JRPP No:	2011HCC005
DA No:	1541/2010
PROPOSED DEVELOPMENT:	Proposed Industry (Turbine Maintenance Facility and Offices)
DESCRIPTION OF LAND:	9 Corella Close, Berkeley Vale (Lot 1 DP 1129808)
SITE AREA:	2.948 hectares
ZONING:	4(a) (General Industrial Zone)
EXISTING USE:	Vacant
EMPLOYMENT GENERATION:	58+
ESTIMATED VALUE:	$20,000,000
APPLICANT:	Power Projects International Pty Ltd
OWNER:	Mr K J Kim (Power Projects International Pty Ltd)
REPORT BY:	Peter Meloy – Development Assessment Planner
CHECKED BY:	Peter Fryar – Manager Development Assessment

Assessment Report and Recommendation

SUMMARY

The applicant proposes the erection of a generator turbine maintenance and repair facility together with an associated office building and training building. The proposal includes on-site car parking, stormwater management facilities and site landscaping. The key issues identified in the assessment include the need to provide on-site stormwater management facilities, potential impact on an identified threatened species on an adjoining property, adequacy of on-site car parking, compliance with the subject lot's title restrictions and bush fire hazard. The assessment has concluded that these issues have been appropriately addressed.

Referral to Joint Regional Panel

The proposal is referred to the Joint Regional Planning Panel for determination pursuant to Clause 13 (B) and 13 (C) of State Environmental Planning Policy (Major Development) 2005, given the proposed industry has a value of over $10 million and is within a coastal zone and the building has a height in excess of 13 metres.

Permissibility

The site is zoned 4(a) (General Industrial Zone) pursuant to Wyong Local Environmental Plan 1991. The proposal is categorised as "industry" and is permissible within the zone subject to development consent. All required owners' consent has been provided. The proposal is local development.

Consultation

The application was not required to be advertised under the requirements of "Chapter 70 – Notification of Development Proposals" of Wyong Development Control Plan 2005. The application was not required to be referred to any public authority.

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RECOMMENDATION

1 That the Joint Regional Planning Panel grant consent to DA/1541/2010 subject to the conditions contained in Attachment 4.

INTRODUCTION

The Site

The site, known as Lot 1 DP 1129808, is located on the eastern side of Corella Close between the road's intersections with Enterprise Drive in the south and Apprentice Drive in the north. The lot is a battle-axed-shaped allotment with an area of 2.948 hectares and has a very slight fall from west to east. The battle-axe handle of the lot has a 10-metre-wide frontage to Corella Close and the northern boundary of the site has a 129-metre frontage to Apprentice Drive.

The site is vacant and predominantly clear of significant vegetation, having been cleared for development as part of a previous development consent (DA/500/2006/A). However, a 25-metre-wide vegetation buffer was required to be retained along the Apprentice Drive frontage together with a 10-metre-wide vegetated buffer along the site's eastern boundary (see Figure 1 below).

The site is located within the Berkeley Vale Industrial Western Precinct and is surrounded by land zoned 4(a) General Industrial. Land on the western side of Corella Close and on the north side of Apprentice Drive has been developed for a range of large-scale industrial purposes consistent with the 4(a) zoning. The properties located between the subject site and Corella Close and Enterprise Drive remain undeveloped. The lot adjoining the eastern boundary of the site, although zoned 4(a) General Industrial, is now owned by Council and is the identified habitat of several threatened species including the Green Thighed Frog.

FIGURE 1: Aerial photograph with cadastral overlay of 9 Corella Close (highlighted) and surrounds.

The Proposed Development

The proposal is for the construction of an electricity generator turbine maintenance facility and head office at the above address. The development will comprise:

- Turbine maintenance building;
- Head office building and attached training building;
- Stormwater treatment system and sewage pumping-station; and
- 79 on-site car vehicle spaces (29 basement spaces) and site landscaping.

The applicant is seeking to establish its head office and what will be the largest power generation maintenance facility in the southern hemisphere on the site (see Figure 2 below). The facility will perform the diagnosis, maintenance, repair, testing and commissioning of power infrastructure from local, interstate and international power stations. The equipment that will be serviced will consist of:

- Electric turbines and generators (General Electric & Toshiba);
- Gas turbines (Siemens, General Electric or Mitsubishi)
- Other general machinery related to the turbine generators.

Commissioning engineers from client companies will attend the facility to witness turbine testing. Industry delegations will observe operations and will participate in workshops, conferences and meetings for a mutual exchange of information and for technology development. Apart from the estimated 160 construction jobs that the project will create, the initial development stages are expected to employ 58 full-time staff. The project has been designed to allow for future expansion of staff and it will also create continuing employment for up to 50 contracted ancillary personnel sourced from the Wyong area.

The details of the three main buildings are:

Turbine Maintenance Building (Building A)

The Turbine Maintenance Building will have dimensions of 150 metres by 49 metres, a building footprint of 7,294m^2, an eave height of 17.8 metres and a ridge height of 24.5 metres on the Apprentice Drive façade. The building will be constructed of a variety of materials including prefabricated concrete panels and infill panels of pre-finished lightweight cladding (walls) and Colorbond sheet metal (roof), with glazing and other architectural features appearing on the building's Apprentice Drive façade.

The operations within Building A will consist of turbine and rotor equipment entering the site from the 10-metre-wide western (Corella Close) entrance. The equipment will travel through the building via an overhead crane and undergo the maintenance procedures at designated workstations. The finished item will exit the building via the northern doorway where it will be loaded onto low-loaders and transported from the site via the building's proposed northern 10-metre-wide exit doorway onto Apprentice Drive. The height of the maintenance building is a function of the special maintenance operations that are proposed to be undertaken within the building.

Apart from the ground-level turbine maintenance area, the building will also provide three levels of ancillary offices, storage rooms, lunch rooms, toilets, showers, viewing area and tool store (see Figures 3, 4 and 5 below and Attachment 1, Sheets 1, 2, 3 and 4).

Head Office Building (Building B)

The Head Office Building is a three-storey building including a sub-basement level for parking of 29 cars and 12 bicycles. The sub-basement is classified as a "storey" as its roof height will extend beyond one metre above ground level – it will have a finished floor level 2.5 metres below ground level and a roof height of 1.5 metres above ground level. The Head Office Building will have a total floor area of 3,830m^2 and a maximum height of 12.6 metres above ground level. This building will have a pedestrian bridge connecting it from its second storey to the third level of the ancillary rooms located on the eastern side of the maintenance building. The building is also connected, at ground level, through its southern side to the training room (see Figures 3, 4 and 5 below and Attachment 1, Sheets 5, 6, 7, 8 and 9).

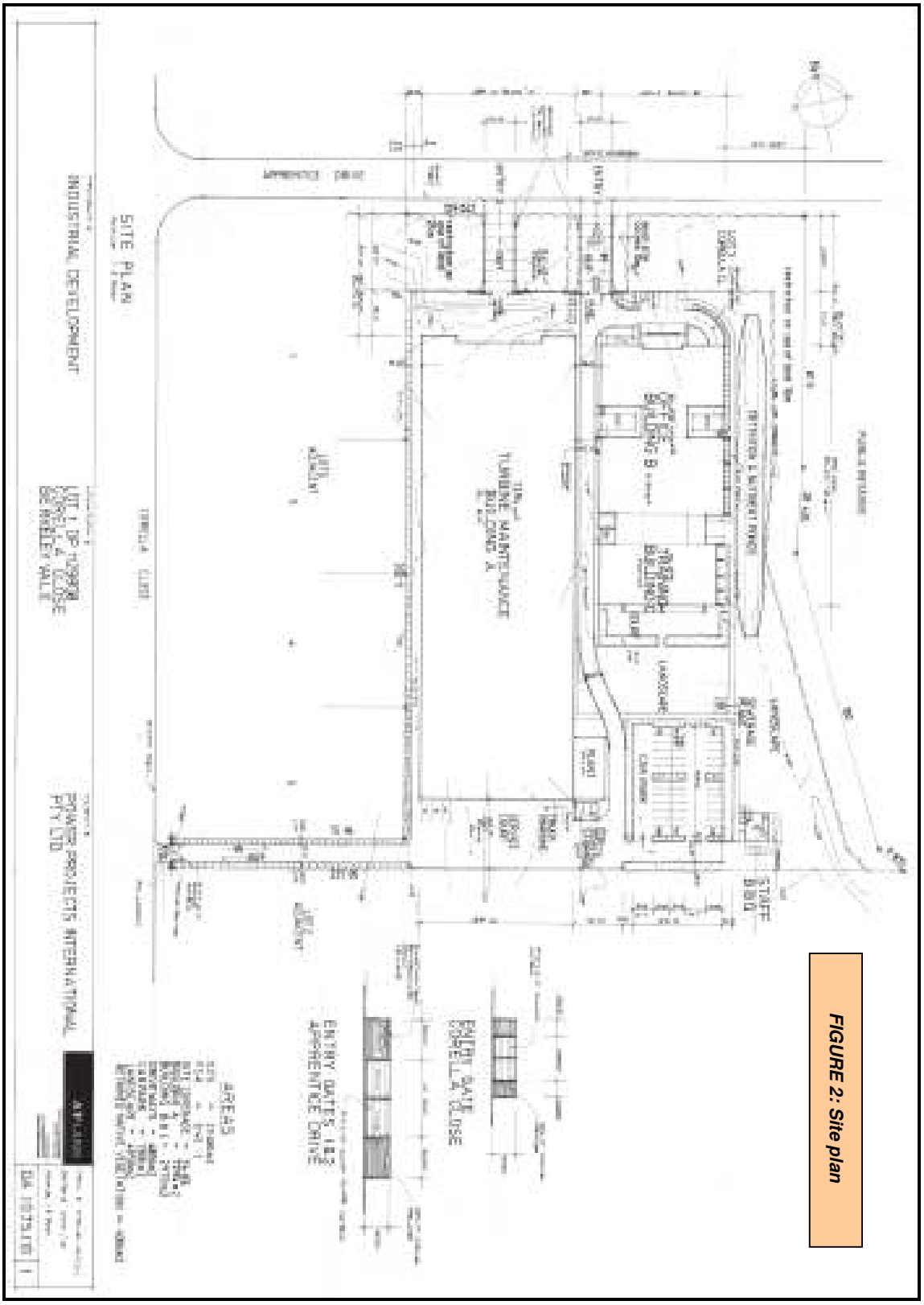


FIGURE 2: Site plan

The Head Office Building will be used to welcome international visitors from related companies and will provide an appropriate work environment for administration staff and

engineers employed by Power Projects International. The building will include the following facilities:

- Managing Director's office;
- Board room;
- Records room;
- Meeting rooms;
- Engineers' offices and administration offices;
- Staff rooms;
- Reception and visitors area; and
- Staff and visitor parking.

Visitor and employee vehicular access to this building will be via a 10-metre-wide combined entry and exit point on Apprentice Drive. This entry/exit point will be located 21 metres east of the vehicular exit from the Turbine Maintenance Building.

Training Building (Building C)

The Training Building is to be a single-storey building located immediately behind, and connected to, the Head Office Building. The building will have a floor area of 960m^2 and a maximum height of 7.1 metres (see Figures 4 and 5 below and Attachment 1, Sheets 5 and 8). The training building will serve to host industry delegations to observe the processes in operation and for staff learning and development programs. The Training Building will include the following facilities:

- Auditorium and stage;
- Canteen, kitchen and cold store; and
- Male, female and accessible bathroom facilities.

In addition, the development includes a stormwater harvesting and nutrient removal system, sewage pumping-station, covered barbecue area for staff, entry gates, perimeter fencing, signage and site landscaping. The proposal also retains vegetated buffers along the site's Apprentice Drive frontage and along its eastern boundary.

The Head Office Building is planned to operate from 8.00am to 5.30pm Mondays to Saturdays. The Training Building will operate on an intermittent basis for industry talks and for staff training and information.

The Turbine Maintenance Building is proposed to be in operation from 7.00am to 4.00pm although, during the months of spring and autumn when testing and commissioning of turbine equipment is performed, the building will be required to be in operation for scheduled 24-hour testing for up to three days at a time.

FIGURE 3: Artist's impression of proposed development when viewed from Apprentice Drive.

FIGURE 4: Artist's impression of head office building when looking from north-eastern corner of site.

FIGURE 5: Artist's impression of development when viewed from imaginary elevated point in the east.

Internal Referrals

The application has been referred within Council to the:

- Development Engineer;
- Health and Building Surveyor;
- Development Planner (Ecologist);
- Landscape Design Assessment Officer; and
- Trade Waste Supervisor

The issues raised in the referral process are discussed in the report and where appropriate, reflected in the recommended conditions of consent.

External Referrals

Nil.

Summary (Key Issues)

Stormwater Management

The subject site adjoins a reserve upon which a population of a threatened species, the Green Thighed Frog, and an endangered ecological community, Swamp Sclerophyll Forest, have been previously identified. The subject site drains into this reserve and to ensure that the adjoining reserve is not detrimentally affected by development on the subject lot, stormwater must be managed to ensure that the quality and quantity of the stormwater discharge post development is the same as pre-development flows.

The applicant has submitted a stormwater drainage strategy which has been reviewed by Council's Development Engineer. The Engineer has concluded that, while the proposed system may not fully satisfy the required water quality and quantity criteria required of it and that it will require amendments, it is possible to achieve the criteria and that appropriate

conditions are recommended to ensure that the final stormwater management design achieves the required water quality and quantity criteria.

Threatened Species

Council's Ecologist has advised that the vegetation on the northern side of the site has been identified as 'Alluvial Floodplain Shrub Swamp Forest' and along the southern half 'Alluvial Riparian Blackbutt Forest'. These communities qualify as the Swamp Sclerophyll Floodplain Forest (SSF) and River-flat Eucalypt Forest Endangered Ecological Communities (EEC) respectively. In addition, one threatened species was recorded on the site, the Eastern Bentwing Bat. Previous surveys have recorded on or immediately adjacent to the site the following threatened species: *Melaleuca biconvexa*, the Green Thighed Frog, Wallum Froglet, Greater Broad-nosed Bat, Eastern False Pipistrelle, Eastern Freetail Bat and Little Bentwing Bat. *M. biconvexa* no longer occurs on the subject site following clearing.

Based on the field surveys, habitat assessments and mitigation measures and provided that the recommended conditions are complied with, Council's Ecologist has concluded that there is not likely to be a significant impact on any threatened species, populations or ecological communities as a result of the development and has advised that a Species Impact Statement (SIS) is therefore not necessary. Recommended conditions should be included in any consent that is granted.

Compliance with Restrictions-As-To-User

The site is burdened by a number of title restrictions that concern maintaining vegetation buffers, providing and maintaining a sewage pumping-station, maintaining a swale drain and, or, ensuring subsequent development does not concentrate flows onto the adjoining reserve, and limiting vehicular access from Apprentice Drive to one 20-metre-wide location across a vegetation buffer.

The application complies with the various restrictions except for the twelfth restriction concerning the access from Apprentice Drive. The applicant proposes two separate 10-metre-wide vehicle access points from Apprentice Drive rather than a single 20-metre-wide access permitted by the title restriction. The applicant has proposed the two access points to accommodate the limited turning ability of the large low-loaders transporting the turbine equipment and for safety reasons by separating these large vehicles from vehicles driven by employees and visitors.

The lot was to be restricted to one access point to reduce the impact on the Apprentice Drive vegetation buffer. However, the applicant has provided a flora and fauna assessment that has determined that the additional access point will have no significant detrimental impact on the buffer provided it is constructed in the manner proposed in the flora and fauna assessment. This will be recommended as a condition of any consent.

Bush Fire prone Land

The site is identified as being "bush fire prone land" on Council's certified Bush Fire Prone Lands map. Section 79BA of the Environmental Planning and Assessment Act 1979 (EP & A Act) requires the development to comply with any expressed requirements of the current *Planning for Bushfire Protection* document. The current document is *Planning for Bushfire Protection 2006* (PBP2006) and this document classifies the proposed development (industry) as "other development" for which the PBP2006 has no specific requirements apart from Section 1.3(b) which requires satisfying the aim and several objectives contained in Section 1. In recognition of the potential hazard, the applicant has supplied a bushfire hazard assessment that assesses the proposed development against the aim and objectives of

PBP2006. The assessment concludes that, subject to the recommendations in the assessment, the proposed development will satisfy the aim and objectives of PBP2006.

On-site Car Parking

Wyong Development Control Plan 2005 Chapter 61 – Carparking requires the development to provide 211 on-site car parking spaces. This figure is calculated on the type of use proposed for each building and the gross floor area (GFA) of each building (see details in Table 1 below). The applicant proposes to provide 79 vehicle parking spaces representing a shortfall of 132 spaces or a variation of over 62% to the controls. A traffic assessment was submitted in support of the reduced parking. The report argued that given the special nature of this development – it handles extremely large pieces of equipment and thus requires a very large floor area – the controls apply an on-site car parking requirement well beyond the likely demand for the development.

Given the nature of the development, the requirement to provide 211 on-site spaces is inappropriate. The 79 proposed spaces will likely satisfy peak demand at most times. However, to ensure, as far as possible, that the 79 spaces do satisfy demand, it is recommended that a limit on staff numbers to 58 as stated in the Statement of Environmental Effects (SEE) be applied to prohibit "third party" use of the training room. Any future expansion will require a further application to be submitted and at that time the issue of the current car parking provision being able to satisfy the demand generated by the use can be reviewed. The applicant has been advised of this and has concurred with this approach.

VARIATIONS TO STANDARDS

Clause	3.0 Requirements
Standard (DCP Control)	- 1 space per 75m^2 of GFA (factory) - 1 space per 30m^2 of GFA (offices)
LEP/DCP	Chapter 61 – Carparking, Wyong Development Control Plan 2005
Departure basis	Application of the current DCP controls results in a requirement for 211 car spaces but only 79 are proposed. This represents a variation of 62.56% to the development controls. The applicant has highlighted the fact that the controls are based solely on gross floor area (GFA). When applied to this development which handles exceptionally large pieces of equipment, the controls apply an on-site car parking requirement beyond that likely to be required.

TABLE 1: Details of proposed variation to number of on-site parking spaces required by Wyong DCP 2005 Chapter 61 – Carparking.

HISTORY

10.10.2000: DA/435/1999 approved and clearing of parent lot conducted under this consent. Naturally vegetated buffers were retained along the Apprentice Drive frontage and along the parent lot's eastern boundary.

30.11.2006: DA/500/2006 granted deferred commencement consent for an 18-lot industrial subdivision.

18.10 2007: DA/500/2006/A approved making minor modifications to some consent conditions.

08.02.2008: DA/1574/2007 approved for a seven-lot industrial subdivision.

22.07.2008: DA/1574/2007/A amends consent to a six-lot subdivision that includes creating the subject lot.

PERMISSIBILITY

The subject site is zoned 4(a) (General Industrial Zone), under the provisions of Wyong Local Environmental Plan 1991 (WLEP) (see Figure 6 below). The proposed development, repairing and maintaining electricity generator turbines, falls within the definition of "industry" which is defined by the LEP as being:

> *" the manufacturing, assembling, altering, repairing, renovating, ornamenting, finishing, cleaning, washing, dismantling, processing or adapting of any goods or any articles, and excludes any other use elsewhere specifically defined in this clause."*

FIGURE 6: Extract of Wyong LEP 1991 zoning map (source: E-view).

The proposed use is permissible with consent and is considered to comply with the following objectives of the zone:

> *"(a) to provide opportunities for the development of large scale industrial, service and storage activities which by nature of their operations should be isolated from residential areas, and*
>
> *(b) to restrict commercial, retail or other development except where it is ancillary to the use of land within this zone for industrial, service and storage purposes, and*
>
> *(c) to enable the Council to provide more detailed guidelines about industrial development in a development control plan."*

It should be noted that in respect of Objective (a) the proposal is for a large-scale industrial undertaking that will be appropriately isolated from residential areas by being located on a site located within an existing industrial park.

In respect of Objective (b) the applicant proposes to establish a Head Office Building (Building B) on the site in conjunction with the turbine maintenance operation. On its own, the Head Office Building would not be permissible within the 4(a) zone. However, the applicant has provided sufficient information within the SEE to demonstrate that the functions to be carried out in the building are integral to the operations carried out in the Turbine Maintenance Building (Building A) and are therefore permissible. The third building (Building C) will be used for staff information and training and is also permissible as it is ancillary to the primary use, the proposed turbine maintenance operation.

