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## STATEMENT OF ENVIRONMENTAL EFFECTS

### Proposed New Dwelling 2A RUSKIN ROWE, AVALON

Prepared for Development Application Submission Aug 2019



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## 1. THE SITE, EXISTING CONDITIONS + CONTEXT

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The subject site is a single Torrens Title lot with an area of 2536m<sup>2</sup>. It is a corner block with an overall east-west orientation. The property is accessed from Ruskin Rowe and Avalon Parade. Ruskin Rowe is on the southern side of the site and Avalon Parade is on the eastern side. The north and west boundaries abut neighbouring single dwelling lots at the same relative level. The property currently contains a single storey weatherboard and metal roofed residential dwelling against the northern boundary with a carport at the north-east corner. There is an existing timber deck spanning across a creek which divides the block from the western side to the south-east corner and a partly above ground swimming pool and timber deck to the southern side of the creek. Vehicle access to the site from Avalon Parade is via a concrete driveway. The surrounding properties are single dwellings.

<b>Location</b>	2A Ruskin Rowe Avalon
<b>Property Description</b>	Lot 1, Deposited Plan 22361
<b>Site Area</b>	2536m <sup>2</sup>
<b>Council Zoning</b>	E4 Environmental Living
<b>Site Dimensions</b>	North side boundary - 66.173m East street boundary – 16.621m plus south/east arc of 19.110m South street boundary – 78.410m West side boundary 39.186m
<b>Site Description + Context</b>	<p>The site is irregular in shape with two street frontages to the east and south linked by a curved corner. Pedestrian access is from the southern Ruskin Rowe frontage and vehicle access is from the eastern Avalon Parade frontage.</p> <p>The land slopes down slightly from both the north and south to a creek which runs from the western side boundary through the centre of the block towards the street corner at the south-east.</p> <p>Properties surrounding 2A Ruskin Rowe to the north and west are low density residential – refer to <i>Adjoining Properties</i> below for further detail.</p>
<b>Existing Use</b>	<p>2A Ruskin Rowe is currently occupied by a single dwelling, with timber weatherboard walls and colourbond steel roof.</p> <p>Located in the front yard to the south of the house is an in ground swimming pool with timber deck surround.</p> <p>There is a freestanding single storey carport located in the garden in the south-eastern corner of the property. A driveway extends down toward the east from the carport to Avalon Parade. There is also a separate home office building in the north west corner of the property.</p>
<b>Heritage Status</b>	The property is not individually heritage listed but is located within the Ruskin Rowe Conservation Area.
<b>Bushfire Status</b>	The property is not Bushfire Prone Land.
<b>Floodprone Land</b>	The property is Flood Prone Land.

**Landscape Amenity**

The existing property has substantial lawn and garden areas which are dominated by tall cabbage tree palms, angophoras and other native trees. The house and gardens are centred around the existing creek which runs through the property. The block is characterized by its built form of pavilions amongst trees.

The existing house is located along the northern side of the site with decks and swimming pool between it and Ruskin Rowe. The main volume of the house is on the northern side of the creek as are the existing home office building and carport. The main deck bridges the creek and the pool and pool deck are on the southern side of the creek. There are other small timber bridges across the creek to facilitate movement around the large site.

The garden contains a mixture of exotic and native trees notably a large Angophora Costata on the southern boundary and a number of mature Livistona Australis palms. The palms are generally located along the line of the creek and give a distinctive character to the site. There is a large Jacaranda Tree in the southeast corner of the site. There are additional Angophoras and Eucalypts in the Ruskin Rowe nature strip.

Most of the large trees and mature plants are located to the perimeter and the eastern side of the site and along the creek. The area to the western side of the existing house and deck is more open with extensive existing lawn.

The creek bed level is quite depressed compared to the surrounding ground level – approximate 2-3 metres below general ground level with steep edge banks which are planted with ferns and similar plants. The creek banks are degraded and require some stabilisation and rehabilitation works.

**Services**

The house is connected to existing power, telephone, gas, water and sewer services.

**Adjoining Properties**

***97 Avalon Parade***

The property to the northern side is a freestanding single storey weatherboard residence with a hipped colourbond roof. It has a pyramidal carport to its south eastern side accessible via a driveway from Avalon Parade. The block is roughly triangular in shape narrowing to the rear garden.

The side of the dwelling is close to the its southern boundary and only 2-3 metres from the existing house at 2A Ruskin Rowe.

The rear of the dwelling has a similar setback from the rear boundary as the main house at 2A Ruskin Rowe.

There is a more formal garden with hedging etc at the front of the house and the rear garden is an informal 'natural' character. The properties are separated by timber dividing fences.

***2 Ruskin Rowe***

The property to the western side is a freestanding two storey, brick residence with a metal skillion roof.

The front of the dwelling is set back approximate 5.5 metres from Ruskin Rowe.

The rear of the dwelling is located approximately 12m to the western boundary of 2A Ruskin Rowe. The rear garden is an informal 'natural' garden which has many large mature trees including cabbage tree palms. There is a timber paling fence separating the two properties.

**Locality Map** *not to scale*



## 2 THE PROPOSAL

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The proposal is to demolish the existing dwelling and out buildings and construct a new pavilion style house while retaining the existing swimming pool and some of the existing external decks.

The new house will be constructed in a pavilion style with a number of linked single story skillion roofed buildings and one small double story section. This is to retain the existing character of the site and locality as pavilions amongst trees on either side of the existing creek and centred on the existing timber deck.

The main part of the house contains bedrooms, bathrooms living and dining areas with an additional lounge space on the upper level.

There are separate buildings containing additional bedrooms and bathrooms, a home office, a gymnasium and a garage.

### **Garage + Driveway AHD 11.700 (outside floodway)**

A new garage is to be constructed in the northeast corner of site to utilize the existing driveway and crossover to Avalon Parade. This garage will be constructed with non-solid lower walls to enable the passage of flood waters but still enable the containment of vehicles during a flood event even though the garage is located outside the floodway.

### **Main House structure AHD 13.260 to 13.450 (PMF 13.230 – 13.440)**

The ground level of the main part of the new house is designed to connect well to the existing pool and deck. It contains two bedroom wings connected by central entry, kitchen, living, dining and lounge spaces. The entry is central to the main wing and is accessed from Ruskin Rowe utilising an existing site entry point and retaining existing sandstone gate pillars. The existing pool and pool deck are retained with modifications to the pool interior and new fencing. The main timber deck is retained with some modifications including new links and access steps and a new sheltered barbeque area and retractable sunshade. The upper level is accessed via a stair from the dining room to the lounge space above.

### **Bedroom Pavilion AHD 13.285 (PMF 13.285)**

The bedroom pavilion located to the north of the creek and existing deck contains three bedrooms, one with ensuite bathroom and the other two with a shared bathroom. It is to the north of the main part of the house and is accessed via steps from the existing deck. It also contains a covered deck and spa pool.

### **Home office AHD 12.910 (PMF 12.910)**

The home office pavilion located to the eastern side of the main part of the house is a single room office space accessed via steps from the existing deck and also accessed from the driveway at the east of the site.

### **Gymnasium AHD 13.505 (?)**

The gymnasium pavilion is a single room in the same location as the existing home office which is to be demolished. It is accessed via an existing bridge and new stairs.

### **Built form**

The new house is designed as a series of pavilions with low skillion roofs. The small two-story section over the dining room has a double butterfly roof. The pavilion building forms are intended to break up the scale of the building on the site staying well under the 8.5m height control line and enabling the existing and new landscaping to dominate the site. The majority of the existing cabbage tree palms are to be retained as are many other trees on the site which all contribute to the overall effect of pavilions in a bushland / garden setting.

The buildings are well set back from the street frontages allowing space to retain and enhance the heavily treed nature of the site.

