NEXTDC SC2
LIGHTING CONCEPT REPORT

PROJECT 3750

REVISION 03

7 MARCH 2025

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'In the spirit of reconciliation Electrolight acknowledges the Traditional Custodians of country throughout Australia and their connections to land, sea and community. We pay our respect to their Elders past and present and extend that respect to all Aboriginal and Torres Strait Islander peoples today.'

INTRODUCTION

PREAMBLE

Electrolight has been engaged by NEXTDC to provide specialist lighting design services for the NEXTDC SC2 project located in the Sunshine Coast, Queensland, designed by Architectus.

The lighting design aims to form a partnership with the Architecture, Interiors and Landscape and create a highly visual environment that supports the NEXTDC brand.

All lighting will use the latest in LED technology and be energy efficient and cost effective.

The following pages detail the facade, landscape, entry canopy and interior lighting concept.

DESIGN CONSIDERATIONS

Electrolight strives to exceed best practice in the design of sustainable and inclusive lighting schemes.

We consider and assess every aspect of the design process through the following criteria:

Energy - Design schemes that use less power wherever possible through a reduction of light sources, smart control strategies and efficient luminaires

Materials - Choose luminaires from manufacturers with proven credentials in sustainable use of energy and materials, preferring products that can be part of a circular economy

Place and Context - Restore people's relationship with nature and their local context as well as minimise undesired light pollution

Equity - Design spaces and experiences for all users and support justice and equity through our internal policies and product selection

Wellbeing - Ensure proposed lighting schemes appropriately facilitate tasks, maximise comfort and improve the physical and psychological health of all users and visitors

Significance - Design memorable and lasting experiences that imbue meaning and purpose

Light Levels

Light levels will be selected to be suitable for individual tasks and focused to allow for the creation of spaces with a high level of visual interest. This will typically be achieved by having contrast in illumination (lighter and darker areas).

The following light levels (lux) are proposed. Note all lux levels are average horizontal and taken at ground level unless noted otherwise:

Interior:

- Lobby - 160 lux
- Security Office - 320 lux
- Corridors - Min 80 lux
- Breakout Space - 320 lux on tables
- Town Hall & Events - 750 lux on tables
- Meeting Rooms - As per NEXTDC Guidelines
- Amenities & EOT - 80 to 200 lux
- Bike Store - 160 lux

Exterior

- Under canopies - 40 lux
- Stairs & ramps - 7 lux average horizontal, 2 minimum horizontal & 2 minimum vertical illuminance - Australian Standards 1158.3.1:2020 Category PE2/PA3

Lighting Control

Lighting scenes will be used to create the desired ambience for varying times of day and evening. These lighting scenes will automatically transition for common spaces while other areas will rely on manual activation based on the preference of the user.

All lighting to be dimmable via DALI-2 protocol (typical) or Trailing Edge (for some decorative pieces). General common area lighting to be controlled via a dedicated lighting control system.

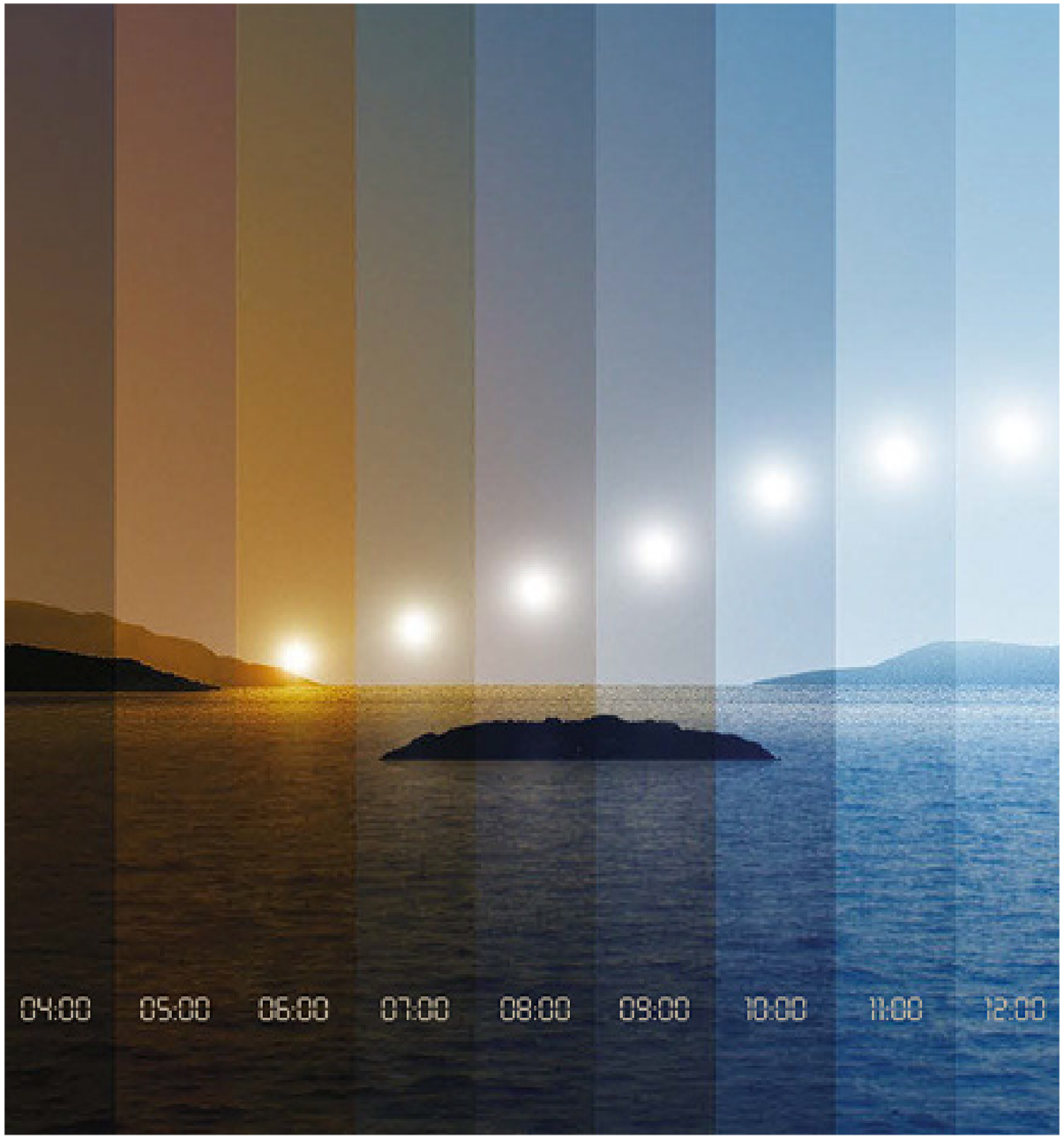
Colour Temperature

Light is a naturally shifting medium with constant variation. It changes colour throughout the day based on time and natural phenomena.

We learn to associate the different colours of light with specific experiences, such as pure white for clouds in the middle of the day, orange hues with the afternoon sun, and more red-ish hues for candlelight and ending sunsets.

To assist in the creation of visual hierarchies, the lighting design may incorporate a number of different colour temperatures of white light. The following are proposed:

- Internal front of house common area lighting to be 3000K (warm white)
- External facade lighting to be either dedicated red or white lights illuminating feature red materials
- External FOH entry canopy lighting to be 3000K (warm white)
- External FOH landscape lighting to be 3000K (warm white)

