



Our Ref: 12025

27th March 2012

Major Projects Assessment
NSW Department of Planning
23-33 Bridge Street
SYDNEY NSW 2000

Dear Sir/Madam

Re: Submission to Sydney CityGrid Project Major Project application No. SJ-06087 Stage 2A(ii) City East Zone Substation & Commercial Tower at 33-35 Bligh Street Sydney

This submission to the proposed development of an electricity substation and commercial tower, at 33-35 Bligh Street, Sydney (Major Project Application No. SJ-06087) is lodged on behalf of our client, Kingsmede, owners of 25 Bligh Street, Sydney. Our client's property "Bligh Chambers" adjoins the northern boundary of the proposed development site.

The proponent is seeking approval to construct a major electricity substation comprising 5 large transformers, with an office tower above, containing 28,005m² of office space over 20 floor levels. The substation component is contained in the base of the building, extending to a height of 45.68 metres to Bligh Street and 52.58 metres to O'Connell Street. The office tower, approximately 100 metre high, in addition to 20 levels of office space, includes additional floor levels accommodating skygardens, lobbies, and plant. The tower extends above the substation building, to an overall height of 161.73 metres (RL 1777.48 AHD). Excavation up to 35 metres deep is proposed to accommodate substation plant, equipment and car parking

We have inspected the site and the locality, reviewed the relevant planning controls, the Director General's Requirements and the proponent's Environmental Assessment Report. Our assessment of the proposal indicates that the subject development is of excessive bulk and scale and the office tower element provides inadequate front street setback to Bligh Street and O'Connell Street. The proposal will have an unsatisfactory impact on the streetscape of Bligh Street and O'Connell Street, the heritage values of 31 Bligh Street, the northerly vista from Castlereagh Street and existing views from our client's building. We would also question the appropriateness of locating a major electricity substation beneath and adjoining large office towers, heritage items and public space.

Having regard to substantial non-compliances with the City of Sydney's front building setback controls and the above significant adverse impacts on the locality and neighbouring development, it is recommended that the subject Application be refused in its current form. Our concerns with the proposed development are detailed in the following assessment.

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Inappropriateness of the Site for Development of a Major Electricity Substation

The proponent contends that the development has been sited and designed in accordance with the principles of prudent avoidance, with respect to electro-magnetic radiation. We would question this assertion given that the proponent's EMF Assessment Report prepared by Aurecon, acknowledges that there are *"inherent difficulties in incorporating a large substation into a CBD site."*

The EMF Assessment report recommends that in accordance with the principles of prudent avoidance, *"it would seem prudent to further review the design"* and indicates that further *"practicable measures to reduce the magnetic fields"* should be identified and implemented. It is evident that there are some "unknowns" with respect to potential EMF health impacts on people who are in close proximity of the facility for prolonged periods, such as office workers.

The proposed car parking area on Levels 3 and 4 will be subject to high levels of electro-magnetic emissions when the substation is operating at peak loads. The proponent's EMF consultant has identified exposure risk in this location and recommends installation of barriers and other field reduction measures. We have reservations that the proposal has not been designed to a standard that provides certainty that EMF will not result in adverse health impacts.

The Environmental Assessment Report does not give sufficient weight to the risk of fires and possible explosions that can occur in electricity substations. In the event of a fire or explosion there would be significant risk to adjoining buildings, office workers and the general public in the locality. Placing an office tower over a facility where fire and explosions are a potential risk is in our opinion problematic, and certainly contrary to the principles of prudent avoidance.

The EMF Assessment acknowledges the benefits of separation distance as a means of reducing exposure to EMF. The proposed substation should therefore be located on a site that offers greater separation from buildings occupied by large numbers of people, such as office towers, and public spaces, for example Richard Johnson Square and busy footpaths, which are frequented by the public.

It appears that the site has been selected primarily because it minimises the length of cabling that is required to link the facility to the electricity network. This is inadequate justification for locating a potentially hazardous facility alongside office buildings and areas with high levels of pedestrian traffic. The proposed substation should be re-located to a site with a more adequate separation buffer to sensitive land uses. This approach has been taken with respect to the City South Substation which is to be located north of Belmore Park and separated from buildings by streets on 3 sides, together with a generous setback on its eastern side.

