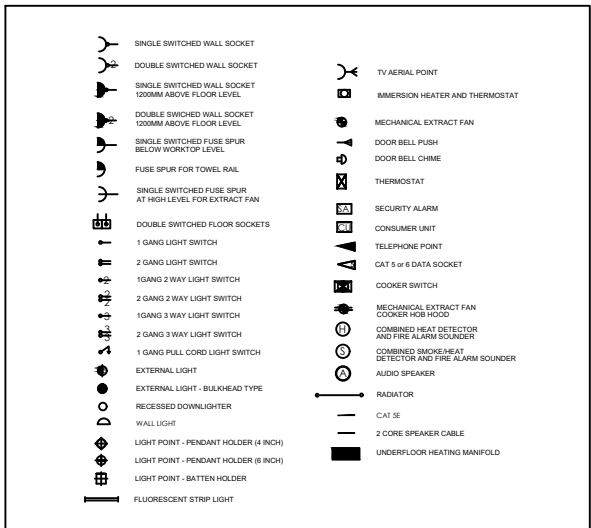


GROUND FLOOR ELECTRICAL LIGHTING PLAN
PROPOSED PLAN
1 REF: A.03-100 SCALE : 1:50(A3)



NOTE:

The Electrical Lighting Layout Plan for The Meal Box Cafe, Unit 5, 120 Fenchurch Street, London, EC3M 5BA has been designed and developed in full compliance with the latest applicable codes and regulations to ensure safety, efficiency, and adherence to industry standards.

All lighting installations and electrical works conform to the following updated standards:

- BS 7671:2018+A3:2024 (IET Wiring Regulations, 18th Edition - Amendment 3) – Covers the requirements for the design, erection, and verification of electrical installations.
 - BS 5266-1:2016 – Code of practice for emergency lighting to ensure safe evacuation in case of power failure.
 - BS EN 12464-1:2021 – Specifies lighting requirements for indoor workspaces, ensuring proper illumination and energy efficiency.
 - BS 8300-1:2018 – Ensures lighting design accommodates accessibility requirements for disabled persons.
 - London Building Act (Amendment) Act 1939 – Ensures compliance with London-specific building regulations and safety measures.
- This layout has been prepared following London, UK Product Approval Codes, ensuring all materials, fixtures, and installations meet the required safety and performance standards.

All work must be carried out by qualified personnel in accordance with these regulations. Any modifications or deviations must be reviewed and approved before implementation.



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OWNER:

THE MEAL BOX CAFE

UNIT 5, 120 FENCHURCH, STREET,
LONDON, EC3M 5BA

SEAL:

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ELECTRICAL LITGHING PLAN

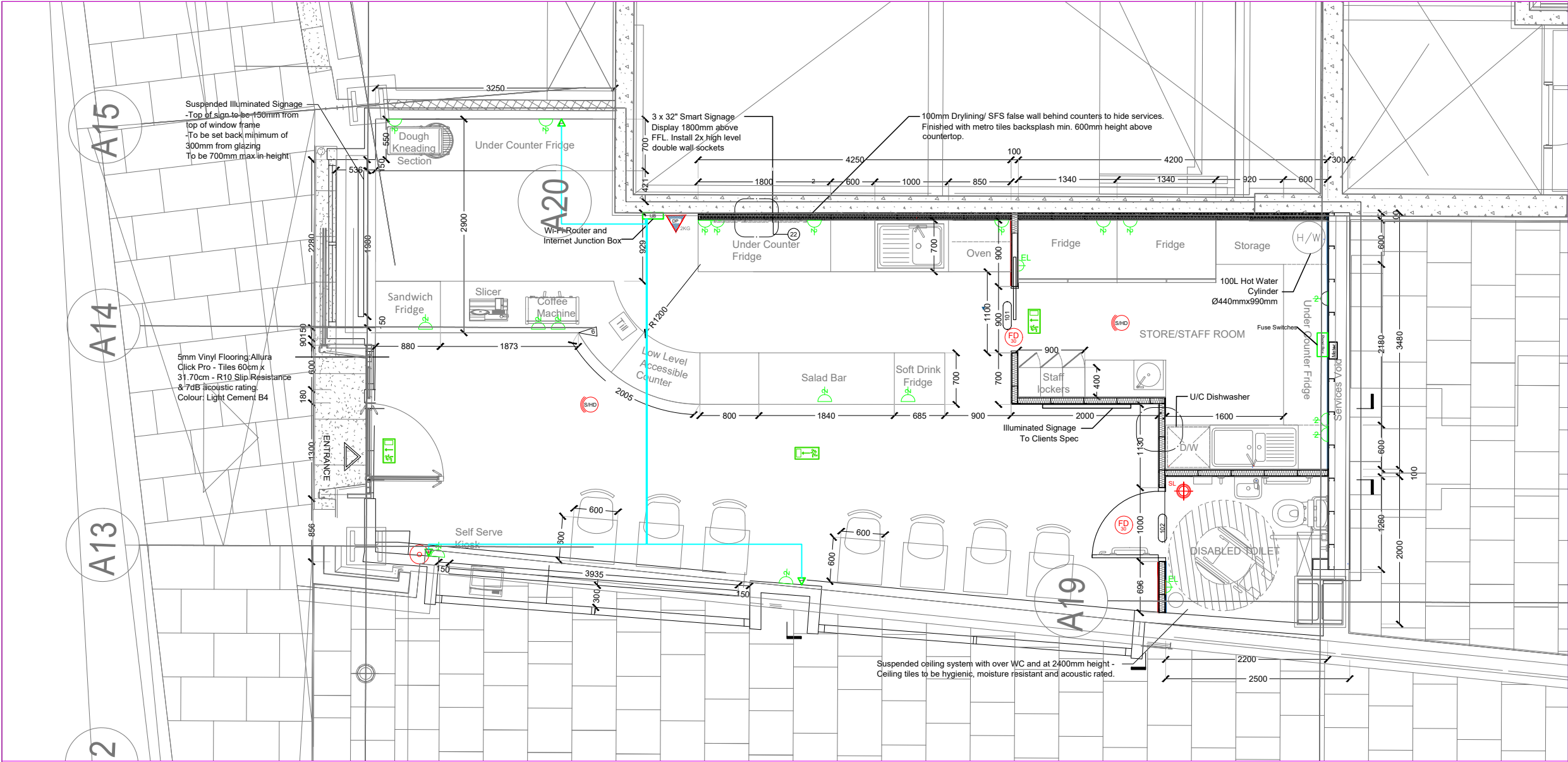
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Checked:

Date: FEB, 06.

E. 1

Scale: 1:100



GROUND FLOOR ELECTRICAL POWER PLAN
PROPOSED PLAN
1 REF: A.03-100 SCALE : 1:50(A3)

	SINGLE SWITCHED WALL SOCKET		TV AERIAL POINT
	DOUBLE SWITCHED WALL SOCKET		IMMERSION HEATER AND THERMOSTAT
	SINGLE SWITCHED WALL SOCKET 1200MM ABOVE FLOOR LEVEL		MECHANICAL EXTRACT FAN
	DOUBLE SWITCHED WALL SOCKET 1200MM ABOVE FLOOR LEVEL		DOOR BELL PUSH
	SINGLE SWITCHED FUSE SPUR BELOW WORKTOP LEVEL		DOOR BELL CHIME
	FUSE SPUR FOR TOWEL RAIL		THERMOSTAT
	SINGLE SWITCHED FUSE SPUR AT HIGH LEVEL FOR EXTRACT FAN		SECURITY ALARM
	DOUBLE SWITCHED FLOOR SOCKETS		CONSUMER UNIT
	1 GANG LIGHT SWITCH		TELEPHONE POINT
	2 GANG LIGHT SWITCH		CAT 5 or 6 DATA SOCKET
	10 GANG 2 WAY LIGHT SWITCH		COOKER SWITCH
	2 GANG 2 WAY LIGHT SWITCH		MECHANICAL EXTRACT FAN COOKER HOB HOOD
	10 GANG 3 WAY LIGHT SWITCH		COMBINED HEAT DETECTOR AND FIRE ALARM SOUNDER
	2 GANG 3 WAY LIGHT SWITCH		COMBINED SMOKE/HEAT DETECTOR AND FIRE ALARM SOUNDER
	1 GANG PULL CORD LIGHT SWITCH		AUDIO SPEAKER
	EXTERNAL LIGHT		RADIATOR
	EXTERNAL LIGHT - BULKHEAD TYPE		CAT 5E
	RECESSED DOWNLIGHTER		2 CORE SPEAKER CABLE
	WALL LIGHT		UNDERFLOOR HEATING MANIFOLD
	LIGHT POINT - PENDANT HOLDER (4 INCH)		
	LIGHT POINT - PENDANT HOLDER (6 INCH)		
	LIGHT POINT - BATTEN HOLDER		
	FLUORESCENT STRIP LIGHT		

NOTE:

This Electrical Power Layout Plan for The Meal Box Cafe, Unit 5, 120 Fenchurch Street, London, EC3M 5BA, has been meticulously designed in strict adherence to the following updated codes and regulations:

- BS 7671:2018+A3:2024 (18th Edition, Amendment 3) - Requirements for Electrical Installations (IET Wiring Regulations): This is the UK's national standard for electrical installation and the safety of electrical wiring systems. It covers circuits at voltages up to and including 1000V AC or 1500V DC and applies to the design, erection, and verification of electrical installations, including additions and alterations to existing installations.
- Part P of the Building Regulations (England and Wales): This regulation mandates that electrical installations in dwellings are designed and installed to protect persons from fire or injury. It emphasizes reasonable provision in design and installation to ensure safety.
- London, UK Product Approval Codes: All electrical products specified in this plan comply with the relevant British Standards and have been approved for use in London, ensuring they meet the necessary safety and performance criteria.

