

Back Beach Tourism Central Precinct North

Lot 66 Ocean Drive Bunbury

JULY 2016



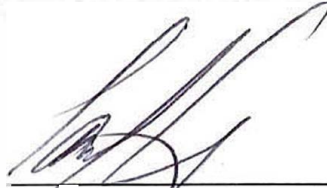
DETAILED STRUCTURE PLAN

This structure plan is prepared under the provisions of the City of
Bunbury Town Planning Scheme No.7

IT IS CERTIFIED THAT THIS STRUCTURE PLAN WAS APPROVED BY
RESOLUTION OF THE WESTERN AUSTRALIAN PLANNING COMMISSION
ON:

24 August 2016

Signed for and on behalf of the Western Australian Planning Commission



an officer of the Commission duly authorised by the Commission pursuant to
Section 16 of the *Planning and Development Act 2005* for that purpose, in the
presence of:



Witness

_____ 25 August 2016 _____

____ Date

Date of Expiry:

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Part 1

Implementation

1. Structure Plan Area

The Detailed Structure Plan (DSP) applies to Lot 66 (DP:31953) Ocean Drive, being land contained within the 'Detailed Structure Plan Boundary' as depicted on the Detailed Structure Plan Map.

The DSP area is bounded by Scott Street to the south, Upper Esplanade to the east, Lot 76 Ocean Drive to the north (DP:37357), and Ocean Drive to the west within the City of Bunbury (the City).

The area of land incorporated within the boundary of the DSP is the Central Precinct North (2,855m²), within which sit two Sub-precincts:

- i. Sub-precinct 1 - Development
- ii. Sub-precinct 3 - Development

Note:

The DSP area has been rezoned Special Use Zone – Back Beach Tourism Mixed Use No. 1 (SU1) through the recently finalised Scheme Amendment 66 (Amendment 66) to the City of Bunbury Town Planning Scheme No. 7 (TPS7).

2. Structure Plan Content

The DSP comprises:

- (a) Part 1 – Implementation Section

Part 1 contains all information for which subdivision and development are required to have due regard and includes the Detailed Structure Plan Map and the detailed standards, requirements and prerequisites for subdivision and development within the DSP area.

- (b) Part 2 – Explanatory Section

Part 2 serves as a reference guide to explain and implement the provisions in Part 1. The Part 2 document contains appendices including detailed technical reports supporting the structure plan.

3. Purpose

The purpose of the DSP is to support the General Structure Plan, – Back Beach Tourism (GSP) and respond to the requirements of SU1 within TPS7 by introducing detailed development criteria and standards that inform and guide the preparation of subdivision proposals and development applications (DAs).

4. Interpretation and Scheme Relationship

The words and expressions used in this DSP shall have the same meanings given to them in TPS7, including any amendments gazetted thereto.

Pursuant to TPS7 and the provisions of the *Planning and Development (Local Planning Scheme) Regulations 2015* deemed provisions for local planning schemes clause 27(1), a decision maker for an application for development approval or subdivision approval in an area that is covered by a structure plan that has been approved by the Western Australian Planning Commission (WAPC) is to have due regard to, but is not bound by, the structure plan when deciding the application.

Part 2 of this DSP and all appendices are to be used as a reference only to clarify and guide interpretation and implementation of Part 1.

5. Operation

The DSP shall come into operation on the date it is granted final approval and endorsed by the WAPC.

6. Land Use and Subdivision Requirements

The standards, requirements and prerequisites for subdivision and development on the Detailed Structure Plan Map and in the development requirements tables as set out in clauses 6.1, 6.2, 6.3, 6.4, 6.5 and 6.6 below, which are to be given due regard as part of any subdivision or development approval, shall be as set out for the SU1, within Schedule 2 of TPS7.

Note:

The provisions of the *Planning and Development (Local Planning Scheme) Regulations 2015* take effect from 19 October 2015.

6.1 Land Use and General Development Requirements

6.1 Land Use and General Development Principles	General Requirements
	<p>(a) Development proposals shall be considered in accordance with:</p> <ul style="list-style-type: none"> (i) The provisions of SU 1 as prescribed under Schedule 2 – Special Use Zone of TPS7; (ii) The requirements of the adopted General Structure Plan (GSP); and (iii) The requirements of this DSP. <p>(b) Residential and mixed-use development shall comply with the relevant provisions of State Planning Policy 3.1 Residential Design Codes (R-Codes) relating to the Residential R-AC0 density coding, unless specifically otherwise stated within an adopted Detailed Structure Plan.</p> <p>(c) Where provisions are not specified within SU1 under Schedule 2 – Special Use Zones, an adopted General Structure Plan or an adopted Detailed Structure Plan, the general development standards of TPS7 shall prevail.</p> <p>(d) Land use permissibility within each development precinct and sub-precinct as identified on the Detailed Structure Plan Map shall be in accordance with the requirements set out in Table 1.1: Land Use Requirements of the GSP.</p> <p>(e) Development is to comply with the requirements as set out in clauses 2.2-2.9 of the GSP.</p> <p>(f) Staging of residential development is to comply with the requirements as set out in clause 3.1 of the GSP.</p> <p>(g) Prior to subdivision or development occurring the following actions are recommended in respect to potential Aboriginal Heritage considerations:</p> <ul style="list-style-type: none"> (i) Consultation with relevant Aboriginal people take place in order to gain a better understanding of the significance of Department of Aboriginal Affairs (DAA) Site ID 21371 and its implications for development of the subject site, if any. (ii) That the results of these consultations be provided to the DAA/ Aboriginal Cultural Material Committee (ACMC) so that an informed assessment can be made of the significance of DAA Site ID 21371 and its status with respect to Section 5 of the <i>Aboriginal Heritage Act 1972</i> (AHA). (iii) That the proponent obtain consent under Section 18 of the AHA to use the land if it is established that an Aboriginal Site is likely to be adversely impacted. (iv) Archaeological monitoring be carried out during ground disturbance activity within the subject site, particularly if ground is being disturbed for the first time or what appears to be the first time. (v) An Aboriginal Heritage Management Plan (AHMP) be developed and implemented that includes stop-work procedures to be put into effect in the event that any previously unidentified Aboriginal sites or objects, including skeletal material, are encountered during earthworks associated with the development of these lots.

6.2 Built Form

6.2.1 Plot Ratio and Building Envelopes

6.2.1 Plot Ratio and Building Envelopes	General Requirements
	<p>(a) Plot ratio is to be a maximum of 1.25.</p> <p>(b) Building height is to comply with the requirements as set out in clause 5.1-5.4 of the GSP.</p> <p>(c) All development is to be situated within the building envelopes defined by the setback and building height requirements as set out in clauses 4.2-4.3 and 5.1-5.4 respectively of the GSP.</p> <p>(d) Maximum building heights exclude building plant and lift overruns where they are located so as to be not visible or are appropriately screened with compatible materials from the public realm.</p> <p>(e) Elements higher than the 'deemed to comply' building height as identified within the adopted Back Beach Tourism Precinct General Structure Plan, shall be subject to further consideration and review at the development application stage, noting that this shall require the concurrent preparation and submission of a detailed Development Impact Statement (Building Height and View Shed Analysis) as set out in Appendix 'D'.</p>

6.2.2 Building Setbacks

6.2.2 Building Setbacks	General Requirements
	<ul style="list-style-type: none"> (a) Building setbacks are to comply with the requirements set out in clauses 4.2 and 4.3 of the GSP. (b) Ground level setbacks are to be no greater than 5m to Ocean Drive except where necessary to provide a forecourt, building articulation, alfresco dining or other feature that adds amenity and interest to the streetscape. (c) Development, including fencing at the intersection of Scott Street and Upper Esplanade is to be appropriately set-back to achieve adequate sight lines.

6.2.3 Building Orientation

6.2.3 Building Orientation	General Requirements
	<ul style="list-style-type: none"> (a) Buildings shall be orientated towards the street or public areas. (b) Buildings may be orientated towards communal open space areas where this has been considered as an integral component of the design. (c) Buildings are to be positioned to avoid potential adverse wind impacts on buildings and public spaces, including wind tunnelling.

6.2.4 Active Frontages and Adaptability

6.2.4 Active Frontages and Adaptability	General Requirements
	<ul style="list-style-type: none"> (a) Active frontages are required along Scott Street and are encouraged along Ocean Drive in conjunction with appropriate weather protection. (b) Blank unrelieved walls in excess of 10m in length and 6m in height are not permitted to any street frontage. (c) Building adaptability is to be provided in accordance with the requirements as set out in clause 6.8 of the GSP. (d) Ground floor space in a building that fronts Ocean Drive is required to provide a minimum finished floor to floor height of 4m to allow for adaptable use, including development fronting Scott Street and Upper Esplanade. (e) Buildings addressing street frontages shall be designed to provide a continuous frontage at ground level, except where required to respond to ground level variations where interfacing with the pedestrian or service access between buildings, a pedestrian pathway as depicted on the Detailed Structure Plan Map or a public thoroughfare in accordance with the requirements of the GSP.

6.2.5 Building Entrances

6.2.5 Building Entrances	General Requirements
	<ul style="list-style-type: none"> (a) All buildings and individual ground level tenancies shall have at least one visibly clear and legible entry from the public domain. (b) All buildings should provide shelter for pedestrians at the point of entry.

6.2.6 Finished Floor Levels at Ground

6.2.6 Finished Floor Levels at Ground	General Requirements
	<ul style="list-style-type: none"> (a) Pedestrians are required to be able to access the ground floor and any floors above from an entrance to a building that is at grade and directly accessible from a street or public space. (b) For sites with a sloping frontage, the ground floor must not exceed more than 1.2m above or below the level of the site frontage. The level of the site frontage is measured at every point along that boundary. (c) For residential and visitor accommodation units at ground level fronting Scott Street and the view corridors identified on the Structure Plan map, the finished floor level is required to be at least 0.8m above the pedestrian or shared path level.

6.2.7 Building Façades

6.2.7 Building Façades	General Requirements
	<ul style="list-style-type: none"> (a) Building façades shall be modulated and articulated through, for example, the use of apertures, recesses, projections, materials and textures. (b) Outdoor living areas are to be provided in accordance with R-Code requirements. (c) Where balconies are provided within the 2m setback area for residential uses, short stay residential and non residential in accordance with clause 4.3 of the GSP, they shall: <ul style="list-style-type: none"> (i) Have a minimum dimension of 2.4m (depth or length) and allow for useable outdoor living/dining space. (ii) Assist to articulate the building façade in a complementary contemporary architectural form. (iii) Be commensurate in scale/composition to the building. (iv) Be designed as an integral part of the building elevation and shall not appear as an 'add on' structure. (v) Contribute to the sense of safety and liveliness of the street by being designed for passive surveillance and visual engagement between the public and private realm.

6.2.8 Rooflines

6.2.8 Rooflines	General Requirements
	<ul style="list-style-type: none"> (a) Flat, skillion and other non-pitched site responsive roof forms are encouraged to minimise the overall bulk and massing of buildings.

6.2.9 Landmark Corners

6.2.9 Landmark Corners	General Requirements
	<ul style="list-style-type: none"> (a) Development on landmark corners as identified on the Detailed Structure Plan Map shall be designed and constructed in a manner that recognises the strategic location of the identified site. (b) Landmark corners provide opportunities for distinctive architecture through an expression of one or more of the following features: <ul style="list-style-type: none"> (i) Additional height sought under the performance based (design principles) approach to building height detailed under clause 5.4 of the GSP, supported by a Development Impact Statement (Building Height and View Shed Analysis), however this should not include an additional habitable storey; (ii) Different geometric or volumetric design; (iii) Architectural feature elements such as enhanced vertical articulation or modulation; (iv) Additional glazing (fenestration); (v) Enhanced palette of compatible materials and textures; and (vi) Major openings and balconies.

6.2.10 Interface Treatments

6.2.10 Interface Treatments	General Requirements
	<ul style="list-style-type: none"> (a) The interface between the public and private realms shall be clearly defined through the use of low fencing (no greater than 1.2m in height) or other boundary defining elements such as landscaping or minor level differences. (b) Fences to the public domain (including pedestrian only access ways) shall be at least 50% visually permeable and no greater than 1.2m in height from finished floor level.

6.2.11 Crime Prevention Through Environmental Design (CPTED)

6.2.11 Crime Prevention Through Environmental Design (CPTED)	General Requirements
	<p>(a) Crime Prevention Through Environmental Design (CPTED) principles are to be incorporated into building design and, where appropriate, the public realm.</p> <p>(b) CPTED principles to be adopted into all developments are required to include consideration of the following:</p> <ul style="list-style-type: none"> (i) Natural Surveillance <ul style="list-style-type: none"> 1. Windows overlooking footpaths, parks and other publicly accessible areas such as car parks 2. Accessways designed to encourage non-vehicular movements such as pedestrians and cyclists 3. Landscaping treatments designed to promote surveillance especially around entry points 4. Fencing treatments that allow for viewing over and through, and in the front yards between adjacent properties, dwellings or buildings 5. Lighting that does not create blind-spots, provides visibility for sensitive uses and enables pedestrian use of key paths and public spaces after dark (ii) Natural Access Control (Legibility) <ul style="list-style-type: none"> 1. Clearly defined points of entry that direct visitors to appropriate areas 2. Designs restricting access to roofs and upper levels, and using locked gates for private yard areas 3. Landscaping treatments that contribute to access control (iii) Natural Territorial Control (Ownership) <ul style="list-style-type: none"> 1. Creation of attractive public and communal spaces that will be used more frequently 2. Encouraging activity through seating and amenities in public and communal spaces

6.2.12 Noise Attenuation

6.2.12 Noise Attenuation	General Requirements
	<p>(a) Where an acoustic assessment is identified as necessary, in accordance with clause 11.1(f) of the GSP, the following LAeq levels must not be exceeded for dwellings and the residential component of mixed use developments;</p> <ul style="list-style-type: none"> (i) 35dB(A) in any bedroom in the building at any time 10pm to 7am; and (ii) 40dB(A) at any time anywhere else in the dwelling (other than a garage, kitchen, bathroom or hallway). <p>Development proposals requiring an acoustic assessment shall demonstrate to the satisfaction of Local Government that the stated LAeq levels are able to be achieved, and incorporate insulation and acoustic shielding measures as necessary to minimise potential external and internal noise impacts.</p> <p>Within residential proposals such measures may include but are not limited to:</p> <ul style="list-style-type: none"> (i) Indoors <ul style="list-style-type: none"> 1. Laminated glazing 2. Fixed, casement or awning windows with seals (ii) Bedrooms <ul style="list-style-type: none"> 1. No external doors 2. Closed eaves 3. No vents to outside walls/eaves 4. Laminated glazing 5. Mechanical ventilation/air conditioning 6. The internal arrangement of noise-sensitive areas away from the noise source <p>(b) Where an acoustic assessment is identified as necessary, in accordance with clause 11.1(f) of the GSP, notification is to be placed on the property titles with regard to possible noise impacts; A notification, pursuant to Section 165 of the <i>Planning & Development Act 2005</i>, shall be placed on the certificates of title of the proposed lots advising of the existence of a hazard or other factor. Notice of the notification is to be included on the diagram or plan or survey (deposited plan). The notification shall state as follows:</p> <p><i>"This lot is located within a mixed use development in close proximity to entertainment and hospitality venues and has the potential to be affected by noise emissions from these land uses."</i></p> <p>(c) Non-residential development and land uses may trade and/ or operate between the hours of 7am to 10pm Monday to Saturday and 9am to 7pm on Sundays, in accordance with the <i>Environmental Protection (Noise) Regulations 1967</i>. Proposals for non-residential development and land uses trading and/or operating outside of these hours must be supported by a Development Impact Statement and supporting Noise Management Plan submitted as part of the acoustic assessment (as required by clause 11.1(f) of the GSP) as part of any application for planning approval, prepared by a suitably qualified person to the specification and satisfaction of the local government. The Development Impact Statement should address the scope of issues that have the potential to impact on the amenity of existing and future residents such as noise, lighting and crime prevention, and proposed appropriate mitigating measures for consideration.</p>

6.2.13 Signage

6.2.13 Signage	General Requirements
	<p>(a) Building signage shall be integrated with building facades and relate to the architecture of the building.</p> <p>(b) All signage is to comply with the requirements as set out in TPS7 and the City's Local Planning Policy for Signage and Advertisements.</p>

6.2.14 Verandahs and Awnings

6.2.14 Verandahs and Awnings	General Requirements
	(a) The ground floor of buildings fronting Ocean Drive, Upper Esplanade and Scott Street shall provide a cantilevered veranda, canopy or awning along the full extent on the pedestrian frontage. The veranda, canopy or awning shall have a minimum height of 3m and a maximum of 4.5m and a minimum depth of 2m.

