

AVIATION IMPACT ASSESSMENT

**NEW HIGH SCHOOL FOR GOOGONG
200 WELLSVALE DRIVE, GOOGONG**

Prepared for NSW Department of Education

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ACRONYMS

AC	Advisory Circular
AFAC	Australasian Fire and Emergency Services Council
AGL	above ground level
AHD	Australian Height Datum
AIP	Aeronautical Information Package
AIS	aviation impact statement
ALARP	as low as reasonably practicable
AMSL	above mean sea level
ARP	Aerodrome Reference Point
AS	Australian Standards
AsA	Airservices Australia
ATSB	Australian Transport Safety Bureau
BoM	Bureau of Meteorology
CAAP	Civil Aviation Advisory Publications
CAO	Civil Aviation Orders
CAR	Civil Aviation Regulation (1988)
CASA	Civil Aviation Safety Authority
CASR	Civil Aviation Safety Regulation (1998)
CFIT	controlled flight into terrain
CNS	communications, navigation and surveillance
CTAF	common traffic advisory frequency
DAH	Designated Airspace Handbook
EIS	environmental impact statement
ERC-H	en-route chart high
ERC-L	en-route chart low
ERSA	En Route Supplement Australia
GA	general aviation
ICAO	International Civil Aviation Organization
IFR	instrument flight rules
IMC	instrument meteorological conditions

LGA	local government area
LSALT	lowest safe altitude
MOC	minimum obstacle clearance
MOS	Manual of Standards
MSA	minimum sector altitude
NASAG	National Airports Safeguarding Advisory Group
NASF	National Airports Safeguarding Framework
NDB	non-directional (radio) beacon
OLS	obstacle limitation surface
PANS-OPS	Procedures for Air Navigation Services - Aircraft Operations
PSR	primary surveillance radar
RAAF	Royal Australian Air Force
RFDS	Royal Flying Doctor Service
RPT	regular public transport
RSR	route surveillance radar
SSR	secondary surveillance radar
VFR	visual flight rules
VFRG	visual flight rules guide
VMC	visual meteorological conditions

UNITS OF MEASUREMENT

ft	feet	(1 ft = 0.3048 m)
km	kilometres	(1 km = 0.5399 nm)
m	metres	(1 m = 3.281 ft)
nm	nautical miles	(1 nm = 1.852 km)

EXECUTIVE SUMMARY

Introduction

This Aviation Impact Assessment (AIA) has been prepared by Aviation Projects on behalf of the NSW Department of Education (DoE) to inform a Review of Environment Factors (REF) for the proposed construction of a new high school for Googong (the activity) located at 200 Wellsvale Drive, Googong, NSW (the site).

The activity relates to the construction and operation of a new educational establishment to serve the needs of the growing Googong township by accommodating up to 700 students from years 7 – 12. Specifically, the activity includes the following:

- Building A, a three to four-storey building in the northern portion of the site, fronting Glenrock Drive, which will accommodate learning spaces and administrative functions of the school.
- Building B, a three-storey building in the north-west portion of the site, fronting Observer Street, which will accommodate learning spaces and administrative functions of the school.
- Building C, fronting Glenrock Drive, which will accommodate a school hall / gymnasium and canteen.
- Outdoor recreation areas, cricket nets, playing court and playing field.
- Main pedestrian entry established from Glenrock Drive.
- Car park and accessible pedestrian entry from Wellsvale Drive.
- Service entry from Observer Street.
- Associated civil works, earthworks, servicing and landscaping.
- Associated off-site works such as the construction of pedestrian crossings, drop off and pick up bays and a bus stop.
- School identification and wayfinding signage.

The REF describes the activity, documents the examination and consideration of all matters affecting, or are likely to affect, the environment, and details safeguards to be implemented to mitigate impacts.

The Department of Education is the determining authority for the project under Part 5 of the Environmental Planning and Assessment Act 1979 (EP&A Act)..

Project description

Googong is a new release area within the Queanbeyan-Palerang Local Government Area (LGA), located approximately eight kilometres south of Queanbeyan and 17 kilometres southeast of the Canberra Central Business District (CBD). Googong Reservoir, a significant waterbody, is located approximately 3 kilometres east of the subject site. Canberra Airport is located approximately 12 kilometres north of the subject site.

The site is legally described as Lot 829 in Deposited Plan 1277372. The proposed new high school site within this Lot has an area of approximately 5.84 hectares.

The site is currently zoned as R1 General Residential in the Queanbeyan Palerang Local Environmental Plan (LEP) 2022 and is located within Neighbourhood 2 of the Googong Masterplan, within the Googong DCP 2010.

The site is surrounded by low-density residential development, recreational areas and a future local centre adjoining the site to the north.

The site is currently vacant with no existing structures and has been cleared of all trees and native vegetation. The site has an approximately 12 metre fall from the southwest corner of the site at RL ~763.550m Australian Height Datum AHD to the northeast at RL ~751.570m AHD.

Hence, the new Googong High School has the following proposed building heights:

- Block A's maximum height of 772.076 m AHD (2533.1 ft AMSL)
- Block B's maximum height of 768.326 m AHD (2520.8 ft AMSL)
- Block C's maximum height of 766.201 m AHD (2513.8 ft AMSL)
- Assumed cranes could have a maximum height of approximately 25 m above the building, which will result to
 - The top of the Crane at Block A could be up to 797.076 m AHD (2615.1 ft AMSL)
 - The top of the Crane at Block B could be up to 793.326 m AHD (2602.8 ft AMSL)
 - The top of the Crane at Block C could be up to 791.201 m AHD (2595.8 ft AMSL)

Conclusions

Based on a comprehensive analysis and assessment detailed in this report, the following conclusions were made:

Certified airports

- The Project is within 30 nm (55.56 km) of one (1) certified airport – Canberra Airport, and the Project Site
 - Will not impact the MSA surfaces
 - Will not impact the circling areas
 - Will not impact the PANS-OPS Approach and Departure surfaces

Obstacle Limitation Surfaces

- The Project would infringe the Outer Horizontal Surface of the OLS of Canberra Airport

Air Routes and Lowest Safe Altitude (LSALT)

- The Project would not impact the Grid LSALT and any Air Route LSALT

Airspace

- The Project Site will be located inside of Canberra controlled airspace (wholly within Class C airspace) and is not located in any Prohibited, Restricted or Danger areas

Aviation Navigation Facilities

- The Project will be located a sufficient distance away from nearby certified airports and aviation facilities and will not have an impact

ATC Surveillance Radar installations

- The Project Site will not affect the Sandra's View Primary Surveillance Radar (PSR) and Secondary Surveillance Radar (SSR)

- The Project Site will be outside the line-of-sight range of Mt Majura PSR / RSR radars and will not impact these facilities

Airport Noise

- The Project Site will be outside the ANEF contours for Canberra Airport

Summary of key recommendations

As a result of this aeronautical assessment, the following recommendations are made:

- The proposed Project can be supported without adversely affecting aviation safety.
- If approved, details of the Project need to be reported to Airservices Australia via this email address: vod@airservicesaustralia.com, for publication in relevant aeronautical information products.
- Any crane used during construction need to be referred to Canberra Airport for approval.

1. INTRODUCTION

1.1. Situation

Googong is a new release area within the Queanbeyan-Palerang Local Government Area (LGA), located approximately eight kilometres south of Queanbeyan and 17 kilometres southeast of the Canberra Central Business District (CBD). Googong Reservoir, a significant waterbody, is located approximately 3 kilometres east of the subject site. Canberra Airport is located approximately 12 kilometres north of the subject site.



Figure 1- Site Location Plan

The site is legally described as Lot 829 in Deposited Plan 1277372. The proposed new high school site within this Lot has an area of approximately 5.84 hectares.

The site is currently zoned as R1 General Residential in the Queanbeyan Palerang Local Environmental Plan (LEP) 2022 and is located within Neighbourhood 2 of the Googong Masterplan, within the Googong DCP 2010.

The site is surrounded by low-density residential development, recreational areas and a future local centre adjoining the site to the north.

The site is currently vacant with no existing structures and has been cleared of all trees and native vegetation. The site has an approximately 12 metre fall from the southwest corner of the site at RL ~763.550m Australian Height Datum AHD to the northeast at RL ~751.570m AHD. As shown in Figure 1 (Source: NSW Department of Education).

1.2. Purpose and Scope

The scope of work is to prepare an AIA of aviation aspects in relation to the proposed project development. The AIA has been prepared in consideration of:

- Relevant planning context and framework
- Relevant aspects and National Airports Safeguarding Framework and associated guidelines
- Canberra Airport Master Plan 2020
- Airspace Regulations 2007

Assistance will be provided in support of stakeholder consultation and engagement in preparing the assessment and negotiating acceptable mitigation to identified impacts.

1.3. Methodology

The engagement will generally be delivered as outlined below:

1. Review plans for the proposed development
2. Review relevant regulatory requirements and information sources, including Aeronautical Information Package and Civil Aviation Safety Authority (CASA) *Manual of Standards Part 139 – Aerodromes*, NASF Guidelines and Airspace Regulations 2007
3. Review and assess the operational airspace (Obstacle Limitation Surfaces and PANS-OPS surfaces of any surrounding certificated airport), including physical obstructions, transient obstructions, gaseous plumes and airborne particulates
4. Consider the use of cranes during construction and any impacts on flight paths

The AIA and supporting technical data will provide evidence and analysis for the planning application to demonstrate that appropriate risk mitigation strategies have been identified for any intrusion into protected airspace.

1.4. Aviation Impact Statement (AIS)

The AIS included in this report (see Section 5) includes the following specific requirements as required by Airservices Australia:

Aerodromes:

- Specify all certified aerodromes that are located within 30 nm (55.6 km) of the project site.
- Nominate all instrument approach and landing procedures at these aerodromes.
- Review the potential effect of project operations on the operational airspace of the aerodrome(s).

Airspace:

- Nominate the airspace classification – A, C, D, E, G etc where the project site is located.

Navigation/Radar:

- Nominate radar navigation systems with coverage overlapping the site.

