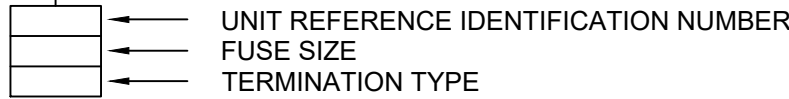


ELECTRICAL SCHEMATIC KEY

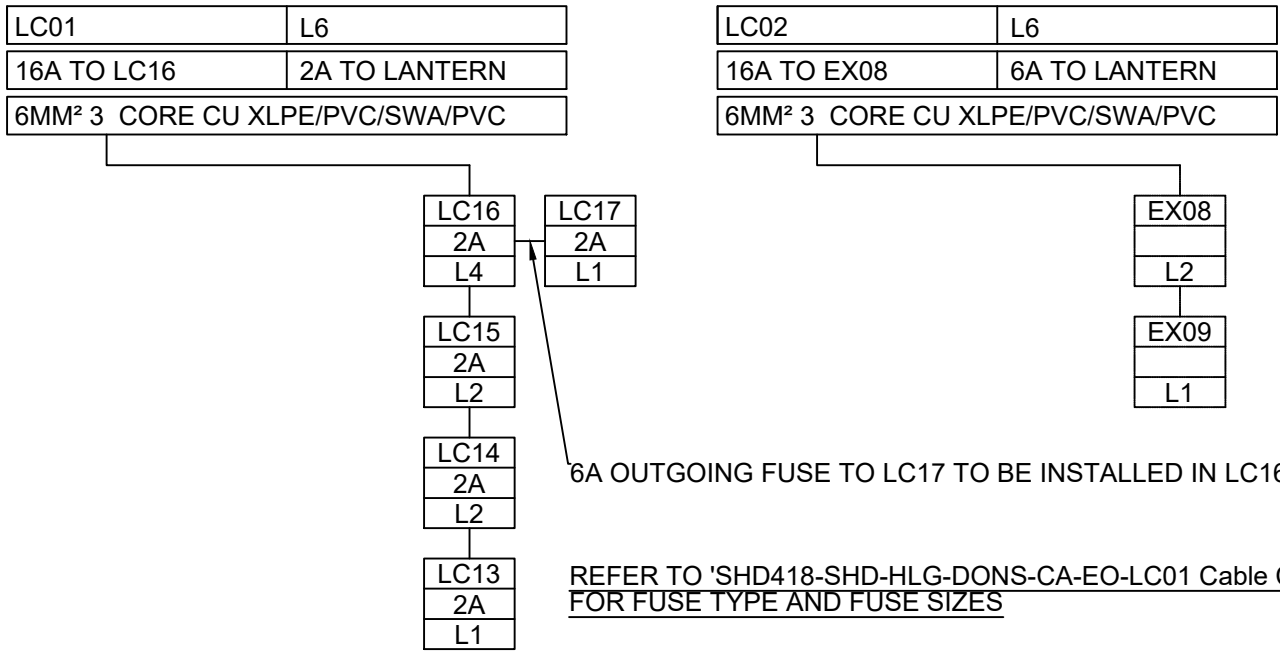
CIRCUIT REFERENCE	TERMINATION TYPE
FUSE SIZE	FUSE SIZE
CABLE SIZE AND TYPE	

EQUIPMENT DETAILS

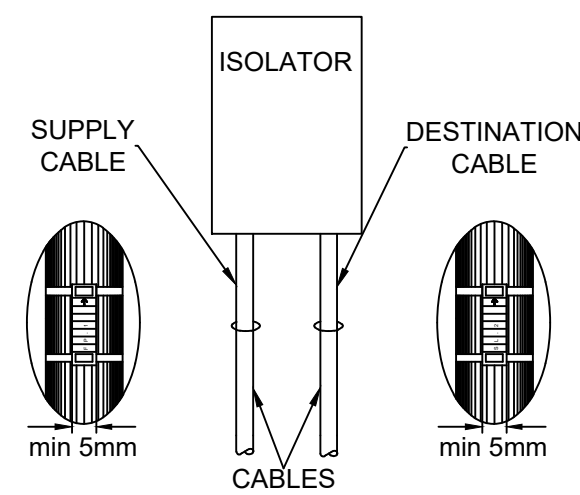


ELECTRICAL SCHEMATIC DETAIL

REFER TO 'SHD418-SHD-HLG-DONS-CA-EO-LO01 Cable Calculation-R12' FOR FUSE TYPE AND FUSE SIZES



