GENERAL SPECIFICATIONS

- GENERAL
- WORK INDICATED: Drawings are diagrammatic do not scale for precise locations. Verify all existing e conditions; make adjustments as needed. FUNISHING WORK, Provide all labour, materials, tools, plant, equipment, and services necessary for mplete execution in accordance with the Contract at no additional cost to the Employer. Includes all sidential terms for a compliant, complete installation. COMPLETION & TESTING: All equipment shall be commissioned, tested, and handed over cerational to the Employer's satisfaction. "Provide" means supply, install, commission, and make ready for a

- compliant with UKCA Regulations 2023. Compatible with existing interfaces. Install per manufacturer's uctions and BSI/PAS standards. EXISTING OBSTRUCTIONS: Remove/relocate conflicting existing services to the Contract initiatrator's satisfaction at no cost to the Employer. PENETRATIONS & MAKING GOOD: Written Employer approval required before cutting structural nexts or fire compartments. Make good all disturbed areas to match existing. Fire compartment etrations must use certified systems (tested to BS 476-20/22 or BS EN 1366) and maintain fire resistance roved Document B, 2023 amendments).
- 2. COORDINATION AND SCHEDULING (CDM 2015 COMPLIANT):
- USD VERY LICATION. To remaps Control of the Control

- eras screens) between zones.
 UTILITY SHUTDOWNS: Notify Employer in writing 14 days prior. Written approval required before
- down.

 SITE EXAMINATION: Thoroughly examine site conditions. No claims for errors/omissions in site
- 3 COMPLIANCE PERMITS AND INSPECTIONS (BUILDING SAFETY ACT 2022):
- COMPLIANCE, PERMITORISA COMPLIANCE: Comply with: Building Regulations 2010 (as amended, inc. 2023 Part B, L, F) British Standards (BS, BS EN) Construction Products Regulation (UKCA/CE) Water Supply (Water Fittings) Regulations 1999 Gas Safety (installation & Use) Regulations 1998 Electricity at Work Regulations 1980 Electricity at Work Regulations 1980 CIBSE/ESRAL Codes of Practice Oranisation of Control applications, permits, and inspections CERTIFICATION. Provides Commissioning Octificates (BSRIA BG 8/2021) Electrical Installation Certificate (BS 7671-2022) Gas Safe Certificates

- Gas Safe Certificates
 Final Inspection Sign-off
 In to Employer at Practical Completion.
 CURRENT STANDARDS: Use latest editions of standards applicable in the Local Authority/BSR
- . CEDENCE: Contract Documents > Referenced Standards. Notify Contract Administrator
- HEALTH, SAFETY & ENVIRONMENT: Comply with:

- COSHH 2002 Environmental Permitting (England & Wales) Regulations 2016 Site Waste Management Plans Regulations 2006 UTILITIES: Comply with DNO (electric), GDNO (gas), and water supplier regulations.

- 5. PRE-CONSTRUCTION INFORMATION (CDM 2015):
- A. SUBMISSIONS: Submit electronic Technical Submissions (shop drawings, calculations, O&M data, BIM LDO 300+ if applicable) for Contract Administrator/Principal Designer approval before ordering/installation. Include:

 Declarations of Performance (UKCA)

 Fire performance data (BS EN 13801)

 Efficiency data (EP/Energy Labelling)
- HEALTH AND SAFETY FILE & AS-BUILTS (CDM 2015):
- AS-BUILT RECORDS: Maintain on-site red-line markups of drawings showing all changes. Deliver
- digital + hard copy including:

 * Final 'As-Built' drawings (PDF & CAD)

 * Operation & Maintenance (O&M) Manuals
- * Asset Information (Uniclass 2015)
 Form Part G of the Health and Safety File to Employer at Practical Completion.

BRANCH CIRCUITRY AND FEEDER

ctors: Copper to BS EN 13601:2024 (100% re

Above ground: Twin & Earth (T&E) to BS 6004:2024 (Class Dca-s1b,d1 fire rating) Steel-Wire Armoured (SWA): Only for external feeds (BS 5467) Non-metallic sheathed cables prohibited (Reg 522.8.10)

Location Permitted System Minimum Size Internal walls PVC-U conduit (BS En 61386-21) 20mm (%") Kitchens/bath Galvanised steel (BS 4688-2024) 25mm (1") External Heavy-wall galvanised steel 25mm (1") Underground PVC-U (BS En 61386-24) 32mm (1%") CIRCUIT PROTECTION

ALL final circuits: 30mA Type A RCD (Reg 411.3.3)

NSTALLATION RULES

d wiring only in finished areas (No surface runs)

ELECTRICAL CODE NOTES

- EXTERIOR SOCKET-OUTLET ENCLOSURES:

MISCELLANEOUS ELECTRICAL

- EARTHING & BONDING *(BS 7671:2022 Amd 2 Chapter 54, BS EN 62305-3:2024)*
- 1.1 Equipment Bonding Conductors:
 Size per Table 54.7 (e.g., 10mm² for s32A circuits)
 Compty with Regulation 411.3.1.2 (automatic disconnection)
 1.2 Device Earthing:
 All accessories/switches to have CPC (Circuit Protective Conductor)
 Regulation 411.3.1.1 compliance for exposed-conductive-parts
 1.3 Main Earthing:
 16mm² minimum for TN-C-S systems (Regulation 542.3.1)
 Foundation electrode required per Regulation 542.2.1.4
- 2. FIRE PENETRATION SEALING

