

St Pauls Community Master Plan

Prepared for

Department of Seniors, Disability Services and
Aboriginal and Torres Strait Islander Partnerships
and Torres Strait Island Regional Council



St Pauls Community Master Plan

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St Pauls Community Master Plan

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1 Introduction

1.1 Purpose

Torres Strait Island Regional Council (TSIRC), with the support of the Department of Aboriginal and Torres Strait Islander Partnerships (DATSIP), has developed the St Pauls Community Master Plan. The St Pauls Community Master Plan is intended to be used by TSIRC, Prescribed Body Corporates (PBCs), State agencies, service providers and the broader community to inform planning decisions in relation to future development.

The St Pauls Community Master Plan seeks to guide the future use of land in the St Pauls Community in a manner that is cognisant of community needs, demands and aspirations. The St Pauls Community Master Plan identifies a range of future residential; industrial; commercial / tourism; community facilities; and recreation and open space development projects. The Master Plan has been prepared to ensure the orderly, efficient and effective use of land in a way that is reflective of relevant opportunities and constraints. The Master Plan seeks to coordinate the actions of a range of different stakeholders to maximise the benefits of new development projects to the community.

The St Pauls Community Master Plan is a living document endorsed by TSIRC, intended to be progressively updated as new development occurs to reflect the changing needs and aspirations of the community.

1.2 Structure

The St Pauls Community Master Plan includes the following elements:

- > A **Master Plan Map**, provided as **Appendix A**;
- > A **Vision**, provided in Chapter 2;
- > **Community Aspirations**, provided in Chapter 3;
- > **Master Plan Projects**, the details of which are articulated in Chapter 4; and
- > An **Action Plan**, provided in Chapter 6.

The Master Plan is also supported by a separate Technical Report. The relationship between these elements is shown in **Figure 1-1**.

1.3 Relationship to the Zenadth Kes Planning Scheme

The St Pauls Community Master Plan is intended to identify a high level strategic direction for the future development of the St Pauls Community having regard to all relevant planning considerations, including the *Zenadth Kes Planning Scheme* ('the Planning Scheme').

The Master Plan does not replace or alter the Planning Scheme as it relates to the St Pauls Community and does not change current development approval requirements. Projects or works identified by the Master Plan may require development approvals and/or changes to the Planning Scheme and these are identified in the Master Plan itself as appropriate.

The Planning Scheme forms part of the statutory town planning framework established under the *Planning Act 2016*, which provides for the regulation of development activity. The Master Plan is a non-statutory strategic planning document intended to guide decision making with regard to the long term development of St Pauls. It may be appropriate in certain circumstances for TSIRC to amend the Planning Scheme to reflect findings of the Master Plan. Recommendations in this regard are made in the Master Plan.

1.4 Acknowledgement

Gogobithiay (land, sea and sky) is fundamental to the Torres Strait Islander way of life. Gogobithiay cannot be separated into land, sea and sky and it cannot exist without the Torres Strait people.

The St Pauls Community Master Plan acknowledges the native title holders, Mualgal people as the traditional custodians of St Pauls. The Master Plan also acknowledges all community members.

Any person proposing to undertake development on Moa Island should pay respect to Mualgal people's custodianship of the island by seeking permission to use its resources and ensuring that development acknowledges the special and ongoing cultural relationship of the St Pauls community with Gogobithiay.

St Pauls Community Master Plan

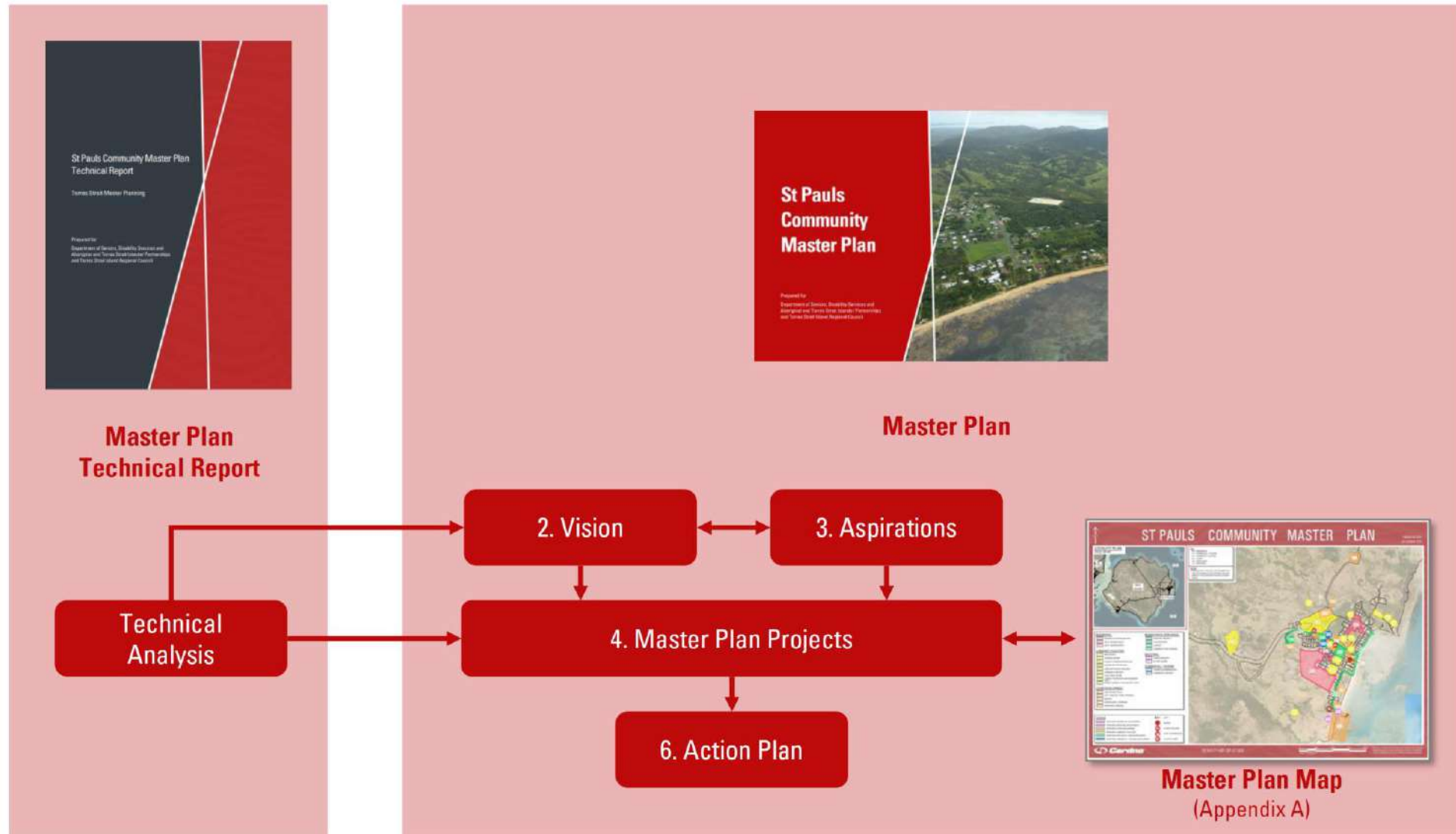


Figure 1-1 Master Plan Elements

2 Vision

*The **St Pauls Community** will develop as an established and consolidated township, affording its residents with key day to day services which increase the autonomy of the community. Higher order services, such as an airport, will continue to be provided by the Kubin Community.*

The community is to develop from a central spine formed by Oza Bosun Road, which will provide a township core that includes a consolidation of new and existing services, including a new child care centre, health care centre and appropriate commercial activities. A dedicated sporting precinct, new school and community precinct to the immediate south of the town centre will provide for the coordinated delivery of a range of community services in an accessible location, supporting efficiency in service delivery and a focus for community activity, events and gatherings.

The St Pauls Community will benefit from the repurposing of the existing school as a training centre, which will provide opportunities for further education on the island, and in the region more broadly, in relevant trades and industries, fulfilling the community's aspirations for training enterprises.

The independence of the community will also be promoted through the provision of a dedicated helipad, which combined with upgraded boat ramp and jetty facilities, will improve access to and from the community. Locally, the road network combined with a dedicated pedestrian path network will ensure efficient movement of people and goods between the consolidated entry point in the south and the core of the town. Improvements in access and movement are supportive of increased economic activity, with enterprise opportunities being more broadly promoted in the community.

Established residential areas surrounding the town centre core are complemented by infill housing and a residential expansion areas, that will respond to the community's need for additional dwellings. A range of housing types that align with the needs of residents will be provided.

New development should seek to improve the quality of urban services provided to the community, including water and sewerage infrastructure, roads, lighting and telecommunications access. Focus is to be placed on the provision of solar lighting, public toilets and gazebos, particularly along the path network.

3 Community Aspirations

- > The St Pauls Community will be provided with housing that meets its needs.
- > The St Pauls Community will be provided with access to key community services that support the day to day needs of its residents, including an additional shop, community run fuel bowser, market garden, training enterprise, child care and health care.
- > The St Pauls Community will expand local business and enterprise opportunities, to support economic activity and local employment, particularly in the sectors of training enterprise and tourism.
- > The St Pauls Community will celebrate its culture, history and character and this will be reflected through the protection of existing facilities and features and new development such as arts and cultural centres.
- > The St Pauls Community will be easily accessed from the surrounding region by air and sea, particularly through the provision of a new dedicated helipad.
- > The St Pauls Community will increase physical activity, for both movement and recreation, through the use of dedicated facilities and networks.
- > The St Pauls Community will have access to quality urban infrastructure services.
- > The St Pauls Community will be responsive to the changing environment including sea level rise, tidal inundation and climate change.

4 Projects

4.1 Land Use Categories

The consideration of land uses as part of the St Pauls Community Master Plan has been undertaken using a number of land use categories. An explanation of each land use category is provided below.

