the site,
- d. how newly created lots are to be located above the Flood Planning Level (FPL – 1 in 100 year ARI flood level + 0.5 m).

B10 Electricity Substation

Where required, the land owner must dedicate to the applicable energy supplier, free of cost, an area of land within the development site (excluding any approved landscaped area) to enable an electricity substation to be installed. The size and location of the substation must be submitted for approval of both Council and the energy provider prior to the Subdivision Construction Certificate being issued.

B11 Retaining Walls

The maximum total height of the terraced retaining wall structure must not exceed 2.5m. Each retaining wall must not exceed 1200mm in height and must be stepped down the slope by at least 1000mm to allow adequate landscape to grow in the setback area between the retaining walls. The intent of the landscaping is to screen and soften the overall height of the retaining wall structure.

Where steps are to provide access to the catch drain for maintenance and repair, the steps should be integrated into the design of the retaining walls.

Only those retaining walls shown on the approved plans are approved under this consent with exception of any retaining walls less than 600mm in height.

Retaining walls that exceed 600mm in height must be designed by a practising structural engineer and a Construction Certificate must be obtained prior to the commencement of work on the retaining wall.

Construction of retaining walls or associated drainage work must not compromise the structural integrity of any existing structures on adjoining properties.

No retaining walls are to be constructed on land proposed to be dedicated to Council.

Details to this effect to be provided with the Subdivision Construction Certificate application.

B12 Engineer Designed Pavement – Battle Axe Lots

The vehicle pavement must be designed by a qualified civil engineer and certified to be satisfactory for the expected traffic loadings from a development of this size and type. Australian Standard 'Guide to Residential Pavements' (AS 3727-1993 or subsequent amendments) can be used as the design guideline for the pavement design. These details must be submitted with application for a Subdivision Construction Certificate for those stages with battle axe lots.

B13 Local Park

In accordance with the provisions of the *Shellharbour Development Control Plan* and Council's *Section 94 Contributions Plan 2013* dated 18 December 2013, 2,909m² of passive open space, being proposed lot number 1001, must be dedicated to Council free of cost to cater for the open space needs of this development.

The land to be dedicated as open space must:

- a. be embellished in accordance with the requirements for this category of park as contained in Shellharbour City Council's *Section 94 Contributions Plan 2013* dated 18 December 2013, as contained in Appendix B of Council's *Open Space, Recreation and Community Facilities Needs Study*,
- b. be prepared in accordance with the *Shellharbour Development Control Plan* (for example, landscape chapter),
- c. include screen landscaping along the full length of the future side boundary fencing of lots 317 and 318, and include at least one deciduous large tree, and
- d. in its embellishment and landscape treatment consider 'Crime Prevention Through Environmental Design' (CPTED) principles.

Details of all proposed embellishment and landscape works must be submitted to Council for approval prior to the release of the Subdivision Construction Certificate for Stage 2.

The *Section 94 Contributions Plan 2013* may be inspected or a copy purchased at the Customer Service Counter at Council's offices, or downloaded from www.shellharbour.nsw.gov.au

B14 Landscape & Street Tree Plan

A detailed landscape and street tree plan prepared by a Landscape Architect must be submitted with the Subdivision Construction Certificate. One soft and one hard copy are required. The plan must be prepared in accordance with the *Shellharbour Development Control Plan* and the following requirements:

- a. retaining wall landscape species to be low maintenance, have a height and habit on maturity that will soften and partially screen the retaining wall structure, and for the upper level landscape bed produce minimal litter so as to minimise any impediment to the unobstructed discharge of water along the catch drain at the top edge of the retaining wall located on the eastern boundary of the development site,
- b. perimeter landscape beds along the length of the access handle pavement of the battle-axe lots. The species selected must be low maintenance, achieve a height/habit that will soften the interface between the extensive pavement and boundary fence and have 'soft' leaves so vehicles are not damaged by the landscape,

The width of the perimeter landscape beds must be, for a 5.0m wide access handle with a pavement width of 3.0m, at least 1.0m on each side of the driveway pavement,

- c. the plan must exclude the following species:
 - *Platanus x acerfolia*
 - *Lophostemon*
 - *Plantanus x hybrid*
 - *Eucalyptus haemastoma*
 - *Sapium sebiferum*
 - *Fraxinus raywoodii*
 - *Robinia pseudoacaia 'Frisia'*
 - *Jacaranda mimosifolius*,
 - *Rhaphiolepis oriental pearl* (Indian Hawthorn), and
 - *Pennisetum alopecuroides* (Swamp Foxtail).

Council's Landscape Technical officer can be contacted for suitable alternate species,

- d. 'Crime Prevention Through Environmental Design' (CPTED) principles, and
- e. be generally in accordance with the concept masterplan Tullimbar DA3 drawing no. LDA-000- LDA-015 prepared by groundlink landscape architects and dated 28.09.2015.

B15 Drainage Reserve

The 3.0 m wide drainage reserve proposed between lots 233 and 328 must be relocated into private property. Details must be submitted prior to the issue of a Subdivision Construction Certificate of how major storm over flows will be conveyed from the sag point on top of the retaining wall, through the burdened allotment. Similarly, details shall be submitted for the other sag point above the retaining wall, adjacent to lot 444.

B16 Retaining Wall Catch Drain

Details must be provided of how access will be provided for maintenance of the concrete-lined catch drain which is proposed along the top edge of the retaining wall located along the eastern boundary of lots 230-233, 328-335, 412-413 and 444-446, and between lot 36 and 230.

B17 Protection of Aboriginal Sites

Plans submitted with the Construction Certificate application must show the locations of Aboriginal sites within 20m of the development footprint as 'no-go' areas and detail the fencing to be installed so as to restrict access.

These sites are Tullimbah Village PAD2, Tullimbah Village PAD3 west and Tullimbah Village PAD4.

Fencing must be installed prior to works commencing to minimise the potential for inadvertent impact.

B18 Bond - New Street Trees

A deposit of \$300 per tree must be lodged with Council prior to the issue of the Subdivision Construction Certificate to ensure that the street trees are maintained for a 6 month period following the issue of the Works Certification Certificate.

B19 Street Tree/Landscape Inspection Fee

The developer must lodge with Council prior to the issue of the Subdivision Construction Certificate an inspection fee of \$147.00 per inspection in accordance with Council's *Fees and Charges* for:

- street tree/landscape works certification inspection, and
- street tree/landscape handover inspection following completion of the maintenance period.

B20 Landscape Plan Compliance Certificate

The developer must lodge with Council a fee of \$45.00 per 1000m² of total development site in accordance with Council's *Fees and Charges* – 'Landscape Plan Compliance Certificate' for the assessment of the landscape plan prior to the issue of the Landscape Subdivision Construction Certificate.

B21 Habitat Boxes

Prior to the issue of the Subdivision Construction Certificate, a report is to be submitted to Council that outlines the type of habitat boxes to be installed, locations, target species and how the boxes will be managed in perpetuity.

B22 Waste Management Plan

A Waste Management Plan for the development must be prepared in accordance with Shellharbour City Council's *Shellharbour Development Control Plan* and be submitted with the Subdivision Construction Certificate. The plan must detail all waste streams and disposal methods. Any surplus excavated material from the site must be taken to an approved land fill site. Details of this location must be detailed on the waste management plan. Excavated material may only be taken to another site with prior written approval of the Certifying Authority.

PART C - PRIOR TO COMMENCEMENT OF WORKS

C1 Unexpected Finds Contingency

An unexpected finds protocol for contamination is to be prepared for the construction earthworks by a suitably qualified professional and submitted to the Principal Certifying Authority prior to the commencement of works. The unexpected finds protocol should include procedures and protocols for managing risks should unexpected finds of contamination be identified at the site.

C2 Remediation Action Plan

A Remediation Action Plan must be prepared by a suitably qualified professional and submitted to the Principal Certifying Authority detailing how the lead impacted areas identified in the contamination assessment for the site will be remediated prior to the commencement of works.

C3 Site Meeting with Council

A site meeting with Council's Engineer, the applicant and the contractor must be held not less than 7 days prior to the commencement of work on site.

