

## ORDER

### COURT DETAILS

Court Land and Environment Court of New South Wales  
Class 1  
Case number 10492 of 2012

### TITLE OF PROCEEDINGS

Applicant **Lend Lease Communities (Australia) Limited**  
  
First Respondent **Minister for Planning and Infrastructure**  
Second Respondent **Shellharbour City Council**  
Third Respondent **Wollongong City Council**

### DATE OF ORDER

Date made or given 23 September 2013  
Date entered 25 SEP 2013

### TERMS OF ORDER MADE BY THE COURT

The orders of the Court are that:

- 1 The appeal is upheld.
- 2 Approval is granted under s 75J(1) of the Environmental Planning and Assessment Act 1979 to the project application referred to in Schedule 1, and on the conditions referred to in Schedule 2 and the Statement of Commitments in Schedule 3 of the approval in Annexure A.
- 3 The exhibits, other than Exhibits 9, 20 and V, are returned.

### SEAL AND SIGNATURE

Court seal

Signature

Capacity Leonie Walton  
Acting Registrar

Date

25 SEP 2013



**NOTICE**

Subject to limited exceptions, no variation of a judgment or order can occur except on application made within 14 days after entry of the judgment or order.

**PERSON PROVIDING DOCUMENT FOR SEALING UNDER UCPR 36.12**

Name	<b>Lend Lease Communities (Australia) Limited, Applicant</b>
Legal representative	Paul Lalich, Allens
Legal representative reference	PNLS:NJSS:205490076
Contact name and telephone	Paul Lalich, (02) 9230 4026 Naomi Bergman, (02) 9230 5646
Contact email	Paul.Lalich@allens.com.au Naomi.Bergman@allens.com.au



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**Project Approval**  
**Section 75J(1) of the *Environmental Planning and Assessment Act 1979***

The Land and Environment Court of New South Wales **approves** the major project referred to in Schedule 1 subject to the conditions of approval in Schedule 2 and Statement of Commitments in Schedule 3.

23 September 2013



## SCHEDULE 1

### PART A — TABLE

Application made by:	Delfin Lend Lease
Application made to:	Minister for Planning and Infrastructure
Major Project Number:	09_0083
On land comprising:	Lot 1 DP 996926, Lot 6 DP 259137, and Lot 1 DP 194903
Local Government Area	Shellharbour City Council
For the carrying out of:	Stage 1 of Calderwood – including site preparation works, internal and external road works, landscaping, a sales and information centre, temporary community centre, signage and subdivision to create 231 residential allotments, 9 mixed use lots, 4 residue lots, 1 allotment for future substation, road, drainage and open space reserves.
Capital Investment Value	\$ 34,695,000
Type of development:	Project approval under Part 3A of the Act
Determination made on:	
Determination:	Project approval is granted subject to the conditions in the attached Schedule 2 and Statement of Commitments in Schedule 3.
Date of commencement of approval:	This approval commences on the date of the approval.
Date approval is liable to lapse	5 years from the date of determination unless specified action has been taken in accordance with Section 75Y of the Act.

### PART B — DEFINITIONS

In this approval the following definitions apply:

**Act** means the *Environmental Planning and Assessment Act, 1979* (as amended).

**Environmental Assessment** means the document titled Calderwood Stage 1 Project Application Report (All volumes and appendices) prepared by Cardno and dated March 2010.

**BCA** means the Building Code of Australia.

**Commission** means the Planning Assessment Commission or its successors.

**Council** means Shellharbour City Council.

**Department** means the Department of Planning and Infrastructure or its successors.

**Director General** means the Director-General of the Department.

**Minister** means the Minister for Planning and Infrastructure.

**NOW** means the New South Wales Office of Water or its successors.

**OEH** means the Office of Environment and Heritage or its successors.

**Planning for Bushfire Protection Guidelines** means the publication of NSW Rural Fires Services "Planning for Bushfire Protection 2006" as amended from time to time.

**Project** means development that is declared under Section 75B of the Act to be a project to which Part 3A of the Act applies.

**Proponent** means the person proposing the carrying out of development comprising all or any part of the project, or any party acting upon this approval, and includes persons certified by the Minister to be the proponent.



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**Regulations** means the *Environmental Planning and Assessment Regulation, 2000* (as amended).

**RMS** means Roads and Maritime Services.

**Statement of Commitments** means the Statement of Commitments (as they apply to this project) made by the Proponent.





## SCHEDULE 2

### CONDITIONS OF APPROVAL

MAJOR PROJECT APPLICATION NO. MP 09\_0083



#### PART A – ADMINISTRATIVE CONDITIONS

##### A1 *Development Description*

Project Approval is granted for Stage 1 of the Calderwood Development, including site preparation works, internal and external road works, landscaping, a sales and information centre, temporary community centre, signage and subdivision to create 231 residential allotments, 9 mixed use lots, 4 residue lots, 1 allotment for future substation, road, drainage and open space reserves.

##### A2 *Development in Accordance with Plans and Documentation*

The development shall be in accordance with the following plans, documentation and recommendations made therein:

Calderwood Urban Development Project Stage 1 – Project Application Report, prepared by Cardno dated March 2010, the Preferred Project Report prepared by JBA Planning dated August 2010, the Revised Preferred Project Report - Calderwood Urban Development Project Stage 1 prepared by JBA Planning dated February 2011, the draft Development Control Plan prepared by JBA Urban Planning Consultants dated 5 March 2013, and the Consolidated Stage 1 Project Application documentation prepared by JBA Planning dated March 2013 including the following:

- A. Draft Development Control Plan dated March 2013
- B. Stage 1 Project Application Revised Statement of Commitments – February 2011
- C. Deposited Plans – Issue Date: March 2010
- D. Detailed Site Survey – Issue Date: 22 February 2010
- E. Subdivision Plans Lend Lease - Issue E: 13 March 2013
- F. Lot Layout Plans Cardno – Rev 2: 14 March 2013
- G. Sub Staging Plan Lend Lease - Issue D: 13 March 2013
- H. Sales & Information Centre Plans Michael Marshman & Associates - Issue Date: 2 March 2013
- I. Display Village Plan and Billboards Plan Lend Lease - issue D: 13 March 2013
- J. Advertising Signs Concept Plan Lend Lease - Issue Date: March 2010
- K. Flood Mitigation Plan Cardno - Issue Date: 13 March 2013
- L. Stage 1 Cut and Fill Shading Layout Plan Cardno - Issue Date: 14 March 2013
- M. Stage 1 Development Area WSUD Plan Cardno - Issue Date: 13 March 2013
- N. Stage 1 Development Area WSUD Catchment Plan Cardno - Issue Date: 13 March 2013
- O. Clean Fill Bulk Earthworks Haul Route Plan Cardno - Issue Date: 11 October 2011
- P. Engineering and Creek Works Plans Cardno - Issue Date: March 2010
- Q. Tree Removal Plan Lend Lease - Issue D: 13 March 2013
- R. Landscape & Open Space Master Plan Environmental Partnership - Issue Date: 3 March 2010
- S. Bushfire Asset Protection Zone Plan Lend Lease - Issue D: 13 March 2013
- T. Bicycle Path Plan Lend Lease - Issue D: 13 March 2013
- U. Illustrative Cross Sections Lend Lease - Issue B 28 February 2013