 "(Building Regs Part B 2023, BS EN 1366-4:2024, BS 7671:527.2)"

 2.1 Fire Compartment Sealis:
 Use BS EN 1366-4 certified systems (EI 60/90/120 rating)
 Submit manufacturer's Third-Party Certification (UKCA/UKAS)
 2.2 Temperature Transition Seals:
 Apply non-setting compound (BS EN 60423-1:2024) for:
 Cold storage penetrations
 Internal-external transitions
- Internal-external transitions
 Hygroscopic sealing putty for condensation control (e.g., Roxtec CMS)
- B. VERIFICATION & TESTING (BS 7671:2022 Amd 2 Part 6, BS EN 60364-6:2024)*
- RCD trip ≤25ms (Reg 643.8) Ze ≤0.35Ω for TN-C-S (Reg 643.7)
- CONTAINMENT LABELING
- CONTAINMENT LABELING
 (SS 761:154:14, 98 S 1710:2024, Building Safety Act 2022)
 4.1 Feeder Identification:
 Laser-etched labels with:
 Source DB
 Load designation
 Fault current rating
 Towns later busine Varse, 18(1)
- Circuit origin (e.g., "DB3/C5")

SPECIFICATIONS

- Arc flash hazard warning (ISO 3864-2 symbols)
- Carbon reduction data (per Building Regs Part Z consultati

- 1.500V DC rating required if PV/battery
- Padlock hasps: Must accommodate BS EN 1677-2:2024 sa 'ocks

- apacity: 16kA (up from 10kA for con

- Location New Standard (2024)
 Outdoor IP66 + IK10 impact rating
 Kitchens Stainless 316L (BS EN 10088-3)
 EV Charger Zones IP67 + UV stability certificati
 L. LIGHTING
- BS 7671:2022 Amd 2 §559 | BS EN IEC 60598-1:2024 | Part

- Smart-ready drivers (BS EN IEC 62386-105:2024)

WIRE & CABLE

- FEEDERS: Copper conductors only. Insulation: 90°C thermosetting (e.g., BS EN 50525-2-21 H07Z-R) or equivalent meeting BS 7671 Table 5.1. Minimum rating: 90°C.
- COLOUR CODE:
 All wiring: UK harmonised colours (BS 7671 Table 51 / Fig 51B):
- Single-Phase: Brown (L), Blue (N), Green/Yellow (CPC). Three-Phase: Brown (L1), Black (L2), Grey (L3), Blue (N), Green/Yellow (CPC).

 Pre-2004 colours (e.g., Red/Black) prohibited.
- CONDUCTORS: All conductors: Copper. Minimum size:
- 2.5 mm² (general socket/radial circuits).
 (Note: 1.0 mm² permitted for lighting per BS 7671, but 1.5 mm² specified for robustness/voltage drop).
- CIRCUIT PROTECTIVE CONDUCTORS (CPC / FARTHING):
- 1.5 mm² (if mechanically protected) / 2.5 mm² (standard practice) for circuits ≤ 32A with 2.5 mm² phase conductors (per BS 7671 Table 54.7).
- CIRCUIT DISTRIBUTION & NEUTRAL SIZING:
- For IT equipment/circuits with high harmonic currents: Neutral conductor ≥ 200% capacity of phase conductors. (Oversizing required per BS 7671 Appendix 11 to mitigate harmonic overheating).
- VOLTAGE DROP MANAGEMENT:
- VOCLINGE DROF MINING CHIENTI.

 230V circuits > 30 metres run length:
 Size conductors to ensure ≤ 3% drop (lighting) / ≤ 5% drop (other) (BS 7671 Appendix 4). Typically requires ≥ 4.0 mm² for longer runs/higher loads.

SPECIFICATIONS

- A. TRUNKING, BOXES AND CONDUITS:

 1. OUTDOOR WIRNIS METHODS INSTALLATION TO BE IN ACCORDANCE WITH BS 7671 AND BS EN STANDARDS:
 a. Exposed installations: Use ghavined steel conduit to BS EN 61386.
 b. Concealed installations: Use heavy-gauge steel conduit in compliance with BS EN 61386.
 c. Underground installations: Use heavy-duty PVC-U ducting conditioning to BS EN 61386-24 unless otherwise stated.
 d. Connection to vibrating equipment: Use liquid-light flexible metallic conduit or steel-wire armoured flexible cable.
 e. Boxes and endocures: Minimum IPX4 or IPS6-racted enclosures for outdoor use.