Castlereagh Street Northerly Vista

Our client's building "Bligh Chambers" provides a termination of the northerly vista from Castlereagh Street. This attractive vista is currently somewhat compromised by the existing Kindersley House on the development site, which extends forward of 37 Bligh Street. The proposed development will be even more obtrusive in the northerly Castlereagh Street vista due to inadequate setback to Bligh Street and a trebling of building height. Any new development on 33-35 Bligh Street should be setback to align with No 37 Bligh Street and include the 8 metre front setback required in the Sydney City LEOP for office towers above a height of 45m to 50m.

Northerly Castlereagh St Vista Towards Bligh Street



The photo at left shows the existing northerly vista along Castlereagh Street, towards Kindersley House and Bligh Chambers (the building with the Mulpha sign). These building terminate the northerly vista. There is an opportunity to enhance this vista created by the angling of Bligh Street to the right, by providing greater prominence to the heritage building at 31 Bligh Street, and reducing the extent of encroachment currently occurring as a result of 33-35 Bligh Street extending forward of No. 37 Bligh Street. Any new development on 33-35 Bligh Street, should be located in line with the 37 Bligh Street.

Bulk and Scale

The applicable local planning instrument, Sydney LEP 2005, sets out a range of development controls to manage the bulk, scale and height of buildings to ensure they are compatible with the existing and desired future character of the Sydney CBD. Relevant controls include the requirement for the base of buildings to be limited to a height of 45 metres, with tower elements above setback at least 8 metres from street frontages.

The primary development control in relation to building bulk in Sydney LEP 2005 is the floor space ratio (FSR) control. A maximum floor space ratio of 12.5:1 applies to the site, with potential for an increase of up to 10% to 13.75:1 if nominated criteria are achieved, such as demonstrated design excellence.

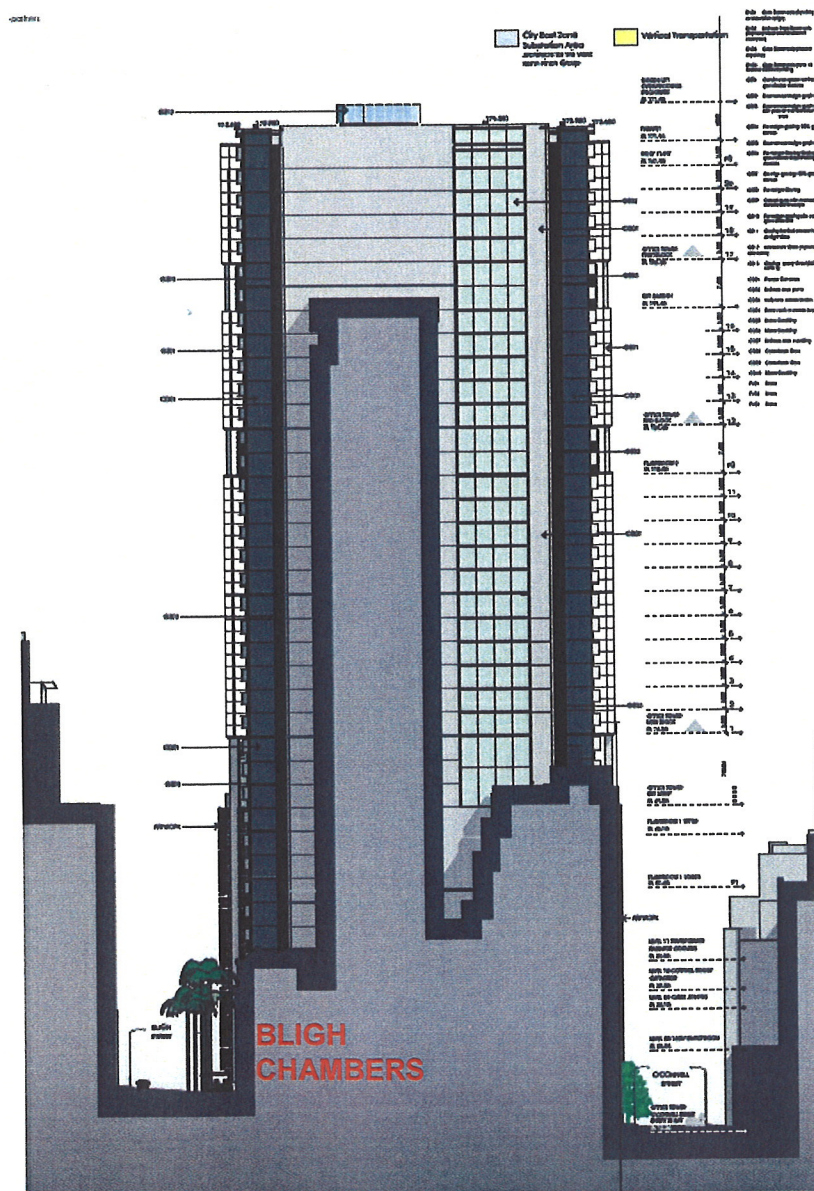
The floor space control excludes from the calculation of FSR, *“any space for the accommodation of mechanical or electrical plant or equipment servicing the building.”* The proponent in stating the proposed development has an FSR of 13.75:1, ignores the substation building in the calculation of FSR. The substation should be included in the calculation of FSR as it comprises electrical equipment which is not for the purposes of servicing the building.



