



TABLE OF CONTENTS

1.0	INTRODUCTION
2.0	SITE CONTEXT
2.1	Location
2.2	2.2 Legal Description, Restrictions & Encumbrances
2.3	Topography
2.4	Existing Land Use & Development
2.5	Environmental Assessment
2.6	Heritage Sites
3.0	STATUTORY PLANNING
3.1	Greater Geraldton Structure Plan (2010 Update)
3.2	City of Geraldton-Greenough TPS No. 3
3.3	City of Geraldton-Greenough Municipal Heritage Inventory
3.4	Liveable Neighbourhoods
4.0	CONTEXT
4.1	Surrounding Land Uses
4.2	Education Facilities
4.3	Commercial Facilities
4.4	Recreation & Open Space
4.5	Community Facilities
4.6	Employment Opportunities
5.0	OUTLINE DEVELOPMENT PLAN
5.1	Purpose
5.2	Project Objectives
5.3	Components of the ODP
5.3.1	Road Network
5.3.1.1	Regional Roads
5.3.1.2	Local Road Network
5.3.1.3	Sustainable Transport



5.3.2 Residential

5.3.3 Public Open Space & Landscaping

6.0 SERVICING REPORT

7.0 CONCLUSION



LIST OF FIGURES

Figure 1: Location Plan

Figure 2: Orthophoto

Figure 3: Greater Geraldton Structure Plan

Figure 4: City of Geraldton-Greenough TPS No. 3

Figure 5: Outline Development Plan

Figure 6: Landscape Concept Plan



1.0 INTRODUCTION

Chappell Lambert Everett Planning & Design Consultants have been appointed by both LandCorp and Property Resources Management Pty Ltd (PRM) acting on behalf of the landowner, Public Transport Authority (PTA) to prepare an Outline Development Plan (ODP) for Lot 500 on Chapman Road, Bluff Point Geraldton.

Lot 500 Chapman Road, which has an area of approximately 8.36ha, is generally bounded by St Lawrence Primary School to the north, North West Coastal Highway to the east, the former Geraldton-Walkaway railway line to the south and Chapman Road to the west.

The ODP, which has been prepared following consultation with representatives from the City of Geraldton-Greenough (the 'City'), the Western Australian Planning Commission (WAPC), the Heritage Council of WA and key landowner groups such as the St Lawrence Primary School and the Department of Education, will form the basis for guiding future residential subdivision and development. The subject land is envisaged to be developed as a fully integrated urban community which embraces high standards in residential and environmental performance, management and sustainability. The development of this land will provide an attractive northern entrance to the Geraldton city centre.



2.0 SITE CONTEXT

2.1 Location

The subject land, which has an area of approximately 8.356ha is located on Chapman Road, Bluff Point approximately 3km north of the Geraldton CBD. The suburb of Bluff Point is predominantly a residential neighbourhood in very close proximity to the 'city centre' and the foreshore and beach to the West. **Figure 1** identifies the location of the site in relation to the Geraldton locality.

2.2 Legal Description, Restrictions & Encumbrances

The land is formally described as:

"Lot 500 on Deposited Plan 65439."

Until recently the land comprised 5 separate titles, however the land was amalgamated to form Lot 500, which has an area of 8.3561ha.

An easement to the benefit of Telstra Corporation provides protection and access to a coaxial cable (fibre optic) buried beneath the surface, which is proposed to be relocated.

Two memorials are registered in regard to an interest of the Heritage Council of WA being the 'Gatekeepers House Bluff Point' and the adjoining 'Two Mile Well' which are both located on the western portion of the site adjacent to Chapman Road.

2.3 Topography

Topographically the site has to a large degree been significantly influenced by past land use activities, particularly the 'swing cut' associated with the former Geraldton-Walkaway railway line (along the southern boundary) and the cut associated with the Geraldton-Northampton Railway line.

The site is characterised by a small central north-south ridge ranging between 12-15m AHD and then generally falls to a low of approximately 7-9m along Chapman Road in the west and similarly North West Coastal Highway in the east.

Figure 2 which is an Orthophoto of the site, clearly depicts the topographical features of the site.

The site is located in the Spearwood System and comprises a mixture of residual sand overlying calcaramite / limestone as well as red silty sand clay over sandy gravel. Preliminary geotect tests recently undertaken have confirmed the suitability of the site for urban development with associated drainage etc.



2.4 Existing Land Use & Development

An examination of the Orthophoto (**Figure 2**) clearly indicates that current and past land use activities have had a significant impact on the character of the site.

In addition to the construction of the railway lines the western portion of the site adjacent to Chapman Road comprised a number of residential dwellings and cottages associated with the railway. Apart from the Heritage listed 'Gatekeepers Cottage' and 'Two Mile Well' located in the south western portion of the site, all of the dwellings and associated outbuildings etc have been demolished in recent years.