### 3 PLANNING CONTROLS

**Site Description**

2A Ruskin Rowe Avalon  
Lot 1, Deposited Plan 22361  
Site Area 2356 m<sup>2</sup>

**Local Council Controls**

Northern Beaches Council – Pittwater LEP 2014 Northern Beaches Council - Pittwater 21 DCP  
Refer to detailed PLEP 2014 and P21 DCP controls analysis below.

### COUNCIL CONTROLS ASSESSMENT

#### PLEP 2014 CONTROLS

PLEP 2014 Item	Control	Compliance		Comments
		Technical / Performance		
PLEP 2.3 Zoning	E4 Environmental Living	✓	✓	Single dwelling house. Complies with the control.
	<p>To provide for low-impact residential development in areas with special ecological, scientific or aesthetic values.</p> <p>To ensure that residential development does not have an adverse effect on those values.</p> <p>To provide for residential development of a low density and scale integrated with the landform and landscape.</p> <p>To encourage development that retains and enhances riparian and foreshore vegetation and wildlife corridors.</p>			<p>The proposed development is for a pavilion style single house on a large site in accordance with the requirements of the control. The proposal is mostly single storey, uses lightweight construction which requires minimal excavation or site works and reduces overall material used in the construction.</p> <p>The house has been designed in accordance with the requirements of this control the Ruskin Rowe Conservation Area controls and other relevant provisions to ensure the relevant aesthetic and ecological values are maintained. Materials and finishes are sympathetic to the locality and surrounding environment.</p> <p>The proposal is for a low density dwelling fully integrated into the landscape of the site.</p> <p>The development has been designed to retain and enhance the riparian zone and the natural environment of the site. New landscaping will increase the flora on the site which may also improve the habitat and encourage an increase in local fauna.</p>
PLEP 4.1 Lot Size	Existing Site area 2356m <sup>2</sup>	✓	✓	Existing. No change proposed.



PLEP 2014 Item	Control	Compliance Technical / Performance		Comments
PLEP 4.3 Height of Buildings	Maximum height permitted 8.5m	✓	✓	All parts of the building including the two storey section are well under the 8.5m height line. Refer drawing below

The drawing is a detailed architectural elevation of a building's north side. It features a two-story section on the left and a single-story section on the right. A dashed red line across the top indicates the '8.5m height control line'. The building's roof has a pitch of 10°. Various structural elements are labeled, including 'VC' (vertical cladding), 'TS' (timber slat), 'FCP' (fibre cement plaster), 'AL' (aluminum), and 'CP' (copper). Elevation markers include '+0.000' for the first floor, '+0.260' for the living area, and '+0.920' for the ground level. The drawing also shows a 'new timber bridge over creek' and an 'existing timber deck over creek'. A 'gas fire place' is indicated in the center. The background shows a creek and some trees, including a 'Cabbage Tree Palm 'Livistona'' to be retained.

NORTH ELEVATION SHOWING HEIGHT CONTROL LINE



PLEP 2014 Item	Zoning / Control	Compliance Technical / Performance		Comments
<b>PLEP Schedule 5 &amp; DCP P21 Appendix 2 Heritage Item / Area</b>	Yes Ruskin Rowe Conservation Area	N/A	✓	The important considerations in relation to Ruskin Rowe Conservation area are lot size, proposed building form and maintaining the domination of vegetation over buildings which has been achieved. Refer to Heritage Impact Statement
<b>PLEP 5.11 Bushfire Affected Land</b>	No	N/A	N/A	Not bushfire affected land
<b>PLEP 7.1 Acid Sulfate Soils</b>	Yes (Class 5) Works within 500 metres of adjacent Class 1, 2, 3 or 4 land that is below 5 metres Australian Height Datum and by which the water table is likely to be lowered below 1 metre Australian Height Datum on adjacent Class 1, 2, 3 or 4 land.	✓	✓	Geotechnical engineer advises that: 'The preliminary assessment indicates that the proposed works involve only minor excavation for new footings and will not lower the groundwater, whilst the site is well above 5m AHD. Therefore further investigation and an ASS management plan are not considered necessary. However as the site meets some of the geomorphic criteria that indicate likelihood of the presence of ASS, it is recommend that geotechnical inspection of all footing excavations occur to confirm excavated soil conditions. Refer to Geotechnical Assessment Report.
<b>PLEP 7.3 Flood Planning</b>	Yes Development consent must not be granted to development on land to which this clause applies unless the consent authority is satisfied that the development: (a) is compatible with the flood hazard of the land, and (b) will not significantly adversely affect flood behaviour resulting in detrimental increases in the potential flood affectation of other development or properties, and (c) incorporates appropriate measures to manage risk to life from flood, and (d) will not significantly adversely affect the environment or cause avoidable erosion, siltation, destruction of riparian vegetation or a reduction in the stability of river banks or watercourses, and (e) is not likely to result in unsustainable social and economic costs to the community as a consequence of flooding.	✓  ✓ ✓  ✓ ✓  ✓	✓  ✓ ✓  ✓ ✓  ✓	Noted. Flood study report has been prepared which demonstrates the following:  (a) The proposed development is compatible with the flood hazard of the land as indicated in the <b>Flood Study &amp; Risk Assessment Report pp 5, 19, 23</b>  (b) The proposed development will not significantly adversely affect flood behaviour resulting in detrimental increases in the potential flood affectation of other development or properties as shown in the <b>Flood Study &amp; Risk Assessment Report pp 5, 19, 23</b>  (c) The proposed development incorporates appropriate measures to manage risk to life from flood ( <b>Refer to Flood Study &amp; Risk Assessment Report pp 19-23</b> )  (d) The proposed development will not significantly adversely affect the environment or cause avoidable erosion, siltation, destruction of riparian vegetation or a reduction in the stability of river banks or watercourses. ( <b>Refer to Biodiversity Impact Assessment p39</b> )  (e) The proposed development is not likely to result in unsustainable social and economic costs to the community as a consequence of flooding ( <b>Refer to Flood Study &amp; Risk Assessment Report pp 5, 19, 23</b> )

**P21 DCP 2014 CONTROLS**

P21 DCP Item – Applicable Controls	Objectives	Compliance Technical / Performance		Comments
<b>B3.13 Flood Hazard – Flood Emergency Response</b>	<b>Control 1a – Flood Risk Emergency Assessment</b> Requires the preparation of a Flood Risk Emergency Assessment report for the evacuation strategy as outlined in <a href="#">Appendix 15 - Flood Emergency Response Planning for Development in Pittwater Policy. Shelter-in-Place</a>	✓	✓	Complies. Refer to Shelter in Place Plan in Flood Study & Risk Assessment Report pp21-23
	<b>Control 1b - Flood Risk Emergency Assessment</b> Requires the preparation of a Flood Risk Emergency Assessment report addressing the shelter-in-place requirements as outlined in <a href="#">Appendix 15 - Flood Emergency Response Planning for Development in Pittwater Policy.</a>	✓	✓	Complies. Refer to Shelter in Place Plan in Flood Study & Risk Assessment Report pp21-23
	<b>Control 2 - Minimum Floor Level</b> Minimum floor level equal to the PMF flood event for shelter-in-place refuge	✓	✓	Complies. Refer schedule in Flood Study & Risk Assessment Report p15
	<b>Control 3 - Floor Space Requirement</b> Minimum floor space of the shelter-in-place refuge is: 2 m <sup>2</sup> per person is required for all long duration flooding in a PMF event unless it can be shown the development lies within an area only inundated for a “short duration” (less than 6 hours in the PMF); or, 1 m <sup>2</sup> per person is required for shelter-in-place refuge impacted by	✓	✓	Complies  Minimum area is provided based on a 6hr flood event in accordance with <b>Flood Study &amp; Risk Assessment Report p11</b>