By following these codes and regulations, we ensure that the electrical installations are safe, reliable, and compliant with current standards.



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ELECTRICAL POWER PLAN

Drawn by: Engr. Al Amin

Checked:

Date: FEB, 06.

E. 2

Scale: 1:100

230/415 VOLT 3 PHASE 4 WIRE ELECTRICAL SERVICE				
ITEM	CONN. LOAD (VA)	DEMAND F.	DEMAND LOAD (WATTS)	TOTAL (AMPS)
LIGHTING	1000	125%	1250	
WATER HEATERS	2000	100%	2000	
EQUIPMENT	15000	65%	9750	
HVAC LOADS	-	100%	-	
SUB-TOTAL	18000		13000	
LARGEST MOTOR	0	125%	0	
TOTAL @ 230V/415 V	18000		13000	57

1

PANEL SCHEDULE & SERVICE CALCULATION

ELECTRICAL PANEL - MAIN																	
LOAD SERVED	CKT #	TYPE	BKR TRIP	WIRE SIZE	PHASE A	PHASE B	PHASE C	PHASE A	PHASE A	PHASE A	BKR TRIP	WIRE SIZE	TYPE	CKT #	LOAD SERVED		
Oven	1		20	#12	340			1500			20	#12		2	Dough Mixer 30L		
	3		20	#12		340			275		20	#12		4	Under Counter Fridge - 282L		
	5		20	#12			340			250	20	#12		6	Sandwich Display Fridge -160L		
Under Counter Fridge - 420L	7		20	#12	230			240			20	#12		8	Meat Slicer		
Salad Bar Fridge	9		20	#12		530			4600		25	#12		10	2 Group Coffee Machine		
Under Counter Dishwasher	11		20	#12			3900			730	20	#12		12	Soft Drink Fridge -110L		
Hot Water Tank - 100L	13		20	#12	2000			450			20	#12		14	Storage Fridge - 1200L		
Electric Hand Dryer	15		20	#12		1000			50		15	#12		16	32 inch Digital POS		
Lighting Load	17		20	#14			1000			-	-	-		18	SPARE		
TOTAL VA PHASE A					2570			2190							4760		
TOTAL VA PHASE B						1870			4925						6795		
TOTAL VA PHASE C							4240			980					5220		
TOTAL VOLT-AMPS															16775		
DIVIDE TOTAL VOLT-AMPS BY SYSTEM VOLTAGE (PHASE)								230		AMPS		73					
DIVIDE TOTAL VOLT-AMPS BY THREE PHASE VOLTAGE DIVIDER								1.734		AMPS		42					
TOTAL CONNECTED LOAD (AMPS) @ 125%								53									
MAIN TYPE AND AMPERE RATING								60-80 AMP MCCB									
PANEL FEEDER SIZE - SEE RISER DIAGRAM																	

EQUIPMENT SCHEDULE										
Item #	Room	Name	Finish	Dimensions (mm)	Power Req (W)	Power (V)	Quantity	Supplier	Product Code	Notes
1	Bar	Dough Mixer 30L	Premium Stainless Steel	W770xD550xH850	1500W	230V/ 1 PHASE	1	Adexa Catering Equipment Direct	SH30	Professional Spiral Dough Mixer 30 Litres Fixed Head Fixed Bowl 2 Speeds
2	Bar	Under Counter Fridge - 282L	Stainless Steel	W1360xD700xH860	275W	230V/ 1 PHASE	1	Adexa Catering Equipment Direct	THP2100TN	Commercial Refrigerated Counter 2 doors Depth
3	Bar	Sandwich Display Fridge -160L White		W880xD568xH686	250W	230V/ 1 PHASE	1	Adexa Catering Equipment Direct	CW160	Display Merchandiser Fridge 160 litres 2 shelves White
4	Bar	Meat Slicer	Aluminium	W420xD265xH390	240W	230V/ 1 PHASE	1	Adexa Catering Equipment Direct	BF220ROUGE	Commercial Meat slicer 8"/220mm Aluminium Coated Red
5	Bar	2 Group Coffee Machine	Stainless Steel	W710xD590xH533	4600W	220V/ 3 PHASE	1	La Marzocco	N/A	The Linea PB, 2 Group
6	Bar	Till	Black	N/A	N/A	N/A	1	Toast	N/A	Toast Flex, Didigital Screen POS, IP54
7	Bar	Low Level Counter	Marble/Oak	N/A	N/A	N/A	1	TBC	N/A	800mm max height for accessibility
8	Bar	Oven	Stainless Steel	W850xD842xH754	10250W	N/A	1	Rational Online UK	~6-1/1	Icombi Pro 6-1/1 with Steam extraction hood
9	Bar	Under Counter Fridge - 420L	Stainless Steel	W1795xD700xH950	230W	230V/ 1 PHASE	2	Adexa Catering Equipment Direct	2DRG32V	Commercial Refrigerated Counter 2 doors 2 drawers Depth 420L
10	Bar	Salad Bar Fridge	White	W1840xD688xH1410	530W	230V/ 1 PHASE	1	Adexa Catering Equipment Direct	CW571WHITE	Display Merchandiser Fridge 810 litres White
11	Bar	Soft Drink Fridge -110L	Black	W685xD620xH1450	730W	230V/ 1 PHASE	1	Adexa Catering Equipment Direct	VC14F102I	Multi Deck Refrigerator 110 litres with Night Curtain Black
12	Store	Under Counter Dishwasher	Stainless Steel	W565xD610xH825	3900W	230V/ 1 PHASE	1	Adexa Catering Equipment Direct	ADX50B	Commercial Dishwasher Premium 500mm basket 20 baskets/hour Break tank Drain Pump Detergent dosing pump, 62 dB(A)
13	Bar	Sink	Stainless Steel	W1000xD600xH900	N/A	N/A	1	Adexa Catering Equipment Direct	VS106LBS	Commercial Sink Stainless steel 1 bowl Left Bottom shelf Splashback, Adjustable feet
14	Store	Storage Fridge - 1200L	Stainless Steel	W1340xD845xH2000	450W	230V/ 1 PHASE	2	Adexa Catering Equipment Direct	R1200S	1200lt Commercial Refrigerator Stainless steel Upright cabinet Twin door GN2/1 Fan assisted cooling
15	Store	Storage Shelves	Powder Coated Steel	W1220xD610xH1980	N/A	N/A	1	Adexa Catering Equipment Direct	TY6101220	Industrial Shelving Unit Heavy duty 4 shelves 400 kg/shelf Powder coated steel
16	Store	Hot Water Tank - 100L	White	W440xD440xH990	2000W	220V	1	Amazon UK	B07PMDXYP5	Tesy Bi-light Electric Un-Vented Vertical Hot Water Cylinder - To be mounted high in line wih MEP services above - G3 registered installer required for installation
17	Store	Lockers	Grey	W900xD400xH1830	N/A	N/A	1	Adexa Catering Equipment Direct	SART238	Commercial Grey 6 Door Locker with 1 Shelf
18	Store	Sink	Stainless Steel	W1400xD600xH900	N/A	N/A	1	Adexa Catering Equipment Direct	DBS14060LEFT	Commercial Double Sink Stainless steel, 2 bowl left, 100mm Splashback, Adjustable Feet
19	Toilet	Electric Hand Dryer	Sprayed Nickel	W234xD100xH394	1000W	240V	1	Dyson UK	307170-01	Dyson Airblade V hand dryer, Hygienic performance with HEPA filter
20	Seating	Self Service Till/Kiosk	Black	N/A	N/A	N/A	1	Toast	N/A	Restaurant Self-Ordering Kiosks
21	Store	Handwash Sink	Stainless Steel	W400xD400xH240	N/A	N/A	1	Adexa Catering Equipment Direct	THHWR44	Commercial Hand wash sink Stainless steel Knee control, 79 dB(A)
22	Bar	32 inch Digital POS	Charcoal Black	W727.3xD28.5xH421.9	50W	100-240V	3	Samsung	LH32QMCEBGCXUE	Samung 32" Smart Signage QM32C. Array of 3 units mounter in portait orientation.Uses100x100mm Vesamount.