- V. Calderwood Urban Development Project Stage 1 Management Plan dated 4 April 2011 (last saved on 7 April 2011) prepared by Eco Logical as amended by Plan FR10026-006-6031
- W. Consolidated Flood Impact Assessment Cardno – Calderwood Urban Development Project Stage 1, dated 26 March 2013
- X. Water Cycle & Flood Impact Assessment Cardno
  - Stage 1 Letter of Verification, March 2013
  - Stage 1 Flood Impact Statement Rev 3 March 2011
  - Stage 1 Project Application Water Cycle Management Study Design Report March 2010
- Y. Traffic Impact Assessment Cardno
  - Calderwood Project – Stage 1 PPR Addendum Traffic Impact Statement Update 8 February 2011
  - Calderwood Urban Development Project Stage 1 Project Application Traffic Impact Assessment 4 March 2010
- Z. Ecological Assessment
  - Stage 1 Letter of Verification, March 2013
  - Calderwood Stage 1, Assessment of ecological and riparian Impacts 9 February 2011
  - Calderwood Stage 1, Assessment of ecological and riparian Impacts 3 March 2010
- AA. Bushfire Assessment
  - Bushfire Protection Assessment of Revised Stage 1 residential subdivision – Part 3A Calderwood Urban Development Project 8 February 2011
  - Bushfire Protection Assessment of Stage 1 residential subdivision – Part 3A Calderwood Urban Development Project 28 February 2010
- BB. Geotechnical Assessment – Douglas Partners – Issue Date: March 2010
- CC. Yellow Rock Intersection Plan – Cardno – Issue Date: 14 March 2013
- DD. Zone Station Subdivision Plan – Cardno – March 2010
- EE. District Park Creek Civil Works Plan – Cardno – Issue Date: 14 March 2013

**A3 *Inconsistency between plans and documentation***

In the event of any inconsistency between conditions of this project approval and the plans and documentation referred to above, the conditions of this project approval prevail. In the event of any inconsistency between the plans and documents listed in condition A2 the latter dated document shall prevail to the extent of the inconsistency.

**A4 *Lapsing of Approval***

The project approval will lapse 5 years after the approval date in Part A of Schedule 1 of this project approval unless specified action has been taken in accordance with Section 75Y of the Act. For the purpose of this determination specified action means the physical commencement of works of the Stage 1 Calderwood Urban Development Project.

**A5 *Compliance with Relevant Legislation and Australian Standards***

The proponent shall comply with all relevant Australian Standards and Codes (including Building Code of Australia) and obtain all necessary approvals required by State and Commonwealth legislation in undertaking the project described in Condition A1, Part A, Schedule 2 of this approval.

**A6 *Approvals and Agreements***

If any of the terms of the approval specify that an agreement is to be made between the proponent and a government agency or council, all parties to the agreement are to act reasonably. If no agreement is reached within 3 months of the commencement of negotiations, the issue is to be referred to the Director-General for a resolution. Full details of the discussions and the dispute are to be provided in order for the Director-General to make a decision.



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## PART B - PRIOR TO THE ISSUE OF CONSTRUCTION CERTIFICATE

### **B1**      *Engineering Plans*

1. A detailed engineering design of the earthworks, drainage, roads, bridge and other infrastructure must be submitted to and approved by the Certifying Authority prior to the release of the relevant Construction Certificate. The plan must include detailed design of all proposed infrastructure in generally accordance with the plans and documents subject of this approval. Copies of all design drawings are to be submitted to Shellharbour City Council for information.
2. All submitted plan designs are to comply with relevant Australian Standards and AUSTRROAD publications.
3. All subdivision works must be in accordance with Shellharbour City Council Subdivision Code.
4. A site meeting with Council's Engineer (in relation to works proposed to be dedicated to the Council), the Certifying Authority and the works contractor must be held not less than 7 days prior to the commencement of subdivision and infrastructure work on site to discuss approval and construction program and delivery timetable.

### **B2**      *Construction Management Plan*

1. Prior to the issue of the relevant Construction Certificate, a Construction Management Plan shall be submitted to and approved by the Certifying Authority. The Plan shall include, but not be limited to, the following:
  - (a) hours of work;
  - (b) contact details of site manager;
  - (c) written notice to Council prior to commencement of works on site;
  - (d) integration of other management plans as required by this approval.
2. The Construction Management Plan shall document the proposed method of work within the construction site boundaries with regard to the health and safety of the public and affect on the road reserve, within the construction site boundaries on which work is to be undertaken, must be submitted to and approved by the Certifying Authority prior to the issue of the civil construction certificates.



### **B3**      *Stormwater Design*

1. A detailed drainage design of the Stage 1 site is to be submitted to and approved by the Certifying Authority prior to the release of the relevant Construction Certificate. The plan must indicate the method of disposal of all stormwater and must include existing ground levels, finished surface levels on all paved areas, estimated flow rates, invert levels and sizes of all pipelines.
2. The designs for stormwater detention basins (specifically the outlet structures) are to be developed in consultation with NSW Department of Primary Industries (Fisheries) to ensure that fish passage and fish habitat requirements are taken in to account.
3. Stormwater drainage and inter allotment drainage are to be designed for the critical flood event with an average recurrence interval of 1 in 5 years with satisfactory provision for safe passage or runoff generated by the critical flood event with an average recurrent interval of 1 in 100 years. The conveyance and discharge of runoff generated by the critical flood event with an average recurrent interval of 1 in 100 years may be over public land subject to creation of appropriate easements.
4. Pits must be located at all junctions, changes of grade or direction and installed at a maximum spacing of 80m along a length of pipe. All drainage pits should be self flushing and at the same level as the invert of the outlet pipe. This is to ensure rainwater does not pond within the stormwater system. All pits must have flush fitting grates. All pits larger than 600mm x 600mm are to be grated galvanised steel grid hinged and be heavy duty type where traffic loading is expected. Pits deeper than 0.9m must have step irons.

### **B4**      *Contamination*

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1. Supplementary investigations as identified by Douglas Partners (2010) (document "BB" listed in condition A2) are to be undertaken to provide further clarification on the likely extent of contamination issues.
  2. Following completion of the above supplementary investigations, a detailed Remedial Action Plan (RAP) is to be prepared to address any contamination found by the supplementary investigations required under this condition, in accordance with the recommendations of the supplementary investigations referred to in condition B4.1 for the endorsement of the nominated Site Auditor prior to implementation. A copy of the RAP is to be submitted to the Certifying Authority.
  3. Any remediation works required under the RAP within the proposed lands to be dedicated to Council shall be completed and a copy of the site audit statement issued by the Site Auditor is to be provided to the Certifying Authority and Council prior to dedication of the land to Council. The site audit statement is to demonstrate that the land has been remediated to the standard appropriate for its future use.

**B5 Acid Sulphate Soils**

1. A detailed acid sulphate soil investigation shall be undertaken by an appropriately qualified professional and approved by the Certifying Authority prior to the release of the relevant Construction Certificate to confirm that no acid sulphate soils exist to the proposed depth of excavation on either side of the Macquarie Rivulet.
2. In the event that acid sulfate soils are encountered, an Acid Sulfate Soil Management Plan must be prepared and submitted to the Certifying Authority prior to the issue of the relevant Construction Certificate. The Plan must be prepared in accordance with the *NSW Acid Sulfate Soil Manual 1998*. The Requirements of the Plan are to be implemented as relevant works are undertaken.

