

TITLE:

PROPOSED FES OFFICE BUILDING UPGRADE AND
REMODELLING PROJECT.

CLIENT:

FES OFFICE

LOCATION:

CENTRAL AREA, FCT ABUJA.

DATE:

JULY, 2020



LEGEND

APPROVAL COLUMN

SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION
	CLOSE COUPLE WC Armitage Shank		COLD WATER PIPE (Technogreen)		Split Unit Air Conditioner (type one) Cooling Capacity = 2.6kW (9,000BTU/hr) Power Input= 0.9kW@220-240V,50HZ
	KITCHEN SINK		WASTE WATER PIPE		Split Unit Air Conditioner (type two) Cooling Capacity = 3.5kW (12,000BTU/hr) Power Input= 1.26kW@220-240V,50HZ
	BATH 1700 x 700 BATH (2 TAP GRIPS,SLIP RESIST, WITH LEGS)		75mm pvc sleeve pipe for refrigerant and condensate pipes,		Split Unit Air Conditioner (type three) Cooling Capacity = 5.25kW (18,000BTU/hr) Power Input= 2.0kW@220-240V,50HZ
	Wash Hand Basin (Armitage shank)		SOIL WASTE PIPE UPVC PIPE		Split Unit Air Conditioner (type four) Cooling Capacity = 6.74kW (24,000BTU/hr) Power Input= 2.8kW@220-240V,50HZ
	INSPECTION CHAMBER		HOT WATER PIPE (Technogreen)	FW1	WALL FAN - GX6 Electrical Power Rating= 30W@220-240V,50HZ
	Ø50mm UPVC FLOOR DRAIN	F/A	FROM ABOVE	FW2	WALL FAN - GX9 Electrical Power Rating= 40W@220-240V,50HZ
	ISOLATION VALVES	F/B	FROM BELOW	FW2	WALL FAN - GX12 Electrical Power Rating= 40W@220-240V,50HZ
	15 Litres Water heater	T/B	TO BELOW	MX-1	SINGLE LEVER MONO BLOC MIXER(3/25litres) COMPLETE WITH POP-UP WASTE (ARMITAGE SHANKS)
	10 Litres Water heater	T/A	TO ABOVE	MX-2	120mm DECK MOUNTED BATH MIXER WITH 15.25mm FLEXIBLE HOSE HANDSPRAY & BRACKET (ARMITAGE SHANKS)
	TOILET ROLL HOLDER	F/B T/A	FROM BELOW TO ABOVE	MX-3	KITCHEN MONO BLOC SINK MIXER (5LITRES) WITH DUAL FLOW SWIVEL NOZZLE (ARMITAGE SHANKS)
	75mm Floor Drain	F/A T/B	FROM ABOVE TO BELOW		9KG FIRE EXTINGUISHER (ABC type)
	Ø15mm EXTERNER BIB TAP	GV	GATE VALVE		COURTY YARD DRAIN
	MONO BLOC MIXER AND POP-UP WASTE ARMITAGE SHANKS		HAND DRYER		
	SOIL WASTE VENT PIPE				
	WASTE WATER VENT PIPE				

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Client

Designed

Checked

Scale

Date

Sheet no

SHITTU KENNETH

ENGR. M. U. LAWAL

NTS

JULY, 2020

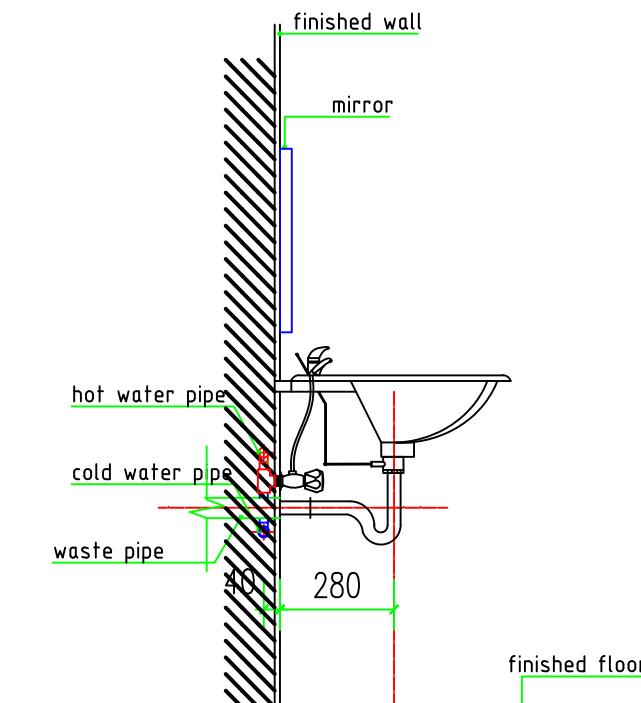
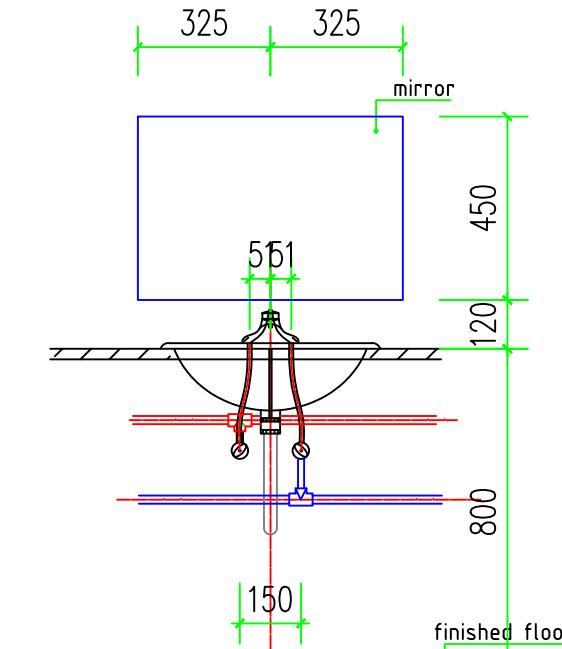
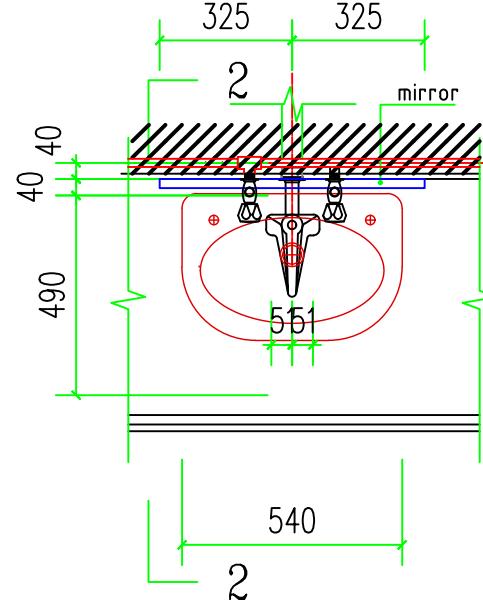
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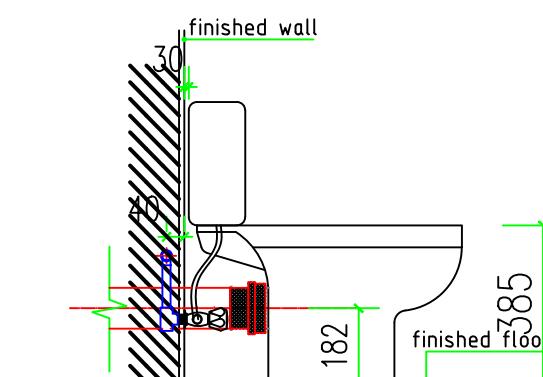
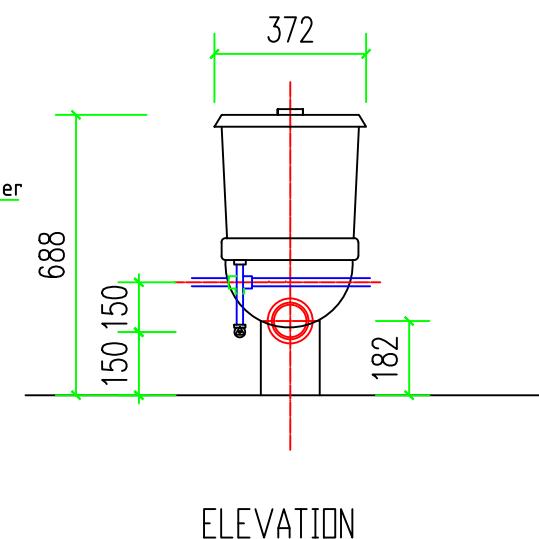
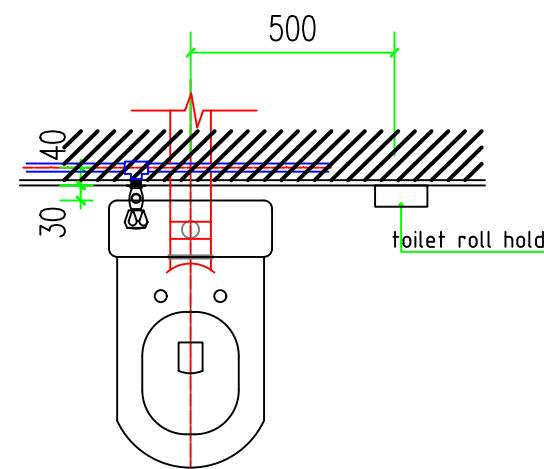
Drawing title
LEGEND