P21 DCP Item – Applicable Controls	Objectives	Compliance Technical / Performance		Comments
	<p>short duration flooding in a PMF event.</p> <p><b>Control 4 - Accessibility</b> Shelter-in-place refuge must be:</p> <ul style="list-style-type: none"> <li>• Intrinsically accessible to all people on the site, plainly evident, and self-directing, with sufficient capacity of access routes for all occupants.</li> <li>• There must be sufficient time for all occupants to access shelter-in-place refuges, with fail safe access provided with no reliance on elevators. Flood warning systems should be considered where the number of occupants is significant.</li> </ul> <p><b>Control 5a - Building Stability</b> Structural stability of the building is to be verified by a suitably qualified structural engineer considering lateral flood flow, buoyancy, suction effects, and debris load impact of the 1% AEP design flood depths and velocities.</p> <p><b>Control 5b - Building Stability</b> Structural stability of the building is to be verified by a suitably qualified structural engineer considering lateral flood flow, buoyancy, suction effects, and debris load impact of PMF design flood depths and velocities.</p>	<p>✓</p> <p>✓</p> <p>✓</p>	<p>✓</p> <p>✓</p> <p>✓</p>	<p>Complies</p> <p>Complies as each part of building can act as Shelter-in-place refuge.</p> <p>Building will be designed by structural engineer to meet this specification</p> <p>Building will be designed by structural engineer to meet this specification</p>

P21 DCP Item – Applicable Controls	Objectives	Compliance Technical / Performance		Comments
	<p><b>Control 6a – Serviceability</b> For developments with long duration flooding regions unless it can be shown the development lies within this region but is only inundated for a “short duration” (less than 6 hours in the PMF) shelter-in-place refuge is to provide:</p> <ul style="list-style-type: none"> <li>• Sufficient clean water for all occupants; and</li> <li>• Portable radio with spare batteries; and</li> <li>• Torch with spare batteries; and</li> <li>• First Aid Kit.</li> </ul>	✓	✓	Complies. Water will be provided at each location
<b>B4.22 Preservation of trees and bushland vegetation</b>	Development is to be sited and designed to minimise the impact on remnant native vegetation, including canopy trees and understorey vegetation, and on remnant native ground cover species.	✓	✓	The development has been sited to minimise the impact on all vegetation on site particularly native vegetation, trees and stands of cabbage tree palms. The architectural and landscape plans have been designed to fully integrate the built form into the existing landscape and to enhance the natural environment. <b>Refer to the Landscape Plan and report.</b>
	Where the applicant demonstrates that no reasonable alternative design exists and a tree must be removed, suitable compensatory tree planting is required. Details including proposed species and the location of replacement planting are to be provided.	✓	✓	It is intended to removed only six trees of the twenty nine trees on site. Six replacement trees will be provided as shown on the Landscape Plan.

P21 DCP Item – Applicable Controls	Objectives	Compliance Technical / Performance		Comments
	Development must also avoid any impact on trees on public land.	✗	✓	The proposal requires the removal of 6 small trees/shrubs on the Ruskin Rowe frontage 5 of which are exotic species. <b>Refer Arboricultural Impact Assessment &amp; Landscape Plan</b>
	Where trees proposed to be retained may be affected by the construction of new buildings and works of Classes 1 and 10, a Tree Protection Plan as per Appendix 19 (P21DCP) is to be submitted.	✓	✓	A tree protection plan has been prepared and is submitted as part of this application. <b>Refer Arboricultural Impact Assessment</b>
<i>Additional points made by Landscape officer in Pre DA meeting minutes</i>	<i>An Arboricultural Impact Assessment to document the impact upon the existing trees from the proposed development from excavation and construction activities, shall be provided. Impact to adjoining properties vegetation is unacceptable, and loss of trees within the road reserve is to be avoided where possible.</i>	✓	✓	An Arboricultural Impact Assessment has been prepared and submitted as part of this application. <b>Refer Arboricultural Impact Assessment</b>
	<i>The Arboricultural Impact Assessment is required to provide clarification on which trees are to be retained or proposed for removal.</i>	✓	✓	The Arboricultural Impact Assessment clearly indicates which trees are retained and which are proposed for removal. This is also shown on the Landscape Plan. <b>Refer Arboricultural Impact Assessment &amp; Landscape Plan</b>
	<i>The Arboricultural Impact Assessment report shall indicate the impact of development upon the existing trees, and for any existing tree on adjoining properties located 5 metres from the site (building and associated excavation zones).</i>	✓	✓	The Arboricultural Impact assessment indicates the impact on all trees as required. <b>Refer Arboricultural Impact Assessment &amp; Landscape Plan</b>
	<i>Development impact shall be outside of the structural root zone, and impact to the tree protection zone, for trees</i>	✓	✓	Development impact has been limited to areas outside the structural root zone through building layout and design and structural design.

P21 DCP Item – Applicable Controls	Objectives	Compliance Technical / Performance		Comments
	<p><i>retained, shall be limited to satisfy AS4970-2009.</i></p> <p><i>The report shall be prepared by a qualified Arborist (Minimum AQF Level 5) and shall cover assessment of excavation and construction impacts upon the SRZ and TPZ, tree protection requirements, and recommendations.</i></p> <p><i>Recommendations shall include the setback distance from each tree where no construction impact is to occur to ensure the long term retention of the tree.</i></p> <p><i>The Arboricultural Impact Assessment shall contain a Tree Protection Plan to demonstrate how existing trees/palms to be retained will be protected during demolition and excavation works, and shall provide the following information:</i></p> <ul style="list-style-type: none"> <li>• <i>Layout of the proposed development</i></li> <li>• <i>Location of trees/palms identified for retention</i></li> <li>• <i>Extent of canopy spread</i></li> <li>• <i>Location of tree protection fencing / barriers (fencing in accordance with AS2470 – 2009)</i></li> <li>• <i>General tree protection measures</i></li> </ul>	<div>✓</div> <div>✓</div> <div>✓</div> <div>✓</div>		<p>The report has been prepared by Selena Hannon who is a qualified Arborist AQF 5 as required and covers assessment of the excavation and construction impacts on the SRZ and TPZ tree protection requirements and includes setback requirements from each relevant tree.</p> <p>The Arboricultural Impact Assessment contains a Tree Protection Plan which demonstrates how existing trees / palms will be protected during demolition and excavation works and includes all the components listed here in this control. <b>Refer Arboricultural Impact Assessment</b></p>



P21 DCP Item – Applicable Controls	Objectives	Compliance Technical / Performance		Comments
<b>B5.1 Water Management Plan</b>	<p>The Water Management Plan is to clearly demonstrate that the proposed works, including any modifications to the creek will not impair the ecological function and stability of the waterway on site and properties up and downstream. References to the flood report are imperative due to the nature of flooding on this site.</p> <p>The Water Management Plan is to be clearly drafted, of a minimum 1:200 scale, showing the development, surface contours to AHD, all components of the Integrated Water Management System, and the proposed development. The Water Management Plan is to be professionally drafted and capable of being electronically scanned.</p> <p>The Water Management Plan must clearly nominate the location, the direction of water flow between system elements, and integration of all components in the Water Management System.</p> <p>The Water Management Plan is also to be accompanied by supporting Assessment Reports and documentation by an appropriately qualified and accredited Professional Engineer, where required, relevant to the proposed Water Management System.</p>	✓	✓	Refer to the Water Management Plan prepared by NB Consulting Engineers.

P21 DCP Item – Applicable Controls	Objectives	Compliance Technical / Performance		Comments
	All Water Management System components must be located on private lands except for the discharge line to the public stormwater system.			
<b>B5.8 Stormwater Management - Water Quality - Low Density Residential</b>	Pre-screening of organic matter (eg leaf litter) prior to the collection of rainwater in the rainwater tank A water quality filtration basket or equivalent primary treatment	✓	✓	Pre-screening of organic matter will be fitted to water tanks to filter out leaf litter etc, refer to Stormwater Management Plan.
	Stormwater Quality Improvement Device (SQID) to collect leaf litter and course sediments is to be installed prior to the discharge of stormwater from the land.	✓	✓	
<b>B5.11 Stormwater Discharge into Waterways and Coastal Areas</b>	<i>If a new outlet discharging stormwater to the creek is intended, it must comply with B5.11 Stormwater Discharge into Waterways and Coastal Areas.</i>	✓	✓	There will be at least one new outlet discharging stormwater to the creek and it will be designed to comply with the provisions of B5.11.