6.3 Open Space

6.3.1 Communal and Private

6.3.1 Communal and Private	General Requirements
	(a) Site open space is to be a minimum of 30%.
	(b) Communal open space for multiple dwellings is to be in accordance with the requirements set out in clause 7.1 of the GSP and is encouraged to be responsive to finished ground levels with appropriate separation from publicly accessible areas and internal pedestrian pathways.
	(c) Appropriately designed and climatically responsive roof terraces are acceptable as communal open space areas.
	(d) Private open space is to be provided in accordance with R-Code requirements.

6.4 Access and Movement

6.4.1 Walking and Cycling

6.4.1 Walking and Cycling	General Requirements
	(a) Pedestrian and shared pathways are to be provided in accordance with the requirements set out in clause 8.4 of the GSP along Ocean Drive as depicted in the Detailed Structure Plan Map.

6.4.2 Access

6.4.2 Access	General Requirements
	(a) The DSP proposes two 6m wide vehicle access / easements points from both Upper Esplanade and Scott Street. The requirements set out in clauses 8.1, and 8.2 of the GSP stipulates one access point from either street.

Note: The LGA has intimated that subject to the qualifications contained in the TIA there is discretion to allow for the two points of entry.

6.4.3 Parking

6.4.3 Parking	General Requirements
	(a) No at grade car parking is permitted in front setback areas between buildings and public streets.
	(b) Parking provision is to be considered within the design of proposed development and is encouraged to be provided in basement, multi-level or undercroft formats as an integrated component of proposed buildings where it is achievable and economically viable to do so.
	(c) Parking is to be provided on-site in accordance with the requirements set out in clauses 9.1, and 9.2 of the GSP, in accordance with the standards as set out in the R-Codes and TPS7.
	(d) Any requested variations to R-Code or TPS7 parking standards will require supporting analysis and justification addressing the following matters: <ul style="list-style-type: none">(i) Whether demand for car parking associated with the proposed development has been demonstrated to be less than the specified standards;(ii) The availability and likely use of modes of transport other than the private car;(iii) The practicability and likelihood that car pooling will be employed as a means of reducing the demand for parking;(iv) The availability and likely level of use of end-of-trip bicycle facilities;(v) Any reduction in car parking demand due to the shared use of car spaces between different land uses; and(vi) Any other relevant consideration.
	(e) In appropriate circumstances, cash-in-lieu for a shortfall of onsite visitor and non-residential car parking may be agreed as an acceptable alternative at the discretion of the City, in accordance with the requirements of TPS7 and the City's Local Planning Policy LPP3.1 Access and Parking for Pedestrians, Bicycles and Vehicles, with the funds being invested into shared public parking facilities in other mutually agreed locations within the vicinity of the development.

6.4.4 Loading and Unloading

6.4.4 Loading and Unloading	General Requirements
	<p>(a) Loading and unloading areas shall be provided in accordance with the minimum requirements for delivery and service vehicles as set out in the City's Local Planning Policy LPP3.1 Access and Parking for Pedestrians, Bicycles and Vehicles.</p> <p>(b) A minimum of 2 delivery and service vehicle parking locations are to be provided, accessed via the internal laneway network and distributed such that all future development receives a level of accessibility to the satisfaction of the City.</p>

6.4.5 Emergency Vehicle Access

6.4.5 Emergency Vehicle Access	General Requirements
	<p>(a) The internal access network is to be designed and constructed to allow for emergency vehicle access and egress to the satisfaction of the City.</p>

6.4.6 Visual Screening

6.4.6 Visual Screening	General Requirements
	<p>(a) All at grade car parking areas are to be appropriately screened from view from the abutting street network and view corridors to the satisfaction of the City. Screening may include vegetation and hardscape elements such as appropriately integrated and treated feature walls or architectural features.</p>

6.4.7 Plant Equipment and Outdoor Storage

6.4.7 Plant Equipment and Outdoor Storage	General Requirements
	<p>(a) Service and storage areas shall be predominantly screened from public view.</p> <p>(b) Building design shall ensure that all plant and equipment is not visible from a public space. Screening devices shall be designed as an integral part of the design of the building.</p> <p>(c) All piped and wired services, air conditioners, clothes drying areas and hot water storage are to be concealed from the street and public view.</p>

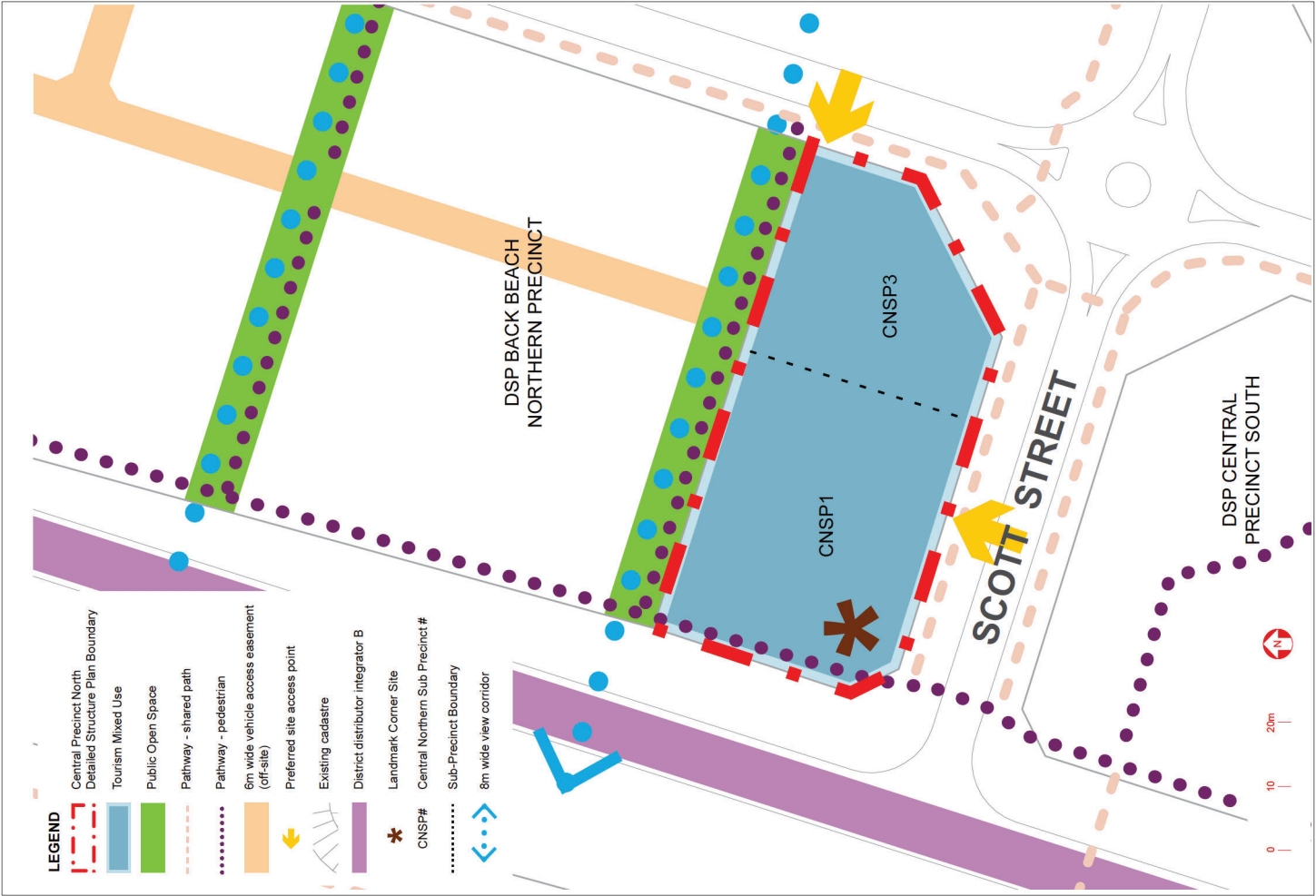
6.5 Developer Contribution Arrangements

6.5 Developer Contribution Arrangements	General Requirements					
	Development contributions to be undertaken in accordance with the table below:					
	Responsibility	Road Frontage	Existing Item Status	Proposed Item Status	Requirement	Mechanism
	Developer Lot 66 Ocean Drive	Upper Esplanade	2.5 metre wide shared path	3 metre wide shared path	Individual developers to construct the 3 metre path as a condition of development for their frontage prior to the site / development being occupied.	Condition of Development Approval
	Developer Lot 66 Ocean Drive	Scott Street	N/A	4 metre wide shared path	Individual developers to construct the 4 metre path as a condition of development for their frontage prior to the site / development being occupied.	Condition of Development Approval
	Developer Lot 66 Ocean Drive	Ocean Drive	N/A	5 metre wide pedestrian promenade	Promenade to be provided and subsequently maintained by the developer(s) in association with the 5 metre setback along the Ocean Drive frontage. Public access (easement) to be secured.	Condition of Development Approval
	Developer Lot 66 Ocean Drive	Baldock Street Relevant to all precincts	Un-signalised T – intersection with Baldock Street	Right turn deceleration lane	Overall 50% contribution to a 3.5 metre wide and 80 metre long right turn deceleration lane in Ocean Drive northbound and associated realignment of pedestrian crossing for the whole Special Use Zone No.1 area. Of the 50% overall contribution, no more than 79% is to be apportioned to the Northern and Southern development precincts (2.78ha out of the total land area of 3.51ha across Special Use Zone No.1)	Condition of Development Approval

6.6 Subdivision/Strata Strategies and Plans

6.6 Subdivision/ Strata Strategies and Plans	General Requirements
	<p>(a) In addition to GSP clause 11.1, at the time of subdivision and/or prior to development, the following management plans are to be prepared to the satisfaction of the relevant authority:</p> <ul style="list-style-type: none"> (i) Construction Environment Management Plan, including; <ul style="list-style-type: none"> 1. A suitable geotechnical assessment for the potential presence of karst onsite and other considered constraints; 2. Confirmation of Acid Sulfate Soil (ASS) risk once detailed design plans have been developed. If required on site testing/assessment to occur prior to ground disturbing activities or as part of the geotechnical assessment; and 3. If required, a trapping and relocation program for Quenda developed in consultation with the Department of Parks and Wildlife (DPAW). It should also be investigated if the Central Precinct (Lots 66 and 497) can be cleared together to ensure that monitoring and (if required) relocation can occur concurrently. (ii) Detailed Earthworks and Retaining Wall Plan; and (iii) Waste Management Plan. <p>The information outlined above shall be lodged with the relevant subdivision or development application, or to satisfy the requirements of subdivision or development.</p> <p>(b) A Strata Management Statement is required to be applied to all strata arrangements within the subject site addressing the management of tourist accommodation units and the relationship to the permanent residential units including URA to the satisfaction of the City and WAPC.</p> <p>(c) The Strata Management Statement is required to be prepared and submitted in accordance with Section 5C of the <i>Strata Titles Act 1985</i>, to establish a Schedule 1 bylaw that requires as a minimum the establishment of a unit management agreement, lease or alternative arrangement between each owner of a tourist unit and/or URA dwelling, or the owners collectively, and a common facility manager/operator to provide for common on site management of all such units.</p> <p>(d) The management agreement, lease or alternative arrangement shall cover but not be limited to:</p> <ul style="list-style-type: none"> (i) Reception arrangements (tourist unit/URA); (ii) General rental/leasing arrangements and specific management arrangements to govern the relationship and operation between permanent occupation of units and the short-stay use of units as provided for in the URA land use; (iii) Security (tourist unit/URA); (iv) Maintenance (tourist unit only); (v) Caretaking (tourist unit only); (vi) Refurbishment (tourist unit only); (vii) Marketing (tourist unit only); (viii) Care and maintenance of drainage infrastructure in drainage attenuation areas (tourist unit/URA); and (ix) Other services required for the development to operate as a tourist facility.

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Part 2

Explanatory

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1. Planning Background

1.1 Introduction and Purpose

Special Use Zone No. 1 (SU1) under the City of Bunbury (City) Town Planning Scheme No. 7 (TPS7) provides the framework for the preparation and approval of a Detailed Structure Plan (DSP) for the land located at Lot 66 Ocean Drive, Bunbury (the subject site). This DSP has been developed to provide detailed guidance on subdivision and development requirements and should be read in conjunction with the preferred development vision, standards and requirements of the Back Beach Tourism General Structure Plan (GSP).

The DSP has also been modified to correspond to the new structure planning requirements as set out in the *Planning and Development (Local Planning Schemes) Regulations 2015*, that were gazetted on the 25 August 2015 and that will take effect on the 19 October 2015.

1.1.1 SCHEME AMENDMENT 66 – SPECIAL USE ZONE NO. 1 TO TPS7

Scheme Amendment 66 (Amendment 66) to TPS7 established the requirement for a DSP over the subject site and stipulated the matters that this must address, including the requirement for a number of supporting technical reports.

Further information in respect to Amendment 66 can be found in clause 1.1.1 of the GSP.

1.1.2 DETAILED STRUCTURE PLAN REQUIREMENTS

The DSP reinforces the GSP's intent for the Central Development Precinct (which is located north and south of Scott Street) to provide a range of land uses comprising of a variety of commercial activities including restaurants and shops, short stay accommodation, including motels and hotels, and Unrestricted Residential Accommodation

(URA) on upper levels. The purpose of the DSP is to provide the detailed planning framework for subdivision and development to support the implementation of SU1 and the GSP.

1.2 Site Overview

1.2.1 LOCATION

The subject site is located approximately 700m south west of the Bunbury Central Business District (CBD) or in practical terms, approximately 1.2km by road via Prinsep Street and Upper Esplanade (refer to Figures 1 to 3).

Refer to Figure 1 – Location Plan

Refer to Figure 2 – Cadastre

Refer to Figure 3 – Aerial Photograph

1.2.2 LEGAL DESCRIPTION AND OWNERSHIP

Table 1 below provides a summary of the property details for the subject site.

Table 1: Property Details

Lot Number/Street Address	Landowner	Lot Area
Lot 66 Ocean Drive, Bunbury	City of Bunbury	2,855m ²

There are no known encumbrances over the title under the control and management of the City of Bunbury.

Figure 1 – Location Plan



LOT 76

OCEAN DRIVE

FB 1134

30

80.5

D31953
66
2855 m²

8.5

54.3

28.5

18.1

FB 113460

UPPER ESP

SCOTT ST

R 29637
D31953
497
4472 m²

UPPER ESP

LOT 75

LOT 76

LOT 77

LOT 78

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Figure 3 – Aerial Photograph



1.2.3 HISTORICAL CONTEXT

The subject site is bounded to the south by Scott Street, Upper Esplanade to the east, Lot 76 Ocean Drive to the north and Ocean Drive to the west. Lot 66 is undeveloped and supports only patches of remnant coastal vegetation.

1.2.4 LOCATIONAL CONTEXT

The subject site is located less than one kilometre south-west of the Bunbury CBD and is in close proximity of a range of recreational and tourism uses and facilities. Further information in respect to the type of uses and facilities in the location can be found in clause 1.2.1 of the GSP.

1.3 Planning Framework

1.3.1 ZONING AND RESERVATIONS

1.3.1.1 Greater Bunbury Region Scheme

The potential subdivision and proposed development of the subject site for commercial and URA purposes aligns with the objectives of the site 'Urban' zoning under the Greater Bunbury Region Scheme (GBRS).