APPROVAL COLUMN

washhabdin



WATER CLOSET



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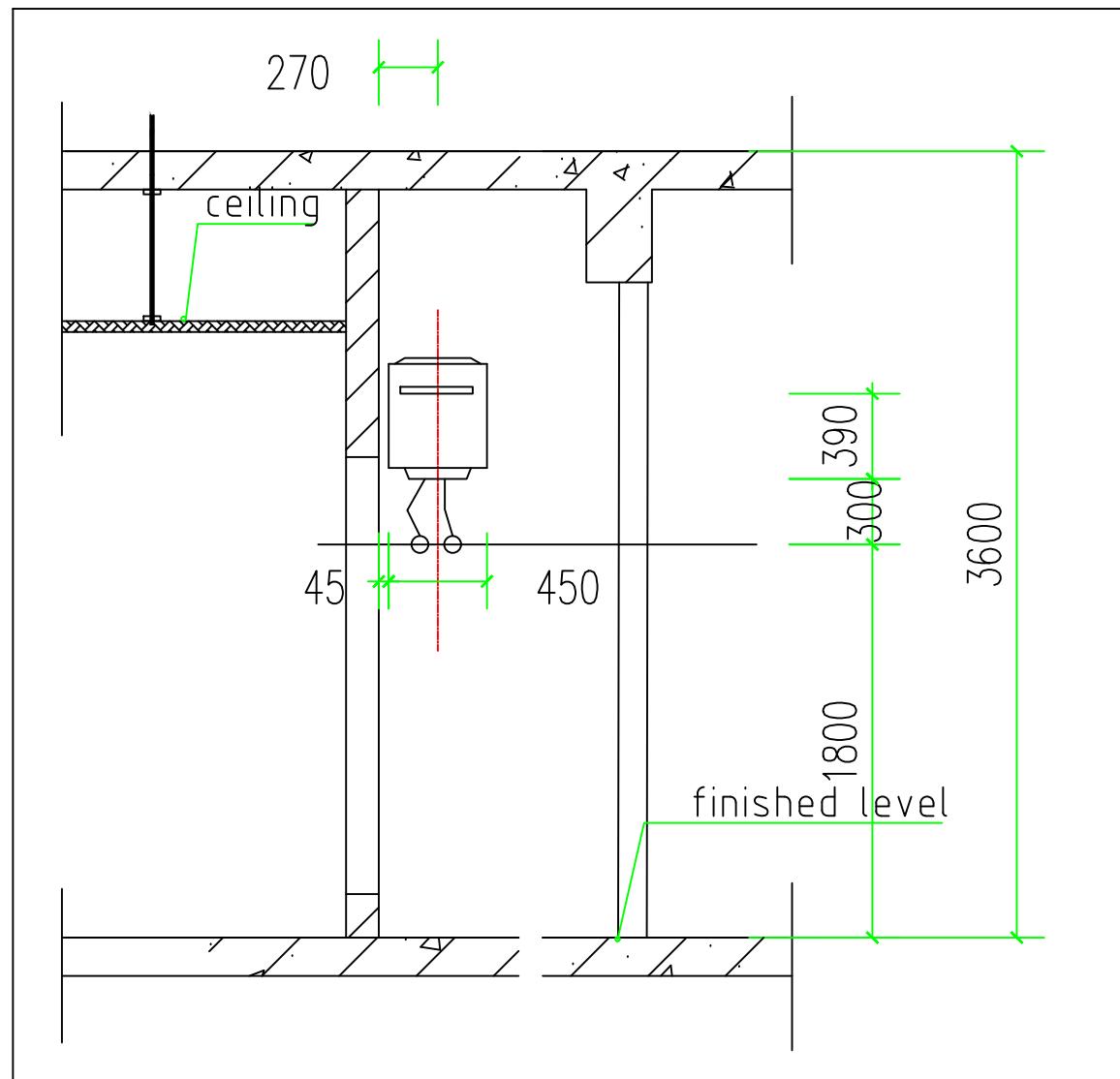
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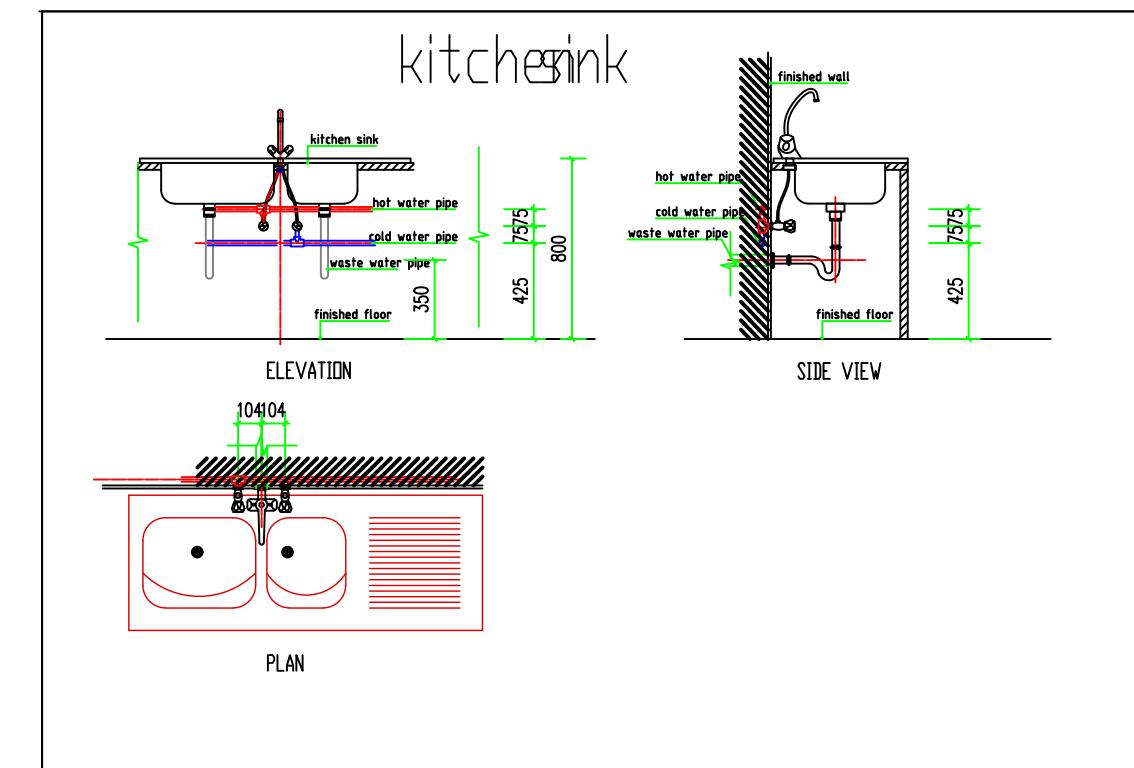
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TOILET FITTINGS

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WATER HEATER



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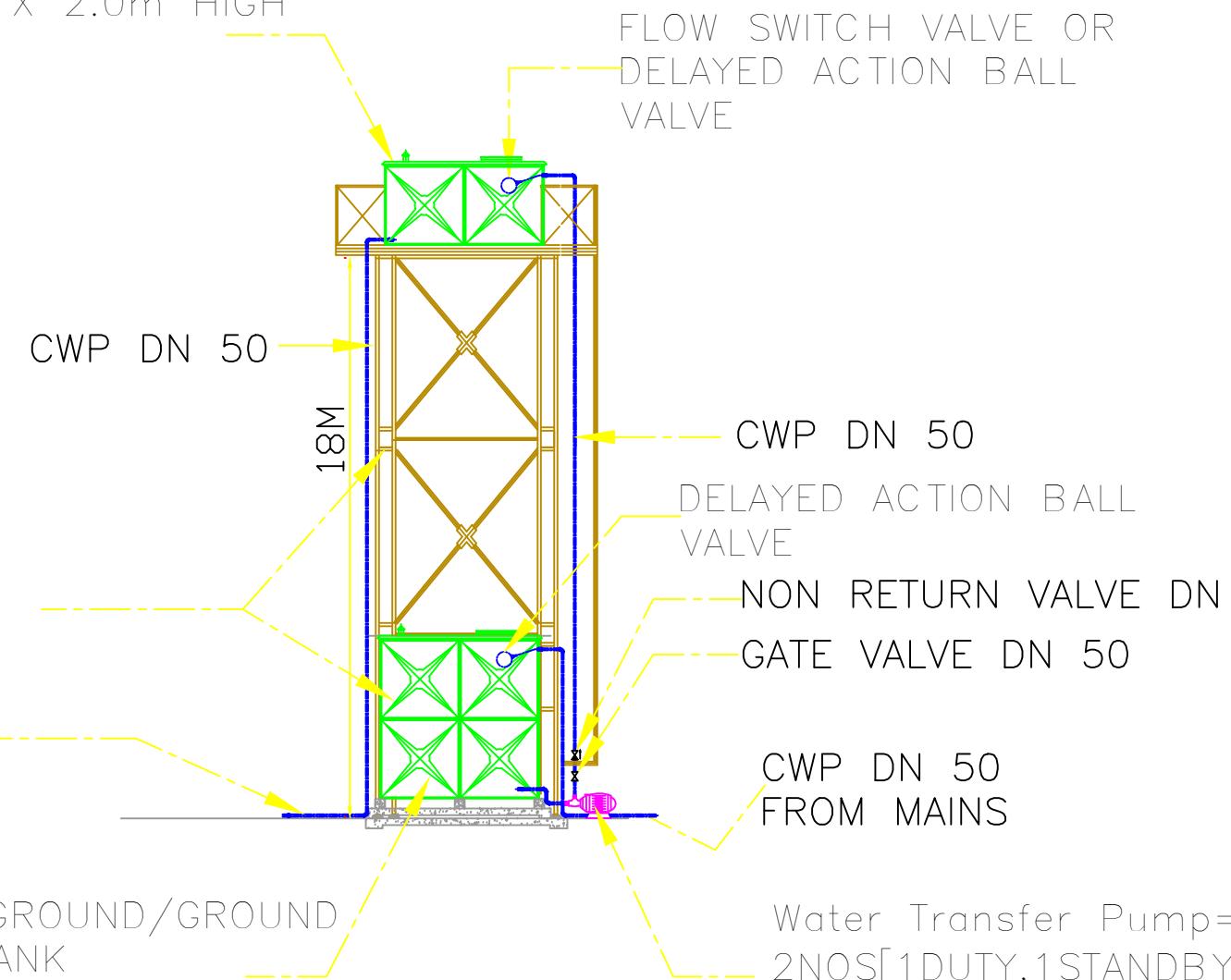
Project
**PROPOSED FES OFFICE BUILDING
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CENTRAL AREA, FCT ABUJA**
Drawing title
KITCHEN SINK/WATER HEATER

10,000LITRES CAPACITY ELEVATED
BRAITHWAITE WATER STORAGE TANK
ON STRUCTURAL STEEL SUPPORT
SIZE:2.5m X 2.0m X 2.0m HIGH

STRUCTURAL
STEEL SUPPORT.[SEE
STRUCTURAL ENGINEER
FOR DETAIL'S]

CWP DN 63 TO SITE
DISTRIBUTION NETWORK

20,000LITRES CAPACITY UNDERGROUND/GROUND
BRAITHWAITE WATER STORAGE TANK
ON STRUCTURAL STEEL SUPPORT
SIZE:4.0m X 2.5m X 2.0m HIGH



SECTION A-A
DETAILS OF GROUND & ELEVATED WATER TANKS

SPECIFICATIONS

1. All water supply pipes are PPR pipe with specified thickness. Make: REDI or Approved equal DIN ISO 15874

S/N	(PPR PIPES)DIAMETER (mm)	THICKNESS(mm)
1	15	2.5
2	20	3.4
3	25	4.2

2. All drainage pipes are UPVC. Make: WAVIN or Approved equal. BS 1401-1: 2009

S/N	DIAMETER	THICKNESS(mm)
1	50	5.5
2	75	6.2
3	100	8.0

3. All UPVC connections shall be joined with tangit gum or approved equal. BS ISO 11413: 2019

4. All Inspection Chambers are (450 by 450) mm inner size and (600 by 600) mm for external size. BS EN 1917: 2002

5. All mounting height of water supply and drainage pipes shall conform as provided in the designs.

6. All refrigerant pipes shall be seamless copper tubing and shall be insulated with foam rubber insulation 25mm thick with suitable adhesive. ASHRAE 15. SECTION 15183. Make: MUELLER or Approved Equal

7. All condensate pipes shall be 25mm UPVC and shall be insulated with foam rubber insulation of 25mm thick. ASHRAE 90.1 - 2007