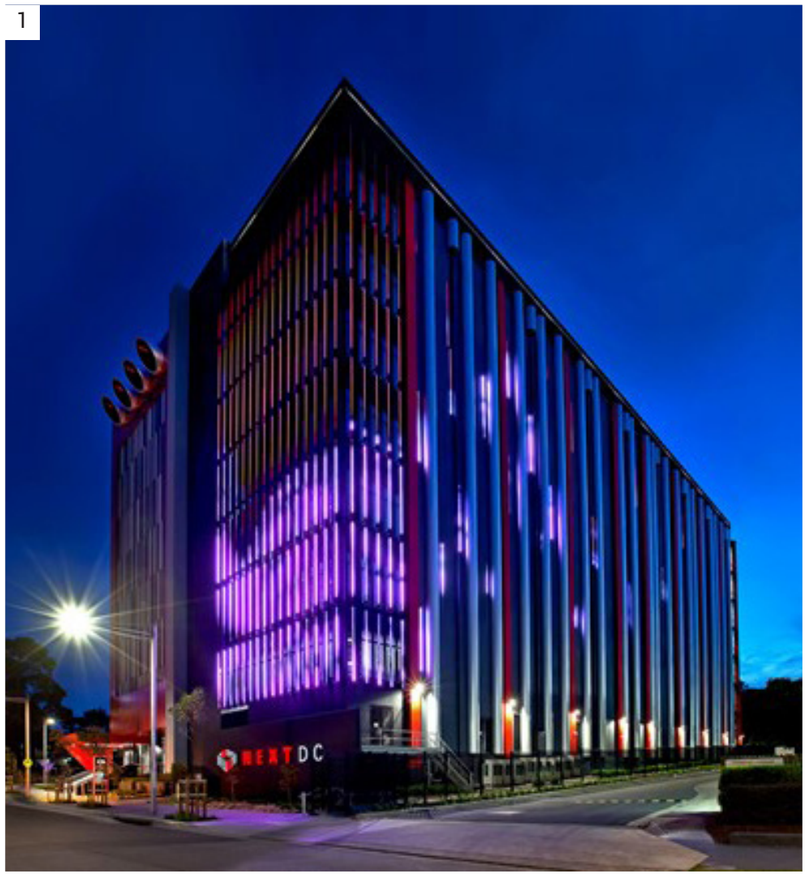


EXTERIOR

1 - NEXTDC S2
2 - NEXTDC S3
3 - NEXTDC M3

NEXTDC FACADE LIGHTING PRECEDENTS
DESIGNED BY ELECTROLIGHT

1



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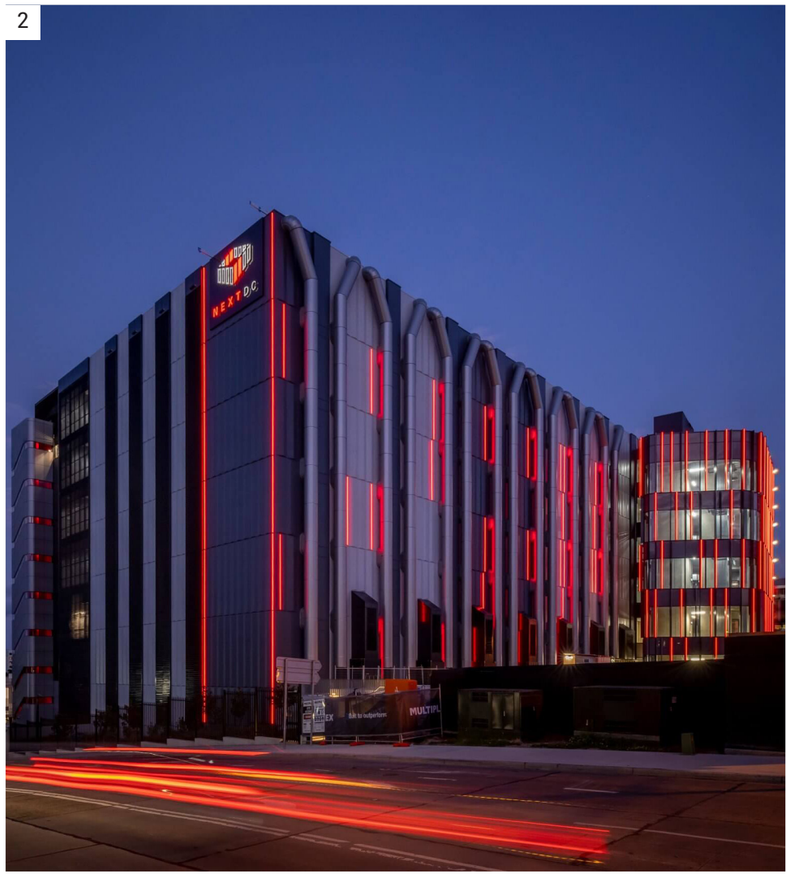

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1 - Architectural visualisation view looking NE
2 - Architectural visualisation view looking NW

FACADE
ARCHITECTURAL VISUALISATIONS

1

2

EXTERNAL FACADE
INSPIRATION

1 - Feature red lighting on facade
2 - Concealed vertical light detail
3 - Glow to red portals

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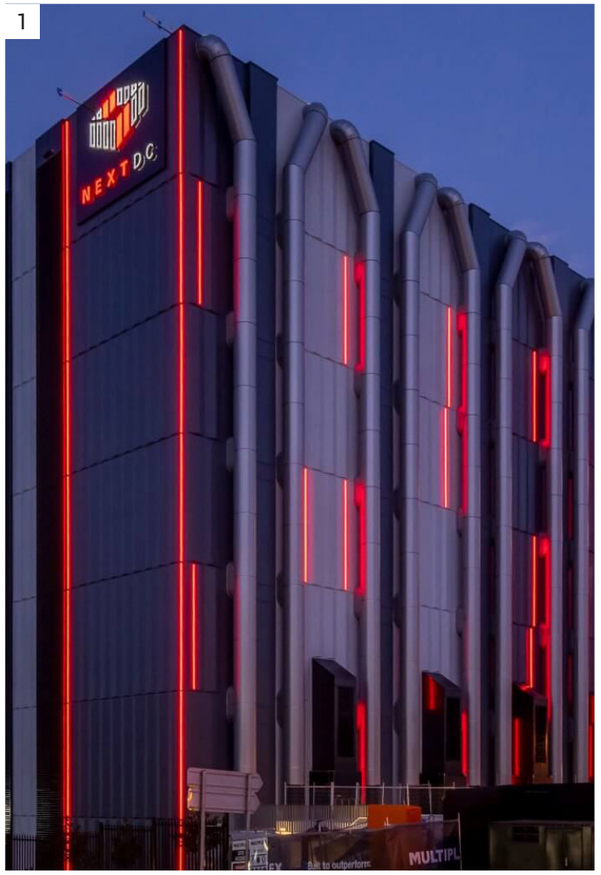

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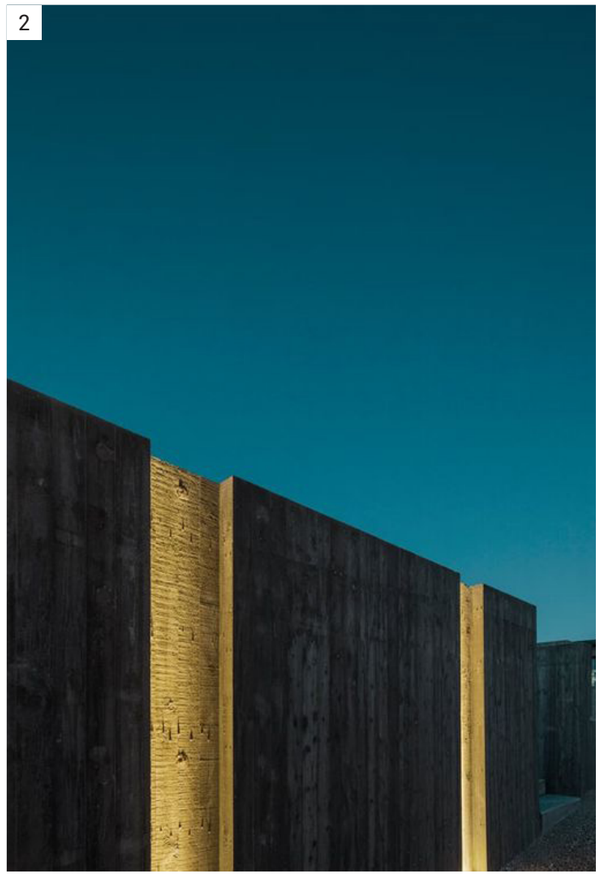

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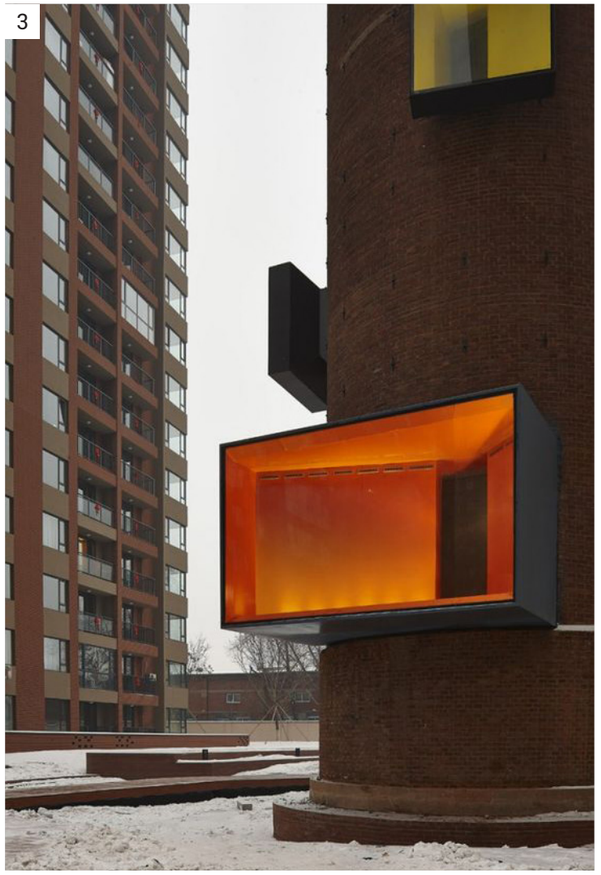
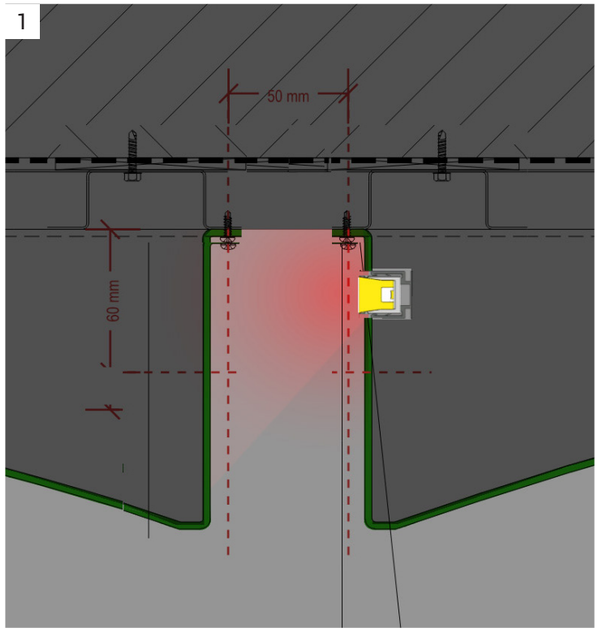