In respect of Objective (c), Council has adopted Chapter 29 – Berkeley Vale Industrial Western Precinct and Chapter 75 – Industrial Development of Wyong Development Control Plan 2005 which provide more detailed guidelines about industrial subdivisions and industrial development and by which the proposed development will, in part, be assessed.

RELEVANT STATE/COUNCIL POLICIES AND PLANS

The Council has assessed the proposal against the relevant provisions of the following environmental planning instruments, plans and policies:

- State Environmental Planning Policy (Major Development) 2005
- State Environmental Planning Policy No 71 – Coastal Policy
- State Environmental Planning Policy No 64 – Advertising and Signage
- Wyong Local Environmental Plan 1991
- Wyong Development Control Plan 2005
    - Chapter 29 – Berkeley Vale Industrial Western Precinct
    - Chapter 50 – Advertising Signs
    - Chapter 61 – Carparking
    - Chapter 67 – Engineering Requirements for Developments
    - Chapter 69 – Controls for Site Waste Management
    - Chapter 70 – Notification of Development Proposals
    - Chapter 75 – Industrial Development
- Landscape Policy and Guidelines
- Southern Lakes District Contributions Plan
- Building Code of Australia

ECOLOGICALLY SUSTAINABLE DEVELOPMENT PRINCIPLES

The proposal has been assessed having regard to Ecologically Sustainable Development principles and is considered to be consistent with the principles.

The proposed industrial development is considered to incorporate satisfactory stormwater, drainage and erosion controls and the retention of vegetation where possible and is unlikely to have any significant adverse impacts on the environment and will not decrease environmental quality for future generations. The proposal does not result in the disturbance of any endangered flora or fauna habitats owing to the proposed on-site stormwater management system which will be designed to ensure that post-development flows are the same as pre-development flows in terms of quality and quantity. The proposal is unlikely to significantly affect fluvial environments for the same reason.

ASSESSMENT

Having regard for the matters for consideration detailed in Section 79C of the Environmental Planning and Assessment Act 1979, other statutory requirements and Council's policies, the assessment has identified the following key issues, which are elaborated upon for the Panel's information. Any tables relating to plans or policies are provided within the body of the report or, where indicated, provided as attachments to the report.

THE PROVISIONS OF RELEVANT INSTRUMENTS/PLANS/ POLICIES (s79C(1)(a)(i-iv)):

State Environmental Planning Policy (Major Development) 2005

Aim (f) of State Environmental Planning Policy (Major Development) 2005 (SEPP MD 2005) identifies development for which Regional Panels are to exercise specified consent authority functions.

Division 13B "General development to which Part applies" of Part 3 "Regional development" of SEPP MD 2005 provides a list of development criteria where the provisions of Part 3 apply including 13B (1) (a) which states:

> "*development that has a capital investment value of more than $10 million,*"

In addition, Division 13C of Part 3 "Regional development" of SEPP MD 2005 provides a list of further development criteria for land lying within the coastal zone including Division 13C (b) which states:

> "*buildings or structures (other than minor alterations or minor additions to existing buildings or structures) that are greater than 13 metres in height, excluding any building that complies with all development standards relating to the height of such a building set by a local environmental plan that applies to the land on which the building is located,"*

The proposed development has an estimated capital investment value of $20 million. In addition, the proposed development is to be sited on land within the coastal zone and Building "A" will have a maximum height of 24.5 metres and there is no applicable height development standard contained in Wyong Local Environmental Plan 1991. Accordingly, the development application is to be determined by the Regional Panel in accordance with the provisions 13F (1) (a) of Part 3 of SEPP (MD) 2005.

State Environmental Planning Policy No 71 – Coastal Policy

The site is located within the coastal zone as defined by State Environmental Planning Policy No 71 – Coastal Policy (SEPP 71) and as such, requires the proposal to be considered against the several matters listed in clause 8 of the SEPP. A table of those considerations can be seen below.

MATTER TO BE CONSIDERED	COMMENT
To satisfy the aims of the Policy	Assessed as satisfying the aims of the Policy
Will not impact upon public access to and along the coastal foreshore	Proposal does not impact on public access to foreshore
Will not reduce opportunities to provide new public access to and along the coastal foreshore	Proposal does not reduce opportunities to provide new public access to foreshore
Is suitable given its type, location and design and its relationship to surrounding area	Is assessed as being suitable to surrounding area
Will have no detrimental impact on foreshore, will not overshadow foreshore and will not result in significant loss of views from any public place to the foreshore	Will not cause any detrimental impact, overshadowing or loss of views to foreshore
Consider the scenic qualities of the NSW coast and means to protect and improve those qualities	Will not affect scenic qualities of the NSW coast
Measures to conserve threatened species and plants and their habitat	Vegetated buffers retained and stormwater nutrient-removal system and water harvesting system included in design to protect habitat of Green Thighed Frog
Measures to conserve fish and marine vegetation and their habitats	Stormwater harvesting and cleansing measures included in design to ensure water entering Ourimbah Creek is of same quantity and quality as pre-development flows
Impact of development on existing wildlife corridors	Vegetated buffers retained and ecological assessment of additional driveway concludes that culvert design is appropriate
Likely impacts of coastal processes and coastal hazards on development and vice versa	No impacts identified in assessment - location of site two kilometres from edge of Tuggerah Lake
Measures to reduce potential conflict between land-based and water-based coastal activities	No specific measures required in this instance
Measures to protect cultural places, values, customs, beliefs and traditional knowledge of Aboriginals	No measures required as site has not been previously identified as place of Aboriginal significance

Likely impacts of development on water quality of coastal water bodies	Stormwater harvesting and cleansing measures included in design to ensure water entering Ourimbah Creek and Tuggerah Lake is of same quantity and quality as pre-development flows. Sewage pumped to public treatment facility before discharge
Conservation and preservation of items of heritage, archaeological or historic significance	Site not identified as a heritage item or in vicinity of heritage item
Measures to encourage compact towns in preparation of a local environmental plan	Not relevant
Cumulative impacts of development	No significant cumulative impacts identified in assessment
Measures to ensure energy and water efficiency	Energy-efficient appliances and lighting to be used and water-efficient fixtures and facilities to be used. Proposal includes the establishment of 180 roof-mounted solar panels to generate "green" electricity

TABLE 2: Comparison of proposed development to considerations contained in Clause 8 of SEPP 71.

Given the type and location of the proposed development – an industry and associated office development located in an established industrial park – it is considered that when assessed against the above "matters for consideration" the proposed development is consistent with the relevant objectives of the SEPP.

In addition, clause 15, "Effluent Disposal" and clause 16, "Stormwater" in SEPP 71 prevent Council from consenting to any development that will dispose of untreated effluent or stormwater into Ourimbah Creek. The proposed development will connect to the existing approved public reticulated sewerage system via an on-site collection and pump station.

Stormwater is to be harvested on site for use within the buildings for toilet flushing and outside for watering the vegetation planted as part of the site landscaping. In addition, any stormwater leaving the site (to naturally drain to the adjoining public reserve to the east) must first pass through a nutrient-removal pond to ensure that a satisfactory quality of stormwater discharge is achieved. Recommended conditions of consent require the on-site stormwater management system to be maintained, monitored and upgraded should the quality of stormwater fall below the standards required.

State Environmental Planning Policy No 64 – Advertising and Signage

The applicant proposes the erection of two signs, one on the north elevation of the Turbine Maintenance Building and one on the entry gate in front of the Head Office Building. The signs are proposed to be illuminated and will display the corporate branding of Power Projects International in the following signature blue, black and red lettering:

1. "*PPi* Power Projects International" on the eastern side of entry gate 1 (the entry gate to the main office building), measuring 1.5 metres high by 4.5 metres long.

2. "*PPi* Power Projects International" on the northern elevation of the turbine maintenance building measuring 2.0 metres high by 7.0 metres long (see example below).

FIGURE 7: Example of proposed signage

State Environmental Planning Policy No 64 – Advertising and Signage (SEPP 64) applies to all signage and excludes business identification signs from most of the requirements. Clause 8 of Part 2 does, however, require Council to be satisfied that any proposed business identification signs are consistent with the objectives of SEPP 64 and satisfy the assessment criteria in Schedule 1 of SEPP 64.

Objective (a) of SEPP 64 states:

> *"(a) to ensure that signage (including advertising):*
>
> *(i) is compatible with the desired amenity and visual character of an area, and*
> *(ii) provides effective communication in suitable locations, and*
> *(iii) is of high quality design and finish, and"*

Given that the design and finish of the signs will be durable and of a very high quality and the proposed locations are suitable for identifying the business, it is considered that the proposed signs are consistent with the above objective of the SEPP.

In terms of satisfying the assessment criteria in Schedule 1 of SEPP 64, the following table compares the proposed signs to those criteria.

ASSESSMENT CRITERIA	COMMENT
1 Character of the area • Is it compatible with existing or desired future character of the locality? • Is the proposal consistent with a particular theme in the area?	The signs are proposed to be located in a general industrial park. No particular themes in the area but signs comply with DCP Chapter 50.
2 Special areas • Does the proposal detract from the amenity or visual quality of any environmentally sensitive areas, heritage areas, natural or other conservation areas, open space areas, waterways, rural landscapes or residential areas?	The site's eastern boundary adjoins a site that is habitat for a threatened species, the Green Thighed Frog. The signs do not detract from the visual quality of this land as the signs are sited along the northern frontage of the site.

3 Views and vistas • Does the proposal obscure or compromise important views? • Does the proposal dominate the skyline and reduce the quality of vistas? • Does the proposal respect the viewing rights of other advertisers?	The signs do not obscure important views. The signs do not dominate the skyline or reduce the quality of vistas. The signs do not interfere with any other advertiser or potential advertiser.
4 Streetscape, setting or landscape • Are the scale, proportion and form of the proposal appropriate for the streetscape, setting or landscape? • Does the proposal contribute to the visual interest of the streetscape? • Does the proposal reduce clutter by rationalising existing advertising? • Does the proposal screen unsightliness? • Does the proposal protrude above buildings, structures or tree canopies in the area? • Does the proposal require ongoing vegetation management?	The signs are part of a large industrial building development in an area characterised by such buildings. Signs are of high quality and contribute to visual interest of the streetscape. Greenfield site so matter is not relevant to proposed signs. No unsightly features to screen. No, one sign is to be attached to the northern façade of the maintenance building and the other to an entry gate. No, neither sign requires any significant ongoing vegetation management.
5 Site and building • Is the proposal compatible with the scale of the site or the building or both? • Do the signs respect important features of the site or building or both? • Do the signs show innovation and imagination in its relationship to the site or building or both?	The signs are compatible with the scale of the building and the site. The signs are well positioned on the building and the gate. The signs are considered to be satisfactory from these two considerations.
6 Associated devices and logos • Have any safety devices, platforms, lighting devices or logos been designed as an integral part of the signage or structure on which it is to be displayed?	The signs are planned to be illuminated but no details of lighting have been provided as part of the development application. Given nature of proposal this detail not considered to be necessary. No other devices proposed.

7 Illumination • Would illumination result in unacceptable glare?	No, the location of the signs should not result in unacceptable glare.
• Would illumination affect safety for pedestrians, vehicles or aircraft?	No, illumination of the signs will not create safety issues.
• Would illumination detract from the amenity of any residence or other form of accommodation?	No, there are no residences or other forms of accommodation that would be affected by the illumination.
• Can the intensity of the illumination be adjusted, if necessary?	Unknown but given nature of the proposal this is not necessary.
• Is the illumination subject to a curfew?	No curfew applies to site or to proposal.
8 Safety • Would the proposal reduce the safety for any public road?	No, the signs will have no effect on the safety for any public roads.
• Would the proposal reduce the safety for pedestrians or bicyclists?	No, the proposal will not reduce safety for pedestrians or cyclists.
• Would the proposal reduce the safety for pedestrians, particularly children, by obscuring sightlines from public areas?	No, the proposal will not obscure sightlines from any public area so there will be no reduction in safety.

TABLE 3: Comparison of proposed signs to assessment criteria in Schedule 1 of SEPP 64.

From the assessment shown in the above table it is concluded that the proposed signs satisfy the assessment criteria listed in Schedule 1 of SEPP 64.

Wyong Local Environmental Plan 1991

Clause 10 – Zoning

The land is zoned 4(a) (General Industrial Zone) under WLEP. The proposed industry (generator turbine maintenance) including turbine maintenance building, office building and training building, is permissible within the zone. In this case, however, owing to the provisions of SEPP (Major Development) 2005, the Joint Regional Planning Panel (JRPP), rather than the Council, has the authority to determine the application.

The proposed development is also consistent with the stated objectives of the zone as discussed under the heading of "Permissibility" on Page 10 of this report.

Clause 12 – Development not requiring Council consent

The clause specifies certain types of advertisements that do not require the consent of Council. The list of advertisements excluded from requiring consent includes "approved signs" as specified in any development control plan which has been adopted by Council for that purpose. The relevant DCP is Chapter 50 of Wyong Development Control Plan 2005 and

the two proposed signs are discussed in the section headed "Chapter 50 – Advertising Signs" on Page 21 of this report.

Clause 15 – Development on land containing acid sulphate soils

The site is identified as a Class 4 on Council's Acid Sulphate Soils Planning Map. Under Clause 15(4) of WLEP, a preliminary acid sulphate soils assessment report is required to be undertaken in accordance with the *Acid Sulphate Soils Assessment Guidelines* for any works beyond two metres below the natural ground surface in Class 4 or for works by which the water table is likely to be lowered to any point beyond two metres below the natural ground level in Class 4.

The applicant proposes to construct a sub-basement car park that will require excavation at least 2.5 metres below existing ground level. In recognition of the requirements of Clause 15(4) the applicant has submitted a geotechnical assessment of the site, prepared by Barker Harle Consulting Engineers, that includes a preliminary acid sulphate soils assessment prepared between September and November 2010 (BH Ref: 00682).

The acid sulphate soils assessment found that laboratory results of testing of soil samples taken from the site exceeded guideline levels and could be defined as both actual and potential acid sulphate soils. The report recommended that:

> *"It is recommended, following the completion of architectural drawings for the proposed development, an Acid Sulfate Soil Management Plan be prepared to detail the anticipated volume of acid sulfate soil that will be disturbed during construction, whether dewatering will be undertaken to allow construction to occur and suitable onsite and offsite treatment and disposal options for acid sulfate soils disturbed during the construction process."*

A condition of consent is recommended requiring the submission and approval by the Principal Certifying Authority (PCA) of an acid sulphate soils management plan prepared by a qualified person prior to the issue of any Construction Certificate.

It should be noted that the report's reference to "dewatering" relates to the applicant's preliminary proposal to construct a 10-metre-deep pit within the Turbine Maintenance Building. The applicant has advised that the pit was to accommodate a vacuum chamber for testing turbines. However, after the geotechnical investigation identified that groundwater would be encountered at a depth of 4.5 metres the proposal was amended and the chamber is now to be constructed on the floor of the Turbine Maintenance Building (see details under the heading "Whether the development will cause noise and vibration" on Page 32 of this report). The proposed basement parking level initially proposed was also raised to become a sub-basement level to avoid intercepting groundwater.

Clause 28 – Tree Management

The proposed clearing of 0.02 ha of native vegetation is considered to be ancillary to the proposed development. The proposed clearing will not significantly impact soil stability, water quality, amenity, vegetation systems or fauna habitats, and recommendations have been made to further mitigate the impact of the proposed clearing.

Clause 29 – Services

Clause 29 of WLEP prohibits Council from granting consent to development unless satisfactory water, sewer and drainage services are available to the development. Council's Development Engineer reviewed the application with regards to these matters and has

advised that the development may be serviced by the water and sewer mains provided with the subdivision although a private sewage pumping-station is needed to be installed as proposed. Water and sewer connection requirements, including any contributions that are required to be paid, will form part of the Section 306 approval.

In respect of stormwater management and drainage, the subject site adjoins a reserve upon which a population of a threatened species, the Green Thighed Frog, and an endangered ecological community, Swamp Sclerophyll Forest, have been previously identified. The subject site drains into this reserve and to ensure that the adjoining reserve is not detrimentally affected by development on the subject lot, stormwater must be managed to ensure that the quality and quantity of the stormwater discharge post development is the same as pre-development flows.

The applicant has submitted a stormwater drainage is based on the following criteria:

- The stormwater runoff requires detention to control the runoff to not greater than that currently running off the site;

- The environmentally sensitive nature of the surrounding site is addressed by incorporating first-flush nutrient settling ponds, which, in extreme events, will sheet flow into the adjacent reserve with no concentrated discharge into the reserve.

- Minimum earthworks will be undertaken across the environmentally sensitive corridor at Apprentice Drive.

Council's Development Engineer reviewed the stormwater management plan and has advised that the proposed drainage system does not appear to fully meet Council's requirements for water quality, quantity and duration of stormwater flows to the Council land to the east. However, the Development Engineer is of the opinion that a suitable system will be able to be designed to meet Council's outcomes and therefore the drainage requirements have been satisfied by recommended conditions.

The proposed development is surrounded by, and drains to, "no-go" areas on the northern and eastern sides of the site. These areas lead to an area of high habitat potential for an EEC. Maintaining existing stormwater flows to the area and maintaining wetting and drying cycles is essential. The applicant will be required to ensure that pre-development flows match post-development flows up to the 1% annual exceedance probability (AEP) storm event for quantity, quality and duration to replicate the natural wetting and drying cycles of Lot 32 DP 1045472. The system must be able to maintain the pre-development seven-day high-flow duration frequency curve for all months up to the 50% AEP storm event. The design and water quality modelling of proposed drainage system shall be required to be approved by Council. All drainage flows that are to be directed to the EEC area shall be dissipated to replicate natural flows onto the area.

The applicant is proposing 88,000 litres of water-reuse tanks. The retained water is to be used for toilet flushing and for landscape watering. It is estimated that a tank of 50,000 litres that will allow for toilet flushing (20,000 litres) and landscape watering (30,000 litres) for a four-week period would be adequate. The lesser amount of 50,000 litres will be conditioned. The final amount of stored capacity will depend of the overall drainage design and calculations for the site.

Council's Development Engineer advises that the internal piped drainage proposed should cater for the 5% AEP with overland flow paths to cater for the 1% AEP. The drainage design for all flows should comply with the requirements for the EEC as indicated above.

The submission and approval by Council of a groundwater risk management plan prior to the issue of the Construction Certificate will also be required. The plan should:

a Define groundwater quality, levels and flow direction;

b Assess the risks of the development including construction works (trenching, excavations, etc) to groundwater flows to the Council wetland reserve (Lot 32 DP 1045472). The risk assessment shall include measures to mitigate any potential downstream impacts and ensure the existing groundwater characteristics are maintained; and

c Include a groundwater monitoring program for parameters defined under item "a" above on a six-monthly basis.

Registration of a positive covenant for the maintenance of all drainage facilities in relation to the development to ensure all water quality and quantity facilities operate to design capacity at all times will also be required.

No works, other than those proposed in the development application should be permitted within the areas to the north and south of the site. In addition, no drainage works shall be permitted within the "no-go" areas other than to cross the area for shortest possible distances if crossings are necessary.

In respect of contributions to services, water and sewerage contributions were applied to the parent subdivision at a rate of 5 ET (Equivalent Tenements) per hectare, which results in an (industrial rate) allowance of 14.740 ET for the lot (29,480m^2 x 0.0005ET/m^2). Based on the floor area of the three proposed buildings and on each building's use, the site will generate a demand as calculated below:

- Maintenance building (industrial rate): 8,331m^2 x 0.0005 = 4.164 ET
- Office building (commercial rate): 3,830m^2 x 0.005 = 19.150 ET
- Training building (industrial rate): 1,065m^2 x 0.0005 = 0.533 ET

The total calculated demand is 23.847 ET which is 9.107 ET greater than the allowance of 14.740ET. Therefore, water and sewer contributions will be applicable for the proposed development due to the higher calculated demand.

Wyong Development Control Plan 2005

Chapter 29 – Berkeley Vale Industrial Western Precinct

The site is located within the area affected by the provisions of Chapter 29. The objectives of Chapter 29 are to:

- "Provide subdivision guidelines to meet current demands and Council's long-term aims to provide suitable land for large industrial tenants;
- Provide guidelines as to the number of individual tenants to be accommodated on one allotment within the precinct;
- Adopt a methodology for assessment of contributions; and
- Provide specific provisions applicable to property fronting Tradesman Drive."

