

DISCLAIMER

1. THE IMPROVISED HOSE REEL SYSTEM (DIRECT PUMPING DESIGN) ILLUSTRATED IN THIS SET OF SAMPLE DRAWINGS IS BASED ON A TARGET COMPOSITE BUILDING OF SIX STOREYS OR BELOW OR LESS THAN 20m IN HEIGHT IN CONNECTION WITH THE ANNOUNCEMENT OF FSD CIRCULAR LETTER NO. 4/2023, PART II.
2. THE SAMPLE DRAWINGS ARE AIMED AT PROVIDING GENERAL REFERENCE ON THE DRAWING FORMAT OF FSI/314C SUBMISSION UNDER THE FIRE SAFETY (BUILDINGS) ORDINANCE (CAP. 572), AND ARE NOT INTENDED FOR STIPULATING THE REQUIRED PROVISIONS/ DESIGN OF FIRE SAFETY IMPROVEMENT WORKS WHICH VARY WITH EACH INDIVIDUAL CASE.
3. GIVEN THE NATURE OF THE SAMPLE DRAWINGS MENTIONED-ABOVE, THERE IS NO GUARANTEE THAT THE APPROVAL OF FSI/314C SUBMISSION ADOPTING THE SAMPLE DRAWINGS WILL BE OBTAINED.

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F.S. NOTES:

- ALL FIRE SAFETY IMPROVEMENT WORKS SHALL BE PROVIDED IN ACCORDANCE WITH THE CODE OF PRACTICE FOR MINIMUM FIRE SERVICE INSTALLATIONS AND EQUIPMENT 1994 VERSION.
- THE DESIGN AND SPECIFICATION OF IMPROVISED HR SYSTEM (DIRECT PUMPING DESIGN) SHALL COMPLY WITH APPENDIX VI OF FSD CIRCULAR LETTER NO. 4/2023.
- A MANUAL FIRE ALARM SYSTEM SHALL BE PROVIDED IN ACCORDANCE WITH PARAGRAPH 5.11 & 5.14(i)(b) OF THE CODE OF PRACTICE FOR MINIMUM FIRE SERVICE INSTALLATIONS AND EQUIPMENT 1994 VERSION.
- ALL FIRE SERVICE EQUIPMENT SHALL BE ENERGIZED BY PRIMARY AND SECONDARY POWER SUPPLY AND MANAGED BY AUTOMATIC CHANGOVER SWITCH WITH BOTH ELECTRICAL AND MECHANICAL INTERLOCK.
- POWER SUPPLY CABLE FOR FIXED FIRE PUMPS, FIRE ALARM BELLS AND F.S. / MFA CONTROL PANEL SHALL BE OF FIRE RESISTING TYPE IN ACCORDANCE WITH THE LATEST FSD CIRCULAR LETTER FOR MINIMUM FIRE RESISTING CABLE REQUIREMENTS FOR FIRE SERVICE INSTALLATIONS.
- THE BACKFLOW PREVENTER SHALL BE APPROVED BY THE WATER AUTHORITY.
- THE PILOT-OPERATED TYPE PRESSURE REDUCING VALVE SHALL BE APPROVED / ACCEPTED BY THE WATER AUTHORITY AND FIRE SERVICES DEPARTMENT.
- TO PREVENT IMPROPER USE OF THE HOSE REEL, VISUAL AND AUDIBLE WARNING INDICATION SHALL BE PROVIDED IN THE F.S. / MFA CONTROL PANEL UPON ACTUATION OF THE FLOW SWITCH. THE FLOW SIGNAL AS INDICATED ON THE F.S. / MFA CONTROL PANEL SHALL BE INDEPENDENT FROM THE FIRE ALARM SIGNAL ACTUATED BY MANUAL FIRE ALARM CALL POINT(S)
- FIRE ALARM BELL SHALL BE ACTUATED UPON ACTUATION OF THE MANUAL FIRE ALARM CALL POINT / FLOW SWITCH.
- ALL F.S. INSTALLATIONS SHALL BE INSTALLED WITHIN THE LOT BOUNDARY.
- THE SIZE AND LOCATION OF WATER CHECK METER FOR F.S. WATER SUPPLY SHALL BE DETERMINED BY WSD.
- THE PLUMBING SYSTEM OF FIRE SERVICE INSTALLATIONS IS SUBJECT TO THE REQUIREMENTS OF WATER AUTHORITY.
- THE ELECTRICAL INSTALLATION WORKS SHALL COMPLY WITH THE ELECTRICITY ORDINANCE AND THE POWER COMPANY'S SUPPLY RULES.
- ALL ASSOCIATED BUILDING WORKS OF FIRE SAFETY IMPROVEMENT WORKS ARE SUBJECT TO THE CONTROL UNDER BUILDINGS ORDINANCE. APPROVAL AND CONSENT FROM BUILDING AUTHORITY FOR SUCH WORKS (IF ANY) SHALL BE OBTAINED PRIOR TO COMMENCEMENT OF THE BUILDING WORKS, EXCEPT FOR THOSE BUILDING WORKS WHICH ARE UNDER THE CONTROL OF THE MINOR WORKS CONTROL SYSTEM.

