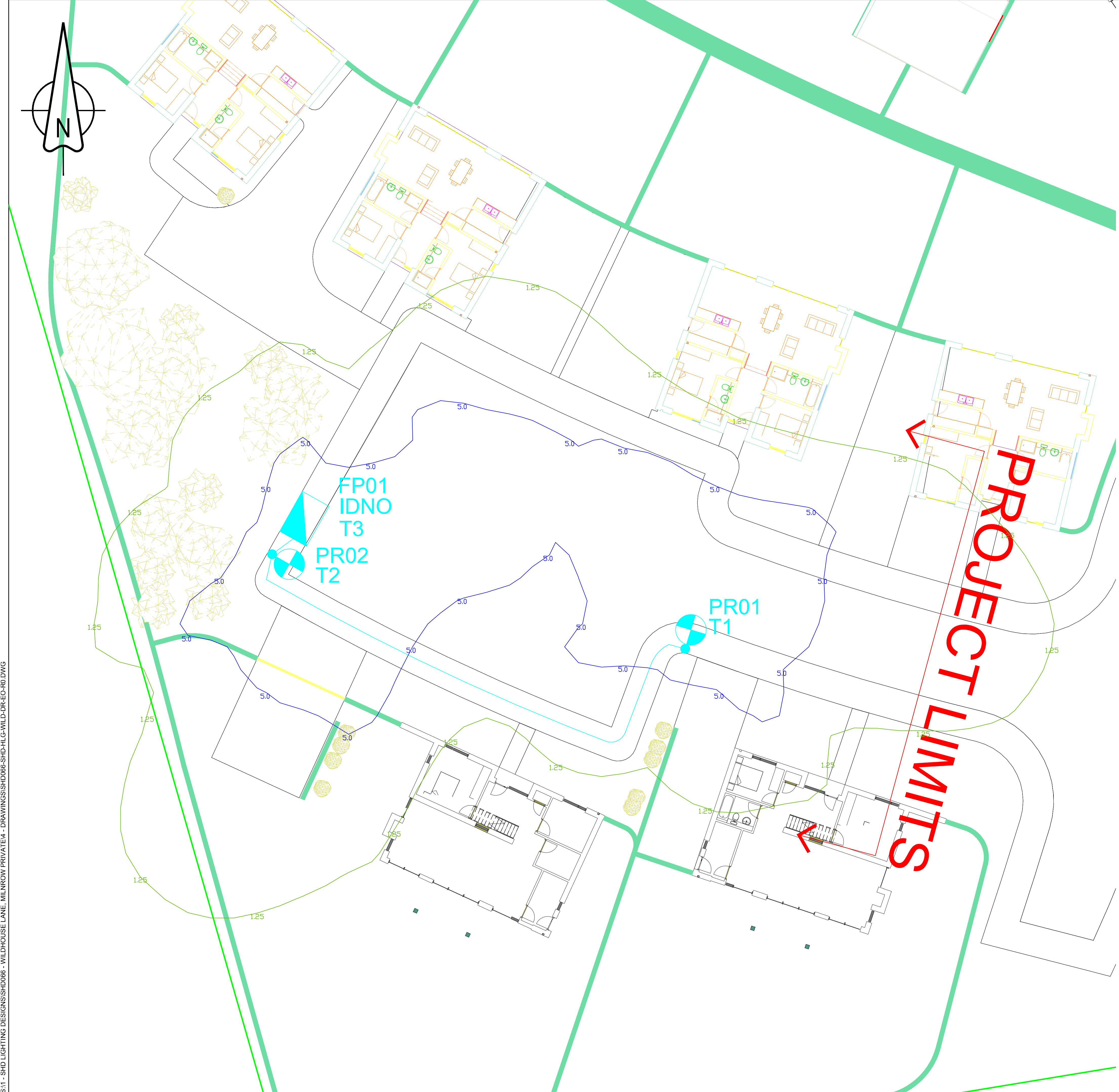




- NOTES**
- Any inaccuracies are to be reported to the overseeing organisation immediately.
  - It should be assumed by the Contractor that **not** all services have been identified during the design period. It is the responsibility of the Contractor to take all necessary steps to ensure that any such unidentified services are carefully located and not damaged.
  - The Contractor shall identify the location of any overhead electrical or communication equipment prior to the undertaking of any onsite works. Should the presence of such equipment be identified, the Contractor shall consult with the relevant statutory undertaker for further guidance.
  - Final lighting column positions shall be agreed onsite with the overseeing organisation.
  - Lighting column foundations shall be designed in accordance with the manufacturer datasheets for the columns and soil types present.
  - Lighting columns shall be located to the rear of the footpath or verge, unless stated otherwise. If this is not possible the minimum setback distance for any lighting column to be erected from the kerb face shall be 1000mm.
  - Any existing or proposed trees are to be cutback, removed or relocated elsewhere to avoid interference with the street lighting luminaire or prevent any future access or maintenance.
  - All drawings and documents are to be read in conjunction with one another and are mutually compatible and shall be read as such.
  - All documents shall be checked to ensure they are compatible by the contractor before construction commences. In the event of apparent ambiguity or contradiction, the designer shall be notified immediately. SHD Lighting Consultancy Ltd accept no liability in the event of not being notified and where construction work has commenced.
  - Before construction commences, the site engineer shall ensure that all setting out information is mutually compatible with all the drawings and documents provided by the designers.
  - Where information is apparently contradictory or ambiguous, the design engineer is to be notified immediately. SHD Lighting Consultancy Ltd accept no liability for setting out errors where work is construction to incorrect information.
  - This design has been prepared in accordance with the HEMSA/HEA Guidance Note - CDM2015 Regulations, Issue 1.1 dated 09/04/15 - Procedure 2 and The Construction (Design and Management) Regulations 2015 - PART 3 Health and safety duties and roles - 9. Duties of designers.

- HEALTH & SAFETY NOTES**
- All statutory consents, opening notices etc. as required under Highways Acts and water industries acts are to be obtained by the contractor prior to commencement of the works (unless otherwise stated).
  - All works are to be inspected by a local authority representative or overseeing organisation as applicable.