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OWNER:

THE MEAL BOX CAFE

UNIT 5, 120 FENCHURCH, STREET,
LONDON, EC3M 5BA

SEAL:

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ELECTRICAL LOAD
SCHEDULE PLAN

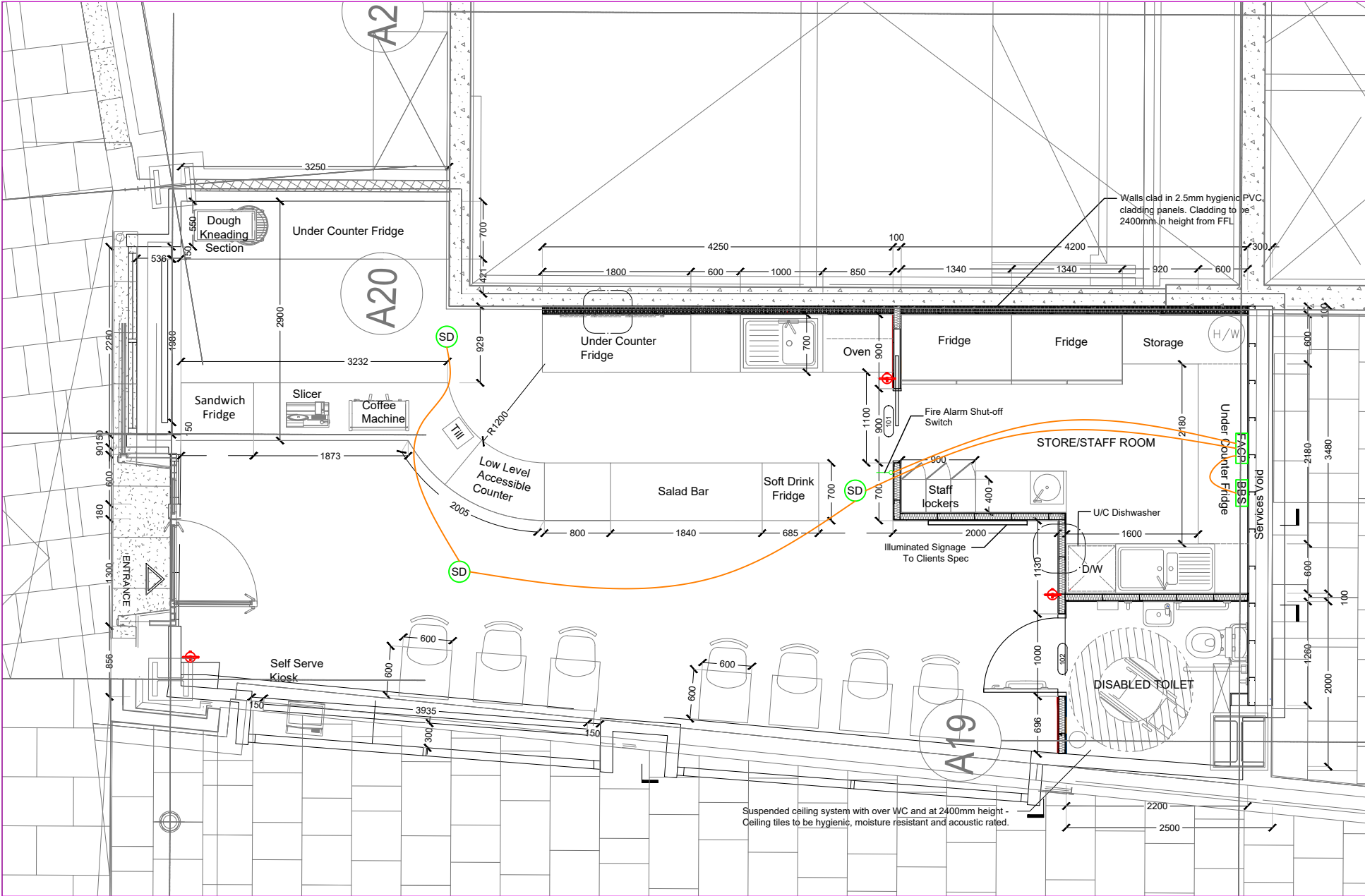
Drawn by: Engr. Al Amin

Checked:

Date: FEB, 06.

E. 3

Scale: 1:100



GROUND FLOOR DATA, SECURITY ACCESS CONTROL, AND FIRE ALARM PLAN
PROPOSED PLAN
1 REF: A.03-100 SCALE : 1:50(A3)

BBS

Build Base System

Fire Alarm Connection Wire

SD

Smoke Detector

FACP

Fire Alarm Control Panel

Fire Extinguisher

- NOTE:
- Compliance with Standards and Regulations: This Fire Alarm Plan for UNIT 5, 120 Fenchurch Street, London, EC3M 5BA, has been meticulously developed in strict adherence to the latest British Standards and London, UK Product Approval Codes, ensuring the highest level of fire safety and regulatory compliance.
 - Applicable Standards:
 - BS 5839-1:2017: Code of practice for design, installation, commissioning, and maintenance of fire detection and fire alarm systems in non-domestic premises.
 - BS 5839-8:2023: Code of practice for the design, installation, commissioning, and maintenance of voice alarm systems.
 - System Design and Installation:
 - The fire detection and alarm systems are designed to provide comprehensive coverage, incorporating both manual call points and automatic detection devices, as recommended for Category L1 systems under BS 5839-1:2017.
 - Detection zones have been established to facilitate prompt identification of fire locations, with each zone not exceeding 2,000m², in line with BS 5839-1:2017 guidelines.
 - Alarm Devices:
 - Audible alarm devices have been installed to achieve sound levels of at least 65 dB(A) in general areas and a minimum of 75 dB(A) at the bedhead in sleeping accommodations, ensuring effective alerting of occupants, as specified in BS 5839-1:2017.
 - Visual alarm devices, such as flashing beacons, have been incorporated in areas with high ambient noise levels to provide adequate warning to all occupants.
 - Manual Call Points:
 - Manual call points are strategically located at all exits and within 45 meters of any point within the building, reducing to 25 meters in high-risk areas, facilitating prompt manual activation in case of fire, in accordance with BS 5839-1:2017.
 - Power Supply:
 - The system is equipped with a primary mains power supply and a secondary backup power source, capable of providing a minimum of 24 hours of standby power followed by 30 minutes of full alarm operation, ensuring system reliability during power outages, as per BS 5839-1:2017 requirements.
 - Automatic Control Devices for Lighting:
 - Incorporated within this Fire Alarm Plan are automatic control devices for lighting, designed to activate emergency lighting upon alarm activation, thereby facilitating safe occupant egress during emergencies.
 - Maintenance and Testing:
 - A comprehensive maintenance schedule has been established, including weekly testing of manual call points, monthly testing of backup power supplies, quarterly inspections by certified engineers, and annual full-system assessments, ensuring ongoing system integrity and compliance with BS 5839-1:2017.
- This Fire Alarm Plan reflects our unwavering commitment to upholding the highest standards of fire safety, ensuring the well-being of all occupants within UNIT 5, 120 Fenchurch Street.