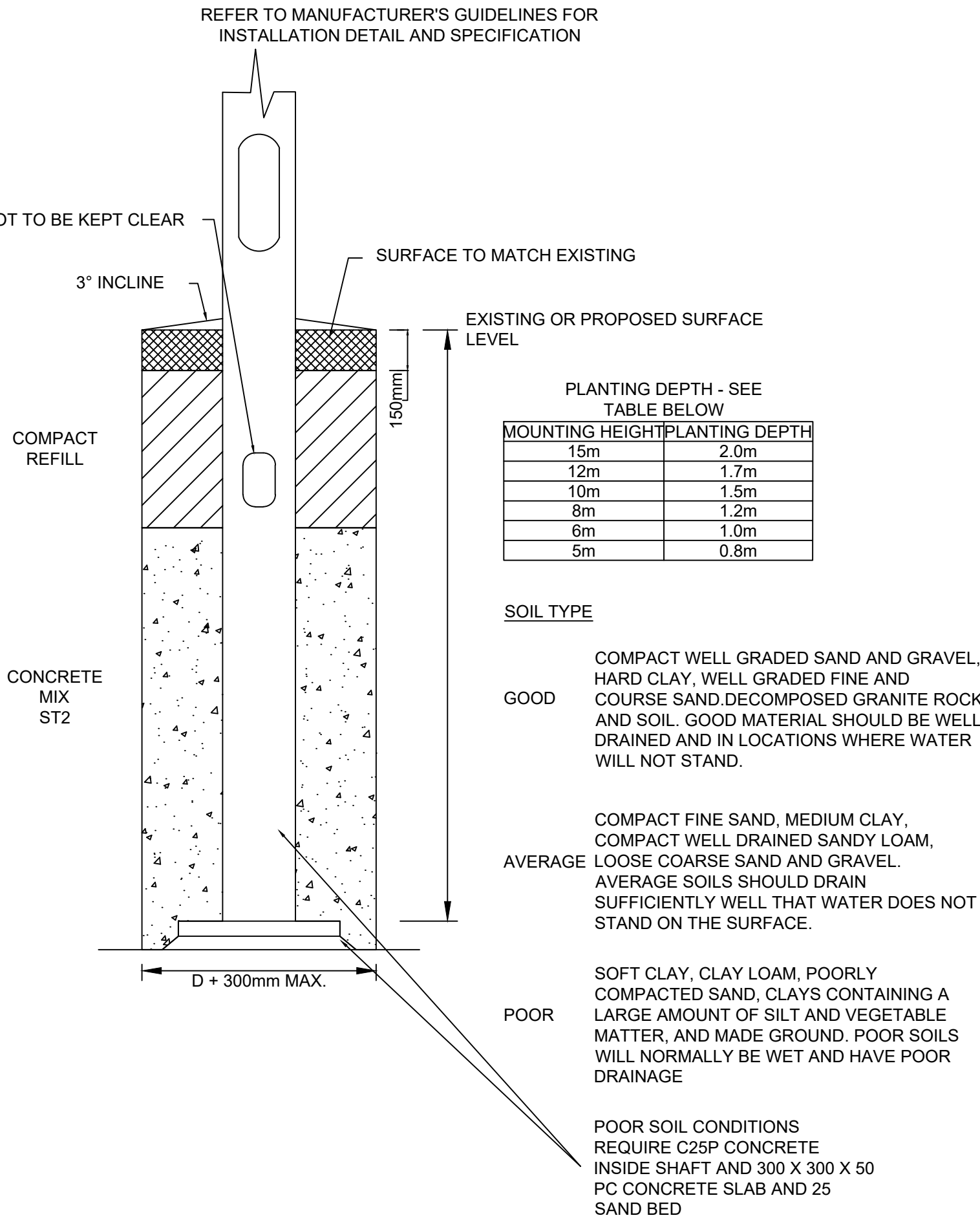
SOURCE/DESTINATION LABELLING DETAIL



LABELLING NOTES:

- ALL CABLES SHALL BE MARKED TO INDICATE THE SUPPLY SOURCE/DESTINATION. FINAL DETAILS TO BE SPECIFIED BY THE OVERSEEING ORGANISATION.
- ALL CABLE MARKERS SHALL BE BLACK ON WHITE BACKGROUND AND SHALL BE MANUFACTURED FROM PLASTICIZED PVC AND HELD IN POSITION WITH BLACK PLASTIC TIE WRAP OR SIMILAR APPROVED THE OVERSEEING ORGANISATION.

