

|                                 |  |
|---------------------------------|--|
| <b>DATE OF DETERMINATION</b>    | 8 March 2023   |
| <b>DATE OF PANEL DECISION</b>   | 8 March 2023   |
| <b>DATE OF PANEL MEETING</b>    | 28 February 2023                                     |
| <b>PANEL MEMBERS</b>            | Chris Wilson (Chair), Juliet Grant, Graham Rollinson |
| <b>APOLOGIES</b>                | None   |
| <b>DECLARATIONS OF INTEREST</b> | Chris Homer (Council interest DA)                    |

Papers circulated electronically on 27 February 2023.

#### **MATTER DETERMINED**

PPSSTH-176 – Shellharbour – DA0276/2021 at Lots 9001, 9004 and 9005 DP1254656 - Boolwarroo Parade, Shell Cove 2529 – 70 Lot Staged Subdivision of Lots 9001, 9004, 9005 Consisting of 66 Residential Lots, Two Future Residential Lots, One Future Mixed Use Lot, One Lot For Sewerage Infrastructure and associated landscaping and embellishment (as described in Schedule 1).

It should be noted that Shellharbour Council requested, and the Panel agreed to consider and determine the DA in accordance with s377 of the *Local Government Act* based on a perceived conflict of interest with respect to Council's involvement in the development of Shellharbour.

#### **PANEL CONSIDERATION AND DECISION**

The Panel considered: the matters listed at item 6, the material listed at item 7 and the material presented at meetings and briefings and the matters observed at site inspections listed at item 8 in Schedule 1.

#### **Development application**

The Panel determined to approve the development application pursuant to section 4.16 of the *Environmental Planning and Assessment Act 1979*.

The decision was unanimous.

#### **REASONS FOR THE DECISION**

The Panel determined to approve the application for the reasons outlined in the Council's assessment report and addendum report. Notably, the Panel was satisfied that:

- The development proposal is generally consistent with the terms of the applicable concept plan;
- The prerequisites for the grant of consent had been met;
- The matters raised by the Panel at its meeting of 28 September 2022 had been satisfactorily addressed;
- A thorough assessment in terms of Section 4.15 had been undertaken; and
- The development was deemed to be in the public interest.

The Panel considered several key issues relating to the proposal as follows:

1. The extent of coastal hazards over a minimum 100-year timeframe including dune overtopping;
2. The potential for erosion and recession due to sea level rise;
3. The effects of recently constructed breakwaters on wave transformation;
4. The potential impact of beach stormwater outlets on coastal erosion and inundation;
5. Calculation of the expected zone of reduced foundation capacity;

6. Revised mapping of extent of coastal hazards;
7. Long term mitigation options for managing coastal risks; and
8. Description of dune management.

The Applicant carried out additional modelling of coastal hazards until 2125 which provided the Panel with certainty as to the potential impact on residential lots and supporting infrastructure. As identified in Council's assessment report, the modelled period is more than best practice for modelling coastal hazards. The modelling shows that provided the existing dune is maintained/nourished to retain its current surveyed height, the impact of coastal inundation within the next 100 years is manageable (even at a worst-case sea-level rise scenario) and is unlikely to impact residential lots within the subdivision. The Applicant provided satisfactory responses to all other issues raised by the Council and Panel.

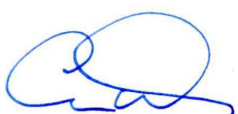


#### **CONDITIONS**

The Development Application was approved subject to the conditions in the Council Assessment Report and Addendum Report noting that the Addendum report confirmed the level of dune overtopping as satisfactory thereby doing away with the need to raise lots fronting Boollwarroo Parade to 5.5 metres AHD. The conditions were amended accordingly.

Several administrative changes were made to the conditions for clarification purposes. None of these administrative changes altered the intent of the conditions. An amended copy of the instrument of consent is attached as Schedule 2.

#### **CONSIDERATION OF COMMUNITY VIEWS**

In coming to its decision, the Panel notes that no written submissions were made during public exhibition and therefore no issues of concern were raised.

| PANEL MEMBERS   |  |
|---|--|
| <br>Chris Wilson (Chair) | <br>Juliet Grant |
| <br>Graham Rollinson     |  |

### SCHEDULE 1

|          |  |   |
|----------|--|---|
| <b>1</b> | <b>PANEL REF – LGA – DA NO.</b>                              | PPSSTH-176 – Shellharbour – DA0276/2021   |
| <b>2</b> | <b>PROPOSED DEVELOPMENT</b>                                  | 70 Lot Staged Subdivision of Lots 9001, 9004, 9005 Consisting of 66 Residential Lots, Two Future Residential Lots, One Future Mixed Use Lot, One Lot For Sewerage Infrastructure and associated landscaping and embellishment   |
| <b>3</b> | <b>STREET ADDRESS</b>  | Boollwarroo Parade, Shell Cove 2529   |
| <b>4</b> | <b>APPLICANT/OWNER</b>                                       | Applicant - Australand Corp. (Fraser's Australia)<br>Owner - Shellharbour City Council  |
| <b>5</b> | <b>TYPE OF REGIONAL DEVELOPMENT</b>                          | <b>Council related development over \$5 million</b>   |
| <b>6</b> | <b>RELEVANT MANDATORY CONSIDERATIONS</b>                     | <ul style="list-style-type: none"> <li>• Environmental planning instruments: <ul style="list-style-type: none"> <li>○ State Environmental Planning Policy (Resilience and Hazards) 2021</li> <li>○ State Environmental Planning Policy (Transport and Infrastructure) 2021</li> <li>○ Shellharbour Local Environmental Plan 2013</li> </ul> </li> <li>• Draft environmental planning instruments: Nil</li> <li>• Development control plans: <ul style="list-style-type: none"> <li>○ Shellharbour Development Control Plan 2013</li> </ul> </li> <li>• Biodiversity Conservation Act 2016</li> <li>• Shellharbour Local Infrastructure Contributions Plan 2019</li> <li>• Planning agreements: Nil</li> <li>• Relevant provisions of the <i>Environmental Planning and Assessment Regulation 2000</i></li> <li>• Coastal zone management plan: Shellharbour Coastal Management Plan</li> <li>• The likely impacts of the development, including environmental impacts on the natural and built environment and social and economic impacts in the locality</li> <li>• The suitability of the site for the development</li> <li>• Any submissions made in accordance with the <i>Environmental Planning and Assessment Act 1979</i> or regulations</li> <li>• The public interest, including the principles of ecologically sustainable development</li> </ul> |
| <b>7</b> | <b>MATERIAL CONSIDERED BY THE PANEL</b>                      | <ul style="list-style-type: none"> <li>• Council Assessment Report: <b>17 February 2023</b></li> <li>• Addendum report: <b>27 February 2023</b></li> <li>• Written submissions during public exhibition: 0</li> <li>• Total number of unique submissions received by way of objection: 0</li> </ul>   |
| <b>8</b> | <b>MEETINGS, BRIEFINGS AND SITE INSPECTIONS BY THE PANEL</b> | <ul style="list-style-type: none"> <li>• Briefing: 28 September 2022 <ul style="list-style-type: none"> <li>○ <u>Panel members</u>: Chris Wilson (Acting Chair), Tim Fletcher, Graham Rollinson, Renata Brooks</li> <li>○ <u>Council assessment staff</u>: Madeline Cartwright, Nicole Doherty, Jasmina Micevski,</li> <li>○ <u>Council environment staff</u>: Natalie McGregor, Alison Broad, Stephanie Lou</li> <li>○ <u>DPE</u>: Amanda Moylan, Verity Rollason</li> </ul> </li> <li>• Site inspection: 28 September 2022 <ul style="list-style-type: none"> <li>○ <u>Panel members</u>: Chris Wilson (Acting Chair), Tim Fletcher, Graham Rollinson</li> <li>○ <u>Council assessment staff</u>: Madeline Cartwright, Nicole Doherty, Jasmina Micevski</li> </ul> </li> </ul>  |

|    |                               |   |
|----|-------------------------------|---|
|    |                               | <ul style="list-style-type: none"> <li>○ <u>Council environment staff</u>: Natalie McGreggor, Alison Broad, Stephanie Lou</li> <li>○ <u>DPE</u>: Amanda Moylan, Verity Rollason</li> <li>○ <u>Applicant</u>: Mathew Gulliver (Frasers Property)</li> </ul> <ul style="list-style-type: none"> <li>• Applicant Briefing: 16 December 2022 <ul style="list-style-type: none"> <li>○ <u>Panel members</u>: Chris Wilson (Acting Chair), Tim Fletcher, Graham Rollinson</li> <li>○ <u>Council assessment staff</u>: Madeline Cartwright, Jasmina Micevski, Adam De Clouett</li> <li>○ <u>Applicant</u>: Alex Facchin (Frasers Property), Greg Britton (Coastal consultant), Mathew Gulliver (Frasers Property)</li> <li>○ <u>DPE</u>: Amanda Moylan</li> </ul> </li> <li>• Final briefing to discuss council's recommendation: 28 February 2023 <ul style="list-style-type: none"> <li>○ <u>Panel members</u>: Chris Wilson (Chair), Juliet Grant, Graham Rollinson</li> <li>○ <u>Council assessment staff</u>: Madeline Cartwright, Adam De Clouett, Mathew Rawson, Jessica Lintern, Matthew Apolo</li> <li>○ <u>Observation only</u>: Jacob Lia, Amanda Andrews, Kelly Grieve, Nicole Doughty</li> <li>○ <u>Applicant representatives</u>: Alex Facchin (Frasers Property), Mathew Gulliver (Frasers Property)</li> <li>○ <u>Other</u>: Tracey Gillett (DPE)</li> </ul> </li> </ul> |
| 9  | <b>COUNCIL RECOMMENDATION</b> | <b>Approval</b>   |
| 10 | <b>DRAFT CONDITIONS</b>       | Attached to the Council Assessment Report   |

## SCHEDULE 2

PPSSTH-176 DA0276/2021 – Attachment 1  
 Lot 9001 DP 1254656, Lot 9004 DP 1254656, Lot 9005 DP 1254656,  
 Boollwarroo Parade SHELL COVE NSW 2529

### PART A – ADMINISTRATIVE CONDITIONS

#### 1. Subdivision Works Certificate & PC Notification

Before any site works, building or use is commenced, the applicant must:

- a. obtain a Subdivision Works Certificate from Shellharbour City Council or other accredited certifier, and
- b. appoint a Principal Certifier.

