GOLD COAST AIRPORT

Hotel Major Development Plan

Preliminary Draft

February 2018

Contents

1. Introduction

Gold Coast Airport (the Airport) is leased by Gold Coast Airport Pty Ltd (GCAPL) which is wholly owned and operated by Queensland Airports Limited (QAL), a non-listed public company. GCAPL operates the Airport under a Federal Government awarded 50-year lease with a further 49-year option. As a Commonwealth leased airport, the Airport is regulated under the *Airports Act 1996* (Airports Act) by the Federal Department of Infrastructure, Regional Development and Cities (Infrastructure).

Gold Coast Airport has emerged as the southern economic anchor of the Gold Coast and as a centrally positioned nexus in the structure and fabric of the region extending from Surfers Paradise to Byron Bay.

Currently the Airport is the fifth busiest international airport in Australia and the sixth busiest airport overall. The Airport's catchment area extends from Beenleigh in the north to Ballina in the south. The Airport primarily serves the south east Queensland/northern New South Wales tourism industry with leisure-based travel accounting for an estimated 70 per cent of all regular public transport (RPT) traffic. The Airport's passenger mix is spread between business and leisure, providing year round market stability.

This Major Development Plan (MDP) outlines the proposed construction of a 4-4.5 star hotel of between 150 and 200 rooms with meeting/conference facilities located within the Terminal precinct at Gold Coast Airport.

This proposed hotel was identified within the Gold Coast Airport 2017 Master Plan as a development envisaged within five years and as part of the provision of services within the terminal precinct.

The proposed development site fronts Terminal Drive and is positioned within a close proximity to the existing Airport Terminal (T1) and the Southern Terminal Expansion (Project LIFT).

As a highly integrated component of the ground floor transit plaza area and the future expanded terminal (Project LIFT), it is expected that the proposed hotel will enhance the overall sense of arrival, and maximise public accessibility and activity at the ground plane.

1.1 Project Proponent

All works associated with the proposed development are on land within the existing boundary of the Gold Coast Airport. Gold Coast Airport Pty Ltd (GCAPL) is an "airport-lessee-company" under the Airports Act and therefore the entity required to prepare the Major Development Plan. The proponent for this proposed MDP as defined under the Act is:

Gold Coast Airport Pty Ltd
Level 1, Airport Central, 1 Eastern Ave
Bilinga QLD 4225
The contact in connection with this proposal is Antonio Tolo, General Manager - Property, telephone (07) 5589 1226.

1.2 Airport Location

Gold Coast Airport occupies 371 hectares of Commonwealth airport lease that straddles the border between Queensland and New South Wales (NSW) and is adjacent to the small coastal communities of Bilinga, Tugun and Tweed Heads. The Airport is located approximately three kilometres from the centre of Tweed Heads, 19 kilometres from Surfers Paradise and 100 kilometres from the Brisbane CBD (Figure 1.1).

Gold Coast Airport is a significant infrastructure asset to south east Queensland and northern New South Wales. It acts as a gateway to the region for domestic and international visitors and provides air access to the local community.

Figure 1.1 Airport Location

1.2.1 Major Development Plan

The proposed Hotel project is considered to be a "major airport development" as defined in Section 89 (1)(e) of the Airports Act requiring a MDP. The triggers from the Airports Act which define the Hotel as a major airport development are:

(i) The building is not wholly or principally for use as a passenger terminal; and

(ii) The cost of construction exceeds $20 million or such higher amount as is prescribed

1.2.2 Major Development Plan Structure

Chapter 2 details the Project Justification and Objectives. Chapter 3 of this document describes the proposed development in detail. In Chapter 4 the statutory framework for the project is outlined, having regard to federal, state and local legislation and policy. Chapter 5 describes the consultation process. Chapter 6 details the environmental impacts of the proposed Hotel development.

This MDP addresses all of the required matters of Section 91 of the Airports Act as demonstrated in Table 1.1.

Table 1.1: Major Development Plan Requirements

ACT REF	MAJOR DEVELOPMEMNT PLAN REQUIREMENT	SECTION OF THIS MDP
91(1A)	The purpose of a major development plan in relation to an airport is to establish the details of a major airport development that:	
	(a) relates to the airport	Sections 1 - 7
	(b) is consistent with the airport lease for the airport and the final master plan for the airport	Sections 4.1.3 and 4.1.4, Section 4.2
91(1)(a)	The proponents objectives for the development	Section 2
91(1)(b)	The extent to which the development will meet the future needs of civil aviation uses of the Airport and other users of the Airport	Section 2, Section 4.1.3
91(1)(c)	A detailed outline of the proposed development	Section 3
91(1)(ca)	Whether or not the development is consistent with the Airport's lease for the airport	Section 4, Section 4.1.3,
91(1)(d)	Whether or not the development is consistent with the final master plan for Gold Coast Airport	Section 4.2
91(1)(e)	If the development could affect noise exposure levels at the airport and the effect the proposed development would have on noise exposure levels	Section 6.6
91(1)(ea)	If the development could affect flight paths at the airport— the effect that the development would be likely to have on those flight paths	N/A the proposal is for a Hotel
91(1)(f)	The airport-lessee company's plans, developed following consultations with the airlines that use the airport, local government bodies in the vicinity of the airport; and	Section 6.6
91(1)(g)	An outline of the approvals that the proponent has sought, is seeking or proposes to seek under Division 5 or Part 12 in respect of elements of the development	Section 4
91(1)(ga)	The likely affect the proposed development would have on:	
	Traffic flows at the airport and surrounding the airport	Section 6.12
	Employment levels at the airport	Section 2

ACT REF	MAJOR DEVELOPMEMNT PLAN REQUIREMENT	SECTION OF THIS MDP
	The local and regional economy and community, including an analysis of how the proposed developments fit within the local planning schemes for commercial and retail development in the adjacent area	N/A the proposal is not for a commercial or retail development
91(1)(h)	An assessment of environmental impacts that might reasonably be expected to be associated with the development	Section 6
91(1)(j)	The proponents plans for ameliorating or preventing identified environmental impacts	Section 6
91(1)(k)	If the plan relates to a sensitive development—the exceptional circumstances that the airport lessee company claims will justify the development of the sensitive development at the airport	N/A the proposal is not for a sensitive development
91(1)(l)	Such other matters (if any) as are specified in the regulations.	N/A
91(4)	The proponents plan must demonstrate the extent of the consistency with planning schemes in force under a law of the state where the Airport is location; and identity and justify any inconsistencies	Section 4.4
91(6)	In developing plans referred to in paragraph (l)(f), an airport lessee company must have regard to Australian Standard AS 2021—2000 ("Acoustics—Aircraft noise intrusion—Building siting and construction") as in force or existing at that time.	Section 6.6

2. Project Justification and Objectives

In addition to being the gateway to Australia's premier tourist destination, the 2017 Gold Coast Airport Master Plan vision for the Airport is to expand in its role as an economic and aviation hub in the south east Queensland and northern New South Wales region. The Gold Coast Airport has made great progress in achieving this vision with plans for a terminal expansion (Project LIFT) that will provide an iconic entry statement to the region and create a high quality experience for all travellers.

Just outside the approved Project LIFT terminal expansion, the vision for the precinct is to have a highly legible and walkable environment established primarily through the delivery of major public spaces, and supported by a network of streets with dedicated pedestrian and cycle lanes.

The proposed hotel as identified in the 2017 Gold Coast Airport Master Plan is located to provide a grand gateway arrival to the Airport from the Terminal and the Gold Coast Highway ensuring local and international visitors experience a memorable journey.

The project will have a positive impact on airport users. It is expected that the Hotel will cater for business and tourist travellers alike, as well as being utilised by aviation and non-aviation users within and around the airport.

In addition to achieving its wider 2017 Gold Coast Airport Master Plan objectives, GCAPL's objectives for the hotel development include:

- To develop a hotel with iconic architecture to enhance the overall sense of arrival, maximise public accessibility and activity at the ground plane.
- To develop a hotel that addresses sustainable design considerations
- To develop a Hotel to meet demand forecasts.

Gold Coast Airport is a significant place of employment in the region with forecasts indicated that the airport will have approximately 9,000 employees by 2037 and will contribute some $2.3 billion to the gross regional product.

It is estimated that the proposed hotel will create in excess of 64 staff positions post-construction, creating a strong viable business to support the airport objectives. An example of possible staffing mix for the hotel include:

- Management
- Admin
- Reception
- Marketing
- Purchasing/IT
- Housekeeping
- Kitchen
- Banquets/Food Beverage
- Maintenance/Gardens

2.1 Gold Coast Airport Hotel Market and Demand

The population of the City of Gold Coast and Tweed Shire in the immediate catchment of Gold Coast Airport is home to 670,000 residents. An additional 360,000 people will reside in the region within the next twenty years, representing an average annual growth rate of 2.3%.

Gold Coast is one of Australia's premier holiday destinations, famous for its superb surf beaches, theme parks, rainforest hinterland and many other natural and man-made attractions. The Gold Coast records more than 23 million domestic and international visitor nights each year. It's also globally recognised as a world-class leisure and business events destination offering unrivalled variety of entertainment, excitement and fun.

The proposed hotel will cater to a range of visitor groups that seek convenience and accessibility of a hotel close to the Airport terminal. The expected visitors include:

- Business travellers – who fly into the Gold Coast for short stays to conduct business meetings are likely to drive demand for additional business facilities onsite. Hotel at the airport will provide added time saving benefit removing need for on-the-ground travel.
- Regional leisure travellers – who travel from the northern NSW or south east Queensland to the Airport are likely to utilise the airport hotel when flight times require an early departure and/or late arrival time.
- International leisure travellers – who will benefit from accommodation onsite when there is need for early flight times.
- University students – Southern Cross University students (domestic and international) who are on-campus for a short period of time for exams or intensive courses.
- Airline Staff – Due to curfew requirements at Gold Coast Airport, Airline staff are required to stay overnight.

A hotel at Gold Coast Airport will provide an added level of convenience and amenity that enhances the overall appeal of the airport as a destination and an origin, as well as adds to the overall level of activity within the precinct. This activity is generated by both the retention of passengers within the precinct for a longer period of time, as well as by attracting additional people (i.e. non-passengers) into the airport precinct for a variety of reasons including business and personal meetings, conferencing, etc.

3. Proposed Development

3.1 Hotel Site Details

The proposed hotel development is located in close proximity to the existing terminal and directly adjacent to the approved southern terminal expansion (Project LIFT). The project footprint (site) is approximately 11,000m2 in area with frontage to Terminal Drive and Arthur Butler Parade. The site is approximately 320m from the Gold Coast Highway and 538m from Bilinga beach (Figure 4.1). The site is well connected to the internal and external pedestrian network.

The final footprint of the building within the site will be determined in conjunction with an appointed developer/operator.

The site has recently been cleared and currently being levelled under the Project LIFT MDP to accommodate interim ground transport infrastructure.

Figure 4.1 - Site Location

3.2 Proposed Hotel Details

The proposed Hotel is to be a landmark building suitably sited to provide easy access to the adjoining Terminal building.

As a highly integrated component of the ground floor transit plaza area and the future expanded terminal (Project LIFT), the proposed hotel will be sited to enhance the overall sense of arrival, and maximise public accessibility and activity at the ground plane.

The proposed building is expected to be between 5 and 8 levels (most likely 7) with an overall building height including aerials and antennae not exceeding the Airport Obstacle Limitation Surfaces (OLS) of 49.5m AHD. The accommodation floors are expected to provide between 150 and 200 rooms varying from standard to deluxe rooms and suites. Further details of the proposed hotel development are described within Table 3.1.

Table 3.1: Proposed Hotel Details

COMPONENT	DEVELOPMENT
Proposed land use	Hotel - Rooftop Bar, Conferencing, Dining
Proposal Description	• Porte Cochere/ Entry • Recreation space • Lobby/ Bar/ Restaurant • Prefunction/ Function / conferencing facilities/ meeting rooms • Possible roof top bar • Swimming pool **Hotel Suites** • Between 150 and 200 rooms • Between 5 and 8 levels (most likely 7)
Project Footprint	Approximately 11,000m^2
Car Parks	Between 60 and 71 car spaces – underground or can be provided within the existing car parks within the Airport Precinct.
Vehicular Access	Entry and Exit from Terminal Drive
Building Height	The Hotel height will not exceed the OLS of 49.5m AHD, most likely to be between 27m and 39m AHD
Pedestrian Access	Walkway along Terminal Drive
Servicing	Service Vehicles to access from Arthur Butler Parade (via Tom Norris Drive)

3.3 Proposed Hotel Design

The hotel design is proposed to reflect a uniquely Gold Coast character offering subtropical, resort style architecture. The horizontal edges to the building will be designed to enhance the north-eastern views toward the ocean and reflect the strong horizontal vistas afforded from the site. The edges will be designed to provide shaded, cool spaces with ideal orientation and outlook.

Hotel is oriented so that views take precedence within the rooms with over 50% facing north-east toward the ocean.

The proposed ground plane is expected to create an attractive entrance from the main airport streetscape, an open plan lobby and entry to connect the guests to facilities including conferencing located on ground.

3.4 Building Materials

The materiality of the project is proposed to evoke a subtropical Gold Coast character with light, clear glazing, crisp concrete edges, screening features and articulated metal work. The project is expected to offer a palette of natural materials connecting to the aesthetic vision for the future of the Gold Coast Airport precinct.

3.4.1 Proposed External Finishes

Paved surfaces and roof areas.

- The external paths and porte cochere will be paved, with colour contracts to allow for the tactile buttons to be contrasted as required;
- Roof to the porte cochere is designed to allow light into the entry;
- Landscaping is planned to be installed.

Walls

- Basement walls will be rendered, painted in a colour suitable to offset against landscaping to the edges.
- Ground level and podium will have concrete walls painted in a suitable colour.
- The tower will have the concrete walls painted to reduce reflectivity.
- Sun shades are expected to be included in the glazing elements

Entry and areas under the podium roof

- Entry points under the podium will be light painted surfaces
- The ceilings will be clad in external quality cladding products to create interest.