1.5. Material reviewed

Material provided by the Proponent for preparation of this assessment include:

- GGHS-NBRS-ZZ-GF-DR-A-001000 [1] OVERALL GROUND PLAN.pdf
- GGHS-NBRS-ZZ-L1-DR-A-001001 [1] OVERALL LEVEL 1 PLAN.pdf
- GGHS-NBRS-ZZ-L2-DR-A-001002 [1] OVERALL LEVEL 2 PLAN.pdf
- GGHS-NBRS-ZZ-L3-DR-A-001003 [1] OVERALL LEVEL 3 PLAN.pdf
- GGHS-NBRS-ZZ-RF-DR-A-001005 [1] OVERALL ROOF PLAN.pdf
- GGHS-NBRS-ZZ-RF-DR-A-008600 [2] SIGNAGE.pdf
- GGHS-NBRS-ZZ-ZZ-DR-A-000001 [1] COVER & DRAWING LIST.pdf
- GGHS-NBRS-ZZ-ZZ-DR-A-000003 [1] CONSOLIDATED SCHEDULE OF ACCOMODATION.pdf
- GGHS-NBRS-ZZ-ZZ-DR-A-000051 [1] SITE ANALYSIS SHEET 01.pdf
- GGHS-NBRS-ZZ-ZZ-DR-A-000100 [1] STACKING PLAN.pdf
- GGHS-NBRS-ZZ-ZZ-DR-A-000110 [1] 3D AXONOMETRIC DIAGRAM.pdf
- GGHS-NBRS-ZZ-ZZ-DR-A-000200 [1] BOUNDARY SITE PLAN.pdf
- GGHS-NBRS-ZZ-ZZ-DR-A-000201 [1] SITE PLAN.pdf
- GGHS-NBRS-ZZ-ZZ-DR-A-002500 [1] SHADOW DIAGRAMS.pdf
- GGHS-NBRS-ZZ-ZZ-DR-A-003001 [1] SITE ELEVATIONS.pdf
- GGHS-NBRS-ZZ-ZZ-DR-A-004001 [1] SITE SECTIONS.pdf
- GGHS-NBRS-ZZ-ZZ-DR-A-005601 [1] TYPICAL WALKWAY SCREEN DESIGN.pdf
- GGHS-NBRS-ZZ-ZZ-DR-A-009011 [1] EXTERNAL FINISHS - TYPICAL LEARNING BUILDING.pdf
- GGHS-NBRS-ZZ-ZZ-DR-A-009012 [1] EXTERNAL FINISHES - HALL.pdf
- NBRS_Document Transmittal_REF.pdf

2. BACKGROUND

2.1. Site overview

The site is surrounded by 3 roads Glenrock Drive, Wellsvale Drive, and Observer Street. The Project Site is approximately 12 km south of Canberra Airport. An overview of the project site relative to Canberra Airport is provided in Figure 2 (source: NSW Department of Education, Google Earth).

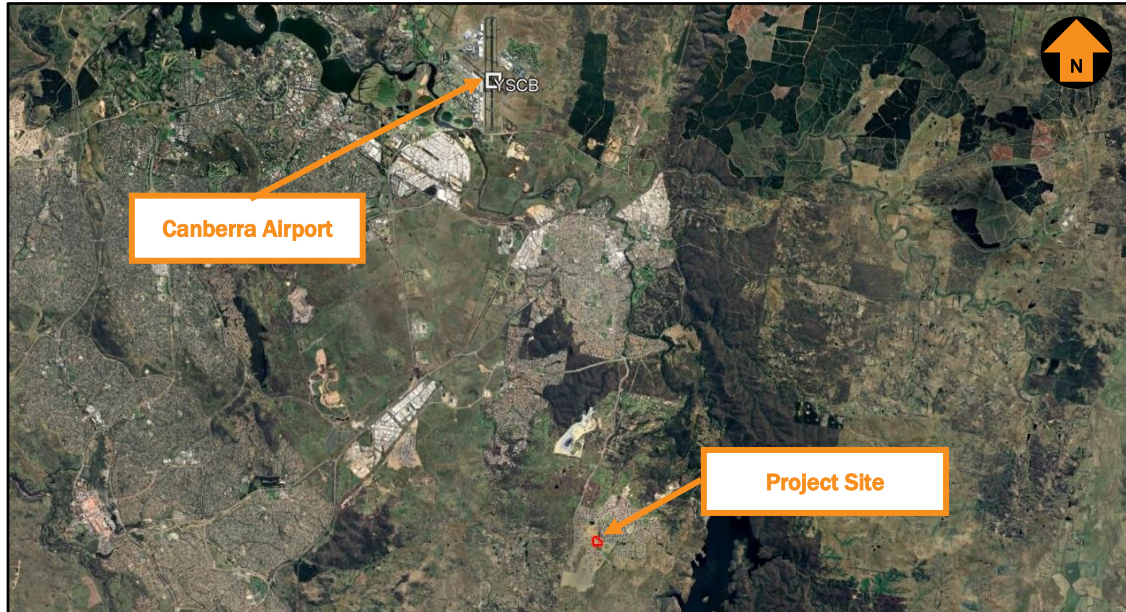


Figure 2 Project site overview relative to Canberra Airport.

2.2. Project Description

Googong is a new release area within the Queanbeyan-Palerang Local Government Area (LGA), located approximately eight kilometres south of Queanbeyan and 17 kilometres southeast of the Canberra Central Business District (CBD). Googong Reservoir, a significant waterbody, is located approximately 3 kilometres east of the subject site. Canberra Airport is located approximately 12 kilometres north of the subject site.

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- Block B's maximum height of 768.326 m AHD (2520.8 ft AMSL)
- Block C's maximum height of 766.201 m AHD (2513.8 ft AMSL)

Figure 3 and Figure 4 show the perspective drawing of the project development (source: NSW Department of Education).

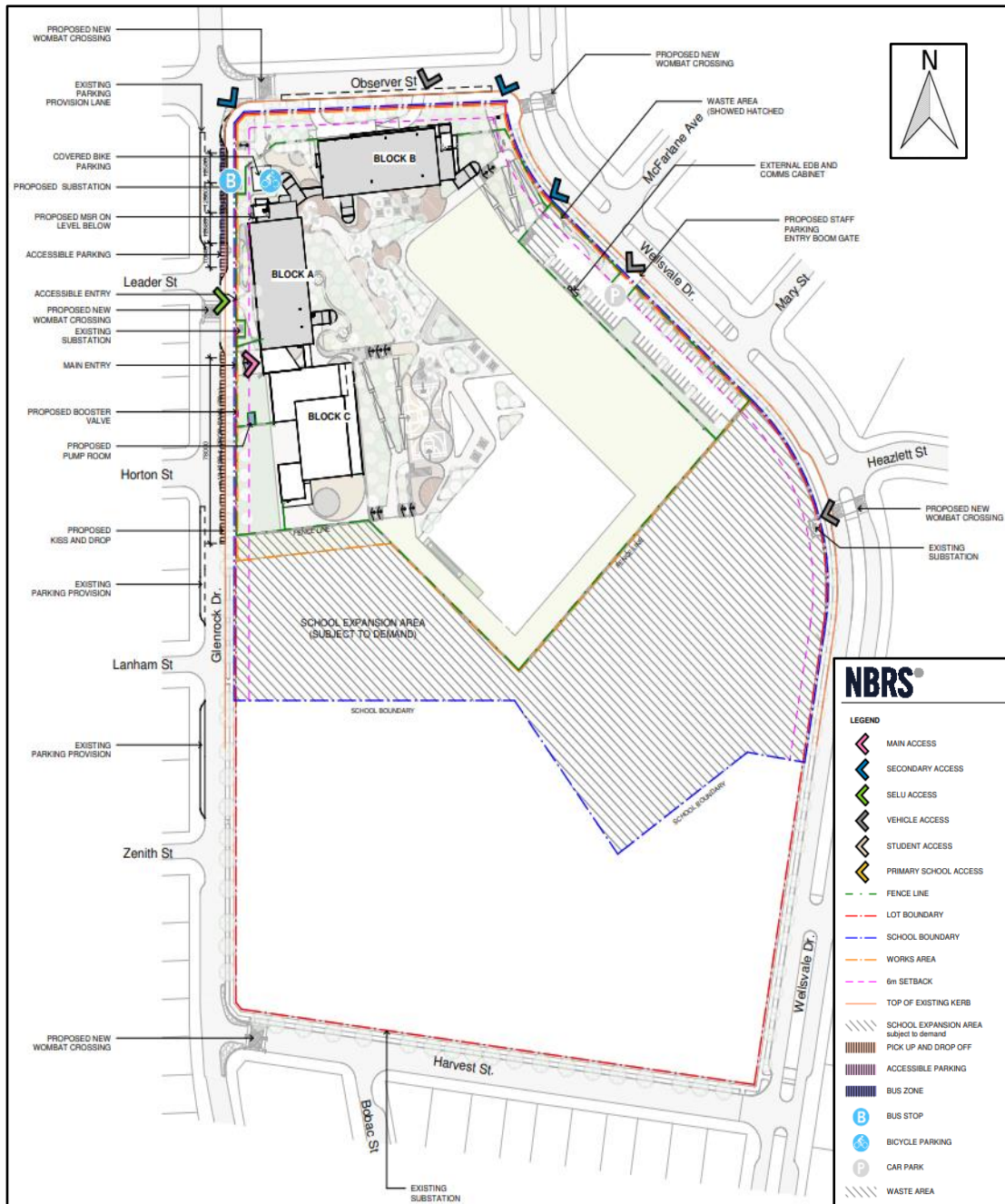


Figure 3 New high school for Googong



Figure 4 Section Drawings

2.3. Temporary crane operations

It is assumed crane operation could have a maximum height of approximately 25 m above the building in this report; therefore:

- The top of the Crane at Block A could be up to 797.076 m AHD (2615.1 ft AMSL)
- The top of the Crane at Block B could be up to 793.326 m AHD (2602.8 ft AMSL)
- The top of the Crane at Block C could be up to 791.201 m AHD (2595.8 ft AMSL)

3. EXTERNAL CONTEXT

3.1. National Airports Safeguarding Framework

The National Airports Safeguarding Advisory Group (NASAG) was established by the Commonwealth Department of Infrastructure, Transport, Regional Development, Communications, and the Arts to develop a national land use planning framework called the National Airports Safeguarding Framework (NASF). The purpose of the NASF is to enhance the current and future safety, viability, and growth of aviation operations at Australian airports through:

- the implementation of best practice in relation to land use assessment and decision making in the vicinity of airports
- assurance of community safety and amenity near airports
- better understanding and recognition of aviation safety requirements and aircraft noise impacts in land use and related planning decisions
- the provision of greater certainty and clarity for developers and landowners
- improvements to regulatory certainty and efficiency
- the publication and dissemination of information on best practice in land use and related planning that supports the safe and efficient operation of airports.

