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PARAFIELD AIR TRAFFIC CONTROL TOWER NO. 2

HERITAGE
MANAGEMENT PLAN

Tiger Moth Lane,
Parafield,
South Australia

April 2021

prepared for

airservices

prepared by

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EXECUTIVE SUMMARY

This Heritage Management Plan (HMP) for Parafield ATC tower at Parafield Airport; Adelaide was commissioned by Airservices Australia, which owns the building and leases the land on which it is located. Parafield ATC tower is included in the Commonwealth Heritage List (ID 106120), which is established under the Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act). This HMP has been prepared in accordance with Schedule 7A of the Commonwealth Environmental Protection Biodiversity Conservation Regulations 2000: 'Management Plans for Commonwealth Heritage Places'. The overarching objective of Schedule 7A of the EPBC Act is to provide frameworks to inform the future conservation and management of the cultural heritage values of places included in the Commonwealth and National heritage lists. This document also follows the principles and processes set out in the best practice guideline, including the Burra Charter (2013).

Overview of the asset

The Operations and Administration building at Parafield Airport was designed in 1936, and constructed in 1939-1941. The original rooftop cabin, designed to accommodate air traffic controllers, was replaced in 1981. The remnant base building comprises a symmetrical, three-storey rendered brick air terminal, with a stepped presentation to the airfield. It adopts a Streamline Moderne expression incorporating the curving corners, roof decks and hovering canopies that typify the mode. The cabin faces south and commands views over broad aprons to its west and east. The ATC is visible as a distant element from vantagepoints around the intersection of the Main North Road and Kings Road to its east. It is largely concealed in views from closer vantagepoints along Kings Road by hangars and other buildings to Anderson and Dakota drives.

Parafield Airport is located 18km north of the Adelaide city centre. It is a General Aviation airport with approximately 214,000 annual air movements, the majority being training flights and private flying.

The airport covers an area of approximately 410ha and provides four sealed runways. It is bounded by The Main North Road along its south-eastern boundary, Kings Road to its north-east, residential developments along the Salisbury Highway to its west and the Mawson Lakes campus of the University of South Australia to its south.

Findings

The assessment of significance undertaken for this HMP has found that Parafield ATC tower satisfies the Commonwealth Heritage List threshold for historical significance. It also meets the CHL criteria for historical significance. It also meets the CHL criteria for rarity, and characteristic values.

The Parafield Ops & Admin building satisfies the CHL criteria for historical significance for its association with the first national initiative to introduce a standardised ATC tower typology responding to the new mode of transport at major airfields in Australia. The initiative was undertaken by the DCA for the Australian Government and was a response to the report on the Kyeema Accident Inquiry. Designs for an integrated terminal/administration/control tower building began in 1936. Three almost identical integrated Ops & Admin buildings were constructed at major airports in Australian capital cities between 1939 and 1941, the others being Mascot (near Sydney) and Archerfield (near Brisbane).

The Parafield ATC tower no. 2 plays a role in the emergence and brief flowering of the Streamline Moderne in Australia. The Ops & Admin building was designed in 1936, although not constructed until 1939-40. At the time of its design, the ATC tower was a particularly early example of the mode in Australia. While drawing heavily on the expression of similar buildings overseas, Parafield integrated Ops & Admin building was a 'pioneering' and capable example of this expression as it emerged in Australia.

The Parafield Ops & Admin building is a rare survivor of pre-WWII air traffic facilities in Australia. Additionally, it is one of only three structures constructed in Australia between 1939-1941 that followed the international trend of integrated Ops & Admin buildings. All three survive in various states of intactness, and are considered rare in a national context, both in terms of early air traffic control facilities and, more broadly, early aviation facilities.

Recommendations

The core recommendations of this HMP are summarised below:

Conservation:

Conservation objectives for Parafield ATC tower include:

- Maintaining the external presentation of the building, as a free-standing structure which is recognisable as a control tower primarily as a consequence of its location and its octagonal cabin. The fabric of the cabin is of no intrinsic significance.
- Conserving the building's Streamline Moderne design aesthetic, which illustrates its design and development in the lead-up to World War II.
- Conserving some internal planning arrangements and remnant features which contribute to an understanding of the original role of the building.
- Maintaining unimpeded lines of sight from the cabin to the apron and runways.

Management:

- Airservices Australia should comply with all applicable legislation in the management of the ATC tower's Commonwealth heritage values, including the EPBC Act and the Airports Act 1996.
- In the event that Parafield Airport is sold by the Commonwealth, Parafield ATC tower should be nominated for inclusion in the state or local heritage registers.
- Programs of priority maintenance, remedial works and cyclical maintenance should form the basis for on-going care of the significance built fabric at Parafield ATC tower.
- A training program should be instigated to raise awareness of the heritage significance of Parafield ATC tower among the staff of Airservices Australia and Parafield Airport Ltd.
- Parafield ATC tower is a freestanding element that has a distinct and singular character in the airport context, primarily as a result of its Streamline Moderne form and elevated cabin. The Airservices lease at Parafield affords views to and from the tower to all sides. There is no heritage imperative to consider a heritage curtilage that extends beyond the boundaries of area leased by Airservices Australia (approximately 500sqm).

- Parafield ATC tower does not rely for its significance on visual relationships with other buildings for its historic or aesthetic significance. However, its proximity to the apron and runways does enhance an understanding of the building's function.
- The existing air traffic control use of the tower contributes to its significance. It appears that the 'Ops and Admin building' at Parafield has been associated with the provision of air traffic control for longer than any other surviving building in Australia and this enduring use contributes to its significance. On this basis, the continuation of the existing use is strongly encouraged.
- No plans are in place to replace the Parafield ATC tower. Nonetheless, Parafield is a control tower for which adaptive re-use could reasonably be anticipated. Despite the specialised nature of the building, and the spatial constraints of its interior, the building could accommodate a number of additional or alternative uses. The tower is part of the public domain and, unlike many ATC towers, is not quarantined airside. Further, the equipment at the control tower and much of its internal fabric has not been assessed as being of significance in its own right, potentially enabling the delivery of unencumbered internal spaces.

Table of abbreviation and acronyms

Abbreviation/acronym	Full name/title
AAC	Australian Aviation College
Airports Act	Airports Act, 1996
ALC	Airport Lessee Company
ANA	Australian National Airlines
ANS	Air Navigation Services
ASL	Assessment Services Propriety Limited
ATC	Air Traffic Control
Burra Charter	Burra Charter: The Australia ICOMOS Charter for Places of Cultural Sig-nificance, 2013
CHL	Commonwealth Heritage List
DAWE	Department of Agriculture, Water and the Environment
DCA	Department of Civil Aviation
Development Act	Development Act (SA) 1993
DITRD	Department of Infrastructure, Transport and Regional Development
DSD-AAR	Aboriginal Affairs and Reconciliation Division of the South Australian Department of Premier and Cabinet
EMS	Environmental Management System
EPBC Act	Environment Protection and Biodiversity Conservation Act 1999 (Aus-tralia)
FAC	Federal Airports Corporation
FTA	Flight Training Centre Adelaide
HMP	Heritage Management Plan
ICAO	International Civil Aviation Organisation
NCC	National Construction Code
NHL	National Heritage List
The Minister	Minister for the Environment
PCB	Polychlorinated biphenyl capacitors

1.0 INTRODUCTION

This Heritage Management Plan (HMP) has been prepared for Airservices Australia, the Commonwealth agency responsible for the management of civilian air space in Australia. It addresses the Air Traffic Control (ATC) Tower located within Parafield Airport. The tower is situated on Kittyhawk Lane Parafield, South Australia, 5108- approximately 20km to the north of the Adelaide CBD. It is located within Land Parcel F114106/A11 and centred on approximate MGA point Zone 54 283739mE 6147607mN (Figure 1, Figure 2).

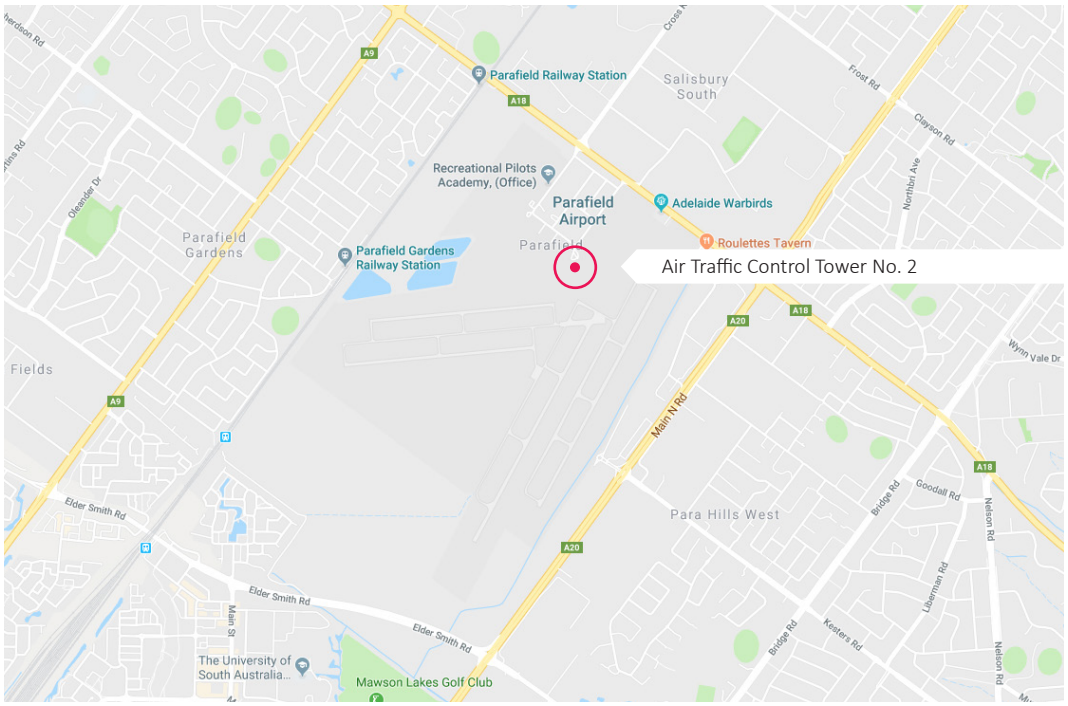


Figure 1 Locality plan with subject building indicated

Source Google Maps

Figure 2 Parafield Airport ATC tower no. 2

Source Nearmap

The report has been prepared in accordance with 'Airservices Heritage Strategy 2021-2023' to enable Airservices to meet its obligations under the *Environment Protection and Biodiversity Conservation Act, 1999 (Aus)*, (EPBC Act). The Act establishes the Commonwealth Heritage List (CHL) as a list of places with heritage values which are managed or owned by the Australian Government and affords them statutory protection. The Parafield Airport ATC tower is included in the CHL as Place ID 106120. It was gazetted by the Commonwealth Minister of the Environment for inclusion in the CHL on 24 November 2015 and satisfies CHL criteria A (history), B (rarity) and C (characteristic values).

The Parafield Airport ATC tower no. 2 was constructed in two major stages in 1939-40 followed by partial demolition, additions and alterations in 1981 and reference is made to these two building programs throughout this HMP. For consistency of terminology, this HMP references the entire extant structure as 'the Parafield Airport ATC tower' or, more simply, 'the tower' or 'the ATC'. The surviving lower sections of the tower, dating from 1939-40 are described by their original name of 'Operations and Administration building' or 'Ops & Admin building'. The relatively small volume above the Ops & Admin building, whether constructed in 1939-40 or its replacement of 1981, is described as 'the cabin' or 'the cabin levels'. The Ops & Admin building replaced an earlier tower on the site, described herein as Parafield Air Traffic Control tower no. 1.

1.1 Background and brief

This report follows a heritage assessment of ATC towers throughout Australia undertaken by Lovell Chen for Airservices Australia in 2007 (Stage 1) and 2009 (Stage 2). Stage 1 comprised a desktop review of the 28 control towers either owned or leased by Airservices Australia to determine whether any of the towers had potential heritage values, and the nature, extent and level of those values (local, state/territory, Commonwealth and/or national). Of the towers assessed, 13 were identified as having heritage values of a nature and level indicative of Commonwealth Heritage Value. Further detailed assessment of the 13 ATC towers was undertaken as Stage 2 of the project. The Detailed Heritage Assessment for the Parafield ATC tower concluded that the tower met the CHL criteria at a level that is indicative of Commonwealth heritage value in relation to historic values (criterion a), rarity (criterion b) and demonstrating principal characteristics of a class of cultural places (criterion d). The Parafield ATC tower was included in the CHL in January 2016.

The primary objectives of this HMP are to:

- Confirm the cultural heritage significance of Essendon Airport ATC tower no. 3
- Provide policies for the conservation of the building as a whole, taking into account the care of significant fabric, the appropriate management of hazardous materials and the ongoing use and management of Parafield ATC tower no. 2
- Provide a heritage framework to inform future management of the place, including guidance on new works and development.

1.2 Methodology and document structure

This HMP broadly follows the principles and processes set out in the *Burra Charter: The Australia ICOMOS Charter for Places of Cultural Significance, 2013* (Burra Charter) and its Practice Notes. The Burra Charter establishes a standard of practice for those involved in assessing, managing and undertaking works to places of cultural significance. It also has regard for the guidance provided in James Semple Kerr's, *Conservation Plan: a guide to the preparation of conservation plans for places of European cultural significance*, (seventh edition, January 2013).

Specifically, the HMP has also been prepared in accordance with Schedule 7A of the *Environment Protection and Biodiversity Conservation Regulations, (Aus) 2000*: 'Management Plans for Commonwealth Heritage Places' which sets out various requirements such as a comprehensive description and condition of the place; the methodology used to establish its heritage values; provision of a management framework including relevant statutory requirements; and the provision of policies for the management and conservation of the place.

Table 1 below sets out the EPBC Act Regulations requirements for management plans and provides a comment about how the requirements are satisfied in the present HMP.

Table 1 EPBC Act Regulation requirements for management plans

EPBC Act Regulations, 2000, Schedule 7a	Relevant section(s) of this HMP
(a) establish objectives for the identification, protection, conservation, presentation and transmission of the Commonwealth Heritage values of the place	Objectives to identify and conserve the cultural heritage significance of Parafield ATC tower no. 2 were informed by best practice guides, notably the Burra Charter. These objectives are discussed at Section 1.2, and chapters 5 and 6 of this HMP.
(b) provide a management framework that includes reference to any statutory requirements and agency mechanisms for the protection of the Commonwealth Heritage values of the place	Statutory requirements and agency mechanisms for the protection of the Commonwealth Heritage values of Parafield ATC tower no. 2 are identified in chapter 5, with particular reference to the EPBC Act and the *Airports Act*, 1996 (Airports Act).
(c) provide a comprehensive description of the place, including information about its location, physical features, condition, historical context and current uses	A description of Parafield ATC tower no. 2 as it exists is provided at Chapter 3. A contextual history at Chapter 2 refers to notable changes to the building over time.
(d) provide a description of the Commonwealth Heritage values and any other heritage values of the place	An assessment of significance, including a description of the Commonwealth Heritage values present at Parafield ATC tower no. 2, is provided at Chapter 4.
(e) describe the condition of the Commonwealth Heritage values of the place	The condition of built fabric is addressed in Chapters 3 and 5. The historical values of the ATC tower, as well as its rarity and representative values, are embodied in the physical fabric of the place.

EPBC Act Regulations, 2000, Schedule 7a	Relevant section(s) of this HMP
(f) describe the method used to assess the Commonwealth Heritage values of the place	The assessment of the Commonwealth Heritage values of Parafield ATC tower no. 2 was based on an understanding of the place (site history, Chapter 2 and physical description, Chapter 3).
(g) describe the current management requirements and goals, including proposals for change and any potential pressures on the Commonwealth Heritage values of the place	The current operation of the place as a control tower, incorporating flight training services at ground floor level are addressed in Chapter 6, see particularly Section 6.4, 'Use, adaptation and change'.
(h) have policies to manage the Commonwealth Heritage values of a place, and include in those policies, guidance in relation to the following:	A suite of conservation policies and management guidelines have been prepared to appropriately manage the identified Commonwealth Heritage values of the Parafield ATC tower no. 2 (see Chapter 6).
(i) the management and conservation processes to be used	See 'General policies', Section 6.2.
(ii) the access and security arrangements, including access to the area for indigenous people to maintain cultural traditions	See Policy 19, Chapter 6.
(iii) the stakeholder and community consultation and liaison arrangements	See Policy 6, Chapter 6. A draft of this HMP was placed on public exhibition from 17 September 2018 to 17 October 2018 through an advertisement in a newspaper with national circulation and the websites of Arservices and Lovell Chen. No submissions were received in response to this advertising.
(iv) the policies and protocols to ensure that indigenous people participate in the management process	See Policy 6, Chapter 6.
(v) the protocols for the management of sensitive information	See Policy 7, Chapter 6.
(vi) the planning and management of works, development, adaptive reuse and property divestment proposals	See Policies 12-17, Chapter 6.
(vii) how unforeseen discoveries or disturbance of heritage are to be managed	See Policy 22, Chapter 6.
(viii) how, and under what circumstances, heritage advice is to be obtained	See Policies 4 and 12, Chapter 6.

EPBC Act Regulations, 2000, Schedule 7a	Relevant section(s) of this HMP
(ix) how the condition of Commonwealth Heritage values is to be monitored and reported	See Policies 12 and 23, Chapter 6.
(x) how records of intervention and maintenance of a heritage places register are kept	See Policy 17, Chapter 6.
(xi) the research, training and resources needed to improve management	See Policies 20 and 23, Chapter 6.
(xii) how heritage values are to be interpreted and promoted	See Policy 21, Chapter 6.
(i) include an implementation plan	Strategies for the implementation of policies are included in Chapter 6.
(j) show how the implementation of policies will be monitored	See Section 6.6.4

EPBC Act Regulations, 2000, Schedule 7a	Relevant section(s) of this HMP
(k) show how the management plan will be reviewed	See Policy 8, Chapter 6.

1.3 Methodology

This HMP broadly follows the principles and processes set out in the *Australia ICOMOS Charter for Places of Cultural Significance, The Burra Charter, 2013* (Burra Charter) and its Practice Notes. The Burra Charter establishes a standard of practice for those involved in assessing, managing and undertaking works to places of cultural significance.

The HMP has also been prepared in accordance with Schedule 7A of the *Environment Protection and Biodiversity Conservation Regulations, (Aus) 2000*: 'Management Plans for Commonwealth Heritage Places' which sets out various requirements such as a comprehensive description and condition of the place; the methodology used to establish its heritage values; provision of a management framework including relevant statutory requirements; and the provision of policies for the management and conservation of the place.

1.4 Statutory heritage controls

At a Commonwealth level, the Environment Protection and Biodiversity Conservation Act 1999 (Aus) (EPBC Act) focuses on the protection of matters of national environmental significance, with the states and territories having responsibility for matters of state and local significance the local legislation. In South Australia the primary local legislation includes the Heritage Places Act 1993 and Development Act 1993. These are discussed below.

1.4.1 *Environment Protection and Biodiversity Conservation Act 1999*

The EPBC Act is the Australian Government's key piece of environmental legislation. It provides

a legal framework to protect and manage nationally and internationally important flora, fauna, ecological communities and heritage places. The Act establishes lists of places of cultural heritage significance in the form of the National Heritage List (NHL) and Commonwealth Heritage List (CHL) and sets out management requirements that apply to these places.

As noted above, the Parafield Airport ATC tower is included on the CHL as Place ID 106120. While the statement of significance refers to the 1939-40 and 1981 programs of work, no formal extent is provided for this listing. The extent of the subject site for the purposes of this HMP the full extent of the current leasehold described as follows:

> That portion of the land comprised in Certificate of Title Register Book Volume 5207 Folio 885 marked 'A' in GP Plan no.437 of 1994

The ATC tower is the only element at Parafield Airport which is currently included in the CHL. However, the provisions of the EPBC Act provide protection of the Commonwealth Heritage values of all places which are either entirely within a Commonwealth area or are owned or leased by the Commonwealth or a Commonwealth Authority, including but not limited to places which are included in the CHL.[1] Under the EPBC Act, actions that have, or are likely to have, a significant impact on a matter of national environmental significance, including Commonwealth Heritage values, require approval from the Australian Government Minister for the Environment (the Minister). The Minister will decide whether assessment and approval are required under the EPBC Act.[2]

Heritage places at federally-leased airports are required to comply with both the EPBC Act and its regulations, and the *Airports Act 1996* (see discussion at Section 5.2).

Prior to the preparation of this HMP, Airservices fulfilled its obligation to manage and conserve Parafield ATC tower no. 2 by providing a 'User Guide' for the tower to all relevant contractors and staff (see Appendix C). The User Guide was drafted by Airservices, and informed by the outcomes of the Detailed Heritage Assessment prepared by Lovell Chen in 2009 as part of the national assessment of ATC towers. The User Guide includes guidance for contractors and staff about obligations relating to the management of the tower's heritage values and attributes. It was updated following the completion of this HMP.

1.4.2 *Heritage Places Act 1993*

The South Australian Heritage Register is administered by the South Australia Heritage Council under the *Heritage Places Act 1993*. The Register contains information about places of heritage value in South Australia. It includes heritage areas, places and related objects of State significance. It also contains information about heritage places in South Australia from other registers including local, Commonwealth, national and world heritage places which are protected under legislation. As discussed below, local heritage places and objects are also listed in the development plans for the local areas where they are located.

No part of Parafield Airport or its ATC tower is included on the South Australian Heritage Register.

1.4.3 *Development Act 1993*

Planning and development in South Australia is governed by the *Development Act (SA) 1993* (Development Act) and is subject to approval by Local Government Authorities. The Act requires each Local Government Authority to prepare and administer a Development Plan for its area of responsibility. Through the Local Area Development Plan, the opportunity exists for Council

to identify, schedule and make detailed policies to protect items of Local Heritage Value. Local councils have their own requirements for development affecting local heritage places or contributory items and these are identified in each Council's Development Plan. For convenience, most local area Development Plans also identify the State Heritage Places within their area.

Parafield Airport is located in the City of Salisbury. No part of Parafield Airport is included in the Salisbury Council Development Plan (Consolidated 15 December 2016).

1.5 Aboriginal cultural heritage

The Aboriginal Heritage Act 1988 is the principal South Australian legislation protecting and preserving the state's Aboriginal heritage. The Aboriginal Affairs and Reconciliation Division of the South Australian Department of Premier and Cabinet (DSD-AAR), has responsibility for managing this legislation, so ensuring South Australia's Aboriginal heritage is protected, preserved, and transmitted into the future. The DSD-AAR maintains a Central Archive and Register of Aboriginal Sites and Objects. These archives are not public, but the Department can provide broad information about Aboriginal heritage on receipt of a formal request.

A formal request for information in relation to the Parafield ATC tower was forwarded to DSD-AAR in February 2018. The Department's response identified no Aboriginal Heritage Sites in land Parcel CT6156/211 F114106 A11 which includes the Parafield ATC tower although Aboriginal heritage sites were identified elsewhere in the airport. Sections of the Department's brief report have been paraphrased in this HMP as it may not be quoted or circulated.

The Act notes that any land, developed or undeveloped, can contain Aboriginal sites relating to traditions. Section 20 of the *Aboriginal Heritage Act (SA), 1988* requires that any Aboriginal sites, objects or remains, discovered on the land, are to be reported to the Minister.

1.6 Non-statutory heritage listings

1.6.1 National Trust of Australia (South Australia)

The Parafield Airport ATC tower has not been classified by the National Trust of Australia (South Australia).[3]

1.7 Limitations

Apart from those constraints on the physical investigation noted at Chapter 3, no limits were placed on the current assessment.

No formal appraisal of social values, as might be informed by a holistic community consultation process, was undertaken in the course of the preparation of this HMP. There is potential for this consultation to occur in the future as part of Airservices Australia's adoption and implementation of the HMP.

2.0 HISTORY

Aviation in South Australia is thought to have begun in 1910, with the taxiing trials conducted by Mr. C.W. Wittber at Bolivar, 15kms north-west of Parafield.[4] After this time, interest in aviation began to grow, with many experimental flights operating from Adelaide during 1919-1920.[5] Early flights used different airfields around Adelaide, including Albert Park, Dry Creek and Glenelg.[6] A service between Adelaide and Sydney, flying mail under contract for the government, commenced in 1924.[7]

2.1 A new airport for South Australia

By the mid-1920s Albert Park, which was established as the city's first official aerodrome in 1920, was under pressure and in need of expansion.[8] In 1926, a South Australian branch of the Australian Aero Club was established increasing the pressure to establish a larger aerodrome in Adelaide.[9] Debate centred on alternate locations for a government-run aerodrome, with a site near Salisbury under consideration (Figure 6).[10] The site identified near Salisbury was part of the Hundred of Yatala, a cadastral unit covering metropolitan Adelaide north of the River Torrens. Prior to European settlement the land belonged to the Kaurna people. The Hundred of Yatala was proclaimed in 1846 and the land was used for agriculture by three farmers Messrs Brady, Bussenschutt and Heler.[11]

In 1927, land for the aerodrome, consisting of sections 2187, 2196, 2197, 2212 and 2213 of the Hundred of Yatala, was acquired by the Government from a company called Avenues Ltd for £17,000.[12] The site, adjoining Main Road North, consisted of just over 121 hectares and the Aero Club began negotiating the erection of hangars and equipment.[13] The Parafield Airport site originally comprised 131.5 hectares with land acquired from Avenue Ltd in 1927 and this was later increased by a further 205 hectares purchased in 1942; 32 hectares (1966); and 41 hectares acquired in November 1968 for runway extensions.[14] A 1957 plan of the Hundred of Yatala shows the initial allotments belonging to Avenue Ltd, as well as further allotments 2214, 2222 and part of 2186 and 2221 from the 1942 acquisition for the aerodrome (Figure 3).[15]

2.2 The Parafield Aerodrome, 1927

The new aerodrome was opened to aircraft on 1 October 1927 as an 'all over grass airfield' and it became the site of a number of historic flights.[16] In April 1928, Bert Hinkler departed from Parafield on route to Melbourne via Nhill after his record-breaking flight from England to Australia.[17] Then in August that year, Charles Kingsford Smith and Charles Ulm took off from Parafield in front of 1,500 spectators, who had gathered to watch the famous aviators on the final stage of their historic flight from Perth.[18] This flight lead to the establishment of a Perth-Adelaide route by the Western Australian Airlines company, which landed at Parafield at the end of May 1929, on its inaugural flight from Marylands, Perth.[19] This service was officially opened in a ceremony on 1 June and the first East-West mail service was launched. Over 15,000 letters were sent by philatelists worldwide, keen to collect the first stamps issued on the route with the official postmark.[20]

The first buildings constructed at Parafield were the Aero Club facilities including a clubhouse and hangar, leased by the Commonwealth Government to the club in 1927.[21] The Civil Aviation Branch also built a manager's residence out of red brick, adjacent to the entrance to the airfield and hangars were leased to commercial operators.[22] These early structures can be seen in Figure 4 and the Aero Club hangar can be seen in Figure 5, with the large M. C. Miller hangar and a Shell Motor advertisement painted on the roof.

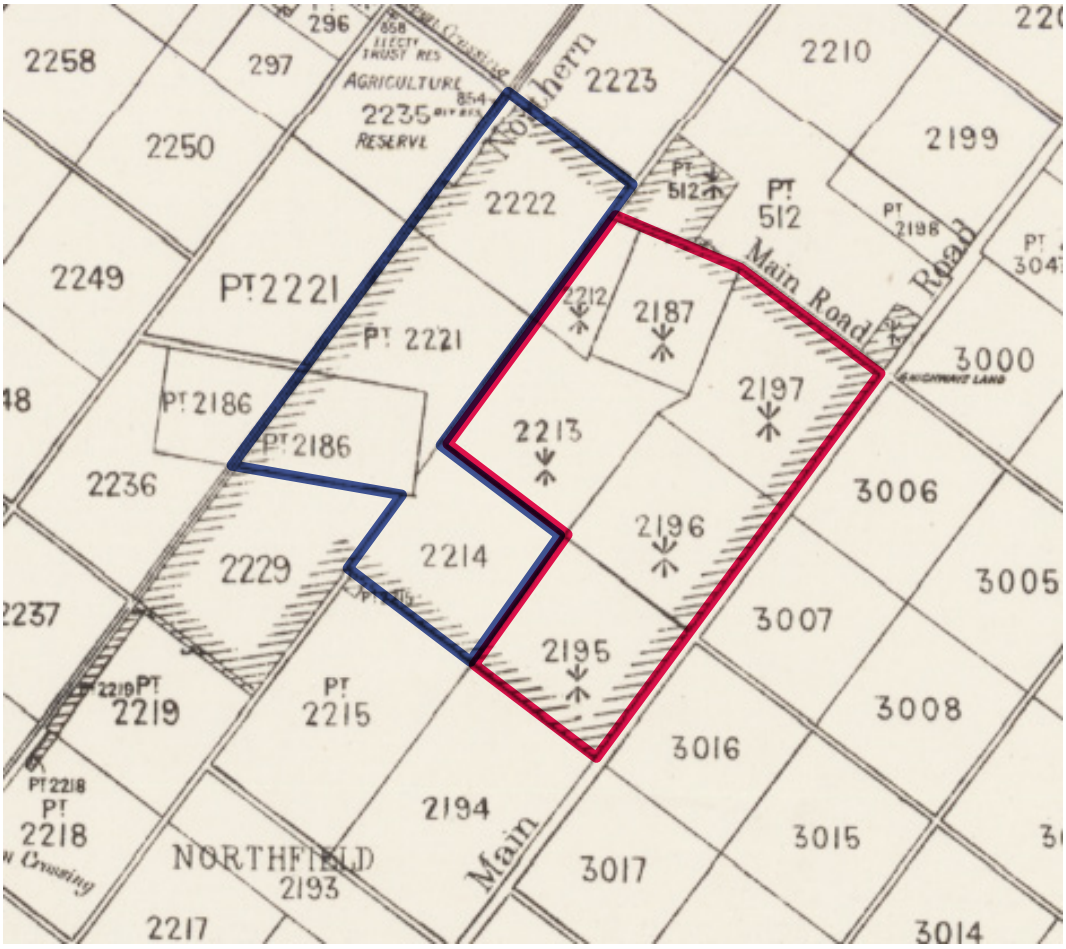


Figure 3 Extract from Plan of the Hundred of Yatala, 1957, showing original land acquired in 1927 in red and 1942 acquisition in blue

Source State Library of South Australia, map830bje63360

Figure 4 Aerial view of a flight pageant and open day at Parafield Aerodrome, 1928

Source Parafield Airport Aerial, Atkins Photo Lab, http://memorybank.atkins.com.au/galleries/ddariansmith/parafield-airport-aerial; accessed 14 December 2017

Figure 5 Oblique aerial view of Parafield Aerodrome, during an Aero Club weekend, 1929

Source University of Melbourne Archives, 2008.0045.01168

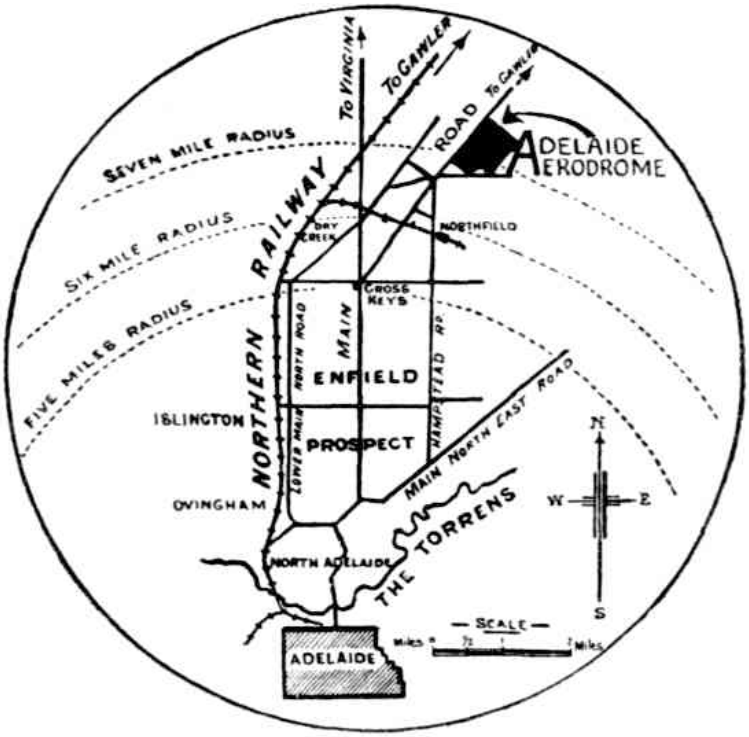


Figure 6 The Adelaide Aerodrome Locality Plan

Source *The Advertiser*, 3 August 1929. P.16

2.3 Adelaide Aerodrome, 1929

The aerodrome was officially opened as the 'Adelaide Aerodrome' on 5 August 1929 by the Governor of South Australia, Sir Alexander Hore-Ruthven.[23] The new aerodrome was described in *The Advertiser* as follows:

> It has an area of 147 acres with a clear approach in all directions and an excellent surface. The hangar has a clear space of nearly 10,000 square feet (3048 square metres) and is fitted with electric light and power plugs. Adjoining the hangar are waiting rooms and a pilots' dressing room.[24]

A result of the opening of Parafield, nearly all the smaller airfields around Adelaide closed, apart from the occasional use of local racecourses.[25] The Miller Aviation Company and Australian Aerial Services soon relocated to the new aerodrome from the aerodrome at Albert Park.[26] The earlier Commonwealth aerodrome was sub-divided, and the land sold in 1929 and the site was turned into a recreation oval.[27]

The new airfield at Parafield quickly expanded, with a number of new buildings evident in a series of aerial photographs taken in the 1930s (Figure 7, Figure 8, Figure 9). The effects of the Depression in the 1930s meant that many airlines folded and the leases of hangars regularly changed.[28] Australian National Airlines, a short-lived aviation company founded by Charles Kingsford Smith, was one of the first commercial airlines to lease a hangar at Parafield in 1929.[29] In the early 1930s, two other failed aviation companies, Commercial Aviation Company and Eyre Peninsula Airways, also leased hangars at Parafield.