As the proposal is for the subsequent development by a single tenant of a subdivided lot for which S94 contributions have been paid at the time of subdivision, there are no relevant controls within Chapter 29 by which to assess the proposal.

Chapter 50 – Advertising Signs

Chapter 50 provides specific development controls and certain considerations to be taken into account when assessing any proposed signage. In this instance, the applicant is proposing two business identification signs and the following table compares the proposed signage to the relevant controls and considerations. The two signs satisfy the relevant requirements of Chapter 50.

REQUIREMENT	PROPOSED	COMPLIES
Sign 1: Flush Wall Identification Sign on Turbine Maintenance Building		
Not to extend laterally from wall	Does not extend laterally from wall	Yes
Not to extend beyond wall edges	Does not extend beyond wall edges	Yes
Must be minimum of 2.6 metres above ground if internally illuminated	To be site a minimum of 10 metres above ground level	Yes
Total coverage is not to exceed 25% of the wall space for each frontage	Covers less than 1.5% of building's façade area	Yes
Sign 2: Sign on Eastern Entry Gate		
No specific controls	N/A	N/A
General Requirements for Both Signs (Sections 5.9 & 8.1)		
Signs to have a high quality, professional finish	Signs will have high-quality, professional finish	Yes
Signs mounted on vehicles etc are not permitted	Signs not proposed to be mounted on vehicles etc	Yes
Signs are not to be mounted on trees	Not proposed to be mounted on trees	Yes
Banners and inflatable devices are not permitted as permanent form of advertising.	No banners or inflatable devices are proposed.	Yes
Signs should be low maintenance and minimum chance of vandalism	Signs are to be low maintenance and sited such that vandalism minimised	Yes
Signs should not be a traffic hazard or obstruction	Signs will not be traffic hazards or obstructions	Yes
Signs should have adequate clearance from power poles.	Signs clear of any power poles	Yes
Signs erected in transmission easements require approval of responsible authority	Signs not proposed to be erected in easements	Yes

Signs should state a clear message and be simple in design	Signs state clear message and simple in design	Yes
Flashing, rotating and animated text signs are not permitted	Signs not proposed to be flashing, rotating or to have animated text	Yes
Signs should be principally for information, not product display	Signs are for information and not for product display	Yes
Signs for multi-bay factories should be consistent and present a theme	Not relevant in this instance	N/A
Signs should be in keeping with scale of the building and integrated with the development	Signs considered to be in keeping with scale of the development and integrated with the development	Yes

TABLE 4: Comparison of proposed signs to Chapter 50's requirements.

Chapter 61 – Carparking

Section 3.0 of Chapter 61 sets out the on-site car parking requirements for various types of developments. There are two "types" of development – the Turbine Maintenance Building (factory) and Head Office Building (commercial) – which have differing car parking provision rates. No car parking rate is applicable to the Training Building. The following table compares the requirements of Chapter 61 to the proposed development:

STANDARD	REQUIRED SPACES	PROPOSED SPACES	COMPLIES
Maintenance building floor space : 1 space / 75m^2	110.97 (8,323m^2 GFA)		
Head office building floor space: 1 space / 30m^2	99.93 (2,998m^2GFA)		
Total	**210.9 (211)**	**79**	**No**

TABLE 5: Comparison of proposed number of on-site parking spaces to requirements of Chapter 61.

As can be seen from the table above, the proposed on-site car parking, which includes five disabled car spaces, 29 basement car spaces, 39 'at-grade" car spaces and six small-truck parking spaces, falls well short of that required by Council's DCP Chapter 61.

The shortfall was recognised by the applicant and addressed in the Traffic Report that was submitted as part of the development application. The report states, in justification of the proposal, that:

"The car parking proposed is significantly less than the theoretical requirement based on Council's DCP 61. The factory will be involved in fabrication and rehabilitation of very large items of equipment associated with the electricity generation industry.

Application of Council's DCP 61 rate for this particular industrial development is not appropriate because of the very large floor area of the factory building to service the large transformers and other equipment that will be handled by the proposed development."

The report concludes that the proposed on-site car parking would adequately cater for the initial employment potential of 50 or more people.

Comment:

In considering the proposed shortfall in the required on-site car parking, it is agreed with the traffic consultant's assessment that the special nature of this development – a development which handles extremely large pieces of machinery – inevitably means that the building to house the activity must also be extremely large. The required large floor area of the maintenance building inflates the on-site car parking requirement because the parking requirement is calculated only on each building's use and its gross floor area. This is despite the fact that the Turbine Maintenance Building accommodates comparatively few employees in relation to its floor area (40 employees as opposed to 111 calculated car spaces).

In addition to the above, the following considerations are also noted:

- The development proposes to employ 58 full-time staff, (Page 17 of the SEE), including five overseas specialist engineers. The proposed car parking will be able to satisfy the core workforce. There will be approximately 50 ancillary jobs created by the development (landscape maintenance personnel, cleaners, security personnel, trades people, caterers and waste and recycling contractors). These persons will only be on site as required and, in the case of the cleaners for example, be on site after normal office hours.

- A review of the floor plans of the Head Office Building shows that large areas of each level are designated meeting rooms and staff facilities which also inflates the car parking requirement well beyond the number of administration staff that are to be accommodated within the building (18 people as opposed to the 100 spaces calculated).

- No on-site car parking requirement has been allocated to the Training Building as its primary purpose is to intermittently operate for staff training and information sessions. It is noted, however, that the applicant proposes to use the building for industry talks and that industry delegations will visit the site to observe and to participate in learning and development programs conducted within this building. Depending on the size of any delegation (and on how delegation members travel to the site) this use of the building may put pressure on the available on-site parking.

It is concluded that on most days, the proposed on-site car parking will provide sufficient parking for the expected demand that the use is likely to generate. However, to ensure, as far as possible, that the proposed parking does accommodate the demand, the following conditions are recommended to be included in any consent granted for the development:

- That the number of permanent employees, (including the 5 overseas turbine/generator specialists), be limited to 58 and that any subsequent expansion will require a further separate consent.

- That use of the training building is limited to staff training and information and for hosting power-generation industry delegations.

In addition to the above, Chapter 61 provides a number of other requirements for developments to satisfy. The table shown in Attachment 2 demonstrates that the proposed development satisfies all other relevant requirements of Chapter 61.

Chapter 67 – Engineering Requirements for Developments

Chapter 67 lists specifications which set out minimum standards and guidelines for the engineering works required for developments within Wyong Shire. The detailed design, construction and any engineering requirements contained within any consent will be based on this specification. The chapter also notes that where no reference exists within the specification for particular design and construction details, Council's Development Engineer should determine the requirements in accordance with best industry practice and appropriate standards.

Chapter 69 – Controls for Site Waste Management

A site waste management plan was submitted with the development application. A condition of consent is recommended requiring the management of waste during construction to be managed in accordance with that plan.

Chapter 70 – Notification of Development Proposals

In accordance with Clause 2.4 of Chapter 70 – Notification of Development Proposals, this proposed development was not required to be advertised as it does not adjoin land zoned "residential" or adjoin an environmental zone. The proposed development is also unlikely to have any direct negative impact on the adjoining properties owing to the on-site stormwater management facility proposed to be constructed as part of the development. Accordingly, the application was not advertised for public comment.

Chapter 75 – Industrial Development

Chapter 75 provides details of requirements for development applications and certain controls that apply generally to, inter alia, industrial developments. In this instance, where the development is located in the Berkeley Vale Industrial Western Precinct where the relevant DCP chapter (Chapter 29) has no applicable controls, the requirements and controls of Chapter 75 are to be used to guide development.

The table in Attachment 3 to this report compares the relevant requirements and controls of Chapter 75 to the proposed development. The proposed development complies with or can comply with, the controls and design considerations under Chapter 75 with the exception of the requirement to comply with the on-site car parking requirements of Chapter 61. The issue of the on-site car parking provision is considered under the heading "Chapter 61 – Car parking" on Page 22 of this report. It is concluded that the applicant's proposal to provide 79 on-site parking spaces is satisfactory notwithstanding that this is below the number of spaces required by Chapter 61.

Landscape Policy and Guidelines

Council's Landscape Policy and Guidelines requires the landscape design for the development to be prepared as a Category 3 development because it is highly visible and has a value in excess of $2,000,000. A Category 3 development requires its landscape design to be prepared by an approved Category 3 landscape designer/consultant.

A landscape plan was submitted with the application. The landscape plan was prepared by Urban Sanctum, landscape designers, and checked and certified by Gary Edwards of Urban Exotic.

The submitted design has been reviewed by Council's Landscape Design Officer (LDAO) who has advised that the plan is satisfactory subject to the following recommended conditions:

1. "Tree protection fencing is to be in place for all vegetation corridors along Apprentice Drive and within the subject property. Tree protection fencing is to consist of:

    - The protection of trees retained on site by fencing in accordance with Australian Standard 4970 2009. The fencing is to consist of 1.8 metre chain wire interlocking fencing. Such protection measures must be installed prior to commencement of any works and maintained in good order for the duration of the works. No cement waste, materials or vehicles are to be stored within the protective fence area.

2. All services, including water and electricity, must be located, designed and installed to minimise or prevent root damage to retained trees. Methods for the installation of services within the tree's canopy perimeter are contained within Development Control Plan 2005, Chapter 67 - Engineering Requirements for Development and include under-boring and excavation by hand.

3. The management protocols and requirements within these conditions relating to tree and vegetation retention, protection and rehabilitation are to be included in all contract documentation, plans and specifications used by each civil contractor and sub-contractors.

4. Trees greater than three metres tall along Apprentice Drive will require minimum setbacks where no excavation works occur. It is recommended that driveway construction be undertaken in a manner causing minimal damage to the trees. Tree roots along the proposed driveway areas are not to be severed during construction within the structural root zone (SRZ) areas of the trees. The exclusion zone is to be two metres where no works occur along driveway entrances.

5. All tree species are to be minimum 75 litre and shrubs ground covers to be tube stock/5 litre.

6. Provide an alternative species to Eucalyptus caesia as this species has not adapted well to this region.

7. Proposed wetland to be constructed by a qualified wetland consultant that is to oversee the project for the duration of works.

8. A detailed maintenance schedule is to be provided and adopted before release of the Occupation Certificate.

9. Small native trees on site that are less than three metres high that are to be removed are to be mulched on site and used as ground cover within the proposed landscaping areas."

The requirements of the LDAO should be included as conditions should consent be granted for the development.

Southern Lakes District Contributions Plan.

The site falls within the operation of Council's Southern Lakes District Contributions Plan. While contributions may be levied on "industrial development" based on the net developable area (NDA) it is noted that in creating the current industrial lot the then developer of the subdivision paid Section 94 contributions for roads and drainage and contributions for water and sewer, totalling $140,171.00, on 18th July 2008. No additional Section 94 contributions are applicable to this development.

Building Code of Australia

The development proposal was reviewed by Council's Health and Building Surveyor who identified a number of issues in relation to the development's compliance with the requirements of the Building Code of Australia (BCA). The most significant issue was the requirement for a 6-metre-wide perimeter access road being provided around all buildings rather than just round the maintenance building owing to the bridge connection between the Turbine Maintenance Building and the Head Office Building.

The issues were brought to the attention of the applicant who had those matters reviewed by a BCA consultant (AcroCert Pty Ltd). The applicant has subsequently advised that, in relation to the bridge, it is totally non-combustible and that a fire door is located in the western wall of the office building leading to the bridge.

This means that the buildings will present as two separate buildings and the need to comply with Clause C2.4 of the BCA is not required. The applicant's consultant has suggested that the BCA requirements could be conditioned and resolved at Construction Certificate stage.

Council's Health and Building Surveyor has subsequently advised that an appropriate consent condition can be applied that will require compliance with the BCA because compliance can be achieved through any of several alternative solutions.

In regard to the six-metre-wide perimeter access road around the Turbine Maintenance Building, it is noted that the plans stated that the Turbine Maintenance Building was to be sited a minimum of six metres from the western boundary but was drawn on the plans at only five metres from the boundary. This point was discussed with the applicant and the anomaly confirmed.

It has been agreed between Council and the applicant that the development can comply with the minimum six-metre setback by reducing the width of the two one-metre-wide landscaping strips on either side of the access road on the eastern side of the maintenance building. The minimum six-metre-wide setback from the western boundary is recommended as a specific condition should consent be granted.

THE LIKELY IMPACTS OF THE DEVELOPMENT (s79C(1)(b)):

The relationship to the regional and local context and setting.

As noted in the SEE, the proposed operation requires ready access to the State and Regional road and rail network which this site can provide. The subject site can also supply a local employment base, is in proximity to nearby power stations, has available land for further expansion and has access to ancillary support industries and services within the region.

The proposed buildings are to be set in a modern, purpose-designed and purpose-built industrial park. The buildings will be set amongst other properties that have been developed for similarly large buildings. In regards to the height of the Turbine Maintenance Building – 24.5 metres at the ridge of the roof – and its length – 150 metres - it should be noted that other buildings of similar bulk and scale exist in this industrial park such as the warehouse and distribution centre located immediately to the north-west of the site on the corner of the intersection of Corella Close and Sanitarium Road. This building, while not as tall as the proposed Turbine Maintenance Building (12 metres), has an overall length of over 180 metres.

Given this type of existing development within the industrial park it is considered that the proposed buildings are, in terms of bulk, scale and quality of design, appropriate for the local context and setting.

In addition, the Turbine Maintenance Building will be set back a minimum of 39 metres from Apprentice Drive, 86 metres from Corella Close and over 100 metres from Enterprise Drive. The building will be partly screened by existing vegetation buffers and, eventually, by further development on properties lying between the site and Corella Close and Enterprise Drive thus reducing any potential impact of bulk and scale.

The access, transport and traffic management measures.

1. External

Council's Development Engineer has advised that the external road system is suitable. However, for deliveries of major items such as turbines that require wide or extended loads, travel on the state or local road system will require the approval of the RTA, police and the local roads authority. Appropriate licensing may be required.

Access to the proposed development site is from both Corella Close and Apprentice Drive. Access from Apprentice Drive was to have been restricted to one 20-metre-wide access. Through negotiation with Council (and supported by an appropriate fauna and flora assessment) it is now proposed to have two 10-metre-wide accesses to allow for heavy vehicles to leave the factory area. It is also proposed to have a two-way access to Corella Close. This access will be the entry point for heavy vehicles to the maintenance building. Requirements for setbacks of landscaping and access formation widths will be conditioned as will the access road width. The accesses will require appropriate setbacks for gates so as not to obstruct through travelling lanes.

2. Internal

An internal access road width for two-way traffic of 6.5 metres to 7.0 metres is proposed. The truck parking area is to be restricted to use by medium rigid vehicles or less in dimension. The access shall be 10 metres wide at the boundary line and 13 metres at the kerb line. The splay on the internal access from the property line shall be at 5:1 which equates to approximately a 7.5-metre splay on both sides to achieve a 7-metre-wide internal access.

Assuming a 2.5-metre parking lane and 4.5-metre footpath area, any gates will need to be setback or indented 13 metres inside the property boundary to ensure vehicles stop clear of the through travelling lanes. This allows for a 19-metre-long vehicle and one metre clearance allowance for manoeuvring. Pavement shall be designed and constructed to be suitable for proposed traffic loads and pavement life.

3. Carparking

Carparking spaces are to be in accordance with AS/NZS2890.1. Wheel stops will be required on all carparking spaces. Basement ramp shall comply with AS/NZS 2890.1 including minimum ramp width in accordance with Table 2.2 plus high obstruction allowance. The control point shall be on a grade less than 5% for one vehicle and a queuing length of minimum 9.6 metres at a maximum of 10%. The disabled parking spaces will be required to comply with AS/NZS2890.6.

The basement carpark should include widening of car spaces where they are adjacent to a wall etc, and designed for an 85th and 99th percentile vehicle to pass at bends and curves. The above-ground carpark does not provide turning areas at the ends of aisles greater than 6 car spaces in length. This is acceptable because the carpark is not considered to be a "public" carpark and landscaping will be required to be maintained at a low height to allow vision of available car spaces. The proposed truck parking areas are only large enough for medium rigid vehicles to enter and exit in three movements. The development is recommended to be conditioned accordingly.

The impact on the public domain (recreation, public open space, pedestrian links).

The Development Engineer has considered whether a pedestrian footpath should be provided along the site's Apprentice Drive frontage and has concluded, on the basis of the likely number of pedestrians, that a condition requiring the construction of a pathway could not be reasonably imposed.

The impact on utilities supply.

This issue was discussed under the heading "Clause 29 – Services" on Page 18 of this report and found to be satisfactory. In addition, development consents for proposals similar to this development are routinely conditioned whereby the developer is required to contact and comply with a range of relevant service authorities for services such as electricity, telephone and gas. Such a condition is recommended to be applied in this instance in any consent that is granted.

The effect on heritage significance.

The site is not identified as a heritage item and is not identified as being within the vicinity of a heritage item.

Any effect on other land resources.

The potential impact on the adjoining Council-owned reserve to the east is discussed below under the heading "Any effect on the flora and fauna".

Any impact on the conservation of water.

The Development Engineer has advised that a recommended condition of any consent should require the developer to provide rainwater tanks for the development. The applicant has proposed to install four 22,000-litre tanks in the sub-basement level but the Development Engineer has concluded that the development need only 50,000 litre of storage is necessary and an appropriate condition reflecting this minimum storage requirement is recommended to be included in any consent that is granted.

Any effect on the conservation of soils or acid sulphate soils.

The issue of acid sulphate soils has been considered on Page 18 of this report under the heading "Clause 15 – Development on land containing acid sulphate soils". In respect of conservation of soils, appropriate conditions are recommended should consent be granted requiring appropriate site management measures be put in place prior to construction occurring to ensure that soil erosion does not occur. These measures are also recommended to be required to be maintained throughout the duration of the construction via a condition of consent in any consent that is granted.

Any effect on quality of air and microclimate conditions.

No effect on air quality or microclimate conditions has been identified in the assessment of this application.

Any effect on the flora and fauna.

The subject site was cleared in January 2007 under DA/435/1999. During the assessment of DA/435/1999, it was negotiated that the adjoining land, now Lot 32 DP 1045472, would be transferred into public ownership and managed for conservation in order to protect the breeding habitat of the endangered Green Thighed Frog. The eastern boundary of Lot 31 was modified to protect a 50 metre buffer around the breeding habitat. In addition, the consent conditioned that undisturbed natural vegetative buffers were retained along the northern (25 metres in width) and eastern (10 metres in width) boundaries of Lot 31. Lot 32 was also later identified as a priority for conservation for *Melaleuca biconvexa*.

Extensive flora and fauna surveys were undertaken on the subject site under DA/435/1999. The site now is predominantly cleared land and regenerating native vegetation with buffer strips of remnant native vegetation. Surveys for the current proposal were limited to vegetation mapping, a hollow-bearing tree survey, targeted threatened flora searches, SEPP 44 koala habitat tree assessment and nocturnal surveys for frogs, bat echo-location and arboreal mammals. Due to disturbed nature of the site, the survey methodology was generally consistent with Wyong Shire Council's (1999) *Flora and Fauna Survey Guidelines for Development.* Although amphibian surveys were conducted following rain, it may not have been sufficiently heavy rain to trigger breeding of the Green Thighed Frog. Ecobiological, the applicant's flora and fauna consultant, has therefore correctly assumed that although the species was not detected it may occur on or near the site in suitable habitat.

Ecobiological recommended an additional survey for *Cryptostylis hunteriana* be conducted during the flowering season of November to January. However, subsequent inspections by

Council's Ecologist did not identify any terrestrial orchids on the site, in particular, in the location of the proposed additional access way. It has therefore been concluded by Council's Ecologist that no further surveys are required.