3.1.1. NASF Guideline A: Measures for Managing Impacts of Aircraft Noise

This guideline principally provides recommendations to local planning authorities on the implementation of noise policies within their legislative frameworks using principles set out in the Australian Noise Exposure Forecast (ANEF) System and the Australian Standard AS 2021-2015 Acoustics – Aircraft Noise Intrusion – Building Siting and Construction (AS2021).

Greenfield Areas

- *No noise-sensitive developments within a 20 ANEF where that land was previously rural or for non-urban purposes.*
- *Avoid noise-sensitive development where ultimate capacity or long range noise modelling for the airport indicates either:*
 - *20 or more daily events greater than 70 dB(A);*
 - *50 or more daily events of greater than 65 dB(A); or*
 - *100 events or more daily events of greater than 60 dB(A).*
- *Consider likely night-time aircraft movements (11pm to 6am) with 60 dB(A) or greater noise impact.*

Brownfield Areas (Urban Land)

- *Consider balance of aircraft noise impacts against strategic planning outcomes.*
- *Manage implications of aircraft noise through construction and / or disclosure processes to residents / occupants.*

- Consider if new development improves existing noise issues through improved management of implications.
- Consider dB(A) level guidelines shown elsewhere.

New Noise Sensitive Developments within Residential Areas

- Physically reduce aircraft noise through construction and / or AS2021 processes)
- Ensure disclosure processes to residents / occupants if one or more of the criteria in shown in section 3.2.1.1 (Points 2 and 3) apply.

Airports without an ANEF

- Consider application of 3.2.1.1 requirements for the airport based on the following zones of influence;
 - Within 15 km of an international airport, major domestic airport, or major military aerodrome.
 - Within 10 km of a domestic airport with regular scheduled public transport services
 - Within 5 km of any other type of aerodrome for which an ANEF chart is unavailable.

3.1.2. NASF Guideline F: Managing the Risk of Intrusions into the Protected Operational Airspace of Airports

This guideline provides guidance to State/Territory and local government decision makers as well as airport operators to jointly address the issue of intrusions into the operational airspace of airports by tall structures, such as buildings, cranes and transmission lines, as well as trees in the vicinity of airports.

Key considerations for managing risk of intrusions into the protected operational airspace of airports

Protection of visual operations - Obstacle limitation surfaces

The first group of criteria are used to determine the obstacle limitation surfaces (OLS) for a runway. Criteria for determining these surfaces are established by the International Civil Aviation Organisation (ICAO). In Australia, CASA publishes these criteria in the Manual of Standards for Part 139 of the Civil Aviation Safety Regulations.

Structures, trees or other activities that intrude into the OLS could constitute obstacles to aircraft taking off or approaching to land. The OLS for an airport charts the volume and dimensions of operational airspace that should be kept free of obstacles to aircraft operations being conducted under VFR or during the visual stages of IFR operations.

It is important to note that the OLS does not prohibit all intrusions. The aim is to ensure that all objects that intrude into the OLS can be identified and assessed for their potential impact on aircraft operations. The assessment will enable a determination on whether the intrusion is permissible, and if so, a determination on whether any risk mitigation requirements should be imposed.

The requirements to protect operational airspace will be enforced most rigorously along the extended centrelines of runways in the approach and take-off areas. This could extend up to 15 kilometres from the ends of runways at major airports. Other OLS surfaces that protect aircraft circling to land may also extend up to 15 kilometres from major airports.

The effects of individual obstacles may be relatively minor, but together a number of obstacles may seriously limit runway utilisation, cause airspace congestion and reduce the effective handling capacity of the airport. It

is therefore important to understand that the pre-existence of a structure or other intrusion into operational airspace does not necessarily mean that a new proposal to penetrate operational airspace will be approved under Commonwealth legislation.

Land use planning authorities and state/territory governments should be aware that all intrusions into the OLS have the potential to create aviation safety risks and to limit the scope of aviation operations into and out of the airport.

Protection of instrument operations - Procedures for Air Navigation Services – Operations (PANS-OPS) surfaces

A second group of criteria is used to determine the volumes and dimensions of airspace required to protect the safety of IFR operations. Under IFR operations, pilots fly aircraft relying on instruments for navigation. Airspace protection for IFR operations cannot allow for any long-term penetrations.

ICAO established these criteria which are published in document 8168 titled 'Procedures for Air Navigation Services – Operations (PANS-OPS)'. The surfaces determined by using the criteria in the PANS-OPS publication are called PANS-OPS surfaces.

The PANS-OPS surfaces are used in the construction of take-off, landing and approach procedures based entirely on navigation with sole reference to aircraft instruments. They are designed to protect aircraft from colliding with obstacles when flying on instruments. Minimum safe altitudes are established for each segment of an instrument procedure.

If it is agreed by all stakeholders that a long-term penetration of the PANS-OPS surfaces is essential, the PANS-OPS surfaces must be raised so they are clear of the development causing the penetration. However, this may also have operational penalties for airport operations and could have community impacts, such as re-design of flight paths that increase the population exposed to high levels of aircraft noise.

3.1.3. NASF Guideline G: Protecting Aviation Facilities – Communication, Navigation and Surveillance (CNS)

The guideline provides land use planning information to enable the protection of CNS facilities which support the systems and processes in place by Airservices Australia (Airservices), the Department of Defence (Defence) or other agencies under contract with the Australian Government, to safely manage the flow of aircraft into, out of and across Australian airspace.

3.2. Airports (Protection of Airspace) Regulations 1996

Part 12 of the *Airports Act 1996* and the *Airports (Protection of Airspace) Regulations 1996* establish a framework for the protection of airspace at and around airports. The following summary of these requirements is provided on the Commonwealth Department of Infrastructure, Transport, Regional Development and Communications website.

The *Airports Act 1996* defines any activity resulting in an intrusion into an airport's protected airspace to be a "controlled activity" and requires that controlled activities cannot be carried out without approval.

The Regulations provide for the Department or the airport operator to approve applications to carry out controlled activities, and to impose conditions on an approval.

Any activity that infringes an airport's protected airspace is called a **controlled activity** and requires approval before it can be carried out. Controlled activities include the following:

- permanent structures, such as buildings, intruding into the protected airspace;
- temporary structures such as cranes intruding into the protected airspace; and

- any activities causing intrusions into the protected airspace through glare from artificial light or reflected sunlight, air turbulence from stacks or vents, smoke, dust, steam or other gases or particulate matter.

The Regulations differentiate between **short-term** (less than 3 months) and **long-term** controlled activities. The Regulations provide for the airport operator to approve **short-term** controlled activities, excluding PANS-OPS infringements, and for the Department to approve long-term controlled activities, or **short-term** controlled activities referred to it by the airport operator, including short-term infringements of the PANS-OPS surface. However, long term intrusions of the PANS-OPS surface are prohibited.

Applications to carry out a controlled activity are to be made to the airport operator in writing. The information required in the application must include:

1. a description of the proposed controlled activity (building construction, crane operation etc);
2. its precise location (street directory grid references are suitable);
3. if the controlled activity consists of the erection of a building or structure:
 - a. the proposed maximum height of the structure above the Australian Height Datum (including any antennae or towers), and
 - b. the proposed maximum height of any temporary structure or equipment (e.g. cranes) intended to be used in the erection of the structure.
4. the purpose of the controlled activity.

The airport operator will conduct the initial assessment of the application in terms of:

- whether the activity results in an intrusion into the OLS or PANS-OPS surface;
- the extent of the intrusion; and
- the precise location of the development or activity.

The airport operator is required to invite the following organisations to assess or comment on an application:

- **the Civil Aviation Safety Authority (CASA)** for an assessment of the impact on aviation safety;
- **Airservices Australia** for assessments of proposals resulting in a penetration of the PANS-OPS surface or temporary redirection of flight paths;
- **the local council authority** responsible for building approvals; and
- **the Department of Defence** in the case of joint-user airports.

For short-term controlled activities, comments are only required from CASA and Airservices.

The approval process varies depending on the type of controlled activity:

- **short-term controlled activities** which penetrate the OLS can be approved/refused by the airport operator after consultation with CASA and Airservices Australia or referred by the airport to the Department for a decision. However, if the short term controlled activity penetrates the PANS-OPS surfaces, airport operators are required to consult with CASA and Airservices and then refer applications to the Department for a decision. This referral is to include advice about whether the short-term penetration of the PANS-OPS has the support of the airport operator;
- **long-term controlled activities penetrating the OLS** are referred by the airport to the Department for a decision after consultation with CASA, Airservices and the relevant building authority; and

- **long-term controlled activities penetrating the PANS-OPS airspace** are not permitted, and the airport operator can notify the refusal of such controlled activities.

The Regulations require any decision by the airport operator to be made in the interests of the *safety, efficiency or regularity* of existing or future air transport operations into or out of the airport.

3.3. Civil Aviation Safety Regulations Part 139—Aerodromes

The Civil Aviation Safety Authority (CASA) regulates aviation activities in Australia. Applicable requirements include the Civil Aviation Safety Regulations (CASR) Part 139—*Aerodromes*, the associated Manuals of Standards CASR Part 139—*Aerodromes* and other guidance and advisory material.