LEGEND

SYMBOL	DESCRIPTION
	GATE VALVE (N/O)
	GATE VALVE (N/C)
	GATE VALVE C/W ELECTRICALLY MONITORING DEVICE (N/O)
	GATE VALVE C/W ELECTRICALLY MONITORING DEVICE (N/C)
	NON-RETURN VALVE
	FLEXIBLE PIPE CONNECTOR
	AUTOMATIC AIR VENT
	CHECK METER POSITION
	HOSE REEL
	FIRE ALARM BELL
	MFA CALL POINT (BREAK GLASS TYPE)
	FIXED FIRE PUMP
	PRESSURE GAUGE
	PRESSURE SWITCH
	PRESSURE SWITCH ASSEMBLY
	F.S. / MFA CONTROL PANEL
	FIXED FIRE PUMP CONTROL PANEL
	PIPE RISER
	FUSED SPUR UNIT
	NEW PIPE / CABLE / EQUIPMENT
	EXISTING PIPE / CABLE / EQUIPMENT
	BALL FLOAT VALVE
	3mm ORIFICE PLATE
	AUTOMATIC CHANGOVER SWITCH C/W ELECTRICAL & MECHANICAL INTERLOCK
	kWh METER
	MCCB / MCB UNIT
	FUSED SWITCH
	ISOLATING SWITCH
	MOTOR STARTER
	FIXED FIRE PUMP MOTOR
	STRAINER
	BACKFLOW PREVENTER

ABBREVIATIONS

RFSIC	REGISTERED FIRE SERVICE INSTALLATIONS CONTRACTOR
FSI	FIRE SERVICE INSTALLATIONS
HR	HOSE REEL
MFA	MANUAL FIRE ALARM
AFFL	ABOVE FINISHED FLOOR LEVEL
H/L	HIGH LEVEL
M/L	MIDDLE LEVEL
T/A	TO ABOVE
T/B	TO BELOW
F/A	FROM ABOVE
F/B	FROM BELOW
N/O	NORMALLY OPEN
N/C	NORMALLY CLOSED
SP	SINGLE POLE
TPN	TRIPLE POLE & NEUTRAL
MCB	MINIATURE CIRCUIT BREAKER
MCCB	MOULDED CASE CIRCUIT BREAKER
C/W	COMPLETED WITH
S.W.	SWITCH
EX.	EXISTING
B.L.	BOUNDARY LINE
PRV	PILOT-OPERATED PRESSURE REDUCING VALVE

LEGEND

SYMBOL	DESCRIPTION
	PILOT-OPERATED TYPE PRESSURE REDUCING VALVE
	FLOW SWITCH

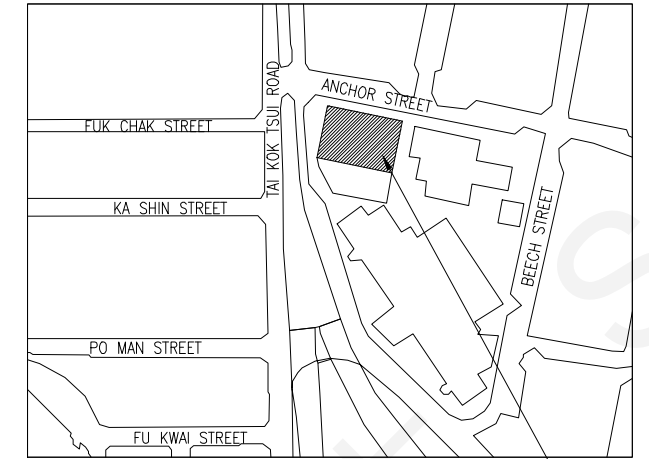
COLOUR CODE FOR PIPE SIZES

PIPE SIZE	COLOUR CODE	SAMPLE
ø25mm	GREEN	
ø40mm	PURPLE	

Guidance Notes:

1. Colour code shall be aligned with section 3.6.1(d) of FSD Circular Letter No. 4/96.

SPACE RESERVED FOR FSD APPROVAL CHOP
Min. (60mm x 45mm)



BLOCK PLAN (N.T.S.)

NO. 42 TAI KOK TSUI ROAD

REV.	DESCRIPTION	DATE
0	1ST SUBMISSION	3.1.2024
A	2ND SUBMISSION	6.7.2024

FSI CONTRACTOR / -CONSULTANT

ABC FIRE ENGINEERING COMPANY LIMITED

ADDRESS: UNIT 01, 10/F.,
XXX YYY COMMERCIAL BUILDING,
TAI KOK TSUI, KOWLOON
TEL.: XXXX XXXX

PROJECT TITLE:

FIRE SAFETY IMPROVEMENT WORKS FOR
NO. 42 TAI KOK TSUI ROAD,
KOWLOON

DRAWING TITLE:
F.S. NOTES, LEGEND,
ABBREVIATIONS, COLOUR CODE
FOR PIPE SIZES &
BLOCK PLAN

DRAWING NO.: FS-01	SCALE: N.T.S.
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DATE: 6.7.2024	REVISION: A
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FIXED FIRE PUMP SCHEDULE

PUMP DESIGNATION	DUTY PUMP (FP-1)	STANDBY PUMP (FP-2)
PUMP HEAD (BAR)	TECHNICAL DATA TO BE DESIGNED BY RFSIC / CONSULTANT	
FLOW RATE (L/min.)		
MOTOR RATING		

PRV EQUIPMENT SCHEDULE

PRV DESIGNATION	MANUFACTURER	MODEL NO. / SIZE	OUTLET PRESSURE MAINTAINED
PRV-1 (DUTY)	TECHNICAL DATA TO BE DESIGNED BY RFSIC / CONSULTANT		
PRV-2 (STANDBY)			

Guidance Notes:

- Prior approval from FSD for adopting improvised hose reel system (direct pumping design) shall be obtained.
- Size of F.S. water supply pipe from town mains and check meter position to be determined by WSD.
- Floor to floor height should be specified according to general building plan.
- Technical data of fixed fire pumps and pilot-operated PRVs to be designed by RFSIC / Consultant.
- Jockey pump may be provided if applicable.
- Product catalogue of backflow preventer and pilot-operated PRV shall be provided together with the FSI/314C drawing submission.
- Hydraulic calculations for the selection of fixed fire pumps and pilot-operated PRVs shall be provided as separate A4 sheet in the supporting documents.
- Cavitation in the pilot-operated PRV should be avoided in the equipment selection.