Glazing elements

- Glazing is proposed to have a tinted colour to reduce heat infiltration.

Balustrades and screens

- Balustrades are proposed to the outer edges of the gardens.
- Screens are proposed to the services areas

3.4.2 Proposed Internal Finishes

Floors

- Generally the entrance areas, public spaces and restaurant will be tiles or stone finishes.
- Carpets will be installed in areas where noise is an issue and to the offices and administration areas.
- Back of house areas such as the kitchens and stores will be epoxy paint and vinyl to staff areas such as the chef's office.
- Public ablutions will be tiled to required slip ratings.
- Carpets will be used on the public corridors, meeting rooms, to the hotel floors and also in the rooms. Tiles will be used in the bathrooms.
- A mixture of tiles and carpets will be used on the roof level, in accordance with acoustic requirements to limit noise transfer to the rooms below.
- The gym floor is to be a rubber floor.

Walls

- Generally the walls will be plasterboard and painted.
- Back of house areas will be harder surfaces and in some areas painted blockwork.
- Wall papers and graphics will be applied to certain walls to create the atmosphere of the area.

Ceilings

- Ceilings will generally be plasterboard and painted.
- Feature areas such as the entry, lift foyers and entertainment areas will be provided with acoustic panels.
- Back of house areas will be a mixture of plasterboard and exposed concrete with services painted out to be accessible.

3.5 Equity of access

The proposed building will be compliant with the relevant BCA Standards for mobility impaired people.

3.6 Risk and Hazard Management

Work health and safety requirements within and adjacent to the project will be managed in accordance with relevant statutory requirements.

3.7 Project Development Works and Phases

Earthworks, foundations and structures will be typical for this type of development. Solutions may include piling.

The site will be supplied with services including sewer, water, power and communications. Works may include installation of conduits, cables, pipes and fittings as well as the construction of manholes, substation and ancillary infrastructure.

Sufficient laydown areas for construction activities will be provided within the precinct. Building compound and site office options include the vacated car rental storage areas or other vacant areas in close proximity to the site. The proponent has considerable experience in managing construction projects of a large scale so that access to and through the Precinct will be maintained with minimal disturbance.

During the construction period it is anticipated a peak construction workforce in the order of 90 personnel could be on-site.

Subject to approvals, the suggested design and construction program is shown below:

Design and Documentation	July 2018
Construction	September 2018 to October 2019
Commissioning	November 2019

4. Regulatory Framework

This chapter provides details of the consistency of the project with relevant Commonwealth, State and local planning provisions. Key legislation, planning instruments, guidelines and reference documents addressed as part of the project includes the following:

- *Airports Act 1996;*
- *Airports Regulations 1997;*
- *Airports (Environment Protection) Regulations 1997;*
- *Airports (Building Control) Regulations 1996;*
- *Airports (Control of On-Airport Activities) Regulations 1997;*
- *Airport (Protection of Airspace) Regulations 1996;*
- *Environment Protection and Biodiversity Conservation Act 1999;*
- *Planning Act 2009 (Queensland);*
- *Environmental Planning and Assessment Act 1979 (New South Wales);*
- *Gold Coast Airport 2017 Master Plan (Commonwealth);*
- *City of Gold Coast –City Plan 2015 (Queensland);*
- *Tweed Shire Council - Local Environmental Plan 2014 (New South Wales);*
- *SEQ Regional Plan 2009-2031 (Queensland);*
- *North Coast Regional Plan 203 (New South Wales);*
- *National Airports Safeguarding Framework Guidelines*

4.1 Consistency with Commonwealth Legislation

4.1.1 Airports Act 1996

The Airports Act and associated Regulations are the statutory controls for ongoing regulation of activities on airport land for both aeronautical and non-aeronautical purposes. Part 5 of the Airports Act prescribes a number of controls over land use, planning and building at Commonwealth leased airports.

Under Part 5, s.89 of the Airports Act a MDP is required for each major development at a Commonwealth leased airport. The project outlined in this MDP is defined as a 'major airport development' by virtue of s.89(1)(e) (i) The building is not wholly or principally for use as a passenger terminal; and s.89(1)(e)(ii) The cost of construction exceeds $20 million or such higher amount as is prescribed.

Section 91 of the Airports Act specifies elements that are to be addressed in the preparation of a MDP. Among the matters that must be addressed in an MDP (s.91(1)(h)) are:

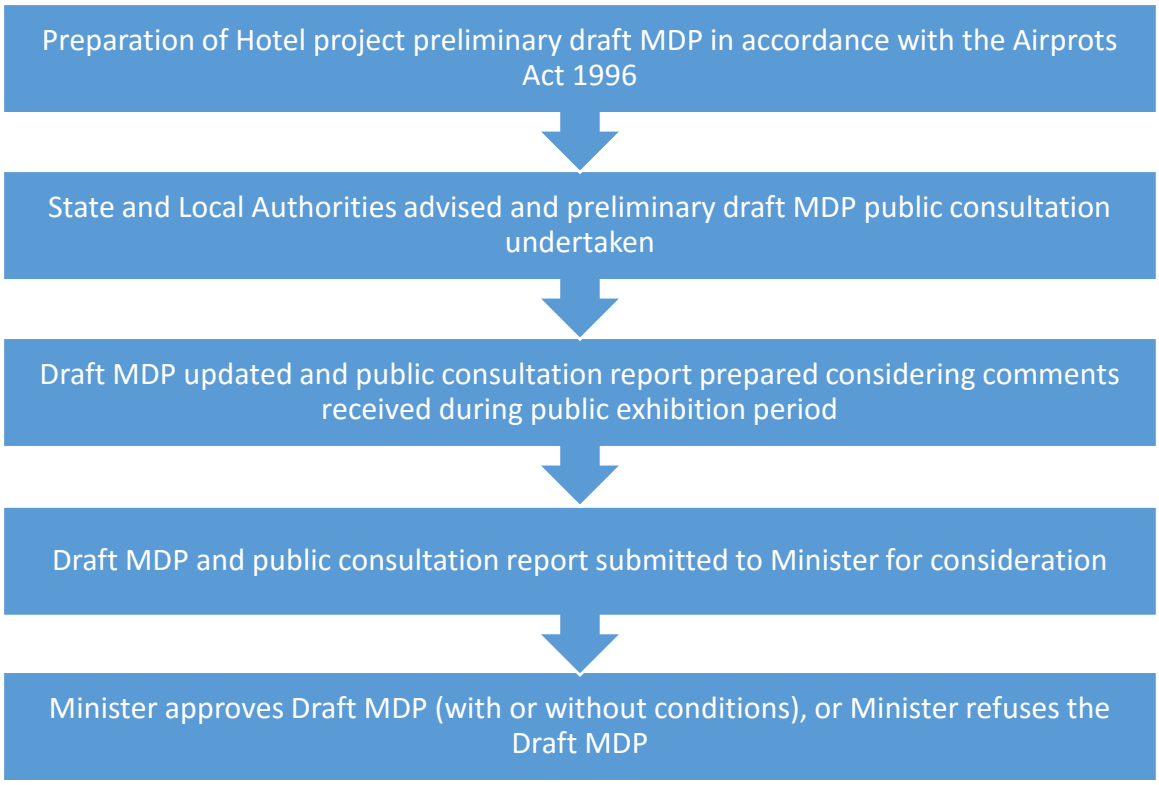
"… the airport lessee company's assessment of the environmental impacts that might reasonably be expected to be associated with the development."

The environmental impacts and proposed mitigation measures of the development are presented in

Section 6 of this MDP in accordance with the Airports Act, in particular s.91.

The key steps in the approval process for this MDP under the Airports Act are presented in Figure 4.1.

Figure 4.1: Hotel MDP Approval Process



4.1.2 Environmental Protection and Biodiversity Conservation Act 1999

As the Airport is situated on Commonwealth land, it is subject to the provisions of the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act).

The EPBC Act is administered by the Department of Environment and Energy (DoEE), and contains provisions in relation to environmental impact assessment of proposed projects on Commonwealth land potentially having a significant impact on the whole of the environment and/or on matters of national environmental significance.

Under Section 160 of the EPBC Act the Minister for Infrastructure and Transport takes into account advice from the Environment Minister on the MDP.

4.1.3 Pre-existing interests

In preparing this MDP, GCAPL has considered all interests in the land existing at the time the airport lease was created, including leases, sub-leases, licences and easements. These pre-existing lessor obligations under various leases are listed in **Table 4.1**. There are no conflicts or inconsistencies existing between these interests and the project in this MDP.

Table 4.1 - Pre-existing Airport Interests

Pre-Existing Interest	Location/Type/Purpose	Currency
Lease No. 2247659	Airservices	Current
Lease No. 702577849	Terminal Precinct	Expired
Lease No. 702839463	General Aviation Precinct	Expired
Lease No. 702784976	General Aviation Precinct	Current
Lease No. 702500558	Airservices	Current
Lease No. 702482286	Airservices- Airport Control Tower and Fire Station	Current
Lease No. 602364682	General Aviation Precinct	Expired
Lease No. 701904902	Airservices	Current
Easement No. 601285565	Right of Way	N/A
Easement No. 601999459	Sewerage – Terminal Precinct	N/A

4.1.4 Consistency with the Airport Lease

Section 91(1A)(b) of the Airports Act requires that a major development is consistent with the airport lease for the Airport.

GCAPL, as the Airport Lessee Company has an obligation to develop the Gold Coast Airport ensuring consistency with the legislation. In particular, development must be consistent with the final Master Plan for the airport and any approved MDP.

In addition, the airport lease for the Airport requires that GCAPL develops the Airport, having regard to anticipated future growth in, and pattern of, traffic demand to a standard reasonably expected of such an airport.

The airport lease also specifies that the Lessee must maintain the environment of the Airport site in accordance with any obligation imposed on it by legislation.

The proposed hotel is consistent with the airport lease and in particular the Gold Coast Airport 2017 Master Plan and its land use intents.

In addition, the assessment and management of the environmental impacts of the project in this MDP are consistent with the Airports Act and other relevant legislation, and therefore consistent with this provision of the lease.

With GCAPL's guidance, the development will be constructed in line with the provisions of the *Airports (Building Control) Regulations 1997* and *Airports (Environment Protection) Regulations 1997* in accordance with lease requirements.

4.2 Consistency with the Gold Coast Airport 2017 Master Plan

Regulation of land use on the Airport is achieved via the Master Plan prepared in accordance with the Airports Act and approved in July 2017 by the Federal Minister for Infrastructure and Transport.

The 2017 Master Plan reflects approved land use strategy and considers the surrounding local and state government planning objectives. This strategic document details development for the 20-year horizon to the year 2037 and includes a 20-year development plan, as well as one for the immediate 5 year period. All development works at the Airport are required to be undertaken in accordance with the Master Plan.

The 2017 Master Plan prescribes the land use precincts and development standards on the Airport. The proposed hotel is located in the Terminal Precinct, as shown on Figure 4.2. The Terminal Precinct incorporates all of the Airport's landside operations and associated facilities. The proposed Hotel is located in the part of the Terminal Precinct which falls within the City of Gold Coast.

The Terminal precinct is anchored by the terminal building. It is supported by an extensive internal vehicular and pedestrian network with linkages to the existing airport uses, SCU, car parks, commercial offices and retail.

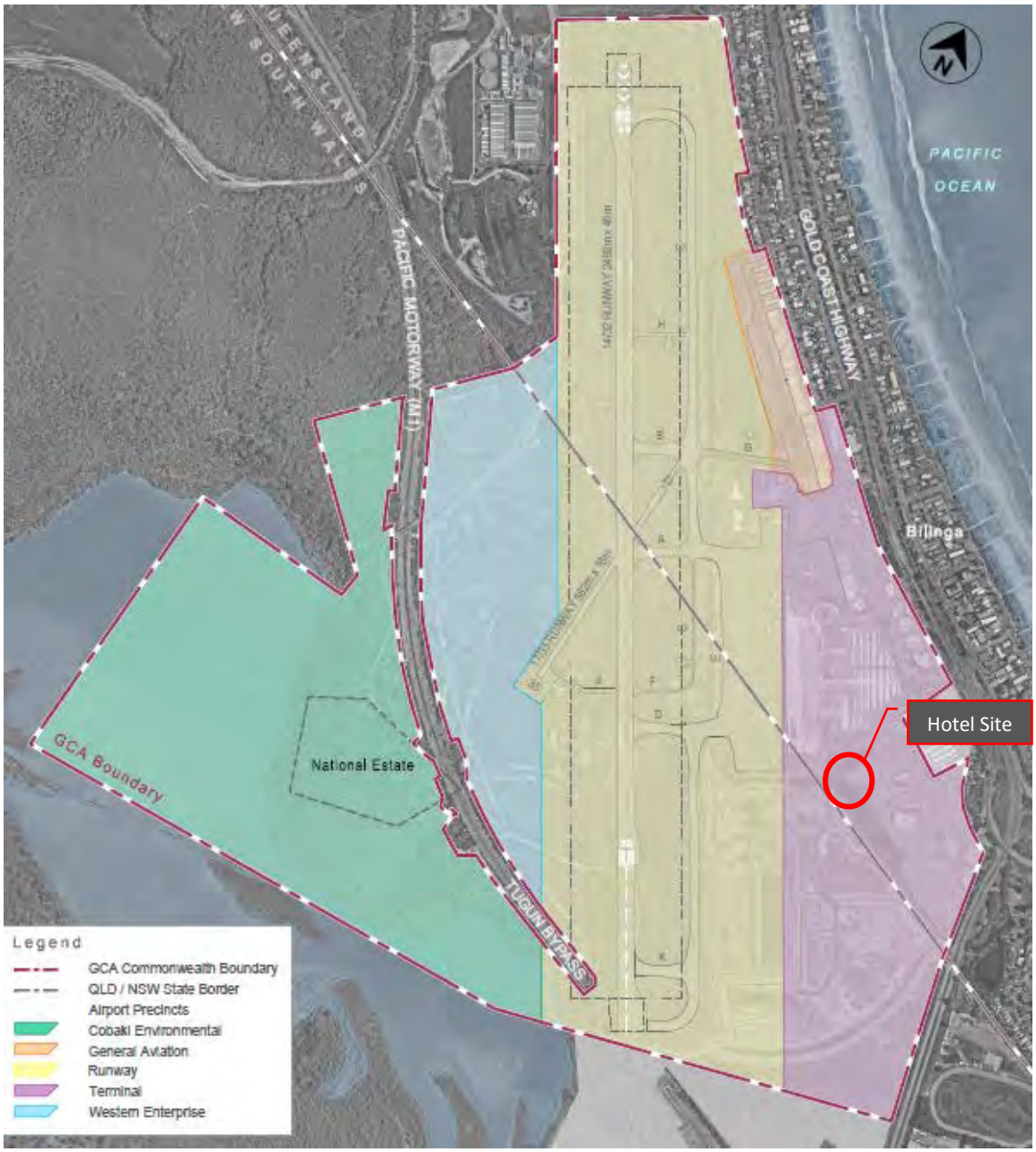
The five year property plan within the 2017 Master Plan (Section 9.5) envisages development of a high quality hotel of approximately 150 to 300 rooms in the Terminal Precinct. The 2017 Master Plan states that the hotel will have a focus on passengers travelling through the Airport and that the hotel is to be designed to maximise the advantages of ocean views and proximity to the Airport terminal.