3.4. Canberra Airport Master Plan

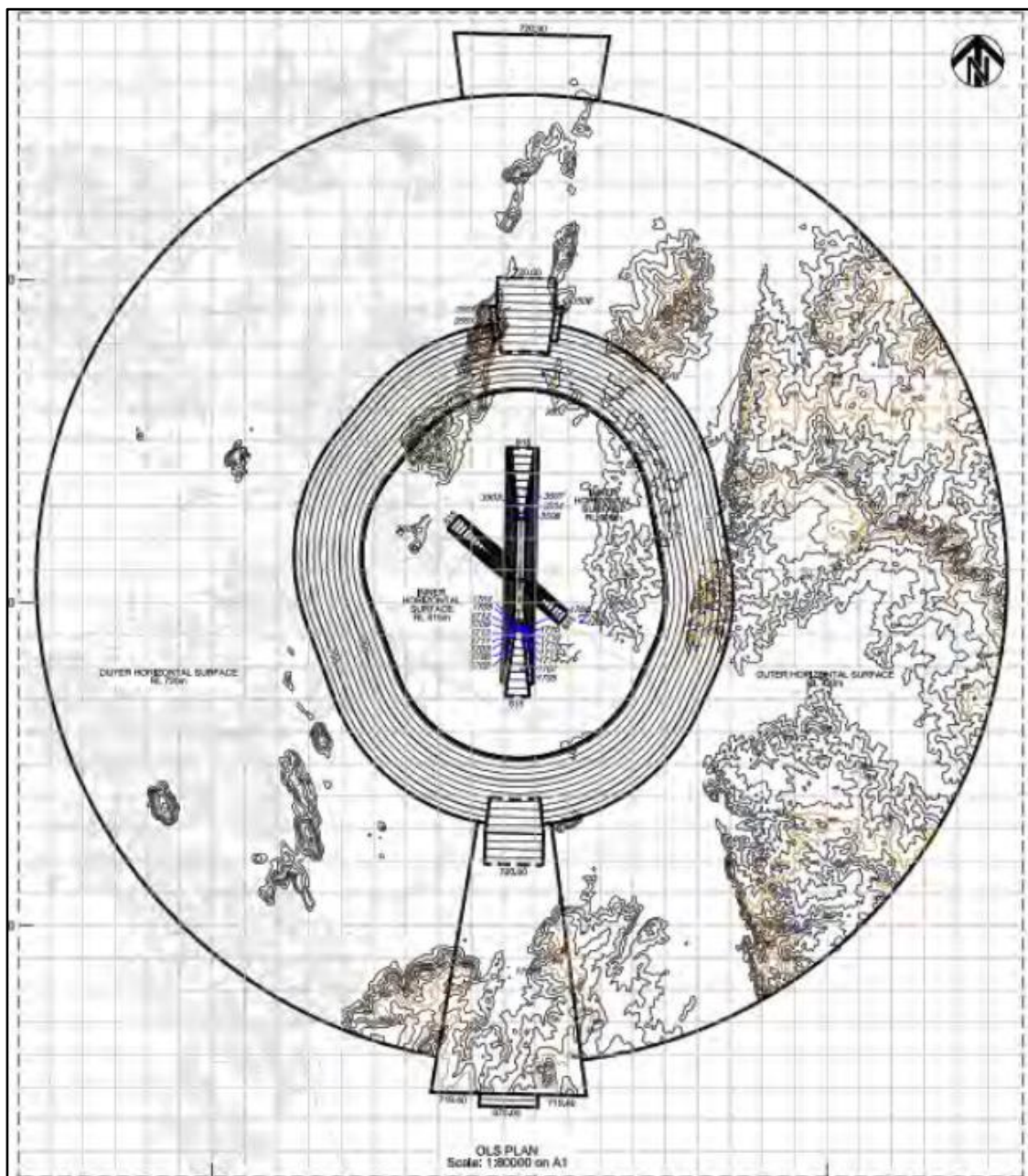
The Canberra Airport Master Plan 2020, and in particular Chapter 11, addresses current and future requirements for prescribed airspace.

The following content regarding airspace protection is extracted from Canberra Airport Master Plan 2020 chapter 11:

Canberra Airport is responsible for the assessment of temporary or permanent structures for infringements of the OLS or PANS-OPS. In the event an infringement into the OLS is detected, Canberra Airport is responsible for ensuring this information is communicated to CASA, Airservices Australia and aircraft operations.

Regulation 5 of the Airports [Protection of Airspace] Regulations 1996 ultimately provides that the Secretary can declare specified airspace around Canberra Airport to be prescribed to safeguard Airport operations.

The declared OLS and PANS-OPS surfaces are shown in Figure 5 and Figure 6.



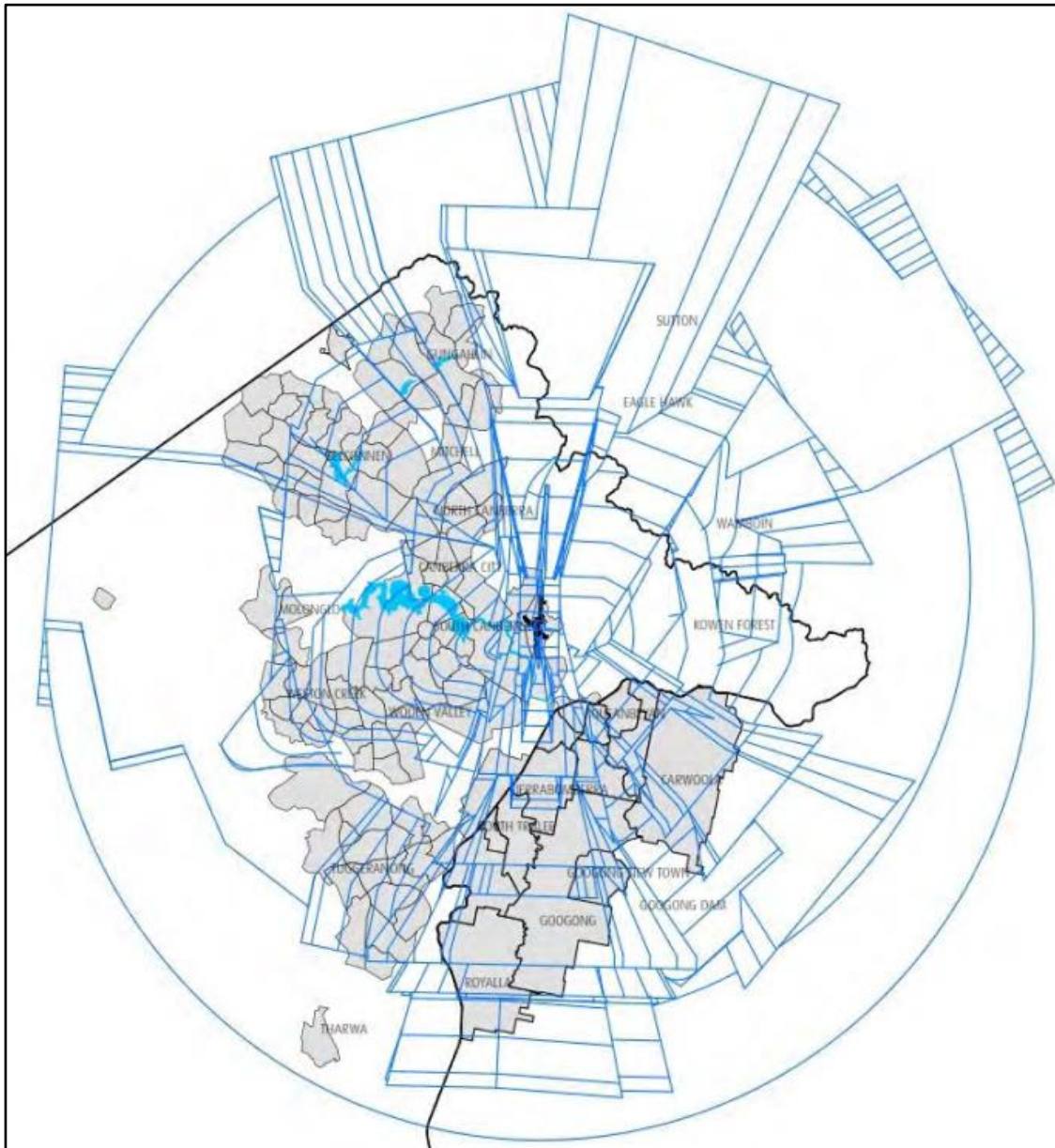


Figure 6 Canberra Airport – Procedures for Air Navigation Services – Aircraft Operations Surfaces

4. CONSULTATION

Consultation will be undertaken by Aviation Projects with the following stakeholders following client acceptance of the final draft report and authorisation to distribute. The feedback provided will be assessed, the AIA/AIS will be updated and included in the next report version::

1. Airservices Australia - consultation will include the AIS for confirmation of the PANS-OPS assessment, to commence the process that will include details in the aeronautical obstacle database and publish the final development on aeronautical charts. And Airservices Australia normally copy their responses to CASA.
2. Department of Defence - consultation will include the AIS for confirmed the extent of Defence aviation activities in the area
3. Canberra Airport
 - a. The building is a permanent infringement and requires approval from the Department of Infrastructure, Transport, Regional Development and Communications (DITRDC), via an application to Canberra Airport that can be completed and submitted with the AIA attached as the safety case.
 - b. The crane is a temporary infringement and requires approval from Canberra Airport if the crane operation is determined as a “short term” operation for less than 3 months, or if for a longer period, negotiations with the airport and DITRDC for amendments to affected procedures.

Details and results of the consultation activities are provided in Table 1.