8. All refrigerant and condensate pipes in floors shall be insulated and enclosed in UPVC pipe sleeves.

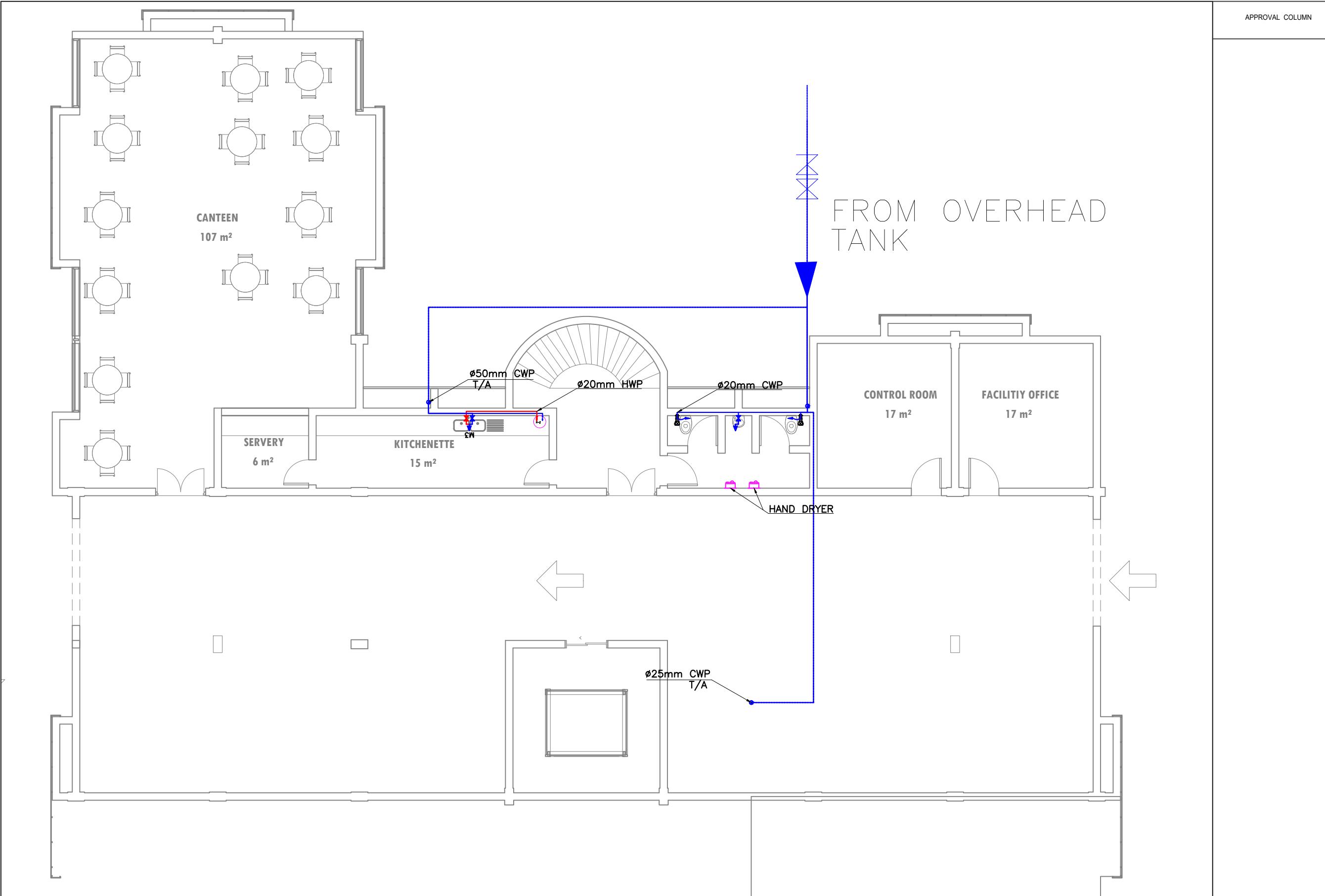
9. Fire extinguishers shall be:

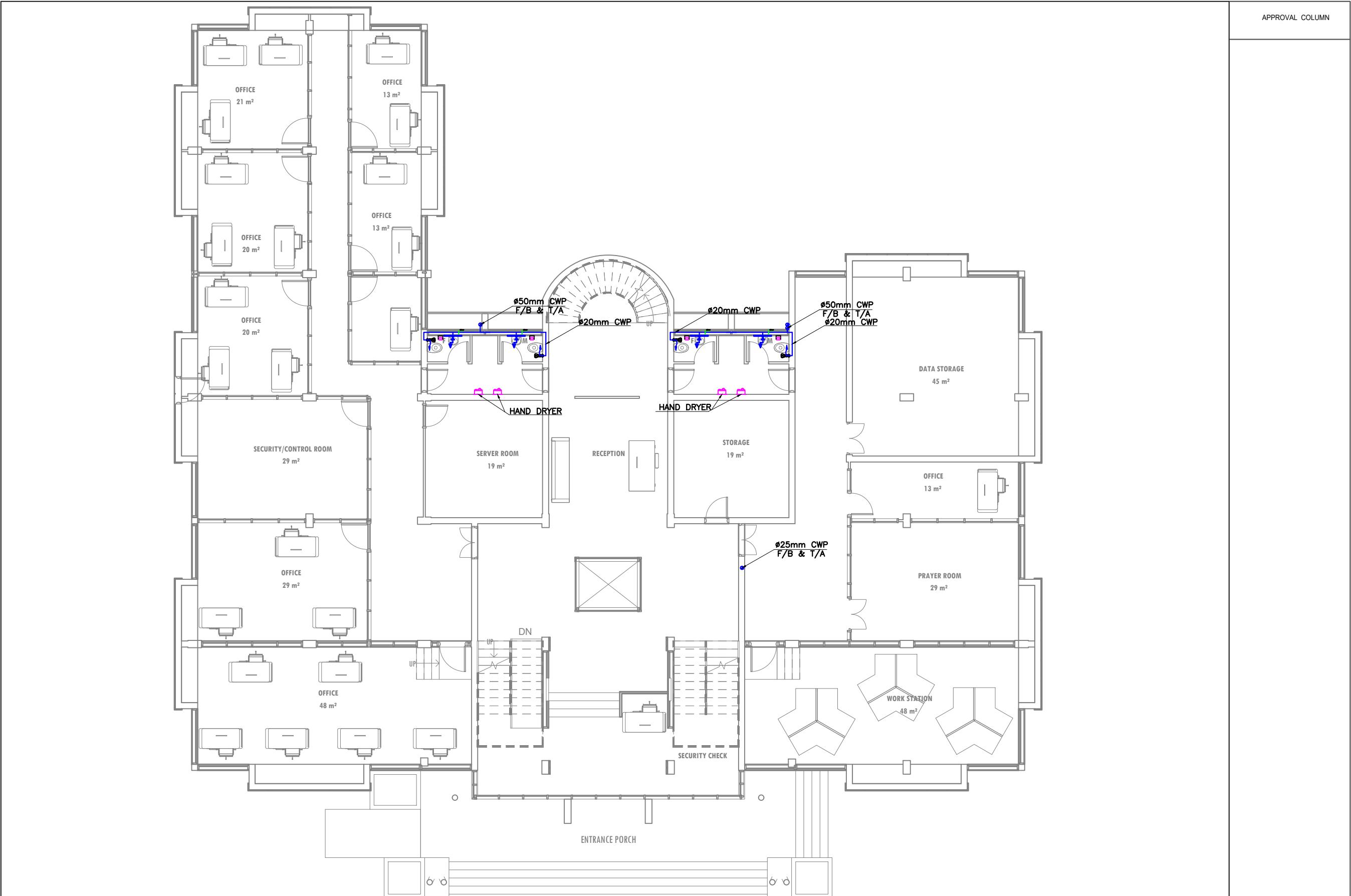
- i. 9Kg ABC Dry Chemical Powder (DCP), Make: SRI; Model.
- ii. 9Kg Carbon Dioxide- (CO2), Make: SRI; Model or approved equal.

NFPA 10

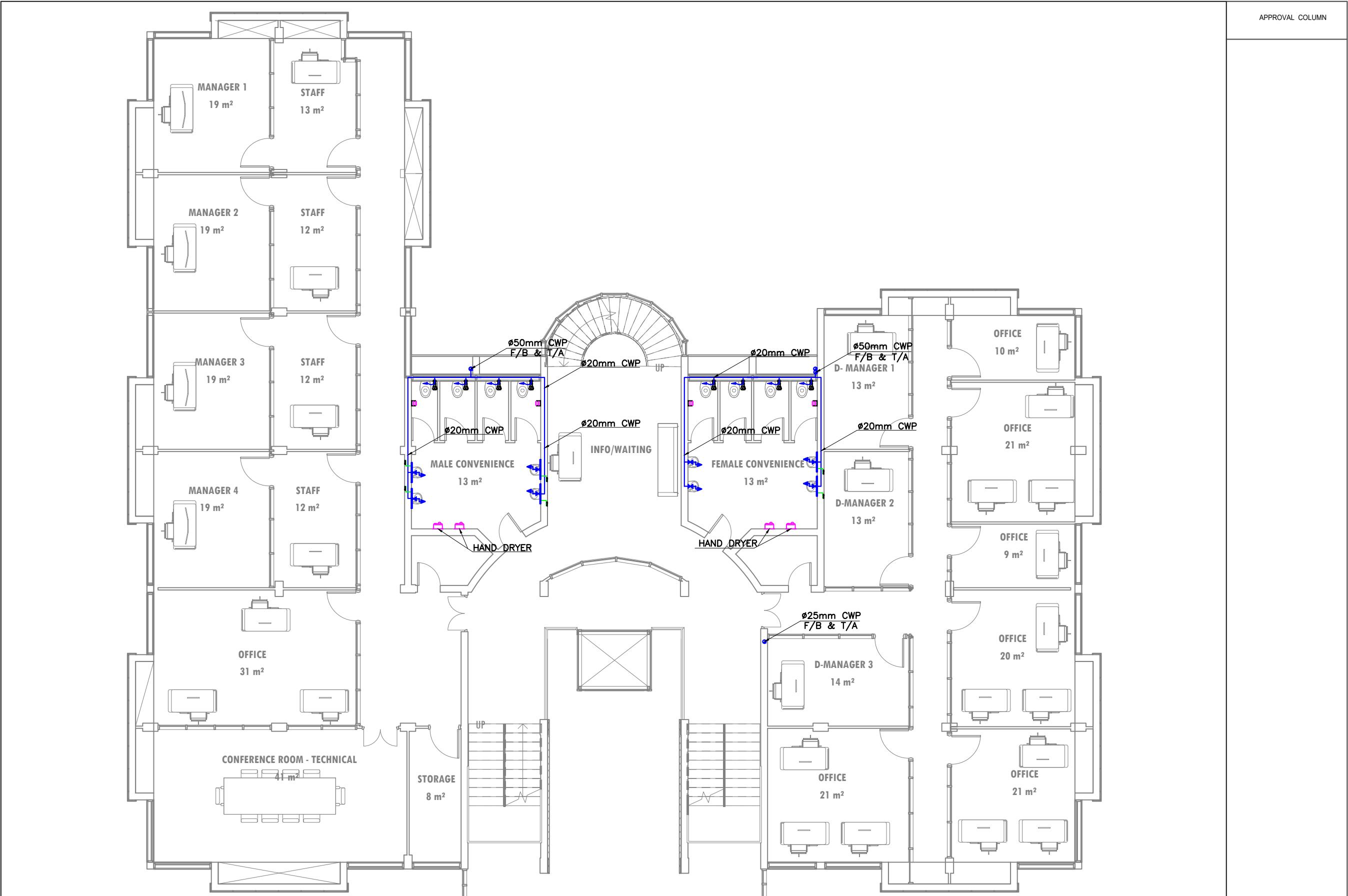
 SKY HABITAT LTD <p>Services Engineers: Architects, Engineers and Project Management Consultants Suite 3, 1ST Floor, 1 Regent Street, Off Nnamdi Azikiwe street Mabushi. SkyHabitatLtd@gmail.com 0803639982</p>	Client					Project PROPOSED FES OFFICE BUILDING UPGRADE AND REMODELLING PROJECT, CENTRAL AREA, FCT ABUJA
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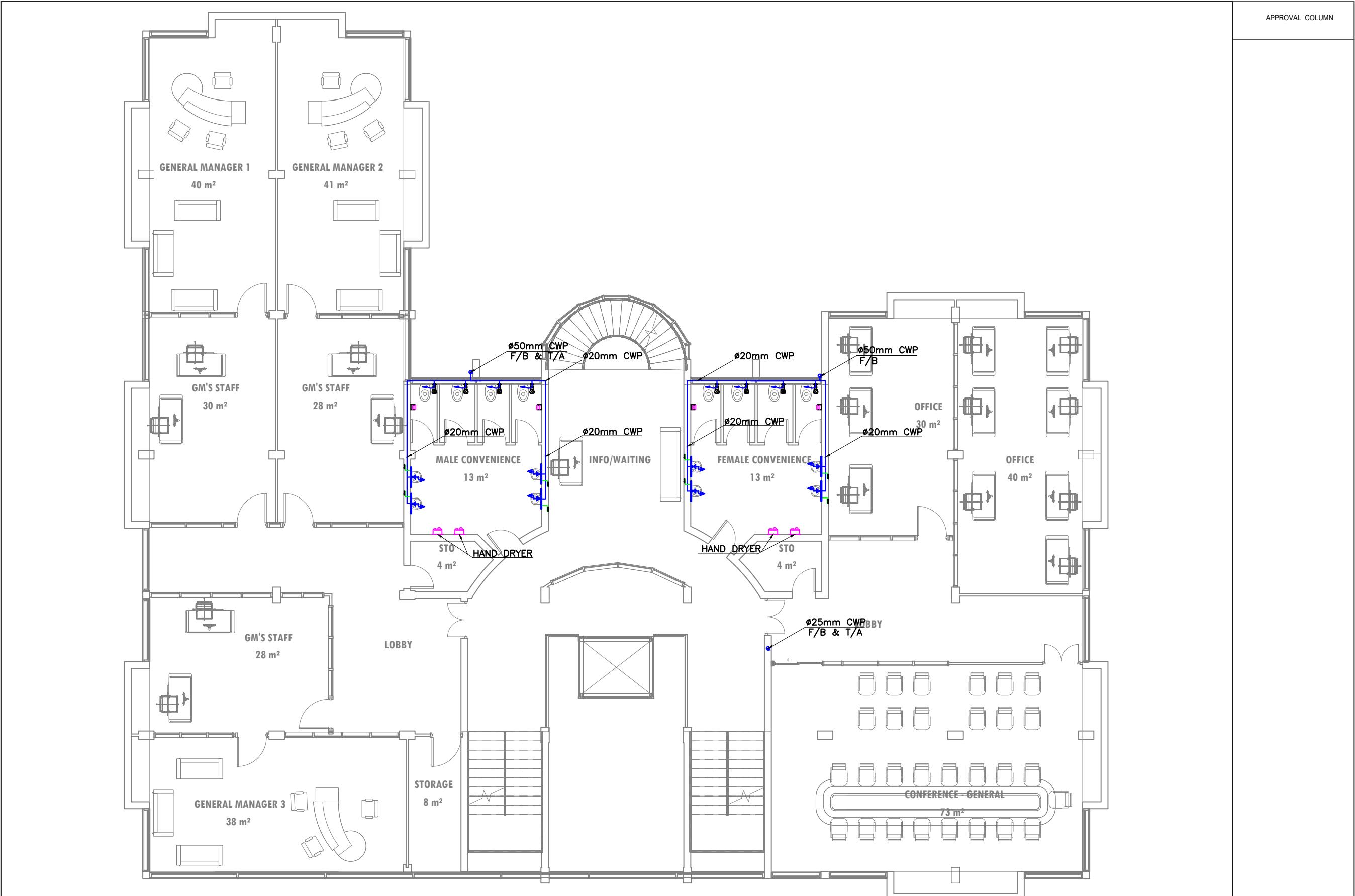
Drawing title
SPECIFICATIONS





