

Design Report - Lighting to ICC Hotel

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ICC Hotel White Lighting

Introduction

This report supports a State Significant Development (SSD) Development Application (DA) submitted to the Minister for Planning pursuant to Part 4 of the Environmental Planning and Assessment Act 1979 (EP&A Act).

This SSDA follows the approval and current assessment of a number of SSDAs within the SICEEP site, including:

- SSDA1 which secured approval for the core convention, exhibition and entertainment facilities of the SICEEP Project;
- SSDA2, a staged application that established a Concept Proposal for a new mixed use neighbourhood at Darling Harbour known as Darling Square;
- SSDA3, SSDA4, and SSDA5 which related to three detailed proposals for use of the development plots within Darling Square;
- SSDA 6 which secured approval for the construction of the ICC Hotel; and
- SSDA7 is currently under assessment and seeks approval for the construction and use of a mixed use development on the North-East Plot of Darling Square.

This Application (referred to as SSDA 8) seeks approval for the fit-out of the International Convention Centre (ICC) Hotel having now selected the Hotel operator, Accor, along with a façade lighting system and land subdivision.

The ICC Hotel forms part of the SICEEP Project, which will deliver Australia's global city with new world class convention, exhibition and entertainment facilities and support the NSW Government's goal to "make NSW number one again". On 15 June 2014, consent for SSDA6 (ICC Hotel), was granted by a delegate of the Minister for Planning for the:

- demolition of the existing buildings on site and associated tree removal;
- construction of a 35 storey building, for up to 616
- hotel keys, and basement;
- maximum GFA of 37,090m²;
- hotel use including ancillary guest and visitor facilities, restaurant and ballroom;
- replacement of a one-way access road;
- provision of short term and taxi/drop off car parking and coach parking;
- public domain works including integration with existing/proposed works; and
- building identification signage zones.

This consent did not include any approval for the fit-out of the Hotel building, as it was too premature in light of not having concluded the Hotel operator selection at the time of seeking approval for the base building. There was also no approval sought at the time for any feature external building lighting or subdivision of the land.

1.1 Overview of Proposed Development

The proposal relates to a SSDA for the fit-out, façade lighting system and land subdivision of the ICC Hotel component of the SICEEP Project. The hotel is located at the northern end of the precinct and comprises a single building. The hotel is being developed by Lend Lease and is consistent with Darling Harbour Live’s Preferred Precinct Plan.

More specifically, this SSDA seeks approval for the following components of development:

- The detailed fit-out of the ICC hotel building having now selected the Hotel Operator as Accor (Sofitel);
- Feature lighting of the hotel to reinforce the ‘landmark’ quality of the building and support its function as a ‘beacon’ for the broader SICEEP Project; and
- The subdivision of the site to facilitate separate leasehold title of the ICC Sydney Hotel site for the effective operation of the hotel.

1.2 Background

The NSW Government considers that a precinct-wide renewal and expansion of the existing convention, exhibition and entertainment centre facilities at Darling Harbour is required, and is committed to Sydney reclaiming its position on centre stage for hosting world-class events with the creation of SICEEP.

Following an extensive and rigorous Expressions of Interest and Request for Proposals process, a consortium comprising AEG Ogden, Lend Lease, Capella Capital and Spotless was announced by the NSW Government in December 2012 as the preferred proponent to transform Darling Harbour and create SICEEP.

Key features of the Preferred Precinct Plan include:

- Delivering world-class convention, exhibition and entertainment facilities, including:
 - Up to 40,000m2 exhibition space;
 - Over 8,000m2 of meeting rooms space, across 40 rooms;
 - Overall convention space capacity for more than 12,000 people;
 - A ballroom capable of accommodating 2,000 people; and
 - A premium, red-carpet entertainment facility with a capacity of 8,000 persons;

- Providing a hotel complex at the northern end of the precinct;
- A vibrant and authentic new neighbourhood at the southern end of the precinct, now called ‘Darling Square’, including apartments, student accommodation, shops, cafes and restaurants;
- Renewed and upgraded public domain that has been increased by a hectare, including an outdoor event space for up to 27,000 people at an expanded Tumbalong Park; and
- Improved pedestrian connections linking to the proposed Ultimo Pedestrian Network drawing people between Central, Chinatown and Cockle Bay Wharf as well as east-west between Ultimo/Pymont and the City.

1.3 Site Description

The SICEEP Site is located within Darling Harbour. Darling Harbour is a 60 hectare waterfront precinct on the south-western edge of the Sydney Central Business District that provides a mix of functions including recreational, tourist, entertainment and business.

