

## **Community Infrastructure Design Guidelines**

Break O'Day Council Municipal Management Plan

May 2013

## CONTRIBUTORS

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# 1 Scope & Methodology

### 1.1 OBJECTIVES

The Break O' Day Council Community Infrastructure and Design Guidelines are to be prepared to:

- a) Establish a manual for the urban infrastructure for the different townships within the Break O' Day municipality;
- b) Create themes that recognise the unique identity of each township or locality while providing a consistency that links each community to the Break O' Day Municipality; and
- c) Provide consistency and standard specifications in relation to seating and tables, signage, bike racks, street signs, public lighting, bollards, planter boxes, water fountains, exercise stations, barbecues, garbage bin enclosures as well as sculpture and artwork identified within the Arts and Cultural Strategy.

### 1.2 SCOPE OF SERVICES AND METHODOLOGY

The methodology to be employed in preparing the Community Infrastructure and Design Guidelines will involve the following tasks:

- a) Review of existing infrastructure by field investigation.
- b) Preparation of an inventory of existing typical infrastructure items noting the general condition.
- c) Review of national trends and standards in relation to community and urban infrastructure items;
- d) Documentation of community catchment areas where distinct themes can be identified.
- e) Creation of a register of the general infrastructure needs in the municipality.
- f) Identify particular infrastructure items required peculiar to the requirements of any townships.
- g) Utilise the outcome of the Recreation and Open Space Plan to identify any particular infrastructure items and priorities for implementation.
- h) Utilise the outcome of the Economic Development Strategy to identify infrastructure priorities.
- i) Preparation of the Community Infrastructure and Design Guidelines Manual.

The data will be collected through visual assessment, community consultation and examination of existing Council documentation. Recommendations will be made based on research, observation and as a result of liaison with Council staff and consultation with the community.

#### 1.3 DELIVERABLES

a) Preparation of a Community Infrastructure and Design Guidelines Manual which will:

- Identify key characteristics or themes for the various townships;
  - Provide consistent and standard specifications;
  - Set guidelines for safety and usability, including use by those with disabilities;
  - Set standards for maintenance, anti vandalism and durability;
  - Establish siting principals for key infrastructure items and
  - Consider environmentally sustainable principals including the use of recycled materials.
- b) A one-two page summary document of the outcomes of the report.

### 1.4 EXCLUSIONS

The Manual will not contemplate the specific design of infrastructure items but will establish a brief from which proprietary items can be selected and evaluated against clear criteria.

# 2 About the Guide

### 2.1 PURPOSE OF THE GUIDE

The Community Infrastructure Design Guide aims to establish a manual for the selection and placement of urban infrastructure within the different townships of the Break O'Day region. The Guide is to provide consistency and specification for items including public seating, picnic tables, signage, bike racks, street signs, bollards, etc. The Guide outlines the issues and priorities of existing infrastructure items in regard to their placement and/or upgrade.

## 2.2 INVESTIGATION

The purpose of the guide is to create a consistent aesthetic to public spaces in the region. An inventory of existing items was undertaken to establish the issues and priorities of each township. The inventory and community consultation helped to identify themes within the regions of the Break O' Day municipality, which informed the identity and character of the design choices. Analysis of recent national trends assisted in producing relevant and informed design outcomes.

## 2.3 GUIDE OUTCOMES

The infrastructure selection process is to be streamlined to ensure quality and visual coherency to the product choices. The placement and upgrades to proprietary infrastructure is to be read in accompaniment with the Open Space and Recreation Management Plan 2013. Opportunities for custom and bespoke items are to be considered in line with those options documented in the Arts and Cultural Strategy 2013.

# 3 National Infrastructure Trends

### 3.1 TRENDS

To ensure the most recent data regarding national infrastructure trends case studies were limited to urban design schemes from 2011 to present. Study areas were focused on regional redevelopment to both coastal and country areas of Australia.

Recent trends have encouraged discussion about the necessity of public street furniture and infrastructure, questioning its social contribution and environmental sustainability. Innovative proprietary street furniture and a tendency towards custom and bespoke products are now desirable for public spaces. An appropriate infrastructure choice has the ability to define a place characteristically and aesthetically for the promise of increased liveability and, in cases, increased tourism potential.

Infrastructure design requires that choices of street furniture types and their siting become a deliberate decision that adds purpose to a place. Infrastructure that is well thought out in regard to aesthetic performance, durability and siting helps to create a positive experience. This experience can be measured partly by the time taken by the community and tourists to visit and stay in the area.

## 3.2 STANDARDS

Current infrastructure design and implementation standards are scarce. As it stands, Tasmania has no overarching standard. All decisions however must comply with the Disability Discrimination Act 1992 and Australian Standard 4801 Occupational Health & Safety.

Canberra Central Council & Melbourne City Council do have urban infrastructure design guidelines. The guidelines focus on prescriptive measures regarding infrastructure siting and durability. Separate design documents or databases are given for specific product selection. The prescriptive measures ensure that the selection of proprietary and custom products are economically feasible; reviewed in regard to on going maintenance and durability; and aesthetics to maintain and enhance the sense of place.

This document in conjunction with the Break O' Day Recreation & Open Space Plan and the Economic Development Study will provide measures that encourage consistent and sustainable choices and maintenance of urban infrastructure in the Break O' Day Municipality.

## 3.3 CASE STUDIES

#### Dysart Municipality, QLD, 2012 (Regional - Country)

Infrastructure choices in Dysart are very much a response to climatic needs and a requirement to define Dysart as a liveable place.

- Proprietary Seating is always amongst shading at existing and proposed gathering places along publicly surveillanced areas.
- Public lighting is increased along roadways and cycle ways to encourage alternative modes of transport both in the evening and day.
- Bespoke signage becomes a beacon to passers-by and adds character to the Dysart community.
- Play gyms use a combination of proprietary (Dix & Hite 2012, p.65) and custom pieces that encourage safe play but also add to the overall aesthetic of the municipality.
- There is careful consideration of materiality and landscaping.

