



INSTALLATION NOTES

1. THE ELECTRICAL INSTALLATION SHALL FULLY COMPLY WITH 18TH EDITION B.S.7671: 2018 INCLUDING ALL AMENDMENTS & GUIDANCE NOTES.
2. ALL EXTERNAL LIGHTING SHALL BE CONTROLLED BY MEANS OF A PHOTOCELL/ELECTRONIC SOLAR DIAL TIME SWITCH C/W HAND/AUTO SWITCH WITH NEON INDICATOR & DESIGNATION LABEL.
3. ALL CABLING ACROSS ROADS SHALL BE CONTAINED WITHIN DUCTS HUNCHED IN CONCRETE. THE ELECTRICAL CONTRACTOR SHOULD ALLOW FOR ALL TESTING & COMMISSIONING AND ENSURE PERFORMANCE TO MANUFACTURERS CLAIMS. CONTRACTOR TO ENSURE THE PRODUCTION OF ALL RELEVANT CERTIFICATES IN A TIMELY MANNER.
4. CONTRACTOR MUST INCLUDE FOR ALL BUILDERSWORK & ENSURE FIRE COMPARTMENTATION IS RETAINED THROUGHOUT WHERE APPLICABLE. ELECTRICAL SERVICES, PLANT SUPPORTS & ACCESS EQUIPMENT REQUIRED TO COMPLETE THE WORKS.
5. CONTRACTOR MUST READ ALL EMPLOYER REQUIREMENTS & ELECTRICAL SERVICES PERFORMANCE SPECIFICATION, PRIOR TO CARRYING OUT WORKS AND PRODUCE FULLY DETAILED DESIGN LAYOUTS
6. SEPARATE ELECTRONIC DUAL CHANNEL SOLAR DIAL TIME CLOCKS TO BE PROVIDED TO ALLOW FOR CONTROL OF WALL MOUNTED FITTINGS/ COLUMNS AND BOLLARDS TO BE CONTROLLED SEPARATELY.
7. WIRING -
WALL MOUNTED REF. J
WIRING SHALL BE BY MEANS OF TWIN & EARTH CABLING CONTAINED IN MDRF GALVANISED TRAY INTERNALLY WITH PVC CONDUIT OFFERING PROTECTION THROUGH EXTERNAL WALL.
THE CONDUIT SHALL TERMINATE AT THE REAR OF EACH LUMINAIRE IN A FLUSH BESA BOX IN SUCH AS POSITION THAT SAME CAN BE SUITABLY SEALED AGAINST THE INGRESS OF WATER ETC.
8. BAT / ECOLOGIST RECOMMENDATION: - CONSIDERED
 - USE THE LOWEST LEVEL OF BRIGHTNESS POSSIBLE
 - USE NARROW SPECTRUM LIGHT SOURCES
 - USE LIGHT SOURCES THAT EMIT MINIMAL ULTRA-VIOLET LIGHT
 - LIGHTS SHOULD NOT HAVE A PEAK WAVELENGTH HIGHER THAN 550nm
 - AVOID WHITE AND BLUE WAVELENGTHS OF THE LIGHT SPECTRUM (WHERE WHITE LIGHT SOURCES ARE REQUIRED THEY SHOULD BE OF A WARM/ NEUTRAL COLOUR TEMPERATURE <4200 KELVIN.
 - POSITION LIGHTS AT THE LOWEST LEVEL POSSIBLE I.E. LIT ROAD STUDS, BOLLARDS.
 - ENSURE LIGHTS ARE DIRECTIONAL AND FIT SHIELDS OR HOODS TO REDUCE LIGHT SPILL.
 - MAX 1 Lux AVERAGE AT BOUNDARY ZONES NOTED.
9. ALL EXTERNAL FITTINGS, WHERE PROVIDED, WITHIN THE CONSTRUCTION ZONE MEET LIGHTING REQUIREMENTS AS GIVEN IN TABLE 11 BELOW;

