

© Engineering Services Consultancy Limited. This drawing is copyright and must not be reproduced in part or whole without prior written consent. Contractors must verify all dimensions on site before commencing works.

All works shall be coordinated with all other trades. RESIDUAL RISK REGISTER NO. DESCRIPTION OF HAZARD

CONTROL MEASURES UNKNOWN BURIED SERVICES AND IDENTIFICATION OF EXISTING CONTRACTOR SERVICES IDENTIFIED IN WRONG UNDERGROUND SERVICES USING UTILITY RECORD DRAWINGS AND CAT SCANNING OF GROUND.

> CAREFUL EXCAVATION. USING SLOT TRENCHES AND CAT SCANNING OF GROUND.

- 1. THIS DRAWING SHALL BE READ IN CONJUNCTION WITH ALL OTHER ENGINEERING SERVICES CONSULTANCY LIMITED
- THE EXTERNAL LIGHTING SHALL BE DESIGNED TO ENSURE THAT REQUIRED LIGHTING LEVELS ARE ACHIEVED WHILST MINIMISING GLARE AND LIGHT SPILLAGE TO THE SURROUNDING AREAS AND TO ENSURE THERE IS NO DIRECT

CONTRIBUTION TO UPWARD LIGHT POLLUTION.

- 3. THE EXTERNAL LIGHTING SCHEME SHALL BE PROVIDED IN ACCORDANCE WITH THE LOCAL PLANNING AUTHORITIES REQUIREMENTS/RESTRICTIONS.
- 4. WHERE COLUMNS ARE POSITIONED NEAR TO NEIGHBOURING PROPERTIES, OR LOCATED ON THE PERIMETER OF THE SITE, THEY SHALL BE COMPLETE WITH SUITABLE BACK-SHIELDS TO PREVENT LIGHT SPILL.
- ALL COLUMNS SHALL HAVE A FLEXIBLE DUCT PASSING INTO THE BASE, THROUGH THE CONCRETE, TO ENSURE THAT
- 6. WHERE LUMINAIRES ARE FIXED DIRECTLY TO THE EXTERNAL BUILDING FABRIC, THE LUMINAIRES SHALL BE THE SAME RAL COLOUR AS THE CLADDING PANELS. ALL LUMINAIRE FIXING

FUTURE REWIRING OF THE CIRCUITS IS POSSIBLE.

BOLTS ETC. SHALL BE THE SAME COLOUR AS THE LUMINAIRE. GENERALLY, THE COLUMNS SHALL BE GALVANISED STEEL CONSTRUCTION. THE ELECTRICAL CONTRACTOR SHALL LIAISE

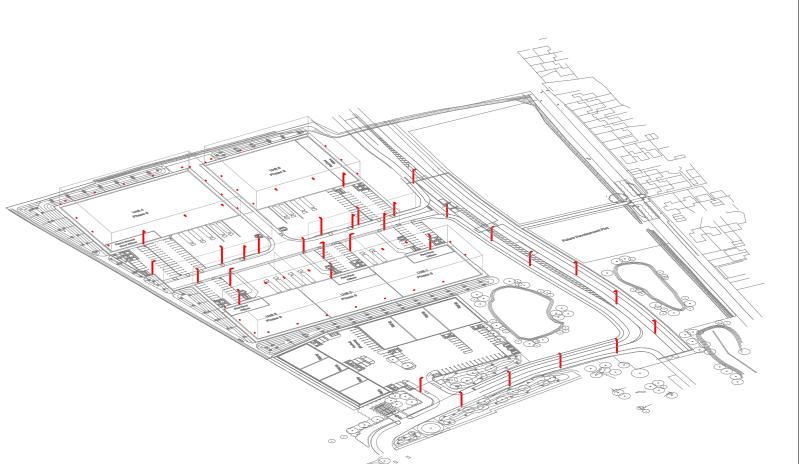
WITH THE ARCHITECT TO ASCERTAIN THE RAL COLOUR OF

THE COLUMNS. THE COLUMN HEADS SHALL MATCH THE RAL

- COLOUR OF THE COLUMN. 8. WHERE SERVICES NEED TO BE INSTALLED WITHIN DUCTS / TRENCHES, THE ELECTRICAL CONTRACTOR SHALL SUPPLY THE MAIN CONTRACTOR WITH DETAILS OF REQUIRED DUCT
- 9. DURING INSTALLATION OF THE EXTERNAL LIGHTING A DRAW WIRE SHALL BE PULLED THROUGH WITH THE CABLING TO

PROVIDE A MEANS OF INSTALLING FUTURE SERVICES

ROUTES AND DRAW PIT LOCATIONS.



16.03.22 Issued for planning 31.08.21 Issued for planning 03.08.21 Issued for planning

Rev. Date Details **Engineering Services Consultancy Ltd** 19 Ludgate Hill

Phase 3

THIS DRAWING IS FOR INFORMATION ONLY TO DEMONSTRATE DESIGN INTENT AND REPRESENTS THE AGREED SERVICING STRATEGY AND MINIMUM STANDARDS TO BE ACHIEVED. WHERE

ADDITIONAL DETAILS HAVE BEEN SHOWN, THIS HAS BEEN PROVIDED IN ORDER TO CONVEY

GREATER UNDERSTANDING OF THE CONCEPTUAL REQUIREMENTS AND SHALL NOT BE TAKEN AS

IT HAS NOT BEEN PRODUCED TO ACCURATE DESIGN CALCULATIONS AND SHALL NOT BE USED FOR

INSTALLATION PURPOSES.