TYPICAL COLUMN PLANTING FOUNDATION DETAIL



GENERAL NOTES

- All documents shall be checked to ensure they are compatible by the contractor before construction commences. In the event of apparent ambiguity or contradiction, SHD Lighting Consultancy Ltd and the overseeing organisation 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 overseeing organisation and all drawings and documents are to be read in conjunction with one another.
- This lighting 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.
- Current statutory service record plans should be obtained by the contractor / overseeing organisation before commencement of any street lighting installation or removal works.
- All services are to be located and identified prior to installing or removing any lighting columns. All works should be carried out in accordance with HSE GS6, ENA 43-8, HSE HGS47, G39/1 and all relevant HSE regulations

STATUTORY SERVICE NOTES

- Current statutory service record plans should be obtained by the contractor / overseeing organisation before the commencement of any street lighting installation or removal works.
- All services are to be located and identified prior to installing or removing any lighting columns. Installation and Removal works should be carried out in accordance with ENA TS 43-8, EAWR 1989, CDM 2015 & G39/1 and all other relevant HSE regulations.
- All works in the vicinity of any overhead cables shall conform to the requirements of HSE guidance note GS6 "avoidance of danger from overhead lines"
- All works in the vicinity of underground mains or cables shall conform to the requirements of HSE guidance note HGS47 "Avoiding danger from underground services" and any additional requirements specified by the relevant undertaker
- The contractor will be responsible for liaison with the undertakers and for programming the agreed protection and / or diversion works to any statutory undertakers apparatus into the overall works programme

NOTES

- All works are to be carried out in accordance with the latest 'The specification for road lighting, illuminated traffic signs and bollards in Oldham & Rochdale'.
- Any inaccuracies are to be reported to the overseeing organisation or site engineer immediately.
- The information on this drawing does not account for installation considerations, site conditions or provide any form of risk assessment.
- No account is taken for the blocking effect caused by buildings, trees, etc.
- The calculation shown by this drawing assumes that the whole area being considered is in the same plane, i.e. there are no changes in gradient or elevation.
- 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 Oldham and Rochdale street lighting representative.
- Final lighting column identification numbers shall be agreed with the Oldham and Rochdale street lighting representative.
- Lighting column foundations shall be designed in accordance with the latest 'The specification for road lighting, illuminated traffic signs and bollards in Oldham & Rochdale' and the manufacturer datasheet's for the columns, soil types and environmental conditions present.
- All new lighting units shall integrate within the existing Oldham & Rochdale central management system (CMS) network and be a stand alone fully operable and prior to adoption shall be proven and witnessed to be fully working.
- Each lantern shall have a visible sticker, stating the wattage and lumen output, provided by the manufacturer at the time of order.
- The contractor shall provide the Oldham and Rochdale street lighting representative with as-built drawings, test certificates and column and luminaire data sheets and details of all CMS node reference in accordance with the latest 'the specification for road lighting, illuminated traffic signs and bollards in Oldham & Rochdale'.
- The contractor shall keep and provide accurate records to the Oldham and Rochdale street lighting representative and service provider in relation to the identification numbers associated with all central management system control equipment in accordance with the latest 'The specification for road lighting, illuminated traffic signs and bollards in Oldham & Rochdale'.
- Electrical installation work shall be carried out in accordance with the requirements of the latest edition of the IET wiring regulations, BS 7671
- Proposed lighting columns shall be installed to the back edge of the proposed footway construction within adopted highway and shall not obscure property windows/doors or private access/driveways.
- The minimum distance for a lighting column to be erected from the kerb face in a service strip shall be 1000mm
- The developer will be required to pay any energy liability charges with their electricity supplier until the date of formal adoption of the development.
- The developer will be responsible, unconditionally, for the condition, operation and any risk or liability of all the highways electrical equipment on all approved Section 38 agreement works until the date of formal adoption of the development.
- The planting of trees near to lighting columns is to be avoided as future growth may inhibit lighting levels. Due to the layout of the plots and associated driveways it is inevitable that there will be conflict with proposed landscaping features. Where such instances occur the lighting will take precedence in order to satisfy the requirements of the British standard.

