GERALDTON AIRPORT TECHNOLOGY PARK STRUCTURE PLAN

14 January 2013

Modification 1 – March 2015



CERTIFIED THAT THIS STRUCTURE PLAN WAS ADOPTED BY RESOLUTION OF THE WESTERN AUSTRALIAN PLANNING COMMISSION ON

Date

Signed for and on behalf of the Western Australian Planning Commission

an officer of the Commission duly authorised by the Commission pursuant to Section 24 of the Planning and Development Act 2005 for that purpose, in the presence of:

Witness

M. Wieclan 16 June 2015

Date

And by Resolution of the Council of the City of Greater Geraldton on:

24.03.2015

Date

And Pursuant to the Council's Resolution the Common Seal was hereunto affixed in the presence of:



Darpontes

Mayor, City of Greater Geraldton

A/Chief Executive Officer, City of Greater Geraldton

31-03-2015 Date

This Structure Plan is prepared under the provisions of the City of Greater Geraldton Local Planning Scheme No. 5 (Greenough)

Table of Modifications to Structure Plan Map

Modification No.	Description of Modification	Date Endorsed by Council	Date Endorsed by WAPC
Image area and Depot Site identified. 1 Structure Plan area and Road layout 2 amended. 2		24 th March 2015	

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GERALDTON AIRPORT TECHNOLOGY PARK STRUCTURE PLAN

I.0 Introduction

I.I Purpose and Format

This report has been prepared in support of the Geraldton Airport Technology Park Structure Plan on Gordon Garratt Drive, Moonyoonooka (herein referred to as the Structure Plan). The Structure Plan has been prepared taking into account the existing planning framework, noise and height limitations associated with the Airport, on site heritage issues, drainage and the need to provide a robust framework for land uses appropriate to this strategic site.

The purpose of the Structure Plan is to establish a spatial planning framework for the Geraldton Airport covering the nonoperational Technology Park.

The Structure Plan will provide a strategic basis for land use planning decisions within the Geraldton Airport Technology Park over the next 10 to 15 years, and will assist the City and the Western Australian Planning Commission in assessing subdivision applications, ground leases and development proposals.

It is envisaged that new development at the Geraldton Airport will form part of a sophisticated technology park that supports a strategic aviation hub and provides a range of aviation and non aviation services and employment opportunities to the Greater Geraldton area and beyond.

I.2 Aim

The aim of this Structure Plan is to provide direction for future planning and development of the Geraldton Airport Technology Park, taking into account:

- » the existing planning framework that applies to the area;
- » buffers and height limitations;
- » the need for additional land; and
- » compatibility with the operational parts of the Airport.

2.0 Structure Plan Area

The subject site is located in the City of Greater Geraldton, approximately 12km east of the Geraldton City Centre (refer Figure 1). The site is bounded by Geraldton Mt Magnet Road, Gordon Garratt Drive, Deepdale Road and Arthur Road which are sealed roads. These roads are also gazetted roads, with the exception of Gordon Garratt Road, which is the primary access to the Airport, but is not a gazetted road. Refer Figure 2.

The Structure Plan is confined to the non-operational areas of the Geraldton Airport contained on Lots 200, 363, 1613 and 101.

The Structure Plan area comprises approximately 65.8 hectares of land generally west of the Airport and Gordon Garratt Drive with a small 1.462 hectare portion lying to the east of Gordon Garratt Drive. The land forms part of the wider 531 hectares owned by the City of Greater Geraldton as part of the Geraldton Airport land holding.

The Narngulu industrial estate lies to the south west of the subject site and comprises a range of industrial uses together with the Narngulu Waste Water Treatment Plant and Waste Disposal site for the City.

The City of Greater Geraldton Depot is currently located on a portion of the subject site to the west of Gordon Garratt Drive with the remainder predominantly used for cropping.

The Structure Plan design and layout for the Technology Park precinct also takes into account:

- » the interface with the operation area of the Geraldton Airport;
- » adjoining privately owned lots, including the CBH facility;
- » the Narngulu Industrial Estate; and
- » the planning policy framework, including the City of Greater Geraldton Local Planning Scheme No. 5.

2.1 Road Network

The Structure Plan has four main roads on the perimeter of the subject site being Geraldton Mt Magnet Road, Gordon Garratt Drive, Deepdale Road and Arthur Road.

A simple and permeable road network has been provided which can accommodate any future interconnected pedestrian and cycle network. The Structure Plan road network and layout has been designed to maximise ground level legibility by conforming to a modified grid pattern. Street blocks aim to maintain relatively continuous and consistent street frontage for safe, efficient circulation of vehicles. This is largely consistent with the Geraldton Airport Master Plan 2030 and the general framework of the Narngulu Industrial Area Strategic Land Use Directions Plan.

The Structure Plan proposes two new intersections to Deepdale Road and Arthur Road, linking through to Gordon Garratt Drive. This will enable better linkages into the long term development of the wider Narngulu industrial area. The road layout also accommodates existing lease hold arrangements off Gordon Garratt Drive, the proposed hotel site to the west of the main airport terminal building, the City of Greater Geraldton Depot Site and a proposed mining training site.

Geraldton Mt Magnet Road will provide some 'visibility' to some development, however this will not translate to a direct commercial frontage, as direct development access will not be permitted. It is anticipated that all development be accessed via internal roads, and not the existing peripheral roads (Geraldton Mt Magnet Road, Deepdale Road and Arthur Road).

Lot 105 Geraldton Mt Magnet Road can be connected through proposed internal Technology Park roads. The existing CBH facility has direct frontage to Deepdale Road and is not required to be integrated into the Technology Park precinct. A traffic impact assessment report will be done to inform development of the technology park.

