

20 November 2024

Ms Olivia Ridgewell
Assistant Development Manager
ESR Australia Pty Ltd
Level 12
135 King St
Sydney NSW 2000

DESKTOP AVIATION SAFEGUARDING ASSESSMENT: 49-61 STEPHEN RD, BANKSMEADOW

Dear Olivia,

This Letter of Advice (LoA) has been prepared in response to your request for Avlaw Aviation Consulting Pty Ltd (Avlaw) to assess the aeronautical impacts associated with the proposed construction of a multi-level industrial development at 49-61 Stephen Rd in Banksmeadow, referred to herein as "the site". The contents of this LoA addresses the final dot point of the Secretary's Environmental Assessment Requirements (SEARs) titled 'Hazards and Risk' which is copied below:

○ Consideration of any impacts associated with Sydney Airport

Based on a preliminary review of the proposed height of the built structure at the site (43.6m AHD) and the short turnaround required prior to the intended lodgement of the State Significant Development Application (SSDA), it was agreed that a desktop aviation safeguarding assessment would suffice for the purposes of satisfying the requirement associated with the aforementioned milestone.

The scope of Avlaw's desktop aviation safeguarding assessment was based on the applicable guidelines and principles contained in the National Airports Safeguarding Framework (NASF). A summary of Avlaw's findings with respect to Sydney Airport is tabulated on the following page.

Sydney Airport	
Aviation hazard	Desktop findings
NASF Guideline A - Noise	The site is outside all ANEF 2039 contours
NASF Guideline B - Windshear and Turbulence	The site is outside the trigger area
NASF Guideline C - Wildlife	The site is within the 3km wildlife buffer zone i.e. requirement to monitor
NASF Guideline D - Wind Turbines	N/A given the proposed land use
NASF Guideline E - Lighting	The site is outside lighting control zones A, B, C and D
NASF Guideline F - Protected Airspace	No permanent intrusion into the OLS by the built structure at the site
NASF Guideline G - Aviation Facilities	The site is outside the Building Restricted Area for all runways
NASF Guideline H - Helicopter Landing Sites	Nil impact
NASF Guideline I - Public Safety Areas	The site is outside the assessment area

Figure 1: Summary of desktop aviation safeguarding assessment findings

Following a review of the brief provided to date and the results of the desktop assessment completed, Avlaw can advise that there are no impediments to the proposed development receiving the support of aviation stakeholders who will be invited to provide comments as part of the SSDA process. However, there are certain aspects of the proposed development which remain unknown at the time of writing which may impact these preliminary conclusions, but they are not expected to be significant. In particular, construction crane heights as well as a detailed Construction Management Plan (CMP) are unavailable at present as this will be finalised following the completion of detailed design.

The critical (i.e. lowest) airspace protection surface covering the site is the Obstacle Limitation Surfaces (OLS) for Sydney Airport. Specifically, the site is covered by the Inner Horizontal Surface which is 51m AHD. The proposed built structure at the site (43.6m AHD) will remain below this surface and therefore not require controlled activity approval. The heights of other airspace protection surfaces above the OLS however are unknown at the time of writing as the short turnaround on this deliverable did not allow sufficient time for Avlaw to model the restrictions from first principles.

In the event the CMP is developed such that cranes remain below 51m AHD, then no aviation approvals will be necessary for the development to proceed. Avlaw believes that, if necessary, cranes intruding the OLS but which remain below the Procedures for Air Navigation Services – Aircraft Operations (PANS-OPS) surfaces should be supported by aviation stakeholders. This will be verified by Avlaw once the CMP is prepared and a more detailed assessment is completed. Indicatively, based on Avlaw's understanding of the airspace protection surfaces in close proximity to the site that have been modelled from first principles, there would appear to be sufficient vertical buffer between the height of the built structure and the PANS-OPS for cranes to not require approval for intrusion into the PANS-OPS or any other airspace protection surfaces besides the OLS.

Part 12 of the *Airports Act 1996* (Act) and the *Airports (Protection of Airspace) Regulations 1996* (Regulations) establish a framework for the protection of airspace at and around airports. The Act defines any activity resulting in an intrusion into an airport's prescribed airspace to be a "controlled activity" that cannot be carried out without approval from aviation stakeholders. Controlled activities include the following:

- permanent structures, such as buildings, intruding into the prescribed airspace (N/A at the site);
- temporary structures such as cranes intruding into the prescribed airspace (potentially applicable); or
- any activities causing intrusions into the prescribed airspace through glare from artificial light or reflected sunlight, air turbulence from stacks or vents, smoke, dust, steam or other gases or particulate matter (N/A based on the brief to date).

The Regulations differentiate between short-term (not expected to continue longer than 3 months) and long-term controlled activities (expected to continue for more than 3 months). With respect to long-term penetration, the airport operator is required to invite the following stakeholders to assess or comment on an application if there is an intrusion into prescribed airspace:

- **CASA** for an assessment of the impact on aviation safety;
- **Airservices Australia** for assessments of proposals resulting in a penetration of surfaces including PANS-OPS;
- **The local council authority** responsible for building approvals; and
- **The Department of Defence** in the case of joint-user airports (not relevant in this instance).

The final approving authority for all short-term penetrations of the PANS-OPS and long-term penetrations of the OLS is the Department as specified in the Act and the Regulations. In making its determination, the Department is required to assess the respective assessments of the airport operator, Airservices Australia and CASA. The Department cannot approve short-term penetrations of the PANS-OPS without the support of the airport operator (in this instance, Sydney Airport) and also cannot approve long-term penetrations of the OLS in the event CASA's assessment is not supportive of the application. It should be noted that long term intrusions of the PANS-OPS or RTCC surfaces are prohibited.