Refer to Figure 4 – Greater Bunbury Region Scheme

1.3.1.2 City of Bunbury Town Planning Scheme No. 7

As a consequence of the finalisation of Amendment 66, the subject site is zoned SU1 under TPS7. This replaces the historical identification of the subject site as Special Use Zone No. 52 and is intended to facilitate the future integrated development of tourism-oriented uses.

This DSP is a direct response to the proposed requirements set out in SU1 and the GSP for the Back Beach area.

Refer to Figure 5 – Town Planning Scheme No. 7

1.3.1.3 Back Beach Tourism General Structure Plan

The GSP for the broader Back Beach area has been prepared in accordance with the requirements for SU1 outlined under TPS7. The GSP provides for a range of land uses comprising of commercial, short stay accommodation, mixed use and unrestricted residential uses oriented towards tourism based activities across development precincts (and sub-precincts). The purpose of the GSP is to provide the planning framework to support the implementation of the SU1 provisions of TPS7 by prescribing:

- Objectives for land use and development.
- Spatial layout of land uses.
- General development requirements and standards.
- Arrangements for infrastructure provision and staging.
- Matters that must be addressed by DSPs are required to be submitted and endorsed prior to subdivision and/or development.

This DSP is a direct response to the detailed structure planning requirements as set out in SU1 and the GSP.

1.3.2 STATE PLANNING FRAMEWORK

1.3.2.1 State Planning Strategy

The State Planning Strategy provides the basis for long-term State and regional land use planning and coordinates a whole-of-government approach to planning. The general vision of the State Planning Strategy for the South West Region is set out under clause 1.3.2 of the GSP.

The key principles of the State Planning Strategy are as follows:

1. Environment - To protect and enhance the key natural and cultural assets of the State and deliver to all West Australians a high quality of life which is based on sound environmentally sustainable principles.
2. Community - To respond to social changes and facilitate the creation of vibrant, accessible, safe and self-reliant communities.
3. Economy - To actively assist in the creation of regional wealth, support the development of new industries and encourage economic activity in accordance with sustainable development principles.
4. Infrastructure - To facilitate strategic development by making provision for efficient and equitable transport and public utilities.
5. Regional Development - To assist the development of regional Western Australia by taking account of the special assets and accommodating the individual requirements of each region.

The DSP is intended to recognise the principles of the State Planning Strategy as they may be applied to the future development of the Back Beach area through:

- Recognition of the area as an asset for the local and wider community.

Figure 4 – Greater Bunbury Region Scheme

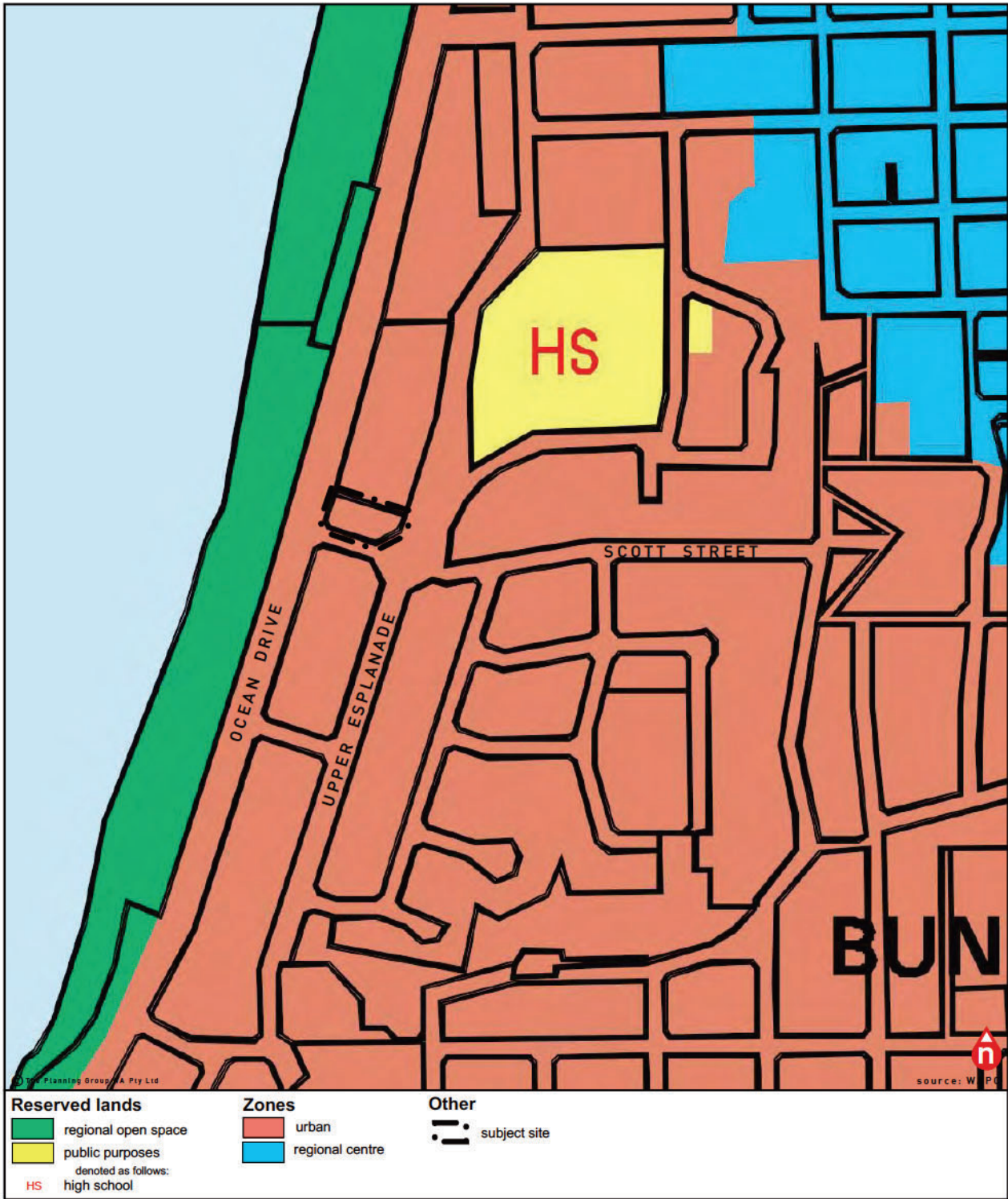


Figure 5 – Town Planning Scheme No. 7



- Being responsive to community aspirations.
- Providing new commercial, short stay and residential economic opportunities as an extension of the Bunbury CBD.
- Utilising existing infrastructure efficiently.

1.3.2.2 State Planning Policy No. 2.6: State Coastal Planning Policy

The relevant objectives of the current gazetted and operational version of State Planning Policy 2.6 (SPP2.6) are set out under clause 1.3.2 of the GSP.

The DSP works within the 300 metres from the coastline building height limits of SPP2.6 and the City's Local Planning Policy: Building Height. Relevant studies indicate that the subject site is not considered to be at risk by either erosion or inundation by 2110. However, numerous local scale studies have previously confirmed that the Back Beach is subject to erosion, which is particularly evident during winter months. However, due to the relationship of the subject site with Ocean Drive, and the City's on-going coastal protection works at Back Beach, it is considered that no additional measures are required to mitigate against the impact of future sea level rise or to protect development from potential storm surge.

1.3.2.3 State Planning Policy No. 3.4: Natural Hazards and Disasters

The relevant objectives of State Planning Policy 3.4 (SPP3.4) are set out under clause 1.3.2 of the GSP.

The impact of any proposed development on the surrounding environment has been considered in the preparation of the DSP. Flooding in particular is not considered a significant issue for the subject site due to its generally elevated nature, readily draining soils and depth to groundwater.

1.3.2.4 Liveable Neighbourhoods

The relevant aims and objectives of Liveable Neighbourhoods are set out under clause 1.3.2 of the GSP.

The DSP is an appropriate response to the requirements of Liveable Neighbourhoods as it proposes:

1. A walkable development form within a mixed-use context with excellent (and enhanced) pedestrian and vehicle connectivity to the Bunbury CBD, emerging public transport opportunities and nearby recreational areas and uses.

2. Mixed-use development focused on residential uses in a relatively (to the local context) dense and intense form, providing a variety of flexible living and retail/commercial-based opportunities.

1.3.2.5 Residential Design Codes

The DSP proposes to utilise the supplementary design codes for multiple dwellings in State Planning Policy 3.1 Residential Design Codes (R-Codes), which collectively provide complementary information and provisions for designing higher density mixed-use development such as is proposed in this instance.

1.3.3 REGIONAL PLANNING FRAMEWORK

1.3.3.1 Greater Bunbury Strategy 2013

The relevant objectives and development guidance provided in respect of the subject site under the Greater Bunbury Strategy (released December 2013) is set out under clause 1.3.3 of the GSP.

The DSP represents an appropriate response to the Strategy requirements in that it promotes residential and interrelated economic development opportunities that build on existing regional assets, features and infrastructure such as the Back Beach.

1.3.4 LOCAL PLANNING FRAMEWORK

1.3.4.1 Strategic Community Plan

The relevant key goals and objectives provided in respect of the subject site under the City's highest level policy document, the Strategic Community Plan is set out under clause 1.3.4 of the GSP.

The DSP represents an appropriate response to plan requirements in that it will create opportunities for new businesses, including residential accommodation and will provide additional support facilities for growth in visitor numbers. The DSP is also intended to ensure the development will result in appropriately scaled iconic development forms that promotes a distinct sense of place as part of an enhanced coastal environment.

1.3.4.2 Local Planning Strategy for Tourism

The relevant framework and recommendations provided in respect of the subject site under the City's Local Planning Strategy for Tourism (LPS-T) are set out under Section 1.3.4 of Part 2 of the GSP.

The subject site is located within the broader Ocean Drive Strategic Tourism Location (STL).

The DSP is an appropriate response to the intent of the LPS-T in that it will facilitate the development of well connected and accessible commercial, short stay tourism and residential accommodation based around a high amenity activity node in a strategic location where these facilities have been historically lacking.

1.3.4.3 Local Planning Strategy for Activity Centres and Neighbourhoods

The relevant framework provided in respect of the subject site under the City's Local Planning Strategy for Activity Centres and Neighbourhoods (LPS-ACM) is set out under clause 1.3.4 of the GSP, which identifies that the subject site is located within an area identified as one of the three 'tourism corridors'.

The DSP supports the description and opportunities identified for this area due to the proposed development encompassing residential accommodation and supporting complementary retail and commercial facilities.

1.3.4.4 Local Planning Strategy for Integrated Transport

The relevant objectives for the Local Planning Strategy – Integrated Transport Study (LPS-ITS) are set out under clause 1.3.4 of the GSP and generally relate to securing improvements to non-private vehicle movements (walking, cycling and public transport).

The DSP will contribute to the objectives of the LPS-ITS by providing enhanced infrastructure in the form of replacement pedestrian and shared paths and additional localised population such that enhanced public transport services may be justified based on emerging demand. These outcomes will be achieved in conjunction with a higher amenity and more secure environment, which will further contribute to pedestrian and cycle movements.

Sustainable levels of car parking are also proposed that are responsive to both demand and market considerations as well as localised upgrades to the road system in the longer term to cater for increased traffic volumes in a safe manner.

1.3.4.5 Local Planning Strategy for Heritage and Character

The City's Local Planning Strategy for Heritage and Character (LPSCH) seeks to establish the methods by which the City:

- Conserves places and areas of cultural heritage significance.
- Ensures that development does not adversely affect the significance of heritage places and areas.
- Ensures that heritage significance is given due weight in planning decision-making.
- Provides certainty to landowners and the community about planning processes for heritage identification, conservation and protection.

There is no existing built heritage within the subject site requiring specific consideration under the DSP.

1.3.4.6 Local Planning Policy: Building Height

The development heights framework as set out under the City's Local Planning Policy: Building Height is provided in clause 1.3.5 of the GSP.

The DSP proposes development heights in accordance with planning policy and associated GSP requirements. 'Acceptable development' (deemed-to-comply) requirements are proposed to apply to the greater portion of the structure plan area with the exception of the north-eastern part of the subject site where the 'performance based' requirements are proposed to be applied supported by a development impact statement developed as part of the structure planning process. The performance based criteria are required to be applied in this location to accommodate an overall four storey development height with increased ground level floor to floor heights to accommodate land use adaptability over time.

1.3.4.7 Local Planning Policy: Unrestricted Residential Accommodation (URA)

The City's definitions and planning position on the development of URA is outlined in clause 1.3.5 of the GSP.

The DSP proposes future development to accommodate mainly URA multiple dwellings on the subject site on the upper levels generally oriented towards Ocean Drive, Scott Street and Upper Esplanade. This is consistent with the City's policy position of having this form of development available in key tourism locations to broaden the scope and availability of residential accommodation in an economically viable and responsible manner.

1.3.4.8 Local Planning Policy: Access and Parking for Pedestrians, Bicycles and Vehicles

The City's planning policy position in respect of the provision of parking and/or access for pedestrians, bicycles and vehicles are provided in clause 1.3.5 of the GSP.

A transport impact assessment that supports a sustainable level of car parking provision on the subject site based on contemporary standards and considerations, and in particular consideration of reciprocal (shared) use arrangements supports the DSP. An evolved pedestrian and cycle movement network has been identified that will facilitate non-vehicular movements to key destination points.

consistent with the vision for the area established as part of the precinct planning process, including the established spatial framework and key land use and urban design parameters.

1.3.4.9 Local Planning Policy: Integrated Open Space Strategy

This Local Planning Policy (LPP) is aimed at guiding the management of areas of public open space with an objective to implement programs designed to provide extensive greening and street tree planting as well as substantial parkland and natural area development.

The policy recognises the utility of open space is maximised when it is provided as a coherent and interconnected network. Provision of larger areas of open space is seen as the most appropriate method that will best allow for flexibility in function and minimise ongoing maintenance costs as community needs continue to change over time.

Bunbury's open space includes a broad range of types. Areas of existing open space are categorised into either local or neighbourhood open space. These categories are further broken down into specific themes, being:

- Conservation and landscape value (bushland, wetlands, waterways, beaches typically multiple use areas).
- Active recreation (sporting areas, includes sporting facilities).
- Passive recreation (Children's play grounds, picnic and BBQ facilities, no facilities as such).
- Key enhanced open space tourist nodes.

The small size of the DSP area dictates that the site take advantage of the linear park POS adjoining the site to the north to create a focus of activation and aesthetic interest.

1.3.5 OTHER RELEVANT LOCAL PLANNING DOCUMENTS

1.3.5.1 Back Beach Tourism Precinct Plan

The City's Back Beach Tourism Precinct Plan (The Precinct Plan) was adopted by Council on the 11 December 2012 and is detailed in clause 1.3.5 of the GSP.

The development outcomes that will occur as a result of the implementation of the proposed DSP will be

2. Site Conditions and Environment

Coterra Environment has prepared an Environmental Assessment Report for the subject site. The key outcomes of the assessment are provided below.

Refer to Appendix A – Environmental Assessment Report

2.1 Environmental Assets Assessment

2.1.1 VEGETATION AND FLORA

The remnant coastal vegetation within the subject site is degraded. The Environmental Review prepared for the Greater Bunbury Region Scheme did not identify remnant vegetation being present within the site or any recorded Declared Rare Flora (DRF) or threatened floristic communities occurring within or adjacent to the site (WAPC 1999). Native vegetation mapping undertaken by the City of Bunbury (2013), also confirmed that there is no mapped remnant native Vegetation within the site.

A Threatened Ecological Community (TEC) and Priority Ecological Community (PEC) database search request was submitted to the former Department of Environment and Conservation (DEC, now DPaW) in 2015 in relation to the subject site. Results obtained within a five kilometre radius of the site (and therefore including Lot 66) indicate that the following ecological communities are known to occur with a two kilometre radius:

- 'Vulnerable' – Dense shrublands on clay flats (SCP09).
- 'Vulnerable' – Threatened ecological community – 'Herb rich saline shrublands in clay pans (SCP07)'
- 'Vulnerable' – Shrubbylands on calcareous silts of the Swan Coastal Plain (SCP18)
- Priority 1 – Relictual White Mangrove Community (Leschenault Inlet).

