MAMRE ROAD DATA CENTRE CAMPUS

AIRPORT SAFEGUARDING ASSESSMENT

SSD-92743706

L+R
AIRPORT CONSULTING

Table of Contents

Revision	Date	Description	Author	Verifier	Approver
0	21.10.2025	DRAFT	BMW	BJH	
1	14.11.2025	FINAL	BMW	BJH	BJH

1. Introduction

L+R Airport Consulting was engaged by Plan Project Management (PPM) to undertake an airport safeguarding assessment of the proposed development, known as the Mamre Road Data Centre Campus, at 706-752 Mamre Road, Kemps Creek, NSW, against the relevant National Airports Safeguarding Framework (NASF) Guidelines as they relate to the Western Sydney International (Nancy-Bird Walton) Airport (WSI).

The project area for the proposed development, 706-752 Mamre Road, Kemps Creek (Lot 10 DP 1280592), constitutes the main development site with areas across the shared boundaries to the east and south (described below) utilised to facilitate roadworks and bulk earthworks:

- Gibb Group site to the East known as 1-22 Bakers Lane, Kemps Creek (Lot 40 in DP 709347).
- GPT Group site to the South known as 754 Mamre Road, Kemps Creek (Lot 180 in DP 1290397).

Additionally, power supply lead-in from Sydney-West Substation is proposed as part of the development, which traverses through multiple landholdings.

1.1. Proposed Mamre Road Data Centre Campus

The site is proposed for development under a State Significant Development Application (SSDA) as a data centre campus comprising:

- Approximately 6 shells across four-storeys data centre buildings (4x four shells and 2x five shells), including six technical office buildings, plus a campus office.
- Incoming and internal electrical substations and associated infrastructure.
- Site preparation, including earthworks, stormwater, sewer, roads, and associated infrastructure.

The Planning Secretary's Environmental Assessment Requirements (SSD-92743706) issued on 30 September 2025 require the following airport safeguarding matters to be addressed:

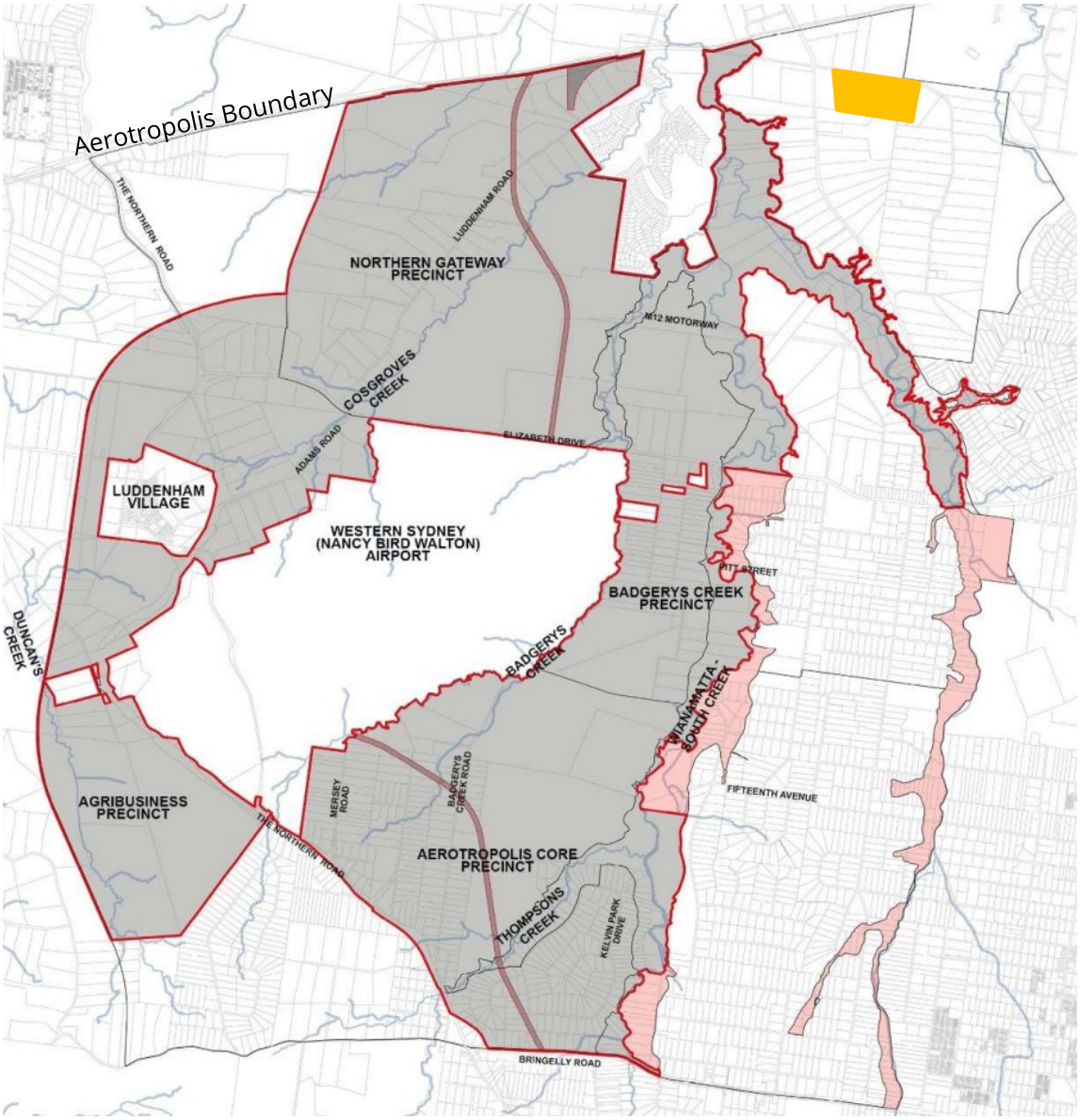
SEARS Compliance			
Section	Request Item	Summary Response	Page Reference
Airport Safeguarding	including a risk assessment of the proposed development on the Western Sydney Airport operations and addressing related matters in the *Western Sydney Aerotropolis Plan*, State Environmental Planning Policy (Western Parkland City) 2021 and the *National Airports Safeguarding Framework* and associated guidelines, including (but not limited to) a plume rise assessment and consideration of wildlife hazards, lighting and the prescribed airspace	Refer Section 9 of this report	8 of 14

PPM provided the following Greenbox drawing set for SSDA Submission dated 07.11.2025 for assessment:

- Drawing no SSDA-A-0000.01 Cover Sheet
- Drawing no SSDA-A-0001.01 Locality & Context Plan
- Drawing no SSDA-A-0005.01 Site Analysis
- Drawing no SSDA-A-0010.0 Demolition Plan
- Drawing no SSDA-A-0030.1 Overall Stage and Phase Diagram
- Drawing no SSDA-A-0031.01 – 0036.01 Phase 1-6 Site Plans
- Drawing no SSDA-A-0100.02 Campus Plan
- Drawing no SSDA-A-0101.0 Overall Ground Floor
- Drawing no SSDA-A-0102.01 – 0107.01 Overall Level 1 to 6
- Drawing no SSDA-A-0121.01 – 0122.01 Site Elevations
- Drawing no SSDA-A-0131.01 - 0132.01 Site Sections
- Drawing no SSDA-A-0141.01 – 0144.01 Site Axonometric
- Drawing no SSDA-A-0910.01 – 0920.01 Shadow Diagrams
- Drawing no SSDA-A-0940.01 GFA Diagram
- Drawing no SSDA-A-0950.01 Height Control Plane Diagram
- Drawing no SSDA-A-1010.01 – 1011001 Office Warehouse Building Plans Sheet 1 and 2
- Drawing no SSDA-A-1020.01 Office Warehouse Building Elevations
- Drawing no SSDA-A-1030.01 Office Warehouse Building Sections
- Drawing no SSDA-A-2000.01 – 2001.01 Typical Data Centre Building Plans
- Drawing no SSDA-A-2120.01 – 2630.01 Parcels A – E Building Elevations and Sections
- Drawing no SSDA-A-3000.01 Typical Substation
- Drawing no SSDA-A-4000.01 ELE Switching Station + Campus ELE Substation
- Drawing no SSDA-A-5000.01 Statcom
- Drawing no SSDA-A-6000.01 – 6005.01 Guard Kiosk, Pump House, Plant Rooms and Fire Control Centre

The proposed development site is within the *Mamre Road Precinct – Development Control Plan 2021* November 2021 which is located within the *Western Sydney Aerotropolis Precinct Plan* July 2025 Aerotropolis Boundary as shown below on **Figure 1**. The proposed Mamre Road Data Centre Campus maximum building elevation is 107.5 m AHD inclusive of rooftop plant and equipment.

Figure 1: Aerotropolis Boundary



Source: Extract Western Sydney Aerotropolis Precinct Plan July 2025

2. Western Sydney International Airport

The *Western Sydney Airport – Airport Plan / September 2021* (Airport Plan) sets out the vision for the development and operation of WSI. The Airport Plan includes details of concept design and indicative airport layout and zoning as well as safeguarding information such as Australian Noise Exposure Concept (ANEC) contours and Obstacle Limitation Surfaces (OLS).