Similarly, other aviation companies also went through a series of mergers during this period. Adelaide Airways Ltd was based at Parafield after its establishment in mid-1935, taking over Western Australian Airways and the Adelaide to Perth route in 1936.[30] Soon after, it merged with the Tasmania-based Holymans Airways Pty Ltd to form Australian National Airlines (ANA), servicing major cities around Australia.[31] ANA also built its own large hangar on site in 1936, and the first igloo shaped hangar (Hangar 59), which was joined by the same type of hangar built by Guinea Airways in 1939 (Hangar 58).[32] ANA also leased Hangar 51, which was built in 1939 with Hangar 50 leased by Henry Snider.[33] Ansett also began operating out of Parafield in 1937, running a Melbourne to Adelaide service.[34]

Aerial photos from the mid-1930s show the development of the airfield and staged construction of new buildings, including the ANA hangar (Hangar 59) near the eventual location of the ATC tower, under construction in Figure 7 and finished in Figure 8. The hangar was later used by Aero Club and then by Pacific Aviation.[35] In April 1936, the Aero Club was granted the use of the prefix 'royal' and became the Royal Aero Club of South Australia.[36]

Figure 7 Parafield Aerodrome from the east showing hangars under construction, c.1936;

Source State Library of South Australia, B 74375

Figure 8 Oblique aerial view from the north-west of Parafield Aerodrome, c. 1937

Source State Library of South Australia, B 74378

Figure 9 Parafield Aerodrome, north of centre of landing area, c.1937

Source State Library of South Australia, B 74379

2.4 First ATC tower at Parafield, 1937

From the mid-1930s, the Commonwealth Government was looking at ways to improve air safety.[37] In March 1937, the Department of Civil Aviation (DCA) appointed Aerodrome Control Officers to regulate and control aircraft in the vicinity of Parafield, Archerfield (Brisbane), Essendon (Melbourne) and Mascot (Sydney) airports, and 'to give all assistance and advice necessary for the safe operation of aircraft flying locally or on cross-country flights to or from other aerodromes'.[38]

The Australian Department of Civil Aviation *Report on Civil Aviation in Australia and Papua New Guinea, 1937-38 and 1938-39* included the following description of facilities, existing and proposed, for these early air traffic controllers:

> Aerodrome Control Officers now direct traffic from temporary elevated towers, but work is in hand for the erection of permanent buildings which will provide accommodation for both the Aerodrome Control and Flight Checking Officers, as was recommended in the report of the *Kyeema* Accident Inquiry. [The Kyeema crashed on 25 October 1938, en route from Parafield to Essendon].[39]

The ATC tower no. 1 at Parafield was constructed in 1937 and was a two-storey timber-framed base supporting a pyramidal roofed cabin surrounded by an external balcony (see Figure 10). By the time of its construction, Parafield was handling regular passenger services to and from Perth, Melbourne and Sydney, as well as inland centres.[40] Although no early plan of the airport has been located, Figure 11 shows the location of Parafield's ATC Tower no. 1 near the end of Anderson Drive in more or less, the same location as the replacement ATC Tower no. 2 (the current tower).

Figure 10 Parafield's ATC tower no. 1, built in 1937

Source Civil Aviation Historical Society

Figure 11 Parafield Aerodrome oblique aerial view looking south-east, with the temporary ATC tower no.1 visible on the right, c. 1937

Source Parafield Airport Aerial, Atkins Photo Lab, http://memorybank.atkins.com.au/galleries/ddariansmith/parafield-airport-aerial; Accessed 14 December 2017

2.5 Parafield Operations and Administration building, 1939-1940

Designed to replace the temporary towers, the 'permanent buildings' referred to in the DCA's Annual Report of 1937-39 were known as 'Operations and Administration' buildings. These integrated most terminal, administration and ATC functions in a single building. They accommodated ATC cabins, facilities for passengers (restaurant, rest rooms, lounge and a roof garden), airline operators, the DCA, the flight-checking department, weather bureau and airport control officials.

Between 1939 and 1941, these integrated facilities were erected at three locations across Australia, at Parafield, Mascot (Sydney) and Archerfield (Brisbane) airports. Constructed to essentially the same design, these were three-storey, symmetrical stepped Moderne-style buildings surmounted by vertically-framed, flat-roofed control cabins.

The buildings featured streamlined styling, including circular port-hole windows and horizontal incisions in the render, and were notable for an emphasis on horizontality, evident in the flat roof and the cantilevered awnings at the base of the control cabin platform (airside) and the roof of the ground level entrance (on the landside elevation) (Figure 12). The model, which was based on overseas examples of integrated control and administration facilities – such as Croydon (London, 1928-30) and Le Bourget (Paris, 1934) – was designed by DCA draughtsmen in Canberra from c.1936.[41]

The Ops and Admin building at Parafield was one of the first completed (Figure 13), along with Mascot, while the Archerfield building was delayed due to higher than expected tender prices.[42] Ops & Admin buildings were also planned for Melbourne Airport (Essendon) and Hobart's Cambridge Aerodrome, but these plans were abandoned following the outbreak of World War II.

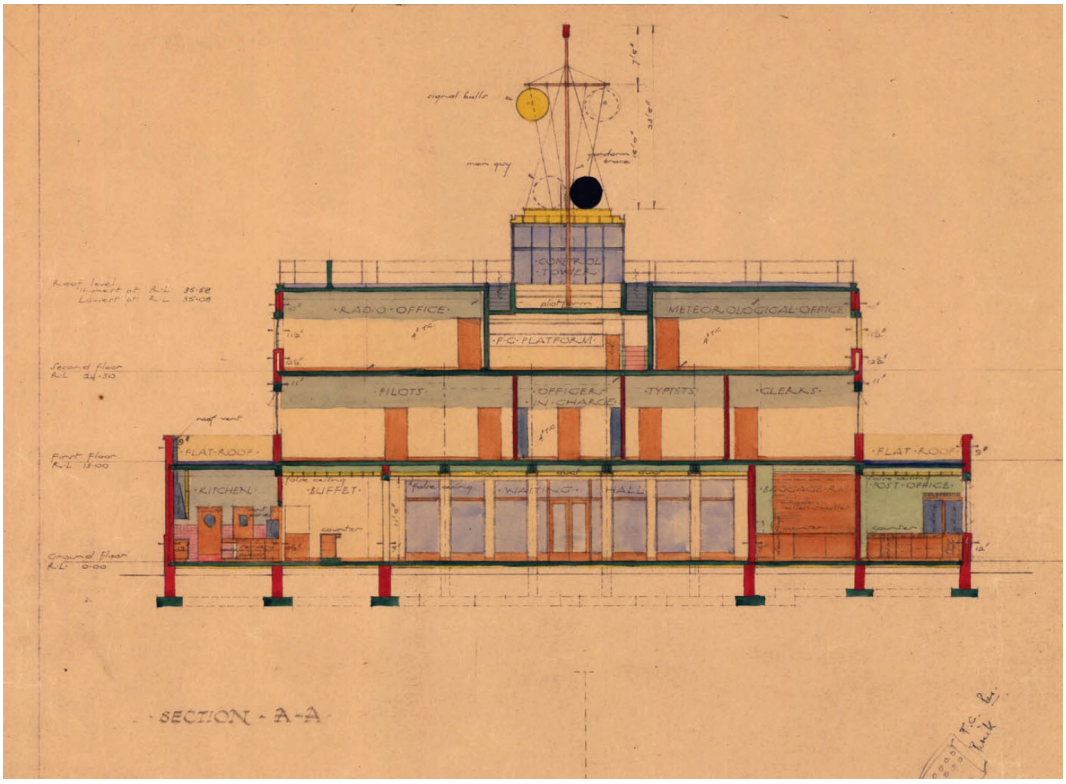


Figure 12 Extract from plans of the ATC tower for the Archerfield Aerodrome, airside view, 1940

Source National Archives of Australia, J2774, W7422/2

Parafield's new Ops & Admin building was located on the site of the temporary elevated tower, at the corner of the Kittyhawk Lane and Anderson Drive (Figure 11).[43] It was built adjacent to the Australian National Airways and Guinea Airways hangars and facing due south, with views over the apron.

Newspaper articles from late 1940 suggest the new tower was commissioned in December of that year after the transferal of 'delicate radio equipment and gear'.[44] The cabin was described as 'the most modern in the Commonwealth':

> Enclosed in glass and fitted with actinic lights, which counter the sun's glare, the observation post is the first of its type in Australia… When it is open for public use it will make Parafield resemble overseas airports.[45]

Initial communication with aircraft was via visual aids, including flags, flares and large cane balls (yellow and black) mounted on a rooftop flagstaff (Figure 15).[46] The controllers were also equipped with radio facilities to co-ordinate activities on the ground and to communicate with airfields locally and on routes between airfields. (See Figure 21) The tower was not fitted with radio communication until 1948.[47]

Figure 13 Parafield Ops & Admin Building & Control Tower (ATC tower no. 2), viewed airside adjacent to the hangars, 1940

Source Civil Aviation Museum

Figure 14 Parafield Ops & Admin building (ATC tower no.2) under construction, 1940

Source Civil Aviation Historical Society

Figure 15 The rear of the original ATC tower cabin on ATC no.2, c.1941 (note the cane signalling balls in the centre of the image)

Source Civil Aviation Historical Society

Figure 16 Airside view of Parafield Ops & Admin building (ATC tower 2), c. 1941

Source Civil Aviation Historical Society

2.6 Parafield Airport during WWII

During World War II, the airport at Parafield was used by the RAAF as a Flying Training Unit, using mainly Tiger Moth aircraft, with occasional use by a heavier general service aircraft such as the Liberator Bomber.[48] During the war, in addition to the elementary flight training, Parafield became the base for RAAF transportation and aircraft servicing.[49] Temporary huts were constructed to support the RAAF's activities on site and in early 1940, the Department of Defence took over the management of Parafield.[50] The commercial airlines continued to operate, contributing to the war effort by moving personnel and equipment around the country.[51]

The Aero Club's activities were suspended during this period and all civilians were excluded from the aerodrome except for those personnel employed by civil and commercial aviation companies.[52] In January 1940, the No. 1 Elementary Flying Training (1EFT) School took over most of the Aero Club facilities at Parafield and the first intake of trainees arrived on 8 January.[53] By 1941 the 1EFT required further facilities and more temporary 'P' series huts were erected by S. J. Weir, to a total of 70 by the end of the war.[54] A new Commonwealth department was created in 1941 and the following year the Department of Aircraft Production built two large airframe repair hangars at Parafield.[55] It is thought that it was around this that the original farmhouse was demolished and Kitty Hawk Lane was created.[56]

In 1942, further land adjacent to the airfield was acquired by the Commonwealth Government to cater for increased military traffic and larger aircraft.[57] The No. 34 Squadron was also formed at Parafield in 1943, which undertook operational duties on routes to the Northern Territory and the eastern states. This required the construction of additional huts and a Bellman Hangar (No. 107) to accommodate the extra personnel.[58] On 12 December 1944, the no. 1 EFTs was disbanded after training 1,900 pilots as part of the Empire Training Scheme.[59] The No. 34 Squadron was disbanded at Parafield in 1946.[60]

Figure 17 Parafield during World War II

Source RAAF Museum

2.7 Airport use after WWII

After the war, management of Parafield was returned to the DCA. A photograph taken after the war in 1948 shows the expansion of the facilities that occurred during the RAAF use of the airfield (Figure 18). Air movements at Parafield picked up during this period, with commercial airlines taking over buildings formerly used by the RAAF. The new airline established by the Australian National Airlines Commission, Trans-Australia Airlines, began operating out of Parafield in September 1946, moving into the former No. 34 Squadron hangar.[61] By the 1950s, the airport needed further facilities and the workshops were expanded in 1951 and another Bellman hangar was brought in from Mallala to bolster maintenance on site.[62]

Queen Elizabeth II utilised Parafield during her visit to Adelaide in 1954, with on-lookers crowding onto balconies and in front of the ATC tower building to see her plane leave (Figure 20). At this stage, Parafield was operating as Adelaide's primary airport, however, following WWII it was evident that Parafield would be unable to accommodate the long-term future aviation needs of Adelaide. It was at this time that an alternative site for a primary airport was investigated.[63]

Parafield continued to operate as Adelaide's primary civilian airport until 1955 when it was superseded by the new airport at West Beach.[64] At this time Parafield became Adelaide's general aviation airfield and small charter and air taxi services continued to operate, as did the airfield's maintenance facilities.[65] The major commercial airlines relocated to the new West Beach airport in February 1955 and all remaining military aviation was moved to Edinburgh RAAF base at Edinburgh in South Australia.[66] The name returned to Parafield during this period, as major airports around Australia were renamed with their corresponding capital city in 1953, as part of a Commonwealth Government policy change.[67]

After Parafield was superseded as the primary airport for Adelaide, changes were made including sealing the runway in 1969. It had survived as a grass aerodrome until 1949, when two cinder runways were formed to address issues with dust clouds from the grass runway caused by intense use during the war.[68] In 1970, the old Aero Club building, then the oldest structure on site, was demolished and replaced by a hangar.[69] In 1982, the Australian Aviation College (AAC) moved into the workshop hangars that were built in 1942 by the Department of Aircraft Production.[70] By 1986, the AAC had the contract for training Qantas pilots and became the Parafield Aviation Campus of the Regency Institute of TAFE.[71] The AAC was taken over by British Aerospace Flight Training in 1998.

Figure 18 Parafield aerodrome, 1948; oblique aerial view looking north-west

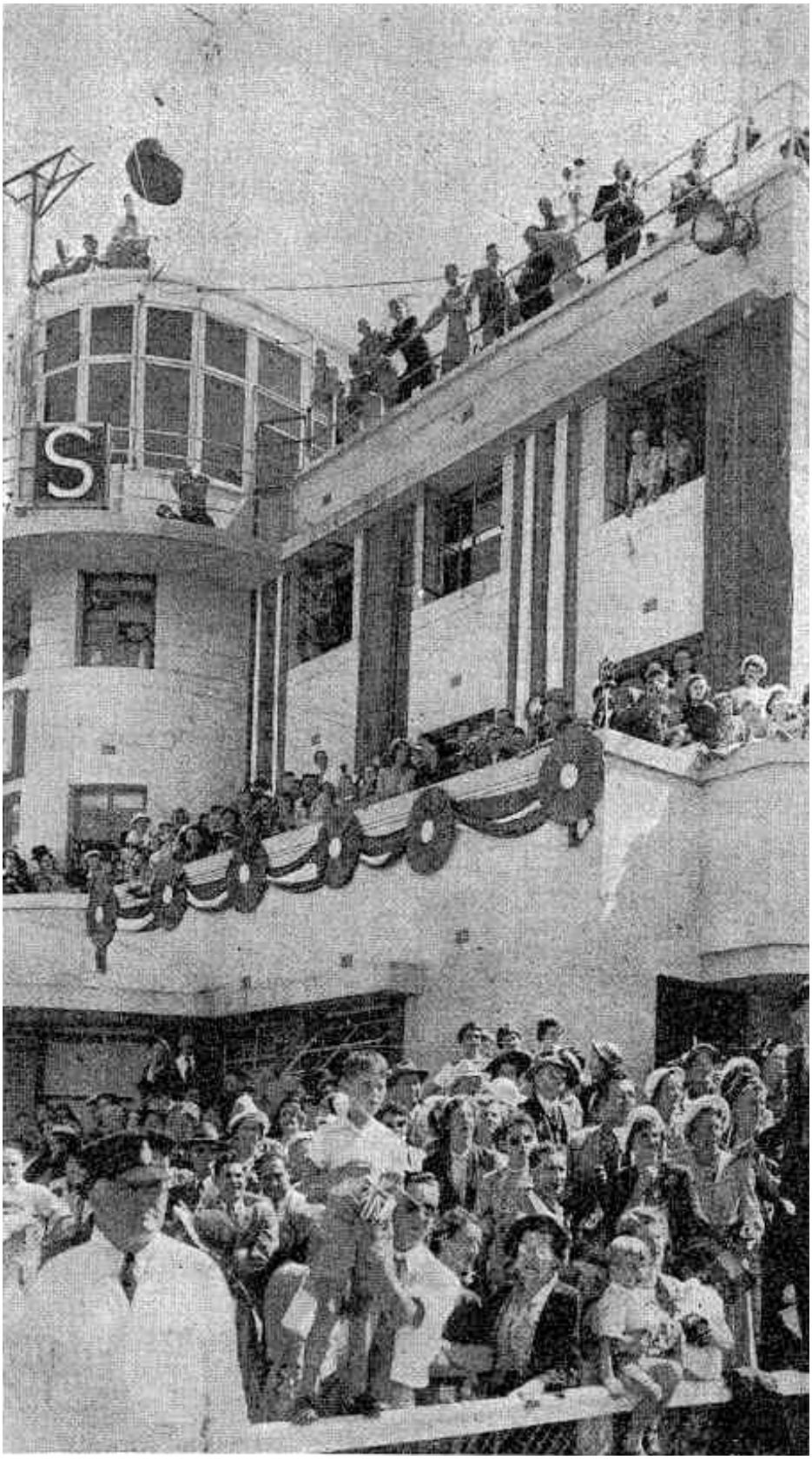
Source Civil Aviation Historical Society

Figure 19 Airside view; this image was included on the cover of the 1948/49 DCA annual report

Source Civil Aviation Historical Society

Figure 20 Photo of crowds farewelling Queen Elizabeth II at Parafield, 1954

Source *The News*, 26 March 1954, p.7



2.8 Replacement control cabin, 1981

In 1981, the original control cabin on top of the Ops & Admin building was removed and replaced with a larger octagonal cabin of the type typically used at the perimeter column-type towers common in Australia from the late-1970s. Photographs of the interior of the cabin from 1947 (Figure 21) compared to the interior of the cabin taken in 2008 (Figure 22) demonstrate the difference in visibility with the replacement modern cabin.

During the 12 months that it took to complete the new cabin, and the associated modifications to the second floor (notably the installation of a large equipment room), air traffic services were conducted from a temporary tower.[72] The new cabin was commissioned on 28 October 1981.[73]

Figure 21 Interior of the original Parafield control cabin, 1947

Source Civil Aviation Historical Society

Figure 22 View of the airfield (looking south-west) from the air traffic control cabin, 2008

Source Lovell Chen

2.9 New ownership, 1998

In 1998, as part of a national project to privatise the Commonwealth government run airports, the lease for the operation of Parafield was purchased by a new subsidiary, Adelaide Airport Limited.[74] The new lease covered both Parafield and Adelaide Airport for 50 years, with the option to extend for a further 49 years.

With the expansion of Adelaide's suburbs, residential development began to encroach on Parafield Airport and from the early 1990s, locals have complained about noise, pollution and safety.[75] An oblique aerial photograph from 1965 (Figure 23) shows the airport surrounded by fields, as compared to development of residential development in a photograph taken in 2017 (Figure 24).

In 2008, the Salisbury Mayor called for the airport to be moved further north and for the land to be redeveloped for housing.[76] Despite these concerns, Parafield Airport continues to operate as South Australia's general aviation and training airport, with the airport addressing concerns of aircraft noise in the most recent Masterplan.[77] The 2017 Master Plan identified the airport's contribution of $263 million to the Gross State Product.[78]

Figure 23 Aerial view of Parafield Airport, 1965

Source Civil Aviation Historical Society

Figure 24 Aerial view of Parafield airport, April 2018

Source Nearmap

3.0 PHYSICAL ANALYSIS

Parafield Airport is located 18km north of the Adelaide city centre. It is a General Aviation airport with approximately 214,000 annual air movements, the majority being training flights and private flying.[79]

3.1 Context

The airport covers an area of approximately 410ha and provides four sealed runways. It is bounded by The Main North Road along its south-eastern boundary, Kings Road to its north-east, residential developments along the Salisbury Highway to its west and the Mawson Lakes campus of the University of South Australia to its south.

The greater part of the built form on the site is located in a cluster of, generally lightweight buildings along the north-eastern boundary of the site. These are accessed from Kings Road by way of Dakota and Anderson Drives. Buildings in this area generally comprise lightweight structures used as hangars and offices for aviation companies and training schools utilising the broader facilities of the airport.

Figure 25 Northern sections of Parafield Airport with air traffic control tower indicated

Source Nearmap, October 2017

The ATC tower is located in the southern corner of this group at the end of Anderson Drive, addressing Kittyhawk Lane (Figure 25). It comprises the lower sections of the former Operations and Administration (Ops& Admin) building of 1940, with a cabin dating from 1981 situated above. This replaced an earlier rooftop cabin, visible in early images of the ATC (Figures 13, 14 and 16). The roof of the cabin is located approximately 25m above ground level. The cabin faces south and commands views over broad aprons to its west and east. The ATC is visible as a distant element from vantage points around the intersection of the Main North Road and Kings Road to its east. It is largely concealed in views from closer vantage points along Kings Road by hangars and others buildings on Anderson and Dakota Drives.

3.2 Use

The Parafield Aerodrome was officially opened as 'Adelaide Airport' in 1929.[80] A temporary ATC tower was constructed in 1937 and a permanent structure to be known as the 'Ops & Admin' building was quickly designed to replace the temporary tower. This integrated most terminal, administration and air traffic control functions into a single building. Air traffic controllers operated from its uppermost cabin level. Below, the building provided facilities for passengers including a restaurant and rest rooms, offices for airline operators along with facilities for pilots, the Department of Civil Aviation, the flight-checking department, weather bureau and airport control officials. The Parafield Ops & Admin building opened in 1940, by which time Parafield was handling regular passenger services.[81]

During World War II, the airport at Parafield was used by the RAAF as a Flying Training Unit[82] and as the base for RAAF transportation and aircraft servicing.[83] Commercial airlines continued to operate from the airport during the war.[84] However, no substantial changes to the ATC tower were required to adapt the building to its wartime role. After the war, Parafield was returned to the Department of Civil Aviation where it continued to operate as Adelaide's primary civilian airport until 1955.[85] At this time, Parafield became Adelaide's general aviation airfield.[86]

The continued growth in general aviation activity after the mid-1950s resulted in Parafield becoming an important centre for recreational flying and pilot training, which is now its principal function. As a consequence, the role of Ops & Admin building changed substantially through the later twentieth century. The ground floor now provides facilities for flight training with the large concourse and waiting room converted into an *ad hoc* arrangement of classrooms, examination rooms and staff facilities.

The original rooftop cabin was replaced in 1981. While the role of the tower remains unchanged, air traffic control is now undertaken from the new cabin.

Today, the former Ops & Admin building has multiple tenants. The ground floor is occupied by Flight Training Centre Adelaide (FTA), with private areas to the east remodelled as examination spaces by Assessment Services Proprietary Limited (ASL), the commercial company appointed by CASA to supervise professional exams in Australia. The first floor is largely unoccupied, with rooms remaining empty or used as *ad hoc* storage areas. The second floor and cabin levels above are occupied by Airservices Australia. The second floor contains staff offices and equipment rooms providing communications and information services for the tower above. As was the case when the building opened in 1940, the airport manager's office is located at second floor level, where it enjoys views across the runways. The glazed cabin above accommodates air traffic controllers and provides opportunities for visual observation across the entire airport environment.

3.3 Description

The Parafield Ops & Admin building is a symmetrical, three-storey brick building (1939-40). Decks to the east and west at first and second floor levels create a stepped presentation to the airfield. It supports a largely-glazed, ATC cabin on an octagonal plan raised above a single-storey square amenities floor clad in profiled Colorbond. Both cabin levels were added in 1981.

The building is generally constructed of load bearing brickwork on concrete strip footings. Walls are typically plastered internally and rendered externally. Some ground floor public spaces, such as the concourse and waiting areas were created using concrete-encased steel columns to produce largely-uninterrupted open spaces. The same construction methods with steel framing within a load-bearing brick envelope are used at levels 1 and 2 above. The ground floor level was constructed as a slab on ground while the upper floors and external decks are concrete slab/beam arrangements. Where they are employed as external decks, concrete slabs are coated with a modern synthetic rubber membrane which has begun to fail in some areas. It is likely the current membrane replaced an earlier bituminous product. The uppermost cabin levels are steel-framed with lightweight steel or glazed external cladding.

3.3.1 Exterior

Original drawings for the control building at Archerfield near Brisbane were located by Lovell Chen as part of this study. The ATC tower at Parafield appears to have been constructed on the basis of these drawings with only very minor variations. The drawings are reproduced at Appendix B. The Parafield building adopts a tapering form with a heavy, single-storey, ground floor level serving as a plinth to more modest first and second floor levels surmounted by the smaller lightweight cabin structure at the third and fourth floors. As with the Archerfield ATC tower, Parafield was designed with two distinct elevations, one facing the runways (the 'aerodrome' or southern elevation in the case of Parafield, Figure 26) and the other accommodating the main entry (the 'road' or northern, Figure 27) elevation at Parafield.

The 'road' elevation of the three-storey base building has a simple and relatively utilitarian appearance. The ground floor façade is rendered with red face brick used to produce a contrasting brick base and to identify the entry. The upper section of the ground floor is relieved by rendered banding and the winged logo of the DCA which provides a focus over the central entry.

Window openings at ground, first and second floor levels of the 'road' elevation take the form of simple punched openings. They are generally original in their placement and form, however, almost all original timber windows – typically multi-paned casements- have been replaced with single-paned versions in aluminium. The exceptions are the vertically-oriented multi-paned strip windows in the location of the stair on the eastern side of this elevation, which survive as constructed, as do two small circular 'porthole' windows located centrally at first floor level and along the western elevation. A number of the windows incorporate retrospectively-fitted air-conditioning units. The original central entry opening survives to the extent of its placement form, but as for the windows, the original steel framing has been replaced in aluminium.

The southern elevation of the Parafield ATC tower is located airside. It generally reproduces the stepped form of the north elevation, but is a more elaborate and carefully resolved composition with strong Moderne styling in the form of horizontal parapets, cantilevered awnings and streamline devices. Additional architectural interest is provided by a central curved portico element to the lower three levels of the building. At ground level, this curved bay was designed to offer both views of, and access to, the apron by the travelling public. The bay was originally composed of a brick plinth, a series of brick piers with full height steel casement windows between, and a door opening in the centre, with a flat curved concrete awning above. The bay has had its brick piers, steel door and window joinery removed, and a new aluminium framed glazing system installed to the full extent of the bay. The original curved concrete canopy above has been retained. Behind and above the canopy, the winged DCA logo is prominently displayed in the centre of the parapeted wall at upper ground floor level.

At first and second floor levels, the building is set back from all sides, creating large open roof decks on the eastern and western sides of the tower. The curving façade gesture of the ground floor level extends vertically through the first and second levels as an engaged tower. As originally constructed, the ATC tower cabin (now demolished) adopted a similar semi-circular plan form above the roof level, but was set back from the levels below, creating a narrow projecting semi-circular observation platform with steel balustrading. The base of the observation platform continued across the parapet as a finely detailed concrete window hood. The cabin itself has been demolished, apart from a semi-circular remnant at the base, However, the window hood and platform with its steel balustrading survive.

As for the north elevation, window and door frames on the south elevation are non-original aluminium, and air-conditioning units have been mounted in several of the windows. The original square clock mounted on the curved bay between the second and third storeys (Figure 18) has been removed.

The side (east and west) elevations, continue the expression of the 'road' elevation with painted render to the upper levels and exposed red brick at the base of the ground floor. The fire escape stair to the west elevation is a modern steel replacement for the original timber staircase. The stair lands in a fenced yard along the western elevation of the building, constructed in recent decades. This incorporates a single-storey brick addition to the western end of the 'aerodrome' elevation and an open-sided generator shed (Figure 28).

As noted, in 1981 the original ATC cabin was removed and replaced by a new octagonal cabin above a new amenities level on a square plan, both constructed on the flat roof of the three-level brick structure below. Both levels are of steel-framed construction with Colorbond® steel cladding at the amenities level with glazing to the tower. The frameless windows of the cabin are sealed with silicone. They are slanted to reduce internal reflections. Four external columns support the roof at the centres of four of its eight sides. A roof deck is provided above the cabin. Railings to the roof are constructed of steel tubing. There is ductwork and plant on the cabin roof, in addition to the usual crown of antennae and lightning conductors.

Early drawings of the Archerfield Ops & Admin building show a complex radio mast to the rear (north) of the original cabin. This was removed in 1981 to allow construction of the existing cabin levels.

Around the base of the cabin, a roof deck above the second floor is clad in butynol or a similar synthetic rubber product. A steel walkway is provided around the base of the cabin. It is noted that an elaborate antennae system is visible in early drawings and photographs. No part of this element survived the works of 1981.

Figure 26 Parafield ATC tower no.2, airside (south) elevation, 2017

Figure 27 Parafield ATC tower no. 2 from the northeast (at left) main entry (at right), 2017

Figure 28 The generator shed (2017) and brick store (c. 1990s), 2017

3.3.2 Alterations

The principal alteration to the Parafield building has been the removal of the original cabin and its replacement with a much larger cabin in 1981. This included the removal of the original antenna mast. In addition, there have been a number of modest external accretions, notably the brick store and generator shed in the southernmost sections of the building. More broadly, the greater part of the original window joinery has been removed and replaced with aluminium. The small number of unaltered window in stairwells and side elevations suggest that the building incorporated a mixture of steel- and timber-framed windows.

3.3.3 Interior

As noted above, the ground floor of the building has been converted into offices and classrooms for FTA, with private areas in the eastern section of the floor used as examination spaces by ASL. The first floor is largely unoccupied, with the original arrangement of rooms surviving large unaltered. The second floor and cabin levels above are occupied by Airservices and provide staff offices and equipment rooms supplying communications and information services to the tower above. The original arrangement of spaces at second floor level also survives although some changes were undertaken to allow the construction of the cabin levels in 1981. Some remnant cornices and skirtings, window elements and door hardware survive although the building has generally been refitted on one or more occasions and these elements survive only to a limited extent.

3.3.4 Ground floor

The internal planning and fabric of the ground floor have both been extensively modified. As built, the primary entrance from Anderson Drive led to a centrally-located concourse extending to the east and west. A large waiting hall provided at-grade access to the runway. It was separated from the concourse by timber-framed glass screens marked with the DCA logo between six rendered brick piers. A buffet was located at the western end of the waiting hall which extended into the concourse as a small kiosk. The kiosk and buffet were serviced by a kitchen to their west. A baggage room was situated to the east of the waiting hall. Further to the east, a mail room could be accessed by separate doors from the runway. Toilets were located at each end of the building. A staircase to the east of the entrance provided access to the upper levels.

Along the 'road' side of the building, to either side of the entrance, were the offices of the various air lines. It is noted that an office, adjacent to the ground floor entry, now serves as the electrical switch room for the ATC tower. It retains an early electrical switchboard. A switch-room of this type is not evident in the early plans for Archerfield. No radio or radar equipment was initially installed at the Parafield ATC tower. Consequently, power requirements were relatively modest. On this basis, it appears that the switchboard is an early but non-original element, possibly associated with the introduction of radio communications in 1948.

