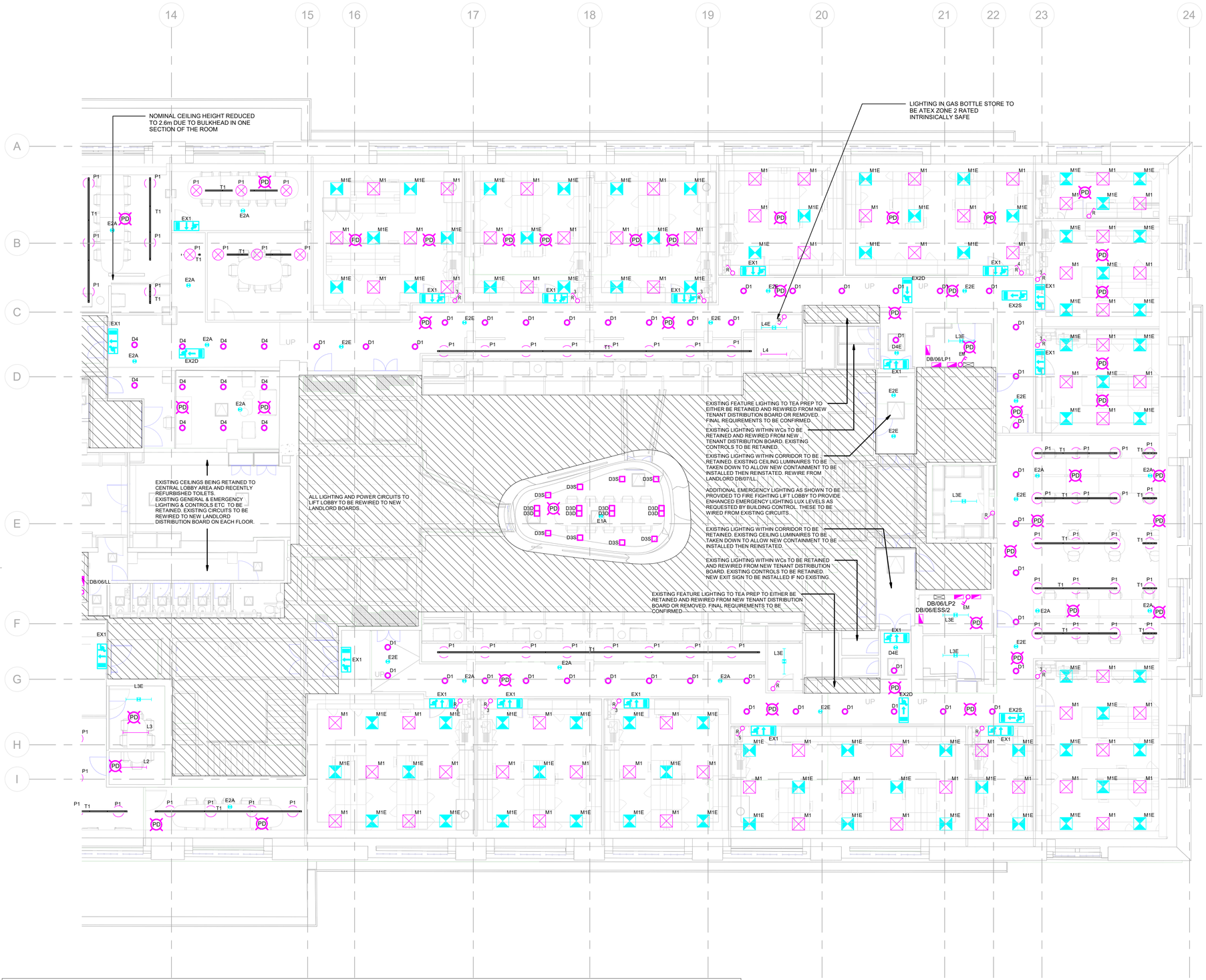

LEGEND

	TP&N DISTRIBUTION BOARD
D1	SURFACE MOUNTED ON ROD OR CONTAINMENT LED CIRCULAR WHITE DALI LUMINAIRE AS WHITECROFT PORTAL LED.22W, 2300Lm, 4000K LED.
D2 D2E	RECESSED LED DALI CIRCULAR WHITE DOWNLIGHTER AS WHITECROFT MIRAGE3 C165 LED 16W, 2010Lm, 4000K LED. WITH CLEAR GLASS COVER. SEMI SPECULAR OPTIC E - DENOTES COMPLETE WITH 3 HOUR DURATION EMERGENCY BATTERY PACK. OR THRON LIGHTING EQUIVALENT
D3S D3D	RECESSED SQUARE ARCHITECTURAL ADJUSTABLE GIMBAL DOWNLIGHT WITH HIGH OUTPUT LED AND REMOTE DALI DRIVER. 8W 1055Lm FOR EACH. S - DENOTES SINGLE SPOT, D - DENOTES DOUBLE SPOT. AS WHITECROFT MINION OR EQUIVALENT FROM THORN LIGHTING.
D4 D4E	RECESSED IP44 LED DALI CIRCULAR WHITE DOWNLIGHTER AS WHITECROFT COMPACT R6 LED 21W, 2000Lm, 4000K LED. WITH OPAL DIFFUSER. E - DENOTES COMPLETE WITH 3 HOUR DURATION EMERGENCY BATTERY PACK. OR THRON LIGHTING EQUIVALENT
E1E	CEILING RECESSED NON-MAINTAINED EMERGENCY LUMINAIRE AS ZUMTOBEL RESCLITE PRO MINI ESCAPE HIGH OUTPUT OR WHITECROFT FLORIN E3
E1A	CEILING RECESSED NON-MAINTAINED EMERGENCY LUMINAIRE AS ZUMTOBEL RESCLITE PRO MINI ANTI PANIC HIGH OUTPUT OR WHITECROFT FLORIN E3
E2E	CEILING RECESSED NON-MAINTAINED EMERGENCY LUMINAIRE AS ZUMTOBEL RESCLITE PRO MINI ANTI PANIC HIGH OUTPUT OR WHITECROFT FLORIN E3
E2A	CEILING SURFACE MOUNTED NON-MAINTAINED EMERGENCY LUMINAIRE AS ZUMTOBEL RESCLITE PRO MINI ANTI-PANIC HIGH OUTPUT OR WHITECROFT FLORIN E3
E2S	CEILING SURFACE MOUNTED NON-MAINTAINED EMERGENCY LUMINAIRE AS ZUMTOBEL RESCLITE PRO MINI SPOT OR WHITECROFT FLORIN E3
EX1	SURFACE WALL MOUNTED ABOVE DOOR SINGLE SIDED MAINTAINED OPERATION EMERGENCY ESCAPE SIGN AS ZUMTOBEL ONLITE ARTSIGN OR EQUIVALENT. ARROW DENOTES DIRECTION OF TRAVEL, AHEAD, LEFT, RIGHT, DOWN.