2.2 Subdivision Pattern

Within technology parks, land area demands vary considerably from a typical minimum of 2000m² to 2-5 hectares. The Structure Plan depicts a road network capable of sustaining this variety of lot sizes that would reflect the preferred land uses for this Technology Park. The road network is sufficiently robust to provide the opportunity for a range of different lot sizes. It may be necessary to add roads or remove others should lot sizes vary significantly from those shown in the Structure Plan. Such modifications should be entertained provided they are consistent with overall objectives and demonstrate compatibility with the surrounding road structure.

The Structure Plan provides for an indicative lot layout comprising;

- » 4.27 hectares for the City of Greater Geraldton Depot Site;
- » 7.53 hectares for the proposed mining training site;
- » 1.44 hectares for the proposed motel site; and
- » In the order of 100 lots between 2000m² and 5.15 hectares.

The final arrangement of lot layout will be determined at the leasehold and/or subdivision stage.

2.3 Land Use Permissibility

A key consideration for the subject site is to ensure that the Structure Plan provides for a range of commercial land use types together with a variety of lot sizes, to ensure that development and employment opportunities are not limited in the Technology Park.

Whilst there is always a preference in State Government guidance to identify future intended land use categories it is still considered appropriate and desirable in regard to employment sites to ensure that the Structure Plan continues to focus on built form outcomes as opposed to just the specific classification of land use precincts. In this regard the Structure Plan makes specific reference to the Geraldton Airport Technology Park Design Guidelines (Design Guidelines) as this will be a key document in guiding future development within the site in terms of design and land use.

Preferred land uses for the site have not been specified in the Structure Plan. The preferred land uses shall be in accordance with the requirements of the Design Guidelines. In accordance with these Design Guidelines land uses that may be considered over the site include:

- » Aviation support;
- » Logistics, transport and distribution;
- » Commercial and passenger support activities;
- » Office/warehouse;
- » Mining support and administration;
- » Showroom/warehouse;
- » Vehicle, truck and equipment sales, servicing and hire; and
- » Other light industrial uses.

Discretion over what constitutes acceptable land uses will rest with the City of Greater Geraldton through the leasing of land and the planning approval process.

2.4 Urban Water Management

The structure of the street layout and drainage network has been designed to suit best practice urban water management and to promote the integration of stormwater management into the urban form.

Dedicated drainage areas will accommodate the drainage requirements to include the retention of 1:10 year stormwater runoff on-site.

2.5 Development Standards

2.5.1 Industrial Buffers

The future development should address all industrial buffer requirements through the application of sufficient setback distances from adjoining rural land and sensitive land uses. Development proposals will be required to demonstrate compliance with the setback requirements stipulated by WAPC's State Planning Policy 4.1 State Industrial Buffer Policy and the Environmental Protection Authority's Guidance Statement 3 – Separation Distances between Industrial and Sensitive Land Uses (EPA Guidance Statement 3).

EPA Guidance Statement 3 provides generic buffer requirements for a range of industrial land uses from 'sensitive' land uses (including residential areas), in order to minimise risk to public amenity, health and safety.

The Technology Park could potentially provide for a range of commercial and light industrial land uses, some of which are listed within EPA Guidance Statement 3 as requiring buffers ranging from 100 to 1000 metres.

2.5.2 Height Limitations

The airport's aerial contours or obstacle limitation surfaces must be protected from the infringement of structures and dwellings for the safe operation of aircraft at Geraldton Airport. Height restrictions must be adhered to, but are not considered to be a significant development impediment, provided that landowners are advised of and adhere to the development restrictions.

2.5.3 Unexploded Ordnance

The Geraldton Airport was used during WW2 by the Royal Australian Air Force (RAAF) as an operational airfield and flying training school. Since the conclusion of WW2, there has been a number of buried UXO found at the airport, particularly air side around the hangars and terminal buildings. Whilst most were identified as practice or "inert", an ammunition box containing "live" high explosive anti air-craft ammunition was unearthed at the site in the early 1970's. In this regard, no guarantee can be given that the area of the technology park is completely free from further UXO.

During development works or at any other time, a form or suspected form of UXO be located, FESA has advised that the known or suspected UXO must be treated as dangerous and the process recommended by FESA (refer Appendix 3) must be initiated.

2.6 Cultural Heritage

The Geraldton Airport is the site of RAAF No. 4 Service Flying Training School which operated under the Empire Air Training Scheme. The School was formed in 1941, and the Allied Works Council created a range of buildings to accommodate the training school, pilots, trainee pilots, observers, wireless air gunners, and aircraft support personnel.

The City's Municipal Inventory Place Record lists the site (reference 217), with management category 2, encouraging the owner to conserve the significance of the site by providing an interpretation of identified buildings associated with No 4 Service Flying Training School, and to prepare photographic records of place prior to any redevelopment.

The place is also associated with Sir Norman Brearley the founder of the first commercial airline in Australia (Western Australian Airways in 1921).

The Geraldton Airport Technology Park Design Guidelines address heritage issues and the Structure Plan shows the general location of the remaining remnants of WWII infrastructure (refer Appendix 2; Section 4 – Heritage).

Interpretation of the remnant historic archaeological remains is required as part of any proposed development within these areas and should be retained/incorporated where possible.

2.7 Operation and Implementation

It is envisaged that the Geraldton Airport Technology Park Structure Plan will provide a strategic basis for land use planning decisions within Structure Plan over the next 10 to 15 years, and will assist the City of Greater Geraldton and the Western Australian Planning Commission in assessing subdivision applications and development proposals. The Structure Plan is further designed to provide clarity to key stakeholders and business with respect to the strategic intentions of the City of Greater Geraldton.

The Structure Plan comes into operation once adopted by the City of Greater Geraldton and endorsed by the Western Australian Planning Commission.

3.0 Background Context

3.1 Geraldton Airport

Geraldton Airport is the major airport servicing the Greater Geraldton community and the Mid-West region. The Geraldton Airport Master Plan was updated in 2007 and has been adopted in principle by the City of Greater Geraldton at its Ordinary Council Meeting held September 2012 (refer to section 4.2.4 of this report). The Master Plan has been created to coincide with adoption of the Department of Transports State Aviation Strategy to be completed in 2012.