Residential	Commercial / Tourism	Recreation and Open Space
Residential land uses primarily relate to the provision of housing. Residential land may support a range of dwelling types of varying scale (for example, single low-rise homes, duplexes, and unit complexes). Open space is often integrated within residential areas to soften the built environment and provide land for passive and active recreation.	Commercial land uses typically involve business activities which may include the sale of goods (such as shops and cafes) or services (such as offices and medical centres). Tourism land uses also involve business activities, however these are focussed on providing goods, services, facilities and entertainment for tourists. Examples of tourism land uses include tourist parks, accommodation and businesses operating tours.	Recreation land uses support the provision of land for recreational activities, which may be organised or informal. This includes sporting facilities such as fields, courts, stadiums and arenas, rodeo grounds, walking / cycling paths and outdoor exercise equipment. Open space areas provide dedicated natural spaces throughout an urban area enhance the beauty and environmental quality of neighbourhoods. They may include formalised landscaping also comprise recreational opportunities. Recreation and open space areas are commonly collocated.
Industrial	Community Facilities	Other
Industrial land uses generally involve the manufacturing, processing, treatment or repair of goods. Industrial land uses involve varying degrees of intensity and severity, generally linked to their potential level of impact on nearby land uses associated with their emissions (such as air, noise and odour). Examples of industrial land uses include manufacturing plants, processing plants, mechanical workshops, transport depots, storage sheds and warehouses.	Community facilities land uses support the delivery of community services or provide community benefit. Community facilities include uses for health services, education (schools and colleges), arts and culture, religion, community support, civic infrastructure (water, sewer, waste, transport and other similar facilities), employment and training.	The “Other” land use category has been used to describe other uses and projects which commonly support the primary land uses. This may include infrastructure projects such as new roads or urban services and civic improvements such as beautification and landscaping.

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4.2 Project Listing

Table 4-1 provides a listing of projects identified by the Master Plan. Further detail is provided in relation to each project as follows:

- > The land to which each project relates is identified by the St Pauls Community Master Plan Map, a copy of which is provided as **Appendix A**.
- > Key details relating to each project are outlined in Section 4.3 of this report.
- > A summary of the Master Plan projects is provided in the project index included as **Appendix B**.
- > Detailed breakdowns of the infrastructure costings for each project are provided in **Appendix D**.

Table 4-1 Project Listing

RS1	Residential Expansion Area	CF5	Cemetery Protection Area	OT1	CBD Precinct Plan
RS2	Infill Housing South	CF6	Community Precinct	OT2	Jetty and Boat Ramp Upgrades
RS3	Infill Housing North	CF7	Child Care Centre	OT3	Helipad
ID1	Fishing Industry	CF8	Landfill Protection and Expansion Area	OT4	Water Supply Upgrades
ID2	Future Quarry	CF9	Market Garden / Food Security Area	OT5	Sewerage Upgrades
CT1	Tourist Accommodation	OS1	Sporting Precinct	OT6	"Back of Island" Access
CT2	Commercial Precinct	OS2	Path Network	OT7	Telecommunications Upgrades
CT3	Environmental Tourism	OS3	Lookout	OT8	Carbon and Renewable Energy Opportunities
CF1	New School	OS4	Community Park Upgrade	OT9	Energy Supply
CF2	Training Centre			OT10	Community Fencing
CF3	Place of Worship Protection				
CF4	Sacred Site Protection				

Note: Projects CT3, OT6, OT7, OT8, OT9 and OT10 are not shown on the Master Plan Map provided as **Appendix A**.

4.3 Project Detail

Residential Projects

The Master Plan has identified three residential projects in order to accommodate an anticipated demand for five (5) additional dwellings in the St Pauls Community. The Master Plan also includes projects that seek to diversify the housing products provided within the St Pauls Community. These key directions were identified as part of the technical analysis which is documented in the St Pauls Community Master Plan Technical Report. Further detail is also provided in **Appendix F**.

RS1 Residential Expansion Area		
Summary An area of land at the southern end of the township has been identified as being potentially suitable for the longer-term demand of the community for residential land, once infill opportunities have been taken up (see projects RS2 and RS3). The area is identified by the Planning Scheme for this purpose. Development of the land is likely to be formed by a residential subdivision, which should be encouraged to include a range of dwelling types and sizes to suit demand.	New Lots	80 Lots (estimate)
	Lot Size	1,200m ² (average)
	Priority	Long Term
	Infrastructure Cost	\$32,797,631
	Associated Projects	-
	Key Actions	-
RS2 Infill Housing South		
Summary The Master Plan has identified a vacant residential allotment (Lot 308 on SP256048) toward the southern end of the township, accessed from Futuna Street, for infill housing opportunities. This lot should be encouraged to include a range of dwelling types and sizes to suit demand.	New Lots	3 Lots
	Lot Size	915m ² (estimate)
	Priority	Short Term
	Infrastructure Cost	\$411,939
	Associated Projects	-
	Key Actions	-

RS3 Infill Housing North

Summary

The Master Plan has identified 12 vacant allotments at the northern end of the township, accessed from Ware Road and Kawane Street, for infill housing opportunities. The Planning Scheme includes several of these lots in the Environmental Management and Conservation Zone and as being low lying land. These lots should be encouraged to include a range of dwelling types and sizes to suit demand.

Recommendations

Future investigations of this project would be required to determine the environmental value and importance of the land and the extent to which the low lying parts are capable of being reasonably developed.

It may be necessary for the Planning Scheme to be amended to reflect the intention of this project.

New Lots	12 Lots (existing)
Lot Size	1,271m ² – 7,854m ²
Priority	Medium Term
Infrastructure Cost	\$2,360,963
Associated Projects	-
Key Actions	1 6 7

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Industrial Projects

The Master Plan provides opportunities for industry, enterprise and other business development. This key direction was identified as part of the technical analysis which is documented in the St Pauls Community Master Plan Technical Report. Further detail is also provided in **Appendix F**.

ID1 Fishing Industry			
Summary In order to support the local fishing industry, the community is seeking to provide a range of infrastructure proximate to the boat ramp and jetty, including a commercial freezer. It is likely that this project will be delivered in coordination with the Torres Strait Regional Authority (TSRA).	New Lots	N/A	
	Lot Size	N/A	
	Priority	Short Term	
	Infrastructure Cost	\$1,598,775	
	Associated Projects	OT2	
	Key Actions	4	6
ID2 Future Quarry			
Summary The community has identified land that is suitable for a future quarry to the south of the township. Further investigation is required to determine the feasibility of this project and the suitability of this land. Consideration will also be required of surrounding land uses.	New Lots	N/A	
	Lot Size	N/A	
	Priority	Long Term	
	Infrastructure Cost	To Be Costed	
	Associated Projects	OT2	
	Key Actions	1	4

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Commercial / Tourism Projects

The Master Plan seeks to ensure that the community is provided with sufficient access to commercial land uses. The Master Plan also seeks to promote the development of uses and infrastructure associated with tourism, in appropriate locations. These key directions were identified as part of the technical analysis which is documented in the St Pauls Community Master Plan Technical Report. Further detail is also provided in **Appendix F**.

CT1 Tourist Accommodation			
Summary This project reflects an existing accommodation facility which has been identified as being an important resource for the community. The existing accommodation should be protected and further improved to suit the needs of visitors and tourists.	New Lots	N/A	
	Lot Size	N/A	
	Priority	Medium Term	
	Infrastructure Cost	N/A	
	Associated Projects	OT1	
	Key Actions	4	6

CT2 Commercial Precinct			
Summary The community has identified a desire to develop a commercial precinct surrounding the existing supermarket. This precinct would provide a range of tenancy spaces suitable for local businesses to use. The space would be focussed on local arts and crafts associated with tourism and would likely provide some level of cultural experiences.	New Lots	N/A	
	Lot Size	N/A	
	Priority	Medium Term	
	Infrastructure Cost	\$296,742	
	Associated Projects	OT1	
	Key Actions	4	6

CT3 Environmental Tourism

Summary

Opportunity exists in various locations throughout the island for the environmental values of the area to be protected and enhanced for the benefit of tourist activities aimed at the appreciation of any unique environmental features or areas. Any tourism operations should occur in a manner that is sensitive to the fragility of the natural environment, to ensure it can be sustained over the long term.

New Lots	N/A	
Lot Size	N/A	
Priority	Medium Term	
Infrastructure Cost	N/A	
Associated Projects	OT2	OT3
Key Actions	4	6

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Community Facilities Projects

The Master Plan seeks to promote the protection and expansion of key community facilities. The Master Plan also provides opportunities for the establishment of new community facilities where demand exists. These key directions were identified as part of the technical analysis which is documented in the St Pauls Community Master Plan Technical Report. Further detail is also provided in **Appendix F**.

CF1 New School			
Summary The Master Plan has identified a vacant area of land toward the south of township, with frontage to Futana, Saveka and Lowah Streets, as being suitable for a new school. The Strategic Framework of the Planning Scheme identifies this land for the same purpose. The development of a new school will increase regional education leading to a successful transition from school to jobs, as well as achieving the community's aspiration for new and improved educational facilities.	New Lots		N/A
	Lot Size		N/A
	Priority		Medium Term
	Infrastructure Cost		\$2,598,019
	Associated Projects		OS1
	Key Actions		6
	Recommendations Future investigations should consider the new school's interface to, and integration with, OS1 (Sporting Precinct).		