EX2S EX2D	CEILING SURFACE MOUNTED SINGLE/DOUBLE SIDED MAINTAINED OPERATION EMERGENCY ESCAPE SIGN AS ZUMTOBEL ONLITE PURESIGN S=SINGLE SIDE, D- DOUBLE SIDE.ARROW DENOTES DIRECTION OF TRAVEL, AHEAD, LEFT, RIGHT, DOWN.
EX3S EX3D	CEILING RECESSED SINGLE/DOUBLE SIDED MAINTAINED OPERATION EMERGENCY ESCAPE SIGN AS ZUMTOBEL ONLITE PURESIGN S=SINGLE SIDE, D- DOUBLE SIDE. ARROW DENOTES DIRECTION OF TRAVEL, AHEAD, LEFT, RIGHT, DOWN.
L1	SUSPENDED ARCHITECTURAL LINEAR PENDANT LED ALUMINIUM PROFILE LUMINAIRE 1250mm LENGTH WITH SUSPENSION KIT 24.6W, 2875Lm POD LED OPTIC. DIRECT LIGHT DISTRIBUTION ONLY. AS WHITECROFT AVENUE METRO SUSPENDED VITALITY OR EQUIVALENT FROM THORN LIGHTING.
L1R	RECESSED ARCHITECTURAL LINEAR LED ALUMINIUM PROFILE LUMINAIRE 1250mm LENGTH WITH RECESSING KIT 24.6W, 2875Lm POD LED OPTIC DALI. DIRECT LIGHT DISTRIBUTION ONLY. AS WHITECROFT AVENUE METRO RECESSED VITALITY OR EQUIVALENT FROM THORN LIGHTING.
L2	1200mm SURFACE ARCHITECTURAL LINEAR LED DALI LUMINAIRE WITH OPAL DIFFUSER. 4200Lm 29W 4000K LED. AS WHITECROFT STILETTO LED OR EQUIVALENT FROM THORN LIGHTING
L3 L3E	1200mm SURFACE IP66 LINEAR LED DALI LUMINAIRE WITH DIFFUSER. 6425Lm 46W 4000K LED. AS WHITECROFT ACL INDUSTRY OR EQUIVALENT FROM THORN LIGHTING. E - DENOTES INTEGRAL 3 HOUR DURATION EMERGENCY BATTERY PACK
L4 L4E	1200mm SURFACE MOUNTED IP66 IK08 ANTI CORROSSIVE ATEX ZONE 2 RATED LINEAR LED DALI LUMINAIRE WITH GRP HOUSING & POLYCARBINATE DIFFUSER. 4200Lm 40W 4000° K. AS WITHCROFT ACL VITAILITY LED OR EQUIVALENT FROM THORN LIGHTING. E - DENOTES INTEGRAL 3 HOUR DURATION EMERGENCY BATTERY PACK