The former concourse has been subdivided to its eastern and western ends, and the timber-framed glass screens to the former waiting hall have been replaced with plasterboard partitions. The FTA occupies the former waiting hall, which has been subdivided into meeting rooms and offices. Finishes are generally modern, including carpet and tiles to the concrete floor, and partition walls of plaster and glass. Some skirting boards and a frosted circular electric light above the doorway to the apron are original. The kitchen and wet areas to the west of the ground floor broadly retain their original use being used as a staff meals area. The original curved kiosk and buffet have been removed. The rooms to the east of the ground floor (used as exam rooms by ASL) have been refitted with modern skirtings, cornices and carpets. A reinforced concrete staircase to the east of the main entry retains its Moderne character (Figure 34).

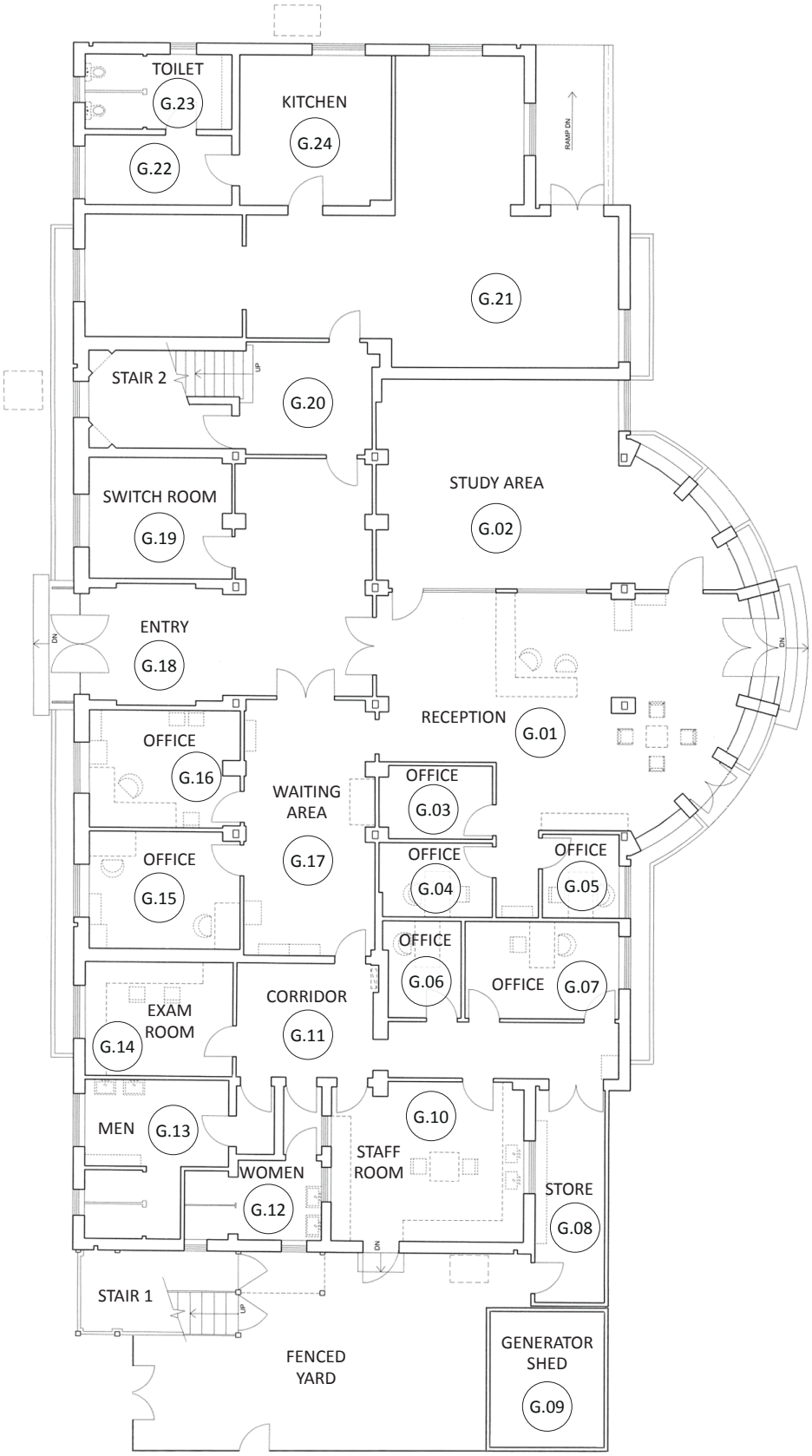
A brief summary of the changes in each of the ground floor areas is provided below. An explanation of the room numbering system is provided at Figure 29.

Former Waiting Hall (Rm nos G.01, G.02, G.03, G.04 & G.05)

The original Waiting Hall has been subdivided using lightweight partitions to create training rooms and offices. A new wall has been introduced to separate the Study Area (G.02) from the Reception Area (G.01) and multiple partitions have been constructed to create offices G.03, G.04 and G.05. An air conditioning plenum has been constructed above the former Waiting Area (Figure 32). Some early fabric survives notably some original skirtings, and concrete-encased steel columns incorporating a stop-chamfer device (Figure 32). Nonetheless, the greater part of the early fabric has been removed and little of the original form or fabric of the Waiting Area survives.

Figure 29 Ground floor plan (existing)

Source Specline 2009



Former Buffet (Rm nos G.06 & G.07)

The former Buffet area has been subdivided to form two offices (G.06 & G.07) and the adjacent access corridor. Much of the original fabric has been removed although some original skirtings survive. The ceiling was replaced when the air conditioning plenum to the reception area was constructed (Figure 32). The access corridor has been retiled as part of the conversion of the Kitchen into a Staff Amenities Area (G.10).

Brick storeroom addition (Rm nos G.08)

The brick store room (Figure 30) was constructed c. 1990s. It is finished in face brick internally without cornices or skirtings. The ceiling incorporates a skylight.

Generator Shed (Rm nos G.09)

The generator shed (Figure 37) is a simple open canopy recalling a carport. It is constructed on a concrete slab with steel square hollow sections supporting a steel framed roof clad in galvanised Klip Lok® or similar profiled steel cladding. The generator shed was constructed in 2017.

Former Kitchen (Staff Room, Rm no G.10)

The original kitchen was located to the west of the Buffet. The original fit-out has been removed and the area has been refitted as a staff room incorporating a modern kitchen. The area retains its original form but retains no early fabric.

Corridor (Rm no G.11)

The corridor was created through the partitioning of the western sections of the east-west concourse. It retains some early detailing- notably an unusual broad cornice which appears to have flanked the original concourse area- and doors to the adjacent toilets. However, the form of the space is no longer legible as a consequence of partitioning.

Toilets (Rm nos G. 12 & G. 13)

The men's and women's toilets are located at the western end of the concourse. As constructed, male and female toilets were located at opposite ends of the concourse. The original ladies' toilets at the western end of the concourse and an early entry have been refashioned to produce the existing conveniences. Both toilets have been refitted in the recent past and retain no notable fabric apart from early doors and door hardware.

Former airline offices (Rm nos G.14, G.15, G. 16, G. 19)

The former airline offices generally retain their early form. Ceilings are of recent origin, but some rooms retain sections of early skirtings. The office immediately to the east of the entry currently serves as the electrical switch room for the ATC. It retains a very early switchboard suggesting that the room was constructed for this use and not as office space as indicated on the plans for Archerfield. The switchboard appears to be an early and unusual element (Figure 33).

Waiting Area (Rm no G. 17)

The waiting area (Figure 31 was created through the partitioning of the western sections of the concourse to create an anteroom to the adjacent (former airline) offices. The space retains unusual broad cornice detail which appear to have flanked to full length of the concourse area (Figure 31). As with the adjacent corridor space to its easy, the form of the space is no longer legible as a consequence of the partitioning.

Entry (Rm no G. 18)

The entry retains its original form but has been substantially refitted and retains no early fabric.

Examination area (Rm nos G.21, G.22, G.23, G.24)

The examination rooms (Figure 35) were created through the amalgamation of a number of unrelated rooms including the most easterly airline office, the baggage room, men's toilets and other spaces to create examination rooms on a more or less open plan and a with associated kitchen and toilet areas. The suite of rooms has been refitted in the recent past and retain no early fabric. It is noted that water damage to modern acoustic ceilings is evident in this section of the building (Figure 36). This is likely to derive from failure of the butynol membrane at the deck level above.

Stair 2 (Rm no G.20)

The reinforced concrete staircase (Figure 34) to the east of the main entry retains its Moderne character, with a double-heavy central wall capped with stained timber and a timber handrail raised on curving painted steel brackets (Figure 34). The treads are finished in modern vinyl. Two cupboards at the landing are original features of the stair well.

Figure 30 Ground floor entry (G.15) at left; Brick storeroom addition (G.08) in the southern section of the building at right, 2017

Figure 31 The waiting area (G.17) was created through subdivision of the original east/west concourse; adjacent offices originally (G.12 and G.13) were provided for use by private airline companies; an original cornice detail survives in this area, 2017

Figure 32 Original concrete-encased steel columns with modern air conditioning plenum to its rear, 2017

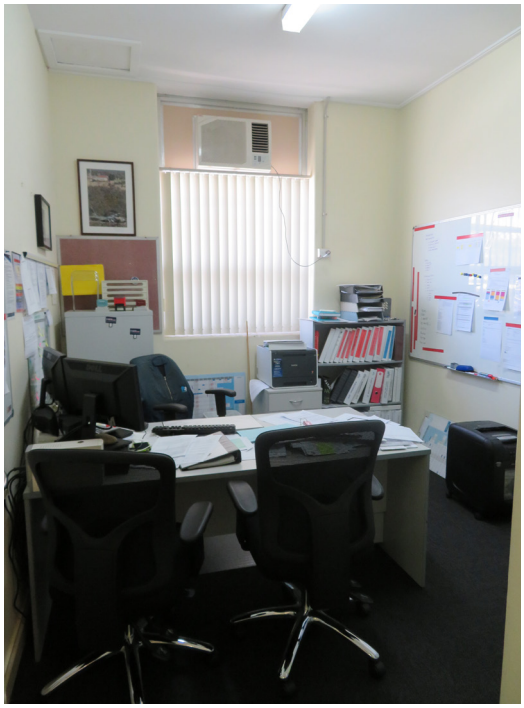


Figure 33 An early switchboard survives in the in the switch room (G.19) at left; typical ground floor office at right, 2017

Figure 34 Stair 2 (part Rm. G.20) retains its original handrail, 2017

Figure 35 ASL Examination rooms occupy the eastern section of the ground floor, 2017

Figure 36 Stormwater damage to modern acoustic ceilings in ASL examination rooms, 2017

Figure 37 Brick Store and generator shed are modern additions in the southern sections of the ATC, 2017

3.3.5 First floor

Planning at first floor level is largely intact to its original layout. A central corridor provides access to five (originally four) office spaces along the south side of the building. With the exception of some door furniture and skirting boards, fittings and finishes throughout date from the relatively recent past. The area to the north of the passage was originally a private area for use by pilots, including two bedrooms, a toilet, bathroom and dining room. The configuration of this private area has not changed, including built-in storage elements. At the eastern and western ends of the central corridor are fire doors, giving access to roof decks to the east, west and south of the building. Electrical fittings, and wiring etc, have generally been mounted to the hard plaster walls in preference to making penetrations.

A brief summary of the changes in each of the first-floor areas is provided below. An explanation of the room numbering system is provided at Figure 39.

Southern offices (Rm nos 1.01, 1.02, 1.03, 1.04 & 1.05)

The southern office group provided administrative services for the airport. The Officer-in-Charge was located in the central office with views over the runways with clerks and typists located in separate offices to its east and pilots accommodated in a large space to its west. Today, the area is largely unoccupied with some rooms used for storage or as *ad hoc* lounges. The pilots' area has been subdivided into two smaller spaces. The southern offices retain some original joinery - notably lockers in the Officer-in-Charge's area and skirtings. However, the ceilings are modern acoustic tiled arrangements.

Former private areas (Rm nos 1.06, 1.07, 1.08, 1.09 & 1.10)

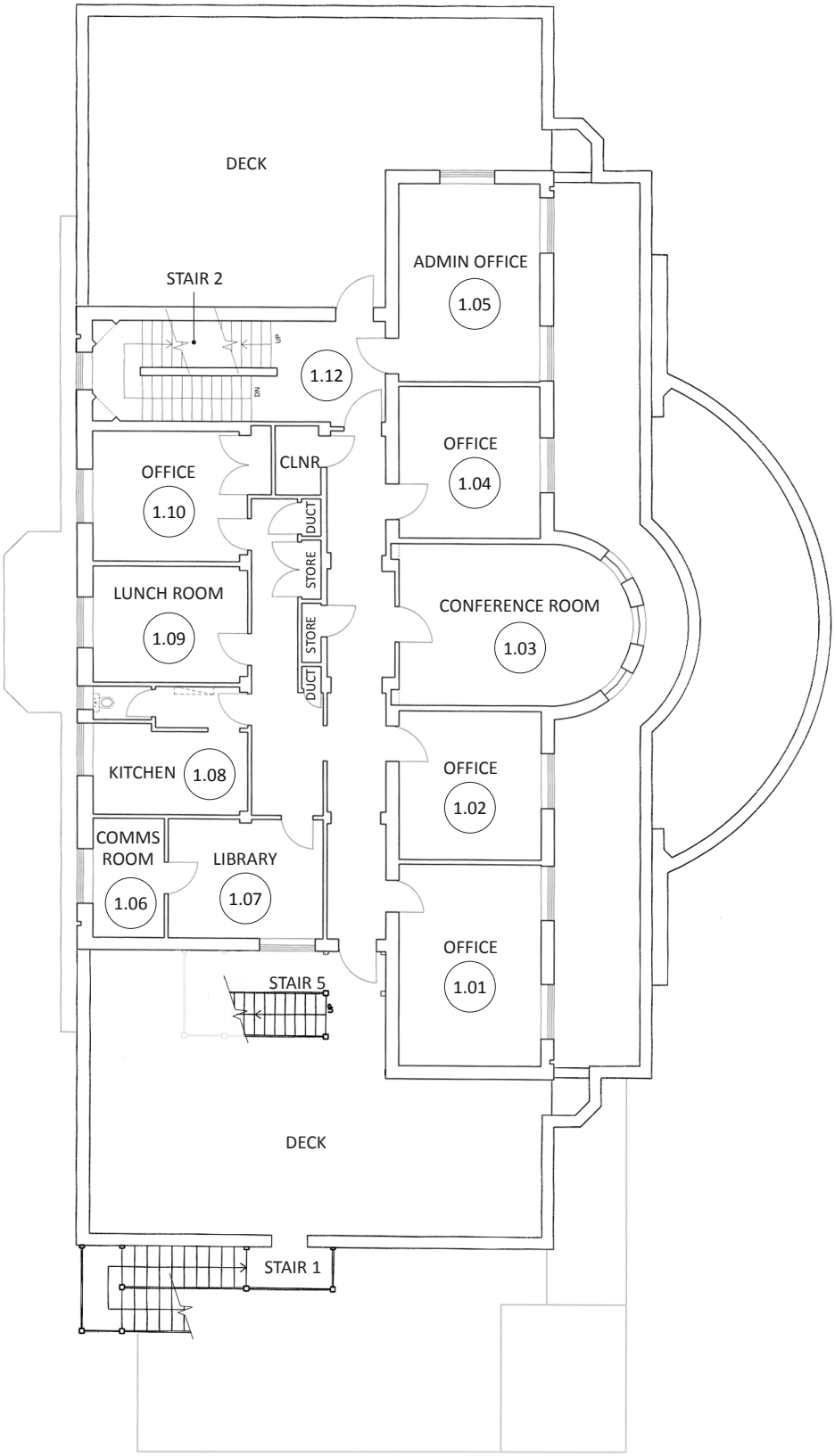
This suite of rooms provided amenities for pilots. The original layout in this area broadly retains its original form although some changes in use have occurred. The original kitchen, for example, has been converted into a bathroom. The area retains some original features such as skirtings, modest cornices and door furniture.

Stair 2 (Rm no 1.06)

This stair is described at Rm no. G.20, above.

Figure 38 First floor plan (existing)

Source Specline 2009



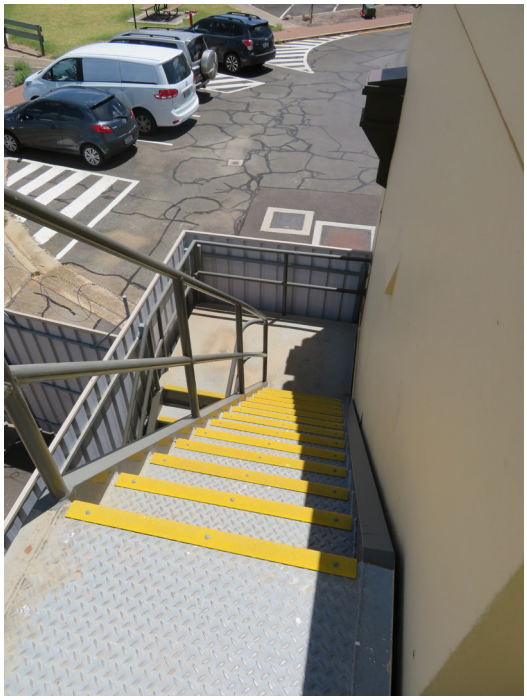


Figure 39 Modern stairs to western elevation (at left) original steel framed windows at first floor level (at right), 2017

Figure 40 Tower from first floor deck at left; the administration area (Room no. 1.05) is currently used as a lounge area, 2017

Figure 41 Roof deck at first floor level, 2017

3.3.6 Second Floor

The second floor has been significantly altered. It was originally centred around the flight checking office serviced by a Radio Office to its west and a Meteorological Office to east. These, in turn were serviced by Radio and Meteorological Rooms to their north. Access to the control cabin above was provided by a staircase in the eastern section of the Flight Checking office. This arrangement with the flight checking office forming a hub at the centre of the various technical support areas is no longer legible.

As existing, the second floor comprises a central corridor created by partitioning parts of the Flight Checking Office, Radio and Meteorological Rooms. This east/west axis produces a more conventional 'office style' arrangement with a large equipment room to the north, and a stand-down room, Tower Manager's Office (within the curved bay) and Airservices office spaces to the south. A new staircase was constructed in the western section of the Flight Checking Office in 1981, giving access to the cabin levels above the roof. The present-day Tower Controller's Office is located in the reduced footprint of the former Flight Checking Office. Stairs from the first floor are located in the eastern section of this level. Toilets are located in the western sections.

Southern offices (Rm nos 2.01, 1.02, 1.03, 1.05 & 1.06)

These comprise the remnant section of the Flight Checking office along with the Radio Office to its west and a Meteorological Office to east both of which have been subdivided using lightweight partitions to create a total of five smaller spaces. The central room of the group is currently used as the Tower Controller's Office (Figure 43). The western spaces have been converted into a flight controllers' lounge with a modern kitchenette (Figure 46) in a separate space to the east. Spaces to the west of the Tower Controllers Office provide office support services for the tower controller. Fit-outs to all of these area date from recent decades and the spaces retain no early fabric. An unusual cornice detail in the Tower Controller's Office suggests that the ceiling height of the office was increased as part of the 1981 works.

Equipment room (Rm no. 2.08)

The sections of the Radio and Meteorological Rooms have been combined and reconfigured to create the existing equipment room. The changes are likely to date from the 1981 works to the tower. The equipment room contains all of the ATC operational equipment including the radio, surveillance, telephones and intercoms required for effective air traffic control. The fit-out dates from c. 1980s and includes vinyl skirting boards and floors and modern ceilings without cornices.

Bathroom (Rm no 2.07)

The plan form of the bathroom was reconfigured when the Equipment Room (2.08) was constructed. It retains no early fabric internally apart from an original louvred porthole window (Figure 44).

Stair 2

The stairwell is broadly similar to that discussed at Stair 2 (Rm no G.20) on the levels below but incorporates a different but apparently original handrail (Figure 45) to that found elsewhere.

Stair 3

A new steel-framed staircase with concrete treads was constructed in the western section of the Flight Checking Office in 1981. This survives in good order.

Figure 42 Second floor plan (existing)

Source Specline 2009

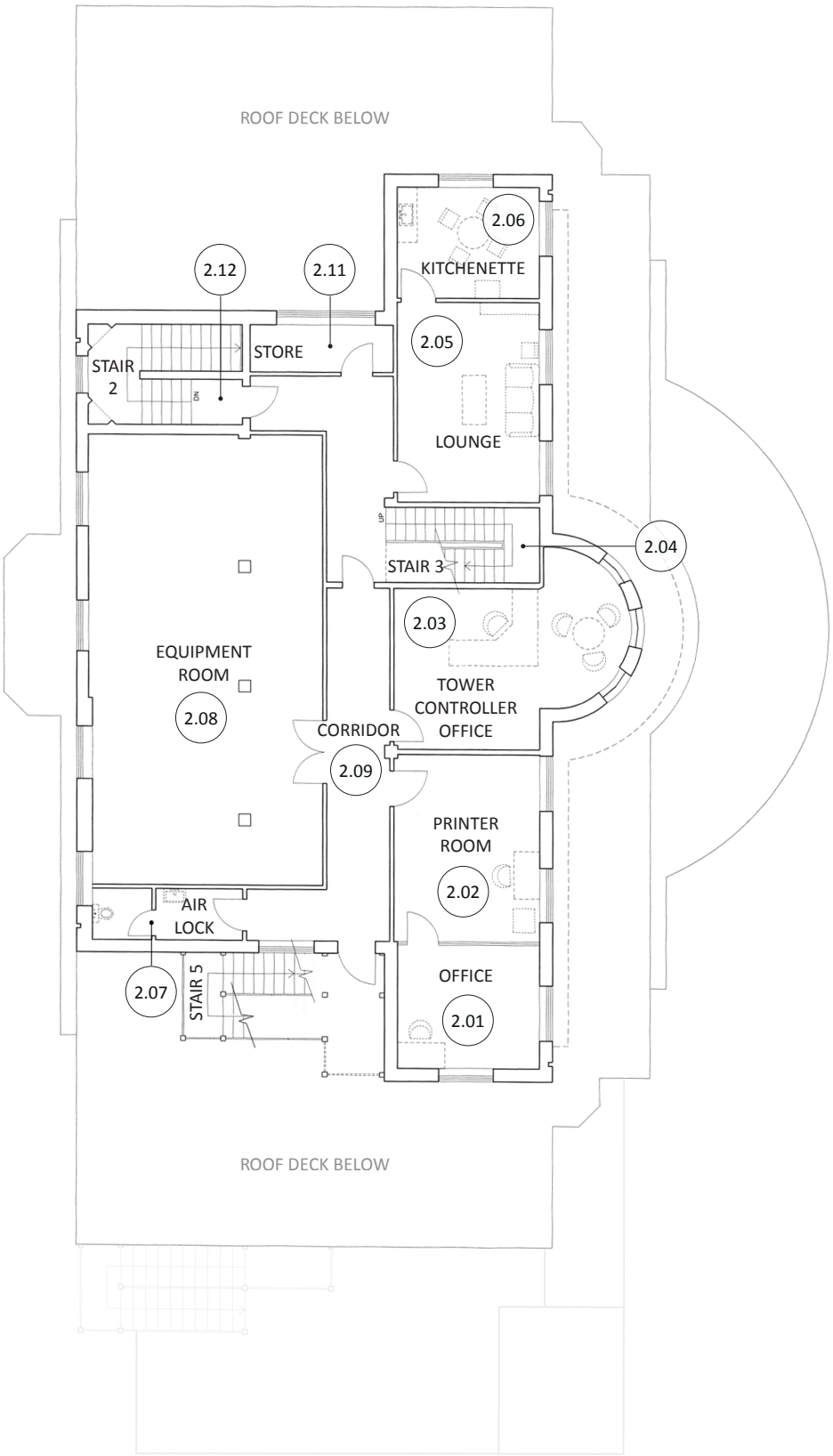


Figure 43 Tower Controller's Office at left; Equipment room at right, 2017

Figure 44 Central corridor at left; original porthole window in bathroom, 2017

Figure 45 Stairs from first to second floor, 2017

Figure 46 Kitchenette in Rm no. 2 at left; stairs to cabin level at right date from 1981, 2017

3.3.7 Third and Fourth floors (cabin levels)

The cabin levels were constructed in 1981 (Figure 47). They comprise a two-storey addition in a contrasting architectural style to that of the original Ops & Admin building. The first storey of the addition comprises a recorder room and toilets on either side of a corridor which gives access (to the east) to the cantilevered walkway around the cabin. At the other end of the corridor, a short staircase provides access to the octagonal cabin above.

The interior of the 1981 cabin (Figure 48) includes a central fixed console (timber) and the standard range of noise abatement features (carpet to walls and floor, and perforated boards to the ceiling). There is a small kitchen area at the bottom of the short flight of stairs to the cabin.

There appear to have been no significant modifications to the cabin levels since construction in 1981. These areas contain no early fabric.

Figure 47 Cabin, 2017

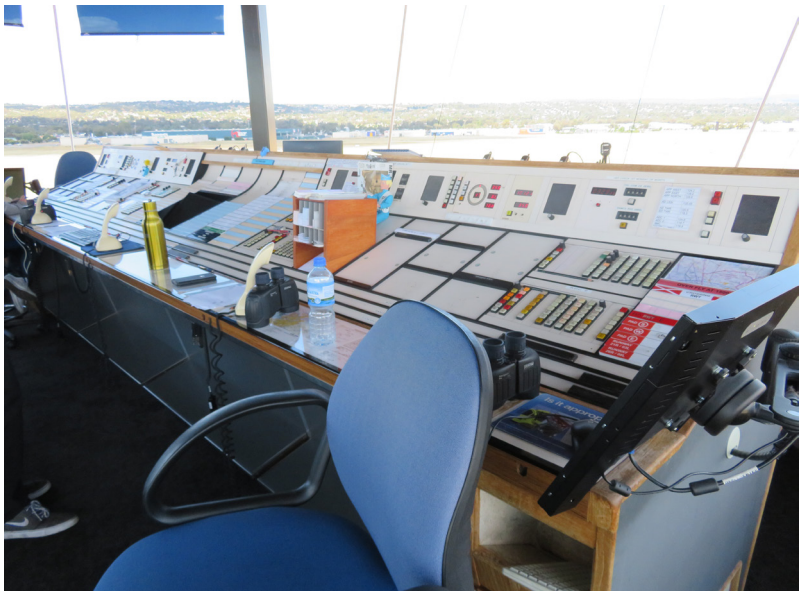
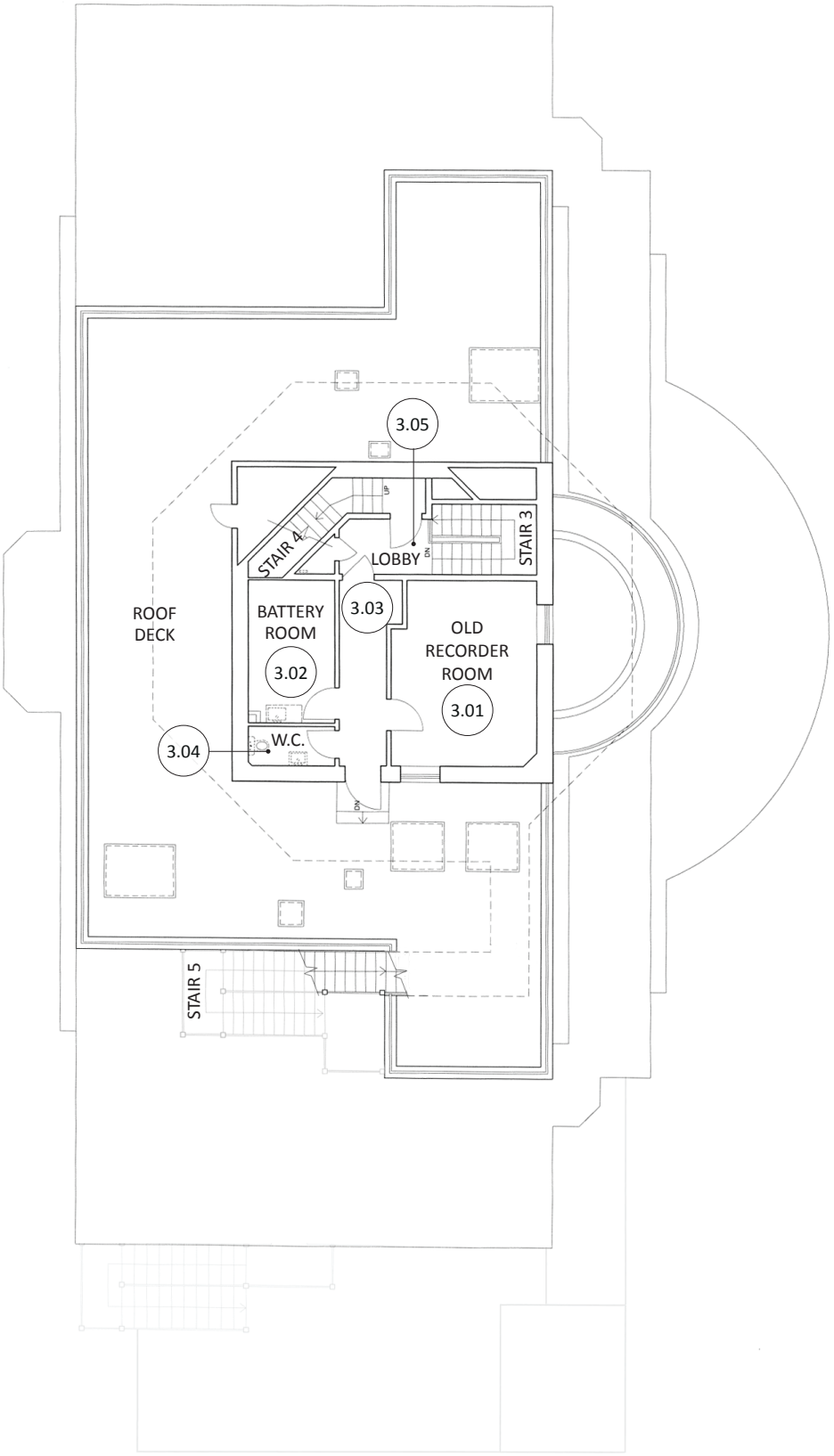


Figure 48 Cabin interior, 2017

Figure 49 Third floor plan (existing)

Source Specline 2009



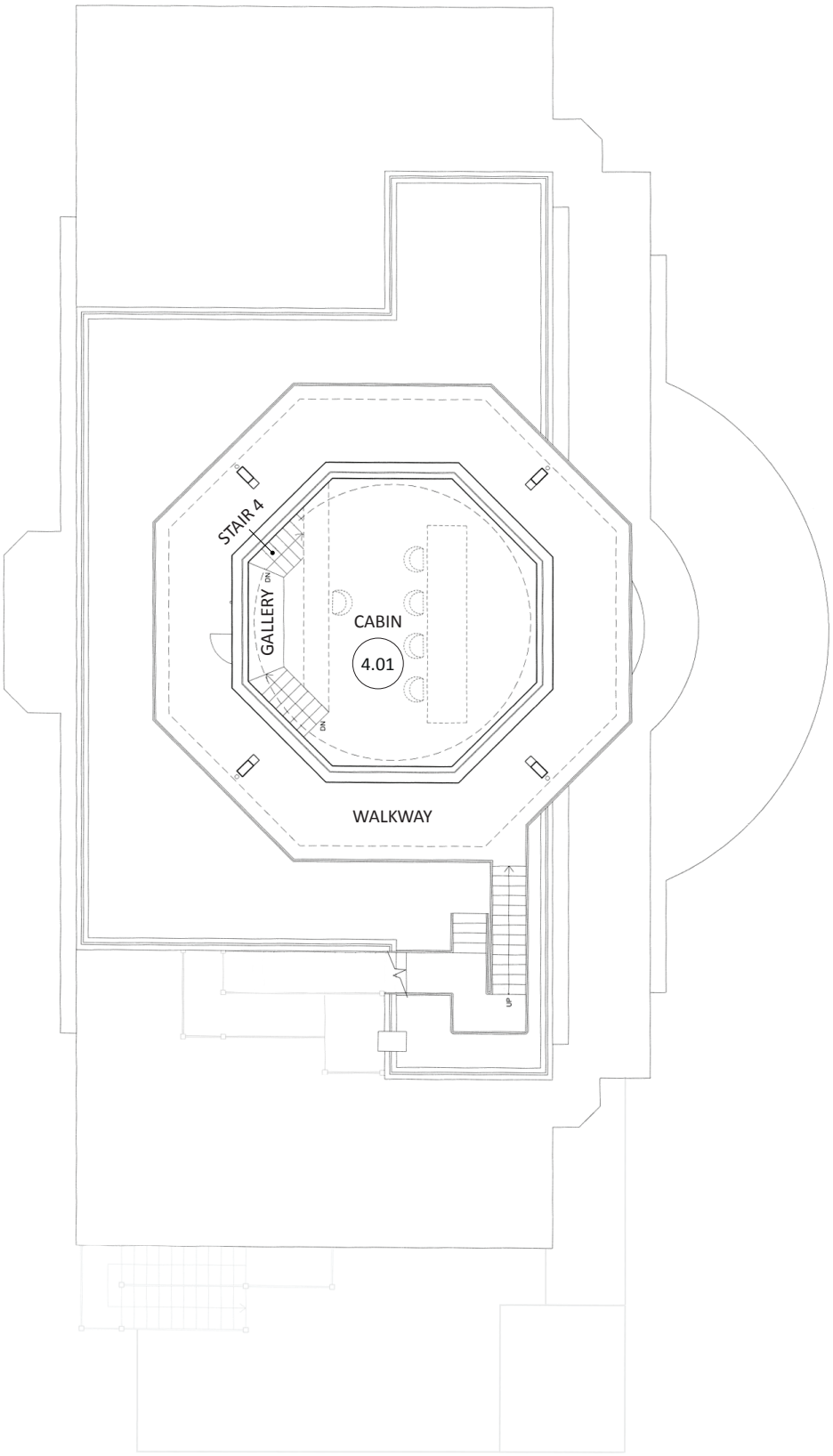


Figure 50 (existing) Cabin floor plan

Source Specline 2009

Figure 51 Roof deck at third floor level at left, typical steel framing to cabin levels at right, 2017

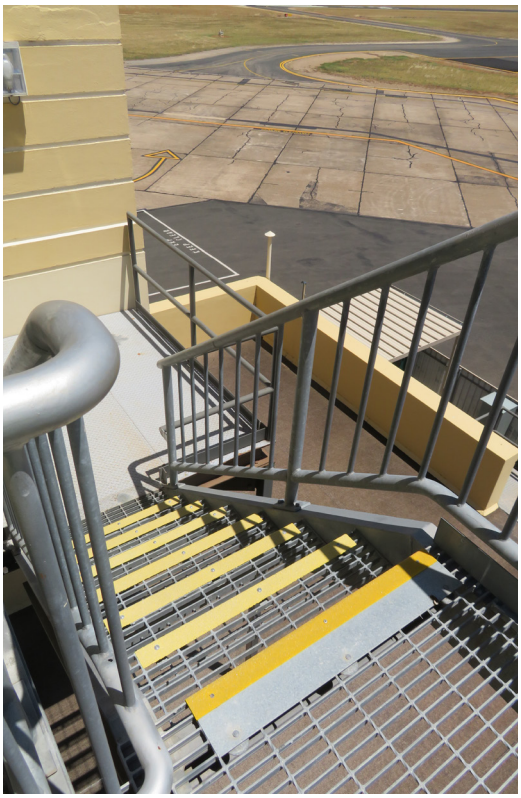


Figure 52 Glazing to cabin at left; modern external stairs to cabin levels at right, 2017

3.4 Conclusion

Externally, the principal alteration to this building has been the removal of the original cabin and its replacement in 1981 with a new cabin of considerably greater scale and quite different form. The original cabin was an integral part of the design of the building, with the element integral to the expression of the airside (south) façade.