CF2 Training Centre			
Summary Opportunity exists for the repurposing of the existing school, located on Anu Namai Road, for a training centre once the new school is built (CF1). The development of a training centre will provide opportunities for further education on the island, and in the region more broadly, in relevant trades and industries, as well as fulfilling the community's aspirations for training enterprises. The community has identified that this facility is very much needed, to reinvigorate historic practices of local construction.	New Lots		N/A
	Lot Size		N/A
	Priority		Medium Term
	Infrastructure Cost		N/A
	Associated Projects		CF1
	Key Actions		4 6
	Recommendations The delivery of this project will need to be coordinated with the development of the new school (CF1).		

CF3 Place of Worship Protection

Summary

The Master Plan has identified that the existing places of worship should be protected and maintained as an important asset to the local community. Further embellishment of the existing buildings and grounds may be appropriate where it is in keeping with the character and nature of the site.

Recommendations

Consideration should be given to the protection and maintenance of these places as part of **OT1** (CBD Precinct Plan).

New Lots	N/A		
Lot Size	N/A		
Priority	Ongoing		
Infrastructure Cost	N/A		
Associated Projects	OT1		
Key Actions	3	9	

CF4 Sacred Site Protection

Summary

The Master Plan has identified the location of sacred sites that should be protected for the benefit of all members of the community. As part of the protection of the area, the community value of the site should be documented. Where access to the site is in keeping with the community and cultural value, this should be sensitively facilitated. Opportunity may exist to provide tourism access, again where in keeping with the value of the site.

New Lots	N/A			
Lot Size	N/A			
Priority	Ongoing			
Infrastructure Cost	N/A			
Associated Projects	-			
Key Actions	3	4	6	9

CF5 Cemetery Protection Area

Summary

The cemetery, located in the north of the township, should be subject to ongoing protection to ensure that the cultural and spiritual connection of the community with this land is maintained. Where appropriate, improvements such as access works and fencing may be provided, however any such works should be undertaken sensitively. As part of the protection of the area, the community value of the site should be documented.

New Lots	N/A
Lot Size	N/A
Priority	Ongoing
Infrastructure Cost	N/A
Associated Projects	-
Key Actions	3 6 9

CF6 Community Precinct

Summary

The Master Plan identifies a parcel of land (Lot 206 on SP256048) located on the southern side of Saveka Street, which already accommodates the community hall, as the location of a future Community Precinct. The Master Plan seeks to facilitate the community aspirations for improved access to community facilities and services through the development of this land. Delivery of the Community Precinct should be coordinated with the nearby new school site (CF1).

New Lots	N/A
Lot Size	N/A
Priority	Medium Term
Infrastructure Cost	N/A
Associated Projects	CF1
Key Actions	3 6

CF7 Child Care Centre

Summary

The Master Plan identifies the location of the existing child care centre on Levi Street in the core of the township. The community has identified a need for child care facilities, which the Master Plan will deliver either through an expansion of the existing child care centre or the provision of additional facilities to diversify the service. Child care services should be expanded as demand necessitates.

The development of the new school (CF1) and Community Precinct (CF6) may present opportunities for the provision of child care facilities.

Child care has been acknowledged as a regional issue which comprises significant complexity with regard to legal compliance. On this basis it is anticipated that future child care services will be delivered as a coordinated service covering multiple islands or the entire region.

New Lots	N/A		
Lot Size	N/A		
Priority	Short Term		
Infrastructure Cost	N/A		
Associated Projects	CF1	CF6	OT1
Key Actions	6		

CF8 Landfill Protection and Expansion Area

Summary

The landfill located to the west of the township is an important piece of infrastructure that should be protected from encroachment by incompatible development. The community has identified that the existing facility requires cleaning up. Consistent with the Queensland Indigenous Waste Strategy, it is anticipated that the existing landfill site will be converted to a transfer station, as part of a regional waste solution. The site will need to be expanded as required to cater for this changed approach to waste management.

New Lots	N/A		
Lot Size	N/A		
Priority	Short Term		
Infrastructure Cost	N/A		
Associated Projects	-		
Key Actions	3		

CF9 Market Garden / Food Security Area

Summary

An area of land at the north-western end of the township, adjoining the water supply infrastructure, has been identified as being suitable for the development of market gardens or other cropping activities that can supply the community with fresh produce. Further investigation of this land should be undertaken to identify suitable areas for the establishment of these uses. The establishment of local agricultural uses will improve the food security of the community, improve community health and provide a potential source of economic activity through the trading of surplus food with neighbouring communities.

Recommendations

The viability of the market garden will be largely dependent on a reliable supply of freshwater. Future investigations of this project would be required to determine whether such supply exists or is capable of being reasonably provided.

New Lots

N/A

Lot Size

N/A

Priority

Medium Term

Infrastructure Cost

N/A

Associated Projects

OT4

Key Actions

1

6

8

Recreation and Open Space Projects

The Master Plan seeks to provide improved opportunities for recreation, through the provision of an integrated network of active transport infrastructure and the identification of land for dedicated sporting facilities. These key directions were identified as part of the technical analysis which is documented in the St Pauls Community Master Plan Technical Report. Further detail is also provided in **Appendix F**.

OS1 Sporting Precinct

Summary

The Master Plan identifies the existing sporting fields on the southern side of Oza Bosun Road and north of the proposed new school (**CF1**), as a future Sporting Precinct. The land is to be developed for a multi-purpose sport facility and is to fulfill the community's aspiration for the inclusion of an improved oval for sports associated with a new school. The Sporting Precinct's interface and integration with the new school, while accommodating shared users, will be key consideration of future investigations. The community has identified that the provision of toilets and shelter are key to the use of this facility.

Recommendations

It is recommended that all future active transport and recreational facilities be coordinated in their delivery.

New Lots

N/A

Lot Size

N/A

Priority

Medium Term

Infrastructure Cost

\$2,287,733

Associated Projects

CF1

Key Actions

2

3

6

OS2 Path Network

Summary

The Master Plan has identified a path network which extends along the foreshore and through the centre of the township. The path network will serve to improve connectivity whilst also supporting recreational opportunities and enhanced access along the foreshore. Development of the pathway should be combined with supporting infrastructure such as seats, lighting and landscaping along with BBQs and shelter along the foreshore section to improve its contribution to the community.

Recommendations

It is recommended that all future active transport and recreational facilities be coordinated in their delivery.

New Lots

N/A

Lot Size

N/A

Priority

Medium Term

Infrastructure Cost

\$625 per metre (concrete)

\$400 per metre (gravel)

\$200 per metre (earth)

Associated Projects

OS3

OT1

Key Actions

2

6

8

OS3 Lookout

Summary

Site inspections have identified that the western end of the path network (**OS2**) would provide an ideal location for a lookout. The location overlooks the entire St Pauls Community and the broader coastal landscape and would provide great community and tourist value. Various infrastructure could be provided in association with the lookout including seating, shelter, lighting, artwork and informational signage.

Recommendations

It is recommended that all future active transport and recreational facilities be coordinated in their delivery.

New Lots

N/A

Lot Size

N/A

Priority

Short Term

Infrastructure Cost

To Be Costed

Associated Projects

OS2

Key Actions

2

OS4 Community Park Upgrade

Summary

The existing Community Park located in the town centre has been identified by the community as requiring maintenance and overall upgrading to improve its ability to be used by the community.

Recommendations

It is recommended that all future active transport and recreational facilities be coordinated in their delivery.

New Lots

N/A

Lot Size

N/A

Priority

Medium Term

Infrastructure Cost

To Be Costed

Associated Projects

OT1

Key Actions

2

Other Projects

The Master Plan identifies a range of other projects intended to ensure the community is serviced with appropriately located facilities and infrastructure. These projects have been identified in response to direct community needs and include precinct plans, further investigations and new/upgraded infrastructure. These key directions were identified as part of the technical analysis which is documented in the St Pauls Community Master Plan Technical Report. Further detail is also provided in **Appendix F**.

OT1 CBD Precinct Plan				
Summary <p>The Master Plan has identified a CBD township core for the focus of business and administrative facilities. This land is strategically located in the centre of the township along the main road corridor connecting the communities of St Pauls and Kubin. A range of key services can be progressively developed in a manner that will positively contribute to the amenity and character of St Pauls to the benefit of the community. This location has the potential to accommodate a range of new business, administrative and community uses including child care facilities, government offices, retail services, health care and emergency services.</p> <p>A copy of a preliminary Precinct Plan is provided in Appendix E.</p>				
Recommendations <p>Further planning of the land should also consider its interface with existing surrounding residential land uses.</p>				
New Lots		N/A		
Lot Size		N/A		
Priority		Medium Term		
Infrastructure Cost		N/A		
Associated Projects		CT1	CT2	OS1 OS4
Key Actions		3	4	6

OT2 Jetty and Boat Ramp Upgrades

Summary

The jetty and boat ramp located in the far south of the township is a key arrival and departure location for people and goods. Further improvements in this location will support the efficient and safe use of this facility, whilst also expanding the ability for it to be used in a manner that supports economic activity. Upgrades may include in water works such as channel works and dredging, markers and a rockwall while on land works may include a freezer, parking, storage and setdown areas. Consideration should be given to how upgrades integrate with **OT3** (Helipad) and **OS2** (Path Network). The community has specifically identified a need for trailer parking, formalised areas for various uses, lighting and better laydown areas.

Jetty and boat ramp upgrades are a common project across all communities within the region. It is anticipated that required upgrades may be delivered as a regional work package which is progressively rolled out across each community.

New Lots

N/A

Lot Size

N/A

Priority

Short Term

Infrastructure Cost

To Be Costed

Associated Projects

OS2

OT3

Key Actions

4

6

OT3 Helipad

Summary

The Master Plan identifies the location of a new helipad in the south of the township proximate to the jetty and boat ramp. A helipad is essential for community access, emergency transport and for the movement of people and goods to St Pauls given access is currently only by road or sea. The location of the new helipad differs to that shown by the Planning Scheme as it is believed that the consolidation of movement networks (road, air and sea) in a single location will assist in infrastructure efficiency. The synergies between the new helipad and jetty and boat ramp upgrades (**OT2**) should be investigated. The community has specifically identified that the new helipad will need to be sealed and otherwise designed to avoid dust emissions, given the proximity of existing houses and other public areas.