#### 2. Prescribed Conditions

This development consent is subject to the prescribed conditions made under the *Environmental Planning & Assessment Regulation 2021*.

#### 3. Development in Accordance with Plans and Documents

The development must be in accordance with the following approved Development Application plans and documents as endorsed by Council's stamp. Where there is an inconsistency between the approved plans/documentation and conditions of consent, the conditions of consent take precedence to the extent of the inconsistency.

| Name of Plan/Document              | Prepared By       | Drawing/Document No./Revision  | Drawing/Document Date  |
|------------------------------------|-------------------|--|--|
| Site/Key Plan                      | Maker Engineering | ISC00223-DA C002 5   | 22.07.2022   |
| Lot Layout Plan                    | Maker Engineering | ISC00223-DA C005 5   | 22.07.2022   |
| General Arrangement Plan           | Maker Engineering | ISC00223-DA C010 5<br>ISC00223-DA C011 5   | 22.07.2022   |
| Typical Road Crossing Section Plan | Maker Engineering | ISC00223-DA C015 5   | 22.07.2022   |
| Typical Road Cross Sections Detail | Maker Engineering | ISC00223-DA C016 3<br>ISC00223-DA C017 1   | 22.07.2022   |
| Civil Details                      | Maker Engineering | ISC00223-DA C035 2<br>ISC00223-DA C036 3<br>ISC00223-DA C037 2   | 22.07.2022   |
| Landscape Plan                     | Group GSA         | 13294-L-PH-0000 F<br>13294-L-PH-1000 F<br>13294-L-PH-2000 F<br>13294-L-PH-4000 F<br>13294-L-PH-4001 F<br>13294-L-PH-4001 D       | 14.02.2022   |
| Carpark Plan                       | Maker Engineering | ISC00223-DA C038 2   | 22.07.2022   |
| Longitudinal Sections              | Maker Engineering | ISC00223-DA C050 1<br>ISC00223-DA C051 1<br>ISC00223-DA C052 1<br>ISC00223-DA C053 1<br>ISC00223-DA C054 1<br>ISC00223-DA C055 2 | 20.04.2021<br>20.04.2021<br>20.04.2021<br>20.04.2021<br>20.04.2021<br>14.09.2021 |

|                            |            |                   |  |            |
|----------------------------|------------|-------------------|--|------------|
| Stormwater<br>Plan         | Layout     | Maker Engineering | ISC00223-DA C110 5<br>ISC00223-DA C111 5 | 22.07.2022 |
| Infiltration<br>and Detail | Basin Plan | Maker Engineering | ISC00223-DA C140 4                       | 07.07.2022 |
| Schematic                  | Services   | Maker Engineering | ISC00223-DA C170 5                       | 22.07.2022 |

**PPSSTH-176 DA0276/2021 – Attachment 1**

Lot 9001 DP 1254656, Lot 9004 DP 1254656, Lot 9005 DP 1254656,

| <b>Name of Plan/Document</b>               | <b>Prepared By</b> | <b>Drawing/Document No./Revision</b>     | <b>Drawing/Document Date</b> |
|--|--------------------|--|------------------------------|
| Layout                                     |                    | ISC00223-DA C171 5                       |                              |
| Soil and Water Management Plan and details | Maker Engineering  | ISC00223-DA C185 5<br>ISC00223-DA C186 1 | 22.07.2022<br>20.04.2021     |
| Signage and linemarking plan               | Maker Engineering  | ISC00223-DA C220 5<br>ISC00223-DA C221 5 | 22.07.2021                   |
| Retaining Wall Plan                        | Maker Engineering  | ISC00223-DA C230 5                       | 22.07.2021                   |
| Statement of Environmental Effects         | SLR                | 660.30008 -RO2 v1.1                      | 16.06.2022                   |
| DA Noise Assessment                        | ARUP               | AC40 issue 4                             | 2.09.2022                    |
| Acid Sulphate Soil Management Plan         | SMEC               | 3001886 rev. 1                           | 06.04.2021                   |
| Waste Management Plan                      | Alex Facchin       | -  | 27.04.2021                   |
| Utilities Investigation Report             | Maker Engineering  | ISC00223                                 | 04.2021                      |
| Transport Assessment                       | Ason Group         | 1359r01v2                                | 10.05.2021                   |
| Bushfire Protection Assessment             | Eco logical        | 21HNG_19010 v1                           | 24.05.2021                   |
| Precinct H Flood Assessment                | Advisian           | 301015-03163                             | 26.03.2021                   |

**4. General Terms of Approval - Bushfire Authority (NSW Rural Fire Service)**

The NSW Rural Fire Service has issued a Bushfire Authority pursuant to section 100B of the Rural Fires Act 1997. The Approval is issued conditionally as detailed in Part H of this Development Consent.

**5. Endeavour Energy**

Correspondence has been received from Endeavour Energy dated 27 May 2021 and is attached to this consent at Part H.

**6. Staged Consent**

The approved development must be carried out in three stages as follows:

- a. Stage 1 –Subdivision of the three parent lots (lots 9001, 9004 and 9005) to create two lots
- b. Stage 2 – subdivision of 50 residential lots, Sydney Water Pump Station lot and one superlot.
- c. Subdivision of 16 low density residential lots, associated roads and works to existing car park and public reserve embellishments/landscaping and creation of three super lots.

**7. House Numbering**

House numbering will be as follows,

PPSSTH-176 DA0276/2021 – Attachment 1

Lot 9001 DP 1254656, Lot 9004 DP 1254656, Lot 9005 DP 1254656,

| Lot       | Street Number | Street Name | Street Type | Locality   |
|-----------|---------------|-------------|-------------|------------|
| Stage 1   |               |             |             |            |
| 8000      |               | Boollwarroo | Parade      | Shell Cove |
| 8001      |               | Boollwarroo | Parade      | Shell Cove |
| Stage 2   |               |             |             |            |
| 8100      |               | Boollwarroo | Parade      | Shell Cove |
| 8101      | 46            | Seafaring   | Way         | Shell Cove |
| Alternate | 107           | Brigantine  | Drive       |            |
| 8102      | 48            | Seafaring   | Way         | Shell Cove |
| 8103      | 50            | Seafaring   | Way         | Shell Cove |
| 8104      | 52            | Seafaring   | Way         | Shell Cove |
| 8105      | 54            | Seafaring   | Way         | Shell Cove |
| 8106      | 56            | Seafaring   | Way         | Shell Cove |
| 8107      | 80            | Boollwarroo | Parade      | Shell Cove |
| Alternate | 58            | Seafaring   | Way         |            |
| 8108      | 82            | Boollwarroo | Parade      | Shell Cove |
| 8109      | 84            | Boollwarroo | Parade      | Shell Cove |
| 8110      | 86            | Boollwarroo | Parade      | Shell Cove |
| 8111      | 88            | Boollwarroo | Parade      | Shell Cove |
| Alternate | 2             | Simmons     | Avenue      |            |
| 8112      | 4             | Simmons     | Avenue      | Shell Cove |
| 8113      | 109           | Brigantine  | Drive       | Shell Cove |
| Alternate | 10            | Simmons     | Avenue      |            |
| Stage 3   |               |             |             |            |
| 8214      | 90            | Boollwarroo | Parade      | Shell Cove |
| Alternate | 1             | Simmons     | Avenue      |            |
| 8215      | 92            | Boollwarroo | Parade      | Shell Cove |
| 8216      | 94            | Boollwarroo | Parade      | Shell Cove |
| 8217      | 96            | Boollwarroo | Parade      | Shell Cove |



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Lot 9001 DP 1254656, Lot 9004 DP 1254656, Lot 9005 DP 1254656,

| Lot       | Street Number | Street Name | Street Type | Locality   |
|-----------|---------------|-------------|-------------|------------|
| Alternate | 2             | Pitt        | Avenue      |            |
| 8218      | 4             | Pitt        | Avenue      | Shell Cove |
| 8219      | 6             | Pitt        | Avenue      | Shell Cove |
| 8220      | 8             | Pitt        | Avenue      | Shell Cove |
| 8221      | 10            | Pitt        | Avenue      | Shell Cove |
| Alternate | 113           | Brigantine  | Drive       |            |
| 8222      | 9             | Simmons     | Avenue      | Shell Cove |
| Alternate | 111           | Brigantine  | Drive       |            |
| 8223      | 7             | Simmons     | Avenue      | Shell Cove |
| 8224      | 5             | Simmons     | Avenue      | Shell Cove |
| 8225      | 3             | Simmons     | Avenue      | Shell Cove |
| 8226      | 98            | Boollwarroo | Parade      | Shell Cove |
| Alternate | 1             | Pitt        | Avenue      |            |
| 8227      | 100           | Boollwarroo | Parade      | Shell Cove |
| 8228      | 102           | Boollwarroo | Parade      | Shell Cove |
| 8229      | 104           | Boollwarroo | Parade      | Shell Cove |
| 8230      | 106           | Boollwarroo | Parade      | Shell Cove |
| 8231      | 108           | Boollwarroo | Parade      | Shell Cove |
| 8232      | 110           | Boollwarroo | Parade      | Shell Cove |
| 8233      | 112           | Boollwarroo | Parade      | Shell Cove |
| Alternate | 31            | Pitt        | Avenue      |            |
| 8234      | 29            | Pitt        | Avenue      | Shell Cove |
| 8235      | 27            | Pitt        | Avenue      | Shell Cove |
| 8236      | 25            | Pitt        | Avenue      | Shell Cove |
| 8237      | 23            | Pitt        | Avenue      | Shell Cove |
| 8238      | 21            | Pitt        | Avenue      | Shell Cove |
| 8239      | 19            | Pitt        | Avenue      | Shell Cove |
| 8240      | 17            | Pitt        | Avenue      | Shell Cove |