Key Development Objectives related to a hotel at the Terminal Precinct are:

- Provide sufficient capacity for terminal facilities and related infrastructure development for international and domestic services
- Cater for the Airport's role as a significant economic hub and key tourist and business gateway to the region
- Provide for appropriate commercial and retail development
- Develop in a way that recognises existing infrastructure and operating conditions and is sufficiently flexible to cater for future changes brought about by the dynamic and evolving nature and growth of the Airport's operations
- Establish a strong range and depth of supporting commercial, food and beverage facilities in the terminal to cater for the needs of travellers, which will contribute to the viability of the Airport as an enterprise
- Provide a "gateway opportunity" to the region.
- Develop infrastructure at a height, bulk, scale and form tailored to the precinct's specific location and the site characteristics.

The proposed Hotel is consistent with the five-year property plan and the key development objectives of the Terminal precinct within the 2017 Master Plan.

Figure 4.2: Airport Land Use Plan



4.3 Environment

The Environment and Sustainability chapter of the 2017 Master Plan outlines GCAPL's objectives for environmental management of the Airport, including management of potential environmental impacts associated with airport operations and details environmental objectives and targets and monitoring requirements. The Environment and Sustainability chapter of the 2017 Master Plan also identifies Environmentally Significant Areas (ESAs) on the Airport. No ESA's are located within the project footprint.

The potential environmental impacts from the project and proposed mitigation measures are detailed in Section 6 of this MDP.

4.4 Consistency with the State and Local Government Planning

4.4.1 Surrounding Land Use

The Airport is situated within two local authority areas and two state jurisdictions, being Tweed Shire in New South Wales and City of Gold Coast in Queensland making it unique among Australia's major airports. The project footprint is located in the Queensland part of the Airport.

Land uses in close proximity to the project footprint to the east include the Gold Coast Highway (directly adjoining), Kirra Beach Tourist Park, single-unit dwelling residential properties, an industrial estate on Ourimbah Road and the old Border Park Raceway complex. The nearest sensitive receptors to the project footprint are the Kirra Beach Tourist Park (approximately 615 metres). The nearest school is the Coolangatta State School located approximately 1.3 kilometres south of the project footprint.

The suburb of Bilinga is located north of the Airport and is within the jurisdiction of the City of Gold Coast. The principal land uses in this area include a range of beachfront apartments located approximately 500 metres from the project footprint and separated by the airport car park and the Gold Coast Highway.

Further to the south, directly adjoining the project footprint is crown land (leased by GCAPL) and the M1 Pacific Motorway (Tugun Bypass). Areas adjoining the crown land to the south include a sewage treatment plant, and a vacant, undeveloped industrial property. An outlet for bulky goods has also been approved for development in this area.

Adjoining the Airport to the west and approximately 1.5 kilometres from the project footprint separated by the Pacific Motorway is the Cobaki Broadwater, a large proportion of which forms part of the Airport lease. Beyond the Broadwater and approximately 3 kilometres from the project footprint is the proposed residential master planned community of Cobaki Lakes. The concept plan for the master planned community of some 600 hectares in area was approved by the New South Wales state government, and will ultimately consist of 5,500 lots and house between 10,000 and 12,000 people.

Further to the north-west is the Tugun Commercial and Domestic Waste Land Fill and Desalination Plant and the Betty Diamond Sporting Complex.

4.4.2 Tweed Shire

Regulation of land use and development within the Tweed Shire (New South Wales) is achieved via the Tweed Local Environmental Plan 2014 (LEP 2014) that reflects the state government planning objectives as set out in the Environmental Planning and Assessment Act 1979 and is consistent with the state-wide standard instrument LEP.

One of the particular aims of the LEP 2014 is to "encourage a sustainable local economy and small business, employment, agriculture, affordable housing, recreational, arts, social, cultural, tourism and sustainable industry opportunities appropriate to Tweed".

To a large extent, zoning of land surrounding the Airport within the Tweed Shire is reflective of the current land use pattern and consists of:

- A Natural Waterways Zone (Cobaki Reserve);
- Business Zone (Border Park Raceway);
- General Industry Zone (Industrial Estate);
- Infrastructure (Sewage Treatment Plant);
- Gold Coast Highway and Pacific Motorway;

- General Residential Zone (Cobaki Lakes).

The Airport is zoned Special Purpose - SP1 Special Activities. The key objective of the SP1 zone is to "provide for special land uses that are not provided for in other zones". Although the airport land use is not regulated by the LEP 2014, the zoning does nevertheless specifically designate the Airport as the intended usage.

Adjacent to the Airport to the south and west, significant areas are classified as "Deferred Matter," in which there is no specified zoning. For these areas, the previous zones in the superseded LEP 2000 will continue to apply. For most of the affected land, this is due to deferral by the state government of formerly proposed Environmental Protection Zones. In the case of the land leased by GCAPL immediately south of the Airport, the land is classified as "Deferred Matter" so as to not preclude development of aeronautical facilities.

The Tweed Shire Council in preparation of the LEP 2014 has considered the 20-year development plan and relevant aviation overlays within the Master Plan. The LEP contains zonings and overlays that reflect the nature of existing land uses and impacts from the Airport, both in its current form and form developed in accordance with this MDP, has on the surrounding land. The proposed project is consistent with the intent of the LEP 2014 and will not impact on zoning at and in the vicinity of the Airport. Zoning within the Tweed Shire.

4.4.3 City of Gold Coast

Regulation of planning and land use within the City of Gold Coast (Queensland) is under the City Plan 2015. The Airport is zoned "Special Purpose" under City Plan 2015, which relates to activities regulated by other legislation (in this case, the Airports Act), or otherwise not subject to planning and development control under the local planning scheme.

The City Plan 2015 identifies the Airport as providing key transport infrastructure that will contribute to developing Gold Coast as a world-class city. In addition, the City Plan 2015 envisages growth in airport support services and tourist accommodation in close proximity to the Airport to further advance economic productivity and prosperity.

Zoning near the Airport within the City Plan 2015 is reflective of the current land use pattern, and includes:

- Special Purpose (Tugun Land Fill and Desalination plant);
- Open Space (Betty Diamond Sporting Complex);
- Low and Medium Density Residential;
- Community Facilities; and
- Low Impact Industry.

A specific outcome of the City Plan 2015 is that existing or planned noise-sensitive uses surrounding the Airport manage aircraft noise through appropriate design and location of new development, including appropriate noise mitigation techniques. A comprehensive Overlay Code is included in the City Plan dealing with all relevant airport and aircraft-related topics, including avoidance of adverse impacts of aircraft noise, protection against intrusions into the Airport's airspace in the form of buildings or otherwise, as well as other potential effects on pilots of aircraft operating in the airspace.

The project will have no impacts on zoning at and in the vicinity of the Airport and will not result in a change to the existing ANEF contours, Bird and Bat Strike Zone, Light intensity, OLS, and Public Safety Areas that impact the surrounding land use.

The project footprint is found within a number of the City Plan 2015 overlays. The following overlays are relevant to the site:

- Acid Sulfate soils overlay
- Airport environs overlay
- Flood overlay

Section 6 of this document discusses the key environmental assessments associated with these overlays.

4.4.4 State Planning

Queensland

The state significance of the Gold Coast Airport is acknowledged by the Queensland Government through the State Planning Policy (SPP) and the south east Queensland Regional Plan.

State Planning Policy

Gold Coast Airport is classified as a Strategic Airport under the SPP, and is thus protected by, and subject to, the provisions of the policy, in terms of local authority planning.

The SPP sets out the state interest concerning strategic airports and aviation facilities considered essential for the state's transport infrastructure and playing a key role in facilitating economic growth in Queensland.

The SPP provides direction for local governments preparing planning schemes to appropriately identify strategic airports and to facilitate development surrounding these airports, and includes a prototype code with which local authority planning schemes are required to be consistent, and very comprehensive guidance material concerning strategic airports and aviation facilities for the assistance of local government.

The SPP applies to off airport developments that could:

(i) intrude into the operational airspace of a strategic airport;

(ii) Encroach into the building restricted area of an aviation facility;

(iii) Increase the number of people that could work or live in areas affected by aircraft noise;

(iv) Increase the number of people or lead to the presence of dangerous materials within the public safety area; or

(v) Involve other potential hazards to aircraft operating in the airport's airspace.

As required, the City Plan 2015 reflects the provisions of the SPP by inclusion of a comprehensive airport code with the following overlays:

- ANEF contours;
- Bird and Bat Strike Zone;
- Light intensity,
- Obstacle Limitation Surface,
- PANS-OPS; and
- Public Safety Areas.

South East Queensland Regional Plan 2017

The South East Queensland Regional Plan recognises that the Airport provides for economic and employment diversification on the Gold Coast and facilitates the growth of tourism, manufacturing,

logistics, and freight distribution. The Regional Plan identifies the Airport as “enabling economic infrastructure” within the Regional Economic Cluster.

New South Wales

North Coast Regional Plan 2036

The North Coast Regional Plan refers to the importance of Gold Coast Airport as an international gateway to the region that will continue to allow business and industry to access international export and tourism markets.

The Airport’s locality is identified in the plan as a growth precinct in the Tweed region. Tweed Heads is designated as a New South Wales regional city. The plan suggests that local authorities should activate precincts to accommodate compatible and complementary aviation-related businesses.

4.5 Airport Development and Building Approvals

Section 99 of the Airports Act identifies that an airport lessee company for an airport must not carry out building activity on the airport site except in accordance with approval under the Act. Building activities that are relevant to this project include constructing buildings or structures, altering buildings or structures, earthworks, engineering works, hydraulic works and land clearing. Building approval would therefore be required from the Airport Building Controller (ABC) subject to the development being consistent with the Master Plan and this approved MDP.

5. Consultation and Approval Process

5.1 Consultation Objectives

GCAPL is committed to ongoing and proactive communication and engagement with local communities and stakeholders as well as meeting the requirements under the Airports Act. GCAPL regularly holds community forums and presents project updates to local community groups. This commitment is reaffirmed by working closely with Airservices to monitor local aircraft noise complaints and maintaining extensive public information on the website relating to airport operations, activities and complaint handling processes.

The objectives for consultation of this MDP are to:

- Establish positive relationships with stakeholders;
- Engage and inform stakeholders about projects;
- Obtain stakeholder input into the proposed development;
- Identify concerns and develop appropriate management strategies; and
- Discuss and confirm the approach being taken by GCAPL.

5.2 Activities Proposed During Public Notification

During the preparation and consultation period of the Preliminary Draft MDP, the following stakeholders will be notified of the project, in accordance with Section 92(1a) of the Airports Act:

- Federal government and their agencies
- Queensland and New South Wales State governments and their agencies
- City of Gold Coast and Tweed Shire Councils
- Community.

In accordance with the requirements of Section 92(1) of the Airports Act, the following will be undertaken to publicly exhibit the Preliminary Draft MDP to the general public:

- Advertising in Gold Coast Bulletin and Tweed Daily newspaper as well as on the airport's website and making copies of the Preliminary Draft MDP available throughout the public comment period at the Gold Coast Airport office.

Section 92(2A) of the Airports Act specifies the consultation period as:

a) a period of 60 business days after the publication of the notice; or

b) a shorter period (of not less than 15 business days after the publication of the notice) that is approved by the Minister.

6. Environmental Assessment

This section discusses the potential environmental and socio-economic impacts of the project during the construction and operational phases. Mitigation measures for managing these impacts are also included.

Works considered in the environmental assessment are:

- Construction and operation of the proposed hotel; and
- Construction and operation of ancillary infrastructure such as car parking and services.

The hotel site is cleared of vegetation and is in the process of being modified as part of the Ground Transport Infrastructure (GTI) early works associated with Project LIFT (which has been approved through the Project LIFT MDP and airport building approval). The GTI early works included clearing and grubbing of all vegetation at the hotel site and adjacent to the drainage reserve, with appropriate cultural heritage and environmental mitigation in place. The drainage reserve adjacent to the hotel site has been infilled as part of the GTI works.

A construction environmental management plan (CEMP) for the hotel works will be prepared and submitted to the Airport Environment Officer (AEO) for approval prior to the commencement of construction. The CEMP will detail environmental impacts and associated management measures, corrective actions, reporting and monitoring requirements.