Notwithstanding the impact of this change, the three-storey base building remains legible as a Moderne building with 'streamlined' styling including circular windows and horizontal banding. The external fabric survives relatively intact, with minimal modifications to the building in terms of additions and new openings, but with the replacement of most original steel window and door frames with aluminium.

The generator shed and other additions in the southern sections of the building have affected the symmetry and presentation of the building as viewed from the runways and aprons.

Internally, there have been extensive modifications to the original fabric and arrangement. These are most evident on the ground and second floors. The unused first floor level is more intact.

The control tower cabin and its square single-storey base are essentially unaltered since construction in 1981.

4.0 ASSESSMENT OF SIGNIFICANCE

This chapter provides an assessment of cultural heritage values associated with Parafield ATC tower - most particularly the surviving sections of the Operations and Administration (Ops & Admin) building of 1939-40- against the Commonwealth Heritage List Criteria. The assessment (Section 4.2.1), which draws on evidence presented in chapters 2 and 3, is preceded by a comparative analysis. Statements of Significance are provided at Section 4.3.

4.1 Comparative analysis

The following considers the Parafield ATC tower within the development of Australian control towers from the 1920s to the 1990s. It then examines the Integrated Ops & Admin buildings typology in an international context and their development in Australia. It draws on the typological study of ATC towers in Australia and overseas prepared by Lovell Chen as part of the Stage 2 *National Control Towers Heritage Assessment* (2007-2009). It also provides an assessment of the surviving three storey Ops & Admin building at Parafield as part of the brief flowering of Streamline Moderne architecture in Australia.

4.1.1 ATC tower development in Australia (1920s-1990s)

The first ATC towers were square timber structures raised only slightly off the ground. Contact with aircraft was purely visual, through devices including flags, flares and cane spheres mounted on a rooftop flagstaff. Towers of this type were constructed in Australia from the mid-1920s with a simple timber tower (Parafield ATC tower no. 1) constructed at Parafield in 1937 (Figures 10 and 11).

Following a review of air safety standards and procedures in 1938, Australia's first standardised control tower model, the Integrated Ops & Admin buildings, was developed. This was based on overseas precedents and comprised a three-storey Streamlined Moderne building with the air traffic control cabin located on the roof. The small flat-roofed cabins featured steel-framed windows with curved windows facing the apron, and although they were fitted with radio facilities, communication with aircraft was still almost exclusively visual. Three of these Ops & Admin facilities were built in Australia between 1939-1941, at Parafield Aerodrome (Adelaide), Mascot (Sydney and Archerfield Aerodrome (Brisbane). Others were planned for Essendon, Cambridge Aerodrome (Hobart) and Maylands (Perth), but were not constructed because of the outbreak of World War II.

In the post-war period, international cooperation in air traffic control was initiated (see Chapter 2). In Australia, a number of different approaches were tried in the design of control towers, including the use of different construction materials and tower forms. By the early-1950s, a standard control tower format had emerged. It consisted of a square base, typically of between two and four storeys, below a perimeter walkway, also in reinforced concrete, around an octagonal cabin with sloping glass panels fixed in steel mullions. Depending on the nature of the airport, the cabins were fitted with two, three or four-person consoles, and featured a range of noise abatement and cooling devices. Examples of this type of tower were constructed in Sydney (commissioned 1953), Melbourne (Essendon, 1956), Adelaide (1957), Hobart (1958,Figure 53), Launceston (1958), Darwin (1959), Brisbane (1959) and Tamworth (1959).

Figure 53 Hobart ATC tower circa 1960

Source Civil Aviation Historical Society

The 1960s was a period of continuing advances in the size and speed of aircraft and affordability of air travel. During this period the number of airports with control towers increased dramatically, and there were also major advances in terms of the equipment used to manage aircraft. However, the control towers themselves barely changed from the format of the 1950s. Towers based on this model, but refined and improved over time, continued to be built throughout Australia until well into the 1970s.

From the late 1960s a standardised low-cost tower, comprising an exposed steel frame base in a triangular plan and small single-glazed cabins, was introduced generally (but not exclusively) at general aviation or secondary airports (Figure 54). Until the late-1980s, inexpensive, perimeter-framed tower, with minor refinements and modifications, was constructed at airports across Australia and may be the most widely built control tower type in the country.

The other tower type introduced in Australia in the late 1960s was column towers, first introduced in Australia at Melbourne (Tullamarine) in 1969 (Figure 55). This type comprised an integrated cabin and services pod on top of a slender concrete column, typically in the order of 50m in height. The unprecedented height of the columns towers required a new approach to the physical relationship between the ATC cabin and the equipment required for its operation. Proximity of radio, audio and other systems was required to ensure reliable feeds and signals. This had not presented a problem in lower, earlier towers but was problematic for the new column towers. The issue was resolved by dividing the equipment that services the cabin into two areas: the main equipment room at ground level, and a subsidiary equipment space immediately below the cabin. Later column towers in Australia, in Perth (commissioned in 1986) and Brisbane (commissioned in 1988) were taller and more sculptural than the Melbourne tower. However, towers at Cairns (1990), Coolangatta (1990) and Tamworth (1997) did not repeat the sculptural form of Brisbane and Perth. Rather, these later towers were generally composed of broad cylinders housing services/amenities and cabins positioned on top of slender columns, more like the Melbourne tower. In more recent times, in terms of their external form, control towers have generally followed the Melbourne model established in the late-1960s. But since the mid-1990s, perhaps led by the present Sydney tower (1995)- a cable-stayed structure designed as a landmark by architect Ken Woolley (Figure 56)- there has been a marked international trend in the design of control towers as conspicuous civic markers/landmarks by name architects.

Figure 54 Avalon control tower, commissioned 1978

Source Civil Aviation Historical Society

Figure 55 View of the Tullamarine ATC tower, c. late-1960s

Source Civil Aviation Historical Society

Figure 56 Sydney ATC tower no. 5

4.1.2 International development of the integrated 0perations and administration building

The development of advanced night-time and low-visibility controls coincided with the physical integration of cabins or ATC towers into airport terminal buildings, linking the tower with the 'airport community'. Centralised buildings with multiple uses related to the needs of airline operators, pilots and passengers evolved at airports in North America and Western Europe from the 1920s. The compositional linkage of tower and terminal had a pragmatic component, allowing air traffic control, the newly expanding radio rooms and similarly developing crew-briefing rooms to be kept close together. Control tower sections, connected directly to the terminal buildings, could expand into portions of the terminal building itself- an appealing flexibility given the radical changes to radio and the emergence of radar occurring at the time that many of these integrated towers were being completed. Substantial and symmetrically-composed terminal buildings also had the benefit of making their airports look like grand city gateways while conveying an easily-readable sense of occasion on their bus and vehicular arrival sides.

In the early days of the integrated type, the cabin usually functioned visually as part of a portico or centrepiece-bay, sometimes dramatised by a radio tower immediately above. The generally-symmetrical terminal elevations in airport buildings of this period also reflected the academic training of most architects in the early twentieth century. Towers typically adopted a formal disposition with the cabin treated as part of a central pavilion or bay- usually a crowning element- recalling classically-composed houses or institutional buildings.

Integrated Ops & Admin buildings emerged in the United States from the late-1920s, an early example being Cleveland-Hopkins Airport[87] (1929, Figure 57 Figure 58). The roof-mounted control cabin was a steel-framed circular glasshouse with 'French style' windows crowning the central pavilion of a symmetrical masonry terminal building. Below, a breakfront entry faced airside. Upon completion, the building housed the most modern aerodrome equipment of the time.

The Ops & Admin building at Elmdon Airport, Birmingham, England (1939, demolished), which also included a roof-mounted control cabin, was a variation on the Cleveland model, with projecting wing-like canopies to either side (Figure 59).

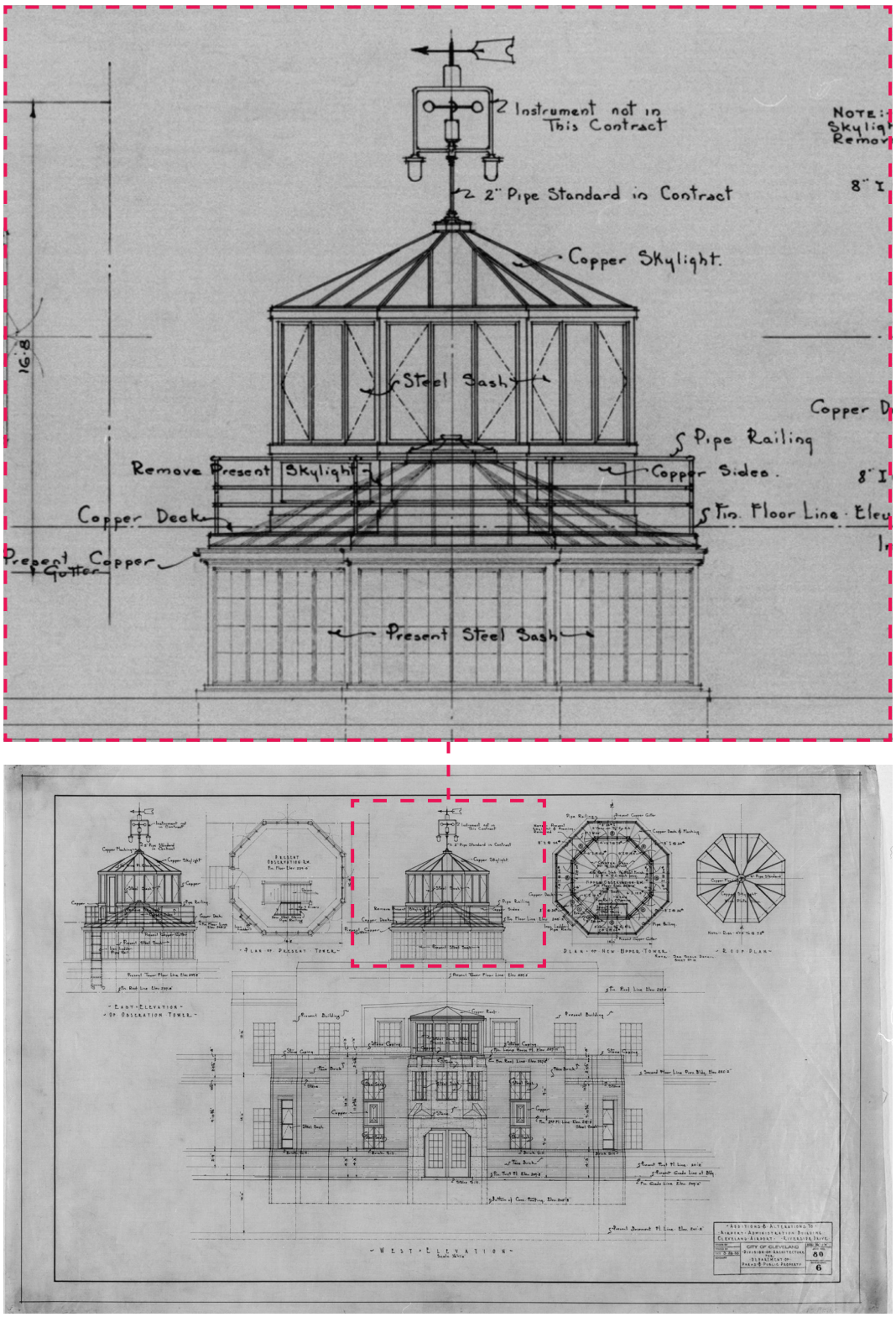


Figure 57 Cleveland-Hopkins terminal and control building, 1929

Source Historic American Buildings Survey

Figure 58 Cleveland-Hopkins terminal and control building surmounted by circular cabin

Source Historic American Buildings Survey

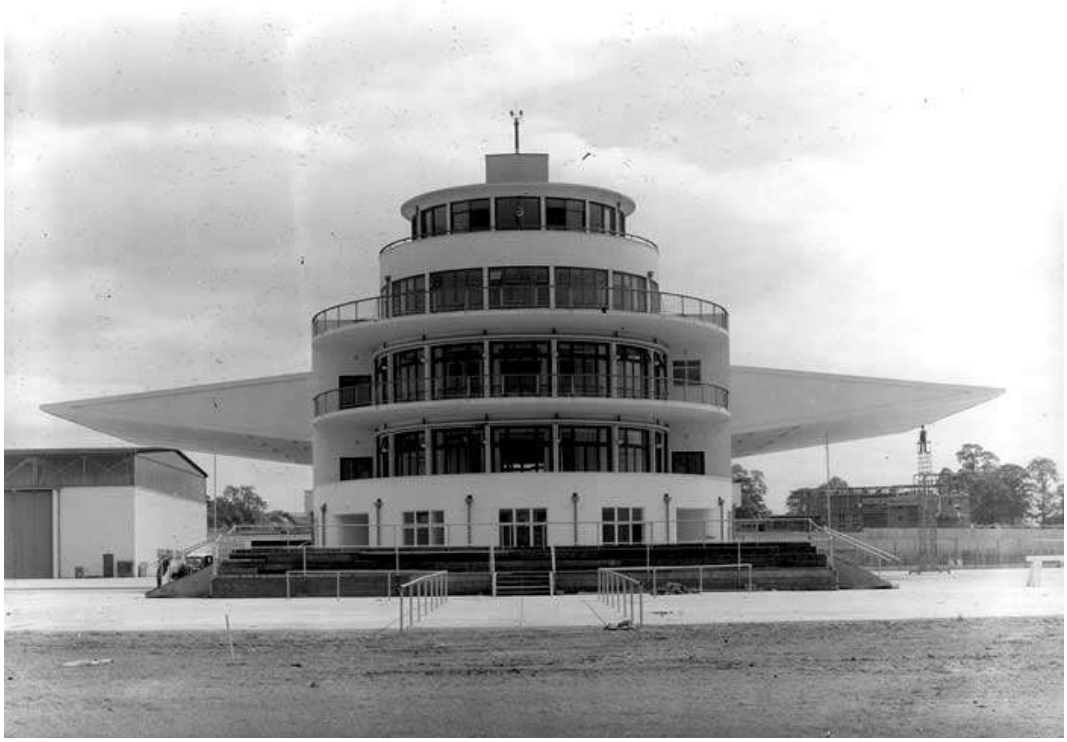


Figure 59 Terminal and Control Tower, Elmdon Airport, Birmingham, England (commissioned 1939, demolished), a highly stylised example of an integrated Ops & Admin building designed at the high tide of the typology

Source National Monuments Record (UK)

Figure 60 London-Croydon Airport Terminal Building constructed 1928-1930

Source www.guidedwalksinlondon.co.uk/blog/read_128000/croydon-airport-londons-first-international-airport.html cited on 20180201

At London-Croydon (1928-30), the square control cabin was located above the main passenger hall (Figure 60). The building, known as Airport House was the first purpose-built air passenger building in Britain and was designed by the British Air Ministry during the 1920s.

By the early/mid-1930s the standard Ops & Admin building featuring a cabin on top of a stepped two- or three-storey base building had officially emerged. Many of these integrated facilities featured Streamline Moderne styling, reflecting the excitement and modernity of air transport. The cabin was often expressed as a curved projecting observation bay with tall windows mounted on a straight vertical plane, or as a distinct upper storey centralised on top of a broader terminal structure. The cabins were usually integrated with the surrounding terminal building in materials, external finish and composition,[88] and often read as the bridge of a contemporary ocean liner, evoking a sense of airfield occasion and excitement for departing passengers and reading as a contemporary and formally unified urban gateway when seen from an arriving aircraft. In Europe, Le Bourget, Paris (1934) was one of the more spectacular examples (Figure 61).

In the USA, an early example was the Ops & Admin building at Newark International Airport (1934), whose convex linear plan and Moderne styling, notably in its symmetrical, stepped form, styling and central curved bay surmounted by an ATC cabin was a prototype for the 'second generation' of airport administration buildings in the USA (Figure 62).

Many examples were found at the airfields on major international routes, such as the British Empire route from London to Sydney route. The facilities at Baghdad, Iraq (1932, Figure 63) and Singapore-Kalang (1936) were typical of the era, with circular cabins tower integrated with an apsidal-fronted terminal building in a concrete frame with modular window bays throughout.

The acceleration in technological accomplishment and the expansion of air traffic volume brought about by World War II required international cooperation in air traffic control and this led to the establishment of the International Civil Aviation Organisation (ICAO) in 1947. For the first-time, air traffic was governed by common rules and regulations (prior to the war every country had its own system). These new rules and regulations extended to air traffic control, but they related to procedures and technical requirements and did not prescribe a particular form for air traffic control towers. The Integrated Ops and Admin building was surpassed by the stand-alone air traffic control tower of the 1950s.

Figure 61 Paris-Le Bourget, constructed c. 1934; the top-level control cabin with inclined, canted windows was a later replacement of a smaller cabin

Source en.wikipedia.org

Figure 62 Terminal building and control cabin at Newark International Airport, constructed 1934, USA

Source Historic American Buildings Survey

Figure 63 Baghdad integrated Ops & Admin building, constructed c. 1932

Source G C Burge's *Air Annual of the British Empire*, 1932

4.1.3 Integrated Operations and Administration buildings within Australia

Overseas precedents may have had a bearing on the Australian government's interest in developing a standardised air traffic control and administration building. Designs for an Australian model of an integrated terminal/administration/control tower building were in development by DCA Architects from as early 1936.[89]

As with the emerging international models, Australian Ops & Admin buildings included a Weather Bureau, Flight Checking Department (an early form of *en route* control), accommodation for pilots, a restaurant, lounge and roof terrace. An ATC cabin, located on the roof, was fitted with radio facilities, to co-ordinate with other operational positions on the ground and to communicate with airfields locally and on routes between airfields. However, communication with aircraft was still almost exclusively visual.

The design outcome referenced the Streamline Moderne-style favoured internationally with three-storey, symmetrical stepped buildings surmounted by vertically-framed, flat-roofed control cabins. Externally, the buildings including circular port-hole windows and horizontal 'streamlines' in the render, and were notable for an emphasis on horizontality, evident in the flat roof and the cantilevered awnings at the base of the control cabin platform (airside) and above the ground level entrance (roadside, Figure 64 Figure 65). The small flat-roofed cabins featured steel-framed windows with curved windows facing the apron (Figure 66 Figure 67).

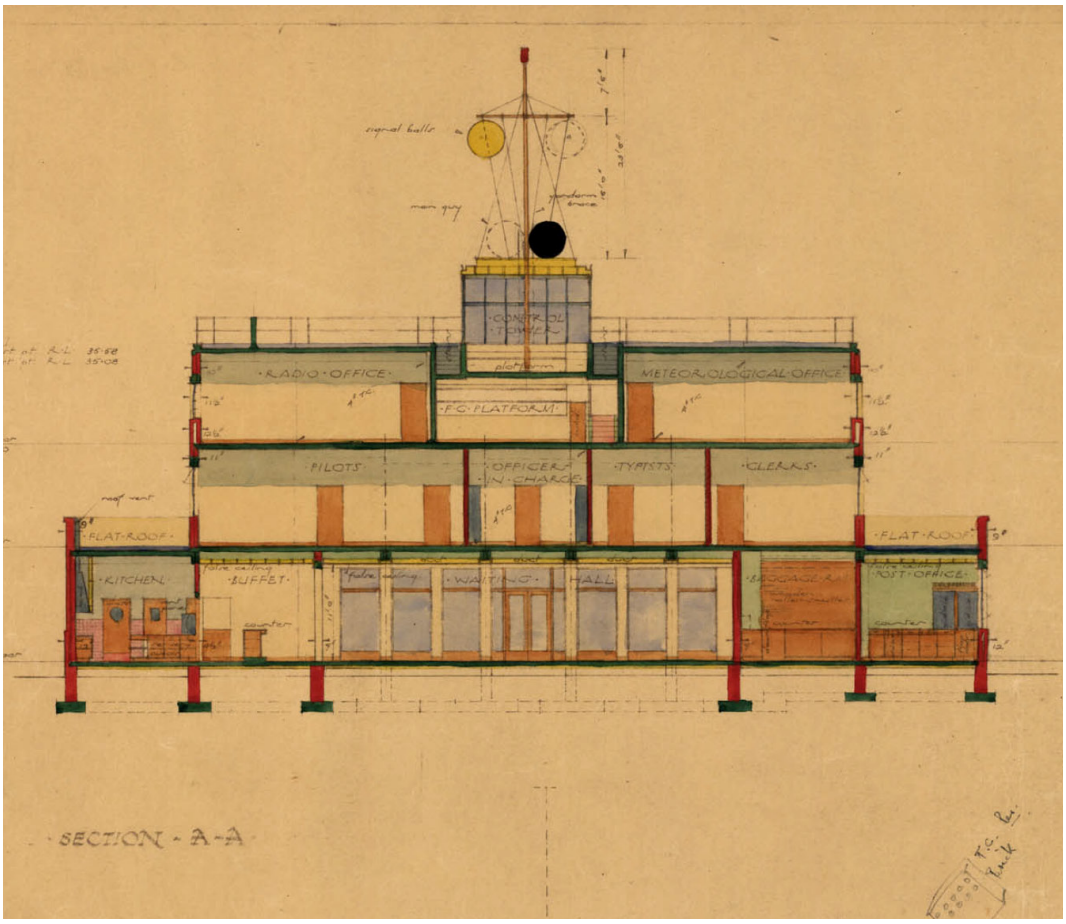


Figure 64 Sections through the Proposed Control Building for [Australian] Capital City Aerodromes, 1940

Source National Archives of Australia

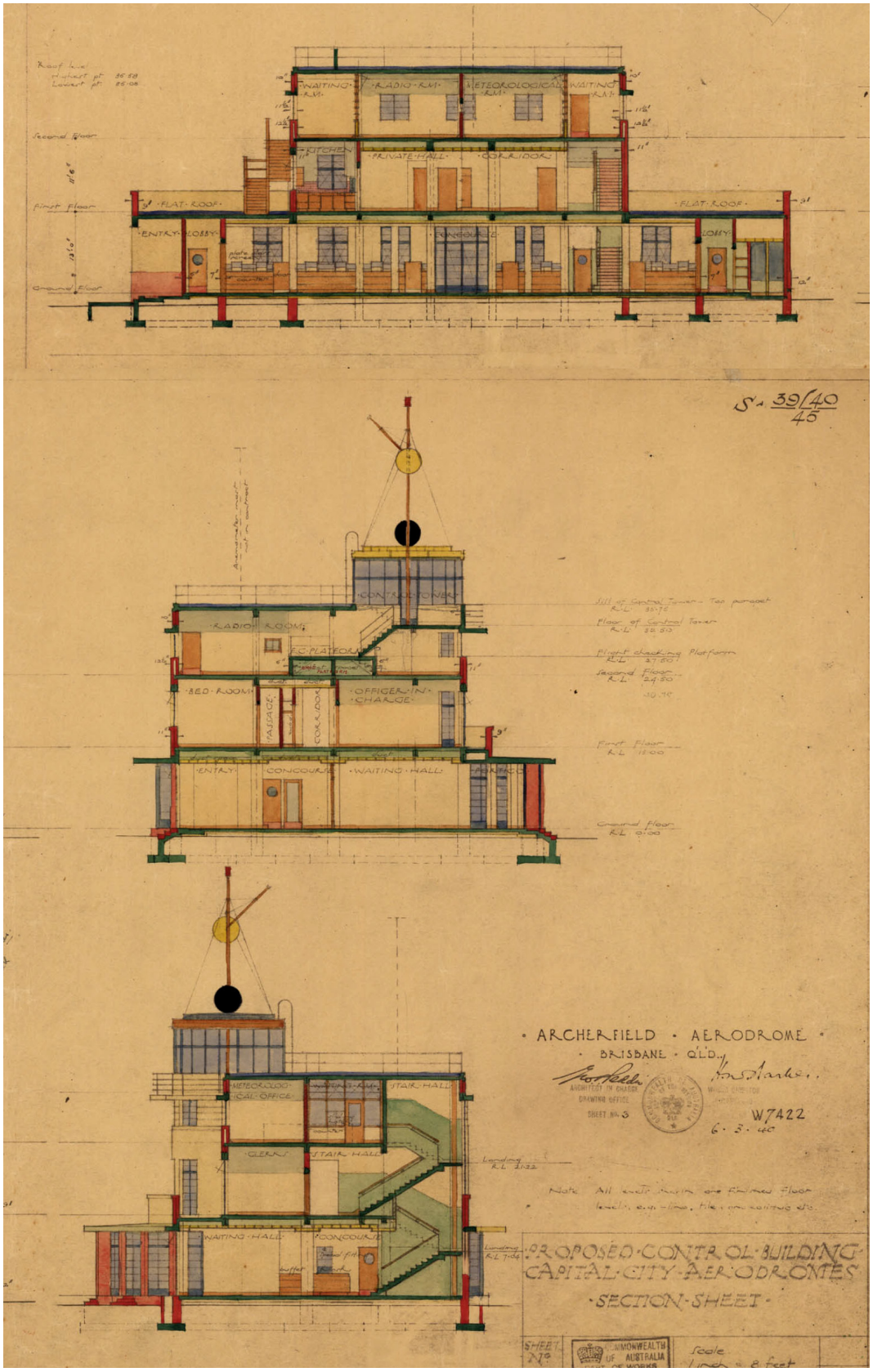
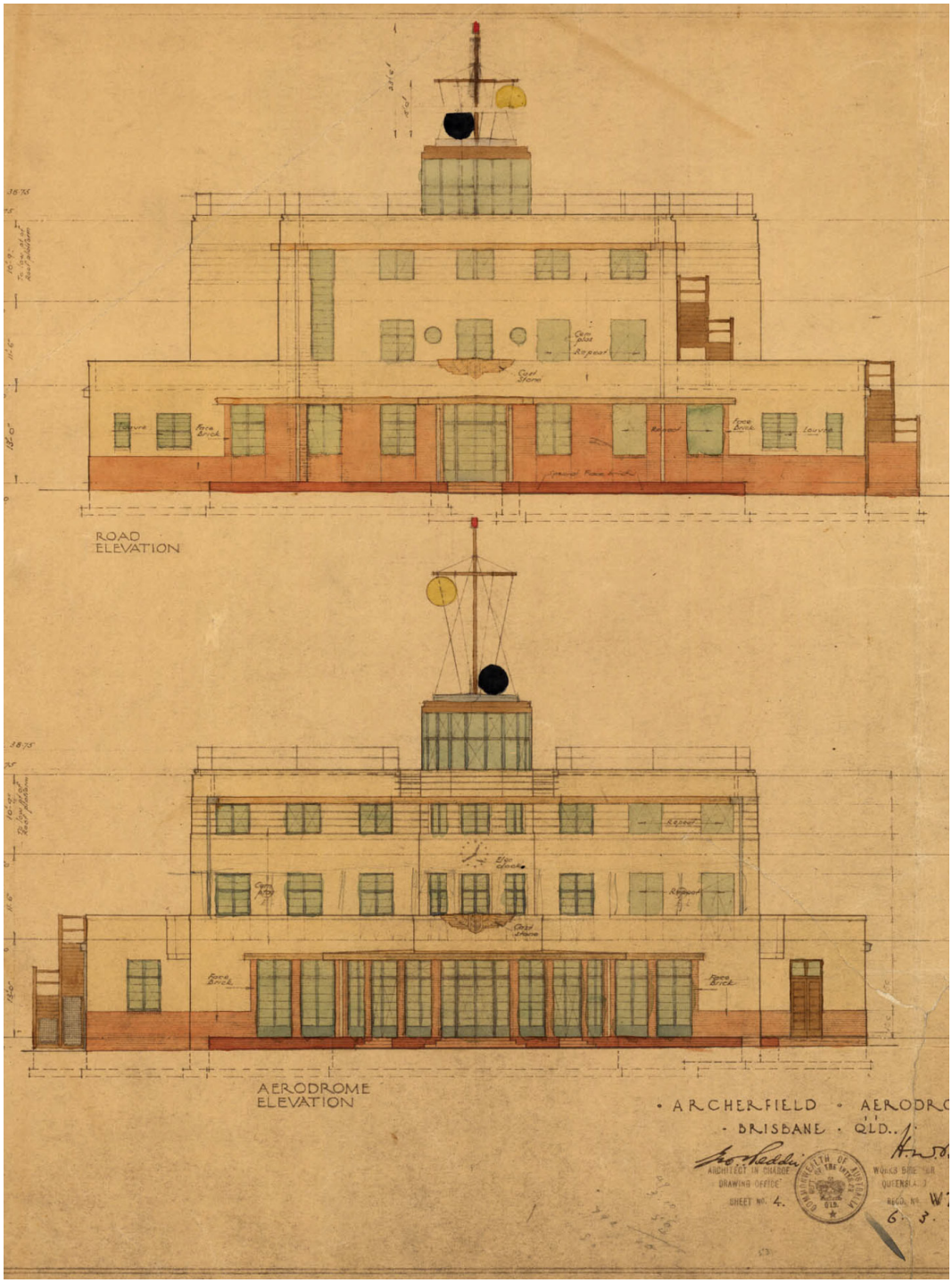

