



S38 ROAD LIGHTING SCHEDULE:

- Galvanised tubular stepped steel lighting column. 5m height, internal & external glass flake root to 250mm above ground. CU Phosco: R2505T01/WILTS.
- Urbis Axia 3.1 16LED lantern. Warm white LED (2700K). Black canopy. 76mm dia post top mounted at 0 degree tilt.
- Code: Axia 3.1 C3.5 2.7K 16 Oslon square giant 640mA. Optic: 52673 (3.50klm, 23w).
- Osram Optotronic 4DIM suitable for Telensa CMS DALI auto switch (Note: sensor ready may need to be factory disabled).
- Lantern complete with a 7 pin NEMA socket (option for Zodion SS6 20lux photocell).
- Lantern as specified in WC matrix: C3.5-2.7K. UMSUG code: 42 0023 0000 100

- Galvanised tubular stepped steel lighting column. 5m height, internal & external glass flake root to 250mm above ground. CU Phosco: R2505T01/WILTS.
- Urbis Axia 3.1 8LED lantern. Warm white LED (2700K). Black canopy. 76mm dia post top mounted at 0 degree tilt.
- Code: Axia 3.1 A1.0 2.7K 8 Oslon square giant 270mA Optic: 52963 (1.08klm - 7w).
- Osram Optotronic 4DIM suitable for Telensa CMS DALI auto switch (Note: sensor ready may need to be factory disabled).
- Lantern complete with a 7 pin NEMA socket (option for Zodion SS6 20lux photocell).
- Lantern as specified in WC matrix: A1.0-2.7K. UMSUG code: 42 0007 0000 100

DIMMING REGIME: D19

Dimming to be applied to all adoptable lanterns. Manufacturer set lantern dimming to 75% output from 8pm to 11pm and 50% output from 11pm to 6am. Rest of time output at 100%. All equipment to be ordered compliant with Wiltshire Specification.

ADOPTABLE STANDARD EQUIPMENT POWER SUPPLIES:

Road lighting columns to be supplied via un-metered statutory low voltage supply. Preferably District Network Operator (DNO). If an IDNO is to be used for power supply networks, then a service level agreement must be in place prior to commencement of works. Without such agreement, scheme will not be adopted. Internal wiring to be 2.5mmsq, 3 core flexible arctic grade 230v (Blue). Charles Endirect (L2/SF/A1/4.0x300 tails) or Lucy Lighting (TR2-PP20-EB2-LD06-06) 32A double pole, single fused isolator to Wiltshire Council specification to be installed within lighting column above DNO cut out. Network provider: **TBA by Client.**

GENERAL SCHEME NOTES:

- Any alterations to the positions of columns and / or associated equipment to that as shown on this drawing should be referred to the designer to ensure compliance with lighting level requirements. Following technical approval, any change to column locations or equipment specification will require re-submission to Wiltshire Council (WC) for further review /approval.
- Adoptable columns to be located to back of footway within adoptable land or to rear of service strip or to a minimum of 0.5m back of kerb into soft verge. Where columns are located in un-adopted land, an adoptable build out to WC specification, connected to the adoptable highway is to be built and included on the adoptable coloured plan agreement. Ease of access for maintenance purposes must be considered.
- All electrical and equipment installation works are to be carried out in accordance with the Electricity at Work Regulations 1989, requirements of the latest edition of the IEE wiring Regulations BS7671, manufacturers instruction and where adoptable, to current WC residential specification (currently RevS under review).
- All column doors to face away from on coming traffic unless access restricted or otherwise specified. Ensure correct orientation of lanterns to kerb at 90deg as shown.
- Final column numbers will be provided by WC following technical approval of lighting proposals. Numbering to be affixed to adoptable columns in line with Wiltshire Council specification. Numbering standard detail (SD/1400/10). Numbers to be affixed 2m above ground facing carriageway.
- In order to avoid future maintenance issues, the planting of trees and shrubbery in the vicinity of street lighting equipment is to be avoided. Where new lighting columns are to be planted, any proposed trees in close vicinity <4m should be reviewed and re-located.
- Any additional private area lighting or private wall mounted luminaires being installed onto property walls by Developer should be carefully selected to ensure power efficiency, suitable low wattage and light output avoiding over illumination, glare & light pollution.
- Locations of street lighting units should be included on sales plans for buyer information prior to purchase.