P21 DCP Item – Applicable Controls	Objectives	Compliance Technical / Performance		Comments
<b>B5.12 Stormwater Drainage Systems and Natural Watercourses</b>	The design of stormwater systems for the property is to demonstrate through a water level and flow assessment that:	✓	✓	Stormwater systems have been designed to ensure compliance with all the provisions of B5.12 Stormwater Drainage Systems and Natural Watercourses.
	<ul style="list-style-type: none"> <li>The proposed development does not have an adverse impact on adjoining properties through diversion, concentration or damming of such flows;</li> </ul>	✓	✓	<p>As the site includes a natural watercourse a Water Management Plan has been submitted.</p> <p>The Flood Management Report states that 'no adverse flooding effects are envisaged to occur within neighbouring properties due to the proposed development should the recommendations herein be adopted.' <b>Refer to Flood Management Report p5</b></p>
	<ul style="list-style-type: none"> <li>The proposed development accommodates the passage of overland flow through the site and where applicable illustrates that the proposed development is designed to withstand damage due to scour, debris or buoyancy forces so that the risk of incidental damage is minimised;</li> </ul>	✓	✓	The proposed development will be designed to accommodate the passage of overland flow through the site including to withstand damage due to scour, debris or buoyancy forces in accordance with engineer's recommendations.
	<ul style="list-style-type: none"> <li>The proposed development is not sited where flows will create a hazardous situation for future occupants in terms of depth and velocity of flows through the property;</li> </ul>	✓	✓	The proposed development is not sited where flows will create a hazardous situation to future occupants. Each separate structure will be designed in accordance with 'shelter in place' provisions. <b>Refer to Flood Management Report</b>
	<ul style="list-style-type: none"> <li>Floor levels within the development are set to comply with the freeboard requirements as set out in Flood Risk Management Policy;</li> </ul>	✓	✓	The floor levels of the development have all been set to comply with the freeboard requirements of the Flood Risk Management Policy. <b>Refer to Flood Management Report</b>

P21 DCP Item – Applicable Controls	Objectives	Compliance Technical / Performance		Comments
	<p>The proposed development is compatible with any future mitigation strategies to be implemented by Council in terms of such overland flows.</p> <p>Council requires that the riparian corridor is enhanced (B5.12) through the establishment of appropriate building setbacks from the top of bank and re-establishment of a core riparian zone.</p>	<p>✓</p> <p>✓</p>	<p>✓</p> <p>✓</p>	<p>The proposed development has no impact on current or possible future flood mitigation strategies in relation to overlands flows as indicated in the Flood Management Report.</p> <p>As noted in the Biodiversity Impact Assessment the proposal complies with the LEP requirement to: Encourage development that retains and enhances riparian and foreshore vegetation and wildlife corridors.</p>
<b>B5.13 Development on Waterfront Land</b>	<p>Any waterfront land (as defined in the <i>Water Management Act 2000</i>) on a the property shall be retained in their natural state to: carry stormwater/flood flows, maintain aquifers, retain stability, and provide habitat functions.</p> <p>Natural or artificially modified water courses cannot be diverted onto adjoining lands, filled, channelised and/or dammed.</p> <p>Waterfront land in a degraded state, should be restored and rehabilitated.</p> <p>Development within waterfront land shall incorporate appropriately sized riparian corridor zones into the design based on <i>Controlled Activities on Waterfront Land: Guideline for outlet structures on waterfront land</i> (NSW Office of Water, July 2012).</p>	<p>✓</p> <p>✓</p> <p>✓</p> <p>✓</p>	<p>✓</p> <p>✓</p> <p>✓</p> <p>✓</p>	<p>The existing creek and creek bank will be retained, stabilised and rehabilitated in accordance with Ecological and Engineering Consultants recommendations.</p> <p>There will be no diversion of the existing creek.</p> <p>The creek banks will be retained, stabilised and rehabilitated in accordance with Ecological and Engineering Consultants recommendations.</p> <p>All development will be in accordance with the Ecological Consultant's recommendations.</p>

P21 DCP Item – Applicable Controls	Objectives	Compliance Technical / Performance		Comments
<b>Additional specific requirements/points of clarification provided by the Development and Flooding Engineer minuted at the Pre DA meeting</b>	1. On-site stormwater detention (OSD) will not be required for the proposed development.	N/A	N/A	Noted
	2. A Flood Management Report is required to assess the appropriateness of the development and to demonstrate compliance with the LEP, DCP and flood prone land design standards. Guidelines to undertake this can be found on Council's website.	✓	✓	A Flood Management Report has been prepared by NB Consulting and is submitted as part of this application. <b>Refer to Flood Management Report</b>
	3. Development shall not be approved unless it can be demonstrated in a Flood Management Report that it complies with the Flood Prone Land Design Standard.	✓	✓	The <b>Flood Management Report</b> demonstrates that the development complies with the Flood Prone Land Design Standard and can therefore be approved.
	4. A1 - The Flood Prone Land Design Standard states that the development has been designed and can be constructed so that in a 1% AEP flood event:			
	(a) There is no net loss of flood storage/ floodway;	✓	✓	The proposed development does not alter the floodway.
	(b) There are no adverse changes in flood levels and velocities caused by alterations to the flood conveyance;	✓	✓	<b>Flood Management Report</b> confirms there are no adverse changes in flood levels and velocities 'The associated modelling indicates no significant increase in the flood depth or flood velocity as a result of the proposed development' (p19)
	(c) There are no adverse effects on surrounding properties; and	✓	✓	Flood Management Report confirms there are no adverse effects on surrounding properties 'A 2D HEC-RAS analysis of the existing and proposed development conditions indicated that no significant increase in flow depth or velocity occurs through neighbouring properties' (p18)

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	(d) <i>It is sited to minimise exposure to flood hazard.</i>	✓	✓	Report confirms that development is sited to minimise exposure to flood hazard <i>'It is envisaged that the new dwelling will not be affected by overland flows up to the 1% AEP storm event'</i> (p19)
	5. <i>Flood extents, levels, depths and velocities at the site have been determined in the Public Works Manly Hydraulics Laboratory (2017), Avalon to Palm Beach Floodplain Risk Management Study and Plan. If the applicant proposes to use this model they must demonstrate the suitability of the model for the site, check its accuracy and show that it has adequately determined flows in the existing stream.</i>	✓	✓	The methodology used in the report was HEC_RAS RD and was approved by Duncan Howley on 8 April 2019, <i>'the use of the higher resolution HEC-RAS 2D including cutting the channel cross section is supported for this assessment'</i> This methodology is fully described in Flood Management Report Sections as follows: <ul style="list-style-type: none"> <li>• 2.1 Methodology</li> <li>• 2.2 Catchment Analysis</li> <li>• 3.1 Peak Flow Results</li> <li>• 3.2 Site Flooding Extent</li> </ul>
	6. <i>Pre and post development 2D hydraulic flood modelling is required in order to ensure that there are no adverse impacts on surrounding properties and that the proposed DA complies with the flood requirements of the LEP and DCP. Adverse impacts (for the purposes of the Flood Prone Land clause only) means, the proposed development:</i> <i>-Will result in less than 0.02m increase in the 1% AEP</i> <i>-Will result in less than a 0.05m increase in the PMF</i> <i>-Will result less than a 10% increase in PMF peak velocity</i> <i>-Will have no loss in flood storage or flood way in the 1% AEP</i>	✓	✓	Pre and post development 2D hydraulic flood modelling was completed as described in the Flood Management Report Sections 3.2.2 2D Hydrodynamic Flow Analysis and 3.2.3 RAS Results and it was concluded that <i>'The proposed development does not show any new structures which will act as obstructions and significantly encroach upon the existing overland flow path.'</i> (p14)