WAITING RM
RADIO RM
METEOROLOGICAL RM
WAITING RM
KITCHEN
PRIVATE HALL
COOK'S LOOK
FLAT ROOF
ENTRY
LOBBY
CONCOURSE
LOBBY
FLAT ROOF
Second Floor
First Floor
Ground Floor
CONTROL ROOM
RADIO ROOM
G. PLATFORM
BED ROOM
PASSAGE
COOK'S LOOK
OFFICER IN CHARGE
ENTRY
CONCOURSE
WAITING HALL
PORTICO
METEOROLOGICAL OFFICE
WAITING RM
STAIR HALL
CLERKS
STAIR HALL
WAITING HALL
CONCOURSE
ARCHERFIELD · AERODROME
BRISBANE · Q'LD.
ARCHITECT IN CHARGE
DRAWING OFFICE
SHEET No. 3
W7422
6 · 3 · 40
PROPOSED CONTROL BUILDING
CAPITAL CITY AERODROME
SECTION SHEET
COMMONWEALTH OF AUSTRALIA
Scale

Figure 65 Elevations of Archerfield (Queensland) Ops & Admin building, 1939

Source National Archives of Australia



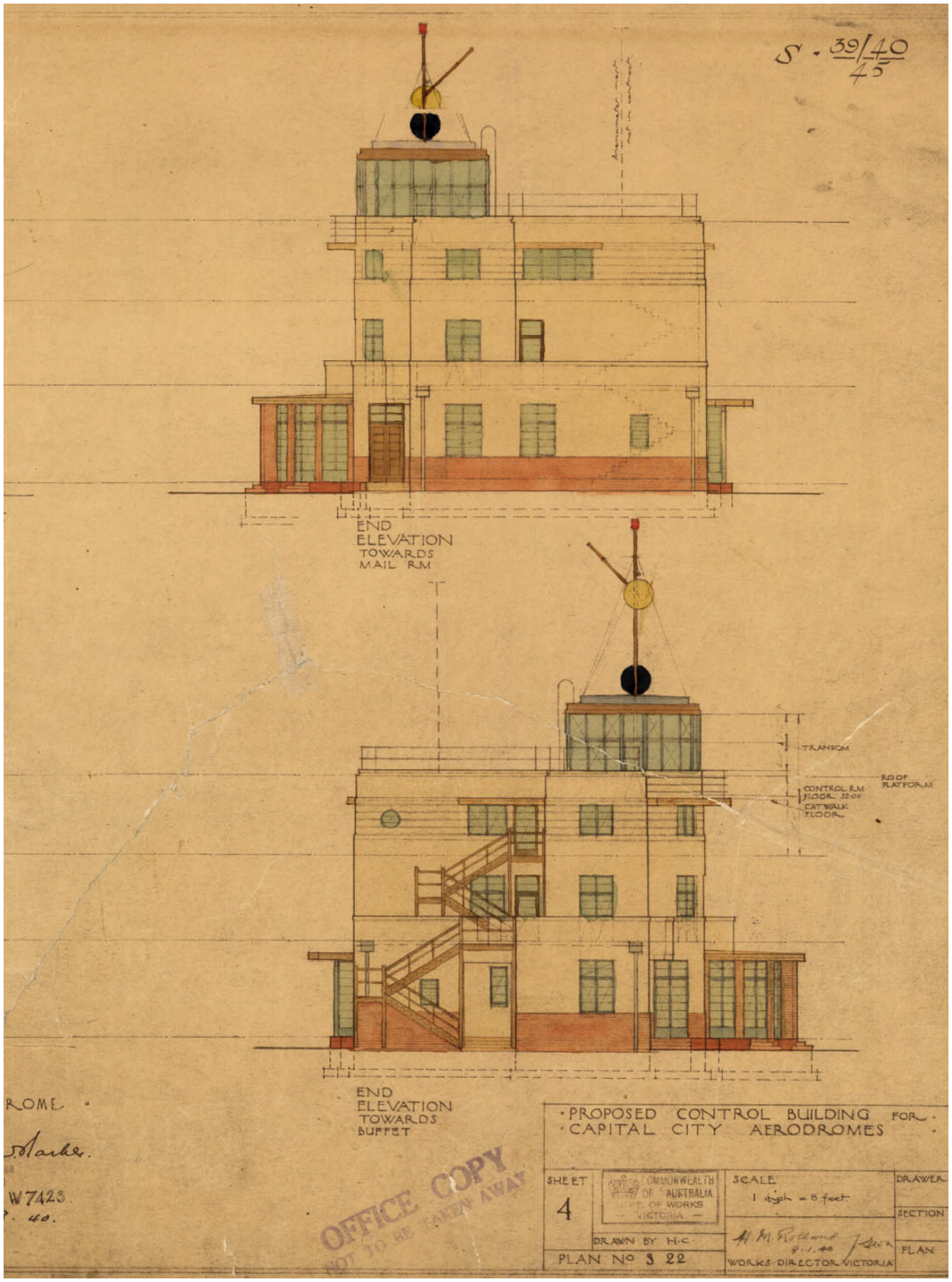

S. 39/40/45
END ELEVATION TOWARDS MAIL RM
TRANSOM
CONTROL RM FLOOR
CATWALK FLOOR
ROOF PLATFORM
END ELEVATION TOWARDS BUFFET
PROPOSED CONTROL BUILDING FOR CAPITAL CITY AERODROMES
SHEET 4
COMMONWEALTH OF AUSTRALIA DEPT. OF WORKS VICTORIA
SCALE 1 inch = 8 feet
DRAWER
SECTION
PLAN
DRAWN BY H.C.
PLAN No S 22
WORKS DIRECTOR VICTORIA
OFFICE COPY NOT TO BE TAKEN AWAY

Figure 66 Archerfield cabin circa. 1974

Source National Archives of Australia

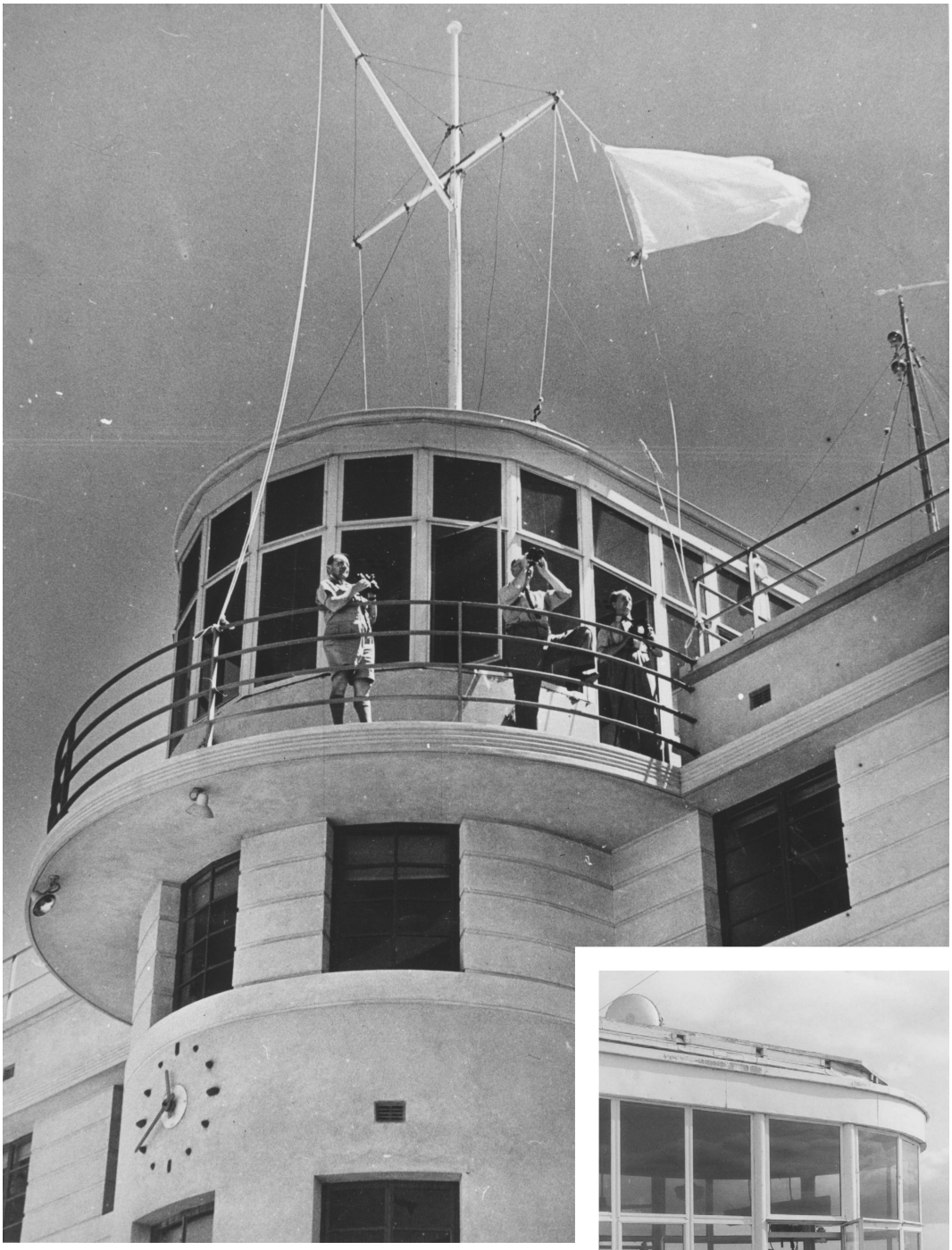


Figure 67 Parafield Ops & Admin building with original cabin, c. 1941

Source National Archives of Australia

Although designed in early 1936, construction of the Ops & Admin buildings did not begin until in 1939. Parafield and Mascot (Figure 70) were completed first, while the Archerfield (Figure 68) building was delayed due to higher than expected tender prices.[90] All three buildings had been commissioned by 1942. Ops & Admin buildings were also planned for Melbourne Airport (Essendon) and Hobart's Cambridge Aerodrome, but these plans were abandoned following the outbreak of World War II.

The late-1930s was the high point for the integrated operations and administration buildings which offer a rare glimpse of the pre-war experience of air travel in Australia. They are also unusual in adopting a distinct architectural style, in this case the Streamlined Moderne style popular in the 1930s. The concept of locating the control tower within a large terminal or administration building did persist into the post-World War II period, notably at Adelaide's new West Torrens airport (the tower was commissioned in 1957, Figure 69). However, the majority of later ATC tower designs are utilitarian by comparison. Parafield, Mascot and Archerfield survive in various states of alteration.

Figure 68 Rear of Archerfield (Brisbane) c. 1940

Source National Archives of Australia

Figure 69 Adelaide-West Torrens (1957): a rare post-World War II example of the integrated terminal and tower type, demolished c. 2005

Source Civil Aviation Historical Society

4.1.4 Parafield, Mascot and Archerfield

As noted previously three integrated administration and air traffic control facilities were constructed at airports across Australia between 1939 and 1941, these being Parafield (Adelaide), Mascot (Sydney) and Archerfield (Brisbane). The three buildings survive but have generally been altered internally and externally as follows:

Parafield

Externally, the principal alteration to this building has been the removal of the original cabin and its replacement in 1981 with a new cabin of considerably greater scale and quite different form. The original cabin was an integral part of the design of the building as a whole, with the treatment of the airside (south) façade reflecting the importance of this element.

Notwithstanding the impact of this change, the three-storey base building remains legible as a Moderne building with 'streamlined' styling including circular windows and horizontal banding. The external fabric survives relatively intact, with minimal modifications to the building in terms of additions and new openings, but with the replacement of most original steel window and door frames with aluminium. The control tower cabin and its square single-storey base are essentially unaltered since construction in 1981.

Internally, there have been extensive modifications to the original fabric and arrangement. These are most evident on the ground and second floors, while the first-floor level is more intact.

The cabin levels of the control tower continue in their original ATC role. The lower floor of the Ops & Admin building facilitates corporate, commercial, general aviation and flight training. The Parafield ATC tower no. 2 is leased by Airservices Australia.

Mascot

The Mascot Ops & Admin building, previously Sydney no. 2, currently known as Building 60 at Sydney Airport has been integrated into the service area at the rear of the Qantas Domestic Terminal. External, the building has been greatly altered to facilitate the integration and modern requirements. While this building has not been inspected, it is understood to have been significantly modified both externally and internally (Figure 70). It currently provides support services for Qantas Domestic Terminal.

Archerfield

In the case of the Archerfield Ops & Admin building (also known as the Archerfield Airport Administration Building), this is generally intact externally other than for the removal of the original ATC cabin and the replacement of the original steel door and window framing in aluminium. It retains more of its interior layout than Parafield at the ground and first floor levels, including the original waiting hall (Figure 70), kiosk and pilot's bathroom (on the first floor). The second floor has been modified and was being fitted out as the offices of the Archerfield Airport Corporation when the building was inspected in mid-2008. As noted control cabin was removed in c. 1975, at around the same time as the new Archerfield ATC tower was completed to the south of the runways. It currently facilitates corporate, commercial and general aviation. The Archerfield airport and its tower were privatised in 1998.

Comparison of intactness and integrity

Alterations	Parafield	Mascot	Archerfield
Additions	New brick store and generator shed to western façade	Building has been incorporated into a modern structure	Extension to ground floor on southern façade
Antenna mast	Removal of original antenna mast	Removal of original antenna mast	Removal of original antenna mast
Window joinery	Most of the original window joinery has been removed and replaced with aluminium	Most of the original window joinery has been removed and replaced with aluminium, additionally, the third-floor windows of the curved bay have been modified and slant outwards from the base to the curved concert window hood	Most of the original window joinery has been removed and replaced with aluminium
Original cabin	Original cabin removed and replaced in 1981	Original cabin removed without replacement	Original cabin removed without replacement
Internal finishes	Internal finishes and fixtures have been modified [part of] Internal space has been divided by modern partitions to facilitate new uses	Building has been incorporated into services area for Qantas Domestic Terminal, assumed finishes and fixtures have been modified	Internal floor finishes and fixtures remain predominantly intact Internal space remains predominantly intact

Table 2 Summary and comparison of alterations to the three Ops & Admin buildings

Figure 70 Mascot, Sydney No.2 Ops & Admin building at top of page; Archerfield Ops & Admin building below

Source State Library of New South Wales (top); National Archives of Australia (bottom)

Figure 71 Kiosk at the end of the central concourse at Archerfield

Summary

Of the three surviving Ops & Admin buildings, the Archerfield example is the Mostly intact internally and externally. Its cabin has been removed, but most of the internal finishes and fixtures remain. By contrast Mascot is the most altered. Parafield is unique in the group in still accommodating its air traffic control function, a service that it has provided since 1940, (other than for a period in 1980-81, when a temporary tower was installed during the works to replace the original cabin).

4.1.5 The Streamline Moderne in Australia

The roots of Streamline Moderne lay in German Modernist designs of the 1920s such as Erich Mendelsohn's remodelling of the Mossehaus (Berlin 1921-3) as a curving corner landmark (Figure 72). The style arose from concepts of movement and speed and developed with the rise of commercial- particularly air- travel. The approach supplanted the sharp angles and applied ornament of the earlier buildings with fluid forms and simple aerodynamic curves. Materials were modern, and buildings consisted of industrial products and machine-made components- glass, steel and expanses of cement render. The style was embraced across the world through the 1930s.

Key features of the Streamline Moderne include:

- Simple geometric building volumes
- Grooves or 'streamlines' in smooth rendered surfaces emphasising the horizontality of buildings
- Rounded corner suggesting the aerodynamic surfaces of ocean liners, aircraft and sports cars
- Corner, ribbon and porthole windows
- Flat roofs
- Asymmetrical facades
- Lack of ornamentation
- Tubular steel handrails

The style became fashionable for commercial buildings such as retail, office blocks, car showrooms, cinemas and for buildings relating to land (Figure 73), sea and air travel from Charles Holden's Southgate Tube station (London, 1932, Figure 72) to WS Arrasmith's Greyhound bus terminal (Cleveland, Ohio, 1948, Figure 73). The Streamline Moderne extended to residential architecture, giving rise to a number of extraordinary designs during the 1930s and forming the basis for the waterfall fronted bungalows of the mid-twentieth century.

Figure 72 Remodelling of the Mossehaus, Berlin, Erich Mendelsohn, architect, September 1923 at top; Southgate Tube Station London, Charles Holden, architect, 1932, at bottom

Source https://twitter.com/gcarabi/status/840617539126325248 (top); http://www.bowesandbounds.org/profiles/blogs/southgate-station-s-eightieth-anniversary (bottom)

Australia was slow to embrace the new style although an early evocation of the mode appeared as AJ Ralton's student project, 'An air-port control station' in 1930 (Figure 74). As noted by Apperly, the best built examples were produced by 'young architects who in the depression years of the early 1930s had made pilgrimages to Europe, the fountainhead of modernism. Back home, they were able to design reasonably convincing buildings in the new style'.[91] Migration as a result of the impending war in Europe also brought émigré architects with experience in the Moderne style arriving in Australia.

Figure 73 Greyhound bus terminal, Cleveland, Ohio, 1948, WS Arrasmith architect

Source https://hiveminer.com/Tags/greyhound%2Cohio

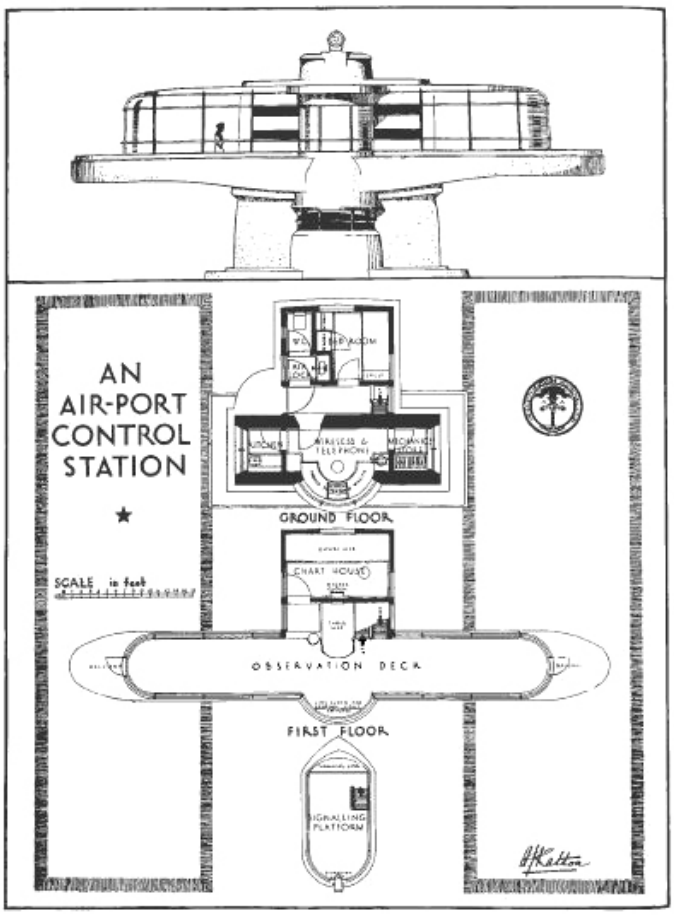


Figure 74 An Air-port control tower, AJ Ralton, designer, 1930

Source Australian Architecture 1901-51: Sources of Modernism, Donald Leslie Johnson, pg. 94

One of the earliest examples of the Streamline Moderne in Australia is Burnham Beeches, a mansion located 45 kms east of Melbourne (Figure 75). It was built between 1931-1933 for the Nicholas family by architect Harry Norris. Norris had toured Europe and America in 1929 to undertake research that would inform his designs for the Coles stores. The design of Burnham Beeches is reminiscent of an ocean liner with wrought-iron work and decorative moulded relief panels adorning the residence's white walls. Norris' Mitchell House in Melbourne (1937) is considered a high point of the Streamline Moderne.

The Raffles Hotel, Perth was constructed in 1896, but extensively remodelled in 1937 by architect William G Bennett in the Streamline Moderne style. It made reference to its riverside context with emphasis on horizontal lines and nautical forms (Figure 76 Figure 76). A more commercial version of the style appeared at the Piccadilly Cinema in North Adelaide. It was constructed in 1940 at the height of the Streamline Moderne in Australia (Figure 77). The building was designed by architects Jack Evans, Greg Bruer, and James Hall in conjunction with Sydney architects Guy Crick and Bruce Furse. The main architectural features include the expressed curving form of the main staircase and broad cantilevering verandah. The curved form incorporates chevron and port hole windows emphasized by horizontal shading elements.

Figure 75 Burnham Beeches, Harry Norris, architect, 1931-33; image taken in 1947

Source http://www.trustadvocate.org.au/burnham-beeches-development-history/

Summary

The integrated Ops & Admin building at Parafield is typical of the Streamline Moderne style as it emerged in Australia. Locally, the mode adopted a less exuberant character than that found in the international context with a tendency towards formality and gravitas. As such, the Parafield Ops & Admin building is a good, representative example incorporating the curving corners, roof decks and hovering canopies that typify the mode. It was constructed in 1939-40 during the 'heyday' of the Streamline Moderne in Australia. However, at the time of its design in 1936, the ATC was a pioneering example of the movement locally, adopting a forward-looking attitude and preceded by a small number of local designs- notably early works by Harry Norris. While lacking the glamour of Burnham Beeches or the cinemas and hotels in the mode (and diminished by the loss of its original cabin) it remains a capable and handsome example which illustrates the development of the Streamline Moderne in Australia.

Figure 76 Raffles Hotel, Perth, William G. Bennett, architect, c. 1939

Source http://perth.locanto.com.au/ID_808917619/Best-Waterfront-Pub-In-Perth-The-Raffles.html

Figure 77 Piccadilly Cinema, North Adelaide, Jack Evans, Greg Bruer, and James Hall in conjunction with Guy Crick and Bruce Furse, architects, c. 1940

Source http://cinematreasures.org/theaters/27038

4.2 Analysis of cultural heritage values

This section provides an assessment of the evidence presented above and in chapters 2 and 3 against the Commonwealth Heritage criteria.

4.2.1 Analysis of historic value

The analysis of evidence of historic value is made against the following Commonwealth Heritage criteria:

> ***Criterion A:*** *the place has significant heritage value because of the place's importance in the course, or pattern, of Australia's natural or cultural history*
>
> ***Criterion B:*** *the place has significant heritage value because of the place's possession of uncommon, rare or endangered aspects of Australia's natural or cultural history*
>
> ***Criterion H:*** *the place has significant heritage value because of the place's special association with the life or works of a person, or group of persons, of importance in Australia's natural or cultural history*

The Parafield Ops & Admin building satisfies the CHL criteria for historical significance for its association with the first national initiative to introduce a standardised ATC tower typology responding to the new mode of transport at major airfields in Australia. The initiative was undertaken by the DCA for the Australian Government and was a response to the report on the *Kyeema* Accident Inquiry.[92] Designs for an integrated terminal/administration/control tower building began in 1936. Three almost identical integrated Ops & Admin buildings were constructed at major airports in Australian capital cities between 1939 and 1941, the others being Mascot (near Sydney) and Archerfield (near Brisbane).

The Parafield example is distinguished from those at Archerfield and Mascot in that it retains its original function, albeit with a 1981 cabin. It is likely that the building has been associated with the provision of air traffic control for longer than any other surviving building in Australia.

The Parafield ATC tower no. 2 plays a role in the emergence and brief flowering of the Streamline Moderne in Australia. The Ops & Admin building was designed in 1936, although not constructed until 1939-40. At that time, the ATC tower was a particularly early example of the mode in Australia. While drawing heavily on the expression of similar buildings overseas, Parafield integrated Ops & Admin building was a 'pioneering' and capable example of this expression as it emerged in Australia.

The Parafield Ops & Admin building is a rare survivor of pre-WWII air traffic facilities in Australia. Additionally, it is one of only three structures constructed in Australia between 1939-1941 that followed the international trend of integrated Ops & Admin buildings. All three survive in various states of intactness, and are considered rare in a national context, both in terms of early air traffic control facilities and, more broadly, early aviation facilities.

Parafield is of some local significance in the development of civilian air travel in South Australia. The Aerodrome was established in 1927 and was Adelaide's primary airfield (1927-1955), facilitating numerous pioneer aviators and visiting dignitaries. While of interest, these associations relate to the place as a whole and no significant associations have been identified to date with the former Ops & Admin building.

4.2.2 Analysis of scientific value

The analysis of evidence of scientific value is made against the following Commonwealth Heritage criterion:

> *Criterion C: the place has significant heritage value because of the place's potential to yield information that will contribute to an understanding of Australia's natural or cultural history*

As noted, the Parafield Ops & Admin building was part of a national initiative to improve air safety and provide a standard integrated terminal/administration/control tower structure that could be incorporated into aerodromes across Australia. Although the original cabin has been removed there exists some potential for the building to yield information about a significant period in the evolution of modern air safety in Australia- particularly when considered in conjunction with documentary evidence such as early plans and photographs as provided oi this document.

Parafield ATC tower it is not considered to meet criterion C at a level that is indicative of Commonwealth heritage values.

4.2.3 Analysis of aesthetic/architectural value

The analysis of evidence of aesthetic value is made against the relevant Commonwealth Heritage criteria specifically:

> *Criterion D: the place has significant heritage value because of the place's importance in demonstrating the principal characteristics of:*
>
> › *a class of Australia's natural or cultural places*
>
> › *a class of Australia's natural or cultural environments*
>
> *Criterion E: the place has significant heritage value because of the place's importance in exhibiting particular aesthetic characteristics valued by a community or cultural group*
>
> *Criterion F: the place has significant heritage value because of the place's importance in demonstrating a high degree of creative or technical achievement at a particular period*

Parafield Ops & Admin building demonstrates the principal characteristics of an integrated administration and air traffic control building constructed in Australia during the late inter-war period. All three buildings constructed survive, albeit with varying degrees of alteration and intactness, with Archerfield considered to be the most intact overall and Mascot the most altered. Significantly, all three have been altered through the removal of the original control cabin.

In addition to the loss of its original cabin, Parafield is the only example to have had a modern control cabin added, and this addition has had a substantial impact on its presentation and legibility. Notwithstanding this, in consideration of the rarity of this particular building typology and the fact that the other surviving examples are also modified, the building is considered to be a representative example.

Further to this, it is noted that the construction of the modern cabin has diminished an understanding of the original appearance of the ATC tower. Nonetheless, the modern cabin aids in the interpretation and understanding of the original and ongoing use of the building. While its fabric dates from the 1980s, the present form of the cabin contributes to legibility of the tower.

Architecturally and aesthetically the building stands as an example of inter-war Streamlined Moderne design which as constructed had formal clarity, was strongly expressive of its function and was a building of some presence. The use of the Streamlined Moderne for a building of this nature is of interest in that it is suggestive of a link between progressive technologies (air travel) and a particular aesthetic which itself related to movement and in development in aerodynamic and structural design. Notwithstanding, when considered in the context of International examples of this style, the Parafield Ops & Admin building is considered to be a relatively staid example which has been compromised by alterations and additions, including not only the addition of a later cabin but also the replacement of the original multi-paned steel windows.

No evidence of the aesthetic characteristics being valued by a community or cultural group was identified in the research for this Heritage Management Plan.

With regards to Criterion F, as constructed, the Ops & Admin building at Parafield was an interesting example of an integrated facility that expressed its function and operation. Its construction is associated with a major upgrade and standardisation of air traffic facilities and services across Australia during the 1930-1940s. Additionally, the design reflects the streamline Moderne style that responded to technical and service requirements of the period. However, the legibility of the Moderne building has been compromised by later alterations, notably the loss of the original cabin.

4.2.4 Analysis of social value

The analysis of evidence of social value is made against the relevant Commonwealth Heritage criterion specifically:

> *Criterion G: the place has significant heritage value because of the place's strong or special association with a particular community or cultural group for social, cultural or spiritual reasons.*
>
> *Criterion I: the place has significant heritage value because of the place's importance as part of Indigenous tradition.*

Parafield is of interest to specialist aviation groups and may hold social value to current or former employees, however, no associations of this nature that would indicate that the building satisfies the threshold for Commonwealth Heritage significance came to light during research for this Heritage Management Plan.

Parafield Airport is not in an identified area of Aboriginal cultural heritage sensitivity, and there is no evidence that the Ops & Admin building is significant because of its importance as part of Indigenous tradition.

4.3 Statement of significance

The summary statement of significance provided as part of the Commonwealth Heritage List citation is reproduced below:

> The Parafield Air Traffic Control (ATC) tower (former Operations and Administration Building) is of historical significance in a national context for its associations with a key phase in the development of air traffic control services and airport facilities in Australia. It is also of significance as a rare early surviving example of a building designed for the purposes of air traffic control (integrated with other administrative and terminal facilities). Despite significant alterations, including the replacement of the original cabin, sufficient of the fabric survives to suggest the original form and design of Australia's first national standardised model of air traffic control buildings.
>
> The Parafield ATC tower is one of three almost identical integrated Operations and Administration buildings constructed at major airports in Australian capital cities between 1939 and 1941 (the others were at Mascot (Sydney) and Archerfield (Brisbane)). The model was also proposed for the other capital city airports, including Essendon Aerodrome (Melbourne) and Cambridge Aerodrome (Hobart), but not built due to the outbreak of World War II. In their integration of air traffic control functions with administrative and terminal facilities, these 'Ops & Admin' buildings were designed to respond both to increased civilian air traffic from the mid-1930s and a need to improve safety and aircraft management, following several aircraft losses. They represented a major development in the Department of Civil Aviation's provision of air traffic control and terminal facilities and services for the travelling public and airline industry staff in the period immediately prior to World War II.
>
> The new buildings drew on overseas integrated terminal models such as Cleveland Municipal Airport (c. early 1930s), and Newark International Airport (1934). In the Australian context they marked a significant departure from the form and design of earlier air traffic control towers, which had been relatively rudimentary and impermanent by comparison.
>
> All three examples of the Australian Ops & Admin buildings survive in various states of alteration. They are all associated with, and are to a greater or lesser degree demonstrative of, this important phase in the history of civil aviation in Australia. Of the other surviving buildings, the Archerfield example is the most intact, both externally and internally, while Mascot is thought to be the most altered. The original control tower cabins have been removed from all three and not replaced at either Archerfield or Mascot. In the case of Parafield, the original control tower cabin has been replaced with a much larger 1981 cabin and the original steel window and door framing has generally been replaced with aluminium. Internally, the building is extensively altered both in terms of planning and fabric. While not the most intact of the three, it is likely that the Parafield building has been associated with the provision of air traffic control for longer than any other surviving building in Australia.

On the basis of the detailed analysis undertaken in this Chapter, the following, updated, statement of significance has been produced.

What is significant?

The Ops & Admin building at Parafield Airport was designed in 1936, and constructed in 1939-1941. The original rooftop cabin, designed to accommodate air traffic controllers, was replaced in 1981. The remnant base building comprises a symmetrical, three-storey rendered brick air terminal, with a stepped presentation to the airfield. It adopts a Streamline Moderne expression incorporating the curving corners, roof decks and hovering canopies that typify the mode.

How is it significant?

The Ops & Admin building at Parafield Airport is of historical significance to Australia (CHL Criterion A), possessing rare aspects of its cultural history (CHL Criterion B). It is also significant for demonstrating the principal characteristics of airport integrated Ops & Admin buildings of the interwar period (CHL criterion D).

Why is it significant?

It is of historical significance in a national context for its associations with a key phase in the development of air traffic control services and airport facilities in Australia. It is also of significance as a rare early surviving example of a building designed for the purposes of air traffic control (integrated with other administrative and terminal facilities). Despite significant alterations, sufficient original fabric survives to explain the original form and design of Australia's first national standardised model of air traffic control buildings.

The Parafield ATC tower is one of three almost identical integrated Ops & Admin buildings constructed at major airports in Australian capital cities between 1939 and 1941 (the others were at Mascot, near Sydney, and Archerfield, near Brisbane. In their integration of air traffic control functions with administrative and terminal facilities, these Ops & Admin buildings provided a response both to increased civilian air traffic from the mid-1930s and a need to improve safety and aircraft management, following several aircraft losses. The new buildings drew on overseas integrated terminal models. In the Australian context they marked a significant departure from the form and design of earlier air traffic control towers, which had been relatively rudimentary and impermanent by comparison. As such, they represented a major development in the Department of Civil Aviation's provision of air traffic control and terminal facilities and services for the travelling public and airline industry staff in the period immediately prior to World War II.

While the Parafield Air Traffic Control (ATC) tower is significant to the extent of the remnant sections of the former Ops & Admin building, the modern cabin allows the ongoing use to remain legible. Original steel window and door framing has generally been replaced with aluminium. Internally, the building is extensively altered both in terms of planning and fabric. While less intact than ATC towers, it is likely that the Parafield building has been associated with the provision of air traffic control for longer than any other surviving building in Australia.