The sustainability of Dysart's infrastructure proposals come from a need to create socially functional public spaces by using locally sourced materials.

Clermont Municipality, QLD, 2012 (Regional - Country)

Infrastructure choices for Clermont were to create economic growth through tourism and improve the liveability for the local community in the area. The priorities were to create,

- Links to historically significant areas through bespoke directional and interpretive signage. These spaces were then to provide age tailored items such as playgrounds, seating and barbeques.
- A material palette that was representative of materials found in the area, stone and metals.
- Connections back to the history of Clermont were to be defined in the form of infrastructure items provided.



(Dix & Dahlitz 2010, p.55)

Light and shade was a priority for Clermont. This is a direct reaction to the hot and dry climatic conditions of regional Queensland. Areas of shade highlight resting points amongst open public space. Shade offers relief from the elements for tourists and the local community, that in turn encourages extended people presence in the space. The urban framework also suggested light installation to encourage night activation as a secondary approach to respond to the hot and dry climatic extremes.

#### Streaky Bay, SA, 2011 (Regional – Coastal)

The Streaky Bay Infrastructure design guide focuses on strengthening the character of a place rather than defining a place. The area required a broad outline focused on materiality and the siting of infrastructure to amplify the character of individual towns.

Recommendations included the,

- Installation of contemporary public art that was reflective of the history of the town.
- The incorporation of contemporary infrastructure to the existing items to reinspire local activity to the area.
- The upgrade of surface treatments to create coherent connections between places.



(Suter 2011, p.35)

# 4 Community Catchment Areas

### 4.1 PAST

Communities within the Break O' Day municipality in the past were recognised as individual towns. Each town expressed a theme from either its industrial, natural or community history. A local artist was engaged by Council to graphically display these themes on the entrance signs to each town several years ago. Many of these signs require refurbishing and appear dated.

### 4.2 PRESENT

Not all in the community identified with current depictions that represent the town. The images only express one aspect of the population and for communities that are diverse in its history, its environment and its industry this illustrates a narrow view. As it stands there is a necessity to widen the catchment areas from individual towns to broader regions. This is intended to extend the identification of the community for improved resonance with the population.

### 4.3 FUTURE

The proposal is to allocate two themes across the Break O' Day municipality; the Coast and the Country. Having two themes instead of 14 allows for wider acceptance in the community and for the possibility for a clearer overall vision for marketing tourism, investment and settlement.

## 4.4 COUNTRY CATCHMENT

Towns of the country include, St Mary's, Fingal, Pyengana, Mathinna, Mangana, Cornwell and Weldborough.

The history of the country involved industry in grazing, mining; tin and coal, forestry and the post rail line from the north to the east coast. Natural features that surround the area include the temperate forest of Ben Lomond National Park and St Patrick's Head. Current tourism attracts bush walkers, mountain climbers and driving holidaymakers.



### 4.5 COASTAL CATCHMENT

Towns of the coast include, St Helen's, Beaumaris, Binalong Bay, Scamander, Falmouth, Seymour and Anson's Bay.

The history of the coast involved industry in forestry and commercial fishing. Natural features that surround the area include populated bays, inlets and lagoons surrounded by marine sanctuaries and national parks. These areas nurture endemic and endangered flora and fauna. Major tourism in these areas includes game fishing, bushwalking and bird watching. There is a large 'shack' culture in this area that sees a large influx to the population over the holiday periods.



# 5 Infrastructure Inventory

## Typical Infrastructure Inventory

## Picnic Tables

	Location	Materiality/Condition/ease of use	Siting
	St Helen's St Mary's Fingal Mathinna Mangana	Treated pine with concrete base. All in good condition. Obstructed, difficult for elderly.	In general open space. Near BBQs & picnic areas. Along the foreshore
	St Helen's	Treated pine tops with concrete base. In good condition. Obstructed, difficult for elderly.	Along the foreshore
THE STATE	St Helen's Point	Recycled materials with concrete base. (blue) Chosen for its durability in coastal areas. Easy to access	Along the foreshore Brand: Replasi Recycled products
	Anson's Bay	Recycled materials with concrete base. (grey) Chosen for its durability in coastal areas. Easy to access	Along foreshore areas Brand: Replasi Recycled products
<b>SP</b>	Fingal	Recycled material, concrete base. In good condition. Wheel chair or walker seat ok at ends	In park areas near public toilets

Durability:	Materials chosen are not location specific. All picnic tables are in good condition. Vandalism does not seem to be an issue.
Safety:	Risk of personal safety at night due to obscured locations and a lack of lighting.
Maintenance:	Low maintenance required.
Environmental Sustainability:	There has been an effort for the products to have a recycled quality in their selection.
Siting:	The specific siting of the picnic tables seems adhoc. The only guideline for its placement is the available open space or proximity to public amenities.

## Bench Seats

Location	Materiality/Condition/ease of use	Siting
St Helen's Binalong Bay	Recycled materials with concrete base. Recent installation in very good condition. Easy to access	Facing the foreshore Brand: Replasi Recycled products
St Helen's	Stainless steel, secured to pavement. In good condition with minor damage (scratched, dented) Easy access	St Helen's main street and shopping district
Binalong Bay	Galvanised steel. Treated timber. In good condition somewhat out dated in style. Uncomfortable back rest	Along the foreshore
Binalong Bay	Galvanised steel, treated timber. In poor condition with heavy rust. Needs replacing at the same time its age adds character to the area. Easy to access	At boat ramps and popular fishing spots

Durability:	Materials chosen are location specific, recycled materials and stainless steel for coastal areas. Most bench seats are in good condition. Damage from use does not seem to be an issue except in shopping districts.
Safety:	Personal safety is of concern at night in some areas. Consideration to be given to lighting where evening use is likely.
Maintenance:	Low maintenance required.
Environmental Sustainability:	There has been an effort for the products to have a recycled quality in their selection.
Siting:	The specific siting of the picnic tables is along roadways. Its use seems to be for short stops and taking in the distant view.