The aviation approval process requires separate assessments of the permanent built structure and temporary construction crane(s). Timing to assess applications varies depending on the complexity of the assessment and the workload within the respective agencies at the time of receipt. Avlaw's experience suggests proponents should allow approximately three (3) months for SACL, Airservices Australia, CASA and the Department to conduct their own assessments. Controlled activity approval is not required for the built structure but should it be triggered because of crane heights, applications should be lodged as soon as the final building design and CMP is frozen.

Carrying out a controlled activity without approval is an offence under Section 183 of the Act 1996 and is punishable by a fine of up to 250 penalty units. It is an offence under Section 185 of the Act to contravene any conditions imposed on an approval. Under Section 186 of the Act it is an offence not to give information to the airport operator that is relevant to a proposed controlled activity.

Once the detailed design has progressed and a CMP is prepared, Avlaw can complete a more detailed aeronautical assessment to verify the desktop findings contained in this LoA. In the interim, the desktop assessment findings documented in this LoA indicate that the proposed built structure and likely crane heights will not adversely impact the safety, efficiency or regularity of aircraft operations at Sydney Airport and should be supported by aviation stakeholders.

Yours sincerely,

A handwritten signature in blue ink, appearing to read 'Amin Hamzavian', is positioned above the printed name.

Amin Hamzavian
Managing Director

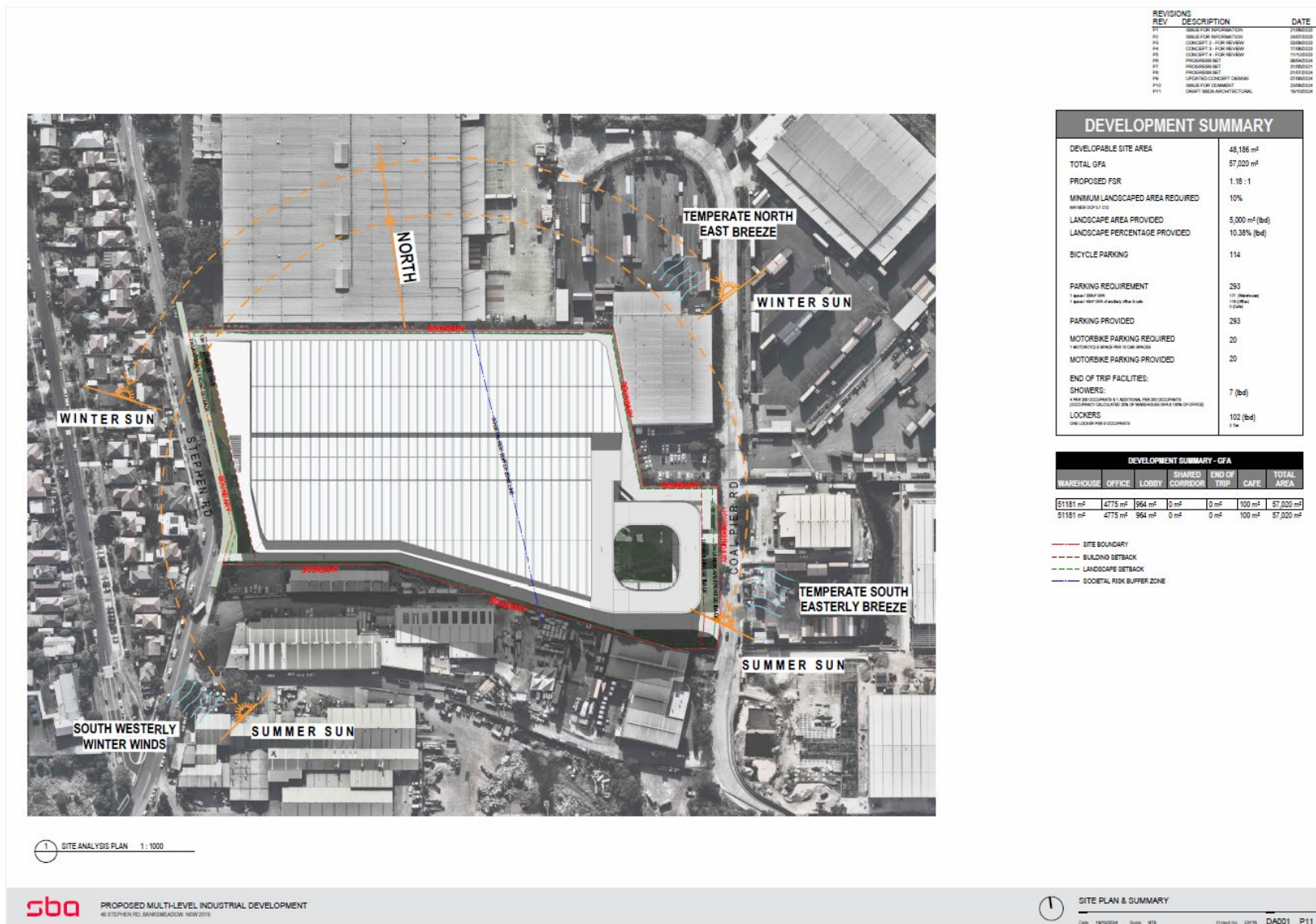


Figure 2: Plan view image of the site showing proposed built structure

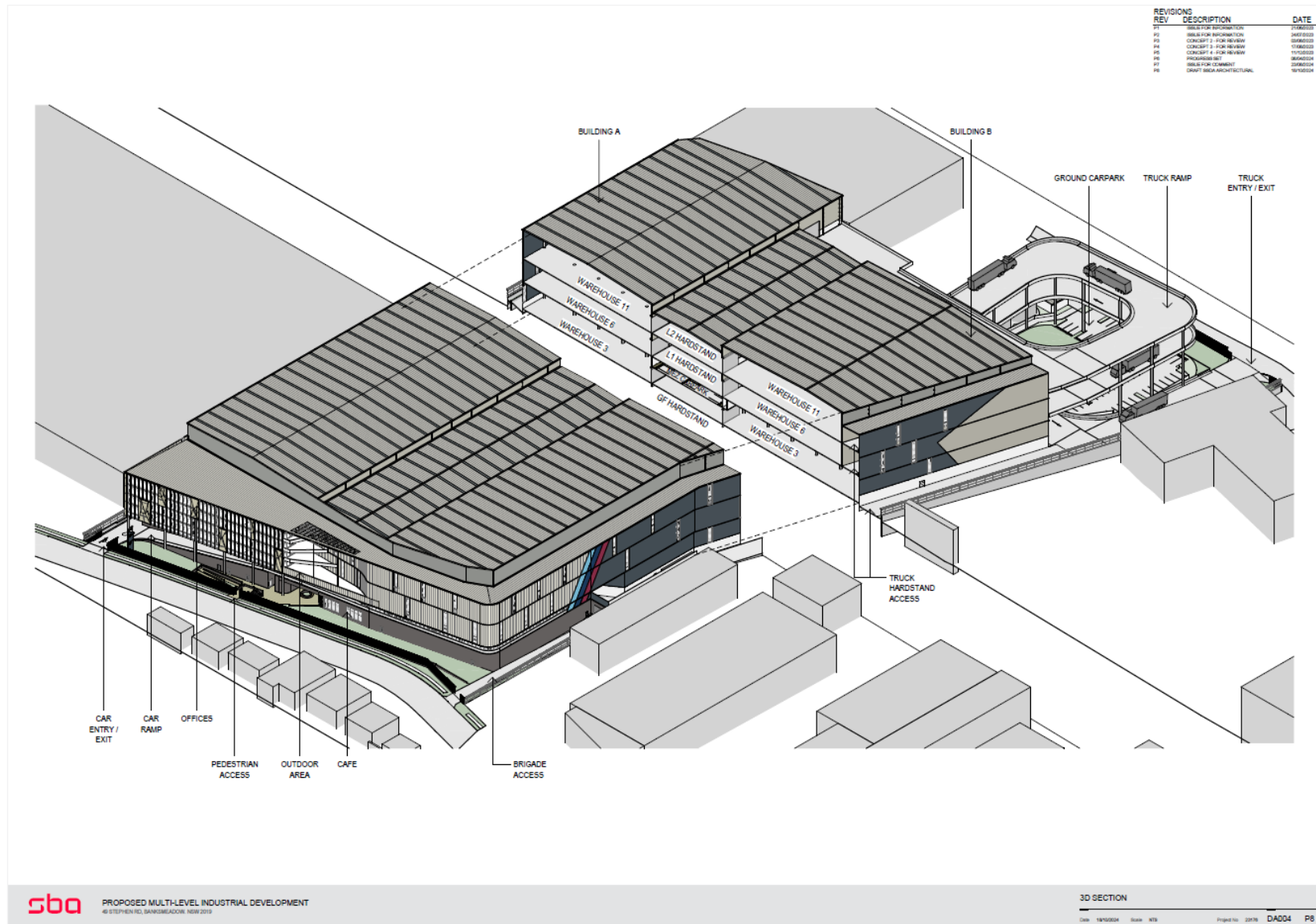


Figure 3: Proposed development of the site in 3D

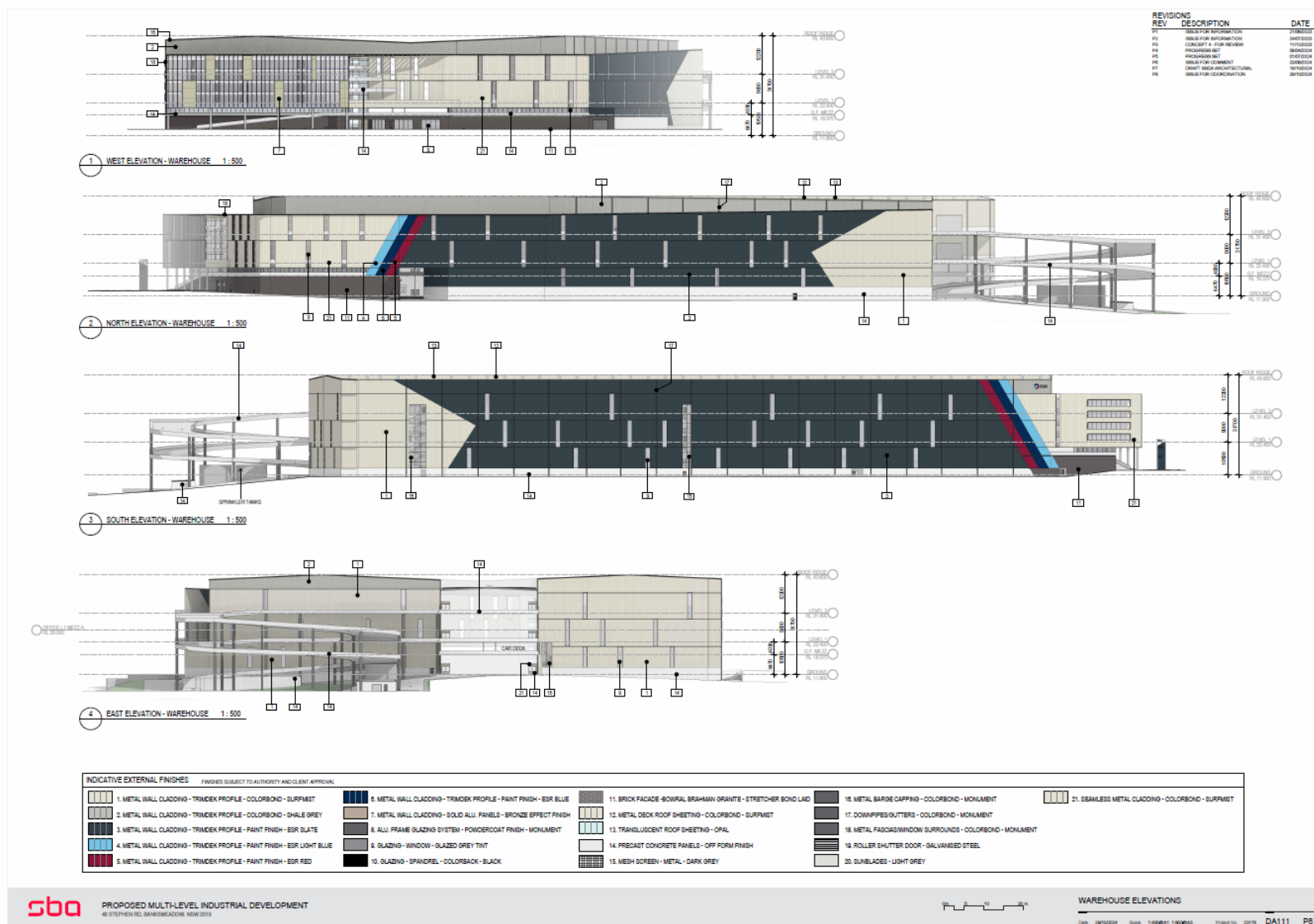


Figure 4: Elevation views of the proposed development (top to bottom: West, North, South and East)

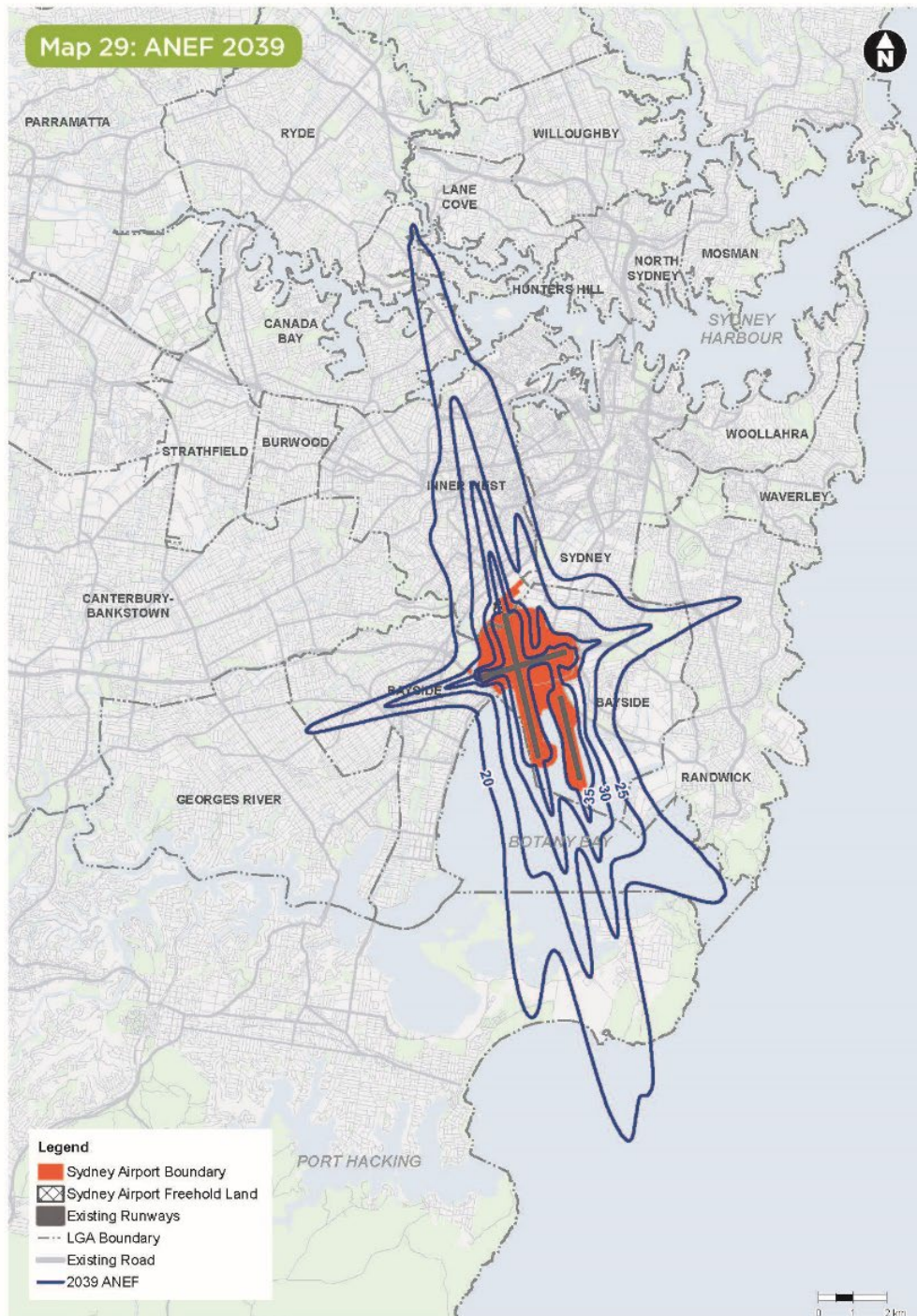


Figure 5: Sydney Airport ANEF 2039 (site outside contours)