Council's Ecologist has advised that the vegetation on the northern side of the site has been identified as 'Alluvial Floodplain Shrub Swamp Forest' and along the southern half 'Alluvial Riparian Blackbutt Forest'. These communities qualify as the Swamp Sclerophyll Floodplain Forest (SSF) and River-flat Eucalypt Forest Endangered Ecological Communities (EEC) respectively. In addition, one threatened species was recorded on the site, the Eastern Bentwing Bat. Previous surveys have recorded on or immediately adjacent to the site the following threatened species: *Melaleuca biconvexa*, the Green Thighed Frog, Wallum Froglet, Greater Broad-nosed Bat, Eastern False Pipistrelle, Eastern Freetail Bat and Little Bentwing Bat. *M. biconvexa* no longer occurs on the subject site following clearing.

The proposed development requires the removal of 0.02 hectares of SSF EEC to construct an additional driveway across the northern (Apprentice Drive) native vegetation buffer zone. The ecological assessment identified that the location of the additional proposed access way only contains young trees, none of which contain hollows. However, the location of the access way was shown in the wrong location in Figure 6 of the ecological assessment and has not yet been surveyed on the site and hollow bearing trees do occur along the north boundary. Accordingly, Council's Ecologist has recommended that a condition of any consent granted be that an ecologist survey the location of the access way prior to clearing and supervise the removal of any hollow-bearing trees. To compensate for the loss of habitat, the ecological assessment proposes the rehabilitation of the 0.02 ha unused portion of the existing access way and weed management throughout the remainder of the buffer zones. A condition of any consent granted will be that a Habitat Restoration Plan be prepared and implemented for the northern and eastern buffer zones and tree protection zones be implemented.

Ecobiological has noted in its assessment that the buffer zones were in good condition, with little weed infestation, though not yet of a mature age. Given the proposed development involves further clearing and intensification of use of the site, both of which will increase edge effects (in particular weed invasion), it is recommended that a condition of any consent granted be that bush regeneration be carried out in the buffer zones for a minimum of three years following commencement of works and the buffer zones be maintained in perpetuity. It is further recommended that the inner boundary of the buffer zones be fenced to prevent unauthorised access, dumping or clearing.

The Species Impact Statement (Andrews Neil 1999) prepared for the original clearing proposal for the site, recorded a high number of microbats along the northern boundary of the site along Apprentice Drive. The area was being used by microbats as a flyaway for commuting and feeding between the canopy of the vegetation on the site and the adjacent canopy on the northern side of the road. It was suggested that this behaviour indicated a preference for a foraging area shielded from artificial light and other human disturbances and bounded by an open tree canopy. In order to protect the area as foraging habitat, it is recommended that if consent were granted it be conditioned that external lighting be minimised as much as possible and upward lighting be eliminated along the northern boundary of the site.

The SEE states that the proposed workshop will operate 24 hours per day for 3-day periods during spring and summer. Any associated noise and light is likely to have an indirect impact on the foraging behaviour of nocturnal fauna, such as threatened microbats. To minimise these impacts, the workshop is located on the western side of the site, maximising distances to retained vegetation on Lot 32. Significant landscaping of the site, as per the submitted

plans, will also buffer adjoining vegetation from any noise and light. As noted above, it is further recommended that external lighting be minimised and designed to reduce overspill.
A large depression suitable for breeding habitat for the Green Thighed Frog has been previously identified on the adjoining Lot 32. In order to protect the breeding and foraging habitat for the species, it is essential that if consent were granted for the proposed development that it be conditioned that a stormwater system be designed and constructed that ensures post-development flows match pre-development flows (quality, quantity and rate). In addition, water quality must also be monitored and adjusted as required, frog habitat must be incorporated into detention / nutrient ponds, and access ways to Apprentice Drive must be constructed of culverts with small ponds at either end to enable frog passage and thus maintain the ecological function of the buffer zone. Council's Development Engineer has confirmed that the stormwater system can be designed to achieve the objective of post-development flows matching pre-development flows thus maintaining the natural wetting and drying cycles of the adjacent native vegetation. It is noted that the ecological assessment recommended no disturbance of groundcover vegetation during construction of culverts, however, this is not practical because of the need for a base slab to support the culverts. It is therefore recommended that replanting of vegetation at either end of the culverts to provide refuge for frogs be required as a condition of any consent.

Assessments of significance were conducted for 12 threatened fauna species and one endangered ecological community. It was concluded that the proposal is unlikely to have a significant effect on the threatened species, ecological communities, or their habitats. An SIS is therefore not required for the proposal. Based on the assessments of significance, the assessment of indirect impacts presented above, and the recommended mitigation measures, the conclusion is concurred with by Council's Ecologist.

The Ecologist's recommended conditions should be included in any consent that is granted.

The provision of waste facilities.

Waste collection and storage facilities have been provided at the rear of the maintenance building and are accessible by waste collection vehicles. Once in operation, office waste generated by the development will consist mainly of general office waste, paper and cardboard packaging. Industrial waste associated with the maintenance building will be comprised of scrap metal, oils and consumables. All materials from both buildings will be stored in the designated storage area and will be collected by a commercial contractor for disposal or recycling.

Council's Trade Waste Supervisor has reviewed the proposal and has no objection subject to appropriate conditions being applied in any consent requiring the applicant to apply for and receive an approval to discharge liquid trade waste into the sewerage system and to apply for and receive approval of a Private Pump Station Application prior to issue of any Construction Certificate.

The two conditions required by the Trade Waste Supervisor are recommended to be included in any consent granted for the development.

Whether the development will be energy efficient.

An Energy Report has been prepared by Building Sustainability Assessments to assess the energy performance of the proposed development in relation to Section J of the Building Code of Australia 2010. This report concluded that the energy efficiency of the development has been adequately taken into consideration during the design process and that the development will be able to meet or exceed the energy provisions of Section J of the BCA 2010.

The report made a number of compliance recommendations and any consent should include a condition that the recommendations of the report be complied with in the final design and construction of the buildings.

Whether the development will cause noise and vibration.

The SEE states that proposed use will not result in increases in noise emitted from the site. Operational noise of the plant and equipment will be negligible because all equipment and testing will be located within the building.

In addition, the applicant has provided further details to the effect that testing of turbines is conducted in a vacuum testing chamber erected within the maintenance building. The vacuum ensures that misaligned equipment is not destroyed during testing. Noise levels outside this chamber at one metre distance are no greater than 80dba. The testing process takes 10 minutes at a time and will only occur several times during a 24-hour period. To put this into context, normal conversation is 60dba, heavy traffic is 80dba, and the Australian General Standard to avoid irritation or injury to hearing is 85dba for no more than eight hours at a time (see table from Workers Health Centre Fact – Noise Sheet 2004 below). It is agreed with the applicant's assessment that no specific noise reduction measures are considered necessary.

EFFECT ON PEOPLE	SOUND LEVEL (in dBA)	SOUND SOURCE
High	140	Jet engine
Injurious	130	Rivet hammer
----------	**120**	**Pain threshold**
Injurious	110	Chain Saw
Irritating	100	Sheet-metal workshop
----------	**85**	**Aust General Standard for 8 hrs**
	80	Heavy traffic
	70	
	60	Normal conversation
	50	Low conversation
	40	Quiet radio music
	30	Whispering
	20	Quiet urban room
	10	Rustling leaves
----------	**0**	**Hearing threshold**

TABLE 6: Noise levels produced by various sources (Workers Health Centre Fact Sheet – Noise 2004).

Any risks from natural hazards (flooding, tidal inundation, bushfire, subsidence, slip etc).

Bush Fire

The site is identified as "bush fire prone land" on Council's certified Bush Fire Prone Lands Map. Section 79BA of the Environmental Planning Assessment Act, 1979 prohibits the granting of development consent unless the consent authority is satisfied that the development conforms to the specifications and requirements of *Planning for Bushfire Protection* (PBP).

The current document, Planning for Bushfire Protection December 2006 (PBP2006), defines this proposed development "industry" as "other development" and Section 1.3(b) requires the development to satisfy the Aims and Objectives of PBP2006 (Section 1.2.1). The overall objective of the PBP2006 is:

"…to provide for the protection of human life (including firefighters) and to minimise impacts on property from the threat of bush fire, while having due regard to development potential, on-site amenity and protection of the environment."

The six stated objectives listed in section 1.2.1 of PBP2006 are:

i. Afford occupants of any building adequate protection from exposure to a bush fire;
ii. Provide for a defendable space to be located around buildings;
iii. Provide appropriate separation between a hazard and buildings which, in combination with other measures, prevent direct flame contact and material ignition;
iv. Ensure that safe operational access and egress for emergency service personnel and residents is available;
v. Provide for ongoing management and maintenance of bush fire protection measures, including fuel loads in the asset protection zone (APZ); and
vi. Ensure that utility services are adequate to meet the needs of firefighters (and others assisting in bush fire fighting).

In recognition of the hazard the applicant has supplied a bush fire hazard assessment prepared in accordance with Clause 79BA. The consultant found, after consultation with the Rural fire Service, that:

"No specific Asset Protection Zones are required for industrial developments; however, a 15m defendable space has been applied adjacent to a parcel of coastal swamp forest to the north and east. The surrounding land use has been determined as providing adequate setbacks for bushfire protection to the south and west. The buildings can meet the Building Code of Australia (BCA) acceptable solutions.

In general, the BCA fire safety construction provisions for class 5-8 buildings are taken as acceptable solutions, however, the site would potentially be exposed to ember attack and as such recommendations for ember protection have been made. Proposed access and water provisions conform to PBP 2006."

The ember protection recommendations include installation of leafless guttering and enclosing openings or covering openings with non-corrosive metal mesh screens with a minimum aperture size of 2mm to prevent ingress of embers. Where applicable, this is to include any operable windows, vents, roof ventilation fixtures, weep holes, gutters and eaves. External doors are to be sealed with draft excluders or weather strips to prevent entry of embers.

The assessment concludes that the site can provide for safe development and the proposed industrial development can meet the aim and objectives of PBP2006 in respect of bush fire protection if the recommendations contained within the report are duly considered and incorporated. Those recommendations, apart from ember protection, also cover defendable spaces and APZs, management of threat abatement, APZ and defendable space maintenance plan, and construction requirements.

It is recommended that the matters considered and recommended by the report should be required to be complied with via a condition of any consent granted for the development.

Any risks from technological hazards.

No risks from technological hazards have been identified in the assessment of this proposed development

Whether the development provides safety, security and crime prevention.

Chain-wire security fencing is proposed to be located on the perimeter of the site. Section 3.11 of Chapter 75 – Industrial Development requires security fencing to be located to the rear of the landscape works provided in the front building setback. The objective of this requirement is to allow security fencing to be installed but to also ensure that such fencing does not detract from the appearance of the development.

In any consent that is granted a condition should be applied that requires the location of any security fencing along the Apprentice Drive frontage and along the eastern boundary to be sited within the site behind the existing 25-metre-wide and 10-metre-wide vegetation buffers.

In addition, the applicant is proposing access gates, security cameras, and lighting to deter crime with the main areas to be lit being within the building and those areas designated for pathways, vehicle access and parking.

Any social impact in the locality.

The establishment of this major industry will provide employment for significant numbers of local residents which must be considered to be a positive social impact on the locality.

Any economic impact in the locality.

The economic impact of the construction of this major development will be a boost for the local construction industry and must be considered a positive economic benefit for the locality. The permanent employment of over 50 local people and continuing employment for ancillary service support businesses is also considered to be a significant positive impact on the local economy.

Any impact of site design and internal design.

Compliance with restrictions-as-to-user

The site is burdened by a number of title restrictions that concern maintaining vegetation buffers, providing and maintaining a sewage pumping-station, maintaining a swale drain and, or, ensuring subsequent development does not concentrate flows onto the adjoining reserve, and limiting vehicular access from Apprentice Drive to one 20-metre-wide access across the 25-metre-deep vegetation buffer.

The application complies with the various restrictions (see discussion on stormwater management under the heading “Services” on Page 18 of this report) except for the twelfth restriction concerning the access from Apprentice Drive. The application proposes two separate 10-metre-wide vehicle access points from Apprentice Drive rather than the existing single 20-metre-wide access allowed by the title restriction. This restriction was a condition of the previous subdivision consent (DA/1574/2007/A) which created the subject lot. Council is the authority empowered to vary that restriction. The applicant has proposed the two separated access points to accommodate the limited turning ability of the large low-loaders transporting the turbine equipment and for safety reasons - to separate the large transport vehicles from vehicles driven by employees and visitors.

The lot was to be restricted to one access point to reduce the impact on the Apprentice Drive vegetation buffer but the applicant has provided a flora and fauna assessment that has determined that the additional access point will have no significant detrimental impact on the buffer. The report’s determination is on the condition that the access is constructed in the manner proposed in the flora and fauna assessment which is that the access be no more

than 10 metres wide and the crossing be a bridged culvert driveway. It is considered that the unused portion of the existing 20-metre-wide access, of which now only a 10-metre width will be needed, should be revegetated and this will be recommended as a condition of any consent.

It has also been noted by the Development Engineer that a drainage line is proposed to run from the eastern side of the nutrient pond northwards to a kerb inlet pit on Apprentice Drive at the north-eastern corner of the property. The position of the proposed drainage line appears to run through a substantial length (approximately 100 metres) of the 10-metre-wide eastern vegetation buffer. In such a location the construction of a drainage trench would cause significant disturbance to the existing substantial native vegetation.

Such disturbance is considered to be unnecessary as the drainage line can be sited closer to the eastern edge of the nutrient pond and entirely outside of the buffer except where it must cross to connect to the pit. Siting the drainage line outside the buffer (except where it must necessarily cross to connect to the pit) should be required as a condition of consent and the details should be amended in red on the approved plans that accompanying any consent that is granted.

This matter was discussed with the applicant who has agreed to this amendment of the plans.

Any impacts of construction activities (construction site management, protection measures).

In respect of construction activities, appropriate conditions are recommended to applied to any consent that is granted, requiring appropriate site management measures be put in place prior to construction occurring to ensure that soil erosion and sedimentation do not occur. These site management measures should be required to be maintained throughout the duration of the construction via a condition of consent.

Any cumulative impacts.

No cumulative impacts have been identified as a result of this assessment of the development proposal.

THE SUITABILITY OF THE SITE FOR THE DEVELOPMENT (s79C(1)(c)):

Whether the proposal fits in the locality.

The proposed turbine maintenance facility development is to be located within a modern general industrial park. The buildings are to be set among other, similar, modern industrial buildings where access and services have been developed to provide for such uses. It is considered that the buildings themselves would fit comfortably within the existing streetscape and would be a good addition to the character of the area. The types of employment likely to be offered by this development are of types that can likely be satisfied from within the local community. It is considered that the development will be a good “fit” within the locality.

Whether the site attributes are conducive to development.

The site’s attributes – the size of the site, its lack of slope, lack of significant vegetation, good public road access, availability of utility services, and lack of unmanageable hazards - make the site suitable for this type of development.

ANY SUBMISSION MADE IN ACCORDANCE WITH THIS ACT OR REGULATIONS (s79C(1)(d)):

Any submission from the public.

The application was not required to be advertised under the requirements of "Chapter 70 – Notification of Development Proposals".

Any submission from public authorities.

The application was not required to be referred to any public authority.

THE PUBLIC INTEREST (s79C(1)(e)):

Any Federal, State and Local Government interests and community interests.

It is in the local community's interest for developments to be located within the Shire that provide significant local employment opportunities for the community and that provide custom for small support services and businesses within the Shire. In addition, it is also in the community interest to facilitate the establishment of buildings within the Berkeley Vale Industrial Park to ensure the Park's continuing development and viability as well as the broadening of the services it provides.

OTHER MATTERS FOR CONSIDERATION

Contributions

As previously noted under the heading "Southern Lakes District Contributions Plan" there are no Section 94 contributions applicable for the erection of the proposed buildings. However, water and sewer charges are applicable as has been discussed under the heading "Clause 29 – Services" on Page 18 of this report.

Deeds of agreement etc.

There are no deeds of agreement involved in this application.

CONCLUSION

The applicant proposes to establish a generator turbine maintenance facility and head office on the subject site. Issues identified in the assessment of this application included the need to provide on-site stormwater management facilities, potential impact on an identified threatened species on an adjoining property, provision of adequate on-site car parking, compliance with the subject lot's title restrictions and bush fire hazard. All issues have been assessed as being appropriately addressed through the design and details of the proposed development, amendments being made to the plans, additional information being provided by the applicant and by recommended consent conditions. Accordingly, there is no objection to the proposal and development consent is recommended subject to the approved plans being amended in red as discussed in the report and subject to the recommended conditions that form an attachment to this report.

RECOMMENDATION

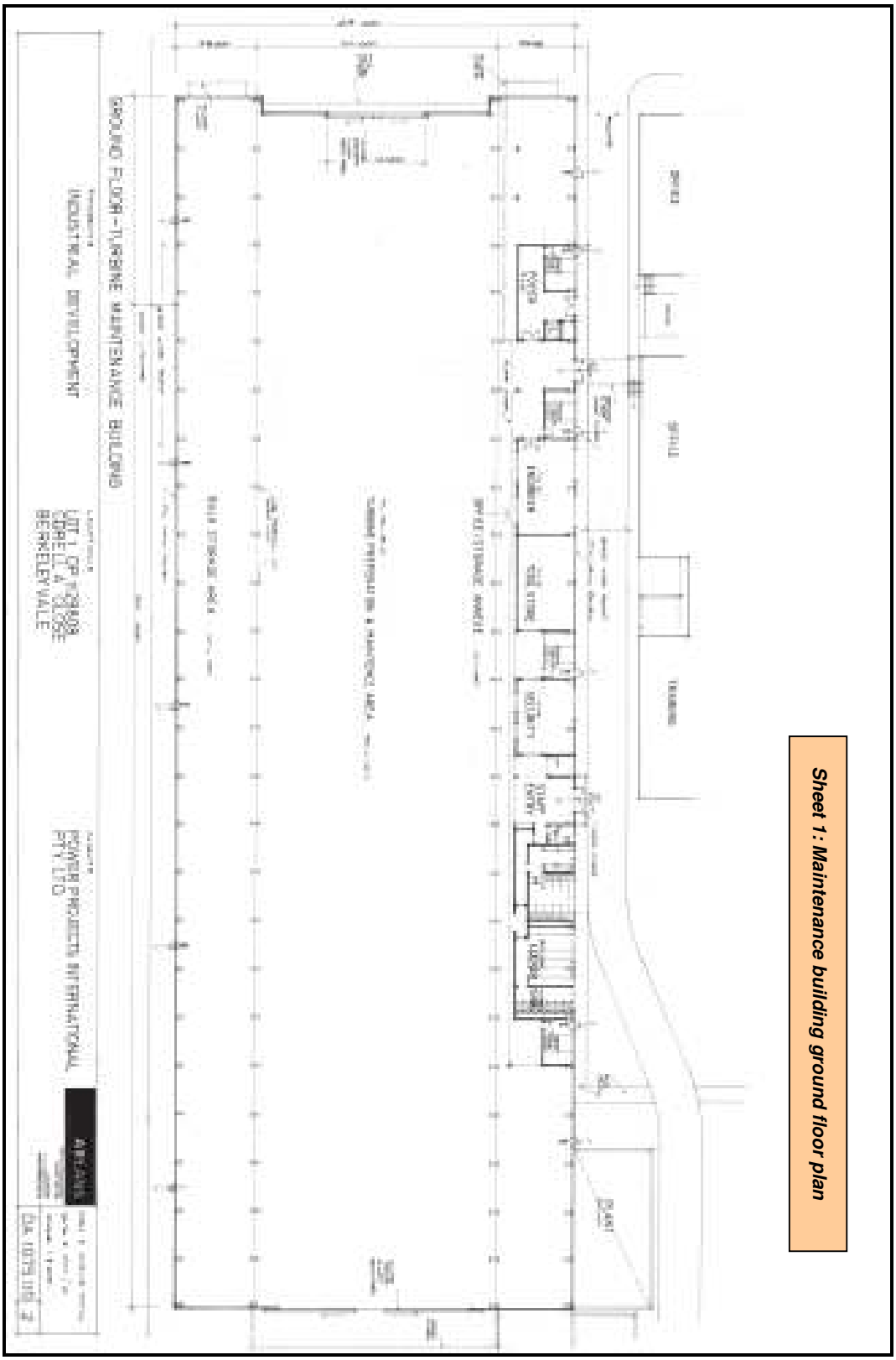
That the Joint Regional Planning Panel grant consent to DA/1541/2010 subject to the conditions contained in Attachment 4.