**B6 Groundwater**

1. A detailed groundwater investigation shall be undertaken by an appropriately qualified professional in consultation with NOW and approved by the Certifying Authority prior to the release of the relevant Construction Certificate.
2. The ground water investigation is to identify the groundwater table at the site, including at the locations of detention basins, and outline any required measures to be put in place to mitigate impact of the proposed works on groundwater.

**B7 Filling and Haulage**

Prior to the issue of a relevant Construction Certificate, the submission to and approval by the Certifying Authority of details for the disposal of any spoil gained from the site and / or details of the source of fill, heavy construction materials and proposed routes to and from the site.

**B8 Roads**

1. Prior to the issue of the relevant Construction Certificate for any works within an existing Council or RMS road reserve, design plans must be submitted to the relevant Road Authority for acceptance. Design plans shall be in accordance with the relevant published standards, or as otherwise agreed with the Roads Authority.
2. The bridge crossing of the Macquarie Rivulet is to be designed in accordance with Australian Standard AS5100-2004 "Bridge Design", the Austroads Bridge Design Code, and the Fish Passage Guidelines (Fish passage requirements for waterway crossings) (NSW Fisheries 2003).
3. The submission of a comprehensive road signage and pavement marking plan identifying parking restrictions, accesses and traffic management facilities to the Certifying Authority for approval by the Local Traffic/Development Committee prior to issue of the relevant Construction Certificate. The comprehensive road signage and pavement marking plan shall be in accordance with the relevant published standards, or as otherwise agreed with the Local Traffic/Development Committee.
4. The submission to the Certifying Authority and approval of the proposed names for the roads under the *Roads Act 1993* within the subdivision prior to issue of a commencement of construction works within that stage.
5. The upgrading of the existing Illawarra Highway and Yellow Rock Road Intersection is to be undertaken by the proponent as determined by the RMS. Design plans are to be approved by the RMS prior to the commencement of the relevant intersection works on the site.



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6. The bridge crossing of the Macquarie Rivulet is to be designed to provide flood free access or safe evacuation routes for the anticipated design flood events in Stage 1C to be carried out before the issue of the first occupation certificate for the area of development known as Stage 1A.

**B9 Sediment and Erosion Control**

1. Prior to the issue of a Construction Certificate, the submission to the Certifying Authority of design plans for the control of soil erosion on the relevant parts of the site and the prevention of silt discharge into drainage systems and waterways in accordance with Engineering Requirements for Development or Soils and Construction – Managing Urban Stormwater (Blue Book). Details are to include all major stages of construction and sequences of work together with treatments necessary at these stages. The design plans must be prepared by an appropriately qualified professional and approved by the Certifying Authority prior to issue of the relevant Construction Certificate.
2. The design plans must take into account the requirements of Landcom's publication 'Managing Urban Stormwater - Soils and Construction (2004)' also known as the 'Blue Book', and must be compatible with the construction management plan required by the conditions of this determination to satisfy the following objectives:
  - a. Minimize 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 identified on drawing titles Tree Removal Plan numbered C-DoP Part 3a App (O) Issue D as vegetation to be retained and identify revegetation techniques and materials.
  - e. Control surface water flows through the development construction site on a manner that:
    - (i) Diverts clean run-off around disturbed areas.
    - (ii) Minimises slope gradient and flow distance within disturbed areas.
    - (iii) Provides surface run-off occurs at non-erodible velocities.
    - (iv) Enables disturbed areas to be promptly re-stabilised and vegetated consistent with concepts of the Stage 1 Landscape Masterplan being Appendix R to the Project Application.
  - g. Trap sediment on site to prevent off site damage. Hay bales are not to be used as sediment control devices. Regular monitoring and maintenance of erosion and sediment control measures and rehabilitation works is to be undertaken until the site is stabilized (includes landscaping).
  - h. Specific measures to control dust generated as a result of construction activities on site.
  - i. Temporary sediment ponds must be fenced where the batter slope exceeds 1 vertical to 5 horizontal.
  - j. Design scour protection for the 100 year ARI event at all inlet and outlet structures.

**B10 Ecology and Re-vegetation**

1. Prior to the release of the first Construction Certificate and the undertaking of works on site the proponent is to update the following reports identified in condition A2 of this approval:
  - a. R - Landscape & Open Space Master Plan;
  - b. V - Calderwood Urban Development Project Stage 1 Management Plan and Vegetation Management Plans, and
  - c. Z - Ecological Assessment,to reflect the Plan of Subdivision – Use Issue E dated 13 March 2013. The updates are to be prepared in consultation with OEH.
2. The monitoring and reporting systems for the revegetation, bush regeneration and in-stream works outlined in the Ecological Report are to be put in place to the satisfaction of the Certifying Authority prior to issue of the relevant Construction Certificate.
3. The works outlined in 1 above are to be undertaken and supervised by a suitably qualified and experienced consulting ecologist, arborist and soil erosion consultant.



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4. Riparian corridors shall be retained in private ownership other than those areas shown on Plan of Subdivision – Use Issue E dated 13 March 2013 as being required for local drainage or public open space purposes. All public infrastructure, including pedestrian and cycleway paths, shall be designed accordingly.

### **B11 Landscaping**

1. The Landscape Masterplan prepared by Ecological (document "R" in condition A2) is to be updated to reflect the final subdivision boundaries shown on Plan of Subdivision – Use Issue E dated 13 March 2013 prior to the release of the first construction certificate.
2. Prior to the issue of the relevant Construction Certificate a Landscape Construction Plan is to be prepared in conjunction with the Council and submitted to and approved by the Certifying Authority which provides details and specifications on all relevant landscaping to be undertaken within roads, public domain, reserves, pedestrian links and the riparian corridors that are to remain in private ownership.

### **B12 Signage**

A maximum of three billboard signs are to be located on the site where it adjoins the Illawarra Highway. The signs at this boundary are to be positioned at the entrance of the site being the Illawarra Highway and Yellow Rock Road Intersection. All other billboard signs are to be undertaken in accordance with the Location of Advertising Signs plan submitted with the Display Village Plan and Billboards Plan Lend Lease - Issue D: 13 March 2013.

### **B13 Bushfire**

1. Asset Protection Zones (APZs) are to be nominated on the first construction certificate drawings and are to be applied as per 'Bushfire Protection Assessment – Calderwood Urban Development Project' prepared by Eco Logical Australia (ELA 2010) prior to release of the relevant subdivision certificate.
2. All APZs are to be established and maintained by the relevant landowner to achieve the performance objectives of an Inner Protection Area as described within 'Bushfire Protection Assessment – Calderwood Urban Development Project' prepared by Eco Logical Australia (ELA 2010) and the Planning for Bushfire Protection Guidelines. APZs are to be generally in accordance with Bushfire Asset Protection Zone Plan Lend Lease – Issue D: 13 March 2013. APZs are only permitted to be located in land that is to be dedicated to Council as shown on this Plan.
3. The public roads are to be constructed in accordance with 'Bushfire Protection Assessment – Calderwood Urban Development Project' prepared by Eco Logical Australia (ELA 2010) and Section 4.1.3(1) of the Planning for Bushfire Protection Guidelines.
4. Parking and hydrant locations are to comply with the respective road width requirements as listed in 'Bushfire Protection Assessment – Calderwood Urban Development Project' prepared by Eco Logical Australia (ELA 2010) and the provisions of Planning for Bushfire Protection Guidelines.
5. Reticulated water is to be provided throughout the subdivision in accordance with AS 2419-2005 'Fire hydrant installations – system design, installation and commissioning'. Hydrants are not to be located within any road carriageway and the provisions of parking and hydrant locations within Section 4.1.3(1) of the Planning for Bushfire Protection Guidelines are to be met.
6. The provision of electricity and gas is to be in accordance with Section 4.1.3 of the Planning for Bushfire Protection Guidelines.
7. The APZ shall be maintained in accordance with section 4.1.3 and Appendix 5 of Planning for Bushfire Protection in perpetuity and is the sole responsibility of the land owner. Landscaping and other ancillary development must not increase the bushfire risk.

