



Adelaide Airport Hotel

MAJOR DEVELOPMENT PLAN

June 2015

FOREWORD

As Managing Director of Adelaide Airport Limited, I am pleased to present this Major Development Plan for the development of an Airport Hotel. This document presents a description of the proposed development and an assessment of the environmental impact of the proposal, specifies compliance with the Adelaide Airport Master Plan (2014) and outlines the construction and operation parameters of the facility.

Adelaide Airport has grown substantially in the past few years and now has some 8 million passengers passing through the terminal with this number forecast to continue to grow. Many of these passengers need the convenience of a close hotel to enable catching early morning flights the following day. In addition, business activity has now grown on the airport to the point where more than 8,700 people are directly employed on the airport and many business people fly to Adelaide to conduct business solely at the airport. The development of the Airport Business District, announced in October 2014, will significantly increase this growth. A hotel adjacent to their place of work would be welcomed by many of these business travellers.

The design of the hotel is planned to complement the airport's Terminal 1 and offers to the travelling public convenient, high quality accommodation and services as part of their travelling experience, linking directly to the multi-level car park, the pedestrian plaza, Terminal 1, and the intended nearby Office Park.

Adelaide Airport Limited prepared an Environmental Strategy within the Master Plan (AAL 2014) for the airport. Environmental management on the airport successfully maintains a balance between environmental impacts and development. The proposed development of the hotel will continue this balance whilst bringing to the travelling public new and innovative services.

Adelaide Airport Limited will continue to consult with stakeholders and act upon relevant inputs to the operational and environmental management of the airport.



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EXECUTIVE SUMMARY

It is proposed to develop an airport hotel in the Terminals and Business Precinct of Adelaide Airport. This Major Development Plan (MDP) for the project is required by the Airports Act 1996, due to an expected construction cost exceeding \$20million.

AIRPORT PLANNING

The *Adelaide Airport Master Plan* (AAL 2014) identifies various precinct planning areas. For each precinct, the Master Plan establishes key development objectives, principles of development control, and land uses which are considered appropriate or not envisaged within the precinct.

The site for this major development is contained within the Terminals and Business Precinct of Adelaide Airport. The hotel is a complying activity within this precinct.

THE SITE

The proposed hotel will be located within a notional area which provides direct access to Terminal 1, and the Multi-level Car Park and also a direct elevated link to the proposed Business Park.

THE PROPOSED HOTEL

Facilities incorporated into the hotel on the lower floors are expected to include plazas, restaurants or landscaped areas, that could include recreational facilities such as gymnasium, conference areas and meeting rooms and offices with associated restaurants, bars and lounges. Guest carparking can easily be accommodated in the adjacent Multi-level Car Park.

The upper floors are expected to vary between 160 and 265 hotel rooms over 6 or more levels.

AVIATION ISSUES

The final design of the hotel will ensure that there will be no impact on the operations of the airport for aviation uses as a result of the construction or operation of the proposed hotel.

CONSTRUCTION

The development program is estimated to run over approximately 30 months with construction taking around 20 months. The site will be securely fenced and any demolition works required will be undertaken prior to commencement of construction.

ENVIRONMENTAL MANAGEMENT

A draft Construction Environment Management Plan (CEMP) will be developed to form the basis for the environmental management of the development. The draft CEMP will document the environmental controls to be required of all contractors operating on the project.

STORMWATER

The development of the hotel is unlikely to increase the percentage of impervious area of the site. The management of stormwater at the new site will not increase the outfall rate of stormwater discharged from the airport to surrounding drains. The proposals to control stormwater quality from the site will result in an improvement in stormwater quality being discharged.

VISUAL

The hotel will be visible at public access points and have a strong visual presence from Terminal 1, Sir Richard Williams Avenue and the Plaza. The extent of the visual impact will be mitigated by the modern architectural design, use of appealing colours and external non-reflecting finishes and associated landscape proposals.

TRAFFIC

A significant proportion of patrons to the proposed hotel will fly to/from the terminal and, hence, will not generate traffic on the road network. Notwithstanding this, there will be additional traffic associated with a hotel at the airport.

It is estimated that there will be approximately 230 to 300 vehicles per day (vpd) during the construction period which would equate to a peak hour volume of approximately 30 vpd. Such a volume is only approximately 1% of the daily

traffic volume on Sir Richard Williams Avenue and will have a negligible impact on the operation of this road or its intersection with Sir Donald Bradman Drive.

Taking account of delivery vehicles, staff vehicle and conference attendance from Adelaide, the proposed hotel would generate a between 520 to 980 vpd, depending on the use for large conferences. These estimates equate to between 55 to 105 vph in the peak hour. These predicted peak hour vehicle movements have been included in the Traffic Access Study.

NOISE

Noise from the operation and construction of the proposed hotel development is predicted to comply with all relevant noise criteria detailed under the *Airports Act 1996* and associated Regulations and the *South Australian Environment Protection Act 1993*.

ARCHAEOLOGY AND HERITAGE

There are no known sites of archaeological or heritage significance within the notional development site. If any remains or artefacts are found during construction, they will be addressed using standard protocols developed under the AAL Environment Management System.

GROUNDWATER

Groundwater on the site can be expected to be encountered at between 1.0 and 3.0 m below ground surface. There is a very low risk of construction and development activity adversely impacting the soil or groundwater beneath the site. If any issues do arise during the construction process, then AAL environmental management procedures are in place to adequately address them.

ECONOMIC

It is estimated that the construction and establishment of the hotel will directly and indirectly provide 500 jobs in the year starting construction. It is estimated that the associated incomes or value added generated by this activity will be \$30.3 million.

Once operational, the direct and indirect impact in terms of job opportunities is estimated to be 156 per year. This will generate value added of some \$64.2 million per annum.

AIR QUALITY

Careful design and appropriate management of the potential sources of air emissions will meet the regulatory requirements of Australian Design Codes and Building Control Regulations and requirements under the *Airports Act 1996*.

FLORA AND FAUNA

There are no significant species of plant or animal on the development site.

On the basis of the vegetation survey findings, no tree or shrub species warrant retention or relocation. The combined species and habitat value will instead be replaced through replanting in the form of a site-specific landscaping plan

CONSISTENCY WITH LOCAL PLANNING SCHEMES AND MASTER PLAN

The proposal to develop a hotel on Adelaide Airport is consistent with the role and function of the airport as described in State Government Planning Strategies. The proposal is also consistent with the recently approved *Adelaide Airport Master Plan* (AAL 2014).

While the proposed hotel development is not technically consistent with the West Torrens (City) Development Plan - Adelaide Airport Zone, this 'airfield zone' is a generic one intended to focus on all airports within the State and should be now aligned with the approved Adelaide Airport Master Plan (2014). However the Council Development Plan does recognise the need for promotion of the economic improvement of the State with Adelaide Airport being the gateway.

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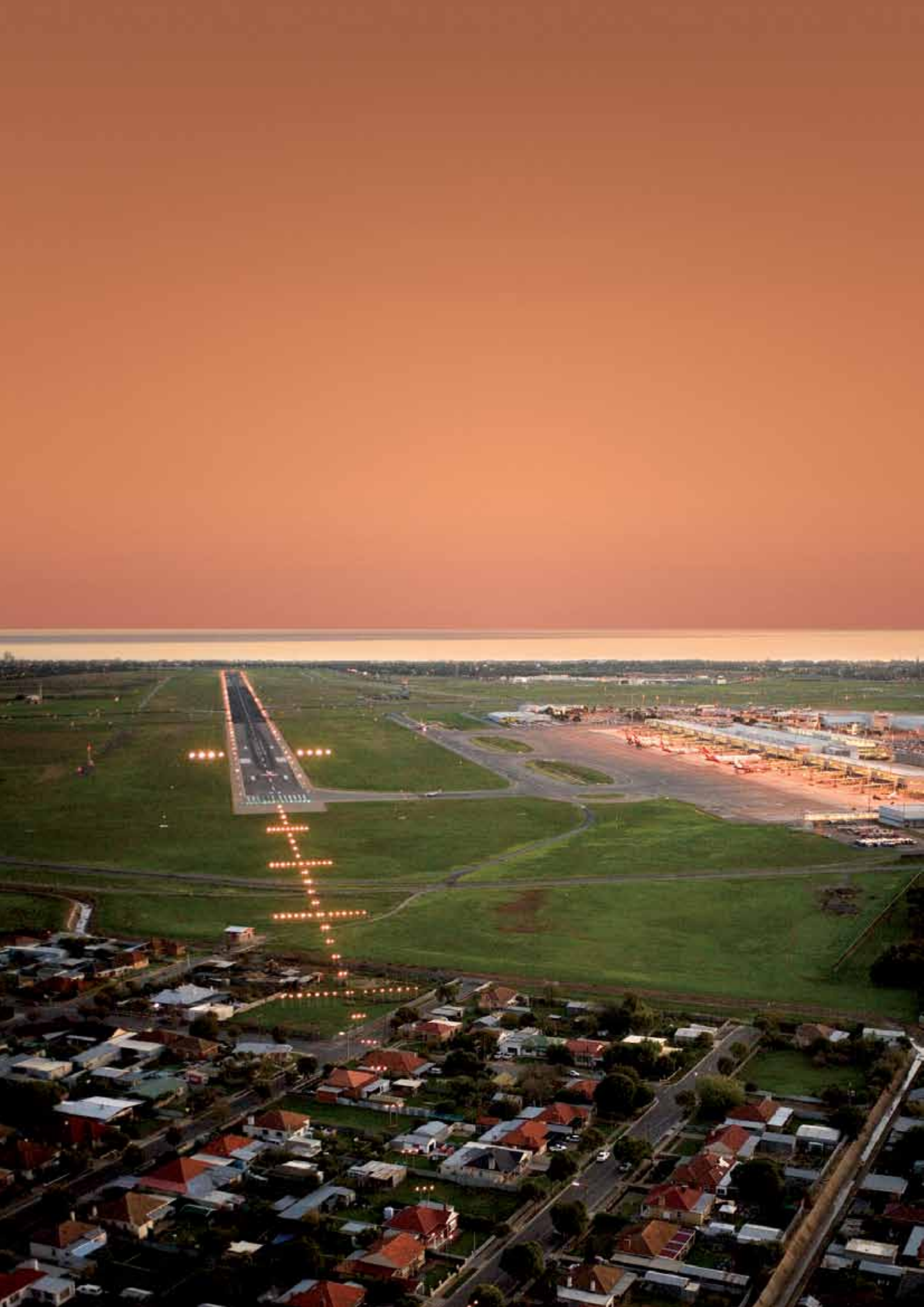
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ABBREVIATIONS

AACC	Adelaide Airport Consultative Committee	FAC	Federal Airports Corporation
AAL	Adelaide Airport Limited	FTE	Full Time Employment
ABC	Airport Building Controller	GSP	Gross State Product
AEO	Airport Environment Officer	ICAO	International Civil Aviation Organisation
AHD	Australian Height Datum	MDP	Major Development Plan
ANEF	Australian Noise Exposure Forecast	MSDS	Material Safety Data Sheet
ARI	Average Return Interval	NASAG	National Airports Safeguarding Advisory Group
AS/NZS	Australia and New Zealand Standard	NASF	National Airports Safeguarding Forum
AS/ACIF	Standards Australia/ Australian Communications Industry Forum	OLS	Obstacle Limitation Surfaces
BCA	Building Code of Australia	Pans Ops	Precision Approach Navigation Surfaces - Operations
CASA	Civil Aviation Safety Authority	RMU	Ring Main Unit
CAR	Civil Aviation Regulation	RPT	Regular Public Transport
CBD	Central Business District	SAA HB29	Australian Standards Communications Cabling Handbook
CEMP	Construction Environmental Management Plan	SA EPA	South Australian Environment Protection Agency
DPTI	Department of Planning, Transport and Infrastructure	SATC	South Australian Tourism Commission
EMP	Environmental Management Plan	SOP	Standard Operating Procedure
EMS	Environmental Management System	VPD	Vehicles per Day
EPBC Act	Environment Protection and Biodiversity Conservation Act	VPH	Vehicles per Hour



Chapter 1

INTRODUCTION

The Adelaide Airport site has been developed significantly since privatisation in 1998. Major projects include the construction of Terminal 1, the multi-level car park, the pedestrian plaza, a major enhancement of the internal road system, a newly opened state-of-the-art control tower and upgrading of service facilities. Adelaide Airport has won numerous awards during this time for the standard of design and build of these projects and also for the quality of passenger service.

In addition, several major commercial precincts have been developed on surrounding land not required for aviation operations.

Adelaide Airport has experienced a steady increase in passenger growth and is currently ranked first of all Australian capital city international airports in terms of overall passenger movement growth trends. Up to October 2014, some 970,000 international passengers departed or arrived from Adelaide Airport; a significant increase on the previous year.

The 2014 Master Plan for the airport forecast that the numbers of international arriving and departing passenger movements will grow from approximately 807,000 in 2013 to 2.81 million in 2034. This represents an average growth of 5.5% per annum over the next 20 years. Domestic arriving and departing passenger movements are forecast to grow from 6.1 million in 2014 to 14.1 million by 2034; an average growth of 4.0% per annum over the next 20 years.

These forecasts represent a significant increase in passenger movements through the airport and the potential demand for overnight stays at an airport-based hotel.

In addition, the development of the recently announced Airport Business District will further enhance the airport as a destination in its own right which will require servicing by infrastructure such as a conveniently located hotel.

Key development objectives relevant to the current major development of a hotel within the Airport Zone include:

- strengthen the airport's role as a major activity hub for transportation, employment and commercial development for Metropolitan Adelaide and South Australia;
- accommodate a range of uses which are compatible with the principal aviation and tourism function of the airport;
- do not compromise the long-term operational and safety needs of the airport;
- minimise any adverse impacts on surrounding land use activities;
- promote the economic improvement of Metropolitan Adelaide and the State by maintaining the airport as the international, national and regional gateway to South Australia;
- contribute to the viability of the airport as a business enterprise through appropriate commercial development;
- enhance the visual and environmental quality of Adelaide Airport; and
- provide adequate separation distances between non-aviation and aviation development on airport land.

1.1 THE AIRPORT CONTEXT

The airport is located approximately six kilometres west of Adelaide's CBD with its western boundary one kilometre from the shores of the Gulf of St Vincent. The airport occupies a site of approximately 785 hectares and has suitable road linkages to Adelaide and other major locations in the state.

The airport lies predominantly at the western side of the City of West Torrens, adjacent to the Cities of Charles Sturt and Holdfast Bay and bordering the principal holiday and recreational area of metropolitan Adelaide at Adelaide Shores. The airport shares its location with sport and recreational reserves, medium-density residential areas, retailing shopping centres and commercial and heavy industrial complexes.

The airport is the principal international, domestic and regional gateway to South Australia for commercial aircraft, charter and airfreight. The Master Plan for Adelaide Airport (AAL 2014), which was approved by the Minister for Infrastructure and Regional Development on the 9th January 2015 after consultation with the State and Local Governments, mapped the boundaries of Precincts Areas for which land use planning was proposed. The land use planning for a number of precincts on the airport includes commercial developments which do not affect the aviation capabilities of the airport, but allow the careful development of the non-aviation asset of the airport site.

In line with current airport planning, it is proposed to develop a site in the Terminals and Aviation Policy Area for a hotel complex.

This Major Development Plan (MDP) for the project is required under Division 4, Section 89 of the *Airports Act 1996* for the construction of a building which is not a terminal and where the cost of the building exceeds twenty million dollars.

The document describes a locality and a conceptual plan for the building and associated infrastructure, together with other information required by legislation.

Adelaide Airport currently has modern facilities to provide for international, domestic and regional passenger and freight airlines and for general aviation, charter and helicopter operations. It also has dedicated facilities for the handling of perishable and time-sensitive products.

The principal aviation-related facilities at Adelaide Airport include:

- a two-runway system comprising the main 05/23 runway (3,100 m) and a secondary 12/30 runway (1,652 m) together with associated taxiways and apron;
- a Multi-user Integrated Terminal (Terminal 1) serving International, Domestic and Regional airlines including 14 aerobridges and the capacity to handle 3,000 passengers per hour, offering state-of-the-art amenities for passenger comfort, quality processing and leisure facilities;
- general aviation facilities (including terminals) and helicopter infrastructure;
- on-airport short and long term car parking facilities including public car parks at the terminals;
- on-airport staff car parking facilities;
- air freight facilities;
- aircraft maintenance hangars and associated infrastructure;
- in-flight catering services;
- rescue and firefighting services;
- air traffic control, including a new Control Tower in 2013;
- meteorological services; and
- aviation fuel suppliers.

1.2 APPROVALS SOUGHT BY ADELAIDE AIRPORT LIMITED

Adelaide Airport Limited (AAL) previously sought approval for a hotel development in 2008 at the airport in essentially the same location. In October 2008, the then Minister for Infrastructure, Transport, Regional Development and Local Government approved a MDP for a hotel within the Terminals Precinct on Adelaide Airport.

The MDP included the indicative nature of the boundaries of the hotel site at that time. A subsequent detailed review of the Terminals Area Precinct Plan highlighted the significant acceleration of busy hour growth and demand on landside roads and car park infrastructure. This required a minor realignment to the proposed hotel boundaries and a minor variation to the approved MDP was submitted to the Minister at the time and was approved in 2010.

This approval was granted for a period of five years and hence is nearing the end of the approvals process.

In the meantime, the global and Australian economic conditions during the terms of the previous approvals made securing financing and development commitment very difficult and hence no actual development of a hotel occurred. Economic conditions have now improved and the significant recent developments at the airport,

coupled with outstanding growth in passenger numbers, have meant that the probability of commitment to develop a hotel is now likely. AAL has therefore prepared this document for a slightly amended hotel concept, essentially located in the same position adjacent to Terminal 1. The new hotel concept links directly to the pedestrian plaza and the intended office park with access from the recently completed new internal road network.

AAL is therefore seeking approval from the Minister for Infrastructure and Regional Development to construct a building (hotel and associated infrastructure) where the building is not for use as a passenger terminal and the estimated costs of construction will exceed \$20 million (Section 89 (1) (e) i and ii of the *Airports Act 1996*).

The precise location and exact details of the design of the hotel will be finalised upon the appointment of an investor sourced from the Expression of Interest process. There is however, little variation expected in the design concept and AAL seeks approval for the parameters described in this report.



Chapter 2

BACKGROUND

2.1 AIRPORT HISTORY

The location for Adelaide Airport was announced in 1939. It was considered that this site provided good approaches from all directions, and it was only 6 km from the centre of Adelaide. The location was approved by the State Cabinet in 1946 and construction commenced in September 1947. The first plane touched down on 16 December 1954 and commercial operations commenced in February 1955.

The first passenger terminal was located in the annex of the then Ansett Hangar. Subsequently, a temporary Domestic Terminal was constructed and opened on 30 August 1957. The terminal concourse or finger was constructed in 1969. In the early 1980s the Domestic Terminal was expanded to accommodate the latest generation of wide-body aircraft, and included further extension of the concourse and a separate arrivals area for baggage collection. Domestic airlines undertook further extensions to the Domestic Terminal, forming the basis of the arrangements until 2006.

The International Terminal commenced construction in the early 1980s and officially opened in November 1982.

The site for Terminal 1 was chosen to the immediate south west of the International Terminal in the area formerly used for public viewing and predominantly laid to grass. Construction of the Terminal 1 commenced in November 2003, and was completed in October 2005 with full operations commencing in February 2006.

In 2010, AAL released a MDP for a Multi-Level Car Park which provided direct access to Terminal 1 via a pedestrian plaza space. The car park was to be complemented by new internal major access roads that incorporated a re-alignment of existing road infrastructure and provision of additional roads as a component of the project. Facilities proposed for the car park and associated roads included commercial spaces serving hire car operators, valet parking, food and beverage outlets, and other small retail-focused tenancies.

The pedestrian plaza was proposed as an essential integrated component of the project providing an appropriate transition zone between Terminal 1 and the Multi-level Car Park. A minor variation for the provision of an elevated walkway between this car park and the terminal was also approved for this development.

Construction of the landside Infrastructure works for the car park commenced in 2010 and was completed in 2012. These works also included significant upgrades to the in-ground services for capacity and locational objectives and recognised the potential future developments such as a hotel in the immediate vicinity.

2.2 LEGISLATIVE REQUIREMENTS

2.2.1 Airports Act 1996

The privatisation of Australia's airports which commenced in 1998 was facilitated by the establishment of the *Airports Act 1996* (the Act) and associated Regulations, which provides a regulatory framework and obligations for airport operators to develop Master Plans, Environment Strategies and seek approvals for Major Developments.

Since privatisation of the airport in 1998, master planning of Adelaide Airport has been undertaken in five-yearly increments. Master Plans have been prepared by AAL and subsequently approved by the Commonwealth Government in 1999, 2004 and 2009.

AAL prepared a new draft Master Plan for the airport in 2014 which was approved by the Minister for Infrastructure and Regional Development in January 2015. This Master Plan is in force for a period of five years from the date of approval or until it is replaced by a new or revised plan.

2.2.2 Major Development Plan Approvals Process

The *Airports Act 1996*, requires AAL to prepare a MDP for the Minister of Infrastructure and Regional Development to approve, or refuse to approve, certain works as described in the Act, prior to commencing work. Under section 89(1) (e) of the Act, the hotel complex development qualifies as a project requiring an MDP, because the building cost is forecast to exceed \$20 million.

The requirements of a MDP and the public consultation process are described in Part 5, Division 4 of the Act. Once a draft MDP has been prepared it must be published and generally made available for public comment for a period of 60 business days. However, a shorter public display period (of 30 business days) was approved by the Minister for this proposed development.