M1 M1E	CEILING RECESSED MODULAR IP54 RATED LED DALI LUMINAIRE WITH TP(a) DIFFUSER WITH SMOOTH OUTER FACE FOR CLEANING. 33W, 3290Lm, 4000K LED. LUMINAIRE AS WHITECROFT HYGIENE OR EQUIVALENT FROM THORN LIGHTING. E - DENOTES INTEGRAL 3 HOUR DURATION EMERGENCY BATTERY PACK
P1	EXISTING OR NEW (SEE NOTES) DALI 35W 2700LM 3000K LED TRACK MOUNTED PENDANT LUMINAIRE C/W TRACK ADAPTOR WITH INTEGRAL DALI DRIVER STORED FROM STRIP OUT PHASE OF OTHER FLOORS AND REINSTALLED IN NEW LOCATION SHOWN. LUMINAIRES TO BE CLEANED, TESTED AND RECONNECTED TO TRACK. AS ORLIGHT CYMBAL.
T1	EXISTING OR NEW (SEE NOTES) SURFACE SUSPENDED TRACK SYSTEM STORED FROM STRIP OUT PHASE OF OTHER FLOORS AND REINSTALLED IN NEW LOCATION COMPLETE WITH END FEED UNIT AND SUPPORTS ETC. TRACK TO BE TESTED AND REINSTALLED IN NEW LOCATIONS SHOWN. ALLOW FOR REPLACEMENT SUPPORTS/BRACKETS AS REQUIRED. AS ORLIGHT ORLTL TRACK SYSTEM.
TA1	LED TAPE WITH OPAL COVER & DALI DRVIER MOUNTED TO REAR OF MIRRORS & WC SHADOW GAP IN TOILETS. FINAL REQUIREMENTS TO BE AGREED WITH ARCHITECT.
	EXISTING LIGHTING TO BE RETAINED AND PROTECTED DURING THE REFURBISHMENT WORKS. EXISTING CORE LIGHTING TO REMAIN OPERATIONAL AT ALL TIMES. ALLOW FOR ALTERING EXISTING CIRCUITING TO PROVIDE TEMPORARY SUPPLIES TO LIGHTING IN THESE AREAS DURING THE REPLACEMENT OF ANY DISTRIBUTION BOARDS THAT EFFECT THESE AREAS.
PD	LIGHTING CONTROL MULTI-PURPOSE DALI NETWORKED PIR (PRESENCE OR ABSENCE) & PHOTOCELL SENSOR. DL=DAYLIGHT SENSOR ONLY. SURFACE/SUSPENDED ON ROD OR CEILING RECESSED TO SUIT CEILING TYPE
R	SINGLE WAY CENTRE RETRACTIVE LIGHT SWITCH *N DENOTES NUMBER OF GANGS, WP DENOTES WEATHERPROOF.
R	2 WAY CENTRE RETRACTIVE LIGHT SWITCH *N DENOTES NUMBER OF GANGS, WP DENOTES WEATHERPROOF.
EM	EMERGENCY TEST KEY SWITCH
MC	13AMP UNSWITCHED FUSED CONNECTION UNIT

