

**SAFETY, HEALTH & ENVIRONMENTAL**

Risk Level:

- Very Low
- Low
- Moderate
- High
- Very High

This drawing should be read in conjunction with the 'Designers risk assessment schedule', document number: CDC-SDS-ZZ-ZZ-HS-ME-903700

All works should be carried out to an approved risk assessment and method statement.

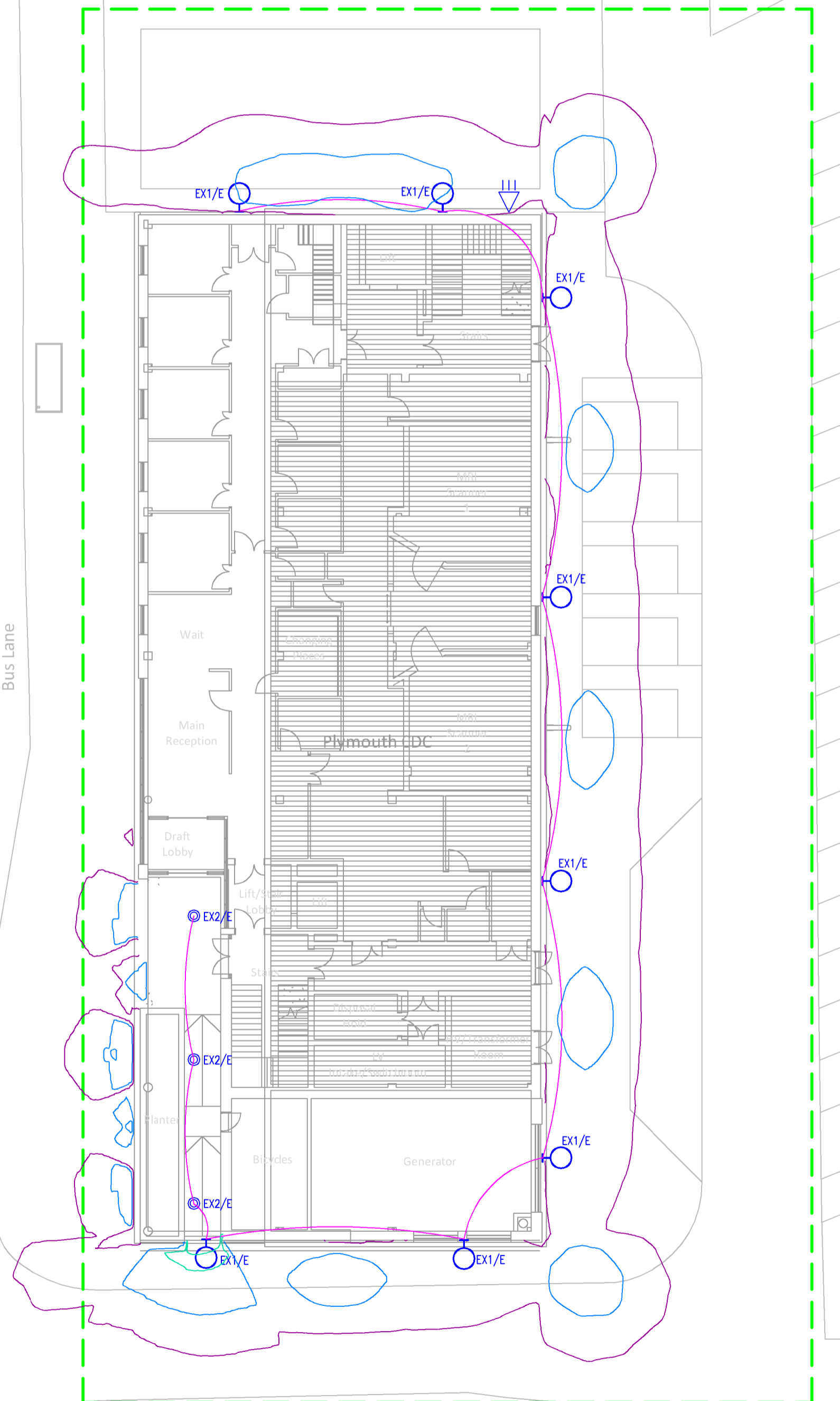
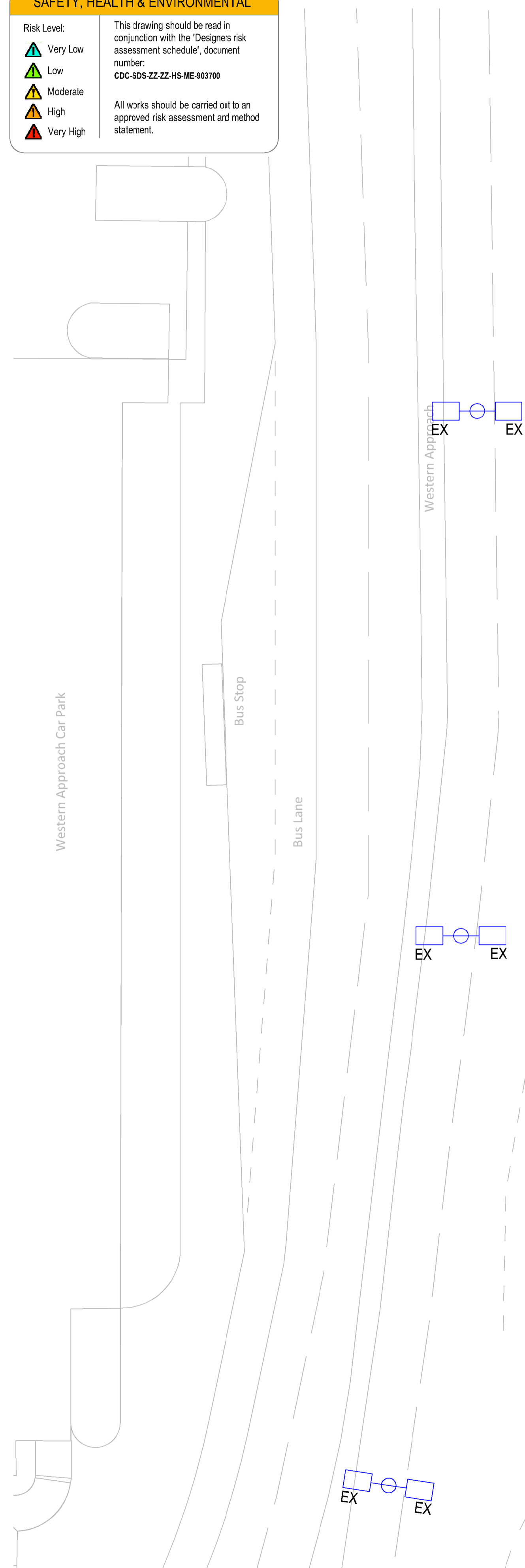
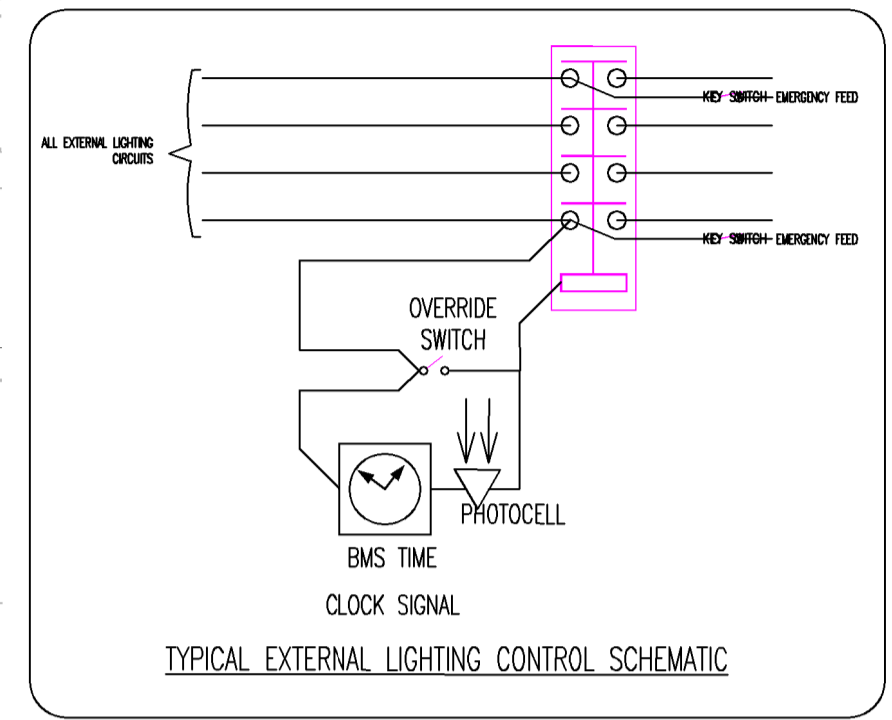