The NSW State Environmental Planning Policy (Precincts – Western Parkland City) 2021 (Western Parkland City SEPP) *Part 4.3 Development controls – Airport safeguards* contain development controls that relate to

Western Sydney International Airport (WSI). The development controls for Airport safeguards are shown on maps which can be accessed through the NSW Planning Spatial Viewer[1].

WSI has also developed an online aviation safeguarding mapping tool which interprets some of the planning protection overlays referred to in the SEPP and can be accessed at https://westernsydney.com.au/your-airport/airport-safeguarding-tool. These controls include:

- Obstacle limitation surfaces (OLS);
- ANEC noise contours;
- Windshear assessment zone;
- Wildlife buffer zones;
- Wind turbines;
- Lighting;
- Airspace operations; and
- Public safety areas.

2.1. National Airports Safeguarding Framework

The National Airports Safeguarding Framework (NASF) is a national land use planning framework that aims to:

- Improve community amenity by minimising aircraft noise-sensitive developments near airports including through the use of additional noise metrics and improved noise-disclosure mechanisms; and
- Improve safety outcomes by ensuring aviation safety requirements are recognised in land use planning decisions through guidelines being adopted by jurisdictions on various safety related issues.

The National Airports Safeguarding Advisory Group (NASAG), comprising of Commonwealth, State and Territory Government planning and transport officials, the Australia Government Department of Defence, the Civil Aviation Safety Authority (CASA), Airservices Australia and the Australian Local Government Association (ALGA), has developed the National Airports Safeguarding Framework.

Commonwealth, State and Territory Ministers considered NASF at the Standing Council on Transport and Infrastructure meeting on 18 May 2012. Ministers agreed to the NASF, noting reservations from New South Wales on the format of Guideline A on measures for managing impacts of aircraft noise. The agreement represents a collective commitment from Governments to ensure that an appropriate balance is maintained between the social, economic and environmental needs of the community and the

[1] https://www.planningportal.nsw.gov.au/spatialviewer/

effective use of airport sites[2]. All NASF Guidelines can be found at www.infrastructure.gov.au. The NASF currently consists of a set of nine Guidelines. Each has been summarised in the following sections for its relevance to the proposed Mamre Road Data Centre Campus.

3. Plume Rise Assessment

Plume rise is a consideration in relation to penetration of the airport protected airspace known as the Obstacle Limitation Surfaces (OLS).

Aircraft in various stages of flight may be affected by exhaust plume of significant velocity. Regulation 6A of the *Airports (Protection of Airspace) Regulations 1996* defines 4.3 m/s as the level of turbulence that may be capable of affecting normal flight.

Plan Project Management advises that CASA has assessed the proposed plume rise. CASA has responded as follows (CASA Ref: F21 26508-7 and included in **Appendix A**):

> *…the plume will reduce to a vertical velocity of 4.3 m/s at a height of 51 m AGL. Ground height at the site is approx. 75 m AHD. Total height will be approx. 126 m AHD. The OLS at this location is 231 m AHD. Therefore, the plume from this development will not be a hazard to aircraft operations and no CASA mitigation are required. CASA has no objection to the proposal as detailed below.*

4. Wildlife Hazards

Managing wildlife-attracting land uses near WSI has been incorporated into the SEPP and the NSW Department of Planning, Industry and Environment *Mamre Road Precinct Development Control Plan 2021* November 2021 (Mamre Road DCP).

The objective of the SEPP Section 4.19 *Wildlife hazards* is to regulate development on land surrounding the Airport where wildlife may present a risk to the operation of the Airport. Wildlife buffer zones are mapped to control development surrounding WSI's runways for the purposes of reducing the risks of wildlife hazards. The wildlife buffer zones, also known as Wildlife Management Areas, include Area A (0 - 3km), Area B (3 - 8km) and Area C (8 - 13 km). The proposed development site is within Wildlife Management Area B (3 – 8km) as illustrated on **Figure B25409/01** included in **Appendix B**.

The SEPP states that development consent must not be granted to certain uses on land within the 13 km unless specific considerations and consultation has taken place. Plan Project Management has advised that the proposed development does not fall within the land uses listed in the SEPP that would require a wildlife hazard assessment or management plan.

[2] https://www.transportinfrastructurecouncil.gov.au/sites/default/files/SCOTI_2nd_Communique_FINAL.pdf

However, under the Mamre Road DCP the detailed design should have regard to the Aviation Safeguarding *Wildlife Hazards*:

- *Development must not attract wildlife which would create a safety hazard in the operations of the Airport.*
- *All waste bins are to be designed and installed with fixed lids.*
- *Any bulk waste receptacle or communal waste storage area must be contained within enclosures that cannot be accessed by birds or flying foxes.*
- *Any stormwater detention within the 8km wildlife buffer is to be designed to fully drain within 48 hours after a rainfall event.*

5. Lighting

The SEPP Section 4.21 *Lighting objective* is to safeguard airport operations from the risk of lighting and reflectivity distractions for pilots.

NASF Guideline E provides guidance on the risk of distractions to pilots of aircraft from lighting and light fixtures near airports. Advice for the guidance of designers and installation contractors is provided for situations where lights are to be installed within a 6 km radius (applied from the centre point of each runway) of a known aerodrome.

The CASA *Part 139 (Aerodromes) Manual of Standards 2019* Section 9.144: *Lights – requirements for zones* sets out the restrictions and degree of interference ground lights can cause as a pilot approaches and provides advice to lighting suppliers on the general requirements. The primary area is divided into four light control zones: A, B, C and D. These zones reflect the degree of interference ground lights can cause pilots as they approach.

The proposed development site is outside the light control zones and outside the 6 km radius as illustrated on attached **Figure B25409/02** included in **Appendix B**.

6. Prescribed Airspace

NASF Guideline F is intended to address the issue of intrusions into the operational airspace of airports by tall structures, such as buildings, cranes or activities that could cause air turbulence affecting aircraft in flight. As a leased federal airport, WSI airspace is protected under the *Airports (Protection of Airspace) Regulations 1996* (Cth.).

The Department of Planning, Housing and Infrastructure *Western Sydney Aerotropolis Precinct Plan* 11 July 2025 (Aerotropolis Precinct Plan) provides for land use and built form. Maximum heights of buildings are shown for the land within the precincts noting that:

> *"Notwithstanding maximum building height controls, all buildings and structures, including equipment used during construction (such as cranes) are required to be contained within Obstacle Limitation Surface (OLS) limits established under the Aerotropolis SEPP."*

The proposed development site does not have a maximum building height determined by the Aerotropolis Precinct Plan. As such the Obstacle Limitation Surfaces (OLS) as established under the Western Parkland City SEPP is discussed below.

6.1. Obstacle Limitation Surfaces (OLS)

The Obstacle Limitation Surfaces (OLS) are established as the protection for aircraft operating on visual flight procedures. The OLS is a series of virtual surfaces around a runway, which establish the height limits for obstacles to air navigation in and around an airport. Obstacles means fixed (whether temporary or permanent) and mobile objects, structure and parts of such objects and structures such as roof access ladders, antennas, roof top plant and equipment, emissions from stacks or vents where upward vertical velocity of 4.3 m/s at the point of emission is exceeded, cranes, mobile cranes, concrete pumps etc.

The proposed development is within the lateral extents of the WSI OLS identified in the SEPP Obstacle Limitation Surface Map and shown on attached **Figure B25409/03** included in **Appendix B**.

The proposed development is within the lateral extents of the WSI OLS outer horizontal surface, OLS Runway 23R approach surface and the OLS Runway 05L take-off climb surface.

The proposed development at a maximum elevation of 107.5 m AHD would remain below the critical OLS Runway 05L take-off climb surface at a minimum of 207.9 m AHD. All vegetation and plant and equipment exhaust (i.e. plume rise refer **Section 3**) must also remain below the OLS.

6.2. PANS-OPS Airspace

PANS-OPS airspace is associated with instrument flight procedures and other requirements for aircraft operating under Instrument Flight Rules, such as will be the case for the majority of Western Sydney Airport aircraft operations. Flight procedures and the respective PANS-OPS airspace protection are not yet published for the airport.

It is assumed that in the location of the proposed development, the OLS will provide adequate planning protection to the required PANS-OPS airspace for instrument flight procedures at WSI.

6.3. Infringing Prescribed Airspace

Prescribed airspace includes the OLS and the PANS-OPS surfaces. In accordance with the NSW Department of Planning and Environment *Aviation Safeguarding Guidelines – Western Sydney Aerotropolis and surrounding areas* November 2022, *"Development that intrudes into airspace that is prescribed for WSI should be avoided*."

Activities that intrude into prescribed airspace are referred to as 'controlled activities'. A controlled activity approval is required when the protected airspace in infringed. This includes:

- Constructing permanent structures, such as buildings, intruding into the prescribed airspace;
- Temporary structures such as cranes intruding into the prescribed airspace; and
- Activities causing non-structural intrusions into the prescribed airspace such as air turbulence from stakes or vents, smoke, dust, steam or other gases or particulate matter.