1 - Indirect vertical lighting within 50mm wide rebate between concave facade panels
2 - Reference image of vertical lighting effect
3 - Lighting visualisation of NE elevation
4 - Proposed LED profile

EXTERNAL FACADE
LIGHTING DETAILS

1



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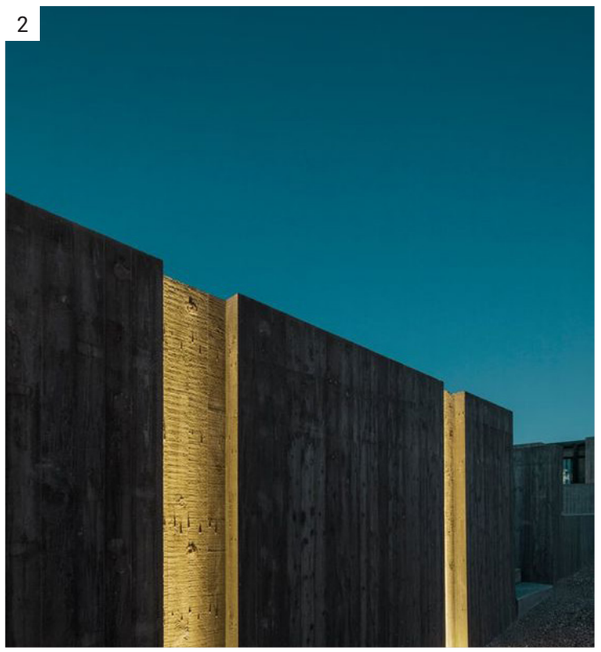

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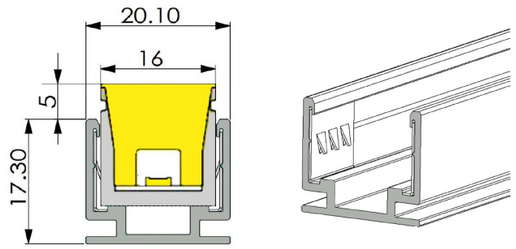
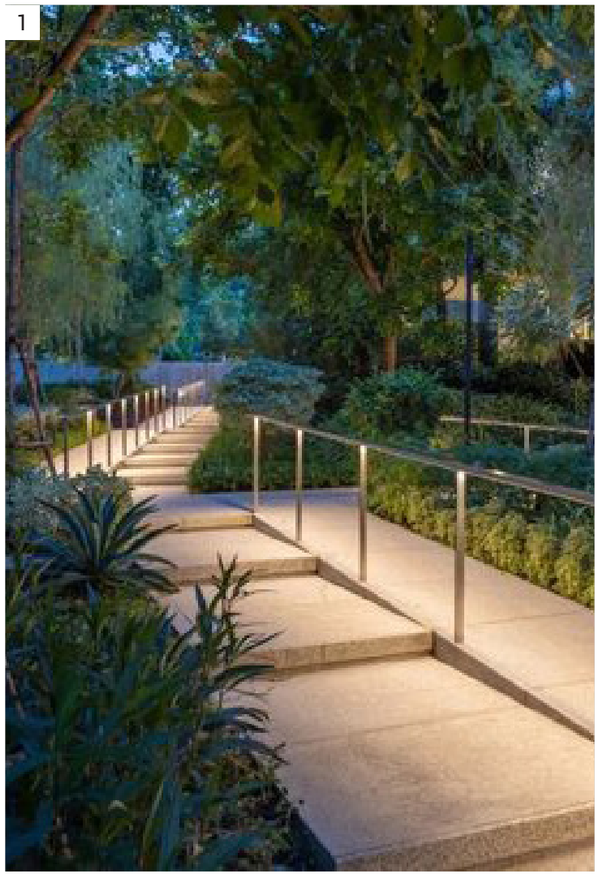


ENTRY AND LANDSCAPE
INSPIRATION

1 - Handrail integrated lighting
2 - Recessed wall lights
3 - Bollard lights within planters
4 - Downward lighting and general glow from within
5 - Uplighting to red entrance feature

1



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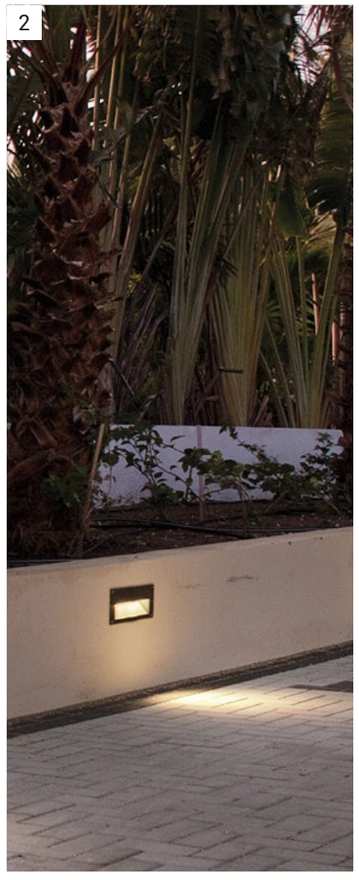

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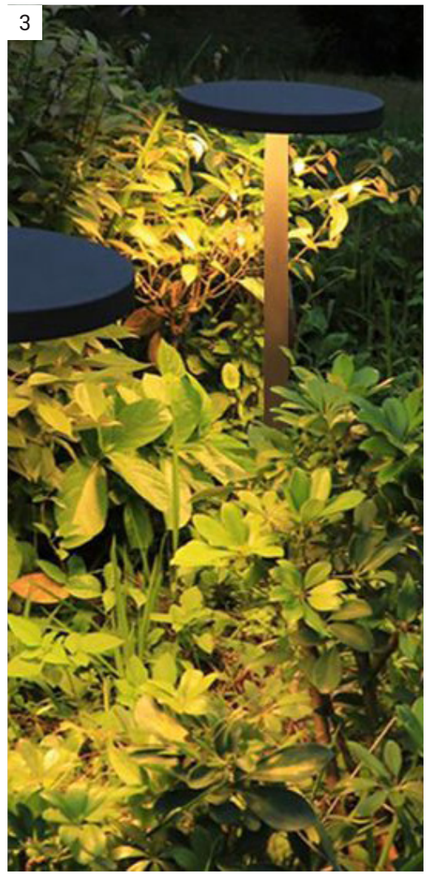

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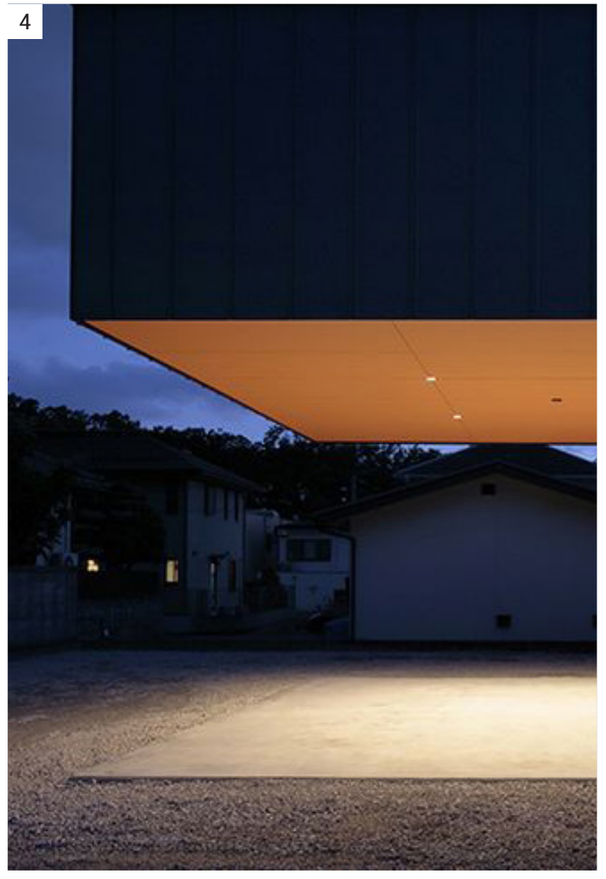