The site has also been impacted on by vehicular access as well as various tracks and trails across the site. The closed portion of Davis Street road reserve contains a road constructed to a gravel standard that currently provides access to an informal gravel car park associated with the St Lawrence Primary School to the north.

Consultation has taken place with the St Lawrence Primary School, to ensure that future development of Lot 500 will include future road access to the school and carpark. The landowners / developers will continue to work with the school during construction phase to maintain access to the school carpark wherever possible and minimise disruption.

2.5 Environmental Assessment

In September 2008, an environmental assessment of the site was undertaken to determine as to whether there were any environmental issues or constraints which would restrict or preclude urban development.

In summary, the Environmental Assessment concluded that as a result of various land use activities, the site is in a generally degraded state and there are no declared rare or priority flora or fauna of any significance that would preclude clearing and development. The Executive Summary conclusions of the report are as follows:

"In summary, the following conclusions or environmental aspects are made for the surveyed area:

- *The vegetation located at the site does not correlate with the Beard (1975) mapped Vegetation Association 359. Vegetation recorded at the site resembled mostly natural regrowth after historical disturbances and planted vegetation from previous residential housing.*
- *No Declared Rare or Priority Flora species were recorded during the survey.*



- *The condition of the majority of the survey areas was rated Condition 4 ("Good") to Condition 5 ("Degraded"). Historical disturbances including clearing for access tracks, fire, weed invasion, dumping and general litter have contributed to this condition rating.*
- *The survey area is considered to contain low native species diversity. A total of 51 species from 27 families were recorded in the survey area. 32 species (or approximately 63%) of the total number of plant species recorded were weed species.*
- *One plant species of national significance (WONS) (*Tamarix aphylla*-Athel Tree) and two Declared Plants (*Tamarix aphylla* and *Echium plantagineum*-Paterson's Curse) were recorded in the survey area. These species will require control methods and hygiene strategies during clearing (refer to recommendations in Section 6.2).*
- *The survey area is located in a built-up area and bordered by existing residential and industrial uses.*
- *Five Fauna species (4 birds and 1 mammal) were recorded during the reconnaissance fauna survey. One introduced species (European Rabbit) was recorded during the fauna survey. Potential clearing of the site is not expected to impact upon the local populations of any of these or other fauna species present in the area; and*

No threatened fauna species were recorded in the survey area during the reconnaissance fauna survey. Threatened fauna species known to occur in the general area, as identified in the desktop assessment, are unlikely to be present or impacted by the proposed clearing of vegetation at the site.

Potential clearing of approximately 8.4ha of native vegetation will be required at the site. Based on the findings of the desktop and field assessment, clearing is not considered to be at variance with any of the DEC's "Ten Clearing Principles".

The Geraldton Regional Flora and Vegetation Survey (GRFVS) was completed in March 2010 by the WAPC. The objective was to provide a regional context for land use planning and environmental impact assessment of proposals affecting native vegetation in the Geraldton region.

Using Beard's (1976) regional vegetation associations, the GRFVS maps vegetation at a local scale which are referred to as GRFVS plant communities. The site is mapped within GRVFS as being within Plant Community 10 Near Coastal: *Acacia rostellifera* shrubland. This community occupies approximately 37% of the GRVFS area and is the most widespread of the plant communities (WAPC, 2010). Due to the widespread nature of the community, the conservation significance is considered low except in cases where better condition vegetation



may have local conservation values. Given that the vegetation within the site has been altered to such an extent that it no longer resembles the vegetation type mapped (GHD, 2008), it is not considered to have any local significance.

2.6 Heritage Sites

In addition to the 'swing cut' that contains the tracks and railway formation associated with the Geraldton-Walkaway railway, the south western corner of the site contains the 'Gatekeepers Cottage' and the nearby 'Two Mile Well' both of which are listed in the City's Municipal Heritage Inventory and are also on the State Register of Heritage Places.

The Gatekeepers Cottage which was constructed in 1886 as part of the Geraldton-Walkaway railway is relatively intact and represents a fine example of part of the 19th century railway system in Western Australia.



The Gatekeepers Cottage

The 'Two Mile Well' which is located immediately to the north of the Gatekeepers Cottage also has particular historical significance in connection with the development of rail transport between Geraldton and Northampton.



Two Mile Well



In recognition of the cultural and heritage value and significance of these sites, a Conservation Management Plan has been undertaken. Meetings and discussions have been held with both the City and the Heritage Council of WA to determine how the heritage sites can be restored and utilised by the wider community. It is proposed that the sites will be appropriately protected within a landscaped/public open space environment.