- Priority 3 – Southern Banksia attenuata woodlands (SCP21b)
- Priority 3 – Coastal shrublands on shallow sands (SCP29a)
- 'Priority 3 - ecological community – 'Southern Eucalyptus gomphocephala- Agonis flexuosa woodlands (SCP25)'

In Western Australia, under the *Wildlife Conservation Act 1950*, rare flora are specified species that are either (EPA, 2008):

- likely to become extinct or are rare, or otherwise in need of special protection; or
- are presumed to be extinct in the wild and therefore in need of special protection should they be rediscovered.

It is an offence to take or clear rare flora for any purpose and on any lands without the written consent of the responsible minister.

Priority flora species in Western Australia are species under consideration by the DEC for declaration as rare flora, or are rare though not currently threatened. Unlike the rare flora list, the priority flora list does not confer special statutory protection on those species that are listed on it (EPA, 2008).

Whilst it is considered possible that *Lasiopetalum membranaceum* may be present on the site, it's Priority 3 status indicates that the taxa is known from several populations and is not believed to be under immediate threat. This is likely to be due to the large number of known populations, or known populations being large, and either widespread or protected. Priority 3 taxa whilst under consideration for declaration as rare flora, are in need of further broad scale survey work to confirm this. It's possible presence within a relatively small lot such as the subject site is not considered to be of considerable conservation significance.

2.1.1.1 Clearing of Native Vegetation

The DSP covers the subject site, which currently contains some remnant vegetation in a degraded condition. Future implementation of the proposed DSP, likely through a proposed development application although potentially also via a subdivision application, will result in the clearing of the remaining vegetation.

In 2004, amendments to the *Environmental Protection Act 1986 (EP Act)* introduced provisions for regulating the clearing of native vegetation. All clearing of native vegetation in Western Australia requires a permit from the Department of Environmental Regulation (DER) unless it is covered by an exemption. It is an offence to clear native vegetation without the authority of a permit or an exemption.

An exemption is a kind of clearing activity that does not require a permit (DEC, 2010). There are two types of exemptions. The first type is found in Schedule 6 of the EP Act. The second type is found in the *Environmental Protection (Clearing of Native Vegetation) Regulations 2004 (Regulations)*. Clause 9 within the Schedule 6 exemptions allows for clearing in accordance with an approved subdivision. This exemption for subdivision approvals may include clearing native vegetation for the purposes of (DEC, 2010):

- Constructing roads to provide access to or within the approved subdivision;
- Providing water services to the satisfaction of the Water Corporation;
- Filling or draining the land in accordance with the specifications of the approval; and
- Clearing within any building envelope described in the approved plan or diagram.

The above exemption does generally not apply to development applications, therefore a clearing permit may be required if a development application is submitted without any approved subdivision in place. This will need to be determined once the final development configuration for the subject site has been determined.

In order to manage possible off site impacts from the proposed clearing, compliance with *EPA Guidance Statement No 18 – Prevention of Air Quality Impacts from Land Development Sites* is recommended.

2.1.2 FAUNA AND HABITATS

A search of the DPaW NatureMap database (NatureMap, 2015) for potential threatened fauna occurrences within five kilometres of the subject site was undertaken in

January 2015. In addition a search of the Department of the Environment (DoE) database was also undertaken for matters of national environmental significance and other matters protected by the *Environmental Protection and Biodiversity Conservation Act 1999* (EPBC Act) within the site.

Whilst a large number of species of significance have been recorded or are expected to occur within five kilometres of the subject site, a review of the habitat types required by the identified species indicates that only three fauna species are possible visitors to the site, being the Rainbow Bee-Eater (IA, Migratory), Peregrine Falcon (S) and the White-bellied Sea Eagle (IA, Marine, Migratory). However, given the lack of remnant vegetation it is unlikely that the site is significant to these species.

2.1.3 STRUCTURE PLAN RESPONSE TO ENVIRONMENTAL ASSETS

2.1.3.1 Vegetation and Flora

In order to assess the potential impacts of the future development of the subject site on vegetation, a review of the long term potential conservation value of the remnant vegetation present was undertaken as outlined below.

The area of the Quindalup Complex remaining within the Greater Bunbury Region has been recorded at 40.6% of the original extent, with approximately 17.7% of the original extent in existing or proposed regional open space under the GBRS (RPS, 2009). This is above the minimum 10% requirement for the constrained areas, which include the Perth Metropolitan Area and the Bunbury Region (EPA, 2008).

In addition, the EPA (2006) states that 47% of the original area of the Quindalup Vegetation Complex remains vegetated within the Swan Coastal Plain (System 6 and portion of System 1 region).

Viability is the measure of the ability of an ecological community to be self-sustaining in supporting and maintaining the full range of living organisms it naturally contains over a long time frame, that is for at least 50 years (Del Marco *et al* 2004). Viability depends a great deal on the inherent resilience of an ecological community to recover from disturbance, weed invasion, fire, diseases, pests and other threats (Del Marco *et al* 2004).

The five easily measured components of viability that are outlined in the Perth Biodiversity Projects Biodiversity Planning Guidelines for the Perth Metropolitan Region are (Del Marco *et al* 2004):

- Size
- Shape

- Perimeter to area ratio
- Condition
- Connectivity

Assessing the site against the above criterion, the biodiversity and the associated ecological value present within the subject site is considered unlikely to be viable in the long term and as such has little conservation value. Clearing of the vegetation therefore is considered unlikely to have a significant environmental impact.

In order to manage possible off site impacts from the proposed clearing, compliance with EPA *Guidance Statement No 18 - Prevention of Air Quality Impacts from Land Development Sites* is recommended.

On this basis the development of the subject site as provided for under the DSP is not encumbered by environmental assets, with no specific measures being required, therefore no further management measures are recommended for vegetation and flora within the site.

2.1.3.2 Fauna and Habitat

A review of the habitat types required by the species of conservation significance listed, indicates that only three fauna species are possible visitors to the site, being the Rainbow Bee-Eater (IA, Migratory), Peregrine Falcon (S) and the White-bellied Sea Eagle (IA, Marine, Migratory).

As discussed above, vegetation on the site is highly degraded and weedy. There are no remnant trees within the subject site, which reduces the ability of this area to provide roosting or foraging opportunities for many local bird species, or suitable habitat for other species.

On this basis the environmental impact on fauna and habitat is therefore considered to be within acceptable limits.

2.2 Landform and Soils

2.2.1 SOIL TYPE

The subject site is part of the Quindalup landform, which consists of dunes and beach ridges, composed of calcareous sand (Churchward and McArthur, 1978). The sub-unit present on the site is Safety Bay Sand (Qhs) (Geological Survey of WA).

Safety Bay Sand is defined as white, unlithified, calcareous fine to medium-grained quartz sand and shell fragments with traces of fine-grained, black, heavy minerals. It occurs along the coastal margin as stable and mobile aeolian dunes, which overlie the Tamala Limestone and Becher Sand (McPherson and Jones, no date).

This geology is highly permeable and free draining, therefore infiltration of stormwater for drainage purposes is not considered to be an issue.

Potential for karst to occur is generally related to the presence of Tamala Limestone geological units. The potential presence of karst onsite will be further reviewed during geotechnical investigations undertaken prior to the subdivision or development stage of the project, as part of a CEMP.

2.2.2 SOIL CONTAMINATION

The DER Contaminated Sites Database was searched for known contaminated sites within or adjacent to the subject site (DER, 2015). No registered sites were found within or in close proximity to the subject site.

2.2.3 ACID SULPHATE SOILS

The Acid Sulfate Soil (ASS) risk map (Landgate, 2014) for the subject site shows that there is 'low to nil risk of acid or potentially acid sulphate soils >3m below the ground surface however further investigations may be required.

2.2.4 LANDFORM AND EXISTING SITE LEVELS SUMMARY

Topography on the site slopes towards the coast, from approximately 17 mAHD along the eastern boundary to approximately 10 mAHD on the western boundary.

2.3 Groundwater and Waterways

2.3.1 EXISTING GROUNDWATER LEVELS

There are no regional groundwater contours in the vicinity of the site, however there are a number of Department of Water WIN bores within a one kilometre radius of the site. The most representative of these bores (bore ID 61118026) indicates that peak groundwater levels at the subject site at approximately 0.5 mAHD. This equates to a separation distance from existing ground levels to groundwater of approximately 6.5 -12.5 m. The site is therefore considered unconstrained from a hydrological perspective.

2.3.2 PREDICTED GROUNDWATER LEVELS

Groundwater levels are not predicted to significantly change as a result of the development envisaged under the DSP.

2.3.3 GROUNDWATER QUALITY

Site specific groundwater monitoring has not been undertaken for the subject site. Given the close proximity of the site to the ocean, it is likely that the superficial aquifer underlying the site is brackish (1,000-1,500 mg/L) (DoW, 2013a).

2.3.4 SURFACE WATER

There are no mapped DER geomorphic wetlands or *Environmental Protection (Swan Coastal Plain Lakes) Policy 1992* (EPP) wetlands located within or immediately adjacent to the subject site. There were also no drains or drainage lines visible on the site identified as a result of site inspections that were undertaken.

2.3.5 COASTAL ENVIRONMENT

The subject site is located adjacent to the Indian Ocean, separated from the beach locally known as the 'Back Beach' by Ocean Drive and the existing coastal foreshore reserve.

2.3.5.1 Storm Surge Modelling for Bunbury

In 2010, strategic storm surge modelling was undertaken for the coastal areas within the City of Bunbury. It provided a simulation of potential inundation resulting from 5 different worst case scenarios involving storm surges and sea level rise(s). One of the key modelled outputs of the study was that the foredunes on the open coast play a significant role in protecting the City from storm surge inundation for all cases considered (Fountain et al. 2010). A quantitative coastal-recession risk assessment in the Busselton to Rockingham, areas was completed. The risk model indicated that (without coastal protection works and active management) the potential for shoreline recession could be up to 400-500m by 2100, which would potentially affect not only the site but lower lying areas within the city.

It should be noted that there were limitations of the modelling outcomes in that the modelling methodology includes approximations, and model results are by nature only indicative. As a result, the model outputs described above should not be relied upon solely for planning decisions. The model results must be used as only one of a number of inputs that must be considered when attempting to interpret the risk of storm surge inundation to the City of Bunbury.

2.3.5.2 Coastal Hazard Mapping (Damara, 2012)

The Intergovernmental Panel on Climate Change (IPCC) has publicly released its Fifth Assessment Report on Climate Change 2013 (IPCC, 2013) which concludes that global mean sea level will continue to rise during the 21st

century. Under all scenarios the ICPP states that the rate of sea level rise will very likely exceed that observed

during 1971-2010, due to increased ocean warming and increased loss of mass from glaciers and ice sheets (IPCC, 2013).

The City's and Shire's of Bunbury, Busselton, Capel, Dardanup, Harvey, Mandurah, Murray, Rockingham, Waroona are a collective group of Local Governments between Cape Peron and Cape Naturaliste in the southwest of Western Australia, who have joined together to form the Peron Naturaliste Partnership. The vision of the Partnership is to empower a resilient regional community to reduce risks and optimise opportunities presented by climate change induced sea level rise (PNP, 2013).

The Partnership has undertaken a Coastal Adaptation Decision Pathways (CAPS) Project, which has produced coastal hazard mapping for the region. Inundation hazard mapping has been developed from evaluation of tide gauge data sets from Fremantle, Bunbury, Busselton and the network of gauges within the Peel-Harvey estuarine system (Damara, 2012). Erosion hazard mapping has been derived from the downscaling of a regional recession study, through consideration of geology and landforms (Damara, 2012). Although there are some acknowledged limitations to the erosion mapping methodology, both sets of mapping by Damara (2012) indicate that the subject site is not considered to be at risk by either erosion or inundation by 2110.

2.3.5.3 State Planning Policy 2.6 State Coastal Planning Policy

SPP2.6 prepared under Part 3 of the *Planning and Development Act 2005*, applies to all planning proposals within the coastal zone in Western Australia. The purpose of SPP2.6 is to provide guidance for decision-making within the coastal zone including managing development and land use change; establishment of foreshore reserves; and to protect, conserve and enhance coastal values (WAPC, 2013). The SPP requires that coastal hazard risk management and adaptation is appropriately planned for, and ensures that development and the location of coastal facilities takes into account coastal processes, landform stability, coastal hazards, climate change and biophysical criteria (WAPC, 2013).

Development on the subject site would be considered as 'Infill Development' as it is situated adjacent to developed lots and to approved development (development south, east and future south on Lot 497) and can be protected from natural shoreline recession through management/coastal protection works including (but not limited to):

- Implementation of a protection scheme;
- Beach nourishment or replenishment;
- Dune management;
- Flood and sea walls;
- Groynes; and/or
- Off-shore breakwaters or reefs (WAPC, 2012).

The City has installed seawalls along portions of the Back Beach to protect infrastructure as part of the Bunbury Coastal Enhancement Project Stages 1-3. On a as required basis, the City completes coastal protection works at the Back Beach, to protect infrastructure and assets separating the subject site from the coast, and on this basis any potential erosion impacts are being effectively managed.

2.4 Existing Movement Network

2.4.1 ROAD NETWORK

The subject site fronts Ocean Drive to the west, Upper Esplanade to the east and Scott Street to the south, with an 8 metre wide landscaped corridor to the north of the development between Lot 66 and Lot 76. A Transport Impact Assessment (TIA) has been prepared by KC Traffic and Transport (KCTT) to support the DSP.

Refer to Appendix B – Transport Impact Assessment

The assessment sets out the existing movement network and context and supports the proposed access arrangements to the subject site as proposed in the DSP. This is essentially a single 6-metre access/egress point from Upper Esplanade and a single 6-metre access/ egress point from Scott Street for Lot 66 Ocean Drive. It is noted that these access arrangements are also consistent with the GSP requirement that no access be provided from Ocean Drive.

Given the importance of Upper Esplanade as a connection to the Bunbury Senior High School, the current configuration of the roadway is assessed as appropriate, however, consideration for traffic management devices such as raised platforms may be considered at important pedestrian crossings, should vehicular speeds become of concern.

2.4.2 PEDESTRIAN AND CYCLING NETWORK

There are existing pedestrian and cycling facilities in the streets surrounding the DSP area. Ocean Drive, Upper Esplanade and Scott Street have shared paths on at least one side of the road reserve. The subject site currently has

strong pedestrian connectivity to the Bunbury CBD and the Bunbury Senior High School, with good, shared path connectivity along Upper Esplanade.

The TIA identifies the following:

- Provision of pedestrian paths on the development side of the road reserve and additional pedestrian crossings would improve connectivity and safety of pedestrian traffic.
- The location of any road crossings on Ocean Drive should consider appropriate sight distances and lighting / visibility criteria due to the existing traffic volumes in the vicinity of the mention lots.
- It is likely that any existing paths on the development side of road reservations abutting the DSP area will need to be re-constructed at the completion of construction contracts due to damage during construction works.

The TIA also identifies proposed pedestrian and cyclist facilities external to the DSP area from the Bunbury Transport Vision 2030. The following linkages proposed in this vision statement are likely to improve connectivity between the Bunbury CBD, the subject site and the Back Beach area:

1. Proposed shared path in Symmons Street linking directly between Ocean Drive and Blair Street.
2. Extension of the existing shared path in Stockley Road to connect between Upper Esplanade and Ocean Drive in the west and between Tuart Street and Spencer Street.

These proposed connections will provide strong connectivity between the subject site, the Bunbury CBD and the key land uses within walkable catchments, and offer pedestrian, cyclist and bus transportation modes as strong options for trips within the Bunbury CBD and inner Bunbury areas.

The TIA concludes that the development of the subject site is not likely to require the development of any other specific linkages that have not been discussed as part of the Local Planning Strategy – ITS or the Bunbury Transport Vision 2030.

2.4.3 PUBLIC TRANSPORT

Bus route 831 runs along Ocean Drive (Bunbury–Dalyellup via Usher). Bus stops approximately 350 metres north of the subject site with an interval of 60 minutes. There is also an existing school bus stop on Upper Esplanade in front of the high school that will remain.