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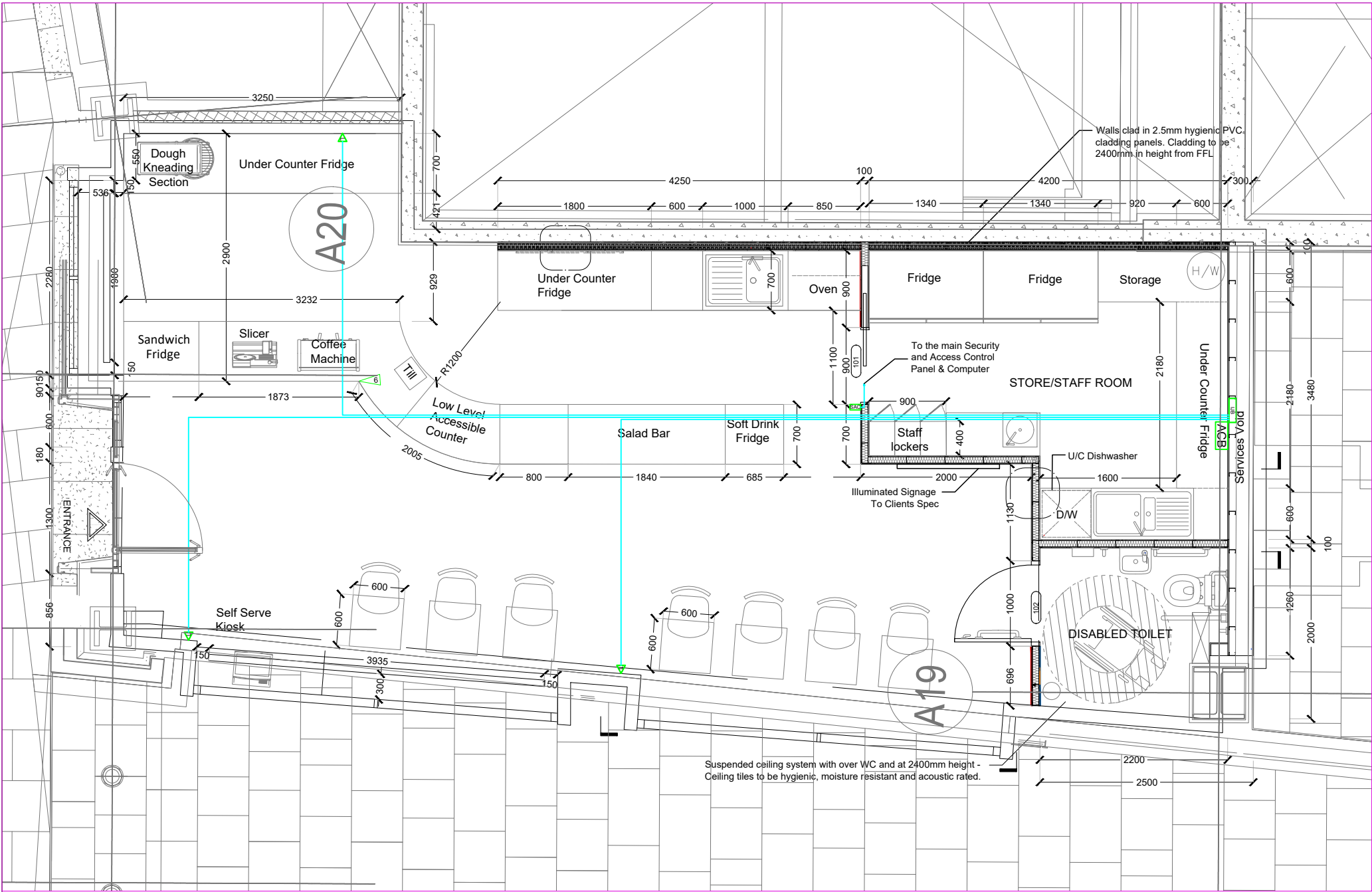
OWNER:
THE MEAL BOX CAFE
UNIT 5, 120 FENCHURCH, STREET,
LONDON, EC3M 5BA

SEAL:

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DATA, SECURITY
ACCESS CONTROL
PLAN

Drawn by:	Engr. Al Amin
Checked:	
Date:	FEB, 06.
LV 1	
Scale:	1:100



NOTE:

This Data Security Access Control Plan has been meticulously developed in strict adherence to the most current codes and regulations pertinent to Unit 5, 120 Fenchurch Street, London, EC3M 5BA. The following standards and guidelines have been thoroughly incorporated:

- BS 7671:2018+A3:2024 (IET Wiring Regulations): This British Standard outlines the requirements for electrical installations, ensuring safety and reliability in electrical wiring systems.
- Building Regulations 2010 (England) - Approved Document L (Conservation of Fuel and Power): Effective from June 15, 2022, this document mandates energy efficiency standards for fixed building services, including lighting systems, to ensure reasonable energy use.
- Energy Technology List (ETL) Criteria for Building Lighting Controls: The ETL specifies requirements for energy-saving lighting control systems, such as presence and daylight detectors, to enhance building energy efficiency.

Key Features of the Plan:

- Automatic Lighting Control Devices:
 - Presence Detectors: Installed to monitor occupancy and automatically switch off or dim lighting in unoccupied areas, reducing energy consumption.
 - Daylight Detectors: Utilized to adjust artificial lighting based on natural light availability, ensuring optimal illumination while conserving energy.
- Compliance with London, UK Product Approval Codes:
 - All components and systems specified in this plan meet the requisite product approval standards as mandated by London authorities, ensuring safety, reliability, and regulatory compliance.
- Integration with Building Management Systems (BMS):
 - The lighting control devices are designed to seamlessly integrate with the existing BMS, facilitating centralized monitoring and control for enhanced operational efficiency.
- User Override Functionality:
 - While automatic controls are in place, provisions for manual override have been incorporated, allowing occupants to adjust lighting settings as needed without compromising overall energy efficiency objectives.

By implementing this Data Security Access Control Plan, Unit 5 at 120 Fenchurch Street will benefit from a robust, compliant, and energy-efficient lighting control system. This approach not only aligns with current regulatory requirements but also promotes sustainability and operational excellence.



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SEAL:

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**FIRE ACCESS
CONTROLLER &
INTERNET PLAN**

Drawn by:	Engr. Al Amin
Checked:	
Date:	FEB, 06.
	LV2
Scale:	1:100

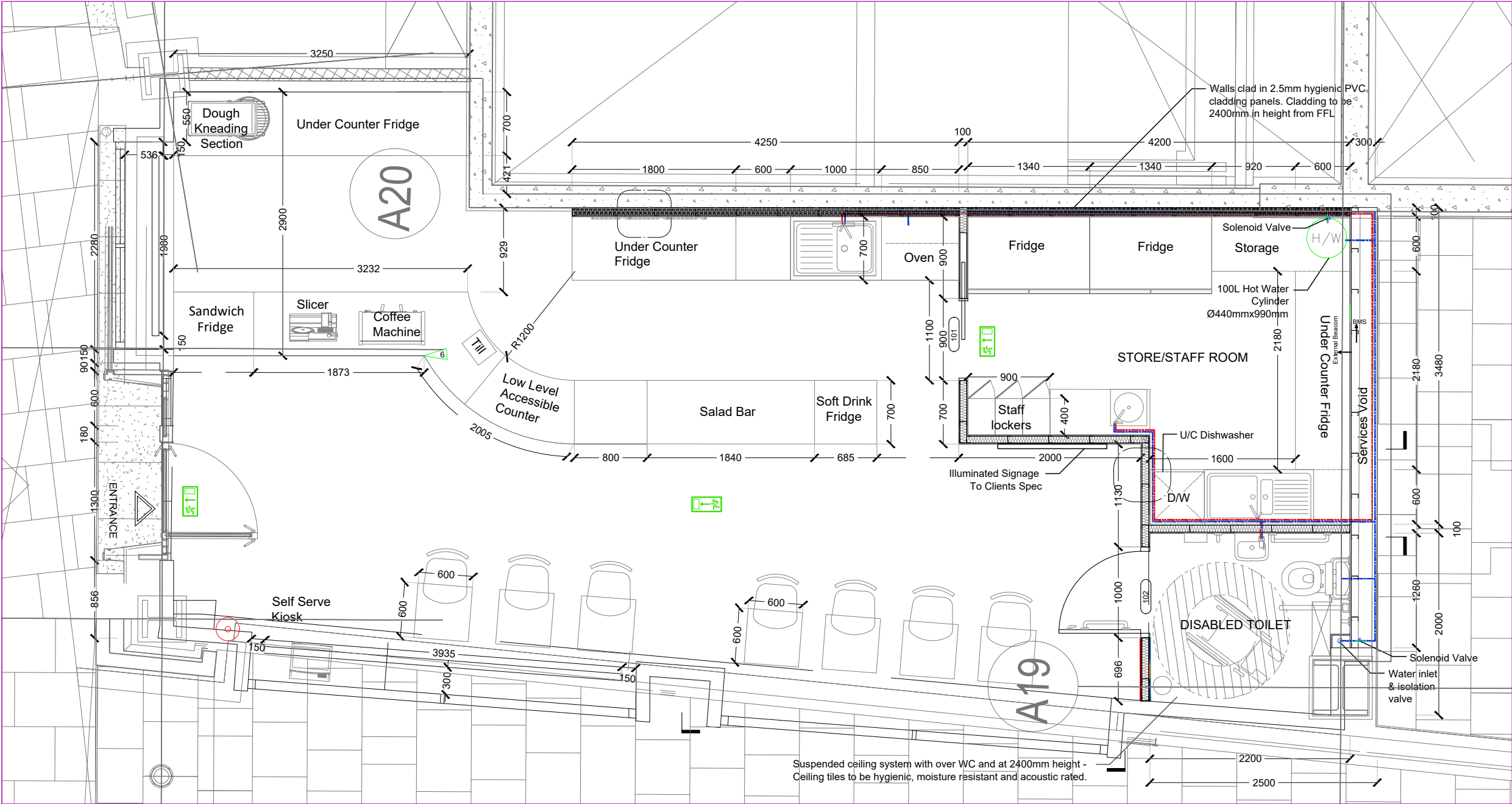
GROUND FLOOR DATA, SECURITY ACCESS CONTROL, AND FIRE ALARM PLAN

PROPOSED PLAN

1 REF: A.03-100

SCALE : 1:50(A3)