Swing Cut railway formation



3.0 STATUTORY PLANNING

3.1 Greater Geraldton Structure Plan (2010 Update)

Under the recently released Greater Geraldton Structure Plan the subject land is identified as "Urban" (**Figure 3**). Residential subdivision and development is therefore seen as an appropriate use.

3.2 City of Geraldton-Greenough TPS No. 3

The subject land is zoned "Residential Development" under the City of Geraldton-Greenough TPS No. 3 (TPS No. 3) (**Figure 4**). The objective of the 'Residential Development' zone is:

"It is intended that the land in this zone be progressively developed for residential purposes and for commercial and other uses normally associated with residential development".

Pursuant to TPS No. 3, the Residential Development zone requires the preparation and adoption of an Outline Development Plan to guide and co-ordinate the future subdivision and development of the land and ensure that it effectively integrates with the surrounding residential development.

3.3 City of Geraldton-Greenough Municipal Heritage Inventory

The City's Municipal Heritage Inventory lists both the 'Gatekeepers Cottage' at 308 Chapman Road, Bluff Point and 'Two Mile Well' located adjacent to the Gatekeepers Cottage.

The management category of both 'Gatekeepers Cottage' and 'Two Mile Well' are currently listed as 2X which affords a high level of protection, whilst providing maximum encouragement to conserve the significance of the place.

The Municipal Heritage Inventory is currently being reviewed and it is proposed that the 'Gatekeepers Cottage' will be a management category 1X which is essential to the heritage of the locality, with conservation of the place considered essential.

Restoration and rehabilitation of the 'Gatekeepers Cottage' and 'Two Mile Well' will be undertaken as part of the future subdivisional works.

It is the intention that the Gatekeepers Cottage will be initially utilised as a temporary sales office during the marketing of the residential estate and later, possibly used for an appropriate community use / activity.



3.4 Liveable Neighbourhoods

'Liveable Neighbourhoods', a WAPC operational Planning Policy seeks to create more relevant, self sufficient and interactive communities that provide a wide range of residential, employment, recreational, retail and business opportunities with a reasonable catchment.

The Liveable Neighbourhood aims can be briefly summarised as follows:

- To promote an environment for safe, efficient and pleasant walking, cycling and driving;
- To facilitate mixed use urban development which provides for a wider range of living, employment and leisure opportunities;
- To provide for a flexible neighbourhood structure capable of adopting over time to community changes;
- To provide for a variety of lot sizes for having closer and community diversity; and
- To provide for a comprehensive approach to the design of open space, conservation and urban water management.

The proposed development at Bluff Point seeks to incorporate the aims and objectives of 'Liveable Neighbourhoods' to ensure the development of a quality residential community.



4.0 LOCAL CONTEXT

The subject land is well serviced and accessible to a full range of urban services, facilities and infrastructure considered essential to support residential development.

4.1 Surrounding Land Uses

An examination of the Orthophoto and Location Plan clearly indicates that the subject land is located in an area that is primarily residential, with existing residential development occurring to the south of the railway reserve 'swing cut', to the west of Chapman Road and to the north of the two schools and to the north east of North West Coastal Highway. Industrial zoning and development is located to the east of North West Coastal Highway.

The St Lawrence Primary School is located along the northern boundary while the Department of Education 'Camp School' is located to the north west on the other side of Chapman road.

The development of the site for residential purposes is seen as a logical rounding off of the local residential community.

4.2 Education Facilities

The site is very well served in terms of location to both private and public primary and secondary schools.

As noted earlier, the St Lawrence Primary School is located on the northern boundary and the Department of Education Camp School is located to the north-west and Bluff Point Primary School is located approximately 300m north along Chapman Road. The Geraldton Grammar School, a private K-12 school, is located approximately 2km to the south whilst public secondary schools John Willcock High School and Geraldton Senior College are located between 3 - 5km from the site.

A TAFE and University have recently been established in the periphery of the city centre to provide higher education opportunities.

4.3 Commercial Facilities

The subject land is also well positioned in terms of commercial and retail facilities:

- Bluff Point Local Centre comprising a mix of local convenience shopping is located on Chapman Road approximately 800m to the north;
- The Northgate Neighbourhood Shopping Centre which is also located on Chapman Road approximately 2km to the south of the site;



- The Geraldton CBD is located only 3km to the south of the site.

Such retail centres will easily satisfy both the local convenience and weekly shopping requirements of future residents.

4.4 Recreation & Open Space

The subject land has easy access to a comprehensive range of recreational and open space opportunities.

In addition to the various school sites that provide playing fields etc, the subject land is approximately 200m from the coastal foreshore and St. George's beach. Rundle Park, which is an attractive well treed park overlooking the beach and ocean, includes open grassed areas, car park, picnic / barbecue facilities, ablution facilities and playground equipment, etc.

A cycle path is also located within the foreshore, which connects to other public open space facilities.