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	7. <i>New floor levels within the development shall be at or above, the Flood Planning Level as determined by the post-development hydraulic modelling referenced above.</i>	✓	✓	All new floor levels within the development are at or above the flood plain level as noted in the Flood Management Report <i>Table 5 – FFL requirements for FPL and Shelter-in-place requirements (p15)</i>
	8. <i>All development structures must be designed and constructed so as not to impede the floodway or flood conveyance on the site, as well as ensuring no loss of flood storage in a 1% AEP event.</i>	✓	✓	All development structures will be designed and constructed to meet this requirement.
	9. <i>A range of blockage factors should be applied to the 2D hydraulic flood model (25%, 50%, 75% and 100%).</i>	✓	✓	A 50% blockage factors was applied in the 2D hydraulic flood model in the Flood Management Report as agreed with council engineers.
	10. <i>A suitable emergency response strategy must be confirmed and should be consistent with the Flood Emergency Response Planning for Development in Pittwater Policy 2017. If proposing to shelter in place, the minimum floor space of the shelter-in-place refuge shall be as outlined in Section B3.13 of the Pittwater 21 Development Control Plan. The minimum floor level of the shelter-in-place refuge shall set at or above the Probable Maximum Flood Level.</i>	✓	✓	An emergency response strategy – shelter-in-place has been proposed in the <b>Shelter in Place Plan</b> and the minimum floor space and floor levels are adhered to.
	11. <i>Appropriate access to the shelter in place refuge should be available from all areas of</i>	✓	✓	There is appropriate access to the shelter in place refuge areas and they will be structurally designed by a structural engineer to meet all requirements for lateral flood flow, buoyancy, suction effects and debris load impact and to comply with the BCA.

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	<p><i>the new development. For all shelter-in-place refuge buildings proposed within flood risk to life category H5: Structural stability of the refuge building is to be verified by a suitably qualified structural engineer considering lateral flood flow, buoyancy, suction effects, and debris load impact of PMF design flood depths and velocities; and Refuge must comply with Building Code of Australia requirements, with external components rated appropriately for storm, wind, and moisture.</i></p> <p>12. <i>The applicant is required to demonstrate compliance with former Pittwater Council's Pittwater 21 DCP 2014 Clause B5.12 Stormwater Drainage Systems and Natural Watercourses, Structures Over and Adjacent to Easements, Piped Drainage System or Natural Watercourses. This consists of accurately locating, confirming dimensions and plotting Council's stormwater pipelines, associated infrastructure and watercourses to scale on the DA plans which show the proposed works. This should be carried out by a service locating contractor and registered surveyor. (The applicant will need to provide evidence of methodology used</i></p>	✓	✓	<p>Council's stormwater pipelines, associated infrastructure and watercourses have been located by the surveyor and shown to scale on drawings</p>

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	<i>for locating). A plan outlining the indicative locations of Council's stormwater infrastructure is available on the webpage.</i>			
	13. As outlined in the DCP, no encroachments or low lying overhangs of the development are permitted over and/or within easements for stormwater drainage or over piped drainage systems or over natural water courses. In this regard a review of existing structures across the watercourse should be undertaken.	✓	✓	Existing bridges and decks that exist on the site were included in the modelling for the flood study. Existing structures will be modified to meet structural requirements in accordance with engineers' details.
	14. For any proposed pedestrian access points across the watercourse, Council may allow light, open sided, easily removable structures to be built over drainage easements, piped drainage systems or floodways if it can be demonstrated through a water level and flow assessment that it does not affect the flow of water in overland flow paths. In this regard the underside of any pedestrian walkway would need to be at the FPL.	✓	✓	Existing bridges and decks that exist on the site are open sided easily removable structures and were included in the modelling for the flood study. Existing structures will be modified to meet structural requirements in accordance with engineers' details.  All proposed bridges are light open sided easily removeable structures.
	15. Council will only consider light, open sided, easily removable structures to be built over drainage easements, piped drainage systems or floodways.	✓	✓	All existing and proposed bridges are light open sided easily removeable structures.  Noted

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	16. <i>The applicant may discharge stormwater runoff into Council's stormwater drainage infrastructure adjoining the site in accordance with Pittwater Council's Pittwater 21 DCP 2014 Clause B5.12 Stormwater Discharge into Public Drainage System.</i>	✓	✓	<p>Driveway crossing and internal driveway have been designed in accordance with B6.1 Access Driveways and works on the Public Road Reserve and B6.2 Internal Driveways – refer to relevant sections of this Report</p> <p>Proposed off street parking will be in accordance with B6.3 Off Street Vehicle parking requirements – refer to relevant sections of this Report</p> <p>Vehicle barriers or restraints will be provided as required. <b>Refer to drawings and p14 of the Flood Management Report.</b></p>
	17. <i>The proposed driveway crossing and internal driveway is to be designed in accordance with Pittwater Council's Pittwater 21 DCP 2014 Clause B6.1 Access Driveways and Works on the Public Road Reserve and B6.2 Internal Driveways.</i>	✓	✓	
	18. <i>The proposed off street parking is to be in accordance with Pittwater Council's Pittwater 21 DCP 2014 Clause B6.3 Off-Street Vehicle Parking Requirements.</i>	✓	✓	
	19. <i>Vehicle barriers or restraints are to be provided to prevent floating vehicles leaving the site where there is more than 300mm depth of flooding in a 1% AEP flood event. The minimum height of the vehicle barriers or restraints must be at or above the Flood planning Level. Vehicle barriers or restraints must comply with the Flood Prone Land Design Standard.</i>	✓	✓	

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	20. Any enclosed garages must be located at or above the 1% AEP level.	✓	✓	The garage structure is located outside the floodway and has been designed as a partially open structure (50% up FPL) but will include vehicle barriers or restraints as noted above.
	21. Open carpark areas and carports shall not be located within a floodway.	✓	✓	The carpark areas are outside the floodways. <b>Refer to Flood Management Report (p14)</b>
	22. All new development shall be designed and constructed as flood compatible buildings in accordance with Reducing Vulnerability of Buildings to Flood Damage: Guidance on Building in Flood Prone Areas, Hawkesbury-Nepean Floodplain Management Steering Committee (2006).	✓	✓	This has been noted and buildings will be designed and constructed to comply. <b>Refer to Flood Management Report (p20)</b>
	23. All new development must be designed and constructed to ensure structural integrity up to the Probable Maximum Flood, taking into account the forces of floodwater, wave action, flowing water with debris, buoyancy and immersion. Structural certification shall be provided confirming the above.	✓	✓	This has been noted and buildings will be designed and constructed to comply. <b>Refer to Flood Management Report (p20)</b>
	24. All new electrical equipment, power points, wiring, fuel lines, sewerage systems or any other service pipes and connections must be waterproofed and/or located above the Flood Planning Level. All existing electrical equipment and power points located below the Flood Planning Level must have	✓	✓	This has been noted and buildings will be designed and constructed to comply. <b>Refer to Flood Management Report (p21)</b>

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	<i>residual current devices installed cut electricity supply during flood events.</i>			
	25. <i>Hazardous or potentially polluting materials shall not be stored below the Flood Planning Level unless adequately protected from floodwaters in accordance with industry standards.</i>	✓	✓	Noted – responsibility of owner outside construction period.
	26. <i>Fencing (including pool fencing, boundary fencing, balcony balustrades and accessway balustrades) shall be open for passage of flood waters - All new fencing on the property must be design with a minimum of 50% open area between the 1% flood level and natural ground level, to allow flood waters to pass through</i>	✓	✓	Fencing will be designed to be open to allow for passage of flood waters.
<b>B 6.1 Access Driveways and works on the Public Road Reserve</b>	Where there is an existing driveway and the applicant proposes to retain the existing driveway, the applicant will be required to demonstrate compliance with this control.	✓	✓	The main access driveway is located on the Avalon Parade frontage and is the existing driveway which is to be retained.
	Where the allotment has a frontage to a second local public road, one additional access driveway to the second local road frontage will be considered on merit, based on Council's consideration of the site constraints.	✓	✓	A second access point is proposed off Ruskin Rowe to a visitors carpark space near the entry to the house. This area of the site is outside the flood zone. It is proposed that as this is on the heritage valued street front of Ruskin Rowe which has no formed kerb and gutter that it be a simple gravel crossover to preserve the existing nature of the streetscape.



