

## **VISUAL IMPACT ASSESSMENT REPORT**

### **The Landscape Context**

Access to Culburra Beach is via a network of rural roads that traverse the extensive flood plains that lie between Greenwell Point and Nowra. These flood plains are mostly given over to dairying and expressed as a scatter of small dairy farms, fields and occasional clumps of trees. It is a pastoral landscape.

Greenwell Point and Culburra Beach are located on slightly elevated land that is the termination of a low ridge extending from Nowra Hill to the Beecroft Peninsula. This ridge, reaching an elevation of 80m, is covered in woodland. (see Visual Assessment Plan B)

These wooded low hills form a backdrop to the pastoral landscape of the flood plain.

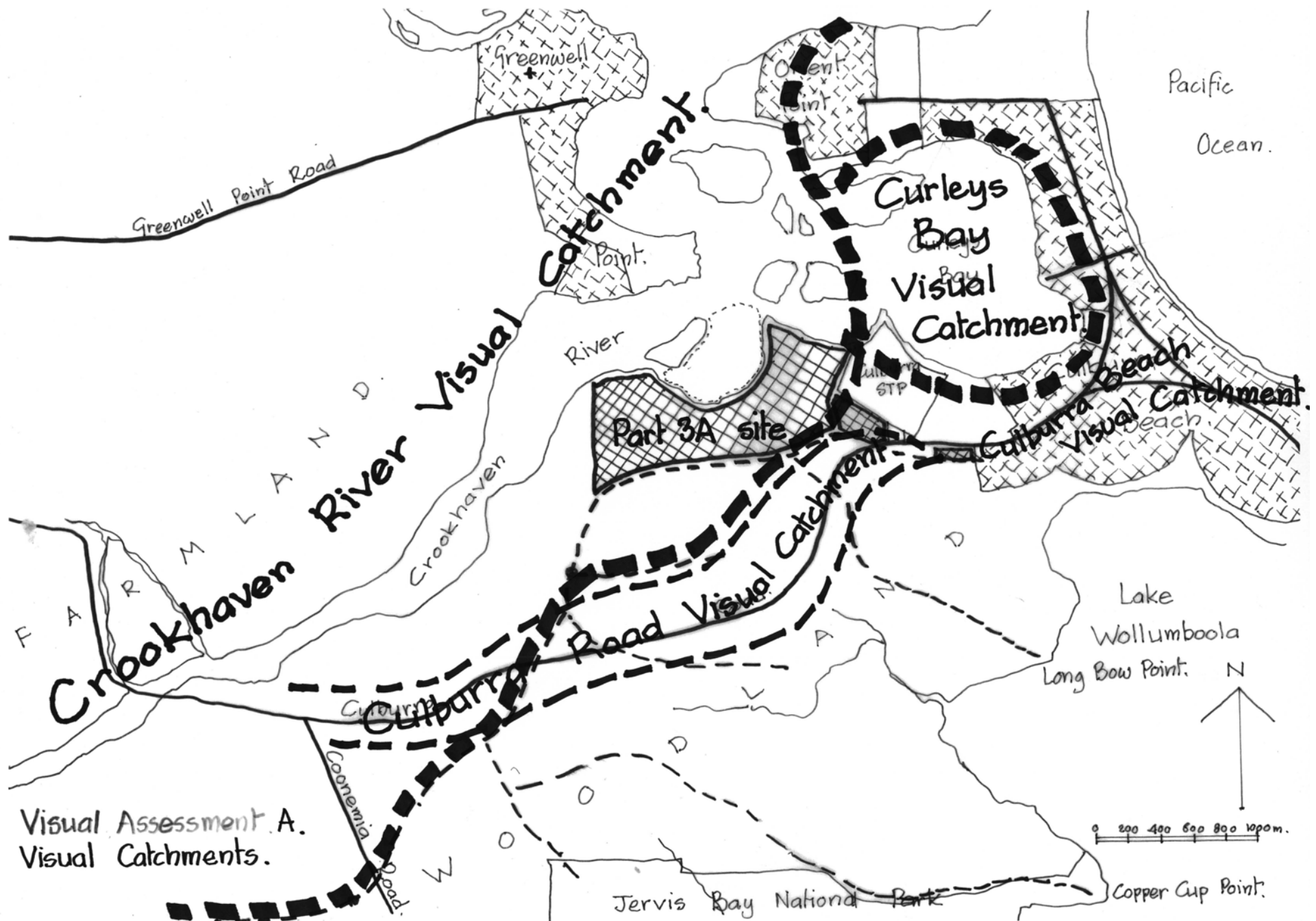
A flood-free road, Forest Way, located along the low ridge has been opened up in recent years giving direct access to Callala Bay, Callala Beach and Currarong from the Princes Highway; Forest Way functions as a secondary access to Culburra Beach.

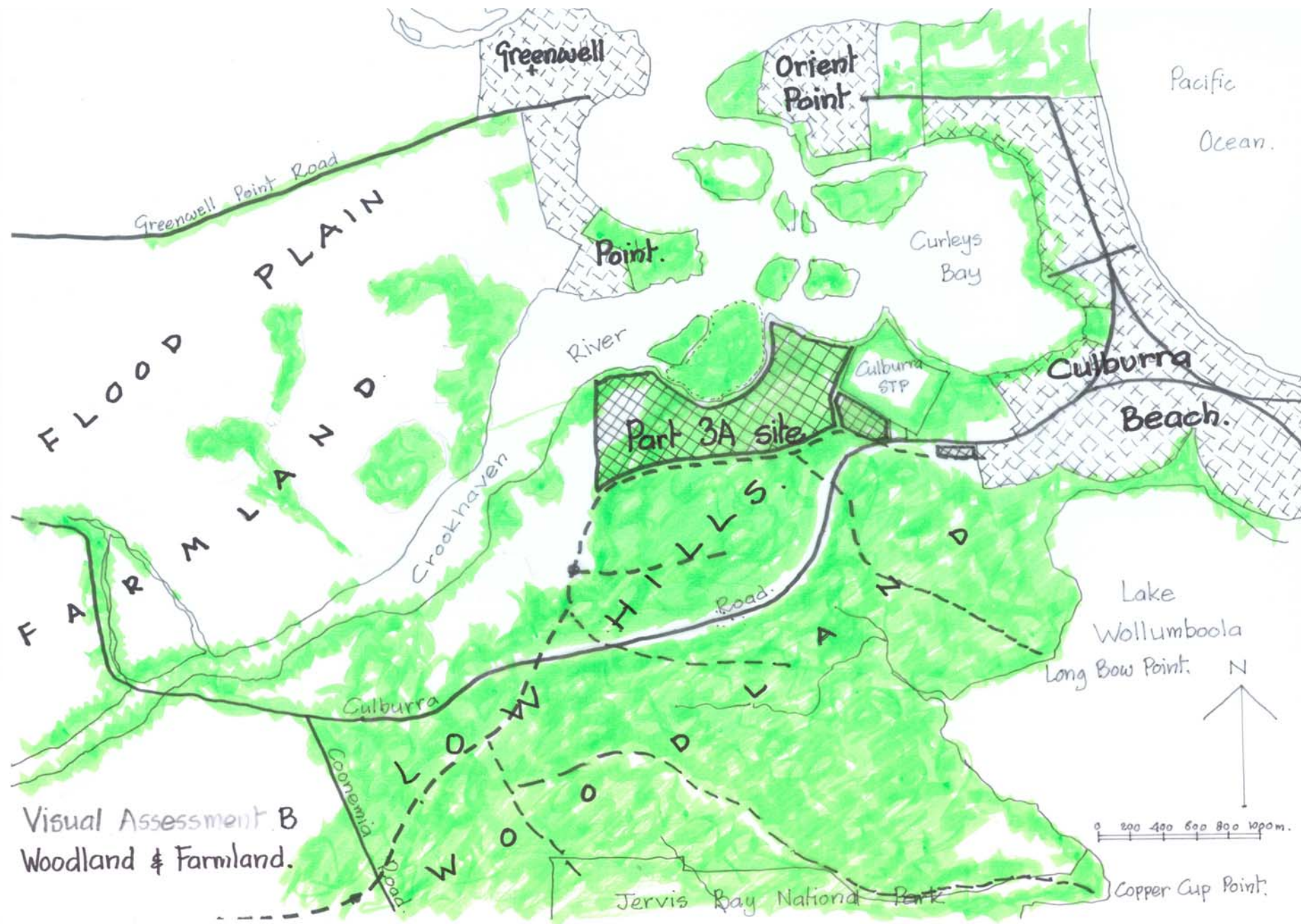
The main approach to Culburra Beach is across the extensive flood plain. Occasional distant views of the wooded hills of the slightly elevated land can be had from Greenwell Point Road and Pyree Lane.