The substation component of the proposed building comprises the equivalent of 13 or 14 typical office floor levels and effectively increases FSR to at least 20:1. It is disingenuous to ignore the substation component of the building in the calculation of FSR and assessment of building bulk. The bulk of the building is further exacerbated by the inadequate street setbacks of the office tower and large expanses of masonry side walls.

The following diagram from the proponent's Environmental Assessment Report clearly illustrates the excessive bulk of the proposed building. Our client's building, Bligh Chambers is a relatively large office tower, but is dwarfed in comparison to the proposed development and creates a canyon effect to Bligh Street and O'Connell Street. Inadequate front setbacks to the proposed tower, combined with narrow street widths, create an overbearing and canyon like effect at street level in Bligh Street and O'Connell Street.

North East Side Elevation



Tower Setbacks - Adverse View and Natural Light Impacts to 25 Bligh Street (Bligh Chambers)

View impact in densely developed CBD's is a difficult issue to address and it is recognised that where a new development complies with planning controls, loss of views is generally not an impact that would warrant refusal or modification of a proposed development. However, the situation is somewhat different where a proposal exhibits a significant breach of planning controls in relation to matters such as building bulk, height or setback.

Property owners in the Sydney CBD may reasonably expect that new development will be constructed generally in accordance with the planning controls that are in force. As noted previously in this submission, the bulk of the substation building has been effectively ignored in the assertion by the proponent that the development achieves a complying 13.75:1 FSR. In reality the equivalent FSR is at least 20:1, with building bulk further exacerbated by the failure to provide adequate tower building setbacks to the street frontages

Clause 2.3.1 of Central Sydney DCP 1996 requires that the tower element of buildings more than 45 metres above street level, provide a weighted average setback of 8 metres to the front boundary of the property. This setback requirement ensures adequate access to natural light and ventilation, both to neighbouring buildings and at street level, and allows at least for some view access. In narrow streets like Castlereagh Street and Bligh Street, the tower front setbacks are also essential to avoid a canyon like effect created by tall buildings, with minimal front setback above the street wall podium.



The commercial tower component of the development commences at a height of more than 45 metres above street level and has a minimal 200mm to 1,000mm setback to O'Connell Street and a setback of between 2.6m and 5.65m to Bligh Street. As a consequence the tower portion of the building will have a significant impact on views currently available to our client's property above Level 15 of the building.

The photograph at left shows existing views south down Castlereagh Street from 25 Bligh Street. The proposed tower will take out the entire view of Castlereagh Street and its interface with buildings lining the eastern side of Castlereagh Street. The quality of the existing "streetscape" will be significantly degraded. A complying front setback would maintain a reasonable proportion of the view.



Substation Building – Streetscape and Heritage Impacts

Sensitively inserting a large substation building into the CBD streetscape in a location that contains a number of heritage buildings is a significant challenge. Whilst we acknowledge that the proponent has made an effort to disguise the facility with façade treatments, the design is driven more by the space and configuration needs of the electricity authority, rather than the objective of requirement a high quality building design that contributes to, rather than detracts from the streetscape and setting of the development.

No evidence or independent assessment has been submitted to justify the dimensions of the transformer bays. It is our understanding that it could be possible to provide smaller bays in order to provide greater scope for introducing a more attractive design of the substation building, with an increased building setback to Bligh Street and a more active frontage at street level. If it is not possible to reduce the size of the transformer bays, then consideration should be given to locating at least 1 of the back-up transformers to another site.

