

Light is really the source of all being...  
all materials in nature are made of light  
which has been spent, and this crumpled  
mass called material casts a shadow, and  
the shadow belongs to light.  
**Louis Kahn**

Mechanical Engineering  
Lighting Design  
Sustainable Design  
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Robinson Urban Planning Pty Ltd  
83 Fletcher Street  
Tamarama  
NSW 2026

**STEENSEN VARMING**

Att. Sandra Robinson

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## Responses to SGS planning submission

Sydney February 4th, 2021

Steensen Varming provides the following responses to the queries raised:

**Ben Jones**  
Associate Director

### CoS advice on EIS:

[ben.jones@steensenvarming.com](mailto:ben.jones@steensenvarming.com)  
+61 / 02 9967 2200

**Item 6- It is recommended that the applicant explore opportunities to reduce light spill from the site.**

Steensen Varming response:

Consideration of spill light from the site is a key design parameter that has guided the design approach. All external lighting is for safe access and passive security and is designed to align with the intent of AS/NZS 4282:2019: Control of the Obtrusive effects of outdoor lighting.

The extent of outdoor lighting is minimal comprising of the following elements:

- Lighting to external stairs.
- Low level bollard lighting to pedestrian pathways to comply with the requirements of AS1158.3.1.
- Pole top luminaires to the roof top carpark and external carpark areas to comply with the requirements of AS1158.3.1.
- Carefully aimed subtle canopy lighting from internal light sources to minimise upward spill light (no externally mounted façade lighting).

The design of these elements will be undertaken in line with the intent of AS4282 to reduce spill light on sensitive use areas and will consider the following spill light mitigation measures:

- Targeted lighting approach.
- Lighting category selection to suit the site requirements in line with the relevant standards without over lighting.
- Light fittings selected to provide appropriate distribution for the task whilst minimising spill light.
- Consideration of mounting orientation and direction of light sources.
- Consideration of site lines and viewing angles to minimise glare.
- Minimisation of direct visibility of light sources (no omni-directional light fittings).
- Use of a lighting control system to automate the timing of the installation and to dim the light intensity outside of peak times (suggested curfew period of 11pm-6am).

### Woollahra Municipal Council Response:

**Item 7- Condition I.1 is recommended to ensure that any outdoor sports lighting complies with AS/NZS 4282:2019: Control of the obtrusive effects of outdoor lighting**

Steensen Varming response:

This condition relates specifically to outdoor sports field lighting which is not within the scope of the project.

All new external lighting is for safe access and passive security and is designed to align with the intent of AS/NZS 4282:2019: Control of the Obtrusive effects of outdoor lighting.

The extent of outdoor lighting is minimal comprising of the following elements:

- Lighting to external stairs.
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#### **Annexure A – conditions of consent (without prejudice)**

##### **Item I.1- Outdoor sports lighting must generally comply with AS/NZS 4282:2019: Control of the obtrusive effects of outdoor lighting**

Steensen Varming response:

This condition relates specifically to outdoor sports field lighting which is not within the scope of the project.

All new external lighting is for safe access and passive security and is designed to align with the intent of AS/NZS 4282:2019: Control of the Obtrusive effects of outdoor lighting.

The extent of outdoor lighting is minimal comprising of the following elements:

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#### **General Responses: Location of the electricity substation adjacent to apartments (electromagnetic issues)**

Steensen Varming response:

- Electric & Magnetic Fields - Ausgrid is guided by the Australian Radiation Protection and Nuclear Safety Agency (ARPANSA). The substation location is accordance with Ausgrid's Network Standard NS174 Environmental Procedures.
- Noise - The Protection of the Environment Operations Act, 1997 (POEO Act) regulates noise generation and prohibits the generation of "offensive noise" as defined under the Act. In addition to the regulatory requirements under the POEO Act, the Environmental Protection Authority (EPA) provides guidelines regarding acoustic criteria and noise controls, the 'Industrial Noise Policy' and the 'Noise Guideline for Local Government'. Ausgrid is guided by these documents, as such design and operate its electrical infrastructure accordingly.

#### **General Responses: Reflection off the solar panels**

The reflected sunlight from the roof mounted solar panels into adjacent properties will be assessed during future design stages, to ensure the effects of which are not significantly heightened beyond that of a standard roof finish.

Mitigations measures being considered include:

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- Anti-reflective coatings.
- Choosing a panel with a rougher surface finish.
- Reorienting the panels.
- Shielding the panels so they cannot be seen.
- Changing the panel layout to reduce visibility.

Kind regards



Ben Jones  
**Associate Director**