Table 1 Stakeholder consultation details

<i>Agency/Contact</i>	<i>Activity/Date</i>	<i>Response/ Date</i>	<i>Issues Raised During Consultation</i>	<i>Action Proposed</i>
Airservices Australia	The email sent on 21 March 2025 to Airservices Australia	Email received on 08 April 2025 from Kwanele Diallo (Airport Development)	<p>Airspace Procedures</p> <p>With respect to procedures designed by Airservices in accordance with ICAO PANS-OPS and Document 9905, at a height of 797.1m (2616ft) AHD the development and mobile crane will not affect any sector or circling altitude, nor any instrument approach or departure procedure at Canberra aerodrome.</p> <p>The development and mobile crane will not affect the Canberra RTCC.</p> <p>Note: procedures not designed by Airservices at Canberra aerodrome were not considered in this assessment.</p> <p>Communications/Navigation/Surveillance (CNS) Facilities</p> <p>We have assessed the proposed activity to the above specified height for any impacts to Airservices Precision/Non-Precision Navigation Aids, Anemometers, HF/VHF/UHF Communications, A-SMGCS, Radar, PRM, ADS-B, WAM or Satellite/Links and have no objections to it proceeding.</p> <p>Note: Meteorological instruments not owned by Airservices were not considered in this assessment. In accordance with Part 139 (Aerodromes) Manual of Standards, Chapter 19, we recommend consulting with</p>	No Action Required

<i>Agency/Contact</i>	<i>Activity/Date</i>	<i>Response/ Date</i>	<i>Issues Raised During Consultation</i>	<i>Action Proposed</i>
			<p>the Bureau of Meteorology (the Bureau) to ensure that the proposed activity does not adversely affect their equipment. The Bureau can be contacted at airport.developments@bom.gov.au</p> <p>Air Traffic Control (ATC) Operations</p> <p>There are no additional instructions or concerns from ATC.</p> <p>Summary</p> <p>The proposed activity does not impact Airservices operations or facilities at Canberra aerodrome.</p> <p>This advice remains valid for any future time extensions if there is no change to the location and height of the proposed controlled activity for the purposes of sub-regulations 10(2)(b), 10(4)(b) and 13(d) of the <i>Airports (Protection of Airspace) Regulations 1996</i>.</p>	
Department of Defence	The email sent on 21 March 2025 to the Department of Defence	Email received on 03 April 2025 from Anthony Deutschmann (Assistant Director)	<p>Thank you for referring the abovementioned proposal to the Department of Defence (Defence) for comment. Defence understands that the proposal is for a new high school, including new building and structures, landscaping, sport and play spaces, and associated infrastructure at 200 Wellsvale, Drive Googong. The subject site is approximately 8.5 kilometers southeast of HMAS Harman.</p> <p>Defence has assessed the proposal as presented for any possible impacts on the Defence estate and associated operations and capabilities. On this basis, Defence advises it has no comments.</p>	No Action Required

<i>Agency/Contact</i>	<i>Activity/Date</i>	<i>Response/ Date</i>	<i>Issues Raised During Consultation</i>	<i>Action Proposed</i>
Canberra Airport	The email sent on 21 March 2025 to Canberra Airport	Email received on 22 April 2025 and 02 May 2025 from Andrew Sheil (Airspace Protection and Approvals Officer)	<p>Email received on 22 April 2025:</p> <p>Based on the drawings supplied, it appears that maximum crane tip heights are possible between a range of 32.458 m AGL (Block C) and 38.326 m AGL for Blocks A and B. Based on the nearby development of the 150 Wellsdale Drive site immediately north of this location and north of Observer Street, already with an approval for crane heights of 50m AGL, I could (a) lodge an application for airspace assessment for 50m AGL to be consistent with that scenario and other nearby developments or (b) pause any further assessment until confirmation of heights and operating time frame/s is available for the terms of the aviation assessment.</p> <p>I note the Airservices assessment (YSCB-CA-293) currently accounts for crane heights 25m above each building height. If higher was requested, the Airservices assessment would be reviewed and reissued, however, that should occur without difficulty. CASA should be covered off without difficulty as the 150 Wellsdale Drive site also holds a current CASA assessment and I doubt their requirements and safety mitigations for crane operations at this location will change.</p> <p>Email received on 02 May 2025:</p> <p>I will get underway with the application for the crane operation to 50m AGL maximum and update you on the progress with the government assessments, when they are made available to Canberra Airport.</p>	<p>No Action Required.</p> <p>Application under, turn around time expected around 8 – 12 weeks.</p>

<i>Agency/Contact</i>	<i>Activity/Date</i>	<i>Response/ Date</i>	<i>Issues Raised During Consultation</i>	<i>Action Proposed</i>
			Please note, at this stage, expectations are that the turnaround time for government assessment/s and approval/s sits at around 8-12 weeks from date of submission.	

5. AVIATION IMPACT STATEMENT

An AIS must be developed by an aeronautical consultant with suitable knowledge and capabilities to provide a reliable and comprehensive assessment of the potential impacts on aviation from the proposed development. The AIS (and any associated data) should be sent to Airservices Australia in electronic form, together with the assessment request. The Airservices Australia website specifies:

AIS Criteria

The AIS must provide a detailed analysis covering, as a minimum:

Aerodromes

- *Specify all registered/certified aerodromes that are located within 30NM (55.56km) from any obstacle referred to in the report.*
- *Identify all instrument approach and landing procedures at these aerodromes.*
- *Confirm that the proposed development (known as a potential “obstacle”) does not penetrate the Annex 14 Obstacle Limitation Surface (OLS) for any aerodrome. If a potential obstacle does penetrate the OLS, the AIS should clearly specify the extent of the penetration.*

Air Routes

- *Identify air routes published in Airservices AIP Charts, Enroute Chart – Low (ERC-L) and Enroute Chart – High (ERC-H), which are located near or over any potential obstacle referred to in (3) above.*
- *Specify two waypoint names located on the routes that are located on either side of the potential obstacle.*

Airspace

- *Identify the airspace classification (i.e. A, B, C, D, E, G etc.) where the potential obstacles are located.*

The proposed Project Site is within 30 nm of 1 certified airport: Canberra Airport (YSCB) – 12 km / 6.6 nm north of the Project Boundary.

5.1. Canberra Airport (YSCB)

Canberra Airport is a certified aerodrome operated by Canberra Airport Pty Ltd. Its published aerodrome elevation (the elevation of the highest point of the landing area – ICAO Annex 14) is 575 m Australian Height Datum (AHD) (1887 ft AMSL) (Source: Airservices Australia, dated 28 November 2024).

Canberra Airport's ARP coordinates published in Airservices Australia's Designated Airspace Handbook (DAH) are Latitude 35° 18' 25"S and Longitude 149° 11' 42"E.

5.1.1. Obstacle Limitation Surface (OLS)

Obstacle Limitation Surfaces (OLS) are established for each certified aerodrome runway. For the Code 4 precision runway at Canberra Airport, the maximum lateral extent of the OLS is up to 6 km for the conical surface and 15 km for the outer horizontal surface, the take-off climb surface and the approach surfaces.

The Project Site is approximately 12 km (6.6 nm) from runway 35's end. Therefore, it is constrained by the Outer Horizontal Surface, as shown in Figure 7 (source: Google Earth, Canberra Airport Master Plan 2020).

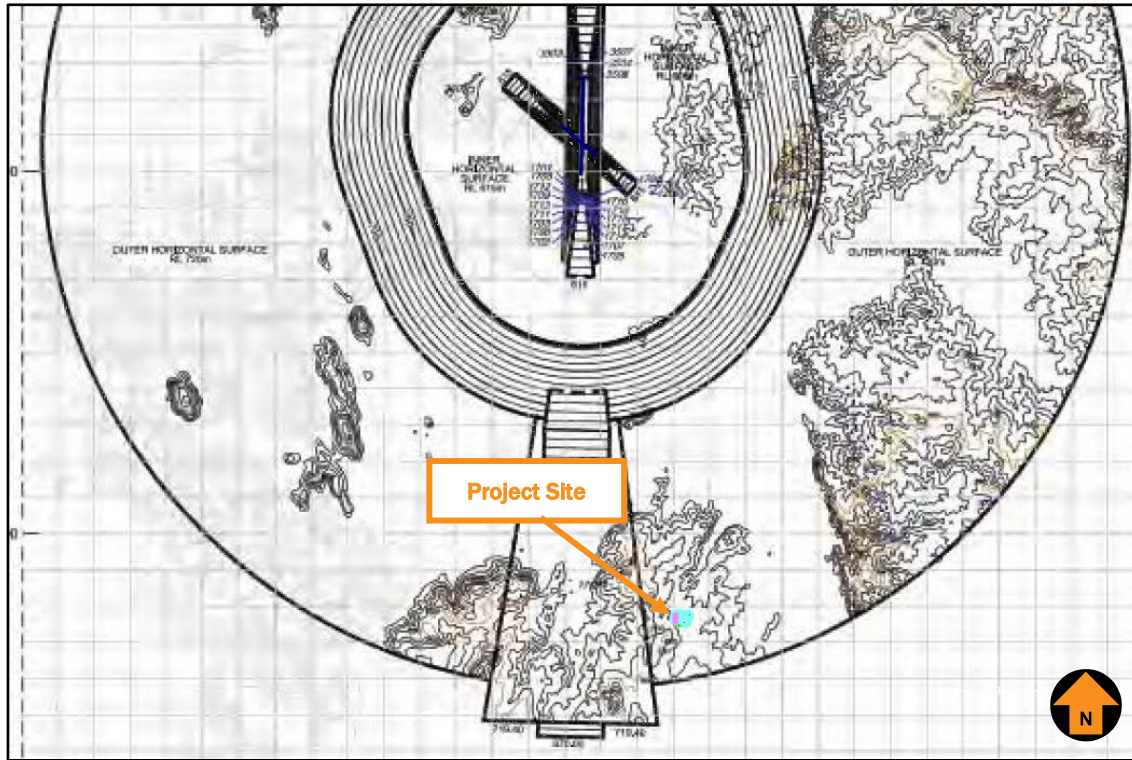


Figure 7 Canberra Airport OLS contours and Project Site

CASR Part 139 MOS stipulates that the outer horizontal extends 15 km from the ARP and has a height of 150 m above the Aerodrome Reference Elevation Datum (ARED). The ARED for Canberra Airport is approximately 569.5 m AHD (1868 ft AMSL). This means that the Outer Horizontal Surface will be at a height of 719.5 m AHD (2361 ft AMSL)

The new high school in Googong is proposed on a site with a natural ground elevation of approximately 750 m (2460 ft), which infringes on the Outer Horizontal Surface. This means that the development with the maximum height of 797.076 m AHD (2615.1 ft AMSL) (including temporary crane operation, which is assumed 25 m above the building) infringes the OLS surface. The elevation profile between the Project Site and Canberra Airport is shown in Figure 8 (source: Google Earth).