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SHITTU KENNETH	ENGR. M. U. LAWAL	NTS	JULY, 2020	ME - 02	Project PROPOSED FES OFFICE BUILDING UPGRADE AND REMODELLING PROJECT, CENTRAL AREA, FCT ABUJA Drawing title GROUND FLOOR WATER SUPPLY LAYOUT





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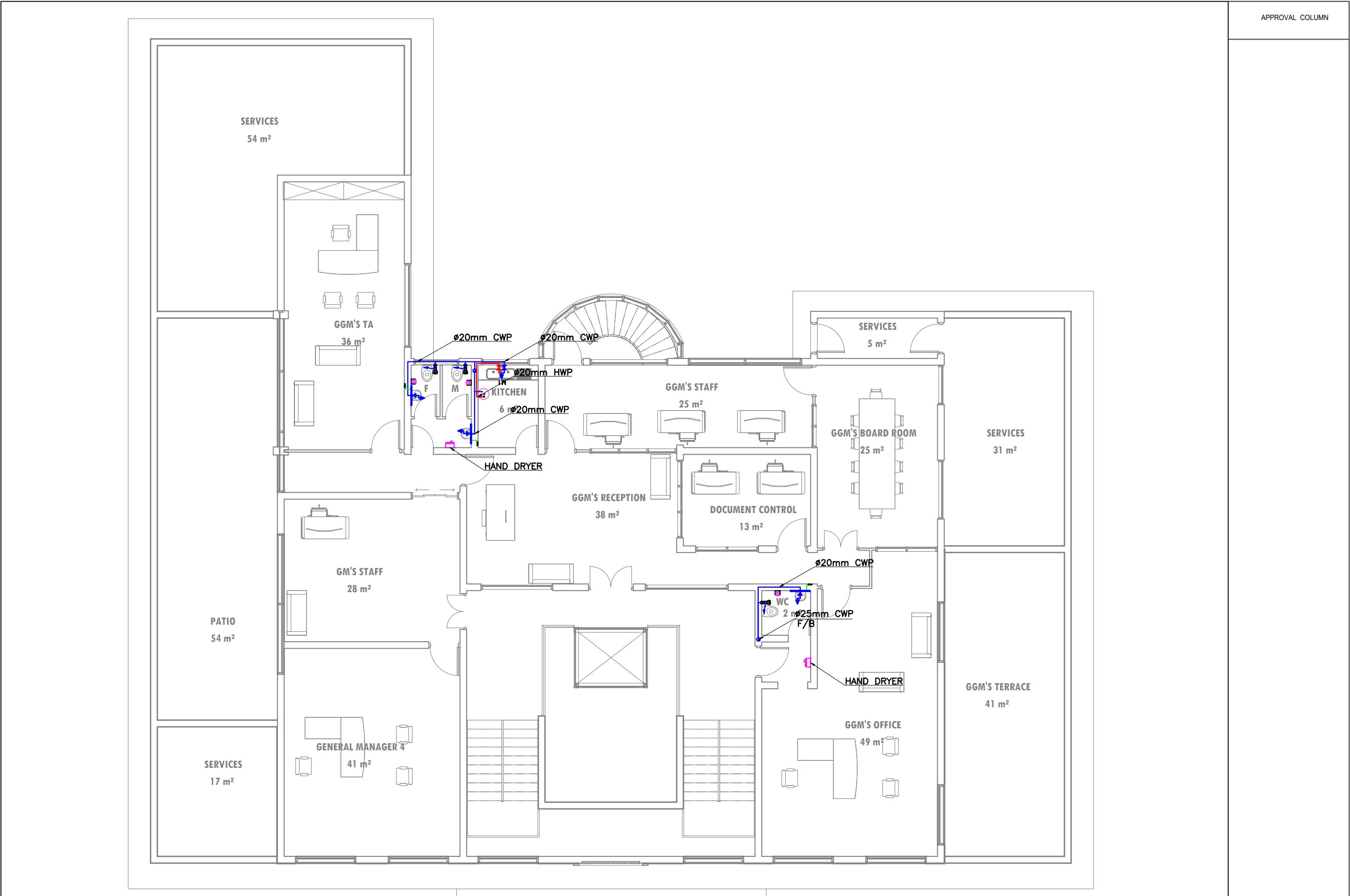
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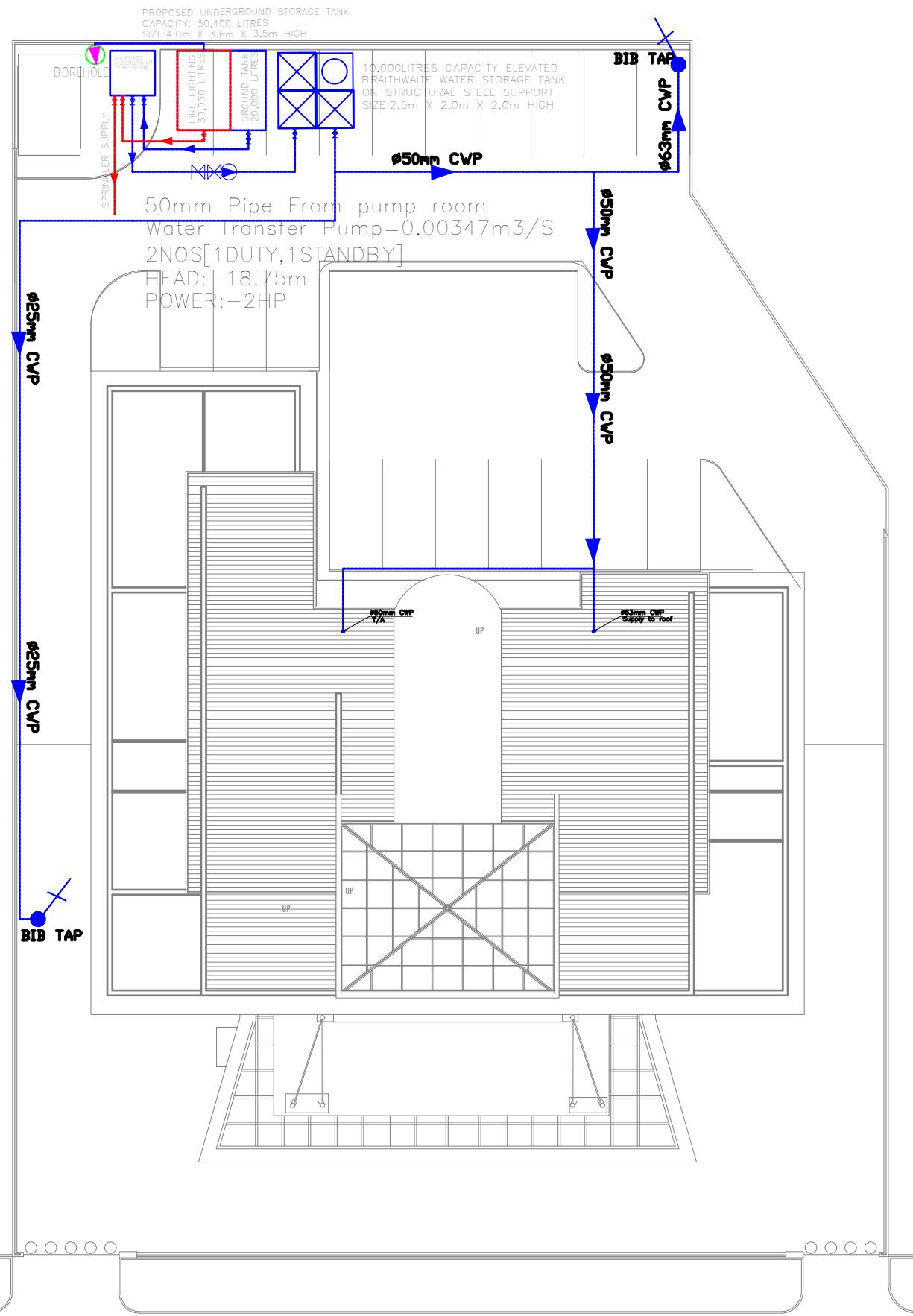
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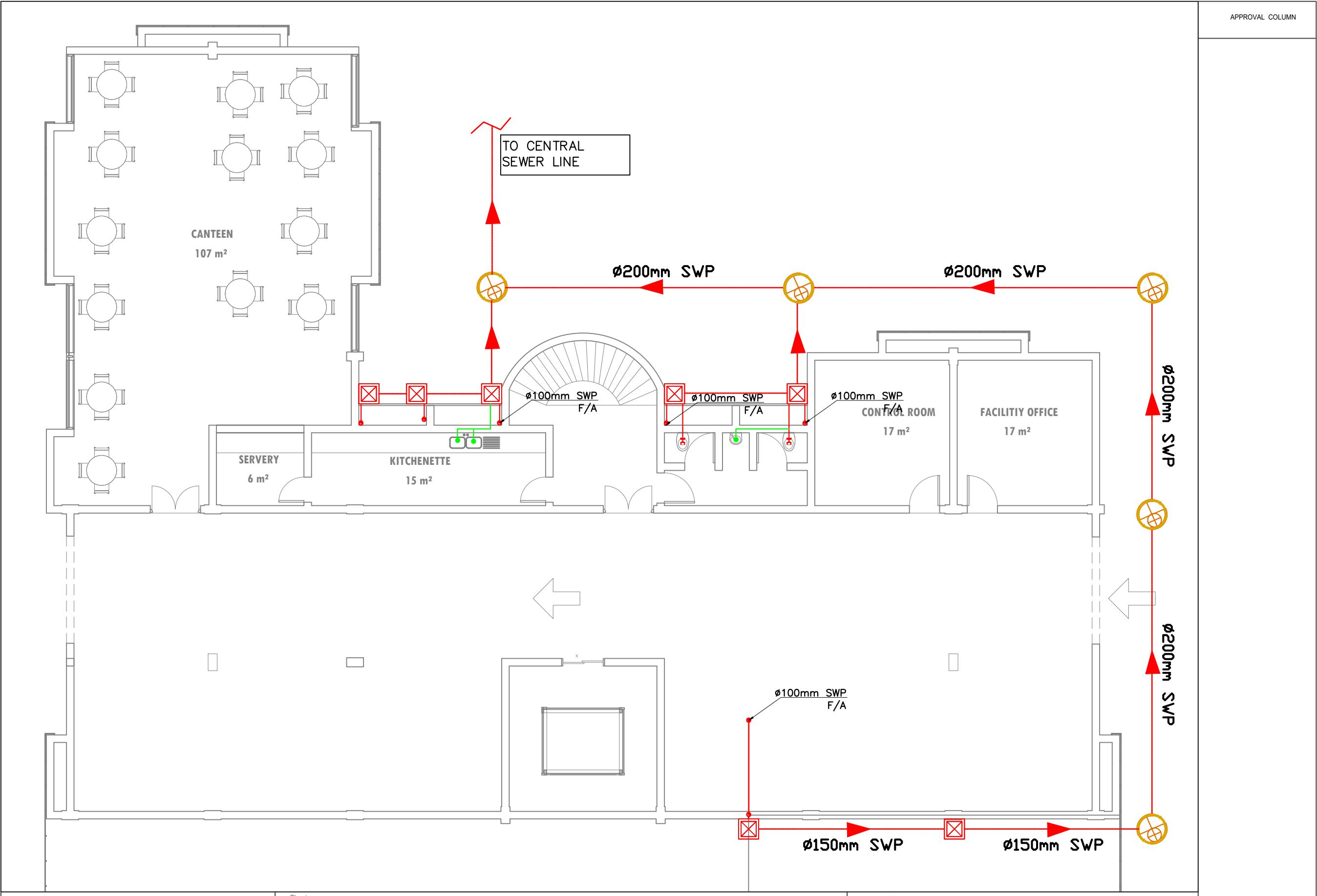
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CENTRAL AREA, FCT ABUJA**