  - The contractor should confirm the location of all statutory services and plant by hand dug trial trenches prior to commencing any works.
  - Allowance for the presence of any existing or proposed statutory services, appropriate protection and/or diversion measures are to be put in place by the contractor (unless stated otherwise) where statutory services are found to be within the area of street lighting installation or removal works.
  - The contractor is responsible for ensuring that all advance notices are in place and traffic management agreed for the works prior to commencing. The contractor is to make allowance for the advance provision of all electrical works and equipment for street lighting within their programme of works.
  - All materials to comply fully with the local authority or overseeing organisation specifications or design brief.
  - All materials to be agreed with the overseeing organisation or site representative prior to ordering.

- CDM REGULATIONS 2015**
- In line with the above regulations SHD Lighting Consultancy Ltd are obliged to inform the client of the risks that may be encountered in the construction of these works.
  - Wherever possible risks have been eliminated from the design, however due to the very nature of this type of work it is not possible to remove all the risks from the works.
  - SHD Lighting Consultancy Ltd would also respectfully remind the client of their obligations to take all reasonable steps in ensuring that only competent contractors who have a valid safety policy are employed, they should also provide satisfactory responses at tender stage as to the manner in which they will deal with the elements of risk involved in this type of work and in particular those highlighted by below:
    - Dealing with existing statutory services.
    - Trench excavations in excess of 1.2m deep.
    - Guarding to edges of excavations to prevent people, materials and vehicles falling into excavation.
    - Guarding of excavations outside working hours to prevent unauthorised access.
    - Undermining to adjacent roads or structures.
    - Confined space operations.
    - Traffic management on existing highways and protection of site personnel and members of the public.
    - Procedure to be followed in event of accident or emergency.
    - Method of working where contaminated ground is present on site.
  - Confirmation will be required that all operatives are adequately trained, copies of relevant training certificates to be supplied. Any construction personnel, including operatives intending to construct the designs shown on this drawing should ensure that they have been regularly and thoroughly briefed by the principal contractor on all health and safety matters and have had sight of any risk assessments, health and safety plan and contractor construction method statements.