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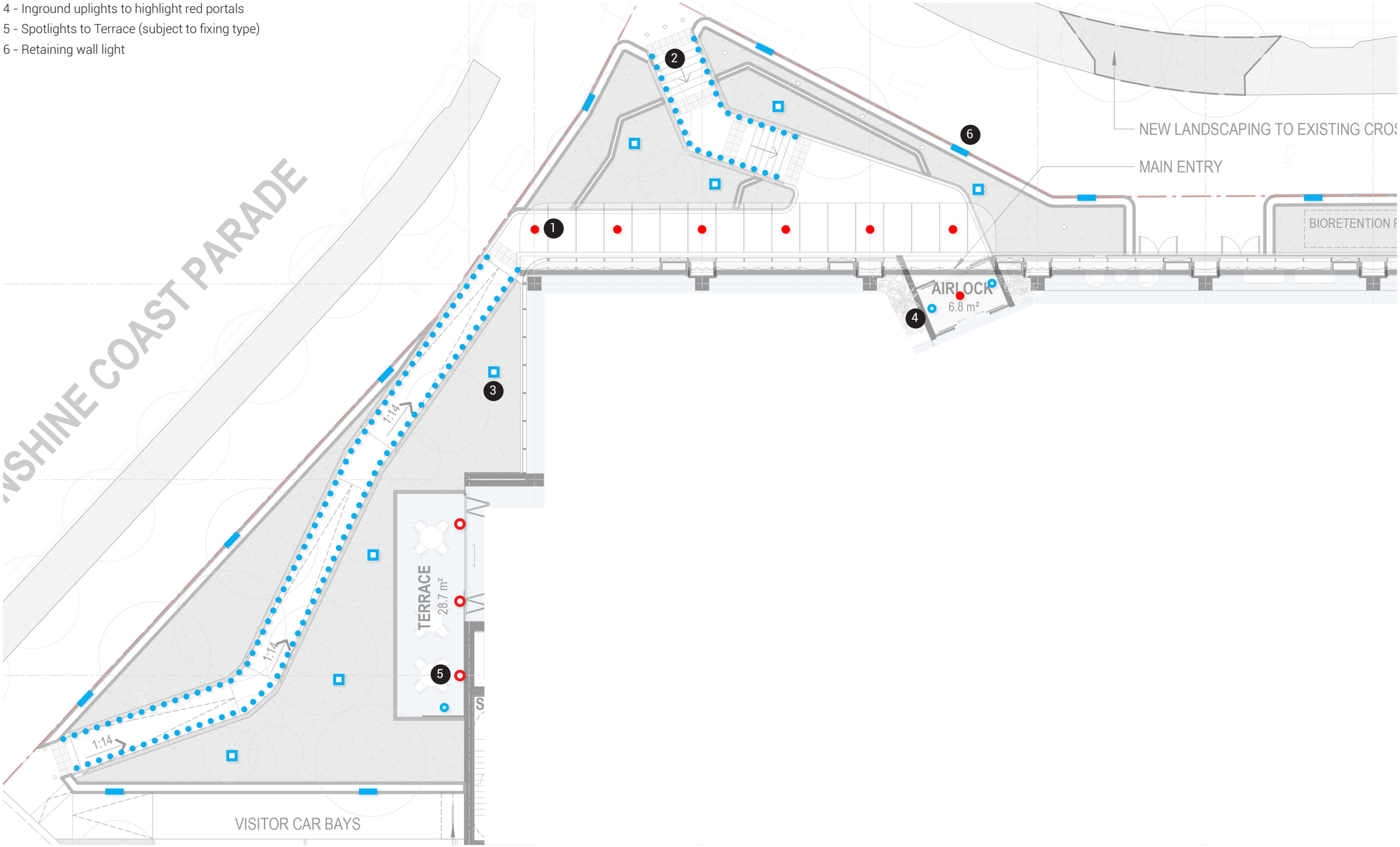
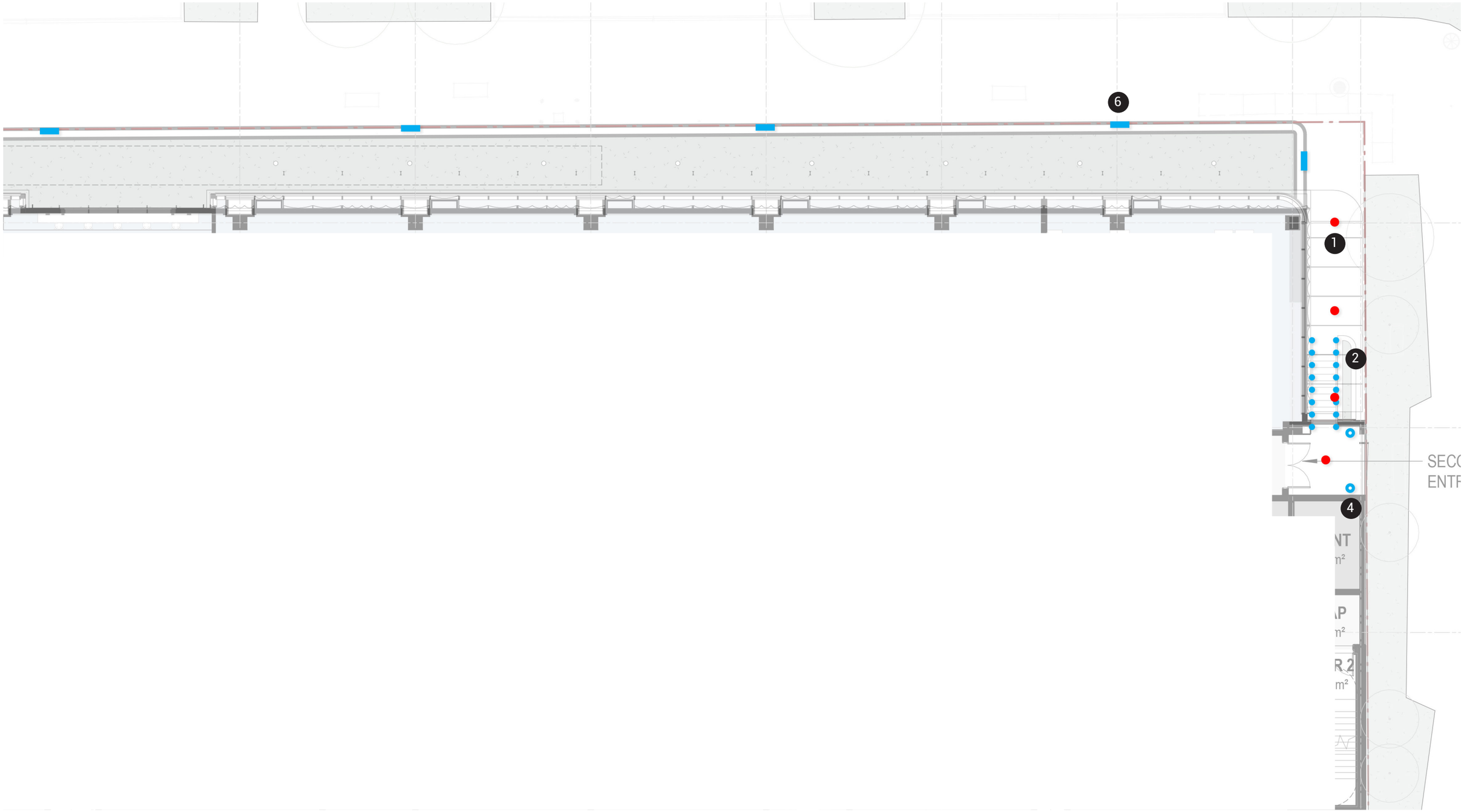
1 - Downlights within soffits
2 - Handrail integrated lighting
3 - Bollard lights within planters
4 - Inground uplights to highlight red portals
5 - Spotlights to Terrace (subject to fixing type)
6 - Retaining wall light

SOUTHERN ENTRY AND LANDSCAPE
LAYOUT



NORTHERN ENTRY AND LANDSCAPE
LAYOUT

1 - Downlights within soffits
2 - Handrail integrated lighting
3 - Bollard lights within planters
4 - Inground uplights to highlight red portals
5 - Spotlights to Terrace (subject to fixing type)
6 - Retaining wall light

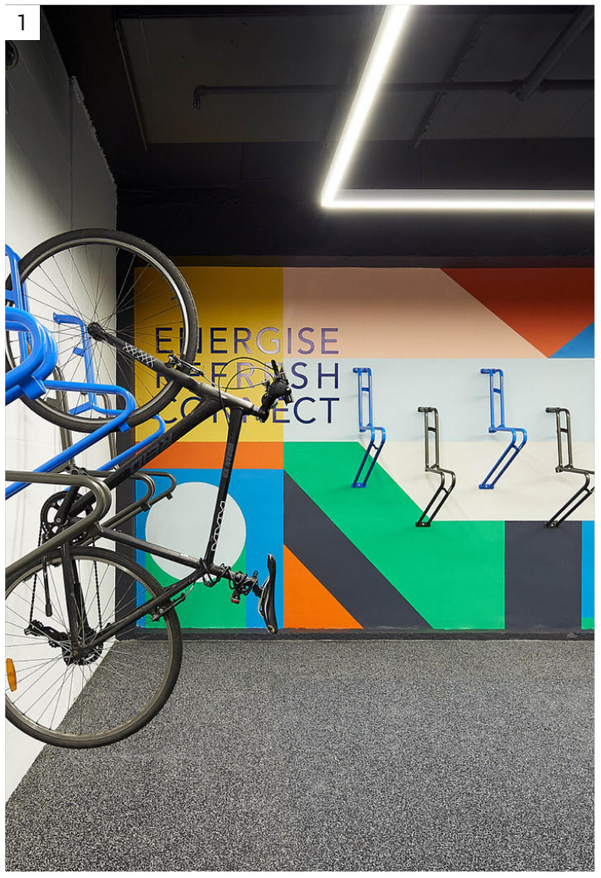


LOWER GROUND LEVEL

1 - Suspended linear profile to Bike Store
2 - Wall light at vanities
3 - Indirect cove lighting
4 - Diffuse circular lighting

