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Introduction

Casuarina Beach is a master planned community located on 3.5 kilometers of absolute ocean front on the Tweed Coast. Since 1999, staged development has populated this area, in line with the original master plan (pictured below) created by the owners. With sufficient social and physical infrastructure now in place, it is considered an appropriate time to proceed with the detailed design of the Town Centre.

This report outlines the architectural components of the Casuarina Beach Town Centre Concept Plan which is based on the promotion of New Urbanist values and Ecologically Sustainable Development (ESD) principles.

This report should be read in conjunction with the following specialist consultants reports:

- EDW|AECOM Landscape Concept Plan Report;
- CARDNO EPPELL OLSEN Traffic Impact Study;
- CARDNO Engineering and Environmental Matters Report;
- MALCOLM MIDDLETON ARCHITECTS Urban Design Report;
- CORE ECONOMICS Socio-Economic Impact Assessment; and
- DONOVAN HILL Supermarket DA Proposal.
1. The subject site has been sand mined in the past. The majority of vegetation present is regrowth.
2. Playing fields
3. Native dunal vegetation consists mainly of Banksia and Casuarina species.
4. Due to the structure of the dunes and vegetation present along much of Casuarina Beach views and pedestrian access to the beach/ocean are limited.
Concept Plan Objectives

The brief for the design of the Casuarina Beach Town Centre outlined 5 key objectives:

- To create a ‘Beach Centre’ to serve as the commercial, community and social hub for the Casuarina development;
- To create a retail/commercial core to service the Tweed Coast tourist precinct, that includes: Casuarina Beach; Salt; Seaside City; and, other adjacent inland developments;
- To create a Town Centre that promotes Casuarina Beach as the “quintessential Australian beach community”;
- To create areas that can take advantage of the Tweed Coast road, its access and commercial exposure; and,
- To create a Town Centre with sufficient medium density accommodation to promote an urban design and architectural character that appropriately reflects the “quintessential Australian beach community.”
Key Design Elements

The key elements of the Town Centre Concept Plan are based on meeting the project objectives as well as ensuring that the Director General's requirements are resolved through appropriate design outcomes. Concern was raised over the proposed location of the supermarket next to Tweed Coast road and public accessibility to the foreshore.

The key elements of the design, therefore, include the following:

- New Urbanist principles applied to the open space and landscaping of the Town Centre, that stress the importance of creating a high level of pedestrian permeability and connectivity throughout the precinct.
- In order to activate the commercial and retail uses proposed in the Town Centre, the Concept Plan seeks a more dense form of development than the single lot family homes located in other parts of Casuarina.
- Heights will be predominately 3 storey's in the Town Centre precinct, with the overall skyline and increasing in density to define it as the 'commercial core'.
- A mix of land uses are proposed, including: medium density residential; mixed use (incorporating retail, commercial and residential) and single lot dwellings.

Overall, the plan is designed to create opportunities for a variety of medium density residential/accommodation developments. Heights within the Town Centre rise from two storey detached dwellings to 3 storey medium density options, with individual sites configured to allow for optimum north and north-easterly aspects and beach views, where applicable. The plan will encourage space between buildings to allow for natural light, views and ventilation to all units, and to free up ground level space for outdoor living and recreation opportunities.
Design Structure

The basis behind the structure of the Concept Plan is the desire to create a central east-west 'spine', or main street/boulevard, that links the Tweed Coast road to the beach. The previous master plan isolated community uses to the east of the site, away from the point of access. This no longer accords with the latest design intent.

The current proposal is intended to strengthen the east-west link between Tweed Coast road and the beach by creating two complementary "anchors": the retail/community service component at the western end of the site, and the beach/civic park/icon building at the eastern end. The 'icon building' is proposed as a mixed use facility which will use its unique architecture to define it as a destination.

Ground level retail/commercial uses stretch along both street frontages, to create a strong visual and pedestrian connection – adding character and activity that will epitomise the Casuarina Beach experience.
Street Network, Access and Parking

The Concept Plan extends the east-west road that links the Tweed Coast road and Casuarina Way, creating a ‘main street’ boulevard that links the commercial core directly to the beach. This ‘main street’ corridor will be wider than other Casuarina Beach streets, to allow for car parking in the commercial core, a footpath large enough to cater for outdoor dining opportunities and extensive landscaping along the length of the street.

The ‘main street’ will terminate at a community park, landmark tower and a three-storey icon building with al fresco dining facilities. This beachfront area is intended to act as the civic focus of this ‘quintessential beachfront community’.

Two concentric ‘loop’ roads designed as traffic-calmed extensions to the “Main Street” provide vehicular access to drop off points adjacent to a new beach access walkway in the 7F zone. The smaller of the two loops links with the major public car park which is designed to provide convenient public access for visitors to the beach, park and icon building. The larger loop forms a short esplanade that parallels the pedestrian/cycle promenade and links back to Casuarina Way.