With an area of approximately 20 hectares, the SICEEP Site is generally bound by the Light Rail Line to the west, Harbourside shopping centre and Cockle Bay to the north, Darling Quarter, the Chinese Garden and Harbour Street to the east, and Hay Street to the south. The SICEEP Site has been divided into three redevelopment areas – Bayside, Darling Central and The Haymarket.

The ICC Hotel Site (refer to **Figure 1**):

- is located within the northern end of the Bayside precinct;
- is bound by Harbourside Shopping Centre to the north and east, the International Convention Centre to the south and Darling Drive to the west; and
- occupies an area of approximately 3,600m².



Figure 1 – Aerial Photograph of the SICEEP Site

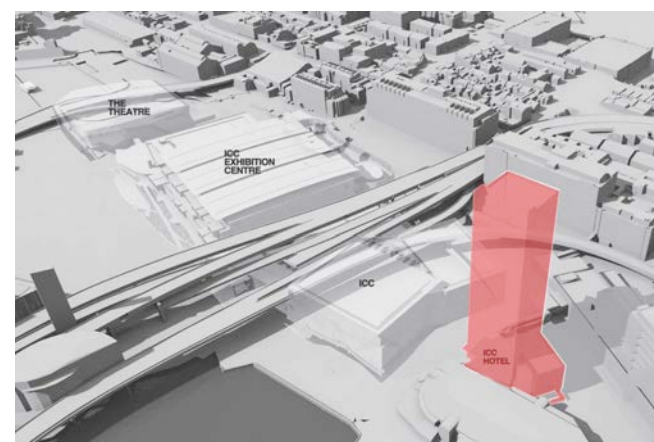


Figure 2 – 3D View of the SICEEP Site with Hotel Location Highlighted

1.4 Planning Approvals Strategy

The SICEEP Project has resulted in the lodgement of numerous SSD DAs for the various components of the redevelopment project. Future applications will continue to be lodged in accordance with the Concept Proposal Stage 1 Approval and the Preferred Master Plan.

Lighting Integration with the Architecture of the Building, Public Domain & Surrounding Skyline

2.1 Architectural Statement

The ICC Hotel will be a highly visible and distinct building that will frame and enclose the Darling Harbour waterway. It will define and activate the western foreshore edge of Darling Harbour, delivering a building of scale and form in keeping with the principle of transforming the western fringe of the CBD. It will provide a clear point of reference in the Darling Harbour precinct for pedestrians, establishing a landmark at the northern end of the SICEEP Boulevard and identifying a northern gateway for the re-designed and re-invigorated waterfront precinct.

The lighting concept for the ICC Hotel is not a lighting 'effect' nor decorative, but an integral and essential element of the architectural design concept.

The architectural form of the new hotel tower is conceived as an assembly of two parts, in a sense, two connected towers. The first of these is the coloured cubic tower form that encompasses the south, east and west orientations. The second is the more primary, slim, chiselled form that orientates towards the City and Harbour. It is this primary chiselled form that will give the most visible identity to the hotel.

The primary Harbour/City form is articulated separately through the distinctive profile, materials and in particular the strong horizontal louvre elements that set it apart. These horizontal elements are complemented by the distinctive V form incorporating the club lounge that crowns the building. At night time the V form is intended to create an identifiable 'lantern' in the skyline. The 'lantern' is inspired by the concept of a lighthouse which seeks to reinforce the gateway and landmark quality of the hotel. The curved feature ceiling within the club lounge will be internally illuminated to achieve this 'lantern' element within the sky line.

The horizontal louvre elements on the primary Harbour/City elevation stop either side of the projecting V form. It is these profiled louvre elements of the architectural form that the lighting design enhances and is seamlessly integrated into. Continuous LED 'lines of light' are inset into the horizontal louvre profiles to reinforce and make visible these architectural lines that would otherwise disappear in the evening and night-time. The LED lights are recessed into the leading edge of the horizontal louvres ensuring that the feature lighting will not impact upon the amenity of hotel guests.

With the close integration of the architecture and proposed lighting design the distinctive form and identity of the ICC Hotel will be maintained and enhanced into the evening. Given the importance of the night-time environment of Darling Harbour this integration of the lighting design is entirely appropriate and essential in avoiding the night-time appearance of the tower purely being random room lighting. The immediate context of the proposed lighting consists of the waterfront to the east Harbourside Shopping Centre, the east side of Cockle Bay, and the new public domain associated with the SICEEP Site including Tumbalong Park. It is anticipated that the lighting will be a highly contributory layer to Darling Harbour and the existing cultural and public uses of the area. It is considered that the lighting will not impact negatively on the public domain.