The locality is well served with other recreational facilities such as golf courses, tennis courts, bowling clubs, race course, football and cricket ovals, all within easy access of the site.

4.5 Community Facilities

As the site is only 3km from the city centre, it has good accessibility to a comprehensive range of community and medical facilities and amenities such as Hospitals, Medical Centres, Nursing Homes, Retirement Villages, Theatre, Performing Arts, Churches etc.

4.6 Employment Opportunities

Geraldton is the regional commercial centre for the wider Mid-West Region. Retail, commercial, administrative, education, service commercial, office-based activities and port related activities are concentrated in the Geraldton CBD.

With the significant expansion of various servicing and associated activities in the wider region and the pending development of the Oakajee Port and surrounding industrial land, as well as other industrial and agricultural expansion plans, the Geraldton Region is expected to provide greater opportunities for employment over the next few years and beyond.



5.0 OUTLINE DEVELOPMENT PLAN

5.1 Purpose

The purpose of the ODP is to provide an appropriate planning framework to effectively guide and co-ordinate the future subdivision and development of Lot 500 Chapman Road and ensure that such development effectively integrates and complements the existing community.

The proposed ODP (**Figure 5**) has been prepared and designed to reflect the principles enunciated within Liveable Neighbourhoods, which promotes community development and diversity in a more sustainable manner.

5.2 Project Objectives

The key objectives of the Bluff Point Project are:

- Provide a framework which reflects and integrates the development with the surrounding land uses;
- Provide a more sustainable land use design incorporating a modified grid road network, allowing for good permeability and accessibility;
- Provide site responsive design capitalising on the natural attributes of the site and sharing those benefits with the maximum number of residents;
- Provide safe and efficient vehicular, cyclist and pedestrian access to the site and nearby schools;
- Encourage increased utilisation of pedestrian and cycle paths;
- To protect and conserve the unique heritage listed sites within an attractive, landscaped public open space setting;
- To provide a linear open space system that effectively links key local distributors and connects with the nearby foreshore;
- Provide high quality parklands and streetscape that enhances the character and amenity of the locality;
- Provide a variety of residential densities and housing lifestyle choices;
- Provide opportunities for increased utilisation of public transport.



5.3 Components of the ODP

The key components of the ODP are as follows:

- Road Network
- Residential
- Public Open Space

5.3.1 Road Network

5.3.1.1 Regional Roads

The subject land is bordered by two regional roads, North West Coastal Highway, a primary distributor road to the east of the site under the responsibility of Main Roads WA (MRWA) and Chapman Road, a district distributor road to the west of the site, under the responsibility of the City.

North West Coastal Highway has been constructed as a two lane, undivided road with a speed limit of 70kph in the immediate vicinity of this site. Land has been set aside for the widening and duplication of this road. No vehicular access is currently provided or proposed to North West Coastal Highway to or from the site.

Chapman Road is a north-south district distributor road that provides an important connection between the Geraldton CBD in the south to the northern coastal suburbs and communities.

Although no road widening requirements are proposed for Chapman Road (20m) given the important role of the road coupled with the need to provide safe and convenient access to the site, it is proposed to incorporate two roundabouts on Chapman Road. The proposed roundabouts at the southern and northern portions of the site will ensure appropriate access to the site as well as the St Lawrence Primary School to the north. The inclusion of the northern roundabout may result in very minor road widening requirements on the northern and western boundaries. Further consultation will occur with the City and the adjoining landowners to ensure appropriate entry / access to the Geraldton Camp School and Fitzgerald Hall.

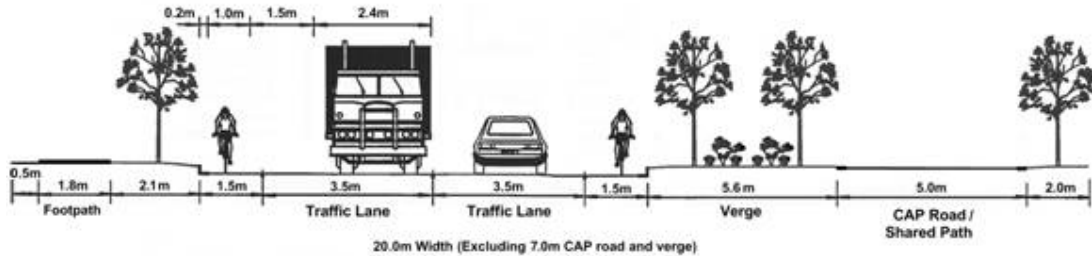
In addition to the two roundabouts, Chapman Road is proposed to be modified, increasing the carriageway to 10m, comprising two 3.5m lanes and two 1.5m cycle lanes. Such road works will be undertaken by the developer as part of the subdivisional works.