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Lot 9001 DP 1254656, Lot 9004 DP 1254656, Lot 9005 DP 1254656,

| Lot       | Street Number | Street Name | Street Type | Locality   |
|-----------|---------------|-------------|-------------|------------|
| Alternate | 15            | Shell       | Avenue      |            |
| 8241      | 13            | Shell       | Avenue      | Shell Cove |
| 8242      | 11            | Shell       | Avenue      | Shell Cove |
| 8243      | 9             | Shell       | Avenue      | Shell Cove |
| 8244      | 7             | Shell       | Avenue      | Shell Cove |
| 8245      | 5             | Shell       | Avenue      | Shell Cove |
| 8246      | 3             | Shell       | Avenue      | Shell Cove |
| 8247      | 1             | Shell       | Avenue      | Shell Cove |
| Alternate | 3             | Pitt        | Avenue      |            |
| 8248      | 2             | Shell       | Avenue      | Shell Cove |
| Alternate | 5             | Pitt        | Avenue      |            |
| 8249      | 4             | Shell       | Avenue      | Shell Cove |
| 8250      | 6             | Shell       | Avenue      | Shell Cove |
| 8251      | 15            | Pitt        | Avenue      | Shell Cove |
| Alternate | 8             | Shell       | Avenue      |            |
| 8252      | 13            | Pitt        | Avenue      | Shell Cove |
| 8253      | 11            | Pitt        | Avenue      | Shell Cove |
| 8254      | 9             | Pitt        | Avenue      | Shell Cove |
| 8255      | 7             | Pitt        | Avenue      | Shell Cove |
| 8256      | 42            | Pitt        | Avenue      | Shell Cove |
| 8257      | 40            | Pitt        | Avenue      | Shell Cove |
| 8258      | 38            | Pitt        | Avenue      | Shell Cove |
| 8259      | 36            | Pitt        | Avenue      | Shell Cove |
| 8260      | 34            | Pitt        | Avenue      | Shell Cove |
| 8261      | 32            | Pitt        | Avenue      | Shell Cove |
| 8262      | 30            | Pitt        | Avenue      | Shell Cove |
| 8263      | 28            | Pitt        | Avenue      | Shell Cove |
| 8264      | 26            | Pitt        | Avenue      | Shell Cove |

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Lot 9001 DP 1254656, Lot 9004 DP 1254656, Lot 9005 DP 1254656,

| Lot  | Street Number | Street Name    | Street Type | Locality   |
|------|---------------|----------------|-------------|------------|
| 8265 | 24            | Pitt           | Avenue      | Shell Cove |
| 8266 | 22            | Pitt           | Avenue      | Shell Cove |
| 8267 | 20            | Pitt           | Avenue      | Shell Cove |
| 8268 | 18            | Pitt           | Avenue      | Shell Cove |
| 8269 | 16            | Pitt           | Avenue      | Shell Cove |
| 8270 |               | Sergeant Allan | Vista       | Shell Cove |
| 8271 |               | Brigantine     | Drive       | Shell Cove |
| 8272 |               | Boollwarroo    | Parade      | Shell Cove |
| 8273 |               | Pitt           | Avenue      | Shell Cove |

- a. Addresses must be included on the Subdivision Certificate plans.

## PART B - PRIOR TO ISSUE OF SUBDIVISION WORKS CERTIFICATE

### 8. Landscape Plan

A detailed landscape plan must be lodged with the Certifying Authority prior to the issue of the Subdivision Works Certificate.

The landscape plan must be prepared in accordance with the design concept of the concept landscape plan Shell Cove Precinct H DA drawing no.13294-L-PH-0000-2000 Revision E prepared by Group GSA and dated 22.07.2021 and with the appendix 4 of 'Planning for Bushfire Protection 2019'.

The Landscape plan is to amend the species list for Mass Planting Mix 1 and Mass Planting Mix 2 to add the following from Appendix 2 of the Shell Cove Boat Harbour Beach Nourishment/Rehabilitation Management Plan (Advisian, 01.07.2020), in addition to what is currently proposed:

- No fewer than six (6) of the nine (9) species listed as Tall Shrub or Tree, planted at a density of at least 1 plant/10m<sup>2</sup>
- No fewer than ten (10) of the fifteen (15) species listed as Shrub, planted at a density of at least 1 plant/1m<sup>2</sup>
- No fewer than twelve (12) of the twenty-two (22) species listed as Herb, planted at a density of at least 1 plants/1m<sup>2</sup>
- No fewer than three (3) of the eight (8) species listed as Vine, planted at a density of at least 1 plant/5m<sup>2</sup>
- No fewer than ten (10) of the eighteen (18) species listed as Grass or grass-like species, planted at a density of at least 2 plants/1m<sup>2</sup>
- Grass species must include Spinifex species propagated from cuttings of local species

**PPSSTH-176 DA0276/2021 – Attachment 1**

**Lot 9001 DP 1254656, Lot 9004 DP 1254656, Lot 9005 DP 1254656,**

- g. Species *Imperata cylindrical* must be omitted and replaced with *Dianella caerulea* and *Juncus usitatus*.
- h. *Banksia integrifolia* is recommended as a street tree and dune species.
- i. *Callistemon sllignus* is recommended as a dune species only which is not to be planted within 3m proximity to a footpath or roadway.
- j. Removal of Norfolk Pine (*Araucaria heterophylla*) (AC) from roundabout on Boolwarroo Parade with replacement to Cook Pine (*Araucaria columnaris*).

**9. Amendment of Design - Extension of Hind Dune Area**

The Landscape design plans must be amended to reduce the grassed open space areas with an increase in planted areas to reinforce the hind dune plant community with plant species installed as outlined in condition 8. Details of this design amendment are to be submitted to Council for approval prior to issue of Subdivision Works Certificate.

**10. Amendments to Approved Plans**

The amendments described below must be incorporated in the overall development and must be reflected in any plans prepared for the purpose of obtaining a Subdivision Works Certificate

- a. Inclusion of dog drinking bowl and shower head at the three footwash areas along the eastern edge of Boolwarroo Parade.
- b. Detailed plans showing threshold treatment for the pedestrian crossing points along Boolwarroo Parade. The threshold treatment is to comply with the NSW Government Pedestrian Crossing Guideline reference TS 00043:1.0 dated 13.09.2022.

Works to be carried out in accordance with approved plans.

**11. Appointment of a Project Arborist**

Appointment of a Project Arborist with a minimum AQF Level 5 qualification is required. A letter with the appointed arborist's name, details and relevant qualification is to be submitted to council prior to issue of the construction certificate.

The Project Arborist must be responsible for ongoing arborist services throughout the construction (prior, during and post). These services include but is not limited to:

- a. Sign-off of installed tree protection measures prior construction and maintenance during construction,
- b. Onsite supervision of works within the tree protection zone (TPZ) and structural root zone (SRZ) of trees during works,
- c. Providing on ground advice during works and sign off on the tree health and tree protection measures once all works have ceased.

Documentation of each milestone within a stage (prior, during and post) of the project is required and is to be submitted to Council. All documentation is to contain a summary of works supervised by the Project Arborist, site photos and a compliance statement of works undertaken.

A copy of the Australian Standard AS4970-2009 *Protection of trees on development sites* is to be available on site at all times for reference.

**12. Tree Management Plan (TMP)**

**PPSSTH-176 DA0276/2021 – Attachment 1**

**Lot 9001 DP 1254656, Lot 9004 DP 1254656, Lot 9005 DP 1254656,**

A Tree Management Plan (TMP) is to be prepared by the Project Arborist in accordance with *AS4970-2009 Protection of trees on development sites* and must:

- a. Identify trees previously approved for removal under DA0200/2021 and those to be retained;
- b. Illustrate the locations of all tree protection measures such as protective fencing, ground protection and/or trunk protection to be installed by the construction team prior to any works (AS4970-2009);

This is to be provided to Council for approval prior to issue of the Subdivision Works Certificate.

### **13. Construction Environmental Management Plan**

A Construction Environmental Management Plan (CEMP) must be submitted to Council including but not limited to:

- Sediment and erosion controls to the standards of the Blue Book (Landcom, 2004);
- Management of fuels and chemicals
- Contaminated lands unexpected finds and asbestos protocols;
- Acid Sulfate unexpected finds protocol;
- Construction noise controls;
- Dust and air quality control measures;
- Cultural Heritage stop work protocol;
- Native fauna protection measures; and
- Dune protection fencing including methodology for construction of beach access ways and the methodology for protection of the existing trees and vegetation.

### **14. Water Cycle Management**

Operation, Maintenance and Monitoring Manual/s ('Manuals') for the permanent water quality facility shall be submitted to, and approved by, the Principal Certifier prior to the issue of a Subdivision Works Certificate. The Manuals shall be prepared by a suitably qualified person in accordance with Council's Engineering Specifications and water quality objectives.

### **15. Headwall Safety**

Safety measures such as screens or exclusion bars must be provided over the outlet of the headwall draining to Infiltration Basin on the eastern part of Precinct H to prevent people from entry into stormwater structures such as pipes or culverts.

The screens or exclusion bars must be designed in accordance with the design procedures for preventing people from entry into stormwater structures such as pipes or culverts outlined in the Queensland Urban Drainage Manual (QUDM).

Details of the design for the headwall safety measures and supporting calculations for the safety measures are to be submitted to the satisfaction of the Principal Certifier prior to issue of a subdivision certificate. Warning signs must be erected to alert people of potential danger.

### **16. Flow Velocity in Vegetated Stormwater treatment areas.**

All Vegetated Stormwater Systems including infiltration basin must be designed and located such that velocity of flows travelling through areas containing macrophytes are less than 0.5 m/sec in all design events up to and including the 10% AEP and less than 2 m/sec for all remaining events up to and including the 1% AEP. Details supporting this must be submitted

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to the satisfaction of the Principal Certifier.

**17. Water Sensitive Urban Design Checklists**

Compliance checklists must be prepared by the Water Sensitive Urban Designers and submitted to Council prior to issue of a subdivision certificate. The checklists must incorporate all checks and certifications that are required to be carried out during the civil construction phase, asset protection phase, landscape practical completion phase and final compliance inspection prior to final handover.

**18. Open Space Embellishment Requirements**

- a. The three dune entry areas located adjacent to the pedestrian shareway and the beach access boardwalks are to incorporate a tap outlet with a shower head in addition to a footwash and dog bowl.
- b. All fixtures waste receptacles, bike racks, shower fixtures, seating, bollards etc. must be a stainless grade 316.
- c. Waste and Recycle Receptacles - all receptacles are to be provided with an enclosure fitted with a roof and must be located within a maximum distance of 55 metres from the back of the kerb for waste disposal purposes.
- d. The southern carpark area must have hard surface pedestrian access points at intervals from the car park to the pedestrian shareway.
- e. Pocket park/laneways are to be provided with water outlets installed within landscaped beds and fitted with a tap key.