New Lots

N/A

Lot Size

N/A

Priority

Medium Term

Infrastructure Cost

To Be Costed

Associated Projects

OT2

Key Actions

4

7

OT4 Water Supply Upgrades

Summary

The water supply network should be upgraded to meet current and future demand and treatment standards. Details of specific works and upgrades required upgrades are provided in Chapter 5 of the Master Plan.

New Lots	N/A
Lot Size	N/A
Priority	Short Term
Infrastructure Cost	To Be Costed
Associated Projects	-
Key Actions	3

OT5 Sewerage Upgrades

Summary

The sewerage network should be upgraded to meet current and future demand and treatment standards. Details of specific works and upgrades required upgrades are provided in Chapter 5 of the Master Plan.

New Lots	N/A
Lot Size	N/A
Priority	Short Term
Infrastructure Cost	To Be Costed
Associated Projects	-
Key Actions	3

OT6 “Back of Island” Access

Summary

A range of opportunities are available for recreational and community activities to occur in areas of the island outside the established township. These opportunities should be further investigated in consultation with the community. Access is a primary constraint and any planned areas should be coordinated with road upgrades.

New Lots

N/A

Lot Size

N/A

Priority

Medium Term

Infrastructure Cost

To Be Costed

Associated Projects

-

Key Actions

5

6

OT7 Telecommunications Upgrades

Summary

The community’s access to telecommunications should be improved to ensure that coverage is available throughout the township, its immediate surrounds where activity occurs and within the surrounding ocean to allow ease of communication with vessels, particularly in an emergency. Various upgrades should be identified in consultation with service providers.

New Lots

N/A

Lot Size

N/A

Priority

Short Term

Infrastructure Cost

To Be Costed

Associated Projects

-

Key Actions

6

OT8 Carbon and Renewable Energy Opportunities

Summary

As explained in the St Pauls Community Master Plan Technical Report, the Queensland Government has identified a target to be carbon neutral by 2050. A variety of opportunities exist across Moa Island to implement carbon initiatives that can assist in achieving this target. Key opportunities including renewable energy installations (wind and solar), reductions in fossil fuel use, carbon burning and blue carbon. Further investigations should be undertaken to identify suitable initiatives and potential sites. These opportunities also provide the potential to generate employment for the local community.

New Lots	N/A
Lot Size	N/A
Priority	Medium Term
Infrastructure Cost	To Be Costed
Associated Projects	OT9
Key Actions	6

OT9 Energy Supply

Summary

The community has identified a desire to have its own supply of energy. Currently electricity is generated in the Kubin Community and is then transmitted to St Pauls. The current arrangement can be reliable and leaves St Pauls dependent on Kubin Community and the transmission infrastructure. It is likely that an independent energy supply would be coordinated with project **OT8** to involve renewable energy.

New Lots	N/A
Lot Size	N/A
Priority	Medium Term
Infrastructure Cost	To Be Costed
Associated Projects	OT8
Key Actions	6

OT10 Community Fencing

Summary

The community has identified a need to improve fencing throughout the community to avoid wild animals entering and damaging properties in the township. This project will involve the ongoing expansion and maintenance of fencing throughout the community.

New Lots

N/A

Lot Size

N/A

Priority

Ongoing

Infrastructure Cost

To Be Costed

Associated Projects

-

Key Actions

-

5 Infrastructure

In order to support future residential, industrial, commercial, tourism, community facilities, recreation and open space development in the St Pauls community in accordance with the Master Plan, upgrades to existing infrastructure networks and new infrastructure will be required as detailed below. High level costings of supporting infrastructure are included in **Appendix D**.

5.1 Topography/Climate Change

The St Pauls Community is located on coastal sand dunes along the foreshore and hill slopes. All new development should be constructed at a sufficient height above highest astronomical tide (HAT) to protect residents and the community from the impacts of forecast climate change rises in sea level.

5.2 Roads

Roads within the community are mainly gravel paved and bitumen surfaced, with some gravel paved roads. For durability, roads are to be preferably constructed six (6) metres wide in either 150 mm thick fibre reinforced concrete, or gravel paved and bitumen surfaced. Roads to be provided with either a 300 mm wide concrete edge strip or mountable kerb and channel either side as appropriate. The access road to the airstrip at the Kubin Community is only partially bitumen surfaced and should be fully bitumen surfaced as funds become available. The access road has safety issues along its length, which require identification and rectification.

5.3 Stormwater

The Queensland Urban Drainage Manual (QUDM) provides current criteria for the design of stormwater drainage in urban residential developments. QUDM generally requires systems for primary drainage in streets to carry 39% Annual Exceedance Probability (AEP) (1 in 2 yr. ARI) runoff, and 1% AEP (1:100 yr. ARI) runoff for major drainage paths and cross road culverts, to limit flooding of public and private property to acceptable levels.

To avoid expensive underground drainage systems and the recurrent cost of ongoing maintenance of pipe systems, open table drains and drainage swales could be provided where appropriate for both primary and secondary drainage.

Due to the relatively steep grades of future roads in some locations, care needs to be exercised to ensure that the stormwater drainage system performs in accordance with the requirements of QUDM.

Stormwater runoff captured from newly developed areas is required to be treated to remove nutrients from the runoff prior to discharge to waterways.

5.4 Water Supply

Raw water is sourced from direct rainfall capture stored in a raw water lagoon, shallow ground water wells, surface water harvested from ephemeral stream flows and from a portable desalination plant. The supply of raw water for treatment without augmentation from the desalination plant is insufficient to meet current demand during the dry season. The pH of the raw water is within the guidelines recommended range of 6.5 to 8.5. Seasonal spikes in turbidity occur during the wet season. Levels of iron exceed the guidelines recommendation for potable water.

The existing water treatment plant capacity is required to be increased from 80 kL per day to 132 kL per day to meet both current and future target demand. The current storage capacity for treated water of the 750 kL Betong concrete panel reservoir provided 2.3 days storage at the current demand of 603.5 l/p/d and 3.8 days storage at the estimated future population and target peak day demand of 350 l/p/d. Additional storage is not required.

Emergency standby power generation equipment should be installed to all critical infrastructure in the water supply system to maintain supply during loss of electricity supply.

The treatment plant is provided with SCADA equipment to enable remote monitoring of treatment plant operation.

Reticulation mains of adequate size are to be extended to all new development and be provided with fire hydrants and metered service connections.

Current per capita consumption of 603.5 litres per day exceeds the TSIRC's target consumption of 350 litres per person per day which may be achieved through demand management and leak detection and rectification.

St Pauls Community Master Plan

The following upgrades to the existing water supply network will be required to support planned future development:

- > Increase rainfall capture from the ephemeral creek by increasing the height of the weir;
- > Provide treatment to remove iron to reduce iron levels to within guidelines;
- > Increase treatment plant filter capacity from 80 kL per day to 132 kL per day;
- > Undertake leakage detection and rectification in the reticulation system to reduce wastage;
- > Installation of emergency power supply at all critical infrastructure; and
- > Provision of adequate training for operators.

5.5 Sewerage

The sewerage system comprises of gravity sewers, manholes, effluent pump stations, rising mains and facultative lagoon treatment of effluent prior to discharge to the ocean. The treatment plant capacity is significantly oversized, which leads to operational problems due to low influent strength and long detention times, resulting in the growth of blue/green algae. Effluent discharged from the treatment plant to the ocean is not currently fully compliant with licence discharge standards.

SCADA equipment is provided at the pump stations to enable remote monitoring of pump stations and plant operation.

TSIRC is considering desludging the treatment lagoons and taking two ponds off line to improve treatment plant efficiency.

All new development is to be connected to the existing sewerage reticulation network.

The following upgrades to the existing sewerage network will be required to support planned future development:

- > Undertake treatment plant management to ensure effluent discharge meets licence requirements.
- > Installation of emergency power supply at all critical infrastructure; and
- > Provision of adequate training for operators.

5.6 Electricity Supply and Street Lighting

Reticulated electricity to the community is provided from an unmanned isolated fully automated multi-unit diesel generators installed in a power station owned and operated by Ergon located at the Kubin Community. An 11 kV overhead power transmission line connects the St Pauls community to the power station at the Kubin Community.

New development to be delivered under the Master Plan will need to be provided with underground electricity reticulation supplied from new pad mounted transformers where required, installed to Ergon standards.

New street lighting shall comply with Ergon standards for urban residential developments.

5.7 Telecommunications

New development is to be provided with connections for landline and internet services supplied from underground cabling in the street, and mobile services where available, all installed by Telstra.

6 Action Plan

The Action Plan is summarised in **Table 6-1** and identifies future actions arising from the Master Plan. Actions listed in the Action Plan are identified as Key Actions for each project.

Table 6-1 Action Plan

1	Undertake further investigations in relation to specific land parcels The Master Plan has identified a number of locations that may be suitable for further development, subject to specific on-site investigations, which will likely identify developable and constrained land.	5	Investigate Cultural, Economic and Recreational Areas Further investigation of potential cultural, economic and recreational areas beyond the township should be undertaken.
2	Develop a Recreation Strategy A strategy should be developed to guide the provision of active travel and recreational infrastructure so that it may form part of a coordinated and integrated network. This is of particular importance for walking and cycling paths.	6	Consultation with Key Stakeholders The Master Plan identifies a number of conceptual opportunities which require consultation with stakeholders relevant to these projects, in order to determine more detailed design requirements to support the delivery of these projects.
3	Protection of Community Facilities and Infrastructure The Master Plan identifies a number of community facilities and infrastructure that are to be protected and maintained for the benefit of the community. The ongoing maintenance of these facilities should be prioritised, with further expansion or embellishment considered when necessary.	7	Planning Scheme Amendments In a number of instances it may be necessary for the Planning Scheme to be amended to reflect the Master Plan projects identified and ultimately support the delivery of these projects.
4	Encourage Economic Activity The Master Plan identifies a number of locations which will support economic activity, however there is a need to encourage businesses to take up the opportunities provided by this land, particularly relating to industry and tourism.	8	Coastal Inundations Investigations and Works Undertake specific investigations into coastal inundation required to identify land that may be suitable for future projects identified by the Master Plan, subject to specific mitigation and protection works.
		9	Documentation of Cultural Values The cultural and spiritual values of significant sites such as churches and cemeteries should be documented for the community.