The existing public domain views from King Street Wharf and Pyrmont Bridge are expansive. The existing Darling Harbour precinct is highly urbanised and highly utilised by pedestrians. It is characterised by relatively low scale development in the foreground with taller development including UTS Tower, The Peak Apartments and the Cross City Tunnel Stack forming a CBD skyline backdrop behind.

Views to and across the water are available along the entire length of the Darling Harbour waterfront on both sides of the harbour, with low scale built form set back to form a wide pedestrian promenade. It is envisaged that the proposed feature lighting will provide a benefit to the workers and visitors by providing an after-hours cultural experience which adds to the night-time life of the city.

The ICC hotel, when considered in the context of Barangaroo, the existing western CBD edge, the redevelopment of the Imax Theatre site and the Rabobank building will draw Darling Harbour into the CBD. The proposed feature lighting will reinforce the concept of the ICC Hotel as a landmark and beacon for the wider SICEEP precinct. The orientation of the tower to the north east establishes a strong relationship with Darling Harbour which in turn allows the tower to act as one half of a gateway (with the towers of Darling Park opposite) to the wider SICEEP precinct to the south. The placement of feature lighting on the north eastern volume of the tower will reinforce this concept.

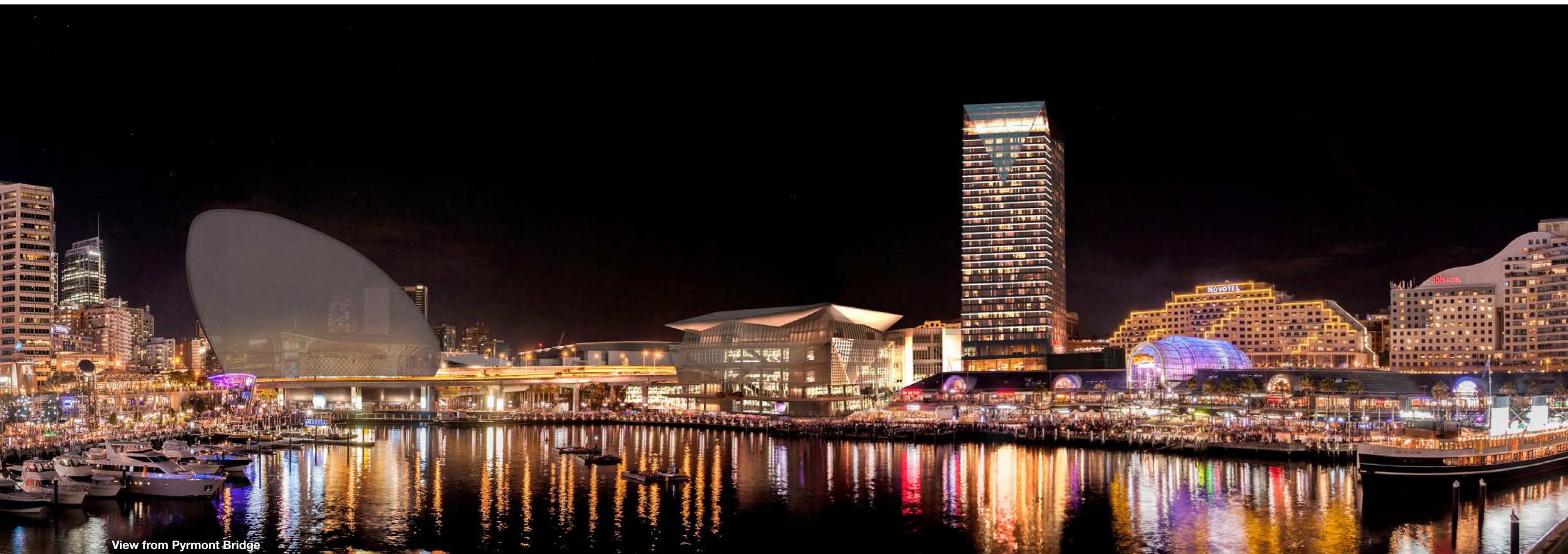
Importantly the proposed lighting is positioned on the north eastern volume of the ICC hotel, and as such is largely orientated away from the residential and accommodation buildings of Ultimo. Oblique views of the returns to the north eastern volume of the hotel will be visible from some buildings. The nearest residential development is the Goldsbrough building which is approx. 300m away. As the feature lighting is a non-directional light source with lighting effect similar in intensity to that of an illuminated city building, it is anticipated that the impact is low or negligible.

The 'lines of light' are white during normal function, which reinforces the materials and colours of the primary Harbour/City form. Each 'line of light' can be programmed thus allowing a dynamic, changing pattern of horizontal lines to be created. During event mode the lights have capability to change colour.