In this profile, there is higher terrain between the Project and the airport, with an elevation of 767 m AHD (2516 ft AMSL). This point is located along Old Cooma Road next to Cooma Road Quarry.

It should also be noted that the new high school in Googong will be developed in a built-up area, with residential and commercial properties that all penetrate the Outer Horizontal Surface. Adjacent to the location of the new high school in Googong, there is a development already been approved - Googong Indoor Sport and Aquatic Centre with a similar height (757.88 m AHD (2486.5 ft AMSL) to the Project. Communications towers and flood light poles are also on a nearby sporting field. It can, therefore, be concluded that although the Project will infringe on the Outer Horizontal Surface of the OLS of Canberra Airport, it will not compromise the operations of Canberra Airport.

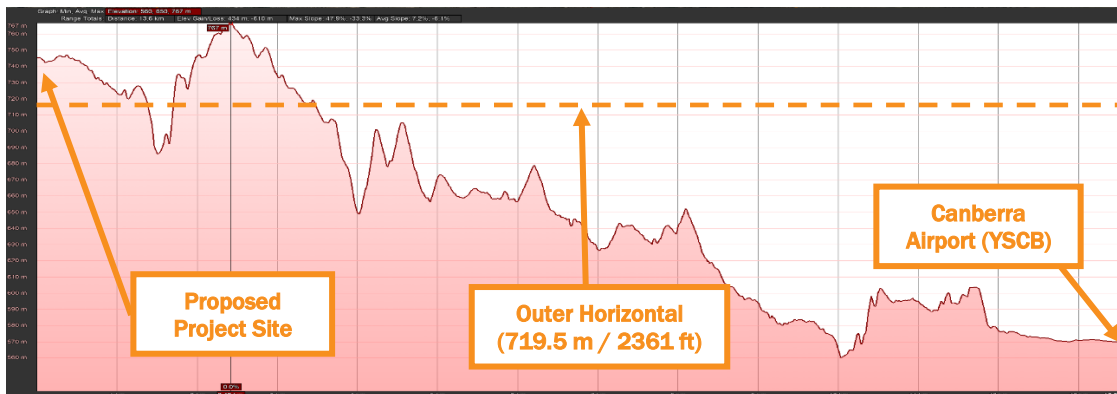


Figure 8 Elevation Profile from the Project site to Canberra Airport

5.1.2. Instrument approach procedures.

A check of the Aeronautical Information Package (AIP) via the Airservices Australia website showed that Canberra Airport is served by non-precision and precision instrument flight procedures (Source: Airservices Australia, effective 28 November 2024).

Table 2 Identifies Canberra Airport's aerodrome and procedure charts, designed by Airservices Australia. Those are the procedures that will be included in PANS-OPS section for detail analysis.

Table 2 Canberra Airport (YSCB) aerodrome and procedure charts

<i>Chart name (Procedure Designer)</i>	<i>Effective date</i>
AERODROME CHART PAGE 1 (AsA)	05 September 2024 (Am 180)
AERODROME CHART PAGE 2 (AsA)	05 September 2024 (Am 180)
APRON CHART – RPT – PAGE 1 (AsA)	28 November 2024 (Am 181)
APRON CHART – RPT – PAGE 2 (AsA)	28 November 2024 (Am 181)
APRON CHART – GENERAL AVIATION (HARDSTAND) (AsA)	23 May 2019 (Am 159)
APRON CHART –FAIRBAIRN AND 34 SQN (AsA)	23 May 2019 (Am 159)
NOISE ABATEMENT PROCEDURE PAGE 1 (AsA)	17 November 2011 (Am 129)
NOISE ABATEMENT PROCEDURE PAGE 2 (AsA)	16 June 2022 (Am 171)
NOISE ABATEMENT PROCEDURE PAGE 3 (AsA)	01 December 2022 (Am 173)
NOISE ABATEMENT PROCEDURE PAGE 4 (AsA)	17 November 2011 (Am 129)
SID CANBERRA THREE DEP (RADAR) – RWY 12 17 & 35 (AsA)	30 November 2023 (Am 177)
SID AKMIR TWO (NON-JET) (RNAV) (AsA)	30 November 2023 (Am 177)
SID DUBUS TWO (NON-JET) (RNAV) (AsA)	30 November 2023 (Am 177)
SID RWYS 17/35 NORTH (JET) RNAV (AsA)	21 March 2024 (Am 178)
SID RWYS 17/35 SOUTH & WEST (JET) RNAV (AsA)	30 November 2023 (Am 177)

<i>Chart name (Procedure Designer)</i>	<i>Effective date</i>
STAR AVBEG FIVE ALPHA ARRIVALS (RNAV) (AsA)	07 September 2023 (Am 176)
STAR BUNGO FIVE ALPHA ARR (NON-JET) (RNAV) (AsA)	07 September 2023 (Am 176)
STAR BUNGO FIVE VICTOR ARRIVALS (NON-JET) (RNAV) (AsA)	07 September 2023 (Am 176)
STAR BUNGO FIVE WHISKEY ARRIVALS (NON-JET) (RNAV) (AsA)	07 September 2023 (Am 176)
STAR BUNGO FIVE YANKEE ARRIVALS (NON-JET) (RNAV) (AsA)	07 September 2023 (Am 176)
STAR LEECE ONE ALPHA ARRIVALS (JET) (RNAV) (AsA)	13 June 2024 (Am 179)
STAR LEECE ONE VICTOR ARRIVAL (JET) (RNAV) (AsA)	13 June 2024 (Am 179)
STAR LEECE ONE WHISKEY YANKEE ARR (JET) (RNAV) (AsA)	13 June 2024 (Am 179)
STAR MANDA THREE ALPHA X-RAY ARRIVAL (RNAV) (AsA)	07 September 2023 (Am 176)
STAR POLL NINE ALPHA ARRIVAL (RNAV) (AsA)	07 September 2023 (Am 176)
STAR POLLI NINE X-RAY ARRIVAL (RNAV) (AsA)	07 September 2023 (Am 176)
DME OR GNSS ARRIVAL PAGE 1 (AsA)	05 September 2024 (Am 180)
DME OR GNSS ARRIVAL PAGE 2 (AsA)	05 September 2024 (Am 180)
RNP-Y RWY 17 (AR) (AsA)	05 September 2024 (Am 180)
RNP-X RWY 17 (AR) (AsA)	05 September 2024 (Am 180)
RNP-W RWY 17 (AR) (AsA)	05 September 2024 (Am 180)
VOR RWY 17 (AsA)	05 September 2024 (Am 180)
RNP-RWY 30 (AsA)	05 September 2024 (Am 180)
RNP-Z RWY 35 (AsA)	05 September 2024 (Am 180)
RNP X RWY 35 (AR) (AsA)	05 September 2024 (Am 180)
RNP Y RWY 35 (AR) (AsA)	05 September 2024 (Am 180)
RNP W RWY 35 (AR) (AsA)	05 September 2024 (Am 180)
ILS-Y OR LOC-Y RWY 35 (AsA)	05 September 2024 (Am 180)
ILS-Z OR LOC-Z RWY 35 PAGE 1 (AsA)	05 September 2024 (Am 180)
ILS-Z RWY 35 PAGE 2(AsA)	05 September 2024 (Am 180)
VOR RWY 35 (AsA)	05 September 2024 (Am 180)
NDB-A (AsA)	05 September 2024 (Am 180)

5.1.3. PANS-OPS Surfaces

A detailed assessment of the PANS-OPS surfaces, which protect instrument approach procedure segments, associated with the published instrument approach procedures was undertaken:

- MSA Surfaces

- IFR Circling Areas
- PANS-OPS Approach Procedure Surfaces.

MSA Surfaces

The minimum sector altitude (MSA) applies to each instrument approach procedure at Canberra Airport. Images of the MSA published for the airport are shown in Figure 9 (source: Airservices Australia, 28 November 2024).

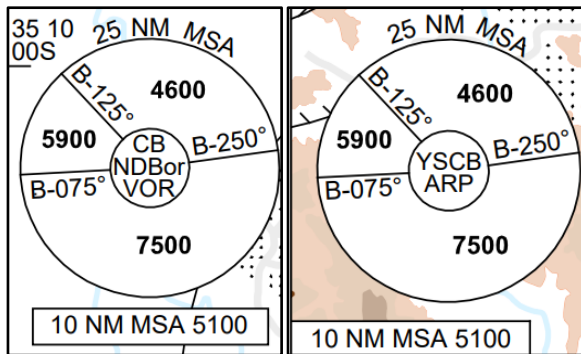


Figure 9 MSA at Canberra Airport

The CASR Part 173 Manual of Standard (MOS) requires a minimum obstacle clearance (MOC) of 984 ft to be applied above the highest terrain or obstacle within the applicable segment.

Obstacles within the 10 nm MSA (10 nm MSA + 5 nm buffer) define the minimum height an IFR aircraft can fly within 10 nm of the airport when not in visual flight conditions.