C4 Soil and Water Management Plan Implementation (SWMP)

The measures required in the Soil and Water Management Plan approved by the Certifying Authority must be implemented prior to the commencement of works.

C5 Construction Traffic Management Plan (CTMP)

Prior to the commencement of works, a CTMP detailing vehicle routes, number of trucks, hours of operation, access arrangements, impact on pedestrians and traffic control must be submitted to and approved by the Certifying Authority.

It is the developer's responsibility to adequately inform/brief for construction workers, sub-contractors and supervisors to ensure that the Construction Traffic Management Procedures are adhered to at all times.

C6 Site Management Plan

Prior to the commencement of works, the applicant must submit to and obtain approval for a construction and site management plan from the Certifying Authority that clearly sets out the following:

- a. what actions are proposed to ensure safe access to and from the site and what protection will be provided to the road and footpath area from building activities, crossings by heavy equipment, plant and materials delivery and static load from cranes, concrete pumps and the like,
- b. the proposed method of loading and unloading excavation machines, building materials and formwork within the site,
- c. the proposed areas within the site to be used for the storage of excavated material, construction materials and waste containers during the construction period,
- d. sediment and erosion control measures as per Landcom's publication 'Managing Urban Stormwater - Soils and Construction (2004)' also known as the 'Blue Book' or subsequent revisions,
- d. how it is proposed to ensure that soil/excavated materials is not transported on wheels or tracks of vehicles or plant and deposited on the roadway
- e. the proposed method of support to any excavation adjacent to adjoining buildings or the road reserve. The proposed method of support is to be certified by an accredited certifier in civil engineering.

C7 Dilapidation Report

It is the applicant's responsibility to notify Council of any existing damage to public areas in the vicinity of the development site through the submission of a Dilapidation Report supported with suitable photographic records. This information must be submitted to Council prior to the commencement of work.

C8 Open or Occupy a Roadway or Footpath - Section 138 Roads Act 1993

Prior to any physical works within Council's road reserve in such as (but not limited to) installing a driveway or connecting stormwater facilities, you will need to apply for approval under Section 138 of the *Roads Act 1993*. Fees are payable in accordance with Council's *Fees and Charges*.

To lodge your application you will need to submit the following information:

- a. detailed engineering drawings of the proposed works in the road and footpath area,
- b. a Traffic Management Plan,

- c. provision of Public Risk Insurance, and
- d. details of timing and length of works.

C9 Public Liability

Where occupation of and/or works within Council's road reserve are proposed, the owner or contractor must provide evidence to Council of a Public Risk Insurance Policy with a minimum cover of \$20M for the full duration of the proposed works prior to the commencement of works. The Policy must note Council as an interested party.

C10 Habitat Boxes

One month prior to removal of hollow bearing trees, suitable, purpose built microchiropteran, habitat boxes must be erected in a portion of the property that will be retained in perpetuity.

The location of the habitat boxes must be recorded using a Global Positioning System (GPS), and a map showing the position of these produced.

The ratio of habitat boxes to trees removed will be 3 to 1. A total of 9 habitat boxes (3/tree cleared) should be erected.

A project ecologist specialising in fauna must be engaged prior to commencement of works.

C11 Pre-clearance fauna survey

A pre-clearance survey must be conducted by the project ecologist 1 day prior to the commencement of vegetation clearing works. The purpose of this survey is to identify any additional roosting or nesting fauna (including drays) which are present within all trees proposed for removal. The ecologist should conduct a thorough inspection of all trees approved for removal and mark those which are observed to contain roosting or nesting fauna and will require supervision of the clearance works.

PART D – DURING CONSTRUCTION WORKS

D1 Site Documentation

A full set of approved documents (Development Consent, Construction Certificate Drawings and associated documentation) must be maintained on site for the duration of the construction works.

D2 Hours of Work

Noise generating activities including construction, excavation and delivery of equipment and materials, must only be carried out between:

- 7am to 5pm Mondays to Fridays, and
- 8am to 1pm Saturdays.

D4 Maintenance of Soil and Water Management Plan (SWMP)

The soil and water management controls must be maintained at all times during each stage of the development and checked for adequacy daily. The controls must not be removed until the development is completed and the disturbed areas have been stabilised to the satisfaction of the Certifying Authority.

Maintenance must include but is not limited to ensuring:

- a. all sediment fences, sediment traps and socks are properly placed and are working effectively, and
- b. that drains, gutters and roads are maintained clear of sediment at all times.

It is an offence under the *Protection of the Environment Operations Act* 1997 to allow soil or other pollutants to fall or be washed into any waters or be placed where it is likely to fall or be washed into any waters. Substantial penalties may be issued for any offence.

D5 Unanticipated Discovery Protocol

In the event that object/s which are suspected of being Aboriginal object/s or relic/s are encountered during works, the Unanticipated Discovery Protocol (which forms part of the approved documentation of condition no. A3) must be implemented.

D6 Tree Removal

Existing trees and or vegetation nominated for removal must be removed prior to any construction works. Trees/vegetation removed are to be mulched and used to mulch the existing trees and/or vegetation to be retained. Any environmental weed must be removed from the development site and must not be used for mulch purposes.

D7 Subdivision Design Code Compliance

All works to be dedicated as a Council asset must be installed/constructed in accordance with Council's *Subdivision Design Code*.

D8 Lots and Site Filling

All lot and site filling must be performed under level 1 Geotechnical supervision in accordance with AS 3798-2007 or subsequent amendments.

D9 Geotechnical Testing - Drainage

Geotechnical testing must be carried out and results submitted to the Certifying Authority to verify that the pipe trench bedding and backfill complies with the requirements outlined in Australian Standard AS 3725 - *Design for Installation of Buried Concrete Pipe*.

Geotechnical testing must verify that the pipe trench bedding and backfill complies with the requirements for HS3 bedding/backfill must be performed at the rate of one test per 50m of pipeline with not less than two tests in any section of pipe exceeding 25m in length.

D10 Earthworks Cut, Fill & Grading

The maximum grading of cut or fill must be 45 degrees (1:1) where there is no retaining wall or no other method of stabilising cut or fill. The maximum depth of cut or fill on any portion of the allotment must generally be in accordance with the approved plans that form part of condition A3.

D11 Road Construction and Road Drainage Construction

The site manager must arrange for a satisfactory inspection by Shellharbour City Council of the following works:

- a. all road drainage works prior to backfilling of the work,
- b. all road construction inspections as per Council's *Subdivision Design Code* and
- c. any other structures or work.

D12 Dam Dewatering

All dams must be dewatered, desilted and backfilled prior to the release of the Subdivision Certificate for that stage of the development. This filling shall be performed subject to Level 1 Geotechnical control in accordance with AS3798-2007, or subsequent amendments.

D13 Street Lighting

A Public Lighting Design Brief must be submitted to Shellharbour City Council for approval for the provision of street lighting on all new public roads to be dedicated to Council. A street lighting design plan must be prepared by an accredited service provider for contestable works in NSW and submitted to the Energy provider for approval prior to construction. All street lighting must comply with the electricity service provider *Street Lighting Policy* and illumination requirements. All costs associated with the installation of street lighting must be borne by the developer.

D14 Traffic Committee – Signposting & Line Marking

A Signposting and Line Marking Plan must be lodged with Shellharbour City Council's Traffic Committee for written approval. The plan must detail all facilities, signage and line-marking required within and surrounding the development.

D15 Battle Axe Lots - Footpath Crossing, Layback & Driveway

A 3.0m wide standard residential vehicular concrete footpath crossing and layback must be constructed between the kerb and the property boundary for each battle-axe allotment created. The footpath crossing must maintain a perpendicular alignment from the kerb to the property boundary line and must be finished with a slip resistant coating.

Vehicular access must not interfere with the existing public utility infrastructure or existing street trees. The footpath crossing must be 500mm clear of all drainage structures and 2.0m from street trees.

The 3.0m wide driveway pavement must be constructed along the full length of the access handle. The pavement must be located mid-centre with a 1.0m wide landscape bed on each side.