Where ducting has been provided, a fully ducted system shall be required having an access chamber placed at each column, and where there is a change of direction.
Please refer to RMBC Highways Standard Details.
05.01 - Under Ground Ducts rev A
05.02 - Cable Access Chambers
All termination types shall be in line with CLP/Econ Highways standard details as per:
14.01 - Termination of Cables Type L1 REV A
14.02 - Termination of Cables Type L2 REV A
14.04 - Termination of Cables Type L4 REV A
14.06 - Termination of Cables Type L6 REV A
14.42 - Feeder Pillar Type B for up to 6 outgoing circuits BS88
14.44 - Feeder Pillar Type D for up to 2 outgoing circuits
14.47 - Feeder Pillar Notices, Labelling, Numbering and Lettering
14.50 - Earth Pit and Electrode Details

R13	CONSTRUCTION ISSUE	15/09/2023	SRH
R12	LA REVIEW AMENDMENTS 26/08/2023	26/08/2023	SRH
R11	LA REVIEW AMENDMENTS 27/07/2023	05/08/2023	SRH
R10	ADDED NOTE TO REFER TO 'SHD418-SHD-HLG-DONS-CA-EO-LO01 Cable Calculation-R12'	29/06/2023	SRH
R9	CHANGED TERMINATION TYPE REFERENCES	04/05/2023	SRH
R8	CHANGED TERMINATION TYPE REFERENCES	11/04/2023	SRH
R7	LA REVIEW 07/02/2023	27/02/2023	SRH
R6	LA REVIEW 18/10/2022	02/12/2022	SRH
R5	DEVELOPMENT LAYOUT CHANGE 01/08/2022	05/08/2022	SRH
R4	DEVELOPMENT LAYOUT CHANGE 04/05/2022	13/05/2022	SRH
R3	ADDED COLUMNS O/S PLOTS 1 TO 13	26/01/2022	SRH
R2	DEVELOPMENT LAYOUT CHANGE 07/01/2022	07/01/2022	SRH
R1	RENUMBERED LIGHTING COLUMNS	07/12/2021	SRH
R0	INITIAL DESIGN FOR REVIEW AND COMMENT	29/11/2021	SRH
REV	DESCRIPTION	DATE	BY



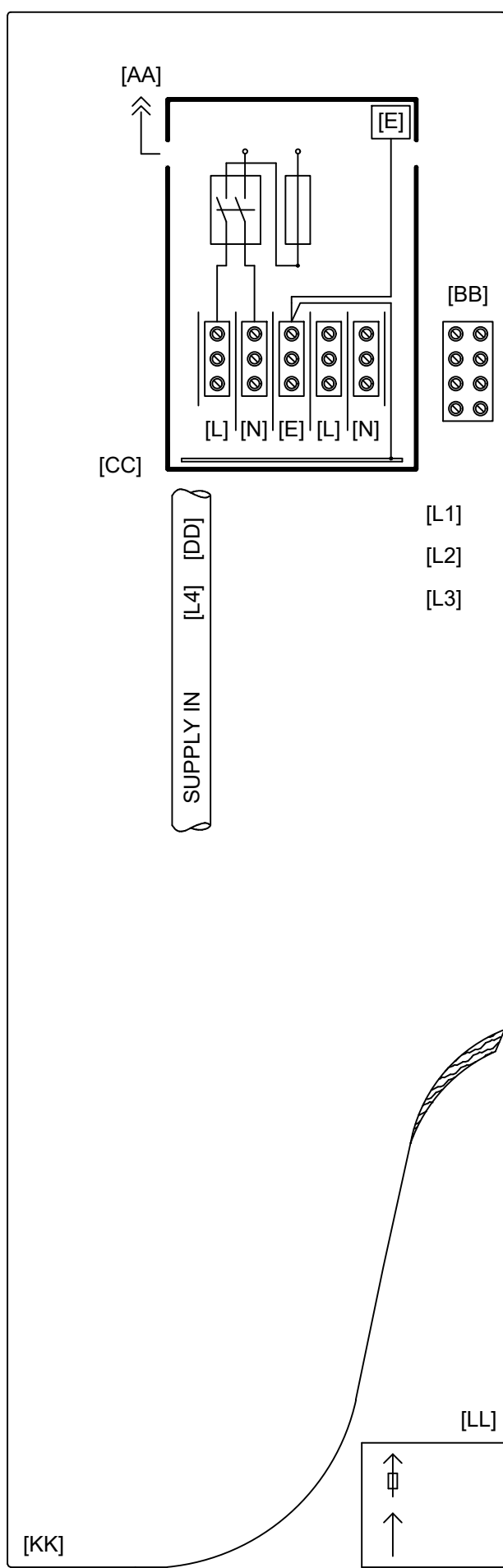
info@shdlighting.co.uk 07834 490 192 www.shdlighting.co.uk