6.1 Assessment Methodology

The study area for the environmental assessment is the hotel footprint and immediate surrounds within which environmental impacts may occur. In the case of traffic and transport the study area includes the surrounding road network.

The following sections describe the baseline conditions in the study area, assess the potential impacts arising from the construction and operation of the project and identify appropriate mitigation measures.

6.1.1 Assessment Scope

The scope of the assessment includes consideration of the following environmental and social factors:

- Geology, Soils and Topography;
- Ecology;
- Surface and Groundwaters;
- Air Quality and Odour;
- Noise;
- Land Use;
- Landscape;
- Social and Economic Issues;
- Cultural Heritage;
- Waste;
- Traffic and Parking;
- Hazardous Goods;
- Aviation Safety; and
- Sustainability.

6.1.2 Assessment of Impacts

The potential impacts of the project have been determined with the assumption that standard environmental management measures (such as the implementation of Construction and/or Operational Environmental Management Measures) will be in place during construction and operation of the proposed infrastructure. To assist in the assessment of potential impacts and for consistency between topics, assessment criteria have been used, as shown in Table 1.

Table 1 Environmental Assessment Criteria

Impact Significance	Significance Criteria
Major Adverse	These impacts are likely to be important considerations at the National, or State level and are likely to be major considerations in the decision making process. Major environmental impacts are likely to be of concern to the project including its stakeholders, the community and key planning regulatory instruments and their desired outcomes/objectives. Typically, mitigation or management measures are unlikely to remove such adverse impacts.
Moderate Adverse	These impacts are likely to be important at a regional scale and would be considered in the decision making process. Moderate environmental impacts are potentially of concern to the project including some of its stakeholders, the community and key planning regulatory instruments and their desired outcomes/objectives. Although mitigation measures and detailed design work are unlikely to remove all potential impacts, the residual impact is likely to be of reduced significance.
Minor Adverse	These impacts may be raised as local issues and although they will form part of the decision making process, it is likely to be in the context of the wider project decision making. Generally, minor environmental impacts are expected to be experienced however mitigation measures and detailed design work will ameliorate some of the consequences upon the environment or community. It is possible that some residual impacts will arise. The potential cumulative impacts of such impacts may lead to an increase in the overall impacts.
Negligible	No impacts or those which are beneath levels of perception.
Beneficial	The impacts of a project can also be beneficial.

6.2 Geology, Soils and Topography

6.2.1 Baseline Conditions

Geology and Topography

The Airport is situated on a flat coastal sand plain. Currently, the hotel site is undulating to level and is cleared of vegetation.

A preliminary geotechnical investigation was completed for the hotel site, comprising desktop review and the drilling and sampling of two boreholes to approximately 24.5m depth. Two groundwater monitoring wells were also installed adjacent to each borehole, with the groundwater level measured at the time of the investigation.

Geological mapping by the Geological Survey of New South Wales Coastal Quaternary Geology 1:100,000 series for Tweed Heads area indicates the site is underlain by Holocene aged tidal delta flat ("marine sand, silt, clay, shell, gravel"). The dominant rocks in the region are Palaeozoic sediments and metamorphic rocks of the Neranleigh Fernvale Beds. These occur throughout the area as greywacke, quartzite, shales, sandstones and greenstones.

The results of the geotechnical boreholes indicated that the site is underlain by uncontrolled fill material (sand and clays/silts) to a depth of 1.1m (Borehole 1) and 1.2m (Borehole 2). Underneath the fill material are natural sands, of various densities. The inferred surface level at the site is 2.97 and 2.40 metres Australian Height Datum (AHD) at Boreholes 1 and 2 respectively.

Acid Sulfate Soils

Acid sulfate soils (ASS) includes potential acid sulfate soils (PASS) and actual acid sulfate soils (AASS). PASS are soils that contain oxidisable sulphur (in iron pyrite) that occur naturally in coastal environments. PASS are not acidic as long as they remain in an anoxic environment. AASS are formed when PASS are allowed to oxidise and form sulphuric acid. Acid water reduces pH in the ground and if introduced into the coastal area can cause fish kills, alter ecosystems and lead to corrosion of civil structures.

Previous geotechnical investigations in proximity to the site have confirmed presence of ASS. Further investigation will be conducted prior to construction to confirm the presence of ASS or PASS and determine the required management during construction.

Contaminated Land

The Gold Coast Airport 2017 Master Plan identifies a number of known and potentially contaminated sites. Majority of contaminated sites are associated with historic activities on and off the Airport including hydrocarbon spills, landfill activities and the use of firefighting foams containing per- and poly-fluorinated alkyl substances (PFAS). No known contaminated sites are located within the vicinity of the Hotel however PFAS may be present in soil and/or groundwater at the hotel site, likely in low concentrations.

Further investigation will be conducted prior to construction to confirm levels of PFAS and management measures required during construction.

6.2.2 Assessment of Impacts

The project will likely entail earthworks for building and basement construction, which will include the removal of underlying fill and subsurface materials (depending on the depth of excavation required). Excavations will be required for the construction of a basement level car park, allowing for footings and in-ground services. The excavations is expected to encounter sands with some isolated layers of sandy silt and clays (with organics).

During earthworks at the site, soils are likely to be exposed and there is a risk that erosion and sedimentation may occur. The risk of these impacts occurring during construction is considered to be low as the topography of the site is relatively flat, there will be discrete areas of disturbance, and the works are contained within the site therefore not likely to result in sedimentation of drainage lines. These factors reduce the risk of significant erosion and sedimentation.

Ground improvement and/or the potential use of piles during construction are options that are being considered further to inform the building design and will be confirmed during subsequent design stages.

ASS and/ or PFAS may be encountered in the soil or groundwater at the site during earthworks for excavation of the basement or services. Further investigation will be conducted prior to construction to confirm their presence and extent, and if necessary management measures will be put in place as outlined below.

Although other potential contamination at the site is not known or expected, it is possible that previously unknown contamination may be encountered during earthworks. The CEMP will include measures to be taken in the event this occurs. Small quantities of fuels or other hazardous substances may be stored at the site during construction and present in construction machinery. There is the potential for spills of hazardous substances to result in localised impacts to soil at the site.

The construction phase impact to geology and soils (including acid sulfate soils and contamination) has been assessed as **minor adverse**.

Once the hotel is built and landscaping established, there are not expected to be any impacts to geology and soils. The operational impact of the hotel to geology and soils has been assessed as **negligible** with reference to the assessment criteria in Table 1.

6.2.3 Mitigation Measures

The *Airports (Environment Protection) Regulations 1997* (AEPR) impose a general duty to avoid polluting. Sub-regulation 4.01(2) requires an operator of an undertaking at a leased federal airport to take all reasonable and practicable measures to prevent the generation of pollution and, where prevention is not reasonable or practicable, to minimise the generation of pollution from the undertaking.

The CEMP will detail the required mitigation measures to be implemented during construction to prevent and/or minimise impacts arising from erosion and sedimentation, acid sulfate soils and/or contamination, including the following:

<u>Erosion and sediment control</u>

The following erosion and sediment control measures will be considered in preparation of the CEMP.

Pre-construction:

- Clear water will be diverted around the site;
- Sediment fences will be installed and maintained to minimise mobilisation of sediments; and

- Site entry and exit points will be established and maintained to minimise tracking of soil on surrounding roads.

During construction:

- Erosion and sediment control devices at the site will be regularly checked and maintained;
- Stockpiles will be placed outside overland flow paths and if long term, will be stabilised to minimise erosion; and
- Daily visual inspections will check for signs of erosion or sedimentation so that additional measures can be implemented if required.

Post-construction:

Erosion and sediment controls will be removed once areas of exposed earth have been sealed or stabilised through landscaping.

Acid sulfate soils

Site-specific ASS management measures will be developed based on the result of the ASS investigation to be conducted prior to construction. Where required, measures to manage ASS will be specified in the CEMP and would be likely to include:

- A designated ASS treatment area on the site;
- Treatment of excavated material with lime at specified rates depending on the results of ASS testing;
- Measures to minimise movement of acidic water off the site;
- Monitoring and treatment of groundwater discharged from the site if required; and
- Monitoring of water in the drainage reserve downstream of the site during and following construction to check the effectiveness of ASS management.

Contaminated land

Investigations will be conducted prior to the commencement of construction to establish if PFAS is present. The investigations will be undertaken in accordance with the *National Environment Protection (Assessment of Site Contamination) Measure 1999 (as amended 2013)* and shall consider historic reports, existing baseline data and any relevant recent investigations. The results of these investigations will be used in developing the CEMP which will be prepared and endorsed prior to the commencement of works.

The proposed investigations shall include:

- Identification of the extent and concentration of PFAS within the project footprint;
- Identification of possible exposure pathways and human health and ecological receptors that may be effected from the proposed works along with the risks posed to these receptors;
- Baseline data relevant to the identified possible exposure pathways and human health and ecological receptors, for example:
    a) Historic and current contaminated land investigation reports conducted on the airport.
    b) Air Services Australia investigation reports, and;
    c) Water and soil quality sampling and monitoring data.
- Ground water contour assessment and modelling will be undertaken within and around the project area. Combined with existing geotechnical and groundwater databases from previous airport projects a greater understanding of potential contaminant mobilisation will be available.

If PFAS is identified the CEMP will include a PFAS Management Plan consistent with the *National Environment Protection (Assessment of Site Contamination) Measure 1999 (as amended 2013)*,the *National*

Water Quality Management Strategy, including the Australian and New Zealand Guidelines for Fresh and Marine Water Quality (2000) and nationally agreed standards where available.

Mitigation and performance measures to prevent or minimise impacts arising from contamination will be detailed in the CEMP and include:

- All fill material imported to the project will comply with the Airports Environment Protection Regulations (AEPR) 1997 and nationally agreed standards;
- Hazardous goods stored at the site during construction and operation will be stored appropriately as described in Section 6.13, and;
- If unexpected contamination is encountered at the site, works will cease in that area and a suitably qualified specialist will advise on necessary management measures including sampling if required.

Key considerations of the PFAS management plan will include the following:

- Identification of the extent and concentration of PFAS within the project footprint;
- Where the results of this testing indicate PFAS concentrations above 50mg/kg, additional remediation and management measures consistent with appropriate international approaches would be adopted;
- Appropriate management measures to minimise drawdown, and therefore potential external contaminant impacts, could include timing of works to periods where water levels may be at their lowest and re-injection of pumped ground waters to impart hydraulic control;
- Appropriate measures to manage risks to human health and ecological receptors as relevant which will consider the following:

  a) roles and responsibilities;
  b) management of PFAS contamination within the project area, including managing earthworks and storage of spoil to minimise the release of PFAS, due to disturbance of PFAS contaminated soils, sediments or groundwater within the project area;
  c) measures to reduce runoff and migration of contamination across and off the site
  d) a contingency action plan for unexpected PFAS contaminant discoveries, including coordination, communication and engagement requirements;
  e) Appropriate soil and water monitoring requirements and testing and disposal procedures for spoil, and;
  f) References to relevant provisions of airport environmental management plan/s and monitoring as relevant.

6.3 Ecology

6.3.1 Baseline Conditions

The baseline condition with respect to ecology at the hotel site is a cleared earth surface with no vegetation and provides negligible fauna habitat values.

6.3.2 Assessment of Impacts

The site is clear of vegetation, the impact to ecology during construction is assessed as **negligible**. Measures will be implemented during construction to minimise the introduction or spread of weeds at the site or to surrounding areas.

During operation of the hotel, the site will be landscaped with the aim to create a lush sub-tropical landscape. The building is likely to include vertical greenery and large overhangs. The landscaping for the site is expected to include mature vegetation along the site boundaries. These landscape features and the

building structure itself may provide shelter for common fauna species that are adapted to an urban environment. However the landscaping will be selected with consideration of minimising bird and bat attractant species to minimise strike risk at the adjacent runway precinct. There are not expected to be any other impacts to fauna during the operational phase.

6.3.3 Mitigation Measures

Mitigation measures relevant to ecology for the construction phase will be included in the CEMP and will include:

- Fill material brought to the site will be certified clean fill so that weeds, contaminants or fire ants are not introduced to the site or surrounds;
- No dogs will be brought to the site during construction or operation to minimise impacts to any native fauna at the site;
- In the event that native wildlife is injured during the works, wildlife carers or the animal hotline will be contacted;
- Following construction, new landscaping will be established around the hotel building.

During operation, landscaping will be maintained at the site, which will serve to minimise weed establishment, minimise sedimentation and species selection would focus on low bird and wildlife attractant species to minimise hazards to aircraft operations. No further mitigation measures are required in this phase.

6.4 Surface and Groundwater

6.4.1 Baseline Conditions

Surface Water

The major surface water features that traverse the Airport are the drainage reserve, several shallow constructed drains and part of the Cobaki Broadwater. The drainage network within the Airport has been gradually altered since the mid-1900s during airport development, sand mining and construction of community infrastructure.

The drainage reserve flows through the Airport from north to south for the majority of the airport prior to running east west prior to leaving the site, ultimately discharging to Kirra Beach via the City of Gold Coast drainage network. Part of the former drainage alignment is still in place in the southern part of the proposed hotel footprint, and as described previously is being infilled as part of the Project LIFT works, which will have occurred prior to the start of the hotel project.

Water quality monitoring within the drainage reserve nearest to the hotel site incites the water is brackish and some parameters are outside of the *Airports (Environment Protection) Regulation 1997*, including dissolved oxygen, total phosphorous, nitrate and copper. These levels are likely to be influenced by both natural and anthropogenic sources both on and off the airport.

There are no other waterways or major drainage lines within the hotel site or immediate surrounds. The nearest stormwater inlets are located adjoining Terminal Drive within the project footprint.

Flooding

The hotel site is identified as inundated within the Gold Coast City Plan flood overlay. The flood overlay forms the Flood Hazard Area (FHA).