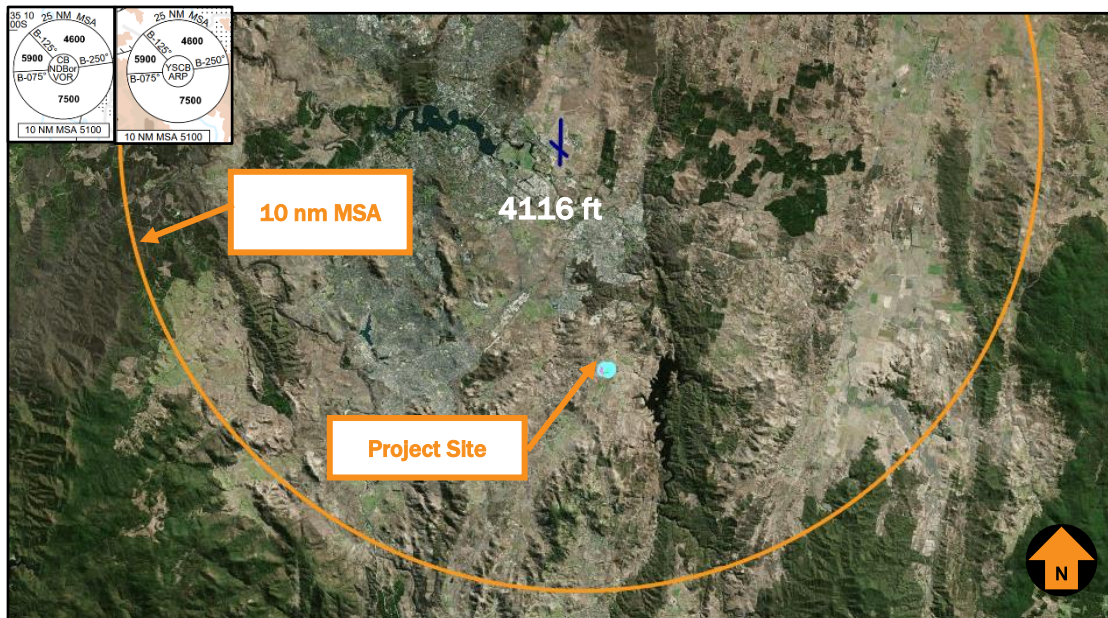


Figure 10 Canberra Airport MSA

The Project Site will be within the 10 nm MSA of Canberra Airport. As shown in Figure 10 (Source: NSW Department of Education, Google Earth). The orange circle represents the 10 nm MSA of the airport's ARP.

The 10 nm MSA's minimum altitude is 1555 m AHD (5100 ft AMSL), and the PANS-OPS surface elevation is 1255 m AHD (4116 ft AMSL).

The Project Site's maximum height is 797.076 m AHD (2615.1 ft AMSL) (including a 25 m temporary crane operation), which is lower than the PANS-OPS protection surfaces of the 10 nm MSA.

IFR Circling areas

A circling approach extends an instrument approach to the specified circling minima (lowest altitude permitted without visual reference to the ground) when the pilot uses an instrument approach to one runway but then circles to land on another runway. The pilot will visually manoeuvre the aircraft to align with the runway for landing while remaining within the circle area. Typically, a circling approach is only conducted where there is no runway-aligned instrument procedure or if the runway used for the approach procedure is not suitable for landing.

Circling areas are established by the instrument flight procedure designer based on International Civil Aviation Organization (ICAO) DOC 8168 PANS-OPS criteria related to the performance category of aircraft operating at this aerodrome. The circling area is determined by drawing an arc centred on the threshold of each usable runway and joining these arcs by tangents. Category D is the most demanding aircraft category in Canberra Airport's instrument flight procedures.

The radii for each relevant category of aircraft are provided below:

- Category A – 1.70 nm / 3.15 km
- Category B – 2.72 nm / 5.04 km
- Category C – 4.30 nm / 7.96 km
- Category D – 5.4 nm / 10.00 km

The Project Site is approximately 12 km / 6.6 nm south of Canberra Airport. The Project is located outside the circling areas and therefore will not impact circling areas established for instrument flight procedures.

PANS-OPS Approach and Departure Procedure Surfaces

A detailed assessment of the PANS-OPS surfaces associated with the published instrument approach and departure procedures was undertaken. Table 3 Details the assessment for each instrument approach and departure procedures.

Table 3 Canberra Airport PANS-OPS Assessment

<i>Airport Instrument Approach and Departure Title</i>	<i>Minimum Altitude over Project (ft AMSL)</i>	<i>PANS- OPS Surface (ft AMSL)</i>	<i>Impact on the procedure by the development</i>	<i>Potential solution</i>	<i>Impact on aircraft ops</i>
SID CANBERRA THREE DEP (RADAR) – RWY 12 17 & 35	Various	Various	Nil – beneath protection surface	N/A	N/A

<i>Airport Instrument Approach and Departure Title</i>	<i>Minimum Altitude over Project (ft AMSL)</i>	<i>PANS- OPS Surface (ft AMSL)</i>	<i>Impact on the procedure by the development</i>	<i>Potential solution</i>	<i>Impact on aircraft ops</i>
DME or GNSS Arrival – AVBEG to CB, IGDEL to CB, Sector C	Various	Various	Nil – outside protection surface	N/A	N/A
DME or GNSS Arrival – COM to CB	>4000	>3500	Nil – beneath protection surface	N/A	N/A
DME or GNSS Arrival – Sector A	5000	4500	Nil – beneath protection surface	N/A	N/A
RNP-RWY 17 (AR)	5100 (MSA)	4116	Nil – outside protection surface	N/A	N/A
VOR RWY 17	5100 (MSA)	4116	Nil – beneath protection surface	N/A	N/A
RNP-RWY 30	5100 (MSA)	4116	Nil – outside protection surface	N/A	N/A
RNP-Z RWY 35	3800	3300	Nil – beneath protection surface	N/A	N/A
RNP RWY 35 (AR)	5100 (MSA)	4116	Nil – outside protection surface	N/A	N/A
ILS-OR LOC RWY 35	5100 (MSA)	4116	Nil – outside protection surface	N/A	N/A
VOR RWY 35	3500	3000	Nil – beneath protection surface	N/A	N/A
NDB-A	5100 (MSA)	4116	Nil – beneath protection surface	N/A	N/A

The Project Site will be outside or beneath the protection surfaces of all procedures and, therefore, will not impact the PANS-OPS surfaces.

5.2. Grid and Air routes LSALT

CASR Part 173 MOS requires that the published lowest safe altitude (LSALT) for a particular airspace grid or air route provides a minimum of 1000 ft clearance above the controlling (highest) obstacle within the relevant airspace grid or air route tolerances.

5.2.1. Grid LSALT

The Project Site is located within an airspace grid with LSALT of 2042 m AHD (6700 ft AMSL), which provides clearance above obstacles with heights up to 1737 m AHD (5700 ft AMSL).

Figure 11 provides the Grid LSALT in proximity to the project site (source: ERC Low National, OzRunways, October 2024, Google Earth). The maximum height (including crane operation) of the Project Site is 797.076 m AHD (2615.1 ft AMSL), below the 5700 ft obstacle height limit.

Therefore, the Project Site will not impact the Grid LSALT.

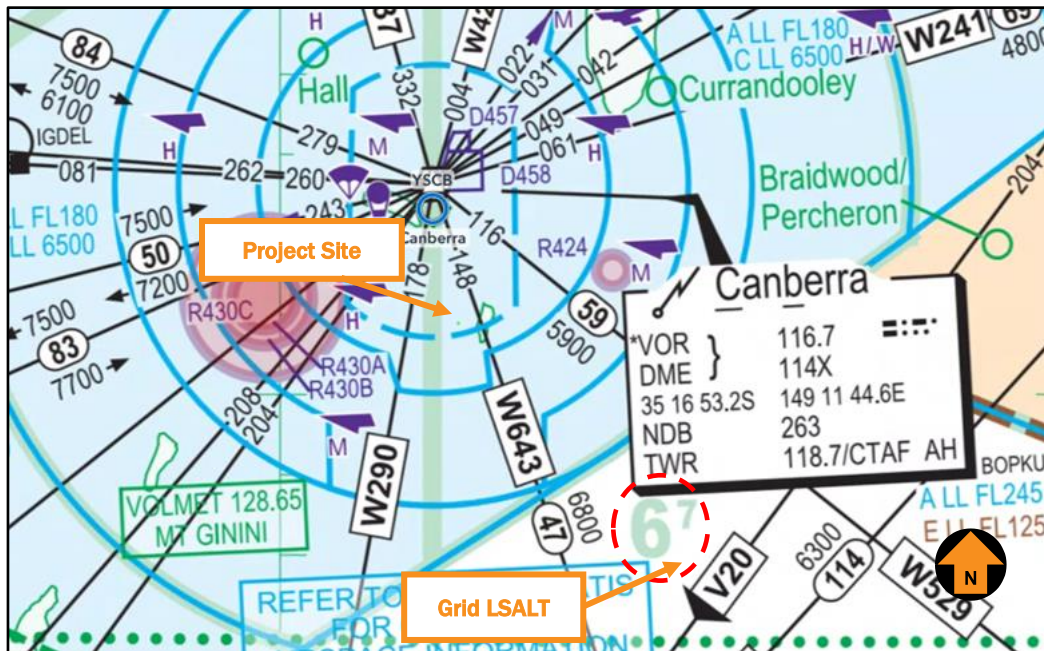


Figure 11 Grid LSALT in proximity to the Project Site

5.2.2. Air Route LSALTs

A protection area 7 nm laterally on either side of an air route is used to assess the LSALT for the air route.

Several air routes are within 7 nm of the project site. The maximum height of the Project Site is 797.076 m AHD (2615.1 ft AMSL), which is below all air route LSALTs. Therefore, the Project will not impact any air route LSALT.

5.3. Airspace

The project Site is located within controlled airspace (wholly within Class C airspace) and is not located in any Prohibited, Restricted and Danger areas. There is no impact from military aviation activity. The vertical limit of Class C airspace is from ground level to 3500 ft AMSL, as shown in Figure 12 (Source: Airservices Australia). Consultation with Airservices Australia will be required.

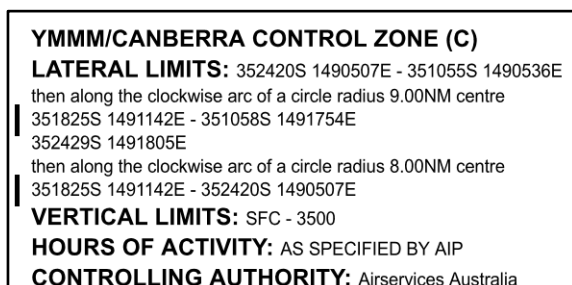


Figure 12 Dimensions of Canberra Control Zone C

5.4. Aviation facilities

NASF Guideline G, *Protection of Aviation Facilities - Communication, Navigation and Surveillance (CNS)* and CASR Part 139 MOS specify the area where the development of buildings and structures has the potential to cause unacceptable interference to CNS facilities.