D16 Street Trees

One tree per residential lot and two trees per corner residential lot must be planted on center point of the residential lot on the Council footpath reserve. All trees are to be installed and fitted with the following requirements:

- a. tree species as per the approved plan (refer Part B),
- b. trees must be set back a minimum 900mm from the back of the kerb or midway between the footpath and kerb. Where the tree is less than 900mm from the footpath, root barriers must be installed,
- c. 1m x 1.5m timber edging installed at the base of the tree constructed from the back of the kerb,
- d. two hardwood stakes with 50mm hessian ties, fixed in a figure 8, to support each tree, and
- e. minimum 75mm depth of organic mulch applied a minimum 600mm diameter surrounding the base of the trunk.

D17 Street Tree Planting Distances

The following recommended clearances are to be taken into account prior to the installation of street trees:

- a. minimum 3.0m either side of a driveway or vehicular crossing,
- b. minimum 2.0m from services and signage,
- c. minimum 1.5m from a stormwater outlet/pit,
- d. minimum 3.0m from street light posts, and
- e. minimum 15m from pedestrian crossing and traffic signals.

D18 Street Tree/Landscape Inspection

All street trees and/or landscape must be inspected by Council prior to the issue of the Landscape Works Certification Certificate. It is the responsibility of the developer to notify Council for the street tree/landscape inspection.

D19 Tree Removal Procedures

- a. An ecologist must be on site during removal of vegetation, particularly trees 30, 31 and 32.
- b. Immediately prior to the clearing of the gully vegetation the project ecologist must conduct an inspection of any suitable ground debris, shrubs and accessible hollows. These inspections should be conducted to determine, and collect if possible, any sheltering or nesting animals.
- c. All trees to be removed must be felled by a qualified arborist.
- d. Non hollow-bearing vegetation, shrubs and so forth must be cleared no less than 48 hours prior to the felling of the hollow-bearing trees. The clearing of this vegetation should result in the hollow-bearing trees becoming 'exposed' and isolated'.
- e. Hollow bearing trees and stags must be felled by an arborist in one to two metre sections, beginning at the top of the crown and lowered to the ground for inspection by the ecologist on site. Lengths cut from the tree shall be in a manner that will preserve the hollow(s). Once felled, the ecologist should inspect all hollows for sheltering animals.
- f. Any animals present within the tree hollows should be collected and released on dusk, or under conditions that equate to the life cycle requirements of the species collected, within those portions of the site that are to be retained in perpetuity.
- g. WIRES must be contacted in the instance of injured wildlife.
- h. Any suitable hollow limbs present in association with the felled trees must be collected and located within those portions of the site that are to be retained in perpetuity.
- i. Relocated natural hollows must be included, GPS'ed, mapped and incorporated in the ongoing habitat box monitoring.
- j. The project ecologist will provide Council with a Letter Report confirming that the procedures specified have been complied with, along with notes on any fauna encountered and the outcome of salvage.

D20 Fencing

For those lots with the approved retaining walls, side boundary fencing must be erected from the rear boundary to at least 3m westward as measured from the lowest retaining wall.

D21 Footpath

A 1.2m wide concrete footpath must be constructed generally in accordance with the approved footpath plan. This work must be carried out at the developer's expense, including all alterations of public infrastructure where necessary.

The path must be constructed in accordance with the following requirements:

- a. 25Mpa concrete 100mm thick and steel reinforced.
- b. Connelly key joints are to be used every 3m with the appropriate plastic strip in place on top to ensure a good finish.
- c. An expansion joint is to be placed every 12m and must have the reinforcing pass through it.
- d. All connections to existing paths and gutters must be dowelled.

PART E - PRIOR TO OCCUPATION

Not Applicable

PART F - PRIOR TO ISSUE OF SUBDIVISION CERTIFICATE

F1 Final Plan of Subdivision

Prior to the release of the final plan of subdivision, it will be necessary to obtain a Subdivision Certificate. In this regard, it will be necessary to submit:

- a. an application for a Subdivision Certificate,
- b. five paper prints of the final plan of subdivision,
- c. the original and two paper copies of the 88B Instrument and Administration Sheet,
- d. fees appropriate at the time of submission of the application, and
- e. an electronic copy of the subdivision linework. The electronic copy should be in Map Grid of Australia 1994 Zone 56 (GDA94) coordinates and must contain closed linework of boundaries and easements. It must be submitted in DWG or DXF format on cd-rom or by email to traffic&subdivision@shellharbour.nsw.gov.au

The email and the electronic copy should be named "Subdivision Title & Stage DA No./year, street address final plan".

All sections of the plan, 88B Instrument and Administration Sheet including the original and copies, (except for the General Manager's date and signature) must be completed prior to lodging the plan.

F2 Sydney Water Section 73 Compliance Certificate

A Section 73 Compliance Certificate under the *Sydney Water Act 1994* must be obtained from Sydney Water Corporation and submitted to the Principal Certifying Authority prior to the issue of the Subdivision Certificate.

Please make early application for the Certificate as there may be water and wastewater pipes to be built this can take some time. This can also impact on other services and buildings, driveways or landscape designs.

Application must be made through an authorised Water Servicing Coordinator. For assistance visit www.sydneywater.com.au > *Plumbing, Building and Developing* > *Developing* > *Land development* or telephone 13 2092.

F3 Section 94 Contributions

A contribution must be paid to Council towards the provision of community infrastructure and services prior to the issue of the Subdivision Certificate for each stage as detailed in the table below. This amount has been calculated in accordance with Shellharbour City Council's *Section 94 Contributions Plan 2013* dated 18 December 2013 and the *Environmental Planning and Assessment (Local Infrastructure Contributions) Direction* in the following manner:

Stage	Precinct 7, Albion Park	Benefit Area 8, Albion Park Drainage - Cooback Creek	Benefit Area 9, Western Valley Facilities	Total Section 94 Contribution
1	\$698,480.89	\$115,926.46	\$65,592.65	\$880,000
2	\$601,973.34	\$121,496.80	\$56,529.86	\$780,000
3	\$160,915.88	\$43,972.90	\$15,111.22	\$220,000
4	\$756,223.25	\$132,761.66	\$71,015.09	\$960,000
5	\$160,759.69	\$24,143.76	\$15,096.55	\$200,000
Total	\$2,378,353.05	\$438,301.58	\$223,345.37	\$3,040,000

In accordance with the *Environmental Planning and Assessment (Local Infrastructure Contributions) Direction 2011* there will be no required adjustments or indexation to the amount payable.

The *Contributions Plan* may be inspected or a copy purchased at the Customer Service Counter at Council's offices, or downloaded from www.shellharbour.nsw.gov.au

F4 Remediation Action Plan

Written verification that contamination remediation has been undertaken in accordance with the Remediation Action Plan required under condition no. C2 must be prepared by a suitably qualified professional and submitted to the Principal Certifying Authority prior to the issue of a Subdivision Certificate.

F5 Road Dedication

Prior to issue of the Subdivision Certificate, Benkelman beam testing must be undertaken on all roads proposed for dedication as road reserve. Testing must be carried out in accordance with the current version of the Shellharbour City Council's *Subdivision Design Code* at the time of issue of this consent. The acceptance criteria will be based on the tolerable deflections as specified by AUSTROADS at the time of issue of this consent.

At the time immediately prior to all subdivision roads becoming designated gazetted public road, an inspection is to be undertaken by Council to determine that the road is in satisfactory condition. The roads are to be handed over to Council at no cost to Council prior to issue of the Subdivision Certificate.

F6 Inspection of Stormwater Pipes

All stormwater pipes within road reserves and within drainage easements intended to be dedicated to Council must be inspected by CCTV. The CCTV must be carried out after all earthworks and road pavement works within the locality of the pipelines have been completed. A copy of the CCTV inspection must be recorded and submitted to the Principal Certifying Authority prior to the

release of the Subdivision Certificate. Damaged pipes must either be replaced or repaired to the Principal Certifying Authority's satisfaction prior to the issuing of a Subdivision Certificate.