NOTES:

DO NOT SCALE FROM THIS DRAWING.

1. THIS DRAWING TO BE READ IN CONJUNCTION WITH KJ TAIT ELECTRICAL SPECIFICATION, MECHANICAL SERVICES DRAWINGS, ARCHITECTS AND STRUCTURAL ENGINEERS DRAWINGS.
2. ELECTRICAL INSTALLATION SHALL COMPLY FULLY WITH BS 7671: 2018 AND ALL CURRENT AMENDMENTS KJ TAIT ENGINEER'S SPECIFICATION AND THE EMPLOYER'S REQUIREMENTS.
3. THE EMERGENCY LIGHTING INSTALLATION SHALL FULLY COMPLY WITH BS5266: PART 1 2016 AND BSEN1838: 2013.
4. THE GENERAL ARTIFICIAL LIGHTING SCHEME SHALL BE DESIGNED TO COMPLY WITH THE APPROPRIATE BUILDING STANDARDS BY FOLLOWING THE ADVICE AND GUIDANCE GIVEN IN THE SOCIETY OF LIGHT AND LIGHTING (CIBSE) CODE FOR LIGHTING.
5. ENERGY EFFICIENT LED SOURCES DRIVERS, REFLECTORS AND CONTROLS SHALL BE USED THROUGHOUT. ALL LUMINAIRES UTILISING LED SOURCES LAMPS SHALL HAVE HIGH FREQUENCY DRIVERS
6. ALL TENANT OFFICE, LAB & WRITE UP AREAS SHALL HAVE AN AUTOMATIC LIGHTING CONTROL SYSTEM OPERATED BY TIMED, OCCUPANCY AND AMBIENT LIGHT INPUTS, MANUAL OVERRIDE PROCESS HAS ALSO BEEN DESIGNED.
7. ALL CABLING SHALL BE XLPE/LSF DRAWN INTO HDG CONDUIT AND TRUNKING
8. ALL EMERGENCY CHARGE LED'S SHALL BE VISIBLE FROM BELOW THE LUMINAIRE.
9. ALL LUMINAIRES INSTALLED WITHIN A DROPPED CEILING OR SUSPENDED CEILING GRID SHALL BE AFFORDED 1No. SECONDARY SUSPENSION USING GRIPPLE WIRE FROM THE CONCRETE SOFFIT.
10. ALL CABLING AND ACCESSORIES TO BE CONCEALED FLUSH FIXED WITH EXCEPTION OF PLANTROOMS AND CEILING VOIDS
11. ALL LED SOURCE COLOURS SHALL BE 4000K
12. ALL EMERGENCY SIGN LUMINAIRES TO BE SUPPLIED WITH CORRECT LEGEND.
13. A FULLY AUTOMATIC EMERGENCY LIGHTING MONITORING AND TESTING SYSTEM SHALL BE INSTALLED. EMERGENCY TEST FACILITIES VIA KEY SWITCH TO LIGHTING CONTROL SYSTEM TEST KEYSWITCHES SHALL BE LOCATED WITHIN RISER ADJACENT TO ACU's AND DISTRIBUTION BOARDS.
14. ALL TEST KEY SWITCHES TO BE LABELLED ACCORDINGLY.
15. ALL LIGHT SWITCHES TO BE GRID TYPE. ALL LIGHTING SWITCHES LINKED TO LCMS & HWLCMS OR DALI NETWORK SHALL BE 2WAY CENTRE RETRACTIVE TYPE.
16. LIGHT SWITCHES TO BE INSTALLED AT 1200mm FROM FINISHED FLOOR LEVEL.
17. ACCESSORIES SHALL BE AS FOLLOWS:
    MK LOGIC PLUS - GENERALLY THROUGHOUT
    MK METALCLAD - FLOOR/CEILING VOIDS
18. ALL LIGHTING CIRCUITS TO BE PROTECTED BY TYPE C MCB's. THESE SHALL GENERALLY BE 10AMP RATED WITH 2.5SQ.MM XLPE/LSF CIRCUITS.