A comprehensive flood assessment was completed for the Terminal Precinct as part of the 2017 Gold Coast Airport Master Plan. The flood assessment is considered a more accurate representation of local flood behaviour than the Gold Coast City Plan flood overlay mapping.

The flood assessment was undertaken in accordance with Gold Coast City Plan guidelines and it includes the following:

- Modifications to the apron layout
- Upgrades to hydraulic structures
- Diversion channel from upstream to the channel adjacent to SCU
- Filling of the drain adjacent to the proposed Hotel site as approved under Project LIFT

Groundwater

The hotel site currently has a gravel surface and is clear of vegetation. Groundwater recharge is likely to be partly from rainfall and partly tidally influenced from the drainage reserve.

During the geotechnical investigation at the hotel site, two groundwater monitoring wells were installed adjacent to each borehole, with the groundwater level measured at the time of the investigation. The results found the measured depth to groundwater to be 1.40 and 1.20 metres at borehole 1 and 2 respectively. Groundwater at the site is affected by climatic conditions, soil permeability and possible tidal effects therefore is likely to vary depending on prevailing conditions. Groundwater monitoring across the site indicates that average seasonal fluctuation of the groundwater level is approximately one metre.

6.4.2 Assessment of Impacts

Surface Water

The potential impact to water quality from the construction of the proposed development would be related to potential for soil erosion and resultant sediment or other pollutants to be discharged to stormwater.

The drainage reserve to the south of the site has been partially infilled therefore there will be no major drainage lines or surface waters within or adjacent to the site. It is possible that some sediment could be transported in overland flow to stormwater inlets or local drainage lines, the nearest inlet is within the project footprint and erosion and sediment controls will be in place throughout the works. Other possible pollutants such as fuels or oils during construction will be stored in accordance with relevant requirements which will minimise the risk of spills or leaks impacting surface water. The potential impact to surface waters as a result of the works has been assessed as **Minor Adverse**.

During operation, stormwater infiltration is likely to reduce due to the increase in sealed surfaces. Stormwater runoff from the site will arise from new hardstand areas including the new roof and other sealed surfaces around the hotel. There may be minor quantities of pollutants in runoff from new hard surface such as hydrocarbons, nutrients and other urban pollutants. Rainwater harvesting will be implemented as part of the project design, capturing roof water for use in landscaping. This will minimise the use of potable water for landscaping and minimise the potential increase in stormwater from the site. Stormwater from other areas of the site discharge through interceptors.

The operational impact to surface water has been assessed **negligible**.

Flooding

The minimum finished floor levels (FFL) for the Hotel Site is determined by the designated flood level + freeboard in accordance with the Gold Coast City Plan. A minimum of 300 mm freeboard has been

applied to the maximum 1% AEP flood level near at the Hotel Site. The flood assessment has concluded that the maximum 1% AEP flood level + 0.3m freeboard (Minimum FFL) on the proposed Hotel site is 3.77m AHD.

The proposed hotel building FFL is approximately 3.8m AHD which is above the abovementioned minimum FFL. The flood Impact has been assessed **negligible**.

Ground Water

It is anticipated that the proposed hotel structure will need to be supported using a deep foundation system, however, a raft foundation system is also being considered subject to further geotechnical investigations. The basement excavation is likely to require temporary groundwater control to allow excavation and construction of the basement. Should piling and/or basement excavation be required, further investigations will be undertaken in relation to presence of ASS and dewatering requirements and if required a dewatering management plan will be developed in conjunction with an acid sulfate soil management plan as part of the CEMP.

The impacts to groundwater during construction are expected to be **minor adverse**. During operation there are not expected to be any impacts to groundwater.

6.4.3 Mitigation Measures

Mitigation measures to minimise the impact to surface and groundwater at the site during the construction phase will be detailed in the CEMP and will consider the following:

- Adherence to the erosion and sediment control measures outlined in Section 6.2.3 above;
- Any chemicals, fuels or paints at the site will be stored in a designated, bunded area to prevent spills entering storm water;
- Any contamination managed considerations, including PFAS, will be addressed as detailed in Section 6.2
- Refuelling of vehicles at the site will be conducted away from drainage lines and a spill kit will be kept on site to appropriately responds to spills; and
- A CEMP will be prepared which will specify the measures to minimise impacts arising to groundwater or surface water at the site.

6.5 Air Quality and Odour

6.5.1 Baseline Conditions

Local and regional meteorology are key influences on air quality in a region due to the influence on dispersion of pollutants. Key meteorological parameters include temperature, humidity, wind speed and wind direction. The proximity of the Airport to the coast results in a strong vertical and horizontal mixing of the airshed from coastal breezes which occur throughout the majority of the year.

Sensitive receptors to changes in air quality would include residential areas, hospitals, schools, other educational institutions or childcare facilities. Southern Cross University is the nearest sensitive receptor to the site, located on the Airport approximately 250m southeast of the hotel site. The nearest residential sensitive receptors to the project site are to the east in Bilinga and to the southeast in Kirra (approximately 400 and 600m respectively). Kirra Beach Tourist Park, approximately 615m southeast would also be a sensitive receptor. The nearest school is Coolangatta State School, more than one kilometre southeast of the site. Other buildings in proximity to the hotel site include the terminal to the northwest and the Australian Federal Police (AFP) building to the southeast.

6.5.2 Assessment of Impacts

The AEPR, Regulation 2.01 defines air pollution as follows:

> *"…air pollution has occurred when a pollutant is present in air in a quantity, way, or condition, or under a circumstance, in which:*
>
> *(a) harm is likely to be caused to the environment; or*
>
> *(b) unreasonable inconvenience is likely to be caused to a person:*
>
> *(i) at a place other than the immediate vicinity of the source of the pollutant; or*
>
> *(ii) if the source is in a place to which members of the public have access — in that place."*

During construction of the hotel there is the potential for local air quality to be temporarily impacted through the generation of dust. Dust emissions are expected to be minor during construction, arising from earthworks and the movement of machinery and equipment at the site. Dust may be noticed by airport users adjacent to the site (including at the, car rental companies, terminal, AFP building or Southern Cross University). Dust generation will be controlled through mitigation measures specified in the CEMP.

Minor emissions will be generated as a result of construction machinery travelling to and from the site, however in the context of existing traffic at the Airport and surrounds, these impacts are not expected to be noticeable. The impact to air quality during construction has been assessed as **Minor adverse**. The impacts of traffic more generally are considered in Section 6.12.

During operation, some minor emissions will be generated from vehicle traffic entering and exiting the site, although this is expected to be insignificant in the context of the existing traffic on surrounding roads.

The hotel will include a commercial kitchen, which is likely to include venting of kitchen exhausts outside the building. This may result in odours in the immediate vicinity of the hotel but is not likely to be detected inside adjacent buildings or impact on any sensitive receptors. Storage and disposal of putrescible waste from the hotel may also result in odours, however waste will be stored in sealed bins and disposed of regularly to minimise the risk of odour impacts arising.

The impact to air quality during operation has been assessed as **negligible**.

The CASA Advisory Circular AC 139-5(1) has identified that there is a need to assess the potential hazard to aviation posed by vertical exhaust plumes in excess of 4.3 metres per second (m/s) velocity at the point of discharge. Potential impacts related to plume rise have been assessed in Section 6.14.

6.5.3 Mitigation Measures

Air quality mitigation measures will be specified in the CEMP and will consider the following measures to avoid or minimise potential air quality impacts:

- All machinery and equipment used at the site will be maintained to relevant standards to reduce emissions to as low as possible;
- Disturbed areas will be revegetated as soon as practicable after the construction of the works to minimise dust generation;
- Earth wetting or dust suppression measures will be undertaken as required during construction to minimise dust generation at the site;

- Trucks travelling to or from the site will be covered to minimise windblown dust; and
- Roads will be cleaned regularly to minimise the spread of dirt on roads surrounding the site.

During operation, waste will be stored appropriately at the site and removed regularly to minimise odours arising from waste storage at the site. The generation of odours from the hotel kitchen will be minimised as far as possible through the design, for example inclusion of rangehood filters in the kitchen and design of kitchen exhausts to maximise dispersion and minimise odour detection at ground level.

6.6 Noise

6.6.1 Baseline Conditions

The hotel site is located in a busy part of the Airport with existing noise being dominated by traffic and aircraft noise from the nearby runway, surrounding roads and carparks. Construction works at the adjacent Project LIFT site also form part of the background noise in this location.

6.6.2 Assessment of Impacts

The AEPR (Regulation 2.04) identifies offensive noise as:

> *"...noise that is offensive occurs when noise is generated at a volume, or in a way, or under a circumstance, that in the opinion of an airport environment officer, offensively intrudes on individual, community or commercial amenity."*

Sensitive receptors (for noise) are defined in the AEPR as including a hotel, motel or hostel and a college, university of other educational institution. The hotel development, and the SCU campus are therefore sensitive receptors for the purposes of considering noise impacts. The impacts of noise are therefore considered with respect to noise generated from the development and noise impacts that may occur to the hotel.

Impacts Associated with Construction

Sources of noise during construction are likely to include:

- Movement of machinery and equipment at the site and on surrounding roads;
- Earthworks;
- Piling (if determined to be required for the building construction); and
- Road and building construction.

Construction noise may impact on users of airport buildings adjacent to the site, including at the terminal, Ivy Pearce building or SCU. However, this will be short term and is not expected to cause a significant disruption to adjacent land uses. The noise impacts during construction has been assessed as **Minor Adverse**.

On Airport Noise

As the site is located in close proximity to the existing terminal and the Terminal Drive, it is expected that there will be some noise impacts from aircraft operations and vehicular traffic including private cars, taxis and buses. Deliveries to the project will be generally light vehicles to the loading dock along Arthur Butler Parade. Sources of noise during hotel operation may include:

- Unloading of commercial vehicles at the hotel receiving docks, and
- Cooling towers, air conditioning and rooftop mechanical plant noise.

These sources of operational noise are not expected to cause a significant disruption to adjacent land uses and has been assessed as **negligible**.

Airports Act 1996 and Australian Standard AS 2021—2015

The Airports Act requires a MDP to identify how aircraft noise intrusion is to be managed in areas forecast to be subjected to aircraft noise exposure above significant Aircraft Noise Exposure Forecast (ANEF) levels. Under the Airports Act, significant ANEF levels is noise above ANEF 30 and requires specific management of noise intrusion. The proposed hotel site is located between the ANEF 25 and ANEF 30 contours and therefore, under the Act specific management of noise intrusion is not required.

However, the Airports Act also requires that the MDP must have regard to Australian Standard AS 2021—2015 ("Acoustics—Aircraft noise intrusion—Building siting and construction"). The AS2021:2015 provides guidance on the acceptable location of new buildings in relation to aircraft noise. Under AS 2021:2015, a hotel, motel or hostel is 'conditionally acceptable' within ANEF 25 to ANEF 30 and requires that specific acoustic design be provided to achieve acceptable internal amenity standards. The standards state the development rooms (that for hotel/motel uses relaxing and sleeping areas) are to be designed to a maximum aircraft noise level of 55 dB(A). With higher levels for social areas (70 dB(A)) and service areas (75 dB(A)).

6.6.3 Mitigation Measures

Noise mitigation measures for the construction phase will be included in the contractor's CEMP which would be in place prior to the commencement of construction and may include:

- Equipment and vehicles used during the works are to be adequately maintained and serviced to ensure that noise levels associated with operation are as low as can reasonably be achieved; and
- Locate stationary plant and equipment such that noise emissions can be attenuated to an acceptable degree by the provision of acoustic enclosures, acoustic barriers or other practical acoustic controls.

Operation of the Hotel to include necessary design and installation of fixed plant and equipment to meet appropriate regulatory noise standards. For internal amenity, detailed acoustic design will be required to ensure internal amenity achieves necessary standards.

6.7 Land Use

6.7.1 Baseline Conditions

The hotel site is located within the terminal precinct as shown in the Gold Coast Airport 2017 Master Plan. The precinct is approximately 68 hectares in area, located in the eastern section of the Airport with frontage to the Gold Coast Highway. The Master Plan describes the terminal precinct as:

> *Terminal buildings and land required for future terminal expansions, airport-compatible commercial development activities, short-term accommodation, university, roads, car parks, commercial transportation and car rental facilities.*

The hotel is considered short-term accommodation therefore is consistent with the uses described for the terminal precinct. The hotel is also consistent with the key development objectives for the precinct, which include for example:

- Cater for the Airport's role as a significant economic hub and key tourist and business gateway to the region

The Master Plan also identifies Airport-related short term accommodation (hotel) as a potential development in the terminal precinct within the first five years of the Master Plan.

The hotel provides an opportunity for domestic and international travellers to be accommodated in a convenient location with easy access to services and facilities at the Airport and surrounding areas.

6.7.2 Assessment of Impacts

During construction of the project, movement of construction vehicles and machinery at and surrounding the site may cause minor and temporary disruptions to adjacent land uses. There may also be temporary and localised air and noise emissions which could be noticeable. These impacts will be managed through the implementation of air, noise and traffic management during the construction phase as part of the CEMP, and have been assessed as **negligible**.

The development is consistent with the intended land uses for the terminal precinct, and will be designed to allow for appropriate access and other hotel functions so that there are **minor beneficial** impacts to surrounding land uses during the operational phase. The car parking that is currently on the hotel site will be replaced through car parking provided at the hotel or elsewhere on the Airport.

6.7.3 Mitigation Measures

Mitigation measures to minimise impacts from air emissions and noise generation at the facility during construction and operation are outlined in Section 6.5 and 6.6.

Measures to minimise impacts from traffic and deliveries to the sites during construction and operation are outlined in Section 6.12.

6.8 Landscape

6.8.1 Baseline Conditions

The site is an existing developed area, with flat topography. Prior to the start of construction for this project, the site has been cleared and is in the process of being levelled as part of the approved Project LIFT works.

There are pockets of landscaping in existing car parks near the site and adjacent to existing buildings including the terminal.