F7 Final Geotechnical Report

A final geotechnical report prepared by a suitably qualified and experienced geotechnical consultant must be submitted to the Principal Certifying Authority prior to the issue of the Subdivision Certificate. The report must include, but is not necessarily limited to,:

- a. all earthwork operations,
- b. a fill plan showing extent and depth of fill,
- c. certification that all earthworks within the site have complied with Council's *Subdivision Design Code*. This shall include appropriate test results, test location diagram and date of testing,
- d. certification that all recommendations contained in geotechnical reports lodged in support of this development have been satisfied,
- e. the exact extent of any restricted building zones or any other restrictions affecting any of the allotments. Particular attention shall be paid to the location of drainage lines, which must be burdened with a title restriction in the Section 88B Instrument,
- f. identification of all land affected by landslip or instability constraints (if applicable), and
- g. verification that the pipe trench bedding and backfill complies with the requirements for HS3 bedding/backfill.

F8 Lot Creation Geotechnical Report

A Geotechnical Engineer's report must be submitted to the Principal Certifying Authority with the Subdivision Certificate application. The report must be prepared by a Chartered Professional Engineer with professionally recognised geotechnical experience and must include:

- a. the classification of the proposed lot in accordance with the Australian Standard 2870-Residential Slabs and Footings or subsequent amendments,
- b. the classification of the lot in relation to risk of slope instability, and
- c. the required site preparation and construction constraints within the building envelope of the lot appropriate to the assessed risk of slope instability.

F9 Flooding Subdivision - Certification

In order to certify that all newly created residential lots are located above the Flood Planning Level (FPL – 1 in 100 year ARI level + 0.5 m) and flood impacts outside the development are within acceptable limits, a report prepared by a suitably qualified Floodplain Management Engineer is required prior to the release of the Subdivision Certificate. This report must provide details of flood modelling using all Works As Executed information from completed works along with Hydrology Data (flow rates) for the 20% Annual Exceedance Probability (AEP), 1 %AEP and PMF events input from Council's Adopted Macquarie Rivulet Flood Study. The report must be submitted to the satisfaction of the Principal Certifying Authority.

F10 Works As Executed Plans - Subdivision

Works As Executed plans must be submitted to the Principal Certifying Authority by a Registered Surveyor with the Subdivision Certificate application. The Works As Executed dimensions and levels must be shown in red on a copy of the approved Construction Certificate plans. As a minimum, the plan must show:

- a. compliance with the approved design plans of all drainage works within council land, road reserve and drainage easements including connection into the subject lot/s, surface and invert levels of all pits, invert levels and sizes of all pipelines,
- b. certification from a registered surveyor that all storm water pipes and other services are wholly within an appropriate easement (where relevant),
- c. compliance with the approved design plans of paved areas within rights of carriageway and road reserve,
- d. the extent, depth and final levels of filling,
- e. the location of all underground service conduits, and
- f. all deviations from the approved Civil Engineering Plans

All levels must relate to Australian Height Datum.

F11 Battle Axe Lots

Prior to the issue of a Subdivision Certificate, the Principal Certifying Authority must be satisfied that measures have been put in place to limit the opportunity for development other than a single dwelling, for example, relevant deed in the sales contract (at least where the vendor is Balmoral Parade Pty Ltd). The intent of this requirement is to address the inadequacy of the proposed access handle width to service more than a single dwelling development on each lot with regard to kerbside waste collection.

Where the Principal Certifying Authority is not satisfied that this requirement can be met for all of the battle-axe lots, these battle axe lots may incorporate a 3m wide x 300mm deep 'dog leg' return on the adjoining road frontage lots, or other alternate measure which provides an additional 3m of unimpeded kerb frontage for each battle-axe lot. A restriction on the land title will be required to restrict the installation of any structures to a letterbox structure only within the return width. The intent of this requirement is to ensure future higher residential density development on the battle-axe lots can be serviced with regard to kerbside collection of domestic waste. Adequate unimpeded kerb length in front of the property is to be available for kerbside collection of waste.

F12 Service Conduits

Service conduits must be placed across carriageways prior to the placing of any pavement material. In this regard, a copy of the services plans must be submitted to the Principal Certifying Authority prior to the placement of pavement material. Alternatively, the services crossings must be under bored.

F13 Services & 88B Instrument

Lots affected by new or existing utility services must be burdened with easements and restrictions on the use of land to the satisfaction of the Principal Certifying Authority and the relevant utility provider.

Easements, covenants and restrictions must be placed on the land title to address the following matters:

- a. asset protection zones (APZ) in accordance with the bush fire safety authority that forms part of this consent. The APZ is to be detailed (with dimensions) on the final plan of subdivision,
- b. property access roads and fire trails where applicable in accordance with the bush fire safety authority that forms part of this consent. Access for fire management purposes to be detailed on the final plan of subdivision,
- c. retaining wall structures located along the eastern boundary of Lots 230-233, 328-335, 444-446 and 412-413 and between lot 36 and 230 must not be damaged, modified or removed.

- In the event that the structure is to be replaced, the wall must be designed by an appropriately qualified and experienced engineer.
- d. side boundary fencing constructed over the concrete lined catch drain along the top edge of the retaining wall located along the eastern boundary of Lots 230-233, 328-335, 444-446 and 412-413 must be open style and have a clearance above the top of the drain to be determined to the satisfaction of the Principal Certifying Authority,
 - e. an easement to be created over the concrete lined catch drain proposed along the top edge of the retaining wall located along the eastern boundary of Lots 230-233, 328-335, 444-446 and 412-413,
 - f. an easement shall be created in the 88B Instrument over the proposed drainage line and associated works from the sag point on the northern end of the proposed retaining wall located along the eastern boundary of lots 230-233, 328-335, 412-413 and 444-446, preventing any modification without the consent of Shellharbour City Council and preventing the construction of any structure within the Easement. No cut or fill earthworks are to encroach onto this easement,
 - g. where the subdivision of the superlots, lot no.s 309, 401, 404, 601, 610 and 611, will result the creation of lots with a lot area of less than 450sqm, Building Design Guidelines (BDGs) must be prepared for building development on the lots. The BDGs must be approved by Council (or delegate) prior to the issue of a Subdivision Certificate for the subdivision (of the superlot). The BDGs must address and satisfy the objectives and development provisions of the Tullimbar chapter of *Shellharbour Development Control Plan*. In this regard, garages and driveways must not dominate the streetscape and limit on-street parking availability; to achieve this rear loaded lot design may be required,
 - h. reciprocal right of carriageway,
 - j. waste collection and letterbox restriction of lots that adjoin the battle-axe handle lots, where relevant (refer condition F11), with any structure limited to a letterbox structure to be accessed from the front of the structure only and with no items permitted to be stored or placed even temporarily, such as waste bins, within the return area,
 - k. restriction/covenant relating to the management and monitoring of the habitat boxes and relocated hollows as detailed in various conditions of this consent, and
 - i. other as determined by Principal Certifying Authority.

F14 Utility services – Electricity

Prior to the release of the Subdivision Certificate for the development written advice must be submitted to the Principal Certifying Authority that all requirements for the supply of electricity to the proposed allotments have been satisfied from the relevant electricity provider.

F15 Street Names

Proposed street names for all new roads shall be submitted for Council's consideration.

The submission shall include the:

- a. reasons for/or background/history to the names and estate theme,
- b. an A4 size plan of the street/reserve layout with proposed names and road numbers if applicable, and
- c. fees in accordance with Council's *Fees & Charges*.

Street names and/or public reserve names must be finalised prior to release of the Subdivision Certificate.

F16 Completion of Local Park Works

The local park must be landscaped and embellished in accordance with the approved Plan prior to the release of the Subdivision Certificate for stage 3. Any variations to the Plan must be authorised by Council in **writing before any changes are made/installed**.

F17 Completion of Landscape Works

The street trees, battle-axe driveway and retaining wall landscape works must be carried out in accordance with the approved plan prior to the release of the Subdivision Certificate. Any variations to the Plan must be authorised by Council in **writing before any changes are made/installed**.