A central pedestrian island may be provided within Chapman Road between the 2 roundabouts to effectively control access to the proposed Controlled Access Place. The Consulting Engineers will liaise with the City to determine the most appropriate cross section for Chapman Road.

A Controlled Access Place (CAP) is proposed to provide access for the 11 lots fronting Chapman Road.



The proposed Chapman Road Cross Section is as follows:



5.3.1.2 Local Road Network

Access to the site will be provided off Chapman Road via the two roundabouts which bookend the northern and southern borders of the site.

The internal road network will incorporate a number of small access roads based on a modified grid road pattern.

In addition to providing access and frontage to the residential homesites, the northern access road will also provide access to the St Lawrence Primary School and school car park. Kerbside car parking is also proposed on the northern side of the access road to supplement the school car park.

In keeping with Liveable Neighbourhoods, the local roads generally range from 14 to 15m reserves with a minimum pavement width of 6m.

Such road reserves are appropriate to accommodate the relatively low volume of traffic as well as the various urban services including 1.5 – 2m wide footpaths within the road verge.

Road connection has also been made with the unconstructed Nichols Road reserve to the south of the 'swing cut'. Careful attention will be given to the construction of the road across the 'swing cut' to ensure that pedestrians and cyclists using the 'swing cut' have priority over the motorists.

In addition to the construction of the roads, appropriate streetscaping will be incorporated to create an attractive sense of place and amenity. The inclusion of street trees, particularly those with good canopy will greatly enhance the amenity of the locality.

The small Davis Road reserve off Chapman Road is in the process of being closed and subsequently incorporated into the development site.



Traffic modelling and assessment concludes that the proposed local road network with access to Chapman Road can operate effectively without undue delays even at peak school periods at 9am and 3pm.

5.3.1.3 Sustainable Transport

The cross-section of Chapman Road fronting the development is proposed to include 3m shared path provision, merging in with the 5m CAP road width to create a shared zone. The low volumes of traffic anticipated on the CAP road will result in an attractive space for casual cycling and school trips. Further, 1.5m cycle lanes are proposed on both sides of Chapman Road to promote commuter cycling trips.

Internal pedestrian pathways are proposed to connect the residents with Chapman Road, St Lawrence Primary School and the Heritage Reserve Dual Use Path (DUP).

The existing public transport facilities along Chapman Road are proposed to be enhanced through the construction of an indented bus embayment directly adjacent to the development. The two roundabouts have been designed to permit bus traffic along Chapman Road without significant impediment.

5.3.2 Residential

The ODP proposes to utilise the Liveable Neighbourhoods objectives by creating a walkable pedestrian-friendly residential community.

Although market research indicates that the predominant demand is for the traditional residential homesites, real estate agents and various home builders have indicated a growing demand for small residential homesites. Given the proximity of this site within easy walking distance of the CBD (3km) the landowner developers wish to promote housing choice and provide a range of smaller cottage homesites.

The proposed ODP will result in the creation of approximately 86 residential homesites with lot sizes generally ranging from a minimum of 375m² to 600m² with an average lot size of approximately 450m².

The front loaded cottage homesites are based on a lot module with a frontage ranging from 12.5–16m. Meetings and discussions with several home builders in Geraldton confirm that such lot sizes are appropriate to accommodate a number of their standard home products.

As indicated earlier in this report, a CAP road adjacent to Chapman Road has been incorporated into the design to provide appropriate access to the 11 homesites that front Chapman Road. Such homesites will have appropriate



interface with Chapman Road and together with appropriate landscaping, assist in enhancing the residential character and amenity of the area.

As the proposed residential homesites are generally consistent with the R25 Code, it is proposed to code the land to R25.

Detailed Area Plans will be prepared for the proposed medium density sites, CAP road lots and any other lots deemed appropriate by council to guide the development of the residential homesites.

In addition to the single residential homesites, two medium density sites of approximately 2400m² and 1960m² have been strategically located on the southern portion of the site adjacent to the 'swing cut' public open space precinct.

It is proposed that the large 2400m² site on the corner of Chapman Road and the new entry road off the southern 'roundabout' be coded R60 which will allow up to 13 dwelling units while the other 1960m² site be coded R40 to allow up to 8 dwelling units.

Although no designs have been prepared for these two medium density precincts at this stage, such sites have the potential of being appropriately designed and developed with townhouses / apartments up to 3 storeys with opportunity for good views across the public open space to the foreshore and harbour. Appropriate design guidelines will also be prepared for these two medium density sites.

5.3.3 Public Open Space & Landscaping

The public open space has been strategically located along the southern boundary of the site to enable the retention of the 'Railway Swing Cut', the 'Gatekeepers Cottage' and the 'Two Mile Well' within an attractive linear landscaped setting. Approximately 2.04ha of the site, which represents approximately 24% of the site has been set aside as public open space.