**19. Roundabout Landscape**

Landscape within the roundabout must have a minimum 300mm width concrete apron along the entire perimeter to prevent landscape plantings encroaching onto the road carriageway.

Landscaping within the roundabout must incorporate a single plant species to minimise maintenance requirements. The plant species must be a low growing groundcover having a maximum mature height of 300mm, so as not to impede vehicular and pedestrian sightlines.

**20. Road Reserve Landscape**

Landscape within road reserves and median strips must have a 10 metre visual clearance from an approaching side of any pedestrian access point of crossing and planted with a plant species that has a mature height of 300mm, so as to not impede vehicular and pedestrian sightlines.

Landscape within a median strip must have a minimum 300mm width concrete apron along the entire length of the median strip to prevent landscape plantings encroaching onto the road carriageway.

**21. 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 Subdivision Works Certificate.

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

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- 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 - 2007 Guidelines on Earthworks for Commercial and Residential Developments or subsequent amendments,
- d. Areas unsuitable for the use of vibratory rollers due to the potential impact on existing structures and buildings are to be identified and no vibratory rollers shall be used within these areas,
- 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,
- h. Overall assessment of the engineering plans for the proposed development and their suitability in relation to the site's geotechnical characteristics.

**22. Soil and Water Management Plan (SWMP)**

Prior to the issue of the Subdivision Works Certificate, the applicant must submit to and obtain the Principal Certifier approval of a Soil and Water Management Plan. The SWMP must clearly identify site features, constraints and soil types together with the nature of the proposed land disturbing activities and also specifies the type and location of erosion and sediment control measure. In addition, rehabilitation techniques that are necessary to deal with such activities are to be referred to.

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.
  - iv. Ensures disturbed areas are promptly rehabilitated.
- f. Trap sediment on the site to prevent off site damage. Hay bales are not to be used as sediment control devices.
- 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 10 year ARI event at all inlet and outlet structures.
- j. Measures to prevent the tracking of sediment off the site.

### **23. 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 50 mm 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 allow an 8.8m design vehicle and a 12.5m check vehicle to manoeuvre in order to enter and leave each road in a forward direction in accordance with Section 5 of Austroads Guide to Road Design Part 4: Intersections and Crossings,
- 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 Works Certificate for approval by the Certifying Authority.

### **24. Road and Drainage Plans**

Road and drainage plans must be prepared by a suitably qualified engineer in accordance with *The Shellharbour Engineering Code*. The plans must be submitted to the Principal Certifier for approval prior to the release of the Subdivision Works 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 to the HS3 standard in accordance with the current edition of *AS 3725 - 2007 - Design for Installation of Buried Concrete Pipe or subsequent amendments*.

### **25. Landscape and Street Tree Inspection Fee**

The applicant must lodge with Council inspection fees in accordance with Council's Fees and Charges prior to the issue of the Subdivision Works Certificate for:

- a. Landscape and street tree inspection prior to occupation of the development
- b. Landscape and street tree inspection following completion of the maintenance period

### **26. Long Service Levy**

The Long Service Levy must be paid prior to the issue of the Subdivision Works Certificate.

Note: This is a levy imposed by the NSW Government and administered by the Long Service Payments Corporation for the purpose of long service payments to building and construction workers.



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## **27. Retaining Wall Structural Engineer**

Where a retaining wall exceeds 600mm in height, the wall 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.

All retaining walls must be located wholly within the property, including footings and agricultural drainage lines. Construction of retaining walls or associated drainage work along common boundaries must not compromise the structural integrity of any existing structures.

## **28. Temporary Turning Facilities**

Turning facilities must be provided at all dead end roads. All turning and manoeuvring facilities, including turning heads, cul-de-sac, etc., shall be designed in accordance with Council's Engineering Specifications. Turning heads must be provided at the end of all dead end roads for subdivisions that are progressively developed in a staged manner.

Details demonstrating compliance must be provided to the certifier prior to the issue of a Subdivision Works Certificate.

## **PART C - PRIOR TO COMMENCEMENT OF WORKS**

### **29. Erosion & Runoff Controls**

Before work starts, appropriate erosion and runoff controls must be installed to prevent soil erosion, water pollution or the discharge of loose sediment on surrounding land, stormwater systems or watercourses.

These controls include the following (where applicable):

- a. Erect a silt fence,
- b. Limit the removal or disturbance of vegetation and topsoil,
- c. Divert uncontaminated run-off around cleared or disturbed areas,
- d. Install sediment traps/socks around any stormwater inlets and drainage lines,
- e. Stockpile topsoil, excavated material, construction and landscaping materials and debris within the site. These must be covered or seeded to prevent loss of these materials,
- f. Provide a single vehicle access to the site including measures to prevent the tracking of sediment off the site, and
- g. Provide adequate control measures to suppress dust.

These measures must be in place prior to commencement of any excavation or construction works.

### **30. 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 Principal Certifier 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,

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- 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,
- e. How it is proposed to ensure that soil/excavated materials are not transported on wheels or tracks of vehicles or plant and deposited on the roadway, and
- f. 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 appropriately qualified and experienced engineer.

**31. Road Construction and Road Drainage Construction**

The site manager must arrange for an inspection by Shellharbour City Council to ensure the following works are completed to the satisfaction of Council:

- a. All road drainage works prior to backfilling of the work and,
- b. All road construction inspections as per Council's Shellharbour Engineering Code.

**32. Material Compliance**

All materials proposed for construction are to comply with the Shellharbour Engineering Code. Material data sheets and conformance documentation is to be submitted and approved to the satisfaction of the Principal Certifier. .

**33. Site Meeting**

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.

**34. Disconnection of Utilities**

Contact must be made with service providers such as Sydney Water, Energy, Telecommunication companies etc for their approval with regard to disconnection of all services prior to the commencement of demolition works. All redundant services must be removed and site remediated at the cost of the developer.

**35. Soil and Water Management Plan Implementation (SWMP)**

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

**36. Open or Occupy a Roadway or Footpath (Section 138 Roads Act 1993)**

Prior to any physical works within Council's road reserve such as (but not limited to) installing a driveway or connecting stormwater facilities the applicant must apply for approval under Section 138 of the *Roads Act 1993*.

The application will require the following information:

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- a. details of the proposed works in the road and footpath area,
- b. traffic management plan,
- c. provision of public risk insurance and,
- d. details of timing and length of works.

**37. 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. The report must be supported with suitable photographic records. This information must be submitted to Council prior to the commencement of work.

**38. Tree Protection**

All installed tree protection measures are to be signed off by the Project Arborist prior to commencement of any works. This is to be documented and is to include in site photos and a compliance statement in accordance with the Tree Management Plan as required by condition 12.

**39. 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 Principal Certifier.

The CTMP must also include:

- a. Specific details of access to the beach and protection/mitigation measures for the existing dune and surrounding vegetation are to be included.

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

**40. Traffic Committee - Signposting and Line Marking Plan**

Prior to the implementation of the Signposting and Line Marking Plan, the plan must be lodged with the City of Shellharbour Traffic Committee for written approval. This plan must detail all facilities, signage and line marking required within and surrounding the development.

**PART D - DURING CONSTRUCTION WORKS**

**41. Service Conduits**

Services 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 Certifier prior to the placement of pavement material. Alternatively, the services crossings must be under bored.

**42. Unexpected Finds Contingency**

- a. If any contamination or suspect material be encountered during site preparation, earth works, construction or any other stage of the development, then works must cease

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immediately and a suitably qualified consultant engaged to conduct a thorough contamination assessment.

In the event that contamination remediation is required, all works must cease and the Council must be notified immediately. The contamination assessment must be submitted to Council for Approval.

All recommendations provided in the contamination assessment must be followed as stipulated.

- b. If any Aboriginal archaeological artefacts are encountered during construction works, all ground disturbance in the area of the find must cease and the Department of Industry and Environment (DPIE) be contacted immediately to determine an appropriate course of action in line of relevant legislation.

**43. Flood Warning Signage**

During construction works signage is to be provided on site to warn people that the site may be subject to flooding and to follow the designated evacuation routes.

**44. 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.

**45. Imported Fill Material**

Any imported fill to be used on site must be

VENM (Virgin Excavated Natural Material) classified as such in accordance with the Waste Classification Guidelines, Part 1: Classifying Waste (EPA 2014); or ENM (Excavated Natural Material) meeting the requirements of the Excavated Natural Material Exemption 2014, and compatible with the existing soil characteristics of the site; or Certified organic matter that meets the Australian Standards for Soil quality - Sustainable remediation [AS ISO 18504](#)

Excavated material from the site can only be reinstated supported by National Association of Testing Authorities testing to confirm National Environment Protection Measure suitability for the proposed land use and Managing Land Contamination, Planning Guidelines SEPP 55-Remediation of Land (1998, NSW Government)

The intent of this requirement is to ensure that imported fill is of an acceptable standard for environmental protection purposes.

**46. Street Lighting**

The applicant must submit a Public Lighting Design Brief to Council for approval detailing the provision of street lighting on all new public roads 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 applicant.

**47. Hours of Work During Building Work**

Works must only be carried out between 7.00 am and 5.00 pm on Monday to Saturday and no construction is to be carried out at any time on a Sunday or public holiday.

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**48. Maintenance of Erosion & Runoff Controls**

The soil and water management controls must be maintained at all times and checked for adequacy daily. The controls must not be removed until the development is completed and the disturbed areas have been stabilised.

Maintenance must include but is not limited to ensuring:

- a. all sediment fences, sediment traps and socks are properly placed and are working effectively
- b. drains, gutters and roads must be 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.

**49. Waste Management**

The management of waste must comply with the approved Waste Management Plan. Any variations to the Waste Management Plan must have prior written approval of Council.

**50. Storage of Materials**

Building materials and equipment must not be stored on the road reserve/footpath area.

**51. Cut/Fill**

The cut and fill areas must:

- a. be suitably retained,
- b. be in accordance with the approved plans,
- c. have a maximum grade of 45 degrees (1:1) where there is no retaining wall or no other method of stabilising the cut/fill area, and
- d. not exceed 1m in depth outside the external walls of a building, unless otherwise approved in writing by Council.

**52. Construction Environmental Management Plan**

All measures outlined in the Construction Environmental Management Plan are to be adhered to throughout the construction phase of the development.

**53. Tree Protection**

All tree protection measures outlined in the approved TMP as required by condition 12 must remain in place and be maintained during construction in order to prevent damage to the trees to be retained.