END OF TRIP
INSPIRATION

1



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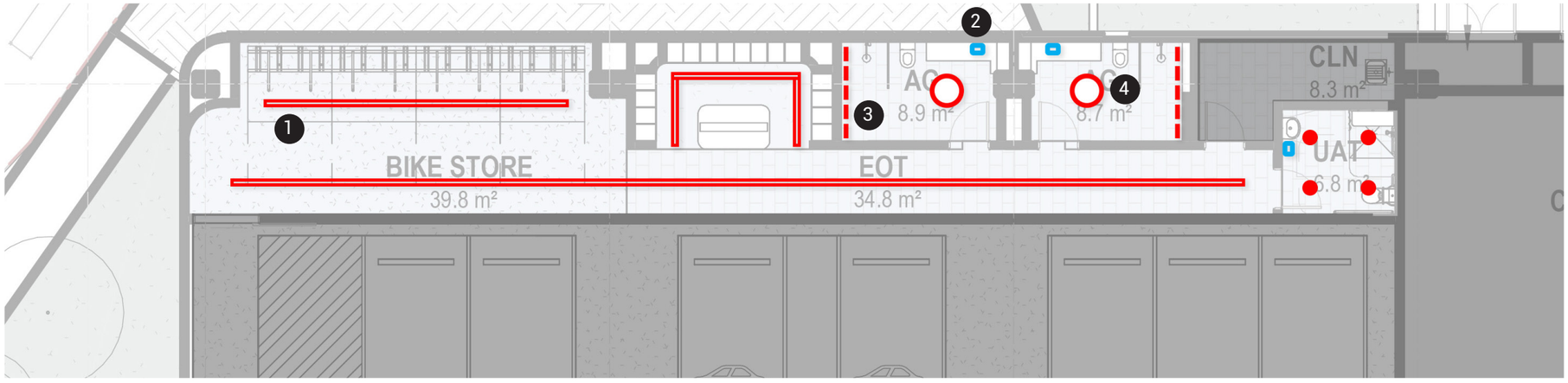
LOWER GROUND LEVEL
LIGHTING LAYOUT

1 - Suspended linear profile to Bike Store & EOT Corridor
2 - Wall light at vanities
3 - Indirect cove lighting
4 - Diffuse circular lighting

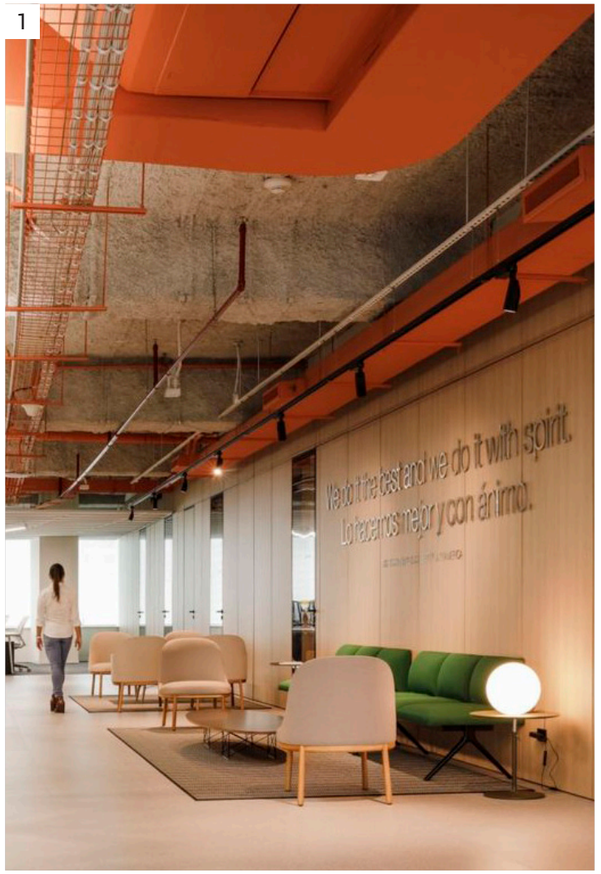


GROUND LEVEL

ENTRY LOBBY
INSPIRATION

1 - Suspended track system in exposed ceiling
2 - Cove light to accent feature wall
3 - Opportunity to uplight from linear track system to exposed ceiling
4 - Track spotlight to corridors

1



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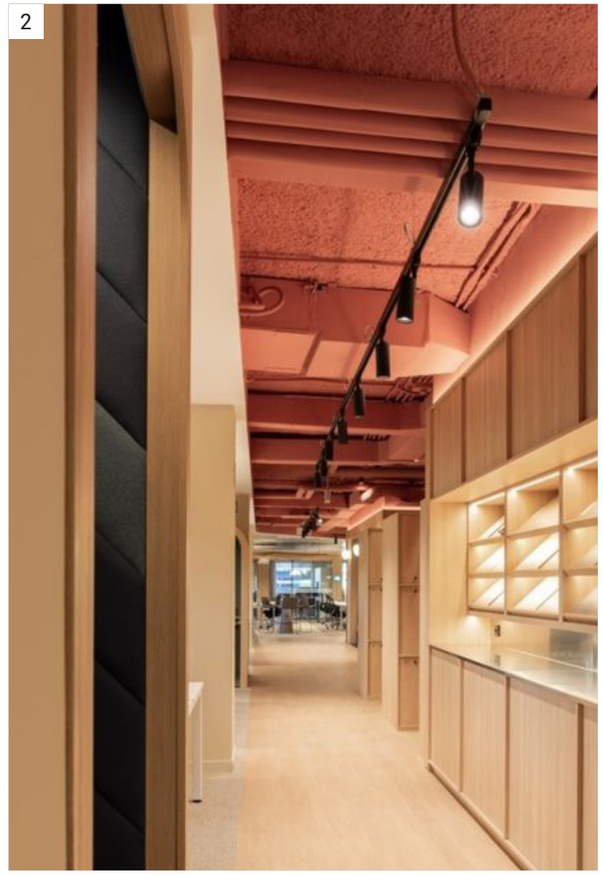
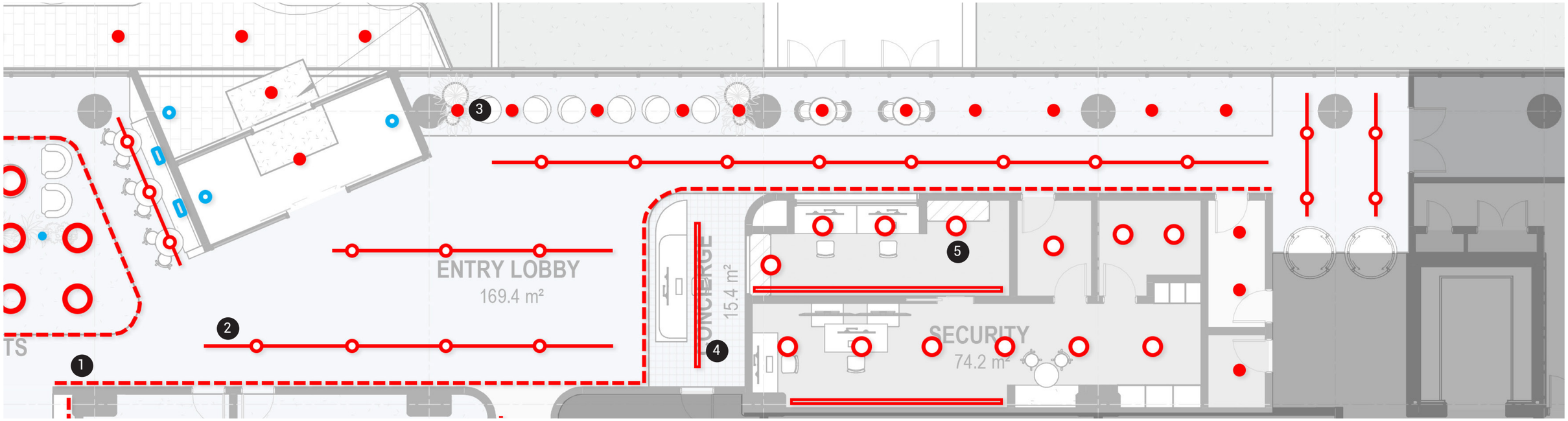


ENTRY LOBBY
LIGHTING LAYOUT

1 - Linear strip in cove/pelmet light detail
2 - Suspended lighting, track spotlights & linear uplight
3 - Recessed downlight
4 - Recessed linear profile
5 - Large downlight with wide beam angle and low glare.