Drawing title
SECOND FLOOR WATER SUPPLY LAYOUT





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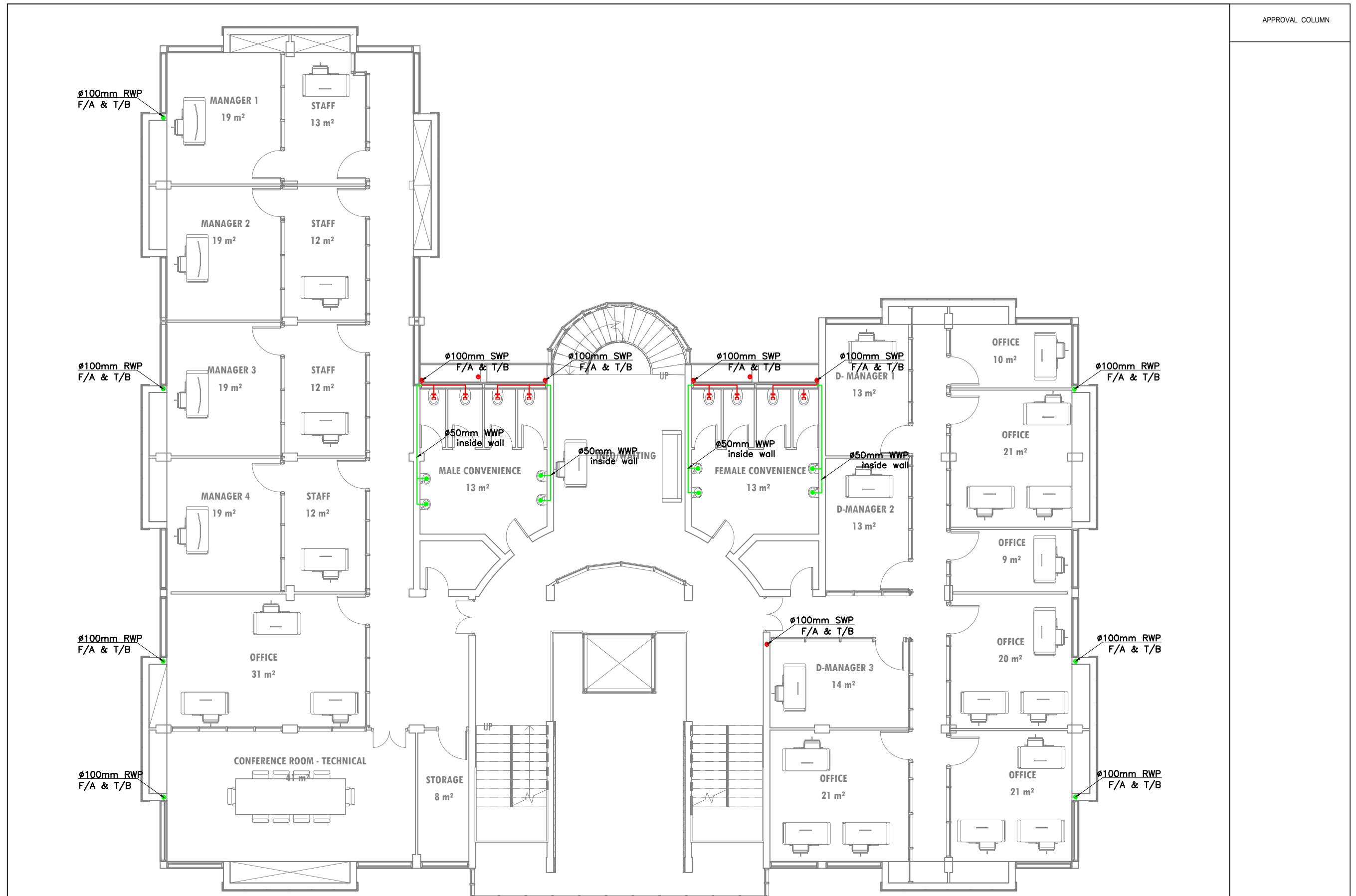
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Project
**PROPOSED FES OFFICE BUILDING
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CENTRAL AREA, FCT ABUJA**
Drawing title
BASEMENT FLOOR DRAINAGE LAYOUT