As per section 20.8.6 of the Shellharbour Development Control Plan 2013 the Project Arborist is to complete three (3) site inspections during works in order to verify that retained trees have been correctly retained and protected in accordance with the approved Tree Management Plan required by condition 12.

**54. Protection of Native Fauna**

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Measures to minimise risk to native fauna during construction must be implemented including:

- a. Inspecting in and around all vehicles and machines to ensure no native fauna is present prior to turning on or recommencing work; and
- b. For any injured wildlife a local vet or South Coast Wildlife Rescue on 0418 427 214 are contacted immediately.

**PART F - PRIOR TO ISSUE OF SUBDIVISION CERTIFICATE TORRENS**

**TITLE SUBDIVISION**

**55. Final Plan of Subdivision**

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

- a. an application for a Subdivision Certificate,
- b. two 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 must 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](mailto:traffic&subdivision@shellharbour.nsw.gov.au) The email and the electronic copy is to 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.

**56. Section 7.11 Development Contributions**

A contribution of \$792,200.73, subject to annual indexation, must be paid to Council towards the provision of public amenities and public services prior to the issue of the Subdivision Certificate for each stage as shown in the table below:

| Stage        | Precinct 2, Shellharbour | Less monetary contribution for C1.26 Passive Open Space Embellishment * | Total Section 94 Contribution |
|--------------|--------------------------|---|-------------------------------|
| 2            | \$641,852.64             | - \$ 44,831.80  | \$ 597,020.84                 |
| 3            | \$209,836.44             | - \$ 14,656.55  | \$ 195,179.89                 |
| <b>Total</b> | <b>\$851,689.08</b>      | <b>- \$ 59,488.35</b>   | <b>\$ 792,200.73</b>          |

This amount has been calculated in accordance with Shellharbour City Council's Local Infrastructure Contributions Plan 2019 9th Review 14 August 2019 in the following manner:

Residential contribution - Precinct 2, Shellharbour - \$851,689.08 Less Credit for C1.26 Passive Open Space - City East - (\$59,488.35)

|                         |              |
|-------------------------|--------------|
| Open Space contribution | \$139,060.53 |
|-------------------------|--------------|

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|   |                     |
|---|---------------------|
| Community Infrastructure contribution       | \$571,818.18        |
| Roads & Traffic Infrastructure contribution | \$14,643.87         |
| Drainage contributions                      | NIL                 |
| Administration contributions                | \$66,678.15         |
| <b>Total contribution payable</b>           | <b>\$792,200.73</b> |

The contribution amount contained in this condition is the base rate indexed to the date the consent is issued. The contribution amount will be adjusted in accordance with the indexation methods detailed in the Contributions Plan. Current indexed rates are available from Council.

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](http://www.shellharbour.nsw.gov.au) <<http://www.shellharbour.nsw.gov.au>>.

**57. Section 73 Certificate**

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

It is recommended that applicants apply early for the certificate, as there may be water and sewer pipes to be built and this can take some time. This can also impact on other services and building, driveway or landscape design.

Application must be made through an authorised Water Servicing Coordinator. For help either visit [www.sydneywater.com.au](http://www.sydneywater.com.au) > Plumbing, building and developing > Developing > Land development or telephone 13 2092.

**58. 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 has been completed. A copy of the CCTV inspection must be recorded and submitted to the Principal Certifier prior to the release of the Subdivision Certificate. Damaged pipes must either be replaced or repaired to the Principal Certifier's satisfaction prior to the issuing of a Subdivision Certificate. Written certification of a 100 year design life must be provided for all stormwater pipe repairs.

Constructed paved areas, surface and invert levels on all pits, invert levels and sizes of all pipelines. All levels must relate to Australian Height Datum.

**59. Final Geotechnical Report**

A final geotechnical report prepared by a suitably qualified and experienced geotechnical consultant must be submitted to the 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 *The Shellharbour Engineering Code*. This must include appropriate test results, test location diagram and date of testing,
- d. certification that all recommendations contained in the geotechnical reports lodged in

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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.
- f. identification of all land affected by landslip or instability constraints (if applicable),
- g. verification that the pipe trench bedding and backfill complies with the requirements for HS3 bedding/backfill.

**60. Lot Creation Geotechnical Report**

A Geotechnical Engineer's report must be submitted to the Principal Certifier 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 2870-2011 - Residential Slabs and Footings or subsequent amendments*,
- b. the classification of the lot in relation of risk of slope instability,
- c. the required site preparation and construction constraints within the building envelope of the lot appropriated to the assessed risk of slope stability.

**61. 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 Shellharbour Engineering Code*. 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 roads becoming designated gazetted public roads an inspection is to be undertaken by Council to determine that the roads are in a satisfactory condition. The road is to be handed over to Council at no cost to Council prior to issue of the Subdivision Certificate.

**62. Street Trees**

The applicant is required to install street trees on Council's footpath reserve prior to the release of the Subdivision Certificate as follows:

- a. one tree per lot and two trees per corner lot
- b. minimum 75lt pot size
- c. planted at least 2 metres from assets including driveways, street light poles, services, stormwater outlets and signage
- d. 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.
- e. a minimum 1000mm width x 1500mm depth timber edging installed at the base of the tree constructed from the back of the kerb or installed from the back of the kerb to abut any proposed concrete pedestrian path or shareway
- f. 2 x hardwood stakes with 50mm hessian ties, fixed in a figure 8, to support each tree
- g. minimum 75mm depth of organic mulch applied a minimum 600mm diameter surrounding the base of the trunk



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**63. Street Tree Planting Distances**

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

- a. Minimum 1.5 metres from a stormwater outlet/pit
- b. Minimum 2 metres from services and telecommunications
- c. Minimum 3 metres from street light posts, driveway or vehicle access
- d. Minimum 8 metres from road intersections and signage
- e. Minimum 15 metres from pedestrian crossing and traffic signals
- f. Minimum 15 metres from the approach to a bus stop and 6 metres from the departure side.

**64. Subdivision Construction Works Maintenance Bond**

The applicant must lodge a Subdivision Construction Works Maintenance Bond in accordance with Council's Fees and Charges prior to the release of the Subdivision Certificate.

**65. Completion of Landscape works**

All landscape works including street trees must be landscaped in accordance with the Landscape Plan approved at the time of the issue of the Subdivision Works Certificate prior to the issue of a Subdivision Certificate. Any variations to the design or species used must be authorised by Council in writing before any changes are made.

**66. Works As Executed Plans - Subdivision**

Works As Executed plans must be submitted to the Principal Certifier prepared 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 Subdivision Works 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,
- 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.

These plans must be accompanied by a compliant ADAC XML digital file. All details to be in accordance with the ADAC Data Capture Guidelines specification, which is available on Council's website.

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**67. 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 Certifier and the relevant utility provider.

Restrictions must be placed on title with respect to:

- a. Access and maintenance for structures on or adjacent to the boundary
- b. Drainage
- c. Lots identified to be managed in perpetuity as an inner protection area in accordance with the requirements of Appendix 4 of *Planning for Bush Fire Protection 2019*.

**68. Fibre-Ready Facilities/Telecommunications Infrastructure**

Documentary evidence must be provided to the Principal Certifier demonstrating that satisfactory arrangements have been made for:

- a. the installation of fibre-ready facilities to all individual lots and/or premises in a real estate development project so as to enable fibre to be readily connected to any premises that is being or may be constructed on those lots. The carrier must confirm in writing that they are satisfied that the fibre ready facilities are for purpose; and
- b. the provision of fixed-line telecommunications infrastructure in the fibre-ready facilities to all individual lots and/or premises in a real estate development project demonstrated through an agreement with a carrier.

This condition does not apply where an applicable exemption exists under Commonwealth law. Documentary evidence of any exemption relied upon must be provided to the principal certifier.

**69. Electricity Notice of Arrangement**

A Notice of Arrangement for the provision of distribution of electricity from Endeavour Energy must be submitted to the Principal Certifier (Council). The arrangement must include the provision of street lighting in accordance with the electrical design approved by Council.

**70. Impact on Existing Dunes**

This consent does not imply or provide consent to any works within the dune area. In the event that such works are required a separate approval must be sort.

**PART G - AFTER ISSUE OF SUBDIVISION CERTIFICATE**

**71. Maintenance Period of Vegetated Stormwater Assets**

The applicant is responsible for all maintenance of the Vegetated Stormwater Assets during the 3 year maintenance period.

Approaching hand over at the conclusion of the 3 year maintenance period, a site meeting with Council must be arranged by the applicant. The objective of the meeting will be to identify any outstanding actions that require rectification by the applicant before asset hand over. Annual reports documenting implementation measures and containing all monitoring results are to be submitted to Council during the maintenance phase.

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Lot 9001 DP 1254656, Lot 9004 DP 1254656, Lot 9005 DP 1254656,

## **72. Landscape Maintenance Period**

To ensure establishment of all landscape and street trees, the completed works must be maintained for a 12 month period following the issue of the Subdivision Certificate. It is the responsibility of the applicant to ensure that any defective landscape and street tree works shall be rectified/replaced at the conclusion of the maintenance period in accordance with the approved landscape plan.

## **73. Landscape Handover Inspection**

The landscape works on land to be dedicated to Council requires a handover inspection to be carried out at the end of the 12 month maintenance period. In this regard the applicant is to notify Council one month prior to handover to arrange an inspection with Council and the applicant. Council will take full maintenance responsibility of all landscape works following a satisfactory result at the end of the maintenance period.

## **74. Subdivision - Maintenance Period**

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

## **PART H – OTHER APPROVALS**

### **75. Rural Fire Service**

PPSSTH-176 DA0276/2021 – Attachment 1

Lot 9001 DP 1254656, Lot 9004 DP 1254656, Lot 9005 DP 1254656,



NSW RURAL FIRE SERVICE

Shellharbour City Council  
Locked Bag 155  
SHELLHARBOUR CITY CENTRE NSW 2529

Your reference: (CNR-22762) DA0276/2021  
Our reference: DA20210604002263-Original-1

**ATTENTION:** Madeline Cartwright

Date: Monday 1 November 2021

Dear Sir/Madam,

**Integrated Development Application**

**s100B – Subdivision – Subdivision**

**COVE BVD SHELL COVE NSW 2529, 9001//DP1254656, 9005//DP1254656, 9004//DP1254656**

I refer to your correspondence dated 03/06/2021 seeking general terms of approval for the above Integrated Development Application.