The State Aviation Strategy aims to support the economic and social development of Western Australia through the provision of safe, affordable, efficient and effective aviation services and infrastructure. The Strategy will provide a sound frame work for policy setting and future planning and investment in Western Australian international and domestic air services and airport infrastructure.

The Master Plan identified surplus airport land suitable for commercial development in the form of a technology park.

Proximity to the airport may provide some industries with a significant competitive advantage. Development in the proximity of the airport reserve needs to take into account compatibility with the airport operations.

The airport's aerial contours or obstacle limitation surfaces must be protected from the infringement of structures and dwellings for the safe operation of aircraft at Geraldton Airport. Height restrictions are not considered to be a significant development impediment, provided that landowners are advised of the development restrictions.

The City of Greater Geraldton Local Planning Strategy identifies an inner airport buffer and an area of influence. This buffer has been incorporated into the Local Planning Strategy along with measures to protect the integrity of the airport. It defines locations where residential land uses are not permitted, or where low density residential is permitted with special conditions. In the interim, there is a general presumption against supporting further rezoning and subdivision in the inner buffer area, which may lead to intensification of residential or other sensitive land uses.

The Geraldton Airport Technology Park is intended to have a strong identity characterised by intelligent and contemporary architectural design placed within a sensitively planted landscape setting. As a development of regional significance the Technology Park will present itself as a benchmark for new commercial development for the rest of the Mid West region.

In recognition of growing commercial benefits, community demand and City policy on environmental and social responsibility, new development at the Technology Park will be more sustainable than developments of the previous era. As such, buildings will be designed to be more energy and water efficient and constructed from materials requiring less toxins and energy in the manufacture and landscaping will be 'water wise'.

3.2 Site Context and Surrounding Land Uses

Geraldton has experienced rapid growth in recent years. To support the growth in this region, several major public infrastructure projects are in the planning stages. They include:

- » the proposed Geraldton North-South Highway;
- » the proposed Oakajee port, industrial area and railway alignment;
- » the proposed Oakajee Narngulu infrastructure corridor;
- » proposals for the expansion of Geraldton airport; and
- » power transmission networks.

3.2.1 Narngulu Industrial Estate

The Narngulu Industrial Area Strategic Land Use Directions (2010) outlines the future strategic land use directions for the Narngulu industrial estate. This regionally significant industrial estate is predominantly zoned general industry and rural. It also accommodates the Narngulu waste disposal site, the Narngulu wastewater treatment plant and the Greenough Regional Prison.

3.3 Regional Infrastructure

3.3.1 Regional Road and Rail Network

The Geraldton Region Plan and the Greater Geraldton Structure Plan outlined a proposed regional road network. This network has formed the basis for regional transport planning to date.

At present, Edward Road and the Geraldton southern transport corridor are the primary roads connecting Narngulu to the city, the airport and Geraldton port. Rudds Gully Road provides the major link to the south-west and to the Brand Highway. Goulds Road is a major internal distributor.

The alignment shown for the Oakajee-Narngulu infrastructure corridor is yet to be finalised. The infrastructure corridor may form part of a major outer bypass road with a link through the southern transport corridor, and the proposed Geraldton North-South Highway to the Brand Highway.

3.3.2 Geraldton Southern Transport Corridor

The Geraldton southern transport corridor is shown on the Greater Geraldton Structure Plan.

Stage I was completed in 2005 and included construction of the new direct rail link to the Geraldton port and the first section of highway from the Geraldton port to the North West Coastal Highway. Stage I also included work necessary to connect the corridor to the local road system.

Stage 2 extended the new highway from the North West Coastal Highway to Geraldton-Mount Magnet Road near the Geraldton Airport. This provided direct road access between the city, the port, the airport and the Narngulu industrial area. It incorporates provisions for intersections with the proposed Verita Road, the proposed Geraldton North-South Highway, Goulds Road and Edward Road.

3.3.3 Geraldton North-South Highway

The Geraldton Primary North-South Road Alignment Selection Study (2002) identified that the existing North-West Coastal Highway will become congested by 2020. The report recommended that a bypass route should be investigated. The proposed north-south road (or Brand Highway bypass) indicative alignment was shown on the Greater Geraldton Structure Plan. At that time, it was assumed that a staged development of this north-south road was to commence in the short to medium term.

This north-south road has since been realigned and renamed the Geraldton North-South Highway.

The Geraldton North-South Highway will improve the regional accessibility and visibility of this area.

3.3.4 Rail

The existing Narngulu rail marshalling yards on Edward Road is a significant rail infrastructure hub in the Mid-West region and is at the junction of services arriving from the south and east into Geraldton. It is used as a trip servicing and fuelling point for all train services operating in and around the Geraldton region, and as a staging point for services into the Geraldton port.

QR National Freight received approval in 2011 for a \$30 million dollar rail yard development in the localities of Narngulu and Moonyoonooka. The development is intended to provide a facility that can accommodate an increased rail freight capacity in

support of a number of major mining projects in the Mid-West region, and promote economic development within the City and region.

Projected growth in the region over the next 3 to 5 years will see train movements increase significantly. This growth will necessitate upgrades to the rail network and servicing yards in order to support higher axle load trains, with the capability of running longer and heavier trains.

Increased rail activity will create additional noise issues. It is likely that land near the rail corridor will be subject to additional noise and not suitable for land uses that require areas of high amenity, such as commercial and mixed business uses.

3.3.5 Oakajee-Narngulu Infrastructure Corridor

The proposed Oakajee-Narngulu infrastructure corridor is a 34 km transport and service corridor linking the Narngulu industrial estate, Airport and the future Oakajee industrial area and port. The corridor, as shown on the Greater Geraldton Structure Plan, includes provision for road, rail and services. The exact alignment of the Oakajee-Narngulu infrastructure corridor into the Narngulu industrial area is yet to be finalised.