Based on Canberra Airport's Nav aids at the airport and Guideline G, the specify area of CNS facilities at Canberra Airport will summary as:

- Non-Directional (radio) Beacon (NDB) :300 m
- Instrument Landing System (ILS) – CAT IIIB incl. Glide Path (GP) and Localiser (LOC): 1000 m
- VHF Omni-Directional Range (VOR): 1500 m
- Distance Measuring Equipment (DME): 1500 m

The project site is located within sufficient distance (12 km / 6.6 nm) of Canberra Airport and aviation facilities and will not have an impact.

5.5. ATC Surveillance Radar installations

Airservices Australia currently requires an assessment of the potential for a development site to affect radar lines of sight.

With respect to aviation radar facilities, the following facilities are referenced:

- Sandra's View Primary Surveillance Radar (PSR) and Secondary Surveillance Radar (SSR) - approximately 6.6 km west of the Project Site
- Mt Majura PSR and SSR - approximately 21.3 km north of the Project Site

EUROCONTROL guidelines for assessing the potential impact on wind turbines on radar surveillance sensors stipulate the following assessment requirements:

Primary Surveillance Radar (PSR)

- Zone 1 0-500 m: Not permitted
- Zone 2 500 m – 15 km: Detailed assessment
- Zone 3: Further than 15 km but within maximum instrumented range and in radar line of sight: Simple assessment
- Zone 4: Anywhere within maximum instrumented range but not in radar line of sight or outside the maximum instrumented range: No assessment.

Secondary Surveillance Radar (SSR)

- Zone 1: 0 - 500 m: Not permitted
- Zone 2: 500 m - 16 km but within maximum instrumented range and in radar line of sight: Detailed assessment
- Zone 4: Further than 16 km or not in radar line of sight: No assessment

(Zone 3 is not established for secondary surveillance radar)

The ground elevation of the antenna at Sandra's View is approximately 886 m AHD. The clearance plane elevation at the development will be higher than 914 m AHD. The maximum height of the Project Site is 797.076 m AHD (2615.1 ft AMSL), which will not affect the Sandra's View PSR and SSR. Table 4 assess the Sandra's View Surveillance System clearance plane

The project is outside the line-of-sight range of Mt Majura PSR / RSR radars and will not impact these facilities.

Table 4 Surveillance System Clearance Plane

<i>Surveillance System</i>	<i>Distance from development</i>	<i>Antenna Ground Elevation (m AHD)</i>	<i>Clearance Plane Elevation at development site (Distance x Tan 0.25 + TAR ground elevation (m AHD))</i>
Sandra's View PSR/SSR	6.6 km	886	914

6. GUIDELINE A: MEASURE FOR MANAGING IMPACT OF AIRCRAFT NOISE

As the Project is located near Canberra Airport, there is a risk that the project site will be exposed to aircraft noise. The ANEF charts typically show noise exposure contours of ANEF — the higher the ANEF value, the greater the noise exposure. The ANEF system, as described in Australian Standard AS2021-2000, is the only endorsed method of guiding land use planning around Australian airports.

Figure 13 Shows the ANEF in relation to the project (Source: Canberra Airport Master Plan 2020). The chart indicates the estimated future level of aircraft noise exposure based on forecast aircraft movement. The Project Site is located outside the ANEF contours.

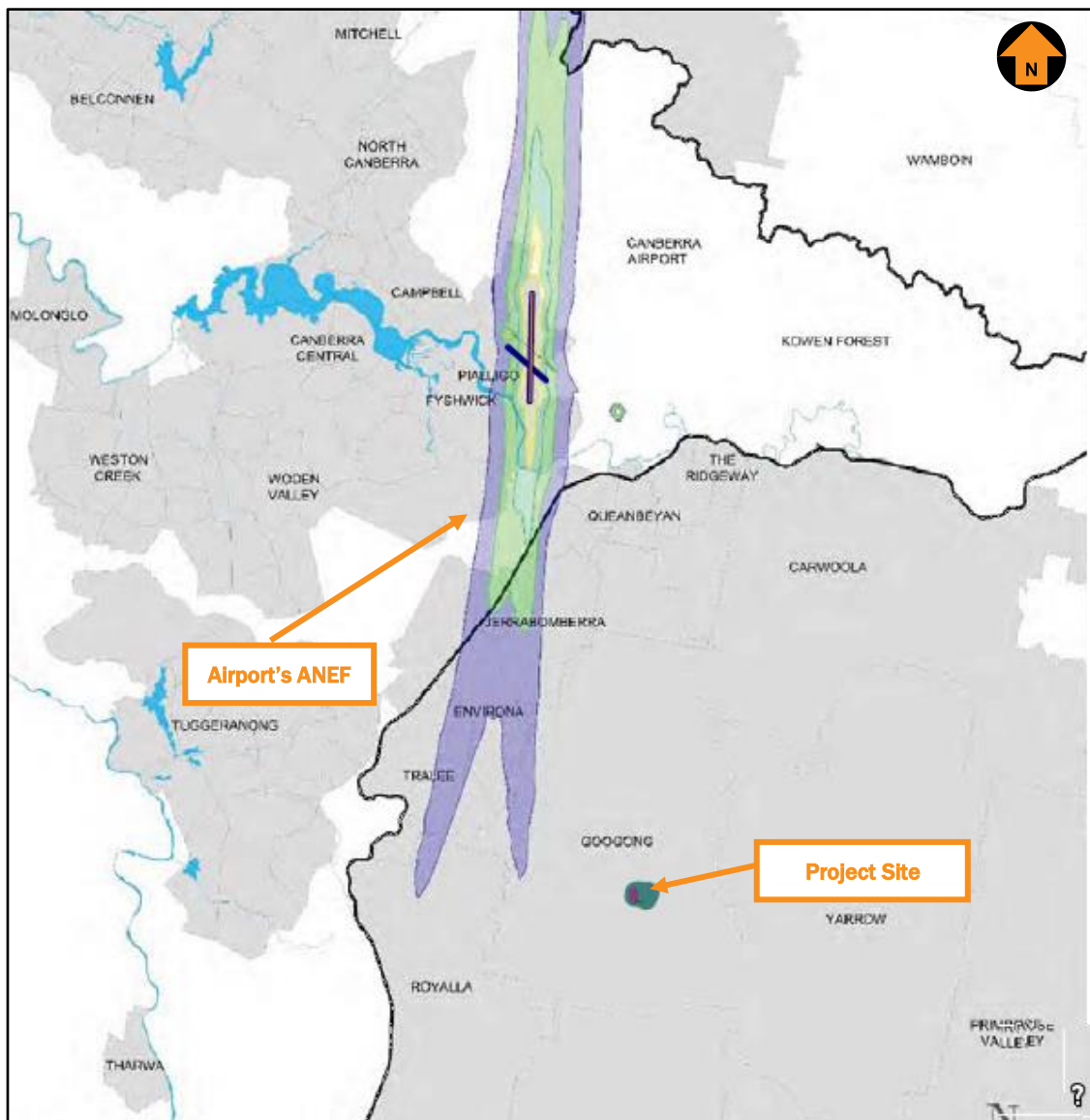


Figure 13 ANEF in relation to the Project Site

7. CONCLUSIONS

As a result of this AIS are made:

- The proposed site has the following characteristics:
 - Block A's maximum height of 772.076 m AHD (2533.1 ft AMSL)
 - Block B's maximum height of 768.326 m AHD (2520.8 ft AMSL)
 - Block C's maximum height of 766.201 m AHD (2513.8 ft AMSL)
 - Assumed cranes up to 25 m above the building, which will result to
 - The top of the Crane at Block A could be up to 797.076 m AHD (2615.1 ft AMSL)
 - The top of the Crane at Block B could be up to 793.326 m AHD (2602.8 ft AMSL)
 - The top of the Crane at Block C could be up to 791.201 m AHD (2595.8 ft AMSL)
- The Project Site:
 - Will be within 30 nm of one (1) certified airport – Canberra Airport, and the Project Site
 - Will infringe on the Outer Horizontal Surface of the OLS of Canberra Airport
 - Will not impact the MSA surfaces
 - Will not impact the circling areas
 - Will not impact the PANS-OPS Approach and Departure surfaces
 - Will not impact the Grid LSALT or any Air Route LSALT
 - Will be located within controlled airspace (wholly within Class C airspace) and is not located in any Prohibited, Restricted and Danger areas
 - Will be located a sufficient distance away from nearby aviation facilities to not have an impact
 - Will not affect Sandra's View PSR and SSR
 - Will be outside the line-of-sight range of Mt Majura PSR / RSR radars and will not impact these facilities
 - Will be located outside the ANEF contours for Canberra Airport.

8. NEXT STEPS

Next Steps for the application process:

- As the building is a permanent infringement and requires approval from the Department of Infrastructure, Transport, Regional Development and Communications (DITRDC), via an application to Canberra Airport that can be completed and submitted with the AIA attached as the safety case.
- As the crane is a temporary infringement and requires approval from Canberra Airport if the crane operation is determined as a “short term” operation for less than 3 months, or if for a longer period, negotiations with the airport and DITRDC for amendments to affected procedures.

A consultation (Section 4) with Canberra Airport will be performed to give a clearer idea of the outcome and whether negotiations will be involved for the above two points.

9. RECOMMENDATIONS

As a result of this aeronautical assessment, the following recommendations are made:

- The proposed Project can be supported without adversely affecting aviation safety.
- If approved, details of the Project need to be reported to Airservices Australia via this email address: vod@airservicesaustralia.com, and published in En Route Supplement Australia (ERSA) and other relevant aeronautical chart products.
- Any crane used during construction need to be referred to Canberra Airport for approval, appropriately marked, operated during daylight hours only and notified to pilots via NOTAM.



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