Attachment 1	***Plans of proposed development***
Attachment 2	***Comparison of Proposal to DCP Chapter 61 Requirements***
Attachment 3	***Comparison of Proposal to DCP Chapter 75 Requirements***
Attachment 4	***Draft Conditions of Consent***

The staff responsible for the preparation of the report, recommendation or advice to any person with delegated authority to deal with the application have no pecuniary interest to disclose in respect of the application.

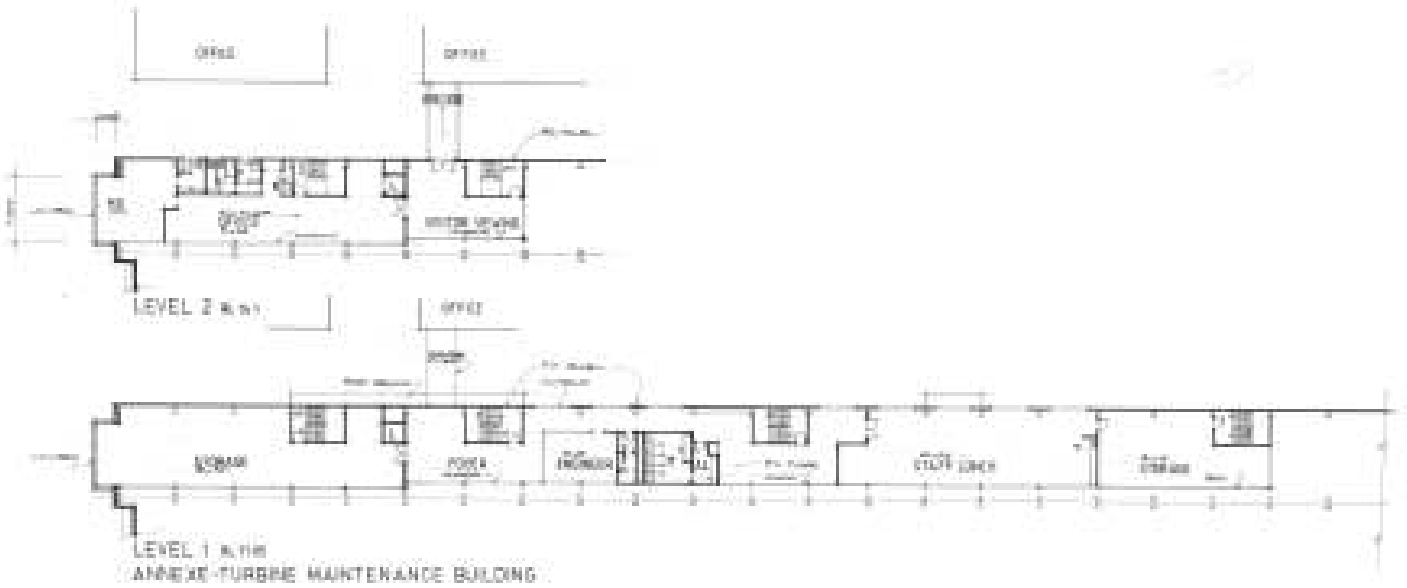
Peter Meloy	Peter Fryar
.....	.....
Reporting Officer	Reviewing Officer

ATTACHMENT 1
Plans of Proposed Development



Sheet 1: Maintenance building ground floor plan

Sheet 2: Maintenance building levels 1&2 floor plans



INDUSTRIAL DEVELOPMENT

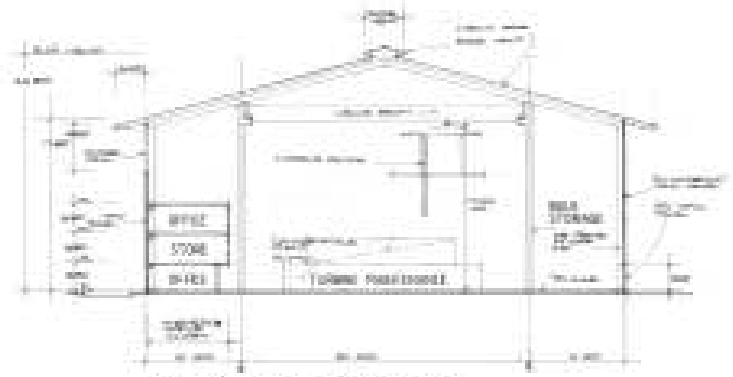
LOT 1 DP 1139808
CORELLA CLOSE
BERKELEY VALE

POWER PROJECTS INTERNATIONAL PTY LTD

4PLANS

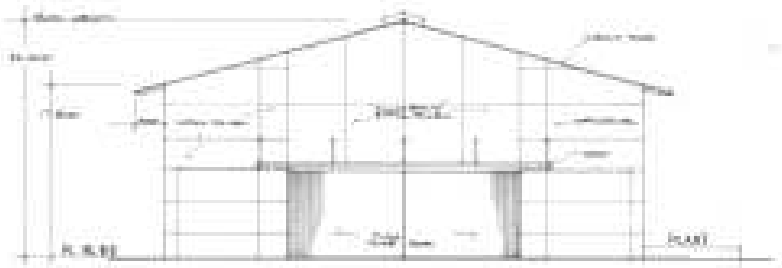
DA 1075/10 3

Sheet 3: Maintenance building elevations & section



SECTION TURBINE MAINTENANCE

NORTH ELEVATION
TURBINE MAINTENANCE BUILDING



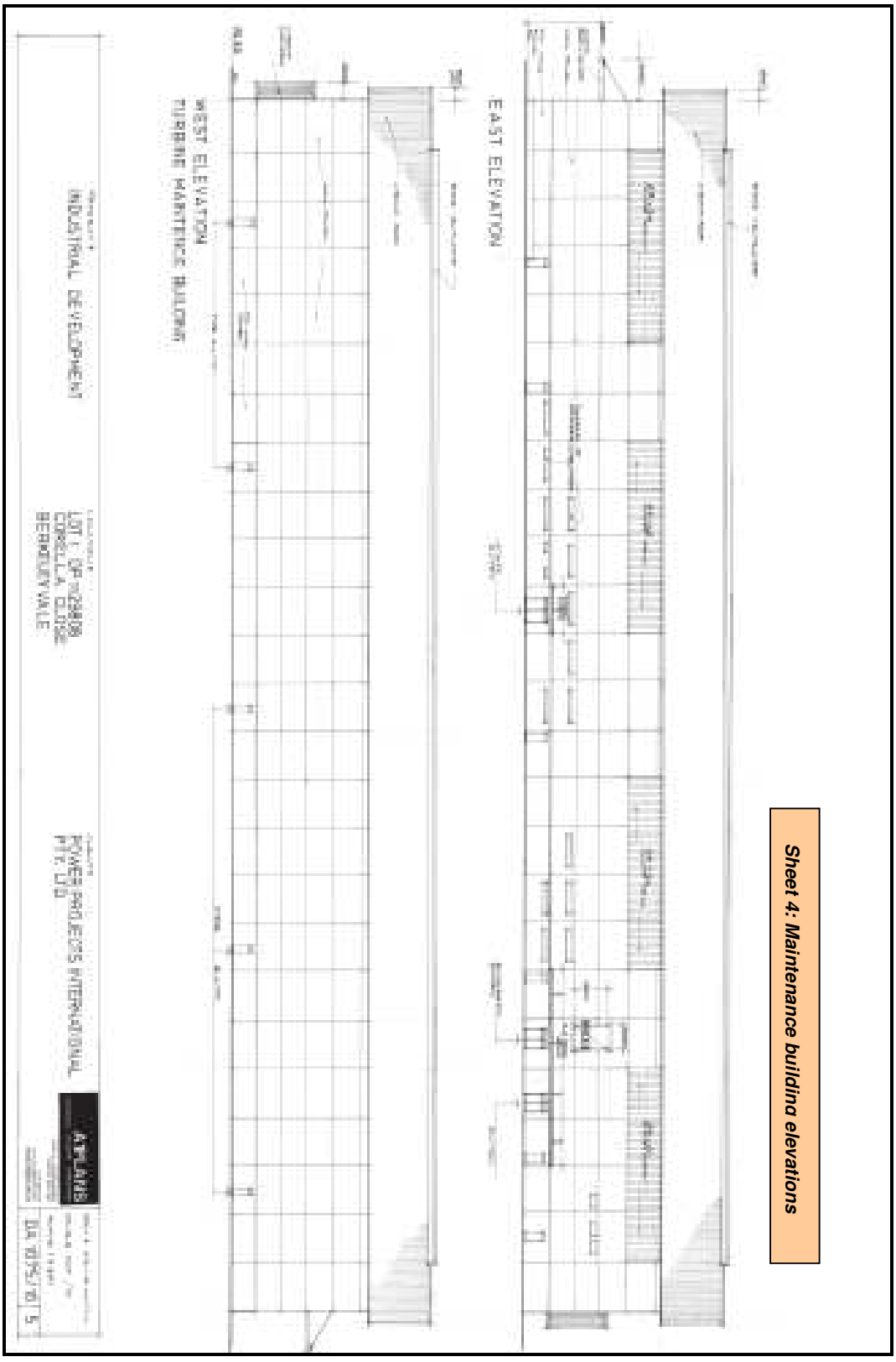
SOUTH ELEVATION

INDUSTRIAL DEVELOPMENT

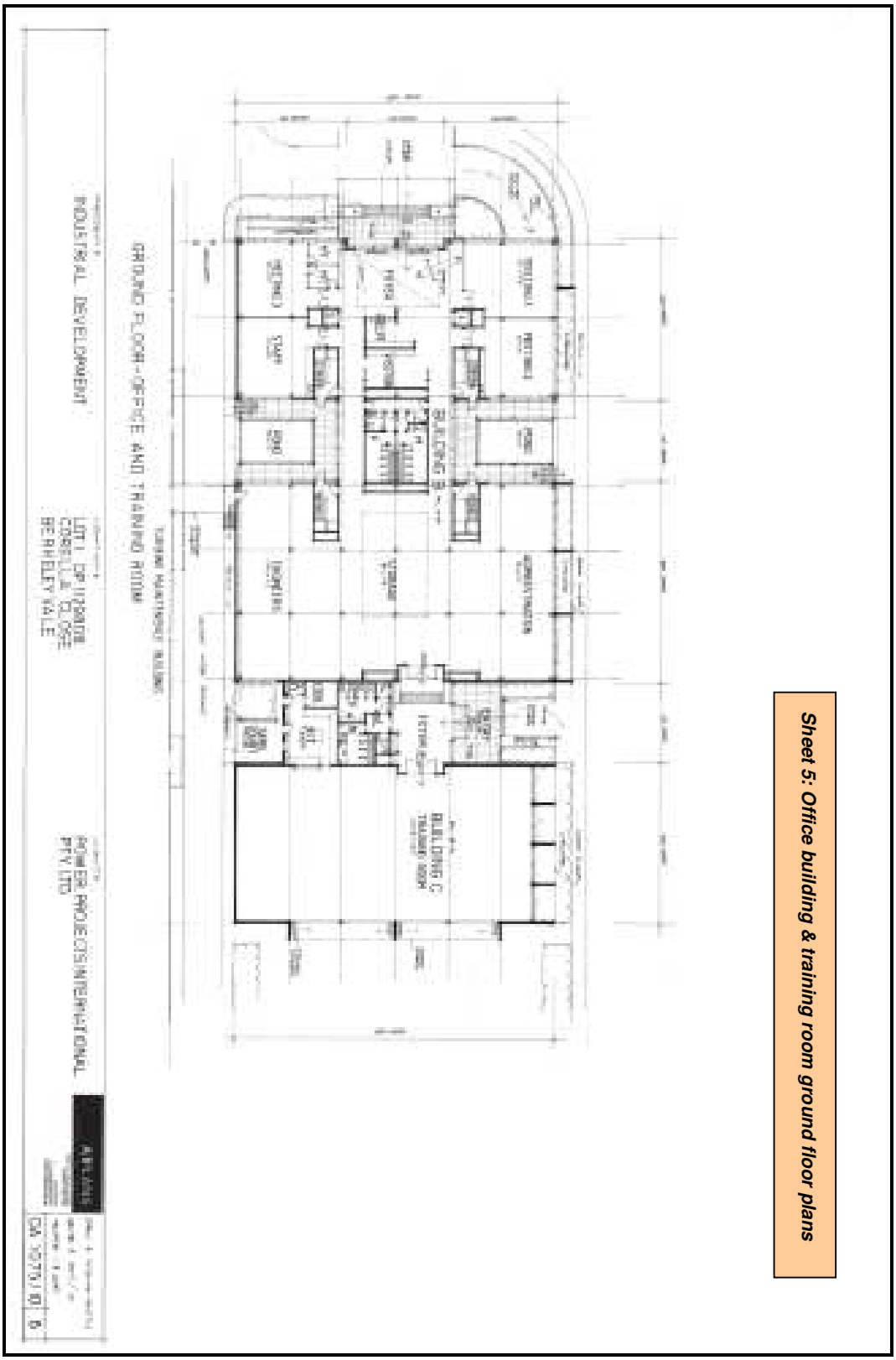
LOT 1 DP 1129809
CORELLA CLOSE
BERKELEY VALE