4.3.1 Commonwealth heritage values and attributes

The table below (Table 3) identifies Commonwealth Heritage values and related attributes at Parafield ATC tower no. 2.

Table 3 Commonwealth Heritage values and related attributes

Criteria	Values	Attributes
(A) History	The historical importance of the integrated Ops & Admin building at Parafield rests in its association with the first national initiative to introduce a standard typology responding to air travel. Additionally, it represents a major development in the provisions of air traffic control and terminal facilities and services for passengers and staff in Australia immediately prior to World War II. It is one of three Ops & Admin buildings constructed prior to World War II and is distinguished from Archerfield and Mascot in that it retains its original function, albeit with a 1981 cabin. It is likely that the Ops & Admin building at Parafield has been associated with the provision of air traffic control for longer than any other surviving building in Australia.	This value is evident in the Streamline Moderne three-storey, stepped Ops & Admin building. The 1981 cabin provides a useful aid to an understanding of the role of the building but is not in itself a significant element within the context of the values identified at left. The interiors of the building have been substantially altered and the layout and functionality of the 'standard typology' is no longer evident at the key ground floor level which provided the key public spaces of the building from 1940-1955 (apart from an interlude during WWII). The internal planning and some early features survive at first floor level although this largely comprises pilots' recreation spaces which are not central to the operations of the place. The third floor has been altered but continues its original role providing communications and information services to the cabin above. On this basis, the interiors are seen to be of a lower order of significance than the external volume of the building.

Criteria	Values	Attributes
(B) Rarity	Parafield Ops & Admin building is one of three prototypes that formed part of Australia's first national standardised model of air traffic control buildings constructed from 1939-1942. It is the only one of the three to retain its original function. Parafield airport was Adelaide's principle airport until 1955. The building is of local significance as an unusual building type illustrating the early role of the airport.	This value is evident in the form and architectural expression of the three-storey, Streamline Moderne, Ops and Admin building. The 1981 cabin provides a useful aid to an understanding of the building – particularly its continuing use- but is not in itself a significant element within the context of the values identified at left.
(D) Characteristic values	The Parafield Ops & Admin building is a representative example of an integrated administration and air traffic control building constructed in Australia prior to World War II. Of the three buildings constructed, Parafield is the only example to have had a modern control cabin added, however, this has allowed it to maintain its original control tower functions. Parafield building has been associated with the provision of air traffic control for longer than any other surviving building in Australia.	The early role of the building is evident in the form, siting and to a lesser degree, planning of the building. This value is evident in the form and architectural expression of the three-storey, Streamline Moderne, Ops & Admin building. The 1981 cabin provides a useful aid to an understanding of the building – particularly its continuing use- but is not in itself a significant element within the context of the values identified at left. The legibility of the role is evident though its privileged position at the termination of Anderson Road which permits unimpeded views from the cabin to the apron and runways allowing supervision of traffic movements. The remnant of the internal public concourse and its projecting semi-circular bay providing facilities for boarding and disembarkation by providing at grade access to the apron allows the building's role as Adelaide's primary civilian airport until 1955 to remain legible.

4.4 Levels of significance

In the following section the individual elements of the place are assessed for their relative significance, based on the contribution they make to the overall significance of the place, including their original or early fabric and use, and their relative levels of intactness. This assessment provides a framework for the conservation policies and recommended treatment of fabric and elements included in Chapter 6.

The three levels of significance for Parafield ATC tower are defined below. In this instance, the categories of 'primary', 'contributory' and 'little or no' significance have been applied.

4.4.1 Significant elements

Elements of primary significance

Spaces, elements and fabric of primary significance make a substantial contribution to the overall significance of the place. These elements contribute in a fundamental way to an understanding of the heritage values identified above. They are likely to include original or early fabric (as described in the physical survey at Chapter 3), to be representative of the original or early design and use of the place and to be critical to an understanding of the historical function and operation of the place. Spaces, elements and fabric of primary significance are predominantly intact to their period of construction, although some areas may have undergone limited alteration or modification.

External elements and fabric of primary significance include:

- All external masonry walls including external render, canopies and decorative detailing- notably streamline devices to the upper levels and winged logo of the Department of Civil Aviation above the entry
- The form and arrangement of original window and door openings
- The remnant base of the original 1939-40 cabin located at roof level above the Tower Controller's Office
- Original window joinery which survives to a very limited extent as discussed in Chapter 3
- Roof decks and balustrades at first floor level to the east and west of the building- although the modern trafficable rubberized surface is not, itself, a significant element
- Original tubular steel handrailing to decks and platforms in the upper sections of the ATC
- Original rainwater heads and downpipes near the corners of the building

Internal spaces, elements and fabric of primary significance:

- No interior spaces have been identified as being of primary significance although a small number of original internal elements survive as discussed below.

Elements and spaces of primary significance are identified at Figure 78, Figure 79 and Figure 80.

Elements of contributory significance

Individual spaces, elements or fabric of contributory significance make a moderate (or lesser) contribution to the overall significance of the place. These elements may also be associated with the Parafield ATC tower in a secondary or supporting way. They can include utilitarian elements or spaces, elements or fabric which have been modified or altered and are less intact than elements of high significance. These elements preferably should be retained, but provide greater flexibility with regard to potential removal, alteration and change, subject also to other relevant policies in this HMP.

External elements and fabric of primary significance include:

- Roof above the second floor with the exception of fabric dating from the construction of the two-level cabin in 1981 or later

Internal elements and spaces of contributory significance include:

- Stairwells, stair cases and balustrades to the east of the main entry
- Tower Controller's office

It is noted that, at various locations, internal room volumes remain legible although some internal fabric such as dividing walls, cornices or skirtings have been removed. Generally, these spaces survive as a record of the planning rather than retaining the early character of the ATC tower. As such, further change may be accommodated in these spaces. Alterations to these areas should have regard to impacts on the limited original fabric identified at Chapter 3 of this HMP and the policies provided at Chapter 6.

Although the two cabin levels contain no early fabric and future change and adaptation raise no issues, the structure is central to the legibility of the ATC tower. Unlike much contributory fabric, complete demolition would raise no substantial issues, where the demolition would allow the construction of a replacement element that would permit the valued use of the ATC tower to continue. This is discussed further in Chapter 6.

Elements and spaces of contributory significance are identified at Figure 78, Figure 79 and Figure 80.

Elements of little or no significance

Spaces, elements and fabric of little or no significance at the Parafield ATC make a limited or negligible contribution to the overall significance of the place. These include elements which are not original and have limited intrinsic quality or significance, as well as elements that have undergone substantial alterations and change. In some instances, these elements- notable the 1981 cabin above the Ops & Admin building of 1939-40- may have compromise the presentation of the place or areas within it.

Elements of little or no significance include:

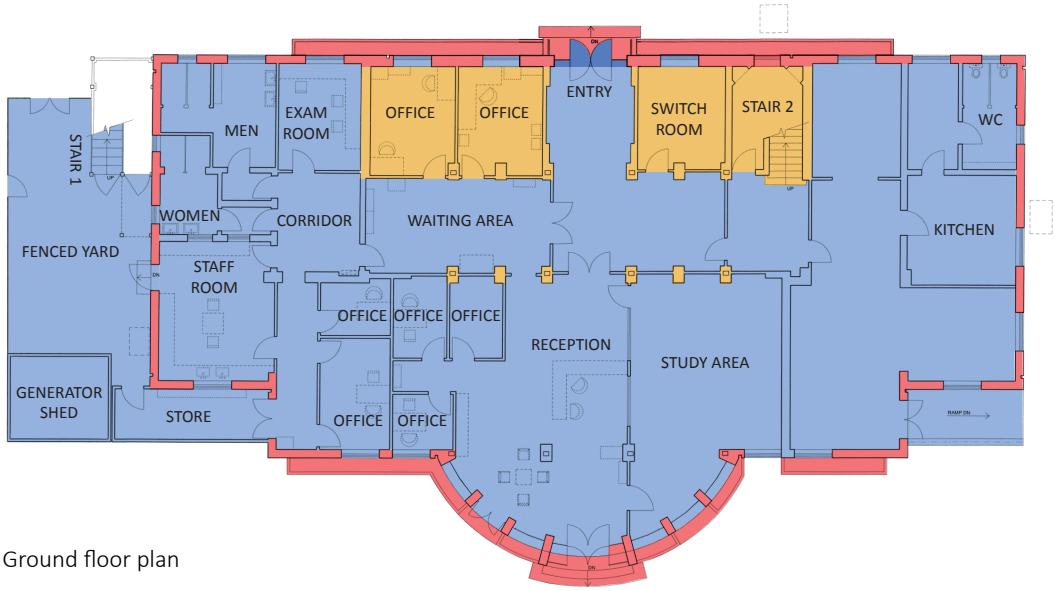
- Rooftop cabin additions of 1981 have been assessed as being of little or no significance. While they form part of the evolved building these do not embody any aspects of the historical significance identified above. The works represent a straightforward response to the requirement for improved facilities in that period but have not added another 'layer' of significance to the place. This notwithstanding, the additions allow the original and ongoing use to remain legible
- Interior fabric and spaces apart from those noted above
- Large additions of the relatively recent past including:
  - External steel stairs in the western sections of the building, brick store, generator shed, fenced yard.
- More modest external addition of the recent past including air conditioner units, conduits and the like
- Modern decks at roof and cabin level
- Replacement windows at ground, first and second floor levels

Elements and spaces of contributory significance are identified at Figure 78, Figure 79 and Figure 80.

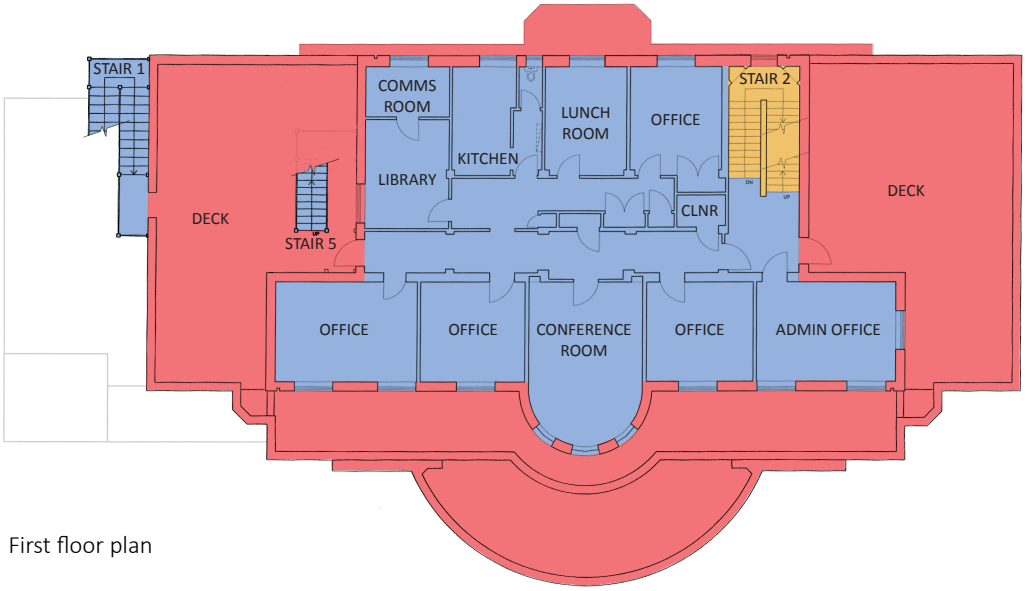
Figure 78 Ground and first floor; levels of significance

Levels of significance

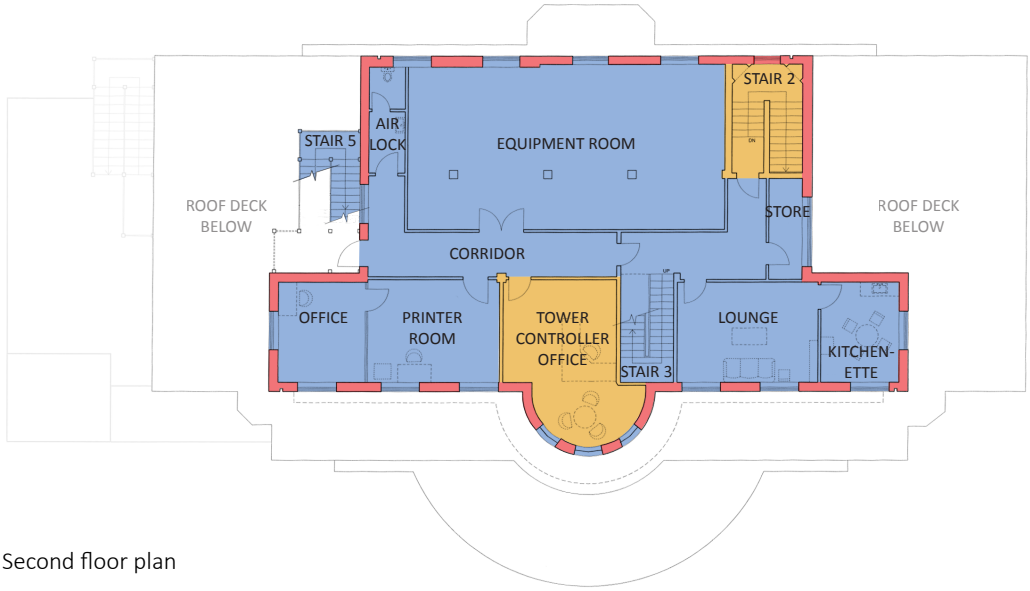
- Primary
- Contributory
- Little or no



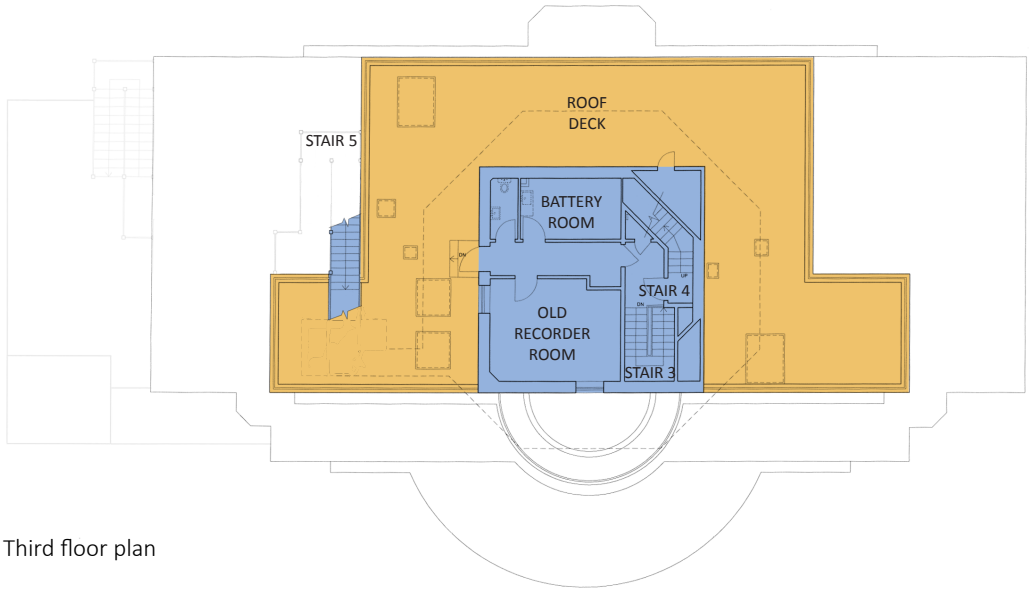
Ground floor plan



First floor plan



Second floor plan



Third floor plan

Figure 79 Second and third floor; levels of significance

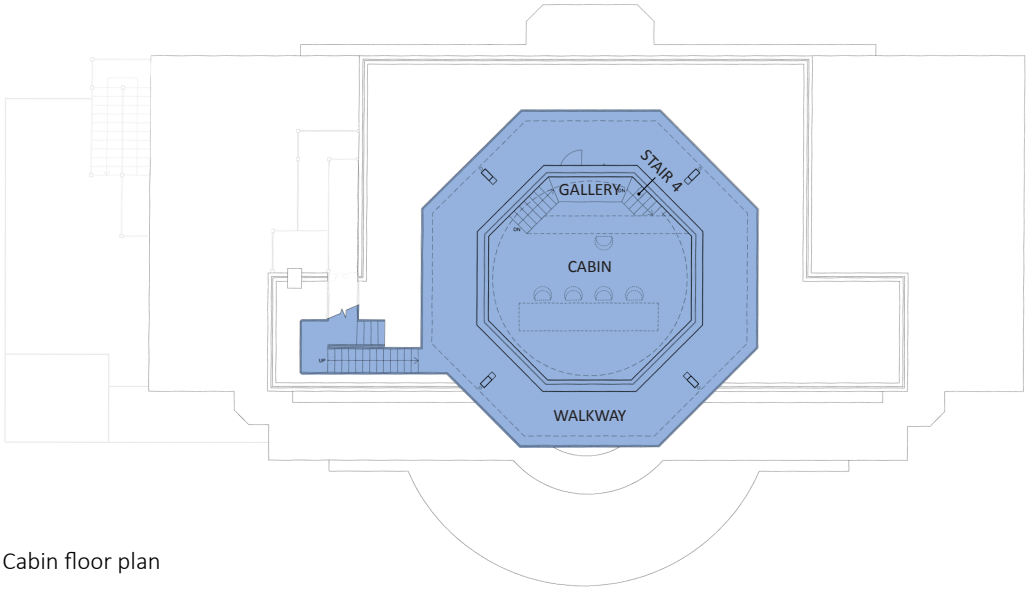
Levels of significance

- Primary
- Contributory
- Little or no

Figure 80 Cabin; levels of significance

Levels of significance

- Primary
- Contributory
- Little or no



Cabin floor plan

5.0 OPPORTUNITIES AND CONSTRAINTS

The following establishes a framework for the conservation policy at Chapter 6.

5.1 Implications arising from significance

It is noted at Chapter 4 that the Parafield Operations and Administration building is of historical significance (Criterion A) to Australia for its association with the earliest developments in the provisions of air traffic control and terminal facilities in Australia. It is one of three 'Ops and Admin' buildings constructed prior to World War II. In addition, it demonstrates rarity (Criterion B) as one of only three prototypes for Australia's first national standardised model of air traffic control buildings and is the only one of the three to retain its original function. It is also a representative example (Criterion D) of an early integrated administration and air traffic control tower. Of the three such towers constructed in 1939-41, Parafield is the only example to have had a modern cabin added.

The implication arising from this assessment is that key aspects of the place should be conserved to retain this significance. The key features requiring conservation include:

- The external presentation of the building, as a free-standing structure which is recognisable as a control tower primarily as a consequence of its octagonal cabin. The fabric of the cabin is of no intrinsic significance
- The building's Streamline Moderne design aesthetic, which is evocative of its design and development in the lead-up to World War II
- Some internal planning arrangements and remnant features which contribute to an understanding of the original role of the building
- Unimpeded lines of sight from the cabin to the apron and runways

5.2 Legislative requirements

5.2.1 Airports Act 1996 (Australia)

The Department of Infrastructure, Transport and Regional Development (DITRD) owns 21 federally leased airports in Australia, including Parafield. These airports are leased to long-term airport lessee companies (ALCs). In the case of Parafield, the lessee is Airservices Australia. DITRD takes on a regulatory role managing these airports through the *Airports Act 1996* and, with respect to the environment, *the Airports (Environment Protection) Regulations 1997*. The management of heritage places at federally-leased airports is subject to controls under both the EPBC Act and the Airports Act.

The *Airports Act* requires that a Master Plan be prepared for each airport that, 'incorporates an Environment Strategy. The Master Plan is a 20-year strategic vision for the airport site which is renewed every five years. The Master Plan includes future land uses, types of permitted development, and noise and environmental impacts. The Environment Strategy sets out the airport's strategy to manage environmental issues within a five-year period and beyond. It is the basis on which the Commonwealth measures the environmental performance of airports and the document by which airport tenants will determine their environmental responsibilities.'[93] Further, DITRD's Heritage Strategy (2016) places responsibility for management of heritage assets, including the preparation of management plans for Commonwealth Heritage places, with the ALCs. In the case of sub-lessees on a federally leased airport (in this case Airservices Australia), the ALC is obliged to work collaboratively in managing heritage values at the airport.

A preliminary draft of the Parafield Airport Masterplan was prepared in July 2017 in accordance with the requirements of the *Airports Act 1996*. The Public Consultation Phase for the Preliminary Draft closed on 18 October 2017. Once approved by the Minister, the document will provide objectives for the airport for the period November 2017 to November 2022.[94] The Environmental Strategy (2013-2018) included in the Master Plan includes consideration of heritage at the airport (including Indigenous cultural heritage) and recognises that the EPBC Act 1999 applies to Parafield Airport (refer below).

Management of heritage values

The management of development at airports is controlled by the *Airports Act 1996*. Under Part 5- Land Use, Planning and Building Controls – of the Act, a Major Development Plan is required for significant developments at airports, including where the development is likely to have a significant environmental or ecological impact. Where a development proposal may constitute a Controlled Action (an action that is likely to have a significant impact on a matter of national and/or Commonwealth environmental significance) the development should be referred to the Minister for the Environment under Section 68 of the EPBC Act (see below).[95]

In addition, building and construction activities at leased federal airports must be approved by the Airport Building Controller (ABC). The ABC is appointed under Commonwealth law to administer the airport building control regime.[96]

5.2.2 *Environment Protection and Biodiversity Conservation Act 1999* (Australia)

The EPBC Act provides a legal framework to protect and manage nationally and internationally important flora, fauna, ecological communities and heritage places—defined in the EPBC Act as matters of national environmental significance.[97] The Act imposes obligations on Commonwealth agencies to protect and maintain the environment, including the cultural heritage values, of assets that they own or lease.

Section 341ZA of the EPBC Act requires that Commonwealth Agencies prepare a Heritage Strategy to provide for the management of any place which has, or might have, one or more Commonwealth Heritage values. Airservices Heritage Management Strategy 2014-2017 identifies how Airservices will meet its heritage responsibilities under the EPBC Act. The objectives of this strategy primarily relate to:

- ensuring continued integration of heritage management into Airservices corporate planning framework
- educating and training Airservices staff to be aware of their heritage obligations
- continuing the programme of identifying and assessing likely Commonwealth heritage values of places owned or controlled by Airservices
- ensuring effective inter-governmental, aviation industry and community consultation, and conflict resolution processes exist in relation to heritage matters
- maintaining a register of heritage places under Airservices ownership and control.[98]

The Regulations to the EPBC Act, at Schedules 7A and 7B, identify matters to be addressed in a HMP for places included in the CHL – including the Parafield ATC.

As noted in Chapter 1, the ATC tower is also the only element at Parafield Airport to be included in the CHL. As such, its management must be in accordance with sections 26 and 28 of the EPBC Act.

The provisions of the EPBC Act provide protection of the Commonwealth Heritage values of all places which are either entirely within a Commonwealth area or are owned or leased by the Commonwealth or a Commonwealth Authority, including but not limited to places which are included in the CHL. Should Airservices Australia end its lease and cease to operate or function from within the Essendon ATC tower, or if Essendon Airport is no longer Commonwealth owned or controlled, the above statutory framework would cease to apply.

Management of heritage values

Any place which is either entirely within a Commonwealth area or is owned or leased by the Commonwealth or a Commonwealth Authority is protected by the EPBC Act, regardless of whether it is included on the CHL. Generally, any action which will have a significant impact on the environment of a Commonwealth Heritage Place, including Commonwealth Heritage values, requires approval of the Minister for the Environment. If an agency is unsure that a proposed action will result in a significant impact it can refer the proposal to the Minister for a determination. The decision on whether to refer a proposal is a matter for the agency concerned, being a matter of judgement as to whether the action could have a significant impact on heritage values.

However, Section 9(1) of the EPBC Act states that this Act does not affect the operation of the *Airports Act 1996*. As such, if an action is likely to have a significant impact on the environment of a listed place, this action requires assessment and approval under the Airports Act and associated Regulations rather than the EPBC Act. As outlined in Section 5.2.1 where a development proposal may constitute a controlled action, this development may be referred to the Minister for the Environment under Section 68 of the EPBC Act, however 'where there are processes in place under the Airports Act, airports use these rather than referral process under the EPBC Act.'[99]

5.2.3 *Air Services Act 1995* (Australia)

The *Air Services Act* 1995 establishes Airservices Australia which provides air traffic services, aeronautical information, radio navigation and telecommunications services and rescue and fire-fighting services at federal airports. Section 8 subsection 1 (m) of the Act states that Airservices Australia is responsible for carrying out activities to protect the environment from the effects of, and effects associated with, the operation of Commonwealth jurisdiction aircraft.

5.2.4 *National Construction Code*

The National Construction Code (NCC) provides the minimum necessary requirements for safety, health, amenity and sustainability in the design and construction of new buildings, and new work in existing buildings, throughout Australia. The NCC was developed to incorporate all on-site construction requirements into a single code. It covers the Building Code of Australia and Plumbing Code of Australia and is managed by the Australian Building Codes Board (ABCB).

The NCC provides a nationally accepted and uniform approach to technical requirements for the building industry. It contains provisions for the design and construction of buildings and other structures, covering such matters as structure, fire resistance, access and egress, environmental sustainability, services and equipment and aspects of health and amenity.

In cases of existing buildings undergoing alterations and/or additions, some discretion may be available with regard to upgrading the existing part of the building to meet the NCC.

5.2.5 *Disability Discrimination Act 1992* (Australia)

The *Disability Discrimination Act* makes it illegal to discriminate against a person on the basis of their disability. It is not specifically about buildings, but it has an effect on buildings in which the design and construction prevents access by people with a disability, as the owners of those buildings are deemed to be discriminating against people on the basis of a disability.

The DDA is philosophical in approach and:

- Is complaints based
- Has no construction standards
- Applies to actions of discrimination wherever they occur
- Can apply retrospectively to both new and existing buildings, wherever the discrimination occurs

On 1 May 2011, the Disability (access to Premises – Buildings) Standards (Premises Standards) took effect under the *Disability Discrimination Act 1992*.

Commonwealth agencies are bound to meet the objectives of the DDA as far as possible. In the context of Parafield ATC, a key implication will relate to vertical access: the staircase is very narrow, and there is no lift.

5.2.6 *South Australian Legislation*

As noted in Chapter 1, no part of the airport (including the ATC tower) is included on the South Australian Heritage Register and are consequently not subject to the Heritage Places Act 1993. Likewise, no part of the airport is identified as a heritage place in the Salisbury Council Development Plan (consolidated 15 December 2016) and works on the site are consequently not subject to the provisions of the Development Act 1993.

5.2.7 *Aboriginal Heritage Act 2006* (SA)

The Aboriginal Affairs and Reconciliation Division, Department of Premier and Cabinet (DSD-AAR), is the South Australian Government's lead agency on matters relating to Aboriginal affairs. The Division has a number of responsibilities including the protection and preservation of Aboriginal heritage and culture. DSD-AAR maintains a Central Archive and Register of Aboriginal Sites and Objects. These archives are not public, but the Department can provide broad information about Aboriginal heritage on receipt of a formal request.

A formal request for information in relation to the Parafield ATC tower was forwarded to DSD-AAR in February 2018. The Department's response identified no Aboriginal Heritage Sites in land Parcel CT6156/211 F114106 A11 which includes the Parafield ATC tower. An archaeological aboriginal heritage site was identified elsewhere in the airport. While the precise location and extent of this site is not available, it is well-removed from the ATC tower close to the western boundary of the airport.

It is noted that all Aboriginal sites and objects are protected under the *Aboriginal Heritage Act 1988* whether they are listed in the Register or not. Pursuant to the Act, any activity that is likely to damage, disturb or interfere with a site, object or remains, will require authorisation of the activity from the Minister for Aboriginal Affairs and Reconciliation under Section 23 of the Act. In addition, sites or objects of aboriginal significance may exist elsewhere within the airport, even though the Register does not identify them. Section 20 of the Act requires that any Aboriginal sites, objects or remains, discovered on the land will need to be reported to the Minister. Penalties apply for failure to comply with the Act.

It is noted that compliance with the Aboriginal Heritage Act 2006 may not address any relevant obligations pursuant to the Native Title Act 1993.

5.3 Lease agreement

On 6 July 1995, Airservices Australia entered into a 39-year lease arrangement with the Federal Airports Corporation (FAC) for the Parafield ATC tower.

Under the terms of this lease, the FAC may carry out construction or demolition works in any part of Parafield Airport other than the ATC tower and associated land, but no works may be carried out to the control tower without Airservices Australia's consent. Should wider airport planning and development objectives require Airservices Australia to vacate the control tower, negotiations will be entered into to relocate Airservices Australia to an alternative suitable substitute location on the Airport site.[100]

Airservices Australia's obligations under the terms of this lease are that the control tower must not be used for any purpose other than the permitted use (i.e. for any purpose that is consistent with the functions of Airservices Australia as prescribed by legislation). Should the lease expire or be terminated, Airservices Australia is obliged to remove all or part of any works undertaken on the site after the commencement date as required by the Lessor[101] 'Works' can include, portable or relocatable buildings, improvements, fixtures, fitting and facilities undertaken by the lessee. It is understood that this would not require the removal of the ATC tower at the end/termination of the lease. However, the Lessee could require Airservices Australia to remove additions including brick store and generator shed at the western facade of the ATC or any parts of the interior fit-out constructed since commencement of the lease.

5.4 Stakeholders

At a general level, stakeholders (people or organisations with an interest in the Parafield ATC tower) fall into two categories: statutory authorities responsible for ensuring the appropriate management of the asset, and individuals/groups/businesses with a particular interest in the place. Stakeholders with an interest in and concern for Parafield ATC tower, including the following:

- Department of Agriculture, Water and the Environment (DAWE)
- Department of Infrastructure, Transport and Regional Development (DITRD)
- Aviation operators
- The Salisbury Council and local community

As noted in Chapter 1, no Aboriginal Heritage Sites have been identified in land Parcel CT6156/211 F114106 A11 which includes the Parafield ATC tower although sites have been identified elsewhere in the airport. On this basis, it is unlikely that local indigenous communities would have a strong connection to the ATC tower and they are not considered to be key stakeholders.

5.4.1 Department of Agriculture, Water and the Environment

As a Commonwealth Heritage Place, the Department of Agriculture, Water and the Environment (DAWE) is concerned with the identification, protection and conservation of the identified Commonwealth Heritage values of the Essendon ATC tower. In the event that the tower is decommissioned, the management of the present tower and preservation of the identified Commonwealth Heritage values will be matters of interest to the DAWE.

5.4.2 Department of Infrastructure, Transport and Regional Development

The Department of Infrastructure, Transport and Regional Development (DITRD) owns 21 federally-leased airports in Australia, including capital City airports such as Adelaide and Melbourne along with regional or general airports such as Alice Springs, Essendon and Parafield. These airports are leased to long-term airport lessee companies (ALCs). DITRD takes on a regulatory role managing these airports through the *Airports Act 1996* and, with respect to the environment, *the Airports (Environment Protection) Regulations 1997*.

5.4.3 Aviation operators

There are a number of aviation operators who use Parafield Airport and rely on the ATC tower services. These operators include:

- Emergency services
- Helicopter charter including Helistar, 169 Anderson Drive, Parafield Airport, SA 5106
- Aircraft maintenance including, including: National Aerospace Corporation Pty Ltd, Aero Service Pty Ltd, Hangar 58, Anderson Drive.
- Flying schools within the ATC tower including: Flight Training Centre Adelaide (FTA) and Assessment Services Proprietary Limited (ASL).
- Flying schools within the broader airport including: Bruce Hartwig Flying School, Aerostar Aviation, Uni SA Aviation Academy

In addition to pilot training and charter services, there are also flights for crop dusting, aerial photography, search and rescue, firefighting and police. Parafield Airport has also experienced an increase in charter flights to service mining activities in South Australia.[102]

Air traffic services at Parafield Airport are required to allow for the use of the airport by the above aviation operators however it is unlikely that the manner of the provision of this service (i.e. continued use of the current tower or introduction of a new tower) is a concern to these operators.

5.4.4 The Salisbury Council and local community

The Parafield Airport Draft Master Plan was released for public consultation in 2017. Initial press responses to the plan reported a mixed reception from the local Council and nearby residents. The key concerns raised by local residents and their representatives related to the noise associated with take-off and landings. A proposed increase in the number of flights over coming decades was not well-received.