NOTES REGARDING LUMINAIRE REFERENCE P1

1. THE DESIGN INTENT IS THAT THE EXISTING P1 PENDANT LUMINAIRES AND ASSOCIATED T1 TRACK SHALL BE RETAINED AND REUSED.
2. THERE ARE CURRENTLY 222No REF P1 LUMINAIRES INSTALLED (3No PER TRACK LENGTH). ASSUMING A WASTAGE FACTOR OF 20% THIS GIVES A FIGURE OF 177No LUMINAIRES TO BE REUSED WITHIN THE NEW LAYOUTS.
3. ALL LUMINAIRES REF P1 OVER AND ABOVE THIS NUMBER SHALL BE NEW LUMINAIRES TO MATCH EXISTING IN TERMS OF LUMEN OUTPUT, LAMP AND FINISH. AS ORLIGHT CYMBAL LUMINAIRES
4. CONTRACTOR TO ALSO INCLUDE FOR NEW LENGTHS OF T1 TRACK FOR EVERY 3No NEW LUMINAIRES AS BEING REQUIRED. EXACT AMOUNT OF NEW TRACK TO BE DETERMINED BY THE CONTRACTOR TO MATCH THE LAYOUT SHOWN

LIGHTING CONTROL DESIGN NOTES

1. THIS DRAWING IS INDICATIVE OF THE DESIGN INTENT. SELECTED LIGHTING CONTROLS MANUFACTURER TO CARRY OUT DETAILED DESIGN OF CONTROLS INSTALLATION.
2. AN AUTOMATIC DALI NETWORK LIGHTING CONTROL SYSTEM SHALL BE PROVIDED TO CONTROL THE GENERAL LIGHTING. THE LIGHTING CONTROLS SPECIALIST MANUFACTURER SHALL CARRY OUT THE DETAILED DESIGN OF THE LIGHTING CONTROLS TO MEET THE DESIGN PHILOSOPHY DESCRIBED ON THIS DRAWING AND IN COMPLIANCE WITH BUILDING REGULATIONS PART L.
3. THE LIGHTING CONTROL SYSTEM SHALL INTERFACE WITH THE DIGITAL BUILDING MANAGEMENT SYSTEM TO ALLOW FULL INTEGRATION AND CONTROL BY THE BUILDING MANAGER. THE LIGHTING CONTROL SPECIALIST MUST TAKE COGNISANCE OF THE DIGITAL BUILDINGS BRIEFING DOCUMENT WHICH ACCOMPANIES THE KJT SPECIFICATION AND INCLUDE FOR ALL NECESSARY HARDWARE/SOFTWARE TO ALLOW THIS FUNCTIONALITY AND DEVELOPING THIS INTERFACE WITH THE DIGITAL BUILDING SPECIALIST.
4. OPEN PLAN OFFICE, LABORATORY & WRITE UP AREAS SHALL BE PROVIDED WITH AUTOMATIC PIR PRESENCE DETECTION AND AUTOMATIC DAYLIGHT DIMMING. PIRS (PRESENCE DETECTION SHALL BE PROVIDED CONTROLLING A MAXIMUM GROUP OF 4 LUMINAIRES COVERING 4 WORKSTATIONS TO MEET BREEAM HEA1 CREDIT REQUIREMENTS. PIR SENSORS WILL ALSO INCORPORATE FACILITY FOR LOCAL FLEXIBLE MANUAL CONTROL VIA HAND HELD TRANSMITTER FOR PART L COMPLIANCE.