POWER PROJECTS INTERNATIONAL PTY LTD

DA 10751/07 A

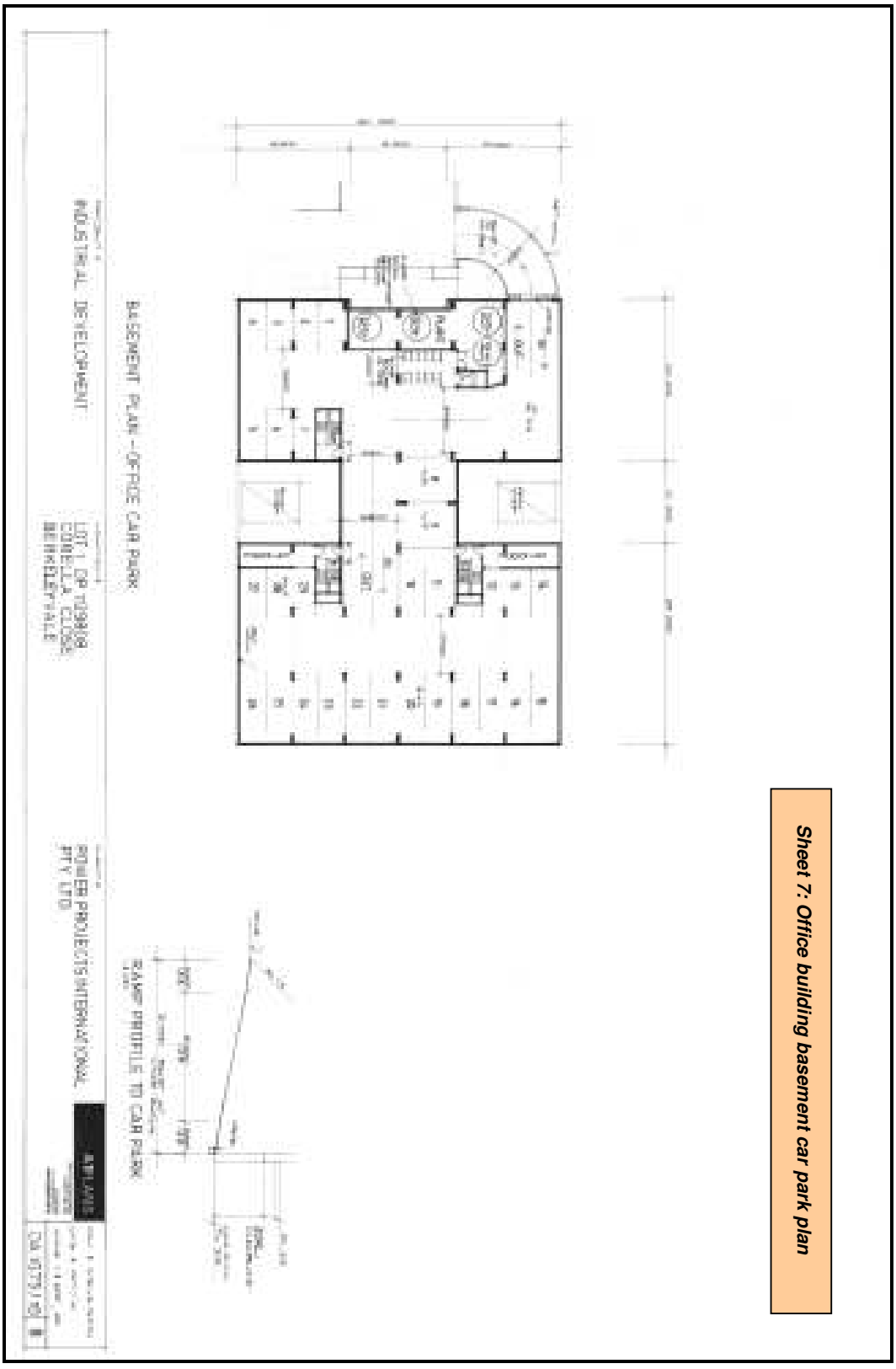


Sheet 4: Maintenance building elevations

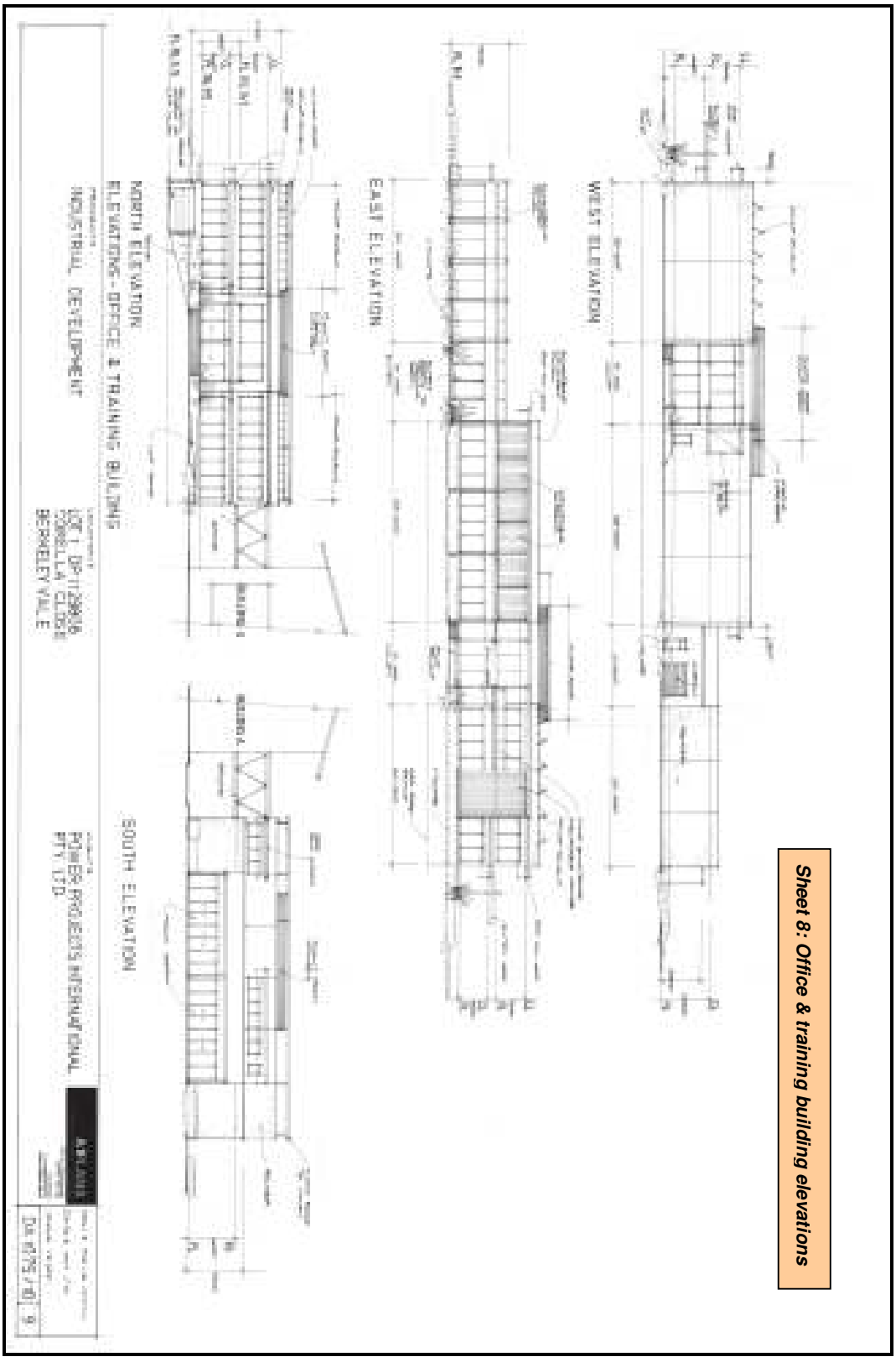


Sheet 5: Office building & training room ground floor plans

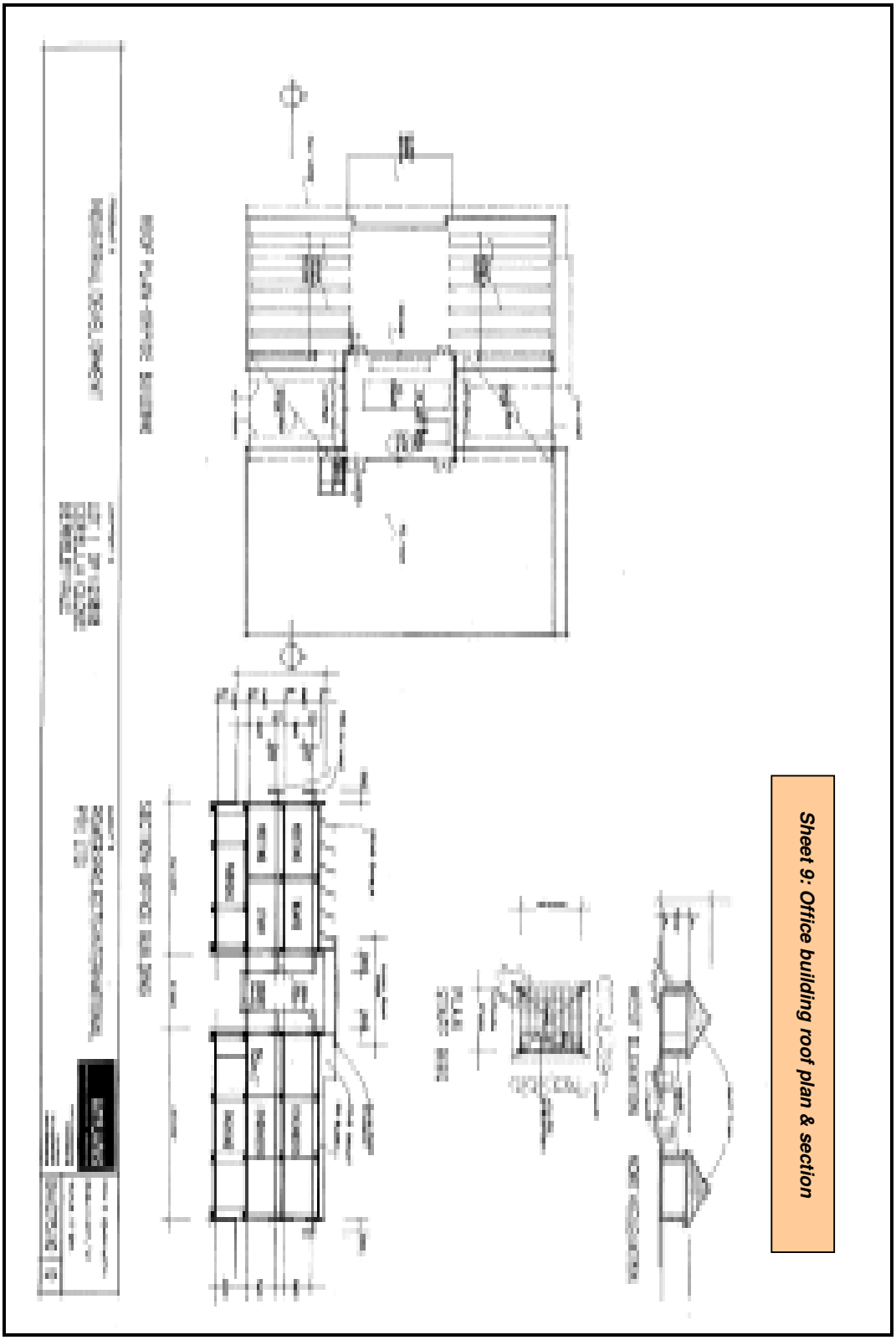
Sheet 6: Office building first floor plans



Sheet 7: Office building basement car park plan



Sheet 8: Office & training building elevations



Sheet 9: Office building roof plan & section

ATTACHMENT 2
Comparison of Proposal to DCP Chapter 61 Requirements

REQUIREMENT	PROPOSAL	COMPLIES
4.0 Shared Usage of Facilities Where shared facilities are proposed car parking rates may be reduced	Not relevant to proposal	N/A
5.0 Access for Disabled Disabled parking is to be provided adjacent to nearest access to building and comply with relevant Australian Standard	Five disabled persons car spaces located immediately adjacent to head office foyer and disabled persons parking will be required by consent condition to comply with current Australian Standard	Yes
6.0 Materials of Construction Materials and standard of construction shall be in accordance with Chapter 67 – Engineering Requirements for Developments	Will be required to comply be consent condition	Yes
7.0 Landscaping Parking areas are to be appropriately landscaped	Parking area proposed to be appropriately landscaped	Yes
8.0 Manoeuvring Development to be designed to allow entry and exit from the parking in a forward direction	Development designed to allow all vehicles to enter and exit site in a forward direction	Yes
9.0 Parking in Building Setbacks Various requirements	No parking within setbacks is proposed	N/A
10.0 Change of Use or Additions to Existing Development Various requirements	No change of use or additions to	N/A

	existing development proposed	
11.0 Dimensions of Parking Spaces • Open car parking spaces shall comply with Attachment 1 – "Minimum Dimensions" • Width of driveways for 90° open space may be reduced if the entry of the car parking space is increased • Enclosed spaces with turning areas of up to 6.7 metres width require a minimum opening of 3 metres. • Residential dwelling garages to have clear dimensions of 3 metres by 5.5 metres • Design standards can be relaxed for long-term parking	• Proposed open car parking complies • Not relevant to the proposal • Proposed basement car parking complies. • Not applicable • Not applicable	Yes N/A Yes N/A N/A
12.0 Loading Facilities • DAs for industrial developments shall identify loading/unloading facilities preferably inside buildings • Loading facilities shall comply with AS 2890.2 - 1989	• Loading and unloading of turbine equipment proposed to be conducted inside maintenance building • Will require by condition but should be able to satisfy standard	Yes Yes
13.0 Access Driveway Widths • Design shall comply with Australian Standard 2890.1 - 1993	• Will require by condition but should be able to satisfy standard	Yes
14.0 Signposting		

• Parking areas shall be signposted with standard signs and have “entry” and “exit” signs erected where appropriate.	• Will require by condition be should be able to satisfy requirement	Yes

Attachment 3
Comparison of Proposal to DCP Chapter 75 Requirements

DEVELOPMENT CONTROL	PROPOSED	COMPLIES
Floor Space		
• Floor space ratio: <0.8:1	• 0.45:1 (13,226m^2/29,480m^2)	Yes
Site Coverage		
• Site coverage: 50%	• 35.1% (10,355m^2/29,480m^2)	Yes
Setbacks		
• Front (Apprentice Drive): 10m	• Front (Apprentice Drive): 40m	Yes
• Front landscape area: 5m	• Front landscape area: 25m	Yes
• Side boundary: 5m	• Side boundary: 6m (min.)	Yes
• Rear boundary: 5m	• Rear boundary: 22m (min.)	Yes
Design and Appearance		
Building designs are to present innovative and attractive architectural solutions	Design of all three buildings are innovative and very attractive architectural solutions (see Figures 3, 4 & 5 on Pages 6 and 7 of this report)	Yes
Office component of industrial buildings is to be of masonry and glass	Head office (Building B) pre-dominantly finished in rendered masonry and glass. Maintenance building to be constructed of combination of pre-cast concrete panels, pre-finished infill panels and feature glazed highlight walls	Yes
Corrugated iron shall not be used as predominant wall cladding	Corrugated iron not proposed to be used	Yes
All other metal cladding to be suitably painted.	Colorbond sheet metal to be used on roof.	Yes

Long blank walls on street frontages to be avoided or screened by landscaping	Apprentice Drive façades of Building A and B are well designed and articulated but is also set back over 35m from Apprentice Drive and partly screened by existing native vegetation in retained vegetation corridor	Yes
Important parts of building such as corners, entrances, building base and roof should	Building A and B entrances and bases are emphasised and each roof articulated (see Figures 3, 4, and 5 on Pages 6 and 7 of this report)	Yes
No service plumbing or pipes shall be external to the building and be visible from a public place.	Only downpipes will be external to the building and be visible from a public place	Yes
Applicants must provide details of the colours that proposed. Colours should draw on indigenous colour palette	Provided and complies. See proposed colours shown in Figures 3, 4 and 5 on Pages 6 and 7 of the report.	Yes
Articulated parapets and cornice lines should emphasise the top of building combining to create a cohesive design and appropriate scale for overall facade	See Figures 3, 4, and 5 on Pages 6 and 7 of this report. The buildings are considered to be of high architectural quality.	Yes
Air conditioning, roof-top pergolas, lift over-runs, telecommunications and other roof-mounted equipment which protrude above the roof line are not permitted.	Applicant proposes plant, equipment and solar panels on roof. Plant and equipment screened by louvres and positioned in centre of roof so not readily visible and do not appear above roof line when viewed from public place. Solar panels considered architectural feature.	Yes
Building Over and Adjacent to Sewer Mains		
Where a building is proposed to be located over a sewer main the main must be encased in reinforced concrete	Proposed buildings will not be built over or adjacent to any sewer mains	Yes
Thematic Links		
Where site is part of an industrial estate development, the design of the buildings, external fixtures (such as lighting), signs and landscaping matches or complements adjacent buildings and overall theme of estate.	Site is a “stand-alone” development within an industrial park. The buildings are compatible with nearby industrial developments and set a high standard for future developments on land between the site and Corella Close.	Yes
Car Parking and Turning Movements		

Car parking is met on site and adequate manoeuvring areas are available on site to permit the forward entry and exit of vehicles	See discussion on on-site car parking under the heading "Chapter 61 – Carparking". All vehicles able to manoeuvre on-site and enter and exit the site in a forward direction.	Yes
Carparking areas are to be screened and softened by mounding and landscaping to soften impact.	Car parking areas are proposed to be landscaped and screened. Main staff car park well sited behind buildings	Yes
Design provides for safe movement of all vehicles by providing adequate sight distances	Heavy vehicle access/exit has been separated from staff and visitor vehicle access and exit. Adequate sight lines have been provided.	Yes
Movement of pedestrians throughout the car park is clearly defined and minimises conflict with vehicles	Pedestrian access from ground-level car park is via a pathway which leads to the front and rear entry foyer of office building and to the turbine maintenance building	Yes
Disabled persons parking spaces are to be located near entrances to buildings, lifts and access ramps	Five disabled persons car spaces located at front of site immediately in front of office building entry	Yes
Major industrial developments shall make adequate provision for bicycle parking	12 bicycle parking places provided in basement car park	Yes
Off Street Loading / Unloading		
Developments are to comply with Chapter 61 requirements	Complies. See Section 12.0 in Attachment 2 on Page 48 of this report	Yes
All loading and unloading areas to be screened from the street	Loading areas not visible from street – at rear of maintenance building	Yes
Loading/unloading areas and parking areas to be separated	Complies, the two areas are separated	Yes
Appropriate bunding to be provided for loading or unloading of dangerous goods.	Dangerous goods not to be loaded or unloaded	Yes
Storage Areas		
Storage areas to be sited so they are not visible from outside the site	Storage areas proposed to be located within the buildings	Yes
Storage areas not to be located within front setback areas	Storage areas proposed to be located within the buildings	Yes
Site Landscape Works		
Site landscaping plan and report to be provided by Category 3 designer	See discussion under heading "Landscape Policy and Guideline"	Yes
Species selection should complement estate landscaping theme.	No theme but selection appropriate to enhancing existing native vegetation corridors	Yes

Trees should of appropriate size and maturity to mitigate size of industrial buildings	Existing native vegetation corridors on Apprentice Drive and Corella Close appropriately screen proposed industrial development	Yes
The provision of buffer areas to protect adjacent wetlands	Not relevant because there is no wetland adjoining the development but a 10m-wide vegetation buffer protects adjoining habitat for Green Thighed Frog. Buffer to be extended through additional landscaping	Yes
Security Fencing		
Details of security fencing to be included in development application	Details provided: black nylon-coated chain wire security fencing 2.1 metres high will be placed on western and southern boundaries. Same for northern and eastern boundaries but integrated with landscaping.	Yes
Security fencing is to located to rear of landscape works provided within the building setback	Conditions will require northern and eastern fencing to be at rear of vegetation corridors	Yes
Lighting		
Lighting details to be provided in the development application	Details provided in SEE	Yes
Lighting to be designed so as not to cause light spill onto adjoining properties	Applicant advises that lighting to be designed by electrical engineer to ensure no spill onto adjoining properties. Will require a consent condition	Yes
Lighting powered by solar batteries is encouraged	Not proposed but solar powered to be generated from 180 solar panels	N/A
Site Signs		
Signs to comply with Chapter 50 – Advertising Signs in Wyong DCP 2005	Signs comply – see discussion under heading “Chapter 50 – Advertising Signs” on Page 21 of this report	Yes
Where factory units are proposed a directory board should be provided	Not relevant – no factory units proposed	N/A
No signage shall present to a freeway or State road	Proposed signs do not present to a freeway or to a State road	Yes
Flooding and Stormwater Management		
Soil and Stormwater Management Plans shall be submitted with the development application	Soil and Stormwater Management Plans submitted.	Yes
Compliance with requirements of Chapter 67 – Engineering Requirements for Developments of Wyong DCP 2005	Will comply through consent conditions	Yes

Inclusion of relevant requirements of Council's Policy F4 Flood Prone Land Development	Land not identified as flood prone land	N/A
The provision of a proprietary Gross Pollutant Trap to protect receiving waters	GPTs proposed to be installed as part of overall stormwater management which includes nutrient removal system to protect downstream habitat of Green Thighed Frog	Yes
Water Efficient Construction and Development		
Stormwater to be reused as much as possible	Four 22,000-litre rainwater tanks to be provided and collected rainwater to be used for toilet flushing and landscape watering	Yes
Natural watercourses and vegetation to be retained and stormwater to be used for irrigation purposes	Existing vegetation buffers to be maintained and stormwater management system designed to have no impact on existing hydrology	Yes
Rainwater storage is to be provided and shall be incorporated into design – not to be located in front setback area or be visible from any public place	Proposed rainwater tanks are to be sited in sub-basement level so that they are not visible from the street or any other property	Yes
Rainwater tanks be fitted with "first flush" devices	Proposed to be fitted	Yes
Tanks to be installed in accordance with relevant Australian Standard	Will be required by consent condition	Yes
"AAA"-rated dual-flush toilet cisterns to be installed	Proposed to be installed	Yes
"AAA"-rated urinals to be installed	Required by consent condition if installed	Yes
"AAA"-rated showerheads to be installed-	Proposed to be installed	Yes
"AAA"-rated aerators shall be installed on all bathroom and kitchen hand basin fixtures	Proposed to be installed	Yes
Compliance with DCP Chapter 67 – Engineering Requirements	Will comply	Yes
Energy Efficient Construction and Development		
Developments to be designed and constructed having regard to energy-efficient materials, lighting, heating and cooling	Energy report prepared concluding that development will meet or exceed the energy provisions of Section J of the BCA 2010.	Yes

New buildings to be oriented to make best use of passive solar heating	Site does not lend itself to such orientation but it is noted that western façade of maintenance building has few openings and that eastern façade of office building has screenings on all glazing	Yes
Glazing on north to be maximised while glazing on western façade to be minimised	Design reasonably achieves this design feature	Yes
Building materials and insulation to be used in thermal performance	Insulation proposed in construction	Yes
Hot water systems to be greenhouse gas-friendly systems (3.5 SEDA Hot Water Greenhouse Score)	Will require by consent condition	Yes
Energy efficient appliances and lighting to be used	Will require by condition of consent	Yes
Larger sites should use renewable energy resources for lighting	Proposal includes the establishment of 185-watt photovoltaic solar panels which will generate 133kW of renewable energy per day to partly offset the development's energy use	Yes
Air Quality and Odour Control		
Industrial development likely to cause air pollution and odours are to be located away from residential areas	Development not likely to cause air pollution but is not sited near any residential area	Yes
Best practice techniques to be used to reduce any impact	Not relevant to proposal	N/A
Where odours proposed to be released an odour impact assessment shall be undertaken	Not relevant to proposal	N/A
No point of air pollution discharge is to be within 300m of nearest dwelling	Not relevant to proposal	N/A
Where facility will exceed EPA odour performance criteria then mitigation strategies are to be investigated by proponent	Not relevant to proposal	N/A
Development shall comply with draft policy "Assessment and Management of Odour from Stationary Sources in NSW"	Not relevant to proposal	N/A
Noise Generation		
Industrial noise will not impact on amenity of nearest residential dwelling	Operational noise will be negligible as all works conducted within the buildings	Yes
Acoustic design principles to be incorporated into design	Design reasonably reflects these principles	Yes
Industrial development to comply with "NSW Industrial Noise" Policy	Given the nature of the development it should be able to easily comply	Yes

produced by the EPA in January 2000	with any noise emission standards or policies	
An acoustic report shall be submitted with the DA for an industrial development located within 50m of a residential dwelling	Proposed development located more than 50m from any residential dwelling	N/A
Fire Mitigation and Control		
All buildings adjoining bushland are to be designed and located to minimise bushfire hazard	Bush fire threat assessment prepared and found that design of buildings to be satisfactory subject to recommendations	Yes
Fuel management and bushfire hazard reduction to be implemented on site	Bush fire hazard assessment identifies defendable spaces and separation distances as adequate	Yes
Access for emergency vehicles provided and easily identified	Perimeter access round maintenance building provided easily identified	Yes
Water hydrants are clearly marked and accessible	Will be required by consent condition	Yes
Flammable materials to be stored in a manner to minimise risk of contact with fire	Will be required by consent condition	Yes
Flammable materials shall be stored in accordance with relevant guidelines of Department of Infrastructure, Planning and Natural resources and Workcover requirements	Will be required by consent condition	Yes
Waste Minimisation and Disposal		
A waste management plan (WMP) shall be submitted with the DA	WMP submitted with DA	Yes
Requirements for a WMP are identified in DCP Chapter 69	Management of waste will be required by consent condition to be in accordance with WMP and DCP 69	Yes
Reference should be made to "Specification for Supply of Recycled Material for Pavements, Earthworks and Drainage" produced by Resource NSW	Will require consideration as consent condition	Yes
Any industrial development application shall comply with SEPP No 55 and Wyong Shire Council Policy P1 – Potentially Contaminated Land	Site not identified as contaminated land	Yes
Benching (Cut and Fill)		
Development design should minimise site disturbance, effect on groundwater, disruption to natural drainage systems, impacts on services and structures, impacts on	The proposed development's design is considered to appropriately reflect these considerations	Yes

site access and removal of significant vegetation		
Details of cut and fill to be provided together with materials, height and drainage of any retaining walls	Details provided in application	Yes
Retaining walls to be of brick or masonry construction	Retaining walls to be of masonry construction	Yes
Retaining walls over 900mmm or subject to significant loads to be designed by a suitably qualified engineer	To be required as consent condition	Yes
Retaining walls located on boundaries shall not undermine or adversely affect integrity of existing retaining walls on adjacent sites	No retaining walls proposed on boundaries	N/A
Communications Infrastructure		
Details of proposed communication infrastructure to be provided in DA	Details provided in DA	Yes
Communications equipment such as radio towers, satellite dishes and roof-mounted equipment which protrude above the general roof line shall not be permitted except where the building is not visible from adjoining residential development or major viewing points or except where it is appropriately integrated into the design	Electricity and IT/communications infrastructure will be underground where possible. Communications infrastructure such as radio towers and satellite dishes are not required for this development. Any required roof-mounted equipment will be integrated into the design of the building and will not be visible from residential areas and major viewing points. Will be required as a consent condition.	Yes
Car Related Issues		
Traffic generated by the use shall not cause a demand greater than can be met by the local road network and on-site parking facilities	Traffic report provided with DA. Report concludes that local road network and on-site parking can adequately serve the proposed use	Yes
Compliance with Council's DCP Chapter 61 - Parking	Proposal does not comply with on-site car parking required by Chapter 61	No, see comments on Pages 22 to 24 of the report
Brothels		
Compliance with DCP Chapter 71 – Location Criteria for Brothels in Wyong Shire	Not relevant to proposal	N/A
Non-Conforming Existing Uses and Refurbishment of Existing Premises		