EMF health issues aside, we have a number of concerns arising from the proposed built form and siting of the building that result in adverse impacts on the public domain, streetscape and heritage setting of Bligh Street, near our client's building at 25 Bligh Street.

As noted in discussion of existing northerly vistas in Castlereagh Street and the Bligh Street streetscape, 33-35 Bligh Street (Kindersley House) protrudes into the northerly vista from Castlereagh Street and the front building line established by 37 Bligh Street. This also results in Kindersley House effectively overwhelming the heritage building at 31 Bligh Street and impinging into the heritage curtilage of Richard Johnson Square.

The proposed redevelopment of 33-35 Bligh Street offers an opportunity to improve streetscape at the southern end of Bligh Street and enhance the heritage context of 31 Bligh Street and Richard Johnson Square in return for some concession in the application of the FSR controls to the substation component of the building in the overall assessment of FSR controls.

By providing a minor increase in front building setback to Bligh Street for the substation building, so that it aligns with No. 37 Bligh Street, a more consistent building line can be achieved and greater prominence given to the heritage item 31 Bligh Street, in the streetscape. The resulting increased forecourt can then be integrated into Richard Johnson Square, as a functional extension of this Square and open up views to 31 Bligh Street.

A reduction in the size or number of the transformers provides an opportunity to create a more impressive building lobby and adequate space for a retail and/or restaurant/café facility at street level, to activate the street and adjoining public square and create a more pedestrian friendly environment.

The proposal includes decorative facades that are designed to screen the masonry front walls enclosing the transformers. The façade architectural treatments, as currently proposed, protrude into the streetscape of Bligh and O'Connell Streets. Increased front building setbacks would enable removal of the protrusion of these facades so that they are more recessive in the streetscape and do not draw attention to the substation building.

Conclusions

The proponent seeks approval to construct a major electricity substation within a densely development precinct of the Sydney CBD, adjoining existing high rise commercial towers, heritage items and public space. Such a location is entirely inappropriate for a development that is potentially hazardous in terms of electro-magnetic radiation, fire and explosion risks.

The sole justification for the proposed location is the relatively short length of cabling required and a site area large enough to accommodate 5 transformers.

The proposed development should be refused on the grounds that it is an unsuitable location for a major electricity substation and the proponent directed to identify an alternative site in a less sensitive location, which provides greater physical separation from major buildings, heritage items and public spaces. The proposed development, as currently designed, represents an overdevelopment of the site that creates a built form of excessive bulk and scale with inadequate tower setbacks to the street.

The proponent has not provided adequate justification for permitting substantial breaches of the Sydney LEP 2005 development controls relating to floor space ratio and tower setbacks to the street. These compliance issues are effectively ignored in the proponent's Environmental Assessment Report on the basis that the consent authority is not bound by the LEP controls. This is a very arrogant approach to the planning controls and undermines public confidence in the planning system.

In the event that an approval of the proposed development is contemplated we strongly recommend that the proponent be directed design of the project be amended as follows:

- The commercial office tower be reduced in bulk and scale and in particular provide building setbacks to Bligh Street and O'Connell Street that achieve a minimum weighted average setback of 8 meters (subject to a minimum setback of 6 metres) to both the Bligh and O'Connell Street frontages.
- The substation podium building not encroach into O'Connell Street and be further setback from Bligh Street so that the front building line aligns with the front building line of No. 37 O'Connell Street.
- Suitable architectural treatment of the front facades of the substation building so that it has an attractive presentation to the street in a form that compliments and enhances the existing streetscape.
- The transformers be reduced in size, or at least 1 of the back-up transformers relocated so that the ground level lobby (minimum height 8 metres) can be expanded and include active uses, such as a café, to the street fronts and enhance street level views through to the heritage item at 31 Bligh Street.
- Suitable design measures are in place to ensure that electro-magnetic emissions are contained within the substation structure and there are no emissions above usual background levels in publically accessible areas of the building, adjoining buildings or public spaces.



We trust that the NSW Department of Planning and the Planning Assessments Commission will support our submission and decline to approve the proposed development, unless substantial changes are made to the plans as recommend in this submission.

Yours faithfully

Nick Juradowitch

Director

Ingham Planning Pty Ltd