



ATTACHMENT 1: Boyd's Bay Garden World Planning Proposal – ANEF 25-30 zone and indicative 200 buffer distances

18 November 2009

The General Manager
Tweed Shire Council
PO Box 816
MURWILLUMBAH NSW 2484

Dear Sir

**BOYDS BAY GARDEN WORLD - REQUEST FOR AMENDMENT OF THE URBAN
AND EMPLOYMENT LAND STRATEGY**

We refer to the preliminary development proposal submitted to the Council by the intending developers of the Boyds Bay Garden World site, and to correspondence of 26 October 2009 between the Coordinator of the Council's Planning Reforms Unit and the planning consultant for Gold Coast Airport Pty Ltd (GCAPL). We appreciate the opportunity to comment on the subject proposal from the airport's perspective.

Reference is also made to our letter of 20 June 2008 in relation to the then draft Employment Lands Strategy, and to changes subsequently made to that draft strategy in this vicinity in the light of airport-related constraints to development in the locality, and environmental factors.

The current, tentative proposal for development of the subject land, which has been reviewed by our planning consultant, involves a mixed-use specialty industrial, logistics warehousing and commercial complex in a series of buildings. It has been requested by the proponents that the site be re-classified from medium term to short term in the implementation of the employment lands strategy.

It is advised that, in view of the extremely close proximity of the airport runway and flight path to the subject land, there are several mandatory constraints on the form of development which may be undertaken. These constraints are imposed pursuant to the Commonwealth Airports Act, and the related Airports (Protection of Airspace) Regulations.

Any proposed departure from the mandatory restrictions (defined as a "controlled activity") would necessitate securing approval from the Secretary of the Department of Infrastructure, Transport, Regional Development and Local Government, with any such application being subject to assessment by GCAPL, CASA and Airservices Australia. Given the proximity of the site to the runway, no relaxation could realistically be anticipated in this instance.

It is also noted that in due course the key restrictions on development within the prescribed airspace are also to be reinforced and implemented through the Council's new draft LEP.

The constraints affecting development of the subject property are discussed below.

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Gold Coast Airport Pty Ltd

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Height Limits

The property is within the airport's operational airspace, and is affected by the Obstacle Limitation Surface (OLS) and Procedures for Air Navigation Services - Aircraft Operations (PANS-OPS). The latter surface cannot be penetrated by buildings or structures under any circumstances.

A preliminary assessment of height limits imposed under the OLS and PANS-OPS is shown in the attached diagram. At the "critical point" on the site's western boundary, the height limit under the OLS is 13.75 metres AHD, while under the PANS-OPS it is 14.46 metres AHD. Height limits under both surfaces will vary in other parts of the site.

These findings are preliminary only, and it is important to note that examination of very specific details about site conditions and the nature of buildings proposed will be necessary to achieve a final assessment.

It is also stressed that the limits are expressed in maximum height above AHD (ie not above ground level), and are measured to the highest point of a building, including any above-roof structures such as aerials, vents, architectural features, etc. In that regard, we note the apparent necessity for the site to be filled to a minimum level of 3.0 metres AHD to account for the land's flood liability.

Lighting

Localities within the airport's prescribed airspace in close proximity to the runway are subject to mandatory and severe limitations on levels of illumination which are allowed to be emitted, so as to avoid effects on pilots of aircraft operating in the prescribed airspace.

As far as the subject land is concerned, it is advised that the westernmost section is included in the most restrictive Zone A in the Airport's Lighting Zone Map. (That zone is 600 metres wide and extends for a distance of 1 kilometre from the runway strip). In Zone A, allowable maximum intensity of lighting at 3° above the horizontal is 0 candella (ie no illumination).

The balance of the subject property is situated within Lighting Zone B, in which the maximum intensity of light sources at 3° above the horizontal is 50 candella.

Reflected sunlight can also constitute a controlled activity in the Lighting Zone area. For the whole of the subject land, there will be a requirement that roofs of buildings and other elements that could adversely reflect sunlight be entirely constructed of non-reflective materials.

Emissions, Turbulence

The Act and Regulations also require the exclusion of activities which may result in air turbulence capable of affecting normal flight of aircraft (exceeding 4.3 metres per second), or emit smoke, dust or other particulate matter, or steam or other gas, such as could affect the ability to operate aircraft in the prescribed airspace.

In view of the proponent's description of the development intended for the subject land, it would appear that these restrictions are unlikely to be invoked.



Other Issues

Public Safety

Despite the extremely low risks associated with modern aviation, there is a longstanding and universally used mechanism for designating areas of potentially greatest risk, described as Public Safety Zones (PSZs). These zones describe the areas on the flight path for arriving and departing aircraft where activities should be avoided which could exacerbate a public safety risk in the unlikely event of an incident. As presently configured (as used for instance in Queensland), the zones are trapezoidal in shape and extend for a distance of 1 kilometre from the end of the runway.

It is noted that the subject land is not within the currently designated PSZ for the southern runway end, however it is situated directly adjacent to it (within about 50 metres at the nearest point), and while not prescriptive, it would probably therefore be prudent for the issues which are relevant to PSZs to be borne in mind when considering development of the subject land.

For instance, it would not be appropriate for land in this locality to be used for hazardous purposes, such as storage of fuel, explosives or chemicals, etc, especially being located nearby to residential areas. Clearly the subject proposal does not envisage inclusion of these types of activities.

It is also a principle of public safety zones that they should not allow activities that would attract large concentrations of people, such as businesses with high workforce numbers or which attract substantial customer numbers such as major retail facilities, or places of assembly, sporting venues and the like.

Reference was made above to the "present" configuration of PSZs. In this regard we would note that the Commonwealth Government is undertaking a review of various provisions of the Airports Act. Based on the contents of the Aviation Policy Green Paper issued in September 2008, it is likely that in future there will be mandatory statutory implementation of PSZs for all Australian airports; the ultimate shape, size and configuration of these zones are yet to be made known, and may vary from the current model.

Aircraft Noise

While the subject of ensuring that buildings are appropriately constructed to reduce the adverse effects of aircraft noise is not a mandatory matter regulated under Commonwealth legislation, it is an issue that is relevant to land use planning and should be taken into account in establishing criteria for development of the property.

The subject land is predominantly within the 25-30 ANEF zone for aircraft noise. Pursuant to Table 2.1 of AS2021-2000, within that zone the land use of "light industry" is acceptable, thus requiring no acoustic treatment.

However, land uses falling into the category of "commercial buildings" (eg offices, retail) are defined as "conditionally acceptable", indicating that measures should be taken in the design and construction of buildings to achieve levels of aircraft noise reduction to meet the indoor design sound levels set out in Table 3.3 of AS2021-2000.



This is a matter to be considered in greater detail at the time of proposal configuration and content of individual buildings on the site.

Conclusions

The site is severely constrained by mandatory restrictions by virtue of its proximity to the airport runway, and location within the area subject to the airport's prescribed airspace.

We trust that the information provided above will assist the Council and proponent in determining the appropriate form and timing of development on the subject land, and we would welcome the opportunity to continue to liaise with the Council during later stages of the design and approvals process. If further information is required, please contact the airport's planning consultants - Rigby Consulting Pty Ltd (T: 07-5536 5900; E: irigby@bigpond.net.au).

Yours sincerely,

A handwritten signature in black ink, appearing to read 'Paul Donovan', written over a horizontal line.

Paul Donovan
Chief Operating Officer