Comply with BCE and Wyong DCP 2005	Not relevant to proposal	N/A
Design for safety		
Clear sightlines are maintained over public and private spaces	All areas are visible within property	Yes
There is effective lighting of key points	Adequate exterior lighting proposed to enhance security and safety	Yes
Landscaping does not provide potential hiding places	Landscaping to be appropriately maintained to reduce opportunity for hiding places	Yes
Landscaping channels pedestrians into target areas	Perimeter and pathway landscaping channels people to target areas such as foyer, car park and amenities area	Yes
Clear transition and boundaries between public and private spaces	Boundaries between public and private areas fenced and landscaped	Yes
Spaces designed and managed to enforce cleanliness, rapid removal of graffiti and vandalism, replacement of burned-out or defective lighting and refurbishment of degraded physical elements, finishes and landscaping	Will require by consent conditions	Yes
Appropriate security is provided	Development will have security cameras, external lighting, access gates and perimeter fencing	Yes
Public spaces not to be made into private spaces through gates and enclosures	Not relevant to proposal	N/A
Disabled Access		
To comply with BCA	Can comply and will be required as consent condition	Yes
To comply with AS 1428.1 – Design for access and mobility – General requirements for access	Can comply and will be required as consent condition	Yes
To have regard for Disability Discrimination Act, 1992	Require as condition of consent	Yes
Child Care Centres and Ancillary Uses		
To comply with BCA and DCP Chapter 62 – Home and Centre Based Child Care	Not relevant to proposal	N/A
All child care services to be licensed	Not relevant to proposal	N/A

ATTACHMENT 4
Conditions of Consent

Approved Plans

1 The development is to be undertaken in accordance with the approved development plans and specifications, reference numbers Site Plan DA 1075/10 Sheet 1, Ground Floor – Turbine Maintenance Building DA 1075/10 Sheet 2, Annexe – Turbine Maintenance Building DA 1075/10 Sheet 3, Elevations – Turbine Maintenance Building DA 1075/10 Sheet 4, Elevations – Turbine Maintenance Building Sheet 5, Ground Floor – Office and Training Room DA1075/10 Sheet 6, First Floor – Office Building DA 1075/10 Sheet 7, Basement Plan – Office Car Park DA 1075/10 Sheet 8, Elevations – Office & Training Building DA 1075/10 Sheet 9, Roof Plan – Office Building DA 1075/10 Sheet 10 prepared by A1 Plans and dated October 2010, Concept Landscape Plan Drawing No.03210 Sheet 1 of 1 prepared by Urban Sanctum, dated 14 November 2010 and certified by Urban Exotic and Stormwater Plan Job No. 586/10 Sheets 1, 2, 3, 4 and 5 prepared by Careme Holdings Pty Ltd, dated November 2010 except as modified by any conditions of consent and any amendments in red as listed below:

- Sheets 1 and 2 of the Stormwater Plan Job No. 586/10 prepared by Careme Holdings Pty Ltd are amended in red in the following manner:

    A. The drainage line located on the eastern side of the proposed detention and nutrient pond and running north to intercept a kerb inlet pit on the site's north-eastern boundary corner is to be relocated so that it runs northwards outside the area of the 10-metre-wide native vegetation buffer until it must cross the buffer via the shortest distance to connect to the pit.

Construction Certificate

2 A Construction Certificate is to be issued by the Principal Certifying Authority prior to commencement of any works. The application for this Certificate is to satisfy all of the requirements of the Environmental Planning and Assessment Regulation 2000.

PRIOR TO ISSUE OF THE CONSTRUCTION CERTIFICATE

Acid Sulphate Soils – Management Plan

3 Submission to the Consent Authority of an Acid Sulphate Soil Investigation and Management Plan, prepared by a suitably qualified person, prior to issue of the Construction Certificate.

Bush Fire – Building Design

4 The design of all buildings shall comply with the recommendations of "Bushfire Assessment Report" prepared Daniel Smith, Environmental Consultant, and submitted with the development application. In particular, the buildings shall provide adequate ember protection as detailed in Section 4.4 of the report.

Certificates/Engineering Details

5 A Construction Certificate application for this project is to include a list of fire safety measures proposed to be installed in the building. Should Council not have any record

of the existing fire safety measures in the building or on the land a separate list of these existing fire safety measures is to be submitted. The lists must describe the extent, capability and basis of design for each measure prior to the issue of a Construction Certificate.

6 Satisfactory structural plans prepared by a suitably qualified Structural Engineer must be submitted to the Principal Certifying Authority for the structural steelwork and concrete prior to the issue of a Construction Certificate.

7 All proposed load bearing retaining walls and structures are to be designed by a practising Civil/Structural engineer in accordance with AS4678, AS3600, AS1170 and other relevant codes and standards. Details are to be approved by the Principal Certifying Authority prior to issue of a Construction Certificate.

Building Energy Efficiency – Design and Approval

8 The design of the buildings shall comply with the recommendations on Page 3 of Briefing Report for BCA 2010 Section J1, 2 & 3 Compliance, prepared by Building Sustainability Assessments, submitted with the development application.

Ecology/Trees

9 Prior to the issue of any Construction Certificate or commencement of works (which ever occurs first), the applicant is to engage a suitably qualified and experienced ecologist, arborist and soil erosion professional to supervise the vegetation clearing and construction of each stage of the development and to ensure and certify to Council that the trees and vegetation proposed for retention are adequately protected during works. Evidence of this engagement is to be forwarded to Council prior to the issue of a Construction Certificate or the commencement of works. The ecologist and arborist are to provide reports to Council for review, certifying how the proposal is meeting tree retention and protection requirements following completion of the following stages of the development:

- Following the marking of vegetation and trees to be retained, marking of any habitat trees in the vicinity of the proposed access way from Apprentice Drive and erection of required tree protection fencing along the boundaries of the native vegetation buffer zones (and prior to the issue of a Construction Certificate or commencement of works).
- Following induction of each civil contractor and subcontractor.
- Following initial clearing, removal of any habitat trees and levelling of the site.
- Following provision of internal roads and services.
- Following construction of the detention and nutrient pond.
- Following completion of each construction phase (and prior to the issue of an Occupation Certificate.

10 Prior to the issue of any Construction Certificate, trees and native vegetation to be retained within the native vegetation buffer zones and those approved for removal are to be clearly identified on all the final engineering plans. All fenced tree protection areas and are to be clearly marked as "No Go Area" on all plans.

11 Prior to the issue of any Construction Certificate or commencement of works (which ever occurs first) the applicant must prepare and submit to Council and obtain approval for a Habitat Restoration Plan (HRP) for the 25-metre-wide native vegetation buffer zone along the northern boundary and the 10-metre-wide native vegetation buffer zone along the eastern boundary, as identified on the approved plans. The HRP is to be prepared by a suitably qualified and experienced ecologist or bush regenerator. The primary objective of the plan should be weed management, regeneration of native vegetation, restoration of frog habitat and if necessary, replanting. Implementation of the HRP must commence immediately following issue of the Construction Certificate or the commencement of works, whichever occurs first. In preparing and implementing the HRP the following criteria must be addressed:

- A suitably qualified and experienced professional bush regeneration contractor is to be engaged to carry out any revegetation planting, restoration and maintenance weed control specified in the HRP. The minimum qualifications and experience required for the bush regeneration contractor are a TAFE Certificate 2 in Conservation and Land Management and three years' demonstrated experience (for site supervisor) and a TAFE Certificate 2 in Conservation and Land Management and one year's demonstrated experience for other personnel. In addition the site supervisor is to be eligible for full professional membership of the Australian Association of Bush Regenerators (AABR).

- A site plan must be prepared at an appropriate scale, clearly showing the area to which the HRP applies, existing vegetation, management zones and extent of dominant weed infestations.

- A description of existing native vegetation, proposed methods of frog habitat restoration (including small ponds at either ends of the culverts) and methods of vegetation regeneration must be provided. In particular, detailed rehabilitation methods and a planting schedule must provide for areas adjoining the approved access crossings to Apprentice Drive shown on the approved plans. Rehabilitation of the unused portion of the eastern access way to Apprentice Drive must include removal of existing fill and replacement with good quality deep topsoil suitable for the site. Any plant stock used in revegetation must be supplied from provenance-specific seed/material collected from within the Tuggerah Lakes catchment area. Seed/plant sources should be identified. Non-provenance material or non-endemic species is prohibited.

- A schedule of works must be prepared detailing the sequence and duration of works necessary for the regeneration, any revegetation and maintenance works for each management zone. All primary weed control must be undertaken in the first year following commencement of the HRP, with follow-up weed control undertaken in the second and third year following commencement of the HRP.

- The location and type of permanent fencing, bollards or similar to prevent unauthorised access, vegetation removal, rubbish dumping, storage of materials or encroachment into the buffer zones from the development must be specified in the HRP and installed prior to issue of an Occupation Certificate. No barbed wire is permitted.

- The mulch/tubgrindings generated from the removal and thinning of native vegetation associated with the development is/are to be re-used in restoring the buffer areas as required.

- Any natural hollows removed by the development are to be placed wherever possible as ground hollows within buffer zones under the supervision of the ecologist.

- The use of insecticides and herbicides within the subject site should be avoided where possible, otherwise biodegradable pesticides should be used sparingly.
- Strict hygiene protocols must be implemented to minimise the risk of spread of flora or fauna pathogens during construction, in particular Exotic Rust Fungus, Phytophthora and Chytrid Fungus.

- Restoration areas are to be maintained for a minimum of three years. Monitoring reports are to be prepared by the ecologist or bush regenerator and submitted to Council detailing the progress of the restoration twice per year and any recommended additional actions, with a final report certifying completion of the HRP at the end of the three-year period or once the specific objectives of the plan have been met. Photo monitoring-points and method of performance evaluation must be identified in the HRP for future for monitoring and reporting purposes. Annual monitoring for the Green Thighed Frog must be conducted for a minimum of three years surrounding the Apprentice Drive access ways and detention basin in accordance with Department of Environment and Climate Change (2009) 'Threatened species survey and assessment guidelines: field survey methods for fauna: Amphibians'. Any recommended additional actions must be completed to the satisfaction of Council prior to lodgement of the final report.

Erosion and Sediment Control – Design and Approval

12 Prior to the issue of a Construction Certificate, the submission to the Principal Certifying Authority of design plans for the control of soil erosion on the site and the prevention of silt discharge into drainage systems and waterways in accordance with Council's Policy E1 - Erosion and Sediment Control from Building Sites or "Soils and Construction – Managing Urban Stormwater" (Blue Book) The design plans must be approved by the Principal Certifying Authority or an appropriately Accredited Certifier prior to issue of the Construction Certificate.

Dilapidation – Public Assets

13 A dilapidation report must be submitted to Council as the Roads Authority prior to the issue of the Construction Certificate. The report must document and provide photographs that clearly depict any existing damage to the road, kerb, gutter, footpath, driveways, water supply, sewer works, street trees, street signs or any other Council assets in the vicinity of the development.

Dust Control

14 Appropriate measures shall be employed by the applicant/owner during excavation and construction works to minimise the emission of dust and other impurities into the surrounding environment to the satisfaction of the Consent Authority.

Filling and Haulage

15 Prior to the issue of a Construction Certificate, the submission to and approval by Council, as the Roads Authority, of details for the disposal of any spoil gained from the site and / or details of the source of fill, heavy construction materials and proposed routes to and from the site.

Landscaping – Amendments to Design and Approval

16 Prior to the issue of a Construction Certificate, the submission to and approval by the Principal Certifying Authority of the approved landscape plan prepared by Urban Sanctum Landscape Designers and certified by Urban Exotic, Sheet 1 of 1 Drawing No.03210 dated 14/11/2010 that includes the following amendments, practices and notes:

- Tree protection fencing is to be in place for all vegetation corridors along Apprentice Drive and within the subject property. Tree protection fencing is to consist of:

    - The protection of trees retained on site by fencing in accordance with Australian Standard 4970 2009. The fencing is to consist of 1.8 metre chain wire interlocking fencing. Such protection measures must be installed prior to commencement of any works and maintained in good order for the duration of the works. No cement waste, materials or vehicles are to be stored within the protective fence area.

- The management protocols and requirements within these conditions relating to tree and vegetation retention, protection and rehabilitation are to be included in all contract documentation, plans and specifications used by each civil contractor and sub-contractors.

- All tree species are to be minimum 75 litre and shrubs ground covers to be tube stock/5 litre.

- Provide an alternative species to Eucalyptus caesia as this species has not adapted well to this region.

- Small native trees on site that are less than three metres that are to be removed are to be mulched on site and used as ground cover within the proposed landscaping areas.

Location of Turbine Maintenance Building (Building A)

17 The turbine maintenance building is to be located a minimum of 6 metres from the site's western boundary.

Liquid Trade Waste Requirements - Approval

18 The submission of a trade waste application and subsequent approval by Council, as the Water and Sewer Authority, to discharge liquid trade waste into the sewerage system is required prior to the issue of a Construction Certificate.

19 The proposed sewerage pumping station will require the submission of a Private Pump Station Application which must be approved by Council's Trade Waste Section prior to the issue of a Construction Certificate.

Roads – Design and Approval

20 Separate approval from the Roads Authority must be obtained under the Roads Act 1993 prior to the issue of a Construction Certificate for any works within a Council road reserve. Design plans must be submitted to and approved by the Roads Authority prior to issue of the Construction Certificate.

21 Compliance with the relevant provisions and requirements of the Building Code of Australia. The provision of vehicular access crossings in Corella Close and the western access in Apprentice Drive in accordance with Council's Development Control Plan 2005, Chapter 67 - Engineering Requirements for Development and AS/NZS 2890.1 and 2. The design plans must be approved by the Roads Authority prior to the issue of a Construction Certificate and shall include:

1 The width of the access at the boundary shall be 10m wide to match to the internal access.
2 The access shall be splayed to 13m wide at the kerb line.

18 The provision of the eastern vehicular access crossing in Apprentice Drive in accordance with Council's Development Control Plan 2005, Chapter 67 - Engineering Requirements for Development and AS/NZS 2890.1 and 2. The design plans must be approved by the Roads Authority prior to the issue of a Construction Certificate. Width of the access shall be a minimum of 9m at the property boundary and 12m at the kerb line

19 The submission of a plan of management to Council for approval under the Roads Act/Local Government Act for any works for the development that impact on any public roads or public land for the construction phase of the development, prior to that section of work commencing. The plan is to include a Traffic Control Plan and/or a Work Method Statement for any works or deliveries that impact the normal travel paths of vehicles, pedestrians or cyclists or where any materials are lifted over public areas. This plan must be certified by an appropriately accredited/qualified person.

20 All internal footpaving and access design is to be in accordance with Council's Development Control Plan No 67 - *Engineering Requirements for Development* and AS1428.

21 The provision of culverts, small ponds and barrier fencing in the area of the access crossings in Apprentice Drive to accommodate fauna movements generally in accordance with the plans by Careme Holdings Pty Ltd No586/10–S1 and the recommendations listed on Page 33 of the 'Flora, Fauna and Threatened Species Assessment: Lot 1 Corella Close, Berkeley Vale, Wyong LGA, NSW' by Ecobiological, dated November 2010.

Stormwater – Design and Approval

22 The provision of a stormwater system with water quality control facilities required to treat stormwater runoff from the development in accordance with the following requirements and Council's Development Control Plan 2005 Chapter 67 – Engineering Requirements for Development. Design plans must be submitted to and approved by Council under section 68 of the Local Government Act 1993, prior to issue of a Construction Certificate. The design shall include :

- Piped drainage to cater for the 5%AEP stormwater event.
- Overland flow paths to cater for storm events greater than the 5% AEP event.
- The principles of Water Sensitive Urban Design may be applied in order to achieve water quality requirements.

- Pre-development flows shall match post-development flows up to the 1% AEP storm event for quantity, quality and duration to replicate the natural wetting drying cycles of Lot 32 DP 1045472.

- The pre-development 7-day high-flow duration frequency curve for all months up to the 50% AEP storm event must be maintained.

- Any drainage flows directed to the native vegetation buffer area shall be dissipated to replicate natural flows on to the area.

- Water quality modelling and all supporting calculations of proposed drainage system shall be submitted to and approved by Council prior to issue of the construction certificate.

- A suitably qualified and experienced Ecologist must be consulted when designing the detention and nutrient ponds to ensure that habitat for a range of frog species, in particular the threatened *Crinia tinnula* and *Litoria brevipalmata*, is incorporated. The Ecologist should oversee the project for the duration of the work.

- A planting schedule for the detention and nutrient ponds designed by a suitably qualified and experienced Wetland Ecologist. Plants must be endemic to and sourced from the Ourimbah Creek catchment and must be appropriate for the proposed application.

- The relocation of the proposed drainage line sited on the eastern side of the nutrient pond to outside the existing 10-metre-wide vegetation buffer until it reaches the site's north-eastern corner where it must cross the buffer to connect to the existing kerb inlet pit.

23 The submission and approval by Council of a groundwater risk management plan prior to the issue of the Construction Certificate. The plan shall:

a Define groundwater quality, levels and flow direction;
b Assess the risks of the development including construction works (trenching, excavations, etc) to groundwater flows to the Council wetland reserve (Lot 32 DP 1045472). The risk assessment shall include measures to mitigate any potential downstream impacts and ensure the existing groundwater characteristics are maintained.
c Include a groundwater monitoring program for parameters defined under item "a" above on a 6 monthly basis where impacts on groundwater are identified.

24 Works within the "No Go" areas to the north and east of the site must be approved by Council in accordance with DP 1129808. No drainage works shall be permitted within the "No Go" areas other than for short distances to cross the "No Go" area perpendicular to the alignment. All proposed works must be approved by Council prior to issue of the Construction Certificate.

Vehicle Access and Parking – Design and Approval

25 The design of the carpark and accesses in accordance with AS/NZS2890.1/2. The design compliant with AS/NZS2890. 1 and 2 is to be submitted to the Principal Certifying Authority prior to issue of a Construction Certificate. The design shall include:

- Designed for an 85%ile vehicle to pass a 99%ile vehicle at all bends and turns.
- Pavement marking and signage.
- The truck parking area is to be restricted to use by medium rigid vehicles.
- The rear carpark area shall provide turning areas at the end of each aisle. Alternatively landscaping shall be designed to allow for sighting of available car spaces.
- Disabled car spaces in accordance with AS 2890.6.
- Wheel stops on all carparking spaces.
- Pavement design to cater for the largest expected design vehicle
- Traffic control road humps shall be provided as per AS/NZS 2890.1
- Lighting shall be provided as per AS/NZS 2890.1.

26 The design of the basement carparking and access ramp in accordance with AS/NZS 2890.1. The design, compliant with AS/NZS2890.1, shall to be submitted to the Principal Certifying Authority prior to issue of a Construction Certificate. The design shall include:

- Pumped drainage in accordance with AS/NZS3500.
- Widening of car spaces where they are adjacent to a wall or solid structure.
- Widths of car spaces adjacent to high obstructions shall be widened in accordance with AS/NZS 2890.1 section 2.4.2 (c).
- Designed for an 85%ile vehicle to pass a 99%ile vehicle at all bends and turns.
- Minimum ramp width in accordance with table 2.2 of AS/NZS2890.1 plus an allowance for high obstructions.
- The control point shall be on a grade less than 5% for 1 vehicle length.
- Queuing length of minimum 9.6m at a maximum of 10%.
- Disabled car spaces in accordance with AS 2890.6.
- Wheel stops on all carparking spaces.
- Clearance signage at the basement carpark entrance.
- Clearance height in accordance with AS/NZS 2890.1 section 5.3.1.