Pyree Lane terminates when it bridges the Crookhaven River at the point where the land becomes more elevated. At this point it becomes Culburra Road leading to the intersection with Coonemia Road which provides access to Callala Beach, Callala Bay, Currarong and the Beecroft Peninsula. Culburra Road is the only access to Culburra Beach.

Culburra Road sweeps through the slightly elevated woodland; it is visually contained in a narrow corridor flanked by trees up to 20m in height; although the land to the north of Culburra Road rises to some 25m above the road the higher land is screened by the intervening woodland; the land to the south is less elevated rising about 10m above road level.

As the township is approached the land levels out to be virtually flat. Land adjoining Culburra Road is opened up with paddocks, cleared land and various built elements leading into the township.





The built form of Culburra Beach township is low density, mostly single storey development. There is little sense of there being a street or a place. The 350m long commercial strip is set-back some 25m behind a service road and car-parking. This element functions reasonably well but has little sense of place, of being a town centre.

Culburra Beach consists almost entirely of single-storey buildings set in open landscaping; landscaping is remnant trees, lawns and herbaceous bushes. Although located adjacent to and between three water bodies there is almost no visual connection between the town and the water bodies.

### **The Visual Catchments**

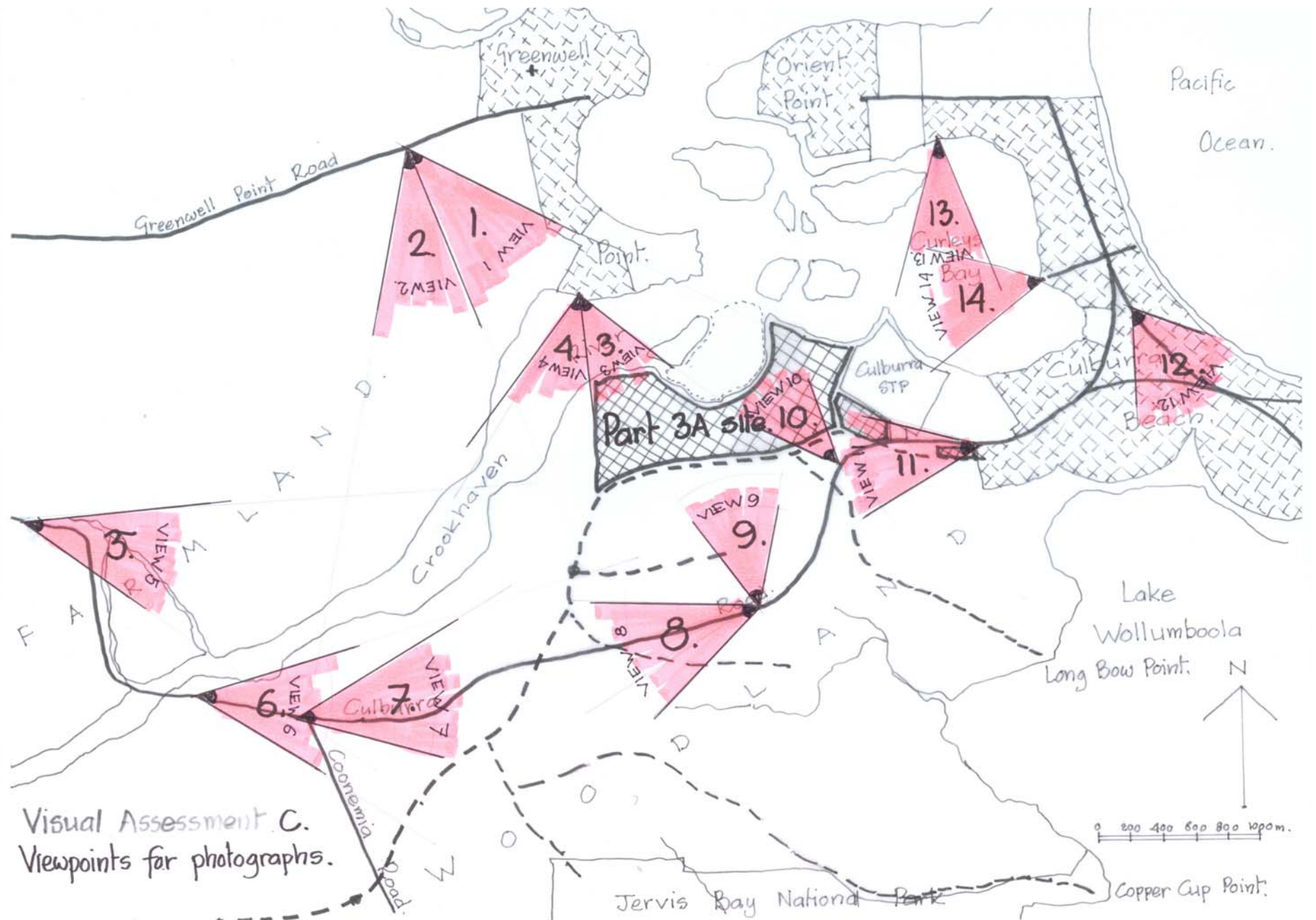
The setting comprises four visual catchments. (see Visual Assessment Plan A).