Under the *Airports (Protection of Airspace) Regulations 1996* a distinction is made between short-term (less than 3 months) and long-term controlled activities. It is important to note that long-term intrusions of the PANS-OPS surfaces are prohibited and at an airport such as WSI, any intrusion into PANS-OPS

airspace, however brief, is highly unlikely to be approved. Applications are made to WSI in writing. WSI will then conduct the initial assessment of the application and invite CASA, Airservices Australia and local council authority to assess or comment on the application. Once the input is received WSI will submit the application to the Department of Infrastructure, Transport, Regional Development, Communications, Sports and the Arts who will either approve the activity, approve subject to conditions or refuse the controlled activity.

The proposed development, as described above, does not constitute a controlled activity as the maximum elevation proposed at 107.5 m AHD and the associated plume rise as assessed by CASA would remain below the Obstacle Limitation Surfaces. No information was provided on construction activity, refer **Section 8**.

7. Other NASF Guidelines

7.1. Guideline A: Measures for Managing Impacts of Aircraft Noise

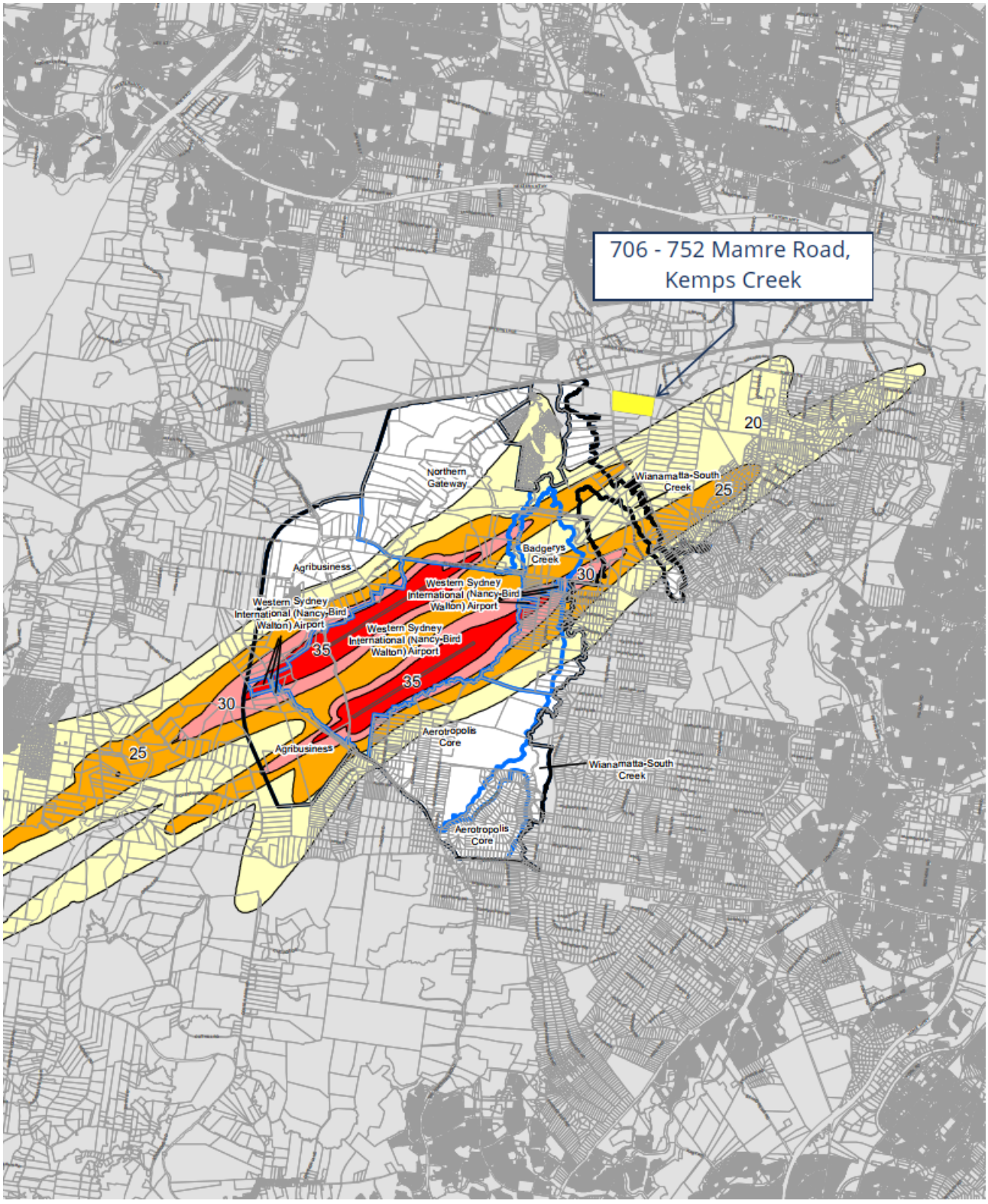
The State Environmental Planning Policy (Precincts – Western Parkland City) 2021 (SEPP) includes aircraft noise under section 4.3 Development controls – Airport safeguards. The objective of this section are to:

- Prevent certain noise sensitive development on land near the Airport;
- Minimise the impact of aircraft noise for other noise sensitive development; and
- Ensure that land use and development near the Airport do not hinder the 24 hour a day operation of the Airport.

The proposed development is outside the WSI Australian Noise Exposure Concept (ANEC) as illustrated on **Figure 2** below i.e. noise exposure less than 20 ANEF. This ANEC is used for safeguarding purposes and to guide planning controls around the airport and remains relevant to the long term ultimate configuration of two runways for airport safeguarding.

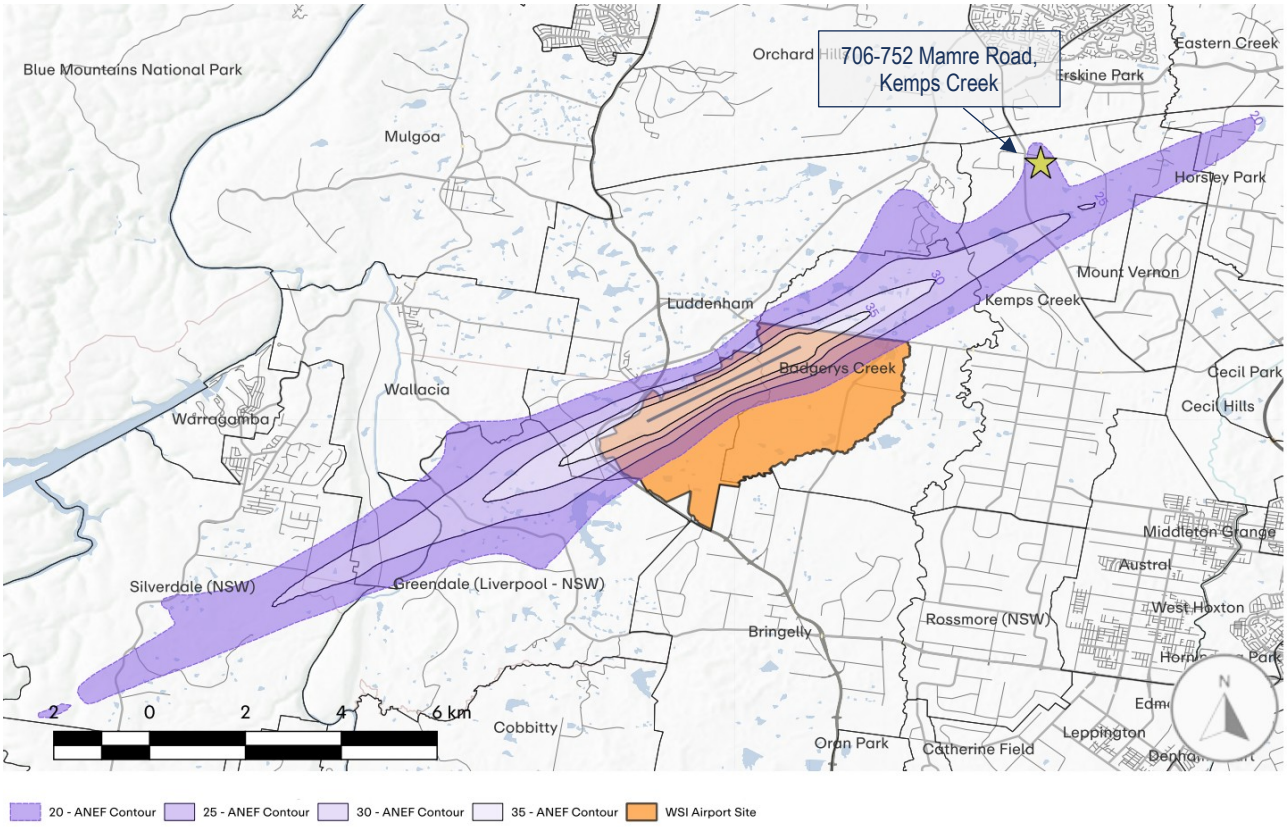
The WSI Airport Preliminary Draft Master Plan 2025 – 2045, as is required under the Airports Act, includes a long-range (2055) composite Australian Noise Exposure Forecast (ANEF) as illustrated on **Figure 3** below. The proposed development is within the 20 – 25 ANEF. The Australian Standard *Acoustics – Aircraft noise intrusion – Building siting and construction* AS2021:2015 identifies building site acceptability. 'Light Industrial' is 'acceptable' in less than 30 ANEF and 'commercial buildings' 'acceptable' in less than 25 ANEF

Figure 2: WSI Noise Exposure Contours



Source: Extract from NSW State Environmental Planning Policy (Precincts – Western Parkland City) 2021 Noise Exposure Contour Map

Figure 3: 2055 Composite ANEF



Source: WSI Airport Preliminary Draft Master Plan 2025-45

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

The purpose of Guideline B is to assist land use planners and airport operators in their planning and development processes to reduce the risk of building generated windshear and turbulence at airports near runways.