The details provided on this drawing are subject to comments by all the relevant approving authorities or overseeing organisation. No construction works shall take place until technical approval has been obtained by the approving authority or overseeing organisation. It is to be understood that these drawings and the information contained are preliminary only and shall not be used for construction. Should the contractor commence work on site prior to obtaining technical approval, then it is entirely at their own risk and no liability shall be accepted by SHD Lighting Consultancy Ltd.

Lighting Column:  
Proposed galvanised tubular steel lighting column of 6.0 metre nominal height with a planted base with glass flake root protection.  
Column to be manufactured to current EN40, BS EN 1461 & BS 5649 standards

Column Reference:  
Luminaire: Holophane Vmax  
Mounting Type: Post top mounted  
Manufacturer Ref: VMX.2.LA054.V1.D4D4.PT1.C6.LRT5  
Lumen Output: 02206.FL1432.W036  
4.97 km  
UMSUG Code: 42 0056 0000 100  
Luminaire wattage: 56w  
Colour Temperature: Neutral White (4000k)  
Luminaire Tilt Inclination: 0°  
Glare Index Rating: None  
Control Gear: DALI enabled dimmable driver  
Control Type: Lucy Zodion ZCELL LED  
10 lux (1:1 ratio)

Dimming Profile:  
Dusk until 22:00 - 100% output  
22:00 until 06:00 - 50% output  
06:00 until dawn - 100% output

Supply:  
Private cable network from metered feeder pillar

Primary Isolator:  
Double pole Isolator with 32A double pole switch with BS88-2 6A HRC fuse to luminaire

Secondary Isolator:  
N/A

Internal Wiring:  
Internal wiring to luminaire shall be 1.5mm² PVC insulated flexible cable

Door Orientation:  
Column and door earth shall be 6mm² PVC insulated earth conductor cable.

Proposed galvanised steel feeder pillar incorporating single phase electrical Kwh meter and IDNO electrical supply connection  
(Model: TOFCO Ltd - FP140 or equivalent)

Proposed 6mm² XLPE/SWA/PVC 3 core cable with copper conductors laid in 100mm orange UPVC ducting denoted with 'STREET LIGHTING' at 1000mm intervals diametrically opposed, laid in trench, depth to invert to be minimum 450mm in footway and minimum 750mm in carriageway

**UNIT IDENTIFICATION KEY**

**PR\*\*** Private lighting column identification number  
**T\*\*** Termination Type:  
Refer to SHD066-SHD-HEL-WOOD-DR-EO-R0

**ELECTRICAL CONNECTION TYPE**

**IDNO** Proposed Independent Distribution Network Operator electrical supply connection

**ISOLUX CONTOUR KEY**

1.25 Isolux contour line  
5.00 Isolux contour line

Feeder Pillar, Chamber and Ducting location's shown are indicative only and final setting out positions to be determining by site engineer or overseeing organisation.

Lighting classification: (As taken from BS 5489-1:2020 (Table 4) & BS EN 12464-2:2014, Table 5.9)  
Maintained lighting levels for outdoor car parks  
Light traffic, e.g. parking areas of shops, terraced and apartment houses; cycle parks.  
S/P ratio of light source: N/A  
Luminaire Maintenance Factor: 0.81

Desired Lighting Levels:  
Minimum maintained average illuminance (Eav): >5.0 lux  
Emin/Eav (Uniformity) => 0.25 (25%)

|          |                |            |     |
|----------|----------------|------------|-----|
| R0       | INITIAL DESIGN | 03/06/2020 | SRH |
| REVISION | DESCRIPTION    | DATE       | BY  |

# SHD

**OUTDOOR LIGHTING CONSULTANCY**

CONTACT: info@shdlighting.co.uk  
WEB: www.shdlighting.co.uk

SCHEME: OFF WILDHOUSE LANE, MILNROW

DRAWING: PRIVATE CAR PARK LIGHTING DESIGN

CLIENT: TEMPUS

|                  |                              |                  |                  |
|------------------|------------------------------|------------------|------------------|
| DRAWING:         | SHD066-SHD-HLG-WILD-DR-EO-R0 | REVISION         | R0               |
| DRAWN:           | S HIGHAM                     | APPROVED:        |                  |
| CONTRACT NUMBER: | SHD066                       | SCALE: 1:125 @A1 | DATE: 03/06/2020 |

**PRELIMINARY DESIGN - NOT FOR CONSTRUCTION**