The New South Wales Rural Fire Service (NSW RFS) has considered the information submitted. General Terms of Approval, under Division 4.8 of the *Environmental Planning and Assessment Act 1979*, and a Bush Fire Safety Authority, under section 100B of the *Rural Fires Act 1997*, are now issued subject to the following conditions:

**General Conditions**

1. The development proposal is to generally comply with the subdivision layout identified on the drawing 'Project: Civil Strategy Proposed subdivision of Precinct H Shell Cove. Drawing Title: Lot Layout Plan Project No. ISC00223-DA, Drawing No. C005 AMDT 1 prepared by Maker ENG dated 20.04.21'.
2. The development proposal is to generally comply with the road layout and widths identified on the drawing 'Project: Civil Strategy Proposed subdivision of Precinct H Shell Cove. Drawing Title: Typical Road Cross Sections Plan Project No. ISC00223-DA, Drawing No. C015 AMDT 1 prepared by Maker ENG dated 20.04.21'.

**Asset Protection Zones**

***Intent of measures: to provide sufficient space and maintain reduced fuel loads to ensure radiant heat levels at the buildings are below critical limits and prevent direct flame contact.***

3. At the commencement of building works or the issue of a subdivision certificate, whichever comes first, the entire site must be maintained as an Inner Protection Area (IPA) in accordance with the requirements of Appendix 4 of Planning for Bush Fire Protection 2019.

When establishing and maintaining an inner protection area, the following requirements apply:

- a. tree canopy cover should be less than 15% at maturity,

1

**Postal address**

NSW Rural Fire Service  
Locked Bag 17  
GRANVILLE NSW 2142

**Street address**

NSW Rural Fire Service  
4 Murray Rose Ave  
SYDNEY OLYMPIC PARK NSW 2127

T (02) 8741 5555  
F (02) 8741 5550  
[www.rfs.nsw.gov.au](http://www.rfs.nsw.gov.au)

**PPSSTH-176 DA0276/2021 – Attachment 1**

**Lot 9001 DP 1254656, Lot 9004 DP 1254656, Lot 9005 DP 1254656,**

- b. trees at maturity should not touch or overhang the building,
- c. lower limbs should be removed up to a height of 2m above the ground,
- d. tree canopies should be separated by 2 to 5m,
- e. preference should be given to smooth-barked and evergreen trees,
- f. large discontinuities or gaps in vegetation should be provided to slow down or break the progress of fire towards buildings,
- g. shrubs should not be located under trees,
- h. shrubs should not form more than 10% ground cover,
- i. clumps of shrubs should be separated from exposed windows and doors by a distance of at least twice the height of the vegetation,
- j. grass should be kept mown (as a guide, grass should be kept to no more than 100mm in height), and
- k. leaves and vegetation debris should be removed.

4. The asset protection zone required to the east / southeast is provided fully or partially by the proposed public road. As such, the full width of the road reserve must be managed as an Inner Protection Area in accordance with the requirements of Appendix 4 of Planning for Bush Fire Protection 2019.

**Access – Public Roads**

***Intent of measures: to provide safe operational access to structures and water supply for emergency services, while residents are seeking to evacuate from an area.***

5. Access roads must comply, as a minimum, with the general, perimeter-road and non-perimeter road requirements of Table 5.3b of Planning for Bush Fire Protection 2019, except where modified by the general layout indicated by the drawing 'Project: Civil Strategy Proposed subdivision of Precinct H Shell Cove. Drawing Title: Typical Road Cross Sections Plan Project No. ISC00223-DA, Drawing No. C015 AMDT 1 prepared by Maker ENG dated 20.04.21'.

6. A temporary turning head shall be provided at the terminus of roads that have been partially constructed due to the staged nature of the development. The turning head must meet the requirements of Appendix 3.3 in Planning for Bush Fire Protection 2019.

**Water and Utility Services**

***Intent of measures: 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.***

7. The provision of water, electricity and gas must comply with the following in accordance with Table 5.3c of Planning for Bush Fire Protection 2019:

- a. reticulated water is to be provided to the development where available;
- b. fire hydrant, spacing, design and sizing complies with the relevant clauses of Australian Standard AS 2419.1:2005;
- c. hydrants are not located within any road carriageway;
- d. reticulated water supply to urban subdivisions uses a ring main system for areas with perimeter roads;
- e. fire hydrant flows and pressures comply with the relevant clauses of AS 2419.1:2005;
- f. all above-ground water service pipes are metal, including and up to any taps;
- g. where practicable, electrical transmission lines are underground;
- h. where overhead, electrical transmission lines are proposed as follows:
  - i. lines are installed with short pole spacing (30m), unless crossing gullies, gorges or riparian areas; and
  - ii. no part of a tree is closer to a power line than the distance set out in accordance with the specifications in ISSC3 Guideline for Managing Vegetation Near Power Lines.
- i. reticulated or bottled gas is installed and maintained in accordance with AS/NZS 1596:2014 and the requirements of relevant authorities, and metal piping is used;
- j. reticulated or bottled gas is installed and maintained in accordance with AS/NZS 1596:2014 - The storage and handling of LP Gas, the requirements of relevant authorities, and metal piping is used;
- k. all fixed gas cylinders are kept clear of all flammable materials to a distance of 10m and shielded on the hazard side;





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**Lot 9001 DP 1254656, Lot 9004 DP 1254656, Lot 9005 DP 1254656,**

- l. connections to and from gas cylinders are metal; polymer-sheathed flexible gas supply lines are not used; and
- m. above-ground gas service pipes are metal, including and up to any outlets.

**General Advice – Consent Authority to Note**

1. The Bushfire Protection Assessment prepared by Eco Logical Australia dated 24 May 2021 identifies 'managed land' over the vegetation to the east / south east of the proposed development in order to demonstrate that suitable Asset Protection Zones (APZs) can be achieved for future Special Fire Protection Purpose (SFPP) development on proposed lot 73. Where the required APZs for a proposed SFPP development are achieved via management of land outside of the subject lot, a Plan of Management or similar will be required to be submitted with an accompanying instrument created pursuant to s88 of the Conveyancing Act, 1919 to ensure the management of the vegetation to the required standard in perpetuity.

2. It is understood that the foreshore area to the east of the development will be revegetated to be consistent with a 'Tall Heath' vegetation community. Should the revegetation result in fuel loads exceeding those consistent with a 'Tall Heath' vegetation classification, a revised assessment of bush fire risk would be necessary as this classification has relied upon for determining this application.

3. The foreshore area to the west and south of the development will need to be managed so as to not create a bush fire hazard. In this regard, stages of the development relating to this area should ensure landscaping complies with Appendix 4 of Planning for Bush Fire Protection 2019.

4. This approval is for the subdivision of the land only. In this regard:

- a) Any further development application for class 1,2 & 3 buildings as identified by the 'Building Code of Australia' must be subject to separate application under section 4.14 of the Environmental Planning and Assessment Act, 1979 and address the requirements of 'Planning for Bush Fire Protection 2019'; and
- b) Any further development of proposed lot 73 for a Special Fire Protection Purpose (SFPP) development must be subject to separate application under section 4.46 of the Environmental Planning and Assessment Act, 1979 and address the requirements of 'Planning for Bush Fire Protection 2019'.

For any queries regarding this correspondence, please contact Katrina Lindsay on 1300 NSW RFS.

Yours sincerely,

Alan Bawden  
**Supervisor Development Assessment & Plan  
Built & Natural Environment**

PPSSTH-176 DA0276/2021 – Attachment 1

Lot 9001 DP 1254656, Lot 9004 DP 1254656, Lot 9005 DP 1254656,



## BUSH FIRE SAFETY AUTHORITY

Subdivision – Subdivision

COVE BVD SHELL COVE NSW 2529, 9001//DP1254656, 9005//DP1254656, 9004//DP1254656

RFS Reference: DA20210604002263-Original-1

Your Reference: (CNR-22762) DA0276/2021

This Bush Fire Safety Authority is issued on behalf of the Commissioner of the NSW Rural Fire Service under s100b of the Rural Fires Act (1997) subject to the attached General Terms of Approval.

This authority confirms that, subject to the General Terms of Approval being met, the proposed development will meet the NSW Rural Fire Service requirements for Bush Fire Safety under *s100b of the Rural Fires Act 1997*.

**Alan Bawden**

Supervisor Development Assessment & Plan  
Built & Natural Environment

Monday 1 November 2021

PPSSTH-176 DA0276/2021 – Attachment 1

Lot 9001 DP 1254656, Lot 9004 DP 1254656, Lot 9005 DP 1254656,

## 76. Endeavour Energy



Chief Executive Officer  
Shellharbour City Council

27 May 2021

**ATTENTION: Madeline Cartwright**

Dear Sir or Madam

I refer to the referral of 26 May 2021 from NSW Planning, Industry & Environment regarding NSW Government concurrence and referral request CNR-22762 for Shellharbour City Council Development Application DA0276/2021 at COVE BOULEVARD SHELL COVE 2529 (Lots 9001, 9004 & 9005 DP 1254656) for '73 Lot Staged Subdivision Of Lots 9001, 9004, 9005 Consisting Of 69 Residential Lots, Two Future Residential Lots, One Future Mixed Use Lot, One Lot For Sewerage Infrastructure And Two Residue Lots'. Submissions need to be made to Council by 16 June 2021.

As shown in the below site plan from Endeavour Energy's G/Net master facility model (and extract from Google Maps Street View) there are:

- No easements benefitting Endeavour Energy (active easements are indicated by red hatching).
- Low voltage overhead power lines to the Boolwarroo Parade road verge / roadway.

Please note the location, extent and type of any electricity infrastructure, boundaries etc. shown on the plan is indicative only. In addition it must be recognised that the electricity network is constantly extended, augmented and modified and there is a delay from the completion and commissioning of these works until their capture in the model. Generally (depending on the scale and/or features selected), low voltage (normally not exceeding 1,000 volts) is indicated by blue lines and high voltage (normally exceeding 1,000 volts but for Endeavour Energy's network not exceeding 132,000 volts / 132 kV) by red lines (these lines can appear as solid or dashed and where there are multiple lines / cables only the higher voltage may be shown). This plan only shows the Endeavour Energy network and does not show electricity infrastructure belonging to other authorities or customers owned electrical equipment beyond the customer connection point / point of supply to the property. This plan is not a 'Dial Before You Dig' plan under the provisions of Part 5E 'Protection of underground electricity power lines' of the Electricity Supply Act 1995 (NSW).