Water and Sewer Services/Infrastructure – Design and Approval

27 All water and sewer works or works impacting on water and sewer assets are to be designed and constructed to the requirements of Wyong Shire Council as the Water Supply Authority under the Water Management Act 2000. The requirements of Section 306 of the Water Management Act, 2000 which apply to this development, are detailed in the Section 306 requirements letter attached to the consent. All works required in the Section 306 letter must be shown on the design plans. The design plans must be submitted to and approved by Council prior to the issue of a Construction Certificate.

PRIOR TO COMMENCEMENT AND DURING WORKS

Acid Sulphate Soils - Compliance

28 On completion of excavation works, submit documentary evidence to the Principal Certifying Authority to demonstrate compliance with the requirements of the Acid Sulphate Soils Management Plan.

Approved Plans

29 A copy of the stamped approved plans must be kept on site for the duration of site works and be made available upon request to either the Principal Certifying Authority or an officer of the Council.

Acoustic – Limits on Days and Hours of Work

30 Construction or demolition may only be carried out between 7.00 am and 5.00 pm on Monday to Saturday and no construction or demolition is to be carried out at any time on a Sunday or a public holiday.

Ecology/Trees

31 No tree (or other vegetation) other than those specifically notated on the approved engineering plan(s) as "trees to be removed' shall be felled, lopped, topped, ring-barked, uprooted, or otherwise wilfully destroyed or removed.

32 Prior to the commencement of works and during works the following protocols are to be implemented to ensure tree and vegetation protection:

- Trees and vegetation within the 25-metre-wide native vegetation buffer zone along the northern boundary and the 10-metre-wide native vegetation buffer zone along the eastern boundary are to be protected by the erection of 1.8 metre-high chain-wire interlocking fencing as per the engaged arborist and/or ecologist's direction, AS/NZ 4970:2009 Protection of Trees on Development Sites and Development Control Plan 2005, Chapter 67 - Engineering Requirements for Development. Fencing must be maintained in good working order for the duration of the works.

- All fenced tree protection areas and are to be clearly marked as "No Go Area" on the fencing itself.

- No clearing of vegetation or storage of vehicles or machinery, waste, fill or materials or unauthorised access is to occur within the fenced tree protection areas.

- The arborist and/or ecologist may require other habitat and/or trees to be protected via fencing from time to time. This fencing is to be erected at the appropriate root zone protection limits (as determined by the arborist and/or ecologist), prior to works being carried out around that particular habitat or tree.

- The management protocols and requirements within these conditions relating to tree and vegetation retention, protection and rehabilitation are to be included in all contract documentation, plans and specifications used by each civil contractor and sub-contractors.

- The ecologist and arborist are to induct each civil contractor and sub-contractor in relation to the importance of these ecological protocols as part of their site induction program prior to commencement of works. Certification of this induction must be provided to Principal Certifying Authority prior to commencement of works.

- Trees greater than three metres tall along Apprentice Drive and the eastern native vegetation buffer zone will require minimum setbacks where no excavation works occur. It is recommended that driveway and detention pond construction be created to provide minimal damage to the trees. Tree roots along the proposed driveway areas and detention pond are not to be severed during construction within the Structural Root Zone areas of the trees. The exclusion zone is to be two metres where no works occur along driveway entrances.

- All services, including water and electricity, must be located, designed and installed to minimise or prevent root damage to retained trees. Methods for the installation of services within the trees' canopy perimeter are contained within AS/NZ 4970:2009 *Protection of Trees on Development Sites* and Development Control Plan 2005, Chapter 67 - Engineering Requirements for Development and include under-boring and excavation by hand.

33 Trees containing trunk or branch hollows provide habitat and shelter to native wildlife. Removal of hollow-bearing trees is to be done under the advice and supervision of an experienced wildlife carer or ecologist who holds an appropriate licence to mitigate against any animal welfare issues. The wildlife carer or ecologist is to inspect all potential habitat trees prior to removal and identify evidence of fauna use. Should a threatened species be positively identified, all clearing works are to cease and the advice of Council or DECCW must be sought. When fauna are present, the animals are to be removed and suitably relocated by the ecologist prior to felling or the tree shall be sectionally dismantled under the supervision of the ecologist before relocating animals. Wildlife must be relocated locally to an area with adequate resources and provided with a nest box or relocated hollow under instruction from the licensed carer or ecologist.

Erosion and Sediment Control – Provision and Maintenance

34 The provision of soil erosion and silt controls on the site in accordance with Council's Development Control Plan 2005, Chapter 67 – Engineering Requirements for Development and/or Construction - Managing Urban Stormwater (Blue book) and the approved development plans prior to any works commencing on the site. Erosion and sediment control works are to remain in place until all disturbed areas are stabilised. **Note: On-the-spot fines may be imposed by Council for non-compliance with this condition.**

35 Sand and other materials that could potentially be washed off the site during rain periods are to be stored behind the silt control barrier. **Note: On-the-spot fines may be imposed by Council for non-compliance with this condition.**

36 The provision of a metal groyne/s or kerb inlet trap/s to the downstream drainage pit/s of the street drainage system to prevent any silt that may have left the site from entering the drainage system. The build up of silt and debris must be removed from the site on a daily basis. **Note: On-the-spot fines may be imposed by Council for non-compliance with this condition.**

37 The display of an appropriate sign to promote the awareness of the importance of the maintenance of sediment control techniques on the most prominent sediment fence or erosion control device, for the duration of the works. **Note: On-the-spot fines may be imposed by Council for non-compliance with this condition.**

38 Prior to commencement of works the provision of a single all weather access way incorporating a vehicle shake down device within the property, extending from the kerb and gutter to the building under construction, so as to provide appropriate access to the site which will reduce the potential for erosion to occur and for materials to be tracked onto the road by vehicles. A diversion drain is to be installed to divert runoff from the access way into a silt fence. These works are to be in accordance with the requirements of Council's Policy E1 - Erosion and Sediment Control from Building Sites. **Note: On-the-spot fines may be imposed by Council for non-compliance with this condition.**

Filling and Haulage

39 All fill is to be placed on site in such a manner that surface water will not be diverted to adjoining land and so that natural drainage from adjoining land will not be obstructed or affected.

General - Costs

40 The developer is responsible for any costs relating to alterations and extensions of existing roads, drainage, Council services and other services for the purposes of the development.

Other Authorities' Requirements

41 Other public authorities may have separate requirements and should be consulted prior to commencement of works in the following respects:

- Australia Post for the positioning and dimensions of mail boxes in new commercial and residential developments;
- AGL Sydney Limited for any change or alteration to gas line infrastructure;
- Energy Australia for any change or alteration to electricity infrastructure or encroachment within transmission line easements;
- Telstra, Optus or other telecommunication carriers for access to their telecommunications infrastructure.

Plumbing and Drainage - Inspections

42 Council as the water supply authority, or in unsewered areas where an onsite sewage management facility is to be installed, Council is to be notified to undertake inspections of the internal drainage, (prior to the pouring of the concrete slab), and external drainage prior to the backfilling of the trenches. These inspections can be arranged by telephoning Council's customer services section on 4350 5555 a minimum of 24 hours prior to the required time for the inspection. **Note: All drainage inspection fees are to be paid to Council prior to these inspections being undertaken.**

Site Requirements

43 Toilet facilities must be available or provided at the work site before works begin and must be maintained until the works are completed at a ratio of one toilet plus one additional toilet for every 20 persons employed at the site. Each toilet must:

a be a standard flushing toilet connected to a public sewer; or

b have an on-site effluent disposal system approved under the LGA 1993, or be a temporary chemical closet approved under the LGA 1993 supplied by a licensed contractor.

44 All building materials, plant and equipment must be placed on the site of the development so as to ensure that pedestrian and vehicular access in public places is not restricted and to prevent damage to the road reserve. The storage of building materials on Council's recreation reserves and/or road reserves is prohibited. **Note: On the spot fines may be imposed by Council for non-compliance with this condition.**

45 The provision of a hoarding or safety fence between the work site and the public place in accordance with Work Cover Authority requirements, for the duration of the project. Details to be submitted to the Principal Certifying Authority/appropriately Accredited Certifier unless the hoarding is required within the footpath area where approval from Council under the Roads Act as the Roads Authority is required.

46 Prior to commencement of works the Principal Contractor is to erect a sign in a prominent position on the site (not attached to any tree) identifying the name, address and telephone number of the Principal Certifying Authority (PCA) for the work; the name, address and telephone number (including a number for outside of business hours) of the Principal Contractor for the work; and stating that unauthorised entry to the site is prohibited. The sign must be maintained while the work is being carried out and is to be removed when the work is completed. Appropriate signs can be collected from Council's Customer Service Centre, where Council is the nominated PCA.

Waste Management - Construction

47 During construction, building materials must be re-used, recycled or disposed of in accordance with the Waste Management Plan submitted with the application.

Water and Sewer Services/Infrastructure – Protection of Assets

48 The sewer manhole is to be located and then protected for the duration of construction, to ensure that access is available at all times. The approval of Council is required should the level of the manhole need to be raised or lowered.

Occupation Certificate

49 Prior to the occupation of the building, an application for an Occupation Certificate for the development must be submitted to and approved by the Principal Certifying Authority.

PRIOR TO ISSUE OF THE OCCUPATION CERTIFICATE

Building Code of Australia - Compliance

50 Compliance with the relevant provisions and requirements of the Building Code of Australia prior to issue of the Occupation Certificate.

Bunding

51 Prior to the issue of an Occupation Certificate all service entries to workshop areas must be provided with a trafficable bund with a minimum height of 100mm to prevent any spillage exiting the workshop area and entering the stormwater system prior .

52 Prior to the issue of an Occupation Certificate all bulk liquids must be bunded. Bunding is to be structurally sound, impervious to materials stored, exclude rainwater and capable of containing 110% of the largest volume stored taking into account the displacement of all vessels within the bunded area.

Certificates/Engineering Details – Section 307 Certificate

53 The provision of Works as Executed information as identified in Council's Development Control Plan 2005, Chapter 67 - Engineering Requirements for Development prior to

issue of the Occupation Certificate. The information is to be submitted in hard copy and in electronic format in accordance with Council's "CADCHECK" requirements. This information is to be approved by Council prior to issue of the Occupation Certificate.

54 The obtaining of a Section 307 Certificate of Compliance under the Water Management Act 2000 for water and sewer requirements for the development from Wyong Shire Council as the Water Supply Authority prior to issue of the Occupation Certificate. All works for the development must be approved by Council prior to the issue of a Certificate of Compliance.

55 Certification from a qualified structural/civil engineer shall be submitted prior to issue of the Occupation Certificate that all retaining structures as built have been constructed in accordance with the Construction Certificate, accepted practice, and that the structure is stable and capable of catering for all anticipated loads.

Dilapidation – Repair of Damage

56 Any damage not shown in the Dilapidation Report submitted to Council before site works had commenced, will be assumed to have been caused as a result of the site works undertaken and must be rectified at the applicant's expense, prior to issue of the Occupation Certificate.

Disabled Access - Compliance

57 Access to and throughout the buildings shall comply with the Building Code of Australia, AS1428.1-2001 and the objectives of the *Disability Discrimination Act 1992* (Commonwealth).

Ecology/Trees

58 The inner boundaries of the northern and eastern native vegetation buffer zones must be permanently delineated using fencing, bollards or similar to prevent vegetation removal, rubbish dumping, storage of materials or encroachment into buffer zones by the development. Evidence of this is to be supplied to Principal Certifying Authority and Council prior to issue of an Occupation Certificate. No barbed wire is permitted.

Energy- and Water-Efficient Fixtures

59 All lighting fixtures and appliances are to be energy efficient and water fixtures are to be water efficient.

External Materials

60 The construction of the building in appropriately coloured materials of a low reflective quality, or of materials that are painted or similarly treated with appropriately coloured paint or pigment of a low reflective quality, which merge with the landscape of the site and its surroundings.

Security Fencing - Location

61 The proposed front security fencing along Apprentice Drive and along the eastern boundary shall be sited within the property and behind the native vegetation buffers prior to the issue of an Occupation Certificate. Security fencing on the western and

southern boundaries is to be sited on those boundaries prior to the issue of an Occupation Certificate.

Filling - Certification

62 All filled areas are to be compacted in accordance with AS3798-1996. The submission to the Principal Certifying Authority of test results and appropriate documentation in accordance with AS3798 prior to issue of the Occupation Certificate.

Landscaping – Completion and Certification

63 To ensure landscaping works are properly completed, the landscape designer must provide certification to the Principal Certifying Authority certifying that landscaping has been implemented in accordance with the approved landscape plan as amended by the conditions of this consent, prior to issue of an Occupation Certificate.

64 All disturbed surfaces on land resulting from the works authorised or required by this consent shall be revegetated and stabilised so as to prevent any erosion or siltation either on or adjacent to the land.

65 A detailed maintenance schedule is to be provided to and approved by the Principal Certifying Authority prior to issue of the Occupation Certificate.

Lighting

66 Lighting shall be provided in accordance with AS/NZS1158 and AS/NZS2890.1 prior to issue of the Occupation Certificate. In addition, all external lighting is to be of a type that prevents overspill into native vegetation buffer zones along the northern and eastern boundaries, for example, through the use of visors, minimising pole height, use of low-voltage lighting or low-reflective pavements. Lighting adjacent to Apprentice Drive and the northern vegetation buffer zone must be limited to that absolutely necessary and designed to achieve a nil-percent upward-waste lighting ratio to maintain the area as a foraging corridor for microbats.

Plumbing and Drainage – Rainwater Tank(s)

67 The provision of the rainwater tank (minimum size 50,000litres or tanks of equal cumulative capacity) in the approved location, including plumbing, to collect rainwater from the roof area. The tank(s) is(are) to be installed in accordance with the requirements of the National Plumbing and Drainage Code AS/NZS 3500, shall include first-flow diversion devices fixed to all inflows, be provided with a functioning pressure pump, and be plumbed to service all toilets and external landscaping taps. The tank(s) must be controlled such that supplemental flows from domestic mains do not take place until the tank(s) is (are) at least 80% empty.

Roads – Completion and Approval

68 All foot paving and gutter crossing works must be completed and approved by Council prior to issue of the Occupation Certificate.

69 All works requiring Council's approval as the Roads Authority under Section 138 of the Roads Act 1993 must be completed and approved by Council prior to issue of an Occupation Certificate. All details are to be in accordance with Council's Development Control Plan 2005, Chapter 67 - Engineering Requirements for Development.

Stormwater – Completion, Approval and Monitoring

70 The stormwater system with water quality control facilities to treat stormwater runoff from the development discharging into Council's system or public land must be completed and approved by the Principal certifying Authority prior to issue of the Occupation Certificate.

71 The prevention or clearance of any obstruction of surface or sub surface drainage that could result in the disruption of the amenity, drainage or deterioration to any other property. Works are to be satisfactorily completed prior to issue of the Occupation Certificate.

72 The stormwater system contained within public land must be approved by Council under Section 68 of the Local Government Act prior to issue of the Occupation Certificate

73 A discharge water quality monitoring program is to be developed and submitted to Council for approval prior to the issue of an Occupation Certificate. Stormwater pH is to be between 5.0 and 7.0 prior to release and 6-monthly monitoring of the water quality from discharge locations will need to be provided to Council's Natural Resources Unit. In the event of pH falling outside this range, dosing will be required to ensure that the pH of discharge is within this prescribed range. The method of dosing is to be approved by Council under section 68 of the Local Government Act

74 A groundwater monitoring program and plan is to be developed and submitted to Council for approval prior to the issue of an Occupation Certificate. Test results are to be forwarded to Council 6 monthly. Testing is to identify any changes to both quality and quantity of the existing watertable / groundwaters with the plan identifying methods to mitigate changes. Where changes to the watertable / groundwaters are identified, mitigation works shall be required with all proposed works to be approved by Council under section 68 of the Local Government Act. This plan and monitoring program will only be necessary where impacts on groundwater have been identified.

Vehicle Access and Parking – Completion and Certification

75 The construction of the carpark and accesses to be completed in accordance with AS2890.1/2. Certification of the construction by a suitably qualified consultant is to be provided prior to issue of the Occupation Certificate.

76 The construction of the carparking areas and accesses with a pavement and surfacing to cater for expected traffic flow and largest design vehicle prior to issue of the Occupation Certificate.

77 Prior to release of the Occupation Certificate the reinstatement to a natural state of the areas of the existing access crossing in Apprentice Drive not included in the proposed access areas. Reinstatement is to be in accordance with the approved Habitat Restoration Plan, Council's Development Control Plan 2005, Chapter 67 - Engineering Requirements for Development and these conditions of consent. All works must be approved by Council under the Roads Act.

Waste Management

78 For safety, amenity and maintenance reasons, the waste storage area must be constructed to the following standards:

- Floors must be constructed of concrete, graded and drained to an approved drainage outlet connected to the sewer and finished to a smooth, even trowelled surface;

- Walls must be constructed with solid impervious material and shall be cement rendered internally to a smooth, even steel trowelled surface;

- All intersections between the walls and floors shall be coved with coving having a minimum radius of 25mm;

- All entry points into the room must be bunded to prevent the escape of liquid waste. Bunding shall be for 110% of the likely liquid storage waste and constructed in such a manner that does not obstruct the removal of waste receptacles create a safety risk to users;

- Adequate ventilation shall be provided;

- Adequate lighting shall be provided;

- Waste receptacles used shall be compatible with Wyong Council's waste collection service;

- Hot- and cold-water hose cocks shall be located inside or within close proximity to the waste storage areas to facilitate cleaning.

ONGOING OPERATION

Advertising Signs

79 No advertisement other than those two signs approved under this consent shall be erected on or in conjunction with the use and/or development without prior development consent unless the advertisement is an 'approved sign' under Development Control Plan 2005, Chapter 50 - Advertising Signs.

Bushfire – Site Management

80 The buildings and the site shall be managed for the life of the development in accordance with the recommendations made in Sections 4.1, 4.2, 4.3, 5.1, 5.2, 5.3, 5.4 and 5.5 of "Bushfire Assessment Report" prepared Daniel Smith, Environmental Consultant, and submitted with the development application.

Car Parking - Maintenance

81 All on-site vehicle parking areas, driveways and manoeuvring areas are to be maintained for the life of the development.

Ecology/Trees – Maintenance of Native Vegetation Buffers

82 The 25 metre wide native vegetation buffer zone along the northern boundary and the 10 metre wide native vegetation buffer zone along the eastern boundary, identified on the approved plans, are to be excluded from clearing and development activity (with the exception of bush regeneration, soil rehabilitation, planting and protective fencing and construction of access ways) and are to be maintained in perpetuity.

Fencing – Maintenance

83 All fencing is to be maintained for the life of the development in its approved location.

Stormwater - Maintenance

84 All stormwater treatment devices (including drainage systems, sumps and traps) must be regularly maintained for the life of the development in order to remain effective.

85 Registration of a positive covenant for the maintenance of all drainage facilities in relation to the development to ensure all water quality and quantity facilities operate to design capacity at all times and weeds in the vegetation buffers are appropriately managed.

Miscellaneous - Obstructions

86 The truck turning / bulk waste area is to remain free of obstructions and is not to be used for parking or the storage of goods or materials for the life of the development.

Landscaping - Maintenance

87 All landscaping is to be maintained in accordance with the approved landscape plan as amended by the conditions of this consent and with the approved maintenance schedule for the life of the development.

Spill Clean Up

88 Sufficient supplies of appropriate adsorbent materials and /or other spill clean up equipment shall be kept on site to recover any liquid spillage. Liquid spills being cleaned up using dry methods only.

Staffing Levels

89 The number of permanent full-time employees at any one time is not to exceed 58, including 5 overseas experts, without prior development consent.

Stormwater – Maintenance

90 All stormwater treatment devices (including drainage systems, sumps and traps) must be regularly maintained for the life of the development in order to remain effective. The plan of management for the site is to include reference to these requirements.

Use of Training Building

91 The use of the Training Building is to be limited to staff training and information sessions and power-generation industry forums and events.

Waste Management – Compliance

92 The premises must operate in compliance with the Waste Management Plan, submitted with the development application and in accordance with Development Control Plan 2005, Chapter 69 - Controls for Site Waste Management.

93 All waste generated on the premises shall stored in a manner so that it does not pollute the environment.

94 All waste generated on the premises shall be transported to a facility which is licensed to receive that material.