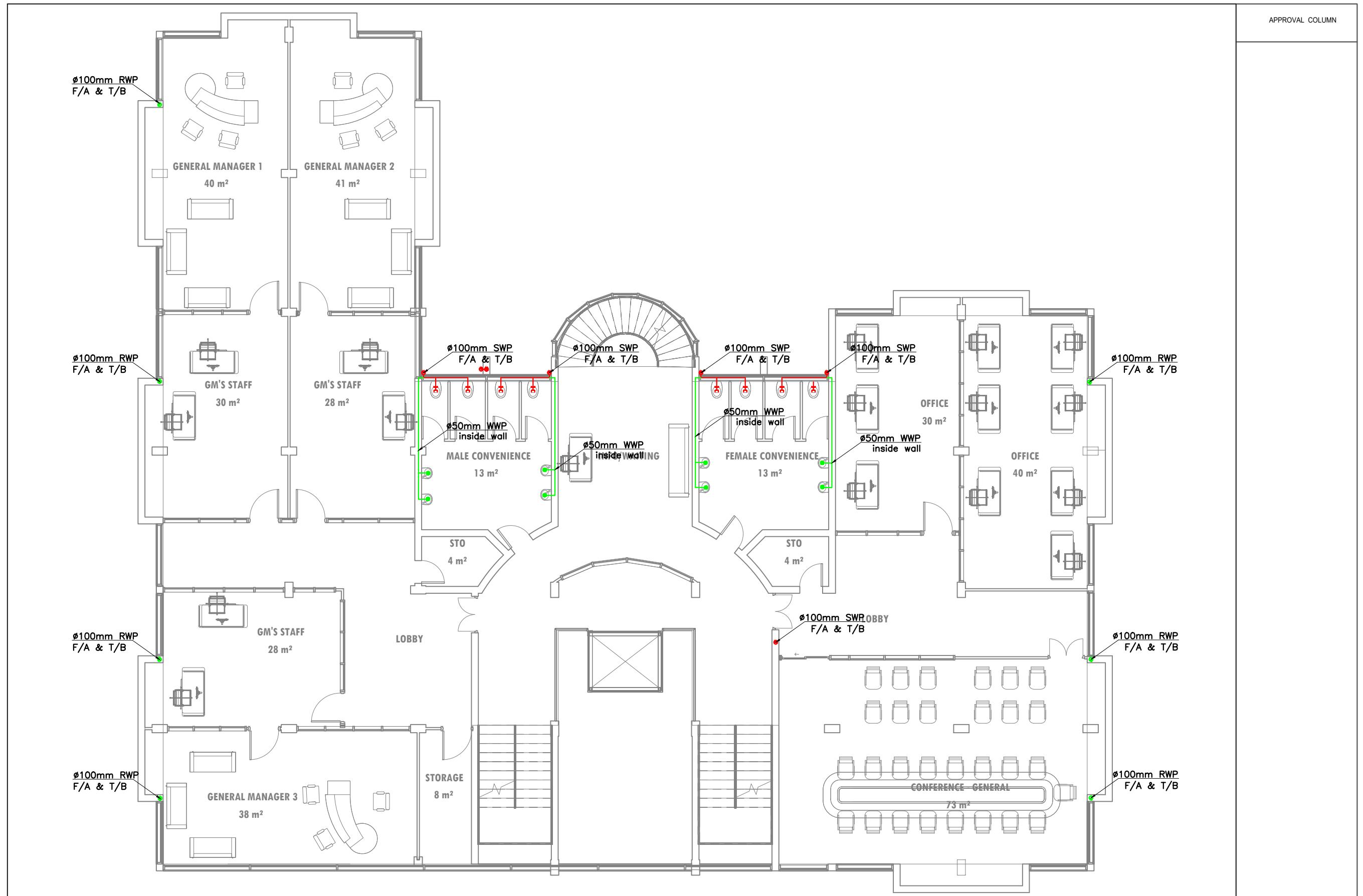
APPROVAL COLUMN



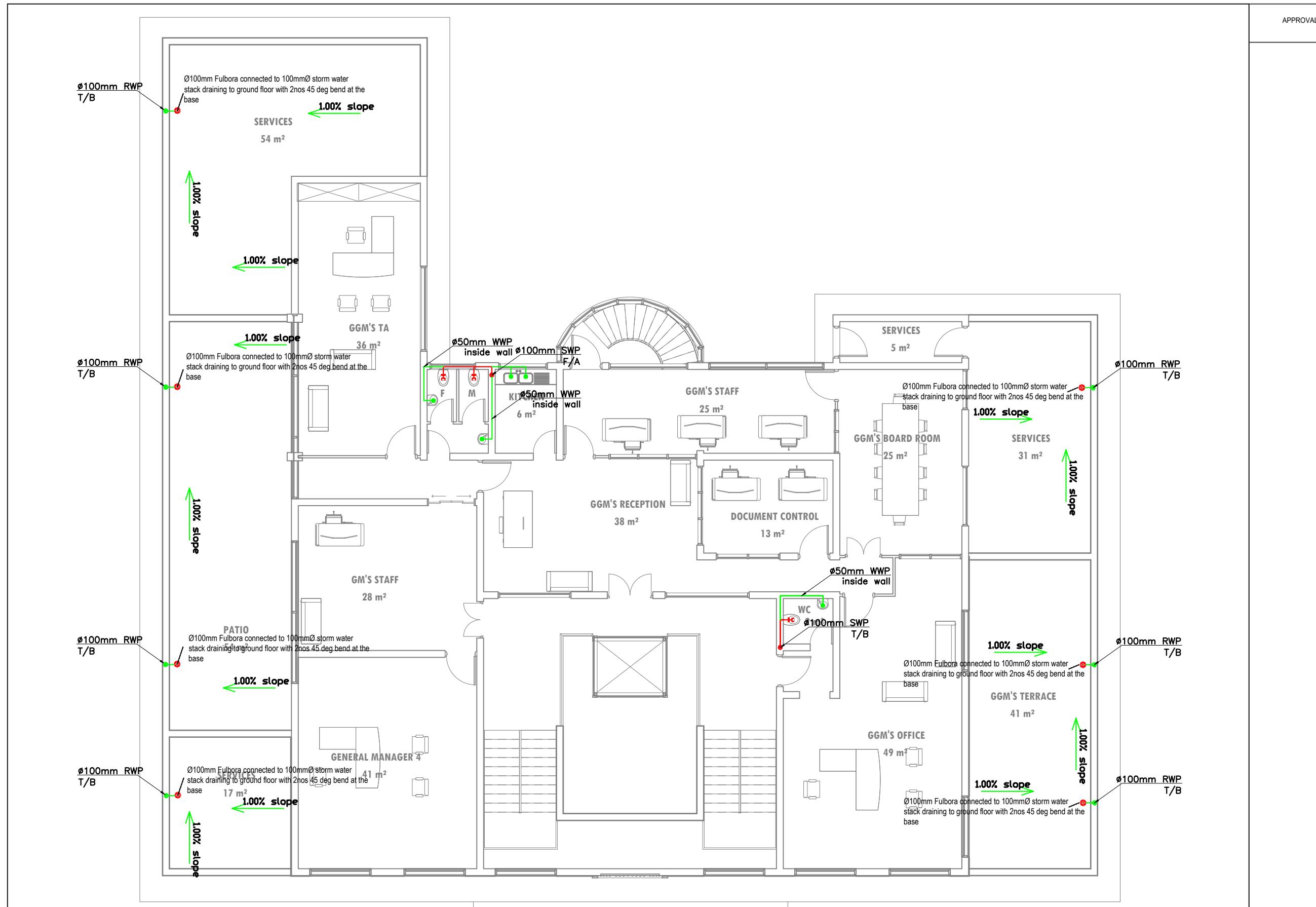
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FIRE FIGHTING DESIGN

APPROVAL COLUMN

SYMBOL	DESCRIPTION
○	Ø15mm SPRINKLER HEAD
✚	BLEECHING
—	SPRINKLER PIPE BLACK STEEL SCHEDULE 40
(FH)	FIRE HYDRANT
—	DRY RISER PIPE BLACK STEEL SCHEDULE 40
△	9KG FIRE EXTINGUISHER (ABC type)
—	DRY RISER LANDING VALVE(ENCLOSED IN A BOX)
FHR	FIRE HOSE REEL
⊖	Ø15mm SPRINKLER HEAD (SIDE)



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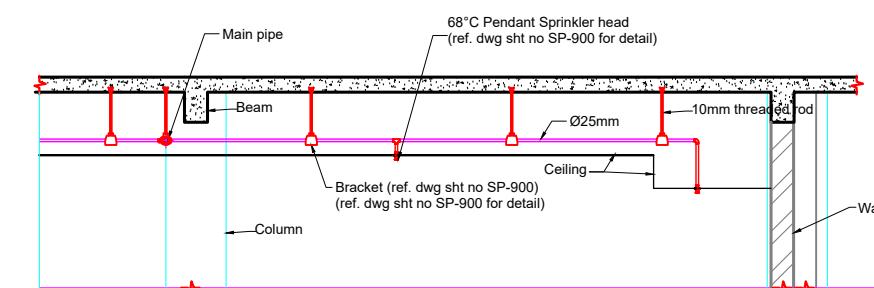
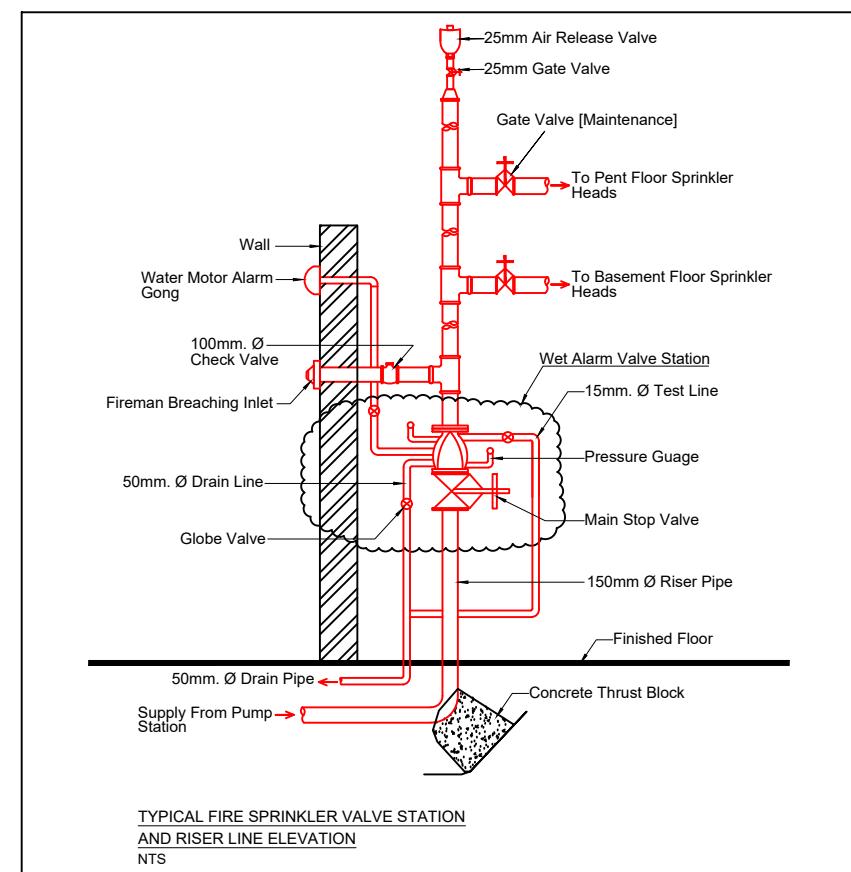
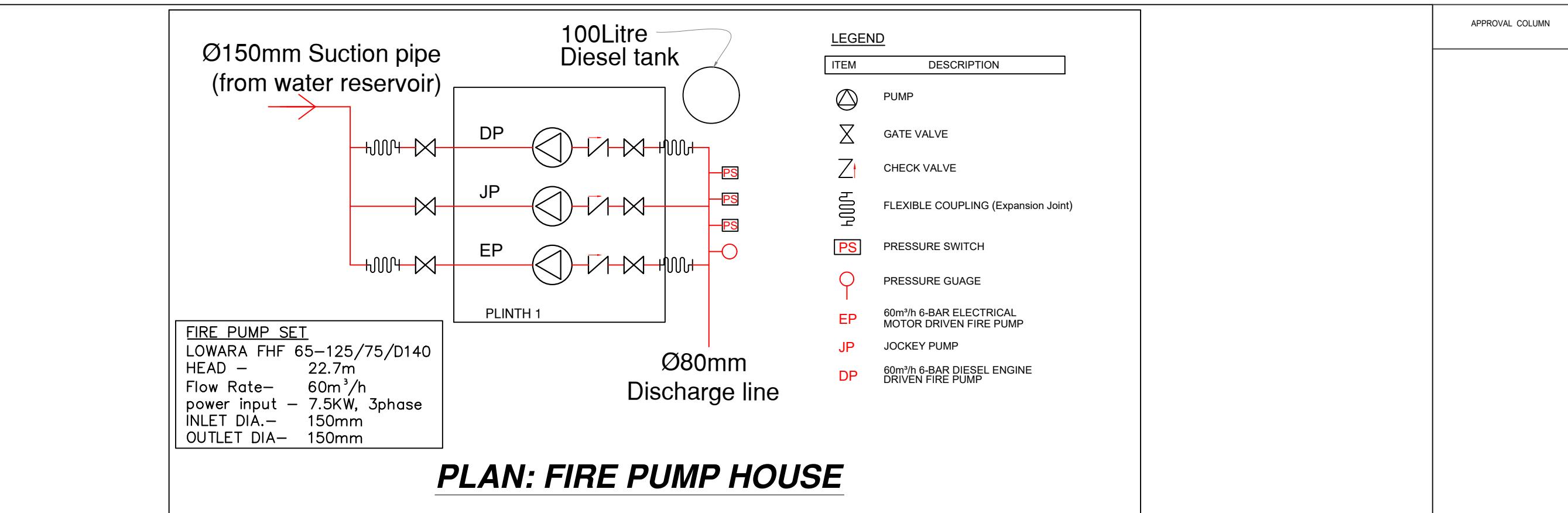
JULY, 2020