5. CIRCULATION AREAS SHALL BE PROVIDED WITH PRESENCE DETECTION AND CORRIDOR HOLD ON LINK FACILITY SO THAT CIRCULATION ROUTES ARE ILLUMINATED IF ANY ROOM IS OCCUPIED.
6. SMALL MEETING ROOMS AND CELLULAR OFFICES SHALL BE PROVIDED WITH MANUAL DIMMING CONTROL AND ABSENCE DETECTION.
7. STORES SHALL BE PROVIDED WITH PRESENCE DETECTION CONTROL ONLY.
8. ALL LUMINAIRES SHALL BE SUPPLIED WITH DALI ADDRESSABLE DIMMABLE LED DRIVERS. LUMINAIRES WITHIN OFFICE/LAB/WRITE UP AREAS SHALL BE DAYLIGHT DIMMED IN ORDER TO MAXIMISE USE OF DAYLIGHT AND REDUCE ENERGY CONSUMPTION. LUMINAIRES SHALL BE CONTROLLED VIA PHOTOCELL DAYLIGHT LINKING IN ORDER TO DIM LUMINAIRES WHEN ADEQUATE DAYLIGHT IS AVAILABLE. OTHER LUMINAIRES SHALL BE DIMMABLE VIA THE LIGHTING CONTROL SYSTEM.
9. THE LIGHTING CONTROL SYSTEM SHALL UTILISE DALI AREA CONTROLLERS/ROUTERS (1-2No PER FLOOR), PLUGGABLE LCMs LOCATED WITHIN THE ACCESSIBLE CEILING VOIDS. THE FINAL ARRANGEMENT AND SELECTION OF CONTROL EQUIPMENT SHALL BE BY THE LIGHTING CONTROL SPECIALIST MANUFACTURER. NO LCMs SHALL BE VISIBLE. THE FINAL TERMINATION ARRANGEMENT AT LUMINAIRES SHALL BE DETERMINED BY THE MANUFACTURER
10. THE LOCATIONS AND QUANTITIES OF CONTROL EQUIPMENT ARE NOT SHOWN. THESE SHALL BE DESIGNED BY THE LIGHTING CONTROLS SPECIALIST MANUFACTURER WHO SHALL PROVIDE FINAL DETAILS OF PROPOSED LOCATIONS, QUANTITIES, TYPES OF CONTROL EQUIPMENT AS PART OF THE CONTRACTORS FULL TECHNICAL SUBMISSION.
11. LIGHTING CONTROL PIRS ARE SHOWN FOR INFORMATION ONLY. THE LOCATIONS OF THESE SHALL BE DETERMINED BY THE LIGHTING CONTROL SPECIALIST MANUFACTURER TO PROVIDE FULL COVERAGE. PIRs SHALL BE WIRED BACK TO NEAREST AVAILABLE LCM OR SHALL BE DALI ADDRESSABLE PIRs ON THE DALI NETWORK.
12. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ENSURING THAT THE LIGHTING CONTROL SYSTEM IS COMPATIBLE WITH THE LUMINAIRE CONTROL GEAR AND INCLUDE ALL NECESSARY CONTROL FUNCTIONS AS PER THE SPECIFICATION.