One, which is referred to as the Crookhaven River catchment, comprises the extensive flood plain edged by the low hills covered by woodland. Viewpoints are essentially confined to the few rural roads serving the local dairy farms and the coastal settlements – principally Greenwell Point and Culburra Beach; views to the low hills that define this catchment are mostly distant views from the rural road network. The major estate falls within the Crookhaven River visual catchment (see Photos 1, 2, and 5). The closest view of the estate from within the catchment is from the southern end of Greenwell Point settlement (see Photo 3). This is the only accessible point on the north side of the Crookhaven River from which part of the proposed development can be seen. The river here is some 300m wide and, consequently, no details, such as individual persons, can be appreciated at this distance (see Photo 4). What is seen is broad elements such as woodland, cleared land and, where relevant, urban development which may be distinguished by a density typology such as suburban, urban and high density.

The second visual catchment is the contained visual corridor through which Culburra Road traverses. This is referred to as the Culburra Road visual catchment. This catchment is contained by the high ridge (RL35m) on the north side and several lower ridges up to RL20 on the south side. All these areas are covered in woodland. Consequently Culburra Road is located in a 50m wide corridor defined by woodland (see Photos 6, 7, 8 and 9). This corridor extends for a distance of some 5km from the intersection with Coonemia Road. The major estate is separated from this corridor by the high ridge and will not be visible from Culburra Road. The proposed roundabout will be visible at a distance of about 4km from the Coonemia Road intersection (see Photo 10).

The Industrial Estate falls within the Culburra Road visual catchment. It will be visible from the vicinity of the roundabout.





**View 1**

South-east view from Greenwell Point Road towards the West Culburra project site which is some 2000m from this viewpoint and just visible at right of tree trunk. The view is across the extensive flood plain that exists between Culburra, Greenwell Point and Nowra. The view of the site is screened by stands of Swamp Oak Forest located on the north side of the Crookhaven River. The southern section of Greenwell Point settlement is just visible at left between the tree trunks.

**View 2**

South-west view from Greenwell Point showing the flood plain and stands of Swamp Oak Forest. Land south of the Crookhaven River is not visible in this view.

**View 3**

South view from southern tip of Greenwell Point across the Crookhaven River towards the site which is some 250m from the viewpoint. The horizon is the high ridge (RL35). The foreshore east of the cleared area (just visible) at the western end of the project site is screened by the woodland on Billys Island.





South-east view up the Crookhaven River from the southern tip of Greenwell Point.

**View 4**



Easterly view from the southern section of Pyree Lane towards the West Culburra project site. Pyree Lane traverses the flood plain; at the southern end the road is aligned alongside one of the many creeks that drain the floodplain; the creek is edged by Swamp Oaks and Mangroves which block all views towards Culburra.

**View 5**



Easterly view along Culburra Road east of the bridge over the Crookhaven River. This area is slightly more elevated. Culburra Road continues in the distance cutting through the extensive areas of zeric woodland that cover most of the land west of Culburra, including the site of the West Culburra project which lies some 3000m to the left of this view and is not visible from this location.

**View 6**

**View 7**

Easterly view from the intersection of Culburra Road and Coonemia Road towards Culburra Beach. This view shows the zeric woodland that is characteristic of the elevated areas west of Culburra Beach.

**View 8**

Westerly view along Culburra Road showing the uninterrupted woodland on both sides of the road along the 5km section between the Coonemia Road intersection and Culburra Beach. The West Culburra project site is some 1000m from Culburra Road at this point and is not visible from any section of Culburra Road.

**View 9**

North view into woodland from Culburra Road toward the West Culburra project site which is some 1000m from this viewpoint and not visible.



**View 10**

Northerly view from Culburra Road at location of proposed roundabout showing the area to be cleared for the collector road.

**View 11**

Westerly view along Culburra Road from the Police station showing the cleared paddock on the south side of the road and the woodland beyond.

**View 12**

View of typical street in Culburra Beach showing the low density of development, the wide streets and the informal landscaping.



View across Curleys Bay towards Culburra Beach town centre from Orient Point

**View 13**



View across Curleys Bay toward the development site from the end of The Mall.

**View 14**

The third visual catchment is referred to as the Culburra Beach visual catchment. Culburra Beach here refers to the existing township of Culburra Beach, not the beach itself. This visual catchment comprises the existing settlement of Culburra Beach. This visual catchment mostly focuses on the linear development along Culburra Road and the principal town roads. It will be extended to the roundabout with the proposed development, incorporating the medium density development, the industrial estate, the roundabout and the collector road entrance to the new estate. This catchment is edged by woodland but will be subject to significant urban change (see Photos 11 and 12).

The fourth visual catchment is referred to as the Curleys Bay catchment. There are very few public vantage points from which views can be obtained across Curleys Bay. The Bay is fringed by mangroves. Almost all the land around the bay is subdivided to the waters edge. Access is limited to a few

public roads that simply terminate at the bay edge. Curleys Bay is approximately 1.5km north to south and 1.0km east-west. At these distances very little detail will be seen and only the broad land use and density characteristics will be visible (see Photos 13 and 14).

## **Visual Assessment**

The Concept Plan comprises three separate areas strung out in a linear arrangement extending westwards from the existing town centre. These are: (1) Stage 1 being the area south of Culburra Road and west of the existing retirement village; (2) Stage 5 being the extension of the Industrial zone north of Culburra Road; and (3) Stages 2, 3 and 4 being the major estate located on the north side of the elevated land located north of Culburra Road. The visual characteristics of each area are considered below.

### **1. The area south of Culburra Road**

This area is in the Culburra Beach Visual Catchment. It will be seen from Culburra Road and the town centre.

The area has a 280m frontage to Culburra Road and an available developmental area depth of 50-80m. The area is virtually flat with a shallow ridge (the divide) defining the rear boundary. The area is cleared with scattered trees at about 100m depth thickening to woodland at about 200m depth. The trees are about 20m high (see Photo 11).

The site to the east comprises a single storey police station fronting Culburra Road. Behind this to a depth of 300m south of Culburra Road is a retirement village comprising single storey dwellings and community facilities. The site to the west, owned by Council, is a former waste transfer station. This site is substantially cleared and together with other adjacent woodland to a depth of 300m is zoned for public recreation facilities and an intended sports complex. The land on the north side of Culburra Road is mainly woodland. It is zoned for business purposes. A view corridor is proposed to be established between Culburra Road and Curleys Bay at the entrance to the township to heighten visual awareness of the aquatic setting of Culburra Beach. This view corridor is proposed to be cut through the existing woodland.