## Bollards

Location	Materiality/Condition/location	Siting
St Helen's	Stainless steel. In good condition Suitable in urban context	St Helen's shopping district on main road
Fingal	Treated pine Suitable in a natural setting	Along road side entrances to public parks and recreation areas
St Helen's	Recycled materials Suitable where visual prominence is required, unsuitable where bollards are to be unobtrusive.	Park in Binalong Bay Brand: Replasi Recycled plastic products

Durability:	There is no vandalism due to hard wearing materials and siting close to roadways.
Safety:	N/A
Maintenance:	No maintenance required.
Environmental Sustainability:	Embodied energy costs in material choice. For instance stainless steel vs. recycled
Siting:	Used as a barrier for vehicles to pedestrian focused areas.

## Rubbish Bins

Location	Materiality/Condition	Siting
St Helen's	Steel. In bad condition. Should be replaced for better maintenance and safety.	Public open space and recreation areas
St Helen's	Stainless steel. In good condition, scratched and dented in some places	St Helen's main street and shopping district
Fingal	Concrete. In good condition.	Public open space along roadways
Fingal	Concrete. In good condition.	Near public toilet blocks
Mathinna	Powder coated steel. In good condition	On roadside near BBQ shelters
Beaumaris	Concrete. In good condition	On roads & public shelters
Fingal	Plastic. In good condition.	On roads & public shelters

## General Commentary

Durability:	There is no vandalism due to hard wearing materials and siting close to roadways.
Safety:	Currently no safety concerns expect for those that should be replaced.
Maintenance:	A large variety of bin types and how they are emptied can become time consuming.
Environmental Sustainability:	Embodied energy of material choice vs life expectancy
Ergonomics:	The ease of disposal for council staff is affected by rusted and aged materials, it tears bags and poses a safety hazard.
Siting:	The specific siting of the rubbish bins is along roadways in open public spaces, public toilets and recreation areas.

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## Barbeques

Location	Materiality/Condition	Siting
St Helen's St Mary's St Helen's point Fingal Mathinna	Brick with tiled top, concrete base. In good condition.	Public open space and recreation areas close to roadside or car access points
Mathinna	Stainless steel. In good condition	Public open space and recreation areas close to roadside or car access points

Durability:	There is no vandalism due to hard wearing materials and siting close to roadways.
Safety:	Currently no safety concerns.
Maintenance:	There appears to be no clear procedures on the cleaning process of the barbecues.
Environmental Sustainability:	The selection of materials has not considered the embodied energy of material choice vs life expectancy.
Ergonomics:	Good work/preparation space. Those with awnings offer protection from environmental weathering.
Siting:	The specific siting of the BBQs is along roadways in open public spaces and recreation areas.

## Public Toilets

Location	Materiality/Condition	Siting
St Helen's Point	Pine, rendered masonry, glass, colorbond, concrete slab. In very good condition	Off public car park before entrance to beach
Binalong Bay	Rendered masonry, steel, colorbond, concrete slab. In very good condition	Off public car park before entrance to the bay
Anson's Bay	Timber frame, Colorbond, concrete base. In good condition	Off public car park before entrance to the bay
Fingal Mathinna	Concrete block, timber fascia, metal roof, concrete slab	Off public car parks, on open public space and recreation areas.
Beaumaris	Concrete block, timber fascia, metal roof.	On roadways & to beach entrances

Durability:	The structures are hard wearing and durable. Timber fascia and lining boards require maintenance.
Safety:	Lighting and accessibility during the evening is the only concern.
Maintenance:	The fitting internally are often PVC and other plastics and need to be replaced regularly.
Environmental Sustainability:	Coastal structures are often composting, this could be a consideration for all future public toilets. Replacing interior fittings with recycles plastics instead of PVC is an option.
Ergonomics:	Very limited accessible toilet options.
Siting:	Timber framed and lighter weight structures used along coastal areas. They respond to a climatic condition and their aesthetics become complimentary to the area.

## Play Gyms

Location	Materiality/Condition	Siting
St Helen's Point	Powder coated steel and hardwearing plastics. In good condition.	In public open spaces near BBQ areas
Binalong Bay	Powder coated steel and hardwearing plastics. In good condition.	In public open spaces near BBQ areas
Anson's Bay	Powder coated steel and hardwearing plastics. In good condition.	In public open spaces near BBQ areas

Durability:	Proprietary products are hardwearing and reduce council liability. They are only subject to fading.
Safety:	Very safe, however they limit the potential for adventure and imaginative play.
Maintenance:	Fenced in structures suggest previous vandalism. Wood chip ground surfaces need replacing regularly.
Environmental Sustainability:	Overtime, powder coated structures will deteriorate along coastal areas. Plastics will deteriorate in full sun. There are opportunities to explore recycled materials as alternatives.
Ergonomics:	From observation, this type of play equipment limits the user group to ages below 10 regarding heights and flexibility of play. Limited Accessible options.
Siting:	Play gyms in full sun would benefit from shading (natural/manmade) to protect the lifespan of the existing equipment.

## Picnic Huts/Shelters

Location	Materiality/Condition	Siting
St Helen's Point	Painted timber frame, Colorbond roofing, concrete base. In good condition. Benefit from fresh paint.	Public transport routes
St Helen's Point	Brick, timber, concrete footings, Colorbond roofing. In good condition.	Central to public open spaces. Usually close to toilets.
St Mary's	Steel structure, timber roof, tin roof sheeting, concrete base In good condition.	Central to public open spaces. Usually close to toilets/children's play equipment
Fingal	Steel structure, steel sheeting, concrete base. In good condition.	Used as BBQ shelters
Mathinna	Steel structure, steel sheeting, concrete base. In good condition.	Used as BBQ shelters
Mathinna	Treated pine, concrete base. In good condition	Information booth on roadside. Question its entire use, there is no information here
Mathinna	Concrete block, concrete base, steel sheeting. In OK condition, Steel sheeting is weathered	In public open space along roadside

Location	Materiality/Condition	Siting
Fingal	Timer framed, tin roofing, painted finish. In OK condition	Along public recreation area
Seymour, Scamander	Timber framed, steel sheeting, concrete base. In OK condition.	Along road ways where public transport operates

Durability:	Timber structures require painting. The steel framed shelters seem more durable.
Safety:	Older structures are to be checked for adequate lighting.
Maintenance:	Cleaning of chimney structures in BBQ shelters.
Environmental Sustainability:	The selection of materials has not considered the embodied energy of material choice vs. life expectancy.
Ergonomics:	Some enclosed structures allow poor access for wheelchairs and the elderly.
Siting:	Siting at times does not seem to provide much protection from sun, wind or rain.