Section 91 of the Act specifies the contents of an MDP. The contents must cover the following items:

- objectives for the development;
- the extent to which the project meets the projected growth and needs of airport users;
- a detailed outline of the development;
- consistency with the Airport Master Plan;
- consistency with the airport lease;
- the effect the development would be likely to have on flight paths;
- impact on noise levels and the ANEF;
- an outline of approvals sought in respect to Division 5 (Building Control) or Part 12 (Protection of Airspace) of the Act;
- an environmental impact assessment;
- plans to deal with any environmental impact;
- likely impacts associated with traffic flows, employment levels, local and regional economies and local communities and how the plans fit within local and State planning schemes for commercial and retail development in the adjacent area;
- consistency with local planning schemes;
- evidence of having given due regard to the responses and comments following the invitation to comment by public consultation; and
- any other matters specified in the regulations, including compliance with AS2021-2000 *Acoustics-Aircraft Noise Intrusion-Building Siting and Construction*.

Consistent with Section 91(1) (a) of the Act, the objectives of the proposed development are specifically addressed in this document as follows:

- Section 1.2 “Approvals Sought by Adelaide Airport Limited” - which details the revised hotel concept and the proposal for establishing the hotel in compliance with the objectives of the relevant precincts in the approved Master Plan (2014);
- Section 3.4 “Functional Objectives” - which sets out the objectives for the scale and nature of the development in relation to the need and justification (Sections 3.1 and 3.2); and
- Sections 9.2 and 9.3 which detail the objectives for the proposed hotel development within the relevant zones and precincts.

Objectives for particular aspects of the development are also addressed in various sections in this document. For example energy saving for electrical systems in Section 4.7.2, and performance objectives of the Construction Environmental Management Plan in Section 7.2.

For the purposes of Section 91 (d) of the Act, the proposed development is consistent with the approved Master Plan (as discussed in Section 9) and consistent with the relevant Local and State Government planning schemes (Section 10). The proposed development is also consistent with the airport lease, with the respective under-leasing arrangements to a selected developer to directly abide by the mandatory terms of the airport lease to the extent that the *Airports Act 1996* will prevail over any other contrary South Australian statute, code, regulation, by-law or ordinance or notices, orders, requirements or obligations under those laws and will comply with the laws of the Commonwealth of Australia, thereby meeting the provisions of Section 91 (1) (ca) of the Act.

The development of an Airport Hotel is also complementary to the obligations under the Airport Lease to meet the actual and anticipated future growth and pattern of demand for the airport site, with the site specifically selected to integrate with terminal aviation services, but not restricted to any future expansion. The quality

standards of the hotel (refer Section 4.3 Design Intent) are commensurate with those of an Australian capital city airport and thereby good business practice.

In accordance with Section 91 (3) of the Act and Section 5.04 of the *Airports Regulations 1997* AAL is required to address any obligations on the company from pre-existing interests in the airport. AAL inherited some on-going leases under the *Airports (Transitional) Act 1996* which were issued prior to the commencement of management of the airport by AAL. In addition, when AAL commenced as the head lessee of the airport, some easements were recognised and continued thereafter. These easements confer rights for the passage of stormwater, potable water, recycled water, sewerage, electricity and access. They are described in full in the approved *Adelaide Airport Master Plan* (2014), and identified at Figure 8.2 of that Plan. None of the pre-existing easements described above affect the development of the proposed Hotel on the nominated site.

Prior to submitting the MDP for the Minister's approval, a draft will be published to facilitate public comment in accordance with the requirements of the Act. An advertisement must be placed in a State newspaper stating:

- a draft MDP has been prepared;
- that copies are available for public inspection for a period of 60 business days (or a shorter period if approved by the Minister);
- the place(s) where copies are available including the airport web site; and
- the public are invited to make written comment on the draft MDP.

AAL must make copies of the draft MDP available for inspection and, as required, for purchase.

Once the public comment period has closed, AAL must submit to the Minister a summary of any comments received together with the draft MDP. This summary must contain the following:

- the names of persons or organisations that made comment;
- a summary of the comments;
- a statement declaring that the company has taken due regard of the comments; and
- any other information relating to the comments that may be required by the Regulations.

In addition to the public consultation requirements, Section 93 of the Act places further requirements on AAL in respect to consultation with government agencies and the aviation industry and any other persons, where consultation occurred prior to the period of public comment. In this case, the draft MDP submitted to the Minister must also include a summary of that consultation including:

- the names of persons and organisations consulted; and
- a summary of the views expressed.

Prior to submitting the draft MDP to the Minister, AAL must advise in writing the following persons and provide evidence by way of a copy of the advice and a signed written certificate to the Minister of copying the draft MDP to:

- the State Minister for Planning;
- the senior authority for Planning in South Australia; and
- the CEOs of the cities of Adelaide, West Torrens, Holdfast Bay and Charles Sturt.

Once AAL submits the draft MDP to the Minister, the Minister has 50 business days to decide whether to approve or refuse to approve the plan. The Minister may approve the draft MDP subject to conditions. In making a decision to approve or refuse the draft MDP, the Minister must have regard to:

- the extent to which the document achieves the purpose of an MDP;
- the extent to which the draft MDP meets the needs of airport users;
- the effect of the draft MDP on the future capacity of the airport;
- the impact of the proposed development on the environment;
- consultation undertaken;
- the views of the Civil Aviation Safety Authority (CASA) and Airservices Australia in respect to safety aspects and operational aspects;
- the consistency of the draft MDP with the Master Plan; and
- any other matters considered relevant.



Chapter 3

NEED AND JUSTIFICATION

3.1 NEED

There is an increasing demand for hotel accommodation in Adelaide due to rising intrastate, interstate and international visitation. Tourism trends are based on data provided by the South Australian Tourism Commission (SATC), based on the *National and International Visitor Survey (NVS/IVS)* as prepared by Tourism Research Australia (TRA), for 2013/14 as well as the *Regional Tourism Profiles for South Australia 2012/13*.

In the 12 months to June 2014 domestic and international visitors spent \$4.02 billion on trips to South Australia. International visitor expenditure accounted for 18% and domestic overnight expenditure 82% of the total.

3.1.1 Interstate Visitation

The following points define domestic visitation to the South Australian and Adelaide tourism region in 2012/2013 financial year:

- In total South Australia received approximately 5.29 million visitors and 19.91 million visitor nights, of which 1.8 million visitors and 9.7 million visitor nights were from domestic interstate travellers and 3.5 million visitors and 10.2 million visitor nights were from domestic intrastate travellers.
- Adelaide received approximately 2.4 million visitors which generated 8.7 million visitor nights, accounting for 44% of total visitor nights to South Australia.
- South Australia's share of interstate visitors was 3% and nights was 2.9%. Victoria and NSW are the State's most important interstate markets, providing 43% and 27% of the State's interstate visitor nights, respectively.

- South Australia's share of national intrastate visitors was 6.9% and nights was 6.6%. 93% of intrastate overnight travellers used a private or company vehicle when travelling intrastate.
- Air transport was used by 59% of interstate visitors and private or company vehicle was used by 39% of interstate visitors travelling within South Australia
- South Australians travelling in their own state account for around 35% of visitor nights, visitors from interstate 33% and international visitors 32% of nights.
- On average, domestic overnight visitors to the region stayed 3.8 nights, comprising interstate visitors 5.3 nights and intrastate visitors 3.0 nights. It should be recognised, however, that this is not reflective of stays in hotels, as a large proportion of this demand is typically accommodated by friends and family, as well as in workers and student accommodation.

A positive sign of improved tourism activity is evident in the increase in domestic passenger movements. Recent data shows domestic movements grew 3.5% to 4.7 million for the Year Ended March 2014 with an additional 129,000 passengers in comparison to the previous corresponding period.

The Adelaide – Melbourne route provided the largest contribution to growth with an additional 62,000 passengers (3.9%), followed by the Gold Coast route with an additional 21,000 passengers (14.7%). Tigerair commenced its new Brisbane and Sydney services to and from Adelaide in mid-March 2014, and therefore the impact of these services is not yet fully reflected in the results.

3.1.2 International Visitation

The following points define international visitation to the South Australian and Adelaide tourism region:

- Approximately 386,000 international visitors came to South Australia, generating 9.4 million visitor nights with an average length of stay of 24 nights, down 5 nights from the previous year. It should be noted that the high average length of stay is due to education-related tourism.
- International visitor numbers are up 7.1% however nights decreased by 10.3% on the previous year to June 2013. South Australia's share of Australia's total international visitor nights accounted for approximately 4.3%, stable on the year before.
- The top three International source markets to South Australia come from the UK (16%), New Zealand (12%) and USA (9%). Europe in total accounted for approximately 45% of South Australia's international visitors.
- Approximately 7% of visitors originated from China, making it South Australia's fourth largest source market. Asia collectively accounted for 29% of international visitors to SA, and a significant 50% of international visitor nights.
- 55% of international visitors listed Holiday as the main reason for visiting the state, with 32% visiting friends and relatives and 11% visiting for business.

International visitation is projected to grow faster than interstate; with 21% growth in trips (45% growth in nominal expenditure) compared to interstate which is forecast to experience 12% growth in trips (33% growth in nominal expenditure).

The continuing redevelopment and expansion of Adelaide airport clearly underlines the confidence of international carriers in the destination, with strong total passenger growth of 4.7% for the financial year to 31 March, 2014. Data indicates that international passenger movements increased by 23.1%, reflecting both an improvement in load factors up by 14.1% and an increase in capacity.

3.1.3 Hotel Occupancy and Demand

A specialist hotel consultancy firm, AHS Advisory, undertook an assessment of the viability of providing further accommodation in the Adelaide Airport area. This study indicated greater demand from the domestic business travel sector than the holiday segment.

According to the data reported through STR Global, the 4- to 5-star hotel market of relevance to the proposed hotel at Adelaide Airport performed as follows:

- In the year ended June 2014, occupancy was 82.7%;
- In the year ended June 2013, occupancy was 78.5%; and
- In the year ended June 2012, occupancy was 77.1%.

Overall, existing levels of captured demand comprise 45% of leisure-related business market and 55% of corporate-related market.

A hotel at Adelaide Airport is likely to be utilised by staff and clients of the more than 100 companies on-airport, as well as those in the vicinity. Apart from domestic business travel, there is also the prospect of significant demand from regional travellers using the airport hotel as a transit node.

The Adelaide hotel market has gone through a period of transition over the past few years. While demand for transient accommodation has grown, occupancy levels declined between 2002 and 2004 as a result of approximately 600 rooms, mostly apartment-style, entering the market. However, since hitting a low of 66% in 2004, occupancy levels have improved significantly and had reached over 78% in 2007. This level of occupancy continued through to 2012 and increased to a high of 82% in 2014 (Figure 3.1).

Detailed forecasts of market occupancy are shown in Figure 3.1 also. These forecasts from AHS Advisory indicate that future occupancy rates in Adelaide will remain strong, and range between 72% and 78% in the period 2015 to 2022.

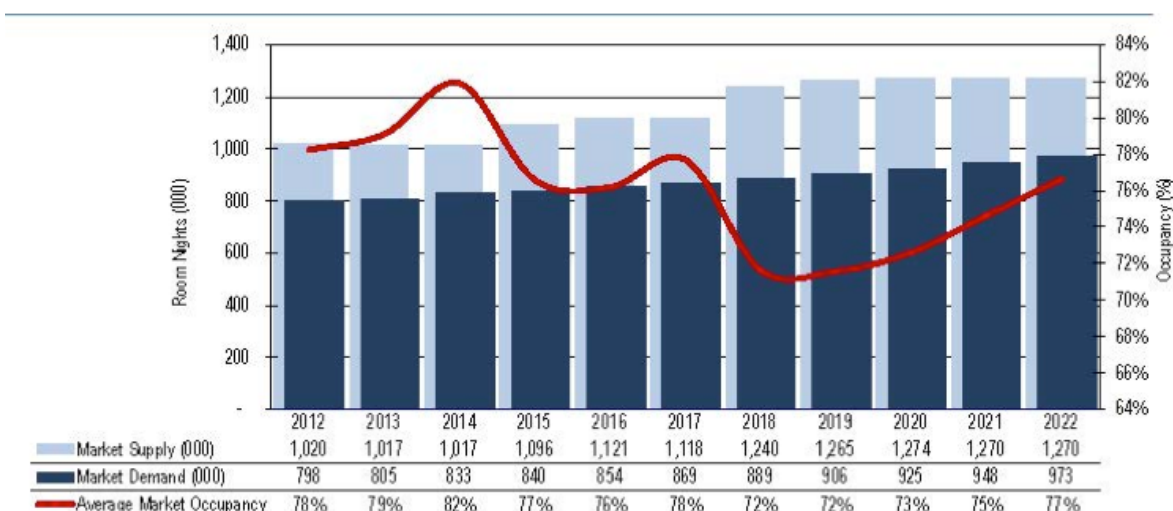
It should be noted that these forecasts are based on a number of economic factors and the eventual market occupancy rates may vary from those shown in Figure 3.1.

Against this background, research has identified an opportunity for development of transient accommodation at Adelaide Airport, driven primarily by the site's location close to a major transport hub. Such a location will stimulate the growth of short airport-based stays from fly-in fly-out visitors which is additional to the current demand which is met by existing hotels in Adelaide.

In the City of West Torrens, there is a very limited supply of hotels of comparative quality.

Analysis of conference space in the West Torrens area also reveals a limited number of purpose-built conference facilities, despite demand from the growing number of airport businesses and employees.

Figure 3.1 Market Occupancy Levels and Outlook 2022



Source: AHS Advisory

3.2 JUSTIFICATION

The key advantages of the development of a hotel at Adelaide Airport include:

- a location within walking distance of the airport terminal, with a number of flights arriving and departing daily;
- proximity to corporate demand generators within the airport precinct, including over 115 employers and potentially the airline industry and Airport Business District;
- the airport's locality within a 15 minute drive time from the Adelaide CBD in a growing commercial, residential and industrial region; and
- the passenger flight scheduling from 6 am to 11 pm daily which limits the potential disturbance from air traffic-related noise.

While the hotel adjacent to the terminal is unlikely to be visible from external passing traffic, its airport locality is a readily identifiable address to residents of the entire Adelaide metropolitan area, as well as regional, domestic and international travellers.

The key positives of the airport location include:

- within 15 minute drive time of Adelaide CBD, and located within a growing commercial and light industrial precinct and all the associated demand for corporate, meetings, and leisure accommodation;
- located with the residential corridor of surrounding suburbs and the associated "Visiting Friends & Relatives" demand for accommodation;
- co-located within the business parks of the Airport Business District and their associated corporate and meetings demand for accommodation;
- highly visible to, and easily accessed by, arriving and departing passengers;
- Immediate linkages to the surrounding airport precinct and local area road network;
- connectivity to the Airport terminal building and therefore within convenient walking distance for all potential demand sources once at the airport; and
- completion of intended high quality hotel building, purpose-designed to meet identifiable demand for accommodation, food and beverage facilities, meetings and conference facilities and related activities.

Table 3.1 Complying Use Analysis for Airport Precincts

Precinct	Hotel	Motel
Runways Precinct	Non-Complying	Non-Complying
Terminals & Business Precinct (exc. Burbridge Park Policy Area)	Envisaged	Envisaged
Burbridge Business Park Policy Area	Non-Complying	Non-Complying
Tapleys Precinct	Envisaged	Non-Complying
Morphett Precinct	Non-Complying	Merit
Airport East Precinct	Non-Complying	Non-Complying

3.3 ALTERNATIVE SITES CONSIDERED

In consultation with the Commonwealth, State and local governments, the current *Adelaide Airport Master Plan* (AAL 2014) and past master plans, recognise that there are significant land parcels on the airport land which are not directly required for aviation-related activities. The Master Plan divides the airport into seven precincts, providing guidance as to desired character and form of development appropriate within such precincts. In consideration of alternative sites for a hotel development on Adelaide Airport, a detailed review of other sites has been undertaken, taking into consideration the planning framework for each precinct as described in Section 7 of the Master Plan (AAL 2014). Specifically, Table 3.1 identifies the Precincts and Policy Areas where a 'Hotel' or 'Motel' are envisaged, merit, or non-complying forms of development.

Only the Terminals & Business Precinct (excluding Burbridge Park Policy Area) lists 'Hotel' and 'Motel' as Envisaged Development, while 'Hotel' is also listed as Envisaged Development in the Tapleys Precinct. A 'Motel' is listed as Merit Development in the Morphett Precinct and could also be considered a Merit Development within the Torrens and West Beach Precincts.

The form of hotel or motel development likely to occur outside of the Terminals and Business Precinct is one of low scale, likely to cater for passing traffic along Tapleys Hill Road or servicing existing or expanded sporting and recreational facilities.

The Terminals and Business Precinct, and more specifically the Terminals and Aviation Policy Area, has been identified as the most appropriate location on the airport site for a hotel of an international standard. This reflects the 'major gateway' role of this part of the airport, and the relationship of such a hotel facility to be within easy walking distance to Terminal 1 and its associated car parking and public transport/taxi facilities, and the future Office Park.

Other locations for an international hotel facility have been explored within the Terminals and Aviation Policy Area. However, the proposed location directly relates to and links with

Terminal 1, the recently completed plaza and multi-deck car park, and a potential tram stop within the airport.

For the above reasons, the current proposed site for the international hotel is considered the most suitable.

3.4 FUNCTIONAL OBJECTIVES

Analyses from AHS Advisory indicates a hotel of around 200 rooms or more would be suitable at Adelaide Airport, directed at mid-market accommodation (4-4.5 stars). A smaller hotel or one with broader ratings to allow more affordable accommodation could be contemplated by a selected investor. The facilities should include a restaurant, day-use conference room, meeting rooms and board rooms, gymnasium, swimming pool and nearby car parking. The style of rooms in the hotel should be predominately standard level rooms, with some deluxe rooms and limited suites.

3.5 SUSTAINABLE DEVELOPMENT

The Adelaide Airport hotel is expected to be an integrated development involving a range of amenities, including retail, entertainment, business services and some recreational activities. Some design and sustainable measures considered desirable are:

- a design to maximize access to natural light and to ensure adequate sound proofing from airport noise;
- a Health and Fitness Centre, catering to traveller's wellness concerns;
- a proportion of rooms with openable windows or doors to balconies;
- ability to separately turn on/off air-conditioning or use natural ventilation in recognition of Adelaide's temperate climate;
- use of recycled water or treated stormwater for toilet flushing and for landscaping of grounds;
- solar energy for hot water, swimming pool heating and to supplement electricity supply; and
- consideration of sustainable initiatives such as minimal laundering of towels, and dual flush toilets.



Chapter 4

DESCRIPTION OF THE DEVELOPMENT

4.1 LOCATION

The location of the airport hotel will be within easy and safe walking distance to Terminal 1, the Airport Business District and the Multi-level Car Park and will integrate into the Pedestrian Plaza. Car parking for hotel guests will be provided in the Multi-level Car Park and specific vehicle access for services will be available at the hotel. Ready access to rental car bays in the base level of the car park is also considered advantageous.

The Terminals and Business Precinct is best described as an airport locality, with a constant stream of passenger arrivals and departures, and

which is also attractive for business meetings and leisure. Existing public transport is available in the immediate locality, with buses connecting both to the Adelaide CBD and Glenelg Tourist Zone and a taxi rank is located within a short walking distance. An envisaged light rail link to the city, Henley Beach and other suburbs will terminate also within a short walking distance to the proposed hotel site.

For these reasons, the desirable hotel location is immediately adjacent to Terminal 1 and the Multi-level Car Park, on the edge of the pedestrian plaza.

Figure 4.1 Location Zone for Hotel Developments



4.2 DESCRIPTION OF THE SITE

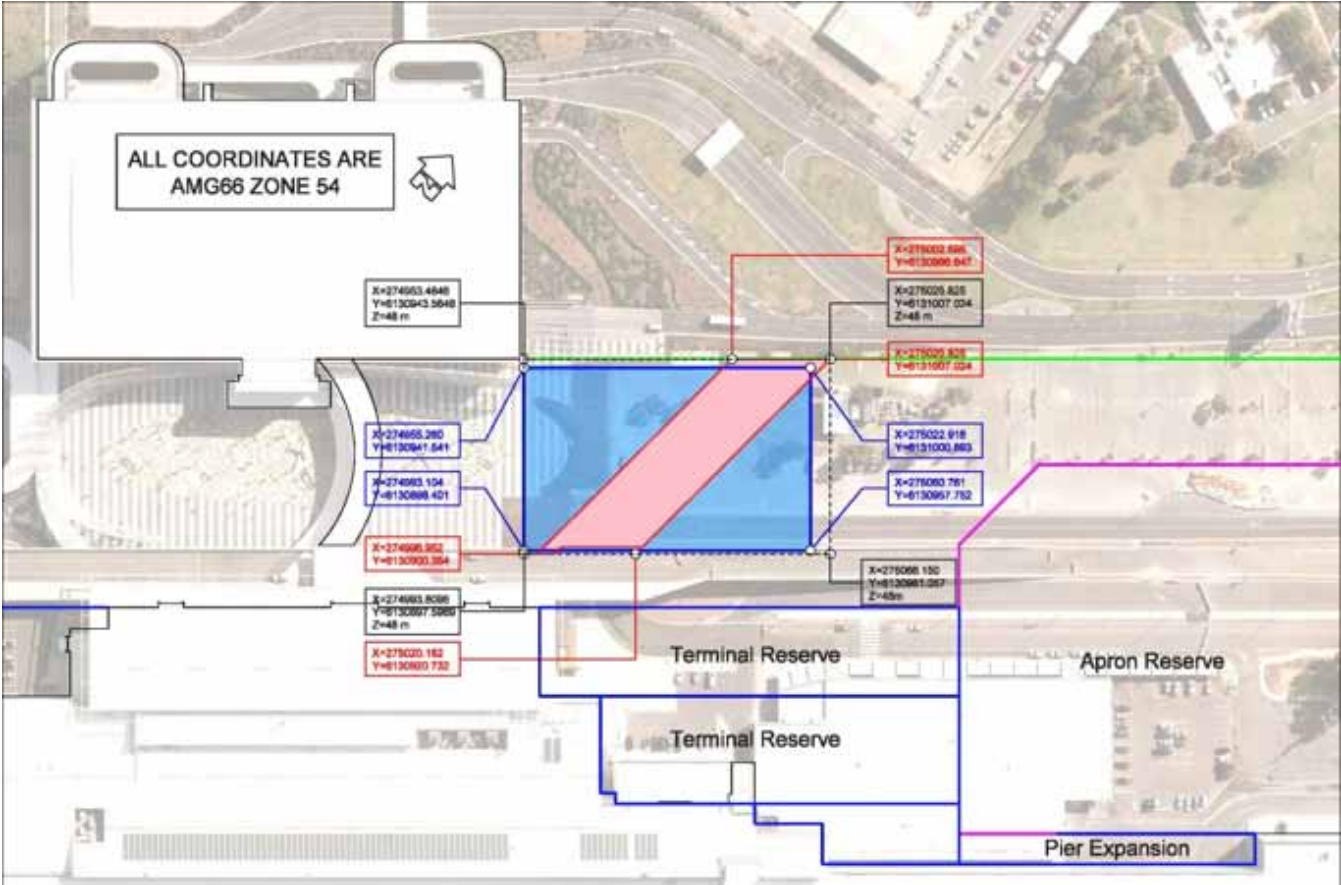
A final specific site has not been detailed in this document. However, the hotel location will be within a defined zone with a maximum footprint of 5925 m² to the west of Terminal 1 identified by cadastral coordinates and as shown in the site sketch (Figure 4.1). A description of the actual development site with cadastral coordinates is shown in Figure 4.2.