The surrounding landscape across the Airport site is predominantly flat and low lying. Dominant features near the hotel site are the existing terminal, covered car parks, Ivy Pearce building, SCU buildings and the construction works at the Project LIFT site. Terminal Drive bounds the site to the west, with Tom Norris Drive and Arthur Butler Place to the north and east of existing car parking respectively. The site has high public exposure, due to the proximity to Terminal Drive and the terminal.

6.8.2 Assessment of Impacts

The site is visible from internal Airport roads and from the Terminal however is largely screened from external roads by existing buildings and vegetation. It is possible that the site is partially visible in the distance from the Pacific Motorway and elevated areas in Kirra or Tweed Heads.

During construction there will be machinery and equipment at the site which may be visible from surrounding areas. This will have a short term visual impact to users of the Airport including at the terminal, car parks and surrounding roads but will be viewed in the context of the existing disturbance and construction occurring in the adjacent Project LIFT footprint. This is assessed as a **minor adverse** impact and will be mitigated through measures in the CEMP.

The Gold Coast Airport Master Plan describes the relevant development standards for the terminal precinct, which include:

Landscaping will be undertaken in accordance with an overall design theme, emphasising the area's climate, scenic character and relaxed, tourist-oriented lifestyle

Plant species with potential to attract birds and bats, which can be a hazard to aircraft operations will be avoided.

During operation of the hotel, the site will be landscaped to achieve the above standards, with the aim to create a sub-tropical landscape. The building is expected to include vertical greenery and large overhangs. The landscaping for the site may include vegetation along the site boundaries. These landscape features and the building structure itself will create a visually appealing development that is consistent in appearance with the other developments in the Terminal Precinct. This has been assessed as a **minor beneficial** impact.

6.8.3 Mitigation Measures

During the construction phase measures will be implemented to mitigate potential landscape impacts due to the site's high exposure and visibility from Terminal Drive. This will include the use of screening to reduce the visibility of the site from surrounding land uses and to help limit the spread of dust outside of the site during construction.

Landscaping of the site will be undertaken as soon as possible following construction and maintained during operation of the hotel.

6.9 Social and Economic

6.9.1 Baseline Conditions

Gold Coast Airport is a hub that facilitates tourism, trade and economic activity, and lies in one of the fastest growing areas in Australia. The Airport acts as a gateway to the region for domestic and international visitors. The Master Plan (Gold Coast Airport 2017) identifies that the Airport contributes significantly to the regional economy, and the contribution has nearly doubled since 2009/2010. The Airport is also one of the largest employers in the region. Developments in the Airport Master Plan will further increase the Airport's contribution to the regional economy and employment.

The hotel site is located in the terminal precinct in close proximity to the terminal and is also within walking distance to the Airport Central retail precinct which includes retail and food outlets. The site is readily accessible by internal airport roads and access outside the Airport via the Gold Coast Highway and Pacific Motorway.

There are currently no short term accommodation options provided at the Airport.

6.9.2 Assessment of Impacts

Construction of the hotel may result in minor amenity impacts to surrounding airport land uses due to dust, noise or traffic impacts, however these will be temporary and minor and with standard management practices in place, would not affect the ongoing Airport operations or functions of the Ivy Pearce Offices or SCU.

The construction of the hotel will have a positive economic impact through the creation of jobs. There are also likely to be flow-on effects if construction personnel shop and eat at the terminal and surrounding areas. On balance the socio-economic impact during construction has been assessed as **negligible**.

During operation, the hotel will be a more productive use of the land (currently used for car parking) and will support economic development at the terminal precinct and broader Airport.

During the operational phase the hotel will have the following anticipated beneficial social and economic impacts:

- The hotel will generate 64 jobs and support the local economy;
- There is likely to be additional demand for goods and services needed to operate the proposed hotel, thereby providing an economic flow-on effect in the local area and region;
- The hotel will provide convenient and accessible short-term accommodation to support business and tourist travellers to the Gold Coast region; and
- The hotel is consistent with the ongoing development objectives for the terminal precinct and the broader objectives of the Master Plan.

The socio-economic impact during operation has been assessed as **minor beneficial**.

6.9.3 Mitigation Measures

Standard construction mitigation measures will be implemented as part of the CEMP to manage potential amenity impacts during construction phase. Safety will be managed by the contractor under the applicable Workplace Health and Safety legislation.

No other mitigation measures are needed as the hotel will provide a **beneficial impact**.

6.10 Cultural Heritage

6.10.1 Baseline Conditions

The Airport is situated within a landscape of high cultural significance to the Indigenous people of the region. This significance is in part derived from local oral tradition, where it was known as an important camping and meeting ground.

A number of cultural heritage investigations have been completed across the airport, including for Project LIFT covering the hotel site which comprised of a desktop review, consultation with Aboriginal stakeholders and archaeological survey of the project footprint. The investigation did not identify any physical heritage values within the hotel footprint, with the closest know cultural heritage site being approximately 350m from the hotel site.

At the request of Indigenous stakeholders, cultural heritage monitors were present during the clearing of the hotel site and subsurface excavation of the drainage reserve as part of the works associated with Project LIFT. No artefacts where identified during the monitoring confirming physical heritage is unlikely to be present.

No non-Indigenous (historic) heritage values are known to be present with the hotel site.

6.10.2 Assessment of Impacts

Given the results of cultural heritage investigations and monitoring noted above and the previous extent of disturbance at the site along with the existence of fill material at the site, it is unlikely that subsurface cultural heritage material would be encountered. Piling and earthworks for the project may require excavation below the fill material which could increase the risk of encountering previously undisturbed cultural heritage, although this is still considered to be low risk. The potential impact to Indigenous heritage during construction has been assessed as **minor adverse**. There are no non-Indigenous heritage values within the site therefore there will be **negligible** impact to non-Indigenous heritage.

There will be **negligible** impact to cultural heritage during operation of the site.

6.10.3 Mitigation Measures

Although the likelihood of encountering heritage items at the site is low, the CEMP will detail response measures should any materials resembling Indigenous artefacts or human skeletal remains be identified during the course of construction.

All personnel conducting ground disturbance work on the site will receive information on procedures to be undertaken in the event of a cultural find during the works.

6.11 Waste

6.11.1 Baseline Conditions

The AEPR defines waste as refuse in any form, discarded or disused plant or equipment and any industrial by-products. These include such items as waste oil and oil containers, surplus or spent chemicals, paints and solvents and their containers, sewage, waste paper, litter and food scraps.

Current Airport operations produce a wide variety of waste streams, which can be categorised as follows:

- Solid wastes – including food packaging and food waste, office waste, garden/green waste, scrap metals, plastic, glass and demolition waste;
- Liquid wastes – including domestic sewage, cleaning waters from washing of hangars and workshop areas, waste from commercial kitchens, toilet waste from aircraft and terminal operations;
- Hazardous wastes – including waste oil and fuels, used chemicals, asbestos and building materials;
- Recyclables – including glass, plastic, aluminium, paper and cardboard, batteries and tyres.

Construction waste is also generated during construction projects at the Airport and would include waste from the above waste streams.

A variety of management measures are implemented as part of Airport operations in order to avoid, control or reduce the amount of waste generated from Airport activities. This includes recycling programs, stockpiling of building materials for reuse on site, removal of scrap metal and other materials to resource recovery locations and implementation of CEMPs with specific waste management requirements for construction projects. The Master Plan identifies current and proposed initiatives at the Airport with respect to waste, including annual monitoring of waste volumes, diversion of waste from landfill and management of hazardous wastes.

6.11.2 Assessment of Impacts

During construction, there will be an increase in waste arising from construction activities. This would generally consist of construction waste in the form of building materials, waste concrete and metals, and small quantities of general waste, such as food waste and containers. Small quantities of oils and paints may also be generated as waste.

If not managed appropriately, increased waste from the project during construction or operation has the potential to impact the surrounding environment by causing injury to wildlife, potential threats to human health and visual amenity. There is also the potential for an increase in waste material in surrounding areas or downstream receiving waters, including plastic, glass, aluminium and cigarette butts.

To manage the potential impacts from inadequate waste management, the CEMP will include measures for the handling, storage and disposal of waste. Waste generated during construction will be managed in accordance with the waste management hierarchy framework, with waste reduced as far as possible and recycling and reuse maximised. The waste impact from construction of the project has been assessed as **minor adverse**.

During operation there will be an increase in waste due to operation of the hotel, including the following:

- Sewage and wastewater;
- General waste from hotel rooms and hotel operation;
- Kitchen waste; and
- Recyclables such as plastics.

This has been assessed as a **minor adverse** impact.

6.11.3 Mitigation Measures

Mitigation measures to reduce the impact of waste during the construction phase which will be considered in preparing the CEMP include:

- Designate specific areas on site for the temporary management of various waste streams;
- Excess works material and solid material is to first be separated and collected into wastes that can be recycled and the remaining waste disposed of at a legally operating landfill;
- All domestic waste and industrial waste is to be disposed of into dedicated industrial bins which are to be collected regularly;
- Ensure waste bin lids are closed to avoid littering, access by birds and scavenging by vermin, birds and native wildlife;
- Optimise use of works materials and where possible adopt a recycling policy;
- Recycle waste oils where possible;
- All hazardous materials and dangerous goods waste containers to be appropriately labelled and collected by licensed contractors;
- Waste transport to be undertaken by licensed contractors, with waste disposal occurring at approved facilities; and
- No waste is to be burnt on site.

During operation waste will continue to be handled at the site in accordance with existing Gold Coast Airport waste management, including:

- Appropriate storage, handling and removal of waste from the site to minismise litter and amenity impacts; and
- The separation of waste into waste streams to minimise the amount of general waste to landfill and to maximise opportunities for recycling.

6.12 Traffic and Parking

6.12.1 Baseline Conditions

The Airport is surrounded by and accessed from two major roads, namely the Gold Coast Highway and the Pacific Motorway, both are State Government controlled roads. The Tugun Bypass section of the Pacific Motorway mostly runs adjacent to the south-western end of the airport, while one section bisects the Airport land. The Tugun Bypass was opened to traffic in June 2008. Since then, the majority of the (through) traffic volumes travelling along the Gold Coast Highway shifted to the Pacific Motorway.

Access to GCA is primarily via the signalised intersection of the Gold Coast Highway and Terminal Drive. This is also the access point for the Hotel.

6.12.2 Parking Arrangements

Parking Layout

The parking layout and servicing area has been designed generally in accordance with AS2890.1 "Off-street car parking" and BCC Transport, Access, Parking and Servicing Policy where appropriate

Parking Demand

Hotel Guests

As a conservative assessment, the hotel guest parking demand has been based upon the hotel being at 100%.

- 50% of the guests are assumed to be business travellers. Of this 50%:
  - 95% are expected to arrive by aircraft and are likely to utilise taxis for local trips.
  - The remaining guests are expected to be local business travellers, and may utilise their private cars when travelling.
- 50% of the guests are assumed to be leisure travellers.

Table 6.12 provides an estimate of the onsite parking demand for the hotel guests.

Table 6.12: Estimated Hotel Guest Parking Demand

Guests		Occupied Rooms	%	Day Travel	Parking Spaces Req.
Business	Domestic/International (arriving/departing by aircraft)	86	47.5%	Taxi	0
	Local – South East Queensland (arriving/departing by private car)	10	2.5%	Private Car	3
Leisure	Domestic/International (arriving/departing by aircraft)	96	50%	Hire Car (Assumed 25% parking onsite)	24
Total (assuming 100% occupancy)		192	100%		34

Conference Facilities

The proposed development provides conference/function facilities on the ground floor, which have a total GFA of 333m², which includes the 'pre-function' area. Given the small scale of the conference/ function facilities, a provision of 20 car parking spaces has been provided.

Staff Parking Demands

Advice provided from the client indicates that a maximum of 64 staff will be onsite at any given time. A parking provision of 13 spaces have been provided to cater for the estimated onsite staff parking demand. This is due to the close proximity of public transport access at the airport and also the attraction of student employment for part time staff from the nearby Southern Cross University.

Total Parking Demand

Based on the above assessment, the following parking demands are expected:

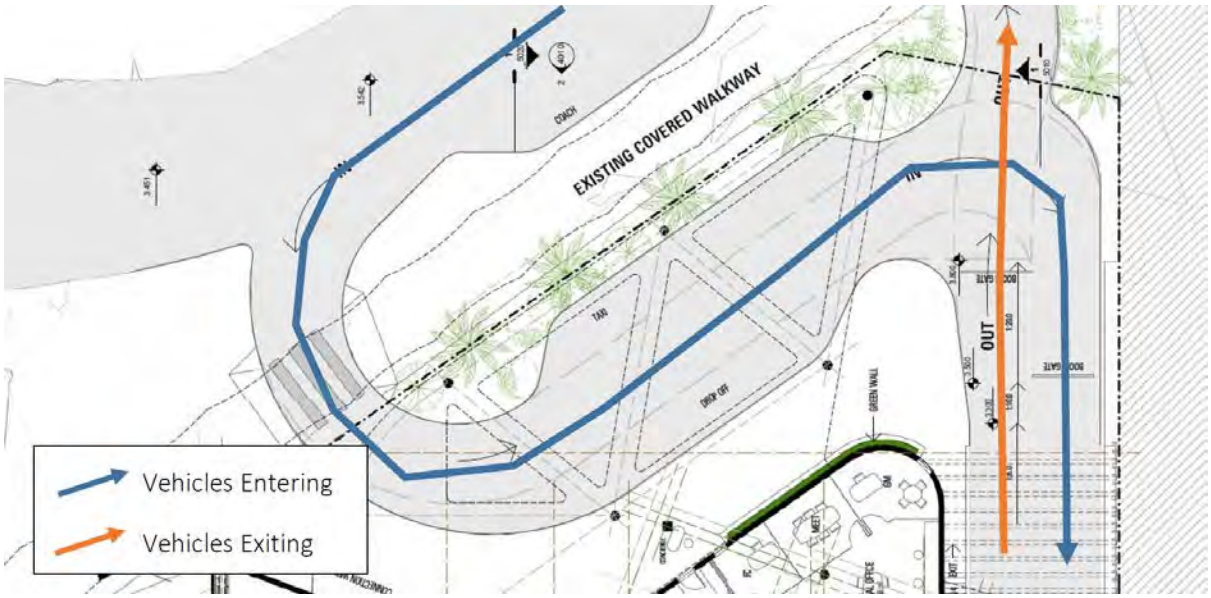
- Guests – 34 spaces
- Conferences/Functions – 20 spaces
- Staff – 13 spaces

This equates to a total parking demand of 67 spaces, which is catered for within the provision of 68 spaces within the basement or can be provided within the existing car parks within the Airport Precinct.