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	For corner allotments, the closest point of the Access Driveway shall be located at the maximum practical distance from the intersection of adjoining roads, being no closer than 6m from the tangent point at the kerb.	✓	✓	The main access driveway is located well back from the corner of Ruskin Rowe (at least 17.4m) and will be retained for use by the proposed new dwelling.
	The maximum width of an Access Driveway for dual occupancies, dwellings houses, secondary dwellings, exhibition homes, rural works dwellings and tourist and visitor accommodation shall be as follows:	✓	✓	
	For Distance greater than 6.5 metres from building line to boundary Width at boundary 3.0m Width at Kerb 3.5m	✓	✓	The existing access driveway is 3m wide at the boundary and 3.5m wide at the kerb for a building line setback of 9.9m.
	All Access Driveways shall be constructed with an impervious pavement and gutter crossing construction.	✓	✓	The existing access driveway gutter crossing is constructed in plain concrete
	Access Driveways are to be either in plain concrete or a cosmetic finish consisting of concrete, asphaltic concrete or paver construction in dark earthy tones.	✓	✓	The existing access driveway is constructed in plain concrete
	Access Driveway profiles shall conform to the profiles as illustrated in Appendix 10 - Driveway Profiles: Crossfall 3% Gradient 1:4 max	✓	✓	The access driveway is essentially flat at 1:23 (Refer to Survey and driveway section). Invert levels etc comply with requirements. Crossfall is at 1.5%

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<b>B6.2 Internal Driveways</b>	Internal Driveways are to be designed and constructed to provide safe access and shall have a maximum gradient of 1:5 (V:H).	✓	✓	The internal driveway has been designed to provide safe access from the point of the existing access driveway. It is essentially flat (1:79)
	Recommended maximum gradient of an Internal Driveway for a distance of 2m on the approach to a garage, parking area or carport is 1:20 (V:H).	✓	✓	The gradient of the approach to the garage is 1:65
	There must be a minimum 2 metre long transition between the driveway and the garage/parking area/carport in accordance with the standards.	✓	✓	There is a transition of 3.5m between the driveway and the garage.
	Internal Driveway grades, cross falls and grated drains are to be designed to reduce discharge into the public drainage system and to maximise stormwater discharge into adjacent landscape areas by the use of grass swales and soakage pits.	✓	✓	The internal driveway is essentially flat but any runoff will discharge onto adjoining garden area.
	Internal Driveways shall have a stable surface for all weather construction.	✓	✓	The driveway will be constructed with a stable all weather surface being gravel which will also reduce run off.
<b>B6.3 Off Street Parking</b>	The minimum number of vehicle parking spaces to be provided for off-street parking is as follows for dual occupancies, dwelling houses, secondary dwellings, exhibition homes, rural workers' dwellings and tourist and visitor accommodation: 2 bedrooms or more – 2 spaces	✓	✓	Off street parking is provided in the new three car garage accessed off Avalon Parade with an additional visitors parking space near the house entry off Ruskin Rowe. This space has been located to be outside the flood zone. The house has a total of 7 bedrooms and 3 spaces have been provided.  Total parking provided - Garage 3 car spaces - Parking space 1 car space

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	Minimum dimensions of internal space for on-site parking are: enclosed garage 3.0m x 6.0m with 2.4m wide entry Single car parking spaces 2.4 x 5.5m with 0.3m minimum clear space each side for access to doors	✓	✓	Dimensions of spaces within the garage are each 3.0m x 6.0m
		✓	✓	Dimensions of open carparking space is 2.4m x 5.5m
<b>B8.1 Construction &amp; Demolition – Excavation and Landfill</b>	Provide a statement in relation to the proposed development outlining how it has been designed and will be constructed to address the potential for landslip and subsidence as a result of excavation	✓	✓	The subject site is largely flat with the only area with potential for landslip being the creek banks themselves. The proposed development has been designed to be largely set well back from the creek banks. All parts of the dwelling are to be constructed as framed structure on columns and pad footings. This means the excavation will be minimal. The only area of slab on ground is the garage which is on flat ground outside the flood zone. Where engineers require it, the footings will become piles in accordance with their recommendations and all elements will be designed to withstand damage due to scour, debris or buoyancy forces in accordance with engineer's recommendations.
<b>B8.2 Construction &amp; Demolition – Erosion and Sediment Management</b>	Erosion and sedimentation prevention measures must be installed on all sites to prevent the migration of sediment off the site into any waterway, drainage systems, public reserves, road reserve or adjoining private lands.  Erosion and sedimentation prevention measures must be installed in accordance with Managing Urban Stormwater: Soils and Construction (Landcom 2004) on the downstream side of any works undertaken on the boundary of the site or on public lands adjoining the site to prevent the migration of sediment off the site into any waterway, drainage systems, public reserves, road reserve or adjoining private lands.	✓	✓	Refer to Erosion and sedimentation control plan prepared by NB Consulting Engineers.  Refer to Erosion and sedimentation control plan prepared by NB Consulting Engineers.

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	Appropriate devices are to be in place at all times to prevent the migration of sediment off the site.			Refer to Erosion and sedimentation control plan prepared by NB Consulting Engineers.
<b>B8.3 Construction and Demolition – Waste Minimisation</b>	Waste materials generated through demolition, excavation and construction works is to be minimised by reuse on-site, recycling, or disposal at an appropriate waste facility.	✓	✓	A waste management has been prepared as part of this application
<b>C1.1 Landscaping</b>	<p>In all developments a range of low-lying shrubs, medium to high shrubs and canopy trees shall be retained or provided to soften the built form</p> <p>At least 2 canopy trees in the front yard and 1 canopy tree in the rear yard are to be provided on site. Where there area existing canopy trees, tree species are to be planted to ensure that the canopy is retained over the long-term.</p> <p>Development shall provide for the reasonable retention and protection of existing significant trees, especially near property boundaries. The existing Gums and Cabbage Tree Palms of high significance shall be retained and incorporated int the design</p> <p>The front of buildings (between the front boundary and any built structures) shall be landscaped to screen those buildings from the street as follow: 50% for all other forms of residential development</p>	<p>✓</p> <p>✓</p> <p>✓</p> <p>✓</p>	<p>✓</p> <p>✓</p> <p>✓</p> <p>✓</p>	<p>The landscape proposal includes a range of low-lying shrubs, medium to high shrubs and canopy trees. <b>Refer to Landscape Plan and Report</b></p> <p>Existing Angophora Costata, Jacaranda, Stenocarpus and Melaleuca in the front yard are all being retained along with number of Cabbage Tree Palms. In the rear yard the existing Corymbia and Cabbage Tree palms are being retained and new Lilly Pilly and additional native canopy tree are proposed. <b>Refer to Landscape Plan &amp; Report</b></p> <p>Wherever possible existing tree are retained. This is a heavily forested site so this equates to 23 significant trees and palms. Only six trees are to be removed from site because they are in the footprint of the building but they are all being replaced elsewhere on site. <b>Refer to Landscape Plan &amp; Report</b></p> <p>The front of building areas (between buildings and front boundary) have all been landscaped and include a combination of existing plants retained and new plants. In many cases the boundary plants are quite dense; hedges and golden cane palms etc and boundary line trees have been retained. The total length of the street front boundaries is 114.13m and the landscaped length is 104.13m or 91% which far exceeds the required 50%. Refer to Landscape Plan &amp; Report</p>