### **B14 Waste Management Plan**

A Waste Management Plan must be submitted to and approved by the Certifying Authority. The Waste Management Plan must be prepared by an appropriately qualified professional and include strategies for waste avoidance and resource recovery. The Waste Management Plan is to be implemented during the construction phase

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**B15 Utilities - Electricity Supply**

Satisfactory arrangements are to be made with the relevant electricity provider for the provision of electricity supply to the development. Written confirmation of the arrangements from the relevant electricity provider is to be submitted to the Certifying Authority prior to the release of the first Subdivision Certificate for the development.

**B16 Roads & Maritime Services**

Prior to the issuing of the Construction Certificate, plans of the proposed drainage system, including details of the connection to the RMS' and Council's drainage system, and supporting information must be submitted to the RMS and Council for approval under section 138 of the *Roads Act 1993*.

The relevant application fees are to be paid in accordance with RMS relevant charges and the Council's *Fees & Charges* policy.

**B17 Retaining Walls**

1. All retaining walls must be designed and certified by a practising structural engineer and are to be detailed under the relevant Construction Certificate.
2. The certification is to be prepared post construction of the retaining wall to certify that the works have been carried out in accordance with the design.

**B18 Section 138 Roads Act 1993**

1. All works within an existing road reserve, shall be subject to the requirements of section 138 of the *Roads Act 1993* apply. In this regard:
  - a. if a driveway is proposed, a Driveway Application must be made, or
  - b. If any other works are proposed and/or occupation of the road reserve proposed, a Road Opening Application must be made.
2. Concurrent with the Construction Certificate, approval is to be obtained where it is proposed to:
  - a. pump concrete from within a public road reserve
  - b. stand a mobile crane within the public road reserve
  - c. use part of RMS or Council road/footpath area
  - d. pump stormwater from the site to RMS or Council stormwater drains
  - e. store waste containers, skip bins and/or building materials on part of RMS or Council footway or roadway.



The application must be made concurrent with the relevant construction certificate and prior to any works commencing within the road reserve. The applications are to be accompanied by the RMS or Council's *Fees and Charges*.

**B19 Dams, Basins and Water Bodies**

The design details submitted with the construction certificate are to document all proposed temporary and permanent dams, basins and water bodies. Council will not accept dedication of land containing any basin, dam or other water body that could be classified under the Dam Safety Act as a prescribed dam.

**B20 Inter-allotment drainage**

The design details submitted with the Construction Certificate are to document inter-allotment drainage to dispose of

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stormwater from those allotments that will not have fall to the street to which the lot fronts. Appropriate easements are to be created on the title of the lots burdened and registered with the plan of subdivision.

### **B21 Road Drainage Plans**

Road and drainage plans, prepared by a suitably qualified Engineer, in accordance with the approved Concept Plan, draft Development Control Plan and where not otherwise provided in these documents the Council's Standards (Subdivision Design Code), must be submitted to the Certifying Authority for approval prior to the release of the Subdivision Construction Certificate. All road and drainage work must then be constructed in accordance with Council's construction standards and approval at no cost to Council.

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

### **B22 Traffic Management Reports**

1. A Traffic Management Report must be submitted to the Certifying Authority with the Construction Certificate Application. The report must be prepared by a Chartered Professional Engineer with recognised traffic management experience and qualifications and must include:
  - a. estimated volumes of fill to be imported;
  - b. source of fill to be imported;
  - c. estimated truck movements and proposed transport routes; and
  - d. all truck movements to and from the site must be via the classified road network with access to the site only permitted from The Illawarra Highway and North Macquarie Road unless otherwise agreed to in writing by Roads Authority.
2. A Construction Traffic Management Plan (CTMP) must be prepared for any works for the development that impact on any public roads and public land for the construction phase of the development. The CTMP must be certified by a suitably qualified person and be submitted to the relevant Roads Authority for endorsement prior to issue of the Construction Certificate. All works must be conducted in accordance with this plan. The plan is to include the Traffic Management Plan and/or a Work Method Statement for any works or deliveries that impact the normal travel paths of vehicles, pedestrians or cyclists or where any materials are lifted over public areas.

### **B23 Geotechnical Report**

A Geotechnical Engineer's report must be submitted to the Certifying Authority with the Construction Certificate Application for the bulk earthworks. The report must be prepared by a Chartered Professional Engineer with professionally recognised geotechnical experience and must include (but not limited to):

- a. appropriate set of plans, on survey base, to confirm that no cut or fill works (with the exception of minor earthworks associated with the construction of the new road bridge) are to take place within the defined channel (i.e. the top of bank) of the Macquarie Rivulet;
- b. a comprehensive investigation of the site to ensure that the site and the proposed fill works will not be affected by or cause any areas of instability;
- c. specifications for type of fill material suitable for inclusion in fills at various depths;
- d. specifications for the preparation of fill bases to ensure that subsequent filling operations will be suitable and stable in the final constructed state;
- e. specifications on any special sub-surface drainage structures which may be required as a result of their investigations and the nature of the proposed fill sources and operations;
- f. the preparation of fill bases and operations under level 1 supervision, conduct appropriate compaction/moisture control testing and provide comprehensive reports detailing the results of such testing;



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- g. advice on the design parameters for any retaining walls and benching to be constructed on site (including lot sites);
  - h. advice on the appropriate soil classification for each lot to be created on site;
  - i. a comprehensive risk analysis investigation on likely mechanisms of failure and how this will be prevented;
  - j. an analysis of liquefaction impacts and how this will be prevented;
  - k. details of the recommended building constraints/restrictions that may be required on individual allotments (potentially detailed in an 88B instrument) to ensure suitable design and construction methods are utilised on site;
  - l. details on the constraints of the existing uncontrolled fill stockpile, how the material will be used, disposed of and sorted. Details of required quality control to be included; and
  - m. specifications for the preparation of fill bases to ensure that subsequent filling operations will be suitable and stable in the final constructed.

#### **B24 Site Management Plan**

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

- a. what actions are proposed to ensure safe access to and from the site and what protection will be provided to the road and footpath areas from building activities, crossings by heavy equipment, plant and materials delivery and static load from cranes, concrete pumps and the like;
- b. the proposed method of loading and unloading excavation machines, building materials and formwork within the site;
- c. the proposed areas within the site to be used for the storage of excavated material, construction materials and waste containers during the construction period;
- d. how it is proposed to ensure that soil/excavated materials is not transported on wheels or tracks of vehicles or plant and deposited on the roadway;
- e. the proposed method of support to any excavation adjacent to adjoining buildings or the road reserve. The proposed method of support is to be certified by an accredited certifier in Civil Engineering;
- f. traffic management plan indicating transport route(s) for importing fill and disposal of spoil; and
- g. total amount of fill to be imported for the proposed stage.