Blair Boyer- endorsed as the next Labor candidate for the State seat of Wright- called on the Federal Transport Minister, to have regard to public concerns over the expansion of Parafield Airport.[103]. He noted that, 'the airport's governing body wants to increase the number of flights over the next 20 years to 450,000 — a 110 per cent increase [over] 2016'. A number or individuals at public consultation expressed similar concerns in relation to the scale of the increases and associated noise pollution.

John McArdle of Adelaide Airport Ltd said the commercial plans for Parafield would include a health centre and retailing. 'We understand from our consultation with the community that a gym, some doctors, specialists and so forth located in that area would be of benefit to the community, so there's an opportunity there for someone to do that', he said.

Salisbury Mayor Gillian Aldridge added, 'the Council had long wanted the airport relocated so the site could be used for housing.[104] However, she accepted that 'the Government was adamant there would not be any move'. The Mayor conceded that, 'the new plan certainly seems to be addressing all the problems and I think now it's onwards and upwards and a sense that we work closely with them to get the best outcome for both our city and the residents who live here'.

On this basis, Council and community concerns appear to be centred on air traffic movements and noise abatement. Works to Parafield ATC tower which will not affect these aspects of the airport's operations are unlikely to be of concern to The Salisbury Council and local community.

5.5 Presentation and condition

5.5.1 Presentation

Parafield ATC is largely intact at its lower levels substantially retaining the form and external fabric dating from its construction in 1931-40. The removal of the original cabin and its replacement with the existing two storey arrangement in 1981 forms the most notable alteration.

5.5.2 Condition

General

The ATC tower is generally in sound condition, and there are no known impediments to the on-going use of the facility, or its adaptation because of structural integrity.

As noted in Chapter 3, some leaking roof membranes were identified allowing rainwater falling on the western roof deck to pass into the examination rooms (G.21) below. Some drummy and cracking external render was observed at second floor level; however, this condition was not advanced and required no intervention in the short term.

Hazardous materials

A hazardous building materials survey was carried out in April 2014 by JTA Health, Safety & Noise Specialists. It identified hazardous materials in the form of: asbestos-containing materials; synthetic mineral fibre materials; polychlorinated biphenyl (PCB) capacitors; but no lead paint.

Asbestos materials are typically found in vinyl floor tiles, asbestos fibrocement cable pits, asbestos tar sealant and asbestos black resin electrical boards. Most of the asbestos-containing elements in the building are in a good and stable condition. However, some asbestos tiles, asbestos tar insulation and sealant was found to be of a Priority 3 rating- of a low risk but requiring maintenance. The survey recommends that asbestos materials are to be removed prior to the commencement of any renovation or demolition works that may cause their disturbance.

Materials containing synthetic mineral fibre in the building were found to have been installed in accordance with current industry practice and to be in a good and stable condition. These products do not pose a significant health risk to the occupants in the building.

Fluorescent light fittings whose capacitors were suspected of containing PCB oil were identified. Monitoring of these fixtures is recommended and responses to leakage of PCB oil are provided.

6.0 CONSERVATION POLICY AND MANAGEMENT GUIDELINES

This conservation policy is based on the assessment of cultural significance at Chapter 4 and informed by the opportunities and constraints identified at Chapter 5. The policy provides direction and guidance on the conservation and management of the Parafield ATC consistent with its on-going operation as a control tower. It also considers heritage management implications in the event that the tower is decommissioned or replaced.

6.1 Definitions

The terminology used in this chapter is of a specific nature. The following definitions are from the *Burra Charter, 2013* (Article 1), as endorsed by a large number of statutory and national heritage bodies.

Place means a geographically defined area. It may include elements, objects, spaces and views. Place may have tangible and intangible dimensions.

Cultural significance means aesthetic, historic, scientific, social or spiritual value for past, present or future generations.

- Cultural significance is embodied in the ***place*** itself, its ***fabric***, ***setting***, ***use***, ***associations***, ***meanings***, records, ***related places*** and ***related objects***.
- Places may have a range of values for different individuals or groups.

Fabric means all the physical material of the ***place*** including elements, fixtures, contents and objects.

Conservation means all the processes of looking after a ***place*** so as to retain its ***cultural significance***.

Maintenance means the continuous protective care of a ***place***, and its ***setting***.

Maintenance is to be distinguished from repair which involves ***restoration*** or ***reconstruction***.

Preservation means maintaining a ***place*** in its existing state and retarding deterioration.

Restoration means returning a ***place*** to a known earlier state by removing accretions or by reassembling existing elements without the introduction of new material.

Reconstruction means returning a ***place*** to a known earlier state and is distinguished from ***restoration*** by the introduction of new material.

Adaptation means modifying a ***place*** to suit the existing ***use*** or a proposed use.

Use means the functions of a ***place***, including the activities and traditional and customary practices that may occur at the place or are dependent on the place.

Compatible use means a ***use*** which respects the ***cultural significance*** of a ***place***. Such a use involves no, or minimal, impact on cultural significance.

Setting means the immediate and extended environment of a ***place*** that is part of or contributes to its cultural significance and distinctive character.

Related place means a ***place*** that contributes to the ***cultural significance*** of another place.

Related object means an object that contributes to the ***cultural significance*** of a ***place*** but is not at the place.

Associations mean the special connections that exist between people and a ***place***.

Meanings denote what a ***place*** signifies, indicates, evokes or expresses to people.

Interpretation means all the ways of presenting the ***cultural significance*** of a ***place***.

6.2 General policies

Policy 1 Significance as the basis for future conservation and management

The Statement of Significance included in this HMP should be the principal basis for the future management and conservation of Parafield ATC tower.

Specific conservation objectives should include:

- Managing in accordance with the significance attributed in this HMP (Chapter 4). In general terms, the implications of the identification of significance are as follows:
  - Significant elements and attributes should be retained and conserved according to the principles of the Burra Charter (2013)- significant elements and attributes are identified at Section 4.4.1
  - Elements and attributes that are not identified as significant can be retained, re-used or replaced by new construction or works in a way which has a minimum or no adverse effect on significant buildings and elements
- The retention and conservation of significant elements and attributes in accordance with the policies and recommendations in this HMP.
- A sensitive and respectful approach to adaptation, new works and future development where significant fabric and elements may be affected.

If alterations or changes are proposed which support an appropriate and viable use for the control tower, the works should be undertaken in a manner which has minimal impact on significant fabric.

It is recommended that the CHL entry for the control tower should be updated to include the Statement of Significance provided at Chapter 4 Section 4.3 of this HMP.

Policy 2 Adoption of the Burra Charter

The conservation and management of the subject site should be carried out in accordance with the principles of the Burra Charter (2013).

When assessing the suitability of proposed works to significant elements and attributes at the Parafield ATC tower, the principles of the Burra Charter and its practice notes should be referenced. These principles provide guidance on the conservation and adaptation of places and elements identified as being of cultural heritage significance.

Policy 3 Adoption of policies

The policies included in this HMP should be endorsed and adopted by the present and future owners, or managers, of the Parafield ATC tower and should form the primary guide for its management.

This HMP should inform future development of the Parafield ATC tower. The present and future owners of the tower should adopt and implement the policies of the HMP as the key guiding reference in terms of managing change and future development within the site.

Policy 4 Specialist advice and skills

Advice from qualified heritage practitioners should be sought before any action is proposed or undertaken that could have an impact on the Commonwealth Heritage values of Parafield ATC tower.

Where works to significant elements or attributes are proposed, or where technical advice is needed, it is important to select consultants and contractors with proven experience in the relevant field. This applies to the development of strategic approaches to undertaking works, as well as to the delivery of conservation works.

Policy 5 Compliance with legislation

Airservices Australia should develop and implement protocols for compliance with all legislation, including the EPBC Act and the Airports Act.

The development of protocols to ensure compliance with all applicable legislation should include triggers to ensure compliance with the EPBC Act, being the key piece of legislation that applies directly to management of heritage values. A department within Airservices should be tasked with preparing an information sheet identifying processes to be followed when contemplating works at the control tower and disseminating the outcomes.

In the event that actions with the potential to have a significant impact on the Commonwealth Heritage values of Parafield ATC tower are contemplated, Airservices Australia should consult with the Minister for the Environment. This consultation is not a formal requirement of the EPBC Act but is recommended in recognition of the fact that the Airports Act supersedes the EPBC Act in a range of matters, including issues that affect the operation of the place.

Policy 6 Stakeholder liaison

Airservices Australia should consult with all stakeholders identified at Chapter 5 (Section 5.4) and other parties/individuals as relevant, on matters affecting the heritage values of Parafield ATC tower.

Key stakeholders – being individuals and organisations with a particular interest in the ATC tower - should be advised of any proposals with the potential to impact on the identified values of the place and provided with opportunities to comment.

As discussed in Chapter 5, no Aboriginal Heritage Sites have been identified in land Parcel CT6156/211 F114106 A11 which includes the Parafield ATC tower. Nonetheless, Aboriginal heritage sites have been identified elsewhere in the airport. While it is unlikely that local indigenous groups have a strong connection to the ATC are they not considered key stakeholders, they should be advised of any future proposals and provided with opportunities to comment.

Policy 7 Managing sensitive information

Airservices Australia should develop and implement protocols to protect sensitive information and equipment relating to the operation of the ATC tower.

Parafield ATC tower is a critical component of Adelaide's air safety infrastructure. It includes sensitive information and equipment. Protocols to ensure that this information and equipment is not compromised or accessed by unauthorised parties should be developed and implemented by Airservices Australia. This policy complies with EPBC Act Regulations, 2000, Schedule 7a (h) (v).

Policy 8 Review of the HMP

Consistent with best practice, and the requirements of the EPBC Act, this HMP should be reviewed and updated every five years (by 2026).

Relevant considerations in undertaking a review of this HMP are to incorporate any new information that comes to light, particularly where there is the potential for the new information to result in a reassessment of values. Major physical change to the place would be a trigger for a review of this HMP. Other triggers include instances where: major change occurs as a result of an accident or misadventure (i.e. vandalism or fire); or the HMP is found to be out of date with regard to significance.

6.3 Conservation policies

Policy 9 Conservation of significant attributes and elements

Significant attributes and elements at Parafield ATC tower should be conserved.

Significant attributes and elements are:

- The external form and presentation of the three-storey Operations and Administration building as built in 1939-40
- All external original fabric as identified in Section 4.4.1
- The presence of the control tower cabin, as built in 1981 – although this contains no significant fabric
- Original internal finishes, which survive to a limited extent as identified in Chapter 3
- Internal planning to a limited extent and some key spaces as identified in Section 4.4.1
- Unimpeded views from the cabin to the apron and runways

Implementation of this policy will require recognition of and respect for the attributes and elements identified above on the part building occupant and managers, and the adherence to Policy 4, which recommends engaging the services of professional heritage consultants in planning and designing outcomes that are compatible with the ATC tower's heritage values. Consistent with the Burra Charter, appropriate heritage outcomes may include: maintenance, preservation, restoration and adaptation.

Policy 10 Heritage curtilage

The heritage curtilage for Parafield ATC tower no.3 should be defined as the Airservices Australia lease at the Airport.

The 'heritage curtilage' for a building, complex or site has been defined as, 'the area of land (including land covered by water) surrounding an item or area of heritage significance which is essential for retaining and interpreting its heritage significance'.[105] A heritage curtilage should include all significant elements and establish an area which is managed to ensure the maintenance of heritage significance. Identification of land to be included within a heritage curtilage does not preclude change within this area. Land within a heritage curtilage does, however, need to be managed so as not to adversely affect the setting, presentation or significance of a heritage place.

Parafield ATC tower is a freestanding element that has a distinct and singular character in the airport context, primarily as a result of its Streamline Moderne form and elevated cabin. The Airservices lease at Parafield affords views to and from the tower to all sides. There is no heritage imperative to consider a heritage curtilage that extends beyond the boundaries of area leased by Airservices Australia (approximately 500sqm).

Policy 11 Views and visual relationships

Views and visual relationships that support an understanding of the site's historical and aesthetic significance should be maintained.

Parafield ATC tower does not rely for its significance on visual relationships with other buildings for its historic or aesthetic significance. However, its proximity to the apron and runways does enhance an understanding of the building's function.

Policy 12 Remedial works and cyclical maintenance of significant built fabric

Programs of priority maintenance, remedial works and cyclical maintenance should form the basis for on-going care of the significant built fabric at Parafield ATC tower.

The fabric of historic buildings and fabric will deteriorate over time due to the effects of age, weather and use. Poor maintenance can hasten the decline and decay of fabric, which can be expensive to rectify if not promptly addressed. It may also result in the loss of significant heritage fabric which can, in turn, impact on the heritage values of the place.

The establishment of a cyclical maintenance programme will help to retard deterioration and, following any refurbishment works, to prevent future deterioration of restored original or introduced new material. Broadly, the approach to maintenance should firstly be to maintain and ensure that the significant original and early fabric does not deteriorate further and secondly to maintain all existing fabric. *Ad hoc* repairs or patch ups should be avoided.

Regular inspections of the building's fabric should occur, with an emphasis on susceptible areas such as guttering, downpipes waterproof membranes, door and window openings. Generally, day-to-day maintenance work can be carried out in accordance with the conservation policies and without reference to a conservation specialist. However, major maintenance works should be undertaken under the direction of an appropriately qualified conservation practitioner.

The primary aim of repair work should be to retain as much of the historic material as possible. In most cases involving repairs to significant fabric, the advice of a heritage practitioner will be required prior to undertaking the works, to ensure the significant fabric is treated appropriately.

Maintenance

Maintenance addresses all existing components of the place, including fabric and setting. Introducing new elements or changing and adapting the existing building are not matters of maintenance and are addressed in policies and recommendations included elsewhere in this HMP.

Typical maintenance works at Parafield ATC tower include:

- Cleaning out drainage systems and other water storage and drainage areas
- Maintaining and ensuring the integrity of external wall fabric, roof deck membranes, glazing and joinery in an appropriate and sympathetic manner (may require specialist input)
- Monitoring corrosion in exterior steel elements
- Maintaining equipment and services (i.e. building services, not services related to the operation of the building as a control tower)
- Replacing or upgrading services (may require specialist input for substantial works)
- Maintaining existing power or pipelines or other services where this involves no alteration to the fabric of the place

With regard to the recommended cyclical inspection and maintenance programme, the following sets out a desirable annual program for cyclical maintenance at Parafield ATC tower:

- Cleaning out downpipes and rainwater heads and other elements of the storm water drainage system
- Monitor cracks to external render
- Monitor windows and doors with regard to water ingress and general security
- Monitor condition of rubberised membrane to roof decks at first floor level
- Monitor corrosion to cabin roof and walls and external walkway
- Monitor ceilings (with particular regard for leaking roof deck membranes), floors, stairs, joinery, fixtures and fittings and tiling
- Monitor security and fire precautions, plumbing, electrical and data cables and appliances, and general safety.
- Monitor hazardous materials as identified in Hazardous Building Materials Survey Report (JTA Health, Safety & Noise Specialists, April 2014).

Repairs

From a heritage perspective it is generally recommended that repairs of significant buildings and structures should involve replacing 'like with like,' i.e. the replacement of material (missing, deteriorated or broken) with fabric to match the existing. Accepting this principle, it is also important to determine if the material proposed for replacement is appropriate (it may not be original). The advice of a qualified heritage practitioner should be sought on this. Wherever possible, only actual decayed fabric of a heritage structure should be replaced, instead of the whole host element.

Repairs to significant structures should also, in preference, be carried out by appropriately skilled staff or contractors, and may require in some cases prior analysis of the composition of the fabric to be repaired/replaced.

Specialist input may also be required for the identification and eradication of any damage caused by pest infestations. Rectification may involve repair to, or replacement of, damaged fabric.

Policy 13 Hazardous materials

Removal of hazardous materials from Parafield ATC tower should seek to minimise physical impacts on significant values and attributes.

As identified at Section 5.5.2 of this HMP, some hazardous materials are present in the Parafield ATC tower in the form of synthetic mineral fibre materials; polychlorinated biphenyl (PCB) in vinyl floor tiles, asbestos fibrocement cable pits, asbestos tar sealant and asbestos black resin electrical boards. The majority of these elements are in a good and stable condition. However, some asbestos tiles, asbestos tar insulation and sealant was found to be of a Priority 3 rating- of a low risk but requiring maintenance. The survey recommends that asbestos materials are to be removed prior to the commencement of any renovation or demolition works that may cause their disturbance.

In the event that renovations are contemplated, or the condition of any Priority 3 materials degrades to the point that their removal is required, their removal should proceed with due regard to the values identified at Chapter 4 of this HMP. Works should seek to minimise physical impacts on significant fabric and avoid outcomes that would diminish significant areas, values and attributes as identified in Chapter 4 of this HMP.

6.4 Use, adaptation and change

Policy 14 Use

Future uses of Parafield ATC tower should be compatible with the assessed values of the place so that its cultural significance is maintained and conserved.

The existing air traffic control use of the tower contributes to its significance. As noted above, it appears that the 'Ops and Admin building' at Parafield has been associated with the provision of air traffic control for longer than any other surviving building in Australia and this enduring use contributes to its significance. On this basis, the continuation of the existing use is strongly encouraged.

While air traffic control towers can be subject to obsolescence, the current runway and taxiway infrastructure system at Parafield are considered to be 'more than adequate for the current aircraft traffic'[106] and there are no plans to replace the tower in the near term. As a training airfield the replacement of towers to support the introduction of larger and faster aircraft, which require larger airfields to accommodate them, is less likely than is the case at passenger airports.

The key issue in considering future uses of the building is to avoid or minimise the potential for impacts on the tower's Commonwealth Heritage values. The advice of heritage professionals should be sought in analysing options.

No plans are in place to replace the Parafield ATC tower. Nonetheless, Parafield is a control tower for which adaptive re-use could reasonably be anticipated. Despite the specialised nature of the building, and the spatial constraints of its interior the building could accommodate a number of additional or alternative uses. The tower is part of the public domain and, unlike many ATC towers, is not quarantined airside. Further, the equipment at the control tower and much of its internal fabric has not been assessed as being of significance in its own right (see Policy 16), potentially enabling the delivery of unencumbered internal spaces.

One possibility for the re-use of Parafield ATC tower is adaptation as food and beverage premises, with external viewing decks on the walkway and cabin roof to optimise views over the airport and nearby suburbs. A use of this kind could utilise the largely unoccupied first floor level and might be possible without disruption of the ongoing ATC tower activities on levels above. Alternatively, the Parafield ATC tower could be adapted to a museum role- possibly in conjunction with the existing museum on the Parafield Site. Expansion of the existing flight training and assessment facilities on the ground floor to take advantage of under-utilised space at first floor level is also a possibility.

Policy 15 Changes to significant elements and attributes

Physical alterations to significant fabric and attributes should be limited to works that do not diminish the cultural heritage values of Parafield ATC tower.

The subject building is currently adequate for its operation as an ATC tower. In the event of disposal by Airservices Australia, however, it can be anticipated that physical change will be required to support a new use, including internal reconfiguration, the introduction of a lift and other matters of code compliance. A key to maintaining the building's cultural heritage significance will be to minimise impacts on its external presentation.

Where works are required the over-riding, objectives are firstly to retain and conserve significant fabric and attributes, and secondly to plan and undertake works in a manner that is sensitive to the valued form and presentation of significant fabric. All alternative approaches should be investigated before removal of significant elements, and new works should be clearly identifiable as such.

This is not a site where reconstruction of modified elements or reinstatement of original details is required or recommended.

The commentary at Table 4 provides guidance on approaches to future change.

Table 4 Strategies for change to significant elements and attributes

Building/element	Principles to guide future change
ATC tower base, exterior	◦ As far as possible the external building envelope should be retained, to maintain an understanding of the original form, scale and presentation of the control tower. ◦ There is also some potential for the introduction of low-scale development to the east or west of the control tower similar to the existing brick store and generator shed. ◦ Additions of more than one storey in height should not be contemplated. ◦ The one exception to the above relates to an external lift core. Ideally, all new vertical circulation will be achieved through a new lift within the building envelope. In the event that an external lift is required, this should be sited to conceal this element from key, airside views. ◦ The south elevation should be retained as the primary entry to the building, to maintain an understanding of the original planning. ◦ New works/additions should adopt a utilitarian character, with limited decorative detail or embellishment, consistent with the original building. ◦ New window openings should be avoided. Where new openings are required, they should be small and avoid sun shades. Large areas of uninterrupted glazing are not appropriate. ◦ The building has been painted in a number of colours over the years. In preference, paint would be removed to reinstate the original plain rendered expression of the building. Alternatively, future paint treatments should be based on paint analysis, to determine the earliest paint treatments.
ATC tower base, interior	◦ Evidence of the original planning and original fittings/finishes (where they survive) should, in preference be retained.
Control tower cabin, exterior	◦ The cabin remains substantially intact as constructed in 1981. While the building contains no early fabric, it is a key identifier of the building as a control tower and the cabin has a value deriving from its broad form which makes the role of the building legible. On this basis, total demolition of the tower would diminish the legibility of the Parafield ATC tower. While substantial potential for significant change to the cabin, both internally and externally, exists total demolition is generally discouraged. This notwithstanding, demolition of the tower to allow the construction of a new glazed tower- particularly if the new tower extends the valued use of the ATC- would raise no issues.
Control tower cabin, interior	◦ In the event of the cabin being adapted for an alternative use, the transparency of the cabin as viewed from ground level should be maintained.

Policy 16 Equipment

In the event of disposal, original equipment and fittings should be catalogued and stored appropriately.

Equipment, plant and services at ATC towers are standardised. The equipment and plant at the Parafield ATC tower has not been assessed as being significant in its own right. It is understood that, all of the equipment and fittings on the second floor and cabin levels dates from 1981 or later.

An early electrical switchboard survives in a switch room adjacent to the ground floor entry. A switch-room is not evident in the early plans for Archerfield; which is not surprising. Initially, no radio or radar equipment was installed at the Archerfield or Parafield ATC towers and power requirements were relatively modest. On this basis, it appears that the switchboard is an early but non-original element, possibly associated with the introduction of radio communications in 1948.

Policy 17 Recording

Airservices Australia, and subsequent owners, should maintain a record of significant interventions to Parafield ATC tower.

Records of works/interventions to the tower should be maintained by Airservices Australia. The record (or file) should include copies of all superseded architectural drawings, and photography of the affected areas before and after the works.

This policy complies with EPBC Act Regulations, 2000, Schedule 7a (h) (x).

6.5 Management policies

Policy 18 Statutory controls

Parafield ATC tower should continue to be recognised as a place of cultural heritage significance to Australia through its inclusion in the Commonwealth Heritage list.

Parafield ATC Tower has been assessed as a place of historical and aesthetic significance to Australia. As such, it should continue to be managed in compliance with the heritage obligations under the Airports Act 1996 and the provisions of the EPBC Act 1999. It is recommended that the CHL entry for the control tower should be updated to reference this HMP, and to include the Statement of Significance in this HMP.

In the event that the asset is divested Airservices Australia will ensure that the Commonwealth Heritage values of the asset are protected. As per Section 341ZE of the EPBC Act, in the event that the tower is sold or leased, Airservices will advise the Minister at least 40 business days prior to the execution of the contract, and follow all appropriate measures to ensure the Commonwealth Heritage values of the tower are protected. Assuming that Sydney Airport remains Commonwealth-owned land, the ATC tower would remain in the CH list.

In the event that Parafield Airport is sold by the Commonwealth, Parafield ATC tower should be nominated for inclusion in the state or local heritage registers.

Anyone is able to nominate a place/object for listing in the SA Heritage Register, which is established under the Heritage Places Act 1993 (South Australia). The process, set out on the South Australian Government Office of Environment and Water website (https://www.environment.sa.gov.au/topics/heritage/sa-heritage-register/nominating-a-heritage-place) would require the ATC tower to satisfy at least one of the criteria listed below.

The South Australian Heritage criteria are as follows:

(a) it demonstrates important aspects of the evolution or pattern of the State's history;

(b) it has rare, uncommon or endangered qualities that are of cultural significance;

(c) it may yield information that will contribute to an understanding of the State's history, including its natural history;

(d) it is an outstanding representative of a particular class of places of cultural significance;

(e) it demonstrates a high degree of creative, aesthetic or technical accomplishment or is an outstanding representative of particular construction techniques or design characteristics;

(f) it has strong cultural or spiritual associations for the community or a group within it;

(g) it has a special association with the life or work of a person or organisation or an event of historical importance.

It should be noted that Parafield ATC tower no. 2 may not satisfy the threshold for inclusion in the South Australian Heritage Register.

Policy 19 Access and security

To maintain security, all visitors to the ATC tower should report to the Senior Area Controller.

While the tower remains operational, Airservices should maintain the current security arrangement, whereby visitors can freely access the public areas of the training school at ground floor level but keys are required for access to the upper levels of the building or the tower itself.

This policy complies with EPBC Act Regulations, 2000, Schedule 7a (h) (ii).

Policy 20 Training and awareness

A training program should be instigated to raise awareness of the heritage significance of Parafield ATC tower among the staff of Airservices Australia and Parafield Airport Ltd.

The heritage significance of the Parafield ATC tower may not be evident to casual observers or those outside the heritage profession. It is recommended that a training program to promote awareness of the building's heritage values is developed and implemented by Airservices Australia. Key audiences for the program are Airservices Australia personnel and staff at Parafield Airport which leases the land around the ATC tower.

Policy 21 Interpretation and promotion of heritage values

Airservices Australia and subsequent owners of Parafield ATC tower, should promote and disseminate information about the cultural heritage values of the building.

The external appearance of the building and its continued use as an ATC tower provides the greatest opportunities to interpret the cultural heritage values of the building. In the event that the current use of the building comes to an end, strategies for the promotion and dissemination of information about the cultural heritage values of the ATC tower should be prepared in the form of an interpretation plan. Recommendations for interpretation should be informed by, but not limited to, consideration of: best practice principles (including the Burra Charter 2013 practice note 'Interpretation'); the identified heritage values of the place; the anticipated audience for interpretation; and the ongoing opportunities to interpret the building by way of views to the tower. Interpretation can be undertaken via a range of tools and methods. Information can be presented in a readable format (printed or electronic, including brochures, pamphlets, books and websites); through on-site signage; through the display of objects/artefacts; and through art works.

In the event that the ATC tower is adapted to a new use, especially a new use that provides public access to the building, an interpretive programme will be essential to the ongoing understanding of the building.

Policy 22 Archaeology

The discovery of historical archaeological artefacts and objects, which can contribute to an understanding of the history, technology and operation of the site, should be reported to the Department of the Environment.

The area leased by Airservices at Parafield Airport has been at the interface between the airside and public areas of the airport since late-1930s. No basements or other deep excavation have been undertaken in the area and there is the potential for artefacts relating to earliest aviation uses at the site to survive in subfloor areas or in foundations. In the event of archaeological remains being uncovered at the site, the Department of the Environment should be informed of the discovery before proceeding with further work. This is also consistent with regulation 4.05 'Duty to give notice of cultural etc discovery' in the *Airports (Environment Protection) Regulations 1997*.

Further to this, the *Aboriginal Heritage Act (SA), 1988* notes that any land, developed or undeveloped, can contain Aboriginal sites relating to traditions. Section 20 of the Act requires that any Aboriginal sites, objects or remains, discovered on the ATC site, are to be reported to the Minister.

Policy 23 Risk preparedness

A Risk Management Strategy should be integrated into the broader management and administration of Parafield ATC tower.

Risk preparedness and management is an important means of protecting and conserving the heritage values of heritage places. While a detailed assessment of risk is beyond the scope of this report, the following table describes potential threats and hazards posed to the physical fabric at the subject site by environmental and man-made factors.

Table 5 Analysis of risk to Parafield ATC tower

Threat	Probability	Preparation/ Response
Vandalism and theft	Moderate	Vandalism and theft are always possible and a normal level of awareness and security should be maintained. Installation of security cameras could be considered in discrete locations. These should be fixed to cause the minimum possible impact on the presentation of the tower.
Fire	Always present	Establish a fire suppression and warning system as part of any adaptive re-use, and upgrade as required. Ensure there is an evacuation plan in place and conduct regular training and rehearsals. Ensure that combustible materials do not come into contact with hot lights. Ensure that extinguishers, fire blankets etc, are located within reach of potential sources of fire. Maintain electrical systems in good order. Maintain liaison with fire brigade to regularly test and monitor systems.
Flood	Possible	Localised internal flooding, from toilets, sinks and pipe work, is always possible. Maintenance of wet areas and pipe work is a means of minimising this possibility.
Water ingress	Moderate	Rainwater goods (gutters, downpipes and sumps) should be repaired (where required), maintained, installed and kept clear. Inspect and maintain roofs, windows and doors regularly. The membrane to eastern and western roof deck at first floor level have failed allowing water into the examination areas below. It is unclear whether this has been repaired. If not, this should be addressed as a priority. In the medium term, roof deck membranes should be inspected regularly and a strategy for their repair, maintenance and future replacement put in place.
Damage by vehicles	Always present	There is no protection between Anderson Road and the ATC tower. Given the increasing volume of traffic at Parafield Airport, consideration may be given to the introduction of a protective barrier at the side of the road. Any barriers in this location should be as far away from the tower as possible, to minimise visual impacts.

6.6 Implementation plan

A plan for the implementation of the policies set out at Section 6.2 'General policies', 6.3 'Conservation policies', 6.4 'Use, adaptation and change' and 6.5 'Management policies' is included at Table 6. This complies with EPBC Act Regulations, 2000, Schedule 7a (i).

Parafield ATC tower no. 2 is an operational asset, and as such is managed and maintained in accordance with Airservices' corporate Environmental Management System (EMS), which is certified (and independently audited) against ISO14001:2015. This includes compliance with a range of on-ground environmental standards, procedures, plans and guides, including heritage matters.

Parafield ATC tower no. 2 is operated and maintained as part of Airservices annual operational budget for Air Navigation Services (ANS) operations (Southern Region).

Table 6 Implementation plan

Policy	Responsibility	Timing	Funding
Policy 1: Ensure that the Statement of Significance included at Section 4.16 of this report is referred to prior to any proposed works or alterations, including conservation and management, being undertaken to the ATC tower.	Airservices project managers	On-going	N/A
Policy 2: Ensure that conservation, maintenance, preservation, restoration or adaptation works to the ATC tower, or within the area leased by Airservices, are consistent with the Burra Charter.	Airservices project managers	On-going	N/A
Policy 3: Ensure that the policies in this HMP are endorsed and form the primary guide for the management of the ATC tower.	Airservices project managers	On-going	N/A
Policy 4: Maintain access to specialist contractors and consultants	Airservices project managers	On-going	N/A
Policies 5 and 22: Maintain protocols for compliance with legislation, including with regard to unexpected discoveries (archaeology)	Airservices project managers	On-going	N/A
Policy 6: Ensure that stakeholders identified at Section 5.4 of this report are provided with opportunities to comment on proposed changes to the ATC tower	Airservices project managers	On-going	Funds to be identified in project budgets

Policy	Responsibility	Timing	Funding
Policy 7: Protocols to protect sensitive data and equipment should be maintained.	Environment Team Leader	On-going	Airservices' annual operating budget
Policy 8: Ensure that a review of this HMP is undertaken by 2026	Environment Team Leader	By 2026	Funds to be allocated for HMP review in 2026
Policy 9: Ensure than elements and attributes intrinsic to the significance of the ATC tower, as listed at Section 6.3 of this report, are conserved	Airservices project managers	Within the life of this plan, 2021-2026	Airservices' annual operating budget
Policy 10: Ensure that works within the area leased by Airservices, do not impact detrimentally on the setting or presentation of the ATC tower.	Airservices project managers	On-going	N/A
Policy 11: Consider key views and visual relationships as part of the on-going management of the ATC tower.	Airservices project managers	On-going	N/A
Policy 12: Monitor and document the condition of the built fabric (annual maintenance regime). Undertake maintenance works as required.	Airservices project managers	On-going	Airservices' annual operating budget
Policy 13: Observe recommendations for management of asbestos-containing and synthetic mineral fibre materials.	Airservices project managers	Within the life of this plan, 2021-2026. See also JTS Health, Safety & Noise Specialists report, May 2014.	Airservices Work Health and Safety budget.
Policies 14 and 15: In the event of disposal by Airservices, ensure that changes associated with adaptation to a new use are compatible with the building's assessed Significance and CHL values.	Future owner/ operator	N/A	N/A

Policy	Responsibility	Timing	Funding
Policy 16: In the event of disposal by Airservices, ensure that original equipment and fittings are catalogued and stored.	Airservices project managers	N/A	N/A
Policy 17: Maintain a record of significant interventions to the ATC tower.	Airservices project managers	On-going	N/A
Policy 18: In the event of disposal by Airservices, the ATC tower should be nominated for inclusion in the NSW State Register.	Environment Team Leader	N/A	N/A
Policy 19: Ensure that access and security protocols are maintained while the tower is operational.	Airservices staff	On-going	N/A
Policy 20: Instigate heritage awareness training program, to promote an understanding of the tower's significance	Environment Team Leader	Within the life of this plan (2021-2026)	Heritage matters are covered under site inductions for Bankstown ATC tower and through mandatory online environmental training for all staff and contractors (with regular refreshers).
Policy 21: Develop and implement an interpretation plan for the ATC tower	Environment Team Leader	Within the life of this plan (2021-2026)	As required
Policy 23: Ensure that risks associated with vandalism, theft, fire and flood are managed in line with the recommendations set out in this report.	Airservices project managers	Ongoing	These risks are evaluated, managed and mitigated to a level of ALARP (as low as reasonably practical) through Airservices corporate risk management system (CIRRIS)

6.6.1 Monitoring of implementation

The implementation of the management plan, and its effectiveness in conserving the ATC tower's CHL values will be managed by the ANS Senior Environmental Specialist and assessed by the relevant ANS Technical Services Officer (using the ANS Annual Site Condition Checklist – Form081, v19, 1 February 2017).