The road and traffic system has been designed to provide convenient public vehicular access to the beach and the beachfront area without compromising pedestrian amenity or residential privacy. Vehicular traffic is allowed to enter the beachfront area for convenient pick-up, drop-off and parking, but in a manner intended to retain the precinct’s pedestrian character.

Pedestrian and cycle access is designed to be accommodated within the street and open space network as either defined footpaths, road cycle ways or shared path locations. Opportunities for mid-block pedestrian links are also envisaged to provide increased access to facilities as each lot is developed over time.

Public car parking for beach users will be provided on the basis of 300 car parking spaces per linear kilometer of beach frontage, resulting in a requirement for 162 spaces for the Town Centre precinct (to be located within 200 meters of the beach walkway). There are currently 170 spaces provided within the 200m beachfront area. Additional short term parking options are provided throughout the centre, with parallel and 90 degree options provided throughout the development—primarily along the ‘main street’ and Casuarina Way to service the retail and commercial uses.

Adjustment of the site’s finished earthwork grades will ensure a strong visual link between a high point at the Casuarina Way intersection (the acknowledged commercial core) and a lower point at the beachfront civic park.

For further details relating to access, circulation and street widths refer to the EDAW/AECOM Landscape Concept Report.
Open Space

Open Space is considered a key element within the Town Centre Concept Plan. The key existing and proposed open space areas within the Town Centre are detailed below (refer also to the Open Space Plan on page 14 of this report):

The Civic Park
The civic park has been designed with a triangular configuration to allow the space to flare out towards the beach (approximately 80 meters of frontage), enhancing visitors' perception of the foreshore and increasing frontage to the north-south pedestrian/cycle link. When combined with the adjacent icon building (incl. its cafes, etc) this area will act as a community/tourist lifestyle hub, that generates activity around the eastern anchor of the Town Centre.

A sculptural vertical tower is proposed as a landmark structure for the park, which will terminate the visual axis of the ‘main street’ vista.

Pocket Park
A public park has been designed at the eastern end of the southern cul-de-sac, which will include a barbeque area, public toilets and a children’s playground. Consideration will be given to the theming of this park as a sculpture park.

7F Zone
The 7F zone contains both public and private land. The Public land, between the southern cul-de-sac and the icon building, has been increased in size, by approximately 8000m², to encourage a larger, more legible, public realm that promotes pedestrian permeability within the foreshore area.

Existing Sports Ovals
The existing sports ovals located directly south of the supermarket site provide a major recreational open space amenity to the western edge of the Town Centre precinct, complementing the linear park to the north and the beach to the east.
Icon Building and Civic Park

The large civic park and icon building have been designed to act as a focal point for recreation and tourism within the centre.

The icon building will be designed as a three-storey mixed-use destination that will define the southern boundary of the park. This building will be designed as an architectural icon for the Casuarina Beach development and will incorporate a surf lifesaving post, which will act as an operations base with public amenities included. This building may be developed in stages.

The restaurants and dining terraces in the icon building are oriented to the north towards the major civic park open space, in order to avoid exposure to uncomfortable southeasterly winds and to optimise solar orientation. This planning concept is based on our experience at Casuarina Beach and Salt (the development to the north of Casuarina Beach) which have east facing as well as north-facing dining terraces. The former have been found to be unworkable on windy days, which dominate in the area.

The combination of dining terraces, car parking, civic park, esplanade, public amenities and of course, the beach and foreshore, is intended to create a public focus on the beach, to complement the commercial focus along Casuarina Way.
The Casuarina Beach Town Centre precinct will include a town centre shopping complex strategically located between the key local connector roads of Casuarina Way and Tweed Coast road.

The need to locate the shopping focus of the Town Centre adjacent to the arterial road, rather than the beach (as originally conceptualised), is a reflection of the need to lessen the impact on the more intense retail use on the lifestyle hub closer to the beach and of the commercial reality of shopping centres and the exposure required to make them economically sustainable. This location is ideal for servicing the wider Casuarina Beach and Salt communities, who can easily gain access to the complex off the main internal north/south connector road – Casuarina Way.

A rear parking area is planned, with access off Casuarina Way. This allows the supermarket and its adjacent specialty shops to address the intersection of Casuarina Way and ensure a quality public realm is created along the boulevard. Without limiting signage opportunities, landscaping has been designed to screen the majority of this parking area from the Tweed Coast road and the playing fields to the south of the lot (refer EDAW/AECOM Landscape Concept Plan Report).

As the supermarket will be a higher traffic generator throughout the day, it is considered important to separate such a use away from the slower paced beach front uses. If the shopping centre were to be located at the beach end of the site, the added amount of vehicular movement near the residential areas would require roads to be widened. This will reduce the area’s visual amenity and detract from the desired pedestrian-friendly environment intended for the Town Centre, and especially as one moves from west to east towards the beach.