The final footprint of the building within the zone will be determined in conjunction with an appointed investor/operator taking into account the preferred hotel design and proposed footprint and facilities considered desirable. For the

purposes of this document, a typical hotel design which meets the design intent and architectural standards of the proposed location zone has been developed. This typical design footprint is shown in Figure 4.3, located in the development zone and connected to the Pedestrian Plaza, the Multi-level Car Park and Terminal 1.

It is important that access to the terminal, the car park, and the intended office park should be easy, with limited or no crossing of any roads, preferably on elevated walkways. These linking walkways are included in this MDP and are shown also in Figure 4.3

Figure 4.2 Cadastral Boundraries of the Development Site



4.3 DESIGN INTENT

The hotel complex will provide accommodation for regional, interstate and international visitors, as well as catering to local Adelaide businesses and residents.

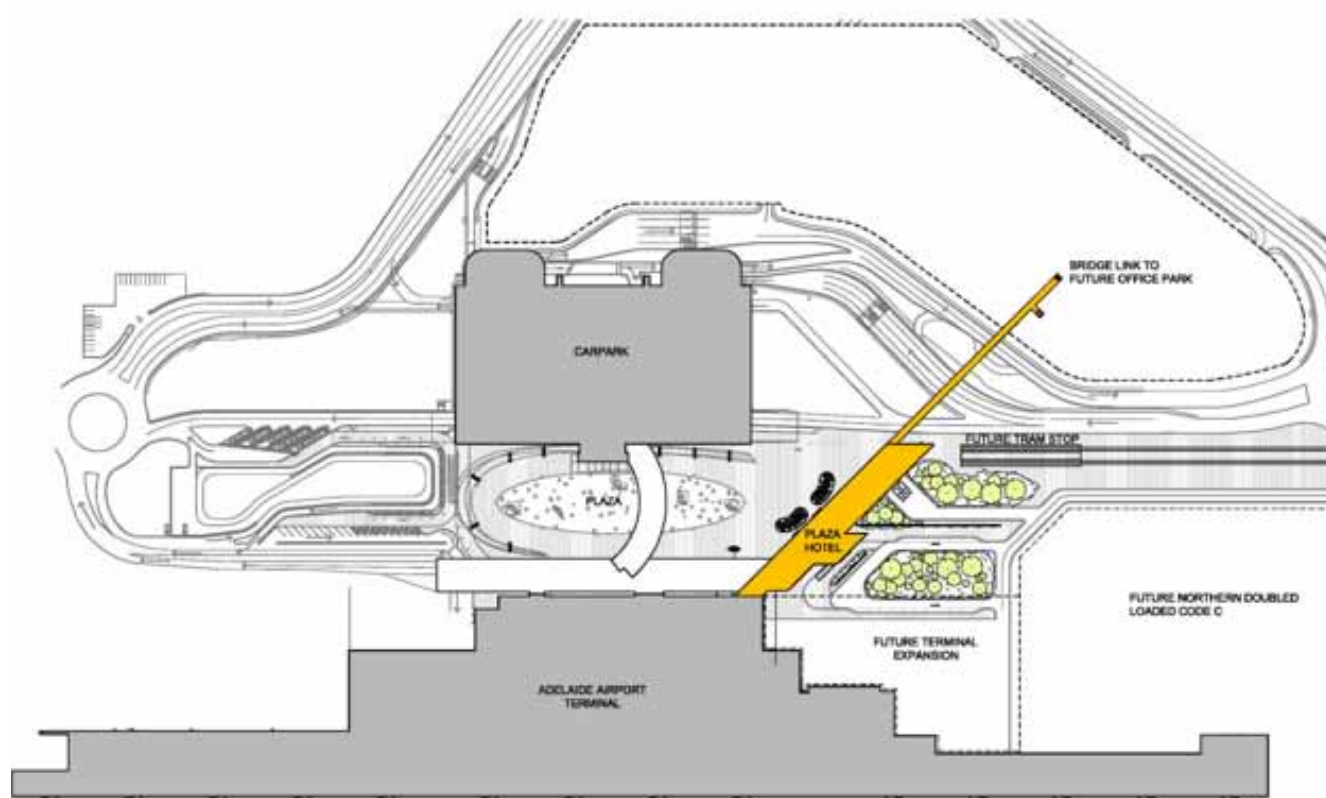
The hotel complex is to be contemporary in design, providing state-of-the-art facilities including offices, conference and seminar rooms, health facilities, nearby car parking, administration offices, and restaurant and bar facilities.

The overall design of the building is intended to be commensurate with a 4-star hotel, and to employ environmentally sustainable initiatives. However, a broader rating level could occur to allow more affordable accommodation if deemed practical by a selected investor.

The design of the hotel will be of a high standard, compatible with the design of the existing Terminal 1 building, the intended future commercial office park and consistent with the *Adelaide Airport Master Plan* (AAL 2014) and the positioning of Adelaide Airport as a modern progressive business centre.

The hotel's mass and scale will provide a focal point and will become the epicentre for the greater precinct. The orientation of the hotel maintains a 'gateway' to the plaza at ground level off Sir Richard Williams Avenue and a vista corridor to the terminal building upon arrival at the drop off and pick up areas to the underside of the car park, whilst providing a sense of enclosure to the plaza.

Figure 4.3 Typical Hotel Design Footprint



4.4 DEVELOPMENT CONCEPT

The hotel complex is to be a landmark building suitably sited to provide direct access to Terminal 1 at Adelaide Airport, and adjacent to the adjacent multi-level car park, sufficient for users of both the accommodation and conference/function rooms varying with the number of hotel rooms and extent of function areas. At present, there are over 2,100 car spaces in the vicinity of Terminal 1, with scope for further development, depending on the extent of in-hotel car parking.

Facilities expected at ground floor level will include:

- Porte-cochere drop-off/pick up;
- Hotel lobby waiting;
- Reception/ administration;
- Bar and Restaurant;
- Kitchen;
- Back of House including linen, stores, loading area; and
- Service yard.

Loading and storage areas for cases and luggage and for services will also be located at or near ground level together with the possibility of some car parking and valet operations.

Level 2 facilities could include:

- Conference facilities;
- Business Centre;
- Serviced Office tenancy space; and
- Gymnasium /Sauna and outdoor deck area.

Upper levels of up to 8 floors will provide for hotel room accommodation of around 33 rooms per floor.

A typical accommodation level may have 33 rooms along a double loaded corridor serviced by lift core (4 lifts including a service lift) located at approximately the midpoint of the floor plate. One passenger lift also serves as a goods service lift should the dedicated lift have intermittent operation or maintenance outage. Stairs will be located at each end of the floor plate at the optimum travel distance for emergency evacuation purposes.

A possible indicative floor design provides four types of rooms as indicated in Table 4.1.

All suites and deluxe rooms are located for maximum privacy, acoustic and visual outlook opportunities. Housekeeping facilities are located at each level directly backing onto the lift access.

The top level will be dedicated for the plant room and auxiliary services such as mobile telecommunications.

The accommodation floors are expected to provide between 165 and 265 rooms varying from standard to deluxe rooms and suites. Overall building height including aerials and antennae will not exceed 48 m AHD, consistent with Airport Obstacle Limitation Surfaces (OLS) requirements set at 48.5 metres AHD.

The hotel complex will be designed to complement the style of Terminal 1, and also be clearly recognizable as quality hotel accommodation, with suitable amenity space.

Table 4.1 Typical Hotel Floor Design Footprint

Room code	Room type	Size sqm NLA	No per floor
Type A	Standard	27	29
Type B	Special needs		1
Type C	Deluxe		2
Type D	Suite		1
Total	-		33

4.5 CAR PARKING, ROADS AND TRAFFIC

Car parking for the proposed hotel facility will be available in the adjacent multi-level car park which also services short-term parking for the terminal.

The majority of users of the hotel can also be expected to be accessing the terminal, allowing many patrons to catch public transport or transfer directly to/from the terminal.

At most, the hotel could be expected to generate a demand of up to one parking space per five hotel rooms for guests and staff (approximately 50 to 55 spaces). Such parking can easily be met in the multi-level parking facility.

Parking will also be generated by the proposed conference facility and function rooms. Such a demand will depend on frequency and size of events. Large events would be anticipated to occur during the evening when activity at the airport is not at its peak. Should a function of 200 persons occur at this time, it would be expected to generate 75 to 100 vehicles which can be readily accommodated in the multi-level car park.

Conferences would occur during the day but would also generate a demand from the terminal. Based on an 85th percentile (design peak) demand of 150 persons at a conference, and a 30% fly-in attendance rate, there would be a parking demand in the order of 50 to 75 vehicles with such a demand easily accommodated in the multi-level car park.

The existing car park was built to comply with *Australian/New Zealand Standard, Parking Facilities Part 1: Off-street car parking* (AS/NZS 2890.1:2004) in that:

- spaces are at least 2.5 m wide;
- aisles are at least 6.0 m wide;
- spaces are 5.4 m in length;
- ramp grades are compliant with the Standard; and
- obstructions, such as columns or walls, do not protrude outside of permitted zones.

‘Goodway Finding’ is provided in the car park to identify available parking for patrons at the hotel, with the number of spaces available per level of car park clearly identified at the car park entrance.

Access to the car park is controlled with access control equipment. Adequate gates are provided to minimise queuing and driver delays. The assessment of queues in the multi-level car park development assessment included provision for parking associated with the terminal plus commercial development and a hotel.

Access to the car park will be via Sir Richard Williams Avenue, the primary access road which services the terminal and other land areas on the airport site. This road, Sir Richard Williams Avenue has a dual lane carriageway, separated by a wide median at the entry to the airport. It intersects with James Schofield Drive at a roundabout, where it provides access to the short-term car park. South of the car park access, Sir Richard Williams Avenue becomes one-way and provides access to the pick-up/set-down facility along the eastern edge of the car park and the bus parking area.

At its southern end, Sir Richard Williams Avenue intersects at a roundabout with the airport Western Link Road, which, together with James Schofield Drive and Sir Richard Williams Avenue, forms the major transport link around the Terminals and Business Precinct.

The above roads are under the care and control of AAL. Traffic volumes fluctuate along the length of the route but peak at approximately 22,100 vehicles per day (vpd) at the major airport access, where Sir Richard Williams Avenue intersects with Sir Donald Bradman Drive at a signalised intersection.

The previous and current *Adelaide Airport Master Plans* (AAL 2009 and 2014) identified future provision of a tram network to provide access to the terminal in close proximity to the hotel site.

The proposed hotel is expected to be serviced by a porte-cochere. This facility will be accessed via the existing service road which provides a link to the northern end of the Terminal, via a service road from the roundabout at the intersection of Sir Richard Williams Avenue and James Schofield Drive. The porte-cochere would be designed to accommodate the turning movements of a large rigid bus.

Refuse collection and delivery vehicles will also access the hotel via the existing service road. The design of this area will facilitate the turning movements of medium-sized trucks such that these commercial vehicles will be able to enter and exit the loading facility in a forward direction.

Commercial vehicles and buses accessing the service road will be able to enter and exit the airport site via Sir Richard Williams Avenue and access the hotel without impacting on the pick-up/set-down facility or the car park access.

4.6 SITE SERVICES

4.6.1 Stormwater Drainage and Water Quality

It is expected that there will be little increase in impermeable areas as a result of the hotel development as the majority of the proposed development zone is already paved. Hence there is not expected to be any need for any on-site detention of stormwater.

The proposed building roof area will direct stormwater discharge into suitably sized gutters with pluvial siphonic grates and pipe system to connect into the civil stormwater drainage system.

During construction, the contractor will apply the recommendations of the SA EPA *Handbook for Pollution Avoidance on Building Sites* and *Stormwater Pollution Prevention Code of Practice for the Building and Construction Industry* to minimise pollution runoff. The completed development will include the installation of interceptor structures to remove the fine particulates, hydrocarbons and gross pollutants where required.

4.6.2 Sewerage

A new sewer connection will be provided from the existing underground sewer main for the hotel complex in the vicinity of Sir Richard Williams Avenue. On-site waste collection pits and pumps will also be provided as required to suit the final location of the hotel.

4.6.3 Electrical Reticulation

It is expected that the 11 kV inset network will be extended from either Kel Barclay Avenue or from Export Park to the proposed site. The 11 kV network will terminate onto a Ring Main Unit (RMU) and supply a transformer dedicated to the proposed hotel complex. Separate low voltage metered supplies can then be provided to the hotel complex.

4.6.4 Communications

The proposed site is well serviced by in-ground communications conduits. Incoming telecommunications services can be provided from Sir Richard Williams Avenue or the stormwater networks which runs in a north westerly direction.

4.6.5 Water Reticulation

Potable water supply is available from existing SA Water pipes under an easement through the centre of the Terminals and Business Precinct.

The design of the hotel will address the use of low consumption tapware and fixtures.

Both treated stormwater and recycled water supply is available in the immediate vicinity and is used for landscape watering. Those facilities can be extended for services within the hotel complex for toilet flushing and landscape areas.

Fire water supply can be provided through a new connection from the existing underground AAL dedicated fire main and extended to service the hotel complex. Minimum pipe size will be 150 mm and provided with a stop valve in a pit adjacent to the new connection.

The fire main will provide water supply for a combined fire hydrant/hose reel and sprinkler

systems. The design team for the new development will need to assess the adequacy of the fire main/supply and provide on-site tanks, pumps etc. to suit the hotel complex demands. This will also include provision for Fire Authority access and suction/booster facilities.

4.6.6 Gas

A new connection can be provided from the existing underground Envestra gas main running in a service corridor along Sir Richard Williams Avenue to serve the hotel.

The supply will be provided with a gas meter station and pressure-reducing valve and relief assembly complying with relevant standards.

4.7 BUILDING SERVICES

Design initiatives to be incorporated in the development brief in selecting a hotel developer/operator are discussed in the following sections.

4.7.1 Mechanical Services

Detailed life cycle analysis is to be undertaken on the air conditioning systems and controls to suit accommodation rooms, function and dining facilities, office areas and service utility areas with the aim of minimising energy and water consumption. The economic benefits of using the site fire water storage for chilled water storage for air conditioning systems (Thermal Energy Storage) is also to be analysed.

Ventilation systems and smoke hazard management systems shall comply with the *Building Code of Australia* (BCA), referenced Australian Standards and Regulatory Authority requirements.

A Building Management System shall, in addition to operation, control and monitoring of mechanical services and other building services systems, monitor energy consumption and perform demand management functions.

4.7.2 Electrical Services

Emergency power for all hotel services during mains failure will be provided by a diesel

generator. Diesel fuel storage will be required to operate the generator for a minimum period of 12 hours.

The lighting system will need to be tested and commissioned as follows:

- interior lighting standard to AS/NZS 1680; and
- exterior lighting standard to AS/NZS 1158.

The lighting control system should be automated (including daylight compensation) in order to achieve energy saving objectives. Lighting efficiencies to minimise power consumption could include the use of LED lights, motion sensing switching and the selection of energy efficient electrical equipment with variable speed drives.

A complete operational telecommunications cabling system, tested and commissioned in accordance with AS/NZS 3080, AS/ACIF S009 and SAA HB29 will be provided. Accommodation for telecommunications cabling infrastructure will need to comply with AS/NZS 3084.

A complete operational emergency evacuation lighting system, tested and commissioned in accordance with AS/NZS 2293 will be specified.

4.7.3 Lift Transportation Services

Vertical lift transportation systems will have an emphasis on energy conservation and will comply with all relevant standards and State licensing requirements.

4.7.4 Fire Protection Services

Fire protection systems shall be designed to suit the hotel complex in accordance with the BCA, its referenced Australian Standards and regulatory authority requirements.

Systems that will be required shall include:

- fire hydrants and hose reels;
- a fire sprinkler system;
- fire water storage and pumping (where required);
- portable fire extinguishers and fire blankets;
- a fire alarm, detection, control and occupant warning system; and
- smoke management systems.

4.7.5 Hydraulic Services

Cold and hot water services to suit hotel developer/operator requirements will be provided and may utilise solar for hot water generation, and consider the use of reclaimed or recycled water where appropriate.

All commercial wastes from kitchen areas will be treated using suitable arrestors prior to discharge into the sewer drainage system.

All water supplies and services will be connected to the hotel Building Management System and comply with the BCA, AS 3500 and its referenced documents and water supply authority requirements.

4.8 CONSTRUCTION

4.8.1 Mobilisation

Prior to commencing hotel construction, the selected builder will establish temporary site accommodation, a secure compound for material storage, temporary roads to access the site and temporary connections to statutory services necessary to support an office and working environment.

The site will be made secure by the installation of a robust chain wire and shade cloth fence around the entire perimeter.

Construction traffic will enter and exit the site via a controlled entrance.

4.8.2 Enabling Works

Any existing structures on the site will be demolished during the design documentation period prior to construction commencement.

4.8.3 Excavation and Foundations

A geotechnical investigation will be undertaken to provide a detailed analysis of the sub-surface conditions of the site. Footing design is dependent on the results of this investigation.

It is likely, however, that bored shafts and bulb base piles will be used of a type similar to those used for the construction of Terminal 1.

4.8.4 Structure

The structure of the hotel is likely to be concrete or steel framed with reinforced or post-tensioned concrete slabs and exterior cladding may be pre-cast concrete panels or curtain walls with high performance (both thermal and acoustic) glass. The roof will be a concrete slab.

4.8.5 Decoration and Finishes

Material selection for the hotel will be governed by a lifecycle approach including the consideration of biodiversity, end of life reuse/recyclability and toxicity to human occupants, manufacturers and the environment. The development will minimise the use of materials that are non-renewable or create toxic pollution in their manufacturing or disposal.

External finishes will be non-reflective to light and radar signals. They will also be selected for their overall durability and longevity and be fit for purpose.

4.8.6 Conservation and Management of Resources

During construction, excavated soil not required for landscaping or other uses will be stockpiled and protected from erosion for future use. Waste generated by construction activity will be minimised, recycled, reused or recovered where practicable. General non-recyclable products will be taken away by a competent and licensed waste contractor for disposal at a licenced landfill. Waste volumes, storage and disposal methods will be recorded by the site manager.

Where practicable and allowed for in the hotel design, construction systems will be used that allow materials and panels to be readily removed for future replacement, re-use or recycling (e.g. bolted fixings in place of nailed, glued or welded). Similarly, to the extent possible, 'dry' methods (metal flashings, membranes and good construction methods) will be used in lieu of sealants.

Energy and water efficient practices will be adopted by all contractors on-site consistent with a Construction Environmental Management Plan developed by the selected developer/operator.

4.9 RELATIONSHIP TO AVIATION ACTIVITIES

As there are no proposed changes to the aviation usage of the airport, there will be no changes to the existing or proposed developments in aviation at the airport. Hence there will be no change to aircraft arriving or departing the airport and there will be no change to the anticipated type or numbers of aircraft using the airport as a consequence of the hotel development. Therefore, there would be no change to the Australian Noise Exposure Forecast (ANEF) for the airport.

The development of the hotel will not in any way affect the flight paths of aircraft arriving or departing the airport.

AAL will continue to inform stakeholders at the airport concerning aircraft noise, work with relevant authorities regarding suitable land use planning around airports and consult regularly through the Adelaide Airport Consultative Committee on issues regarding aircraft noise.

4.9.1 Navigational Aids

The development of the hotel complex in the proposed area will not affect any existing or proposed navigational aids on the airport. This assessment has been supported by Airservices Australia in early consultations.

4.9.2 Obstacle Limitation Surfaces

There are Australian Standards for airport design, Civil Aviation Regulations and Civil Aviation Safety Regulations, including the *Manual of Standards*. These standards have been formulated to provide for the safe operation of airports and minimise the risk to passengers on aircraft and resident populations in the areas immediately around the airports, particularly along the flight paths and end of runways. These standards are applied to all airport developments.

One of the key elements of these standards is recommendations concerning the type and height of structures so that under a range of possible scenarios, such as engine failure on take-off or aborted landing, the probability of impact damage to aircraft and other structures is minimised.

Obstacle Limitation Surface (OLS) and Precision Approach Navigation Surface B Operations (PANS-OPS) are conceptual (invisible) surfaces associated with aircraft flight and are referenced to each runway strip (refer to Figures 7.22 and 7.23 of the *Adelaide Airport Master Plan* (AAL 2014)). OLS and PANS-OPS identify the lower limits of the aerodrome airspace which need to be maintained free from obstacles.

OLS and PANS-OPS charts are prepared by AAL to show the complex arrangement of sloping and horizontal planes above which it is necessary to maintain clear airspace applicable at Adelaide Airport and are included in the current Master Plan.

Part 12 of the *Airports Act 1996* and the *Airports (Protection of Airspace) Regulations 1996* declare prescribed airspace and protect this airspace from intrusions through the OLS. Any intrusion into the airspace would require approval from the Secretary or his delegate. Long-term (greater than 3 months) penetrations of the PANS-OPS surfaces are prohibited.