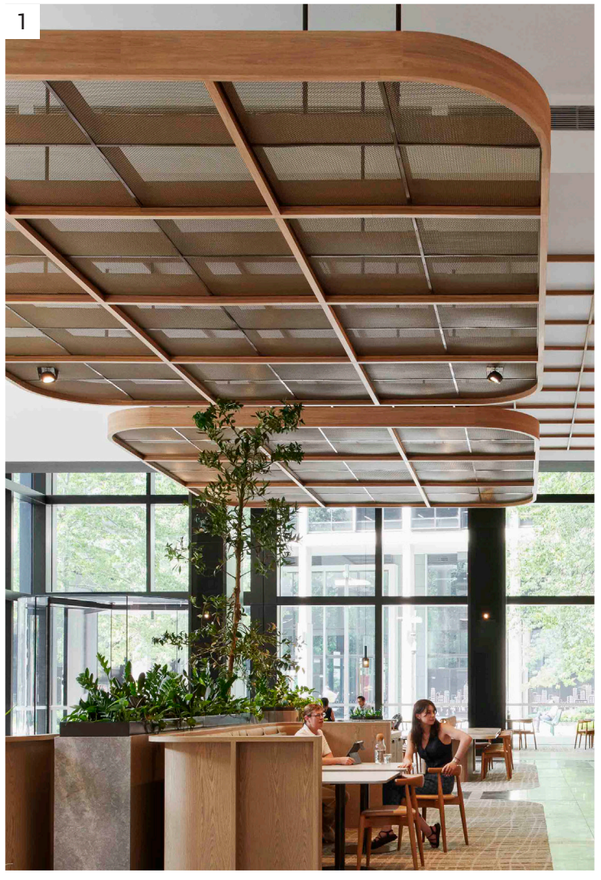


ENTRY LOBBY
VISUALISATION

TOWN HALL
INSPIRATION

1 - Dropped bulkhead with perforated panels
2 - Opportunity for feature lighting to suspend within bulkhead zone
3 - Opportunity for LED strip to be concealed within bulkhead frame panels
4 - Concealed uplight

1



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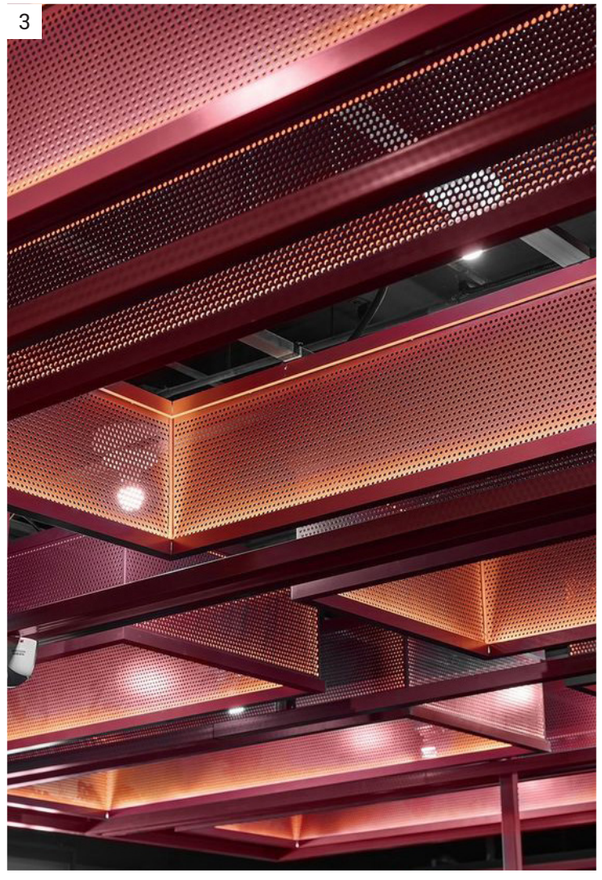

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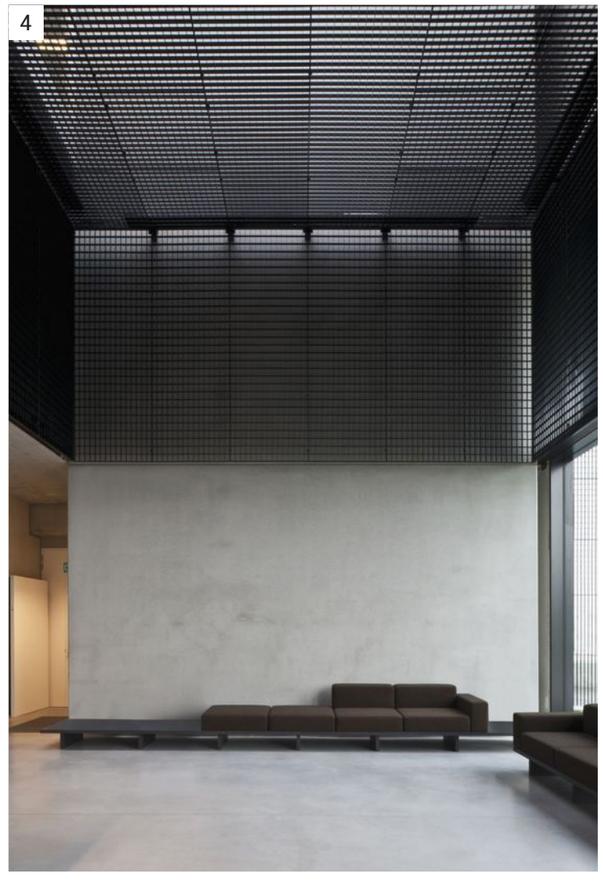
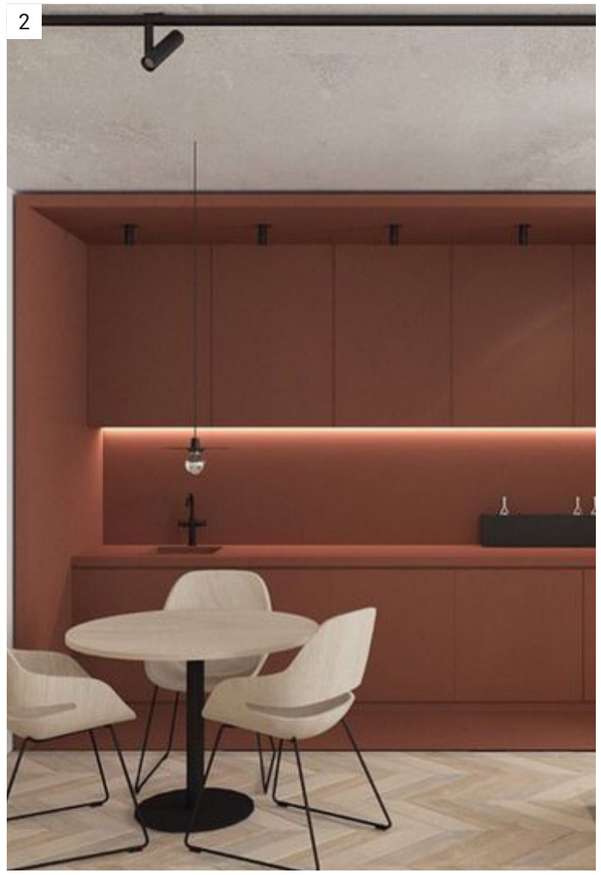


BREAKOUT
INSPIRATION

1 - Cove light to accent feature wall
2 - Linear strip to kitchen joinery
3 - Suspended track system in exposed ceiling
4 - Suspended pendant over island bench