ICC Hotel Coloured (event mode) Lighting

3 The Visual Impact of the Hotel External Lighting



View from Pyrmont Bridge

Visual Impact Photomontages

The locations of the photomontage images and direction of the views that have been produced for the ICC Sydney Hotel are shown on Figure 2. The 17 public domain images included in this report are vantage points 1, 2a & b, 3, 4, 7a & b, 9a, 12a, and 29 to 36.

The photomontage images for each of the identified public domain views were taken at ground level to indicate what a pedestrian will see when travelling through or within the general vicinity of the SICEEP site. The photomontage images have been produced using a 24mm lens size, to illustrate the Hotel building in its broader context.

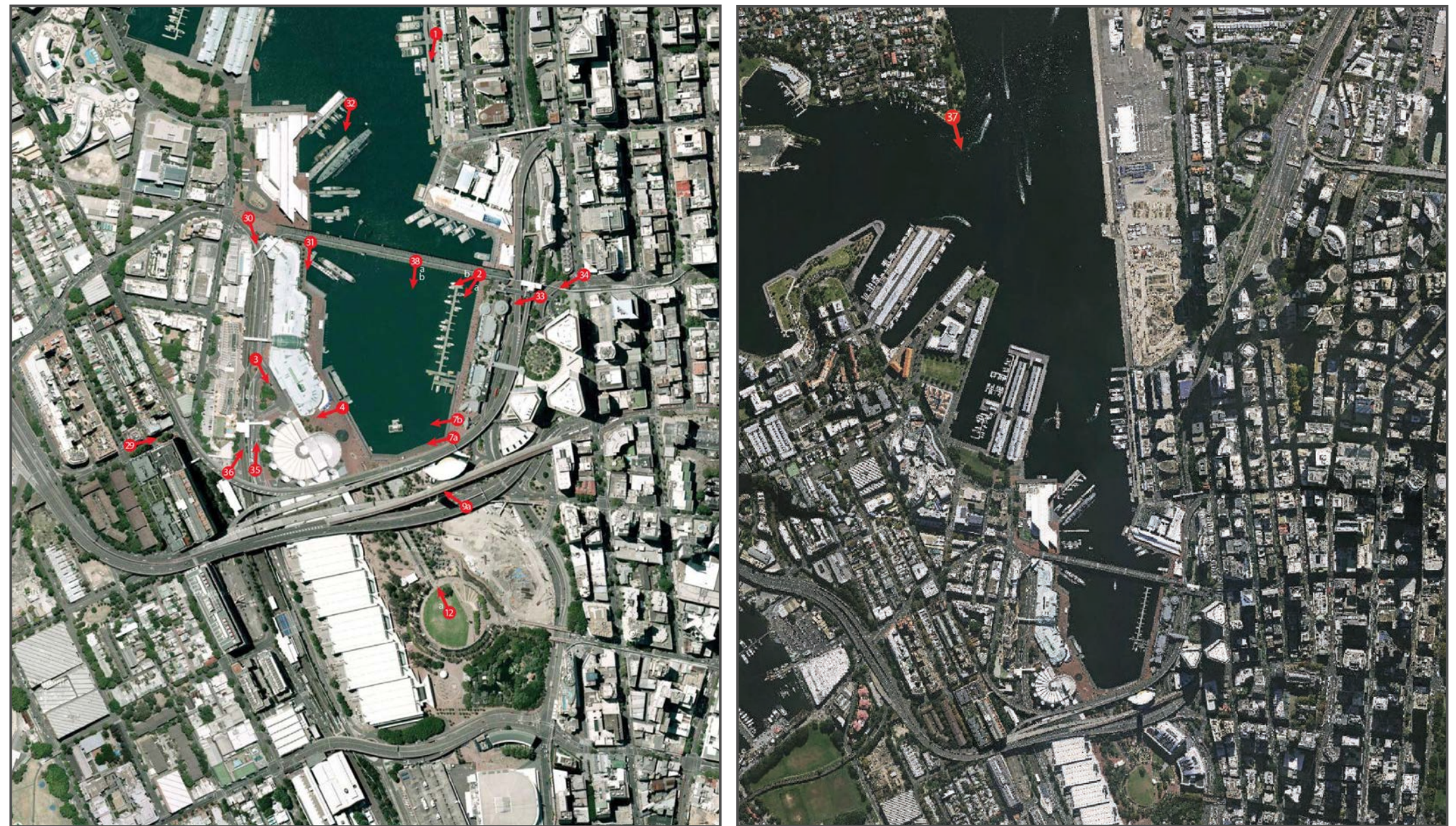


Figure 2 – Locations of Groundview Photomontage Cameras



1 King Street Wharf



2 Pyrmont Bridge



3 Darling Drive



4 Harbourside entry



7a Cockle Bay South



7b Cockle Bay



9b Western Distributor



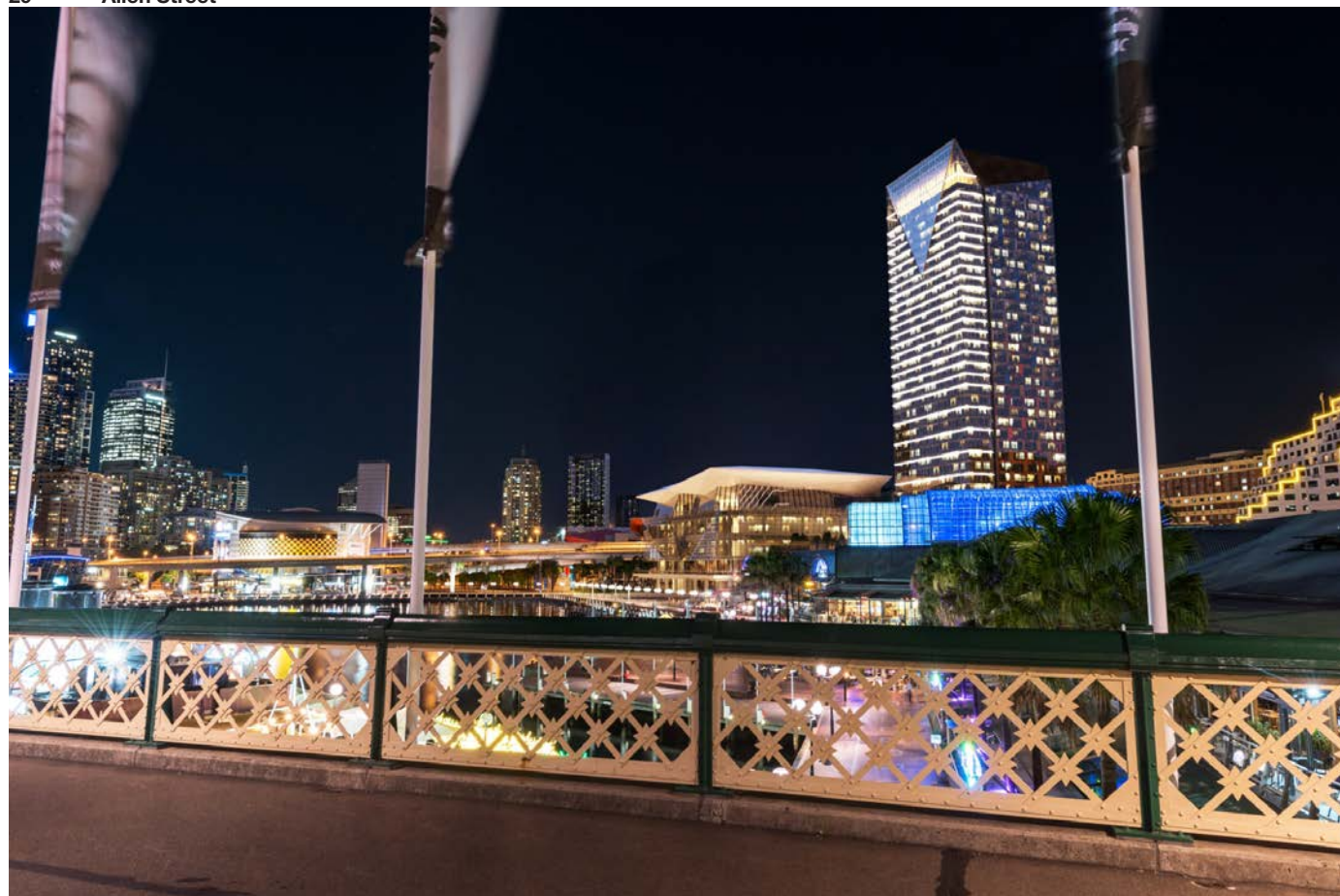
12 Tumbalong Park



