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AVIATION DUE DILIGENCE REPORT 26-32 MANN STREET GOSFORD

References:

A. SSD 10114
B. Central Coast LHD Letter CD19/95234 dated 11 Nov 2019
C. CASA CAAP 92-2(2) Guidelines for the establishment and operation of onshore HLS
D. National Airports Safeguarding Framework Guideline H – Protecting Strategically Important Helicopter Sites
E. NSW Health GL2018_010 Guidelines for Hospital HLS in NSW
F. Gosford Local Environment Plan (2014)
G. CASA Manual of Standards 139 Section 8:10 Obstacle Markings

Dear Frank,

Thank you for the opportunity to review and report on the impact of the St Hilliers development at 26-32 Mann St, Gosford which is being developed under Reference A. The location of the development in relation to the Gosford Hospital Helicopter Landing Site (HLS) is depicted in Image 1 below. The authorised approach and departure paths for Gosford Hospital are illustrated by the yellow arrows (these are actually painted onto the HLS).

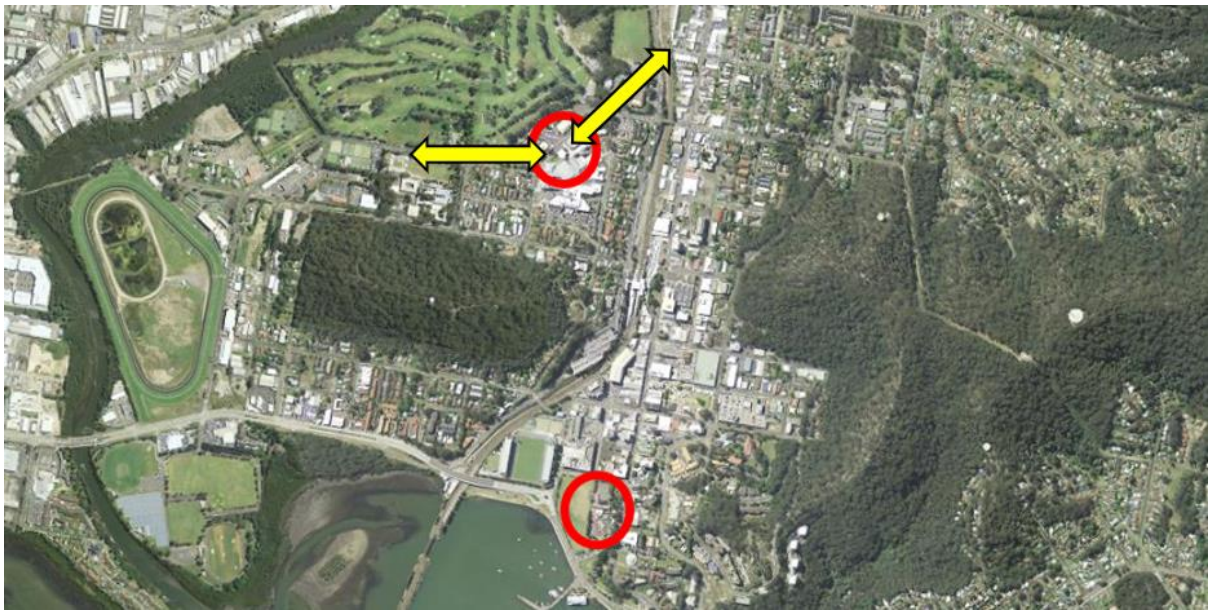


Image 1

This letter addresses one requirement of Reference B, specifically that "assessment on the impact on helicopter flight paths to and from Gosford Hospital will be required."

In assessing the impact, References C-E have been reviewed and their relevant requirements, principles and best practices have been applied. Additionally, some NSW Councils apply an "airspace operations" Clause in their Local Environment Plan (e.g. Liverpool – see Clause 7.17). There are, however, no such similar provisions in Reference F.

The Gosford Hospital HLS has been surveyed in accordance with Reference E Sections 3.14.4 and 3.14.5. Section 3.14.4 Visual Flight Rules (VFR) Approach and Departure Path and Transitional Surface Survey requires compliance with Figure 11 of Reference E. Figure 11 is reproduced here as Figure 1 below:

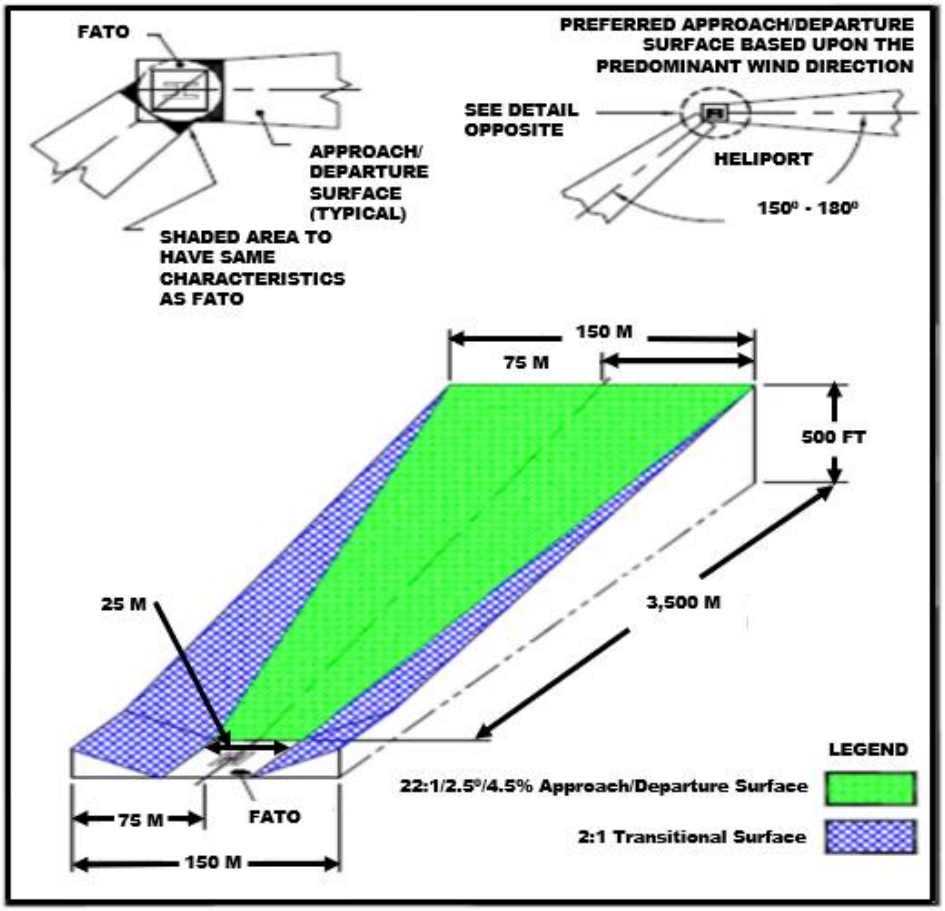


Figure 1

The Design and Development Overlay (DDO) is a survey of an area 30 m below the VFR Approach and Departure Path and Transitional Surface. The surface 30 m below the VFR Approach and Departure Path and Transitional Surface is known as the Object Identification Surface (OIS). There should be no penetration of the OIS, however there may be exceptions and where deemed tolerable, such obstructions must be lit. The DDO requirement is depicted in Figure 10 of Reference E, and this figure is reproduced below as Figure 2.

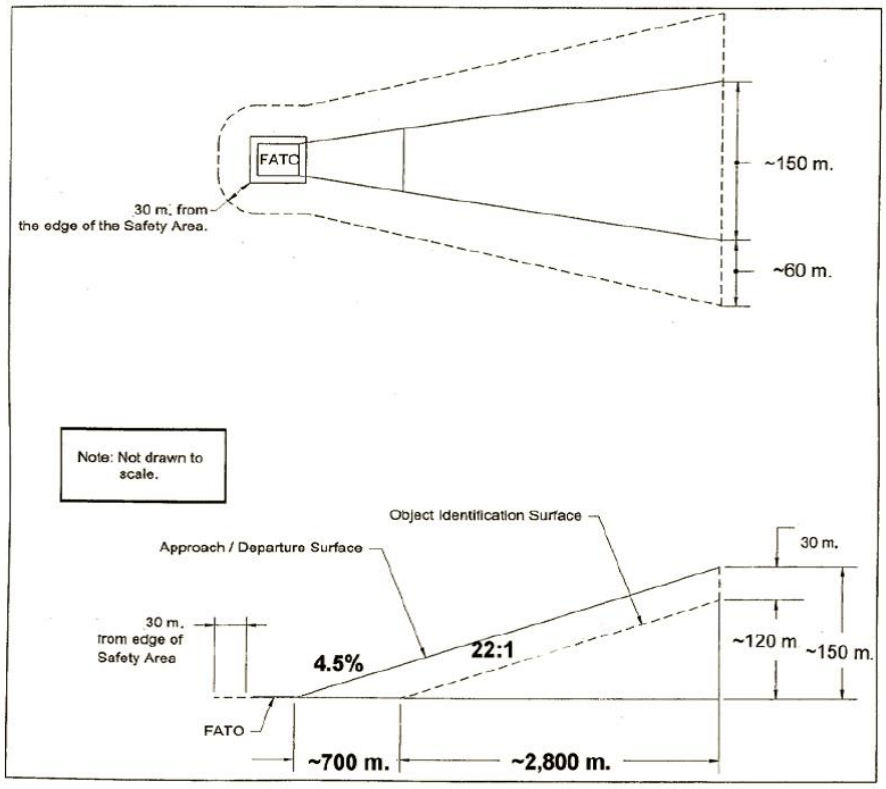


Figure 2

The combined VFR approach and departure path and transitional surfaces and DDO survey results for the Gosford Hospital HLS are depicted on Image 2 below. Also included is the location of the 26-32 Mann St development.