3.3.6 Geraldton Port

The port of Geraldton is one of Australia's busiest regional ports and a gateway to the Mid-West region. More than half of the port's exports are generated from minerals and iron ore and it is Australia's second largest grain export port.

The Geraldton southern transport corridor provides a direct road and rail link between the Narngulu industrial area and the Geraldton port. Limited storage space at the port may lead to proposals for a range of storage requirements in and around the Narngulu industrial area. The environmental and amenity impacts of these proposals will need to be considered and managed appropriately.

4.0 Planning Framework

4.1 Local Planning

4.1.1 Local Planning Scheme No. 5

The City of Greater Geraldton Local Planning Scheme No. 5 (LPS No. 5) was gazetted in April 2010. LPS 5 provides the framework for dealing with growth and development in the Greater Geraldton area.

Under the provisions of LPS No. 5 the subject is classified a Local Scheme Reserve 'Public Purpose - Airport'.

Part 3 of the LPS 5 refers to Reserves and states that in regard to the use and development of Local Reserves that:

- "3.4.1 A person must not;
 - (a) Use a Local Reserve; or
 - (b) Commence or carry out development on a Local Reserve, without first having obtained planning approval under Part 9 of the Scheme."

Section 10.2 of TPS 5 sets out those matters to be considered by Local Government in the determination of any land use or development proposal. In regard to Local Reserves it states that: "In the case of land reserved under the Scheme, the ultimate purpose intended for the reserve" must be duly considered, which in this case is Airport.

There is no requirement under the TPS No. 5 for a Structure Plan over the subject site but given the scale of the site a Structure Plan is considered appropriate to guide both development and subdivision over the site.

4.1.2 Geraldton Airport Technology Park Design Guidelines

The Geraldton Airport Technology Park Design Guidelines (2010) were adopted by the City as a Local Planning Policy pursuant to LPS No. 5 (refer Appendix 2).

The Structure Plan will be read in conjunction with the Guidelines and provide direction in terms of the physical development of the Technology Park area and an overview of the entire site and how it relates to its immediate surroundings to help ensure continuity of design in terms of the layout of roads, access, landscaping and drainage.

These Guidelines provide clear objectives for both planning and design of the Geraldton Airport Technology Park and address issues such as preferred land use, heritage, building design, development control matters (such as setbacks, development height limitations, storage, fencing, lighting, drainage and signage) vehicle parking, landscaping, public art, signage and the connection to service infrastructure.

Guidelines will be used to guide the development approval process for new buildings within the Geraldton Airport Technology Park in conjunction with LPS No. 5.

4.1.3 Geraldton Airport Buffer Local Planning Policy

The Geraldton Airport Buffer Local Planning Policy 2011 (GABLPP) aims to provide a series of broad guidelines for the control of development within a defined Airport Buffer.

The purpose of defining an Airport Buffer is to control future land use and development to retain the integrity of the Airport and allow present levels of service and operation to be maintained and improved into the future as the Region expands. The GABLPP attempts to define a practical buffer around the Airport to ensure that compatible land uses can be achieved in close proximity to the Airport that will not compromise the continued use of the Airport.

The GABLPP provides standards for general construction criteria, planning approval conditions and specific construction criteria in relation to residential, commercial and industrial development.

Areas to the north and east of the Structure Plan area fall within N70 noise contour. The proposed land uses associated with the Technology Park could be accommodated within this Airport Buffer. The Structure Plan will be read in conjunction with the requirements of GABLPP.

Refer Figure 3 – Geraldton Airport Buffer LPP – Commercial and Industrial Development Buffer.

4.2 Strategic / Regional Planning

4.2.1 Geraldton Region Plan

The Geraldton Region Plan (1999) provides a strategic planning framework for the Greater Geraldton area.

The Plan identified a series of industrial area objectives which given the close proximity of the subject site has some bearing on the objectives of the Structure Plan. The objectives are:

- » To recognise that airport requirements, including obstacle height limitations, will take precedence over general or light industrial rezoning.
- » To protect the integrity of the Narngulu industrial estate with appropriate buffers.
- » To prevent residential and incompatible uses in industrial buffers.

In specific reference to the Geraldton Airport, the Plan states:

"The Geraldton Airport is strategically situated to serve the needs of Greater Geraldton for the foreseeable future. Appropriate planning of the existing and proposed industrial areas nearby will ensure compatible uses are adjacent to the airport, enabling its continued operation and future development. The Shire of Greenough has completed an airport master plan which will provide the opportunity for further expansion of the facility."

Of particular relevance to the subject site is that the Structure Plan establishes the primacy of the Airport and that other development proposals are assessed to "...ensure that development proposals comply with airport requirements, including obstacle height limitations."

Given the Structure Plan is immediately adjacent to the airport there is an inherent need to protect the operations of the airport.

4.2.2 Greater Geraldton Structure Plan

The Greater Geraldton Structure Plan was originally a component of the Geraldton Region Plan and provides the spatial framework for coordinating development in the greater Geraldton area. It was anticipated that this structure plan would:

- provide the basis for a regional planning scheme;
- provide a guide for consideration of scheme amendments; and
- form a basis on which service agencies could plan their future infrastructure requirements.

The Greater Geraldton Structure Plan was updated in 2011. It also includes the Geraldton Airport inner buffer (refer Figure 6).

4.2.3 Local Planning Strategy

The City of Greater Geraldton Local Planning Strategy (2008) aims to identify long term planning strategies for key issues affecting the City of Greater Geraldton including urban expansion, community, agriculture, raw materials, existing and possible industry sites; and notional commercial and infrastructure sites.

The Local Planning Strategy map identifies the Narngulu industrial estate buffer, the wastewater treatment plant buffer, the Geraldton Airport inner buffer area and the Geraldton Airport area of influence.

In regards to the Airport the Strategy states:

"The Geraldton Airport is strategically situated to serve the needs of Greater Geraldton for the foreseeable future. Appropriate planning around the airport will ensure compatible uses are located adjacent to the airport, enabling its continued operation and future development."