Bus stops on both sides of the Ocean Drive road reserve are not linked with footpaths. Given the scope of this development, as well as other developments in surrounding locations, there would be the potential for improved utilisation of public transport, particularly if land uses which promote non short stay residents are provided for the wider population as is envisaged under the DSP. Accessibility to existing bus stop locations from future development sites can be improved through relatively minor additions to the existing network, particularly the proposed pedestrian pathway along the eastern side of Ocean Drive adjacent to the identified Back Beach Precinct development sites. As future development forms, land use distribution and intensity become clearer, consideration should also be given to potential relocation of or even provision of additional bus stops in locations, where they are in closer proximity to higher intensity use nodes or hub points in the improved pedestrian network.

The TIA also identifies other key service provisions as noted in the Bunbury Transport Vision 2030. Key linkages proposed which will have an impact on the DSP area include:

- Proposed Cat Bus route in Upper Esplanade, Scott Street and Ocean Drive directly fronting the subject site.
- Proposed Bunbury Circle Route in Upper Esplanade, Scott Street and Ocean Drive directly fronting the subject site.
- Proposed bus route directly linking the subject site to the Bunbury Primary School and the Bunbury CBD Bus Station.

These additional bus linkages will improve the likely take-up of public transportation from the DSP area, and if service frequencies offer direct connection to the Bunbury CBD every 15 minutes or better during key service periods (i.e. AM/PM peaks and throughout the day) the public transportation mode share is likely to be higher than that modelled in the TIA. These initiatives also tie in directly with the recommendations of the City's Integrated Transport Study, which focuses on increasing the level of service for the circular route that runs past the subject site rather than introducing new routes. This is considered to be likely to be a more viable option and could result in an increase in the level of service of public transport

to the precinct, particularly if undertaken in conjunction with strategic positioning of future bus stops to increase patronage.

2.5 Heritage

2.5.1 ABORIGINAL HERITAGE

A desktop Aboriginal Heritage Assessment was undertaken for the subject site by Amergin Consulting Australia Pty Ltd and is provided in Appendix C.

Refer to Appendix C – Aboriginal Heritage Assessment

There are no registered Aboriginal Sites within or immediately adjacent to the subject site. However, the land is largely overlapped by one 'Other Heritage Place' as currently mapped on the Department of Aboriginal Affairs' Aboriginal Heritage Inquiry System: DAA Place ID 21371 'Back Beach 03 (BB03)' which is 'Lodged' with the DAA as a mythological place.

DAA Place ID 21371 comprises the sand dune ridge extending along Back Beach from the vicinity of Hayward Street in the south as far north as far as the basketball courts (Figure 3 of Appendix C). In order to seek further clarification on the significance and extent of this heritage place, it is suggested that consultation be carried out with relevant Aboriginal people and that Section 18 approval be obtained if necessary prior to ground disturbance works.

In order to seek further clarification on the significance and extent of this place, it is suggested that consultation be carried out with relevant Aboriginal people at the appropriate stage of the site development process. The recommended consultations should seek to determine whether the sand dune ridge has specific mythological associations connected, for example, with the Ngarngungudditj Walgu or some other specific narrative, or whether it is a place of generalised significance, and to seek the views of the Aboriginal community on whether proposed development within the subject site would adversely impact the reported mythological values of the place.

The desktop assessment has also highlighted the potential for skeletal remains to be revealed during ground disturbance works within the coastal dune system generally, including the subject site. It is suggested that this potential be managed through archaeological monitoring of ground disturbance activities and the implementation of an Aboriginal Heritage Management Plan (AHMP) that includes stop-work procedures in the event that such material is encountered.

The recommendations arising out of the desktop assessment are as follows:

- It is recommended that consultation with relevant Aboriginal people take place in order to gain a better understanding of the significance of DAA Place ID 21371 and its implications for the development of the subject site;
- It is recommended that the proponent obtain Ministerial consent under Section 18 of the *Aboriginal Heritage Act 1972 (AHA)* to use the land if it is established that an Aboriginal Site is likely to be impacted;
- It is recommended that archaeological monitoring be carried out during ground disturbance activity within the Study Area, particularly if ground is being disturbed for the first time or what appears to be the first time; and
- It is recommended that an AHMP be developed and implemented that includes stop-work procedures to be put into effect in the event that any previously unidentified Aboriginal sites or objects, including skeletal material, are encountered during earthworks associated with the development of the lot.

The above recommendations have been factored into the DSP requirements in Part 1 and will require further consideration and implementation during the subdivision and/or development phases for the subject site.

2.5.2 EUROPEAN HERITAGE

The subject site is not listed on the City's Municipal Inventory or State Register of Heritage Places. There are however, known post colonisation heritage buildings and sites nearby. These are detailed on Figure 9 of the GSP and include:

- Bunbury Senior High School;
- Pioneer Park (the original Bunbury Protestant Cemetery);
- Lot 300 Upper Esplanade (the original Bunbury Roman Catholic Cemetery);
- The location of 'The Esplanade' former guesthouse located on lots 3 and 4 Upper Esplanade;
- The site of the former Craig House – Bunbury Senior High School Hostel;
- The building of the GWN Network facility.

With the potential exception of Bunbury Senior High School, any future development proposals are unlikely to have the potential to impact on any known cultural heritage values in the locality.

In the case of Bunbury Senior High School, the development impact statement provided at Appendix D demonstrates that the built form envisaged by the DSP has appropriately considered and mitigated possible heritage impacts on the school in terms of maintenance of key view corridors and sight lines to and from the school.

Refer to Appendix D – Development Impact Statement

On this basis it is considered that cultural heritage considerations present no impediment to the implementation of the DSP in the form proposed and nor do they represent any constraints to the future development of the subject site.

2.6 Climatic Conditions

2.6.1 CLIMATE

Bunbury experiences a Mediterranean climate, with dry hot summers and cooler winters. The annual rainfall is approximately 718 mm/yr, with most of this falling between May and September as outlined in Table 2.

Table 2: Bunbury Rainfall

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
Mean Rainfall	12.3	7	15	36	91.6	147.5	148.4	117.7	79	31.8	25.2	15.8	718.2

2.6.2 WIND

Local ambient wind conditions at Bunbury are dominated by the sea breeze/land breeze system. Predominately easterly winds prevail in the morning (9am) and predominately westerly winds in the afternoon (3pm). The frequency of occurrence of strong northerly winds (stronger than 40 km/hr) is negligible compared to the westerly events.

2.7 Opportunities, Constraints and Site Context Analysis

An analysis of existing site conditions and the potential opportunities and constraints that require consideration in the planning and development of the subject site has been undertaken to inform the preparation of the DSP. The key elements of this analysis are considered in further detail below and are generally identified in the constraints and opportunities analysis graphically depicted in Figure 10 of the GSP.

2.7.1 BACK BEACH

The subject site benefits from high exposure to the Back Beach environment and close proximity to the Bunbury CBD, with ready access along a significant coastal transport route.

The opportunity therefore exists to maximise the benefits presented by the coastal environment, established recreational facilities and close proximity to the CBD in terms of being able to provide residential and commercial development opportunities that take advantage of the desirable coastal lifestyle and excellent access to the goods, services and amenities available in the CBD.

It would be expected that the future development of the subject site will take the form of high quality architecture with a climatically responsive coastal vernacular that will play a positive role to reinforce proposed improvements to the local built environment and movement network.

2.7.2 VIEWS AND VISTAS

The subject site sits within a wider context of important views and vistas including those to and from the area east of Scott Street, the coastal foreshore and Ocean Drive.

The DSP has been designed to take into consideration the retention of the coastal landform as far as is practical through topographically responsive site planning to accommodate new development. The proposed built form response provides reasonable levels of visual permeability and does not impact on the view corridor, further it does not compromise the outlook, amenity or privacy of the house to the east or impinge on views towards the Indian Ocean to the west due to its orientation and elevated position.

2.7.3 OCEAN DRIVE

The subject site abuts Ocean Drive to the west. Ocean Drive is a significant road that provides access to the coastal environment, the Bunbury CBD, as well as access to southern suburbs of the City and beyond including Dalyellup. It forms an important component of the City's movement network and appropriate functionality and amenity must be maintained for projected future traffic volumes. This means that the potential for additional vehicle access is highly constrained and that pedestrian and cyclist facility upgrades must be foremost considerations as part of any future planning processes.

As a response the DSP will need to provide for appropriate alternative vehicular access from Upper Esplanade and will need to reinforce a desirable pattern of pedestrian and cycle movements to designated road crossing points

through appropriate infrastructure upgrades, including improved opportunities to safely access existing and emerging public transport opportunities.

2.7.4 FORESHORE AND GREEN SPACE

The subject site is located within walkable proximity of considerable areas of public open space including the Ocean Drive Foreshore, Ocean Drive Reserve, Nidja Ngaalang Nedigar Ngoorndiny Reserve, and Pioneer Park.

3. Land Use and Subdivision Requirements

3.1 Structure Plan Summary

The key elements of the proposed DSP build upon the requirements as set out in clause 3.1 of the GSP as follows:

- Central Precinct with two Sub-precincts, each subject to an integrated concept development, which is consistent with the GSP.
- Creation of a high amenity built form environment that will contribute to the quality and relationship with the landscaped corridor to the north and the area generally as a southwestern gateway to the Bunbury CBD.
- Maximum building heights and land use permissibility as set out in the GSP, including consideration of likely building envelopes defined primarily by height and setback allowances.
- A Development Impact Statement being incorporated to support additional height on a performance basis in the northeastern corner of the site which enables the proposed development to accommodate the ground floor with three levels above. The development also maximises the floor to ceiling heights to enhance future land use adaptability.
- Reinforcement of the pedestrian promenade requirement along the Ocean Drive frontage consistent with the GSP requirements, as part of a wider range of movement network improvements in the locality.
- Detailed requirements for built form as part of any future development proposal with specific consideration of appropriate levels of ground floor activation along Ocean Drive and articulation of upper level development.

- The development establishes a contemporary built form accommodating medium density and comparatively low scale residential environment to the Upper Esplanade frontage of the subject site. This ensures a high level of residential amenity is preserved for nearby landowners to the east in an elevated location above the subject site.

3.1.1 SUMMARY TABLE

A summary of the key elements of the DSP is outlined in Table 3 below.

Table 3: Structure Plan Summary Table

Total area covered by the Detailed Structure Plan	2,855m ²
Estimated number of URA dwellings	49
Estimated population (assuming 1.8 persons per URA dwelling)	89
Estimated possible Non-Residential (Retail and Commercial) floor space	630m ² GFA

3.2 Land Use

The predominant land use identified for the subject site is URA accommodation with commercial uses on the ground level fronting onto the adjacent street network.

3.2.1 RESIDENTIAL LAND USE

In accordance with the GSP, the DSP intends that residential uses are in the form of URA multiple dwellings will be the main development form in both Sub-precincts 1 and 3. This will include dwelling types that will contribute to greater housing choice in this part of Bunbury. The product mix is anticipated to respond to R-Code mixed use requirements and will probably include multiple dwellings fronting Upper Esplanade and the remainder of the subject site.

Development standards applicable to the subject site in respect to plot ratio, communal open space provisions, certain key setbacks and building height are specified in the DSP.

Maximum plot ratio has been set at 1.25:1, which is equivalent to an R100 density code. However, building height and setback parameters will be the primary drivers to controlling the scale and bulk of future built form on the site. Any additional residential plot ratio sought by development proposals will need to be justified against the relevant design principle of the R-Codes (Cl 6.1.1 P1), which stipulates:

'Development of the building is at a bulk and scale indicated in the local planning framework and is consistent with the existing or future desired built form of the locality.'

A minimum 30% of the site is required to be provided as open space. Any variation to the minimum open space requirement is required to satisfy design principle 6.1.5 (P5) of the R-Codes, which stipulates:

'Open space respects existing or preferred neighbourhood character and responds to the features of the site.'

It is anticipated that development proposals will seek to use the application of the 'design principles' approach as outlined in the R-Codes in many instances as opposed to the deemed-to-comply approach to achieve site responsive development outcomes that are responsive to DSP and GSP objectives and requirements.

3.2.2 NON-RESIDENTIAL LAND USE

Non-residential uses within the subject site are focused at ground floor level as required by the GSP. It should be noted that floor space limitations to certain commercial uses apply under the GSP.

3.3 Movement Networks

KCTT have undertaken a thorough analysis of the existing movement networks in the vicinity of the subject site and assessed the impact of a concept development that is based on notional probable maximum yield projections on these existing networks. The Transport Impact Assessment is provided at Appendix B.

Refer to Appendix B - Transport Impact Assessment

3.3.1 VEHICLE TRAFFIC

3.3.1.1 Daily Trip Generation

KCTT has applied the following daily trip generation rates to the proposed land uses on the subject site (based on trusted guideline sources such as the WAPC Transport Assessment Guidelines and the NSW RTA Guide to Traffic Generating Developments):

- Medium Density Residential Apartments: 5.5 vehicle trips per dwelling per day and 0.8 peak hour trips per dwelling
- Retail: 121 trips per 100m² NLA and 10 peak hour trips per 100m² NLA
- Commercial: 10 vehicular trips per 100m² of GFA (PM Peak - 2 per 100m² of GFA)

The vehicle trip generation associated with unrestricted residential, retail and commercial land uses is shown in Table 4. The PM peak is expected to be the highest generator of hourly traffic into the locality due to the convergence of PM employment trips for the residential land uses.

Based on the development concept prepared to support the Local Structure Plan, development at these yields is likely to attract / generate an additional 575 vehicular movements per day with a forecasted impact of around 70 vehicles per hour in the peak hour.

In summary, the proposed will have a minimal impact on the external road network.

Table 4 - Daily Vehicle Trip Generation

Development	Area (M ²)/Yield	Requirements	Total VPD	Total VPH
Retail	225m ² NLA	121 vehicular trips per 100m ² of NLA 10 vehicular trips per 100m ² of NLA	272 VDP	23 VPH
Commercial	330m ² GFA	10 vehicular trips per 100m ² of GFA 2 vehicular trips per 100m ² of GFA	33 VDP	7 VPH
URA Apartments	49	5.5 vehicle movements per dwelling 0.8 vehicle trips per dwelling	270 VDP	40 VPH
Total	630m² + Residential		575 VPD	70 VPH

3.3.2 VEHICLE NETWORK

3.3.2.1 Site Access and Internal Movements

The proposed development outlined in the DSP offers direct vehicular access to and from Scott Street for service vehicles, with light vehicles using Upper Esplanade.

The proposed access/egress point on Upper Esplanade offers unobstructed sight distances to the north and to the south. The proximity of the roundabout will further reduce the operating speed.

The proposed access / egress point on Scott Street will be laid at grade, however drivers exiting the proposed development will have unobstructed view of the two nearest intersections – with Ocean Drive and Upper Esplanade. The existing roundabout will reduce the operating speeds. Scott Street will become pedestrian orientated environment when the developments proposed in the area are built out. The drivers will further reduce operating speeds when fully aware of the strong pedestrian presence. Further, the rationale for an additional access point off Scott Street is to take advantage of the level changes and the ability to access basement car parking without excavation.

In summary, the locations shown on the DSP Map for the proposed entrances are suitable for the development and comply with the intent of the GSP. The exact locations and vertical grades for each of the entrances will need to be refined in the detailed design process. However, it should be noted that the TIA indicates there are no design/speed environment issues in Upper Esplanade and Scott Street that preclude the connection of full movement access/egress in the locations described.

3.3.2.2 Management of Traffic Generated by the Development

The entrance/egress to the subject site is from Upper Esplanade and Scott Street and is expected to generate approximately 575 vehicular movements per day with a forecasted impact of around 70 vehicular movements per hour in the peak hour when the proposed development is completed.

The estimated traffic flow is expected to be equal for the in and out direction. A large percentage of vehicles would be light vehicles, with less than 0.1% of all vehicles being service vehicles.

