



## Lighting Control Intent

|                         |                                                   |
|-------------------------|---------------------------------------------------|
| <b>Project:</b>         | Ashely Road East,<br>Tottenham Hale<br>London, UK |
| <b>Project Number:</b>  | 11163B                                            |
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| 00  | 02/11/18 | AGB | AGB  | Stage 3 Design Development<br>Issue |

### 1.0 Introduction

This document is a preliminary statement of the lighting control concept and requirements for a lighting control system at Ashley Road East.

### 1.1 Scope

The following areas/elements are within Speirs + Major's design scope and are covered by this Lighting Control Intent:

- Watermead Place & Colonnade
- Reception Lobby
- Level 01 Amenity Area
- Level 01 Roof Terrace
- Level 05 Roof Terrace

The following areas/elements are not within Speirs + Major's design scope and are excluded from the scope of this document:

- Streetlighting on Watermead Way & Ashley Road

### 1.2 References

- **Preliminary Logical Control Channel Schedule**
- TH-ARE-01-001-J-11163B-63-821
- **Drawings**
- TH-ARE-01-001-J-11163B-63-101
- TH-ARE-01-001-J-11163B-63-102
- TH-ARE-01-001-J-11163B-63-103
- TH-ARE-01-001-J-11163B-63-104
- TH-ARE-01-001-J-11163B-63-105
- TH-ARE-01-001-J-11163B-63-106
- TH-ARE-01-001-J-11163B-63-107

### 2.0 System Approach

A lighting control system based on the scene-setting principle is required for this project. A lighting scene consists of a pre-programmed set of intensities (and other parameters if relevant) for all lights within a given area. Scenes are automatically recalled as required by a number of inputs and criteria, which may include time, light sensing, presence sensing, button panels and other user interfaces, and interfaces with other control systems.

### 3.0 Areas

Preliminary functional requirements for each are identified in the following section.

### 3.1 Watermead Place & Colonnade

#### 3.1.1 Lighting Control Concept

The building-mounted lighting in Watermead Place and the pendant lighting in the Colonnade will be turned on at dusk and will remain on until dawn. Uplighting to colonnade and other landscape lighting will turn on at dusk but will be turned off at an agreed curfew time, eg 1am.

#### 3.1.2 Summary of Control Requirements

|                                                                  |                                                       |
|------------------------------------------------------------------|-------------------------------------------------------|
| Scene setting                                                    | Yes                                                   |
| Dynamic sequences                                                | No (If yes, explain what elements)                    |
| Automatic scene selection according to absolute time and/or date | No                                                    |
| Automatic scene selection according to astronomical time         | No                                                    |
| Automatic scene selection according to external daylight level   | Yes                                                   |
| Automatic circadian colour-temperature change                    | No                                                    |
| Presence/absence sensing                                         | No                                                    |
| Daylight linking (constant minimum illuminance)                  | No                                                    |
| Partition functions                                              | No                                                    |
| Scenes                                                           | Pre-curfew                                            |
|                                                                  | Post-curfew                                           |
|                                                                  | Off                                                   |
| Manual raise/lower function required                             | No                                                    |
| User Interface                                                   | Touchscreen – located in facilities management office |

### 3.2 Reception Lobby

#### 3.2.1 Lighting Control Concept

A "Morning" lighting scene will be automatically recalled at 6am.

An "Early evening" scene will be automatically recalled at dusk noon, with a slow fade time of at least five minutes.

A "Late Evening/Overnight" scene will be automatically recalled at midnight, with a slow fade time of at least five minutes.

Manual selection of lighting scenes will be available from a control panel at the concierge desk.

#### 3.2.2 Summary of Control Requirements

|                                                                |                        |
|----------------------------------------------------------------|------------------------|
| Scene setting                                                  | Yes                    |
| Dynamic sequences                                              | No                     |
| Automatic scene selection according to absolute time           | Yes                    |
| Automatic scene selection according to astronomical time       | No                     |
| Automatic scene selection according to external daylight level | Yes                    |
| Automatic circadian colour-temperature change                  | No                     |
| Presence/absence sensing                                       | No                     |
| Daylight linking (constant minimum illuminance)                | No                     |
| Partition functions                                            | No                     |
| Scenes                                                         | Morning                |
|                                                                | Early Evening          |
|                                                                | Late Evening/Overnight |
|                                                                | Off                    |
|                                                                | Cleaning               |
| Manual raise/lower function required                           | Yes                    |
| User Interface                                                 | Touchscreen            |

### 3.3 Level 01 Amenity area

#### 3.3.1 Lighting Control Concept

A “Morning” lighting scene will be automatically recalled at 6am.