The Local Planning Strategy recognises the Airport as major infrastructure and in regards to development in the vicinity of the Airport states:

"It is recommended that detailed planning be undertaken to investigate land development opportunities around the airport in the context of the wider area of Geraldton-Greenough. Any assessment would be required to demonstrate that proposals would be required to:

- 1. Maintain the strategic integrity of the Airport for long term use as a Regional Airport;
- 2. Be compatible with the operations of the Airport;
- 3. Consider matters such as land use, zoning, road hierarchy and access issues, landscaping buffer areas, height limitations as stipulated by the Obstacle Height Limitation Surface, and service requirements; and
- 4. Include specific guidelines for lot layout, building and height control within the area."

4.2.4 Geraldton Airport Master Plan 2030

The Geraldton Airport Master Plan 2030 (draft 2011) was given in principle endorsement by Council in September 2012 and presents a development statement on the medium to long term needs for the airport. The Master Plan provides a planning framework for future development to enable long-term operational objectives to be met.

Section 12.10 of the Mater Plan identifies that in regard to the subject site that it could potentially cater for an 'Airport Technology Park'. The broad concept plan identifies potential land uses as being:

- » Aviation support;
- » Information, communications and technology;
- » Logistics;
- » Transport and distribution;
- » Office;
- » Professional services;
- » Non bulk warehousing;
- » Light industrial area;
- » Mining support and administration;
- » Light equipment sales servicing and hire;
- » Commercial development (food supply, light retail) to support the work force resident in the technology park.

The Master Plan also makes reference to the Geraldton Airport Technology Park Design Guidelines that provide clear planning and development objectives in relation to the proposed technology park.

Other operational aspects relating to the Geraldton Airport are comprehensively addressed. In addition to the land use implications of development within the identified ANEF contours, the Master Plan addressed the Obstacle Limitation Surfaces plan required by CASA (refer Figure **8**).

Commonwealth legislation – the Airports (Protection of Airspace) Regulations 1996 (Airspace Protection Regulations), CASR, the Civil Aviation (Buildings Control) Regulations 1988 and CASA's Manual of Standards Part 139 – identifies the need for consistency with internationally agreed criteria for protecting the low level airspace up to 15km radius around all civil aerodromes from tall buildings and other structures, smoke (or other particulate matter) and plumes. Airports require airspace in their vicinity to allow for aircraft landing, take-off or manoeuvring operations to be undertaken safely and efficiently.

In regard to Geraldton, Section 8.1 of the Master Plan states;

"Obstacles may cause operational penalties, such as an increase in the Lowest Safe Altitude (LSALT) for aircraft, which can have a profound effect when visual conditions from airport datum to LSALT are poor.

If structures are to be sanctioned by the City within the area of the OLS they must be first assessed by the Airport Manager under the airport's Safety Management System as there are aspects of operational limitation and, in instances where obstacles protrude through the OLS, potential requirements for marking and lighting. CASA requires all structures of proposed overall height of 110m above local ground level or greater regardless of location within the OLS to be referred to the Regulator for approval.

Planning controls to manage the height to which building of new structures around the airport can occur should encompass the full extent of the OLS surfaces for ultimate development as depicted by the plans.

In particular, planning controls should embrace the following requirements:

- Obstacles should never be permitted to penetrate or extend above the approach/take-off surfaces.
- Any structure of proposed overall height of 110m above local ground level or higher regardless of location within the OLS area must be referred to CASA for approval.

• Within the OLS area, no structures that protrude above the OLS surfaces should be sanctioned for development by the City unless first assessed and formally endorsed as being acceptable by the Airport Manager in accordance with processes under the Geraldton Airport Safety Management System."

4.2.5 Narngulu Area Strategic Land Use Directions

The Narngulu Industrial Area Strategic Land Use Directions (2010) outlines the future strategic land use directions for the Narngulu industrial estate (refer Figure 9). The report is intended to help guide structure plans and outline development plans, amendments, subdivision and future development in and around the Narngulu industrial area.

The strategic land use directions plan identifies a series of Precincts (A-D) that border the Narngulu Industrial Estate. The Industrial estate is predominantly zoned general industry and rural. It also accommodates the Narngulu waste disposal site, the Narngulu wastewater treatment plant and the Greenough Regional Prison.

Precinct C abuts the subject and is bordered by Edward Road, the southern transport corridor and the airport reserve.

Strategic land use directions for Precinct C include:

- » Land in this precinct is suitable for general and light industrial uses.
- » Interface issues with the airport reserve and technology park are acknowledged and addressed.
- » Development and subdivision surrounding the proposed Oakajee-Narngulu infrastructure corridor should not be supported until decisions in relation to the corridor are finalised. Once the infrastructure corridor is finalised the future use of adjacent land can be determined.
- » Noise modelling should be updated for consideration and determination of development proposals, scheme amendments and subdivisions. In the interim a conservative approach should be applied to the consideration of proposals in the 38 dB noise contour until noise modelling is updated.
- » Potentially significant emissions, such as odour, should be taken into account in the consideration of land use proposals.
- » Local structure planning should be used to guide local scheme amendments, subdivision and development in the Narngulu industrial area.
- » The recognition of, and management of, water resources and drainage issues is an important consideration and needs to occur as part of local structure planning for the area. Any proposed local structure plan or outline development plan must address environmental issues and be supported by an appropriate level of water resource management and drainage information, as outlined in the Better Urban Water Management framework.

4.3 Planning Framework Summary

The Structure Plan takes into account the existing applicable planning and environmental framework for the proposed technology park. The long term viability of the Airport will be protected from unsuitable development, whilst the Structure Plan and Development Guidelines encourage land uses that are appropriate to this unique location adjacent to an important regional airport and industrial area.

The Structure Plan provides for around 65.8 hectares of land available for employment activities.

Consideration has been given to the noise, height limitations and land use implications of being adjacent to the Airport, as well as the potential need to consider buffers to new development.