Applicability of this Guideline is initially determined by the location of a building within the assessment trigger area around the runway, that is:

- 1,200 m or closer perpendicular to the runway centreline;
- 900 m or closer in front of the runway threshold; and
- 500 m closer from the runway threshold along the runway.

The proposed development at 706-752 Mamre Road, Kemps Creek, NSW is outside the assessment trigger areas as defined in Guideline B and illustrated on the attached **Figure B25409/04** included in **Appendix B**. Therefore, no further assessment is required.

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

Guideline D provides guidance to State/Territory and local government decision makers, airport operators and developers of wind farms to jointly address the risk to civil aviation arising from development, presence and use of wind farms and wind monitoring towers.

The development plans provided and listed above in **Section 1.1** do not indicate the installation of any wind turbines or wind monitoring towers.

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

The purpose of Guideline G is to formalise the protection of CNS facilities in land use planning decisions. This Guideline provides land use planning guidance to better protect CNS facilities which support the system and processes in place by various agencies to safely manage the flow of aircraft into, out of and across Australian airspace. The Guideline also informs procedures which ensure development associated activities within Building Restricted Areas (BRA) of CNS facilities do not adversely affect the facility or cause interference for air traffic controllers or aircraft in transit.

The SEPP Section 4.23A *Operation of certain air transport facilities* objective is to regulate development that may impact the operation of air transport facilities. A Building Restricted Area Map is included to ensure that development in these areas would not adversely impact the operation of communication and air traffic control facilities or structures associated with the airport. In addition to this Glide Path BRA as provided in the SEPP map, the localiser BRA should also be reviewed. Localiser antennae are illustrated on the ARUP Airport Site Layout – 82 MAP (supporting Document) drawing no WSA40-OveArup-00010-AP-DRG-100067/Issue A.

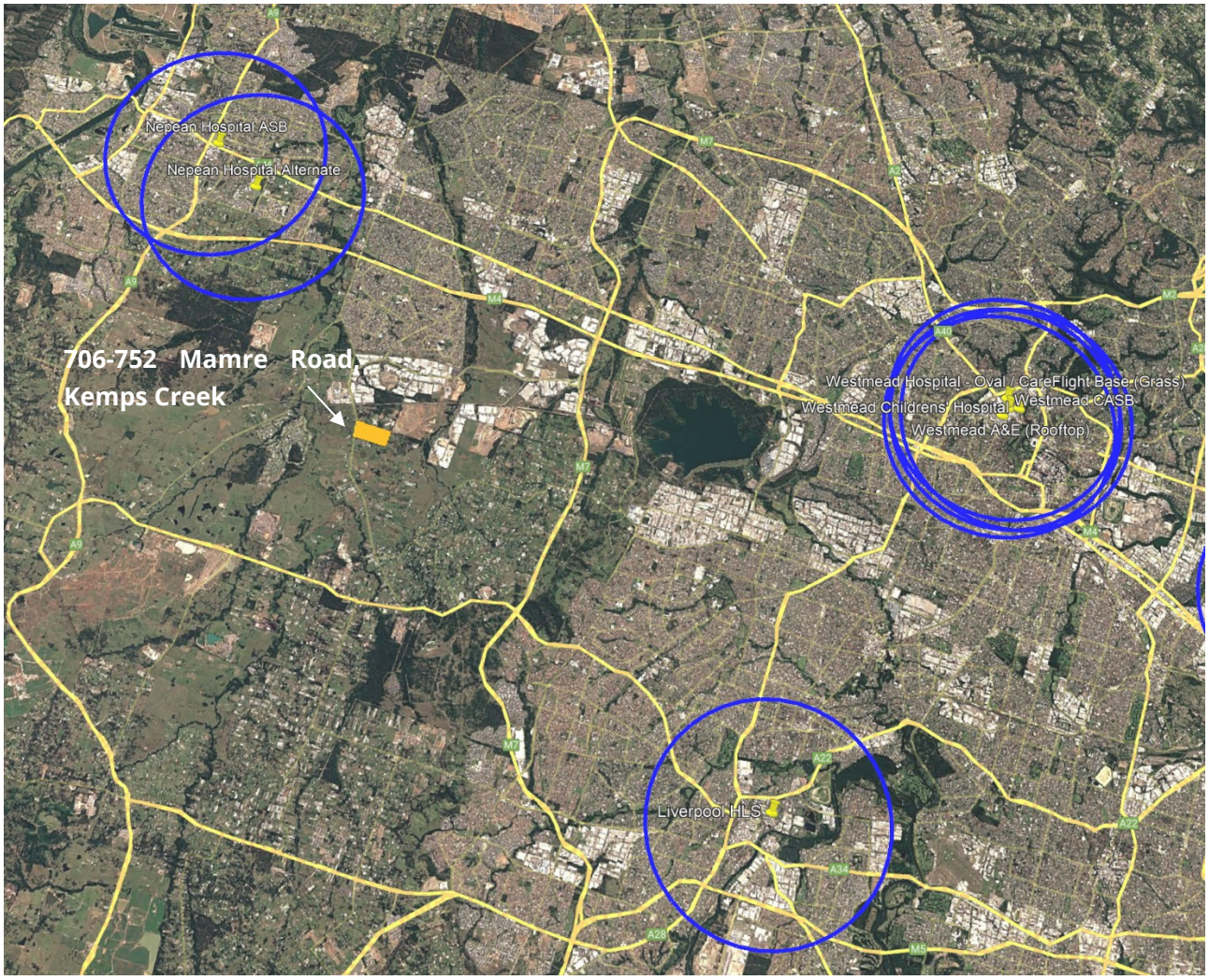
The proposed development is outside the Glide Path and Localiser Building Restricted Areas as shown in **Figure B25409/05** included in **Appendix B**.

7.5. Guideline H: Protecting Strategically Important Helicopter Landing Sites

Guideline H provides guidance to state/territory and local government decision makers as well as the owners/operators of identified strategically important Helicopter Landing Sites (SHLS) for the ongoing operations and to ensure SHLS are not compromised by any proposed development. For the purposes of this Guideline, an SHLS is an area not located on an aerodrome.

A SHLS is that as identified as being of strategic importance as well as associated with a hospital, elevated in a populated area and/or subject to instrument flight procedures. The flight path protection areas extend 3.5 km from the SHLS. The proposed development does not appear to be within 3.5 km of any existing hospitals as illustrated below on **Figure 4**.

Figure 4: Surrounding Hospitals



Source: Google Earth Pro

7.6. Guideline I: Managing the Risk in Public Safety Zones at the Ends of Runways

Guideline I provides guidance on approaches for the application of Public Safety Areas (PSA) planning framework in Australian jurisdictions. The Guideline is intended to ensure there is no increase in risk from new development and assist land-use planners to better consider public safety when assessing development proposals, rezoning and the development of strategic land use plans.

The proposed development site is outside the PSAs as defined by the SEPP Public Safety Area map and the Airport Plan 2021 and illustrated on attached **Figure B25409/06** included in **Appendix B**.

8. Construction Impacts

During construction, the construction sequencing and methodology must be considered in relation to the OLS and PANS-OPS surfaces. Penetrations of prescribed airspace by construction plant and equipment during construction constitutes a controlled activity under the *Airports (Protection of Airspace) Regulations 1996*.

Construction activities on the site will need to be assessed against the prescribed airspace that is in force at the time of construction and any penetrations of prescribed airspace will require approval under the Regulations (refer **Section 6.3**).