- or lighting, 2.5 mm² for sockets

- mum 2.5 mm2 CPC for 2.5 mm2 ring final circuit

ABBREVIATIONS

- KW Kilciwati
 L Live
 LSZH Low Smoke Zero Halogen
 LTG Lighting
 MCB Miniature Circuit Breaker
 MH Mounting Height

- OEM Original Equipment OFCI Owner Furnished C P Pole (e.g., 1P, 3P)
- bution Board / Consumer Unit

SYMBOLS/LEGENDS

- WALL LIGHT 10W
 - ADJUSTABLE FRAME **RECESSED DOWLIGHT 40W**

30W CEILING MOUNT

10W CEILING MOUNT SANDAL LIGHT

40W CEILING MOUNT

DOUBLE SOCKET

OUTLET 120V

L COOKER/HOB

FRIDGE/FREEZER

LIGHTING 120V

Microwave

Wine Cooler

MID LEVEL DOUBLE

5 AMP SOCKET FOR

▲ HOOD

SANDAL LIGHT

SWITCH SINGLE GANG ROCKERY SWITCH

SWITCH 2-GANG ROCKERY

3-GANG ROCKERY

- SMOKE DETECTOR
- **EXTRACT FAN 40W**
- SANDAL LIGHT LINEAR LED STRIP IP RATED RECESSED **DOWLIGHT 20W**
 - CAT6 TO THE COMMUNAL
 - **DISTRIBUTION BOX (BT)**
 - **CAT6 INTERNAL ETHERNET**
 - SD **SMOKE DETECTOR** SMOKE & CARBON MONOXIDE DETECTOR
 - WITH SOUNDER
 - **EXTRACT FAN** FUSE BOX
 - **3-GANG ROCKERY SWITCH** 2-GANG ROCKERY SWITCH

SINGLE GANG ROCKERY

- SOCKET OUTLET 120V HIGH LEVEL DOUBLE SOCKET OUTLET 120V FUSED SPUR SWITCH
- SHAVER SOCKET LOW LEVEL DOUBLE SOCKET OUTLET 120V
- HIGH LEVEL SINGLE SOCKET OUTLET 120V UFH UNDER FLOOR HEATING
- AC COMFORT COOLING CONTROL VE VIDEO ENTRY SYSTEM

PIR MOTION SENSOR FOR

CCTV CAMERA

LIGHTING



HEAT DETECTOR WITH SOUNDER © CEILING RECESSED SPEAKER DOOR CONTACT SENSOR FOR LIGHTING K INTRUDER ALARM KEYPAD USB SOCKET OULTET INTRUDER ALARM WINDOW CONTACT SWITCH INTRUDER ALARM DOOR CONTACT SWITCH



OUT OF THIS PROJECT AND MUST BE TAKEN INTO CONSIDERATION BY CONTRACTORS PLANNING TO UNDERTAKE THE WORKS SHOWN ON THIS

Description

Date

Key Plan

London SW1X 9LE

Date:

07/30/2025

Flat 7, Second floor 7 Sloane Street

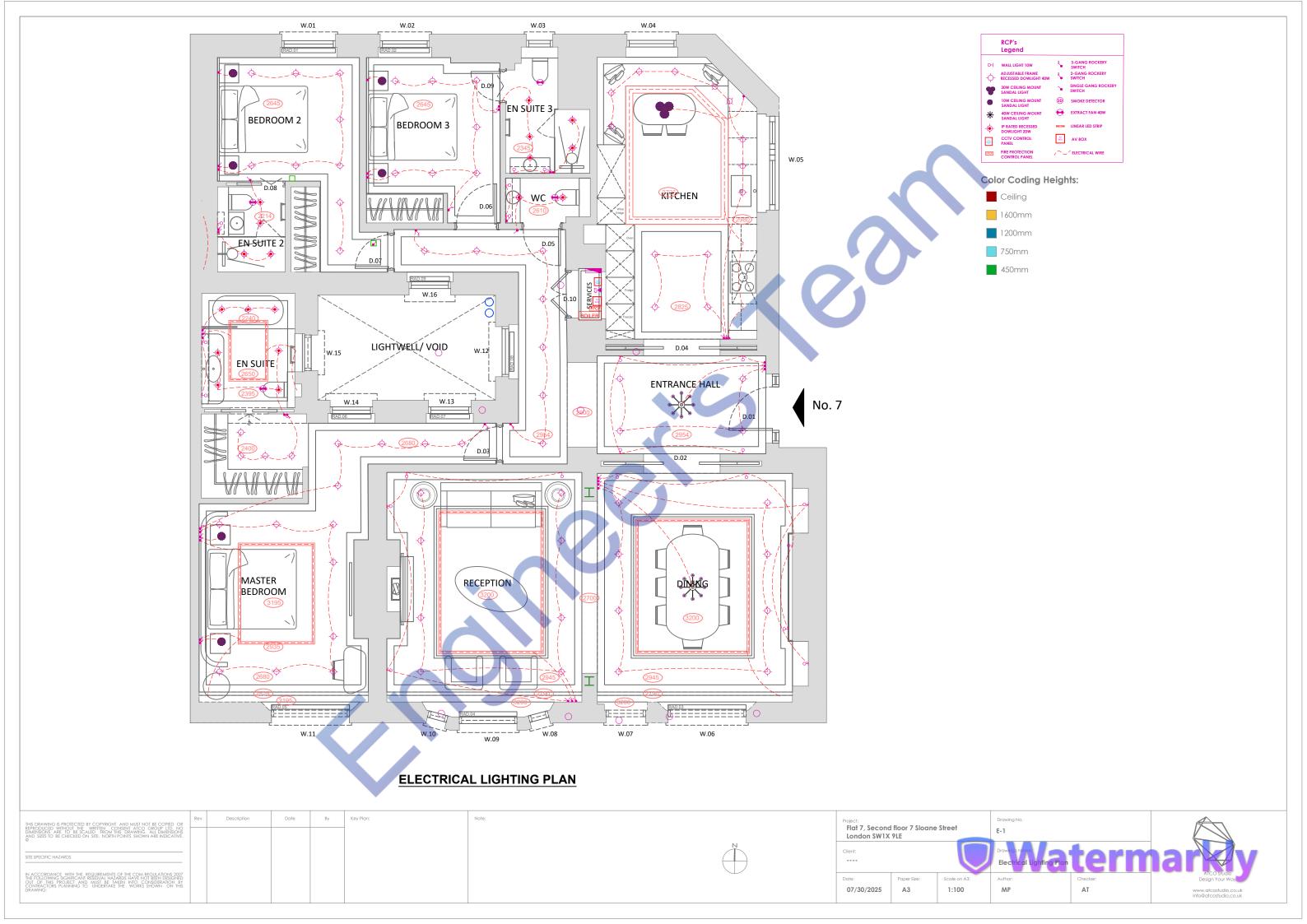
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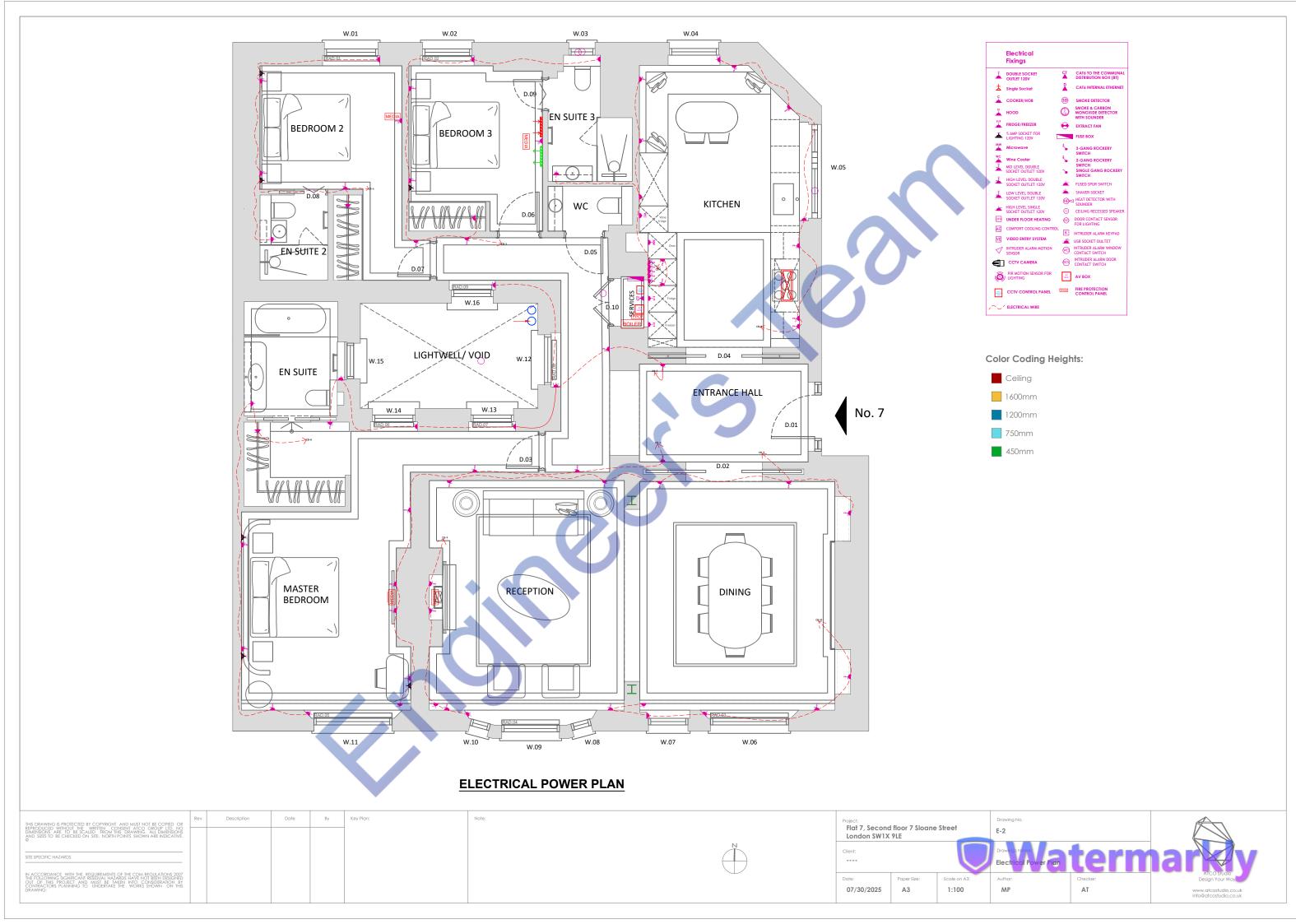