- INTERNET LAN PORT
- IJB Wi-Fi Router & Internet Junction Box
- SAC Security & Access Controller
- ACB Access Controller Box
- CAT 6 Internet Cable



GROUND FLOOR PLUMBING WATER SUPPLY PLAN
PROPOSED PLAN
1 REF: A.03-100 SCALE : 1:50(A3)

PLUMBING LEGEND	
	BALL VALVE (BV)
	SOLENOID VALVE (SV)
	MIXING VALVE (MV)
	PIR, CONNECTED IN DAISY CHAIN
	FLOOR DRAIN (FD)
	External Beacom
	FLOOR SINK (FS)
	PIPE TURNING UP
	PIPE TURNING DOWN
	EXISTING PIPE
	NEW PIPE
LINES TYPE LEGEND	
	COLD WATER LINE (CW)
	HOT WATER LINE (HW)
	SEWER LINE (S)
	GAS LINE (G)

NOTE:
This Plumbing Water Supply Layout Plan for The Meal Box Cafe, Unit 5, 120 Fenchurch Street, London, EC3M 5BA, has been meticulously designed in strict adherence to the following updated codes and regulations:

- Approved Document G: Sanitation, Hot Water Safety, and Water Efficiency (2024 Edition): This document provides statutory guidance on building regulations in England, covering standards for cold water supply, water efficiency, hot water supply systems, and sanitary conveniences.
- Water Supply (Water Fittings) Regulations 1999: These regulations govern the design, installation, and maintenance of plumbing systems, water fittings, and water-using appliances to prevent waste, misuse, undue consumption, contamination, or erroneous measurement of water.
- Water Regulations Approval Scheme (WRAS) Product Approval Codes: All plumbing products and materials specified in this plan are compliant with WRAS, ensuring they meet the high standards set for the UK to keep water safe and prevent contamination.

By following these codes and regulations, we ensure that the plumbing system is safe, efficient, and compliant with all relevant legal requirements.



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PLUMBING WATER SUPPLY PLAN

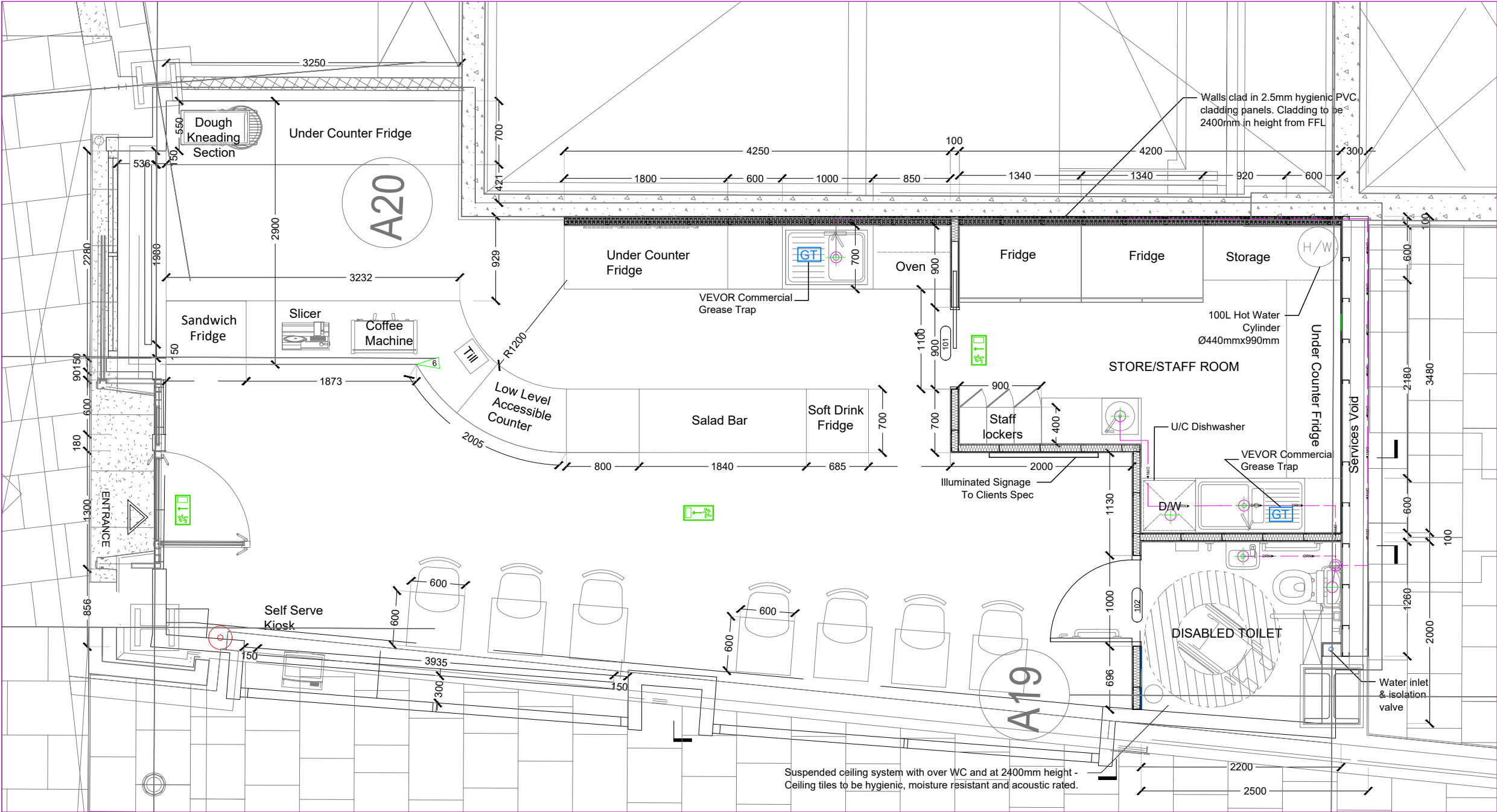
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Date: FEB, 06.

P 1

Scale: 1:100



GROUND FLOOR SEWER PLAN
PROPOSED PLAN
1 REF: A.03-100 SCALE : 1:50(A3)

PLUMBING LEGEND	
	BALL VALVE (BV)
	GATE VALVE (GV)
	MIXING VALVE (MV)
	FLOOR CLEAN OUT (FCO)
	FLOOR DRAIN (FD)
	GREASE TRAP
	FLOOR SINK (FS)
	PIPE TURNING UP
	PIPE TURNING DOWN
	EXISTING PIPE
	NEW PIPE
LINES TYPE LEGEND	
	COLD WATER LINE (CW)
	HOT WATER LINE (HW)
	SEWER LINE (S)
	GAS LINE (G)

NOTE:

This Plumbing Sewer Layout Plan for "The Meal Box Cafe, Unit 5, 120 Fenchurch Street, London, EC3M 5BA" has been meticulously designed in strict adherence to the following updated codes and regulations:

- Approved Document H: Drainage and Waste Disposal (2015 Edition): This document provides comprehensive guidance on the design and installation of drainage systems, including foul water drainage, wastewater treatment systems, rainwater drainage, building over sewers, separate systems of drainage, and solid waste storage.
- Building Regulations 2010 (Part H - Drainage and Waste Disposal): Part H of the Building Regulations outlines the legal requirements for drainage and waste disposal in buildings, ensuring the health and safety of occupants and the protection of the environment.
- Thames Water Build Over/ Near Agreement Guidelines: As the local water authority, Thames Water provides specific guidelines for building over or near public sewers. Compliance with these guidelines ensures that the structural integrity of the sewer system is maintained and that access for maintenance is preserved.
- Water Industry Act 1991: This act governs the water supply and sewerage services in England and Wales, outlining the responsibilities of water companies and the rights of consumers. It provides the legal framework for the provision of water and sewerage services, including the maintenance of water quality and the regulation of discharges into the sewer system.
- Public Health Act 1936: This act includes provisions related to sanitation and public health, including the regulation of drainage systems. It mandates proper construction and maintenance of drainage systems to prevent health hazards and environmental contamination.
- British Standard BS EN 12056-2:2000 (Gravity Drainage Systems Inside Buildings): This standard specifies requirements for the design and calculation of gravity drainage systems inside buildings, ensuring reliable and effective removal of wastewater.
- London Building Acts (Amendment) Act 1939: This act provides additional regulations specific to building works in London, including provisions related to drainage and sewerage systems. It ensures that building practices meet the unique requirements of the London area.