In the short term the supermarket complex is planned to cater primarily to the local Casuarina Beach community with some draw from the larger secondary catchment. As the population grows both locally and in the surrounding area, the capacity exists to extend the centre to meet that future demand.
Public Access to the Foreshore

The beachfront area of the Casuarina Beach Town centre is located at the confluence of two major pedestrian systems: the north-south beachfront pedestrian/cycle esplanade and the east-west town centre “Main Street”. As mentioned previously, the road and traffic system has been designed to provide convenient public vehicular access to the beach and the beachfront precinct without compromising pedestrian amenity or residential privacy. Vehicular traffic is allowed to enter the beachfront precinct for convenient pick-up, drop-off and parking, but in a manner intended to retain the precinct’s pedestrian character whilst enhancing public access to the foreshore.

The current Concept Plan thus promotes public access to the foreshore through the large civic park (approximately 80 meters of frontage), strategically located public car parking areas connected to the 7F zone, and the small esplanade running parallel to the north-south pedestrian link.

A future application will seek the approval of a new beach access path which is proposed to the east of the icon building to link directly with the car park to the south and the east-west spine of the town centre. This path will be wide enough to enable convenient access for life saving vehicles to access the beach from their post in the icon building. The deletion of an access path immediately to the south (as illustrated) and rehabilitation of such is also proposed.

The northerly orientation of the icon building to the park is preferred due to the fact there will be no direct visual link between the 7F zone and the beach. Correct orientation of the activities surrounding the park, combined with the groomed landscaping, provides a more pleasant visual and physical connection that enhances the notion of the park as the eastern “anchor” to the Town Centre precinct.

The southern end of the Town Centre site will provide an additional east-west access point for pedestrians and residents and will incorporate public parking - providing direct access to landscaped paths linking to the beach and 7F zone.

The existing southern cul-de-sac of Eclipse Lane has also been opened up to enhance the north-south permeability and provide another access point to the beach for existing residents to the south.
Landscaping and Character

The open space and landscaping of the Town Centre has been designed to integrate with, and enhance, the natural qualities of the beach environment. The intent will be to “bring the beach to the town centre” (as opposed to bringing the town centre to the beach) by using plants and materials that reflect the character of the foreshore dunes in a bold and contemporary manner.

In line with New Urbanist principles, a comfortable pedestrian friendly environment and a sense of community amongst both residents and visitors will be promoted. Landscaping and design of the detailed streetscape components (i.e. street furniture, signage, lighting, etc.) will be used to enhance the public realm and create a safe and comfortable environment for the public.

For further details relating to the landscaping concepts proposed for the Town Centre refer to the EDAW/AECOM Landscape Concept Report.
Sustainable Design

Integral to the vision for Casuarina Beach is the desire to provide a sustainable community that finds a balance between the social, environmental and economic components of the community. A holistic approach has been adopted that seeks to ensure a sustainable base is in place that offers a broad vision for the master planning level of design, but can also be built upon at the detailed design level (i.e. with respect to solar orientation of buildings and cross-ventilation).

The following principles have been integrated into the Concept Plan for the Town Centre:

Architectural Design
- Commitment to reducing the need for air conditioning; and
- Development lots that provide opportunities for correct solar orientation to promote cross ventilation and solar access.

Accessibility
- Design for minimisation of vehicle use by clustering services and facilities in a central convenient location;
- Integrating accessibility and connectivity through pedestrian linkages providing cycleways and walkways in and around the development; and
- Providing opportunities for mid-block pedestrian links.

Natural Environment
- Enhance and complement the existing natural environment by conserving existing natural flora and fauna, particularly the dunal vegetation;
- Conserve and regenerate native vegetation through more site sensitive master planning and landscape design; and
- Maximise use of native vegetation within the development.

Total Water Cycle Management
- Incorporation of Water Sensitive Urban Design (WSUD) principles;
- Use of innovative stormwater management practices (i.e. infiltration basins) specific to the unique nature of the South Kingscliff coastal strip;
- Promotion of the use of rainwater tanks for houses and other development sites within the Town Centre development.

For further details of the sustainable principles relating to the water management and the natural environment of the Town Centre design refer to the Cardno Engineering and Environmental Matters Report and the EDAW|AECOM Landscape Concept Report respectively.
Public Consultation

In May 2006, the developer commissioned an extensive community consultation process for the proposed Casuarina Beach Town Centre development. Analysis of this data highlighted the following key outcomes:

- Desire for a design which provides accessible local shopping, retail and community facilities, without significant impacts on surrounding retail centres in Tweed;
- Recommendations to allow for disabled and elderly access to the beach and facilities from local residents in the Tweed coastal region;
- An agreement between the developer and the local residents groups to provide funding and land for the establishment of a private life saving facility to safeguard swimmers at Casuarina.

The public consultation process is considered an integral part of the master planning process. The outcomes mentioned above reinforce the key elements of the current design of the Town Centre Concept Plan.
Conclusion

In summary, the Casuarina Beach Town Centre Precinct applies New Urbanist planning principles to the unique context of a quintessential Australian beachfront site to provide an appropriate community focus for the region.

The current proposal is designed to make the foreshore publicly accessible and pedestrian orientated, as opposed to a vehicular thoroughfare that separates the community from the beach.

This report is conceptual in nature and does not look to have resolved the final design outcomes in detail.

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