APPENDIX

A

MASTER PLAN MAP





ST PAULS COMMUNITY MASTER PLAN

VERSION 003
20 October 2021

LOCALITY PLAN

SCALE 1:200,000

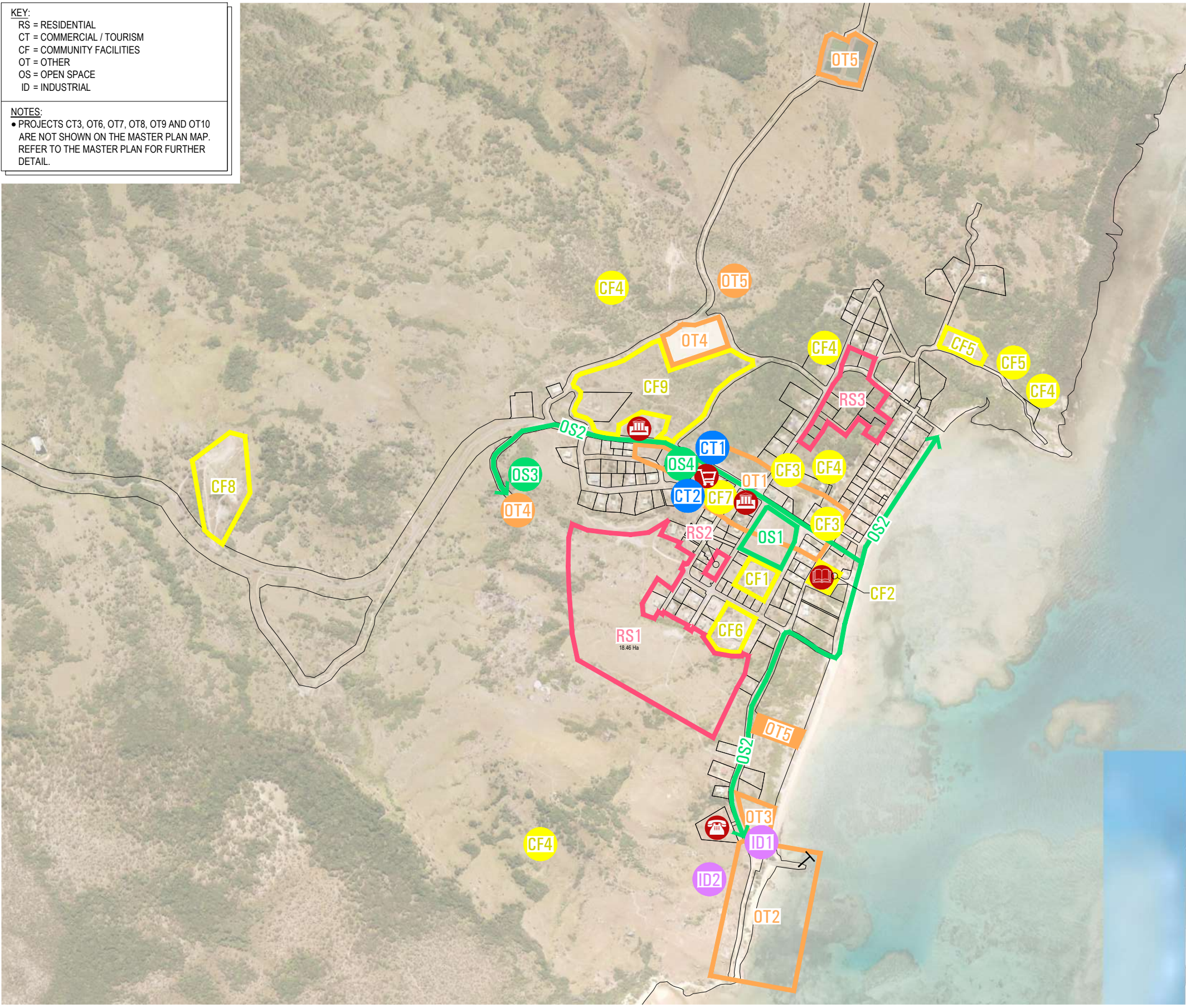


KEY:

RS = RESIDENTIAL
CT = COMMERCIAL / TOURISM
CF = COMMUNITY FACILITIES
OT = OTHER
OS = OPEN SPACE
ID = INDUSTRIAL

NOTES:

• PROJECTS CT3, OT6, OT7, OT8, OT9 AND OT10 ARE NOT SHOWN ON THE MASTER PLAN MAP. REFER TO THE MASTER PLAN FOR FURTHER DETAIL.



RESIDENTIAL:

- RS1 RESIDENTIAL EXPANSION AREA
- RS2 INFILL HOUSING SOUTH
- RS3 INFILL HOUSING NORTH

COMMUNITY FACILITIES:

- CF1 NEW SCHOOL
- CF2 TRAINING CENTRE
- CF3 PLACE OF WORSHIP PROTECTION
- CF4 SACRED SITE PROTECTION
- CF5 CEMETERY PROTECTION AREA
- CF6 COMMUNITY PRECINCT
- CF7 CHILD CARE CENTRE
- CF8 LANDFILL PROTECTION AND EXPANSION AREA
- CF9 MARKET GARDEN / FOOD SECURITY AREA

OTHER DEVELOPMENT:

- OT1 CBD PRECINCT PLAN
- OT2 JETTY AND BOAT RAMP UPGRADES
- OT3 HELIPAD
- OT4 WATER SUPPLY UPGRADES
- OT5 SEWERAGE UPGRADES

RECREATION & OPEN SPACE:

- OS1 SPORTING PRECINCT
- OS2 PATH NETWORK
- OS3 LOOKOUT
- OS4 COMMUNITY PARK UPGRADE

INDUSTRIAL:

- ID1 FISHING INDUSTRY
- ID2 FUTURE QUARRY

COMMERCIAL / TOURISM:

- CT1 TOURIST ACCOMMODATION
- CT2 COMMERCIAL PRECINCT

LEGEND

- PROPOSED RESIDENTIAL DEVELOPMENT
- PROPOSED INDUSTRIAL DEVELOPMENT
- PROPOSED OTHER DEVELOPMENT
- PROPOSED COMMUNITY FACILITIES
- PROPOSED OPEN SPACE / DRAINAGE RESERVE
- PROPOSED COMMERCIAL / TOURISM DEVELOPMENT

- JETTY
- SCHOOL
- COUNCIL BUILDING
- SHOP / SUPERMARKET
- TELSTRA TOWER

APPENDIX

B

MASTER PLAN PROJECT INDEX



ST PAULS COMMUNITY MASTER PLAN

PROJECT INDEX

The below table provides a summary of the projects identified in the Master Plan.

ID	Project Name	New Lots	Lot Sizes	Priority	Infrastructure Cost	Associated Projects	Key Actions
RS1	Residential Expansion Area	80 Lots (estimate)	1,200m ² (average)	Long Term	\$32,797,631	-	-
RS2	Infill Housing South	3 Lots	915m ² (estimate)	Short Term	\$411,939	-	-
RS3	Infill Housing North	12 Lots (existing)	1,271m ² – 7,854m ²	Medium Term	\$2,360,963	-	1, 6, 7
ID1	Fishing Industry	N/A	N/A	Short Term	\$1,598,775	OT2	4, 6
ID2	Future Quarry	N/A	N/A	Long Term	To Be Costed	-	1, 6, 7
CT1	Tourist Accommodation	N/A	N/A	Medium Term	N/A	OT1	4, 6
CT2	Commercial Precinct	N/A	N/A	Medium Term	\$296,742	OT1	4, 6
CT3	Environmental Tourism	N/A	N/A	Medium Term	N/A	OT2, OT3	4, 6
CF1	New School	N/A	N/A	Medium Term	\$2,598,019	OS1	6
CF2	Training Centre	N/A	N/A	Medium Term	N/A	CF1	4, 6
CF3	Place of Worship Protection	N/A	N/A	Ongoing	N/A	OT1	3, 9
CF4	Sacred Site Protection	N/A	N/A	Ongoing	N/A	-	3, 4, 6, 9
CF5	Cemetery Protection Area	N/A	N/A	Ongoing	N/A	-	3, 6, 9
CF6	Community Precinct	N/A	N/A	Medium Term	N/A	CF1	3, 6
CF7	Child Care Centre	N/A	N/A	Short Term	N/A	CF1, CF6, OT1	6