THE CONTRACTOR WILL BE RESPONSIBLE FOR THE DESIGN OF THE ENGINEERING SERVICES IN ACCORDANCE WITH THE DESIGN AND BUILD CONTRACT. PLANT SIZING IS INDICATIVE AND THE CONTRACTOR SHALL BE FULLY RESPONSIBLE FOR THE DETAILED DESIGN OF ALL PLANT AND

DETAILED DESIGN.

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ALBION LAND Axis J9

External Lighting Layout

Aug 2021

1:500

1746 THIS DRAWING SHALL BE READ IN CONJUNCTION WITH ALL CONTRACT DOCUMENTS, PROJECT SPECIFICATIONS AND DRAWINGS 1746-ESC-00-ZZ-DR-E-2100 P3

EARTH ----BOND TO WITHIN POST COLUMN UNDERGROUND CABLE DUCTS ON PAVING EARTHENWARE DUCT WITH PACKED SAND TO LIGHTING COLUMN TYPICAL LIGHTING COLUMN (NTS) **EXTERNAL LIGHTING COLUMN CUT-OUT (NTS)**

Min Min/Avg

20 lux 5 lux 0.25

10 lux 2 lux 0.20

30 lux 15 lux 0.50

58 lux 32 lux 0.55

20 lux 5 lux 0.25

50 lux 17 lux 0.34

25 lux 7 lux 0.28

52 lux 16 lux 0.31

20 lux 3 lux 0.15

10 lux 3 lux 0.30

10 lux 3 lux 0.30

50 lux 23 lux 0.46

27 lux 7 lux 0.26

50 lux 23 lux 0.46

0 lux 0 lux N/A

DSX2.2.LA364.FW 0n D-Series 2 Luminaire

DSX2.2.LA364.FW on D-Series 2 Luminaire

-Series 1 Luminaire with Back 131

D-Series 1 Luminaire

Wall Bracket at 10m

HOLOPHANE 1 x DSX1.2.LA224.FW D-Series 1 Luminaire on 10m Column

HOLOPHANE | 1 x DSX1.2.LA224.FW | D-Series 1 Luminaire | Comparison on Wall Bracket at 10m | LIMITED | AFFL

HOLOPHANE | 1 x DSX1.2.LA164.FW | D-Series 1 Luminaire | contact |

HOLOPHANE 1 x DSX1.2.LA164.AY D-Series 1 Luminaire on 8m Column

HOLOPHANE | 1 x DSX1.2.LA114.FW | D-Series 1 Luminaire | LIMITED | D-Series 1 Luminaire | D-Series 2 Luminaire | D-Series 3 Luminaire | D-Series 3 Luminaire | D-Series 3 Luminaire | D-Series 4 Luminaire | D-Series 5 Luminaire | D-Series 6 Luminaire | D-Series 6 Luminaire | D-Series 7 Luminaire | D-Series 8 Luminaire | D-Series 9 Luminaire | D-Series 9 Luminaire | D-Series 1 Luminaire | D-Series 2 Luminaire | D-Series 3 Luminaire | D-Series 3 Luminaire | D-Series 4 Luminaire | D-Series 4 Luminaire | D-Series 5 Luminaire | D-Series 6 Luminaire | D-Series 6 Luminaire | D-Series 6 Luminaire | D-Series 7 Luminaire | D-Series 8 Luminaire | D-Series 9 Luminaire | D

HOLOPHANE EUROPE Wall Bracket at 8m AFFL UMITED

35 HOLOPHANE DWL.1.LA014.HN.W007 Denver iD Wall at 2.7m AFFL

HOLOPHANE WAP.1.LA094.FW at 8m WALLPACK EUROPE AFFL

SX1.2.LA164.AY on

HOLOPHANE EUROPE on 8m Column D-Series 0 Area luminaire on 8m Column

Unit 1-3 - Rear Walkways

Unit 1 - Car Park 20/0.25Uo

Unit 2 - Car Park 20/0.25Uo

Unit 3 - Car Park 20/0.25Uo

Unit 4 - Car Park 20/0.25Uo

Unit 5 - Rear Walkways

Unit 4 - Rear Walkways

Unit 1 - Service Yard 50/0.40Uc

Unit 2 - Service Yard 50/0.40Uo

Unit 3 - Service Yard 50/0.40Uo

Unit 4 - Service Yard 50/0.40Uo

Unit 5 - Car Park 20/0.25Uo

Unit 5 - Service Yard 50/0.40Uo

150mm BELOW GROUND

LAYER OF SAND ON ---

TOP OF MARKER TAPE

FINAL GROUND -

HOLOPHANE EUROPE

WHERE SWA CABLE CROSSES A CARRIAGEWAY/VEHICLE ENTRANCE, IT IS CONTAINED: 1. WITHIN A 150mm HIGH IMPACT UPVC DUCT AT A DEPTH OF NOT LESS THAN 750mm INCOMING SWA AT 450mm BELOW GROUND -2. NO GREATER THAN 1000mm LAYER OF SAND ON TOP OF SWA ---CABLE WARNING MARKER TAPE - CONCRETE INFILL POST ACCESS HATCH WOODEN BACKBOARD FOR FIXING - 3 CORE 1mm 2 FLEX TO EACH LUMINAIRE

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