F18 Landscape Inspection

The street trees, retaining wall landscape and local park must be inspected by Council and be to the satisfaction of Council. A works certification certificate must be issued by Council prior to the release of the Subdivision Certificate. It is the responsibility of the developer to notify Council for the inspection/s.

F19 Traffic Signals

Prior to the issue of a Subdivision Certificate for Stage 2, traffic signals at the junction of Illawarra Highway and Church Street must be provided in accordance the requirements of Roads and Maritime Services.

F20 Repairs to Public Infrastructure

Any damage to public infrastructure, other than that previously noted in the Dilapidation Report (refer Part C), is the responsibility of the developer. All damage must be repaired and reinstated prior to the issue of the Subdivision Certificate. This work shall be carried out by Council, or Council approved contractor, at the developer's expense.

F21 Verification of Tree Removal Procedures

The project ecologist must provide the Principal Certifying Authority with the Subdivision Certificate application a Letter Report verifying that the procedures specified in the 'Tree Removal Procedure' condition in Part D of this consent have been complied with, along with notes on any fauna encountered and the outcome of salvage.

F22 Practical Completion Certificate

Prior to the issue of a Practical Completion Certificate by the Certifying Authority, the applicant must submit satisfactory Works As Executed Plans, CCTV of stormwater drainage and evidence of all other testing and construction works in accordance with the approved Construction Certificate plans and Council's *Subdivision Design Code* .

The Practical Completion Certificate must be requested by the applicant in writing.

F23 Statement of Completion of Subdivision Construction Works

A Statement of Completion of Subdivision Construction Works issued by the Certifying Authority must be submitted to the Principal Certifying Authority with the Subdivision Certificate application.

The Statement can be obtained upon satisfactory completion of works approved by the Construction Certificate.

F24 Verification of Waste Management

Documentation verifying that all waste streams were managed in accordance with the Waste Management Plan shall be provided to the Principal Certifying Authority prior to the issue of a Subdivision Certificate. All records, such as waste disposal dockets or photographic evidence, shall be retained by the Principal Certifying Authority.

F25 Release of Certificate

The Subdivision Certificate shall not be released until all works required for the development, subject of this consent, have been completed.

PART G - AFTER ISSUE OF SUBDIVISION CERTIFICATE

G1 Habitat Box Monitoring

The erected habitat boxes and relocated hollows must be monitored twice per year for a period of 5 years by the developer.

Yearly monitoring reports must be submitted to Council for a period of 5 years. Report is to be marked 'Attention: Environment, City Development'.

Any damaged boxes, or those occupied by exotic species, must be replaced.

G2 Maintenance Period

All works must be maintained for a minimum period of 12 months commencing from the date of issue of the Subdivision Certificate, unless otherwise agreed to by Council. The developer must ensure that any defective works must be rectified and/or replaced during the maintenance period in accordance with the approved Construction Certificate plans. All costs arising during the maintenance period must be borne by the developer. All works must be maintained in their original construction condition for this liability period. The developer must notify Council for a re-inspection at the end of the maintenance period.

G3 Street Tree Maintenance Period

To ensure establishment of the street trees, the completed street tree installation works must be maintained for a 6 month period following the issue of the Landscape Works Certification Certificate. It is the responsibility of the developer to ensure that any defective street tree installations shall be rectified/replaced at the conclusion of the maintenance period in accordance with the approved landscape plan.

G4 Local Park Landscape Maintenance Period

To ensure establishment of the local park landscape, the completed installation works must be maintained for a 12 month period following the issue of the Landscape Works Certification Certificate. It is the responsibility of the developer to ensure that any defective street tree installations shall be rectified/replaced at the conclusion of the maintenance period in accordance with the approved landscape plan.

G5 Street Tree & Public Reserve Handover Inspection

The street tree and public reserve (local park) handover inspection is required to be carried out at the end of the street tree and public reserve maintenance period. Council shall take full maintenance responsibility of all street trees following a satisfactory result at the end of the 12 month maintenance period.

G6 Street Tree Refund

The street tree bond will be refunded following a 12 month maintenance period commencing from the date of the satisfactory result of the final inspection of the street trees and landscaped public reserve/s. In the event that any street trees/landscape are found damaged, dying or removed, Council will have the option to retain the whole or part of the bond. The developer must notify Council for a reinspection of the street trees and public reserves.

PART H – OTHER APPROVALS

NSW Rural Fire Service – Bush Fire Safety Authority

All communications to be addressed to:

Headquarters
15 Carter Street
Lidcombe NSW 2141

Headquarters
Locked Bag 17
Granville NSW 2142

Telephone: 1300 NSW RFS
e-mail: csc@rfs.nsw.gov.au

Facsimile: 8741 5433



The General Manager
Shellharbour City Council
Locked Bag 155
SHELLHARBOUR CITY CENTRE NSW 2529

Your Ref: DA0647/2015
Our Ref: D15/3373
DA15110499239 JM

ATTENTION: Victoria Nicholson

30 June 2016

Dear Ms Nicholson

Integrated Development for 522//1168919 - Braemar Street, Tullimbar NSW 2527

I refer to your letter dated 23 June 2016 seeking general terms of approval for the above Integrated Development in accordance with Clause 55(1) of the Environmental Planning and Assessment Regulation 2000.

This response is to be deemed a bush fire safety authority as required under section 100B of the 'Rural Fires Act 1997' and is issued subject to the following numbered conditions:

Asset Protection Zones

The intent of measures is to provide sufficient space and maintain reduced fuel loads so as to ensure radiant heat levels of buildings are below critical limits and to prevent direct flame contact with a building. To achieve this, the following conditions shall apply:

1. At the issue of a subdivision certificate, and in perpetuity, the proposed residential lots, lot 1001 and part of lot 902 to the west and south-west of stages 3, 4 and 5, shall be managed as an inner protection area (IPA) as outlined within section 4.1.3 and Appendix 5 of 'Planning for Bush Fire Protection 2006' and the NSW Rural Fire Service's document 'Standards for asset protection zones'.

2. At the issue of a subdivision certificate a 100 metre wide asset protection zone shall be provided to the south and south east of stage 4 as shown in 'Section 9 - Subdivision Plan showing managed Temporary Asset Protection Zone to the southeast of Stage 4' included in the 'Bushfire Protection Assessment' prepared by Australian Bushfire Protection Planners Pty Limited with reference 'B152473-2' and dated 6/10/2015. The APZ shall be managed as an inner protection area (IPA) as outlined within section 4.1.3 and Appendix 5 of 'Planning for Bush Fire Protection 2006' and the NSW Rural Fire Service's document 'Standards for asset protection zones'. This shall be maintained until such time as the land is developed and the bush fire hazard is removed.

Water and Utilities

The intent of measures is to provide adequate services of water for the protection of buildings during and after the passage of a bush fire, and to locate gas and electricity so as not to contribute to the risk of fire to a building. To achieve this, the following conditions shall apply:

3. The provision of water, electricity and gas shall comply with section 4.1.3 of 'Planning for Bush Fire Protection 2006'.

Access

The intent of measures for public roads is to provide safe operational access to structures and water supply for emergency services, while residents are seeking to evacuate from an area. To achieve this, the following conditions shall apply:

4. Public road access shall comply with section 4.1.3 (1) of 'Planning for Bush Fire Protection 2006'.

The intent of measures for property access is to provide safe access to/from the public road system for fire fighters providing property protection during a bush fire and for occupants faced with evacuation. To achieve this, the following conditions shall apply:

5. Property access roads shall comply (where applicable) with section 4.1.3 (2) of 'Planning for Bush Fire Protection 2006'.

The intent of measures for fire trails is to provide suitable access for fire management purposes and maintenance of APZs. To achieve this, the following conditions shall apply:

6. Fire trails shall comply with section 4.1.3 (3) of 'Planning for Bush Fire Protection 2006'.

General Advice – consent authority to note

Any future development application lodged for land in this subdivision will be subject to the requirements of 'Planning for Bush Fire Protection 2006'. Provision of Asset Protection Zones within the lots boundaries and construction to AS3959-2009 standards will be required.

Reviewed determination

This letter is in response to a request for a further assessment of the application and supercedes our previous advice dated 1 December 2015.