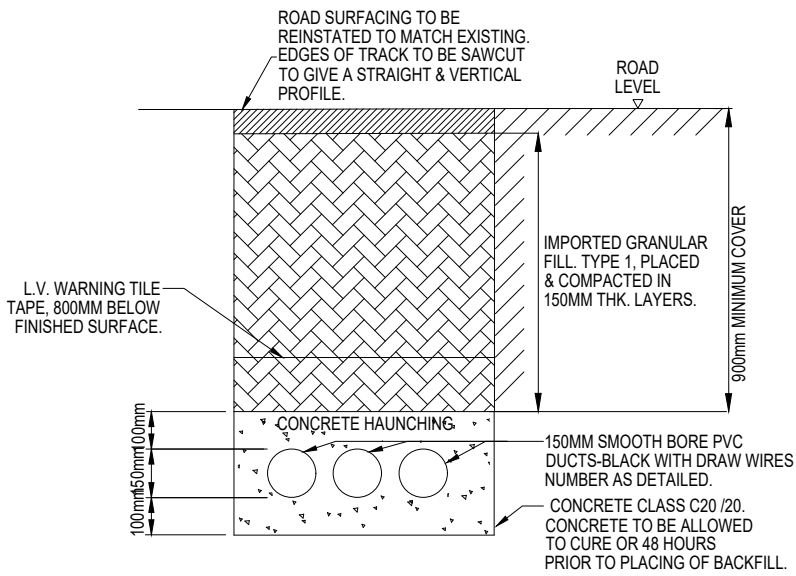
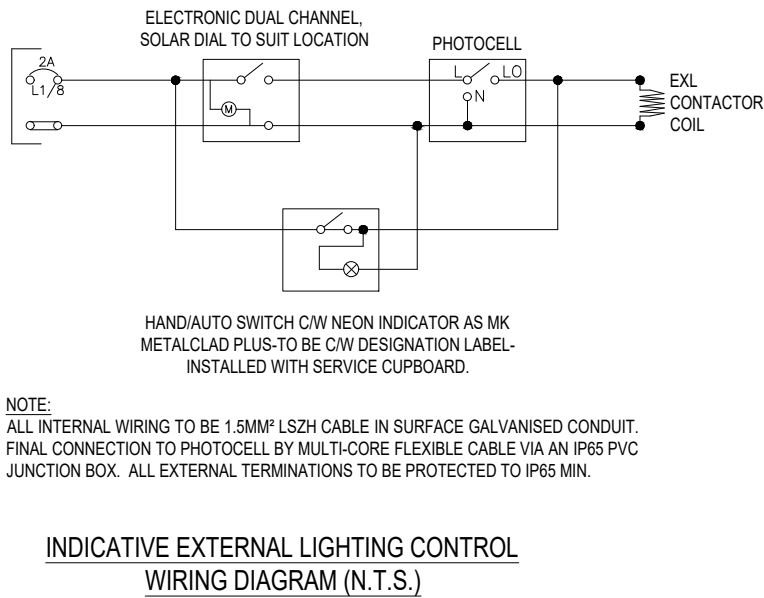
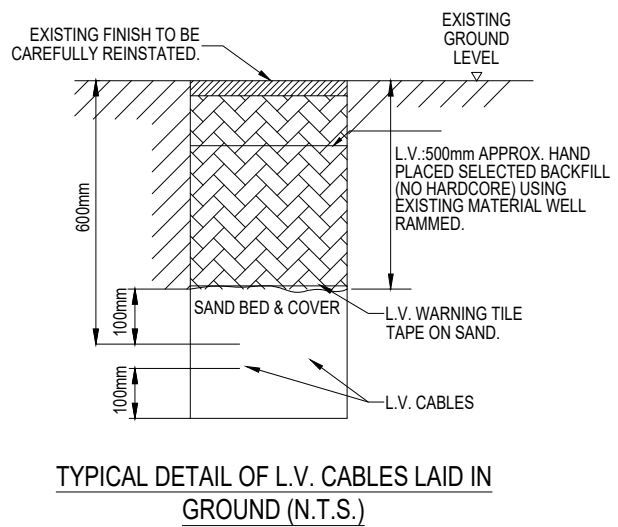
(Table 11)			LED Luminaires Where The Lamp Is Integral To The Fitting Measured In Luminaire Lumens/ Circuit Watt, When:	
External Lighting Location		Colour Rendering Index (Ra) ≥ 60	Colour Rendering Index (Ra) < 60	
Building, access ways, pathways		40	50	
Car parking, associated roads, floodlighting		55	60	
		Lamp wattage > 25W	Lamp wattage < 25W	

EXTERNAL LIGHT FITTINGS ARE CONTROLLED THROUGH A TIME SWITCH, OR DAYLIGHT SENSOR, TO PREVENT OPERATION DURING DAYLIGHT HOURS. DAYLIGHT SENSOR OVERRIDE ON A MANUALLY SWITCHED LIGHTING CIRCUIT IS ACCEPTABLE AS PER DETAIL.

TO REDUCE NIGHT TIME LIGHT POLLUTION THE EXTERNAL LIGHTING STRATEGY HAS BEEN DESIGNED IN COMPLIANCE WITH TABLE 2 (AND ITS ACCOMPANYING NOTES) OF THE ILP GUIDANCE NOTES FOR THE REDUCTION OF OBTRUSIVE LIGHT, 2011. ALL EXTERNAL LIGHTING (EXCEPT FOR SAFETY AND SECURITY LIGHTING) CAN BE AUTOMATICALLY SWITCHED OFF BETWEEN 23:00 AND 07:00AM. IF SAFETY OR SECURITY LIGHTING IS PROVIDED AND WILL BE USED BETWEEN 23:00 AND 07:00, THIS PART OF THE LIGHTING SYSTEM COMPLIES WITH THE LOWER LEVELS OF LIGHTING RECOMMENDED DURING THESE HOURS IN TABLE 2 OF THE ILP'S GUIDANCE NOTES.