9. Summary

The Airport Safeguarding Assessment in response to the SEARS request is summarised as follows:

- The proposed Mamre Road Data Centre Campus at 706-752 Mamre Road, Kemps Creek has been reviewed against the National Airports Safeguarding Framework Guidelines in relation to the Western Sydney International Airport (WSI) with reference to the *NSW Planning Portal Spatial Viewer*, the *NSW State Environmental Planning Policy (Precincts - Western Parkland City) 2021* Part 4.3 *Development controls – Airport safeguards* and the *Western Sydney Airport Safeguarding Tool*;
- **Plume Rise Assessment:** CASA has reviewed the plume rise and concludes "…the plume from this development will not be a hazard to aircraft operations and no CASA mitigation are required. CASA has no objection to the proposal as detailed below." (CASA Ref F21 26508-7):
- **Wildlife Hazards**: The development site is situated within wildlife management Area B as per the SEPP. Under the Mamre Road DCP the detailed design should have regard to the *Aviation Safeguarding - Wildlife Hazards*. When the detail design is more fully developed, we recommend that the proposal is provided to WSI for review to ensure wildlife hazards are appropriately considered.
- **Lighting**: Situated outside the light control zones and outside the 6km assessment trigger radius, as such there is no further action required;
- **Prescribed Airspace**: The development site is within the WSI OLS and at a maximum elevation of 107.5 m AHD would remain below the OLS. The PANS-OPS airspace protections are not yet published for the airport however it is expected the OLS would be lower.
- Other NASF Guidelines:
  - **Aircraft Noise** (Guideline A): Situated outside the WSI Australian Noise Exposure Concept (ANEC). In accordance with AS2021:2015 'light industrial' is 'acceptable' in less than 30 ANEF;
  - **Building Generated Windshear and Turbulence** (Guideline B): Situated outside the windshear and turbulence assessment trigger areas, therefore no further assessment is required;
  - **Wind Turbines** (Guideline D): No wind turbines or wind monitoring towers are proposed;
  - **Communications, Navigation and Surveillance (CNS) Facilities** (Guideline G): Outside the Glide Path and Localiser Building Restricted Areas, as such there is no further action required in accordance with Guideline G;
  - **Strategic Helicopter Landing Sites** (Guideline H): Beyond 3.5 km from surrounding major hospital sites; and

- **Public Safety Areas** (Guideline I): Outside the WSI Public Safety Areas as defined by the SEPP and the Airport Plan 2021, therefore no further action is required

- **Construction Impacts**: Penetrations of prescribed airspace by construction plant and equipment during construction constitutes a controlled activity under the *Airports (Protection of Airspace) Regulations 1996*. Construction equipment and methodologies will need to be assessed, and any penetrations of prescribed airspace will require approval under the Regulations.

APPENDIX A

CASA Response 27.10.2025

Bridget Wouts

From: Windebank, Matthew <Matthew.Windebank@casa.gov.au>
Sent: Monday, 27 October 2025 11:19 AM
To: Martin Doyle; ANAA Corro
Cc: Adam Pavlovic
Subject: F21 26508-7 Proposed data centre, 706-752 Mamre Road, Kemps Creek NSW - CASA REPLY [SEC=OFFICIAL]

OFFICIAL

Good morning Martin,

CASA has reviewed the data as provided for the plume at 706-752 Mamre Road Kemps Creek as requested.

The CASA assessment toll indicates that the plume will reduce to a vertical velocity of 4.3 ms at a height of 51 m AGL. Ground height at the site is approx.. 75 m AHD. Total height will be approx. 126 m AHD. The OLS at this location is 231 m AHD. Therefore, the plume from this development will not be a hazard to aircraft operations and no CASA mitigation are required. CASA has no objection to the proposal as detailed below.

Regards

Matthew Windebank
Senior Aerodrome Specialist | Geospatial Assessment
Air Navigation, Airspace & Aerodromes Branch
CASA Air Navigation, Transformation and Risk Division

p: 131 757
e: matthew.windebank@casa.gov.au

From: Martin Doyle <martin@northstar-env.com>
Sent: Friday, 24 October 2025 11:59 AM
To: ANAA Corro <ANAA.Corro@casa.gov.au>
Cc: Adam Pavlovic <adam@planpm.com.au>
Subject: Form 1247 - Proposed data centre, 706-752 Mamre Road, Kemps Creek NSW

To whom it may concern,

Please find attached CASA form 1247 for a plume rise assessment for a proposed data centre, located at 706-752 Mamre Road, Kemps Creek NSW. Please also find attached the letter of authority

The data centre is proposed to include 846 stacks. The stacks are included on 26 buildings, with a footprint covering approximately 750m (W to E) and approximately 230m (N to S).

Only in an emergency would all of these stacks be operational, and this is anticipated to be a very rare occurrence.

Under normal circumstances, up to six of the stacks would be operated at any one time.

The separation distance between stacks under these normal circumstances would be approximately 120m. Under the emergency scenario, stacks would be around 1m apart (there is additional nuance to this, but please let me know if you need more information).

Please don't hesitate to contact me with any additional data requirements. We would be grateful if you could let us know an anticipated response date.

With kind regards,

Martin

Martin Doyle
Director / Air Quality Scientist

AIR QUALITY | ENVIRONMENT | SUSTAINABILITY

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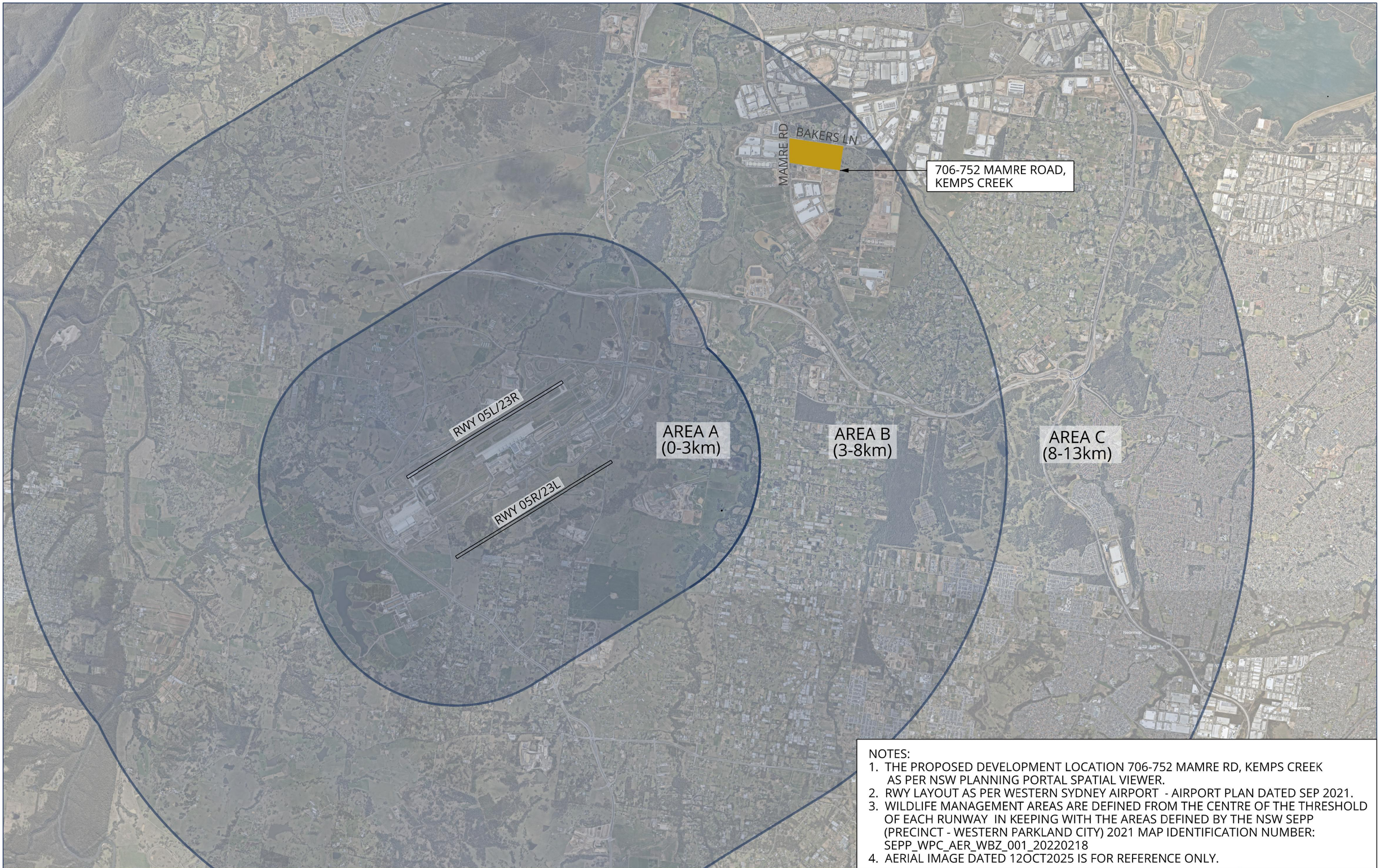
Riverina Office: PO Box 483, ALBURY NSW 2640

APPENDIX B

Figures B25409/01 - 06



NOTES:
1. THE PROPOSED DEVELOPMENT LOCATION 706-752 MAMRE RD, KEMPS CREEK AS PER NSW PLANNING PORTAL SPATIAL VIEWER.
2. RWY LAYOUT AS PER WESTERN SYDNEY AIRPORT - AIRPORT PLAN DATED SEP 2021.
3. WILDLIFE MANAGEMENT AREAS ARE DEFINED FROM THE CENTRE OF THE THRESHOLD OF EACH RUNWAY IN KEEPING WITH THE AREAS DEFINED BY THE NSW SEPP (PRECINCT - WESTERN PARKLAND CITY) 2021 MAP IDENTIFICATION NUMBER: SEPP_WPC_AER_WBZ_001_20220218
4. AERIAL IMAGE DATED 12OCT2025 IS FOR REFERENCE ONLY.