1

2



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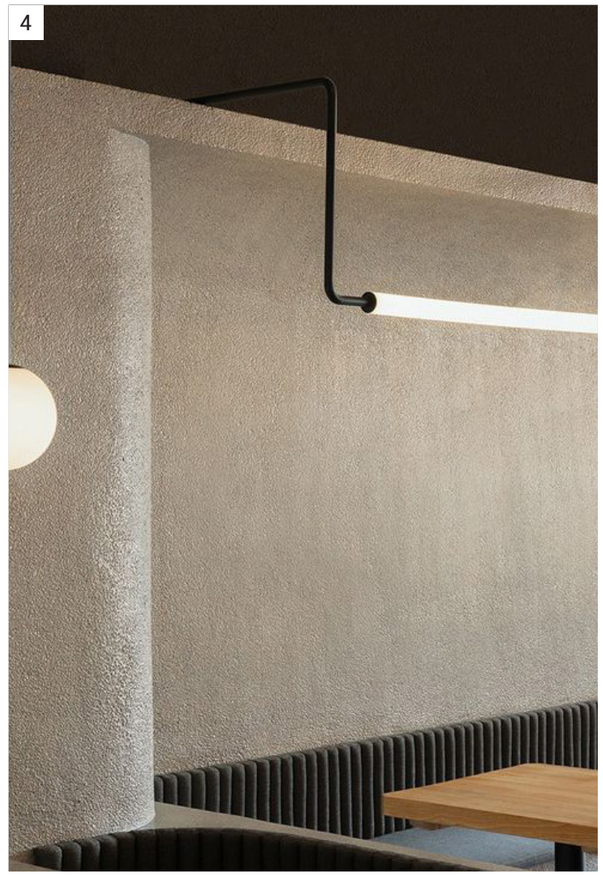
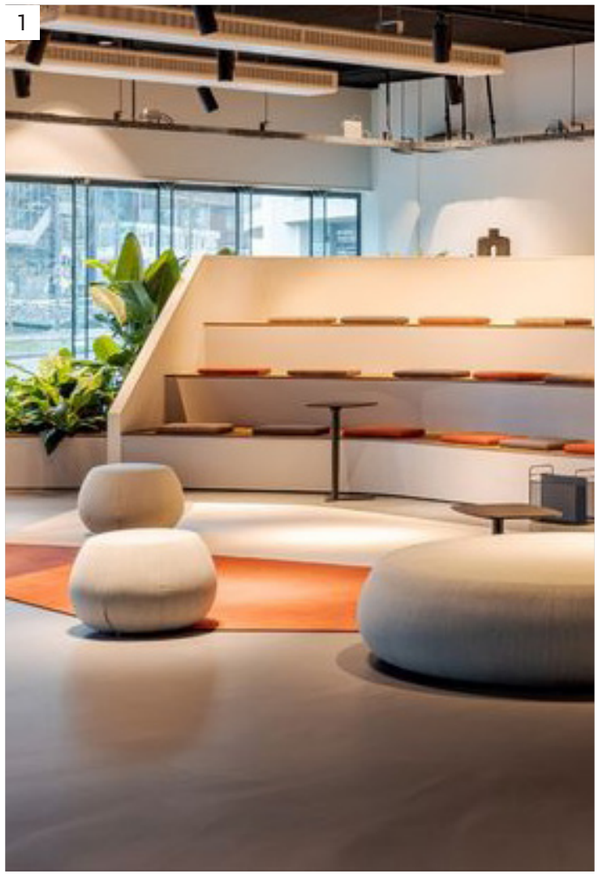


BREAKOUT
VISUALISATION

TERRACED SEATING
INSPIRATION

1 - Terraced seating illuminated from above
2 - Opportunity for linear strip to be concealed within bulkhead frame
3 - Cove light to accent walls
4 - Suspended pendants over fixed tables

1



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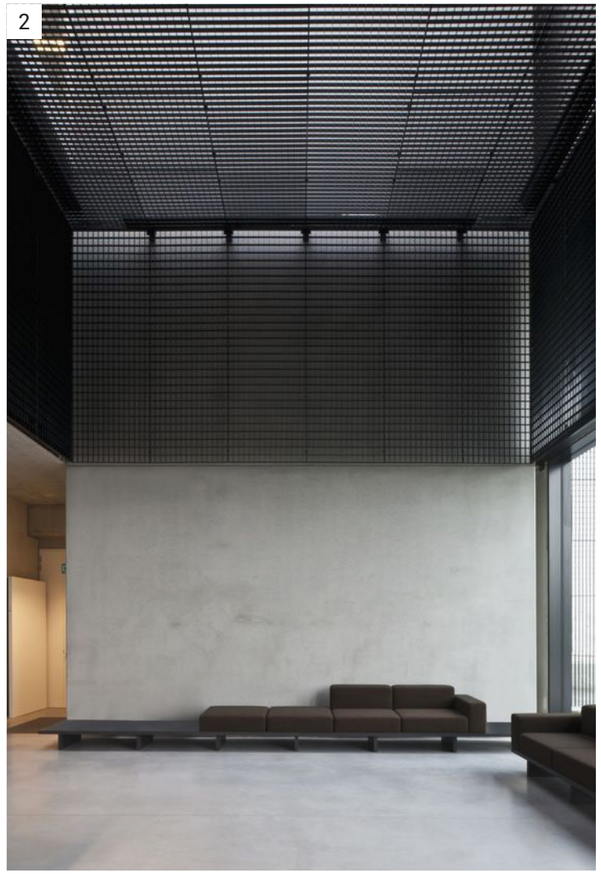

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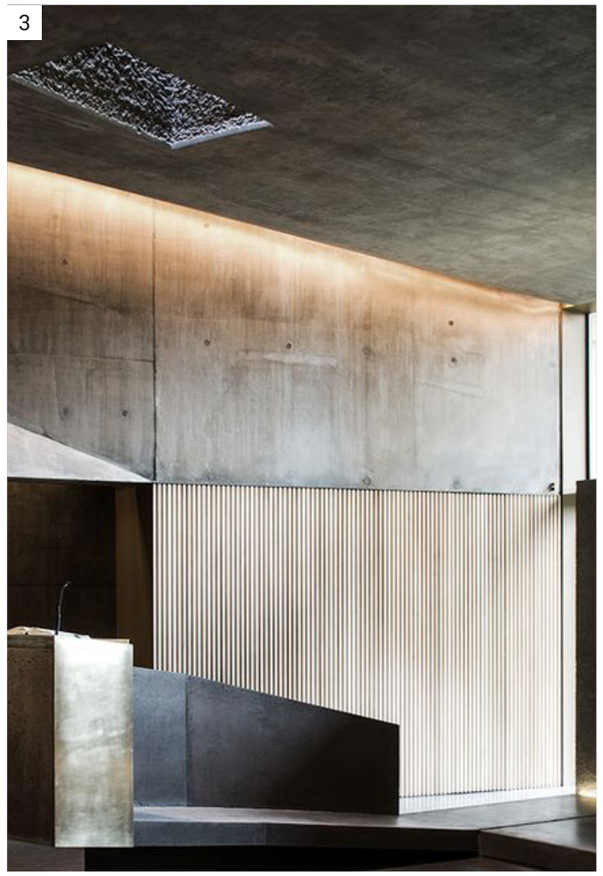

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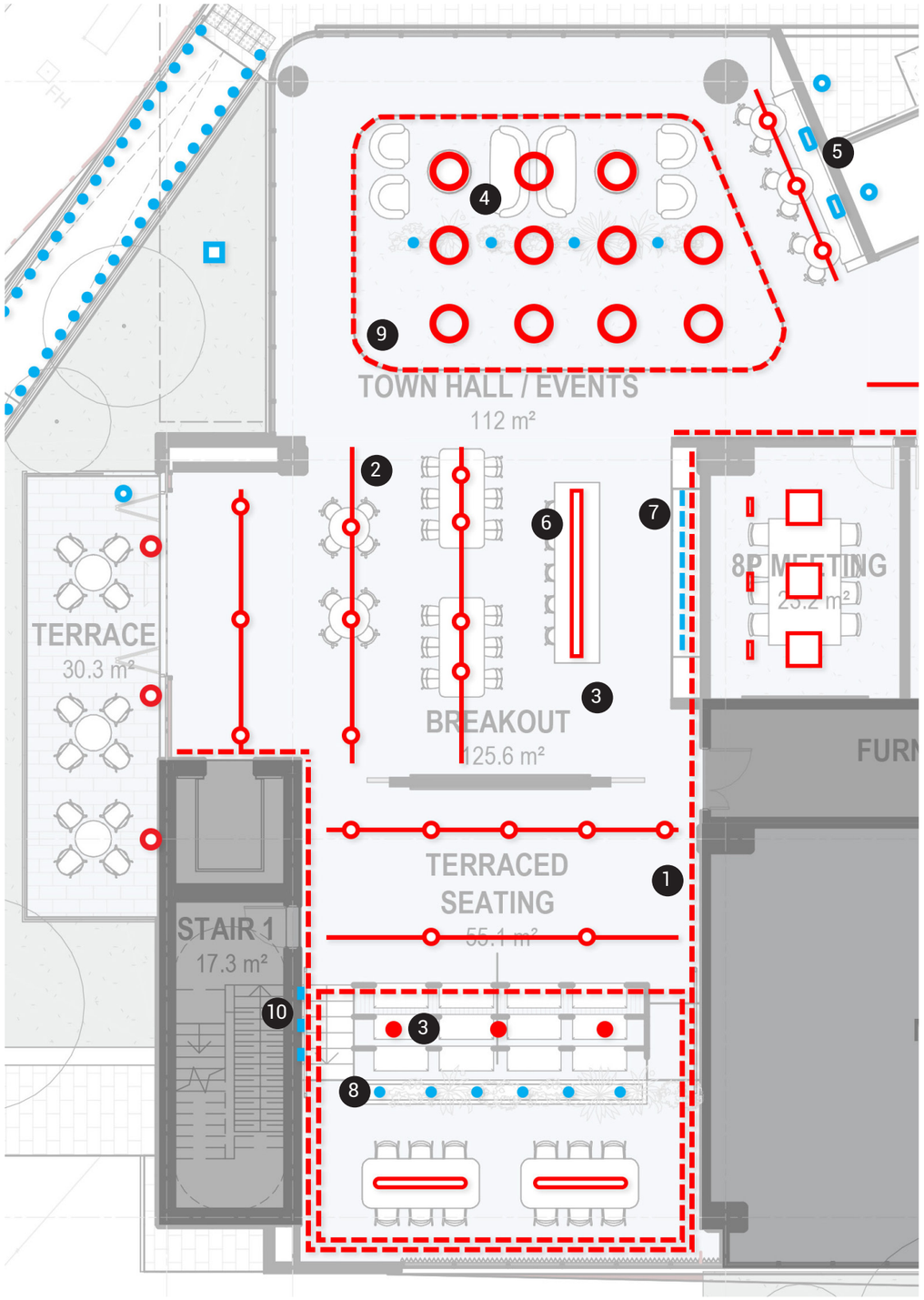
TERRACED SEATING
VISUALISATION