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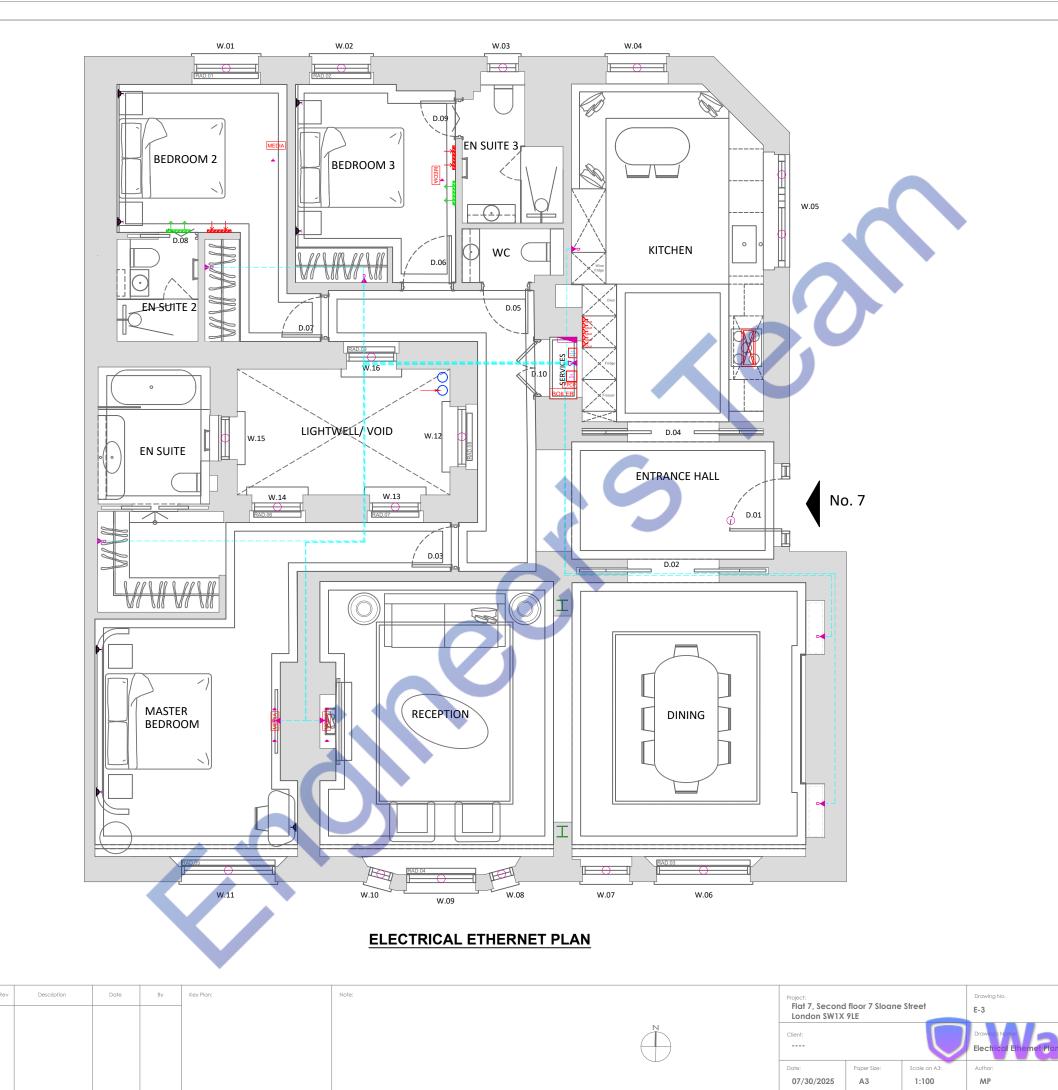
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Electrical Fixings