WILTSHIRE COUNCIL SPECIFIC NOTES:

- ALL NEW LIGHTING INSTALLATIONS MUST INCLUDE FOR TELENESA CMS. NEW 7 PIN NEMA MOUNTED TELECELLS WITH INTEGRAL GPS AND DALI DIMMING - T2-E1-NB-3 BLACK. TO BE AFFIXED TO EACH LANTERN.
- WHERE NECESSARY A BASE STATION WILL ALSO BE REQUIRED AS PART OF THE COMPLETE CMS SYSTEM.
- WITHOUT INSTALLATION OF TELECELLS, THE SITE SHALL NOT BE DEEMED ACCEPTABLE FOR ADOPTION.
- ALL STREET LIGHTING IS TO BE INSTALLED IN ACCORDANCE WITH WILTSHIRE COUNCIL MAINTENANCE SPECIFICATIONS AND APPROPRIATE STANDARD DETAILS. REFER TO SD/1300/02, SD/1400/01, SD/1400/05 AND SD/1400/10.
- CONTRACTOR TO ALSO REFER TO WILTSHIRE COUNCIL RESIDENTIAL LIGHTING AND NON RESIDENTIAL SPECIFICATION.
- UNITS POSITIONED BEHIND THE SERVICE STRIP OR WITHIN UN-ADOPTED LAND WILL REQUIRE A 1m sq FOOTWAY CONSTRUCTION BUILD OUT WHICH IS TO BE INCLUDED IN THE ADOPTION AREA / AGREEMENT PLAN.

LEGEND

- Site Boundary
- Location of existing road lighting columns included for reference only.
- Proposed trees - smaller, bushes.
- Bat commuting - 50m ecology zone.
- Lux contours for reference MF set to 1.
 - 0.60 Lux
 - 1.00 Lux
 - 3.00 Lux
 - 5.00 Lux
 - 7.00 Lux

ECOLOGY:

This lighting design considers Trowbridge Bat Mitigation Strategy, (Johns Associates Limited) of January 2020 and 'Environmental Consultants (Engain Ltd), requirements which address Planning Conditions for wildlife sensitive lighting. The development area falls within a Special Area of Conservation (SAC) with high importance for bats.

Artificial lighting causes disturbance to bats at the roost, their feeding behavior and commuting routes. This will have a severe negative impact on their survival. The extents to which this lighting strategy applies includes the whole site, but more specifically, to maintain controlled and dark zones along the Eastern side.

Lighting classes P4 & P5 provide appropriate low lighting levels for a new development within conservation designated area and is in accordance with WCC design guidance. Warm white LED light source 2700k is specified, providing lower UV & blue spectrum output. Columns are low height at 5m to minimise lighting impact and spill. Lantern optic settings have been optimised to provide good column spacing's thus reducing number of columns required. Light directed to efficiently illuminate roads, minimising light spill into sensitive areas. Lanterns are to be mounted at 0 degree tilt to prevent upward light pollution and sky glow. Dusk to dawn photocells may be installed for on/off switching as a temporary measure up to CMS node installation prior to Wiltshire Council accrual. LANTERN SET DIMMING will reduce the amount of light output and associated spill by 25% from 8pm to 11pm then down to 50% from 11pm to 6am. Dimming control for individual lanterns is flexible with option for further dimming or indeed lantern switch off (part night control) during periods of bat activity (to be confirmed by Lighting Engineer).

Lux contours are included on the drawing for reference. The maintenance factor has been set to 1 in contour calculation to show full light spread at scheme installation.

DESIGN METHODOLOGY AND NOTES:

- The development roads are to be extended during next phase design. The main spine road South to North is to be a bus route. Consequently, designer proposes illumination to P4 class (Eav=5.00 to 7.50, Emin=1.00). The main road is to be tree lined with offset pedestrian footpaths. Designer has specified 5m height columns with wide optic lanterns to throw illumination either side onto the offset footpaths. Option to increase column height to 6m for increased path lighting which WC may consider. Proposed lighting class for side roads P5 (Eav=3.00 to 4.50 Emin=0.60).
- All new lanterns may be fitted with temporary photocells as detailed for control prior to affixing CMS telecells.