ID	Project Name	New Lots	Lot Sizes	Priority	Infrastructure Cost	Associated Projects	Key Actions
CF8	Landfill Protection and Expansion Area	N/A	N/A	Short Term	N/A	-	3
CF9	Market Garden / Food Security Area	N/A	N/A	Medium Term	N/A	OT4	1, 6, 8
OS1	Sporting Precinct	N/A	N/A	Medium Term	\$2,287,733	CF1	2, 3, 6
OS2	Path Network	N/A	N/A	Medium Term	\$625 per metre (concrete) \$400 per metre (gravel) \$200 per metre (earth)	OS3, OT1	2, 6, 8
OS3	Lookout	N/A	N/A	Short Term	To Be Costed	OS2	2
OS4	Community Park Upgrade	N/A	N/A	Medium Term	To Be Costed	OT1	2
OT1	CBD Precinct Plan	N/A	N/A	Medium Term	N/A	CT1, CT2, OS1, OS4	3, 4, 6
OT2	Jetty and Boat Ramp Upgrades	N/A	N/A	Short Term	To Be Costed	OS2, OT3	4, 6
OT3	Helipad	N/A	N/A	Medium Term	To Be Costed	OT2	4, 7
OT4	Water Supply Upgrades	N/A	N/A	Short Term	To Be Costed	-	3
OT5	Sewerage Upgrades	N/A	N/A	Short Term	To Be Costed	-	3
OT6	"Back of Island" Access	N/A	N/A	Medium Term	To Be Costed	-	5, 6
OT7	Telecommunications Upgrades	N/A	N/A	Short Term	To Be Costed	-	6
OT8	Carbon and Renewable Energy Opportunities	N/A	N/A	Medium Term	To Be Costed	OT9	6
OT9	Energy Supply	N/A	N/A	Medium Term	To Be Costed	OT8	6

ID	Project Name	New Lots	Lot Sizes	Priority	Infrastructure Cost	Associated Projects	Key Actions
OT9	Community Fencing	N/A	N/A	Ongoing	To Be Costed	-	-

APPENDIX

C

ACTION PLAN SUMMARY



ST PAULS COMMUNITY MASTER PLAN

ACTION PLAN SUMMARY

The below table provides a summary of the relationship between the Action Plan and the projects identified in the Master Plan.

ID	Action	RS1	RS2	RS3	ID1	ID2	CT1	CT2	CT3	CF1	CF2	CF3	CF4	CF5	CF6	CF7	CF8	CF9
1	Undertake further investigations in relation to specific land parcels			RS3		ID2												CF9
2	Develop a Recreation Strategy																	
3	Protection of Community Facilities and Infrastructure											CF3	CF4	CF5	CF6		CF8	
4	Encourage Economic Activity				ID1	ID2	CT1	CT2	CT3		CF2		CF4					
5	Investigate Cultural, Economic and Recreational Areas																	
6	Consultation with Key Stakeholders			RS3	ID1		CT1	CT2	CT2	CF1	CF2		CF4	CF5	CF6	CF7		CF9
7	Planning Scheme Amendments			RS3														
8	Coastal Inundations Investigations and Works																	CF9
9	Documentation of Cultural Values											CF3	CF4	CF5				

ID	Action	OS1	OS2	OS3	OS4	OT1	OT2	OT3	OT4	OT5	OT6	OT7	OT8	OT9	OT10
1	Undertake further investigations in relation to specific land parcels														
2	Develop a Recreation Strategy	OS1	OS2	OS3	OS4										
3	Protection of Community Facilities and Infrastructure	OS1				OT1			OT4	OT5					
4	Encourage Economic Activity					OT1	OT2	OT3							
5	Investigate Cultural, Economic and Recreational Areas										OT6				
6	Consultation with Key Stakeholders	OS1	OS2			OT1	OT2				OT6	OT7	OT8	OT9	
7	Planning Scheme Amendments							OT3							
8	Coastal Inundations Investigations and Works		OS2												
9	Documentation of Cultural Values														

APPENDIX

D

INFRASTRUCTURE COSTINGS



TORRES STRAIT MASTER PLANNING INFRASTRUCTURE COST ESTIMATES

Prepared for the Department of Aboriginal and Torres Strait Islander Partnerships



07SP ST PAULS COMMUNITY

Last Update:

17-Nov-21

Project			RS1		RS2		RS3		ID1		CT2	
Yield (Number of Lots)			80		3		12		N/A		N/A	
Item	Unit	Rate	Qty	Amount	Qty	Amount	Qty	Amount	Qty	Amount	Qty	Amount
HEADWORKS INFRASTRUCTURE UPGRADES												
Sewage Treatment Plant Upgrade	Item											
Water Treatment Plant Upgrade	Item											
Reservoirs Upgrade	Item											
DEVELOPMENT												
Earthworks												
Site clearing and disposal of material	Ha	\$ 14,000	10.40	\$ 145,600	0.28	\$ 3,920	2.75	\$ 38,500	0.1	\$ 1,400	0.26	\$ 3,640
Erosion and sediment control	m	\$ 40	1,500	\$ 60,000	70	\$ 2,800	650	\$ 26,000	50	\$ 2,000	100	\$ 4,000
Strip topsoil and respread	m ³	\$ 30	10,500	\$ 315,000	280	\$ 8,400	2750	\$ 82,500	30	\$ 900	350	\$ 10,500
Cut to fill on lots	m ³	\$ 40	12,500	\$ 500,000	600	\$ 24,000	6000	\$ 240,000	250	\$ 10,000	750	\$ 30,000
Cut in open drains to fill on lots	m ³	\$ 40	0	\$ -	0	\$ -	0	\$ -	0	\$ -	0	\$ -
Cut in roads and table drains to fill on lots	m ³	\$ 40	4,000	\$ 160,000	0	\$ -	0	\$ -	0	\$ -	0	\$ -
Roadworks												
Concrete Road (7.0 m)	m	\$ 3,000	2,075	\$ 6,225,000	0	\$ -	0	\$ -	40	\$ 120,000	0	\$ -
Stormwater Drainage												
Concrete edge strips/K & C to road pavement	m	\$ 400	4,250	\$ 1,700,000	0	\$ -	0	\$ -	100	\$ 40,000	60	\$ 24,000
Concrete invert to table drain	m	\$ 1,500	0	\$ -	0	\$ -	0	\$ -	0	\$ -	0	\$ -
1200 x 450 RCBC incl conc base/invert crossings	m	\$ 3,000	326	\$ 978,000	0	\$ -	0	\$ -	0	\$ -	0	\$ -
Headwalls, Wingwalls and Aprons	m ³	\$ 3,600	97	\$ 349,200	0	\$ -	0	\$ -	0	\$ -	0	\$ -
Bio-Basins	m ²	\$ 900	2,600	\$ 2,340,000	0	\$ -	0	\$ -	0	\$ -	0	\$ -
Bio basin concrete spillway	m ²	\$ 700	975	\$ 682,500	0	\$ -	0	\$ -	0	\$ -	0	\$ -
Water Reticulation												
100 dia, PVC pipe	m	\$ 400	1,615	\$ 646,000	200	\$ 80,000	480	\$ 192,000	40	\$ 16,000	0	\$ -
150 dia. PVC pipe	m	\$ 500	450	\$ 225,000	0	\$ -	0	\$ -	0	\$ -	0	\$ -
200 dia PVC pipe	m	\$ 650	0	\$ -	0	\$ -	0	\$ -	0	\$ -	0	\$ -
SV's	No	\$ 3,000	20	\$ 60,000	2	\$ 6,000	4	\$ 12,000	2	\$ 6,000	0	\$ -
Hydrants	No	\$ 4,550	20	\$ 91,000	1	\$ 4,550	5	\$ 22,750	1	\$ 4,550	1	\$ 4,550
Single house connections	No	\$ 2,000	80	\$ 160,000	2	\$ 4,000	12	\$ 24,000	1	\$ 2,000	4	\$ 8,000
Connect to existing main	No	\$ 6,000	7	\$ 42,000	2	\$ 12,000	2	\$ 12,000	1	\$ 6,000	0	\$ -
VSD Pump Building	Item	\$ 300,000	0	\$ -	0	\$ -	0	\$ -	0	\$ -	0	\$ -
Variable speed drive pump set	Item	\$ 200,000	0	\$ -	0	\$ -	0	\$ -	0	\$ -	0	\$ -
Standby generator	Item	\$ 100,000	0	\$ -	0	\$ -	0	\$ -	0	\$ -	0	\$ -

TORRES STRAIT MASTER PLANNING INFRASTRUCTURE COST ESTIMATES

Prepared for the Department of Aboriginal and Torres Strait Islander Partnerships



07SP ST PAULS COMMUNITY

Last Update:

17-Nov-21

Project			RS1		RS2		RS3		ID1		CT2	
Yield (Number of Lots)			80		3		12		N/A		N/A	
Item	Unit	Rate	Qty	Amount	Qty	Amount	Qty	Amount	Qty	Amount	Qty	Amount
Sewerage Reticulation												
150 dia. PVC	m	\$ 400	1800	\$ 720,000	60	\$ 24,000	530	\$ 212,000	20	\$ 8,000	50	\$ 20,000
Manholes	No	\$ 10,000	30	\$ 300,000	2	\$ 20,000	11	\$ 110,000	2	\$ 20,000	2	\$ 20,000
Lot connections	No	\$ 1,500	80	\$ 120,000	2	\$ 3,000	12	\$ 18,000	1	\$ 1,500	4	\$ 6,000
FRP Pump Station	Item	\$ 950,000	1	\$ 950,000	0	\$ -	0	\$ -	0.5	\$ 475,000	0	\$ -
Standby Generator	Item	\$ 100,000	1	\$ 100,000	0	\$ -	0	\$ -	0	\$ -	0	\$ -
90 OD polyethylene pressure main	m	\$ 400	0	\$ -	0	\$ -	0	\$ -	350	\$ 140,000	0	\$ -
110 OD polyethylene pressure main	m	\$ 600	0	\$ -	0	\$ -	0	\$ -	0	\$ -	0	\$ -
140 OD polyethylene pressure main	m	\$ 700	300	\$ 210,000	0	\$ -	0	\$ -	0	\$ -	0	\$ -
Electricity Supply												
Conduits, pits and pole bases	Lots	\$ 12,000	80	\$ 960,000	2	\$ 24,000	12	\$ 144,000	2	\$ 24,000	1	\$ 12,000
Cabling and street lights	Lots	\$ 15,000	80	\$ 1,200,000	2	\$ 30,000	12	\$ 180,000	2	\$ 30,000	1	\$ 15,000
Transformer	No	\$ 200,000	2	\$ 400,000	0	\$ -	0.5	\$ 100,000	0.25	\$ 50,000	0.1	\$ 20,000
Sub Totals				\$ 19,639,300		\$ 246,670		\$ 1,413,750		\$ 957,350		\$ 177,690
Contingencies	Item	30%		\$ 5,891,790		\$ 74,001		\$ 424,125		\$ 287,205		\$ 53,307
Preliminaries												
Establishment, insurance, As-constructed	Item	22%		\$ 4,320,646		\$ 54,267		\$ 311,025		\$ 210,617		\$ 39,092
Project Management												
Survey, design, and construction administration	Item	15%		\$ 2,945,895		\$ 37,001		\$ 212,063		\$ 143,603		\$ 26,654
TOTALS				\$ 32,797,631		\$ 411,939		\$ 2,360,963		\$ 1,598,775		\$ 296,742