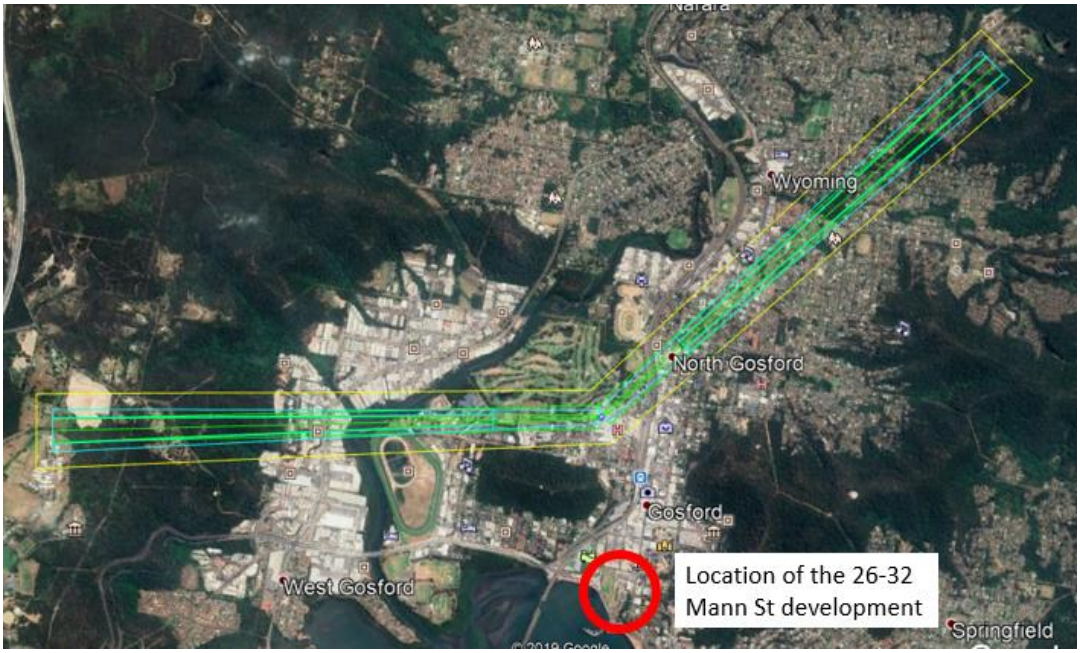


Image 2

The conclusion from reviewing survey data for the Gosford Hospital HLS is that the development at 26-32 Mann St, Gosford will have no impact on the approach and departure paths to and from the HLS. This does no, however, completely address the matter. Reference G requires that "a structure must be marked when more than 150 m higher than the surrounding terrain. Surrounding terrain means the area within 400 m of the structure. Structures above 90 m may need to be marked, and inconspicuous structures 75 m above ground level should also be marked." This development is higher than 75 m above ground level but not higher than 90 m. It is, however not "inconspicuous", a term that is reserved for radio transmission towers and the like. It therefore does not require any specific aviation obstruction lighting.

In summary, AviPro advises that:

a. **the development at 26-32 Mann St, Gosford will have no impact on the approach and departure paths to and from the HLS, and**
b. **aviation obstruction lighting is not required on this building once developed.**

AviPro notes, further, that although the developed building at 26-32 Mann St, Gosford will not be inconspicuous, the crane(s) which will be used to built it will be. The construction crane(s) will need to be lit to a suitable aviation standard (not all of the points below will be applicable). AviPro advises that the next version of Reference E which is at a very mature draft stage will state the following (this is provided for information only):

"The illumination requirements for cranes in the vicinity of a Hospital HLS are detailed below.

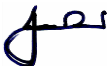
As a minimum for all tower cranes:

- top of crane A frame or cabin: medium intensity flashing red obstruction light
- both ends of Jib: medium intensity flashing red obstruction light
- along Jib: line of white LED fluoro on a PE cell along the full length of the jib, and
- tower section: stairway lights or spot lights attached to the top of the tower pointing down and onto the tower (not up into pilot eyes).

As a minimum for all luffing cranes:

- top of crane A-frame or cabin: medium intensity red obstruction light
- end of Jib: medium intensity red obstruction light
- along Jib: line of white LED fluoro on a PE cell along the full length of the jib
- tower section: stairway lights or spot lights attached to the top of the tower pointing down and onto the tower (not up into pilot eyes)
- the LED jib fluro lights are to be LED weather proof emergency fluros controlled via a PE cell with a minimum 90 minute battery back-up."

Sincerely,



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