#### **B25 Effects on Downstream Landowners**

The Certifying Authority is to be satisfied (through the preparation of design details) prior to the release of the first Construction Certificate and prior to the commencement of earthworks on site that for flood events between 1 year and 100 year ARI, and for all storm durations, that the post development peak rate of flow passing downstream properties is not increased beyond exiting peak rates.

#### **B26 Design Refinements**

- 1. In order to:
  - a. Achieve no increase in flood levels off-site during a 100 year flood; and
  - b. Minimise off-site impacts in a PMF event such that the maximum increase does not exceed 0.3m,a refinement of the riparian vegetation proposals and/or the cut and fill proposals adjacent to the Macquarie Rivulet is to be undertaken prior to issue of the first Construction Certificate and prior to commencement of earthworks or vegetation removal on site.
- 2. This refinement and redesign as it relates to the riparian vegetation, erosion, sedimentation, and river bank stability aspects of the riparian corridor and floodway, is to be undertaken by appropriately qualified professionals to the





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satisfaction of the Director-General In consultation with the NSW Office of Water (NOW).

3. In order to demonstrate no off-site impacts consistent with paragraphs 1(a) and 1(b) above, written certification by an appropriately qualified professional is to be submitted to the Director-General with the design details referred to in paragraph 2 above.



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## **PART C — PRIOR TO AND DURING CONSTRUCTION**

### **C1 Construction Certificate**

The relevant Construction Certificate is to be issued by the Certifying Authority prior to commencement of any works. The application for this Certificate is to satisfy all of the requirements of the Regulations.

### **C2 Pre Works Dilapidation Report**

A dilapidation report must be submitted to relevant Road Authority prior to the commencement of any works which require the use of or may impact on the road network external to the site. The report must document and provide photographs that clearly depict any existing damage to the road, kerb, gutter, footpath, driveways, water supply, sewer works, street trees, street signs or any other public assets along any route that is to be used.

### **C3 Hours of Construction**

All building work shall be restricted to within the hours of 7.00 am to 7.00 pm Monday to Friday, and on Saturday to within the hours of 8.00 am to 5.00 pm inclusive, with no work on Sundays and Public Holidays, without prior approval from the relevant authority.

### **C4 Approved Plans to be On Site**

A copy of the approved and certified plans, specifications and documents incorporating conditions of approval and certification shall be kept on the site at all times and shall be readily available for review by the Certifying Authority

### **C5 Erosion and Sediment Control**

All erosion and sediment control measures as required in Part B of this determination, are to be effectively maintained at or above design capacity for the duration of the construction works and until such time as all ground disturbed by the works has been stabilised and rehabilitated so that it no longer acts as source of sediment.

### **C6 Dust Control Measures**

The proponent shall ensure that dust suppression is undertaken in the form of constant water spraying or other natural based proprietary dust suppressant to ensure that dust caused by vehicles moving along the road and/or within the site does not cause a nuisance to surrounding properties to the satisfaction of the Certifying Authority.

### **C7 Waste Management**

All waste generated by the development shall be disposed to a facility that is lawfully permitted to receive such waste. Hazardous materials including asbestos shall be handled and disposed of in accordance with WorkCover requirements and relevant Australian Standards. Any asbestos waste generated by the development must be disposed of in accordance with the requirements of clause 42 of the *Protection of the Environmental Operations (Waste) Regulation 2005*.

### **C8 Aboriginal Relics**

If Aboriginal engravings or relics are unearthed during construction, all work within the vicinity of the site is to cease immediately and the National Parks and Wildlife Service must be notified. Works may only recommence following endorsement for such from OEH.

### **C9 Vegetation to be retained**

Trees and native vegetation proposed for retention as documented under condition B10 are to be clearly identified on all the final approved engineering plans. All construction contractors and personnel are to be advised of the importance of conserving these No Go Areas as part of their site and OH&S induction program. No clearing of trees or vegetation or storage of vehicles, fill or materials or access is to occur within retained areas.

### **C10 Disconnection of Utilities**



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Contact must be made with service providers such as Sydney Water, Energy, Telecommunication and street lighting 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 at the cost of the developer.

### **C11 Road Construction and Road Drainage Construction**

1. Arrangements are to be made during the construction phase and prior to completion for inspections by the Certifying Authority and Shellharbour City Council of the following works:
  - a. all road drainage works prior to backfilling of the work, and
  - b. all road construction inspections in accordance with Council's *Subdivision Design Code*.
2. Geotechnical testing is to be undertaken of the works to verify that the pipe trench bedding and backfill complies with the requirements for HS3 bedding/backfill.



### **C12 Cut and Fill**

1. All lot and site filling must be performed under level 1 Geotechnical supervision in accordance with AS 3798-1996 or subsequent amendments.
2. 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° (1:1) where there is no retaining wall or no other method of stabilising the cut/fill area
  - d. not exceed 1m in depth outside the external walls of a building, unless otherwise approved in writing by the Certifying Authority.
3. Prior to the commencement of relevant works, the applicant must provide a report to the Certifying Authority identifying the proposed methods of placing, stabilising and compacting all fill material in accordance with relevant Australian Standards. The report must include the required frequency and details of all testing and inspections to be carried out.
4. Prior to any fill material being placed on site, the owner or contractor must provide the Certifying Authority and Council with a report detailing the confirmed traffic routes and estimated truck movements.
5. All imported fill must be certified by a Geotechnical Engineer in accordance with relevant guidelines as being suitable for the use and long term use of the site (residential development). Certification must be provided to the Certifying Authority before placing the material. A log detailing the source and quantity of all fill material imported to the site must be maintained and be available for inspection upon request.
6. All fill placed on the site must be placed, inspected and tested in accordance with the requirements of the Geotechnical Engineer. Certificates verifying that this has been carried out must be provided to the Certifying Authority within seven days of each inspection.
7. The location of cut and fill adjoining the Macquarie Rivulet must be undertaken in accordance with the requirements of the Geotechnical Engineer and as set out in the Geotechnical Report prepared under condition B.23. Certificates verifying that this has been carried out must be provided to the Certifying Authority within seven days of each inspection.

### **C13 Storage of Materials**

Building materials and equipment must be stored above the 100 year ARI flood level + freeboard (500mm) and must not be stored on the road reserve/footpath area.

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**C14 Street Lighting**

1. A Public Lighting Design Brief is to be submitted to the Certifying Authority for approval with a copy provided to the Council for the provision of street lighting on all new public roads to be dedicated to Council.
2. 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 installation of the street lighting.
3. All street lighting must comply with Endeavour Energy Street Lighting Policy and illumination requirements.
4. All costs associated with the installation of street lighting must be borne by the developer.

**C15 Allotments Construction Level**

All developable allotments must be constructed at or above 1% AEP flood level plus 500mm freeboard, including for climate change.

**C16 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 Certifying Authority prior to the placement of pavement material. Alternatively, the services crossings may be under bored.