The form of development proposed for the site south of Culburra Road is a combination of small lot single-storey semi-detached villas targeted at the 55+ age cohort and four-storey units positioned to capture the view through the view corridor to Curleys Bay.

Culburra Road is to be landscaped to form an avenue effect between the roundabout and the existing town centre to enhance the visual appearance of the entrance into the town. This section of Culburra Road is some 1000m long, straight and virtually level. This avenue planting will confer a strong



landscape form upon the street with the buildings being subservient in visual terms.

The development site is visible from Culburra Road. The dominant view along Culburra Road will be the avenue planting; this will lead the eye towards the town centre, travelling from west to east, or to the specimen tree on the roundabout if travelling east to west. The proposed development will be behind the avenue of trees; it will be visible but subservient to the dominating visual effect of the avenue planting. The significant views are along Culburra Road in both directions (see Illustrations CG1, CG2 and CG3).

## 2. The Industrial Zone

This zone is located in the transition zone between the Culburra Road visual catchment and the Culburra Beach visual catchment.

This zone is located on the north side of Culburra Road at the entrance to Culburra Beach. It has a 500m frontage to Culburra Road and a variable depth of 100m to 400m, backing up to the existing sewage treatment plant (STP). The land is near flat; a shallow ridge aligned east-west runs through the site which is otherwise near flat. The site is almost entirely woodland. An area of 120m x 160m located adjacent to the access road to the STP is developed as four separate small scale industrial establishments. This development is visible from Culburra Road but not conspicuous. The form of development is shaped by a service industrial road parallel to Culburra Road; most of the existing units have frontage to the service road. It appears as if this is designed to continue westwards in a similar manner to the service road serving the commercial strip.

The proposal is to extend this service road in the form of a loop road serving the balance of the industrial zone. The loop is aligned parallel to the rear boundary; the 'front' service road consequently is raked back from the alignment of Culburra Road. The triangular space between the two roads will be retained woodland. It is anticipated that the retained woodland will screen but not entirely obscure from view the front line of industrial units. It is considered desirable from a commercial point of view that the industrial units be visible from Culburra Road and the entrance to the industrial estate clearly signposted.

The only significant view is from Culburra Road roundabout (see Illustrations CG4).

## 3. The Major Estate

The major estates lie mostly in the Crookhaven River visual catchment and partly in the Curleys Bay visual catchment. It will not be visible from either Culburra Road or Culburra Beach. It may be visible from individual properties

that have frontage to Curleys Bay.

The access to the major estate will be the collector road which springs from the proposed roundabout on Culburra Road. The southern boundary of the major estate is the dividing ridgeline between the lake and river catchments. All the development comprising the major estate is located north of this ridgeline. The ridgeline is north of Culburra Road and the retained woodland, ranging from 200-1000m in depth, will obscure all the development from views from Culburra Road.

Consequently the visual appearance of the approach into this new neighbourhood is considered extremely important. It is designed as an attractive entry point which is considered to be a positive visual attribute for Culburra Road.

The roundabout is introduced on Culburra Road to emphasise the significance of the entrance as well as to smooth traffic flows into and out of the estate. The alignment of the collector road is designed to sweep up around the hillock opening up a sequence of views as it rises towards the oval and then, as it reaches the higher ground, exposing wonderful panoramic views over the Shoalhaven flood plain to the Cambewarra Ranges; the views down the vista avenues to Curleys Bay and the Crookhaven are intended to emphasise the aquatic setting of the new estate.

It is considered that the new estate will not be visible until the divide is crossed by the collector road at a point some 200m north of the roundabout and at an elevation about 7m above the roundabout. Whilst it is anticipated that the area around the roundabout to a depth of about 40m will be cleared of trees, it is considered unlikely that there will be visual awareness of the new estate until the divide is crossed.

It is considered important to provide a visual signal to people on Culburra Road that the estate exists. For this reason a prominent built form element is proposed to be built on the top of the hillock; it is currently considered that an 'outlook' tower rising to about 20m would be an appropriate visual cue announcing the existing of the new estate (see Illustration CG4).

The major estate will be visible from Greenwell Point and Curleys Bay. Views from Greenwell Point are limited to the western end where the leisure hub and the vista avenue will be clearly identified. These views are over a distance of some 400m and will only be in broad outline. They will indicate urban development backed by the vegetation on the high ridge. Views across Curleys Bay will be in the order of 1.5km and little detail will be apparent.

The relevant external viewpoints are from Greenwell Point from across Curleys Bay, from Culburra Road and specifically from the roundabout looking into the estate.

## **The Streetscapes of the Major Estate**

The streetscapes of the major estate are intentionally varied and are designed to enhance the residential attractiveness of the estate and to give it a strong sense of place. The key streets are: (1) the collector road; (2) the vista avenues; (3) the circus (mixed use); (4) the foreshore drives (5) the crescents; and (5) the waterfront business precinct. Each has its own specific urban design concept.

### **3.1 The Collector Road**

The collector road will have residential development mainly on the north side. Due to its elevation and outlook it is considered this road will be a prestigious address. Consequently it is designed to accommodate larger dwellings on larger lots. It is probable that the majority of dwellings will be 'one-offs'. The only site-specific criteria dwellings on the collector road will have to satisfy is the larger set-back and the requirement that vehicles must be able to exit the site in a forward direction.

The collector road is to be landscaped with avenue planting, possibly with an exotic tree such as the London Plane to give colour in Autumn, with the cycleway located on the southern side where there will be very few crossings and a footpath on the north side; the cycleway and footpath will be merged at the divide, from which point the merged cycle/walkway will be located on the north side of Culburra Road leading to the town centre. The medium density site will be serviced by internal roads.

The collector road is aligned to expose a sequence of views that will give clear indication of the structure and character of this new suburb. The sequence is as follows: (1) from the roundabout to the crossing of the divide at which point the extent of the estate is revealed; (2) a slight rise to the intersection with vista avenue east which will provide a vista to Curleys Bay, at right and a view of the outlook tower at left. This point is also a bus-stop serving the eastern section; (3) a long slow decline to the saddle, revealing the oval at left, at right a drainage line which is also a pedestrian thoroughway links to the foreshore reserve. This point is also a bus stop serving the central section; (4) a steady rise curving more sharply up to RL25 where vista avenue west provides expansive views over the Crookhaven to Mount Coolangatta. This location is also a bus-stop; (5) a further climb to the highpoint at RL38 where a local centre is proposed with a broad parkland flowing down to the Crookhaven River; the centre and park will provide panoramic views over the Shoalhaven flood plan to the Cambewarra range and Cambewarra Mountain. The highpoint proposal is not part of the Concept Plan.

This sequence of vistas and places is designed to reveal the urban design qualities of the new estate. The significant views are along the length of the Collector Road and down the Vista Avenues (see Illustrations CG5 and 6).