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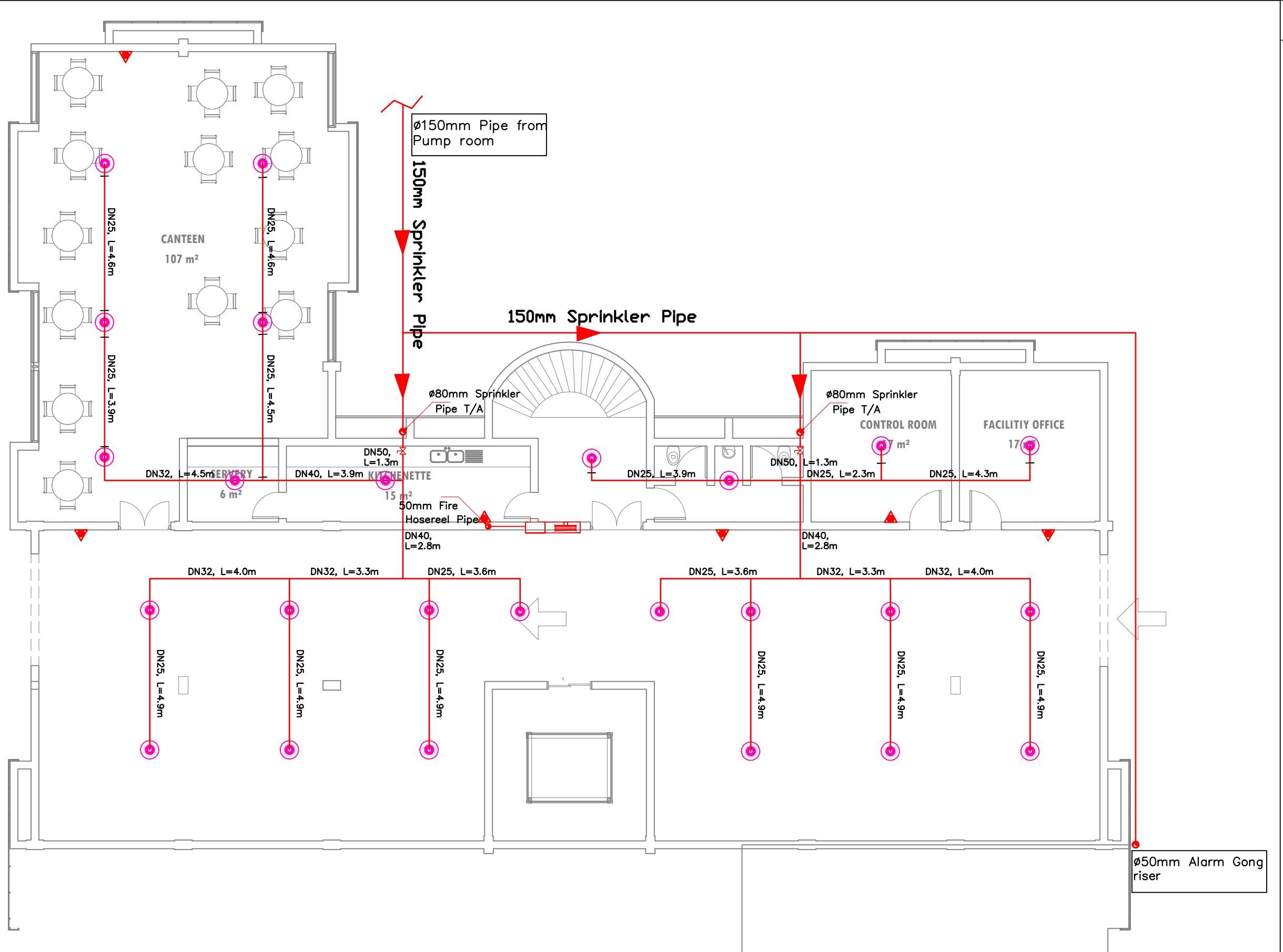
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**PROPOSED FES OFFICE BUILDING
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Drawing title
FIRE FIGHTING LEGEND



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APPROVAL COLUMN



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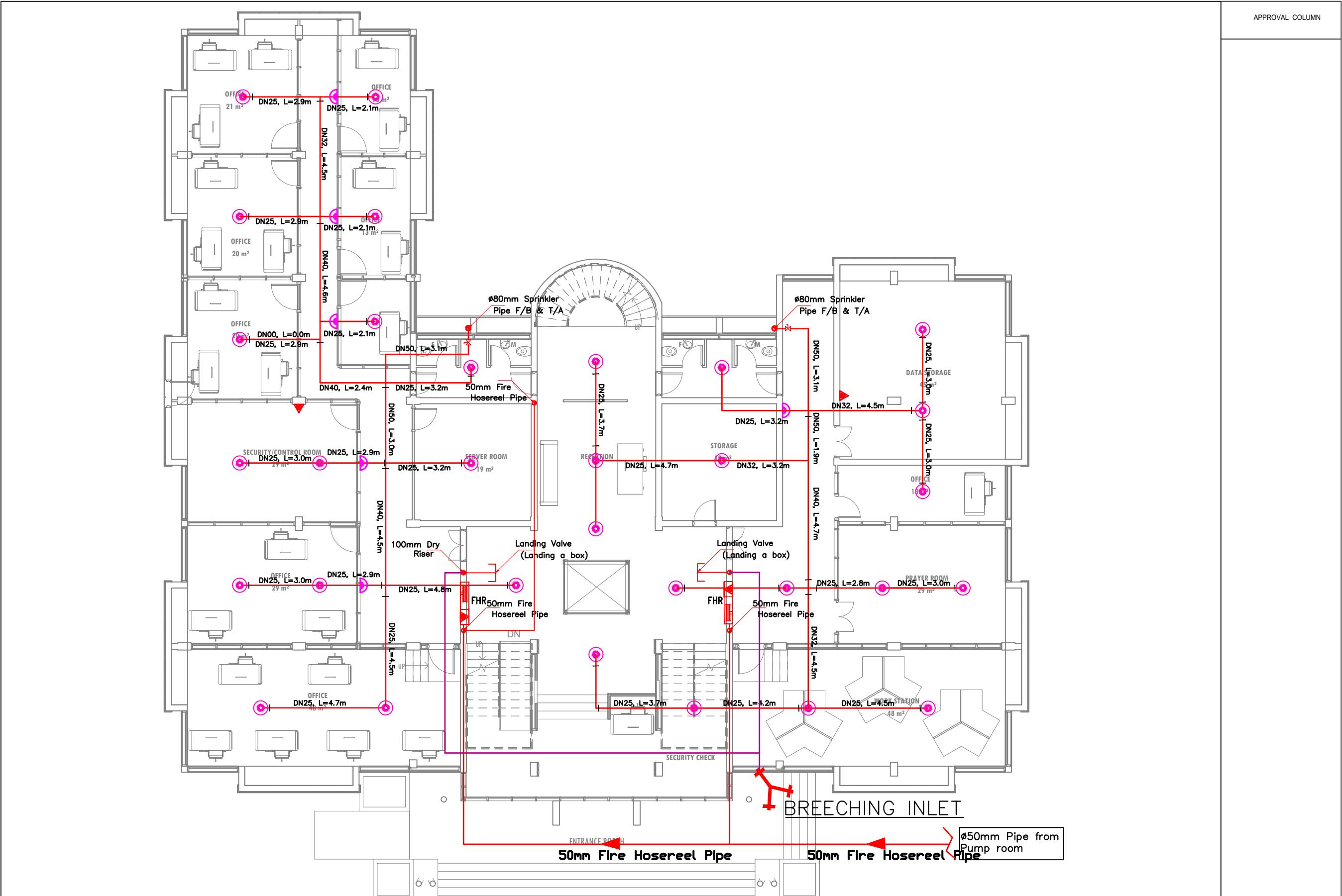
JULY, 2020

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ME - 14

Project
**PROPOSED FES OFFICE BUILDING
UPGRADE AND REMODELLING PROJECT,
CENTRAL AREA, FCT ABUJA**

Drawing title
BASEMENT FLOOR FIRE FIGHTING LAYOUT



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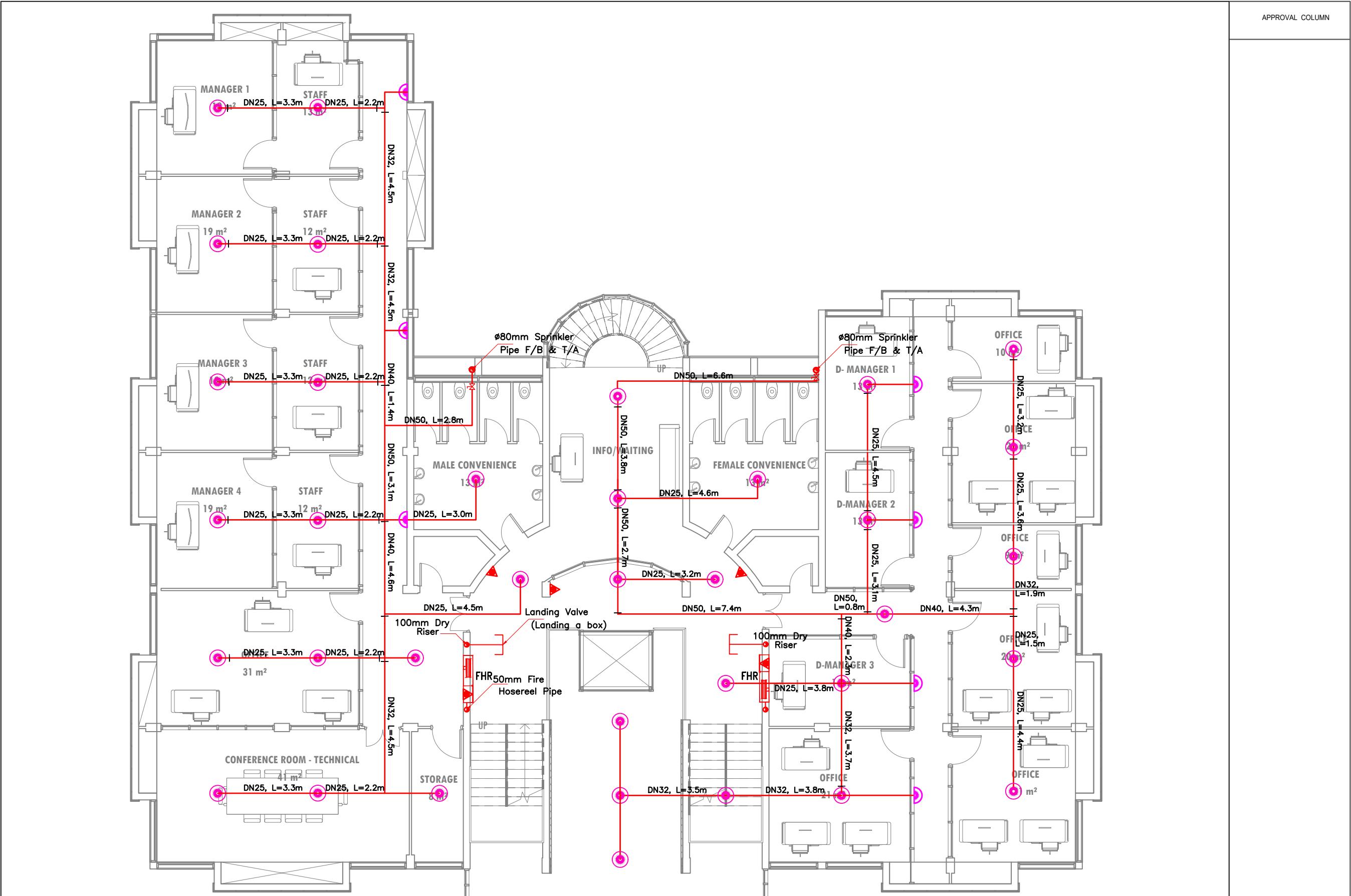
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Project
**PROPOSED FES OFFICE BUILDING
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Drawing title
GROUND FLOOR FIRE FIGHTING LAYOUT