Figure 6: Windshear and turbulence trigger areas for all runways at Sydney Airport (site to the east of image)

Wildlife Hazard Management Action Table

Attachment 1

Land use types	Likely attractants ▲ natural elements ■ structural elements ● waste and food	Wildlife attraction risk	Actions for existing development and land uses in wildlife management areas			Actions for new and changed development and land uses in wildlife management areas			
			0-3 km (Area A)	3-8 km (Area B)	8-13 km (Area C)	0-3 km (Area A)	3-8 km (Area B)	8-13 km (Area C)	
Agriculture									
Turf farm, piggery, abattoir, aquaculture	▲ ■ ●	High	Mitigate	Mitigate	Monitor	Incompatible	Mitigate	Monitor	
Fruit tree farm/orchard	▲ ■ ●	High	Mitigate	Mitigate	Monitor	Incompatible	Mitigate	Monitor	
Fish processing/packing plant	▲ ■ ●	High	Mitigate	Mitigate	Monitor	Incompatible	Mitigate	Monitor	
Farm (cattle, dairy, poultry, crops)	▲ ■ ●	Moderate	Mitigate	Monitor	Monitor	Mitigate	Mitigate	Monitor	
Horticulture, viticulture, market farms/gardens	▲ ■ ●	Moderate	Mitigate	Monitor	Monitor	Mitigate	Mitigate	Monitor	
Forestry	▲ ●	Low	Monitor	Monitor	No Action	Monitor	Monitor	No Action	
Plant nursery	▲ ■ ●	Low	Monitor	Monitor	No Action	Monitor	Monitor	No Action	
Conservation									
Wildlife/conservation area - wetland, waterways	▲	High	Mitigate	Mitigate	Monitor	Incompatible	Mitigate	Monitor	
Wildlife/conservation area - dryland	▲	Moderate	Mitigate	Monitor	Monitor	Mitigate	Mitigate	Monitor	
Recreation									
Significant open water (ancillary to development)	▲	High	Mitigate	Mitigate	Monitor	Incompatible	Mitigate	Monitor	
Showground	▲ ■ ●	High	Mitigate	Mitigate	Monitor	Incompatible	Mitigate	Monitor	
Significant landscaped space (ancillary to development)	▲	Moderate	Mitigate	Monitor	Monitor	Mitigate	Mitigate	Monitor	
Golf course	▲ ■ ●	Moderate	Mitigate	Monitor	Monitor	Mitigate	Mitigate	Monitor	
Park, playground	▲ ●	Moderate	Mitigate	Monitor	Monitor	Mitigate	Mitigate	Monitor	
Picnic areas, camping ground	▲ ●	Moderate	Mitigate	Monitor	Monitor	Mitigate	Mitigate	Monitor	
Racetrack, horse riding school	▲ ■ ●	Moderate	Mitigate	Monitor	Monitor	Mitigate	Mitigate	Monitor	
Sports facility (tennis, bowls, football fields)	▲ ■ ●	Moderate	Mitigate	Monitor	Monitor	Mitigate	Mitigate	Monitor	
Commercial									
Food processing or storage facility	■ ●	High	Mitigate	Mitigate	Monitor	Incompatible	Mitigate	Monitor	
Fast food, drive-in, outdoor restaurant	■ ●	Low	Monitor	Monitor	No Action	Monitor	Monitor	No Action	
Shopping centre	■ ●	Low	Monitor	Monitor	No Action	Monitor	Monitor	No Action	
Warehouse (food storage)	■ ●	Low	Monitor	Monitor	No Action	Monitor	Monitor	No Action	
Car park	■ ●	Very Low	Monitor	No Action	No Action	Monitor	No Action	No Action	
Cinemas	■ ●	Very Low	Monitor	No Action	No Action	Monitor	No Action	No Action	
Hotel/motel	■ ●	Very Low	Monitor	No Action	No Action	Monitor	No Action	No Action	
Office building	■ ●	Very Low	Monitor	No Action	No Action	Monitor	No Action	No Action	
Petrol station	■ ●	Very Low	Monitor	No Action	No Action	Monitor	No Action	No Action	
Warehouse (non-food storage)	■ ●	Very Low	Monitor	No Action	No Action	Monitor	No Action	No Action	
Utilities									
Food / organic waste facility	■ ●	High	Mitigate	Mitigate	Monitor	Incompatible	Mitigate	Monitor	
Putrescible waste facility - landfill	●	High	Mitigate	Mitigate	Monitor	Incompatible	Mitigate	Monitor	
Putrescible waste facility - transfer station	■ ●	High	Mitigate	Mitigate	Monitor	Incompatible	Mitigate	Monitor	
Water infrastructure (drains, channels, basins)	▲	High	Mitigate	Mitigate	Monitor	Mitigate	Mitigate	Monitor	
Non-putrescible waste facility - landfill	●	Moderate	Mitigate	Monitor	Monitor	Mitigate	Mitigate	Monitor	
Non-putrescible waste facility - transfer station	■ ●	Moderate	Mitigate	Monitor	Monitor	Mitigate	Mitigate	Monitor	
Sewage / wastewater treatment facility	■ ●	Moderate	Mitigate	Monitor	Monitor	Mitigate	Mitigate	Monitor	
Potable water treatment facility	▲ ■	Low	Monitor	Monitor	No Action	Monitor	Monitor	No Action	