SCHEME:	OFF DON STREET, MIDDLETON		
DRAWING:	S38 STREET LIGHTING DESIGN APPROVED 15/09/2023		
CLIENT:	KELLEN HOMES		
DRAWING NUMBER:	SHD418-SHD-HLG-DONS-DR-EO-Electrical-R13	DRAWN:	SRH
	SHEET 1 OF 1	CHECKED:	SRH
CONTRACT NUMBER:	SHD418	DATE:	29/11/2021
		APPROVED:	P BEVERIDGE
		SCALE @ A1	N.T.S
		REVISION:	R13
CONSTRUCTION ISSUE			

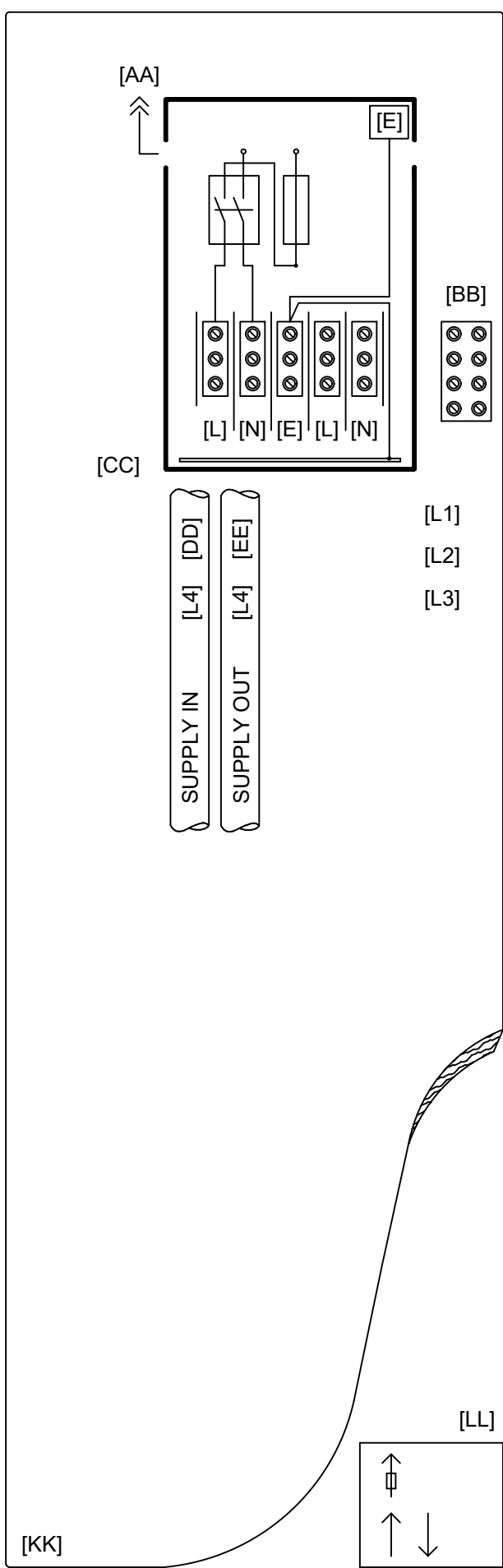
TERMINATION KEY

ITEM	DESCRIPTION
[AA]	CABLE TO LIGHTING UNIT.
[BB]	BRASS EARTH BLOCK WITH INDIVIDUAL PVC 6491X GREEN/YELLOW EARTH CABLES BONDED TO THE FOLLOWING COMPONENTS: > CUT-OUT GLAND PLATE > BASE COMPARTMENT DOOR; > BASE COMPARTMENT MAIN EARTH STUD; > DISTRIBUTION NETWORK OPERATOR CUT-OUT. (ALL EARTH CABLES SHALL BE SIZED IN ACCORDANCE WITH BS7671:2008)
[CC]	CUT-OUT INCORPORATING THE FOLLOWING COMPONENTS: > DOUBLE POLE ISOLATION SWITCH; > OUTGOING WAYS FUSED USING BS88 FUSE LINKS. > EXTENSION BOX WITH TERMINAL BLOCK; > 3mm BRASS GLAND PLATE WITH 3No. INCOMING/OUTGOING WAYS. > BRASS CABLE GLANDS COMPLYING WITH BS6121, TYPE CW. NATURAL RUBBER CABLE GROMMETS.
[DD]	INCOMING PRIVATE SUPPLY CABLE.
[EE]	OUTGOING PRIVATE SUPPLY CABLE.
[FF]	OUTGOING PRIVATE SUPPLY CABLE FUSED.
[GG]	6mm² PVC/PVC 6181Y SINGLES.
[HH]	(INDEPENDENT) DISTRIBUTION NETWORK OPERATOR CUT-OUT.