The proposed heights of the building, aerals and signage at the proposed hotel site will not impinge the OLS or PANS-OPS for the airport (Refer Figures 7.22 and 7.23 in the AAL Master Plan (2014)). Any short-term penetrations of the OLS by construction cranes will be subject to consent.

4.9.3 Birdstrike

Adelaide Airport is surrounded by residential, industrial, commercial and recreational land. As such, the potential to attract problem bird species to the airport is relatively high.

AAL maintains a vigilant wildlife management and harassment program to remove and reduce potential problem bird species activity. This includes a judicious grounds maintenance program in consultation with all airport developers and based on the advice of specialist consultants. Since the early 1990s, the University of Adelaide has been undertaking bird census work on the airport. The vegetation under flight paths has been

mapped to identify areas where problem bird-attracting plant species occur.

No development which has the potential to increase problem bird species on the airport is permitted. As such, all landscaping plans will be thoroughly reviewed to ensure that no problem bird-attracting species are included or potential problem bird-attracting habitats are created.

4.9.4 Lighting

Light emissions in close proximity to Adelaide Airport are a potential cause of concern to safe aircraft operations for a number of reasons:

- if bright lights - such as flood lights - emit too much light above the horizontal plane, there is the possibility that a pilot can be dazzled and momentarily unable to read the flight-deck instruments;
- lights might create a pattern that looks similar to approach or runway lighting and thus cause confusion for a pilot unfamiliar with the airport; and
- lighting may affect night vision from the control tower.

The Civil Aviation Safety Authority (CASA) has powers pursuant to *Civil Aviation Regulations 1988* (CAR) to deal with lights that can be considered to cause confusion, distraction or glare to pilots and potentially endanger safe aircraft operations by prevention of clear reception of instruments and air navigation lights.

All external lighting in and around the hotel will be specified and installed in accordance with the Australian Standards and the *CASA Aerodrome Regulation 94 of CAR 1988*.

The selection of final external finishes on the building will be subject to consultation with Airservices Australia to ensure that there is no potential for reflected sun glare to affect aircraft movements or operations in the control tower.

The proposed final lighting design will also be discussed with Airservices Australia.

4.9.5 Electrical Interference

All electronic equipment provided within and around the proposed development shall be specified and installed in accordance with the Australian Standards, CASA and the Australian Broadcasting Standards regulations.

4.9.6 Impacts on Wind Turbulence

In 2008, the then proposed hotel complex was assessed by MEL Consultants to determine if any wind turbulence might be created by the proposed building which could affect aviation activities.

MEL Consultants advised that large coherent turbulent structures in the downstream wake of a building, of the type that could affect aircraft operations, would not be expected to persist beyond about ten building heights downstream. The large turbulent structures that shed initially from a building break down into the normal sub-range of turbulence characteristics associated with a natural wind boundary layer flow, in this case, of flow over suburban terrain followed by open airfield terrain.

In 2014, MEL Consultants re-assessed the potential wake interference effects of the proposed hotel on the aircraft operations of runways 05-23 in light of the runway switching wind conditions from 05-23 to 12-30. Furthermore, a consideration of the effect of the downwind terminal building on the hotel wake was included.

MEL Consultants concluded that the effects of the proposed hotel on runway 05-23 for the cross-wind situation of 20 knots would be considered to be marginal at best, however it was recommended to quantify the wake effects of the hotel on runway 23 with wind tunnel model measurements to assess the impact on aircraft operations.

Subsequent to the determination of the final design of the hotel structure, further wind tunnel model measurements will be undertaken prior to commencement of construction.

Chapter 5

TRAFFIC MANAGEMENT

5.1 RELOCATIONS, RE-ROUTING AND TEMPORARY WORKS

The siting of the hotel is expected to be generally as identified in Figure 5.1.

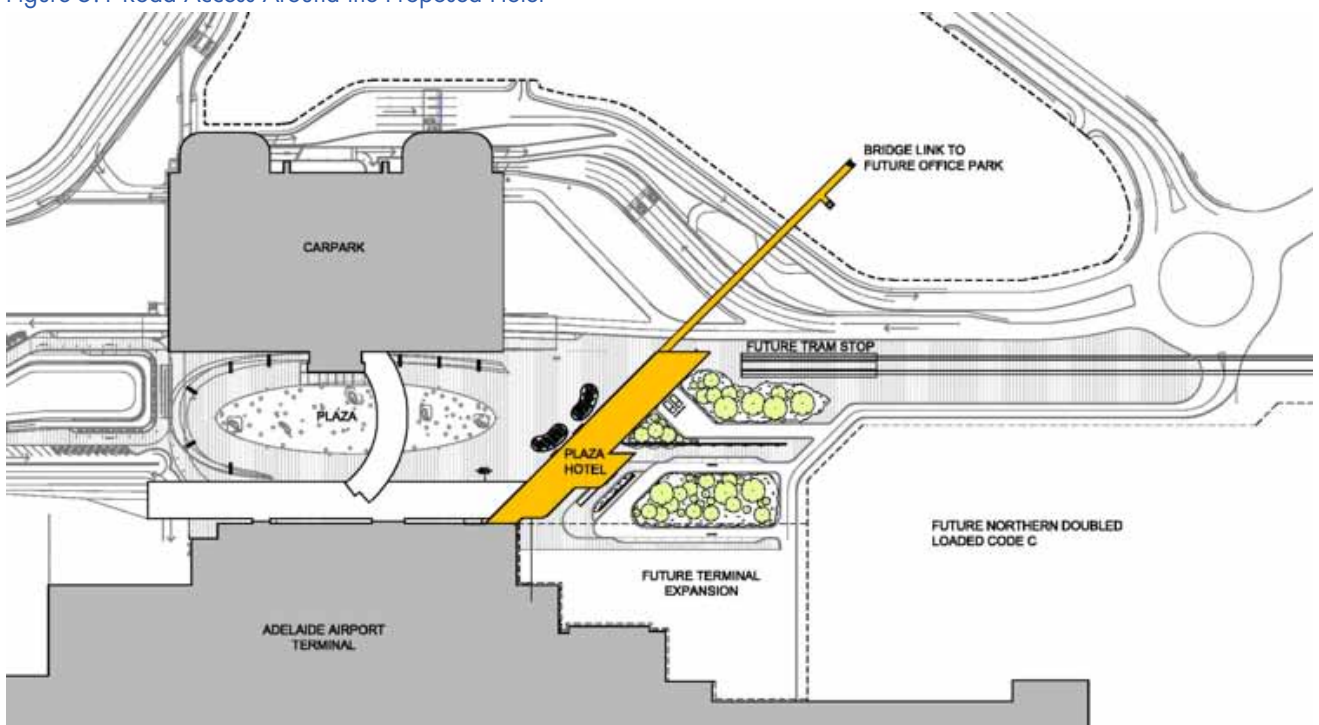
The hotel site is located at the northern end of the plaza, which provides pedestrian connectivity between the pick-up/set-down facility and the car park to the terminal. The plaza also includes a number of small buildings, including service facilities and retail outlets, and was identified in previous Master Plans as well as the current Master Plan (AAL 2014) for potential future tenancies that complement the terminal use.

A hotel is also depicted in these Master Plans in the general vicinity of the proposed building. This location will not require modification to existing buildings and will be accessible via the existing road network.

During construction, traffic management will be required to ensure traffic movements on the service road will be safe for drivers, but there will be no requirement to temporarily reroute this service road. Minor modifications to the road to facilitate access for construction vehicles may be incorporated into the works, but such amendments will not impact accessibility for traffic which currently uses the service road and will be readily ameliorated following completion of construction, if required. Access for vehicles which currently use the service road will be maintained.

A hoarding will be erected to define the boundary between the construction zone and the plaza. Such a barrier will not, however, impact pedestrian access between the car park or the pick-up/

Figure 5.1 Road Access Around the Proposed Hotel



set-down zone and the Terminal. Pedestrian access along the front of the Terminal and within the Plaza will be maintained and protected with barriers and/or hoarding, as required.

A detailed analysis of traffic movements and proposed management measures during construction and post construction is contained in Section 8.3 of this MDP.

5.2 TEMPORARY ROAD CHANGES

Sir Richard Williams Avenue is a dual lane carriageway with additional capacity for its traffic volumes (one section is already narrowed

to a single lane by pavement marking). There is capacity to encroach into a portion of the road during construction, if required, albeit such encroachment would entail hoardings and appropriate road safety traffic control. Alternatively, a roadway deviation can be constructed around the development site along the western side of Sir Richard Williams Avenue.

Consistent with the implementation of a Traffic Management Plan, the notification to airport users will be undertaken through notices, airport publications and media information on the airport website.



Chapter 6

CONSTRUCTION SCHEDULE

A typical development delivery plan for a hotel development in an environment such as Adelaide Airport has been developed (see Figure 6.1). This plan estimates that a delivery period of approximately 30 months could occur with a physical construction time of up to 20 months.

6.1 TEMPORARY WORKS AND ENABLING WORKS

Prior to commencing construction, the selected contractor will establish temporary site accommodation, a secure compound for material storage, temporary hardstand and temporary connections to statutory services necessary to support an office and working environment.

Construction traffic will enter the site from Sir Donald Bradman Drive, then Sir Richard Williams Avenue and then either directly off Sir Richard Williams Avenue or via the Service Road accessed from the roundabout also servicing James Schofield Drive.

6.2 EARTHWORKS

A geotechnical investigation will be undertaken to provide a detailed analysis of the sub-surface conditions of the site. Footing design is dependent on the results of this investigation.

A detailed site survey will be undertaken to determine the degree of cut/fill necessary to ensure the floor level is sufficiently above the surrounding ground surface.

At this stage, limited cut/fill and simple pad footings have been assumed.

6.3 CONSTRUCTION HOURS

Construction hours are generally to be a typical construction day with site being open from 6.30 am to 4.30 pm Monday to Friday and 6.30 am to 2.00 pm on Saturday.

6.4 COMMISSIONING

In developing the concept design, due regard will be given to the need to commission the works. In particular, there is a requirement to provide safe and easy access to all plant and machinery, hardware and electronic systems to allow commissioning and subsequently, regular planned maintenance and replacement of equipment.

As-built record drawings shall be provided.

Prior to occupation, all building services and systems shall be inspected. Witness testing of switchgear, liftgear, transformers and the like shall occur in the manufacturer's shop prior to delivery and on the site.

Air-conditioning filters shall be replaced with new filters following successful commissioning of the air-conditioning systems.

Instruction manuals and drawings are required to be delivered promptly for all operative plant and systems. Training will be given to ensure the building operates to design requirements and the customer's needs from day one.

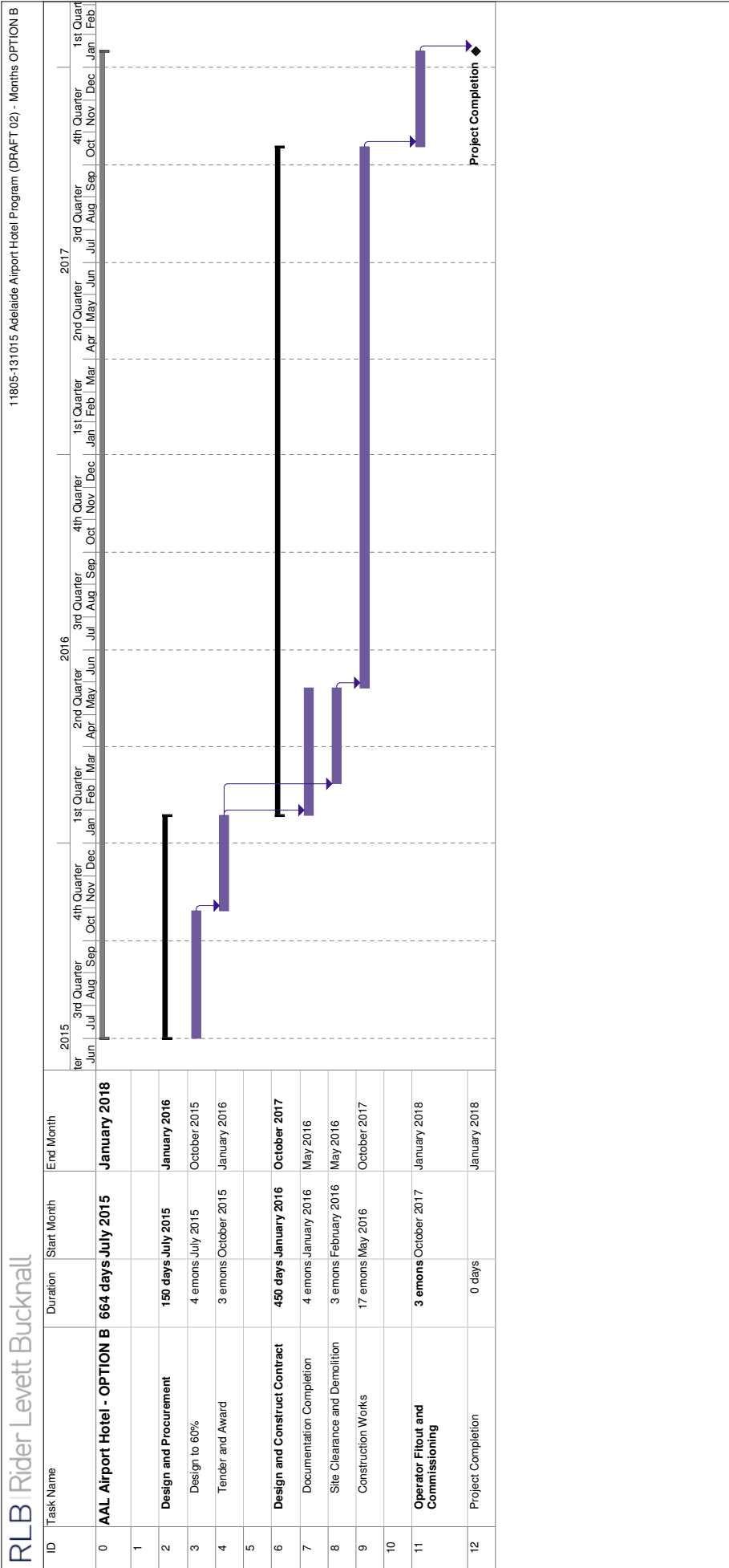
The aim will be that all systems are tested and be proven to be 100% operational and reliable prior to opening the building. Computer systems and software, including integration with other systems, and the Building Management System are to be tested and validated.

The design of the building and its construction are to comply in all respects with the requirements of the Airport Building Controller (ABC) and the Airport Environment Officer (AEO). Prior to occupation, consultation with the above officers is to be undertaken to establish timing and procedures necessary to complete statutory documentation providing compliance with ABC and AEO requirements.

The Development Consortium will be selected in response to expressions of interest.

Appointment of the investor/developer and hotel operator will be assessed against financial capacity to develop the facilities and service delivery together with professional operating standards suited to the airport environment.

Figure 6.1 Construction Schedule





Chapter 7

ENVIRONMENT STRATEGY

7.1 STANDARDS OF ENVIRONMENTAL PERFORMANCE

As required under the *Airports Act 1996* and airport regulations, AAL will manage environmental issues associated with the airport hotel development in accordance with the *Adelaide Airport Environment Strategy* contained within the current Airport Master Plan (AAL 2014). This will enable AAL to meet suitable environmental standards for planning, design, construction and occupancy.

The final detailed design of the hotel will address the anticipated operational environmental issues and these will specifically be included into an operational environmental management plan by the hotel operator.

7.2 CONSTRUCTION ENVIRONMENTAL MANAGEMENT PLAN

A Construction Environmental Management Plan (CEMP) provides a detailed set of site environmental compliance control requirements for all contractors operating on airport land. All contractors will be required to generate a project-specific CEMP, addressing all the mandatory objectives, and a supporting set of Standard Operating Procedures (SOPs). To ensure compliance requirements are understood and reflected in contractor documentation AAL will provide the following:

- *Guideline – Construction Environmental Management Plan* (January 2015); and
- *Construction Environmental Management Plan for Civil Works Template* (September 2013).

The following potential issues during construction have been identified.

7.2.1 Noise and Vibration

The earthworks on the proposed site would generate some noise associated with the use of earthmoving and similar equipment that is regularly and routinely used on construction and maintenance projects. Noise generated from

construction, maintenance or demolition of a building or other structure would not exceed 75 dB (A) at the site of a sensitive receptor consistent with noise levels specified by the *Airports (Environment Protection) Regulations 1997*. Overall, it is unlikely that there would be any significant noise or vibration impact associated with construction works external to the airport site.

7.2.2 Construction Traffic

Construction traffic associated with the works would include the delivery of the building materials and equipment as well as vehicle movements associated with the construction workforce. This is addressed in Section 8.3 of this document.

7.2.3 Water Quality

As for all commercial construction sites, there will be the need for standard stormwater control measures, designed to minimise sediment-laden run-off during excavations and minor earthworks. Dust suppression measures to be instituted would reduce the potential for sediment to be transported into the airport's stormwater system.

7.2.4 Air Quality

There would be the potential for some localised dust generation associated with soil excavation but dust suppression measures, such as watering of exposed soil surfaces, would be implemented to prevent dust generation. Emissions from diesel-powered construction equipment and exhausts from vehicles travelling to and from the sites are considered to be insignificant in both the local and regional traffic contexts.

7.2.5 Dewatering

There is a high probability construction activities will intercept shallow groundwater aquifers beneath the hotel site. Water pumped from excavations may be directed to sewer in accordance with SA Water's trade waste requirements and AAL's *Guideline – Construction Dewatering*.

7.2.6 Contaminated Soil

Based on previous soil investigations, a low risk of legacy contamination exists beneath the hotel site. Impacted soils encountered during earthworks will be assessed and managed in accordance with AAL's *Guideline – Environmental Site Assessment* and regulatory requirements. AAL's *Asbestos in Soils Management Procedure* will be applied in the event buried asbestos containing materials are encountered.

7.2.7 Fill Importation

Any fill imported onto the hotel site must be either certified quarry material or classified as 'waste fill' in accordance with SA EPA guidance and AAL's *Guideline – Waste Fill Importation*.

7.2.8 Acid Sulphate Soils

Adelaide Airport is located on a former intertidal floodplain where potential acid sulphate soils (PASS) may exist. Whilst the risk is very low of encountering PASS at the location of the proposed hotel, contractors will be required to document strategies for managing these soils, in alignment with AAL's *Guideline – Acid Sulphate Soils*.

7.2.9 Airport Operations

As all the construction and related works would be undertaken on landside areas of the airport, there would be no interference from construction activities on airport operations. Crane penetrations through the OLS, if required during construction, would be managed to ensure that there is no impact on airport operations.

7.2.10 Construction Waste

Construction waste would be managed through approval conditions for the proposed development and construction conditions.

7.3 AIRPORT BUILDING CONTROLLER AND AIRPORT ENVIRONMENT OFFICER APPROVALS

The ABC and the AEO will exercise their statutory roles in ensuring that the proposed hotel complex is constructed according to all Australian Standards and the *Airports Act Environment Regulations*.

All designs, plans and specifications for this project will require the approval of the ABC in accordance with the *Airports Act 1996* and *Airports (Building Control) Regulations 1997*.

When each phase of the development is lodged for assessment, the AEO and the ABC will assess:

- consistency with the *Adelaide Airport Master Plan* and *Adelaide Airport Environment Strategy* (2014);
- compliance with AS2021 - 2000 *Acoustics - Aircraft Noise Intrusion - Building Siting and Construction*; and
- compliance with other relevant Regulations, Standards and Codes of Practice.

Chapter 8

ENVIRONMENTAL ASSESSMENT

8.1 STORMWATER AND HYDROLOGY

8.1.1 The Local Catchment System

The proposed site is situated on Adelaide Airport land and therefore the drainage is part of the Adelaide Airport Drainage System. The site forms part of the Terminal Building Catchment. The major outlets for stormwater from the airport are the Sir Donald Bradman Drive drain located on the northern and western sides of the airport, and the dedicated Airport Drain near the south-western corner of the airport. Both of these drains discharge into the Patawalonga Basin at the south-western corner of the airport. The Patawalonga Basin also serves as the outlet for the Sturt River drain, Patawalonga Creek and Keswick/Brownhill Creek.

8.1.2 Studies, Reviews and Available Data

Numerous studies of surface water drainage on or adjacent to the airport have been undertaken since 1992. The most recent of these reports are the following:

- *Adelaide Airport Multi User Integrated Terminal - Stormwater Management* - Maunsell Australia Pty Ltd August 1999, and
- *New Terminal - Stormwater Drainage Design Analysis Report* - Maunsell Australia Pty Ltd October 2003.

8.1.3 Impact of Construction on Stormwater Quality

Activities associated with land clearing and soil excavation presents a potential for erosion and sedimentation. Contaminants mobilised during earthworks could be washed into the stormwater drainage system. Material can spill from haulage trucks into roadways and be washed into the stormwater drainage system.

To control sedimentation and erosion, the construction contractor will be required to take the following actions:

- apply the requirements of SA EPA *Handbook for Pollution Avoidance on Building Sites* and *Stormwater Pollution Prevention Code of Practice for the Building and Construction Industry*;
- minimise exposed areas by staging the groundworks;

- establish temporary drainage in the construction area, maintained to minimise erosion;
- confine stripping of topsoil or earthworks to designated areas;
- establish and maintain silt fences; and
- inspect runoff control devices for effectiveness.

There is also potential for leakage of stored plant fuel and chemicals into the drainage system.

To minimise this impact, the construction contractor will:

- provide bunds for fuel storage areas;
- conduct refuelling in designated areas;
- contain and collect all spills for treatment and disposal at designated sites; and
- monitor regularly to ensure compliance.

The hotel complex is also likely to have a stand-by generator for providing uninterrupted power supply in the event of a major power network failure. This is likely to be powered by a diesel-fuelled engine. The storage and management of the fuel supplies will be addressed in the Operational Environmental Management Plan by the hotel operator.

8.1.4 Proposed Development Runoff

The development of the hotel and associated car parking is unlikely to increase the percentage of impervious area of the site. The new drainage system will discharge into the existing drainage systems that currently service the site.