TORRES STRAIT MASTER PLANNING

INFRASTRUCTURE COST ESTIMATES

Prepared for the Department of Aboriginal and Torres Strait Islander Partnerships

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Project			CF1		OS1	
Yield (Number of Lots)			1		N/A	
Item	Unit	Rate	Qty	Amount	Qty	Amount

HEADWORKS INFRASTRUCTURE UPGRADES						
Sewage Treatment Plant Upgrade	Item					
Water Treatment Plant Upgrade	Item					
Reservoirs Upgrade	Item					
DEVELOPMENT						
Earthworks						
Site clearing and disposal of material	Ha	\$ 14,000	1.9	\$ 26,600	1.9	\$ 26,600
Erosion and sediment control	m	\$ 40	300	\$ 12,000	230	\$ 9,200
Strip topsoil and respread	m ³	\$ 30	1900	\$ 57,000	1900	\$ 57,000
Cut to fill on lots	m ³	\$ 40	3000	\$ 120,000	2700	\$ 108,000
Cut in open drains to fill on lots	m ³	\$ 40	0	\$ -	0	\$ -
Cut in roads and table drains to fill on lots	m ³	\$ 40	0	\$ -	0	\$ -
Roadworks						
Concrete Road (7.0 m)	m	\$ 3,000	150	\$ 450,000	130	\$ 390,000
Stormwater Drainage						
Concrete edge strips/K & C to road pavement	m	\$ 400	300	\$ 120,000	260	\$ 104,000
Concrete invert to table drain	m	\$ 1,500	0	\$ -	0	\$ -
1200 x 450 RCBC incl conc base/invert crossings	m	\$ 3,000	0	\$ -	11	\$ 33,000
Headwalls, Wingwalls and Aprons	m ³	\$ 3,600	0	\$ -	5	\$ 18,000
Bio-Basins	m ²	\$ 900	480	\$ 432,000	450	\$ 405,000
Bio basin concrete spillway	m ²	\$ 700	75	\$ 52,500	75	\$ 52,500
Water Reticulation						
100 dia, PVC pipe	m	\$ 400	160	\$ 64,000	130	\$ 52,000
150 dia. PVC pipe	m	\$ 500	0	\$ -	0	\$ -
200 dia PVC pipe	m	\$ 650	0	\$ -	0	\$ -
SV's	No	\$ 3,000	4	\$ 12,000	3	\$ 9,000
Hydrants	No	\$ 4,550	2	\$ 9,100	2	\$ 9,100
Single house connections	No	\$ 2,000	1	\$ 2,000	1	\$ 2,000
Connect to existing main	No	\$ 6,000	1	\$ 6,000	1	\$ 6,000
VSD Pump Building	Item	\$ 300,000	0	\$ -	0	\$ -
Variable speed drive pump set	Item	\$ 200,000	0	\$ -	0	\$ -
Standby generator	Item	\$ 100,000	0	\$ -	0	\$ -

TORRES STRAIT MASTER PLANNING
INFRASTRUCTURE COST ESTIMATES

Prepared for the Department of Aboriginal and Torres Strait Islander Partnerships

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Project			CF1		OS1	
Yield (Number of Lots)			1		N/A	
Item	Unit	Rate	Qty	Amount	Qty	Amount
Sewerage Reticulation						
150 dia. PVC	m	\$ 400	100	\$ 40,000	100	\$ 40,000
Manholes	No	\$ 10,000	2	\$ 20,000	2	\$ 20,000
Lot connections	No	\$ 1,500	1	\$ 1,500	1	\$ 1,500
FRP Pump Station	Item	\$ 950,000	0	\$ -	0	\$ -
Standby Generator	Item	\$ 100,000	0	\$ -	0	\$ -
90 OD polyethylene pressure main	m	\$ 400	0	\$ -	0	\$ -
110 OD polyethylene pressure main	m	\$ 600	0	\$ -	0	\$ -
140 OD polyethylene pressure main	m	\$ 700	0	\$ -	0	\$ -
Electricity Supply						
Conduits, pits and pole bases	Lots	\$ 12,000	3	\$ 36,000	1	\$ 12,000
Cabling and street lights	Lots	\$ 15,000	3	\$ 45,000	1	\$ 15,000
Transformer	No	\$ 200,000	0.25	\$ 50,000	0	\$ -
Sub Totals				\$ 1,555,700		\$ 1,369,900
Contingencies	Item	30%		\$ 466,710		\$ 410,970
Preliminaries						
Establishment, insurance, As-constructed	Item	22%		\$ 342,254		\$ 301,378
Project Management						
Survey, design, and construction administration	Item	15%		\$ 233,355		\$ 205,485
TOTALS				\$ 2,598,019		\$ 2,287,733