EXTERNAL WALL MOUNTED LUMINAIRES:

All domestic exterior lighting will be carefully selected to prevent over illumination, glare and light pollution past property boundary. External luminaires are proposed to include integrated movement sensors. The timer should be set to switch the light source off after 60 seconds of detecting no movement. Front porch light should include an integrated PIR sensor & the rear garden light should include an integrated microwave-sensor. The fittings should not emit any direct upward light and should be low power (circa 7W), with a warm colour temperature (2700K or less). A single wall-pack style lantern with an asymmetrical distribution is proposed, in the centre of the rear facade of the building, such as the "Wolf Mini" by Ansell Lighting. The front porch lighting is proposed to be a downlight type producing no direct upward light such as the Palin PIR fixed wall downlight by Saxby Lighting.



Palin PIR



Wolf Mini

ECOLOGY ILLUMINANCE ZONES:

The extents to which this lighting strategy applies includes the main development area, Zone C where public lighting is provided to an appropriate BS EN Standard, along the adopted highways. In addition to low level public lighting, private lighting provided by wall mounted luminaires is also controlled as proposed by above recommended measures.

A 50m wide buffer zone to the East of the site is included, which is split into Zone A & Zone B. Zone B is set at 10m, where illumination spill is limited from 1 down to 0.2 horizontal lux at the boundary to Zone A. Zone A at 40m width will be maintained as a dark area. Designer has included red triangles onto building blocks adjacent to Zone B boundary which represent potential light sources such as the above wall mounted lanterns and spill from building windows. Designer is not able to include lux contours to indicate potential spill due to limited information and plan detail. However, with reference to a detailed assessment for similar buildings, light spill of 0.2lux falls to within a distance of 8m from building, which is 2m clear of proposed Zone A. In addition, property boundary fencing and landscape planting will further reduce any light spill from the buildings into zone B.

Adoptable lighting scheme proposals must be technically approved by adopting Authority before works commence. Any works prior to final technical approval will be conducted "at risk".

HEALTH & SAFETY

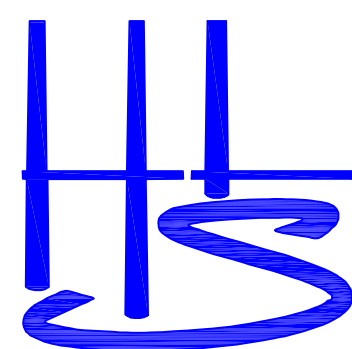
All installation and existing equipment removal works should be carried out by suitably qualified and competent persons in accordance with, but not limited to, G39 'working in the vicinity of (I)DNO equipment', 'working at height regulations', 'electricity at work regulations', safe digging practices HSG47 'avoiding danger from underground services' and 'code of practice for electrical safety and highway electrical operations'. G56 'avoidance of danger from overhead electric lines' and the Electricity Association engineering recommendation G39/1, safety code of practice E4 covering electrical safety and planning, installation, commissioning and maintenance of public lighting and other street furniture. Contractor advised to use suitable underground services locator in conjunction with services drawings prior to commencement of excavation works. New underground services and overhead cables may be installed following issue of this drawing and during phased works. Contractor must obtain most current and up to date services drawings and confirm exact locations of services prior to and during works. It is the responsibility of the installing organisation to undertake final due diligence and determine the exact location of any statutory undertakers services prior to commencement of works on site.

ANY PROPOSED WORKS ON EXISTING ADOPTED LIGHTING EQUIPMENT MUST BE APPROVED BY WILTSHIRE COUNCIL PRIOR TO COMMENCEMENT. ANY WORKS WITHOUT WC TECHNICAL APPROVAL WILL BE CONDUCTED AT RISK.

DRAWING ISSUED FOR COMMENT ONLY
NOT FOR CONSTRUCTION

04/02/26 Draft 2 Revised to Ecology requirements and widened buffer zone. Issued for comment.
29/01/26 Draft 1 Issued to Client for comment.

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Project:

Redcliffe Homes
Adoptable S38 Lighting

Location:

AGR_ _ _
Land Off Devizes Road, Hilperton

Drawn by:	Ken Duckers	Date:	22/01/26
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Scale @ A0:	1:500	Drawing No.:	HLS-1012-B
Sheet:	1 of 1	Revision:	Draft 2