8.1.5 Stormwater Quality Management

The stormwater quality measures already constructed on the existing stormwater drainage system are likely to be adequate for this development. Additional measures would be included as required. Existing facilities and any new facilities will be regularly maintained and captured pollutants will be disposed of appropriately. The stormwater runoff from the hotel roof will potentially be cleaner than currently occurs as it will not contain contaminants from car parking areas.

8.1.6 Conclusion

The proposal for the management of the stormwater at the new hotel site will not impact on the quantity or quality of discharge from the airport.

8.2 VISUAL IMPACT AND MASSING

8.2.1 Existing Visual Environment

Buildings and other structures within the Terminals Precinct in the vicinity of the proposed hotel site, at heights ranging from 19.5 m to 40 m, comprise:

- a single-level airport administration centre and works compound;
- a 2-storey industrial/logistics distribution facility;

- a single level regional airline operations centre;
- multi-level car parking;
- the IKEA store and 25 m high navigational tower, and
- car park and apron lighting between 30 and 40 m in height.

The precinct has a high level of exposure from Sir Richard Williams Avenue.

Overall the existing site presents a high level of visual quality and general amenity.

8.2.2 Visual Impact of Development

The overall height of the proposed hotel to its highest point will not exceed 48 m AHD and the overall length is expected to be between 85 and 90 m (depending upon final configuration).

Figure 8.1 View of Hotel from Sir Richard Williams Avenue



These dimensions have been calculated on the following basis:

- Reception/Conference Level 4,500mm FI to FI;
- Accommodation Levels 3,200mm FI to FI; and
- Plant Level 3,000mm FI to Rf.

The intended height of the hotel will have considerable visual impact upon incoming traffic along Sir Richard Williams Avenue and have a strong visual presence from Terminal 1 and the pedestrian plaza. The hotel's mass and scale adjacent to the existing terminal provides a much needed focal point for future expansion and development for the intended Office Park and will become the epicentre for the greater precinct. The orientation of the hotel maintains

a 'gateway' to the plaza at ground level off Sir Richard Williams Avenue and a vista corridor to the Terminal upon arrival at the drop off and pick up areas to the underside of the car park whilst providing a sense of enclosure to the plaza.

It is intended that signage opportunities will also be created on the building, as well as possible discrete mobile telecommunications towers.

The visual massing of the hotel is intended to comprise of a lower "podium" level of nominally 2 or 3 levels along with an established setback for the upper accommodation levels. It is intended that this philosophy will provide a comparable visual link with the arrivals level of Terminal 1. Views of the hotel are shown in Figure 8.1 and 8.2.

Figure 8.2 View of Hotel from the Pedestrian Plaza



There will be short-term visual impacts in the immediate region of the construction site, such as fencing and cranes, and these will be managed under conditions in the construction environmental management plan.

8.2.3 Impact Analysis

Depending upon the final siting and selection of the building form, the impact of the proposed hotel complex upon adjacent development and the precinct may vary. Anticipated impacts will include:

- potential overshadowing and overlooking ;
- glare and reflections, and
- impacts on view corridors along Sir Richard Williams Avenue in front of the Terminal Building.

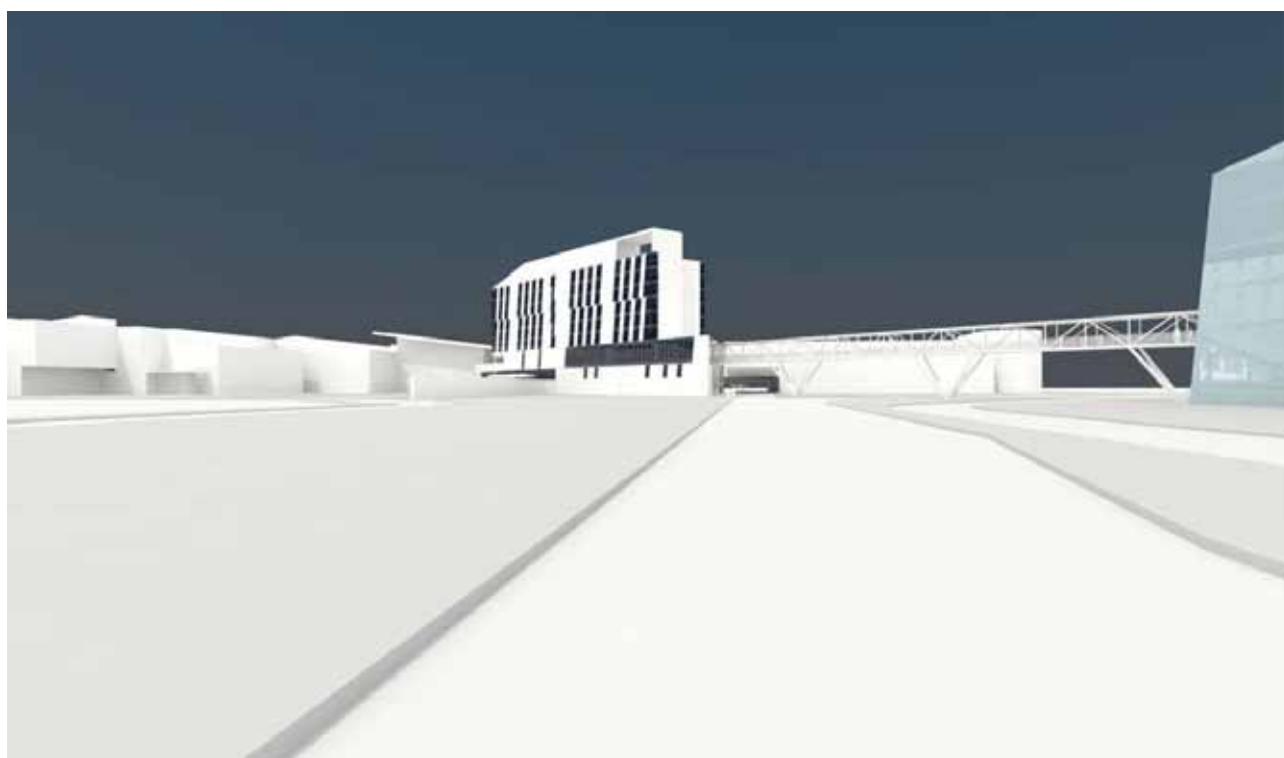
Simulations of the visual impact of the proposed hotel complex are shown in Figures 8.3 and 8.4. These simulations show the hotel will merge

effectively with the existing vertical elements of Terminal 1 and the surrounding light towers.

The final design of the proposed hotel will consider the following aspects:

- relationship between the height of the existing buildings including Terminal 1;
- relationship between the “massing” of the existing buildings and the proposed hotel;
- relationship between the height of the hotel and the height and number of the apron and car park flood lights surrounding the proposed hotel;
- extent to which the proposed hotel is able to be viewed from within and outside of the airport land and its visual impact;
- existing and proposed conditions on the site (e.g. landscaping, fences and mounds) that have an ameliorating effect on the visual impact of the proposed hotel; and

Figure 8.3 Visual Simulation of the Hotel from the North



- intended aesthetic merits of the design (including aspects which may have unintended consequences, e.g. glare/reflection).

Criteria and preventative measures required for the reduction of glare on external and potential reflective surfaces will address glazing, wall panels and internal light sources. During the design development phase such issues will be addressed to ensure that glare is ameliorated or eliminated.

Additional measures that will be adopted and explored in further detail in the detailed design phase include the use of high performance glazing, shading of potential reflective surfaces, shielding of internal and external light sources and careful material/colour selection. These final designs will be discussed with Airservices Australia to eliminate any impacts on air traffic control procedures or personnel in the control tower.

The development of the proposed hotel will affect the view corridors along Sir Richard Williams Avenue, but the association of the hotel with the “mass” of the dominant Terminal will not impact greatly in this view corridor. There are few other public viewing positions where any visual impacts associated with massing could occur. Glancing views of the site are only fleetingly available from other vantage points in the vicinity and such views are almost invariably with the existing terminal structure as the backdrop. Hence, there will not be any significant changes to the surrounding viewsheds.

The use of a high architectural style which complements the already significant standards of design of the terminal building will add to the aesthetics of the locale.

Figure 8.4 Visual Simulation of the Hotel from the South



The design of the hotel and surrounds will also accommodate landscaping which will ameliorate the hard surfaces and facades already present in the locale.

The proposed hotel development will have some minor visual impacts within a relatively contained visual envelope. The proposed mass and built form is considered relatively small and complementary within the context of the existing development in the locale. The implementation of landscape proposals for the lower levels, car parks and boundaries will provide significant visual amenity to the development site in the longer term.

8.2.4 Proposed Management and Mitigation Measures

Building planning and design measures necessary for the successful management of the impacts identified above include:

- overshadowing analysis;
- consideration of building orientation to achieve benefits of passive solar design;
- design of particular building elements;
- review of traffic flows/access points, and
- planning of pedestrian movements in and around the site and consideration of links with Terminal 1 and the planned Office Park.

8.3 ROAD TRAFFIC

8.3.1 Existing and Future Road Traffic Volumes

A significant proportion of patrons to the proposed hotel will fly to/from the terminal and hence will not generate traffic on the road network. Notwithstanding this, there will be additional traffic associated with a hotel at the airport. All such traffic would use Sir Richard Williams Avenue.

Access to Sir Richard Williams Avenue from the external road network is via Sir Donald Bradman Drive or Airport Road.

Sir Donald Bradman Drive is an arterial road under the care and control of Department of Planning, Transport and Infrastructure (DPTI). It is a dual-lane divided road and has an Annual Average

Daily Traffic (AADT) volume of 35,800 vehicles east of Sir Richard Williams Avenue and 28,300 vehicles west of Sir Richard Williams Avenue.

Airport Road is also an arterial road under the care and control of DPTI. It has an AADT volume of 15,200 vehicles adjacent the Sir Richard Williams Avenue intersection.

A *Traffic Access Study* was undertaken for AAL and (the then) Department for Transport, Energy and Infrastructure (DTEI) in 2007 to identify future access requirements for the terminal and potential development areas at the airport. This assessment included forecast passenger growth at the terminal to 2034 which equated to the majority of the growth in traffic at the airport, particularly in relation to Sir Richard Williams Avenue traffic volumes.

In addition, forecast traffic associated with precincts at the airport was included. The volumes in these precincts considered the highest and best potential use for the site which inevitably results in a conservative over-estimate of forecast traffic volumes.

In respect to development in the subject locality, volumes associated with an office development were analysed as the highest and best use. Accordingly, the traffic impact assessment in the study reflects a higher potential traffic demand than the proposed complex.

The above study was referenced in the *Adelaide Airport Master Plan* (2009) and its recommendations adopted in respect to providing for appropriate access for the terminal and other land uses at the airport and ameliorating any traffic impact associated with the total impact traffic generation.

The 2007 traffic assessment has been revisited during investigations associated with the 2014 Master Plan, to ensure the road structures and access services are still applicable. These recent investigations include a review of forecast traffic

growth at the airport. In respect to the hotel, the highest and best use for this precinct was adopted for the assessment.

Any impact associated with the hotel will be negligible when considering the traffic generated at the airport (which primarily relates to increased passenger numbers at the terminal) and will, therefore, be accommodated within the proposed infrastructure and access solutions developed for the airport.

Figure 8.5 illustrates the existing traffic volumes at the Sir Donald Bradman Drive/ Sir Richard Williams Avenue intersection while Figure 8.6 illustrates the 2036 forecast volumes at this intersection.

Of these forecast volumes, the growth associated with the hotel will be expected to be less than 1%, which is less than the daily fluctuation of ±5% experienced on the road network.

8.3.2 Construction Traffic

Traffic management during construction is addressed in detail in Section 5 of this MDP.

Construction traffic associated with the works would include the delivery of the building materials and equipment as well as vehicle movements associated with the construction workforce. It is estimated that there would be approximately 230 to 300 vehicles per day (vpd) during the construction period which would equate to a peak hour volume of approximately 30 vpd. Such a volume is only approximately 1% of the daily traffic volume on Sir Richard Williams Avenue and will have a negligible impact on the operation of this road or its intersection with Sir Donald Bradman Drive.

8.3.3 Post-Construction Traffic

Post-construction traffic at the hotel will include the following users:

- guests at the hotel;
- delivery vehicles; and
- patrons of a conference facility and function rooms.

Figure 8.5 Existing Traffic Volumes Sir Donald Bradman Drive/ Sir Richard Williams Avenue intersection

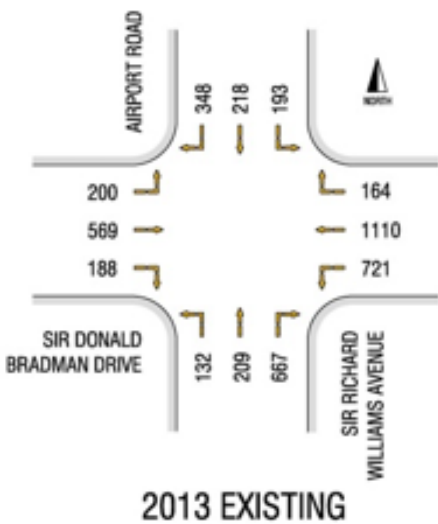


Figure 8.6 Forecast Traffic Volumes Sir Donald Bradman Drive/ Sir Richard Williams Avenue Intersection in 2036

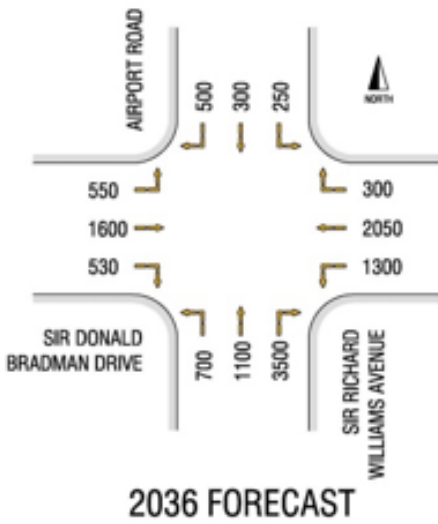


Figure 8.7 Pedestrian Movements Associated with the Hotel

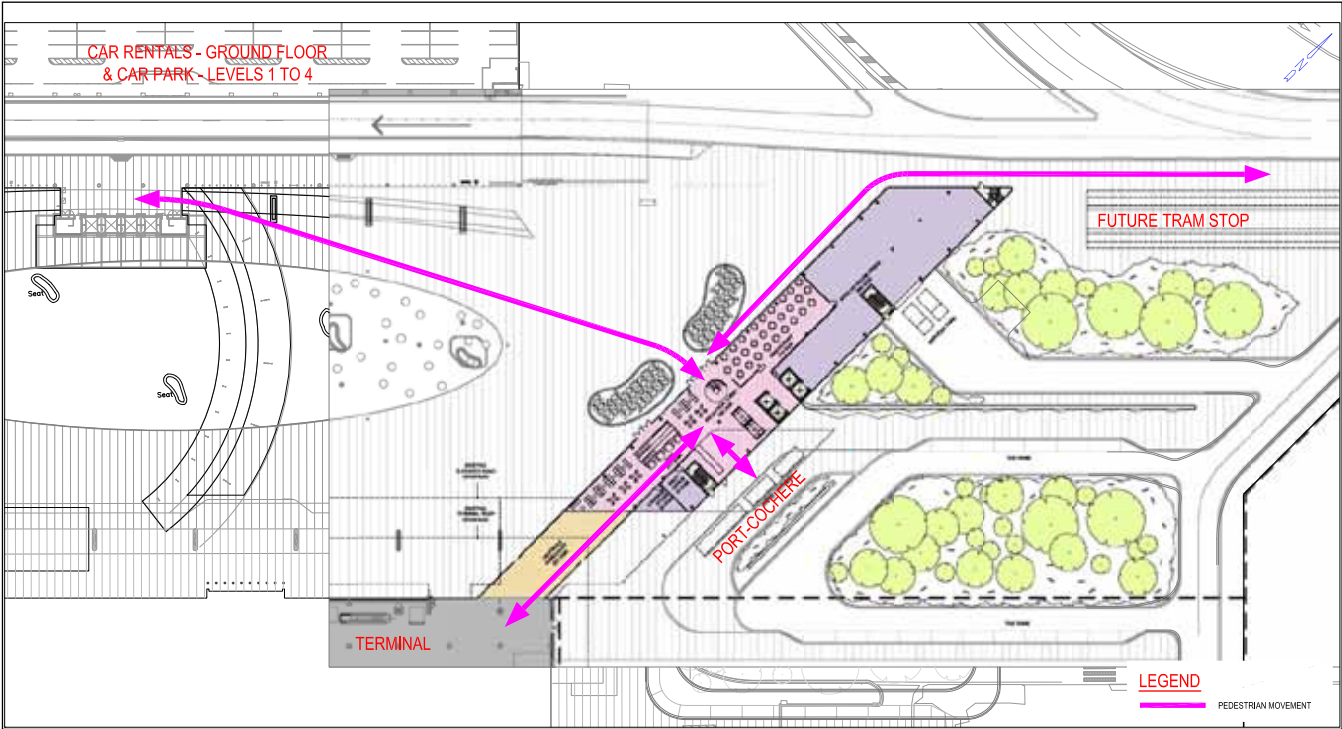
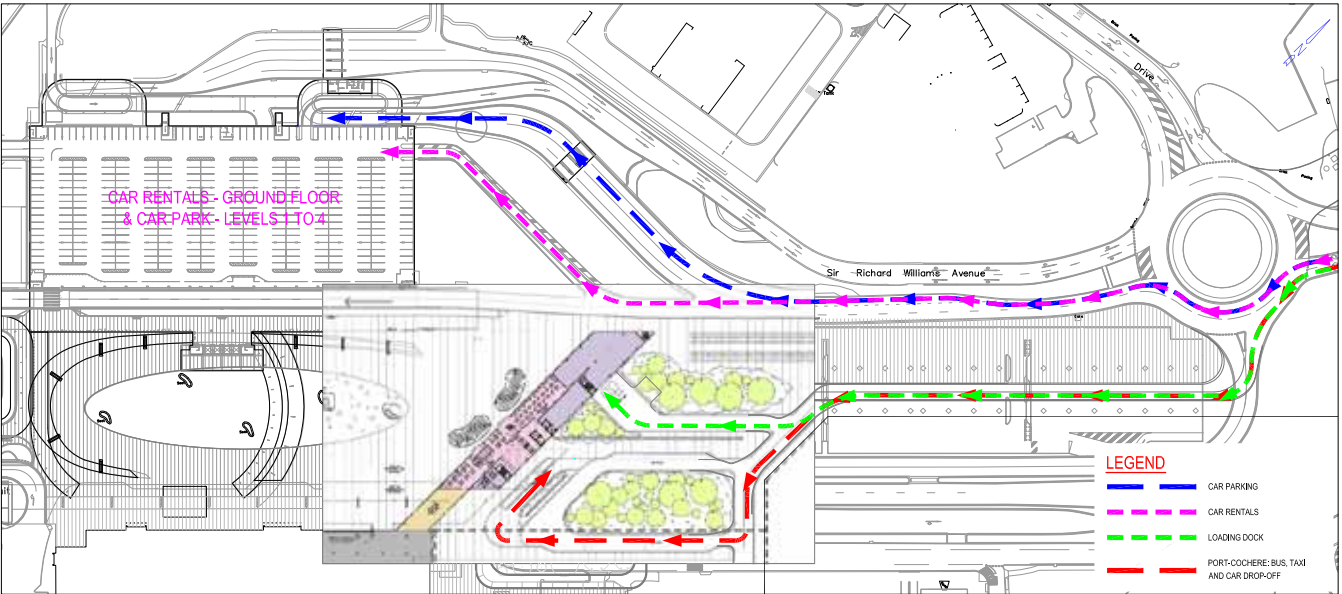


Figure 8.8 Vehicle Movements Associated with the Hotel



Pedestrian traffic movement routes between the hotel, future tram stop, terminal and the car park are shown in Figure 8.7. Vehicle movement routes to and from the hotel from off airport and linking to the car park are shown in Figure 8.8.

It is anticipated that there will be five delivery vehicles accessing the site each day.

The proposed facility could include up to 265 rooms of which at least 75% might be used by persons also using the terminal. There would therefore be potentially 65 rooms which could, therefore, generate additional traffic volumes. The DPTI “Trip Generation Rates for the Assessment of Development Proposals” identifies a daily generation rate of eight trips per room or 0.89 trips per room during peak hour periods. This will mean the proposed hotel could generate 520 trips per day or 55 trips during the peak hour.

The function facility/conference centre would also generate traffic volumes. During the day, a conference of 150 persons with 30% of patrons accessing the facility via the terminal or the hotel would generate in the order of 150 trips per day or 50 in the peak hour.

Functions at night will not impact the peak hour traffic periods. A large function on the site, which would only occur infrequently, could generate approximately 300 vpd.

In the unlikely event that a large conference and large function were to coincide on the same day (which would be infrequent) the proposed hotel would generate approximately 980 vpd or 105 vehicles per hour (vph) during the peak hour periods.

By comparison, the DPTI traffic guide identifies a daily traffic generation rate of approximately 16 trips per 100 m² or 2.0 trips per 100 m² during the peak hour. An office development in the subject precinct (as analysed in the *Traffic Access Study*) could generate approximately 1,000 vpd or 130 vph during the peak.

In assessing access requirements and road capacity, the relevant consideration is the peak hour volumes.

The *Traffic Access Study*, therefore, considered higher volumes than will be generated by the hotel, even in the unlikely event that it was used to maximum capacity on any given day, with the forecast volumes associated with an office being approximately 25% greater than the proposed hotel during the peak hour.

8.3.4 Proposed Management and Mitigation Measures

Proposed mitigation measures are identified in the Traffic Access Study and will be implemented in conjunction with the access plan for the airport. The small component of traffic volume associated with the hotel will not instigate these measures which are primarily related to the peak hour traffic component and will cater for future projected traffic at the airport.

8.4 NOISE

8.4.1 Introduction

This section is based on the predicted effects on the existing environment of noise from the construction and operation of the proposed Adelaide Airport hotel complex.