The AM peak on Upper Esplanade north of the intersection with Scott Street occurs between 08:00-09:00 with the development AM peak assumed to be between 08:30 - 09:30. It is assumed that the total peak hour vehicular traffic generated / attracted by the subject site will partially

impact the traffic on the adjacent roads, since the peak hour periods partially coincide. Given the low volumes of traffic from the future development of the subject site however, the impact of this development on the network in the AM peak will be negligible.

The PM peak on Upper Esplanade occurs between 15:00-16:00 with the development PM peak expected between 16:30 - 17:30. It is assumed that the total peak hour vehicular traffic generated by the subject site will not impact the traffic on the adjacent roads, since the peak hour periods do not coincide.

Based on the analysis of the nature of the businesses utilising the facilities within the subject area and the proposed designated access/egress points to the site, it has been assessed that the traffic generation from the development / attraction to the development would be distributed onto the adjacent road network as follows: -

100% (575 VPD / 70 VPH) from/to the development.

100% (575 VPD) from development.

- 30% (173 VPD) to / from Upper Esplanade:-
 - 40% on Upper Esplanade (to / from north) - 69 VPD;
 - 60% on Upper Esplanade (to / from south) - 104 VPD;
 - 30% on Scott Street (to / from west) - 31 VPD;
 - 90% on Ocean Drive (to / from south) - 27 VPD;
 - 10% on Ocean Drive (to / from north) - 4 VPD;
 - 50% on Scott Street (to / from east) - 53 VPD;
 - 20% on Upper Esplanade (to / from south) - 20 VPD.
- 70% (402 VPD) from / to development on Scott Street:-
 - 50% (201 VPD) from / to Scott Street west to Ocean Drive;
 - 90% on Ocean Drive (to / from south) - 181 VPD;
 - 10% on Ocean Drive (to / from north) - 20 VPD;
 - 50% (201 VPD) from / to Scott Street east to Upper Esplanade;

- o 70% on Scott Street (to / from east) - 141 VPD;
- o 20% on Upper Esplanade (to / from north) - 40 VPD;
- o 10% on Upper Esplanade (to / from south) - 20 VPD.

The existing vehicular traffic on Upper Esplanade in this location (Between Prinsep Street and Scott Street) is 1,461 VPD. The cross section of Upper Esplanade is suitable for 3,000 to 5,000 VPD in accordance with Liveable Neighbourhoods hierarchy of roads, based on the cross-sectional width of Upper Esplanade. All surrounding existing roads have carriageway widths that are wider than general requirements noted in Liveable Neighbourhoods and operate at between 15% and 50% of their theoretical capacities.

3.3.2.3 *Cumulative Traffic Flow Impact of nearby proposed developments (including DSP over Lots 1, 2 and 76 Ocean Drive Bunbury and proposal for Lot 497 Ocean Drive)*

To highlight the likely cumulative impact of potential development over the next 10 years on Upper Esplanade, KCTT reviewed the earlier TIA report for the Lots 1, 2 and 76 Ocean Drive development and analysed the expected impact of developing Lot 497 Ocean Drive. The impacts on upper Esplanade are as follows:

- Approximately 2,184 VPD to / from the south of the subject site; and
- Approximately 2,760 VPD to / from the north of the subject site.

Given that Upper Esplanade has sufficient capacity to carry 3,000-5,000 VPD, the cumulative impact of the proposed development on the subject site, the approved development of Lots 1, 2, and 76 Ocean Drive and the proposed development of Lot 497 Ocean Drive can be accommodated within the existing road structure.

3.3.2.4 *Proposed Configuration of Scott Street*

Special attention has been given to the future configuration of Scott Street, this being the road linking between the proposed developments on Lots 497 and 66 Ocean Drive. Scott Street also represents the core of the Central Precinct and its future form and amenity will contribute significantly to the tourism potential of the Back Beach Precinct in general.

The intention is that Scott Street will become an iconic tourism hub for the City with low traffic speeds and excellent pedestrian, cycle and public transport accessibility. It will be vibrant and attractive with cafes and small bars as well as convenience and tourism focussed retail and services. In conjunction with the piazza it will be the focus of public life and activity on the Back Beach and provide the gravity to pull the occupants of the Northern and Southern Precincts towards the central core.

An indicative cross section for Scott Street is provided at Figure 6 and includes the following:

- Two 3.5 metre width traffic lanes in each direction;
- Two 2.5 metre wide strips of short stay on-street parallel parking;
- Two generous four metre wide shared paths.

Refer to Figure 6 – Indicative Scott Street Section

3.3.3 VEHICLE PARKING

The provision of appropriate levels of car parking is an important consideration for the development of the subject site due to its close proximity to the Back Beach and Bunbury CBD, the mixture of residential and non-residential uses proposed, the wide catchment from which visitors will be attracted, and the possible development of other vacant or underdeveloped land in the locality.

The combined impact of these elements requires careful assessment to determine what car parking facilities need to be provided in order to reasonably meet anticipated demand in a responsible and sustainable manner.

The strategy for the provision of car parking on the subject site is that an appropriate and sustainable level of car parking be provided within the site having regard to all those factors that might influence parking demand. This includes the potential for cash-in-lieu of onsite parking that can then be invested into shared public parking facilities in other locations within the locality. Such an option is likely to prove most attractive in a scenario where the cost of basement or undercroft parking adversely affects development viability or where a future developer seeks to maximise development potential and is not able to provide the requisite amount of car parking on-site. Approval for cash-in-lieu for car parking is at the discretion of the City and is appropriate for visitor parking and non-residential land uses only.

The diagram illustrates a cross-section of Scott Street, divided into Lot 66 (left) and Lot 497 (right). Lot 66 contains three yellow rectangular zones labeled 'URA' and one labeled 'OMM. / URA'. A street light stands on the left side of the road. A pedestrian is shown walking on the 4.0m wide footpath. The road has 7.0m travel lanes, 2.5m parking areas, and another 4.0m footpath. Lot 497 contains two yellow rectangular zones labeled 'URA' and one labeled 'COMM. / URA'. It features two large green trees, several cars, and a 4.0m wide footpath. The street section is labeled 'SCOTT STREET 20.0m Reserve'. Dimensions for the street section are: Footpath 4.0m, Travel Lanes 7.0m, Parking 2.5m, and Footpath 4.0m.

3.3.3.1 Parking Requirements

In order to determine relevant probable parking requirements for the future development of the subject site, KCTT undertook a comparative analysis of the development concept prepared by Lloyd Pickwell based on minimum requirements for parking according to the NSW RTA Guide to Traffic Generating Developments, the requirements of the R-Codes and the requirements as set out in the City's TPS7 and supporting local planning policy framework. Factors allowing for reciprocal (shared) parking opportunities were also considered based on likely complementary future use arrangements in order to arrive at a responsible and sustainable car parking arrangement.

The minimum requirements for parking based on the above documents are as follows:

- URA / Short Stay Apartment – as per R-Codes (in this instance based on an average dwelling size of 75m², 1.25 spaces per dwelling and 0.25 visitor spaces per dwelling).
- Commercial – 1 bay per 30m² NLA (minimum of 5 spaces).
- Retail – 1 bay per 20m² NLA (minimum of 5 spaces).

Table 5 provides a preliminary calculation for the parking requirements for the subject site on the basis of the likely development yields as depicted in the DSP.

Table 5: Parking Requirements – Concept Development of Lot 66 Ocean Drive

Land Use	Number of Units	Yield	Requirements	Total No of Parking Bays
Retail	N/A	225m ² NLA	1 bay per 20 square metres of NLA	12
Commercial	N/A	248m ² NLA	1 bay per 30 square metres of NLA	9
Unrestricted URA	49	Dwelling area 75m ² < GFA < 110m ²	1.25 parking spaces per dwelling	61
			Visitors parking spaces = 0.25 parking spaces per dwelling	13
Total – Concept Development				95

Given the nature of the surrounding area it can be expected that a significant portion of patrons for the retail and commercial premises will originate from nearby uses and from adjacent URA development. It is expected that this would effectively reduce the requirement for car parking for commercial use by approximately 25%. Further to this, there is a considerable amount of public parking within walking distance from the subject site.

Relevantly, the establishment of a medium to high frequency circle bus route running along Ocean Drive is set out as an objective in the City's Integrated Transport Study. Once a high frequency route is established, parking demand will decrease further as other transport options become available and more attractive.

The preliminary plans for the development concept prepared to support the structure plan show a total of 66 car parking bays on site and 4 on Scott Street, which would be sufficient to cater for the requirements.

It is noted that excessive over provision of car parking would be in direct contradiction to the principles on the Integrated Transport Study. This document outlines promotion of alternative modes of transportation (such as public transport, cycling and walking) as a strong objective in future transport planning for the City. Provision of surplus car parking tends to further stimulate vehicular travel.

Rather than constructing expensive basement or other covered car parking as indicated in the development concept, it is also open to future developers to negotiate cash-in-lieu of parking to the City for the provision of public car parking in other locations in the Back Beach Precinct to mitigate any shortfall in the parking provision.

3.3.3.2 Provision for Delivery and Service Vehicles

Access for the delivery / service vehicles will be via Scott Street. The waste vehicle can reverse into the development, perform waste collection and exit the development in forward motion. The proposed development concept layout allows for the vehicle to perform two point turns internally to the development should this be required.

The service vehicles will enter the development via Scott Street crossover, utilise the loading bay in order to perform reverse movement and exit the development via Scott Street crossover. The loading bay is to be designed to enable safe forward and reverse manoeuvres for a waste vehicle. Delivery and service vehicle access and egress is via Upper Esplanade.

KCTT calculated the minimum parking requirements for the provision of delivery and service vehicles to be as follows:

- 1 bay for SRV as required;
- Restricted manoeuvring on-site for HRV as required;
- Full manoeuvring on-site for SRV and other classes of service vehicles is required.

The waste bins (recycling and standard bins) will be placed in an appropriate designated area. The waste collection vehicle will have easy and safe access to the waste bins. No HRV would be expected to access the subject site.

3.3.4 PEDESTRIAN AND CYCLISTS

The City stipulates requirements for bicycles in AD8.1.1 Bicycle Parking Table in LPP3.1 Local Planning Policy - Access and Parking for Pedestrians, Bicycles and Vehicles.

Table 6 provides a calculation for the bicycle parking requirements for the subject site on the basis of the development yields as depicted in the development concept prepared in support of the DSP.

Table 6: Bicycle Parking Requirements - Concept Development of Lot 66 Ocean Drive

Land Use	Number of Units	Yield	Requirements	Total No of Parking Bays
Retail	N/A	225m ² NLA	1 bay per 100 square metres of NLA	3
Commercial	N/A	248m ² NLA	1 bay per 200 square metres of NLA	2
Unrestricted URA	49	Dwelling area 75m ² < GFA < 110m ²	As per Part 6 Section 6.3.3 (C3.2) of the R-Codes: <ul style="list-style-type: none"> • 1 space per 3 dwellings for residents • 1 space per ten dwellings for visitors 	16 resident spaces 5 visitor spaces
Total – Concept Development				26

Existing pedestrian and cycling facilities are already developed in the streets surrounding the subject site. Ocean Drive, Upper Esplanade and Baldock Street have shared paths on at least one side of the road reserve. There is a shared path on the southern side of Scott Street. The subject site currently has strong pedestrian

path connectivity to the Bunbury CBD and the Bunbury Senior High School, with good shared path connectivity along Upper Esplanade. School students in particular are significant users of the pedestrian and cycle networks in the immediate and wider locality. Pedestrian crossing facilities on Ocean Drive are located adjacent to the proposed development therefore the connectivity to the adjacent recreational areas on the beachfront is good.

However, pedestrian connectivity to existing bus stops is inadequate which hinders the potential use of public transport options. The improvement of pedestrian connectivity along Ocean Drive should be the main focus of further planning and development of this area. Given the expectation that the Back Beach Precinct will become one of the major tourist area's provision of good pedestrian connectivity along Ocean Drive and to the CBD is of essence.

It is likely that any existing paths on the development side of the road reservations abutting the subject site will need to be re-constructed at the completion of construction contracts due to impending damage during construction works. This is identified under the DSP as a developer contribution requirement.

Proposed pedestrian and cyclist facilities are primarily from the Bunbury Transport Vision 2030, augmented with additional connections as proposed under the DSP.

It is noted that the following linkages are likely to improve connectivity between the Bunbury CBD, the Ocean Drive Precinct and the Bunbury Back Beach recreational / tourism environs:

- Proposed shared path in Symmons Street linking directly between Ocean Drive and Blair Street
- Extension of the existing shared path in Stockley Road to connect between Upper Esplanade and Ocean Drive in the west and between Tuart Street and Spencer Street.

The development of the subject site is not likely to require the development of any other specific linkages.

3.3.5 PUBLIC TRANSPORT

Bus route 831 runs along Ocean Drive (Bunbury-Dalyellup via Usher) with a bus stop approximately 350 metres north of the subject site with intervals of 60 minutes.

Bus stops on both sides of the Ocean Drive road reserve are not linked with footpaths. Given the scope of this development, as well as other developments in surrounding locations, there would be the potential for improved utilisation of public transport, if some minor improvements are made to the local pedestrian path

network linking the developments to the existing bus stops. Consideration could also be given to relocations of bus stops in the future to locations, which are closer to this general area.

The Bunbury Transport Vision 2030 suggests a number of ideas for improvement of public transport in Bunbury inclusive of potential CAT routes connecting the subject site to the CBD, circular route, bus rapid transit connecting Dalyellup and Australind and high speed rail connecting Bunbury and Perth.

The City's Integrated Transport Study focuses on increasing the level of service for the circular route that runs past the subject site rather than introducing new routes. This is considered to be a more viable option. An increase in the level of service of public transport as well as strategic positioning of bus stops will help increase general patronage.

3.4 Public Open Space Provision

There is no Public Open Space (POS) provision for the subject site prescribed in the GSP. However, there is an abundance of open space nearby, and the POS provisions already stipulated on the adjoining Back Beach sites including linear parks and the Piazza ensure that recreational requirements will be met. If necessary as determined by the City, the developer may be required to negotiate a suitable cash in lieu or other contribution for POS for the residential (URA) development.

3.5 Built Form

The concept approach to developing the subject site is to facilitate a 3 to 4 storey, street-fronted building using a variety of high quality materials and finishes in a perimeter block format with setbacks to the adjoining three streets in accordance with those stipulated in the GSP. It is anticipated that this building form will incorporate activated frontages (commercial premises with visible entrances, awnings for pedestrian shelter, numerous apertures and openings and a high proportion of glazing) at the ground floor with 3 levels of URA above. The building is expected to respond to the high amenity ocean views with generous balconies, a well-articulated and varied façade that expresses a contemporary coastal vernacular. It is expected that maximum building heights will be up to four storeys having regard to GSP and City planning policy requirements.

Refer to Figures 7 and 8 in terms of an architectural illustration of the concept development.

A key consideration for future development will be mitigating the impacts of prevailing winds and avoiding potential negative impacts on the amenity of external living spaces. The concept development uses built form to screen the development from easterly, westerly and south westerly winds.

Communal open space is encouraged to be provided in a form that ensures appropriate separation from publicly accessible areas and internal pedestrian pathways, whilst maximising passive surveillance opportunities.

The concept development provides for a landscaped swimming pool area over the basement car parking with the potential to use of rooftop areas for the provision of communal facilities, such as a barbeque area.

3.5.1 GROUND FLOOR BUILT FORM

Ground floor setback requirements are defined under clause 4.2 of the GSP and have generally been minimised to facilitate an articulated street frontage with activated ground floor uses that will interact with the street.

Allowance has been made for a 5 metre setback to allow for the linear promenade to Ocean Drive.

The Part 1 – Structure Planning Section for the subject site encourages activated and adaptable frontages to the street frontages with buildings having minimal blank unrelieved walls and being required to be orientated towards the street or public areas. Buildings are orientated towards the streets and landscaped corridor POS to provide a good urban design outcome.

All buildings are required to have at least one visibly clear entry point from the public domain and are encouraged to provide pedestrian shelter at the point of entry.