A Landscape Concept Plan (**Figure 6**) has been prepared to demonstrate how the site can be appropriately landscaped. The Landscape Concept Plan recognises the site's history and heritage, but also adds to the amenity of the development by creating opportunities for recreation, biodiversity and interpretation.

The linear public open space which will be carefully designed and developed having due regard to the unique heritage value of the site, provides a unique opportunity for the development of a safe pedestrian friendly, walking cycle network that connects North West Coastal Highway and Chapman Road and the St Lawrence Primary School to the north. The open space will be extensively



landscaped with native plants, shrubs and ground cover and complemented by larger shade trees such as Tuarts and River Gums.

Two small grassed areas at each end of the linear open space will serve the dual purpose of providing small kick about recreation, as well as a drainage function.

In addition to the landscaping of the open space it is proposed that the internal roads will be landscaped with street trees, such as the London Plane trees to provide dense shade and amenity to the area.



6.0 SERVICING REPORT

An engineering and infrastructure servicing report has been prepared to provide advice on Civil Engineering services and assist in the finalisation of the Outline Development Plan.

Information has been gathered from service providers and preliminary engineering concepts developed to enable a feasibility study being carried out. The key engineering issues regarding this residential development are detailed below:

- **Earthworks** – in order to provide easily buildable level residential lots a degree of earthworks and retaining will be required. The earthworks will also need to take into account underlying limestone over the site. Typically lots will be earthworked such that there is a clean sandy layer of 600mm depth on top of any limestone to enable the house service installation not having to excavate in the limestone.

Within the context of the above criteria earthworks and retaining would be minimised over the site. Geotechnical testing over the site indicates a range of conditions. Most of the site exhibits quite sandy conditions where a small portion of the site to the east exhibits sandy/clay materials. Again final design will take these varying conditions into account.

- **Stormwater** – All stormwater will be collected and disposed of on site in accordance with good practise and appropriate Water Sensitive Urban Design. Predominately the site is of a sandy nature which assists in terms of reducing run off and infiltration disposal areas. The POS and railway cutting areas provides good areas in order to direct and dispose by infiltration of stormwater run-off. The topography of the site also enables good safe flood routing of stormwater runoff from extreme events into the POS and railway cutting area.

As such, we propose to infiltrate high frequency low volume storms by way of landscaped feature areas within POS in accordance with good practise and Water Sensitive Urban Design Principles. Road, earthwork and drainage design will ensure that low frequency extreme events are safely directed towards the Railway cutting and POS areas so that houses are protected.

- **Sewer & Water Reticulation** – Water Corporation has confirmed that water and sewer reticulation connections can be readily provided to service the site from the surrounding area including a sewer extension across NWCH to a connection point in Flores Road to service the eastern portion of the site



- **Western Power** – A Feasibility Study has been obtained from Western Power. The overhead power on Chapman Road fronting the development will likely be required to be undergrounded during construction as a requirement of a WAPC Conditional approval.
- **Telstra Fibre Optic Cable** – There is an existing Fibre Optic Cable traversing the site that will require relocation to Chapman Road reserve in order to safely undertake the construction works on site without damage to the cable occurring. Telstra has provided indicative costs to undertake the relocation of the cable prior to our earthworks commencing.
- **Roads** – A roundabout at each of the development entry points on Chapman Road will require small portions of land from St Lawrence Primary School and Geraldton Camp School to accommodate their construction. Both parties have been approached and are likely to negotiate an approval for these transfers. It is also considered likely that the City of Geraldton Greenough will also require an upgrade in Chapman Road including Bicycle lanes, Bus bays and Street Scaping fronting the development.

From a Civil Engineering Servicing perspective the site generally presents as being suitable for a residential development.



7.0 CONCLUSION

Given the strategic location of Lot 500 Chapman Road, Bluff Point within 3 km of the Geraldton CBD, coupled with the availability of all essential urban services and infrastructure, the subject land is seen as an appropriate and desirable residential location.

The ODP clearly demonstrates how the subject land can be subdivided and subsequently developed for a mix of residential homesites that can be easily integrated with the existing community.

The proposed road network, which includes two roundabouts on Chapman Road will provide safe and efficient access to the residential land, as well as significantly improve access to the adjoining St Lawrence Primary School.