The internal road design is simple and legible, as required for a development of this type. Similarly access onto the regional road network is limited, so as to ensure that road safety, and the service standards of these roads is maintained. Provision has also been made for future expansion and integration of the internal road network into adjoining land.

It is recognised that the Structure Plan will be read together with a range of other planning instruments such as:

- » Local Planning Scheme No. 5
- » Geraldton Airport Technology Park Design Guidelines
- » Heritage Conservation and Development Local Planning Policy
- » Geraldton Airport Buffer Local Planning Policy
- » Geraldton Airport Master Plan 2030



FIGURE I REGIONAL CONTEXT







FIGURE 3 GERALDTON AIRPORT INNER AREA BUFFER



FIGURE 4 GREATER GERALDTON STRUCTURE PLAN 2011



FIGURE 5 NARNGULU INDUSTRIAL AREA STRATEGIC LAND USE PLAN

APPENDIX I GERALDTON AIRPORT TECHNOLOGY PARK STRUCTURE PLAN





Structure Plan produced by the City of Greater Geraldton

LEGEND Structure Plan Area

Heritage Infrastructure Remains

EPA Recommended Separation Distance for Sensitive Land Users

Geraldton Airport Technology Park Structure Plan

AREA OF STRUCTURE PLAN: 76.8068 ha

Scale:	1:5,000 (A3	3)	Revisior	n: 1A		
Date:	18-Mar-15	Drawn:	RJT	Page:	1	

Proposed Lots
 Potential Future Lots

APPENDIX 2 GERALDTON AIRPORT TECHNOLOGY PARK DESIGN GUIDELINES



Geraldton Airport Technology Park Design Guidelines

(July 2010)

Adopted by Council on 27th July 2010





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1 INTRODUCTION

It is envisaged that new development at the Geraldton Airport will form part of a sophisticated technology park that supports a strategic aviation hub and provides a range of aviation and non aviation services and employment opportunities to the Geraldton-Greenough area and beyond.

The Geraldton Airport Technology Park will have a strong identity characterised by intelligent and contemporary architectural design placed within a sensitively planted landscape setting. As a development of regional significance the Technology Park will present itself as a benchmark for new commercial development for the rest of the Mid West region.

In recognition of growing community awareness of environmental responsibility, new development at the Technology Park will be more sustainable than developments of the previous era. As such, buildings will be designed to be more energy and water efficient and constructed from materials requiring less energy in the manufacture; landscape will be "water wise"; places will be established for social interaction; and opportunities will be created to encourage walking, cycling and the use of public transport as an alternative to using private cars.

The Technology Park is located close to the airport's aviation operational movement area and certain building and operational height and lighting restrictions may apply to buildings planned to be constructed and operated from a site in the Park. Proponents must take this into account prior to committing to being located in the Technology Park.

The planning of the Technology Park is guided by the Geraldton Airport Master Plan 2007.

2 OBJECTIVES

These design guidelines encourage proponents to produce environmentally sensitive contemporary buildings of a high design quality that will add to the corporate image of the tenant and to the overall vision of the Geraldton Airport as a premier commercial address. The objectives for development within the Technology Park are:

Environmental

- To reduce energy and water consumption, and to reuse water, whenever feasible.
- To reduce waste going to landfill by encouraging recycling.
- To reduce the energy requirement of construction by selecting appropriate construction materials.
- To reduce private car use and encourage the use of public transport and pedestrian and bicycle movement.
- To incorporate endemic local vegetation species in the landscape theme.

<u>Social</u>

- To encourage a healthy and active working environment that promotes physical and mental well being.
- To create a place that promotes the development of social capital where occupants of the development can interact with each other.
- To minimise potential amenity impacts from surrounding industrial, transport and aviation activities on future occupants.

<u>Economic</u>

- To foster and sustain a high level of innovation, economic activity and create significant employment opportunities.
- To provide a suitable location for a wide range of different commercial activities that complements and do not compromise the functionality of the Geraldton Airport.
- To support the growth of new and existing aviation activities.
- To create an appropriate commercial return for the landowners that will, in turn, assist in sustaining aviation and other commercial uses at the Technology Park.

3 PREFERRED LAND USES

A wide range of different commercial land uses are promoted for the Technology Park, however land uses and/or development must not adversely affect the Airport's capacity to function and grow as a strategic infrastructure element.

Land uses that may be considered are:

- Aviation support.
- Logistics, Transport and Distribution.
- Commercial and passenger support activities.
- Office/Warehouse.
- Mining support and administration.
- Showroom/Warehouse.
- Vehicle, Truck and Equipment Sales, Servicing and Hire.
- Other light industrial uses.

Other uses may be considered but they must be consistent with the objectives of these design guidelines and they must add value to the estate.

4 HERITAGE

The Geraldton Airport has been identified as having cultural heritage significance. It is the site of RAAF No. 4 Service Flying Training School which operated under the Empire Air Training Scheme. The place played a significant role in the training and provision of aircrew to bolster the strength of the Royal Air Force during World War Two. The place is associated with Sir Norman Brearley the founder of the first commercial airline in Australia (Western Australian Airways in 1921).

The place is classified by the National Trust of Australia (Western Australia). The conservation recommendations contained in the Classification Assessment state that the remaining WWII infrastructure located at various places on the airfield should be documented, conserved and interpreted. The place is also included in the Shire of Greenough Municipal Inventory of Heritage Places (Place No. 217) wherein it has been allocated a Management Category 2 indicating the place is highly significant at a local level with a high level of protection appropriate.

The attached plan shows the general location of the remaining WWII infrastructure within the design guidelines area. Conservation and interpretation of the remnant historic infrastructure, including archaeological remains, is required as part of any proposed development within these areas and should be retained where possible.

Further reference should be made to the following:

- City of Geraldton-Greenough Municipal Inventory (place 217).
- National Trust assessment and statement of significance on the Geraldton Airport.
- D.J Brenkley's reference book RAAF Historical Record of No. 4 Service Flying Training School Geraldton WA (available from the City of Geraldton-Greenough Regional Library).