## Signage

	Location	Materiality/Condition	Siting
Velicita are reminded to - - Camp only at authorised sites - Remove their own rubbian • Knep all vehicles on gravel roads	Binalong Bay Anson's Bay St Helen's point	Recycled material. In very good condition	Entrances to walking tracks and scenic areas. In public camping grounds Brand: Replasi Recycled plastic products
	Binalong Bay	Recycled materials. In good condition	Warning signs to public walking tracks and naturally sensitive areas Brand: Replasi Recycled plastic products
	Binalong Bay	Steel, concrete footings. Good condition	Popular mooring points
MANGANA Peaceful valley	To all towns	Steel. Differing colour variations	On main entrances to all the major townships
<section-header></section-header>	St Helens	Stainless steel? Good condition	Public safety sign for use of exercise equipment. On public pathway on entrance to exercise zone.

## General Commentary

Durability:	All signage is very durable.
Maintenance:	Limited maintenance is required.
Environmental Sustainability:	Efforts in newer items to use recycled materials.
Ergonomics:	Signs appear to be of appropriate height, lettering size and visibility.
Siting:	All at obvious lines of sight for easy identification.

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## Peculiar to an Area

Location	Materiality/Condition	Siting
Binalong Bay	Mooring Posts Stainless steel, galvanized steel. In varying conditions between rusted through and new	Popular dingy mooring sites along Binalong Bay
Binalong Bay	Fish Preparation Bench Stainless steel. In very good condition	Specific to Binalong Bay on popular fishing pier
Binalong Bay	Pier step ladders Galvanized steel. In need of cleaning/ replacing	Specific to Bianlong Bay. On popular mooring and swimming pier
Anson's Bay	Pier Treated pine, steel, decking is fibreglass possibly recycled? In new condition	Specific to Anson's bay. Along the bay foreshore
Fingal	Chimney, Heritage item Brick, Steel In good condition	Specific to Fingal In open public space, a town signifier
Fingal St Mary's St Helen's	Information shelter Concrete, timber, plastic In good condition	Specific to Fingal. Next to main road and public toilets

Location	Materiality/Condition	Siting
Anson's Bay	Fish cleaning sink Found items, Kitchen sink, timber posts In OK conditions	Specific to Binalong bay. On the foreshore close to popular beach fishing points
St Helen's	Picnic Bench Told tree trunk, treated pine, concrete. In good condition	Specific to St Helen's. Along the foreshore amongst trees

- The items are site specific in materials
- Haphazard materiality, found items.
- Adds a localised quality
- Vandalism is minimal
- High use items

## Exercise Stations

Location	Materiality/Condition	Siting
St Helens	Powder coated steel and hardwearing plastics. In good condition.	Along the foreshore on public parkland. Next to footpath for good passive surveillance.
St Helens	Powder coated steel and hardwearing plastics. In good condition.	Along the foreshore on public parkland. Next to footpath for good passive surveillance
St Helens	Powder coated steel and hardwearing plastics. In good condition.	Along the foreshore on public parkland. Next to footpath for good passive surveillance
St Helens	Powder coated steel and hardwearing plastics. In good condition.	Along the foreshore on public parkland. Next to footpath for good passive surveillance

Durability:	Proprietary products are hardwearing and only subject to fading.
Safety:	Appropriate signage and ground coverings.
Maintenance:	Hard wearing equipment difficult to vandalise
Environmental Sustainability:	Overtime, powder coated structures will deteriorate along coastal areas. Plastics will deteriorate in full sun.
Ergonomics:	Appropriate for most age groups. Simple instructions allow access for abled-bodied persons.

Siting:

Could benefit from shading (natural/manmade) to protect the lifespan of the existing equipment and for use all day rather than mornings and afternoons.

# 6 Issues & Priorities

#### 6.1 ISSUES

The current community infrastructure experiences three main issues, access, consistency and environmental sustainability.

User and maintenance access is of concern. The immediate particulars include,

- The limited disabled access to public amenity such as toilets, seating and play areas
- Out dated and deteriorated rubbish bins are in need of replacement for improved user and maintenance safety
- The seemingly haphazard siting of infrastructure items at times counteracts the physical or visual access to public spaces by the community and visitors.

Consistency

- There is no register or records kept of existing community infrastructure in the Break O' Day. Limited consistency of product selection, no record of expenditure or warrantees on proprietary items
- Material and/or colour palettes have never been established to provide visual consistency between infrastructure items

Sustainability

- The selection of a product based on the environmental impact of its materiality is seemingly made haphazardly.
- No guidelines on lifespan, replacement, reappropriation or recycling of existing and future infrastructure items

#### 6.2 PRIORITIES

The immediate priorities that the infrastructure design guidelines shall address include,

- Recommendations of proprietary products that consider the environmental materiality and lifespan of the product
- The immediate upgrade of rubbish bins for reasons of public safety and for easy maintenance by Council
- A selection of accessible outdoor park and street furniture to provide equal access to public spaces, to include public toilet blocks
- A material and colour palette to provide consistent selection and specification of both proprietary and bespoke infrastructure
- Siting criteria for new infrastructure placement and recommendations for improved siting of existing infrastructure

# 7 Design Principles for Community Infrastructure

## 7.1 COAST AND COUNTRY INFRASTRUCTURE SITING

The Guidelines are to inform infrastructure choices for the purpose of capitalising on the visual and recreational assets of each community. Each of these assets highlights the themes of each catchment area out lined in Section 2.1. The siting of infrastructure within these public spaces is to provide new or improved user amenity to increase the frequency of visitation and extend visitation times to these selected areas.