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CONSULT AUSTRALIA

PLAN PROJECT MANAGEMENT PTY LTD

706-752 MAMRE ROAD KEMPS CREEK - AIRPORT SAFEGUARDING ASSESSMENT

WILDLIFE MANAGEMENT AREAS

NORTH

0 700 2100 3500m

1:70000@ A3

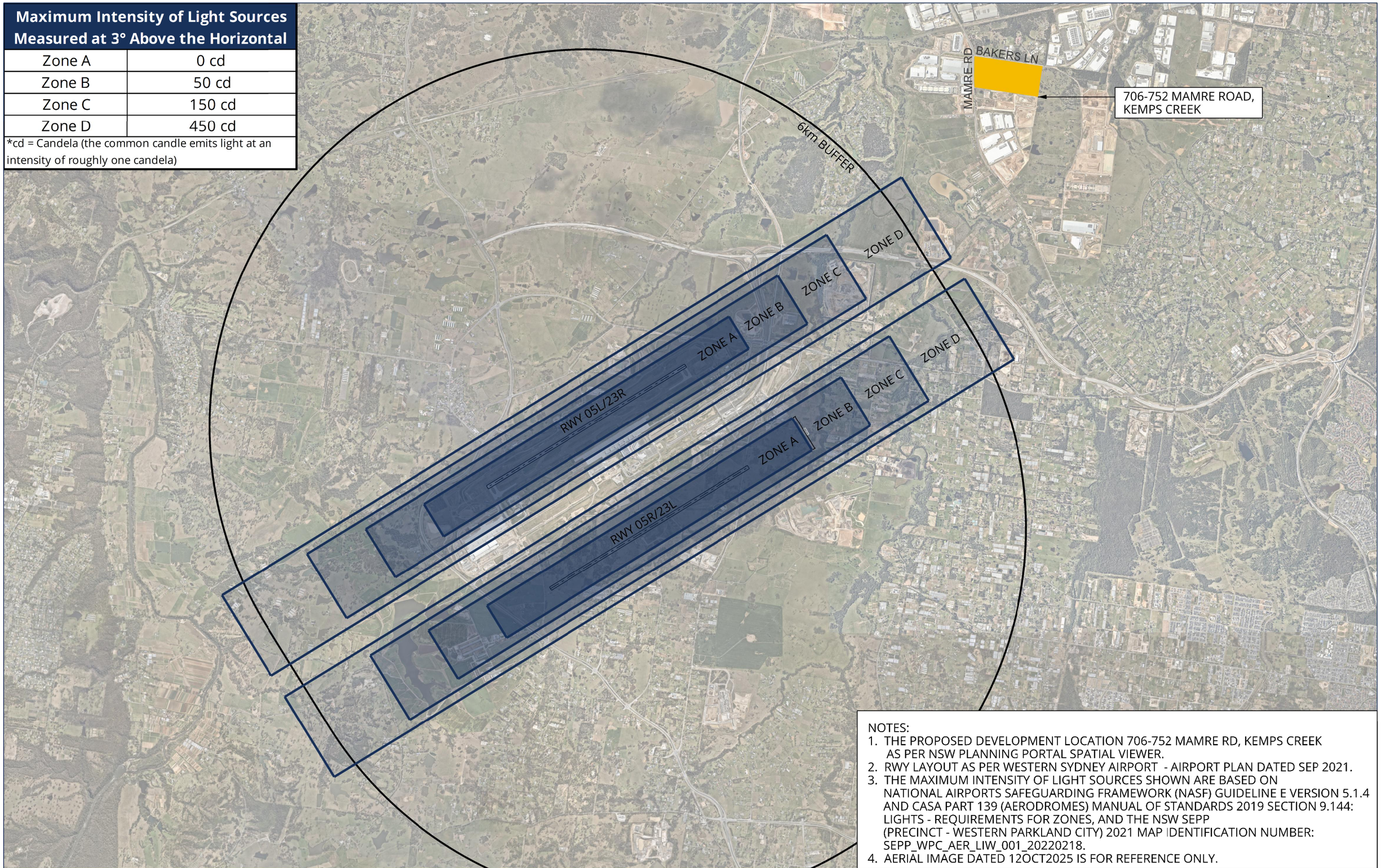
Rev.	Date
1	13.11.25
0	21.10.25

FIGURE:
B25409/01

Drawn: MK
Checked: BMW
Approved: BMW

Maximum Intensity of Light Sources Measured at 3° Above the Horizontal	
Zone A	0 cd
Zone B	50 cd
Zone C	150 cd
Zone D	450 cd

*cd = Candela (the common candle emits light at an intensity of roughly one candela)



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1. THE PROPOSED DEVELOPMENT LOCATION 706-752 MAMRE RD, KEMPS CREEK AS PER NSW PLANNING PORTAL SPATIAL VIEWER.
2. RWY LAYOUT AS PER WESTERN SYDNEY AIRPORT - AIRPORT PLAN DATED SEP 2021.
3. THE MAXIMUM INTENSITY OF LIGHT SOURCES SHOWN ARE BASED ON NATIONAL AIRPORTS SAFEGUARDING FRAMEWORK (NASF) GUIDELINE E VERSION 5.1.4 AND CASA PART 139 (AERODROMES) MANUAL OF STANDARDS 2019 SECTION 9.144: LIGHTS - REQUIREMENTS FOR ZONES, AND THE NSW SEPP (PRECINCT - WESTERN PARKLAND CITY) 2021 MAP IDENTIFICATION NUMBER: SEPP_WPC_AER_LIW_001_20220218.
4. AERIAL IMAGE DATED 12OCT2025 IS FOR REFERENCE ONLY.

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PLAN PROJECT MANAGEMENT PTY LTD