## PART D – PRIOR TO SUBDIVISION CERTIFICATE

### D1 Certificate

1. An application for a Subdivision Certificate must be submitted to and approved by the Certifying Authority prior to endorsement of the plan of subdivision.
2. The submission to the Certifying Authority of documentation to demonstrate full compliance with all approval conditions in accordance with section 157 Clause 2 (f) of the Regulation prior to issue of the relevant Subdivision Certificate.
3. Prior to the issue of the Subdivision Certificate, the following easements must be identified on the final plan of subdivision and included in the 88B Instrument to the satisfaction of the Certifying Authority:
  - a. restriction as to user on all lots burdened by an Asset Protection Zone that the setback area of each lot that forms part of a bushfire Asset Protection Zone, must be provided in accordance with the Bushfire Protection Measures proposed. No residential dwelling is permitted within land identified as an Asset Protection Zone, and
  - b. restriction as to user that no building may be erected on any lot burdened by bush fire risk unless that building has been designed to meet the construction standards (and any other measures) required by NSW RFS Planning for Bushfire Protection and AS 3959. For the purpose of this restriction, AS 3959 means the Australian Standard: Construction of Buildings in Bushfire Prone Areas (AS3959) 2009.
4. Prior to the issue of the Subdivision Certificate a revised draft Bush Fire Prone Land Map shall be produced showing all Asset Protection Zones and Bush Fire Prone Land within the subdivision and shall include the following:
  - a. Statement that clarifies and certifies that the changes to the Maps are in accordance with the *Planning for Bush Fire Protection Guidelines* and *Guideline for Bush Fire Prone Land Mapping NSW Rural Fire Service*. See [http://www.rfs.nsw.gov.au/dsp\\_content.cfm?CAT\\_ID=900](http://www.rfs.nsw.gov.au/dsp_content.cfm?CAT_ID=900). Such statement shall be undertaken by a suitably qualified and experienced bush fire consultant.
  - b. Maps to be provided shall include the final layout of the subdivision and as a separate layer in .dxf or .dwg format.
5. Documentation verifying that all waste streams were managed in accordance with the Waste Management Plan/s must be provided to the Certifying Authority prior to the issue of a Subdivision Certificate. All records, such as waste disposal docketts or photographic evidence, must be retained by the Certifying Authority.
6. Prior to issue of the relevant Occupation or Subdivision Certificate the Certifying Authority must be provided with a Certificate from a Geotechnical Engineer verifying that all fill material provided over the entire site has been inspected, tested and found to have been placed in accordance with relevant Australian Standards and is structurally adequate for the proposed use.

### D2 State Infrastructure Contributions

Prior to the issue of the relevant Subdivision Certificate, the contributions required for State Infrastructure, as set out in the Planning Agreement between Delfin Lend Lease and the Minister dated 3 March 2011, are to be paid in accordance with the terms of that agreement.

### D3 Dedication of Local Open Space

1. The areas of local open space shown as local and district parks on the Revised Subdivision Use Plan App E issue E dated 13 March 2013 are to be dedicated to at no cost to the Council on a stage by stage basis in accordance with the Revised Sub-Staging Plan APP G issue D dated 13 March 2013.
2. All landscaping and embellishment of local open space shall be completed prior to dedication to Council and maintained to the satisfaction of Council by the proponent for a period of three years after dedication.

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**D4 Dedication of Drainage Allotments**

1. The areas of land required for drainage shown on the Revised Subdivision Use Plan App E issue E dated 13 March 2013 are to be dedicated at no cost to the Council on a stage by stage basis in accordance with the Revised Sub-Staging Plan APP G issue D dated 13 March 2013.
2. All proposed works and construction of drainage infrastructure on these lands shall be completed prior to dedication to Council and maintained to the satisfaction of Council by the proponent for a period of three years after dedication.

The final subdivision boundaries being subject to the refinement of engineering design, with the areas for dedication remaining consistent with the area nominated in this condition.

**D5 Services**

Prior to the issue of a Subdivision Certificate the following service arrangements are to be made and submitted to the Certifying Authority for approval.

1. The applicant is to negotiate relevant servicing arrangements with Sydney Water and seek Sydney Water prior approval for any connections to Sydney Water systems. A Section 73 Compliance Certificate under the Sydney Water Act 1994, should be obtained prior to the issue of the relevant subdivision certificate.
2. A letter from an approved telecommunications service provider that satisfactory arrangements have been made for underground telephone services to all proposed allotments in the subdivision, including any necessary easements.
3. A letter from an approved electricity provider stating that satisfactory arrangements have been made for electricity supply to all proposed allotments in the subdivision, including any necessary easements.
4. A letter from an approved gas provider stating that satisfactory arrangements have been made for gas supply to all proposed allotments in the subdivision, including any necessary easements.

**D6 Post Works Dilapidation Report**

Any damage not shown in the Dilapidation Report submitted to the Certifying Authority before site works had commenced, that have been caused as a result of the site works undertaken and must be rectified at the proponent's expense, prior to end of the 12 month Defects Liability period.

**D7 Landscaping**

To ensure landscaping works referred to in Condition B7 are properly completed, the landscape designer must provide certification to the Certifying Authority certifying that landscaping has been implemented in accordance with the approved landscape plan, prior to issue of an Occupation Certificate. Where Council is not the Certifying Authority, a copy of the certificate must be provided for Council's records.

**D8 Works As Executed Plans**

Prior to issue of the Subdivision Certificate, one (1) full set of works as executed plans, and other supporting documentation including further studies and revised plans required by this approval, shall be submitted to Council for information purposes only.

**D9 Registration of the Vegetation Management Plan**

Prior to the issue of the Subdivision Certificate the works identified in the revised Vegetation Management Plans referred to in condition B10 are to be undertaken and the Vegetation Management Plans are to be registered on the titles of the applicable lots. The boundaries of the riparian corridor as defined in the Vegetation Management Plan are to be clearly demarcated on the associated survey plan.

**D10 Road Dedication**

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





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2. At the time immediately prior to proposed roads becoming a designated gazetted public road an inspection is to be undertaken by Council to determine that the road is in satisfactory condition and in accordance with the Construction Certificate. The road is to be handed over to Council at no cost to Council prior to issue of the Subdivision Certificate.

**D12 Traffic Committee - Signposting and Line Marking Plan**

Written acceptance of the work undertaken under the Signposting and Line Marking Plan must be obtained from the Council's Traffic Committee prior to issue of the Subdivision Certificate.

**D13 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. A copy of the CCTV inspection must be recorded on video tape and submitted to the Certifying Authority prior to the release of the Subdivision Certificate. Damaged pipes must either be replaced or repaired to the Certifying Authority's satisfaction prior to the issuing of a Subdivision Certificate.

**D14 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 *Subdivision Design Code* and are suitable for all possible future development. This must include appropriate test results, and test location diagram and date of testing;
- d. Certification that all recommendations contained in geotechnical reports lodged in support of this development have been satisfied;
- e. The exact extent of any restricted building zones or any other restrictions affecting any of the allotments. Particular attention must be paid to the location of drainage lines, which must be burdened with a title restriction in the Section 88B Instrument,
- f. identification of all land affected by landslip or instability constraints (if applicable) and
- g. verify that the pipe trench bedding and backfill complies with the requirements for HS3 bedding/backfill.

**D15 Final Plan**

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

- a. an application for a Subdivision Certificate;
- b. a satisfactory final plan of subdivision, an electronic copy and six paper prints together with an original 88B Instrument and two paper copies for endorsement by the Certifying Authority. All sections of the plan, the signatures and seals section of the plan, including the original and copies, (except for the General Manager's date and signature) must be completed prior to lodging the plan.

The electronic copy should be in Map Grid of Australia 1994 Zone 56 (GDA94) coordinates and must contain closed line work of boundaries and easements.

It can be submitted in DXF, DWG, DGN or MapInfo TAB format. This requirement is dependent on the



complexity of the Subdivision and is at the discretion of the Subdivision & Development Officer or the Manager Land & Geographic Information Systems, Shellharbour City Council.