Figure 7: Attachment 1 to NASF Guideline C re wildlife hazards and management (cells highlighted blue applicable to the site)



Figure 8: Lighting planes for Sydney Airport (site beyond lateral limits of all zones)

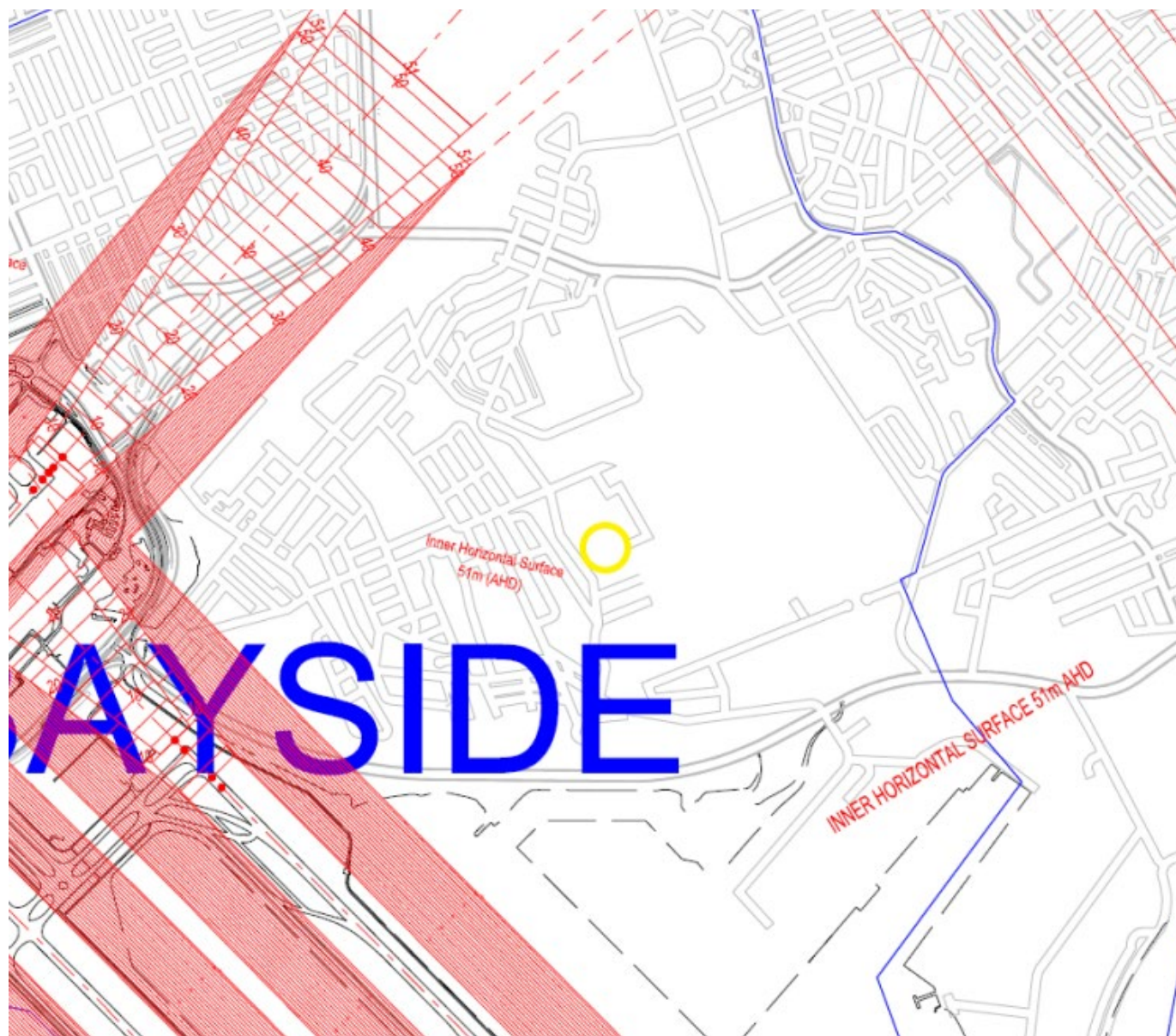


Figure 9: Cropped OLS chart (approximate location of the site indicated by yellow circle)