The communities and current tourism opportunities of the Country catchment are positioned amongst historic towns. These towns are currently considered as 'stop off' points on the way to somewhere else. The potential for increased tourism and community growth in and around these towns, is to expand the awareness of local historic, natural or industrial places. The promotion of activities at these places such bush walking, rock climbing, camping and homestead stopovers hope to encourage extended stays in the area. Country areas that would benefit from improvement to the community infrastructure include,

- St Mary's Rivulet Parklands
- Fingal GPO and Heritage Precinct
- Mathinna Recreation Grounds
- Cornwall Memorial Gardens

The Coast differs from the Country region in so far as the areas for increased community and tourism opportunities such as bays, inlets, lookouts and other foreshore areas are outwardly visually evident and physically accessible. Although accessible these areas are yet to fully capitalise on their tourism potential with the suitable community infrastructure. Through the targeted installation of community infrastructure items, the amenity provided to the community and tourists will encourage extended use of the site and prolong stays to Coastal areas. The Community and tourism, visual and recreational assets of the Coastal catchment include,

- George's Bay Foreshore
- Scamander Bridge Esplanade
- Falmouth inlet
- St Helen's Point

## 7.2 MATERIALS, COLOUR AND FORM

The guidelines will draw from the existing material and colour palettes of the Coast and Country to further enhance the regions identity. The materials proposed incorporate, maintenance, antivandalism, durability and sustainability. The form of infrastructure items are to reinforce the themes of an area.

The purpose of infrastructure while providing community amenity to a place should strive to enhance the experience of the 'everyday' to create community destinations. Section 7.3 Style Guide outlines materials and colours that are to be employed to create points differences between the two themed catchments of the Break O' Day region.

## 7.3 STYLE GUIDES

#### The Country MATERIALS, COLOUR AND FORM

The Country aesthetic includes materials such as, red brick; rusted corrugated iron and differing varieties of stone. The form and materials of the Country echo the inherent heaviness of the stone and forest timbers used in the colonial architecture. Materials such as corrugated iron and red brick reference the industrialised forms of the local industry while creating interesting forms to public space.



RED BRICK
 • RUSTED STEEL
 • SANDSTONE

•TEXTURED SURFACES, GRASS, PAVEMENT •NATURAL TIMBERS

**Primary** materials for the area include rusted steel and natural timbers.

**Secondary** materials include red bricks, sandstone and recycled composites.



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## 7.3 STYLE GUIDE cont.

#### The Coast MATERIALS, COLOUR AND FORM

The water, the sand and the weathered timbers of the 'shack' like dwellings that filter throughout the coastal towns visually define the Coast. Coastal infrastructure is to emulate the lightness of 'shack' dwellings, dense shrub bushland. Forms that respond to the movement and changes to the sand dunes and the ocean create an altered sentiment to the Country aesthetic. Objects peculiar to the Coastal catchment includes items such as boat piers, pontoons and mooring posts.



• STAINLESS STEEL • WHITE STONE/CONCRETE • LIGHT NATURAL TIMBER • LIGHT SURFACES • GRAVEL, SAND, AGGREGATES

**Primary** materials for the area include white stone or concrete and natural timbers that are allowed to weather over time. These colours and textures are to dominate the selection of future infrastructure items. **Secondary** materials include recycled composites in sky blue or a bush green and stainless steel. The materials are to be used on smaller infrastructure items. These colours are not to dominate the surrounding landscape but rather add accents of colour when required.



# 8 Infrastructure Selection Criteria

### 8.1 INFRASTRUCTURE HIERARCHY

Community Infrastructure items have a visual and serviceable hierarchy. The Guidelines outline the level of risk for each infrastructure item. These categories can then determine whether a bespoke or proprietary item is best suited for its visual and/or serviceable amenity to a place. This hierarchy of infrastructure can be categorised into 3 levels;

- **High-risk** items are those that are those that have frequent active use, movable parts and require regular maintenance and provide basic amenity to public space. The visual impact on the immediate landscape is low however due to the numbers of these items in the Break O' Day consistency is required for cohesion.
- **Medium-risk** items are those that have passive or controlled uses. These items are fewer across the region however they provide a service that encourages visitors to stop and stay. Intriguing and comfortable design has the potential to support longer stays.
- **Low-risk** items are generally larger structures that are visually dominant due to their size and scale in public space. The permanent nature of these structures require visually interesting design.

Some infrastructure items have several components that involve multiple levels of hierarchy. For example the taps and faucets of a public toilets would be considered low-risk however the shelters would be considered high risk due to their physical dominance in the landscape.



## 8.2 PROPRIETARY AND BESPOKE INFRASTRUCTURE

The choices made in the Guidelines between proprietary and bespoke infrastructure have been determined by,

- The risk level of the infrastructure item specified.
- The objects requirement to facilitate the enrichment of a Coastal or Country theme.

**Proprietary** (off-the-shelf) infrastructure options are best suited to **high** to **medium-risk** infrastructure choices. The benefits of proprietary items include,

- Proven and tested products relevant to Australian Standards.
- Economic solutions to items that are high-risk due to frequent use, manhandling and maintenance that require frequent repair or replacement.
- Consistency of design including warranty assurance options.
- Arrangements for on going supply chains.

**Bespoke** (purpose-designed) infrastructure is best suited to **medium** to **low-risk** infrastructure items. The value of bespoke infrastructure choices is the ability to,

- Design specifically tailored to enhance the themes of Coast and Country.
- Promote local design and craftsmanship in the municipality
- Encourage local industry with economically feasible options for repeated manufacture, especially in regard to medium-risk options.

Below are Australian based suppliers of **high-risk** proprietary community infrastructure items. Selections of brands are to be in line with colour, form and materiality as specified in The Guidelines.