6.12.3 Access Arrangements

The proposed development will be accessed via two separate entry and exit crossovers on Terminal Drive, facilitating access to the basement entry and taxi set down area. Figure 6.1 below demonstrates the operation of the proposed development access.

Figure 6.1: Proposed Access Operation



Servicing Arrangements

Service vehicles are proposed to access the site via Arthur Butler Parade, access the site and perform the necessary duties while entering and exiting the site in a forward gear.

Servicing will occur within the designated loading bay, access via the new service road along the southern side of the subject site. Servicing will be provided by a maximum 12.5m HRV vehicle. The service bay has been designed in accordance with 'AS2890 Part 2: Off-street commercial vehicle facilities'.

This proposed servicing arrangement minimises conflict with pedestrians. Service areas are located away from visually prominent areas and the Airport's internal road network thereby removing potential impact to airport related traffic.

Public Transport

The Gold Coast Airport is currently serviced via Translink and Byron Easy Bus. Translink has services arriving every 10-15 minutes throughout the day, providing connections from the Gold Coast Airport to Robina, Tweed Heads and Broadbeach station, which provides a connection to the light rail network and beyond. Byron Easy Bus provides connections from the Gold Coast Airport to Casino, Byron and Ballina in New South Wales.

Passengers travelling by heavy rail services interchange between bus and rail at Varsity Lakes Station, via Route 760. The journey from the Airport to Varsity Lakes takes approximately 30 minutes and bus and rail timetables are well coordinated.

The light rail can be accessed via bus route 777 or 700 in Broadbeach at Broadbeach South Station.

Public bus connections into northern New South Wales are available from Tweed Heads via Transport for New South Wales bus routes that are operated by Surfside Buslines. Tweed Heads can be accessed directly from the Airport via TransLink routes 700, 760 or 768.

Pedestrian Access

Pedestrian paths connect the terminal buildings with the various parking areas within the Terminal Precinct. A primary footpath along Terminal Drive connects the terminal building and the proposed Hotel with the Gold Coast Highway. Pedestrians will have sufficient infrastructure along the Terminal Drive to safely access the Hotel. The design of the porte cochere ensures that the main pedestrian desired route to and from the hotel/airport does not cross any proposed access to the hotel. This assists to minimise pedestrian/ vehicle conflict for this development.

There is a shared pedestrian/cycle link provided along the western side of the Gold Coast Highway and on road bicycle lanes are provided along both the Gold Coast Highway and along Golden Four Drive.

6.12.4 Development Traffic Generation

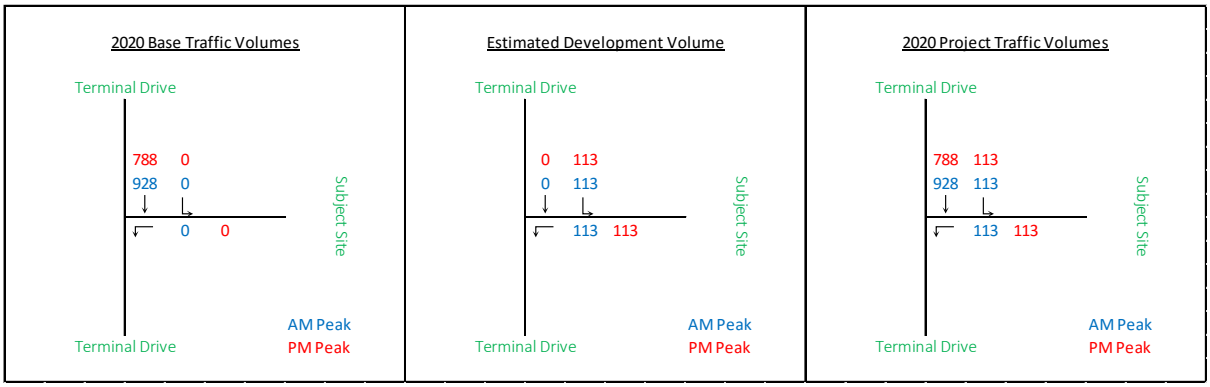
Terminal Drive is a two-lane one-way road providing access to inbound traffic for the Gold Coast Airport. Figure 2 outlines the future year traffic volumes along Terminal Drive in the vicinity of the proposed access. A conservative growth rate of 5% per annum, which is taken from the Gold Coast Airport 2017 Master Plan (Section 4.4: Airport Forecasts), has been used to obtain the future year volumes. The growth rate was applied to the traffic volumes collected by TTM in April 2017.

To estimate the proposed development generation, a first principle assessment has been undertaken assuming the follow:

- 50% of the guest arrivals and departures are assumed to occur during the peak hours;
- 10% of staff arrivals and departures will occur during the peak hours; &
- 100% occupancy rate.

Using the above assumptions, the development will generate 113vph in each direction during the peak hours (Figure 6.2).

Figure 6.2: 2020 Design Volumes – Terminal Drive Access



Given the operation of Terminal Drive as a one-way road, and the operation of the subject site as left-in, left-out, it is unlikely that the addition of the development traffic and provision of the site access to Terminal Drive will impact the operation of the adjacent road network. Due to the proximity of the signalised intersection of Gold Coast highway/Terminal Drive, traffic travelling along Terminal Drive will

experience bunching. This will allow sufficient gaps and opportunities for vehicles to exit the development.

6.12.5 Mitigation Measures

The hotel operator will manage the use of parking on-site. An example would be the operator making additional parking spaces available to conference facility guests outside of peak occupancy. Any shortfall (i.e. during major conferences) would be managed by the operator.

Construction vehicle access will be via routes defined in the approved CEMP documentation to minimise the disturbance to the traffic flow across the precinct. As a consequence the impact of the development on traffic during the construction phase is expected to be **Minor adverse**. The impact of the development on traffic during the operation is expected to be **Negligible**.

6.13 Hazardous Goods

6.13.1 Baseline Conditions

Hazardous materials are defined in the *Dangerous Goods Safety Management Act 2001* (Qld, repealed) as 'substances with the potential to cause harm to persons, property or the environment'.

Based on previous uses (car rental storage) the site may have some minor presence of contaminants from localised fuel or oils spills/leaks. There are no other hazardous materials present at the hotel site.

6.13.2 Assessment of Impacts

During the construction phase the hazardous materials that may be present at the site include:

- Fuels and oils;
- Pesticides or herbicides;
- Paints and solvents; and
- Batteries.

Incorrect storage, handling or transport of dangerous or hazardous substances may result in the following impacts during construction of the project:

- Contamination of soil, surface water or groundwater;
- Transport of contamination off-site in surface or groundwater; and
- Health and safety impacts from exposure of workers to dangerous and hazardous substances.

The CEMP will include requirements for the management of hazardous goods if present on site during construction. This will include the requirement for hazardous goods to be handled, stored and disposed of in accordance with legislative requirements. The impact of hazardous goods during construction has been assessed as **negligible**. During operation there are not expected to be any hazardous materials stored at the hotel.

The impact of hazardous goods during operation is therefore assessed as **negligible**.

1.1.1 Mitigation Measures

During construction, measures for the management of hazardous goods will be specified in the CEMP, including:

- Establishment of a dangerous goods storage area, with appropriate bunding, for any hazardous goods required to be stored during the construction phase;
- Storage and handling of dangerous goods in accordance with legislative requirements;

- Any waste oils, fuels or other hazardous wastes will be collected and transported to a designated disposal site as soon as possible; and
- A spill control plan and emergency procedures will be implemented as part of the CEMP.

Responsibility for storage and handling of any hazardous goods at the hotel will be the responsibility of the hotel operator, however will be in accordance with legislative requirements and existing GCAPL management procedures.

6.14 Aviation Safety

Airport guidelines and regulations regarding building design and height restrictions have been considered when planning the location and height of the proposed development.

The National Airports Safeguarding Advisory Group (NASAG) comprises of Federal, State and Local Government representatives formed to develop the National Airports Safeguarding Framework (NASF).

The NASF provides guidance on planning requirements for development that affects aviation operations. The NASF consists of a set of guiding principles with seven guidelines relating to aircraft noise, wind shear and turbulence, wildlife strikes, wind turbines, lighting distractions and protected airspace. The framework applies at all airports in Australia and affects planning and development around airports.

The NASF guidelines provide comprehensive information and recommendations relating to seven airport safeguarding matters. These guidelines are:

- Guideline A: Measures for Managing Impacts of Aircraft Noise
- Guideline B: Managing the Risk of Building Generated Windshear
- Guideline C: Managing the Risk of Wildlife Strikes in the Vicinity of Airports
- Guideline D: Managing the Risk of Wind Turbine Farms as Physical Obstacles to Air Navigation
- Guideline E: Managing the Risk of Distractions to Pilots from Lighting in the Vicinity of Airports
- Guideline F: Managing the Risk of Intrusions into the Protected Airspace of Airports
- Guideline G: Communications, Navigation and Surveillance

This preliminary draft MDP has been informed by the NASF guidelines. The relevant components of the NASF are discussed below in addition to other aviation safety matters.

6.14.1 Prescribed Airspace

Under the provisions of the Airports Act and the Airport Regulations, the airspace around airports may be declared “Prescribed Airspace” to protect the airspace for safe arrival and departure of aircraft using the airport. These Regulations apply to both on-airport and off-airport developments. Prescribed airspace is the airspace above the Obstacle Limitation Surface (OLS) and Procedures for Air Navigation Services – Aircraft Operations (PANS-OPS).

Obstacle Limitation Surface

OLS are a series of surfaces that set the height limits of objects around an aerodrome. Objects that project through the OLS become obstacles. OLS are prescribed to ensure the safe obstruction-free operation of aircraft in the vicinity of airports. Building heights and the height of other fixed objects are limited so that they do not intrude into the airspace defined by the OLS.

At the hotel site, the OLS is 49.5m AHD. The hotel will be six to eight storeys and between 27m and 39m AHD. The hotel will not exceed 49.5m AHD therefore will not impact the OLS.

Any associated plant and crane operations planned for the construction of this development will be assessed prior to construction commencing. Under the Airports Act and *Airports (Protection of Airspace)*

Regulations 1996 (Airspace Regulations) any activity resulting in an intrusion into an airport's prescribed airspace (including a crane) is a controlled activity under the Airspace Regulations and requires approval by Infrastructure and consultation with CASA. If it is determined during construction planning that there is a potential impact on the prescribed airspace, then GCAPL will follow the appropriate referral processes as defined by Infrastructure.

Procedures for Air Navigation Services – Aircraft Operations (PANS-OPS) Surface

PANS-OPS surfaces are established to protect aircraft operating under instrument flight rules. The PANS-OPS surfaces at the proposed hotel site are approximately 62 metres AHD. The proposed Hotel will be between 27m and 39m AHD therefore there will be no impact on PANS-OPS.

Plume Rise and Dust

CASA has identified that there is a need to assess the potential hazard to aviation posed by vertical exhaust plumes in excess of 4.3 metres per second (m/s) velocity at or above the OLS surface. Aircraft operations may be affected by an exhaust plume of significant vertical velocity. This would generally relate to plumes generated from industrial facilities with vents or stacks.

During operation of the hotel, the following activities may generate minor plumes which are unlikely to exceed 4.3m/s at the level of the OLS, however vertical exhaust plumes from the proposed development will be assessed during future design phases according to the assessment processes outlined in the CASA Advisory Circular No AC 139-5(1) and will target that a plume rise of 4.3m/s at the OLS is not exceeded.

- The hotel will have a commercial kitchen which is likely to vent externally. The design of this system will include consideration of plume rise, for example diffusion devices or horizontal discharge where there is a possible risk of plume rise impacts;
- The hotel will include air conditioning heat rejection discharges, which will be designed to minimise plume rise risks.

6.14.2 Airports Navigation Aids and Radar Systems

Radio navigation aids at the Airport have specific siting restrictions that impose both lateral and vertical constraints to preserve the performance integrity of the equipment. This needs to be taken into account when considering on-airport development and some off-airport development, depending on its nature and location relative to the specific aid.

The hotel site is not in proximity to radio navigation aids which are on the western side of the runway more than one kilometre from the hotel site. The proposed Instrument Landing System (ILS) for the Airport will be under construction at the time of hotel construction and is also not in proximity to the hotel, therefore there will be no impact to navigational aids.

6.14.3 Site Line from the Air Traffic Control Tower

The Air Traffic Control (ATC) tower is more than 700m from the hotel site. Construction and operation of the hotel will no impact to sight lines from the ATC to the runways and taxiway and taxiway network.

6.14.4 Wind Shear and Turbulence

There is a potential that the proposed development might influence the wind characteristics for landing aircraft at the Airport. Landing aircraft are decelerating and moving slower than departing aircraft, therefore are more susceptible to changes in the relative wind speed between the aircraft and the wind.

Since the proposed development is of sufficient size and proximity to the Runway threshold, an assessment of the proposed building in accordance with the guidelines developed by the National

Airports Safeguarding Advisory Group (NASAG, NASF Guideline B) concerning wind shear behind buildings for aircraft operations was undertaken in December 2017.