CAT6 INTERNAL ETHERN

EXTRACT FAN

▲ FUSED SPUR SWITCH

VIDEO ENTRY SYSTEM

✓ INTRUDER ALARM MOTION SENSOR

✓ INTRUDER ALARM MOTION CONTACT SWITCH

Color Coding Heights:

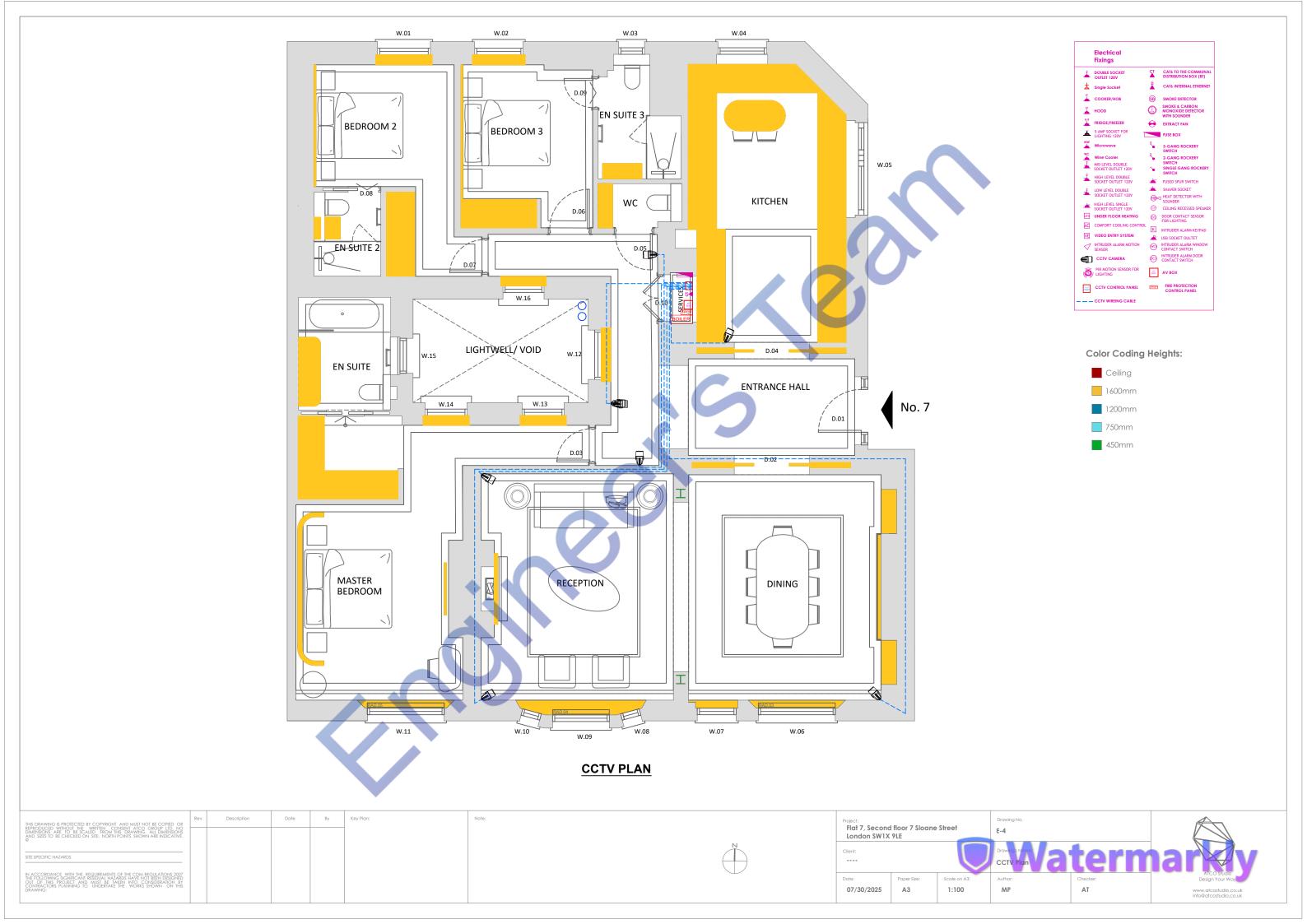
Ceiling

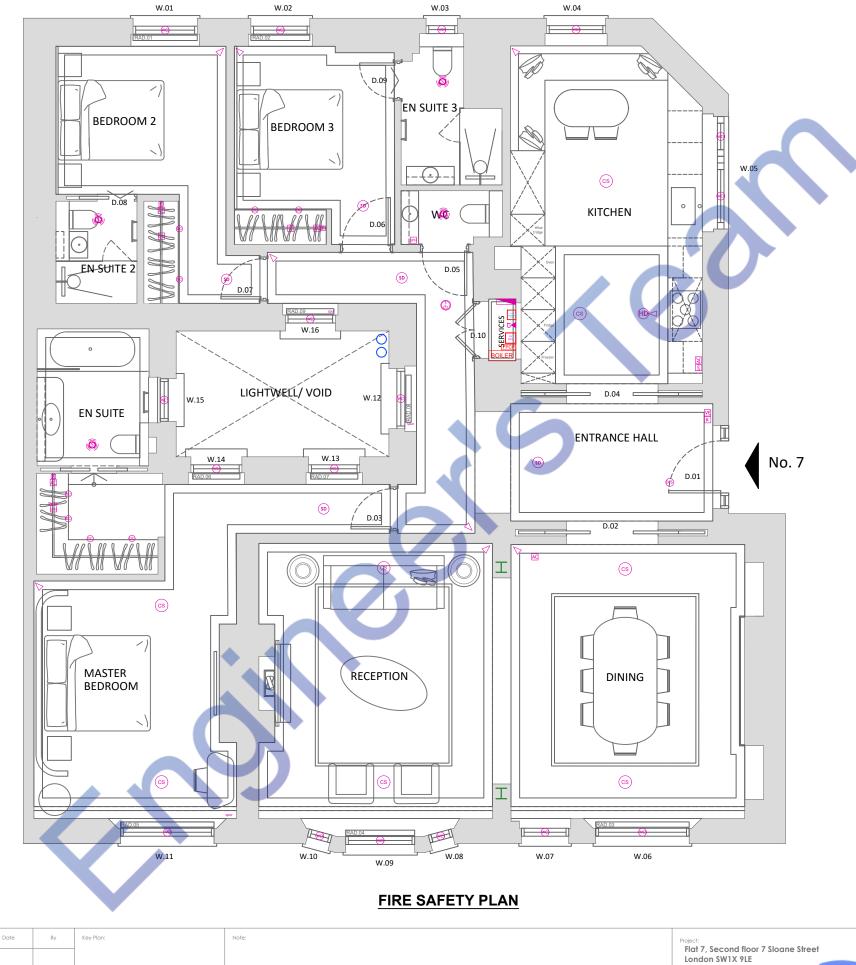
1600mm

1200mm

750mm 450mm

AT







Color Coding Heights:

Ceiling

1200mm 750mm

450mm

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SIZE SPECIFIC HATARDS

IN ACCORDANCE, WITH THE REQUIREMENTS OF THE COMM REQUIATIONS 2007 OF THE POINTS SHOWN ASE INDICATIVE.