By adhering to these codes and regulations, we ensure that the plumbing and sewer systems are designed and installed to the highest standards, promoting safety, efficiency, and environmental responsibility.



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SEAL:

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PLUMBING SEWER PLAN

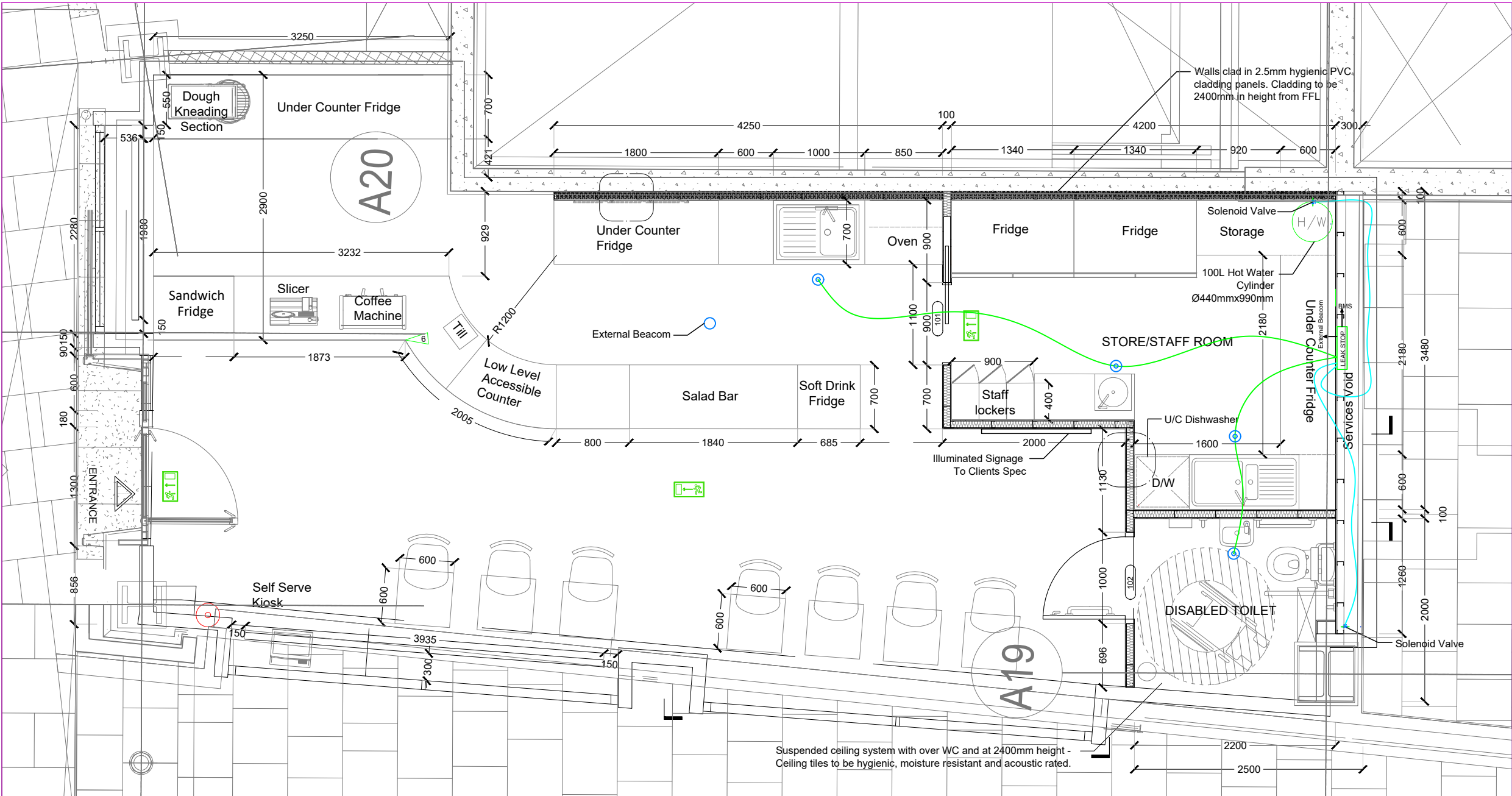
Drawn by: Engr. Al Amin

Checked:

Date: FEB, 06.

P 2

Scale: 1:100



GROUND FLOOR LEAK DETECTION PLAN
PROPOSED PLAN
1 REF: A.03-100 SCALE: 1:50(A3)

PLUMBING LEGEND	
	BALL VALVE (BV)
	SOLENOID VALVE (SV)
	MIXING VALVE (MV)
	PIR, CONNECTED IN DAISY CHAIN
	FLOOR DRAIN (FD)
	External Beacom
	FLOOR SINK (FS)
	PIPE TURNING UP
	PIPE TURNING DOWN
	EXISTING PIPE
	NEW PIPE
LINES TYPE LEGEND	
	COLD WATER LINE (CW)
	HOT WATER LINE (HW)
	SEWER LINE (S)
	GAS LINE (G)

NOTE:

This Leak Detection Plan for UNIT 5, 120 Fenchurch Street, London, EC3M 5BA, has been developed in strict adherence to the following updated codes and regulations:

- Health and Safety Executive (HSE) Guidelines on Leak/Gas Detection: This document outlines essential considerations for leak and gas detection systems, including human factors, detector types, maintenance protocols, and management practices.
- GOV.UK Guidance on Checking F Gas Equipment for Leaks: This guidance specifies responsibilities and procedures for regular leak checks on equipment containing fluorinated gases (F gases), detailing the frequency of inspections and actions required upon detecting leaks.
- FM Approvals Standard 7745, Liquid Leak Detection: This standard provides requirements for products designed to prevent and mitigate damages from liquid leaks, covering various detection systems and emphasizing the importance of certified leak detection solutions.
- Design, Construction, Modification, Maintenance, and Decommissioning of Filling Stations: This document discusses classes of leak containment and detection systems, offering guidance on their application and maintenance to ensure environmental safety and compliance.

By integrating the directives and best practices from these authoritative sources, this plan ensures robust leak detection measures are in place, aligning with current London, UK Product Approval Codes and regulations.

Leak Detection System Installation Details

This Leak Detection Plan for UNIT 5, 120 Fenchurch Street, London, EC3M 5BA, incorporates a comprehensive leak detection system with solenoid valves for automatic shutoff to ensure compliance with London, UK Product Approval Codes and updated industry regulations. The system has been designed following all necessary health, safety, and environmental guidelines.

System Components & Installation Details

- Leak Detection System
 - A real-time monitoring system will be installed to detect leaks and trigger an automatic shutoff mechanism.
 - The system will include tape sensors, probes, or bunding as required based on site-specific conditions.
- Solenoid Valve Shutoff Mechanism
 - Electrically actuated solenoid valve will be integrated into the system to immediately stop fluid flow upon leak detection.
 - The shutoff mechanism will be fail-safe, ensuring operation even in the event of power failure.
- Installation Details
 - The system will be installed in one of the following methods, as per project and compliance requirements:
 - Below Floor Level (Bunding System): Leak detection components will be housed within a bunded containment area to prevent environmental contamination.
 - Above Finished Floor Level (Tape/Probe Sensors): Leak detection tape sensors or probe-based detectors will be installed to monitor any leakage along the system's pipelines.

4. Regulatory Compliance

- The system will be designed in accordance with:
 - Health and Safety Executive (HSE) Guidelines on Leak Detection
 - GOV.UK Guidance on Checking F Gas Equipment for Leaks
 - FM Approvals Standard 7745 – Liquid Leak Detection
 - British Standards for Plumbing & Leak Prevention

This plan ensures the highest level of safety and environmental protection, preventing leak-related hazards and ensuring full compliance with UK regulatory requirements.



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PLUMBING LEAK DETECTION PLAN

Drawn by: Engr. Al Amin

Checked:

Date: FEB, 06.

P 3

Scale: 1:100

1.2 Alarm Units

1.2.8 Alarm Unit: FG-A

The FG-A alarm unit is a non-locating unit. It is designed to be used with analog sense cables as FG-ECS, FG-ECX, FG-ACS and FG-ACX for water and acids leak detection.

Responses on the FG-A alarm unit:

- In the case of a leak, an audible alarm is triggered. The red LED on the front panel is switched on and the leak relay is activated.
- In the case of cable break, an audible alarm is triggered, the yellow LED on the front panel is switched on and the cable break relay is activated.

