

SURVEY REPORT

30th March 2016
Mr Peter Lawrence
Southern NSW Local Health District
Level 3, 34 Lowe Street
QUEENBEYAN NSW 2620

Dear Sir

RE: BEGA VALLEY HOSPITAL HLS VFR APPROACH AND DEPARTURE PATH SURVEY REPORT.

Section 1 (Approach/Departure and Transitional Surface Obstacles)

An obstacle survey for the Bega Valley Hospital HLS has been conducted on the VFR approach and departure paths and transitional surfaces. The Northern approach/departure bearings are 166°/346° respectively. The Southern approach/departure bearings are 317°/137° respectively. These bearings are orientated to the Map Grid of Australia (MGA) GDA94, Zone 55. The approach/departure gradients extend upwards at 2.5° for 3500m from the HLS as documented in section 2 of this report.

The survey has been carried out to determine if any obstructions penetrate the VFR approach/departure paths and transitional surfaces. At the date of survey being the 3rd of March 2016 the building construction appeared to be complete. The objects that encroach into the VFR are detailed on sheet 9 of the accompanying plans. Similarly there are multiple objects that protrude above the OIS surface and these objects are identified on sheets 4, 5, 6 and 9 of the accompanying plans.

The accompanying plans and profile drawings have been provided to show the relationship between the VFR Approach and Departure Path and the existing ground features. Chainages denoted 'CH' indicate the distance along the flight path centreline from the FATO and are measured in metres.

No obstructions penetrate the Northern VFR approach/departure paths or transitional surfaces beyond Chainage 30.52 metres.

No obstructions penetrate the Southern VFR approach/departure paths or transitional surfaces beyond Chainage 76.44 metres being the point where the building parapet intersects with the VFR surface and the protrusion value diminishes to zero. The largest encroachment is 2.24 metres at CH 55.02 metres. Refer to sheet 9 for more information.

Section 2 (HLS Details and VFR-Transitional Surface Geometry)

The flight path geometry is based generally on the NSW Ministry of Health Hospital HLS Policy Guidelines Rev 07a.

The flight paths commence at the forward edge of the Final Approach and Take Off area (FATO) from eye height (1.5m above the as built FATO surfaces) and extends out to 3500m at a gradient of +2.5°.

The Transitional Surfaces (wings) have a gradient of 1V:2H sloping up from the VFR approach/departure paths. The transitional surfaces grade upwards from the VFR approach/departure paths to an alignment 75m offset from the flight path centreline.

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The as constructed location for the HLS centre at Bega Valley Hospital is:

Latitude: S036°41'16.45080" GDA94
Longitude: 149°51'31.12685" GDA94

Easting: 755417.468 MGA94 Zone 55
Northing: 5935939.995 MGA94 Zone 55
Centre as built Elevation (HSLE): 20.765m A.H.D.
FATO RL's: 20.55 A.H.D.
Diameter: 25m

The (MGA94 Zone 55) approach and departure bearings are:
North: 166°/346° respectively
South: 317°/137° respectively

The TRUE NORTH approach and departure bearings are:
North: 164°17'33"/344°17'33" respectively
South: 315°17'33"/135°17'33" respectively

Section 3 (Survey Datum's and Background metadata)

The HLS coordinate and AHD RL have been observed by survey.

Approach and departure bearings have been taken from the 'Combined.DWG' provided by Avipro in an email dated 25th February 2016. These approach and departure bearings are in general accord with the painted arrows on the HLS.

State Survey Mark PM8029 has been adopted as the AHD origin.

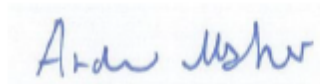
The scan / cloud data was recorded by a Riegl VZ-1000 laser scanner between the 1st and the 3rd March 2016. Critical points and survey validity checks were measured on the 2nd and 3rd March 2016 using a Trimble S8 and Leica GNSS.

Scan positions have been observed using the Allday RTK network. RTK corrections were streamed from the continually operating reference station in Bega.

The aerial photography was supplied by LPI on 4th March 2016. Imagery has been scaled based on observed (scanned) ground features at the northern, central and southern ends of the flight path. No orientation or rotation adjustments have been made to the LPI imagery.

The Cadastral Overlay has been supplied by LPI on the 3rd March 2016.

Yours faithfully



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