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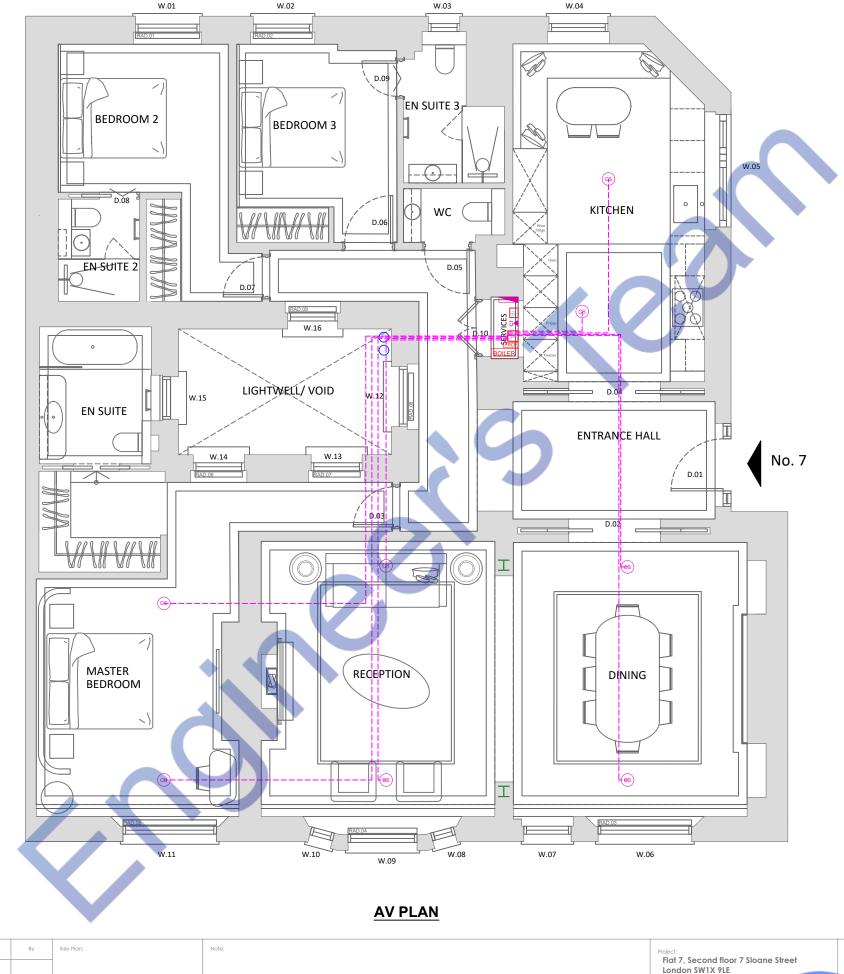
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Drawing No.

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Color Coding Heights:

Ceiling

1600mm 1200mm

750mm

450mm

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							MAIN	PANEL									
Panel Location-									7 SLOANE STREET LONDON SW1								
Voltage (Phase-G	Ground/Phase-Phase)	230	415	Source of Supply-Fr	rom Service Disconnect/Meter												
hase- 1				Wire- 3													
ated Amps-	110			AIC- 10k													
ICCB 150 A	mps MCCB			Mounting- Wall	Surface							, v					
Circuit	Description	New/ Existing	Load Type	Breaker Size	Poles	Wire Size		A	Wire Size	Poles	Breaker Size	Load Type	New/ Existing	Description	Circui		
1	LIGHTING LOAD	N		15	1	#14	3800	200	#12	1	20		N	WINE COOLER	2		
3	FRIDGE X2	N		20	1	#12	2000	4000	#12	1	20		N	OVEN	4		
5	TV/MEDIA X3	N		20	1	#12	300	600	#12	1	20		N	CB-6	6		
7	CB-1	N		20	1	#12	800	500	#12	1	20		N	CB-7	8		
9	CB-2	N		20	1	#12	600	500	#12	1	20		N	CB-8	10		
11	CB-3	N		20	1	#12	500	300	#12	1	20		N	CB-9	12		
13	CB-4	N		20	1	#12	500	500	#12	1	20		N	CB-10	14		
15	CB-5	N		20	1	#12	300	8000	#8	1	35		N	BOILER	16		
17	LIGHTING LOAD 2	N		15	1	#12	1900	0						SPARE	18		
19	SPARE						0	0						SPARE	20		