EMERGENCY LIGHTING STRATEGY

1. EMERGENCY LIGHTING INSTALLATION SHALL BE PROVIDED THROUGHOUT THE PROPOSED REFURBISHMENT AREAS WHICH SHALL COMPLY WITH BS 5266 AND BS EN 1838. THE SYSTEM SHALL BE INSTALLED COMPLETE WITH TEST AND MONITORING FACILITIES
2. THE SYSTEM SHALL COMPRISE NON-MAINTAINED OPERATION SELF-CONTAINED LUMINAIRES WITH INTEGRAL 3 HOUR DURATION EMERGENCY BATTERY PACKS AND COMBINED GENERAL LUMINAIRES WITH INTEGRAL EMERGENCY BATTERY PACKS WHERE APPROPRIATE..
3. MAINTAINED ILLUMINATED EXIT SIGNS WILL BE LOCATED THROUGHOUT THESE WILL BE LOCATED ABOVE EXIT DOORS AND ON ESCAPE ROUTES TO GUIDE THE OCCUPANTS TO SAFETY. THE FORMAT OF ALL ESCAPE SIGNS WILL BE IN ACCORDANCE WITH BS ISO 7010, THE COLOUR AND PHOTOMETRIC PROPERTIES WILL BE AS BS ISO 3864-1&4 AND SIGNS SHOULD BE LOCATED AND OPERATE AS BS5499-4. THE EMERGENCY EXIT SIGNS LEGEND ORIENTATION SHOWN ON THE DRAWING IS INDICTAIVE ONLY. THE ARROW DIRECTION SHALL BE THE RESPONABILITY OF THE CONTRACTOR, WHO SHOULD ENSURE THEY ARE CORRECT BEFORE ORDERING AND INSTALLATION.
4. THERE SHALL BE A CENTRALISED TESTING AND MONITORING SYSTEM INSTALLED TO PROVIDE STATUS MONITORING OF INDIVIDUAL EMERGENCY LUMINAIRES AND CENTRAL TESTING FACILITIES WHICH CAN BE VIEWED AND CONTROLLED BY THE BUILDING MANAGEMENT TEAM
5. CONTRACTOR TO PROVIDE PROPOSALS. THE EMERGENCY LIGHTING MONITORING SYSTEM SHALL OPERATE ON A RF MESH NETWORK PRINCIPLE.
6. THE EMERGENCY LIGHTING CONTROL SYSTEM SHALL INTERFACE WITH THE DIGITAL BUILDING MANAGEMENT SYSTEM TO ALLOW FULL INTEGRATION AND MONITORING BY THE BUILDING MANAGER. THE EMERGENCY LIGHTING TESTING SYSTEM SPECIALIST MUST TAKE COGNISANCE OF THE DIGITAL BUILDINGS BRIEFING DOCUMENT WHICH ACCOMPANIES THE KJT SPECIFICATION AND INCLUDE FOR ALL NECESSARY HARDWARE/SOFTWARE TO ALLOW THIS FUNCTIONALITY AND DEVELOPING THIS INTERFACE WITH THE DIGITAL BUILDING SPECIALIST.
7. EMERGENCY LIGHTING WITHIN LABORATORY AREAS HAS BEEN ASSESSED AS HIGHER RISK AND PROVIDED WITH 15LUX AVERAGE ILLUMINATION AT WORKING PLANE

SUIT- REV	DATE	DESCRIPTION	DRN	CHK
S4-P01	26/01/2024	STAGE 3 CAT -B ISSUE	SH	MT

STATUS

STAGE 3

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DRAWING INFORMATION

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