SPACE RESERVED FOR FSD APPROVAL CHOP
Min. (60mm x 45mm)

REV.	DESCRIPTION	DATE
0	1ST SUBMISSION	3.1.2024
A	2ND SUBMISSION	6.7.2024

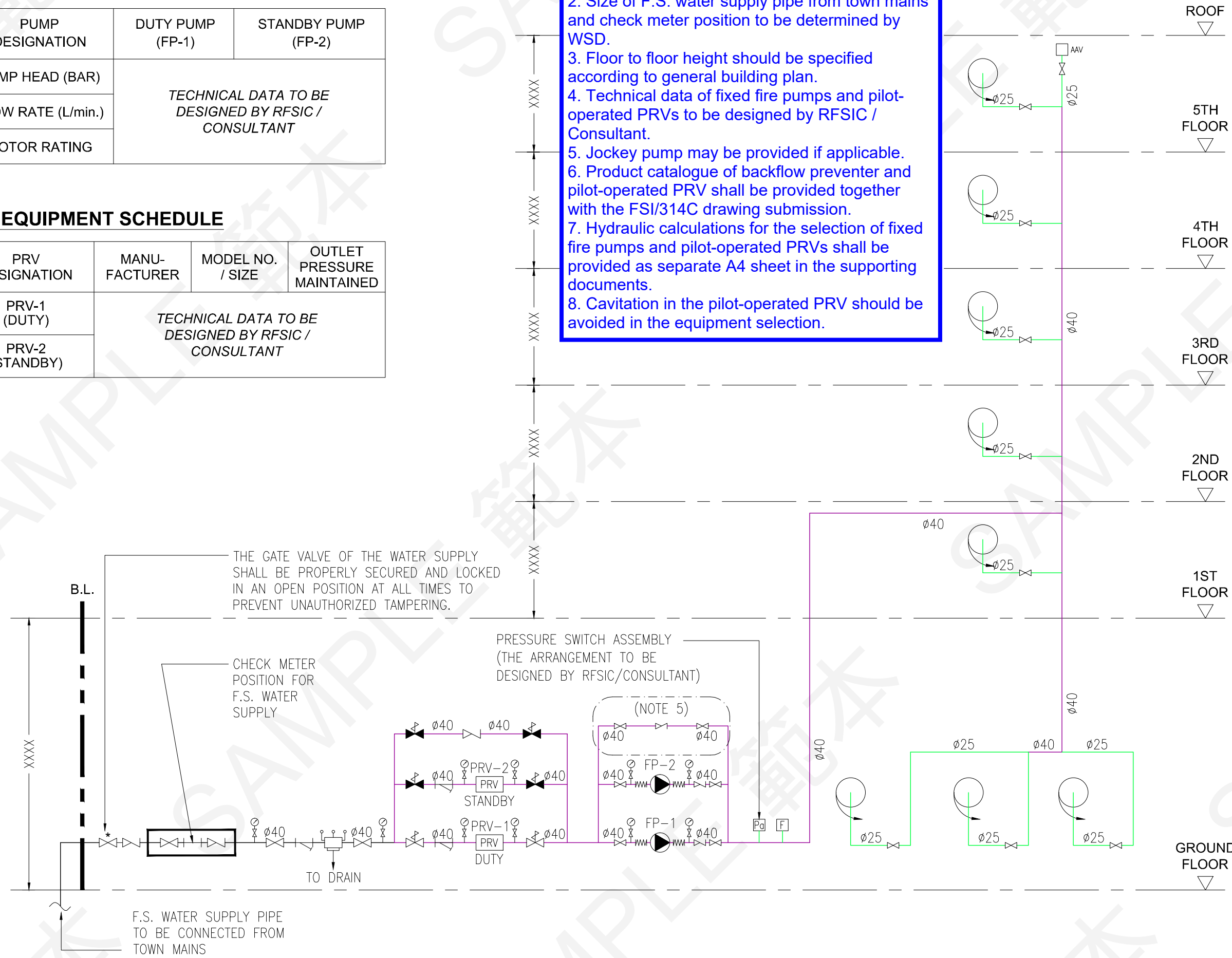
FSI CONTRACTOR / -CONSULTANT
ABC FIRE ENGINEERING COMPANY LIMITED
ADDRESS: UNIT 01, 10/F., XXX YYY COMMERCIAL BUILDING, TAI KOK TSUI, KOWLOON
TEL.: XXXX XXXX

PROJECT TITLE:
FIRE SAFETY IMPROVEMENT WORKS FOR NO. 42 TAI KOK TSUI ROAD, KOWLOON

DRAWING TITLE:
SCHEMATIC PIPING DIAGRAM FOR HOSE REEL SYSTEM

DRAWING NO.: FS-02
SCALE: N.T.S.

DATE: 6.7.2024
REVISION: A



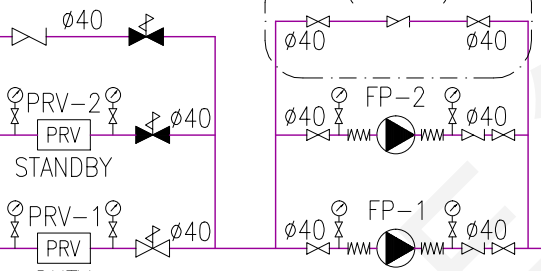
F.S. WATER SUPPLY PIPE TO BE CONNECTED FROM TOWN MAINS

THE GATE VALVE OF THE WATER SUPPLY SHALL BE PROPERLY SECURED AND LOCKED IN AN OPEN POSITION AT ALL TIMES TO PREVENT UNAUTHORIZED TAMPERING.

CHECK METER POSITION FOR F.S. WATER SUPPLY

PRESSURE SWITCH ASSEMBLY (THE ARRANGEMENT TO BE DESIGNED BY RFSIC/CONSULTANT)

(NOTE 5)



TO DRAIN

Guidance Notes:
 1. All control cables should be specified with a) number of cable; b) cable size; c) number of core; d) types of insulation & e) standard (if applicable)
 2. The minimum fire resisting cable requirements for fire service installations (FSI) shall refer to the latest FSD Circular Letter.