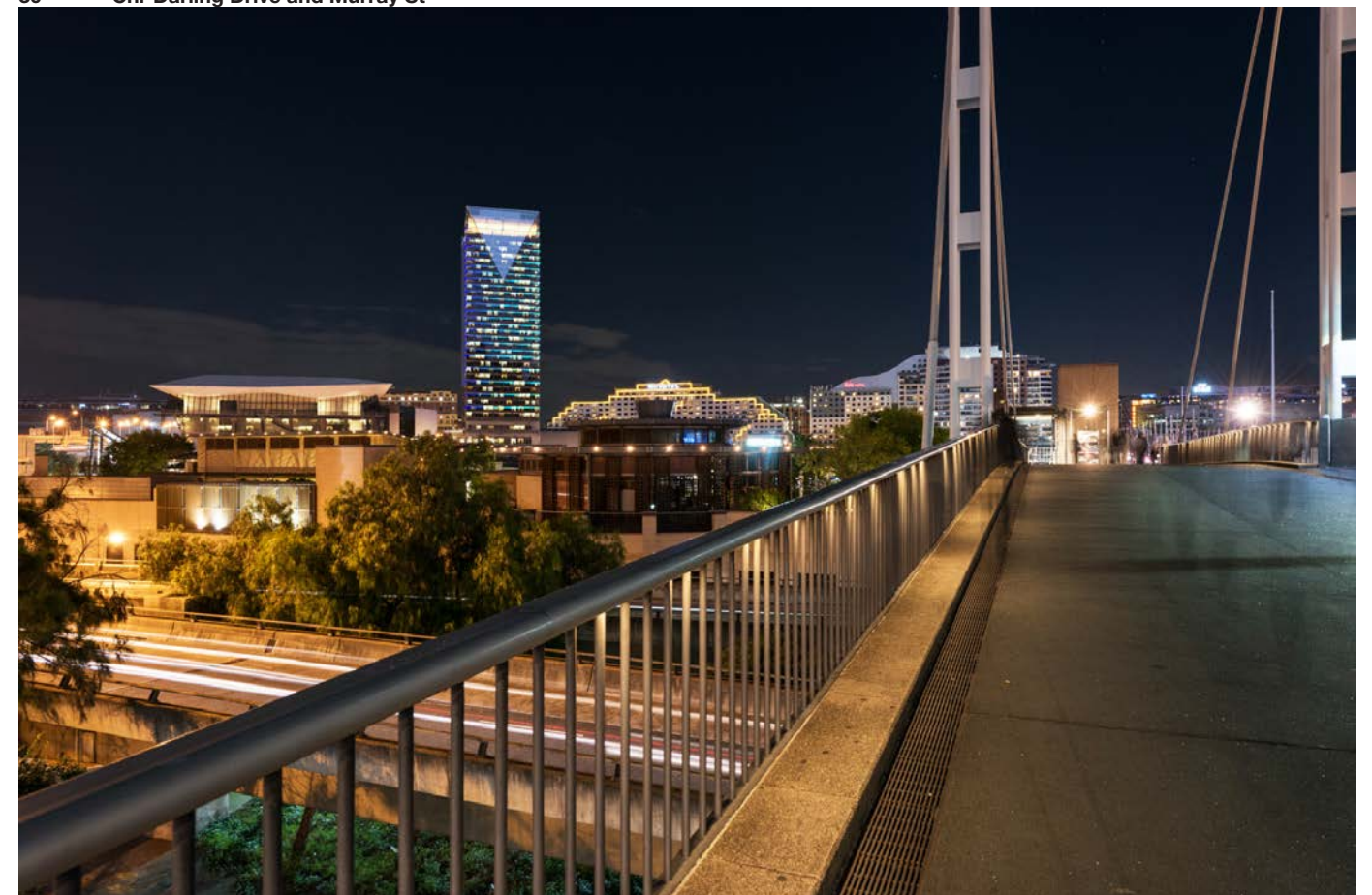
29 Allen Street



30 Cnr Darling Drive and Murray St



31 Pyrmont Bridge West



33 Darling Park



34 Cnr Sussex and Market Street



37 Illoura Reserve



36 Above Darling



39 Centrepont

The Operational Hours and Energy Efficiency of the Proposed Lighting System

Operational Hours

It is envisaged that the façade feature lighting will follow the precedent set by the Darling Quarter façade lighting with the following proposed hours of operation of the facade lighting artwork:

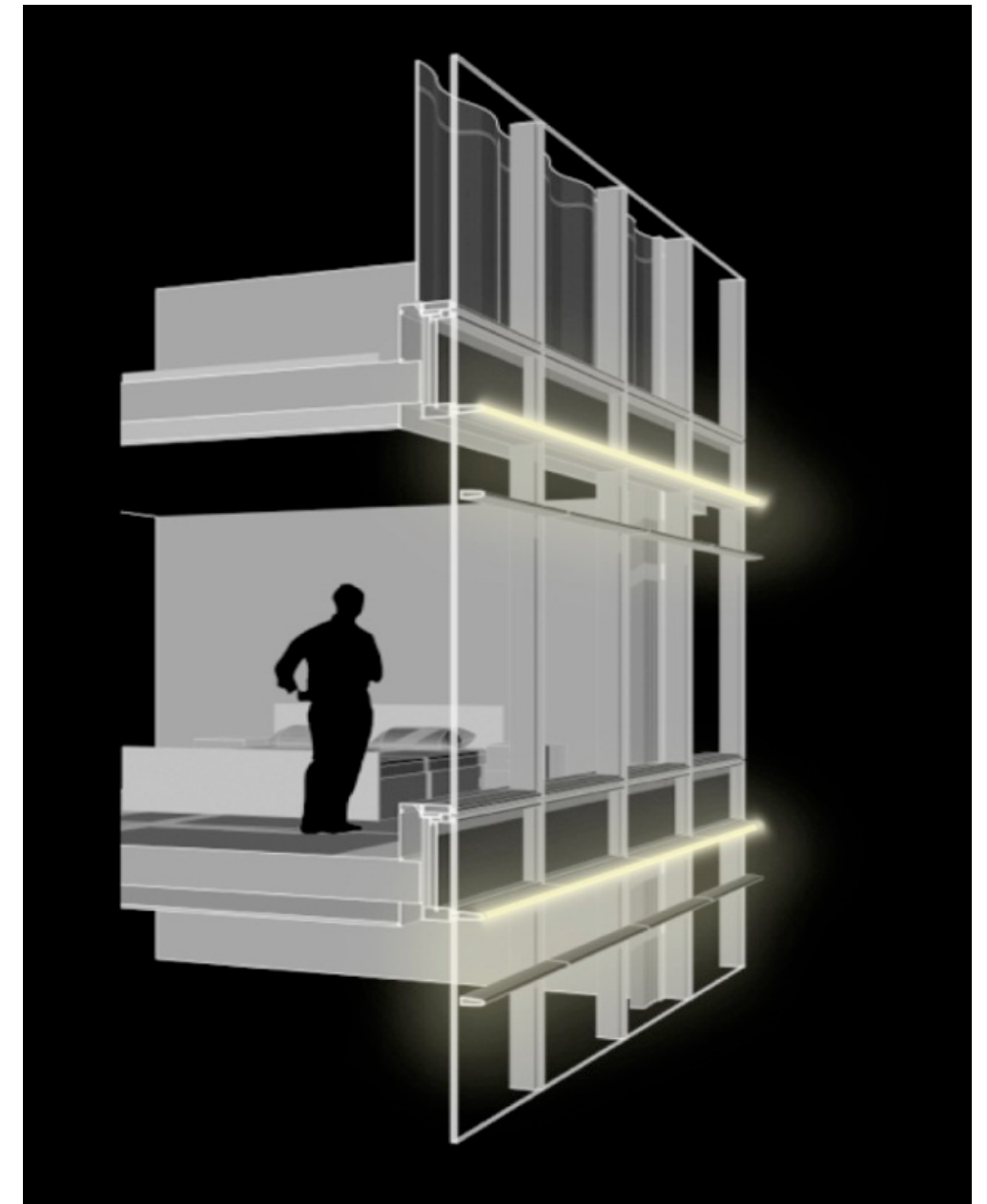
- Sunday to Thursday – dusk to 12.00am.
Monochromatic, gentle, subtle colour and movement.
- Friday and Saturday – dusk to 12.00am
Dynamic colour and movement

In addition it is proposed to operate to 1.00am during special events.

Special events may include Christmas Eve, Christmas Day, New Year's Eve, Australia Day, festival days or one-off or special events during the year.

Energy Efficiency

LED technology is inherently efficient, sustainable and BAT (best available technology). In fact, the energy consumed by the LED lighting system would equate to less than 1% of the buildings energy usage throughout the year.



Facade Integration and Technical Description of the Lighting System

Each window (where lighting strip is nominated on the façade) along the elevation will have a LED linear luminaire seamlessly integrated within the external louvred sunshade as shown below. This will form, what looks like a continuous 'lines of light' when viewed from a distance, and are inset to reinforce and make visible these architectural lines that would otherwise disappear in the evening and night-time.

The LED lights are recessed into the leading edge of the horizontal louvres ensuring that the feature lighting will not impact upon the amenity of hotel guests.

Given the importance of the night-time environment of Darling Harbour the close integration of the architecture and proposed lighting design is entirely appropriate and essential in avoiding the night-time appearance of the tower purely being random room lighting, thus maintaining and enhancing the identity of the ICC Hotel into the evening.

The LED is a R/G/B/W arrangement and IP68 rated for outdoor use. Fixing clips shall be provided to ensure that the LED is securely placed.

The LED strip shall be similar to the XLUX LED Ribbon product provided by Light Projects of 55 Miller Street, Pyrmont Sydney (Product Code XLUX-C-FR-F21B)

The system design will include internally housed controllers/ drivers for ease of maintenance and servicing.