- c. fees appropriate at the time of submission of the application.

#### D16 Flood Risk Management

Prior to the release of the Subdivision Certificate mapping of flood planning risk precincts is to be prepared for all areas inundated in the probable maximum flood (PMF) consistent with:

- a. Section 2.3 of the Council's Floodplain Risk Management Development Control Plan dated April 2006, for areas within the Shellharbour local government area; or  
 b. the relevant document in place at the time of the application.



### PART E – LOCAL INFRASTRUCTURE CONTRIBUTIONS

#### E1 Local road and other infrastructure works

1. Prior to the issue of a Subdivision Certificate, the monetary contributions set out in the following table must be paid to the relevant Council in accordance with the provisions of Section 94 of the Act. The contributions set out below are to be recalculated during September each year in accordance with movements in the Chain Price Index for Non-Dwelling Building and Construction (CPI), published by the Australian Bureau of Statistics and may be varied with written agreement with Council.

Council	Facilities	Cost per dwelling
Wollongong City Council	Marshall Mount Road [TMAP Items 22, 23, 24 and 36 and Section 11 Bus stops and Bus Shelters]	\$1,188.00
	Yallah Road	\$132.00
		Total Wollongong contribution: \$1,320.00
Shellharbour City Council	Albion Park Bypass [TMAP Items 14, 15, 16 and 30]	\$1,236.48
	City Wide open space facilities	\$362.24
	City Wide community facilities	\$1,263.76
	Section 94 management	\$28.62
		Total Shellharbour contribution: \$2,891.10

#### E2 Temporary Community Centre

1. A temporary community centre of between 125-150 m<sup>2</sup> in gross floor area is to be constructed generally in accordance with the Sales and Information Centre Plans prepared by Michael Marshman & Associates dated 02/03/2010.
2. The temporary community centre is to be open within 18 months of the issue of the one hundredth and first occupation certificate for a residential dwelling within the Calderwood Urban Development Project Stage 1 Project site and is to continue operation until the proponent has delivered a permanent facility that meets the reasonable demand of the Calderwood Project generally in accordance with Condition C12(a) of the approved Calderwood Concept Plan MP09\_0082 and is operational elsewhere within the Calderwood Urban Development Project site.

#### E3 Dedication and Embellishment of Local Open Space

1. A total of 2.65 hectares of land for open space is to be embellished and dedicated to Shellharbour City Council free of cost on a stage by stage basis. The land to be dedicated for open space is to comprise those areas shown as Local Parks and District Park on the Revised Subdivision Use Plan issue E dated 13 March 2013 namely:



- a. Two Local Parks of a total of 0.82 hectares (Local Parks L8 and L11); and
- b. One District Park of 1.83 hectares (District Park D4).

The land to be dedicated as open space is to be free of drainage infrastructure and be suitable for the intended open space purpose.

2. A plan detailing the proposed design, landscaping and embellishment of drainage and open space areas to be dedicated to Council in accordance with Council's published standards or as otherwise agreed with Council shall be submitted to and approved by the Council prior to the issue of the relevant Construction Certificate for the works. If no approval has been issued by the Council to the plan or agreement reached on the scope of the work to be undertaken within 3 months of submission of the information to Council, the dispute is to be referred to and decided by the Director General.
3. A Landscape Construction Plan which provides details and specifications on all relevant landscaping works to be undertaken to the land that is to be dedicated for open space is to be submitted to and approved by the Certifying Authority prior to the issue of the relevant Construction Certificate. The works are to be consistent with the design for the landscaping and embellishment of open space referred to in condition 2 above as approved by the Council or the Director-General as may be required.
4. All landscaping and embellishment of local open space shall be completed prior to dedication to Council to the satisfaction of Council and maintained to the satisfaction of Council (or equivalent to Council's published standards) by the proponent for a period of 3 years from dedication.
5. To ensure landscaping works referred to in condition B11 are properly completed, the landscape designer must provide certification to the Certifying Authority that landscaping has been implemented in accordance with the approved landscape plan referred to in condition 2 above prior to issue of any Occupation Certificate for the creation of the lot to be dedicated in relation to the relevant sub stage of the development. Where Shellharbour Council is not the Certifying Authority, a copy of the certificate must be provided for Shellharbour Council's records.

#### **E4 Dedication of Drainage Allotments and Construction of Drainage Infrastructure**

1. A total of 13.53 hectares of land required for drainage comprising those areas shown as Local Drainage on Revised Subdivision Use Plan Issue E dated 13 March 2013 is to be dedicated to Council free of cost on a stage by stage basis. The final subdivision boundaries being subject to the refinement of engineering design, with the areas for dedication remaining consistent with the area nominated in this condition.
2. A detailed engineering design of the drainage infrastructure is to be submitted to and approved by the Certifying Authority prior to the release of the relevant Construction Certificate consistent with the terms of this approval.
3. A detailed drainage design of the Stage 1 site must be submitted to and approved by the Certifying Authority prior to the release of the first Construction Certificate for subdivision works. The plan must indicate the method of disposal of all stormwater and must include existing ground levels, finished surface levels on all paved areas, estimated flow rates, invert levels and sizes of all pipelines. Designs for stormwater detention basins (specifically the outlet structures) are to be developed in consultation with NSW Department of Primary Industries (Fisheries) to ensure that fish passage and fish habitat requirements are taken into account.
4. All proposed works and construction of drainage infrastructure on the land to be dedicated to the Council as identified at Condition 1 above shall be completed to the Council's satisfaction, or equivalent to Council's published standards, prior to dedication to Council. The dedication to be free of cost to the Council. The land and works are to be maintained to the satisfaction of Council by the proponent for a period of 3 years after dedication.
5. To ensure drainage works are properly completed, an appropriately qualified engineer must provide certificate to the Certifying Authority that drainage infrastructure has been constructed in accordance with the approved engineering design, prior to issue of a Subdivision Certificate for the relevant sub stage of the development. Where Shellharbour Council is not the Certifying Authority, a copy of the certificate must be provided for Shellharbour Council's records.

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## ADVISORY NOTES

### AN1 **Requirements of Public Authorities for Connection to Services**

The proponent shall comply with the requirements of any public authorities (e.g. Energy Australia, Sydney Water, Telstra Australia, AGL, etc.) in regard to the connection to, relocation and/or adjustment of the services affected by the construction of the proposed structure. Any costs in the relocation, adjustment or support of services shall be the responsibility of the proponent.

### AN2 **Roads Act, 1993**

A separate application for approval under Section 138 of the *Roads Act, 1993* shall be made to undertake any of the following:

- (1) erect a structure or carry out a work in, on or over a public road, or
- (2) dig up or disturb the surface of a public road, or
- (3) remove or interfere with a structure, work or tree on a public road, or
- (4) pump water into a public road from any land adjoining the road, or
- (5) connect a road (whether public or private) to a classified road.

### AN3 **Stormwater Drainage Works or Effluent Systems**

Works that involve water supply, sewerage and stormwater drainage work or management of waste as defined by Section 68 of the Local Government Act, 1993 require separate approval by Council under Section 68 of that Act. Applications for these works must be submitted on Council's standard Section 68 application form accompanied by the required attachments and the prescribed fees.