LEGEND:

- TELECOM DUCT BY OTHERS TO BE CONFIRMED.
- LV POWER DUCTS: 2X 150mm Dia. Rigi Duct.
- STREET LIGHTING DUCTS: 1x 100mm Dia Rigi Duct
- 300X300mm DRAWPIT TO BE INSTALLED AT 30M CENTRES OR CHANGE IN DIRECTION/BRANCH OR AS NOTED FOR EV CHARGE POINTS.



'J/JE' REFERENCE WALL MOUNTED LUMINAIRE



'N' REFERENCE COLUMN MOUNTED LUMINAIRE



'O' REFERENCE BOLLARD LUMINAIRE

GENERAL NOTES

1. IF THIS DRAWING HAS BEEN RECEIVED ELECTRONICALLY IT IS THE RECIPIENTS RESPONSIBILITY TO ENSURE THAT THE DOCUMENT IS PLOTTED TO THE CORRECT SCALE.
2. ALL DIMENSIONS ARE IN MILLIMETERS UNLESS STATED OTHERWISE.
3. DO NOT SCALE FROM THIS DRAWING.
4. THIS DRAWING SHALL BE READ IN CONJUNCTION WITH ALL OTHER CONTRACT DOCUMENTATION & DRAWINGS / SCHEDULES.
5. ALL PLANT & EQUIPMENT MUST BE ISSUED FOR APPROVAL PRIOR TO ORDER.
6. ALL WORK TO BE CARRIED OUT IN ACCORDANCE WITH THE LATEST EDITION OF THE IET WIRING REGULATIONS, BS 7671-18TH EDITION AND ALL SUBSEQUENT AMENDMENTS INCLUDING THE IET ON SITE GUIDE.
7. THE CONTRACTOR MUST ENSURE THAT THE MECHANICAL & ELECTRICAL SERVICES ARE FULLY COORDINATED.

LEGEND

- J WALL MOUNTED 2000mm AFFL, 30W LED, 3600lm, 4000K, CR182, IP65, DIM. 217x343x245mm, DIE CAST ALUMINUM, AS ANSELL WOLF
- IE AS TYPE J c/w INTEGRAL 3 HOUR EMERGENCY STANDBY BATTERY PACK AND STATUS INDICATING GREEN LED INDICATOR
- N STREET LIGHT ON 5m COLUMN, 14W LED, 2000lm, 5000K, CR170, IP66, DIE CAST ALUMINIUM, AS ANSELL ONIX STREET LIGHT 1.
- O BOLLARD 1000MM HIGH, 25W LED, 2400lm, 4000K, CR180, IP68, IK08, ROBUST DIE-CAST ALUMINIUM BODY WITH ATEXTURED GRAPHITE FINISH, C/W INTEGRAL EMERGENCY OPTION, AS ANSELL TAURUS.
- R HIGH LEVEL SIGNAGE LINEAR LED LUMINAIRES FOR CLIENT SIGN ABOVE MAIN ENTRANCE DOOR. EXACT DETAILS TO BE CONFIRMED BY SIGNAGE CONTRACTOR.

EVA

11kW TYPE 2 EV CHARGE POINT APPROX 8HR FULL CHARGE. INSTALLED 'ACTIVE' C/W E-MAT EARTH MODULE, POLE MOUNT, MONITORING REPORTING & CONTROL SOFTWARE AS POD POINT OR EQUAL. 10% OF AVAILABLE PARKING
- SYSTEM TO BE SCALABLE TO 100% ACTIVE

EVP

DUCTING FOR FUTURE (900) EXPANSION OF EV CHARGING TO SPACE C/W END DRAW PIT (300x300) @ EACH ' PASSIVE' SPACE. 10% OF AVAILABLE PARKING.

- 2 TWIN 13AMP UNSWITCHED SOCKET OUTLET IP65

Rev.	Description	Date	Initials	Checked

Status		PLANNING	
Client		SIMPLY UK	
Location		COLDHARBOUR ROAD NORTHFLEET, GRAVESEND DA11 8NT	
Drawing Title		ELECTRICAL SERVICES PROPOSED EXTERNAL SERVICES LAYOUT	
Date	Drawn by	Scale	Checked
MAY 24	PM	1:20	RB
Date	Drawn by	Scale	Checked
MAY 24	PM	1:20	RB
Project Ref.	Dwg. No.	E-00-EX(90)001	
9360			

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