The assessment by Cermak Peterka Petersen has found that the proposed hotel meets the NASF requirements for wind shear at all times during Gold Coast Airport standard operational procedures. In addition, the results were analysed against the turbulence criteria outlined in Nieuwpoort et al. (2010) and all locations were found to require a wind speed in excess of the operational wind speed criterion for light aircraft to exceed the wind shear and turbulence criteria. The presence of the proposed hotel does not significantly change the wind shear levels. The turbulence results were found to be around 2 kt lower in the configuration with the hotel. However, considering the measured gust wind speeds are still well above the operational limits the difference is insignificant. The proposed hotel is not considered to have an impact on aircraft operations from the tested wind directions.

6.14.5 Lighting

Under the Civil Aviation Regulations 1988, CASA has the power to control ground lights where they have the potential to cause confusion or distraction to pilots. The hotel building is within Zone A for external lighting which means the maximum intensity of light sources measured at 3 degrees above the horizontal is zero candela.

Project construction is not expected to occur at night, except in specific circumstances where night construction is required to minimise impacts to airport operations. In this case construction lighting will be planned to comply with airport safety requirements, including lighting intensity and the degree of light spill above the horizontal.

During operation the hotel will have some external signage and lighting which will be designed to control intensity, direction and glare. Lighting design will be further developed during the detailed design stage to comply with Australian Standards and requirements of GCAPL, CASA and Airservices Australia.

The guideline identifies that the glare from reflected sunlight from buildings tends to be momentary and is therefore unlikely to be a source of risk. Nevertheless, the hotel design will use appropriate external cladding to minimise reflection and glare.

6.14.6 Foreign Object Debris

During construction there is a risk that construction materials will create Foreign Object Debris (FOD) which poses a hazard to aircraft operations. This risk will be managed during construction through stringent housekeeping rules to be implemented as part of the CEMP. This is standard practice for works at the airport that are adjacent to airside operational areas, and would include dust suppression and debris containment measures.

6.15 Sustainability

The project will aim to achieve a 4-star Greenstar Rating, which will guide the incorporation of sustainability measures with respect to water, energy and waste and materials, including those described below.

6.15.1 Water Efficiency

Water Efficiency measures will be considered, including:

- Metering and monitoring of water use during operation of the hotel;
- Rainwater harvesting;
- Water Efficiency Labelling Scheme (WELS) rated fixtures and fittings; and

- Incorporated water sensitive urban design into the landscaping of the project.

6.15.2 Energy Efficiency

Energy efficiency will be considered in the design, including:

- The use of solar panels;
- Sub-metering of electrical power consumption;
- Use of building management systems to control lighting, air-conditioning and other automated functions;
- Lighting design using high efficiency LED fittings; and
- Lighting controls using daylight dimming and occupancy sensors.

6.15.3 Waste and Materials

Waste management during construction and operation is discussed in Section 6.11. The following principles will be considered for the management of waste associated with the project:

- Source materials that are responsibly sourced or have a sustainable supply chain;
- Recycled content products;
- Separation of waste streams; and
- Storage and handling of wastes in accordance with legislative requirements.

6.16 Summary of Environmental and Social Impacts

This environmental assessment component of the MDP has been undertaken to meet the requirements of Section 91 (1) (h) of the Airports Act. Table 2 provides a summary of the potential environmental and social impacts considered in the assessment.

Table 2 Summary of Environmental Impacts

Section	Environmental and social factors	Impacts	
		Construction	Operation
6.2	Geology, Soils and Topography	Minor adverse	Negligible
6.3	Ecology	Negligible	Negligible
6.4	Surface water	Minor adverse	Negligible
	Flooding	Negligible	Negligible
	Groundwater	Minor adverse	Negligible
6.5	Air Quality and Odour	Minor adverse	Negligible
6.6	Noise	Minor adverse	Negligible
6.7	Land Use	Negligible	Minor beneficial
6.8	Landscape	Minor adverse	Minor beneficial
6.9	Social and Economic Issues	Negligible	Minor beneficial
6.10	Cultural Heritage - Indigenous	Minor adverse	Negligible
	Cultural Heritage – Non-Indigenous	Negligible	Negligible

Section	Environmental and social factors	Impacts	
		Construction	Operation
6.11	Waste	Minor adverse	Minor adverse
6.12	Traffic and Parking	Minor adverse	Negligible
6.13	Hazardous Goods	Negligible	Negligible
6.14	Aviation Safety	Negligible	Negligible

7. Appendix A: Concept Plans

1 _3D AXONOMETRIC VIEW 01

2 _3D AXONOMETRIC VIEW 02

REV.	DATE	DESCRIPTION	DRAWN	CHECKED
A	21/08/2017	PRELIMINARY		
B	01/09/2017	PRELIMINARY		
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E	13/09/2017	PRELIMINARY		
F	14/09/2017	PRELIMINARY		

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PROJECT GC AIRPORT HOTEL

TITLE DRAFT 3D VIEWS

Scale 1:100 0 2 4 6 10m

DRAWN BY	ND	CHECKED BY	NR
SCALE			@ A1
SCALE	250		@ A3
DATE	21/09/2017 3:04:12 PM		
JOB NO.	53159C16		
DWG NO.	NRA-84169-DD-_1020		F

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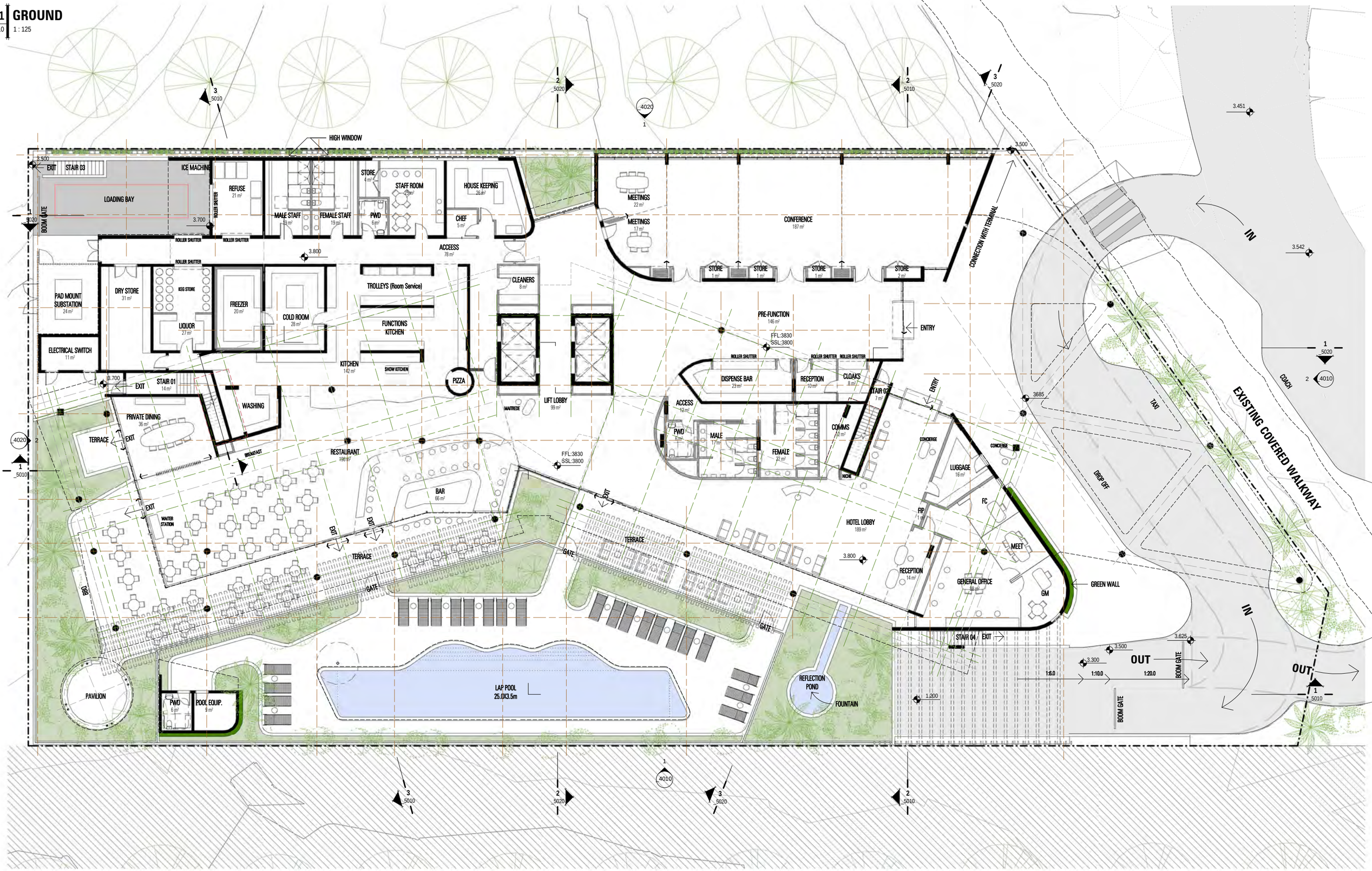
1 GROUND

1 : 125



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C	21/08/2017	PRELIMINARY		
D	01/09/2017	PRELIMINARY		
E	04/09/2017	PRELIMINARY		
F	06/09/2017	PRELIMINARY		
G	11/09/2017	PRELIMINARY		
H	13/09/2017	PRELIMINARY		
I	14/09/2017	PRELIMINARY		

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CLIENT: JOHN ROBINSON

PROJECT: GC AIRPORT HOTEL

TITLE: GROUND FLOOR

Scale 1:100 (0, 2, 4, 6, 10m)

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DWG NO.	NRA-84169-DD-_3000		

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1 LEVEL 01

_4010 | 1 : 125

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C	21/08/2017	PRELIMINARY		
D	01/09/2017	PRELIMINARY		
E	04/09/2017	PRELIMINARY		
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H	14/09/2017	PRELIMINARY		

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PROJECT: GC AIRPORT HOTEL

TITLE: LEVEL 01 FLOOR PLAN

Scale 1:100 (0, 2, 4, 6, 10m)

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DWG NO.	NRA-84169-DD-_3010		H

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1 NORTH EAST

_2000 1 : 150

2 NORTH WEST

_2000 1 : 150

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TITLE ELEVATIONS

Scale 1:100 0 2 4 6 10m

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SCALE	250		@ A3
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DWG NO.	NRA-84169-DD-_4010		D

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1 SOUTH WEST
_2000 | 1 : 150

2 SOUTH EAST
_2000 | 1 : 150

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D	14/09/2017	PRELIMINARY		

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PROJECT
GC AIRPORT HOTEL

TITLE
ELEVATIONS

Scale 1:100 | 0 | 2 | 4 | 6 | 10m

DRAWN BY	ND	CHECKED BY	NR
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1 SECTION AA'

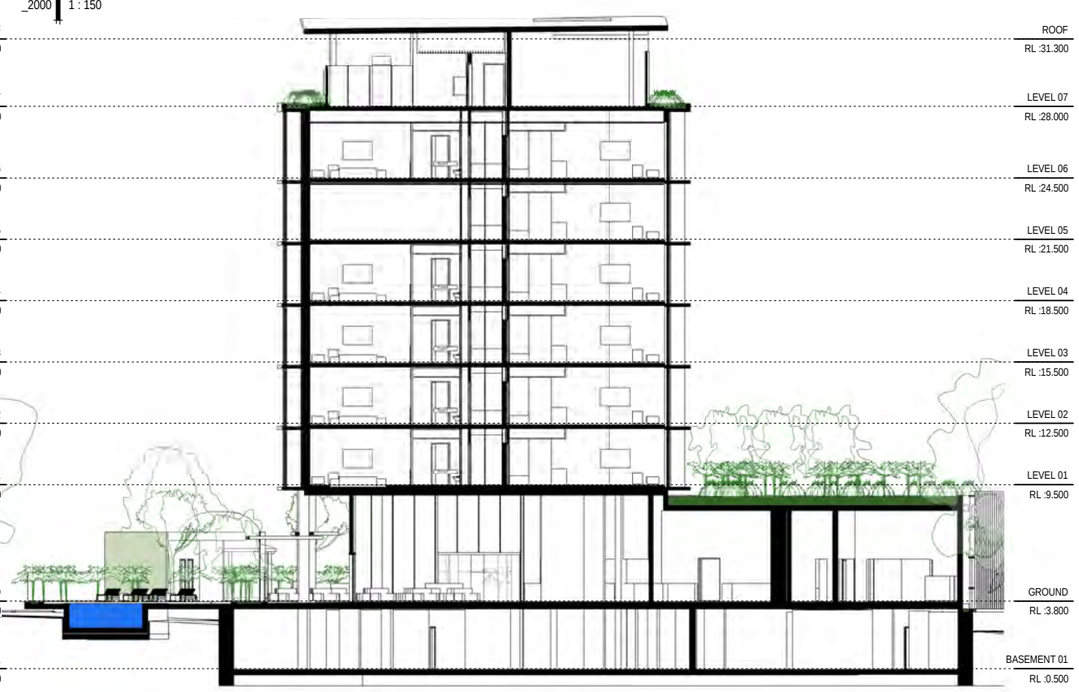
_2000 1 : 150

2 SECTION CC'

_2000 1 : 150

3 SECTION FF'

_2000 1 : 150



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C	13/09/2017	PRELIMINARY		
D	14/09/2017	PRELIMINARY		

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TITLE SECTIONS

Scale 1:100 0 2 4 6 10m

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SCALE	250		@ A3
DATE	21/09/2017 3:05:55 PM		
JOB NO.	53159C16		
DWG NO.	NRA-84169-DD-_5010		D

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1 SECTION BB'

_2000 1 : 150

2 SECTION DD'

_2000 1 : 150

3 SECTION EE'

_2000 1 : 150

QUALITY CERTIFIED ISO9001-2015

REV.	DATE	DESCRIPTION	DRAWN	CHECKED
A	04/09/2017	PRELIMINARY		
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TITLE SECTIONS

Scale 1:100 0 2 4 6 10m

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