SPACE RESERVED FOR
 FSD APPROVAL CHOP
 Min. (60mm x 45mm)

STATUS OF DUTY AND STANDBY
 FIXED FIRE PUMPS COMPRISING
 "POWER SUPPLY ON", "PUMP
 RUNNING" AND "PUMP FAILED"
 SHOULD BE REPEATED TO MFA
 CONTROL PANEL

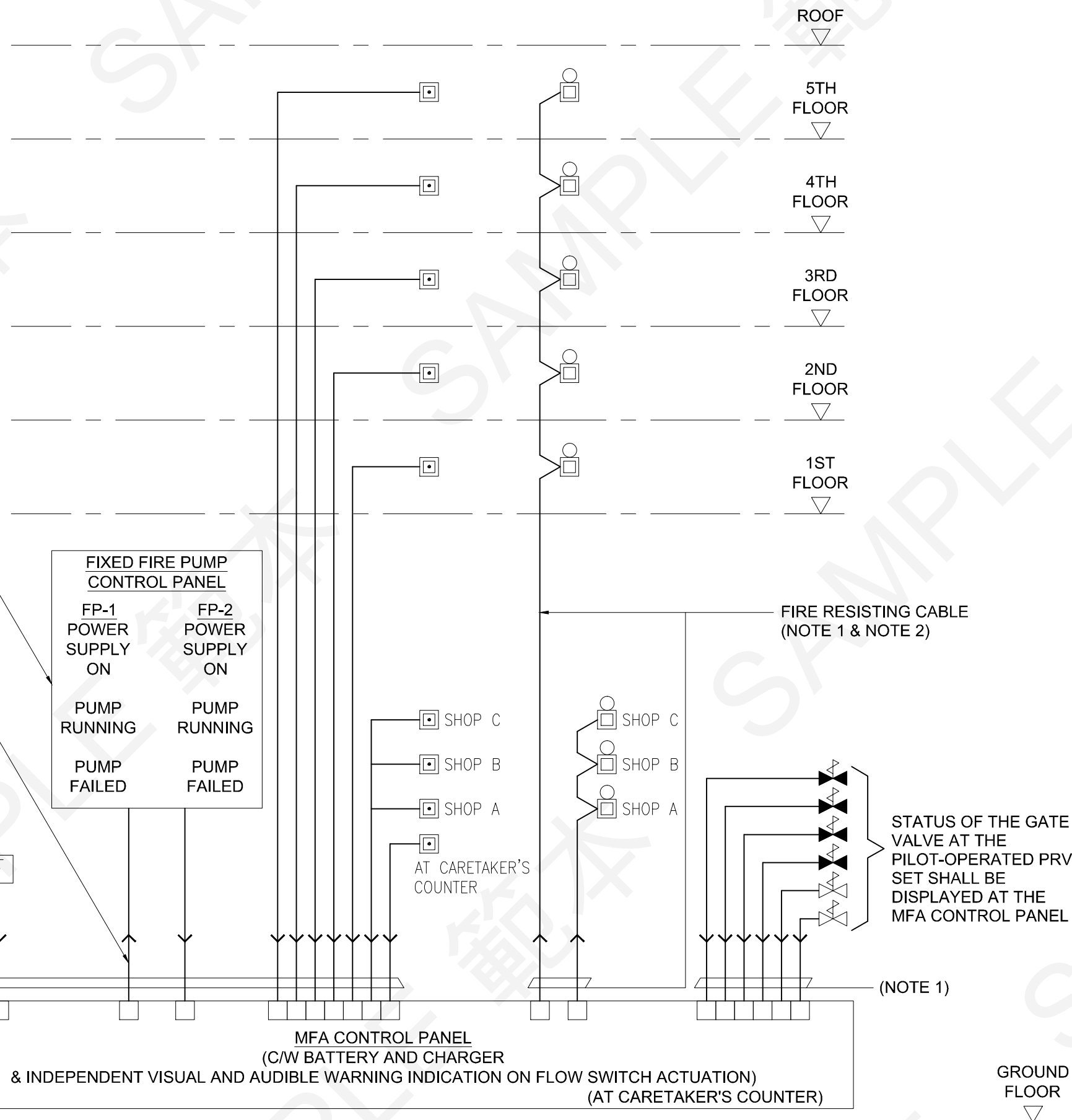
FIXED FIRE PUMPS SHALL COME INTO
 OPERATION UPON ACTUATION OF ANY
 MFA CALL POINTS OF THE BUILDING

VISUAL AND AUDIBLE WARNING
 INDICATION IN MFA CONTROL PANEL
 UPON ACTUATION OF FLOW SWITCH

(NOTE 1)

FIRE RESISTING CABLE
 (NOTE 1 & NOTE 2)

FROM AC 220V SUPPLY
 WITH SECONDARY
 POWER SUPPLY SOURCE



REV.	DESCRIPTION	DATE
0	1ST SUBMISSION	3.1.2024
A	2ND SUBMISSION	6.7.2024

FSI CONTRACTOR / -CONSULTANT
 ABC FIRE ENGINEERING
 COMPANY LIMITED
 ADDRESS: UNIT 01, 10/F.,
 XXX YYY COMMERCIAL BUILDING,
 TAI KOK TSUI, KOWLOON
 TEL.: XXXX XXXX