This letter is in response to a further assessment of the application submitted and supersedes our previous general terms of approval dated 1 December 2015.

For any queries regarding this correspondence please contact Jason Maslen on 1300 NSW RFS.

Yours sincerely



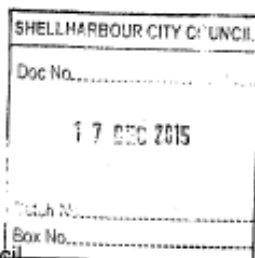
Amanda Moylan
Team Leader, Development Assessment and Planning

The RFS has made getting information easier. For general information on 'Planning for Bush Fire Protection, 2006', visit the RFS web page at www.rfs.nsw.gov.au and search under 'Planning for Bush Fire Protection, 2006'.

NSW Department of Primary Industry – Water



Department of
Primary Industries
Water



The General Manager
Shellharbour City Council
PO Box 155
Shellharbour City Centre NSW 2529

Contact: Jeremy Morice
Phone: 02 4224 9736
Fax: 02 4224 9740
Email: jeremy.morice@dpi.nsw.gov.au

Our ref: 10 ERM2015/1122
Our file: 2015-0698
Your ref: 647/2015

Attention: Victoria Nicholson

15 December 2015

Dear Madam

Re: Integrated Development Referral – General Terms of Approval

Dev Ref: 647/2015

Description of proposed activity: 163 Lot Residential Subdivision

Site location: Lot 522 DP 1168919, Braemar Street, Tullimbar

I refer to your recent letter regarding an integrated Development Application (DA) proposed for the subject property. Attached, please find DPI Water's (formerly the NSW Office of Water) General Terms of Approval (GTA) for works requiring a controlled activity approval under the *Water Management Act 2000* (WM Act), as detailed in the subject DA.

Please note Council's statutory obligations under section 91A (3) of the *Environmental Planning and Assessment Act 1979* (EPA Act) which requires a consent, granted by a consent authority, to be consistent with the general terms of any approval proposed to be granted by the approval body.

If the proposed development is approved by Council, DPI Water requests that these GTA be included (in their entirety) in Council's development consent. Please also note the following:

- DPI Water should be notified if any plans or documents are amended and these amendments significantly change the proposed development or result in additional works on waterfront land (which includes (i) the bed of any river together with any land within 40 metres inland of the highest bank of the river, or (ii) the bed of any lake, together with any land within 40 metres of the shore of the lake, or (iii) the bed of any estuary, together with any land within 40 metres inland of the mean high water mark of the estuary).
- Once notified, DPI Water will ascertain if the amended plans require review or variation/s to the GTA. This requirement applies even if the proposed works are part of Council's proposed consent conditions and do not appear in the original documentation.

-2-

- DPI Water should be notified if Council receives an application to modify the development consent and the modifications change any activities on waterfront land.
- DPI Water requests notification of any legal challenge to the consent.

As the controlled activity to be carried out on waterfront land cannot commence before the applicant applies for and obtains a controlled activity approval, DPI Water recommends the following condition be included in the development consent:

"The Construction Certificate will not be issued over any part of the site requiring a controlled activity approval until a copy of the approval has been provided to Council".

The attached GTA are not the controlled activity approval. The applicant must apply (to DPI Water) for a controlled activity approval **after consent** has been issued by Council **and before** the commencement of any work or activity on waterfront land.

Finalisation of a controlled activity approval can take up to eight (8) weeks from the date DPI Water receives all documentation (to its satisfaction). Applicants must complete and submit (to the undersigned) an application form for a controlled activity approval together with any required plans, documents, the appropriate fee and security deposit or bank guarantee (if required by the Office of Water) and proof of Council's development consent.

Application forms for the controlled activity approval are available from the undersigned or from DPI Water's website:

www.water.nsw.gov.au [Water licensing](#) > [Approvals](#) > [Controlled activities](#)

DPI Water requests that Council provide a copy of this letter to the applicant.

DPI Water also requests that Council provides DPI Water with a copy of the determination for this development application as required under section 91A (6) of the EPA Act.

Yours Sincerely



Jeremy Morice
Water Regulation Officer
Water Regulatory Operations, Water Regulatory Operations South
NSW Department of Primary Industries – DPI Water

General Terms of Approval

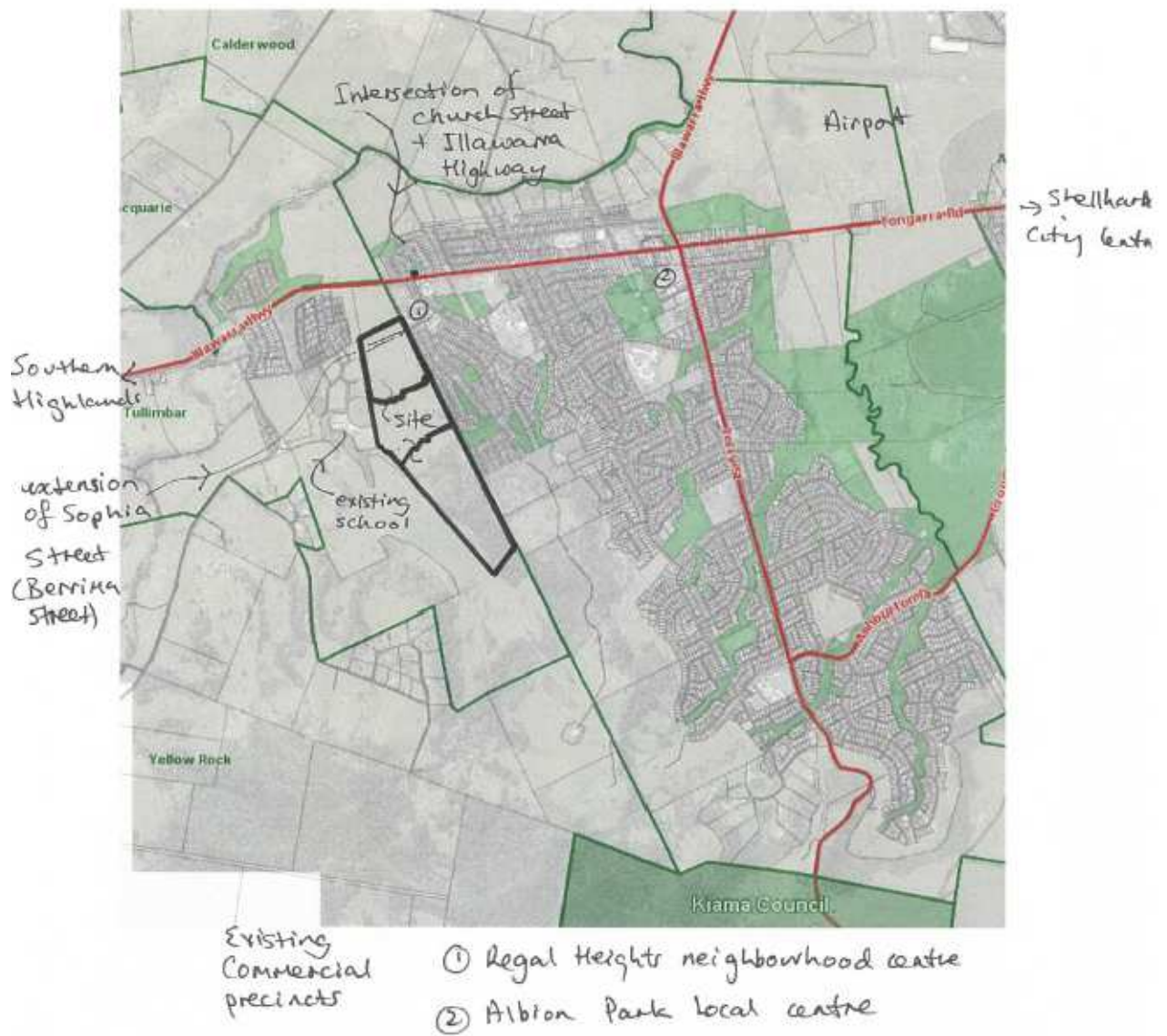
for work requiring a controlled activity approval
 under s91 of the *Water Management Act 2000*