- Commercial systems Australia
  http://www.commercialsystems.com.au/
- Street furniture Australia http://streetfurniture.com/au/

The following suppliers specialise in proprietary items of a developed level of design to be considered for items that are of a **medium-risk**.

- Steintec Pty Ltd, select 'Escofet' tab http://steintec.com.au
- Urban fountains and furniture http://www.urbanff.com.au

## 8.3 INFRASTRUCTURE SELECTION STRATEGIES

Implementation of community infrastructure shall require two approaches; the installation of new public infrastructure and the retrofitting of the existing stock.

#### New development

The scope of The Community Infrastructure Guidelines excludes contemplation of specific design of infrastructure items. The specific design and selection of infrastructure items should be developed in conjunction with both Council planners and urban designers. This collaboration can be facilitated by selecting a Country area and a Coastal area outlined for immediate development by Council, to establish 'base plans' for proposed infrastructure development across the themes in the Break O' Day. Areas outlined in section 7.1 are potential catalysts for new infrastructure development.

Accompanying theses 'base plans', a register or schedule for low to medium-risk proprietary items is to be established for the consistent and efficient implementation of future infrastructure to public open space developments. An infrastructure schedule can track infrastructure suppliers and warranty periods. Proprietary items are to be selected for their capacity to maintain an on going supply period of a 5 year minimum.

Design Competitions, artist and designer commissions and grants to be considered for low-risk items that require a high visual quality to an area. This approach can also be considered for medium-risk items that would provide consistent manufacture with in the local community. These items require replacement less often and time spent on quality, local and bespoke design solutions will add to the visual significance of the catchment themes. Independent review periods are required to ensure maintenance and upgrades to sustain these community assets.

#### **Retrofit of Existing**

Where existing infrastructure items do not meet with criteria outlined in The Guidelines it is proposed that items can be donated or sold to local community groups for the reinstallation within private open space. Existing inconsistent items can also be relocated to areas of less visual dominance within the Break O' Day.

The 'base plans' and infrastructure schedule will inform upgrades to existing public spaces.

# 9 The Guidelines

The Guidelines make general recommendations regarding form, function, materials and colour specific to the themed areas of Coast and Country. The general recommendations are to provide consistency when specifying both proprietary and bespoke infrastructure items. The Guidelines shall advise to what infrastructure bespoke and proprietary design is to be considered. Public space should include infrastructure items that address the needs of a range of activities, age groups and abilities.

#### **Picnic Tables**

#### Risk - Medium

Type - Proprietary / Bespoke local manufacture opportunities

#### Safety & Useability

- For people to stop and rest a place requires a good microclimate, a good view, appropriate lowlevel noise to facilitate conversation and no pollution.
- Picnic Tables for accessible use is to be installed at all places where there are existing and proposed picnic facilities.

#### Maintenance & Durability

- Table bases are to be made of hardwearing materials, resistant to vandalism and environmental weathering.
- Table tops are to be made for straightforward replacement using materials appropriate to the catchment theme.

#### Siting Principles

- Picnic tables are to be located where there is good public surveillance to reduce risk of vandalism.
- Where possible appropriate night time lighting is recommended to extend infrastructure for night time use and to deter night vandalism

#### Environmental sustainability

• In high use public places, accessible to Council maintenance and surveillance, options for loose furniture in the warmer months to facilitate high influxes of tourists. This reduces the need for permanent infrastructure such as concrete footings, shelters, etc.

#### Country Table & Seating Commercial Systems Australia Pty Ltd



\*umbrella hole optional extra





Coastal Table & Seating Commercial Systems Australia Pty Ltd



#### **Bench Seats**

Risk - Medium

Type - Proprietary / Bespoke local manufacture opportunities

Safety & Useability

- For people to stop and rest a place requires a good microclimate, a good view, appropriate low-level noise to facilitate conversation and no pollution.
- Bench seating should shield the back or placed on an edge for greater user comfort.
- Bench seating for accessible use is to be installed at all places that provide public seating.
- Design requirements for accessible seating can be found Australian Standard 1428 Design for Access and Mobility.
- A combination of primary seating and secondary seating such as edges, public sculpture to be located where people are asked to linger.

Maintenance & Durability

- To be made of durable materials as specified in the catchment style guides.
- Proprietary seating to have parts that can be straightforwardly replaced can be upgraded as colour schemes or general wear and tear necessitate.

Siting Principles

- Proprietary seating options are required where short rests or waiting times are expected such as along public shopping areas, outside public toilets.
- Bespoke seating is recommended to areas that people are invited stay.
- People like to maintain a level of distance between each other. Bench seats are to ensure they accommodate the expected level of visitors inclusive of this personal space.

Environmental sustainability

 Loose seating options during peak tourist seasons in high use public places, accessible to Council maintenance and surveillance. This reduces the need for permanent infrastructure such as concrete footings, shelters, etc.

#### Coastal Seating Escofet



Country Seating Escofet



#### Bollards

Risk - High

Type - Proprietary

Safety & Useability

- Bollards are required to protect the public from vehicle access.
- Where high visibility for bollards is required use high visibility fixings such as reflectors and tape is recommended.

#### Maintenance & Durability

 Bollards are proprietary product. Material and colours are to be consistent throughout the Break O' Day as specified in The Region style guide.

Siting Principles

• Current placement and types of bollards are to be maintained.

Environmental sustainability

- Blue bollards to be moved to less visible sites and replaced with neutral toned composite products and consistent throughout the Break O' Day.
- Where possible bollards that are no longer required in current locations to be relocated and reused.
- Stainless steel bollards have a high embodied energy and to no longer to be installed.
- Where required due to damage or corrosion, steel bollards are to be replaced with timber or recycled composites. Steel bollards to be recycled.

#### Proprietary timber bollard



Proprietary recycled composite bollard (colour to be relocated)



Rubbish Bins Risk - High

Type - Proprietary

Safety & Useability

- Current bin types are to be replaced for better maintenance and useability.
- Separate bin types are required for cigarettes.