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	<p>Variations</p> <p>Where canopy trees are to be retained on site planting of additional canopy trees shall be assessed on a merit basis.</p>	✓	✓	Some additional/replacement canopy trees have been proposed in the landscape architects plan.
<b>C1.2 Safety and Security</b>	Provide a statement demonstrating how the safety and security of people using or visiting the proposed development has been addressed in the design of the proposal	✓	✓	The house has been designed to ensure that entrances are well lit and give occupants clear vision of people approaching the house. There are two points of entry to the site. One at the front door on Ruskin Rowe and the other vehicular entry for the residents on Avalon Parade. The site is fenced and visitor entry will be via the Ruskin Rowe. The entrance will be well lit and the street number of the house clearly visible.
<b>C1.3 View Sharing</b>	<p>Provide an assessment of the views available from the property, and views from other properties and public domain areas which may be affected by the proposal.</p> <p>Provide an analysis of any view loss and explanation of the design features and location of the proposed structure in terms of how the proposal seeks to achieve equitable view sharing and view retention.</p>	✓	✓	<p>This property is located on an area of Avalon which is largely flat in terrain and with many large canopy trees. There are no extensive views available due to the nature of the site however there is an overall impression of low buildings within a forest type environment and this has been retained in the proposed design.</p> <p>The only two storey part of the house is small in area and is located well back from property boundaries (minimum 7.5m). It is also well below the required 8.5 building height line.</p>
		✓	✓	The proposed dwelling does not cause any view loss.
<b>C1.4 Solar Access</b>	<p>The ground floor plan shall include shadow diagram(s) demonstrating the impact of the proposed development on adjoining properties (at a minimum shadow lines to be cast by the proposal at 9am, 12noon, and 3pm on June 21st, shall be provided).</p> <p>Drawings should not show magnetic north.</p>	✓	✓	<p>Certified shadow diagrams have been provided.</p> <p>Drawings show true north</p>
		✓	✓	

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	<p>Show all windows on the affected proportion of the neighbouring property on the elevation shadow diagrams at 9am, 12 noon, and 3pm on June 21st.</p> <p>Provide a statement outlining how solar access and natural light will be accessible to the proposed development, and demonstrating that the impact of the proposed development on the adjoining properties is acceptable in terms of restriction of solar access and natural light.</p>	<p>N/A</p> <p>✓</p>	<p>N/A</p> <p>✓</p>	<p>Elevation shadow diagrams have not been provided as the orientation and location of the building means that it does not overshadow either of the adjoining properties.</p> <p>The proposed development does not have any negative impact on solar access or natural light. The neighbouring house at 97 Avalon Parade is to the north of the proposal and is therefore not overshadowed. Additionally the new dwelling is generally set back further from the boundary than the existing dwelling and therefore has less impact on natural light. The neighbouring house at 2 Ruskin Rowe is a minimum of 28m from the proposed new dwelling and is not impacted at all by the proposal.</p>
<b>C1.5 Visual Privacy</b>	<p>Direct views of private open spaces are to be restricted by vegetation/ landscaping. Screen planting to achieve 3 metres in height should be provide along the side boundary of the proposed courtyard?</p>	✓	✓	<p>The proposed alterations &amp; additions are designed to minimise the impacts in relation to privacy through the thoughtful location of new outdoor spaces and windows in the proposal. Fixed &amp; adjustable screens, walls &amp; landscape screening are proposed parts of the house in areas where there is potential for overlooking to cause a nuisance. In particular new 3m plantings are proposed to the northern side between proposed guest bedroom wing/ spa area and the north neighbour to increase screening between the two dwellings</p> <p>The only two storey section of the proposed house is located to the southern side of the side on the Ruskin Rowe frontage. It is a small part of the house footprint and overlooks its own garden, deck and swimming pool.</p>
<b>C1.6 Acoustic Privacy</b>	<p>Noise-sensitive rooms, such as bedrooms, should be located away from noise sources, including main roads, parking areas, living areas and communal and private open space areas and the like.</p> <p>Noise generating plants including pool/spa motors, air conditioning units and the like shall not produce noise levels that exceed 5dBA above the background noise when measured from the nearest property boundary.</p>	<p>✓</p> <p>✓</p>	<p>✓</p> <p>✓</p>	<p>The location is generally a quiet residential area but care has been taken to locate bedrooms away from the heavier traffic flow on Avalon Parade.</p> <p>The existing pool equipment is located under the pool deck and this is to be retained with all pool equipment located in the same location. Air-conditioning units will be located in the service area near the laundry on the Ruskin Rowe side of the dwelling.</p>

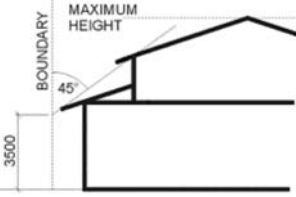


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<b>C1.7 Private Open Space</b>	Minimum 80m <sup>2</sup> of private open space per dwelling at ground level, with no dimension less than 3 metres. No more than 75% of this private open space is to be provided in the front yard.	✓		At least 300m <sup>2</sup> of private open space with no dimension less than 3m is provided in the rear yard with additional private open space in the front yard.
	Within the private open space area, a minimum principal area of 16m <sup>2</sup> with a minimum dimension of 4m and grade no steeper than 1 in 20 (5%).	✓	✓	There is a flat lawn area in the rear yard of approximately 160m <sup>2</sup> with a minimum dimension greater than 4m and a grade no steeper than 1 in 20.
	Dwellings are to be designed so that private open space is directly accessible from living areas enabling it to function as an extension of internal living areas.	✓	✓	The house has been designed so that private open space is directly accessible from living and bedroom areas.
	Private open space areas are to have good solar orientation (i.e. orientated to the north-east or north-west where possible). Where site or slope constraints limit optimisation of orientation, the private open space area must have access to some direct sunlight throughout the year (see Solar Access).	✓	✓	All areas of private open space have good solar access. The site is largely flat and heavily treed but outdoor decks and garden areas have good solar orientation.
	Private open space should be located to the rear of the dwelling to maximise privacy for occupants.	✓	✓	The site is a corner site but the extent of vegetation ensures privacy in most parts of the garden. Private open space is located to the north and west of the main volume of the dwelling and is very private.
	Private open space areas should include provision of clothes drying facilities, screened from the street or a public place. Shared clothes drying facilities are acceptable.	✓	✓	There is a clothes drying area located adjacent to the laundry on the Ruskin Rowe side of the house. It is private and well screened from the street.
	An accessible and usable area for	✓	✓	Composting will take place adjacent to the vegetable garden on the eastern end of the site.