[JJ]	(INDEPENDENT) DISTRIBUTION NETWORK OPERATOR SUPPLY CABLE.
[KK]	BASE COMPARTMENT BACKBOARD.
[LL]	SCHEMATIC REPRESENTATION OF TERMINATION ARRANGEMENT.
[NN]	25mm² PVC/PVC 6181Y SINGLES.
[OO]	MINI PILLAR BACKBOARD.
[PP]	4 WAY SP&N DISTRIBUTION BOARD INCORPORATING THE FOLLOWING COMPONENTS: > METAL CLAD CASE. > DOUBLE POLE ISOLATION SWITCH. > BS88 FUSE LINKS. > BRASS CABLE GLAND COMPLYING WITH BS6121 TYPE CW REQUIRED FOR EACH OUTGOING WAY. > NATURAL RUBBER GROMMET FOR INCOMING CABLES [GG & NN].
[QQ]	SURGE PROTECTION DEVICE (TYPE 2)
[L1]	EARTH BLOCK LABEL "SAFETY ELECTRICAL CONNECTION - DO NOT REMOVE"
[L2]	PME WARNING LABEL "WARNING PME SERVICE POINT"
[L3]	PME WARNING LABEL "PRIVATE CABLE NETWORK LOOPED VIA PME SERVICE POINT"
[L4]	SOURCE/DESTINATION IDENTIFICATION MARKER
Notes	
1	REF. [DD], [EE] & [FF] - CABLE SHALL BE CLEATED TO THE BASE COMPARTMENT BACKBOARD APPROX. 200mm BELOW CUT-OUT.
2	REF. [DD], [EE] & [FF] - CABLE TYPE AS DEFINED ON EACH TERMINATION DRAWING.
3	REF. [AA] - A DRIP LOOP SHALL BE FORMED IN THE CABLE USING A BLACK TIE WRAP.
4	LABELS [L2],[L3] SHALL BE INSTALLED WHERE APPLICABLE TO THE ELECTRICAL INSTALLATION.
5	LABEL [L1] SHALL BE INSTALLED ADJACENT TO THE EARTH BLOCK [BB]