Subject to the following recommendations and comments Endeavour Energy has no objection to the Development Application.

- Network Capacity / Connection

Endeavour Energy has noted the following in the Utilities Investigation Report addressing the suitability of the site for the development in regard to whether electricity services are available and adequate for the development.



51 Huntingwood Drive, Huntingwood, NSW 2148  
PO Box 811, Seven Hills, NSW 1730  
T: 133 718

endeavourenergy.com.au

ABN 11 247 365 823



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Lot 9001 DP 1254656, Lot 9004 DP 1254656, Lot 9005 DP 1254656,

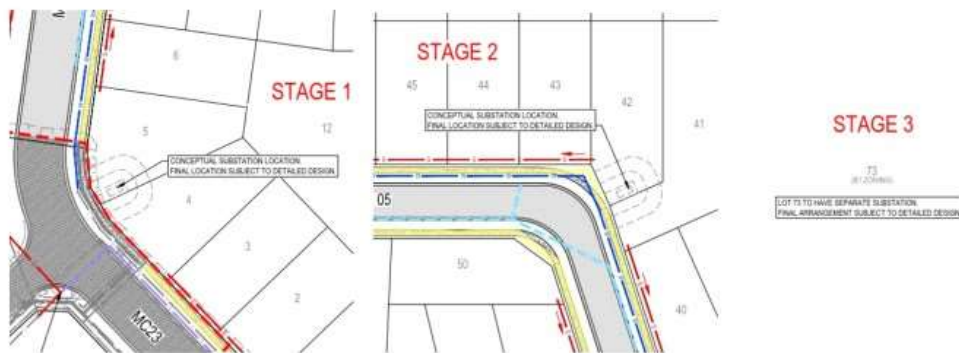
### 3 ELECTRICAL SERVICES

Endeavour Energy is the utility service authority responsible for the management and delivery of electrical services in Shell Cove. A HV feeder has been delivered from the Shellharbour Zone Substation to create sufficient capacity for Precincts F, G and H. As a result of this network upgrade, the electrical network will have sufficient capacity to service Precinct H. The DBYD attached in **Appendix F** shows that there is limited existing infrastructure nearby the proposed development

The Precinct H electrical arrangement will include an underground cable network supplied from the HV underground cable network that will be installed as part of Precincts F and G (SKH2). The HV feeder will have sufficient capacity to supply the development. This will be confirmed during the detailed design phase. It is anticipated that the final electrical arrangements will include:

- 3 pad mount substations (arrangement and locations to be confirmed during detailed design);
- HV and LV pit and pipe network along roadways;
- Street lighting; and
- Provision of additional conduit for future works.

The 3 conceptual padmount substation locations are shown in the following extracts of the Civil Strategy Plans.

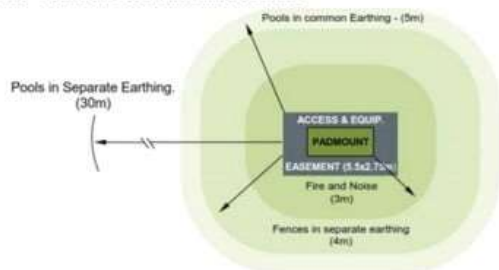


From Endeavour Energy's perspective the fact that provision is being made for a padmount substation is a positive. Endeavour Energy's general requirements is for a padmount substation to be at ground level and have direct access from a public street (unless provided with appropriate easements for the associated underground cables and right of access).

As shown in the following extract of Endeavour Energy's Mains Design Instruction MDI 0044 'Easements and Property Tenure Rights', Figure A4.3 'Padmount easements and clearances', padmount substations require:

- Easement with a minimum size of 2.75 x 5.5 metres (single transformer).
- Restriction for fire rating which usually extends 3 metres horizontally from the base of the substation footing / plinth and 6 metres vertically from the same point.
- Restriction for swimming pools which extends 5 metres from the easement.

#### A4.3 - Padmount easements and clearances



**PPSSTH-176 DA0276/2021 – Attachment 1**

**Lot 9001 DP 1254656, Lot 9004 DP 1254656, Lot 9005 DP 1254656,**

The easement should not cross property boundaries but the restriction/s may affect any adjoining property provided they are able to be registered on the title to that property. In addition the following matters also need to be considered in regard to the fire restriction:

- Gas mains/pipes shall not pass through the fire restriction area.
- Consideration should be provided to the appropriateness of the landscaping relative to the fire restriction for the substation. Any landscaping that potentially could transfer / provide connectivity for flame or radiant heat from a fire in the substation to a dwelling or building should be avoided.
- The storage of and / or use of flammable, combustible, corrosive or explosive material within the fire restriction should be avoided.

Please find attached for the applicant's information copies of Endeavour Energy's:

- Mains Design Instruction MDI 0044 'Easements and Property Tenure Rights'.
- Guide to Fencing, Retaining Walls and Maintenance Around Padmount Substations.

Generally it is the Level 3 Accredited Service Provider's (ASP) responsibility (engaged by the developer) to make sure that the substation location and design complies with Endeavour Energy's standards the suitability of access, safety clearances, fire ratings, flooding etc. As a condition of the Development Application consent Council should request the submission of documentary evidence from Endeavour Energy confirming that satisfactory arrangements have been made for the connection of electricity and the design requirements for the substation, prior to the release of the Construction Certificate / commencement of works.

In due course the applicant for the proposed development of the site will need to submit an appropriate application based on the maximum demand for electricity for connection of load via Endeavour Energy's Network Connections Branch to carry out the final load assessment and the method of supply will be determined. Straightforward applications can be completed online and permission to connect may be provided immediately if submitting a complying application.

Depending on the outcome of the assessment, any required padmount substation/s will need to be located within the property (in a suitable and accessible location) and be protected (including any associated cabling) by an easement and associated restrictions benefiting and gifted to Endeavour Energy. Please refer to Endeavour Energy's Mains Design Instruction MDI 0044 'Easements and Property Tenure Rights'.

For more complex connections, advice on the electricity infrastructure required to facilitate the proposed development (including asset relocations) can be obtained by submitting a Technical Review Request to Endeavour Energy's Network Connections Branch, the form for which FPJ6007 is attached. The response to these enquiries is based upon a desktop review of corporate information systems, and as such does not involve the engagement of various internal stakeholders in order to develop a 'Connection Offer'. It does provide details of preliminary connection requirements which can be considered by the applicant prior to lodging a formal application for connection of load.

Further details are available by contacting Endeavour Energy's Network Connections Branch via Head Office enquiries on business days from 9am - 4:30pm on telephone: 133 718 or (02) 9853 6666 or on Endeavour Energy's website under 'Home > Residential and business > Connecting to our network' via the following link:

<http://www.endeavourenergy.com.au/> .

Alternatively the applicant may need to engage an Accredited Service Provider (ASP) of an appropriate level and class of accreditation to assess the electricity load and the proposed method of supply for the development. The ASP scheme is administered by Energy NSW and details are available on their website via the following link or telephone 13 77 88:

<https://energy.nsw.gov.au/government-and-regulation/legislative-and-regulatory-requirements/asp-scheme-and-contestable-works> .



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Lot 9001 DP 1254656, Lot 9004 DP 1254656, Lot 9005 DP 1254656,

- Network Asset Design

Endeavour Energy's Company Policy 9.2.5 'Network Asset Design', includes the following requirements for electricity connections to new urban subdivision / development.

#### 5.11 Reticulation policy

##### 5.11.1 Distribution reticulation

In order to improve the reliability performance of and to reduce the operating expenditure on the network over the long term the company has adopted the strategy of requiring new lines to be either underground cables or where overhead is permitted, to be predominantly of covered or insulated construction. Notwithstanding this strategy, bare wire overhead construction is appropriate and permitted in some situations as detailed below.

In areas with the potential for significant overhanging foliage, CCT is used to provide increased reliability as it is less susceptible to outages from wind-blown branches and debris than bare conductors. CCT must only be used in treed<sup>2</sup> areas as the probability of a direct lightning strike is low. In open areas where the line is not shielded from a direct lightning strike, bare conductors must generally be used for 11kV and 22kV reticulation.

Non-metallic Screened High Voltage Aerial Bundled Cable (NMSHVABC) must be used in areas which are heavily treed and where it is not practicable to maintain a tree clearing envelope around the conductors.

<sup>2</sup> A "treed" area is one with a substantial number of trees adjacent to the line, in each span. In these situations CCT is used to provide increased reliability as it is less susceptible to outages from wind-blown

##### 5.11.1.1 Urban areas

Reticulation of new residential subdivisions will be underground. In areas of low bushfire consequence, new lines within existing overhead areas can be overhead, unless underground lines are cost justified or required by either environmental or local council requirements.

Where underground reticulation is required on a feeder that supplies a mixture of industrial, commercial and/or residential loads, the standard of underground construction will apply to all types of load within that development.

Where ducting is used, adequate spare ducts and easements must be provided at the outset to cover the final load requirements of the entire development plan.

Extensions to the existing overhead 11kV/22kV network must generally be underground. Bare wire will be used for conductor replacements and augmentations except in treed areas where CCT or NMSHVABC must be used.

Extensions to the existing overhead LV network and augmentations must either be underground or ABC. Conductor replacements greater than 100m in route length must utilise aerial bundled cable.

- Flooding and Drainage

Endeavour Energy has noted the following in the Statement of Environmental Effects.

#### 4.5 Shellharbour Local Environmental Plan 2013

SLEP provides the local planning controls for the site. The SLEP also establishes development permissibility and environmental constraints.

##### 4.5.7 Clause 6.3 Flood Planning

The objectives of Clause 6.3 Flood Planning are to minimise flood risk to life and property, while allowing development on land that is compatible with its flood hazard and to ensure development does not create significant adverse impacts on flood behaviour and the environment.

Assessment of the flood affectation on the site and surrounds has been undertaken as discussed at **Section 5.1**. The assessment identifies design criteria and controls to guide the proposed residential subdivision. The development includes design levels that minimise risk to life and property while ensuring off site impacts are also avoided.

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Lot 9001 DP 1254656, Lot 9004 DP 1254656, Lot 9005 DP 1254656,

Endeavour Energy requires the electricity network needed to service an area / development to be fit for purpose and meet the technical specifications, design, construction and commissioning standards based on Endeavour Energy's risk assessment associated with the implementation and use of the network connection / infrastructure for a flood prone site. Risk control has focused typically on avoiding the threat, but where this is not possible, reducing the negative effect or probability of flood damage to assets by implementing good design and maintenance practices.