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	composting facilities within the ground level private open space is required.			
<b>D1.1 Character as viewed from a public place</b>  <b>Planner Comment from Pre DA Meeting Minutes</b>  <i>"The majority of the proposal is considered to meet the controls and objectives of the standard, however as detailed later in these notes, the proposed quad-garage, carport, and pool cabana have an insufficient front setback which detracts from the bushland character of Ruskin Rowe when viewed from the public domain. These meeting notes recommend that the carport and cabana be deleted entirely, and that the garage be reduced in size and relocated deeper into the site to provide a greater landscape buffer. Subject to the above three changes, it is considered that the development is capable of satisfying this control"</i>	Compliments the desired future character of the Locality;	✓	✓	As part of the Ruskin Rowe Conservation area the desired current and future character of the locality is to comprise large lots and the dominance of vegetation over buildings to create a quasi-rural character. The proposed house has been designed as a series of pavilions in the landscape linked by decks and bridges in order to maintain the dominance of the existing vegetation on the site.
	Has a visual impact which is secondary to landscaping and vegetation;	✓	✓	The visual impact of the proposed house is secondary to the existing and proposed landscaping as the low built forms are distributed between the existing palms and other trees on either side of the natural creek.
	Is of high quality and is designed to address the natural context of the area and any natural hazards;	✓	✓	The proposed house is of high quality construction and has been designed to address both its natural context and the potential hazard of flooding from the creek.
	Does not dominate the streetscape and is at human scale, and, within residential areas, buildings give the appearance of being two-storey maximum;	✓	✓	The proposed house has a maximum height of 6.75m above ground level in its small 2 storey section and is not dominant in the streetscape.
	Ensures parking structures are minimised and secondary to the built form, landscaping and vegetation;	✓	✓	In accordance with the Council planner recommendations the carport and cabana along the Ruskin Rowe frontage have been removed from the design and the proposed garage has been reduced in size slightly and set back further from Avalon Parade.
	The bulk and scale of buildings must be minimised. Landscaping is to be integrated with the building design to screen the visual impact of the built form. In residential areas, buildings are to give the	✓	✓	The proposed dwelling is designed as a series of generally single storey pavilions with one small two storey section. This ensures that the bulk and scale of the buildings is minimised. The landscaping is fully integrated with the building and the buildings are much lower and secondary to the trees, palms and other vegetation on the site.

P21 DCP Item – Applicable Controls	Objectives	Compliance Technical / Performance		Comments
	appearance of being secondary to landscaping and vegetation.;			
D1.5 Building Colours and Materials  <b>Planner Comment from Pre DA Meeting Minutes</b>  <i>“The proposal is considered to be of a suitable material and colour palette to satisfy the controls and outcomes of the standard.”</i>	Enhances the visual quality and identity of the streetscape;  Utilises colours and materials which harmonise with the natural environment;  Minimises the visual prominence of the development;  Achieves the informal beachside appearance of the Avalon Beach Village;	✓  ✓  ✓  ✓	✓  ✓  ✓  ✓	The selected colours and materials have been selected to work well with the existing streetscape.  The chosen palette of colours and materials includes natural tones of stained timber and ‘Çemintel’ cladding (soft grey) and complementary paint colours which work well with the landscaping on site including the bark of the angophora trees and other eucalypts.  The chosen colours cause the building to visually recede behind the dominant vegetation.  Use of timber cladding and corrugated iron roofing complement the beachside appearance of the local environment.
D1.8 Front Building Line  <b>Planner Comment from Pre DA Meeting Minutes</b>  <i>“There is insufficient information provided to ascertain the established building line. However from a review of aerial imagery and a review of the site, it is assumed that a 6.5m control would apply.</i>  <i>The dwelling itself is satisfactory in terms of front setback, however the garage, carport and swimming pool cabana achieve an unsatisfactory setback and should be relocated and or deleted from the proposal.”</i>	Requirement: 6.5 metres or established building line whichever is the greater.           Note: as the site is corner allotment, a variation may be accepted where the minimum building setback to a secondary street is half the front building line  Where the outcomes of this control are achieved, Council may accept variation to these building lines in the following circumstances: <ul style="list-style-type: none"> <li>considering established building lines;</li> <li>degree of cut and fill;</li> </ul>	✓	✓	Dwelling to Avalon Parade: 23.42m – 35.17m Garage to Avalon Parade: 2.71m - 8.00m  Dwelling to Ruskin Rowe: 3.25m – 8.96m  The garage has been moved further back on the site than originally proposed in the Pre DA meeting and the carport and pool cabana have been deleted entirely.  The site is a corner allotment and the house is generally set well back from both street frontages. The house is not parallel to either street frontage and the building forms are stepped so the minimum setback of 3.25m along Ruskin Rowe only occurs at one corner of the building.  Trees and vegetation on site are retained and this combined with the vegetation on road reserve means that the house is almost completely screened from view along Ruskin Rowe.  On the Avalon Parade frontage the house is also virtually entirely screened from view by the existing hedge and trees.  The garage wall is also oblique to the street frontage and although it is 2.71m to the front boundary at its closest point it is directly adjacent to the carport at 97 Avalon Parade which is located directly on the front boundary with no set back.

P21 DCP Item – Applicable Controls	Objectives	Compliance Technical / Performance		Comments
	<ul style="list-style-type: none"> <li>• retention of trees and vegetation;</li> <li>• where it is difficult to achieve acceptable levels for building;</li> <li>• for narrow or irregular shaped blocks;</li> <li>• where the topographic features of the site need to be preserved;</li> <li>• where the depth of a property is less than 20 metres.</li> </ul>			
<p>D1.9 Side and rear building line</p> <p><b>Planner Comment from Pre DA Meeting Minutes</b></p> <p><i>“The development complies with the requisite side building line setbacks, and the rear building line setback does not apply as the site is a corner allotment.</i></p> <p><i>It is considered that there are opportunities to provide an increased setback to the northwestern boundary which will provide a greater buffer for landscaping and will minimise privacy and overshadowing impacts should the adjoining property add a first floor addition in the future.”</i></p>	<p>Requirement: 2.5 metres to one side, 1 metre to the other side and 6.5 metres to the rear</p>	✓	✓	<p>The northern side setbacks are a minimum of 1.0m (garage) with 2.03m to the Gymnasium and 3.0m to the Guest bed wing.</p> <p>The southern side is taken as a secondary frontage with a minimum setback of 3.25 to the closest point varying up to 8.96</p> <p>The rear setback is 12.75m to the closest point (gymnasium)</p>

P21 DCP Item – Applicable Controls	Objectives	Compliance Technical / Performance		Comments
D1.11 Building Envelope	<p>Buildings are to be sited within the following envelope:</p>  <p>STREET FRONTAGE</p>	✓	✓	The building falls well within the proscribed building envelope. Refer to building envelope diagram on the Section drawing.
D1.14 Landscaped Area – Environmentally Sensitive Land	<p>A clear statement of the existing and proposed landscaped area. An analysis of the landscaped area demonstrating that:</p> <ul style="list-style-type: none"> <li>the bulk and scale of the built form is minimised;</li> <li>a reasonable level of amenity and solar access is provided and maintained;</li> <li>vegetation is retained and enhanced to visually reduce the built form;</li> <li>conservation of natural vegetation and biodiversity is achieved;</li> <li>stormwater runoff is reduced, preventing soil erosion and siltation of natural drainage channels</li> </ul>	✓	✓	<p>The landscaped area is 1535m<sup>2</sup> or 65% of site area.</p> <p>The landscaped area develops the existing mature plantings of trees and cabbage tree palms on the site and as such minimises the bulk and scale of the buildings as low pavilions amongst the trees. Solar access and good amenity and access to the garden are maintained and enhanced by the proposed design. The majority of vegetation is retained and any removed trees will be replaced by an identical or more suitable tree <b>(Refer to Landscape plan)</b></p> <p>The natural vegetation and biodiverse environment is retained <b>(refer Biodiversity Impact Report)</b></p> <p>Stormwater runoff is reduced through the use of more semi pervious surfaces such as gravel along with large areas of garden and lawn. <b>(Refer to Landscape plan)</b></p>
D1.15 Fences		✓	✓	<p>Existing dividing fences are to be retained. Existing hedges to Avalon Parade frontage are to be retained Existing timber fence to Ruskin Rowe is to be retained with a new entry gate design adjacent to the front door which will retain and incorporate the existing stone fence posts in that location.</p>

#### **4. CONCLUSION**

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The proposed works are consistent with the objectives of NSW Government - Pittwater LEP 2014 and Northern Beaches Council - Pittwater 21 DCP.

The proposal improves the amenity of the site for the occupants and neighbours by providing a dwelling that complies with flood safety provisions and conserves the natural features of the site and the heritage environment of the Ruskin Rowe Conservation area.

The proposal represents a significant improvement over existing dwelling and landscaped garden which will be more compatible with the character of the surrounding residential area.

We suggest the submission shows that the proposal can be supported and approved as presented.