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APPENDIX A HERITAGE CITATION

Commonwealth Heritage List

Place Details

Send Feedback

Parafield Airport Air Traffic Control Tower, Kittyhawk Ln, Parafield, SA, Australia

Photographs	None
List	Commonwealth Heritage List
Class	Historic
Legal Status	Listed place (22/01/2016)
Place ID	106120
Place File No	3/01/024/0022

Summary Statement of Significance

The Parafield Air Traffic Control (ATC) tower (former Operations and Administration Building) is of historical significance in a national context for its associations with a key phase in the development of air traffic control services and airport facilities in Australia. It is also of significance as a rare early surviving example of a building designed for the purposes of air traffic control (integrated with other administrative and terminal facilities). Despite significant alterations, including the replacement of the original cabin, sufficient of the fabric survives to suggest the original form and design of Australia's first national standardised model of air traffic control buildings.
The Parafield ATC tower is one of three almost identical integrated Operations and Administration buildings constructed at major airports in Australian capital cities between 1939 and 1941 (the others were at Mascot (Sydney) and Archerfield (Brisbane)). The model was also proposed for the other capital city airports, including Essendon Aerodrome (Melbourne) and Cambridge Aerodrome (Hobart), but not built due to the outbreak of World War II. In their integration of air traffic control functions with administrative and terminal facilities, these 'Ops & Admin' buildings were designed to respond both to increased civilian air traffic from the mid-1930s and a need to improve safety and aircraft management, following several aircraft losses. They represented a major development in the Department of Civil Aviation's provision of air traffic control and terminal facilities and services for the travelling public and airline industry staff in the period immediately prior to World War II.
The new buildings drew on overseas integrated terminal models such as Cleveland Municipal Airport (c. early 1930s), and Newark International Airport (1934). In the Australian context they marked a significant departure from the form and design of earlier air traffic control towers, which had been relatively rudimentary and impermanent by comparison.
All three examples of the Australian 'Ops & Admin' buildings survive in various states of alteration. They are all associated with, and are to a greater or lesser degree demonstrative of, this important phase in the history of civil aviation in Australia. Of the other surviving buildings, the Archerfield example is the most intact, both externally and internally, while Mascot is thought to be the most altered. The original control tower cabins have been removed from all three and not replaced at either Archerfield or Mascot. In the case of Parafield, the original control tower cabin has been replaced with a much larger 1981 cabin and the original steel window and door framing has generally been replaced with aluminium. Internally, the building is extensively altered both in terms of planning and fabric. While not the most intact of the three, it is likely that the Parafield building has been associated with the provision of air traffic control for longer than any other surviving building in Australia.

Official Values Not Available

Description

The Air Traffic Control tower (comprising a 1981 cabin on the former Operations and Administration building), is located at the corner of an L-shaped line of hangars at Parafield Airport. The cabin faces directly south, and commands views of a broad apron to the west and east. The roof of the cabin is approximately 25m above ground level.
Exterior:
The Parafield Operations and Administrations building is a symmetrical stepped three-storey brick building (1939-40). It supports an octagonal air traffic control cabin raised on a single level square amenities level clad in profiled Colorbond (both added in 1981). The cabin is surrounded by a steel walkway. Original drawings have been located for the control building at Archerfield in Brisbane and Parafield appears to have been constructed on the basis of these (with only very minor variations). The buildings were designed with two distinct elevations, one facing the runways (the 'aerodrome elevation', south elevation in the case of Parafield) and the other accommodating the main entry (the 'road elevation', north elevation at Parafield).
The principal alteration to the Parafield building has been the removal of the original cabin and its replacement with a much larger 1980s cabin. In addition, the majority of the original steel window joinery has been replaced with later aluminium and there have been a number of accretions. The north ('road side') elevation of the three-storey base

building has a stripped and relatively utilitarian appearance. The façade is rendered, other than for the face brick base of the lower section of the projecting ground floor. The upper section is relieved by rendered banding and the winged logo of the Department of Civil Aviation provides a focus over the central entry at ground floor level. Window openings at ground, first and second floor levels are generally original in their placement and form but almost all original steel multi-paned windows (multi-paned casement) have been replaced with single paned versions in aluminium. The exceptions are the vertically oriented multi-paned strip windows in the location of the stair on the eastern side of this elevation, which survive as constructed and two small circular ' porthole' windows located centrally at first floor level. The original central entry opening survives to the extent of its placement form, but as for the windows, the original steel framing has been replaced by aluminium.
The south elevation of the Parafield ATC tower generally replicates the stepped form and Moderne styling of the north elevation, but is a more elaborate and resolved composition with the added interest of a central curved portico element to all three levels of the building. At ground level, this curved bay was designed to offer both views of and access to the apron. The bay was originally composed of a brick plinth, a series of brick piers with full height steel casement windows between, and a door opening in the centre, with a flat curved concrete awning above. The bay has been altered through the removal of the majority of the brick piers and the steel door and window joinery and the introduction of a new aluminium framed glazing system (windows and doors) to the full extent of the bay. The curved concrete canopy has been retained. Behind and above the canopy, the winged Department of Civil Aviation logo is prominently displayed in the centre of the parapeted wall at upper ground floor level.
At first and second floor levels the building is stepped back from the south elevation and in from the east and west sides. The ground floor projecting curved bay is also expressed in a narrower semi-circular form at both upper levels. The original ATC cabin (now demolished) continued on the same semi-circular alignment at roof level and was separated from the levels below it by narrow projecting semi-circular platform with steel balustrading. The base of the platform is continued across the façade as a finely detailed concrete window hood. The cabin itself has been demolished other than for a semi-circular remnant at the base, but the window hood and platform with its steel balustrading survive. As for the north elevation, window and door frames on the south elevation are non-original aluminium, and air conditioning units have been mounted in several of the windows. The original square clock mounted on the curved bay between the second and third storeys has been removed. The side (east and west) elevations, have painted render to the upper levels and exposed red brick at the base of the ground floor. The escape stair to the west elevation is a modern steel replacement for the original timber staircase. As noted, in 1981 the original cabin was removed and replaced by a new octagonal cabin and new amenities level, square in plan, both constructed on the flat roof of the three level building. Both are constructed in steel and are clad in Colorbond. A steel walkway extends around the base of the cabin. The canted windows of the cabin are non-structural and sealed only with silicone. Four external columns support the roof at the centre of four of its eight sides. The railings to the roof are steel tubing and the cabin roof soffit is canted. There is ductwork and plant on the cabin roof, in addition to the usual crown of antennae and lightning conductors. Around the base of the cabin the roof of the building is flat and is clad in what appears to be the original bituminous membrane material.
Interior:
The internal planning and fabric of the ground floor have both been extensively modified. As built, the entrance led to an east-west concourse, with a large waiting hall divided from the concourse by timber-framed glass screens marked with the DCA logo between six rendered brick piers. A small curved kiosk was at the west of the concourse. A buffet was located to the west of the waiting hall. The kiosk and buffet were accessible from the kitchen and servery in the north-east of the floor plan. Along the north side of the building, either side of the entrance, were offices, with toilets at each end and the staircase to the east of the entrance. The baggage handling room and mail office were located in the south-east corner. The former concourse has been subdivided to the east and west, and the timber-framed glass screens to the former waiting hall replaced with plaster partitions. The Flight Training Centre Adelaide occupies the former waiting hall, which has been subdivided into meeting rooms and offices. Finishes are generally modern, including carpet and tiles to the concrete floor, and partition walls of plaster and glass. Some skirting boards and a frosted circular electric light above the doorway to the apron are original. The kitchen and wet areas to the west of the ground floor retain their original use, with modifications to the fabric and a small single-storey extension to the former servery in the north-east. The original curved kiosk and buffet have been removed.
The reinforced concrete staircase retains its Moderne character, with a double-thickness central wall capped with stained timber, above which is the timber handrail raised on painted steel hoops. The treads are finished in modern (possibly 1970s) vinyl. The first floor is largely intact to its original layout. A central corridor provides access to four office spaces along the south. With the exception of some door furniture, fittings and finishes throughout are modern. The area to the north of the passage was originally a private area for use by pilots, including two bedrooms, a toilet, bathroom and dining room. The configuration of this private area has not changed, including built-in storage. At the east and west ends of the central corridor are fire doors, giving access to the external terrace to the east, west and south of the building. Electrical fittings, and wiring etc, have generally been mounted to the hard plaster walls in preference to making penetrations.
The second floor has been significantly altered. It was originally divided into a Radio Office and Radio Room to the west and a Meteorological Office and Meteorological Room to the east either side of the Flight Checking office. Access to the control cabin was via a staircase to the east of the Flight Checking office. As existing, the second floor comprises a central corridor with a large equipment room to the north, and a stand-down room, tower manager's office (within the curved bay) and Airservices office space along the south. A steel-framed staircase with concrete treads has been introduced to the west of the tower manager's office, giving access to the two-storey addition on the roof (1981). The

first storey of the addition comprises a recorder room and toilets on either side of a corridor which gives access (to the east) to the cantilevered walkway around the cabin. At the other end of the corridor, a short staircase provides access to the octagonal cabin.
The interior of the 1981 cabin includes a central fixed console (timber) and the standard range of noise abatement features (carpet to walls and floor, and perforated boards to the ceiling). There is a small kitchen area at the bottom of the short flight of stairs to the cabin. There appear to have been no significant modifications to the cabin interior since construction in 1981.

Conclusion:
Externally, the principal alteration to this building has been the removal of the original cabin and its replacement in 1981 with a new cabin of considerably greater scale and quite different form. The original cabin was an integral part of the design of the building as a whole, with the treatment of the airside (south) façade reflecting the centrality of this element.
Notwithstanding the impact of this change, the three-storey base building remains legible as a Moderne building with 'streamlined' styling including circular windows and horizontal banding. The external fabric survives relatively intact, with minimal modifications to the building in terms of additions and new openings, but with the replacement of most original steel window and door frames with aluminium. Internally, there have been extensive modifications to the original fabric and arrangement. These are most evident on the ground and second floors, while the first floor level is more intact. The control tower cabin and its square single-storey base are essentially unaltered since construction in 1981.

History

The first temporary ATC tower at Parafield was constructed in 1937 and was a two-storey timber framed base supporting a pyramidal roofed cabin surrounded by an external balcony. By the time of its construction Parafield was handling regular passenger services to and from Perth, Melbourne and Sydney, as well as inland centres. Designed to replace the temporary towers, the 'permanent buildings' referred to in the DCA Annual Report of 1937-39 were known as 'Operations and Administration' buildings. These basically integrated most terminal, administration and air traffic control functions in a single building. The buildings, accommodated air traffic control towers, facilities for passengers (restaurant, rest rooms, lounge and a roof garden), airline operators, the Department of Civil Aviation, the flight-checking department, weather bureau and airport control officials.
Between 1939 and 1941, these integrated facilities were erected at three locations across Australia, at Parafield (Adelaide), Mascot (Sydney) and Archerfield (Brisbane) airports. Constructed to essentially the same design, these were three-storey, symmetrical stepped Moderne-style buildings surmounted by vertically-framed, flat-roofed control cabins. The buildings featured streamlined styling, including circular porthole windows and horizontal incisions in the render, and were notable for an emphasis on horizontality, evident in the flat roof and the cantilevered awnings at the base of the control cabin platform (airside) and the roof of the ground level entrance (on the roadside). The model, which was based on overseas examples of integrated control and administration facilities – such as Croydon (London, 1928-30) and Le Bourget (Paris, 1934) – was designed by Department of Civil Aviation draughtsmen in Canberra around 1936. The Operations and Administration buildings at Parafield and Mascot were completed first, while the Archerfield building was delayed due to higher than expected tender prices.
Parafield's new Operations and Administration building was located on the site of the temporary elevated tower (1937), at the corner of the Kittyhawk Lane and Anderson Drive, facing due south, with views over the apron. Communication with aircraft was via visual aids, including flags, flares and large cane balls (yellow and black) mounted on a rooftop flagstaff. The controllers were also equipped with radio facilities, to co-ordinate activities on the ground and to communicate with airfields locally and on routes between airfields. During World War II, the airport at Parafield was used by the RAAF as a Flying Training Unit, using mainly Tiger Moth aircraft, with occasional use by a heavier general service aircraft such as the Liberator Bomber. By the end of the war, however, it was evident that Parafield would be unable to accommodate the future aviation needs of Adelaide, and an alternative site for a primary airport was investigated. After the war Parafield was returned to the Department of Civil Aviation. It continued to operate as Adelaide's primary civilian airport until 1955 when it was superseded by the new airport at West Torrens. At this time Parafield became Adelaide's general aviation airfield, a status that it retains today. In 1981, the original control cabin on top of the Operations and Administration building was removed and replaced with a larger octagonal cabin of the type typically used at the perimeter column-type towers common in Australia from the late-1970s.

Condition and Integrity

Modifications undertaken are as per description.

Location

Approximately 450 sqm, Anderson Drive, Parafield Airport, comprising the Air Traffic Control Tower and its base building located within Land Parcel F114106/A11 and centred on approximate MGA point Zone 54 283739mE 6147607mN.

Bibliography

The material provided in this nomination is sourced from Airservices Australia's commissioned Detailed Heritage Study (DHA) on Parafield Airport Control Tower. The Heritage study was undertaken by Lovell Chen Architects and Heritage Consultants. IE. *Lovell Chen Architects and Heritage Consultants, June 2009. National Control Towers, Volume 2 -Appendix B, Detailed Heritage Assessments.*
The DHA identifies sources of information used in the study and in this nomination.

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APPENDIX B HISTORIC DRAWINGS

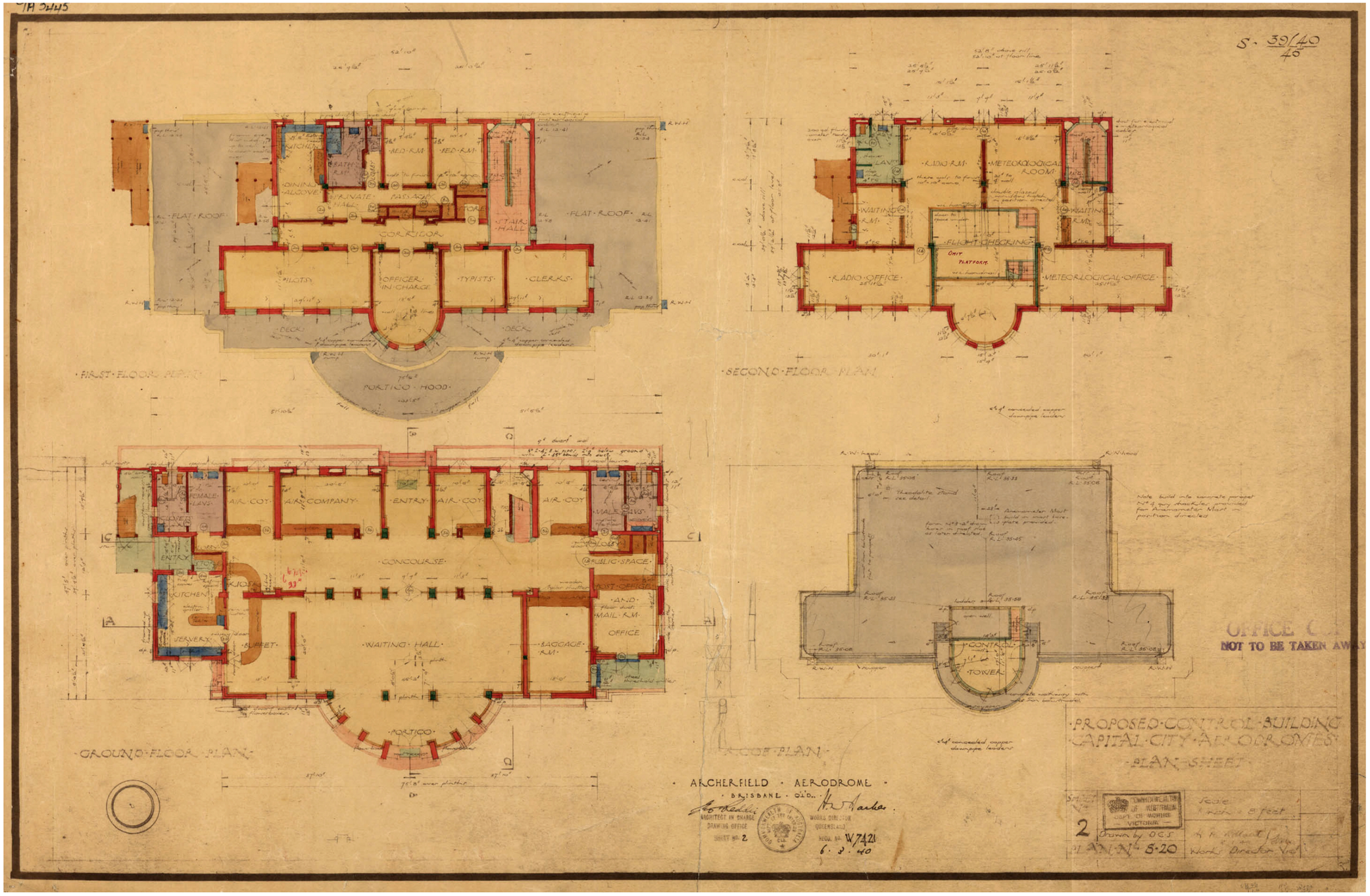

Figure 1 Operation and Administration building floor plans, sheet 2
Source: National Archives of Australia

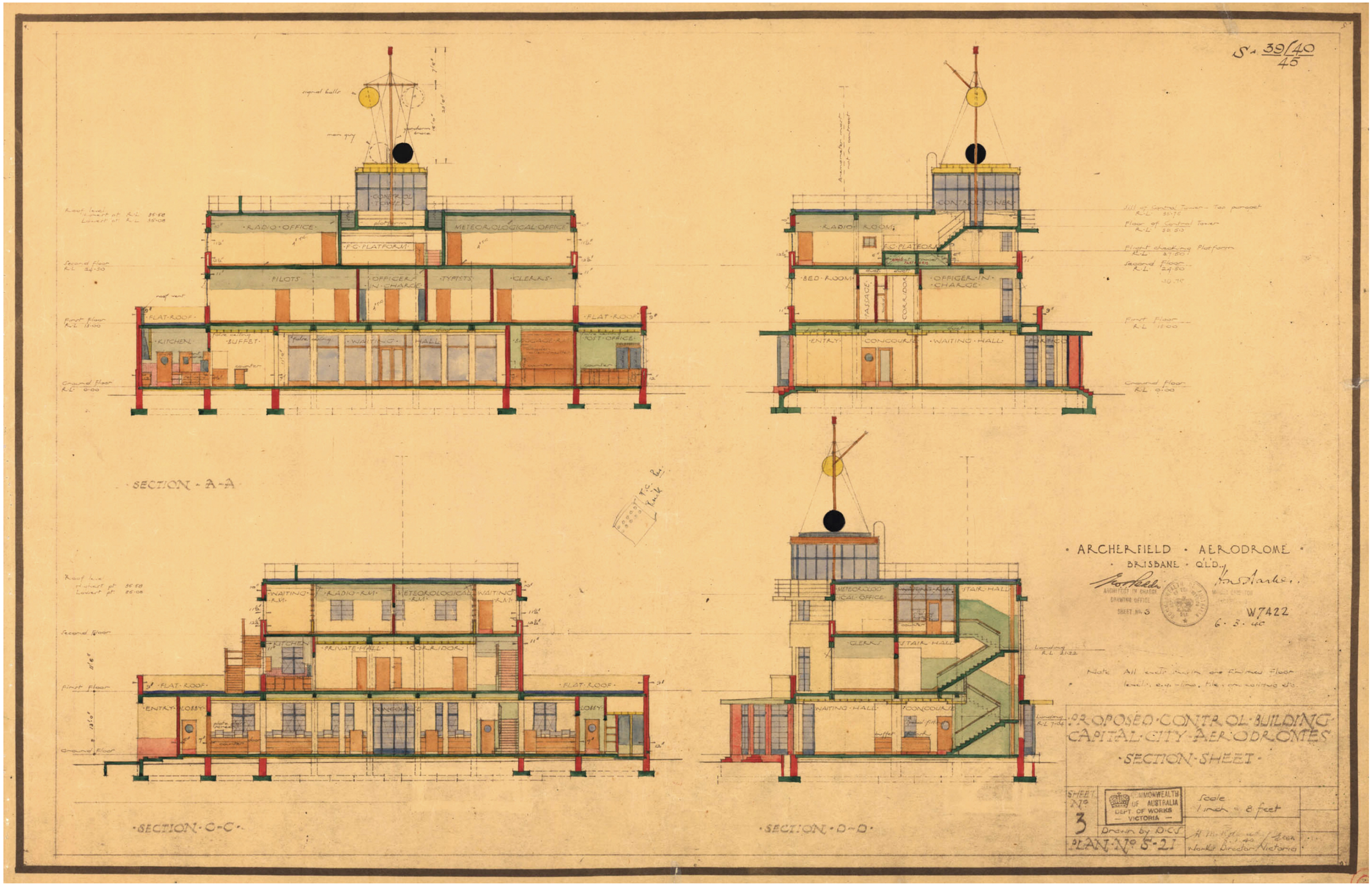

Figure 2 Operation and Administration building sections, sheet 3
Source: National Archives of Australia

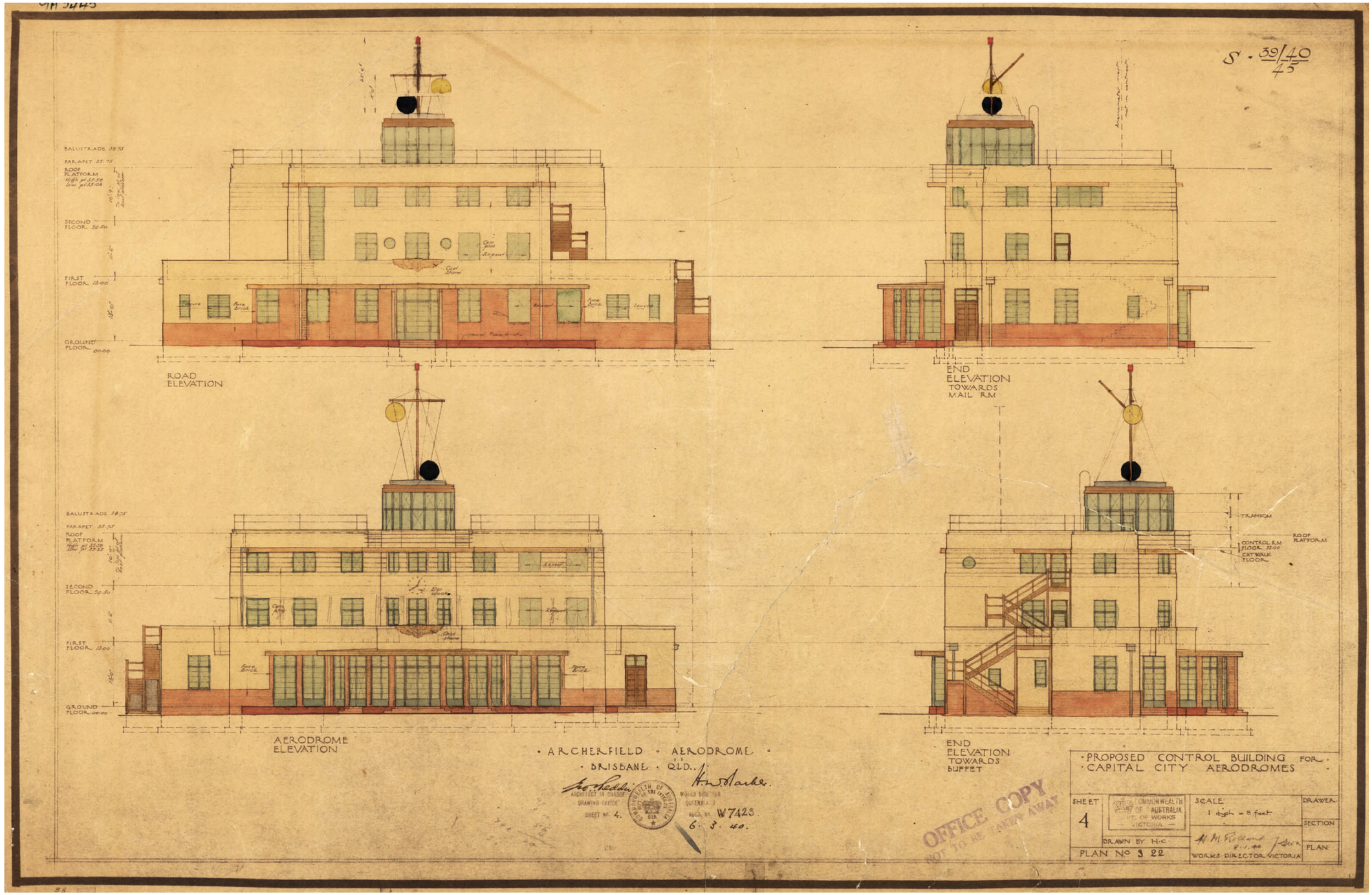

Figure 3 Operation and Administration building elevations, sheet 4
Source: National Archives of Australia

APPENDIX C PARAFIELD AIR TRAFFIC CONTROL TOWER AIRSERVICES AUSTRALIA HERITAGE USER GUIDE, ENV-GUIDE-0011, VERSION 1, EFFECTIVE 17 NOVEMBER 2014

Parafield Air Traffic Control Tower Airservices Australia Heritage User Guide

ENV-GUIDE-0011

Version 1

Effective 17 November 2014

Prepared: Renee Allen-Narker

Authorised: Paula McMahon
Manager, Environmental Services

***Information sourced from Lovell Chen National Control Towers Heritage Assessment, June 2009**

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Change summary

Version	Date	Change description
1	17 November 2014	Initial Issue.

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1 Purpose

The purpose of this document is to guide the management and maintenance of Parafield Air Traffic Control Tower, so that any development, works, or modifications are carried out in a manner that does not impact on the heritage values (known or potential) of the site.

2 Scope

The guide sets out the type of works that may be undertaken without heritage advice from Environmental Services or legal approval from the federal Minister for the Environment, works that typically require advice or approval, and those works that are likely to require approval.

This guide applies to all staff (including contractors) responsible for the management, development and maintenance of Parafield Air Traffic Control Tower. It also applies to people responsible for works within the vicinity that may affect the tower.

The heritage values (known or potential) of Parafield Air Traffic Control Tower and a brief history are also described in this document.

3 Context

Airservices has a responsibility under the *Environment Protection and Biodiversity Conservation Act 1999* (the EPBC Act) to conserve and protect the Commonwealth heritage values of places that it owns or controls.

An approval for works is required from the federal Minister for the environment, where the proposal is likely to have a significant impact on a matter of national heritage significance.

4 Site details

Site Address	Parafield Airport, Cnr Kittyhawk Lane & Anderson Dr, Salisbury SA 5108
SAP functional location	PF-APT-CTC
SAP BE/BU	BE 362 BU 1
Heritage Listings	
• Included on the Commonwealth Heritage List as Place ID no. 106120	

5 History

1927 – Parafield aerodrome opened to aircraft.

1929 – Parafield aerodrome was officially opened as Adelaide Airport.

1937 – Department of Civil Aviation (DCA) appointed Aerodrome Control Officers to regulate and control aircraft in the vicinity of Parafield.

1937 – First temporary ATC tower at Parafield; two-storey timber framed base with pyramidal roofed cabin.

1939 – 1940 The Parafield ATC Control tower (former Operations and Administration Building) was constructed.

1955 – Parafield airport closed as a civilian airport and became Adelaide's general aviation airfield, and is still operating today.

1981 – The original cabin on top of the Operations and Administration building was removed and replaced with a larger octagonal cabin.

6 Significant aspects

Parafield ATC tower is of significance as a rare early surviving example of a building designed for the purposes of air traffic control (integrated with other administrative and terminal facilities). It is one of three almost identical integrated Operations and Administration buildings constructed at major airports in Australian capital cities between 1939 and 1941 (the others were at Mascot (Sydney) and Archerfield (Brisbane). While not the most intact of the three, it is likely that the Parafield building has been associated with the provision of air traffic control for longer than any other surviving building in Australia. Significantly, all three have been altered through the removal of the original control cabin. Parafield ATC building is considered to be a relatively staid example which has been compromised by alterations and additions, including not only the addition of a later cabin but also the replacement of the original multi-paned steel windows.

Above: Airside view of Parafield Operations and Administration building, c. 1940s

Above: Parafield Control Tower. The exterior is essentially intact as completed in 1958

7 Structural significance

Table 1 describes the major structural elements, and associated significant aspects, of the Parafield Air Traffic Control Tower.

Table 1: Parafield Air Traffic Control Tower – Structural significance

Major structural element	Significant aspects
Building structure	The symmetrical stepped three-storey base brick building. The design qualities of the original 'Ops and Admin' structure with Moderne styling, should remain legible. Curved portico element of three levels of building.
External features	Rendered façade and brick on lower section of base. Upper section with rendered banding and winged logo of DCA. Window location. Remaining original multi-paned strip windows at stairs on eastern side and two 'porthole' windows on first floor.
Internal features	The first floor is largely intact to its original layout.
Cabin	The 1981 additions, including the ATC cabin, may be altered and adapted as required.

The Parafield ATC tower should be retained and conserved to the extent of its external form and fabric (the three-storey base building); a Modern building with 'streamlined' styling including circular windows and horizontal banding. Minimal modifications have occurred to the external building elements, in terms of additions and new openings. Most original steel windows and door frames replaced with aluminium. Any new development in the general vicinity of the building should allow for a continued appreciation of the building, as a free-standing structure designed to be viewed from all angles. Internally, there have been extensive modifications to the original fabric and arrangement and while there is a preference for the retention of early fabric, further change could occur if required. The 1981 additions, including the ATC cabin, may be altered and adapted as required.

8 Works approval and advice

8.1 Works not requiring heritage advice or legal approval

- Repainting and repairs of the external structure provided treatment/colours match existing
- Maintenance/repair of windows can occur as required unless original elements
- Maintenance/repair of equipment and services can occur as required e.g. equipment in the cabin
- Servicing and repair of existing equipment and services including power or pipelines where there is no alteration to building fabric
- Replacing or modifying original internal fittings where they match the existing
- Alterations to the cabin can occur without approval. This includes the technical equipment inside the cabin
- Cleaning and landscaping maintenance

8.2 Works requiring heritage advice

- Demolishing any building components
- Constructing an addition to the building or a new structure or building on the property
- Any plans to change/alter the surrounding around the control tower e.g. the addition of another building close to the control tower
- Replacing or repairing original external materials or elements such as brick elements or original windows
- Changing the paint treatment/colour scheme
- Introducing new external awnings/shades or other significant fixtures
- If an action is proposed for the site and it is unknown if heritage values will be affected
- Any works which impact on the aspects identified as significant above

8.3 Works which are likely to require statutory heritage approval

All of the actions identified under Section B above, unless heritage advice has been received that states no statutory approval is required. For example, repairs to fittings and fabric typically don’t need approval where the works are undertaken in a sympathetic manner including replacing like with like. Heritage input from the contact below is required to clarify and confirm this.

9 Contact

For questions and advice regarding the management of heritage values, contact Team Leader, Corporate Environment Programs, environment@airserivesaustralia.com or (02) 6268 4735.

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