### 3.2 The Vista Avenues

The object of these avenues is to draw views over Curleys Bay and the Crookhaven River into the estate, emphasising the aquatic setting of the entire estate. It is essential that the vista not be impeded and therefore small scale planting at the edges of the avenues is proposed. Small trees such as wattles may be appropriate with an open crown and a height of about 3.0m. There may be scope for using ground cover, such as a grevillea, to add visual interest at ground level.

Views along the vista avenues are significant.

### 3.3 The Circus

The Circus is intended as a distinctive address for businesses that may locate here. The primary objective is to create a two-storey townhouse over a ground floor that may be a shop, a workshop, an office or professional rooms for, for example, a dentist. The central space is to be planted with decorative trees, such as Jacarandas, that will provide a distinctive seasonal display, thus augmenting the distinctiveness of the address.

The Circus is designed as a contained urban space. The footpath will be arcaded with occasional throughways to the road and the adjacent 55+ small lot housing.

Views into, within and through the Circus are significant views (see Illustrations CG7 and 8).

### 3.4 The foreshore drives

The foreshore drives are considered to be prestigious addresses with some water views. Larger lots are provided here in anticipation of larger residences. The foreshore park is designed to incorporate bio-remedial drainage swales, conserved cultural artefacts (aboriginal middens) in protected settings, conserved coastal vegetation and a cycle/walkway designed as a leisure route. The cycle/walkway will be embellished with BBQ shelters, seating, fitness equipment and the like. It is designed to promote healthy living. It will provide an attractive outlook for dwellings facing the park.

The foreshore drives will also function as asset protection zones with careful management of retained trees adjacent to the road reserves. A boardwalk through the Mangrove swamp, possibly connecting to Billys Island is also an option to increase the variety of pedestrian experience and the overall attractiveness of this location.

Views along the Foreshore Drives and along the Foreshore cycle/walkway are considered significant (see Illustrations CG10 and 11).

### 3.5 The crescents

The crescents are aligned along the contours on some of the steeper land. The vertical difference between each tier of road ranges from 4-7m. The probability is that dwellings on the lower side of the road will have garages built into the ground floor of the dwelling whereas those on the high side will probably have garages in a half-basement with either a one-or two-storey dwelling above. The proponent intends to develop a typology of dwelling types suitable to the slope and the wedge-shaped land parcels. Tree planting and street swales are proposed on the low side of each crescent. Tree types will be selected for the lightness of the tree mantle, and be positioned so as to not obscure views over or between opposite dwellings.

Views along the crescents are considered to be important (see Illustration CG9).

### 3.6 The waterfront leisure hub

The waterfront leisure hub is intended to be a focal point for recreation activities. Its components are likely to include motels, restaurants, cafes and gift shops and the like; these uses are expected to exploit the views over the Crookhaven River and the proposed jetty and boat ramp.

This location is selected as a leisure hub for several reasons. One is that the grassland paddock extends to the waters edge; there are scattered trees along the lower section of the paddock and some of these will be removed to open up the views over the Crookhaven River. Secondly, this section of the Crookhaven is reasonably accessible for pleasure craft and presents the best opportunity for access to the river for a variety of boat types and sizes. Thirdly, the orientation and outlook are very favourable for a range of leisure activities.

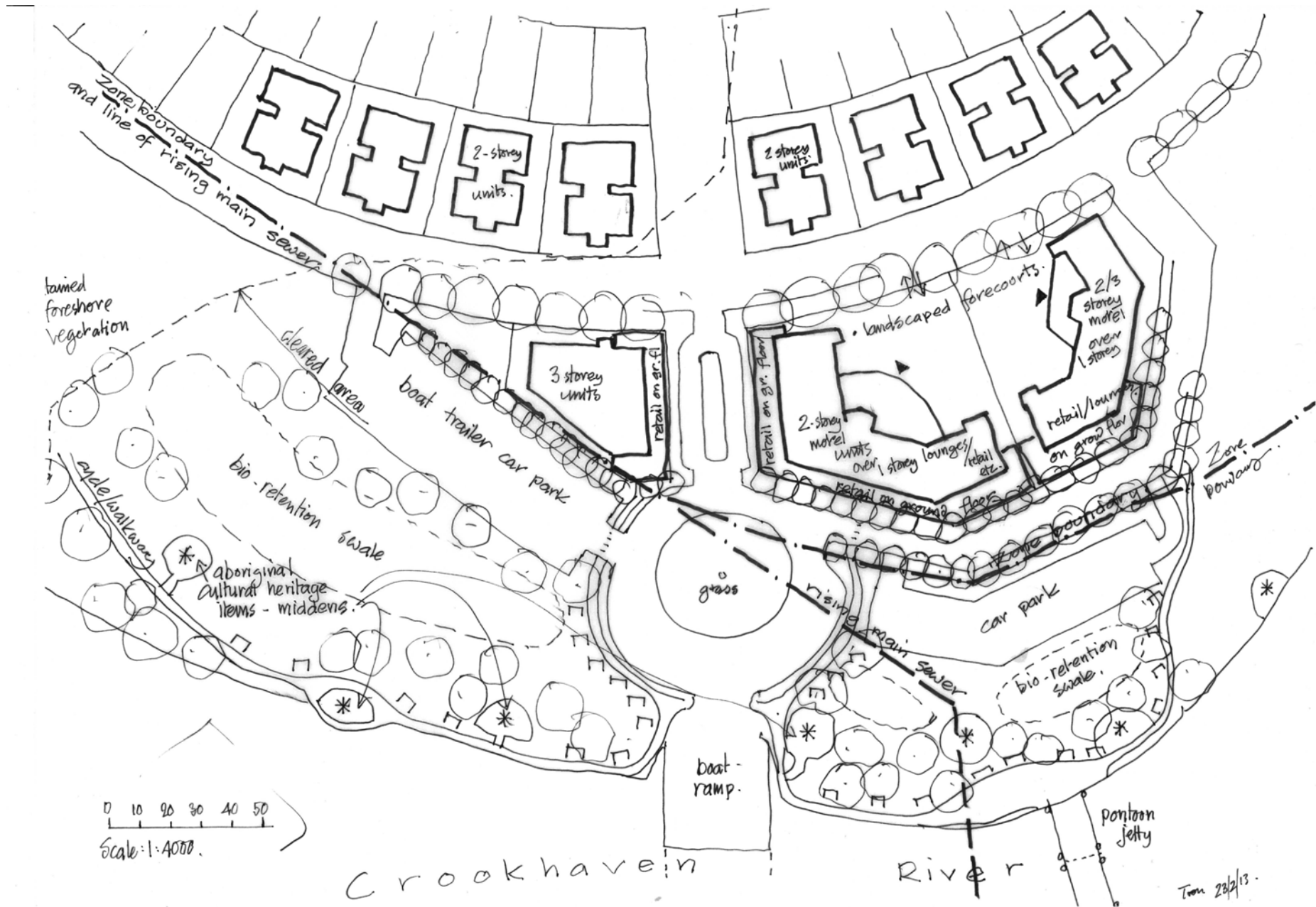
The leisure hub will focus on the Crookhaven River waterfront. The waterfront has six aboriginal midden sites, each of which will be protected so as to prevent vandalism; the details of how each one will be protected will be worked out with the local aboriginal land council, OEH and landscape design consultants.