5 DEVELOPMENT APPROVAL

All construction works require the Planning approval of the local government including:

- Any new building.
- External alterations and extensions to a building.
- A change of development use.
- Fencing to boundaries within the front setback area or addressing the secondary street.
- Signage.

Planning approval is the first stage to achieving a Building Licence. When granted, a Planning Consent is the approval of the development/land use concept – it is not a building licence for which a separate application must be made.

An application for Planning Approval must include the information as prescribed in the Town Planning Scheme. A fee as prescribed by the Town Planning Services Fees is required to be paid.

6 BUILDING DESIGN & CRITERIA

The City of Geraldton-Greenough is committed to environmental sustainability and as such will give preference to developers who demonstrate their commitment to the design and implementation of sustainable building technology, including minimisation of building waste, recycling, energy and water efficiencies and improved environmental outcomes. As a minimum, design criteria for all buildings are to conform to the energy efficiency requirements of the Building Code of Australia.

6.1 Environmentally Sustainable Design

The consideration of sound environmental design parameters can significantly reduce everyday running costs of buildings without significant additional building costs. Building envelopes and internal layouts should be designed to minimise energy consumed for heating, cooling and light where:

- Window design and shading facilitates good thermal and daytime performance.
- Building materials and insulation minimise the thermal transfer.
- Building materials and energy sources are selected to minimise energy requirements and greenhouse gas emissions.

Building services shall be designed to minimise energy and resource use through:

- Maximising the use of natural light and ventilation.
- Selection of energy efficient lighting control systems, fittings and appliances.
- Design for the use and management of natural ventilation.
- Utilise energy efficient mechanical ventilation and air-conditioning equipment and controls.
- Minimise water use via water efficient fixtures and fittings and maximise water re-use and recycling where possible.
- Minimise waste through product and material choice and recycling and re-use of materials if possible.

It is mandatory that all toilets within any development are connected to a rainwater tank with a minimum capacity of 10,000 litres.



6.2 Architectural Character

The following principles will form part of the assessment of any new development:

- Contribution to streetscape.
- Buildings should be sited to take advantage of views, provide a positive presentation to road and to provide a strong corporate image and an inviting entrance.
- The main entrance to the building is to be clearly visible or close to the front of the building.
- Generally, architectural form and character should avoid large unrelieved expanses of wall or roof.
- Where more than one building is planned for a site, the design should result in the creation of a group of integrated buildings clearly expressing their inter-relationship.
- Massing and building form should be of a contemporary nature, based on simple bold and strong forms using the selection of various materials, texture and colour to highlight the design, develop the corporate image within the overall design vision of the precinct.

6.3 Materials, Colours and Finishes

The use of texture and colour should reflect adjoining and existing developments. In general neutral shades of grey's, creams and whites are encouraged for the major areas of walling with features expressed in panels of strong, bold corporate colours with integrated signage.

Roof cladding should be non reflective. Zincalume or similar finishes should not be approved. All plant and equipment should be hidden from view from public areas including public roads.

Any screening should be designed as an integral part of the building form and character. Any plant required to be roof mounted will require special screening or design treatments. The presentation of the roof is an important part of the total design.

6.4 Building Setbacks

Building setbacks shall be as set out below and should respect and enhance:

- The general (and desired) streetscape.
- Adjoining properties and buildings.
- Prevailing winds.
- Existing verge and neighbouring landscaping.
- Visual impact of the proposed building on existing developments.

Setback areas may be used for landscaping and car parking.

The following setbacks are the minimum considered and the City may, at its sole discretion, allow minor variations or averaging to these setbacks where it can be demonstrated that the relief allowed will provide sufficient benefit to the overall streetscape.

Front Boundary – Primary Streets

- Buildings shall be setback a minimum of 10m from the front boundary for lots less than 2,000m².
- Buildings shall be setback a minimum of 15m from the front boundary for lots of 2,000m² or greater.

Secondary Streets

The City reserves the right to nominate the street that will be deemed the secondary street. Setbacks are required to be:

- Buildings shall be setback a minimum of 5m from the secondary street for lots less than 2,000m².
- Buildings shall be setback a minimum of 7.5m from the secondary street for lots of 2,000m² or greater.

6.5 Car Parking Requirements and Vehicular Movements

The design of car parking and vehicular maneuvering areas should address:

- The separation of car parking from truck manoeuvring and service areas.
- Safe pedestrian access.
- Limited and practical crossover placement.
- Access and car parking design and function shall conform to the relevant Australian Standards.
- The number of car bays should comply with the requirements of the Town Planning Scheme.

6.6 External Service and Storage Areas

Service, storage and bin areas shall be set behind the approved building line and be screened from public view. Landscaping and/or approved fencing can be used to achieve visual screening and should be planned as an extension of the design of the building.

6.7 Boundary Fencing

Boundary fencing will be considered as part of the total design of any development. A high quality of fence is required for all street frontages.

It is acknowledged that site security is important. Proponents are encouraged to consider a range of security deterrents including effective lighting, landscaping, natural surveillance and building orientation to achieve the required protection.

All street frontages should be designed to restrict fencing to the major building line (ie. where the major structure commences, not necessarily the first line of building but the larger structure).

Fencing alignments will be assessed with due consideration to the impact on adjoining properties and the aesthetic balance of the general streetscape. The minimum accepted standard of fencing is:

- Street frontage to be black palisade metal with black support members and gates.
- Side and rear boundaries (with no street frontage) – to be link mesh or alternative finishes subject to the City's approval.

6.8 Lighting

Lighting restrictions may apply to ensure the safe operation of aircraft. Generally no lighting is permitted above the horizontal.

6.9 Stormwater Catchment and Control

Water Sensitive Urban Design strategies should be applied to on-site stormwater management. Stormwater resulting from up to the 1 in 10 year storm occurrence must be retained on-site.