706-752 MAMRE ROAD KEMPS CREEK - AIRPORT SAFEGUARDING ASSESSMENT

MAXIMUM LIGHTING INTENSITY ZONES

NORTH

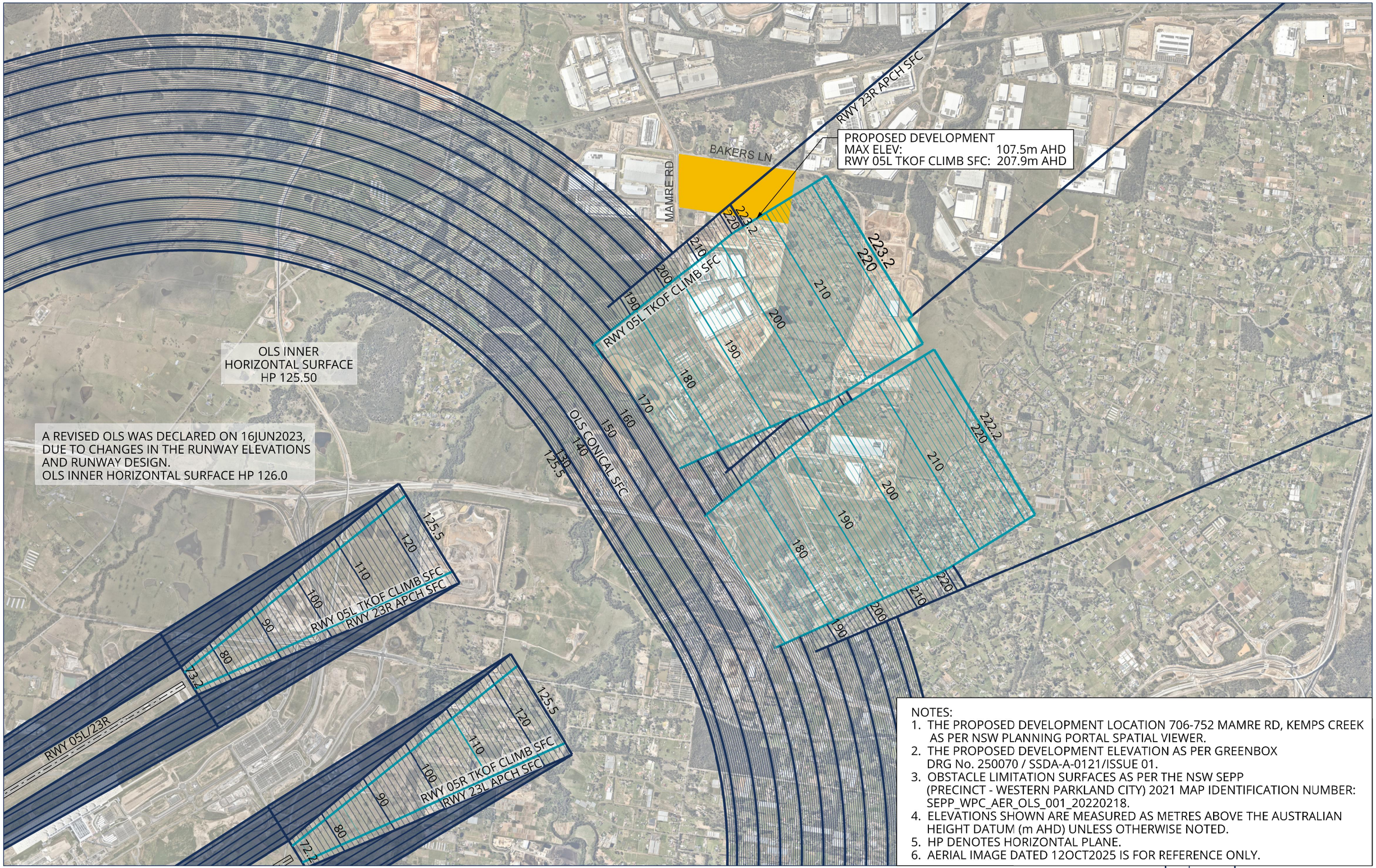
0 550 1650 2750m

1:55000@ A3

Rev.	Date
1	13.11.25
0	21.10.25

FIGURE:
B25409/02

Drawn: MK
Checked: BMW
Approved: BMW



NOTES:
1. THE PROPOSED DEVELOPMENT LOCATION 706-752 MAMRE RD, KEMPS CREEK AS PER NSW PLANNING PORTAL SPATIAL VIEWER.
2. THE PROPOSED DEVELOPMENT ELEVATION AS PER GREENBOX DRG No. 250070 / SSDA-A-0121/ISSUE 01.
3. OBSTACLE LIMITATION SURFACES AS PER THE NSW SEPP (PRECINCT - WESTERN PARKLAND CITY) 2021 MAP IDENTIFICATION NUMBER: SEPP_WPC_AER_OLS_001_20220218.
4. ELEVATIONS SHOWN ARE MEASURED AS METRES ABOVE THE AUSTRALIAN HEIGHT DATUM (m AHD) UNLESS OTHERWISE NOTED.
5. HP DENOTES HORIZONTAL PLANE.
6. AERIAL IMAGE DATED 12OCT2025 IS FOR REFERENCE ONLY.

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706-752 MAMRE ROAD KEMPS CREEK - AIRPORT SAFEGUARDING ASSESSMENT

WESTERN SYDNEY AIRPORT - OBSTACLE LIMITATION SURFACES

NORTH

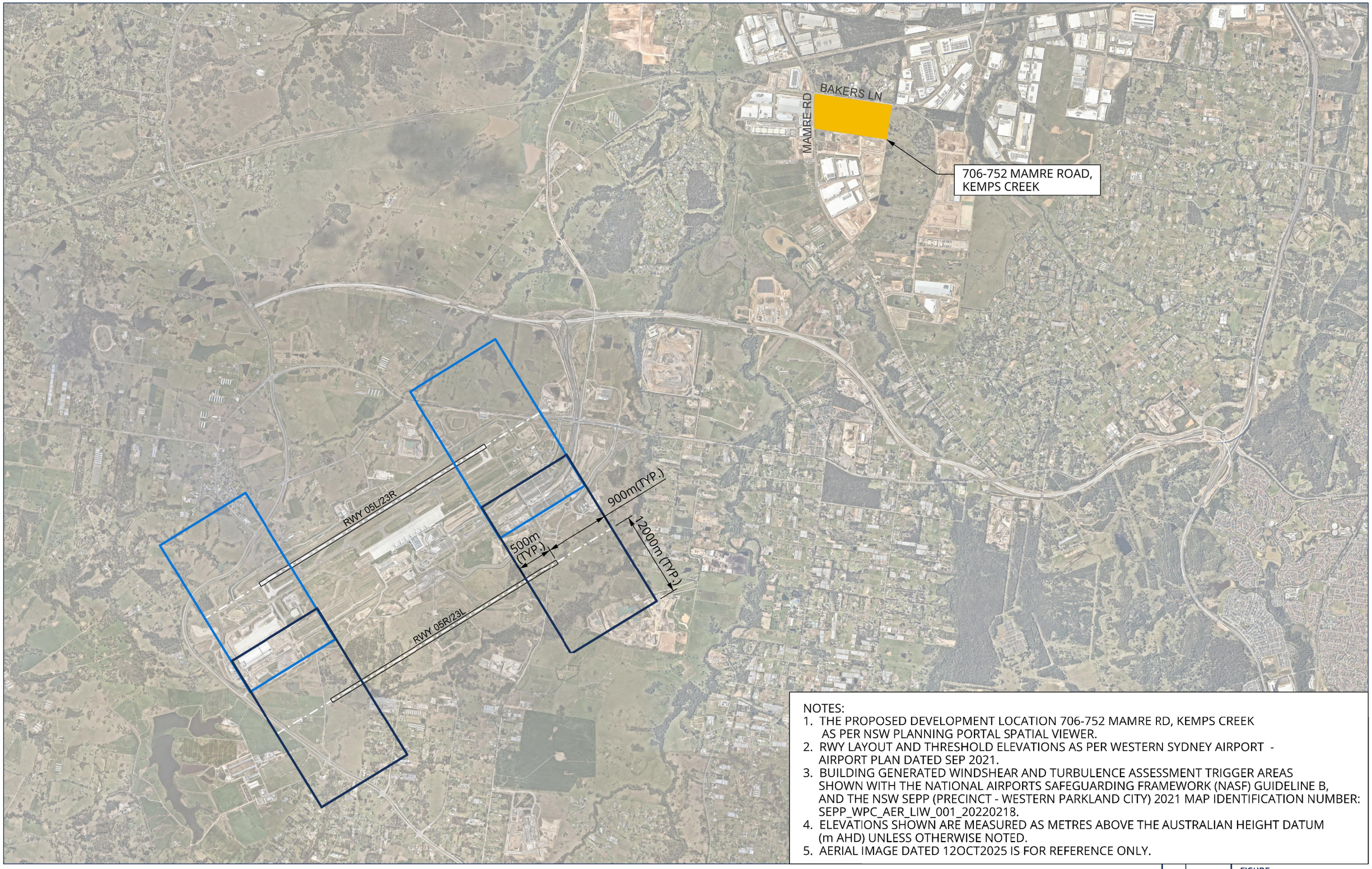
0 320 960 1600m

1:32000@ A3

Rev.	Date
1	13.11.25
0	21.10.25

FIGURE:
B25409/03

Drawn: MK
Checked: BMW
Approved: BMW



NOTES:
1. THE PROPOSED DEVELOPMENT LOCATION 706-752 MAMRE RD, KEMPS CREEK AS PER NSW PLANNING PORTAL SPATIAL VIEWER.
2. RWY LAYOUT AND THRESHOLD ELEVATIONS AS PER WESTERN SYDNEY AIRPORT - AIRPORT PLAN DATED SEP 2021.
3. BUILDING GENERATED WINDSHEAR AND TURBULENCE ASSESSMENT TRIGGER AREAS SHOWN WITH THE NATIONAL AIRPORTS SAFEGUARDING FRAMEWORK (NASF) GUIDELINE B, AND THE NSW SEPP (PRECINCT - WESTERN PARKLAND CITY) 2021 MAP IDENTIFICATION NUMBER: SEPP_WPC_AER_LIW_001_20220218.
4. ELEVATIONS SHOWN ARE MEASURED AS METRES ABOVE THE AUSTRALIAN HEIGHT DATUM (m AHD) UNLESS OTHERWISE NOTED.
5. AERIAL IMAGE DATED 12OCT2025 IS FOR REFERENCE ONLY.