The lighting control system will enable curation and management of colour tones, patterns and movement which will allow the hotel exterior to respond in different ways during different times/ events.

The illuminated north/eastern facade of the hotel was designed to provide visual interest to the precinct at night, the content of the facade display will be subtle

and subdued during the week days and on Friday, Saturday and Sunday evenings and during special events the facade will provide animation, colour and movement.

The facade lighting faces east, across the Harbourside shopping complex, towards the city across Darling Harbour basin.

The design of the external lighting will meet the requirement of;

- AS2293.1-2005 Emergency Lighting and Exit sign design and install.
- AS1680.2.1-2008 Interior Lighting Code
- National Construction Code Series 2013- Volume One, Building Code of Australia.
- AS4282 – 1997. Control of the obtrusive effects of outdoor lighting.
- AS1158.3.1 – 2005. Pedestrian Area Lighting.
- Sydney Aviation. Manual of Standards part 139-Aerodromes. Section 9.21: Lighting in the Vicinity of Aerodromes

The lighting shall complement the built structure and add character and a sense of space, the ambiance shall be in keeping with the surrounding heritage buildings.

The external lighting shall blend seamlessly with the DHL public realm lighting scheme

There will be no light trespass to the adjacent light rail system.

The façade lighting which faces the harbour, complies with AS4282.

Glare from luminaires will be kept at the bare minimum and contained within the site footprint.

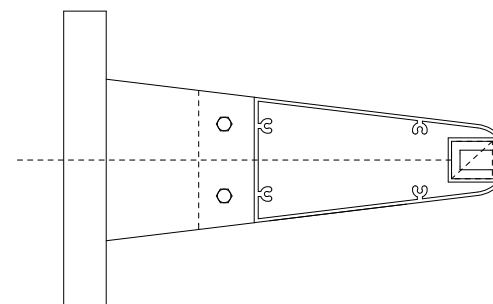
Operation of external lights shall comply with curfew times unless required for public safe movement.

The proposed lights and lamps utilised for the project will be efficient, sustainable and use BAT (best available technology).

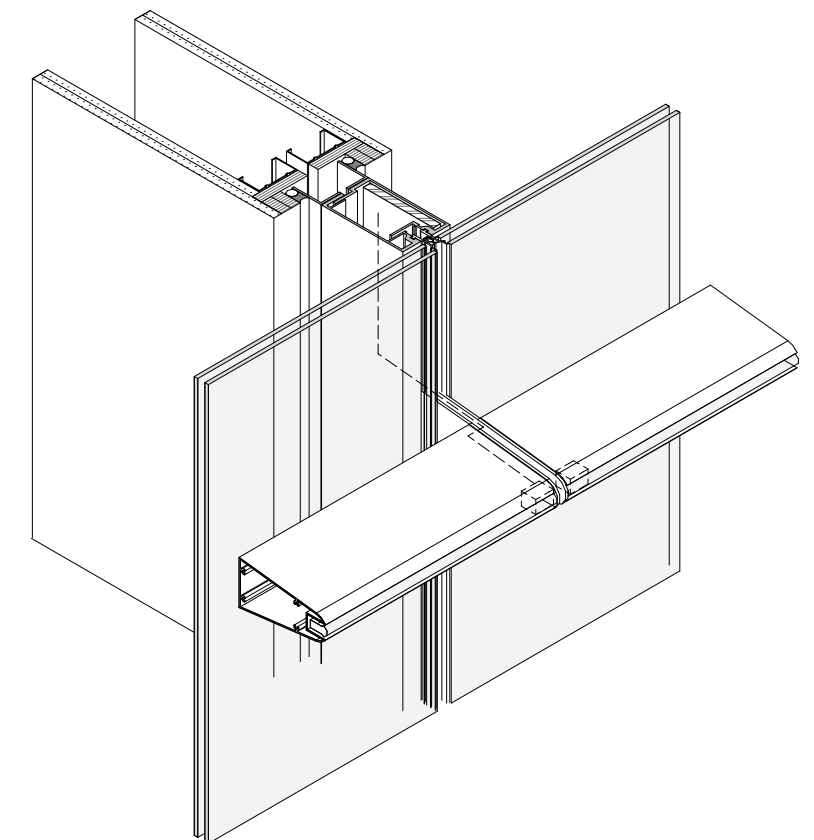
The lighting levels and arrangement befits the ambiance required for the space.

The control of the luminaires shall be via the building automation system with inputs from photo electric cells, time functions and motion detection.

The lighting scheme for the project will be carried out by a professional lighting designer.



sunshade with recess for LED light fitting



sunshade with recess for LED light fitting

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