The proposed site is situated in the vicinity of Sir Richard Williams Avenue which is principally commercial in nature, with offices, the new Terminal 1 and aviation-related support industry.

A number of terms are used to describe noise. These include:

- weighted, frequency filter applied to measured noise levels to represent how humans hear sounds dB(A) A- weighted overall sound pressure level;
- $L_{eq,T}$ T equivalent continuous noise level measured over a time period T, often referred to as the >ambient noise level - $L_{eq,15min}$ equivalent continuous noise level measured over a 15 minute period, often used to assess industrial noise;
- L_{max} maximum noise level measured over a time period, and

$L_{10,T}$ 10th percentile noise statistic; the noise level at which 10% of noise over a time period T is below.

The proposed hotel development will not affect any aircraft flight paths or aircraft operations or aviation-related noise levels outside the boundaries of the airport and as such will not affect noise intrusion above significant ANEF levels.

The noise generated by aircraft operations on the airport will potentially affect the commercial operations of the hotel development and as such the building will be designed with reference to AS 2021 - 2000 *Aircraft Noise Intrusion - Building Siting and Construction*.

The site for the proposed hotel lies within the 25 to 30 ANEF contours of the recently approved 2034 ANEF, which is included in the current approved Adelaide Airport Master Plan. In accordance with Table 2.1 of Australian Standard 2021-2000 *Aircraft Noise Intrusion - Building Siting and Construction*, the use of the site for a hotel is deemed “conditionally acceptable” and:

“the maximum aircraft noise levels for the relevant aircraft and the required noise reduction should be determined from the procedure of Clauses 3.1 and 3.2, and the aircraft noise attenuation to be expected from the proposed construction should be determined in accordance with Clause 3.3”

The project architects and associated engineers will be made aware of the need to comply with the procedures set out in Cluase 3.1 (Aircraft Noise Level) and Clause 3.2 (Noise Reduction Requirements) of the Australian Standard in relation to the design and acceptability of the final building.

8.4.2 Sources of Offensive Noise

During construction of the hotel, noise sources are expected to include:

- earthworks and clearing of site;
- earth compacting equipment;
- piling;
- concrete pouring, and
- entry and exit of heavy vehicles on construction site.

Table 8.1 summarises typical noise levels for construction operations 200 m from the construction activities.

Table 8.1 Summary of approximate construction noise levels 200 metres from the offensive noise source

Noise Generating Activity	Leq, 15min	Lmax
Demolition of existing structure	45-60	60-70
Piling	50-60	60-80
Retaining walls	50-60	50-60
Earthworks	50-60	55-70
Truck idling, unloading, accelerating	~55	~60

Upon the completion of hotel construction, operational noise from the hotel is expected to include:

- loading and unloading of commercial vehicles, and
- air conditioning and mechanical plant noise.

8.4.3 Standards and Legislation

Legislation relevant to allowable environmental noise levels for activities at airports is provided by the *Airports (Environment Protection) Regulations 1997* under the *Airports Act 1996*. The regulations cover activities that generate, or have potential to generate excessive noise at an airport, with the exception of noise generated by an aircraft in flight, landing, taking off or taxiing at an airport. Schedule 4 of the regulations defines indicators of excessive noise levels for various activities, summarised in Table 8.2.

A 5 dB(A) penalty is applied to $L_{10,15\text{ min}}$ noise levels for construction activities and other aircraft operations to each of the characteristics of tone, modulation and impulsiveness. These indicators are applicable to commercial receptors in addition to sensitive receptors.

The regulations state that when assessing commercial receptors, consideration should be given to:

- the nature of the business conducted at the site;
- the time of day when the noise occurs;
- the duration of the noise;
- the nature and characteristics (if any) of the noise, and
- the background noise level.

8.4.4 Impacts Associated with Construction

A noise management strategy will be implemented to mitigate noise intensity, frequency and/or duration to nearby residential and commercial locations. Such a strategy will consider the methodology proposed by a construction contractor and the relative phasing of different construction activities in different areas to minimise noise.

The eventual noise impact will depend on the type of construction, the distance to the affected residences or other noise sensitive uses, any natural or introduced shielding and the duration of the construction.

Table 8.2 Summary of noise criteria specified by the *Airports Act 1996*

Activity	Maximum noise levels at sensitive receptors
Construction, maintenance or demolition	$L_{10,15\text{min}}$ of 75 dB(A)
Road traffic	$\text{Leq}, 24\text{hr}$ of 60 dB(A) $\text{Leq}, 8\text{hr}$ of 55 dB(A) between 22:00 and 6:00
Rail traffic	L_{max} of 87 dB(A) $\text{Leq}, 24\text{hr}$ of 60 dB(A) $\text{Leq}, 8\text{hr}$ of 55 dB(A) between 22:00 and 6:00
Other airport operations	$L_{10,15\text{min}}$ more than 5 dB(A) above $L_{90,15\text{min}}$ between 7:00 and 22:00 $L_{10,15\text{min}}$ more than 3 dB(A) above $L_{90,15\text{min}}$ between 22:00 and 7:00

A basic construction noise mitigation strategy for sensitive residential locations aims to:

- minimise construction duration;
- maximise opportunities for simultaneous activities (minimising total duration);
- minimise equipment noise generation - quietest (or quietening) equipment, and
- minimise the use of certain “noisy” equipment in sensitive locations and/or time of day.

The proposed site is located in the Terminals and Business Precinct, with the closest residential receivers located approximately 470 m from the site. The site is surrounded by nearby aircraft hangars and facilities, with the IKEA Adelaide store approximately 150 to 500 m from the proposed hotel site. The operational hours for the IKEA store are generally from 10 am to 7 pm on most weekdays, with hours extended until 9 pm on occasion.

Based on measurements of typical construction activities on construction sites of similar nature, noise levels from construction operations at the hotel complex are generally expected to be within the $L_{10, 15 \text{ min}}$ 75 dB(A) criterion. In order to minimise the impact of construction on the residential area, night time work between 10 pm and 7 am will be avoided, where practical.

8.4.5 Impacts Associated with Operation

It is expected that upon completion of construction, operations at the proposed hotel may include:

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

In order to minimise the effect on the existing environment of mechanical plant noise, rooftop plant should be selected and designed in order to meet noise criteria from the *Airports Act 1996* and the *SA Environment Protection (Noise) Policy 2007*. This can be achieved through the selection of quieter equipment and design of rooftop plant enclosures.

Based on the distance between the proposed site and the nearest residential receivers, and the steady nature and characteristics of likely mechanical plant noise, it is predicted that noise from mechanical plant operations will not exceed the levels specified in the *Airports Act 1996* at the closest receivers.

8.4.6 Monitoring and Mitigation

During construction of the hotel, noise levels should be monitored at the nearest sensitive receptor to determine if they exceed noise levels specified under the *Airports Act 1996*.

If noise levels are determined to be in excess of noise criteria, mitigation of the noise sources should be undertaken by the development contractor. These measures could include:

- the use of temporary fencing or barriers in order to attenuate noise from construction operations to nearby receptors;
- the use of mufflers or sound attenuation devices where used in close proximity to residential receptors, and
- consultation with residents and hotel construction management to ensure that excessively noisy operations are performed during periods with the least impact on the existing environment.

In addition, vibration monitoring should be performed during construction at nearby sensitive equipment which may be damaged by possible construction activities. If vibration levels at nearby equipment is in excess of safe levels, relocation of sensitive equipment or mitigation of vibration levels from construction activities should be undertaken by the development contractor.

8.4.7 Conclusions

Noise from the operation and construction of the proposed Adelaide Airport hotel development is predicted to comply with all relevant noise criteria detailed under the *Airports Act 1996* and associated regulations and the *South Australian Environment Protection Act 1993*.

8.5 ARCHAEOLOGY AND HERITAGE

8.5.1 Archaeological History

Ethnographic records indicate that general areas of the present Adelaide Airport site were favoured camping places for the Kaurna People (Delta Environmental Consulting 2007a), however, there are no known Aboriginal sites within the Terminals and Business Precinct.

In addition, two stone artefacts were found during a survey of the airport for a previous Master Plan and Environmental Impact Assessment (Wood 1996). These artefacts (two quartzite flakes) were found in the northwest corner of the airport, near the intersection of Sir Donald Bradman Drive and Tapleys Hill Roads area.

Based on previous findings of cultural material and burial sites, it appears that Aboriginal occupation focused on sand dunes, which were once prolific across this area prior to European occupation and modification of the landscape. The proposed hotel site, like the majority of the airport, has been extensively modified through land reclamation in the 1950s (where the airport site was raised between 1 to 2.6 m with sand fill derived from nearby dunes) and decades of construction and development. In addition to the sand fill, there is also evidence of some uncontrolled dumping of building rubble. At the present time much of the locality is concreted and bitumenised, or supporting a mixture of exotic grasses, trees and shrubs.

There is no vegetation or building structure of natural or European cultural heritage value impacted by this proposal.

8.5.2 Studies, Reviews and Available Data

The most comprehensive archaeological study at Adelaide Airport was that conducted by Wood (1999) for the Multi-User Integrated Terminal (Terminal 1) development. This study discussed the impact of extensive land filling and construction on potential Aboriginal sites and artefacts. At the time of the study, much of the Terminal 1 development footprint comprised concrete car parks and building foundations, and areas planted to exotic grasses.

A more recent survey was undertaken by ACHM (2005) of the proposed Burbridge Business Park site, located several hundred metres to the west of the airport hotel site. Over 40 test pits were excavated in what was, at the time of the survey, an open undeveloped field of mostly native and exotic grasses.

No Aboriginal cultural material or areas of Aboriginal significance, as defined under the *Aboriginal Heritage Act 1988*, were located during either survey. The lack of cultural material was not surprising given the high degree of landscape modification, which also applies to the nearby hotel site.

A recent European heritage assessment was conducted by Austral Archaeology (2007) from which no buildings or sites were considered to meet the thresholds of the criteria of the Commonwealth Heritage List as set out in the Environment Protection and Biodiversity Conservation Regulations 2000.

8.5.3 Legislative Requirements and Policies

The *Airports Act 1996* requires AAL to take all reasonable measures to ensure that there are no adverse consequences for existing cultural or archaeological sites and to consult with a suitably qualified person in regard to the sites, particularly in relation to significance and conservation.

In addition to the *Airports Act 1996* and *Airports (Environment Protection) Regulations 1997*, natural, indigenous and historic heritage values at Adelaide Airport are protected under the *Environment Protection and Biodiversity Conservation Act 1999* and *Environment Protection and Biodiversity Conservation Regulations 2000*, especially those of national significance.

Furthermore, the Commonwealth *Australian Heritage Council Act 2003* obliges airports to conserve structures listed on the Register of the National Estate. No places at Adelaide Airport are currently listed on any heritage register or list including the Register of the National Estate.

8.5.4 Management and Mitigation Requirements

Consistent with the *Adelaide Airport Environment Strategy* (AAL 2004b), AAL has committed to protection and appropriate management of all archaeological artefacts and has in place Standard Operating Procedures for identification and notification of any potential archaeological places or objects during construction. All relevant contractors will attend mandatory inductions by a qualified archaeologist. If any objects or materials are located, AAL will stop work until management actions are agreed with Kurna Aboriginal representatives, specialist archaeologists and State authorities.

All employees and contractors will be required to comply with the abovementioned procedures.

8.6 GEOLOGY, HYDROGEOLOGY AND SOIL CONTAMINATION

8.6.1 Geology

Adelaide Airport is underlain by about 100 m of Quaternary period sediments (SADT 1996). The Adelaide 1:250,000 scale published geological map (PIRSA, Sheet SI 54-9) indicates the surface geology around the Adelaide Airport is comprised primarily of the St. Kilda formation (SKM 2007b). This formation consists of estuarine muds and sands, mostly grey sand and clay layers with significant organic matter and shells. This material, up to 3 m thick, is generally very loose, soft and compressible. Underlying alluvial soils of sand and silty sand exist between 3 to 7 m and Pleistocene Hindmarsh Clay at depths between 5 and 10 m.

Prior to construction of the airport, the site was largely a swamp associated with a low-lying basin behind the main coastal sand dunes on the western edge of the Adelaide Plains (Coffey Partners 1989). Substantial areas were filled with up to 2.6 m of sand from adjacent former sand dunes. In addition to the use of sand, fill material was sourced from local natural Hindmarsh Clays, building rubble and, in some areas, hard rubbish consisting of metal, timber and plastic (Coffey Partners 1989).

The site soil investigation by SKM (2007a) for part of the development area supports a stratigraphic model consisting of the following strata:

- a thin topsoil horizon on the surface;
- fill material, or suspected fill material (including; sandy gravel, sandy clay, gravelly sand, silty sand, loamy sand, sandy silt, and gross hard waste such as asphalt, brick fragments and glass), generally 0.2-0.5 m thick, and
- natural soil comprising predominantly of sandy clay with some sandy silt layers, of medium to high plasticity, coloured brown mottled light grey and orange, containing fine grained sand and with some fine to medium gravel lenses.

The site soil investigations by SKM (2007c) for another part of the area support a stratigraphic model consisting of the following:

- fill material was encountered on the surface at all locations;
- the fill material was generally gravelly sand or sandy gravel and extended up to 0.8 m below the ground level. Some pockets of coal, slag and hard rubbish were also found within the fill layer. generally the layer was 0.2-0.8 m thick, and
- natural soil consisted of sandy clay/clayey sand, was of medium to high plasticity, contained fine grained sand and was generally dark brown/dark grey in colour.

8.6.2 Hydrogeology

Groundwater is generally between 1.0 and 3.0 m below ground level. Numerous monitoring wells have been placed at specific locations on the airport for the purposes of determining background groundwater quality and measuring contaminant levels at known or suspected contaminated sites. This data, combined with information from State historical groundwater information, was used by FEM (2004) to develop a conceptual hydrogeological model for Adelaide Airport.

The groundwater gradient across the airport, and beneath the hotel site, is relatively flat. Contours calculated from the available data indicate

groundwater flows slowly in a south westerly direction which is broadly consistent with the known regional groundwater flow direction (FEM 2004).

The aquifers of interest beneath Adelaide Airport include the Quaternary (Q1) and the upper Tertiary (T1) aquifers. The (deeper) T1 confined aquifer of the Adelaide plains has been the most commonly used groundwater resource in the region, and has been pumped to irrigate the adjacent golf courses off the airport's northern, southern and western boundary. The aquifer generally yields water with salinity >750 mg/L (FEM 2004).

The upper groundwater resource is the Q1 superficial unconfined aquifer. Groundwater is between 1.0 and 3.0 m below ground level and has a moderate salinity of >2000 mg/L, making it unsuitable for drinking. Groundwater levels vary between 0.5 and 1.0 m due to the influence of winter rainfall recharge and, to a lesser extent, tides.

The recharge rate to the Q1 aquifer is influenced by soil permeability. Vertical hydraulic conductivity is likely to be low due to the predominantly clayey soils encountered at the site. However, the sedimentary material across the Adelaide Airport area is fairly heterogeneous and it is not uncommon to encounter more sandy or shelly strata (SKM 2007b).

8.6.3 Studies, Reviews and Available Data

Investigations have been undertaken over the potential hotel site as follows:

- Area 1: the triangular patch of land located on Sir Richard Williams Avenue adjacent to and including the General Aviation Terminal;
- Area 2: An area adjacent to the triangular patch and including the current AAL Maintenance Compound, and
- Area 3: an area within the Terminal 1 car park.

The adopted investigation levels for all three investigations were the *Airports Environment Protection Regulations 1997*.

Area 1

A comprehensive soil and preliminary groundwater investigation was undertaken of Area 1, as part of a *Baseline Environmental Site Assessment and Geotechnical Assessment*, in August 2007 (SKM 2007a). Similar investigations have been previously undertaken to the east and north of the site by Coffey Geosciences (1999), Coffey Geosciences (2003), and Parsons Brinckerhoff (2003) in relation to the Multi-User Integrated Terminal (Terminal 1), Joint User Hydrant Installation (JUHI), and United (formerly Mobil) Service Station respectively. Groundwater beneath Area 1 was encountered between 1.6 and 2.7 m below ground level.

Soil samples were taken from Area 1 and analysed for heavy metals, TPH, BTEX, PAH, OCP and OPP. All soil and groundwater samples were beneath the nominated criteria (SKM 2007a). The geotechnical assessment revealed that the predominant soil type was sandy clay and sandy silt overlain by non-engineered sandy fill. The sandy fill would require treatment prior to any footings being erected in this location. The relatively high groundwater levels will require further consideration prior to excavations (SKM 2007b).

Area 2

The second location (Area 2) was also subjected to a comprehensive soil sampling program and a preliminary groundwater investigation. Previous investigations include the removal and validation of four underground storage tanks, which were located within Area 2 (Coffey 1998).

Soil samples were analysed for heavy metals, TPH, BTEX, PAH, OCP and OPP. Results were within the nominated criteria. Minor exceedences for zinc and mercury were reported in two of the three groundwater wells. This is likely to be associated with background levels. Groundwater was encountered between 1.5 and 2.0 m below ground level (SKM 2007c).

Area 3

Other investigations completed close to this location include a soil investigation after the removal of an underground storage tank (Soil & Groundwater 2005) and a baseline environmental site assessment to the south east of the site (Coffey 2006).

The current investigations reported a number of exceedences in all three of the groundwater wells for copper, zinc, lead and mercury. This is likely to be due to background levels in the groundwater (SKM 2007d).

Groundwater was encountered between 1.9 and 2.5 m below ground level.

8.6.4 Potential Impacts of Construction Activities

The potential impacts of earthworks associated with the development are:

- exposure of potentially contaminated soils;
- exposure of buried asbestos-containing materials;
- encountering potential acid sulphate soils;
- dewatering of shallow groundwater;
- risk of exposure of construction personnel to contaminants; and
- accidental release of contaminants to soil and groundwater.

Adherence to procedures in the CEMP will minimise the risk of construction personnel being exposed to harmful contaminant levels and ensure the impacted area is remediated and validated.

If any de-watering activities are required during construction, then assessments will be undertaken of the proposed water qualities and volumes before deciding on the fate of the pumped groundwater. All relevant licences and approvals will be applied for and received before any offsite discharges are permitted from the site.

Dust generation will be controlled during construction through the use of water carts and erosion addressed through the use of suitable erosion control devices.

8.6.5 Conclusions

There is a very low risk of construction and development activity impacting the soil or groundwater beneath the site. If any issues do arise during the construction process, then processes and procedures are in place to adequately address them.

8.7 ECONOMIC IMPACTS

8.7.1 Introduction

The *Adelaide Airport Master Plan* (AAL 2014) included an update of the *Socio-economic Impact Assessment Study* previously undertaken for the previous Master Plan. This updated assessment included future estimates of direct (onsite and offsite) employment and Gross State Product (GSP) contribution by precinct for the period 2018 to 2033. This included the proposed hotel in the Terminals Precinct.

For the purposes of these estimates, two primary drivers of change were used to forecast future employment and GSP, being:

- forecast aircraft movement changes for the period 2013 to 2033 as prepared by Tourism Futures International (TFI - April 2013) on behalf of AAL; and
- planned future developments at Adelaide Airport as advised to Hudson Howells by AAL (square metre developments by precinct and number of hotel rooms).

Standard industry employment estimates of Full Time Employees (FTEs) for office, commercial, warehouse, light industry and retail were used to estimate the total number of jobs (onsite and offsite) that will be contributed by Adelaide Airport activity to the South Australian economy for the period 2018 to 2033, with 2013 being actual data as determined by a tenant survey.

8.7.2 Study Objectives

The specific objectives of this study were to identify the economic impacts of the proposed hotel associated with:

- the construction and establishment of the hotel—what impact will the construction and establishment activity have on the State economy in terms of direct and indirect employment, incomes, value added, etc; and
- the direct operations of the hotel—what impact will the hotel operations have on the State economy in terms of direct and indirect employment, incomes, value added, etc.

8.7.3 Estimated Economic Impacts

Initial Hotel Operational Economic Impact

The proposed hotel was included in the 2013 assessment on the following assumptions:

- it was included in the Terminals and Business Precinct Forecasts;
- it was assumed to have 250 rooms; and
- based on industry standards it was assumed that each room contributed 0.625 FTE employees per room.

The operational impact of the proposed hotel is therefore estimated to be:

- 156.25 FTE's per annum (direct and indirect/multiplier impact).; and
- approximately 15% of the Terminals Precinct's new developments contribution to GSP by 2018 or \$64.2 million per annum.

These are the annual ongoing contributions to the South Australian economy estimated to be derived from the hotel's annual operations.

Table 8.3 Construction Ratios and Multipliers

Activity per \$1m invested	Construction
Value added (\$m)	1.107
Employment (FTE jobs)	8.338

Note: Multipliers have been adjusted for inflation and for indicative estimates of productivity gains – 2% p.a. 2012 to 2014.

Hotel Construction Economic Impact

While the proposed hotel will have the above estimated ongoing economic impacts, there will be a significant but once-only economic impact associated with the construction of the hotel (not included in previous economic assessments). AAL has advised the following revised concept and construction cost estimates:

- 165 to 265 rooms;
- meeting and function rooms;
- restaurants; and
- estimated construction cost of around \$50 to \$60 million inclusive of fit outs etc.

The level of economic activity generated by the construction of the hotel is based on economic modelling with estimates comprising:

- total jobs, wages paid and expenditure associated with the project (i.e. direct employment effects); and
- induced economic impacts (multiplier effects) associated with this direct employment.

Industry ratios and multipliers used for the calculations of jobs and income outcomes from construction of the hotel, derived from the 2011/12 South Australian Input/Output Tables, are presented in Table 8.3

Based on Table 8.3, a construction investment of \$1 million would support incomes (value added) of \$1,107,000 and 8.3 FTE jobs, comprising both direct and indirect (multiplier) employment.

As such, total investment in the proposed hotel, if constructed over 1 year, is estimated to add \$66.5 million (\$2014) into the economy (i.e. Gross State Product or wages and salaries, returns on capital, payment of taxes) and 500 FTE jobs (over the life of the construction project).