3.5.2 UPPER LEVEL BUILT FORM

Upper floor setback requirements for development in excess of three storeys in height are defined under clause 4.2 of the GSP with generally an additional three-metre setback being required at level 4 fronting Ocean Drive. Upper level building façades are to be modulated and articulated through the use of apertures, recesses, projections, materials and textures to provide visual interest and avoid blank façades.

Where balconies are provided within the two-metre setback area as permitted under the GSP for hotel and non-residential uses they are required to:

- Be a minimum dimension of 2.4m to allow for useable outdoor living/dining space.
- Assist to articulate the building façade in a complementary contemporary architectural form.
- Be commensurate in scale/composition to the building.
- Be designed as an integral part of the building elevation and shall not appear as an 'add on' structure.

Figure 7 - Illustrative Concept Looking North West at Proposed Development



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Figure 8 - Perspective Overview Looking East



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- Contribute to the sense of safety and liveliness of the street by being designed for passive surveillance and visual engagement between the public and private realm.

In terms of roof forms, flat, skillion and non-pitched site responsive roof forms are encouraged to minimise the overall bulk and massing of buildings. The use of roof areas for communal open space is encouraged, but requires careful consideration in terms of mitigating the impact of prevailing winds and other micro-climatic conditions.

Development on landmark corners is intended to be designed and constructed in a manner that recognises the strategic location of the identified site and the opportunities for distinctive architectural expression through one or of the following features:

- Additional height sought under the performance based (design principles) approach to building height detailed under clause 5.4 of the GSP, supported by a Development Impact Statement (Building Height and View Shed Analysis), however not including an additional habitable storey;
- Different geometric or volumetric design;
- Architectural feature elements such as enhanced vertical articulation or modulation;
- Additional glazing (fenestration);
- Enhanced palette of compatible materials and textures; and
- Major openings and balconies.

Figure 6 illustrates how the developments of Lot 66 and Lot 497 may look in a cross section of Scott Street.

3.5.3 OTHER BUILT FORM CONSIDERATIONS

Pedestrians are required to be able to access the ground floor and any floors above from an entrance to a building that is at grade and directly accessible from a street or public space. For sites with a sloping frontage, the ground floor must not exceed more than 1.2 metres above or below the level of the site frontage. Indicative site levels are shown on Figure 9.

Interfaces between the public and private realms are proposed to be clearly defined through the use of fencing and other boundary defining elements such as landscaping or minor level differences, with fences to the public domain being at least 50% visually permeable and no greater than 1.2 metres in height from finished floor level.

Crime Prevention Through Environmental Design Principles (CPTED) are to be incorporated into building design and, where appropriate the public realm and are required to consider natural surveillance, natural access control (legibility) and natural territorial control (ownership).

All development proposals will also be required to have regard to mitigating potential external and internal noise impacts.

The visual analysis provided as part of the development impact statement at Appendix D demonstrates the relationship of the illustrative development concepts to the building envelopes that are essentially defined by the GSP. Building envelopes are shown as a transparent three-dimensional volume of potential development within which the ultimate development outcome will be constructed.

Refer to Figure 9 - Landscape Concept Plan

3.5.4 OPEN SPACE

Due to the surrounding land uses of subject site and the publicly accessible nature of the area, it is important to ensure that public and private uses of the subject site are clearly defined. The landscaping concept plan in Figure 9 provides an indicative location and type of open space that would be provided on the subject site.

The intent of the open space is to provide a communal area accessible only to the occupants of the development. Centrally located within the indicative development design, the space provided would allow for passive activities with simple communal facilities such as barbeques and picnic facilities. The plan also details the space possibly being used for pool facilities and other active open space activities.

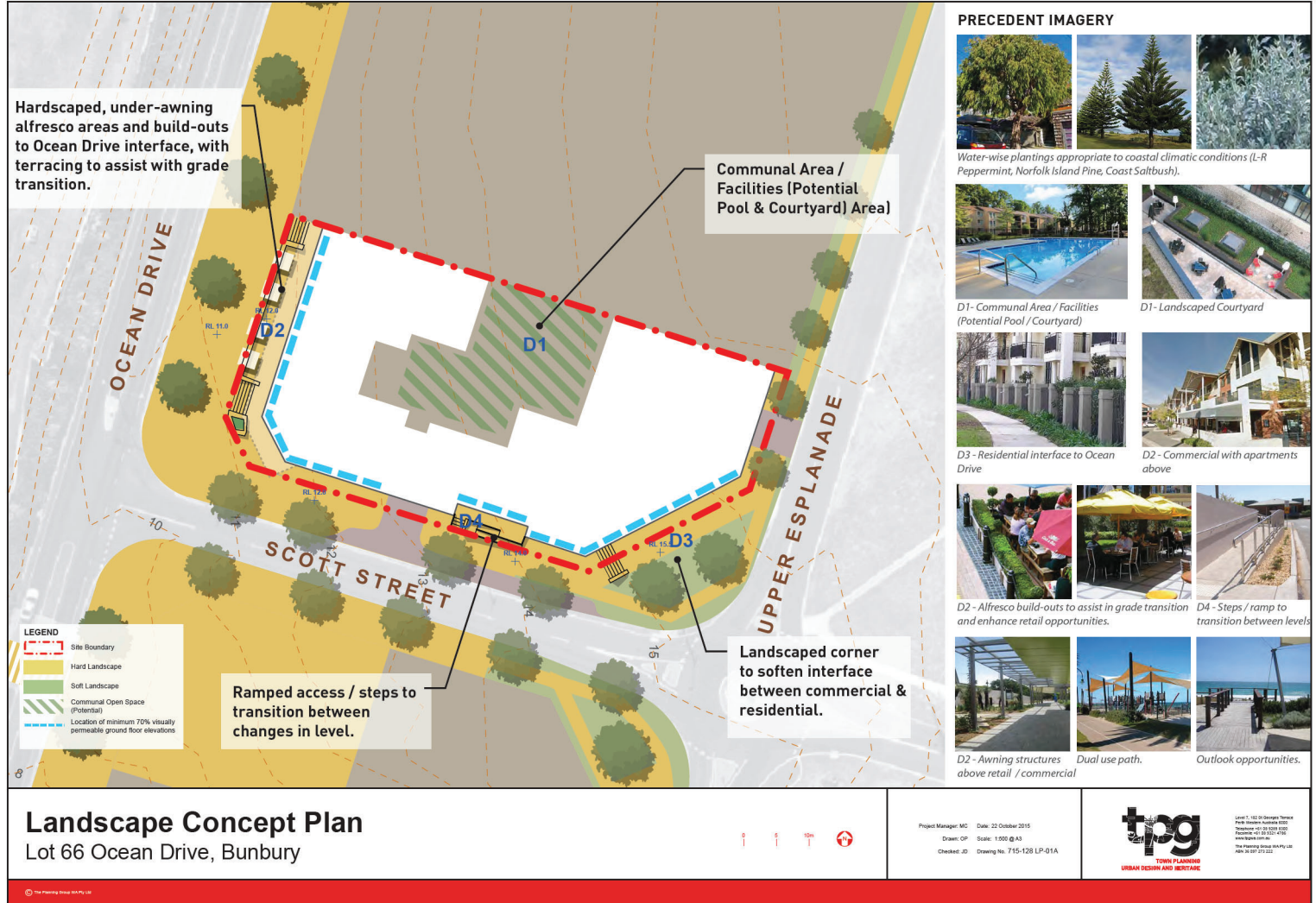
3.5.5 SHADOW ANALYSIS

A shadow analysis of the indicative built form has been undertaken for the subject sites, with the shadow impacts for midday 21 June shown in Figure 10. It can be seen that there is limited overshadowing due to the orientation of the sites, setback requirements between buildings and the centrally located cores of open space (car parking and communal landscaped areas and facilities). Also, it should be noted there is no overshadowing impact to northern green link caused by the bulk scale and massing of the concept development due to the orientation of the site.

Refer to Figure 10 – Solar Study – Mid Winter

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Figure 9 - Landscape Concept Plan

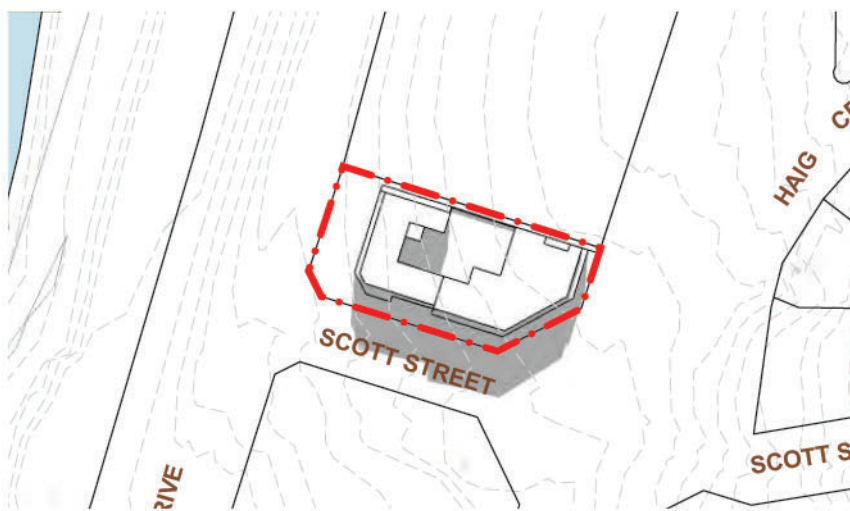


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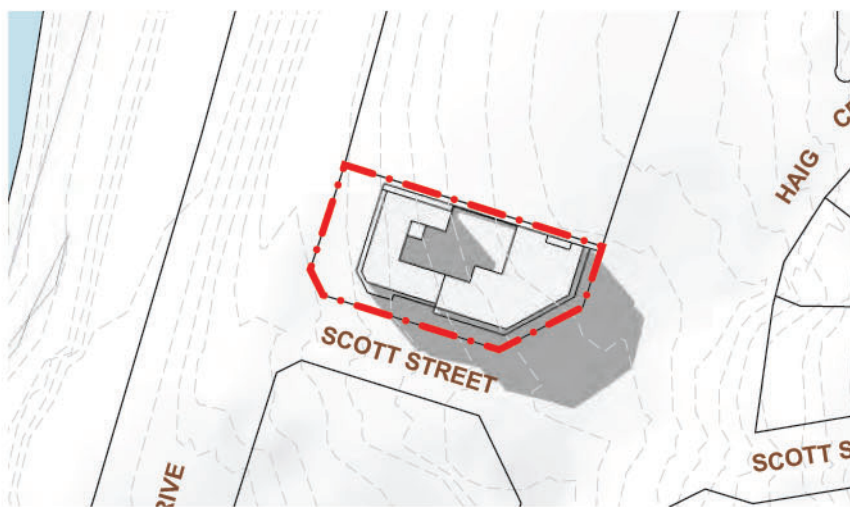
Figure 10 – Solar Study – Mid Winter



9AM



NOON



3PM

It is noted that under clause 6.4.2 of the R-Codes, regarding overshadowing of adjacent properties, that deemed-to-comply overshadowing standards do not apply to development with a density coding above R60 with overshadowing impacts being required to be considered on a performance basis using the associated design principles.

3.5.6 DEVELOPMENT IMPACT STATEMENT

A Development Impact Statement has been prepared (Appendix D) for the concept DSP that illustrates how the proposal seeks to mitigate any impacts upon key views and vistas, including:

- Ocean views from existing residential buildings fronting Upper Esplanade and Haig Crescent.
- Distant Views to the ocean from Scott Street.

Proposed visual impact mitigation strategies include the following:

3.5.6.1 General Ocean View Facilitation and Development Bulk Mitigation

- Proposed development largely follows accepted height maximums.
- Maximum building heights will generally follow a flat fixed height plane that is 12m above the lowest point on the site, with the exception of the north eastern corner where performance based criteria will apply at the development application stage. The performance based criteria will allow for a sloping height plane 12m above the existing ground level and that follows existing site contours. The performance based criteria approach will allow for a maximum of approximately 4.5m in potential additional height above the fixed flat plane at the site's highest point.

3.5.6.2 Residential Interface

A maximum street wall height of generally three storeys along Upper Esplanade, with an opportunity for a setback at the fourth level. Uses are likely to be predominantly residential in nature to create a sympathetic interface to existing residential uses to the east.

Refer Appendix D – Development Impact Statement

In respect of the Development Impact Statement provided at Appendix D it should be noted that:

1. The information provided is indicative and for illustrative purposes only to address the requirements of clause 11.1(f) of the GSP. It does

not fulfil the scope of a more detailed development impact analysis that will be required at the development application stage in accordance with clause 5.4 of the GSP.

2. On-site and nearby AHD levels have been determined based on publicly accessible data obtained during site investigations and are not based on detailed site surveys.

3.6 Water Management

A local water management strategy has not been prepared for this site based on advice from the City of Bunbury in view of its small size and lack of hydrological constraints, however a Stormwater Management Strategy (SMS) has been prepared, a summary of the SMS is provided below.

Refer to Appendix E – Stormwater Management Strategy prepared by Coterra Environment

3.6.1 STORMWATER MANAGEMENT STRATEGY SUMMARY

The design objectives and criteria for the subject site is detailed in the Stormwater Management Strategy, which has been developed in accordance with the Better Urban Water Management (BUWM) guidelines (WAPC, 2008). The outline below provides an overview of the design elements and requirements for best management practices and control points.

3.6.1.1 Water Usage Strategy

Water Supply and Disposal

Potable water will be supplied via the regional water scheme. Aqwest is the water service provider in the area and there is an existing water pipeline along Ocean Drive.

Wastewater will be disposed of through the regional sewerage system. The Water Corporation operates the service in the area and there is existing sewerage infrastructure along Ocean Drive.

The subject site is undeveloped with no existing potable water supply or wastewater infrastructure present on site. New pipework and connections will be introduced to service the development.

Water Efficiency and Conservation

Water conservation measures will be adopted to create a 'Waterwise' development. The water conservation strategy will reduce scheme water demand through incorporating a variety of effective initiatives in the areas of internal

water use, landscaping and irrigation.

Residential water use efficiency will be required through compliance with the 'Energy Use in Houses Code' and the 'Water Use in Houses Code'. These are known as the 5 Star Plus Codes, introduced by the Department of Housing and Works in 2007 (DoH, 2007 a, b). The proposed residential development is likely to be predominantly in the form of apartments and medium density grouped housing so there will be minimal external use of potable water.

3.6.1.2 Stormwater Management

Stormwater will be managed through the implementation of Water Sustainable Urban Design (WSUD) principles and Best Management Practices (BMPs) to address increased runoff as a result of increased impermeable areas. Both water quality and quantity in minor and major storm events will be managed within the subject site.

Existing Drainage

The subject is currently undeveloped with some remnant vegetation. Runoff flows in a south-westerly direction towards Scott Street and the Ocean Drive drainage system. Any runoff exceeding the capacity of the road drainage system flows into the Ocean Drive road reserve before ultimately discharging across the foreshore into the ocean. There is currently no drainage infrastructure within the site boundary.

Proposed Earthworks

The subject site slopes from its north-eastern corner to its south western corner, ranging from approximately 17 mAHD to 10mAHD. Some earthworks and cut and fill/ re-contouring will be required for to form flat building pads. The detailed earthworks plans will be provided at detailed design stage. It is anticipated that cut and fill will use existing site sands where possible.

Proposed Drainage Strategy Overview

The site's drainage strategy will comprise of the following:

Storage and attenuation:

- Infiltration of small (1yearARI) events on site.
- Large events (>1year) will be attenuated on site, and discharged at a rate no greater than pre-development flow rates.
- Discharge from the site will be into the existing drainage network on Ocean Drive.

Conveyance:

- Events up the 5 year ARI event will be conveyed in a new piped network.
- Events greater than the 5 year ARI event will be conveyed by overland flow in the road/carpark reserves.

Water quality:

- Water quality treatment will be provided in infiltration areas.
- Stormwater will be infiltrated or discharged within 96 hours to prevent disease vector and nuisance insects.

3.6.1.3 Implementation

The effective implementation of the SMS requires ongoing involvement by the relevant stakeholders. As agreed with the City, a Stormwater Management Plan (SMP) will be required at subdivision stage. The requirements of the SMP will be confirmed with the City prior to preparation of the plan.