1 - Linear strip in cove/pelmet light detail
2 - Suspended lighting track, track spotlights & uplight
3 - Recessed downlight
4 - Decorative lights providing functional light
5 - Decorative wall lights
6 - Suspended pendant
7- Linear strip integrated to Kitchen splashback
8 - Spike lights within planters
9 - Lighting concealed within dropped bulkhead
10 - recessed wall lights

TOWN HALL, BREAKOUT & TERRACED SEATING
LIGHTING LAYOUT



MEETING ROOMS AND CORRIDOR
INSPIRATION

1 - Light panels integrated within grid ceiling
2 - Recessed wall washers
3 - Indirect cove light & recessed downlights

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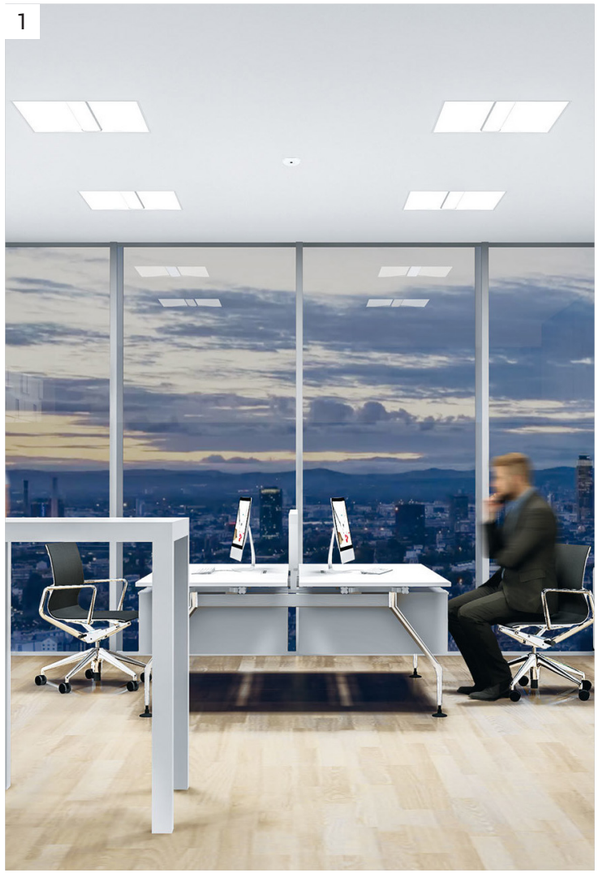

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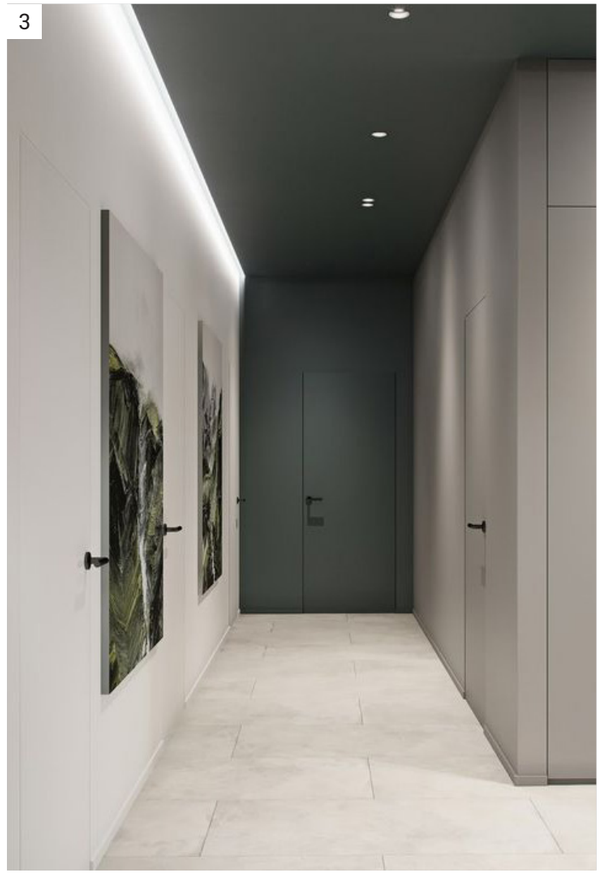
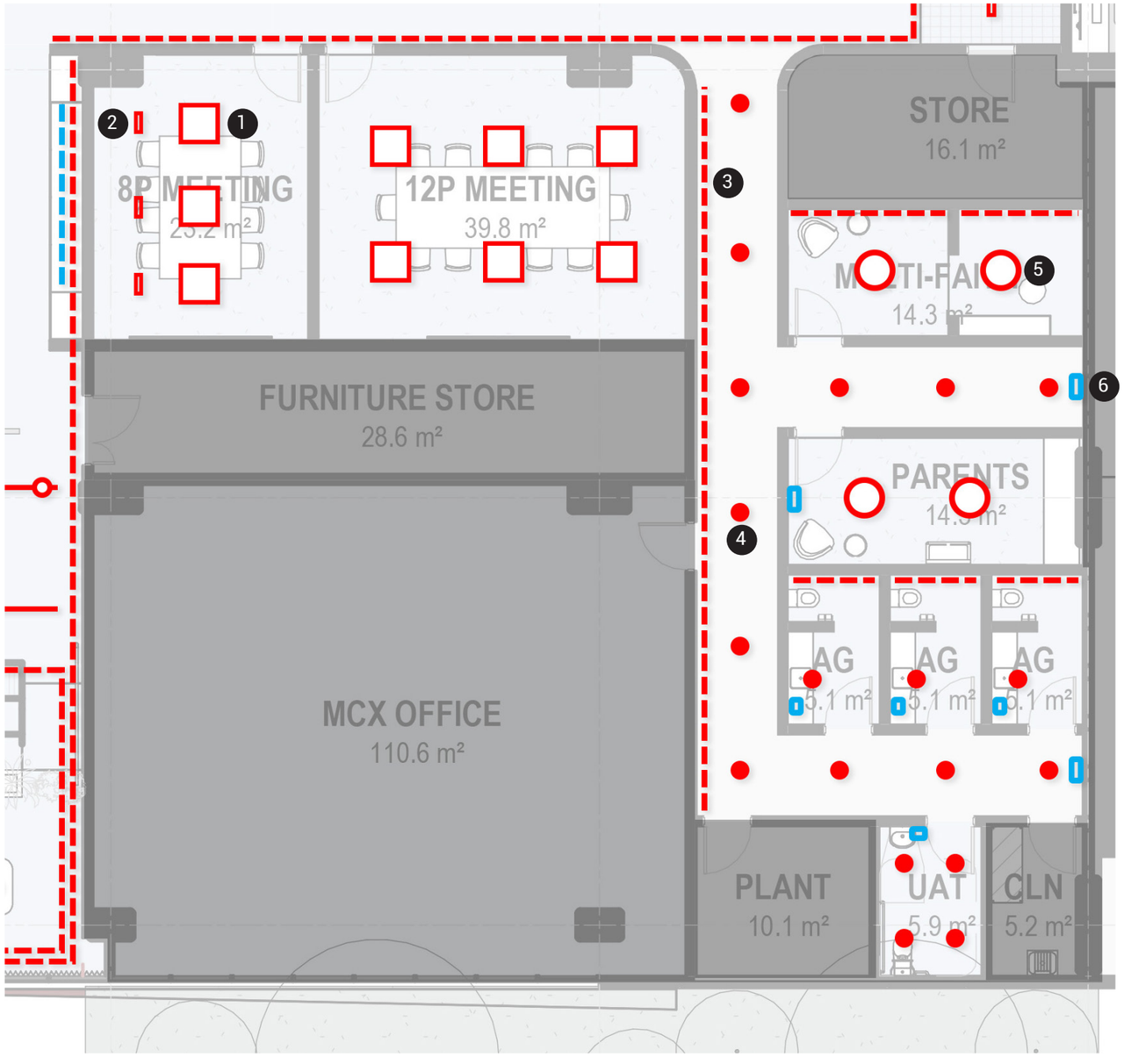


1 - Light panels integrated within grid ceiling
2 - Recessed wall washers
3 - Indirect cove light
4 - Recessed downlights
5 - Circular diffuse ceiling light
6 - Decorative wall light

MEETING ROOMS & AMENITIES
LIGHTING LAYOUT



THANK YOU