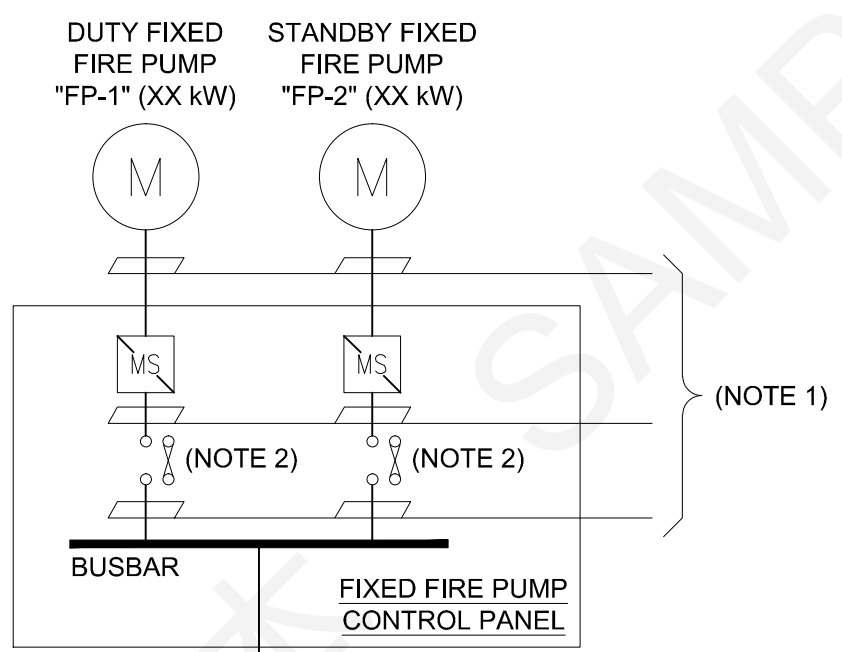
PROJECT TITLE:
 FIRE SAFETY IMPROVEMENT
 WORKS FOR
 NO. 42 TAI KOK TSUI ROAD,
 KOWLOON

DRAWING TITLE:
 SCHEMATIC CONTROL WIRING
 DIAGRAM FOR MFA SYSTEM

DRAWING NO.: FS-03
 SCALE: N.T.S.

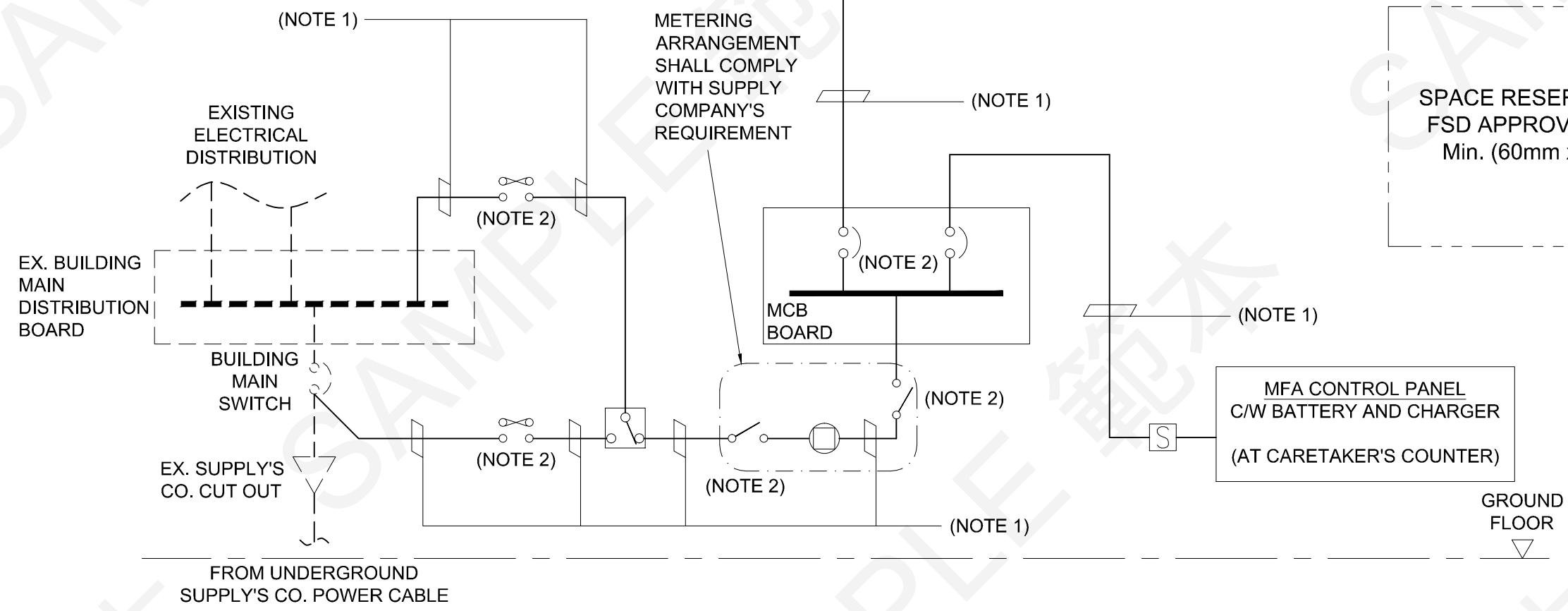
DATE: 6.7.2024
 REVISION: A

1ST FLOOR
▽



Guidance Notes:

- All power supply cables should be of fire resisting type. It should be specified with a) number of cable; b) cable size; c) number of core; d) types of insulation & e) standard of fire resisting cable (if applicable)
- All electrical gears should be specified with a) current rating; b) single pole / triple pole / triple pole & neutral



SPACE RESERVED FOR FSD APPROVAL CHOP
Min. (60mm x 45mm)