Subject	Commitment	Responsibility / Timing
Bicycle Paths	<p>9</p> <p>The detailed design of roads and detailed construction engineering drawings submitted with any relevant Construction Certificate will incorporate bicycle paths into relevant road reservations and into open space and parklands (where these lands are to be held in public ownership) generally in accordance with the bicycle paths shown on the Revised Bicycle Path Plan included at Appendix F of the Stage 1 Revised Project Application Preferred Project Report prepared by JBA Urban Planning Consultants dated February 2011, in accordance with the Development Control Strategy Road Typology Standards.</p> <p>The bicycle path shown dotted red on the Revised Bicycle Path will only be provided if the land on which it is located is dedicated for a public purpose in the future.</p>	To be detailed at the relevant Construction Certificate stage
Acid sulphate soils	<p>10</p> <p>During the detailed design process, potential conflict with Potential Acid Sulphate Soils / Acid Sulphate Soils will be avoided wherever possible by adoption of the following site specific management strategies:</p> <ul style="list-style-type: none"> <li>- Avoiding any disturbance of PASS by adjusting the design invert levels for the wetlands;</li> <li>- Ensuring, where possible, the design maintains a significant depth of water and soil cover over PASS to prevent acid generation;</li> <li>- Maintain a minimum water level in the wetlands by installing water level control devices. (This aims to dilute any acidity, and contain any acidity in the soil profile by maintaining a relatively constant watertable level around the wetland);</li> <li>- The potential strategic addition of limestone/recycled concrete to the wetland to neutralise any acidity that either enters the wetland or forms in the wetland;</li> <li>- Monitor water and spoil during construction ;</li> <li>- Neutralise excavated material if necessary with fine aglime; and</li> <li>- Ongoing Monitoring of wetland for Identified period immediately following construction.</li> </ul>	To be certified at the relevant Construction Certificate stage
Groundwater	<p>11</p> <p>During detailed design and construction activities a suitably qualified PCA will certify that wetland base levels are appropriately positioned relative to the level of the ground water table, lining of wetlands has been provided if necessary, and, should the base of the wetlands intercept the groundwater table, then the groundwater table will be temporarily lowered to facilitate construction.</p>	To be demonstrated by the proponent at the time of any relevant detailed application
Fill	<p>12</p> <p>Imported fill used in the area of Stage 1 works will be VENM</p>	To be certified at the relevant Construction Certificate stage
Design	<p>13</p> <p>The detailed engineering, subdivision and landscape design of relevant future development will be generally in accordance with the following included in the Stage 1 Project Application Revised Preferred Project Report prepared by JBA dated February 2011:</p> <ul style="list-style-type: none"> <li>- Revised subdivision plans included at Appendix A;</li> <li>- Revised Cut and Fill Plan included at Appendix B; and</li> <li>- Revised Flood Mitigation Plan Included at Appendix C.</li> </ul> <p>The detailed engineering, subdivision and landscape plans submitted with the EAR prepared by Cardno dated March 2010 will be updated in accordance with the above prior to the release of the relevant Construction Certificate.</p>	To be demonstrated at the relevant Construction Certificate stage
	<p>14</p> <p>Subsequent design and construction of Floodway within catchment 03 located north of North Macquarie Road, and the construction of the North Macquarie Road Crossing will be in accordance with the design principles and parameters established in the Design Report prepared by Cardno dated March 2010, included at Appendix F of the Stage 1 Project Application Report prepared by Cardno dated March 2010.</p>	To be demonstrated by the proponent in the construction certificate applications
Staging	<p>15</p> <p>Future sub staging of the proposed Stage 1 development will be generally consistent with the Revised Sub Staging Plan prepared by Delfin Lend Lease included at Appendix H of the Stage 1 Project Application Revised Preferred Project Report prepared by JBA dated February 2011.</p>	To be demonstrated by the proponent in the construction certificate applications



Flora and Fauna	16	During the construction phase, a suitably qualified arborist will be engaged to assess individual trees shown on the Tree Removal Plan included at Appendix D of the Stage 1 Project Application Revised Preferred Project Report as "Subject to review" for potential retention during detailed engineering design.	To be detailed at the relevant Construction Certificate stage
	17	Non-trenching technologies will be considered for the construction of the sewerage rising main.	During the construction design of the sewerage rising main.
	18	A detailed Environmental Management Plan will be prepared to manage impacts during the construction period.	Prior to the issue of construction certificate
	19	A Vegetation Management Plan will be prepared for each of the identified 'lifestyle' lots that include land that is zoned E3 Environmental Management in accordance with Commitment 35 of the approved Calderwood Urban Development Project Concept Plan. The land will be maintained in accordance with the Vegetation Management Plan, under covenant.	Prior to the issue of the relevant occupation certificate relating to the identified lots
Bushfire	20	Bushfire Asset Protection Zones are to be provided in accordance with the Stage 1 Revised APZ Plan included at Appendix E of the Stage 1 Project Application Revised Preferred Project Report prepared by JBA Urban Planning Consultants dated February 2011.	To be detailed at the relevant Construction Certificate stage
	21	The public roads are constructed in accordance with 'Bushfire Protection Assessment – Calderwood Urban Development Project' prepared by Eco Logical Australia (ELA 2010) included in the Concept Application EAR prepared by JBA Urban Planning Consultants Pty Ltd dated March 2010 and Section 4.1.3(1) of Planning for Bushfire Protection guidelines considering that the Stage 1 development does not contain 'perimeter' roads	Prior to the issue of construction certificate
	22	Parking and hydrant locations to comply with the respective road width requirements as listed in 'Bushfire Protection Assessment – Calderwood Urban Development Project' prepared by Eco Logical Australia (ELA 2010) and Planning for Bushfire Protection guidelines;	Prior to the issue of construction certificate
	23	Reticulated water is to be provided throughout the subdivision in accordance with AS 2419-2005 'Fire hydrant installations – system design, installation and commissioning'. Hydrants are not to be located within any road carriageway and the provisions of parking and hydrant locations within Section 4.1.3(1) of Planning for Bushfire Protection guidelines are to be met;	Prior to the issue of construction certificate
	24	The provision of electricity and gas is to be in accordance with Section 4.1.3 of Planning for Bushfire Protection guidelines.	Prior to the issue of construction certificate
Erosion	25	Prepare soil and erosion protection plan and undertake remedial works during construction to minimise erosion at the straightened channel of Macquarie Rivulet.	Plans prepared prior to issue of Construction Certificate. Works to be carried out as part of the construction
Detailed Bulk Earthworks Plan	26	A detailed bulk earthworks plan will be prepared based on detailed construction design to confirm: <ul style="list-style-type: none"> <li>• Final earthworks volumes</li> <li>• The extent of imported/exported materials</li> <li>• Mechanisms of importing/exporting materials onto and out of the site</li> </ul>	Prior to the issue of construction certificate when detailed plans are finalised
	27	Temporary stockpiling of materials directly associated with the development will be restricted within the boundary of the application site.	Prior to the issue of construction certificate when detailed plans are finalised
Construction Management Plan	28	A Construction Management Plan to address waste management and waste minimisation during implementation of stage 1 will be prepared prior to the issue of the construction certificates.	Prior to the issue of construction certificate when detailed plans are finalised
Temporary community centre	29	The Proponent will construct a temporary community centre of approximately 125 m2 in area, in 2-3 stages commensurate with community need, within the Stage 1 development, prior to the first residential occupant residing on site. The temporary community centre will be provided until the permanent community centre is constructed.	Prior to the issue of the first residential occupation certificate.