APPENDIX

E

PRECINCT PLANS





ST PAULS COMMUNITY MASTER PLAN

CBD PRECINCT PLAN

VERSION 001
29 June 2020



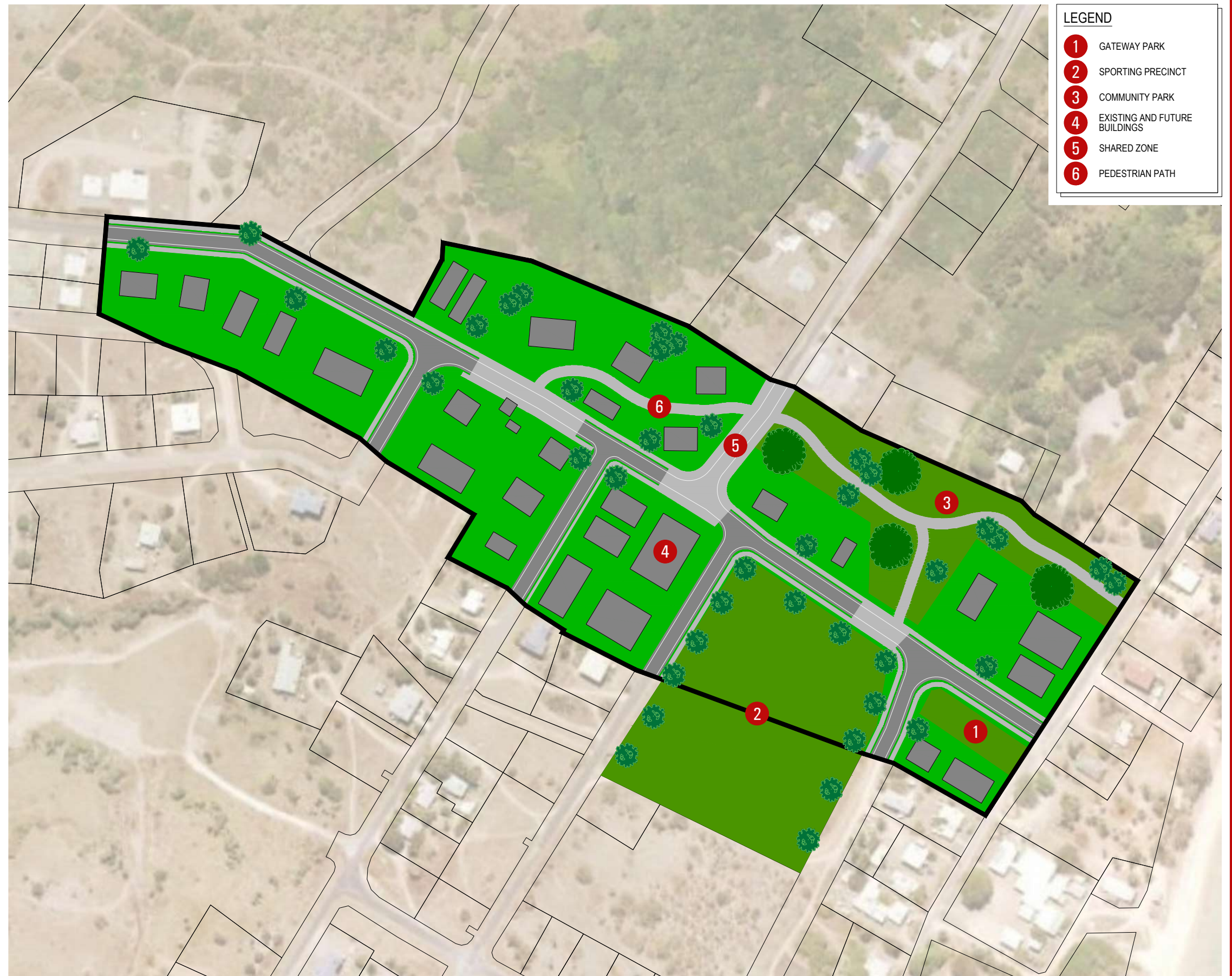
3 COMMUNITY PARK



5 SHARED ZONE



6 PEDESTRIAN PATH



APPENDIX

F

ANALYTICAL TRANSLATION



ST PAULS COMMUNITY MASTER PLAN

ANALYTICAL TRANSLATION

#	Direction	Technical Report	Master Plan Projects	Notes
1.	The Master Plan will need to cater for an increase in housing (five (5) additional dwellings) to reduce overcrowding and cater for population growth and changes to community needs.	4 Demographic Analysis 8.1 Aboriginal and Torres Strait Islander Housing Action Plan 2019-2023 8.10 Torres Strait and Northern Peninsula Regional Plan 2009-2029 8.12 TSIRC Corporate Plan 2020-2025	RS1, RS2, RS3	
2.	The Master Plan should seek to diversify the available housing products, particularly the provision of smaller housing types. Dwelling types can be supported as infill housing, which will allow them to be well located proximate to key services and facilities.	4 Demographic Analysis 8.1 Aboriginal and Torres Strait Islander Housing Action Plan 2019-2023 8.10 Torres Strait and Northern Peninsula Regional Plan 2009-2029 8.12 TSIRC Corporate Plan 2020-2025	RS1, RS2, RS3	
3.	The Master Plan should encourage the inclusion of additional short to medium term accommodation options for staff housing and tourist/visitor accommodation.	2.5 Services and Facilities 5 Planning Analysis 8.10 Torres Strait and Northern Peninsula Regional Plan 2009-2029 8.12 TSIRC Corporate Plan 2020-2025	RS1, RS2, RS3, OT1, CT1	
4.	The Master Plan should support the provision of facilities for ageing in place and accessible living including accommodation for independent living (for persons of any age who may need care).	4 Demographic Analysis 8.10 Torres Strait and Northern Peninsula Regional Plan 2009-2029 8.12 TSIRC Corporate Plan 2020-2025	RS1, RS2, RS3, OT1	

#	Direction	Technical Report	Master Plan Projects	Notes
5.	The Master Plan should explore areas for potential housing.	5 Planning Analysis 8.10 Torres Strait and Northern Peninsula Regional Plan 2009-2029	RS1	
6.	The Master Plan should seek to facilitate the provision of active transport infrastructure (walking / cycling paths) to connect important parts of the community and promote healthy living through physical activity.	2.5 Services and Facilities 8.5 Healthy by Design / Walkability 8.10 Torres Strait and Northern Peninsula Regional Plan 2009-2029 8.12 TSIRC Corporate Plan 2020-2025	OS1, OS2, OS3, OT1	
7.	The Master Plan should seek to support the protection and embellishment (where appropriate) of key sacred and cultural sites identified by the community. This may include improving community access.	5 Planning Analysis 8.10 Torres Strait and Northern Peninsula Regional Plan 2009-2029 8.12 TSIRC Corporate Plan 2020-2025	CF4	
8.	The Master Plan should seek to protect places of worship and cemeteries and facilitate the identification of additional land to support future community needs.	2.5 Services and Facilities 8.12 TSIRC Corporate Plan 2020-2025	CF3, CF5	
9.	The Master Plan should locate development in a manner that is reflective of the potential effects of coastal processes.	5 Planning Analysis 8.10 Torres Strait and Northern Peninsula Regional Plan 2009-2029 8.11 Torres Strait Regional Adaptation and Resilience Plan 2016-2021 8.12 TSIRC Corporate Plan 2020-2025	All projects	
10.	The Master Plan should support the development of a new school to be located north of Saveka Street and south of Oza Bosun Road.	5 Planning Analysis 8.10 Torres Strait and Northern Peninsula Regional Plan 2009-2029	CF1	

#	Direction	Technical Report	Master Plan Projects	Notes
11.	The Master Plan should support the provision of a new community hall south of Saveka Street.	5 Planning Analysis 8.10 Torres Strait and Northern Peninsula Regional Plan 2009-2029	CF6	
12.	The Master Plan should investigate the provision of land for potential food production, which may include community or market gardens and agribusiness such as aquaculture.	5 Planning Analysis 8.9 Food Security 8.10 Torres Strait and Northern Peninsula Regional Plan 2009-2029 8.12 TSIRC Corporate Plan 2020-2025 8.13 Warpil – Fishing for Our Future	CF9	
13.	The Master Plan should support the establishment of a jetty and upgrades and embellishment of the boat ramp to advance the community's aspiration for a ferry service. This will likely include supporting improvements to vessel access through new or improved marine infrastructure and the provision of new land based infrastructure.	2.5 Services and Facilities 5 Planning Analysis 8.10 Torres Strait and Northern Peninsula Regional Plan 2009-2029 8.12 TSIRC Corporate Plan 2020-2025 8.13 Warpil – Fishing for Our Future	OT2, ID1	
14.	The Master Plan should support improved access to the island by air and sea, through investigations into the inclusion of a new helipad and barge ramp/pontoon upgrades.	6 Infrastructure Analysis 8.10 Torres Strait and Northern Peninsula Regional Plan 2009-2029 8.12 TSIRC Corporate Plan 2020-2025	OT2, OT3	
15.	The Master Plan should support the development of new recreational facilities, which may include multi purpose sport and recreation facility. Any such facility should be appropriately located on accessible land near compatible land uses.	5 Planning Analysis 8.10 Torres Strait and Northern Peninsula Regional Plan 2009-2029 8.12 TSIRC Corporate Plan 2020-2025	OS1, OS4	

#	Direction	Technical Report	Master Plan Projects	Notes
16.	The Master Plan should support the development of tourism opportunities that are compatible with the aspirations of the community.	2.5 Services and Facilities 5 Planning Analysis 8.10 Torres Strait and Northern Peninsula Regional Plan 2009-2029 8.12 TSIRC Corporate Plan 2020-2025	CT1, CT2, CT3, OT1, OT2, OT3	
17.	The Master Plan should ensure that new commercial and community facilities are located in a manner that maximises ease of access for the community including a new shop, community run fuel bowser and training enterprises.	2.5 Services and Facilities 5 Planning Analysis 8.10 Torres Strait and Northern Peninsula Regional Plan 2009-2029 8.12 TSIRC Corporate Plan 2020-2025	CF1, CF2, CF6, CF7, OT1, CT2	
18.	The Master Plan will investigate opportunities for additional or improved community infrastructure and facilities such as a gymnasium, community freezer and live tank, arts and culture centre, police station, crisis housing, community hall and public toilets.	2.5 Services and Facilities 5 Planning Analysis	CF6, OT1, OT2	
19.	The Master Plan will reinforce a centralised business core area for new commercial and the consolidation of government administrative offices, health care and shops.	2.5 Services and Facilities 5 Planning Analysis 7.2 Community Consultation 8.12 TSIRC Corporate Plan 2020-2025	OT1	
20.	The Master Plan should support the provision of additional child care facilities.	2.5 Services and Facilities 5 Planning Analysis 8.10 Torres Strait and Northern Peninsula Regional Plan 2009-2029 8.12 TSIRC Corporate Plan 2020-2025	CF7	

#	Direction	Technical Report	Master Plan Projects	Notes
21.	The Master Plan should support the development of cultural centres and arts centres.	2.5 Services and Facilities 5 Planning Analysis 8.10 Torres Strait and Northern Peninsula Regional Plan 2009-2029 8.12 TSIRC Corporate Plan 2020-2025	CF6, OT1	
22.	The Master Plan should investigate opportunities to improve community access to other areas of the island (beyond the township), particularly for recreation, economic and cultural purposes.	8.10 Torres Strait and Northern Peninsula Regional Plan 2009-2029 8.12 TSIRC Corporate Plan 2020-2025	OT6	
23.	The Master Plan should investigate opportunities for carbon offsetting, both in land and sea areas.	8.2 Queensland Climate Transition Strategy 8.4 Carbon 8.10 Torres Strait and Northern Peninsula Regional Plan 2009-2029 8.12 TSIRC Corporate Plan 2020-2025	OT8	
24.	The Master Plan should support the protection and expansion (if required) of the existing landfill site.	2.5 Services and Facilities 6 Infrastructure Analysis 8.10 Torres Strait and Northern Peninsula Regional Plan 2009-2029 8.12 TSIRC Corporate Plan 2020-2025	CF8	
25.	The Master Plan should support the provision of appropriate lighting in key locations in the town.	8.12 TSIRC Corporate Plan 2020-2025	OS1, OS2, OT1, CF6	

#	Direction	Technical Report	Master Plan Projects	Notes
26.	The Master Plan should identify potential opportunities for alternative energy projects.	8.2 Queensland Climate Transition Strategy 8.4 Carbon 8.8 Renewable Energy 8.10 Torres Strait and Northern Peninsula Regional Plan 2009-2029 8.12 TSIRC Corporate Plan 2020-2025	OT8	
27.	The Master Plan should investigate opportunities to improve communications infrastructure (telephone and internet).	8.10 Torres Strait and Northern Peninsula Regional Plan 2009-2029 8.12 TSIRC Corporate Plan 2020-2025	OT7	
28.	The Master Plan should facilitate upgrades to the water supply network in order to increase capture and storage capacity to meet demand and ensure that appropriate treatment occurs.	6 Infrastructure Analysis 8.10 Torres Strait and Northern Peninsula Regional Plan 2009-2029 8.12 TSIRC Corporate Plan 2020-2025	OT4	
29.	The Master Plan should facilitate upgrades to the sewerage network, specifically with regard to detention time.	6 Infrastructure Analysis 8.10 Torres Strait and Northern Peninsula Regional Plan 2009-2029 8.12 TSIRC Corporate Plan 2020-2025	OT5	
30.	The Master Plan should be updated to reflect the outcomes of community consultation activities undertaken.	7 Consultation	RS1, RS2, ID1, ID2, CT1, CT2, CF1, CF5, CF8, OS1, OS2, OS3, OS4, OT2, OT3, OT9, OT10	