

3 December 2010

Mr Ben Eveleigh  
Department of Planning  
23-33 Bridge Street  
SYDNEY NSW 2000

Dear Ben,

## **SUBMISSION REPORT**

### **Royal North Shore Hospital Modification - Height Increase and Helipad on Acute Hospital Building (MP 08\_0172 MOD 3)**

Further to your letter dated 27 October 2010, we have reviewed the four submissions lodged in respect of the application. Attached is our response to those submissions.

In preparing the response to submissions, we obtained additional advice from the following experts:

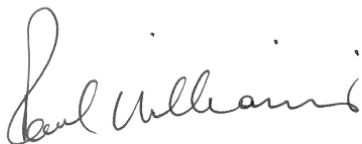
- acoustic consultant (Acoustic Logic Consultancy)
- air quality consultant (CPP)
- aviation consultant (Avipro)

Correspondence from these experts is attached also.

We trust the attachments address the submissions and look forward to approval of the application in due course.

Please contact me on 8233 9948 should you have any questions.

Yours sincerely,



Paul Altree-Williams  
Associate Director

Encl.

1. Submissions response table
2. CPP - Air quality letter dated 24 November 2010
3. Acoustic Logic – letter dated 19 November 2010
4. Avipro – letter dated 25 November 2010

Issue	Submission Comment	Proponent Response
Noise	Noise impact on Herbert Street residences due to 140m setback and 3dBA exceedence of Air Services Australia Guidelines	Acoustic Logic acoustic consultants have advised that the likely noise levels from helicopter flight movements are 94dB(A) based on more recent noise measurements of helicopter flight movements at Liverpool Hospital. This noise level complies with the 95dB(A) Air Services Australia guideline.
	Lack of mitigation measures including noise screening, additional large trees, reconsideration of flight paths, Operational guidelines to prevent unnecessary running of helicopters while idle.	As discussed in the attached correspondence from Acoustic Logic, it is only an atypical flight movement that will require a helicopter to fly over Herbert Street (estimated at once per month), and the peak level of 94dB(A) is likely to occur for approximately 2-3 seconds per month.
	Concern about noise impacts when helicopter is stationary on helipad with blades turning.	Acoustic Logic further noted that the predicted noise level is similar to the noise level of an emergency vehicle with siren passing by a receiver at ground level. The noise level will comply with OH&S guidelines for hearing damage.
	Relocate helipad further west and north and redesign the internal hospital layout accordingly. Alternatively incorporate sound attenuation barriers on the east and south side of the barrier which attenuate noise and provide minimal bulk and scale impacts on the Acute building.	Acoustic Logic concludes as follows:  <i>"Given that the noise levels comply with Air Services Australia guidelines, and bearing in mind the duration of the event and the predicted number of occurrences, the proposed use of the helipad is reasonable, and further acoustic treatment to the helipad or nearby residences is not warranted."</i>
	Helicopter movements within the 'approach path not preferred' are kept to an absolute minimum.	Noted. The SEE submitted with the application noted that helicopter movements within the non-preferred flight path would only occur during unfavourable weather conditions. This was estimated at once per month.
	Flight path and operation of helipad will be subject to review after 12 months, including notification of residents in Herbert Street to identify any issues and mitigation measures required.	Review of flight paths and operation of the helipad is not considered necessary due to the following: <ul style="list-style-type: none"> <li>▪ The predicted noise level which complies with Air Services Australia guidelines.</li> <li>▪ The small number of incidences of use of the non-preferred flight path (exposure to peak noise level for only 2-3 seconds per month).</li> <li>▪ The helipad provides essential emergency infrastructure for prompt delivery of medical treatment to the public and the proposal has been carefully planned to reduce any unnecessary impact.</li> </ul>
Air Quality	Assessment of impact of air quality on surrounding hospital pedestrian area, residential flats in Herbert Street and future mixed use commercial / residential buildings on the divestment	Cermak Peterka Petersen (CPP) has prepared a letter which addresses the potential impact of helicopter fumes on these areas. It confirms that there are no adverse impacts from helicopter fumes are expected at the identified receivers. CPP's letter

	lands.	<p>which is attached, states:</p> <p><i>“Wind tunnel tests were conducted to quantify the air quality at the Acute and Community Health building ventilation intakes. These were reported in CPP wind Report 5319 REP”CW”AQ”00001”T01 dated November 2010. All the tests conducted modelling the helicopter as a pollutant source concluded that no health criteria were exceeded at the nearby air intake locations. During idle mode, as well as landing/takeoff, the helicopter exhaust is typically trapped within the wake regions above and immediately downwind of the helipad. Therefore, exhaust concentrations are expected to be highest at the upper level RNSH air intakes. This was evident when comparing the concentrations at the Community Hospital intakes to the RNSH air intakes. Helicopter downwash is expected to dilute the measured concentrations downwind on Herbert Street and beyond, resulting in even lower concentrations than those presented in Table 5.”</i></p>
<b>Lighting</b>	<p>Lighting of the helipad is on an as required basis only and are turned off when not required. A lighting plan including these operational controls is required. A condition requiring compliance with same is inserted into the approval.</p>	<p>It is noted that the lighting of the helipad is only operated when required. Avipro has provided a letter to address the lighting issue. The letter which is attached, states:</p> <p><i>“Lighting on the Helicopter Landing Site (HLS) deck consists of flush mounted green perimeter lights denoting the FATO and TLOF/GEA, and flush mounted yellow directional lights denoting the preferred directions for arrival and departure. There are also white illumination lights on the windsock as well as several red obstruction lights on structures around the HLS.</i></p> <p><i>It is proposed that these lights be only activated prior to the arrival of a helicopter and remain illuminated until after the departure of a helicopter.</i></p> <p><i>Two flood lights are also mounted on the entry room wall to the side of the HLS. These lights are used for the illumination of the deck for the purpose of patient loading/unloading only. They are manually controlled and illuminated only for these purposes.</i></p> <p><i>Lights do not remain on 24 hours per day and are used for their designed purpose, only when required.”</i></p>