The use of drainage swales and recharge basins can be incorporated in the on-site landscape areas. Rainwater tanks for storage and re-use on-site are encouraged.

No polluted or contaminated stormwater may leave any site. Where necessary pollution control equipment such as oil and grit traps and gross pollution traps shall be installed, certified and properly serviced and maintained.



6.10 Landscaping

The City considers the installation of quality landscaping as a major priority fundamental to the success of the overall estate.

Plant selection should consist predominantly of endemic species and be selected to minimise the attraction of birds to the Airport. Lawn areas shall be minimised and be low water tolerant.

10% of the total site area shall be dedicated to landscaping and where possible this should incorporate stormwater run-off from roofs and hardstand areas. The City may, at its sole discretion, allow a reduction in the total landscaping area requirement providing the developer can demonstrate that the lesser landscaped area is outweighed by a superior landscape resolve.

Shade trees should be incorporated as 1 tree per 10 car parking bays provided on the site. All trees shall have low flow trickle reticulation system and where possible utilise grey water from within the development.

6.11 Signage and External Display

The City is developing a premium commercial development area and a consistent approach should be undertaken for all street, tenant and directional signage. The overall aim is to meet the signage visibility needs of all tenants while maximising and standardising the design aesthetics of the precinct.

Building Signage

Building signage should contain the business name and/or corporate logo.

Only 1 tenant sign per building is permitted except for buildings with more that one street frontage where an additional sign may be permitted at the sole discretion of the City.

No building sign shall be larger that 20% of the total area of the wall onto which it is placed.

Signs must be built and maintained to a high standard, with 3 dimensional approach preferred (rather than a flat sign) and laser cut raised lettering is encouraged.

All building signs should be integrated into the overall building design.

All building signage facing streets should be illuminated continuously each night (either face lit or internally lit) to enhance the overall presentation of the area and help support security.

No advertising or promotional signs should be placed on buildings at any time.

Street Signage

Only street names will appear on street signage and no tenant names or additional directions will be permitted on street signs.

Other Site Signage

Apart from signage on buildings, the only other signage permitted must relate to provided services/facilities (eg. water, power), perimeter requirements (eg. 'Electric Fence') and mandated OH&S requirements (eg. standardised warning signs).

The only signs to be used in car parks are those for vehicle/pedestrian directions.

No promotional or advertising signage of any type is to be erected on any site

6.12 Height

The airport's Obstacle Limitation Surfaces (OLS's) must be protected from the infringement of structures for the safe operation of the airport. The OLS dictates the height of developments at differing distances from the airport taking into account the existing contours in order that the approach and departure angles of aircraft are not jeopardised.



6.13 Public Art

The City recognises the importance of encouraging appreciation and understanding of art. Artworks can not only be enjoyed for their aesthetic qualities but are also important for their ability to provide wider and more complex 'pictures' of the society from which they develop.

Developments over the value of \$2 Million will be required to provide public art within a public space to a value of 1% of the estimated total project cost for the development.



7 SITE SERVICES

The services outlined are the standard level provided by the City to each site. Proponents are requested to outline any special service requirements at the earliest stage in the development process to allow for any additional requirements.

7.1 Power

Each site is provided with low voltage (415 amp 3 phase) power to a maximum of 150Kva (ADMD) per hectare of site area to the front boundary. Proponents requiring greater than this amount must advise the City of their needs prior to committing to a lease.

7.2 Water

Each site is provided with one metered connection for domestic and fire requirements. Each site will have one property connection to a 150mm water main. Provision of the water meter is the responsibility of the proponent.

7.3 Drainage

Developments must include the retention of 1:10 year storm occurrence on-site.

Collection and disposal of all pollutants produced within any site will be the responsibility of the proponent.

7.4 Effluent Disposal

Effluent will need to be disposed of on-site.

8 LEASE GUIDE PLAN

Subdivisional leases should generally be in accordance with a Lease Guide Plan as adopted by Council.





GENERAL LOCATIONS OF REMAINING WWII INFRASTRUCTURE (refer to the National Trusts List of Classified Heritage Places)

Operator:	RJT
Department:	IPD
Drawing No:	
Date: 19/07/10	Scale: 1:2000





Geraldton Airport Technology Park Lease Guide Plan **CITY OF GERALDTON - GREENOUGH**

Adopted by Council on 13th April 2010

Operator:	
Department:	
Drawing No:	
Date: 23/03/10	Scale: 1:3000

APPENDIX 3 FESA – UNEXPLODED ORDNANCE ADVICE



Government of Western Australia Fire & Emergency Services Authority



Ref: PM/4/0015

Unexploded Ordnance

GERALDTON AIRPORT TECHNOLOGY PARK

ADVICE TO APPLICANT

The Fire and Emergency Services Authority of Western Australia (FESA) advises that historical research has revealed that during WWII, former elements of the Australian Defence Forces conducted training and operational activities on the area of proposed Geraldton Airport Technology Park. As a result of these activities, there is a slight possibility that the area may contain unexploded ordnance (UXO). Whilst it is considered by FESA that the possible risk from UXO within the Airport Technology Park is minimal, an absolute guarantee that the land is free from UXO cannot be given. Should, during subdivisional works or at any other time, a form or suspected form of UXO be located, FESA has advised that the known or suspected UXO must be treated as dangerous and the following process must be initiated:

- 1. Stop all work in the immediate vicinity immediately.
- 2. do not disturb the site of the known or suspected UXO any further; this includes any attempt to handle or move the item from its resting position to a safer location.
- 3. without disturbing the immediate vicinity, clearly mark the site of the UXO;
- 4. notify Geraldton Police of the circumstances/situation as quickly as possible; and
- 5. maintain a presence near the site to prevent others from disturbing the item until advised to the contrary by a member of the WA Police Service or Defence Forces

Further advice on this issue may be obtained by contacting the Unexploded Ordnance Unit, Fire and Emergency Services Authority of WA – 9323 9541