#### Maintenance & Durability

- To be standard across the Break O' day region for ease of maintenance.
- To be made of durable materials.
- Colour choices are to be neutral. 3 differing colours should be used to articulate waste types.

#### Siting Principles

- Bins are to be located where there is public activity i.e. playgrounds, public parks, barbecue areas, shopping precincts and car parks.
- Bins to be located to the entrances and exits of public thoroughfares with close proximity to roadways for easy of collection.

#### Environmental sustainability

- To be made of recycled aluminium and composite materials.
- Bins are to be allocated for general waste, cardboard recycling and bottle recycling.

#### Regional Rubbish Bins Urban Fountains & Furniture - Aston Bins



#### Barbecues

Risk - Low/ High

Type - Proprietary working parts/Bespoke shelters

Safety & Useability

- Hot plates are to be electric and undergo routine maintenance inspections.
- Starters and hotplates are to be kept out of reach of children.
- Where Barbecue shelters are enclosed adequate venting is required.
- All working components to be concealed from public access.
- Barbecues to have adequate preparation space.

#### Maintenance & Durability

• Stainless steel or stone tops are to be considered instead of tiles as they are more durable

Siting Principles

- To be located in public parks where there is access to clean water and electrical connection.
- To be located where extended public stay is likely for i.e. play gyms, public parks, open space adjacent beaches, etc.
- Within close walking proximity to a parking area.
- To be accessed by sealed pathways for accessibility.
- Colours and materials selection to address requirements of the catchment style guides.

#### Environmental sustainability

• Existing barbecues can remain in current locations. Upgrades to more durable surfaces and the installation of shelters to protect from weathering. Existing Barbecue to be resurfaced using stainless steel or stone. Shelter to be installed



Existing Barbeque Mathinna, to have a sealed pathway connection. Future material and colour selections to match style guide.



#### Public toilets

Risk - High/Low

Type - Proprietary working parts/Bespoke shelter

#### Safety & Useability

- Where all public toilets are provided design for accessibility in accordance with AS1482 is to be the first option.
- Current designs for public toilets should be used see Existing Public Toilet Design found in Appendix A.
- Incorporation of public showers and taps near public beaches and camping sites.

#### Maintenance & Durability

- Where new design is required similar form, material and colour palettes should be used.
- Internal fitting for public toilets should be simply maintained and replaceable when required.

#### Siting Principles

- Toilets, along roads create the amenity required for short stays and passers-by.
- Toilets to be provided to areas where long stays are expected by users but located close to roads and other access routes and out of the way of the primary public activity.

#### Environmental sustainability

- Where possible water tanks that collect from the roof structure should be utilised for the flushing of toilets.
- Taps should have star rating of 6.
- Toilet fittings should have a star rating of 4 or better.
- Where appropriate composting or drop toilets should be considered.

#### Style Guide for all Public Toilets external



Public Shower detail



#### Play Gyms/ Exercise Stations

Risk - High / Low Type - Proprietary / Bespoke

Safety & Useability

- Existing play gyms and exercise stations design are adequate and located appropriately.
- Selections in equipment that caters for a variety of ages and abilities are also required.
- Play gyms and exercise stations in urban areas to consider lighting to extend the hours of use and deter vandalism.

Maintenance & Durability

- Durable materials such as concrete, powder coated steel and recycled composites are recommended.
- When considering the implementation of activity in public areas it is suggested consideration of large bespoke sculpture and/or landscaping to stimulate play. These items often require less maintenance.

Siting Principles

- Play gyms and exercise equipment should be clustered to give a place a sense of activity when no people are about. Areas that appear full attract use.
- Smaller items can be added to areas that require activity but lack the physical space.

#### Environmental sustainability

• Recycled materials are to be used when selecting play gyms and exercise equipment.

Alternative Proprietary Play Equipment,

Sand pit



Concrete Table Tennis



#### Landscaping for Play



#### Shelters

Risk - Low Type - Bespoke

Safety & Useability

- Where required existing shelters that are unsafe due to deterioration should be replaced and/or relocated.
- Smaller shelters such as bus stops and information huts are to be treated with equal consideration regarding form and materiality as larger shelters such as barbecues and picnic huts.

Maintenance & Durability

- Materials are to be durable to both use and environmental wear and tear.
- Cladding or sheet materials to be straightforwardly replaced if environmental damage or vandalism occurs.

Siting Principles

- The purpose of shelters in public space is to assist in defining a catchments theme,
- to encourage the public to stay longer in outdoor public spaces by using intriguing forms to create interest and curiosity,
- create adequate microclimates for seating, barbequing, play and resting.
- Shelters are to be designed according to the material and colour palette of the catchment theme.

Environmental sustainability

• Where possible to be made of recycled materials.

#### Bespoke Coastal Shelter



Bespoke Country Shelter



#### Signage

Risk - Low/High

Type - Proprietary Directional/Bespoke interpretive

Safety & Useability

- Two types of signage are required, Directional and Interpretive
- Directional signage is to be a proprietary product that is consistently used through out the Break O' Day according to the Region style guide.
- Directional signage is to be designed in accordance with Australian Standard 1428 Design for Access and Mobility.
- Interpretive signage distinguishes the themes of the two catchment areas and locates public attraction using bespoke design.

#### Maintenance & Durability

- Directional signage is to be replaced or upgraded when needed.
- Interpretive signage is to be made of sturdy materials to withstand environmental damage and moderate levels of vandalism.

#### Siting Principles

- Directional to be located within the line of site from a roadway or car park.
- Directional signage to be used along walking tracks, bike tracks and other pedestrian paths.
- Bespoke Interpretive signage to be used on entrance to the Break O' Day municipality along major roads.
- Interpretive signage should be used at attractions but not detract from the attraction itself.

#### Environmental sustainability

- Directional signage is to be made of recycled and/or composite materials.
- Where appropriate Interpretive signage should source recycled or reusable materials.