An “Early evening” scene will be automatically recalled at dusk, with a slow fade time of at least five minutes.

A “Late Evening/Overnight” scene will be automatically recalled at midnight, with a slow fade time of at least five minutes.

The “Cleaning” scene will be manually activated when required using the touchscreen in the facilities management office, or concierge desk.

#### 3.3.2 Summary of Control Requirements

|                                                                |                        |
|----------------------------------------------------------------|------------------------|
| Scene setting                                                  | Yes                    |
| Dynamic sequences                                              | No                     |
| Automatic scene selection according to absolute time           | Yes                    |
| Automatic scene selection according to astronomical time       | No                     |
| Automatic scene selection according to external daylight level | Yes                    |
| Automatic circadian colour-temperature change                  | No                     |
| Presence/absence sensing                                       | No                     |
| Daylight linking (constant minimum illuminance)                | No                     |
| Partition functions                                            | No                     |
| Scenes                                                         | Morning                |
|                                                                | Early evening          |
|                                                                | Late Evening/Overnight |
|                                                                | Off                    |
|                                                                | Cleaning               |
| Manual raise/lower function required                           | No                     |
| User Interface                                                 | Touchscreen            |

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### 3.4 Level 01 Roof Terrace

#### 3.4.1 Lighting Control Concept

The wall-recessed path lighting and step-integrated lighting in the Terrace will be turned on at dusk and will remain on until dawn. Lighting to play area and other landscape lighting will turn on at dusk but will be turned off at an agreed curfew time, eg 1am.

#### 3.4.2 Summary of Control Requirements

|                                                                |             |                                                           |
|----------------------------------------------------------------|-------------|-----------------------------------------------------------|
| Scene setting                                                  | Yes         |                                                           |
| Dynamic sequences                                              | No          |                                                           |
| Automatic scene selection according to absolute time           | Yes         |                                                           |
| Automatic scene selection according to astronomical time       | No          |                                                           |
| Automatic scene selection according to external daylight level | Yes         |                                                           |
| Automatic circadian colour-temperature change                  | No          |                                                           |
| Presence/absence sensing                                       | Yes         | Fade to scene "Pre-curfew" when presence sensor triggered |
|                                                                |             | Fade to scene 'Off' 10 minutes after absence detected     |
| Daylight linking (constant minimum illuminance)                | No          |                                                           |
| Partition functions                                            | No          |                                                           |
| Scenes                                                         | Pre-curfew  |                                                           |
|                                                                | Post-curfew |                                                           |
|                                                                | Off         |                                                           |
| Manual raise/lower function required                           | No          |                                                           |
| User Interface                                                 | None        |                                                           |

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### 3.5 Level 05 Roof Terrace

#### 3.5.1 Lighting Control Concept

The wall-recessed path lighting in the Terrace will be turned on at dusk and will remain on until dawn. Landscape lighting will turn on at dusk but will be turned off at an agreed curfew time, eg 1am.

#### 3.5.2 Summary of Control Requirements

|                                                                |             |                                                           |
|----------------------------------------------------------------|-------------|-----------------------------------------------------------|
| Scene setting                                                  | Yes         |                                                           |
| Dynamic sequences                                              | No          |                                                           |
| Automatic scene selection according to absolute time           | Yes         |                                                           |
| Automatic scene selection according to astronomical time       | No          |                                                           |
| Automatic scene selection according to external daylight level | Yes         |                                                           |
| Automatic circadian colour-temperature change                  | No          |                                                           |
| Presence/absence sensing                                       | Yes         | Fade to scene "Pre-curfew" when presence sensor triggered |
|                                                                |             | Fade to scene 'Off' 10 minutes after absence detected     |
| Daylight linking (constant minimum illuminance)                | No          |                                                           |
| Partition functions                                            | No          |                                                           |
| Scenes                                                         | Pre-curfew  |                                                           |
|                                                                | Post-curfew |                                                           |
|                                                                | Off         |                                                           |
| Manual raise/lower function required                           | No          |                                                           |
| User Interface                                                 | None        |                                                           |