Number	Condition	File No: 2015-0698
Site Address:	Lot 522 DP 1168919, Braemar Street, Tullimbar	
DA Number:	647/2015	
LGA:	Shellharbour City Council	
Plans, standards and guidelines		
1	<p>These General Terms of Approval (GTA) only apply to the controlled activities described in the plans and associated documentation relating to 647/2015 and provided by Council:</p> <p>(i) Statement of Environmental Effects</p> <p>(ii) Stormwater Management Study</p> <p>Any amendments or modifications to the proposed controlled activities may render these GTA invalid. If the proposed controlled activities are amended or modified DPI Water (formerly the NSW Office of Water) must be notified to determine if any variations to these GTA will be required.</p>	
2	<p>Prior to the commencement of any controlled activity (works) on waterfront land, the consent holder must obtain a Controlled Activity Approval (CAA) under the Water Management Act from DPI Water. Waterfront land for the purposes of this DA is land and material in or within 40 metres of the top of the bank or shore of the river identified.</p>	
3	<p>The consent holder must prepare or commission the preparation of:</p> <p>(i) Construction Drainage Details</p> <p>(ii) Erosion and Sediment Control Plan</p>	
4	<p>The consent holder must (i) carry out any controlled activity in accordance with approved plans and (ii) construct and/or implement any controlled activity by or under the direct supervision of a suitably qualified professional and (iii) when required, provide a certificate of completion to DPI Water.</p>	
Reporting requirements		
5	<p>The consent holder must use a suitably qualified person to monitor the progress, completion, performance of works, rehabilitation and maintenance and report to DPI Water as required.</p>	
Disposal		
6	<p>The consent holder must ensure that no materials or cleared vegetation that may (i) obstruct flow, (ii) wash into the water body, or (iii) cause damage to river banks; are left on waterfront land other than in accordance with a plan approved by DPI Water.</p>	
Drainage and Stormwater		
7	<p>The consent holder is to ensure that all drainage works (i) capture and convey runoffs, discharges and flood flows to low flow water level in accordance with a plan approved by DPI Water; and (ii) do not obstruct the flow of water other than in accordance with a plan approved by DPI Water.</p>	
8	<p>The consent holder must stabilise drain discharge points to prevent erosion in accordance with a plan approved by DPI Water.</p>	

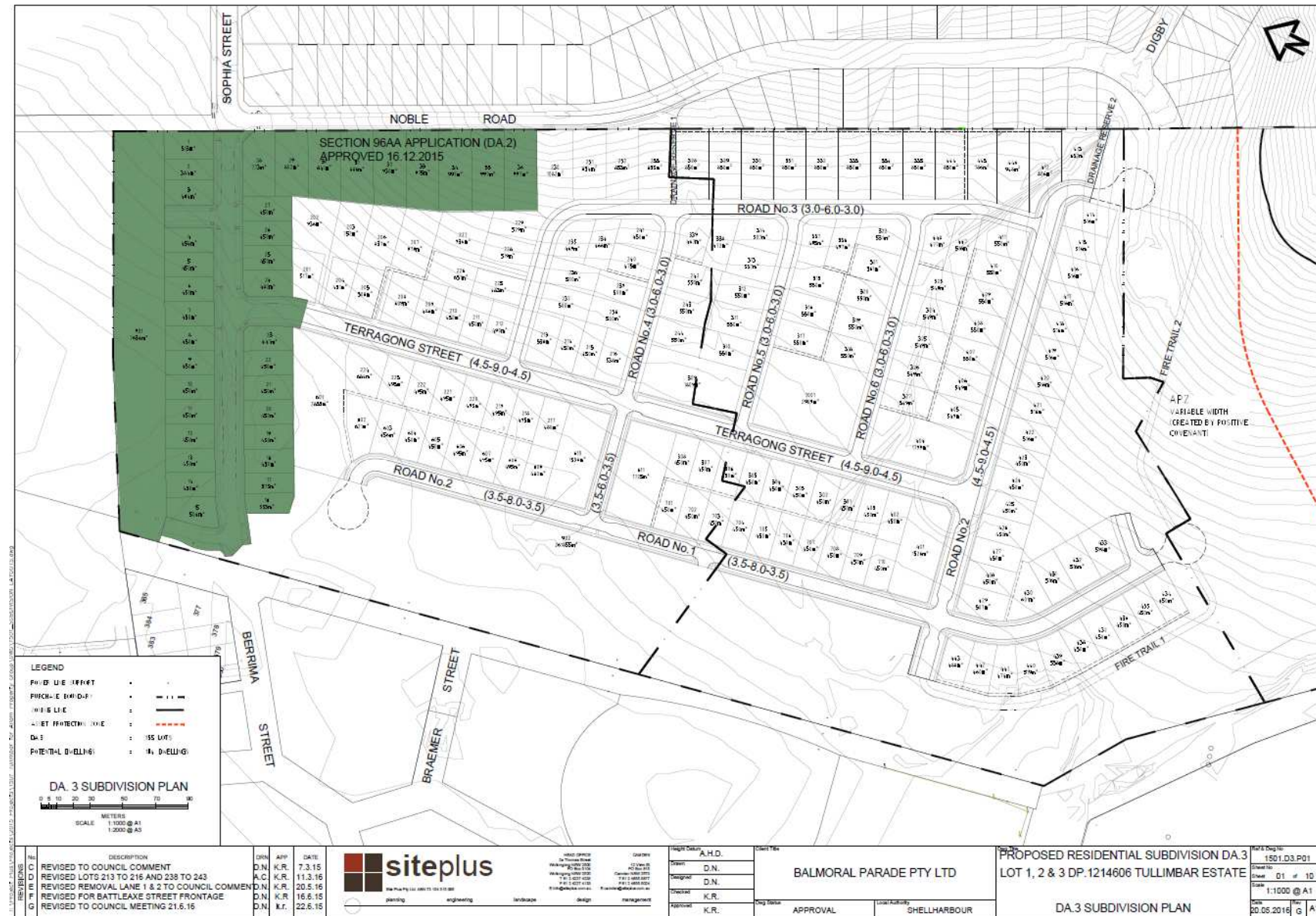
Number	Condition	File No: 2015-0698
Erosion control		
9	The consent holder must establish all erosion and sediment control works and water diversion structures in accordance with a plan approved by DPI Water. These works and structures must be inspected and maintained throughout the working period and must not be removed until the site has been fully stabilised.	
Excavation		
10	The consent holder must ensure that no excavation is undertaken on waterfront land other than in accordance with a plan approved by DPI Water.	
11	The consent holder must ensure that any excavation does not result in (i) diversion of any river (ii) bed or bank instability or (iii) damage to native vegetation within the area where a controlled activity has been authorised, other than in accordance with a plan approved by DPI Water.	
END OF CONDITIONS		