## Proprietary Signage – colour to be changed to neutral tones



Bespoke Coastal Signage



Bespoke Country Signage



#### Lighting

Risk - High Type - Proprietary

#### Public lighting options

Safety & Useability

- Neutral colours such as grey to be specified to disappear into the background and to not distract from views during the day.
- LED luminaries are to be used.
- To be specified and installed by electrical engineers to public lighting standards.

#### Maintenance & Durability

- Where connection to the electrical grid is available grid supply power is be used. In remote locations solar powered options are to be sourced.
- Solar panel lights are to be routinely checked and maintained to sustain luminary efficiency.

#### Siting Principles

- Lighting to be installed where after hours public activities are expected. i.e. foreshore walking tracks, public parks where play and barbecue facilities are offered.
- Lighting is to be installed where night safety is essential such as car parks and shopping malls

#### Environmental sustainability

- Where lighting is required this should be in line with recommendations already provided by AEJ for the St Helen's Skate Park to develop consistency within the region.
- High performance LEDs are to be used.
- Poles are to be made of recycled galvanised steel.



#### Public pathway lighting



#### Planter Boxes

Risk - Medium

Type - Proprietary / Bespoke local manufacture opportunities

#### Safety & Useability

- Planters are intended for passive visual use.
- Planters should not impede pedestrian or vehicular access and maintain accessible pathways.

#### Maintenance & Durability

- Planter boxes are to be planted with a combination of seasonal varieties and perennial plants.
- Planters are to be moveable to suite climatic conditions of the season and the needs of the plant variety.

#### Siting Principles

- To be placed in high use public spaces where there is limited garden or landscaped areas such as public shopping centres.
- To be used in publically visible areas to prevent vandalism.

#### Environmental sustainability

- Low water and maintenance plants to used.
- Where possible to source planters made of recycled materials that suite the materials specified in the catchment style guides.

#### Country Planter Boxes Escofet



#### Coastal Planter Boxes Escofet



#### Water fountains

Risk - Medium

Type - Proprietary / Bespoke local manufacture opportunities

Safety & Useability

- To incorporate usability for a range of ages and accessibility.
- To incorporate taps at the base for the filling of drink bottles, buckets for cleaning fish, barbeques, etc.

Maintenance & Durability

• Product to have replaceable parts. If replacement is required due to vandalism or general wear and tear.

Siting Principles

- To be installed where expected activities are to occur such as fishing piers, exercise and play gyms, and sports grounds.
- To be installed where public water mains are accessible

Environmental sustainability

- Where possible recycled materials are to be used.
- Timed or measured spouts to regulate water flow to limit wastewater.

Country Water Fountains Commercial Systems Australia Pty Ltd



Coastal Water Fountains Urban Fountains & Furniture - Apollo 800



Bike Racks Risk - High

Type - Proprietary

Regional Bike Rack Commercial Systems Australia Pty Ltd

Safety & Useability

- The selection of an appropriate bike rack is essential in facilitating a range of mountain, children's and road bikes.
- The bike rack supports must have enough space for the rear fork and wheel of the bike to be locked to the rack and enable the upright position of the bike.

Maintenance & Durability

• Product to have replaceable parts if replacement is required due to vandalism or general wear and tear.

Siting Principles

- To be located along walking tracks where rests are expected such as near public toilets, barbecues areas or bench seats that take in the view.
- To be located in town centres within the shopping precinct

Environmental sustainability

- Where possible the product is to be of recycled material.
- The placement of bike racks close to work places is essential to encourage bike commuting by the local community.



# 10 Summary Statement

The Infrastructure Design Guide has been developed to address key public infrastructure issues in the Break O' Day. The Guidelines are designed to assist in the establishment of, a marketable regional identity, universal accessibility to public open space and to create consistency in the selection and implementation of community infrastructure throughout the Region.

#### Identity

Broad themes of the Coast and Country have been developed to incorporate the large cross section of natural, industrial, cultural and social backgrounds of the Break O' Day. Community recognition and adoption of these themes will assist in creating a region that can be promoted and marketed for increased tourism and investment in the Break O' Day.

#### Consistency

The Style Guides developed for each of the themed catchment areas provides consistency of materials and colour of infrastructure items. The style guides utilise the materials and colour palettes of the existing infrastructure for the integration of future infrastructure choices.

#### Accessibility

The Guidelines for each of the specified infrastructure items incorporates the above-mentioned style and siting arrangement within public open space. The siting and selection of infrastructure is to cater for a variety of ages and abilities. Universal access to infrastructure items extends use of public space to a wider cross-section of the community that includes the elderly, the disabled and less mobile. An integrated approach to the accessible upgrade of public open space will facilitate connections across broad sections of the community for increased liveability and future proofing of public space for a shifting population.

This document in conjunction with the Break O' Day Recreation & Open Space Plan and the Economic Development Study, has developed a framework for the upgrade and improvement to Public Open Space within the Break O' Day Municipality.

# 11 References

Australian Standard 4801 Occupational Health & Safety

Australian Standard 1424.1-2 Design For Access and Mobility

Canberra Central Council infrastructure design guide http://www.tams.act.gov.au/cityservices/Development\_Approval\_and\_Applications/development\_applications/design\_standards\_f or\_urban\_infrastructure

Disability and Discrimination Act 1992 http://www.comlaw.gov.au/Details/C2013C00022

Dix, J & Dahlitz, T. 2010 Clermont Urban Design Framework, Isaac Regional Council, Isaac, QLD

Dix, J & Hite, G. 2012 Dysart Urban Design Framework: A strategic Vision for Dysart's Future, Isaac Regional Council, Isaac, QLD

Melbourne City Council infrastructure design guide http://www.melbourne.vic.gov.au/AboutCouncil/CouncilProfile/LocalLaws/Documents/Docklands \_Design\_and\_Construction\_Standards\_Signed.pdf

Suter, S. 2010 Streaky Bay District Management Plan: Township and Urban Design Framework, District Council of Streak Bay, SA

# 12 Appendix

A. Existing Public Toilet Designs

Community Infrastructure Design Guide