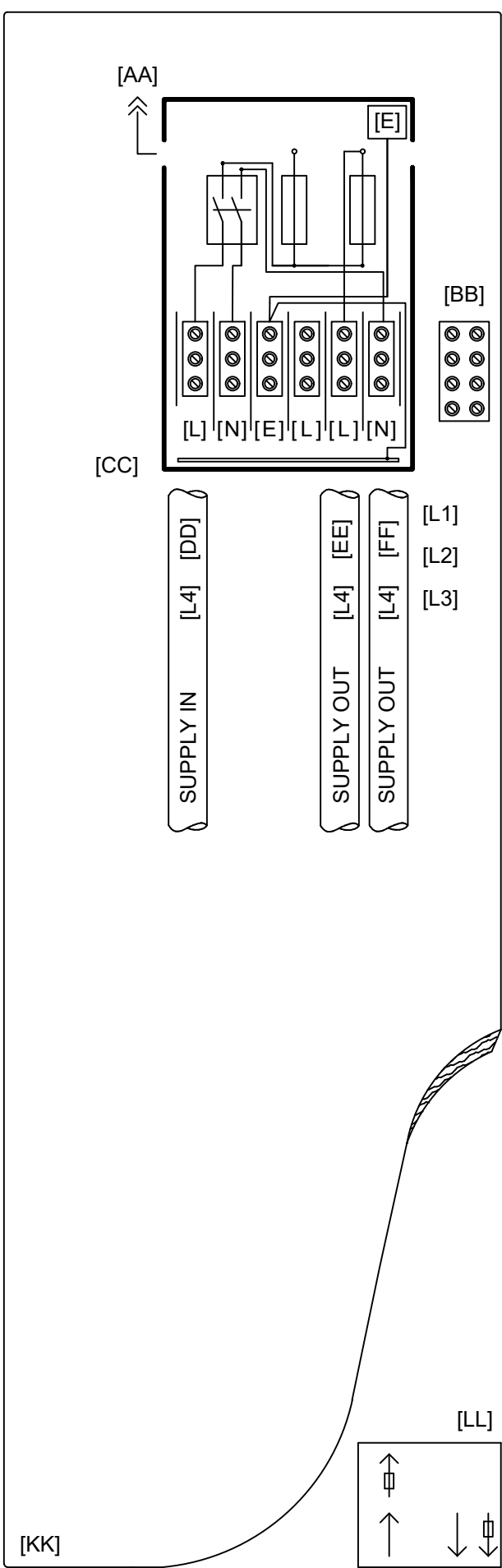
TERMINATION TYPE: L1



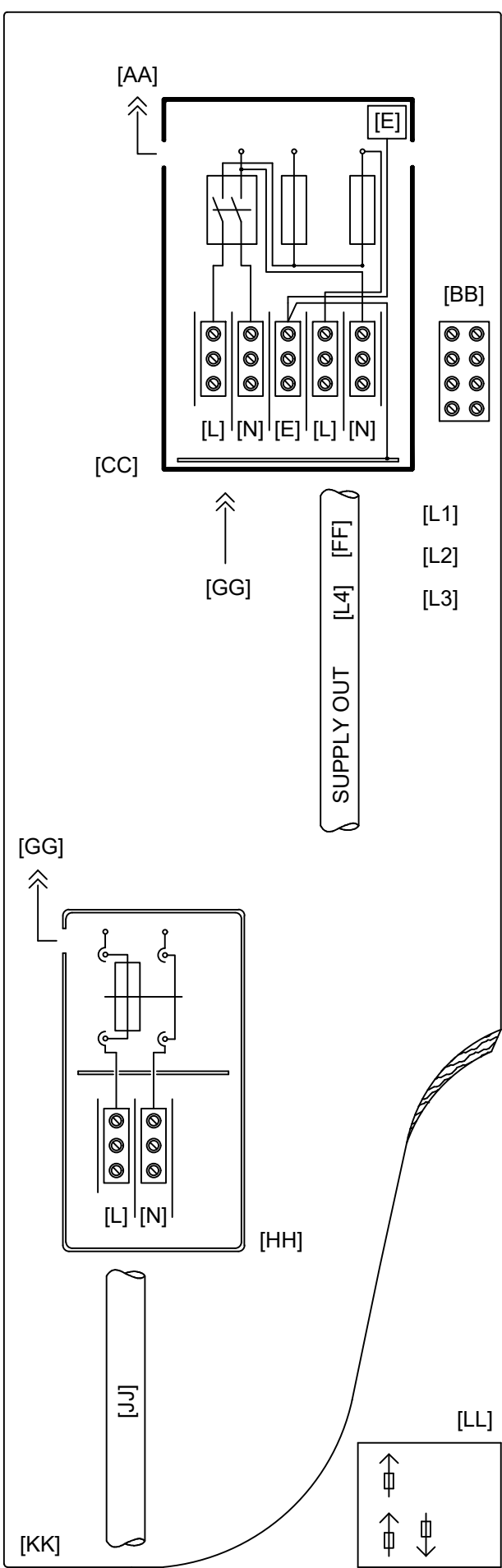
TERMINATION TYPE: L2



TERMINATION TYPE: L4



TERMINATION TYPE: L6



CARRIAGEWAY AND FOOTWAY DUCTING DETAILS

REFER TO MANUFACTURER'S GUIDELINES FOR INSTALLATION DETAIL AND SPECIFICATION