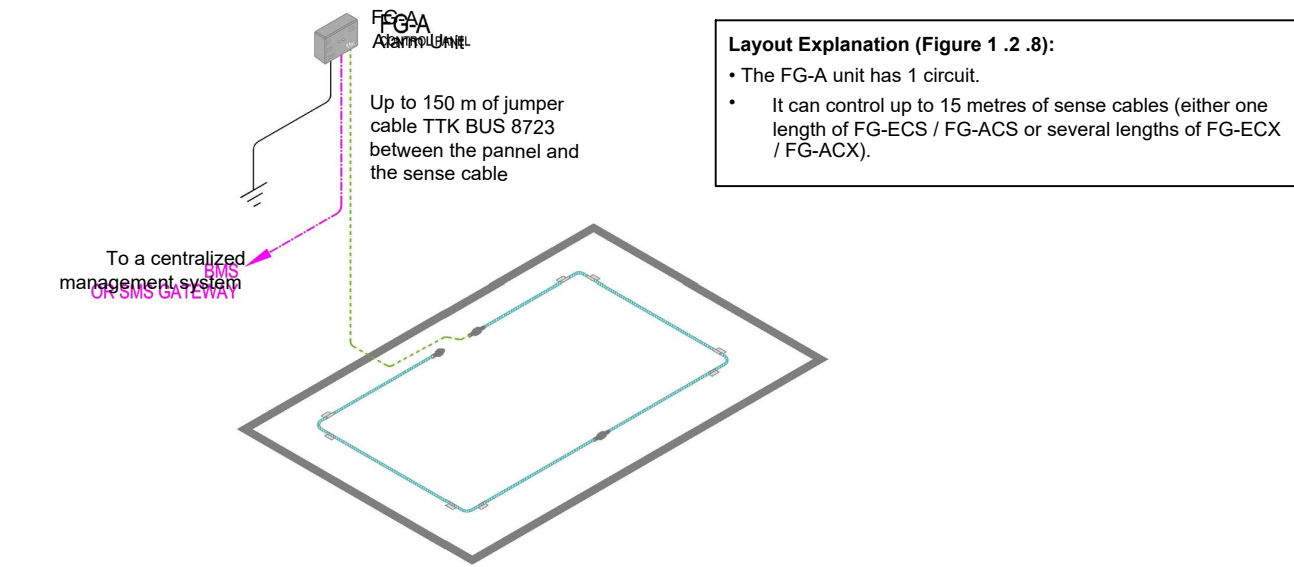


Figure 1: Layout with FG-A

1.2.9 Alarm Unit: FG-A-OD

The FG-A-OD alarm unit is a single sensor alarm unit. It is designed to be used exclusively with FG-OD hydrocarbon range of detectors for oil leak detection.

Responses on the FG-A-OD alarm unit:

- In the case of a leak, an audible alarm is triggered. The red LED on the front panel is switched on and the leak relay is activated.
- In the case of cable break, an audible alarm is triggered, the yellow LED on the front panel is switched on and the cable break relay is activated.

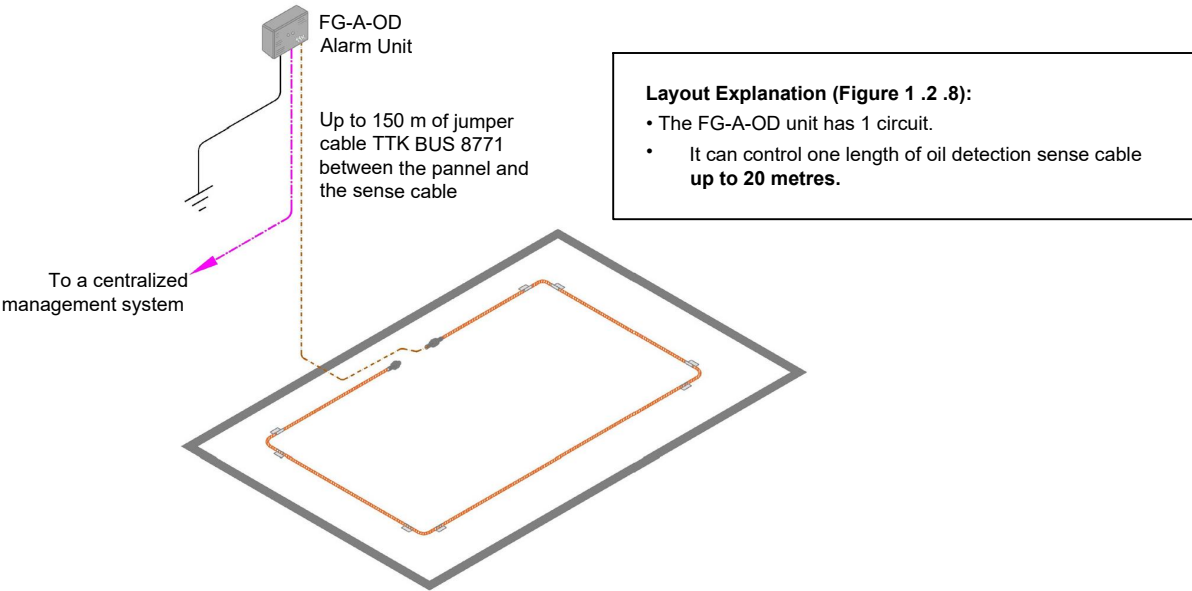


Figure 2: Layout with FG-A-OD



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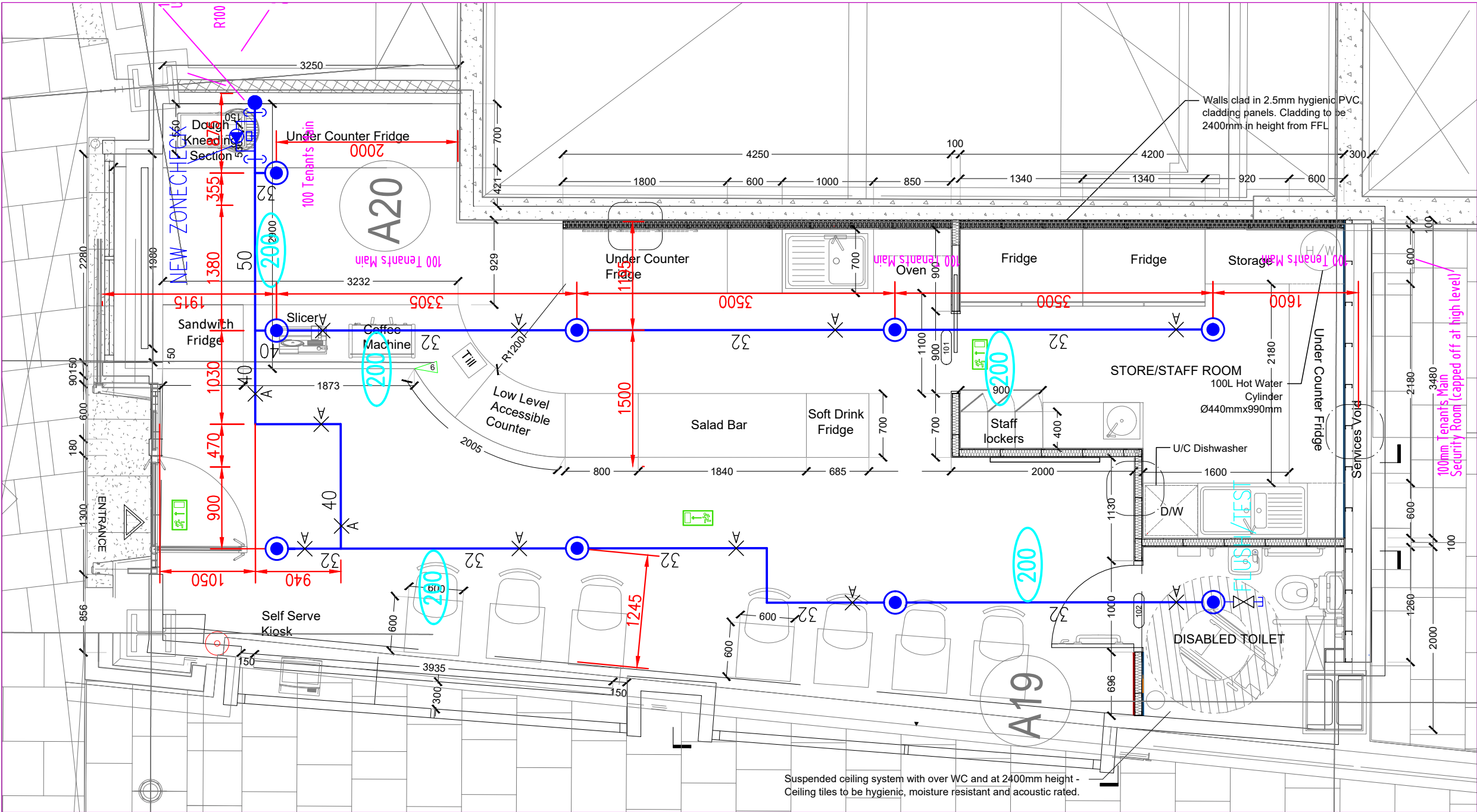
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FIRE SPRINKLER PLAN

Drawn by: Engr. Al Amin

Checked:

Date: FEB, 06.