REV.	DESCRIPTION	DATE
0	1ST SUBMISSION	3.1.2024
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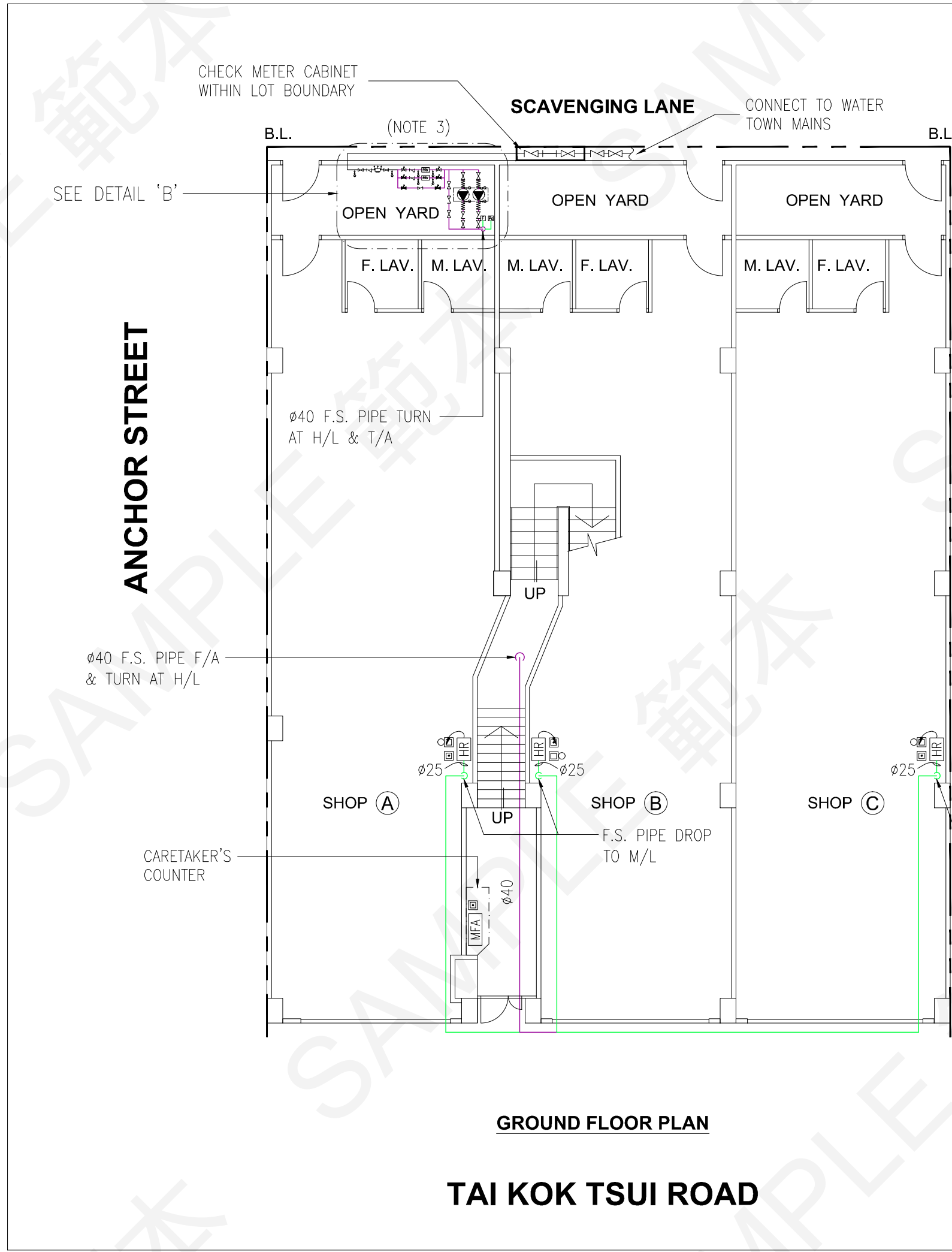
FSI CONTRACTOR / -CONSULTANT
ABC FIRE ENGINEERING COMPANY LIMITED
ADDRESS: UNIT 01, 10/F., XXX YYY COMMERCIAL BUILDING, TAI KOK TSUI, KOWLOON
TEL.: XXXX XXXX

PROJECT TITLE:
FIRE SAFETY IMPROVEMENT WORKS FOR NO. 42 TAI KOK TSUI ROAD, KOWLOON

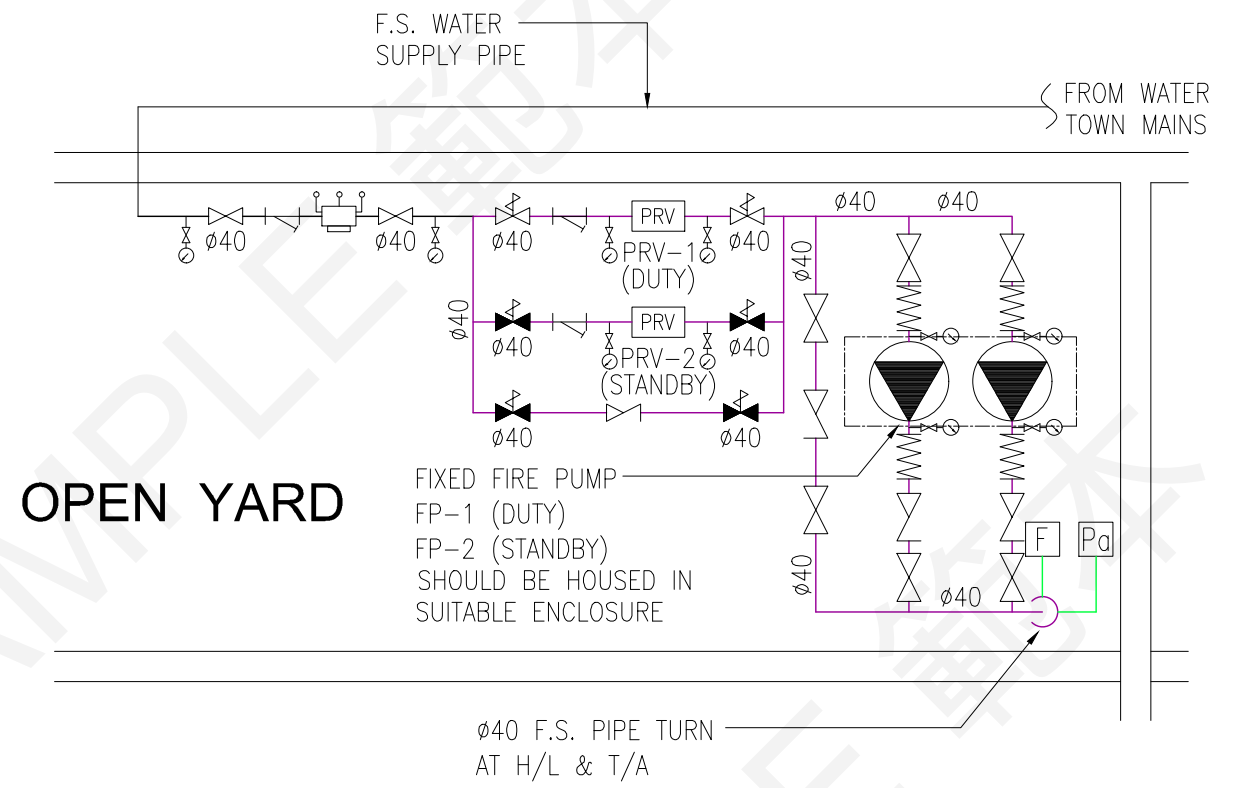
DRAWING TITLE:
SCHEMATIC POWER SUPPLY WIRING DIAGRAM