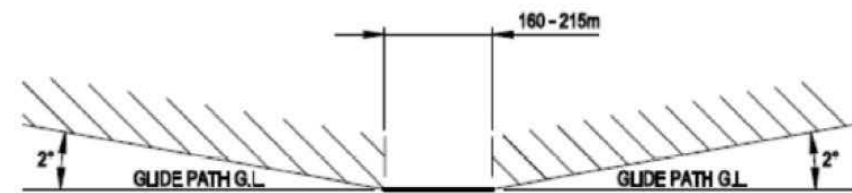
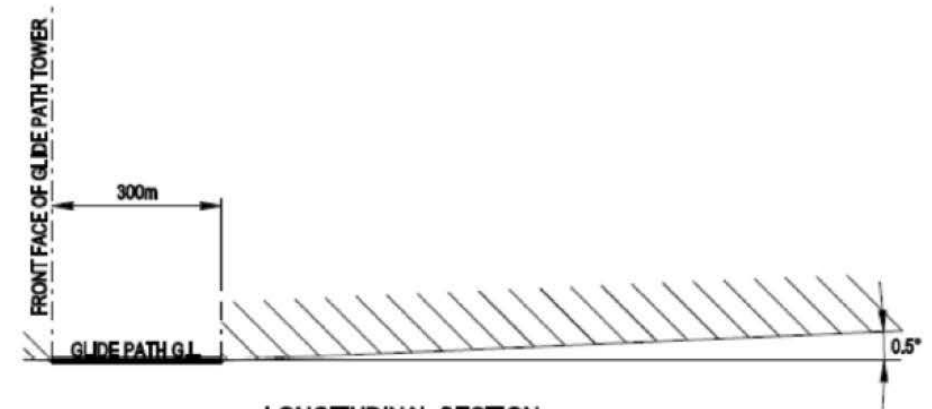
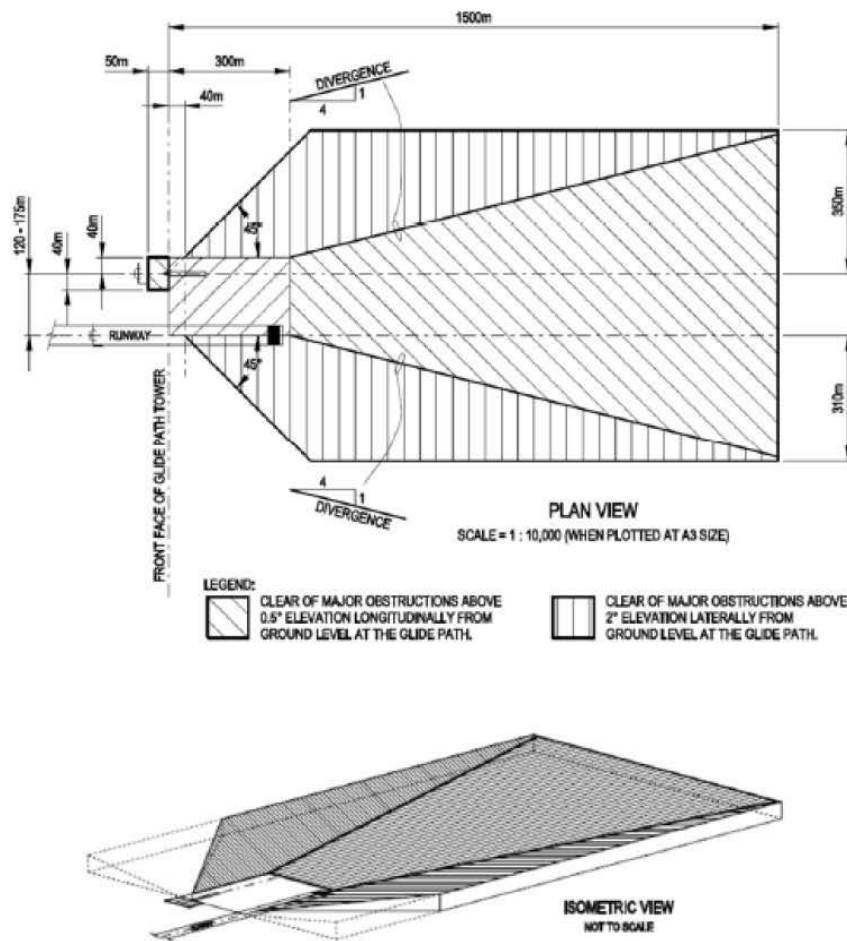