8.8 AIR QUALITY

8.8.1 Meteorological Conditions

Meteorological conditions are relevant in regard to the potential for air quality impacts associated with the construction of the hotel complex development, principally dust generation. In particular, the wind direction and strength at the airport is significant. The most frequent winds are from the WSW to the SSE and from the NE sector. This is generally the case in autumn and spring. In summer, the southerly winds dominate and in winter the winds are more commonly from the NNE (Bureau of Meteorology 2007). In addition, the wind direction in the mornings tends to be N and NNE, while in the afternoon they swing around to SSW.

The annual average maximum and minimum temperatures experienced are 21.4°C and 11.3°C respectively. In summer, the average maximum temperature rises to 27.9°C in January and 28.0°C in February. July is the coldest month, with an average minimum temperature of 7.0°C.

Average humidity levels in the morning are 63%, with the most humid months being June and July when the averages are 79% and 80% respectively. The annual average humidity at 3 p.m. is 52% with June and July again being the most humid months with rates of 64% and 65% respectively.

The average annual rainfall is 449 mm and the average number of raindays is 79. June and July are the wettest months, with mean rainfall readings of 56.5 mm and 59.9 mm, respectively. The average number of raindays for both of these months is 9. January is the driest month with an average rainfall of 18 mm and an average of 3 raindays.

8.8.2 Studies, Reviews and Available Data

Continuous ambient air quality monitoring adjacent to the airport (Netley) over the past five years has revealed that the concentration of pollutants has remained below the accepted limits set in the *Airports (Environment Protection) Regulations 1997* and the *National Environment Protection (Ambient Air Quality) Measure*. A small number of exceedences of the *National*

Environment Protection (Ambient Air Quality)

Measure were recorded for the parameter particulate matter (PM10) however these exceedences were recorded at a number of sites across the city and were associated with hot dry northerly winds (EPA 2006).

Due to the low levels of pollutants discussed above and the fact that Adelaide Airport has very few point sources of emissions, AAL does not undertake any additional monitoring other than that provided by the EPA-run Netley monitoring station.

8.8.3 Potential Contamination Sources

Potential air quality impacts during construction could include discharges from vehicles and plant and also dust from construction activities. These potential impacts will be addressed in the Construction Environmental Management Plan.

Potential air quality impacts could arise during operation of the hotel complex from air and water coolers and air conditioning systems. These issues will be addressed through careful design and appropriate management of the potential sources to meet as a minimum the regulatory requirements of *Australian Design Codes* and *Building Control Regulations*.

The airconditioning plant will include cooling towers which could be considered to have a potential impact on air quality. To minimise such impact the following measures will be taken:

- towers will be fitted with drift eliminators that will contain drift to less than that stipulated in Australian Standards;
- fans will be fitted with variable speed drives to further reduce drift; and
- towers will be constructed and fully maintained in accordance with AS 3666.

8.8.4 Proposed Management and Mitigation Measures

Construction equipment will be properly maintained to ensure exhaust emissions comply with clean air regulations issued under the *Environment Protection Act 1993*. If visible smoke

can be seen from any equipment (while working on the construction site) for longer than 10 seconds duration, the equipment will be taken out of service and adequately repaired or tuned so that smoke is no longer visible for periods longer than 10 seconds.

Disturbed areas will be stabilised as soon as practicable to minimise wind-blown dust. Trucks transporting material from the site will be covered immediately after loading to prevent wind-blown dust emissions and spillages.

When the wind velocity exceeds 10 m/s average over a 10 minute period, any construction activities producing dust that cannot be controlled by water or other control means will cease. Construction activities shall not be resumed until the wind velocity consistently drops below 10 m/s average over a 10 minute period.

All dust control measures will be kept in good operating condition. The equipment will be operable at all times with the exception of shutdowns required for maintenance. Planned maintenance shutdowns of control equipment will not be scheduled to commence during periods when wind speeds in excess of 10 m/s average over a 10 minute period are being experienced or are forecast to occur within the period of shutdown.

Cleared vegetation, demolition materials and other combustible waste will not be burnt on site. Prompt action will be taken to extinguish any fire.

Wherever practical, materials and processes that are non-toxic will be used.

Wherever practical, ozone depleting substances, including CFCs, HFCs and HCFC refrigerants and processes will not be used.

The design of the hotel in relation to operational issues will focus on the minimisation of the emissions of greenhouse gases.

8.9 FLORA AND FAUNA

8.9.1 Existing Conditions

The existing flora within the site is very limited and is categorised by a mixture of tree species at the perimeter. These species include *Casuarina glauca*, *Casuarina obesa*, *Lagunaria patersonii*, *Melaleuca raphiophylla* and a mixture of *Acacia* and *Eucalyptus* species (predominantly *Eucalyptus occidentalis*). The other vegetation includes very minor ornamental plantings associated with the general aviation terminal and the open area of exotic grass which extends across most of the site (Delta Environmental Consulting 2007b).

Existing flora consists of a few small areas that have been landscaped with species including *Dianella revoluta*, *Banksia* species, *Anigozanthos flavidus* and native grasses.

Flora across the western side of the hotel complex development zone consists of recently planted native species, mostly shrubs and groundcovers. Species include *Xanthorrhoea*, *Poa poliformis*, *Lomandra* species, *Themeda triandr*, *Hardenbergia violacea* and *Isolepis cernua*.

There is no known fauna with the exception of exotic rodent species (e.g. *Rattus rattus*) that have been observed periodically. A number of common bird species have been observed using the area for temporary roosting purposes; however, these observations have not been formally recorded.

8.9.2 Studies, Review and Available Data

A vegetation survey has been undertaken on the proposed site by Delta Environmental Consulting (2007b). Of the species identified on the site, none are listed under the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999* and almost all are exotic to the Southern Lofty botanical region encompassing the airport.

There are no Commonwealth regulations or guidelines for determining the habitat value of urban vegetation communities. However, in South Australia, guidelines developed by the Native Vegetation Council (nd) can be used to estimate

habitat value of native vegetation and exotic vegetation in urban environments. Based on the Council's criteria, Delta Environmental Consulting (2007b) reported that the current tree species would have limited faunal biodiversity, as the majority of trees were not particularly mature or large for their species; none of the trees were of sufficient age to have developed nesting hollows; and none were associated with any understorey. Certainly, none are known to support threatened species in the urban setting (Delta Environmental Consulting 2007b).

One of the primary objectives of AAL's wildlife hazard management program is to deter fauna, particularly bird species, from the vicinity of the airport. Ongoing bird censuses on the airport by the University of Adelaide underpinned the development of the *Adelaide Airport Landscaping Guidelines 2004*. Past plantings on Area 1 have happened to conform to these guidelines, naturally limiting the amount and diversity of fauna.

8.9.3 Potential Impacts of Development

On the basis of the vegetation survey findings, no tree or shrub species warrant retention or relocation. The combined species and habitat value will instead be replaced through replanting in the form of a site-specific landscaping plan.

Current species and habitat value would be also replaced through replanting. Consideration of the aesthetic values of any existing vegetation that needs to be removed for the development of the hotel complex will be included in the final landscaping design.

8.9.4 Proposed Management and Mitigation Measures

The development and implementation of a landscaping plan for the site will provide significant benefit to the character and amenity value of the area. The inclusion of locally endemic native tree and shrub species will improve the biodiversity of the development site.

8.10 WASTE MANAGEMENT

8.10.1 Construction Wastes

It is anticipated that little waste will be generated during the site preparation and construction processes. Any demolition wastes will, where possible, be recycled on the airport. This could include any excavated materials which could be used as fill, subject to meeting the environmental standards in the *Airports (Environment Protection) Regulations 1997*. If any asbestos is detected during any construction activities, then the AAL procedures for asbestos handling and removal will be implemented by licenced contractors.

8.10.2 Operational Wastes

The selected developer/operator of the hotel will be required to meet the terms of its lease relative to waste management and environmental controls. A system of removal of wet waste and recycled waste products will be contained within the Lease Rules and Regulations.

All wastewater from the development will be directed to the airport wastewater system which connects to the Glenelg Treatment Plant. Treated wastewater from this plant is supplied back to the airport via in-ground mains for use by AAL.

Chapter 9

CONSISTENCY WITH MASTER PLAN

9.1 OVERVIEW

Part 4 Section 91 of the *Airports Act* 1996 prescribes the contents of a Major Development Plan, with sub-section (1)(d) requiring an assessment whether or not the development is consistent with the Master Plan for the airport.

This chapter of the MDP provides an assessment of the proposed hotel development against the land use planning chapter of the *Adelaide Airport Master Plan* (2014).

The proposed hotel development is located within the Terminals and Business Precinct of the Airport (Adelaide) Zone as depicted in the Master Plan. This precinct is further divided into a number of policy areas, with the proposed hotel development being in the Terminals and Aviation Policy Area (Figure 9.1).

The following assessment of the proposed hotel development is provided against the Airport (Adelaide) Zone, the Terminals and Business Precinct and the Terminals and Aviation Policy Area.

Figure 9.1 Adelaide Airport Master Plan Policy Areas



Included within the Glossary of the *Adelaide Airport Master Plan* (AAL 2014) are definitions for varying airport activities consistent with airport needs or existing airport uses. Section 7.5 of the Master Plan states that "... where a particular land use is not defined, regard should be given to the definitions contained in the *South Australian Development Regulations 2008* and the *South Australian Planning Policy Library Terminology List 2011* prepared by DPTI."

'Hotel' and 'Motel' are not defined in the Master Plan. Schedule 1 of the *South Australian Development Regulations 2008* defines "Hotel" and "Motel" as follows:

"Hotel means premises licensed, or proposed to be licensed, as a hotel under the *Liquor Licensing Act 1985*, but does not include a motel."

"Motel means a building or group of buildings providing temporary accommodation for more than five travellers, and includes an associated restaurant facility, but does not include a hotel or residential flat building."

The proposed hotel complex exhibits characteristics of both a "Hotel" and a "Motel" as defined in the *South Australian Development Regulations 2008*. The proposal also incorporates a restaurant, office and conference facilities. For simplicity, the proposal is best described as a 'Hotel'.

9.2 AIRPORT (ADELAIDE) ZONE

Section 7.6 of the *Adelaide Airport Master Plan* (AAL 2014) describes the 'Airport (Adelaide) Zone', covering all land under the care and control of Adelaide Airport Limited.

9.2.1 Zone Objectives and Desired Character

The Objectives and Desired Character of the Airport (Adelaide) Zone encourage new development that promotes the airport's role as the international, national and regional gateway to South Australia and also a major business enterprise providing a transport hub, export facilities, employment and commercial, retail, industrial development opportunities for South Australia, whilst ensuring the long-term operational safety and commercial aviation requirements of the airport.

Additionally, under the heading of 'Economic Development', Objective 4 seeks development that promotes the economic improvement of Metropolitan Adelaide and the State, facilitating the movement of passengers and contributing to the viability of the airport as a business. The development of a hotel will improve passenger facilities at Adelaide Airport and assist in contributing to the economic viability of the airport.

Objective 5 specifically encourages the development of a hotel at Adelaide Airport, stating:

"A zone accommodating a range of airport and export-related industrial and commercial uses, including hotel and ancillary services."

The Airport (Adelaide) Zone also includes a number of objectives relating to amenity, both in terms of the appearance, design and sustainability of proposed development, and also minimising adverse impact and conflict between land uses, both on the airport and on surrounding areas. The proposed hotel development is in a location and of a design which:

- does not compromise the long-term operational and safety needs of the airport;
- complements other modern airport buildings within the Terminals and Business Precinct, including the Terminal 1 building and recently completed multi-deck car park; and
- minimises amenity impacts upon existing development, both within and surrounding the airport.

Finally, there are two objectives relating to access and parking. The proposed hotel development is located immediately adjacent the main access road into Adelaide Airport including the recently completed multi-deck car park, a proposed relocated taxi pick-up and drop-off area, and the site of a future tram stop. The development is expected to include a porte-cochere, for the pick-up and drop-off of patrons and visitors to the hotel, but will rely on the adjacent airport for short and long-stay car parking. Thus, the development will result in a proposal which ensures safe and convenient vehicular access and car parking, whilst not compromising existing access arrangements within the airport.

Further, the proposed hotel is immediately to the northeast of the recently completed plaza, which links Terminal 1 with the multi-deck car park and will provide direct pedestrian linkage into the ground and upper level of Terminal 1, with a link to the proposed Office Park.

The development of a hotel complex at Adelaide Airport within the Terminals and Business Precinct will satisfy all of the relevant objectives of the Airport (Adelaide) Zone, particularly in

the context of further developing this important tourist hub and gateway to South Australia, complementing aviation services and the economic development of the airport.

9.2.2 Principles of Development Control

Principles of Development Control for the Airport (Adelaide) Zone are provided under 22 headings. An assessment of the proposed hotel development against the relevant Principles of Development Control is provided below.

Land Use

Principle 2 seeks to ensure that a range of services and facilities are provided at the airport that are necessary for the safe, convenient and efficient operation of aviation activities and passenger services. A hotel development is an appropriate use within this context, providing improved passenger and tourist facilities in the form of temporary accommodation to service the travelling public, supporting the role of Adelaide Airport as an international, national and regional gateway.

Such a development is proposed to be designed and located to ensure that the long-term operational safety and commercial aviation requirements of the airport will be met.

Hazards

Principles 17 to 20 relate to hazard management, ensuring the operational integrity of airport navigation and communications systems and airport operations, minimising the attraction of wildlife and birdlife to the airport, and ensuring that lighting associated with buildings and internal roads does not create a hazard to aviation operations.

The proposed hotel development is to be designed to ensure that hazards are minimised. Such matters are further addressed in Section 10.4 under the National Airports Safeguarding Framework (NASF) Review.

Building Height

Principle 21 relates to Building Height, stating: “Buildings are to be sited and be of a height that will not result in a breach of the OLS and navigational clearance zones (PANS-OPS) associated with airport runways.”

The proposed hotel complex, having a maximum height of 48 m AHD including aerials and exhausts, lights, etc, will be sited and designed so that it does not breach the Obstacle Limitation Surfaces (OLS) and navigational clearance zones (PANS-OPS) associated with airport runways; with these limitations allowing development up to 48.5 m AHD within this section of the airport. This equates to an expected building height above ground of around 42 m.

As a point of reference, Terminal 1 building has a total height of 19.25 m (25.18 m AHD) plus roof top communication aerials and the associated apron floodlights are 40 m in height, with car park lighting set at 30 m high. Additionally, the adjacent IKEA Navigation Tower located on Sir Donald Bradman Drive has a total building height of 25 m.

Public Safety Zone

Principle 22 seeks to ensure that no intense human activities are located within suitable distance parameters or at the end of runway locations, known as a ‘Public Safety Zone’ (PSZ). The identification of Public Safety Zones is yet to be finalised by the Commonwealth Department for Infrastructure and Regional Development.

As the proposed hotel development is located adjacent to the existing Terminal 1 building and will be some distance from both Runway 05 and Runway 23, the proposed development will not affect the indicative Public Safety Zones surrounding the Adelaide Airport runways.

Amenity

Principles 25 and 26 are particularly relevant to the assessment of the proposed hotel development.

Principle 25 relates to the siting, design and construction of airport buildings to protect occupants from aircraft noise. The proposed hotel building will be designed to ensure compliance with Australian Standard – AS2021-2000.

Principle 26 relates to the location design and operation of proposed development to prevent adverse impact and conflict between land uses. The proposed hotel development is more than 470 m from the nearest residential property within Brooklyn Park. Most properties are on the northern side of Sir Donald Bradman Drive, separated from the hotel development by existing commercial developments including Ikea and Masters. Further, the proposed hotel development is complementary to existing surrounding land uses within the airport, servicing Terminal 1, Export Park, and the future Office Park.

Energy Efficiency

The proposed hotel development will be designed and sited to conserve energy.

Building Appearance

The proposed hotel development is to be of a high quality, modern, contemporary and visually attractive which compliments the existing terminal, plaza and car park.

Access and Parking

Access to the proposed hotel development is in accordance with the Ground Transport Plan, as contained within Chapter 9 of the *Adelaide Airport Master Plan* (AAL 2014).

The proposed hotel development is expected to include a porte-cochere, for the pick-up and drop-off of patrons and visitors to the hotel, and is immediately adjacent the proposed relocated taxi pick-up and drop-off area and future tram stop for the airport.

It should be noted that no on-site car parking is provided for the proposed hotel development, relying instead on the adjacent multi-deck car park. Thus, car parking for this Precinct of the airport is centralised and shared.

Service Areas, Waste and Materials

The Airport (Adelaide) Zone contains a number of principles relating to the location and design of service areas, minimising waste going to landfill, and ensuring that material selection encourages sustainability and recycling initiatives.

The design of the proposed hotel development will ensure that such principles are achieved, with the 'back of house' and service area for the hotel being separated and screened from the hotel entrance and pedestrian plaza, and materials selected to ensure high levels of sustainability is achieved both through the construction and operational phases.

Water Conservation and Stormwater Management

The proposed hotel development will incorporate water conservation systems and devices, potentially using either treated stormwater or recycled water which has been the approach with the Terminal 1 and other recent developments at Adelaide Airport.

9.3 TERMINALS AND BUSINESS PRECINCT

The Airport (Adelaide) Zone is divided into a number of Precincts, with the proposed hotel development located within the Terminals and Business Precinct. The proposed hotel development is assessed against the Objectives, Desired Character and Principles of Development Control for the Precinct.

9.3.1 Objectives and Desired Character

The Terminals and Business Precinct is the area of Adelaide Airport primarily accommodating facilities for the safe, efficient and economic handling of aircraft, passengers and freight, and related services and support activities.

The Desired Character of new development within the Terminals and Business Precinct recognises the precinct as the major gateway to the Adelaide Airport facility, providing suitable

ancillary development for the travelling public and community. The Desired Character seeks development of a high standard of design that capitalises on the high exposure and roadway infrastructure network.

A hotel is a form of development which is consistent with the Objectives and Desired Character of the Terminals and Business Precinct, providing additional services and facilities for the travelling public, and supporting the ongoing economic development of the airport and the western suburbs of Adelaide.

The Terminals and Business Precinct is further divided into five policy areas, with the proposed hotel development being located within the Terminals and Aviation Policy Area. The Terminals and Aviation Policy Area is the "heart" of the airport, accommodating terminals and related access infrastructure, car parking, retailing activities, and taxi/bus drop-off and collection services. The policy area also recognises the opportunity to include a hotel development.

9.3.2 Terminals and Business Precinct Structure Plan

Figure 7.11 of the *Adelaide Airport Master Plan* (AAL 2014) includes the 'Terminals and Business Precinct Structure Plan'. The Structure Plan illustrates the division of the Terminals and Business Precinct into the five policy areas.

9.3.3 Principles of Development Control

Principles of Development Control for the Terminals and Business Precinct are provided under the following headings:

- Structure Plan;
- Form of Development;
- Terminals; and
- Built Form.

Key Principles of Development Control relevant to the current hotel proposal include that development should:

- be in accordance with the Terminals and Business Precinct Structure Plan;
- take into account the need to minimise disruption to ongoing airport operations;

- be user-oriented and sensitive to the needs of the industry, passengers, employees and the community; and
- minimise the potential for adverse impact on residential areas.

Although Principle 6 relates to terminals, it is relevant to the proposed hotel development as it seeks development which:

- is worthy as a gateway to Metropolitan Adelaide and South Australia;
- is a catalyst to the airport's development and economy; and
- provides a premier service to international, domestic and regional travellers.

The proposed hotel development achieves such requirements. Its location will not impede the future expansion of Terminal 1, or aviation services. It will complement and integrate with this existing landmark building, and will provide improved accommodation and facilities for the travelling public.

The proposed hotel development satisfies the Principles of Development Control for the Terminals and Business Precinct.

9.3.4 Procedural Matters

Section 7.8.4 of the Terminals and Business Precinct includes tables outlining the types of activities considered suitable within the Precinct. Specifically, the table entitled 'Terminals and Business Precinct Uses (excluding the Burbridge Business Park Policy Area)' includes 'Hotel', 'Motel', 'Conference Facility' and 'Restaurant' as Envisaged Development.

Thus, the key land use activities proposed within the hotel development are envisaged and appropriate within the Terminals and Aviation Policy Area of the Terminals and Business Precinct.

9.4 NATIONAL AIRPORTS SAFEGUARDING FRAMEWORK REVIEW

The National Airports Safeguarding Advisory Group (NASAG) has produced the National Airports Safeguarding Framework (NASF) that includes a statement of over-arching principles and a suite of six guidelines for land use planning measures associated with airports. The intent is to manage the impact of noise disturbance from airports and to preserve the ongoing safety of the community and aircraft by ensuring that aviation safety requirements are recognised in land use planning decisions. These principles and guidelines were formally agreed by all jurisdictions on 18 May 2012 with the intention of their subsequent endorsement by the Council of Australian Governments.

The NASF Guidelines are aimed at safeguarding airports and surrounding communities through implementing appropriate planning schemes around airports by providing guidance to decision-makers in all levels of Government.

A strategy to implement the NASF guidelines is currently being considered by the SA State Government.

The following is a high-level assessment of the proposed hotel development against the NASF guiding principles.

Guideline A: Measures for Managing Impacts of Aircraft Noise

The development will include measures to minimise the impacts of aircraft noise to patrons of the hotel complex, incorporating noise mitigation measures such as insulation, window treatments, air conditioning units, etc. consistent with AS2021 – 2000.

Guideline B: Managing the Risk of Building Generated Windshear and Turbulence at Airports

The height and positioning of the proposed hotel building has been designed in consultation with AAL to ensure that the risk of building-generated windshear and turbulence is minimised. The existing Terminal 1 building will further shield the hotel development from the runways. As necessary, wind tunnel testing can be employed using the final detailed designs of the building.

Guideline C: Managing the Risk of Wildlife Strikes in the Vicinity of Airports

The proposed development will incorporate courtyard and landscaping treatment consistent with the recently completed plaza area between Terminal 1 and the new multi-deck car park. Plant species selection will occur in accordance with the *Adelaide Airport Landscape Guidelines* to ensure that the plants chosen do not attract wildlife in the vicinity of the airport.