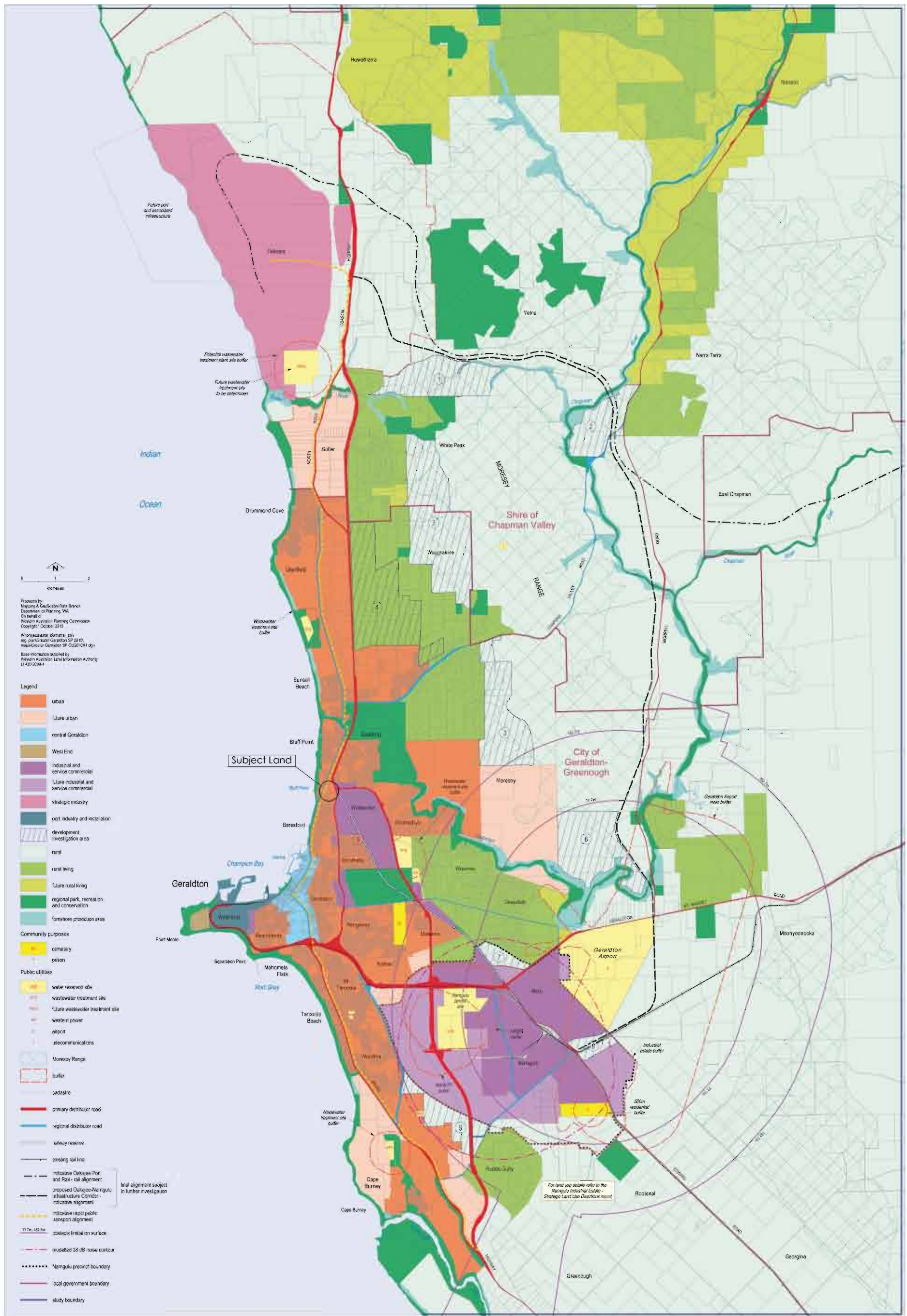
The location of approximately 2ha of public open space along the southern boundary of Lot 500 will enable the retention of the 3 heritage features of the site – the 'Gatekeepers Cottage', 'Two Mile Well' and the 'swing cut' railway formation in one continuous attractively landscaped corridor. The proposed landscaped parkland and streetscaping of Chapman Road and the internal roads with appropriate street trees and footpaths will make a real positive contribution to the character and amenity of the area.