Table 2 - Obtrusive Limitations for Exterior Lighting Installations - General Observers

| Environmental Zone | Sky Glow ULR [Max %] | Light Intrusion (into Windows) Ev [lux] |             | Luminance Intensity I [candelas] |             | Building Luminance Average L [cd/m²] |
|--------------------|----------------------|---|-------------|----------------------------------|-------------|--------------------------------------|
|                    |                      | Pre-Curfew                              | Post-Curfew | Pre-Curfew                       | Post-Curfew |                                      |
| E0                 | 0                    | 0                                       | 0           | 0                                | 0           | 0                                    |
| E1                 | 0                    | 2                                       | 0           | 2500                             | 0           | 0                                    |
| E2                 | 2.5                  | 5                                       | 1           | 7500                             | 500         | 5                                    |
| E3                 | 5.0                  | 10                                      | 2           | 10000                            | 1000        | 10                                   |
| E4                 | 15                   | 25                                      | 5           | 25000                            | 2500        | 25                                   |



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**Luminaires Legend**

- EX1 5.123m Building Mounted External IP66, IK10 Rated LEC Luminaire. (1320lm - 3W - 4000K) c/w wide distribution lens and polycarbonate cover. As Thorlux Realta or equal and approved.
- EX2 External Surface Mounted IP66, IK10 Rated Circular LED Luminaire. (2070lm - 16W - 4000K) as Thorlux Cobalt Plain or equal and approved.
- EX Existing street lights along Western Approach, to remain unchanged (Not included within calculations)
- Photocell

"E" Suffix denotes 3hr integral battery pack. Emergency luminaires to be centrally reporting self-test via Smartscan Technology.

**Legend**

- = 5 Lux
- = 10 Lux
- = 20 Lux
- = Site Boundary

- Lighting Notes**
- Do not scale from this drawing.
  - All measurements are in millimeters unless stated otherwise.
  - This drawing shall be read in conjunction with all relevant architectural, structural, mechanical and electrical services information.
  - Levels of illuminance are calculated and shown at ground level with a maintenance factor of 0.8.
  - Isolines contours represent values of illuminance calculated in lux.
  - All equipment has been specified to achieve a 25 year design life.
  - All external lighting has been designed to BS EN 12464-2:2014 Light and Lighting - Lighting of Work Places (Part 2: Outdoor Work Places).
  - The external lighting shall be in compliance with the ILP Guidance Note 1 for the reduction of obtrusive light 2021 and CIBSE SLL LG21 Protecting the night-time environment.
  - The site has been assumed to fall into Environmental Zone E4 in accordance with an urban location.
  - All luminaires have been specified in 4000K neutral white. Building mounted luminaires selected save <2% upward light ratio.
  - External luminaires to be controlled via a photocell and time-clock control preventing operation of the external lighting when there are adequate daylight levels.
  - No account is taken from the blocking affect caused by buildings, walls, trees etc.
  - The calculation has been carried out to obtain the lighting design shown. It assumes that the whole area being considered is in the same plane. I.e. there are no changes in gradient or elevation.
  - Contractor to note that feature lighting and illuminated signage are not shown. Allowance within the cost plan to be made for design development.
  - All fire exits to have an emergency luminaire within 2000mm horizontal distance.
  - All external lighting to remain switched on throughout post curfew hours for safety and security purposes.

|     |                   |                 |          |
|-----|-------------------|-----------------|----------|
| P01 | Preliminary Issue | E/J JB          | 14/12/23 |
| Rev | Details:          | By / Chkd / App | Date     |

CLIENT

**NHS**  
University Hospitals  
Plymouth  
NHS Trust

PROJECT TITLE  
Community Diagnostics Centre

DRAWING TITLE  
External Lighting  
Site Plan

Sheet 1 of 1

SCALE AT A1  
1:200

DISCIPLINE  
Electrical Services

DRAWING NUMBER  
CDC-SDS-EX-XX-DG-E-7080001

Project - Originator - Zone - Level - Typ - Role - NBS class - Sequential Number

STATUS  
Stage Approval

SUSTAINABILITY  
S04

ISSUE  
P01