Guideline D: Managing the Risk of Wind Turbine Farms as Physical Obstacles to Air Navigation

The proposed development does not incorporate wind turbines.

Guideline E: Managing the Risk of Distractions to Pilots from Lighting in the Vicinity

The location and illumination at the proposed hotel will be considered in consultation with Airservices Australia to ensure the minimisation of risk of causing distractions to pilots through lighting and will be detailed in the final detailed designs to be supplied to the Airport Building Controller.

Guideline F: Managing the Risk of Intrusions into the Protected Airspace of Airports

It is noted that the height and positioning of the proposed hotel building has been designated to ensure that the structure does not impact upon the OLS and PANS-OPS, taking into account

its close proximity to the runways and aircraft operation. This height complies with Regulation 6 of the *Airports (Protection of Airspace) Regulations 1996* which limits any building impinging into prescribed airspace.

AAL also recognises the requirements of Regulation 6A of the *Airports (Protection of Airspace) Regulations 1996*; which limits the level of air turbulence caused by emissions from a stack or vent, with a specified velocity, which could affect prescribed airspace.

9.5 SUMMARY

The proposed hotel development is consistent with the requirements of the Adelaide Airport Master Plan. The proposed development:

- is consistent with the form of development envisaged within the Terminals and Business Precinct;
- provides improved tourist facilities in the form of temporary accommodation to service the travelling public within very close proximity to Adelaide's national and international airport;
- does not compromise the long-term operational and safety needs of the airport;
- is to be of a design which complements other modern airport buildings, such as Terminal 1;
- will be designed to minimise amenity impacts upon existing development, specifically avoiding any overshadowing of development surrounding the airport; and
- will result in a proposal which ensures safe and convenient vehicular access and car parking can be achieved for the hotel complex, whilst not compromising existing access and parking arrangements for Terminal 1.



EXIT

International Arrivals

COCONUT

COFFEE

SHADES

SHADES

DELAIDE
VENTION
CENTRE

Chapter 10

CONSISTENCY WITH PLANNING SCHEMES

Part 4 Section 91 of the Airports Act 1996 prescribes the contents of a Major Development Plan, with sub-section (4) requiring that an MDP must address: a) The extent (if any) of consistency with planning schemes in force under a law of the State in which the airport is located; and b) If the major development plan is not consistent with those planning schemes—the justification for the inconsistencies.

The South Australian Planning system operates under a number of strategic plans and policy documents that seek to guide the future development of the State as a whole. For the purposes of this document, each of the relevant State and Local strategic planning schemes have been reviewed in relation to the proposed hotel development. These documents are also reviewed in the *Adelaide Airport Master Plan* in consideration of the future development of the airport precinct over the next 20 years.

10.1 STATE GOVERNMENT STRATEGIC PLANNING DOCUMENTS

10.1.1 South Australia's Strategic Plan (2011)

South Australia's Strategic Plan was updated by the South Australian Government in 2011, and has been regularly updated since its original establishment in 2004. The Plan's targets reflect South Australia's aspirations for where it wants to be as a State in 2020 and beyond, and groups targets under the following six priorities: Our Community, Our Prosperity, Our Environment, Our Health, Our Education and Our Ideas. The provision of a hotel development within the Adelaide Airport will further strengthen the tourism attraction and economic prosperity of the State.

10.1.2 South Australian Tourism Plan 2020

In 2014, the SA Tourism Commission (SATC) prepared the *South Australian Tourism Plan 2020* that seeks to develop tourism in the state over five priority action areas being:

- driving demand;
- working better together;
- supporting what we have;
- increasing the recognition of the value of tourism; and
- using events to grow visitation

The Plan seeks to achieve these priority action areas to encourage the growth of the tourism industry in SA through a series of actions and measures over the period to 2020. The key actions that relate to the operations of Adelaide Airport are driving demand actions. These include:

- Continue to implement an international marketing focus that recognises Asian growth opportunities and converts these but doesn't lose sight of the existing markets that drive current regional visitation and length of stay.
- Continue the strong interstate marketing approach that is highly targeted and leverages current assets.
- Work with other parts of the visitor economy such as international education and business and leisure events to drive visitation.

- Support airlines by growing demand through continued cooperative partnerships to maintain current increased inbound air capacity to South Australia, then investigate further capacity to grow.
- Support a strong domestic and regional aviation environment.

These actions demonstrate the Tourism Commission's recognition of the airport and the importance of supporting the aviation industry. South Australian Planning System

The South Australian planning system is established under the *Development Act 1993* and associated *Development Regulations 2008*. Development on Adelaide Airport does not fall under this legislation as the site is owned by the Commonwealth Government. The land use planning aspects of the *Adelaide Airport Master Plan* have been prepared to generally reflect the South Australian planning system, and how development surrounding the airport can impact upon airport operations.

10.1.3 Planning Strategy for South Australia

In accordance with the *Development Act 1993*, the State Government has prepared the *Planning Strategy for South Australia* which presents the State Government's policy directions for the long-term physical development of the State over the next 10 to 15 years. The Planning Strategy is divided into eight volumes based on geographical area. The relevant volume of the Planning Strategy applicable to Adelaide Airport is the *30-Year Plan for Greater Adelaide* (referred to as the 30-Year Plan) which was released in February 2010.

10.1.4 The 30-Year Plan for Greater Adelaide

The *30-Year Plan for Greater Adelaide* (the 30-Year Plan) provides directions for urban and regional development for business, industry, infrastructure provision, utility supply and government agencies. The 30-Year Plan is due for review in 2015.

The 30-Year Plan seeks to provide the framework to shift urban growth away from expansion of the urban fringe towards a greater infill development, which is being promoted by increasing housing densities close to selected transport corridors. The 30-Year Plan includes population and employment targets for western Adelaide where the airport is located, seeking 42,560 new dwellings (33,060 within corridors and 9,500 outside corridors) and 40,500 new jobs over the 30-year period.

In summary, Adelaide Airport is identified as a 'Specialist Activity Centre' in the 30-Year Plan and promotes increased economic activity on airport land, in addition to setting a clear policy direction of protecting the ongoing operations of the airport from encroachment by incompatible surrounding land uses.

This MDP for Adelaide Airport, being the establishment of a 'hotel', is consistent with the role of Adelaide Airport as a Specialist Activity Centre that has the opportunity for increased economic activity. The proposal will:

- assist in enhancing Adelaide Airport as the principal gateway for domestic and international visitors to Adelaide and South Australia;
- further strengthen the role and function of Adelaide Airport as a 'Specialist Activity Centre';
- expand the offer of services and facilities by incorporating specialty accommodation to meet the needs of the travelling public; and
- improve the overall economic base of the airport.

In summary, the proposed hotel development supports the future directions prescribed in the *30-Year Plan for Greater Adelaide*.

10.2 LOCAL GOVERNMENT STRATEGIC PLANNING DOCUMENTS

10.2.1 West Torrens (City) Development Plan

Under the SA Planning system, Development Plans are the key guiding documents for new development in line with the overarching strategic planning documents for the State, and are established under the *Development Act 1993*. Development Plans are prepared for every council in South Australia, and contain zones, maps and policies that guide the requirements and considerations for new development for land within the area. The Development Plan policies are then used as the basis for which planning authorities assess new development applications.

Adelaide Airport is located within the City of West Torrens, with the *West Torrens Council Development Plan* (Consolidated 25 September 2014), being the relevant Development Plan for this local government area.

State and Territory planning legislation has no jurisdiction over development on Commonwealth land. Thus, regard must only be provided in relation to the provisions of the *West Torrens Council Development Plan*.

Adelaide Airport is located within the 'Airfield Zone' of the *West Torrens Council Development Plan*. This is a relatively generic zone which is intended to cover all airports and airfields within the State.

The zone does not recognise the strategic importance of Adelaide Airport to the State, or provide a finer grain planning policy framework for the airport (as is provided in the *Adelaide Airport Master Plan*).

Notwithstanding this, the proposed hotel development is assessed against the Airfield Zone and relevant provisions of the *West Torrens Council Development Plan*.

The primary Objectives of the Airfield Zone are:

- Objective 1: A zone primarily accommodating aircraft operations, passenger terminals, airport and aviation-related light industrial, service industrial, warehouse and storage purposes; and
- Objective 2: Development that contributes to the desired character for the zone.

The Objectives are supported by a Desired Character statement for the zone, which in essence seeks:

- to encourage the development of a range of services and facilities necessary for the safe, convenient and efficient operation of aviation activities at Adelaide Airport;
- to be compatible with the principle aviation function of the airport and maintaining the long-term operational and safety needs of the airport; and
- to continue to promote development that seeks the economic improvement of the State and City of West Torrens whilst maintaining the airport as the international, national and regional gateway to South Australia.

The Principles of Development Control seek to support the Desired Character and overarching Objectives of the zone, which recognises the primary need to maintain the safe operation of Adelaide Airport.

It should be noted that the Airfield Zone lists 'hotel' and 'tourist accommodation' as Non-Complying development. The South Australian planning system allows for Non-Complying development to be considered and approved, if considerable merit can be demonstrated and the impacts on adjacent land uses can be minimised.

The General Section of the *West Torrens Council Development Plan* includes a module entitled 'Tourism Development'. The Objectives and Principles of Development Control for the Tourism Development module encourages:

- environmentally sustainable and innovative tourism development; and
- tourism development that sustains or enhances the local character, visual amenity and appeal of the area.

Although the MDP for a hotel development is not consistent with the land uses prescribed for the Airfield Zone, the provision of a hotel or tourist accommodation associated with the State's international, national and regional aviation gateway, is considered most appropriate. The proposed hotel development provides improved tourist facilities in the form of temporary accommodation to service the travelling public at Adelaide Airport and within the western suburbs of Adelaide, does not compromise the long-term operational and safety needs of the airport, and does not impact on the surrounding community.

10.2.2 City of West Torrens Towards 2025 Community Plan

In accordance with Section 122 of the *Local Government Act 1999*, Councils are required to prepare 'strategic management plans' that establish the future direction of the Council area. West Torrens Council has undertaken extensive consultation with the local community and has prepared the *Towards 2025 Community Plan in 2014*.

Through the engagement process, the Community Plan adopted the following overarching themes:

- Community Life
- Natural Environment
- Built Environment
- City Prosperity
- Financial Sustainability
- Organisational Strength.

Whilst there are no community aspirations or strategies that relate specifically to the airport, several strategies are aligned to AAL's own aspirations for the airport including environmentally sustainable development, a well-designed built environment, and a thriving business environment.

The development of the proposed hotel on the airport site will contribute towards achieving Council's community aspirations as it is an environmentally sustainable development that will form part of a high-quality and attractive built environment and enhance the prosperity of the Council area by offering additional services that complement the transport and tourism hub of the airport.

10.2.3 City of West Torrens Vision 2025 Strategic Directions Report

Councils are required to prepare a '*Strategic Directions Report*' (SDR) at least every 5 years under Section 30 of the *Development Act 1993*. The SDR seeks to address the strategic planning issues within the Council area, align planning policies with the directions sought in the Planning Strategy, and identify a program of amendments required to Council's Development Plan.

Council has recently prepared a draft SDR in August 2014, which has been endorsed by Council and has been submitted to the State Minister for Planning for endorsement. Essentially, the updated SDR follows relatively the same overarching themes as the 2008 report, reducing the number from six to four themes being: Community Life, Natural Environment, Built Environment and City Prosperity.

The draft SDR proposes a number of amendments to the Development Plan that were previously identified in the 2008 SDR under the headings of Employment, Activity Centres and Local Heritage Places, with optional future Development Plan amendments to include Water Sensitive City, Conservation and Healthy City. Additionally, the SDR recognises the need to engage with Adelaide Airport and a number of other stakeholders to the identified Development Plan amendments.

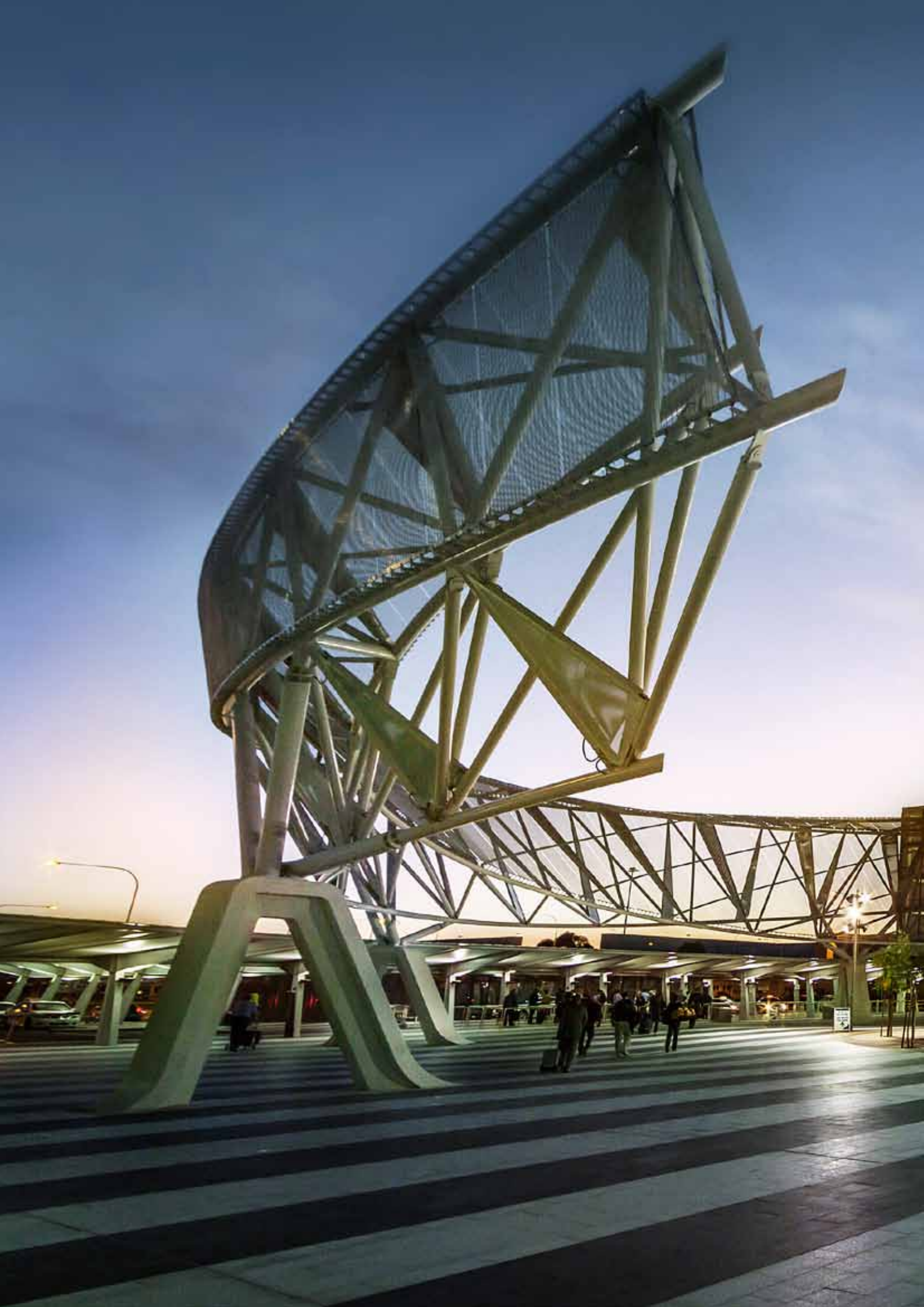
The proposed Development Plan amendments that are likely to have the greatest impact on land surrounding the airport include:

- Employment (to commence in 2015) – provide a range of employment options within the Council area in response to market demand and provision of appropriate land supply.
- Activity Centres (to commence in 2015) – undertake an economic and retail analysis to better align the existing activity centres with the Planning Strategy definitions.

These amendments have a particular focus on providing the policy framework to accommodate large employment-generating developments and strengthening the hierarchy of activity centres within the Council area.

The SDR includes a review of the Preliminary Draft of the *Adelaide Airport Master Plan*, recognising the economic importance of Adelaide Airport and projected growth in passenger numbers. Land use planning on airport land is also discussed, with reference to the need for new development to consider the impacts on airport operations and the surrounding residents and businesses.

In consideration of the above, the proposed hotel development will contribute to the overarching themes utilised in the SDR and the policy directions of Council by contributing to the employment base and range of service offerings within the City of West Torrens. Generally the proposed hotel meets the policy intent that has been set by Council through the draft *Strategic Directions Report*.



Chapter 11

CONSULTATION

Consultation for the development of a hotel in the Terminals and Business Precinct of Adelaide Airport progressively occurred during 2014 through the established Adelaide Airport Consultative Committee (AACC) and its subsidiary Airport Planning Coordination Forum. Prior to this the possibility of such a development was discussed for many years through similar fora involving the AACC membership in the context of the previously approved Major Development Plan for a Hotel Complex and the associated Minor Variation.

With the strengthening of the concept proposal, AAL have undertaken further consultation on the concept and development site area of a hotel complex with key stakeholders.

Consultation will continue throughout the formal public consultation period of this MDP. AAL has planned and undertaken a consultation program for the hotel complex development based on past experience with consultation programs, utilising established consultation opportunities such as the Adelaide Airport Consultative Committee and with reference to the Commonwealth Government's guidelines for airport consultation - *Airport Development Consultation Guidelines October 2012*.

11.1 CONSULTATION PROCESS

AAL will advertise the public display period for the draft MDP. These advertisements will be placed in State and local papers as required by the *Airports Act 1996* and will call for submissions regarding the hotel complex development proposal detailed in the documentation.

In addition, AAL will provide opportunities for stakeholders and interested parties to view the documentation electronically, particularly through the AAL web site, and in hard copy and to make submissions regarding the proposed development.

At the outset of the public comment period, AAL will formally advise of the intent by AAL to provide the Commonwealth Minister a draft MDP for approval, and seek formal input to the proposal from:

- the State Minister for Planning;
- the State Department of Planning, Transport and Infrastructure; and
- the cities of Holdfast Bay, Charles Sturt and West Torrens.

As part of the public consultation process, AAL will use the following format:

- copies of the draft Major Development Plan will be available for inspection and purchase from AAL;
- copies of the draft MDP will be available from the AAL website;
- articles will be written concerning the project in the airport newsletter (*Plane Talk*) and distributed to all parties on the established mailing list;
- presentations will be made to interested members of the AACC, the AACC Planning Coordination Forum representatives and existing and possible future members of the State and Federal Parliaments; and
- presentations will be made to relevant State and Commonwealth Government representatives.

11.2 MAJOR STAKEHOLDERS AND SPECIALISTS CONSULTED

AAL has commenced consultations with major stakeholders during the formulation of this proposal and have engaged specialist consultants on the development, the advice from which have been incorporated in this documentation.

Significant stakeholders consulted to date and the issues raised during the preparatory consultations are presented in Table 11.1.

Any submissions received from stakeholders will similarly be recorded for formal submission to the Minister for Infrastructure and Regional Development and Local Government.

11.3 PUBLIC COMMENTS TO DATE

Comments from the public to date have been received from Community representatives on the Adelaide Airport Consultative Committee. These comments have been supportive of the project.

Table 11.1 Stakeholders Consulted to date

Stakeholder Consulted	Issues Raised	AAL Response
Airservices Australia (Canberra – Airport Developments)	<ul style="list-style-type: none">· Impact of the building on wind turbulence potentially affecting the runway;· Sun glare from any reflective surfaces;· Positioning under the OLS;· Potential radar reflections, and· Up-lighting that may impact on aircraft night operations.	Agreed, all issues raised will be addressed in design phase.

Chapter 12

COMPLIANCE WITH AIRPORTS ACT

Under Section 91 of the Airports Act 1996, the contents of a Major Development Plan are specified. Table 12.1 provides

a checklist to demonstrate compliance with the requirements under the Act and also the location within this MDP of the relevant section or sections.

Table 12.1 Compliance with MDP Requirements

MDP Requirements	Find Details in Sections of this MDP
(1) A major development plan, or a draft of such a plan, must set out:	1, 2.2.2 and 3
(a) the airport-lessee company's objectives for the development; and	4
(b) the airport-lessee company's assessment of the extent to which the future needs of civil aviation users of the airport, and other users of the airport, will be met by the development; and	4
(c) a detailed outline of the development; and	4
(ca) whether or not the development is consistent with the airport lease for the airport; and	2.2.2, 9 and 10
(d) if a final master plan for the airport is in force—whether or not the development is consistent with the final master plan; and	2.2.2 and 9
(e) if the development could affect noise exposure levels at the airport—the effect that the development would be likely to have on those levels; and	8.4.1
(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; and	8.4.1
(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—if the airport is a joint user airport—the Department of Defence, for managing aircraft noise intrusion in areas forecast to be subject to exposure above the significant ANEF levels; and	8.4.1
(g) an outline of the approvals that the airport-lessee company, or any other person, has sought, is seeking or proposes to seek under Division 5 or Part 12 in respect of elements of the development; and	1.3
(ga) the likely effect of the proposed developments that are set out in the major development plan, or the draft of the major development plan, on:	8.3
(i) traffic flows at the airport and surrounding the airport; and	
(ii) employment levels at the airport; and	
(iii) 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; and	
(h) the airport-lessee company's assessment of the environmental impacts that might reasonably be expected to be associated with the development; and	8
(j) the airport-lessee company's plans for dealing with the environmental impacts mentioned in paragraph (h) (including plans for ameliorating or preventing environmental impacts); and	8
(3) Consistent with the Airports Regulation 5.04 to address obligations from pre-existing interests.	2.2.2
(4) In specifying a particular objective or proposal covered by paragraph (1)(a) or (c), a major development plan, or a draft of such a plan, must address the extent (if any) of consistency with planning schemes in force under a law of the State or Territory in which the airport is located.	10
(6) In developing plans referred to in paragraph (1)(f), an airport-lessee company must have regard to Australian Standard AS2021—1994 ("Acoustics—Aircraft noise intrusion—Building siting and construction") as in force or existing at that time.	9.4



Chapter 13

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