The form of development proposed is a 300m long promenade (a component of the cycle/walkway) along the river bank which will be embellished with seating, BBQ shelters and the like, and which will incorporate the culturally significant middens in carefully designed settings to ensure their protection. Behind the promenade is a broad area of grassland; the grassland will be informally landscaped with trees (both new plantings and retained trees) to create a park-like setting. Behind this is car-parking, and a perimeter road. The frontage to this road is considered ideal for retail and restaurant uses at ground level and motel units at levels 2 and 3, all of which will overlook the

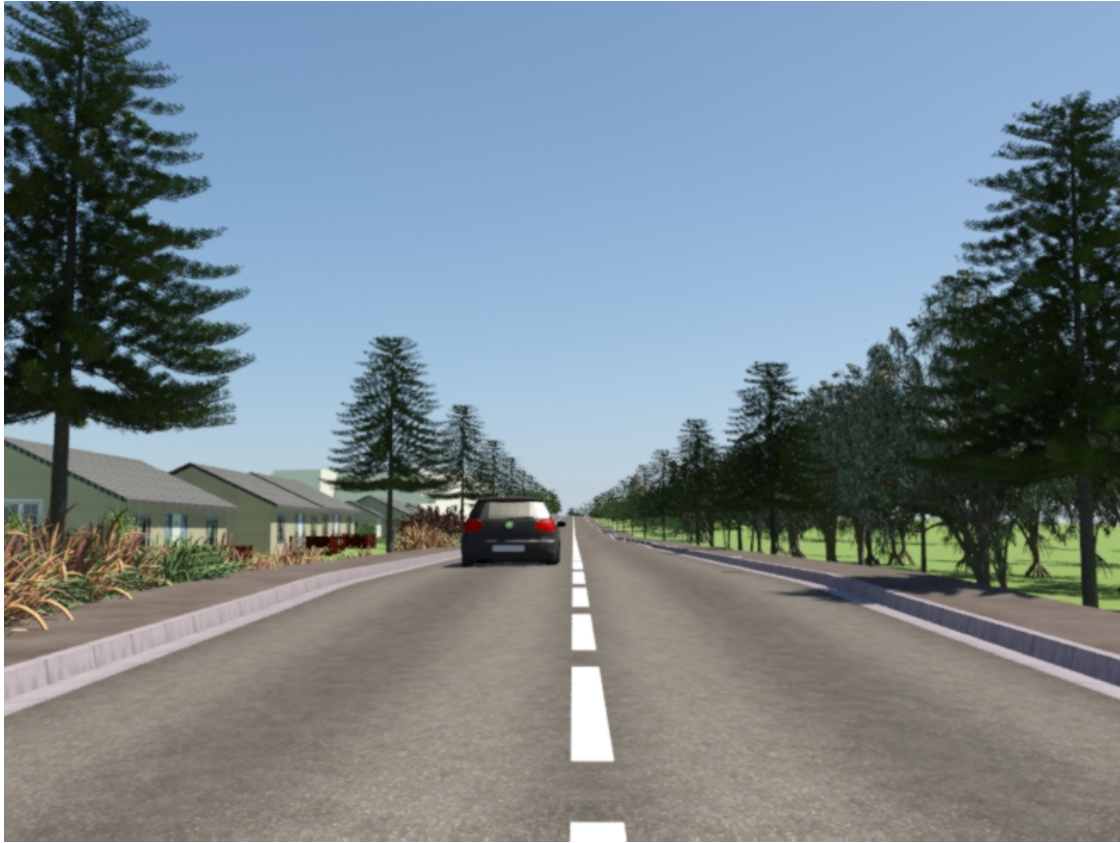
park and the river.

An indicative form is shown on the attached plans (see sketch plan).





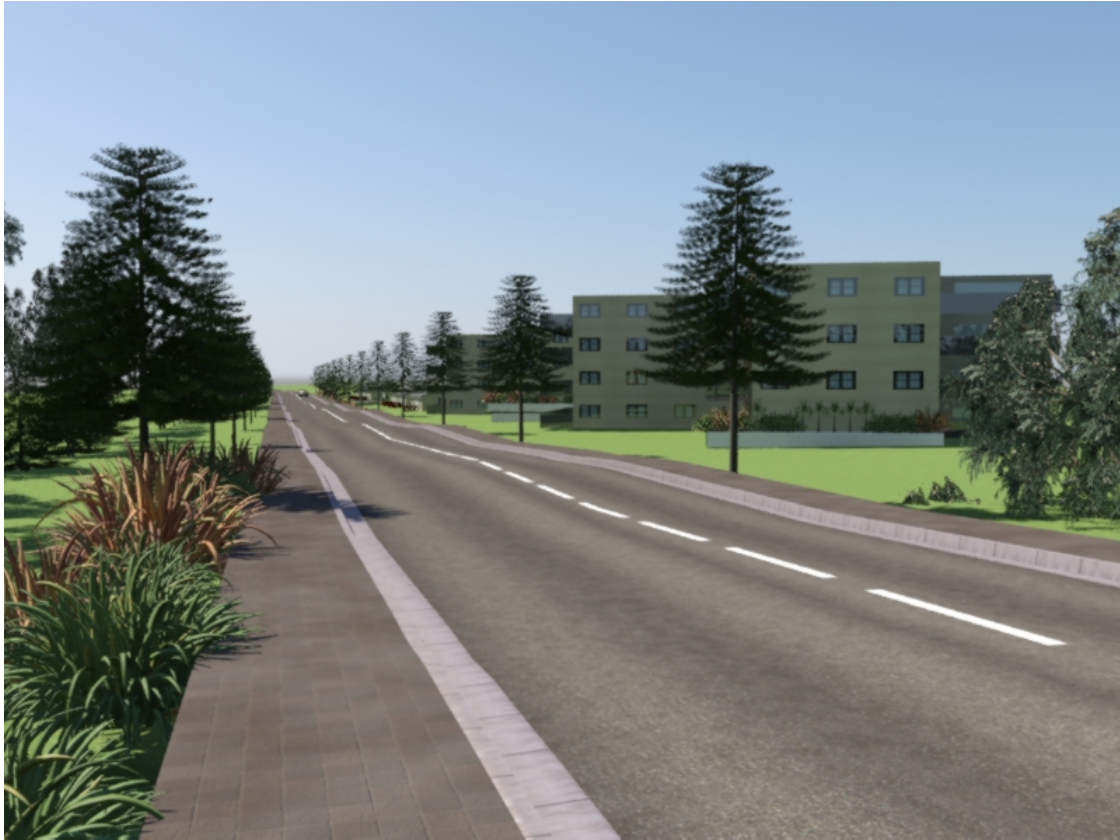
Indicative Sketch Plan of the 'leisure hub'.