END OF RECOMMENDED CONDITIONS

Attachment 2 – Locality figure



Attachment 3 – Subdivision Layout Plan

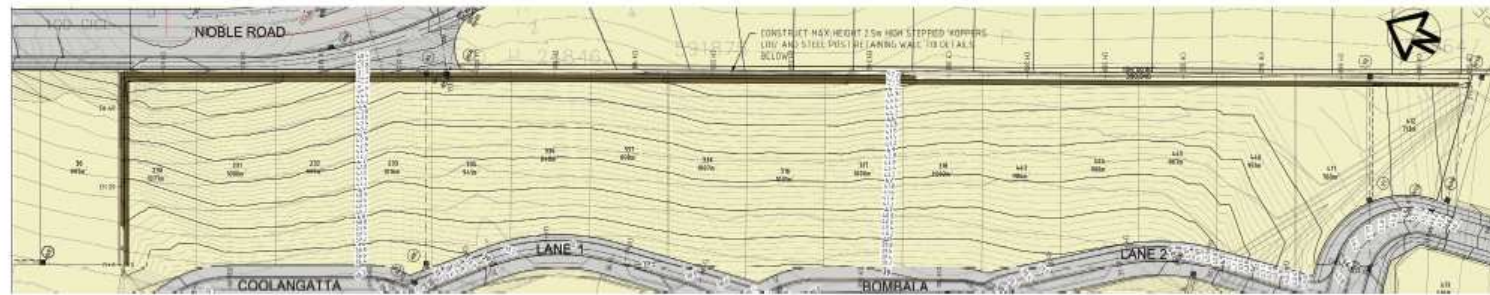


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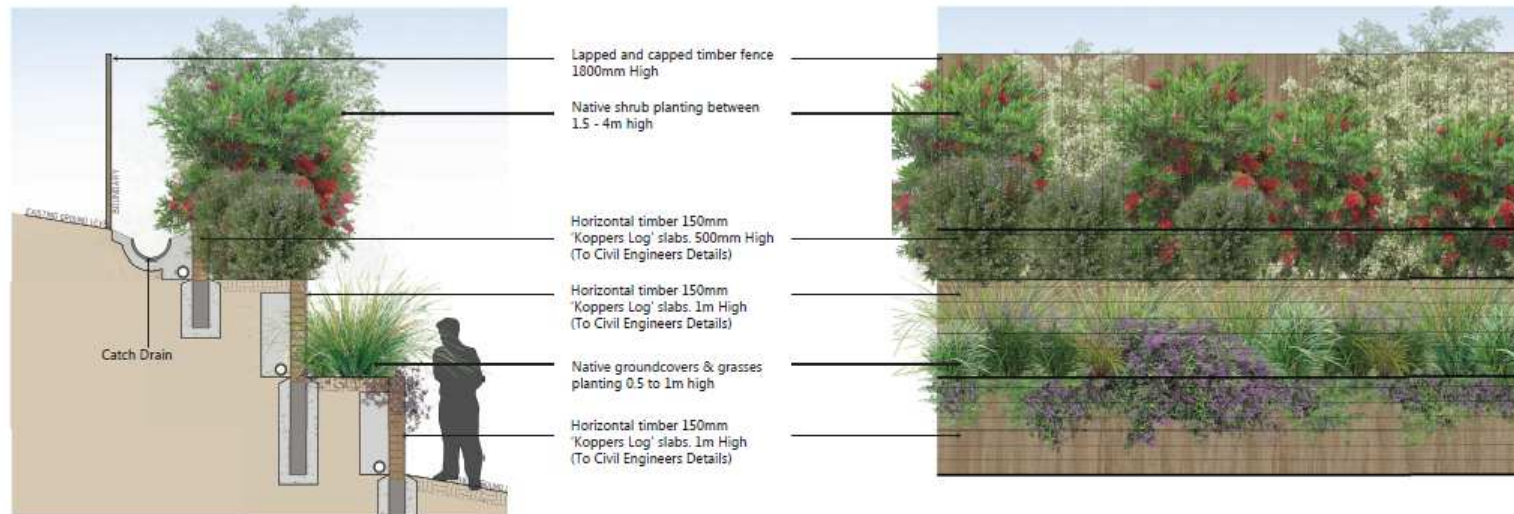
Attachment 5 – Retaining Wall Detail

Tullimbar DA3, Illawarra, NSW - Eastern Boundary Wall Landscape Treatment

ATTACHMENT 5



PLAN 1:500 (REFER TO CIVIL DRAWINGS FOR FURTHER DETAILS)



SECTION 1:20

ELEVATION 1:20

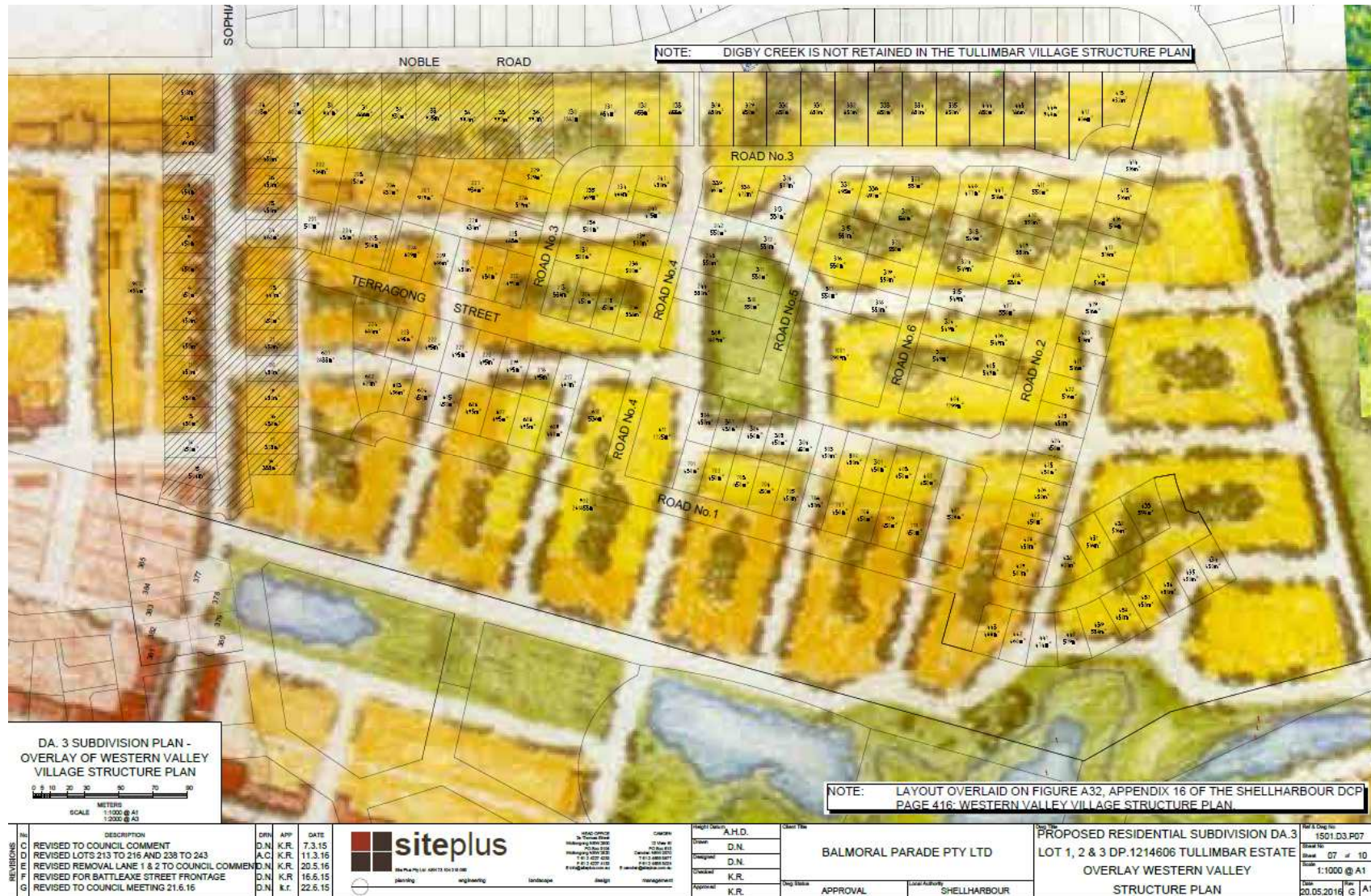
PLAN, SECTION AND ELEVATION		Project:	Job Number:	Client:	Scale:	Rev / Date / Description		Drawn / Checked		
Drawing LDA-016		Tullimbar - DA3 Illawarra, NSW	20150317	Balmoral Parade Pty Ltd		1	25.02.2016	Development Application	DA	DA

groundink

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Attachment 6 – Subdivision Layout Plan – Village Structure Plan Overlay



Attachment 7 – Preliminary Concept Small Lot Development between Balmoral Parade and Road No.1

Stage 5 Master Plan

- Area with topography suitable for Rear Loaded Housing (Flat)
- Area with topography NOT suitable for Rear Loaded Housing (Slope 5% or greater)



Legend

- Garden Home
- Detached Home
- Terrace Home
- Flat over Garage



SITEPLAN

Tullimbar Master Plan

END OF REPORT