25300

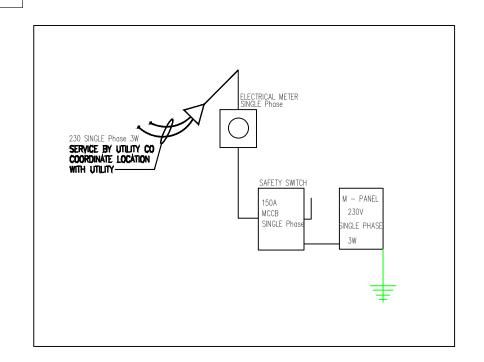
110 150 Amps MCCB

Connected Load (W)

Main Type and Amps Rating

Connected Amps

Demand Load Calcultion									
Load Classification	Connected Load	Demand Factor	Estimated Demand						
Lighting - Dwelling Unit	3800	125%	4750						
Water Heater - Dwelling Unit	8000	100%	8000						
Receptacle	13500	65%	8775						
Cooling	0	100%	0						
Pump	0	125%	0						
Other	0	100%	0						
Demand Load	25300		21525						
Demand Amps			94						







GENERAL NOTES:

I. A LISTED INTERSYSTEM BONDING TERMINATION PROVIDING THE REQUIRED NUMBER OF TERMINALS (MINIMUM OF THREE) FOR CONNECTING OTHER BUILDING SYSTEMS TO THE GROUNDING SYSTEM OF THE ELECTRICAL POWER SUPPLY (NEC250.94).

KEY NOTES: (*)

- I. ALL METAL CONDUITS ENCLOSING ANY SERVICE SHALL BE FITTED WITH A "BONDING BUSHING".
- 2. ALL METAL CONDUITS ENCLOSING ANY GROUNDING ELECTRODE CONDUCTOR SHALL BE FITTED WITH A "BONDING BUSHING" AT EACH END.
- 3. PROVIDE GROUNDING ELECTRODE PER NEC. ELECTRODE SHALL BE IN THE FORM OF A 20'-0" x 1/2" COPPER CLAD GROUND ROD LAID AT LEAST 2" OFF THE BOTTOM OF A CONCRETE FOOTING. SECURE THE GROUND ROD TO THE REBAR WITH STEEL TIE WRAPS. IF THE REBAR BEING USED IN THE FOOTING IS SMALLER THAN 1/2" (#4), THEN USE 20' OF BARE
- SOLID #4 COPPER WIRE IN PLACE OF THE GROUND ROD. IN REMODEL PROJECTS THAT WILL NOT HAVE NEW FOOTINGS INSTALLED, THIS SUPPLEMENTAL ELECTRODE SHALL BE PER NOTE #4 BELOW OR OTHER ELECTRODE PER NEC 250.52.
- 4. FOR CONNECTION TO COLD WATER MAIN. CONNECT WITHIN 5 FT. OF CONTACT OF EARTH.
- 5. IF STRUCTURAL STEEL MEMBER OR REBARS ARE AVAILABLE, BOND IT TO THE SERVICE USING A UL LISTED IRREVERSIBLE CLAMP OR WELDING LUG.
- PROVIDE A INTERSYSTEM BONDING TERMINATION PER NEC 250.94.

- INTERSYSTEM BONDING TERMINATION 6.I. BE ACCESSIBLE FOR CONNECTION
- AND INSPECTION. 6.2. CONSIST OF A SET OF TERMINALS (LISTED AS GROUNDING AND BONDING EQUIPMENT) WITH THE CAPACITY OF NOT LESS THAN THREE INTERSYSTEM BONDING CONDUCTORS.
- 6.3. BE SECURELY MOUNTED AND ELECTRICALLY CONNECTED TO SERVICE EQUIPMENT, METER ENCLOSURE, OR EXPOSED NON METALLIC SERVICE RACEMAY, OR BE MOUNTED ON ONE OF THESE ENCLOSURES AND BE CONNECTED TO THE ENCLOSURE OR GROUNDING
- ELECTRODE CONDUCTOR WITH A MINIMUM #6 CU CONDUCTOR.
- 6.4. BE SECURELY MOUNTED TO THE BUILDING'S DISCONNECTING MEANS, OR BE MOUNTED AT THE DISCONNECTING MEANS AND BE CONNECTED TO THE METALLIC ENCLOSURE OR GROUNDING ELECTRODE CONDUCTOR WITH A MINIMUM #6 CU CONDUCTOR.
- 7. ALL BRANCH CIRCUIT AND FEEDER CONDUITS ARE TO HAVE AN INSULATED EQUIPMENT GROUNDING CONDUCTOR
- REGARDLESS OF THE CONDUIT MATERIAL. 8. WHEN THE SERVICE CONSISTS OF MULTIPLE DISCONNECTING MEANS IN SEPARA ENCLOSURES, CONNECT A TAN
- CONDUCTOR FROM THE MAIN GROUNDING ELECTRODE CONDUCTOR TO EACH DISCONNECTING MEANS. SIZE THIS TAP BASED ON THE LARGEST SERVICE CONDUCTOR IN THAT SERVICE DISCONNECT ENGLOSURE.
- 9. #6 COPPER GROUNDING ELECTRODE CONDUCTOR.
- 10. INSTALL #6 CU TO TWO 5/8"x 8' MIN. GROUND RODS AS SHOWN.
- #4 COPPER GROUNDING ELECTRODE CONDUCTOR.
- 12. COPPER GROUNDING ELECTRODE
- CONDUCTOR, PROVIDE #6 COPPER.