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706-752 MAMRE ROAD KEMPS CREEK - AIRPORT SAFEGUARDING ASSESSMENT

NASF GUIDELINE B: BUILDING GENERATED WINDSHEAR AND TURBULENCE

NORTH

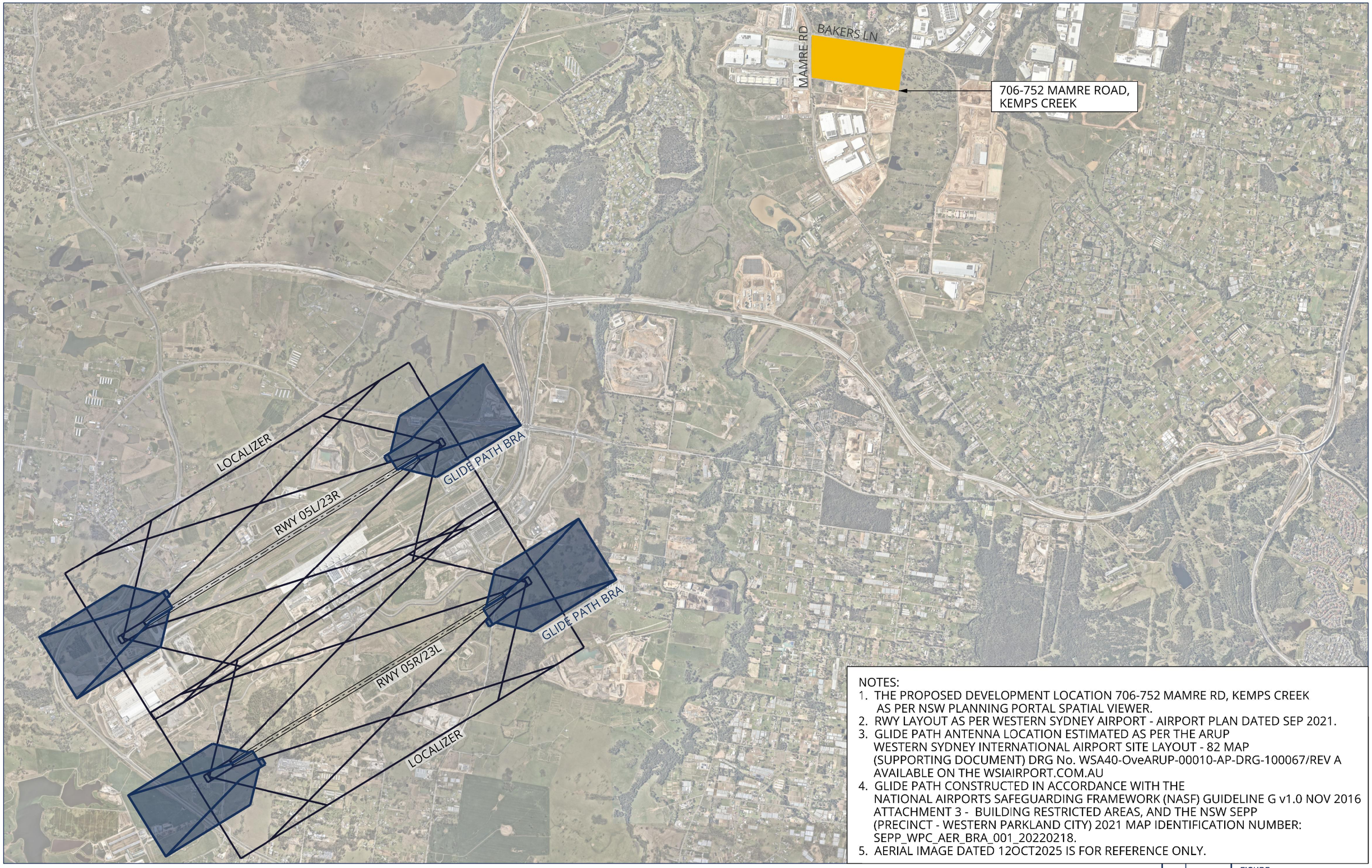
0 480 1440 2400m

1:48000@ A3

Rev.	Date
1	13.11.25
0	21.10.25

FIGURE:
B25409/04

Drawn: MK
Checked: BMW
Approved: BMW



NOTES:
1. THE PROPOSED DEVELOPMENT LOCATION 706-752 MAMRE RD, KEMPS CREEK AS PER NSW PLANNING PORTAL SPATIAL VIEWER.
2. RWY LAYOUT AS PER WESTERN SYDNEY AIRPORT - AIRPORT PLAN DATED SEP 2021.
3. GLIDE PATH ANTENNA LOCATION ESTIMATED AS PER THE ARUP WESTERN SYDNEY INTERNATIONAL AIRPORT SITE LAYOUT - 82 MAP (SUPPORTING DOCUMENT) DRG No. WSA40-OveARUP-00010-AP-DRG-100067/REV A AVAILABLE ON THE WSIAIRPORT.COM.AU
4. GLIDE PATH CONSTRUCTED IN ACCORDANCE WITH THE NATIONAL AIRPORTS SAFEGUARDING FRAMEWORK (NASF) GUIDELINE G v1.0 NOV 2016 ATTACHMENT 3 - BUILDING RESTRICTED AREAS, AND THE NSW SEPP (PRECINCT - WESTERN PARKLAND CITY) 2021 MAP IDENTIFICATION NUMBER: SEPP_WPC_AER_BRA_001_20220218.
5. AERIAL IMAGE DATED 12OCT2025 IS FOR REFERENCE ONLY.

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706-752 MAMRE ROAD KEMPS CREEK - AIRPORT SAFEGUARDING ASSESSMENT

NASF GUIDELINE G - GLIDE PATH & LOCALISER BRA

NORTH

0 400 1200 2000m

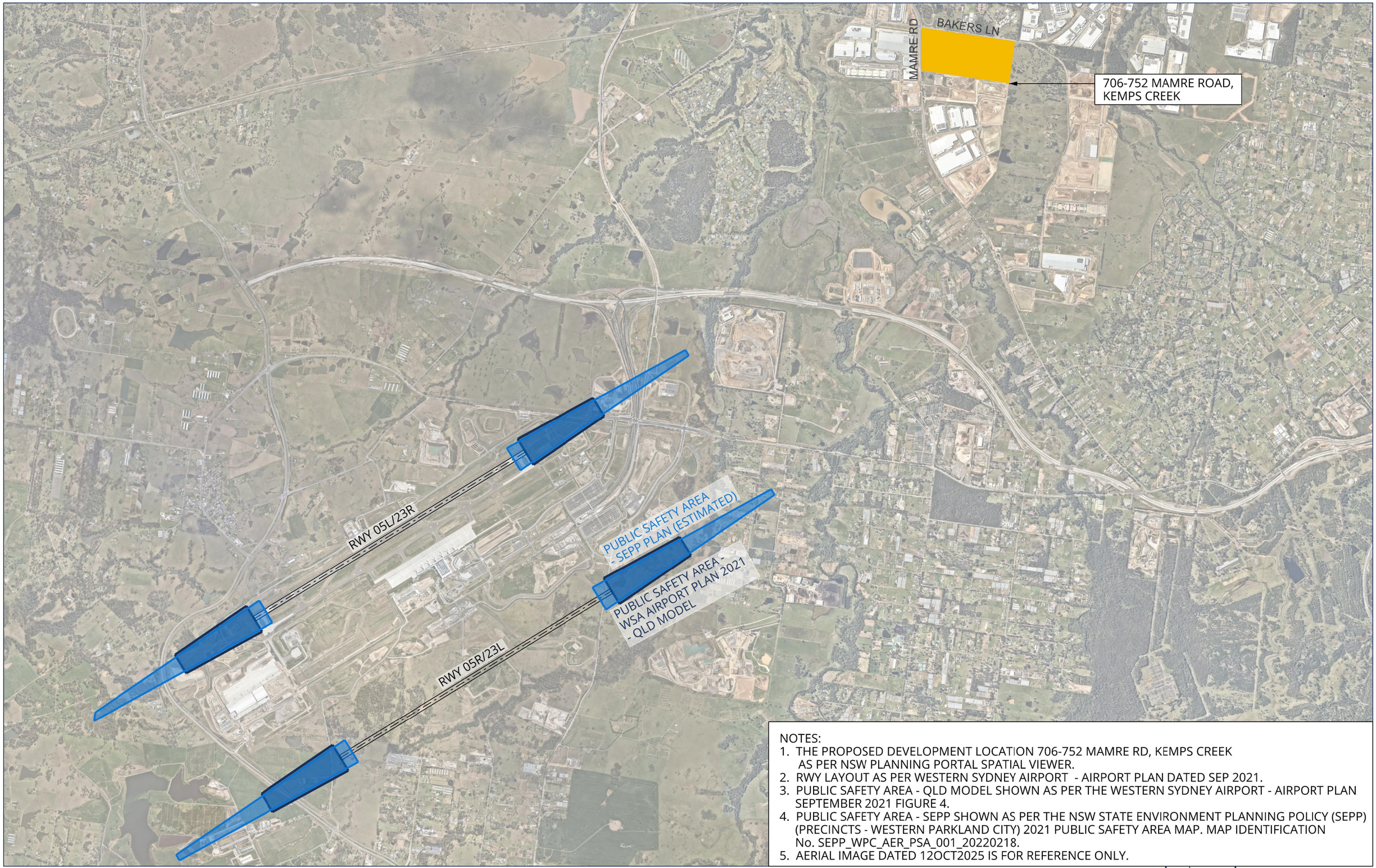
1:40000@ A3

Rev.	Date
1	13.11.25
0	21.10.25

FIGURE:

B25409/05

Drawn: MK
Checked: BMW
Approved: BMW



NOTES:
1. THE PROPOSED DEVELOPMENT LOCATION 706-752 MAMRE RD, KEMPS CREEK AS PER NSW PLANNING PORTAL SPATIAL VIEWER.
2. RWY LAYOUT AS PER WESTERN SYDNEY AIRPORT - AIRPORT PLAN DATED SEP 2021.
3. PUBLIC SAFETY AREA - QLD MODEL SHOWN AS PER THE WESTERN SYDNEY AIRPORT - AIRPORT PLAN SEPTEMBER 2021 FIGURE 4.
4. PUBLIC SAFETY AREA - SEPP SHOWN AS PER THE NSW STATE ENVIRONMENT PLANNING POLICY (SEPP) (PRECINCTS - WESTERN PARKLAND CITY) 2021 PUBLIC SAFETY AREA MAP. MAP IDENTIFICATION No. SEPP_WPC_AER_PSA_001_20220218.
5. AERIAL IMAGE DATED 12OCT2025 IS FOR REFERENCE ONLY.

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PLAN PROJECT MANAGEMENT PTY LTD

706-752 MAMRE ROAD KEMPS CREEK - AIRPORT SAFEGUARDING ASSESSMENT

NASF GUIDELINE I - PUBLIC SAFETY AREA

NORTH

0 400 1200 2000m

1:40000@ A3

Rev.	Date
1	13.11.25
0	21.10.25

FIGURE:
B25409/06

Drawn: MK
Checked: BMW
Approved: BMW