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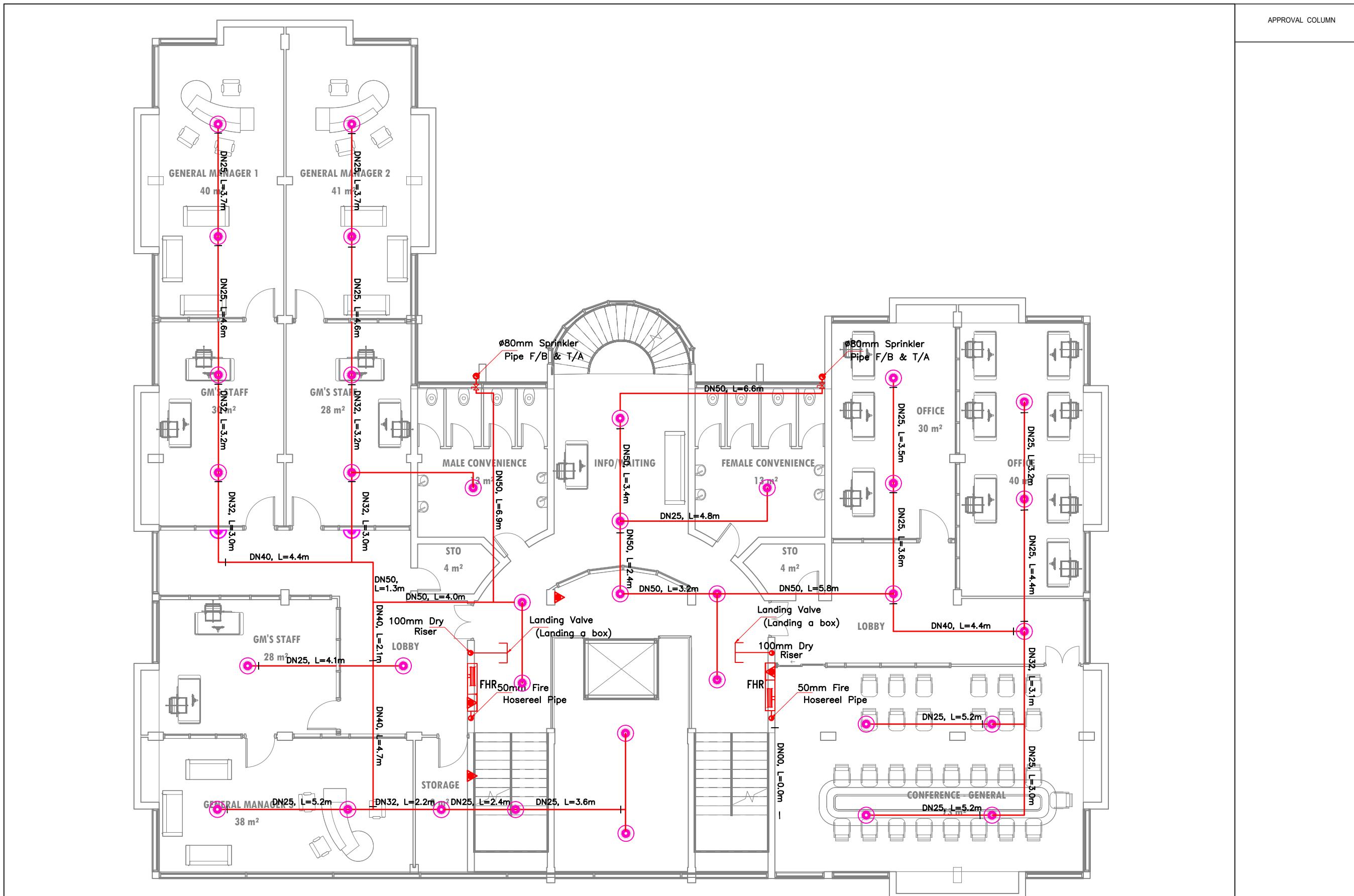
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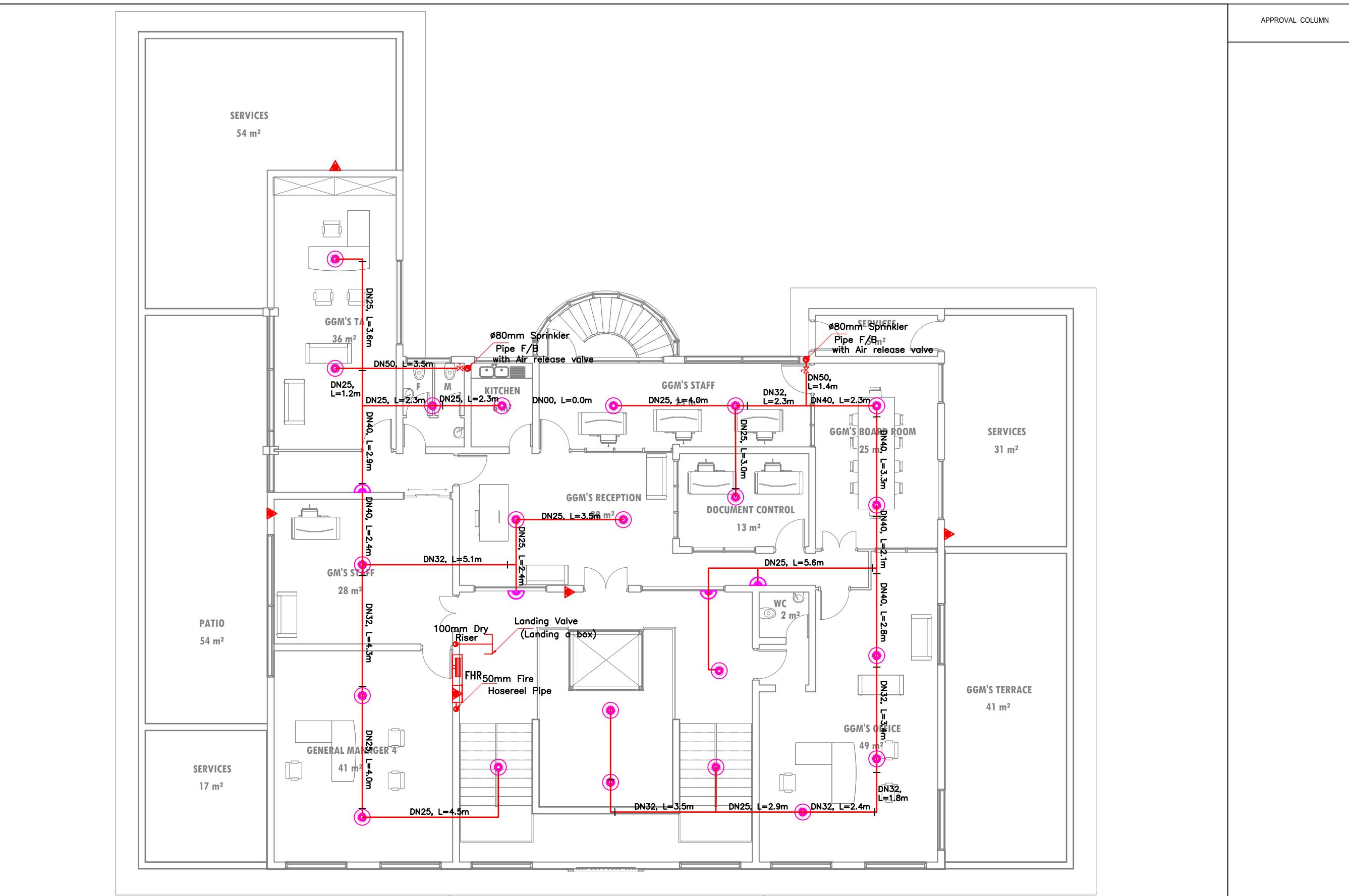
Project
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Drawing title
FIRST FLOOR FIRE FIGHTING LAYOUT

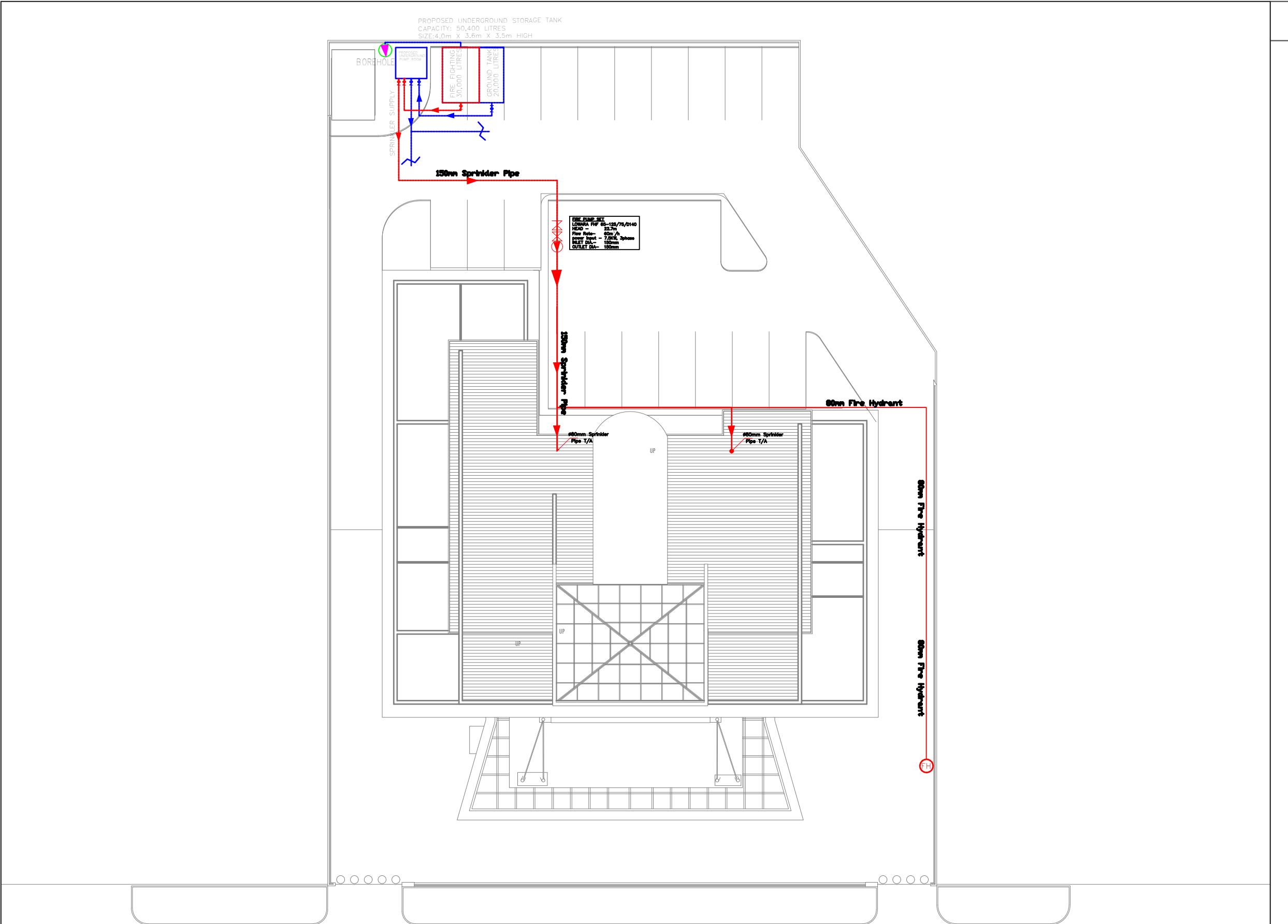
APPROVAL COLUMN



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APPROVAL COLUMN

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Sheet no

ME - 19

Project
**PROPOSED FES OFFICE BUILDING
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 CENTRAL AREA, FCT ABUJA**

Drawing title
SITE PLAN FIRE FIGHTING LAYOUT