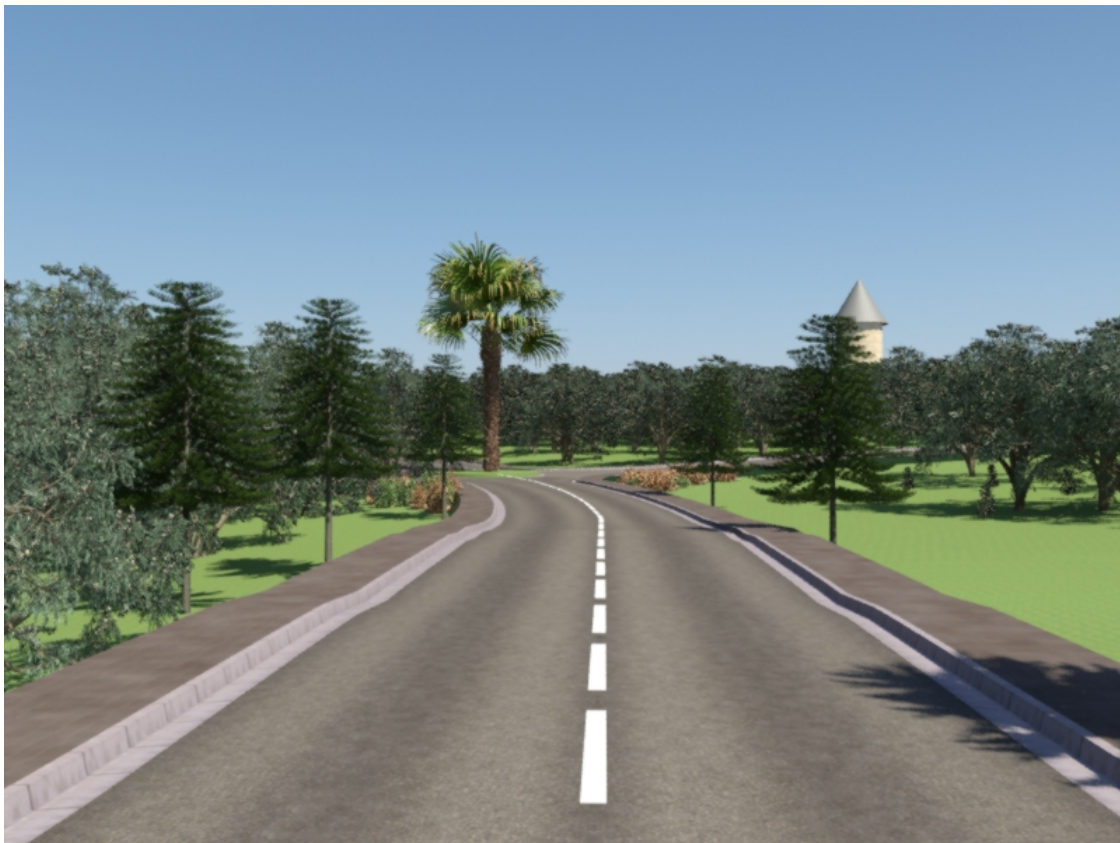
**CG1:** Culburra Road. View looking west along avenue of trees with Stage 1 development area at left.