The future roles and responsibilities associated with the site are summarised in Table 7 below.

Table 7: SMS Roles and Responsibilities for Implementation

Principles	Role	Responsibility	Timeframes
Stormwater Management	Detailed design of stormwater drainage system in line with the criteria in this document	Proponent	Prior to construction
	Construction of stormwater infrastructure including water quality measures	Proponent	At construction
	Maintenance of the drainage basins	Proponent	Ongoing by owner or strata body
Groundwater Management	Detailed earthworks plain in line with the criteria in this document	Proponent	Prior to construction
Water Quality Management	Detailed design of water quality management features (i.e. rain gardens)	Proponent	Prior to construction

The next steps in SMS work will depend on whether the development is progressed via a subdivision stage or goes straight to development application. Final engineering design drawings will be required to support a development application. The engineering drawings should demonstrate compliance with the design objectives established within the SMS.

3.7 Civil Engineering and Infrastructure Requirements

KC Traffic and Transport (KCTT) have undertaken an assessment of the existing servicing infrastructure in the vicinity of the subject site and have identified where infrastructure upgrades or modifications will be required to service future development. The full infrastructure servicing report is provided at Appendix F with the outcomes of KCTT's assessment and probable upgrades outlined below.

Refer to Appendix F – Infrastructure Servicing Report

3.7.1 DEVELOPMENT SITE LEVELS AND EARTHWORKS

The subject site has a reasonable coverage of low-lying vegetation, which is typical of the undeveloped landholding within the proposed back beach tourism precinct area. Given that the subject site will be situated in an erosive coastal environment, protection of external environments from wind-blown sands is a key requirement for this development during the earthworks phase in particular, and the construction phase in general. The subject site has a reasonable coverage of low-lying vegetation. Given the sandy, dunal nature of the site, protection of external environments from wind-blown sands is a key requirement for this development during the earthworks phase in particular, and the construction phase in general.

The earthworks for this project are expected to be extensive, given the sites natural topography and the requirement to develop flat pads for the proposed building structures.

3.7.2 EXISTING INFRASTRUCTURE

3.7.2.1 Wastewater

A review of the Dial Before You Dig and Water Corporation ESINet systems indicate the following wastewater infrastructure exists in the vicinity of the subject site:

- An existing 150mm-diameter sewer main on the eastern side of Ocean Drive immediately adjacent

to the western boundary of the subject site. This main is on a 5.0m alignment within the Ocean Drive road reserve.

It is noted that all sewer alignments noted above are indicative only and must be located by appropriate means prior to any construction works.

3.7.2.2 Water Reticulation

A review of the Dial Before You Dig and Water Corporation ESINet systems and information provided by Aqwest indicate the following water infrastructure exists in the vicinity of the subject site:

- Existing 100mm-diameter water main immediately adjacent to the proposed development site in Ocean Drive along the length of the subject site.
- Existing 100mm-diameter water main on the opposite side of Upper Esplanade.

The development of the subject landholding does not require any extension to the existing Aqwest water system.

3.7.2.3 Electricity

Western Power information is available through the Distribution Facilities Information System (DFIS) and the Network Capacity Mapping Tool (NCMT). These resources show the following infrastructure assets are available in the general vicinity of the subject site: -

- Three-phase 22kV high voltage (HV) aerial conductors along the eastern side of Upper Esplanade, south of Scott Street extending to Baldock Street to the south.

3.7.2.4 Telecommunications

Currently telecommunications services are available by either the NBN or via telephony service providers such as Telstra. A review of the NBN Mapping Tool has found that there is no current rollout of NBN services in Ocean Drive, Bunbury, nor are there any plans to rollout services. This does not preclude application to NBN at the time of development of this site, however at this stage it appears that telephony infrastructure will be negotiated directly with Telstra.

3.7.2.5 Gas Reticulation

A review of the Dial Before You Dig records indicate the following gas infrastructure exists in the vicinity of the subject site:

- 100mm-diameter PVC main on the development side of Ocean Drive.
- 80mm-diameter PVC main on the eastern side of Upper Esplanade.
- 100mm-diameter PVC main on the northern side of Scott Street.

3.7.3 INFRASTRUCTURE UPGRADES REQUIRED

3.7.3.1 Wastewater

The development of the subject site does not require any extension to the existing Water Corporation sewer system. The site will however require upgrades to existing connections and associated infrastructure. A hydraulics consultant through negotiations with the Water Corporation will determine this infrastructure when a formal Development Application is submitted.

3.7.3.2 Water Reticulation

The development of the subject landholding does not require any extension to the existing Aqwest water system. The site will however require upgrades to existing connections and associated infrastructure. A hydraulics consultant through negotiations with Aqwest will determine this infrastructure when a formal Development Application is submitted.

3.7.3.3 Electricity

Western Power requires that all new developments be serviced by underground three phase power where three phase power is available and that this service is provided at one location (i.e a subject site should only be provided with one point of connection). Due to the expected loadings from the proposed development configuration, existing transformers in the local area are not expected to be capable of servicing this site. It is therefore likely that a new transformer substation will be required. Western Power will require a transformer on site with the Site Main Switchboard to be contiguous. It is likely a 1MVA transformer / switchgear would be more than sufficient to handle the proposed power loadings from this site, however this should be confirmed when final yields are known and by a qualified electrical consultant.

The Western Power NCMT shows the area has less than 5MVA of forecast remaining capacity in 2015, however there are planned upgrade works to the network by 2019 where there is likely to be an increase in forecast remaining capacity to between 15MVA and 20MVA. It is understood an extension of the 22kV HV network will be required along Scott Street to the development and this should be factored into any cost estimates for the development of the subject site.

3.7.3.4 Telecommunications

Fixed line telecommunications are serviced from the Bunbury Telephone Exchange, which is, located approximately 1.5km to the east of the subject site. Confirmation of servicing would occur at the time of application for servicing. Telstra charge fees for the design and installation of infrastructure as well as amendments, upgrades and the like to existing infrastructure located in road reserves external to development sites such as Lot 66 (Ocean Drive, Bunbury).

3.7.3.5 Gas Reticulation

ATCO Gas policy is for all major external infrastructure upgrades to be fully funded by the developer. The following infrastructure upgrades are expected to be required for the development of the DSP area:

- The development of the subject site would require the addition of a delivery point meter.

3.7.4 DEVELOPER CONTRIBUTION ARRANGEMENTS

Based on the analysis provided above, and having regard to the principles ordinarily applied to developer contribution arrangements under applicable State level planning policy, the development contribution plan as set out in Table 8 sets out the obligations for the DSP area.

Figure 11 shows infrastructure upgrades as well as any required modifications to the proposed movement network.

If the development is to be staged the staging plan will be determined based on market conditions and economic viability of the development as permitted under the GSP and DSP.

Figure 11 - Infrastructure Upgrades to the Movement Network.



Table 8: Precinct Wide Developer Contribution Requirements (with those relevant to the subject site highlighted)

Upgrade	Responsibility	Road Frontage / Precinct	Existing Item Status	Proposed Item Status	Requirement	Mechanism
1	Developer Lot 497 Ocean Drive	Ocean Drive / Scott Street Central Precinct South	N/A	Public piazza (on Central Sub-precinct 2)	The public piazza is to be designed and developed at the total cost of the developer as a requirement of subdivision or development approval. All designs and works are to be to the satisfaction of the City and at completion the developer shall have on-going maintenance responsibility for a period of time to be agreed in conjunction with the City, following which the piazza will be gifted free of cost to the City.	Subdivision / Development Approval
2, 3, 4 and 5	Developers of all lots	Upper Esplanade All Precincts	2.5 metre wide shared path	3 metre wide shared path	Individual developers to construct the 3 metre path as a condition of development for their frontage prior to the site / development being occupied.	Condition of Development Approval
6	Developer Lot 76 Ocean Drive	Ocean Drive Northern Precinct	Un-signalised T-intersection with Scott Street	Left turn deceleration lane	Provide 3.5 metre wide and 80 metre long left turn deceleration lane in Ocean Drive southbound at time of substantive (more than 25% of frontage development in Northern Precinct fronting Ocean Drive).	Condition of Development Approval
7	Developer Lot 76 Ocean Drive	Ocean Drive Northern Precinct	N/A	1.5 metre wide pedestrian path	Provision of 1.5m metre wide pedestrian path linking precinct to existing bus stop (by connecting to path running adjacent to tennis courts).	Condition of Development Approval
8	Developer Lot 497 Ocean Drive	Scott Street Central Precinct South	2.5 metre wide shared path	4 metre wide shared path	Individual developers to construct the 4 metre wide shared path as a condition of development for their frontage prior to the site / development being occupied.	Condition of Development Approval
9	Developer Lot 66 Ocean Drive	Scott Street Central Precinct North	N/A	4 metre wide shared path	Individual developers to construct the 4 metre wide shared path as a condition of development for their frontage prior to the site / development being occupied.	Condition of Development Approval
10	Developer Lot 497 Ocean Drive and City of Bunbury	Scott Street Central Precinct South	Bore water reticulation treatment plant, shed, soak wells and stormwater drainage pipe	Satisfactory relocation	Bore and stormwater infrastructure repositioned to the satisfaction of the City if not relocated prior to development. Timing and responsibility subject to negotiations with the City.	Condition of Development Approval
11	Developers Lots 1 and 2 Ocean Drive	Baldock Street Southern Precinct	Two-lane undivided road with a 20 metre wide road reservation and 2 x 3.5 metres wide lanes.	2 x 3.0 metre wide lanes with potential on-street parking	Explore redesign and upgrade at time of development on immediately adjacent sites with on-street parking considered if appropriate. If no on-street can be accommodated then maintain existing cross section.	Condition of Development Approval

Upgrade	Responsibility	Road Frontage / Precinct	Existing Item Status	Proposed Item Status	Requirement	Mechanism
12	Developers Lots 1 and 2 Ocean Drive	Baldock Street Southern Precinct	2.5 metre wide shared path (south side)	2.5 metre wide shared path (both sides of the street)	Provide 2.5 metre wide shared path along entire lot frontage onto Baldock St (north side). Replace existing path (south side) if damaged during construction or if road geometry is modified at time of development on immediately adjacent sites.	Condition of Development Approval
13	Developers of Lot 1 and 2 Ocean Drive and others	Baldock Street Relevant to all precincts	Un-signalised T – intersection with Baldock Street	Right turn deceleration lane	Overall 50% contribution to a 3.5 metre wide and 80 metre long right turn deceleration lane in Ocean Drive northbound and associated realignment of pedestrian crossing for the whole Special Use Zone No.1 area. Of the 50% overall contribution, no more than 79% is to be apportioned to the Northern and Southern development precincts (2.78ha out of the total land area of 3.51ha across Special Use Zone No.1)	Condition of Development Approval
14	All developers	Ocean Drive All Precincts	N/A	5 metre wide pedestrian promenade	Promenade to be provided and subsequently maintained by the developer(s) in association with the 5 metre setback along the Ocean Drive frontage. Public access (easement) to be secured.	Condition of Development Approval

4. Subdivision and Development

4.1 City of Bunbury Town Planning Scheme No. 7

As discussed in Section 1 of this report, the DSP area has been rezoned SU1 through the recently finalised Amendment 66 to the City's TPS7. SU1 outlines the key elements that are specific to the special use zoning for the Back Beach Tourism Precinct and that are required to be addressed in the preparation of the required general structure plan and detailed structure plans for the area. In conjunction with the deemed provisions for local planning schemes contained in the *Planning and Development (Local Planning Scheme) Regulations 2015*, TPS7 provides the statutory mechanism for the preparation and approval of both the general structure plan and detailed structure plans. This DSP has been prepared in consultation with the City to ensure that all the requirements of SU1 have been suitably addressed.

4.2 Management Plans and Technical Reports

In accordance with the requirements of TPS7, a number of management plans and technical reports will be required at various stages in the planning process.

The following documents have been prepared to inform the preparation of the DSP and are included as technical appendices in Part 3.

- Appendix A – Environmental Assessment Report (Coterra Environment)
- Appendix B – Transport Impact Assessment (KC Traffic and Transport)
- Appendix C – Aboriginal Heritage Assessment (Amergin Consulting Australia Pty Ltd)

- Appendix D – Development Impact Statement (TPG) (new appendix)
- Appendix E – Stormwater Management Strategy (Coterra Environment)
- Appendix F – Infrastructure Servicing Report (KC Traffic and Transport)

In addition to GSP Clause 11.1, at the time of subdivision and/or prior to development, the following management plans are to be prepared to the satisfaction of the relevant authority.

- (i) Construction Environment Management Plan, including;
 - A suitable geotechnical assessment for the potential presence of karst onsite and other considered constraints;
 - Confirmation of Acid Sulfate Soil (ASS) risk once detailed design plans have been developed. If required on site testing/assessment to occur prior to ground disturbing activities or as part of the geotechnical assessment; and
 - If required, a trapping and relocation program for Quenda developed in consultation with the Department of Parks and Wildlife (DPAW). It should also be investigated if the Central Precinct (Lots 66 and 497) can be cleared together to ensure that monitoring and (if required) relocation can occur concurrently.
- (ii) Detailed Earthworks and Retaining Wall Plan; and
- (iii) Waste Management Plan.

The information outlined above shall be lodged with the relevant subdivision or development application, or to satisfy the requirements of subdivision or development.

4.3 Strata Management Arrangements

In accordance with the requirements of SU1 a Strata Management Statement is required to be applied to all strata arrangements within the subject site addressing the management of URA including tourist accommodation units to the satisfaction of the City and WAPC.

The Strata Management Statement is required to be prepared and submitted in accordance with Section 5C of the *Strata Titles Act 1985*, to establish a Schedule 1 by-law that requires as a minimum the establishment of a unit management agreement, lease or alternative arrangement between each owner of a tourist unit and / or URA dwelling, or the owners collectively, and a common facility manager / operator to provide for common on site management of all such units.

The management agreement, lease or alternative arrangement shall cover but not be limited to:

- (i) Reception arrangements (tourist unit/URA);
- (ii) General rental/leasing arrangements and specific management arrangements to govern the relationship and operation between permanent occupation of units and the short-stay use of units as provided for in the URA land use;
- (iii) Security (tourist unit/URA);
- (iv) Maintenance (tourist unit only);
- (v) Caretaking (tourist unit only);
- (vi) Refurbishment (tourist unit only);
- (vii) Marketing (tourist unit only);
- (viii) Care and maintenance of drainage infrastructure in drainage attenuation areas (tourist unit/URA); and
- (ix) Other services required for the development to operate as a tourist facility.

4.4 Subdivision

Following the approval of the DSP by the City and WAPC, a subdivision application(s) may be lodged for consideration and determination by the WAPC, on advice of the City and other relevant referral agencies. The subdivision application(s) will identify proposed lot boundaries and will facilitate the creation of the proposed development sites. The landowner may then release these lots to the market for purchase and delivery of the built form by a developer.

4.5 Design Guidelines

The GSP and DSP establishes the development parameters that apply to the proposed development site and specifies the key built form criteria that are to be achieved at the development and construction stage. In addition to the requirements of the GSP and DSP, the landowners may, in consultation with the City, prepare architectural design guidelines to guide and control the built form outcomes for the development site. These design guidelines would address more style-based elements of the built form, such as preferred architectural character and building materials and colours. Where design guidelines are prepared for the subject site, the landowners would implement the requirements via its sales contract with purchasers.

4.6 Development Applications

Development applications will be prepared for future development on the subject site. The development applications will provide detail regarding any proposed development, including the provision of parking, the proposed architectural form and compliance with the applicable standards and requirements of Part 1 – Statutory Planning Section of both the GSP and DSP for the relevant site.

For any proposed development with a construction value of \$10 million, a Joint Development Assessment Panel (JDAP), with the advice of the City, will make determination of a development application. A proponent may elect to have a development application determined by the JDAP where the value of the development is more than \$2 million and less than \$10 million. Where development is proposed with a construction cost less than \$2 million, a development application will be assessed and determination issued by the City.