Figure 10: Various illustrations of the glide path protection surfaces

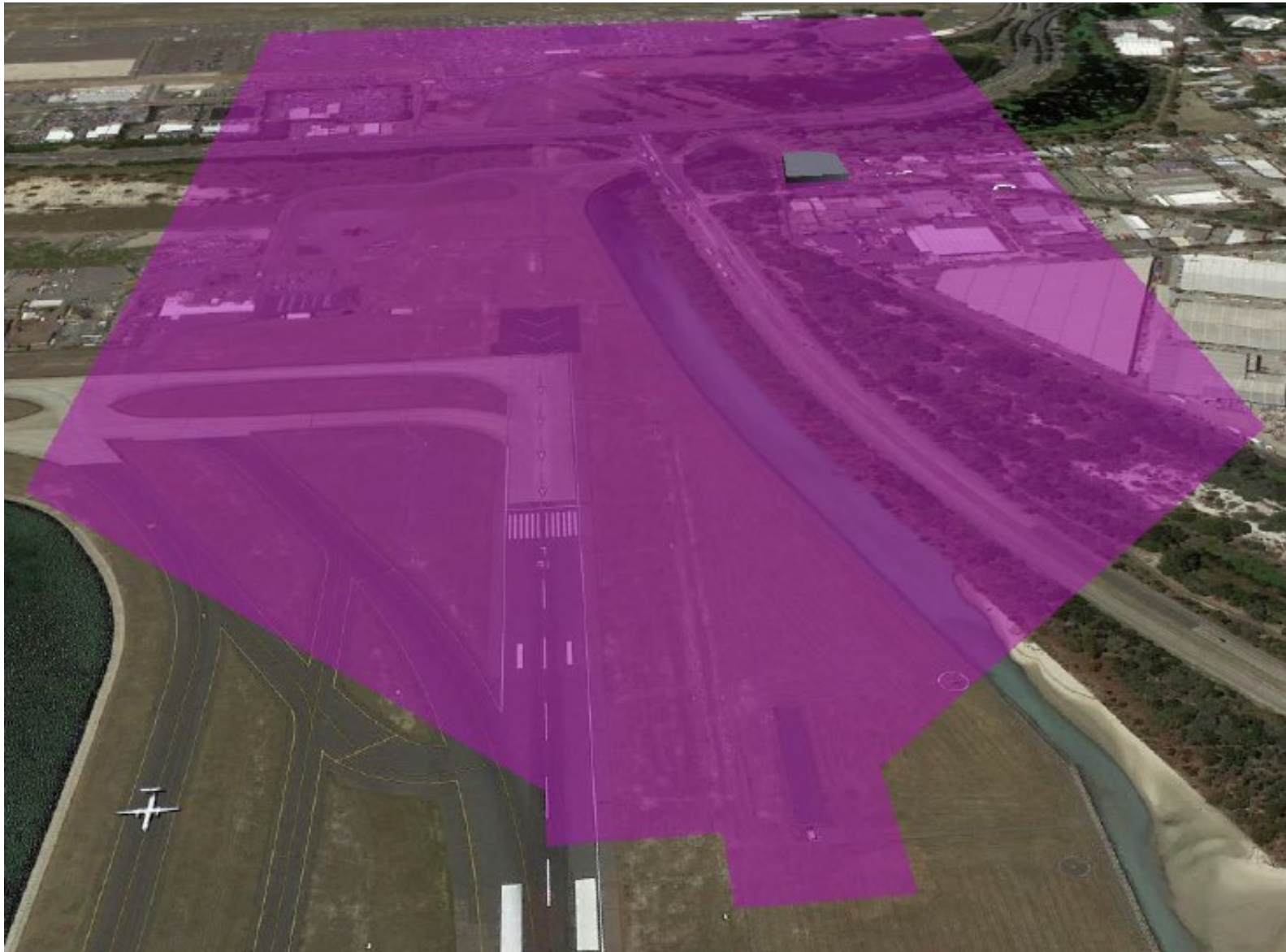


Figure 11: Avlaw's model of the surfaces shown in Figure 10 associated with RWY 16L (site to the east outside restricted area)

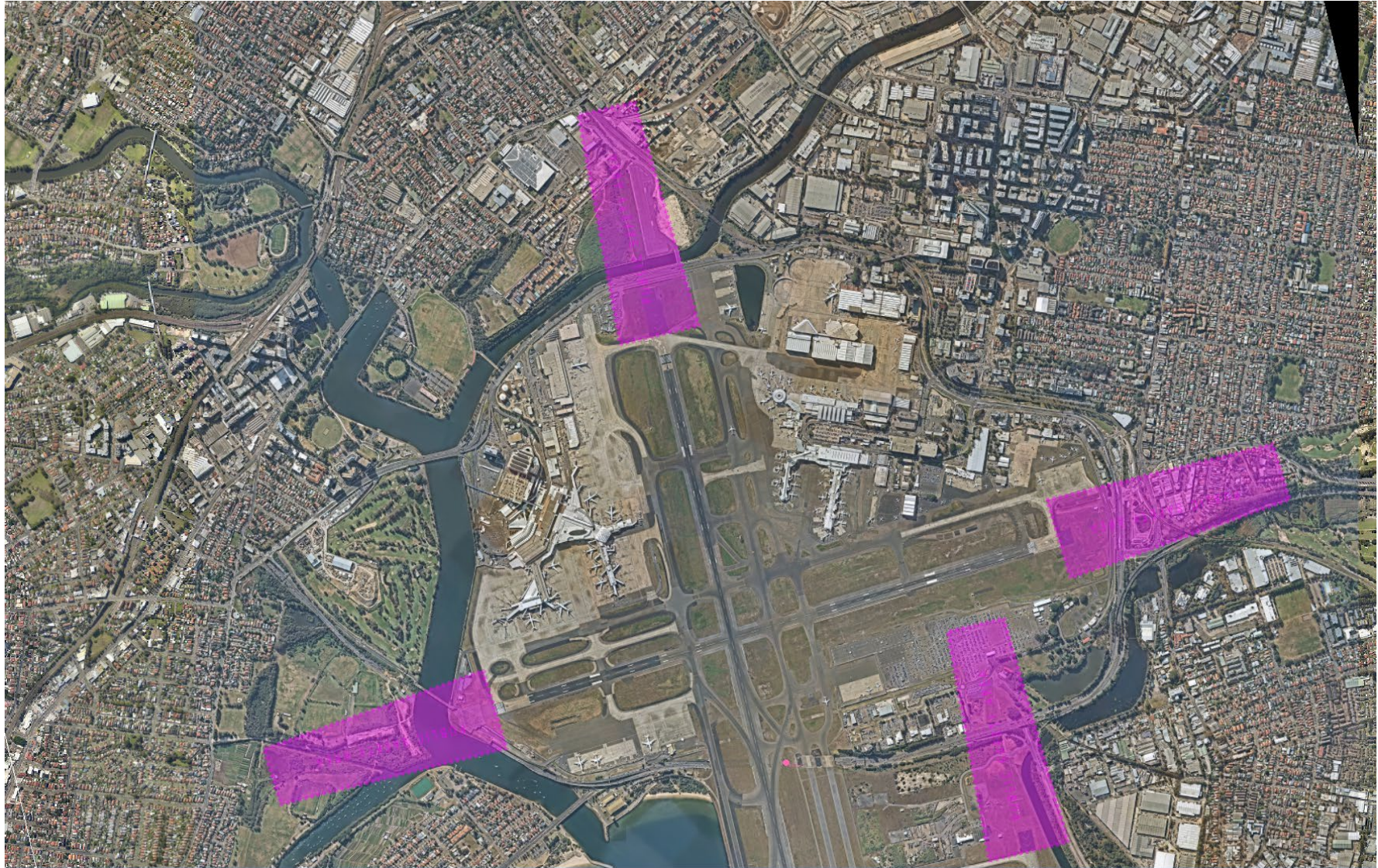


Figure 12: Public Safety Area contours for all runways at Sydney Airport (site located off the map)