**CG2:** Culburra Road. View looking east without trees with Stage 1 4-storey units at right.

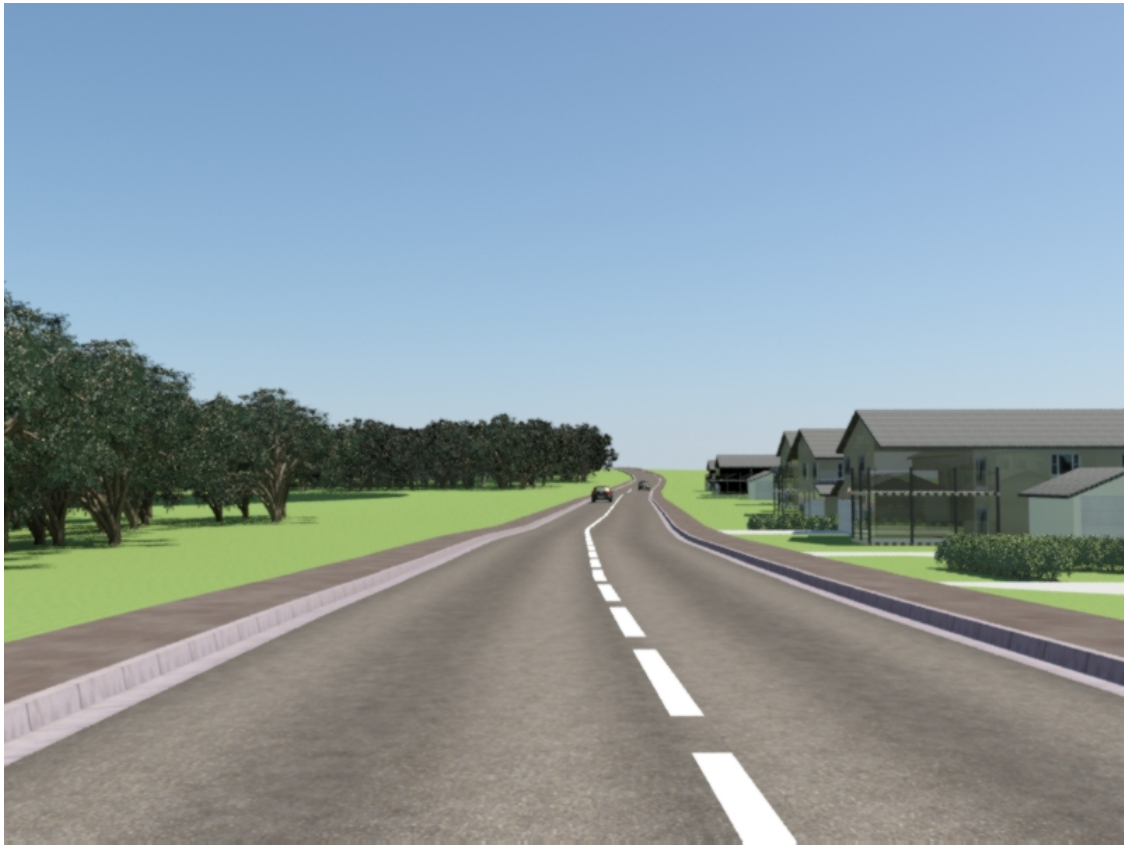


**CG3:** Culburra Road. View looking east with avenue of trees with Stage 1 4-storey units at right.

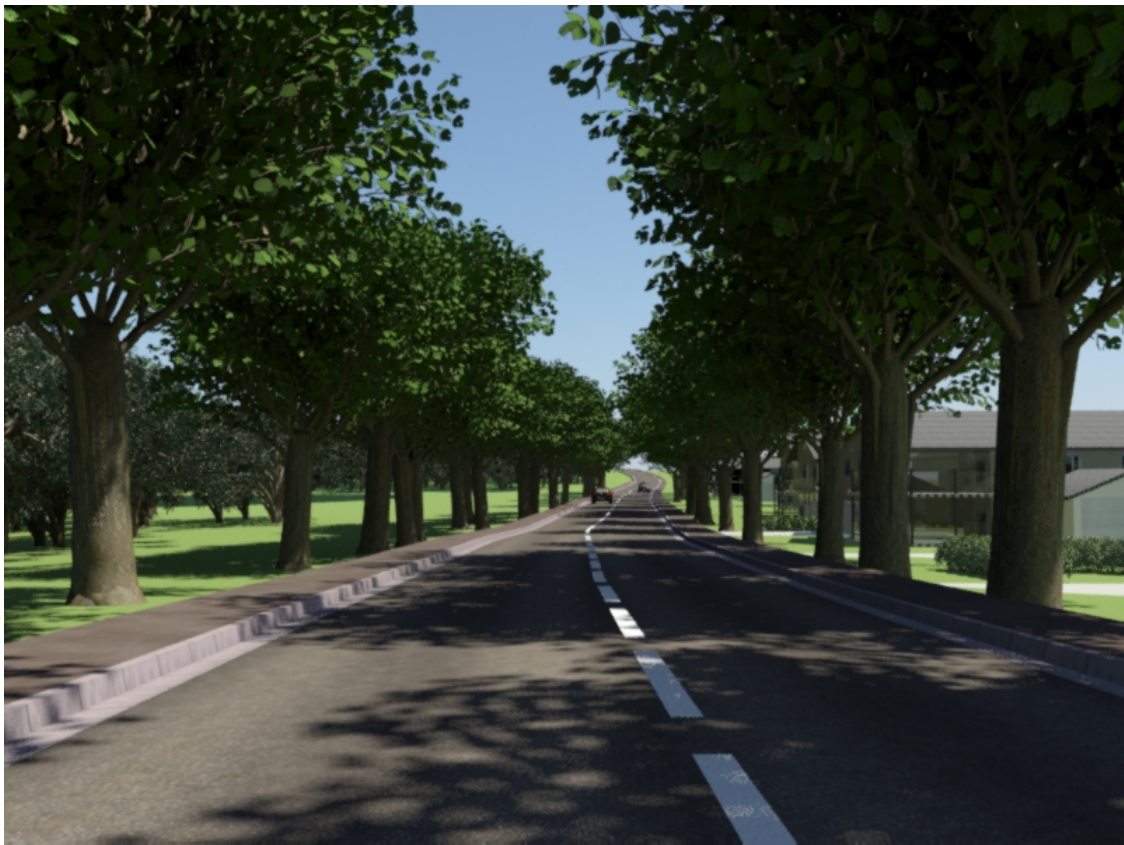


**CG4:** Culburra Road. View looking west towards roundabout with Collector Road to new neighbourhood to right.

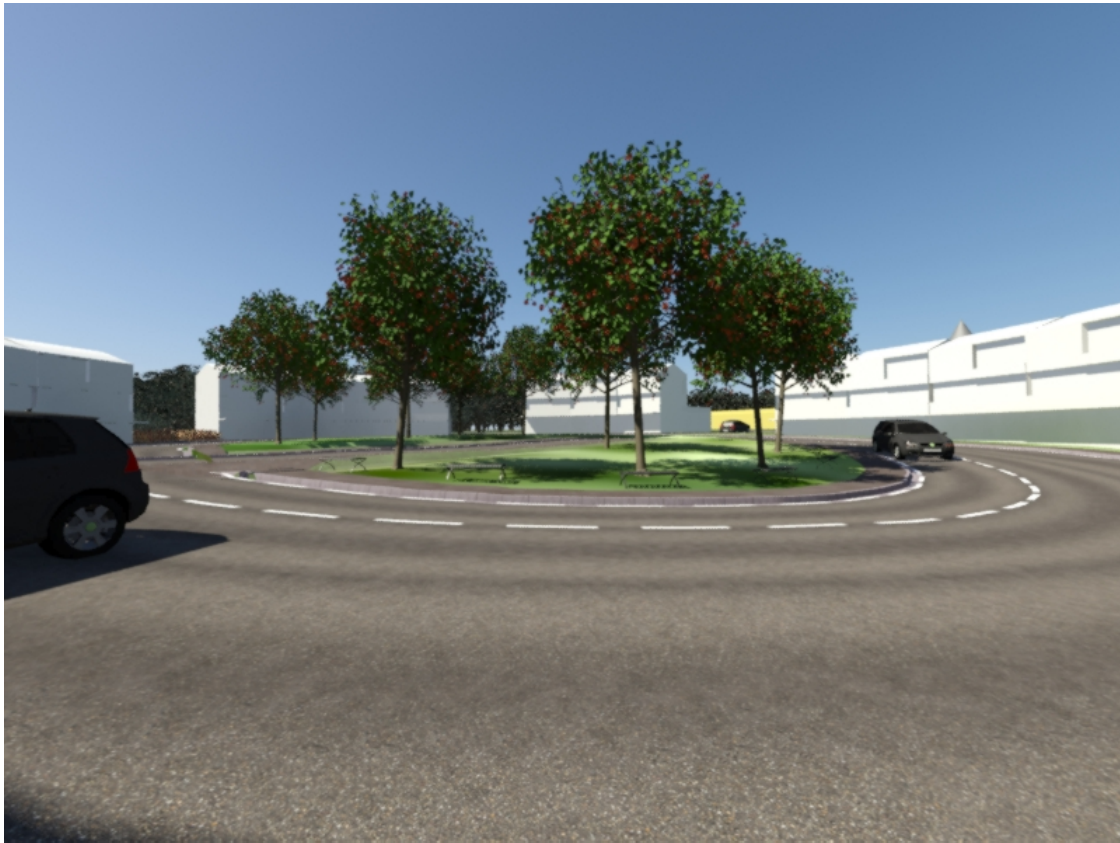




**CG5:** Collector Road. View looking west without trees with oval at left and houses at right.



**CG6:** Collector Road. View looking west with avenue of trees with oval at left and houses at right.



**CG7:** The Circus. View across The Circus looking east indicating the quality of urban space being sought in this feature.



**CG8:** Vista Avenue East. View looking south through The Circus to the 'outlook tower'.





**CG9:** View along first crescent.



**CG10:** View along Foreshore Drive looking east.



**CG11:** View along Foreshore Drive looking west showing Foreshore Parkland at right.