Distribution substations should not be subject to flood inundation or stormwater runoff ie. the padmount substation cubicles are weatherproof not flood proof and the cable pits whilst designed to be self-draining should not be subject to excessive ingress of water. Section 7 'Substation and switching stations' of Endeavour Energy's Mains Construction Instruction MCI 0006 'Underground distribution construction standards manual' provides the following details of the requirements for flooding and drainage in new padmount substation locations.

*7.1.6 Flooding and drainage*

Substations are to be located such that the risk of flooding or stormwater damage is minimal.

As a minimum the level at the top of the transformer footing, HV and LV switchgear, shall not be lower than the 1:100 year flood level.

All drains within the substation site area or in the vicinity shall be properly maintained to avoid the possibility of water damage to Endeavour Energy's equipment.

In areas where, as determined by the Network Substation Manager, there is a high water table or a heightened risk of flooding, indoor substations will not be permitted.

All materials used in the construction below the substation (ground level) shall be capable of withstanding prolonged immersion in water without swelling or deterioration.



Figure 51 - Example substation raised above 1:100 flood level

- Earthing

The construction of any building or structure (including fencing, signage, flag poles, hoardings etc.) whether temporary or permanent that is connected to or in close proximity to Endeavour Energy's electrical network is required to comply with Australian/New Zealand Standard AS/NZS 3000:2018 'Electrical installations' as updated from time to time. This Standard sets out requirements for the design, construction and verification of electrical installations, including ensuring there is adequate connection to the earth. It applies to all electrical installations including temporary builder's supply / connections.



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Inadequate connection to the earth to allow a leaking / fault current to flow into the grounding system and be properly dissipated places persons, equipment connected to the network and the electricity network itself at risk from electric shock, fire and physical injury. The earthing system is usually in the form of an earth electrode consisting of earth rods or mats buried in the ground. It should be designed by a suitably qualified electrical engineer / ASP following a site-specific risk assessment having regard to the potential number of people could be simultaneously exposed, ground resistivity etc.

For details of the ASP scheme please refer to the above point 'Network Capacity / Connection'.

- Location of Electricity Easements / Prudent Avoidance

The incorporation of electricity easements into privately owned lots is generally problematic for both Endeavour Energy and the future landowners and requires additional easement management to ensure no uncontrolled activities / encroachments occur within the easement area.

Accordingly Endeavour Energy's recommendation is that whenever reasonably possible, easements be entirely incorporated into public reserves and not burden private lots. Endeavour Energy's preference is to have continuity of its easements over the most direct and practicable route affecting the least number of lots as possible.

This is also in keeping with a policy of prudent avoidance. In practical terms this means that when designing new transmission and distribution facilities, consideration is given to reducing exposure and increasing separation distances to more sensitive uses such as residential or schools, pre-schools, day care centres or where potentially a greater number of people are regularly exposed for extended periods of time.

These emissions are usually not an issue but with Council's permitting or encouraging development with higher density, reduced setbacks and increased building heights, but as the electricity network operates 24/7/365 (all day, every day of the year), the level of exposure can increase.

Endeavour Energy believes that irrespective of the zoning or land use, applicants (and Council) should also adopt a policy of prudent avoidance by the siting of more sensitive uses eg. the office component of an industrial building, away from and less susceptible uses such as garages, non-habitable or rooms not regularly occupied eg. storage areas in a commercial building, towards any electricity infrastructure – including any possible future electricity infrastructure required to facilitate the proposed development.

Where development is proposed in the vicinity of electricity infrastructure, Endeavour Energy is not responsible for any amelioration measures for such emissions that may impact on the nearby proposed development.

Please find attached a copy of Energy Networks Association's 'Electric & Magnetic Fields – What We Know' which can also be accessed via their website at <https://www.energynetworks.com.au/electric-and-magnetic-fields> and provides the following advice:

*Electric fields are strongest closest to their source, and their strength diminishes rapidly as we move away from the source.*

*The level of a magnetic field depends on the amount of the current (measured in amps), and decreases rapidly once we move away from the source.*

Typical magnetic field measurements associated with Endeavour Energy's activities and assets given the required easement widths, safety clearances etc. and having a maximum voltage of 132,000 volt / 132 kV, will with the observance of these separation distances not exceed the recommended magnetic field public exposure limits.

**PPSSTH-176 DA0276/2021 – Attachment 1**

**Lot 9001 DP 1254656, Lot 9004 DP 1254656, Lot 9005 DP 1254656,**

With the easing of the current COVID-19 health risk, whilst a significant number of Endeavour Energy staff are returning to the office they are at times still working from home. Although working from home, access to emails and other internal stakeholders can still be somewhat limited. As a result it may sometimes take longer than usual to respond to enquiries. Thank you for your ongoing understanding during this time.

Yours faithfully

Cornelis Duba

Development Application Specialist

Network Environment & Assessment

M: 0455 250 981

E: [cornelis.duba@endeavourenergy.com.au](mailto:cornelis.duba@endeavourenergy.com.au)

51 Huntingwood Drive, Huntingwood NSW 2148

[www.endeavourenergy.com.au](http://www.endeavourenergy.com.au)



**PPSSTH-176 DA0276/2021 – Attachment 1**

Lot 9001 DP 1254656, Lot 9004 DP 1254656, Lot 9005 DP 1254656,

**REASONS FOR THE IMPOSITION OF CONDITIONS**

1. To minimise any possible adverse environmental impacts of the proposed development.
2. To ensure that the amenity and character of the surrounding area is protected.
3. To ensure that the design and siting of the development complies with the provisions of Environmental Planning Instruments and Council's Codes and Policies.
4. To ensure that the development does not conflict with the public interest.

**Advisory Notes – Project Specific**

**Flooding Planning Level**

The Flood Planning Level (FPL) (1% AEP + 500mm Freeboard) is given in Figure 8.1 of the Shell Cove Boat Harbour Precinct- Precinct H Flood Assessment, 2021.

**Advisory Notes - General**

**Critical Stage Mandatory Inspections**

Mandatory inspections of the building work must be carried out by the Principal Certifier at various stages of construction in accordance with clause 162A of the Environmental Planning & Assessment Regulation 2021.

It is recommended that you discuss with your Principal Certifier the occasions when the building work is to be inspected prior to work commencing.

**Erection of Signs**

The principal contractor and the Principal Certifier will need to have a sign (or signs) erected and maintained on the development site that provides their name and contact telephone number (during and outside work hours for the principal contractor), and stating that unauthorised entry to the site is prohibited. The principal contractor and Principal Certifier can have separate signs or they can both use one sign if they choose.

A maximum penalty of 10 penalty units applies for failure to erect and maintain sign(s) detailing principal contractor and Principal Certifier identification

**Compliance with Building Code of Australia**

The development must comply with the Building Code of Australia and all related standards and legislation.

**SafeWork NSW**

The requirements of SafeWork NSW must be satisfied at all times.

**Failure to Comply with Consent**

Failure to comply with any of the conditions of consent may result in a Penalty Infringement Notice being issued against the owner/applicant/builder. Substantially greater penalties may be imposed by the Court for non-compliance.

**Lapsing of Development Consent**

In accordance with Part 4, Division 4.9, section 4.53 of the Environmental Planning & Assessment Act 1979, the development approval lapses five years after the approval date unless building, engineering or construction work relating to the building has physically commenced.

**Right to Appeal**

**PPSSTH-176 DA0276/2021 – Attachment 1**

**Lot 9001 DP 1254656, Lot 9004 DP 1254656, Lot 9005 DP 1254656,**

If you are dissatisfied with this decision, Part 8, Division 8.3, section 8.7 of the Environmental Planning & Assessment Act 1979 gives you the right to appeal to the Land & Environment Court within twelve months after the date on which you receive this notice.

**Review of Determination**

If you are dissatisfied with this decision, Part 8, Division 8.2 of the Environmental Planning & Assessment Act 1979 provides that you may request Council to review its determination. The request cannot be made after the time limit for making of an appeal under section 97 expires.

Division 8.2 of the Environmental Planning & Assessment Act 1979 does not apply to:

- a. a determination to issue or refuse to issue a complying development certificate
- b. a determination in respect of designated development
- c. a determination in respect of integrated development
- d. a determination made by the Council under Division 4 in respect of an application made by the Crown.

**To Vary Development Consent**

The plans and/or conditions of this consent are binding and may only be varied upon application to Council under section 4.55 of the Environmental Planning & Assessment Act 1979. The appropriate fee shall accompany the application and no action shall be taken on the requested variation unless and until the written authorisation of Council is received by way of an amended consent.

**Dial Before You Dig**

Underground assets may exist in the area that is subject to your application. In the interests of health and safety and in order to protect damage to third party assets, please contact Dial Before You Dig at [www.1100.com.au](http://www.1100.com.au) or telephone on 1100 before excavating or erecting structures (this is the law in New South Wales). If alterations are required to the configuration, size, form or design of the development upon contacting the Dial Before You Dig service, an amendment to the development consent (or a new development application) may be necessary. Individuals owe asset owners a duty of care that must be observed when working in the vicinity of plant or assets. It is the individual's responsibility to anticipate and request the nominal location of plant or assets on the relevant property via contacting the Dial Before You Dig service in advance of any construction or planning activities.

**Telecommunications Act 1997 (Commonwealth)**

Telstra (and its authorised contractors) are the only companies that are permitted to conduct works on Telstra's network and assets. Any person interfering with a facility or installation owned by Telstra is committing an offence under the Criminal Code Act 1995 (Commonwealth) and is liable for prosecution. Furthermore, damage to Telstra's infrastructure may result in interruption to the provision of essential services and significant costs. If you are aware of any works or proposed works which may affect or impact on Telstra's assets in any way, you are required to contact Telstra's Network Integrity Team on 1800810443.

**Development within Vicinity of a High Pressure Gas Main**

Contact Dial Before You Dig on 1100 or [www.dialbeforeyoudig.com.au](http://www.dialbeforeyoudig.com.au) Proposed works in the vicinity of any high pressure gas main must be directed to:

Jemena Asset Management Pty Ltd PO Box  
6507  
SILVERWATER NSW 2128

Attention: Land Services Department

**END OF NOTICE**