F1

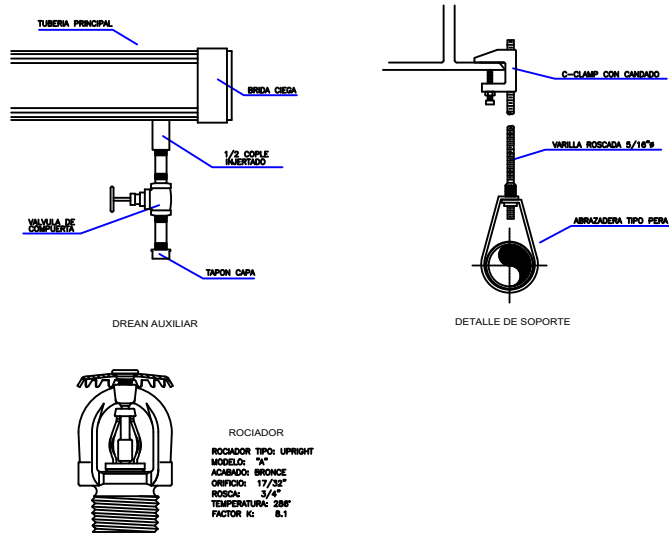
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GROUND FLOOR EXISTING FIRE SPRINKLER PLAN

PROPOSED PLAN

1 REF: A.03-100

SCALE : 1:50(A3)

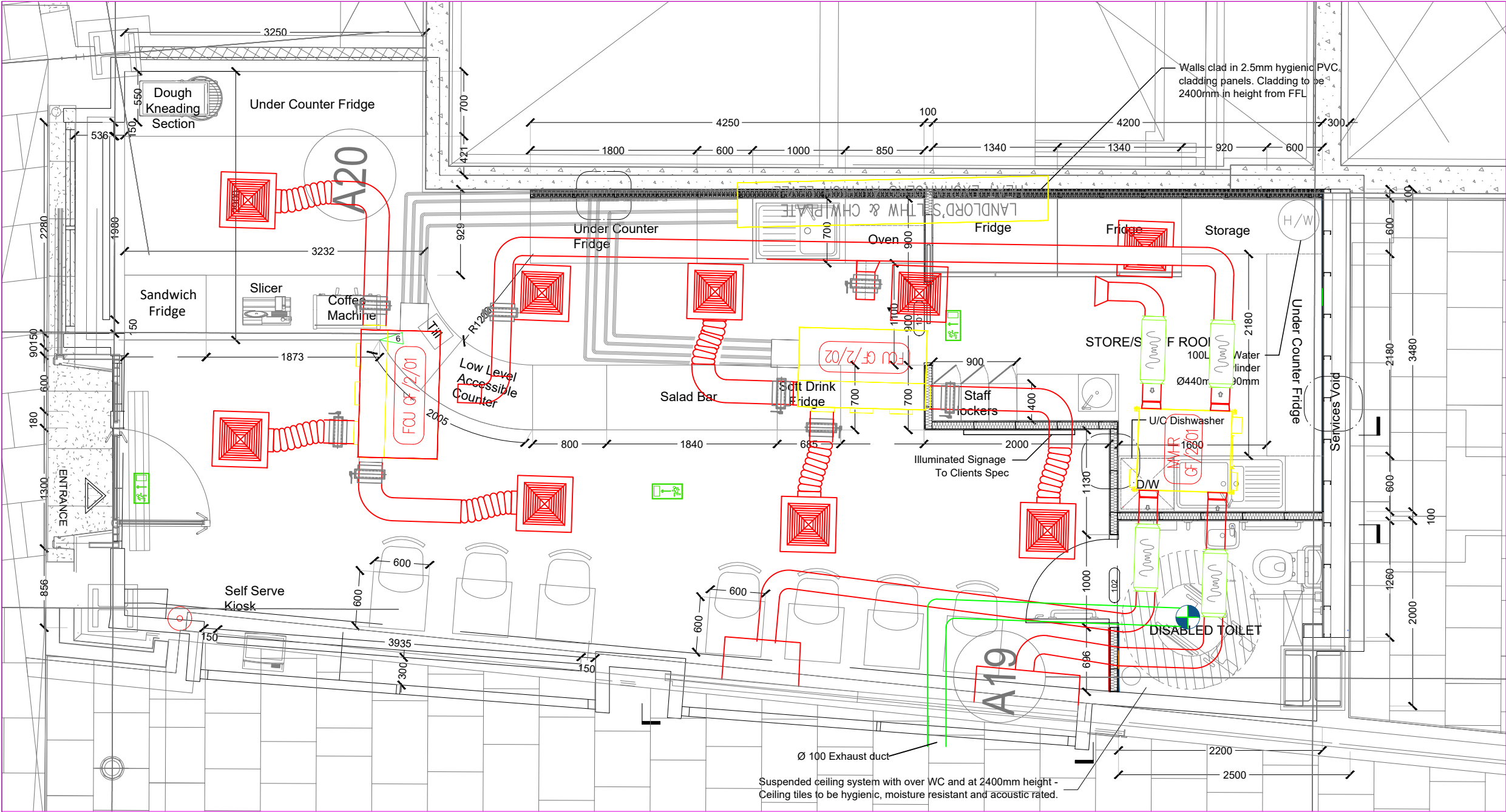


NOTE:

This Fire Sprinkler Layout Plan for The Meal Box Cafe, Unit 5, 120 Fenchurch Street, London, EC3M 5BA, has been meticulously designed in strict adherence to the following updated codes and standards:

- BS 9251:2021 – Fire Sprinkler Systems for Domestic and Residential Occupancies – Code of Practice: This British Standard provides comprehensive guidelines for the design, installation, components, water supplies, backflow protection, commissioning, maintenance, and testing of fire sprinkler systems in residential and domestic premises.
- BS EN 12845:2004 – Fixed Fire Fighting Systems – Automatic Sprinkler Systems – Design, Installation, and Maintenance: This standard specifies requirements and provides guidance for the design, installation, and maintenance of automatic sprinkler systems to ensure optimal performance in fire protection.
- London, UK Product Approval Codes: All products and components specified in this plan have been selected based on their compliance with the relevant London, UK product approval codes, ensuring that only certified and approved materials are utilized in the installation.

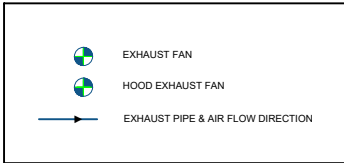
By adhering to these standards and codes, we aim to ensure the highest level of safety and compliance for the fire sprinkler system in this establishment.



GROUND FLOOR EXHAUST PLAN
PROPOSED PLAN

1 REF: A.03-100

SCALE : 1:50(A3)



EXHAUST FAN SCHEDULE									
NO.	DESCRIPTION	Q _{max}	Q _{min}	Q _{avg}	VOLTAJE	MODEL	NOTES	DATE	BY
1	EXHAUST FAN	100	50	75	230V	1000		01/01/2023	AI

NOTE:

This design pertains solely to the new toilet exhaust system at CAFE, UNIT 5, 120 Fenchurch Street, London, EC3M 5BA. All other HVAC systems within the unit are existing and remain unchanged. The new toilet exhaust system is independent and not connected to the basebuild system.

Key design considerations and regulatory compliance measures include:

1. Separation from Food Preparation Areas:

Toilets must not open directly into food preparation or consumption areas. A ventilated lobby should be provided between the toilet and any food handling areas to act as a barrier against odours and airborne contaminants, in accordance with UK building regulations.

2. Mechanical Ventilation Requirements:

The toilet is provided with a dedicated mechanical extract ventilation system to ensure effective removal of odours and moisture. The system is designed to meet or exceed the minimum extraction rates as specified in Approved Document F of the UK Building Regulations.

3. Ventilation System Design:

- Airflow Direction: The system is designed to ensure air flows from cleaner to less clean areas, preventing cross-contamination.
- Ductwork: All ducting is appropriately sized, durable, and easy to maintain, with the exhaust air discharged directly to the outside environment.

- Noise Control: Acoustic considerations have been addressed to ensure that noise from fans and duct air movement is minimized for customer and staff comfort.
- Compliance with Health and Safety Standards:
The ventilation system complies with Health and Safety Executive (HSE) guidelines for catering establishments, ensuring adequate airflow, hygiene, and system maintainability.

By adhering to these standards and regulations, the new toilet exhaust system contributes to maintaining a safe, hygienic, and comfortable environment for both customers and staff.



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EXHAUST FAN PLAN

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EX. 1

Scale: 1:100