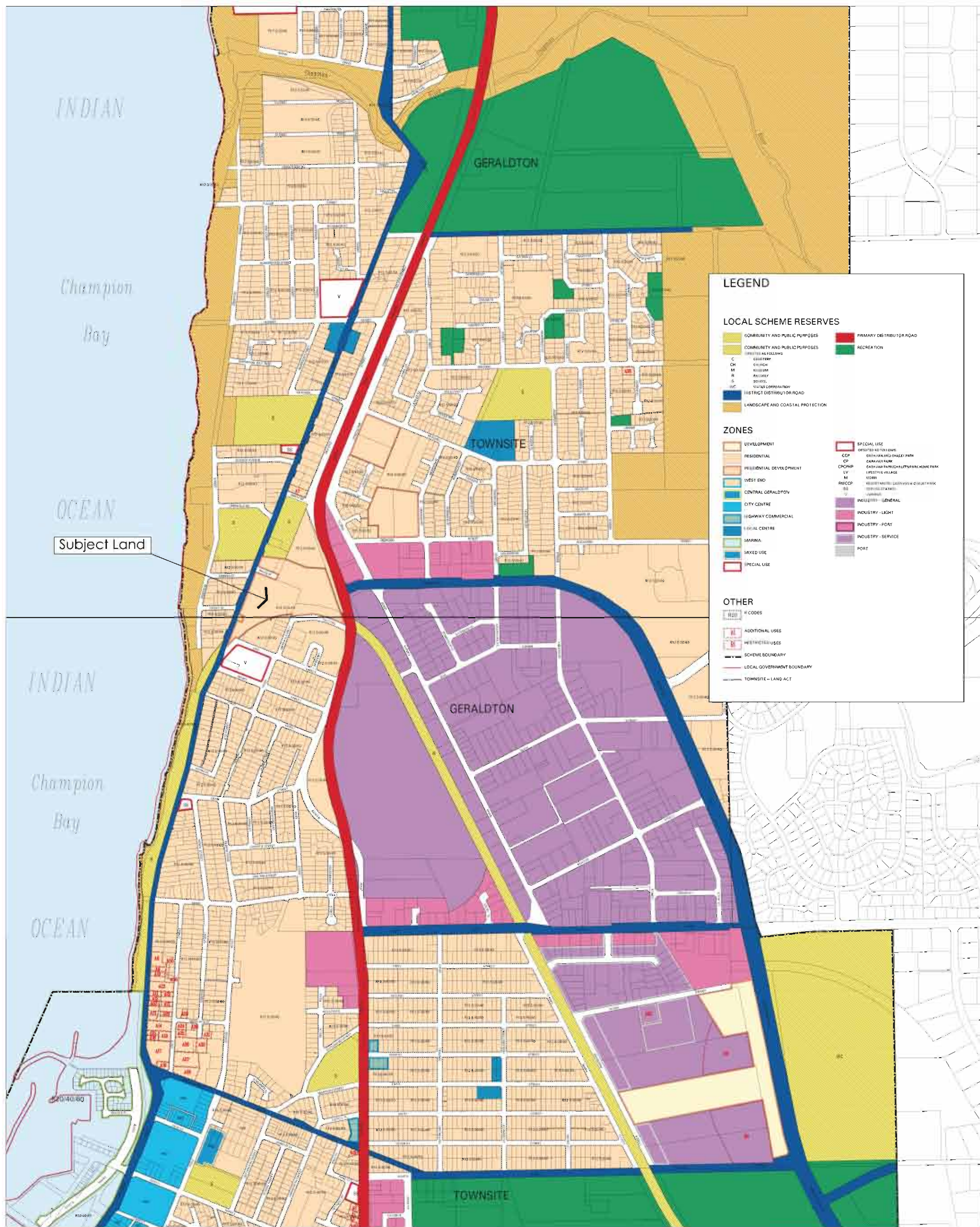


FIGURES











UDLA has developed a Landscape Concept Plan that references the coastal location as well as the historical significance of the site. This is achieved by using appropriate local vegetation and through the placement of interpretive art works and signage.

Using local materials and planting as an integral element of the design aids in producing a vernacular that speaks of the location and gives the development an overarching local aesthetic and strong sense of place.

LEGEND

TREES

- Platanus x hispanica - London Plane Tree
- Eucalyptus camaldulensis - River Gum
- Eucalyptus gomphocephala - Tuart
- Eucalyptus erythrocorys - Red Capped Gum
- Eucalyptus platypus Hook - Moort
- Casuarina obesa - Swamp Sheoak
- Existing Retained Trees

SHRUBS

- Chamaelucium uncinatum - Geraldton Wax
- Eremophila glabra - Tar Bush; Westringia dampieri; Calothamnus quadrifidus - One-sided Bottlebrush
- Hakea preissii - Needle Tree; Eucalyptus oldfieldii - Oldfield's Mallee; Grevillea preissii - Spider Net Grevillea

LOW SHRUBS/GROUND COVERS

- Leucophyta brownii; Acacia lasiocarpa - Parang; Enchylaena tomentosa - Ruby Salt Bush; Verticordia chrysanthella - Yellow Feather Flower; Ficinia nodosa; Poa poliformis - Coastal poa

RUSHES/SEDGES FOR SWALE PLANTING

- Ficinia nodosa - Knotted Club Rush; Juncus kraussii - Sea Rush; Themeda triandra - Kangaroo Grass

LANDSCAPE ELEMENTS

- Lighting
- Retained power poles
- Seating/bench

Note: This plan is subject to further amendment



Landscape Concept Plan DRAFT
Lots 25, 1385, 3046, 3144 & Railway Reserve
Chapman Road, Bluff Point

Section AA - 1:100 - Section looking east through swing cut