DRAWING NO.: FS-04
SCALE: N.T.S.

DATE: 6.7.2024
REVISION: A



GROUND FLOOR PLAN
TAI KOK TSUI ROAD



ENLARGED PART PLAN
DETAIL 'B' (N.T.S.)

Guidance Notes:

- The layout plan as shown are indicative only. RFSIC / Consultant should prepare the F.S. layout plan based on the approved general building plans.
- Extent of building boundary and name of adjacent street should be indicated.
- Necessary supporting documents, such as nomination / consent letter(s) from the I.O. / Owner(s), approved letters from Authorities and any supplementary information, etc., together with the FSI/314C drawings submission should be provided for reference.

SPACE RESERVED FOR
FSD APPROVAL CHOP
Min. (60mm x 45mm)

REV.	DESCRIPTION	DATE
0	1ST SUBMISSION	3.1.2024
A	2ND SUBMISSION	6.7.2024

FSI CONTRACTOR / -CONSULTANT

ABC FIRE ENGINEERING COMPANY LIMITED

ADDRESS: UNIT 01, 10/F.,
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TEL.: XXXX XXXX

PROJECT TITLE:

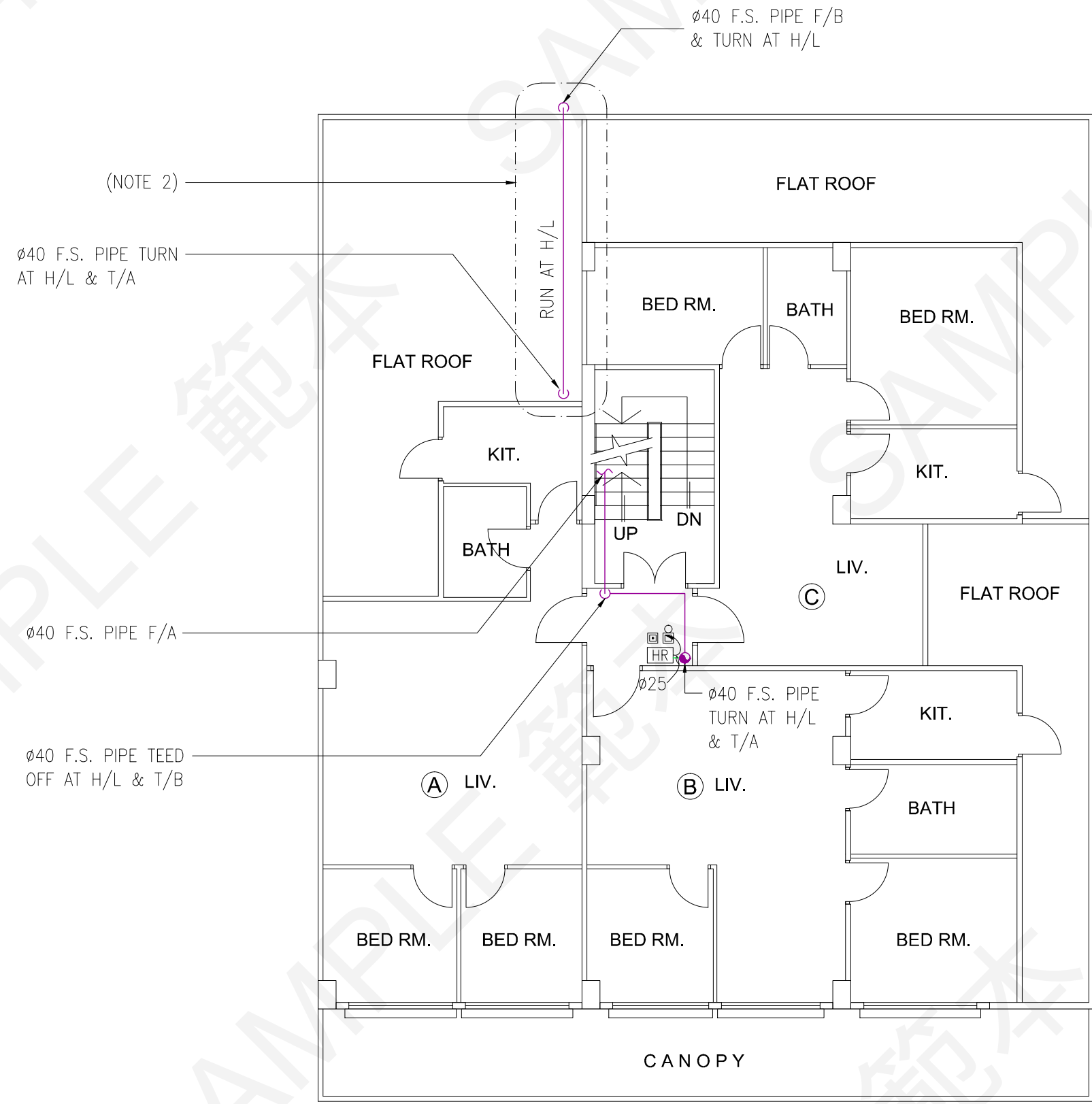
FIRE SAFETY IMPROVEMENT WORKS FOR
NO. 42 TAI KOK TSUI ROAD,
KOWLOON

DRAWING TITLE:

F.S. LAYOUT PLAN OF
GROUND FLOOR

DRAWING NO.:	SCALE:
FS-05	1:100

DATE:	REVISION:
6.7.2024	A



1ST FLOOR PLAN

Guidance Notes:

1. The layout plan as shown are indicative only. RFSIC / Consultant should prepare the F.S. layout plan based on the approved general building plans.
2. Necessary supporting documents, such as nomination / consent letter(s) from the I.O. / Owner(s), approved letters from Authorities and any supplementary information, etc., together with the FSI/314C drawings submission should be provided for reference.

SPACE RESERVED FOR
FSD APPROVAL CHOP
Min. (60mm x 45mm)

REV.	DESCRIPTION	DATE
0	1ST SUBMISSION	3.1.2024
A	2ND SUBMISSION	6.7.2024

FSI CONTRACTOR / -CONSULTANT
 ABC FIRE ENGINEERING
 COMPANY LIMITED
 ADDRESS: UNIT 01, 10/F.,
 XXX YYY COMMERCIAL BUILDING,
 TAI KOK TSUI, KOWLOON
 TEL.: XXXX XXXX

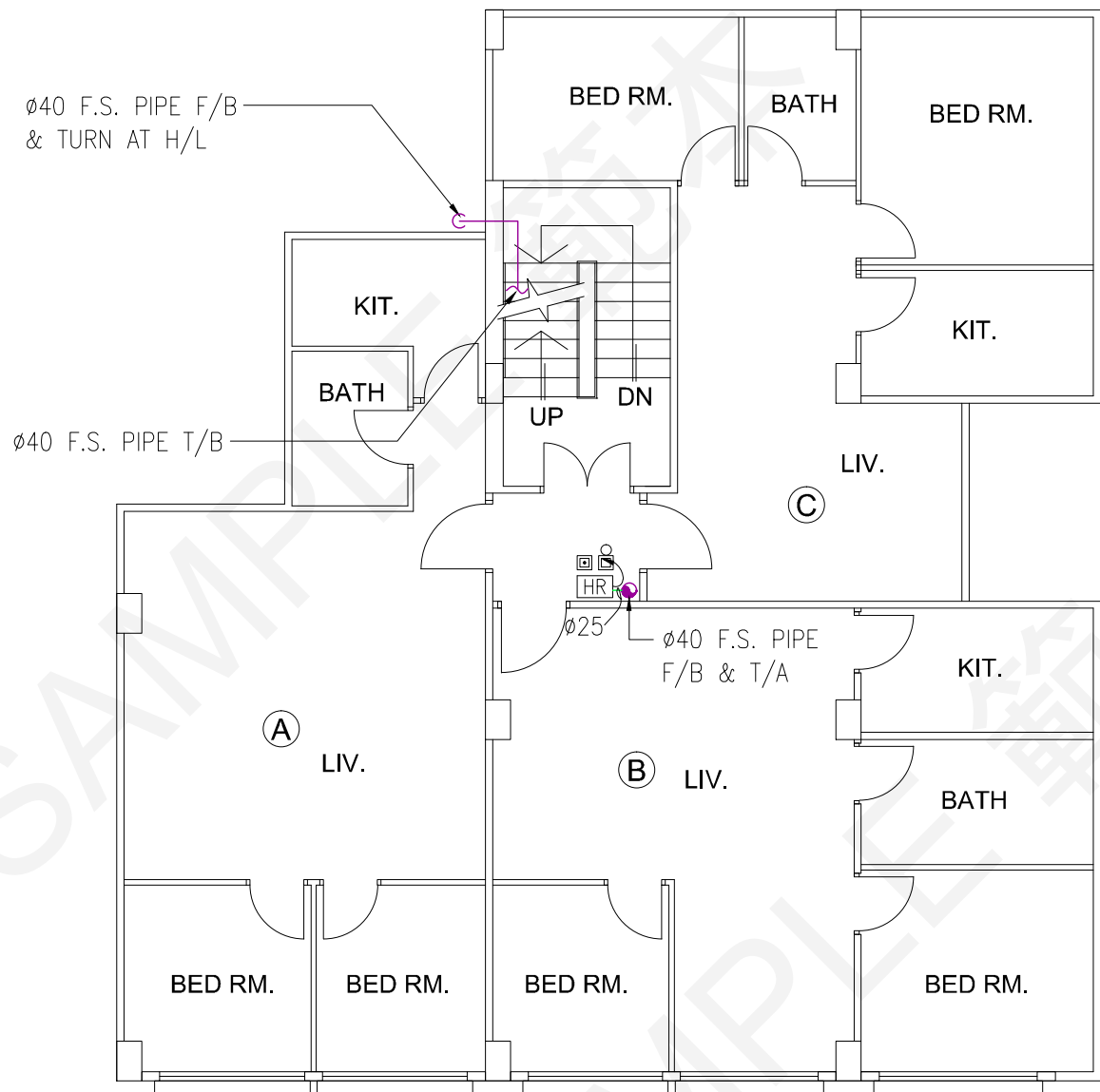
PROJECT TITLE:
 FIRE SAFETY IMPROVEMENT
 WORKS FOR
 NO. 42 TAI KOK TSUI ROAD,
 KOWLOON

DRAWING TITLE:
 F.S. LAYOUT PLAN OF
 1ST FLOOR

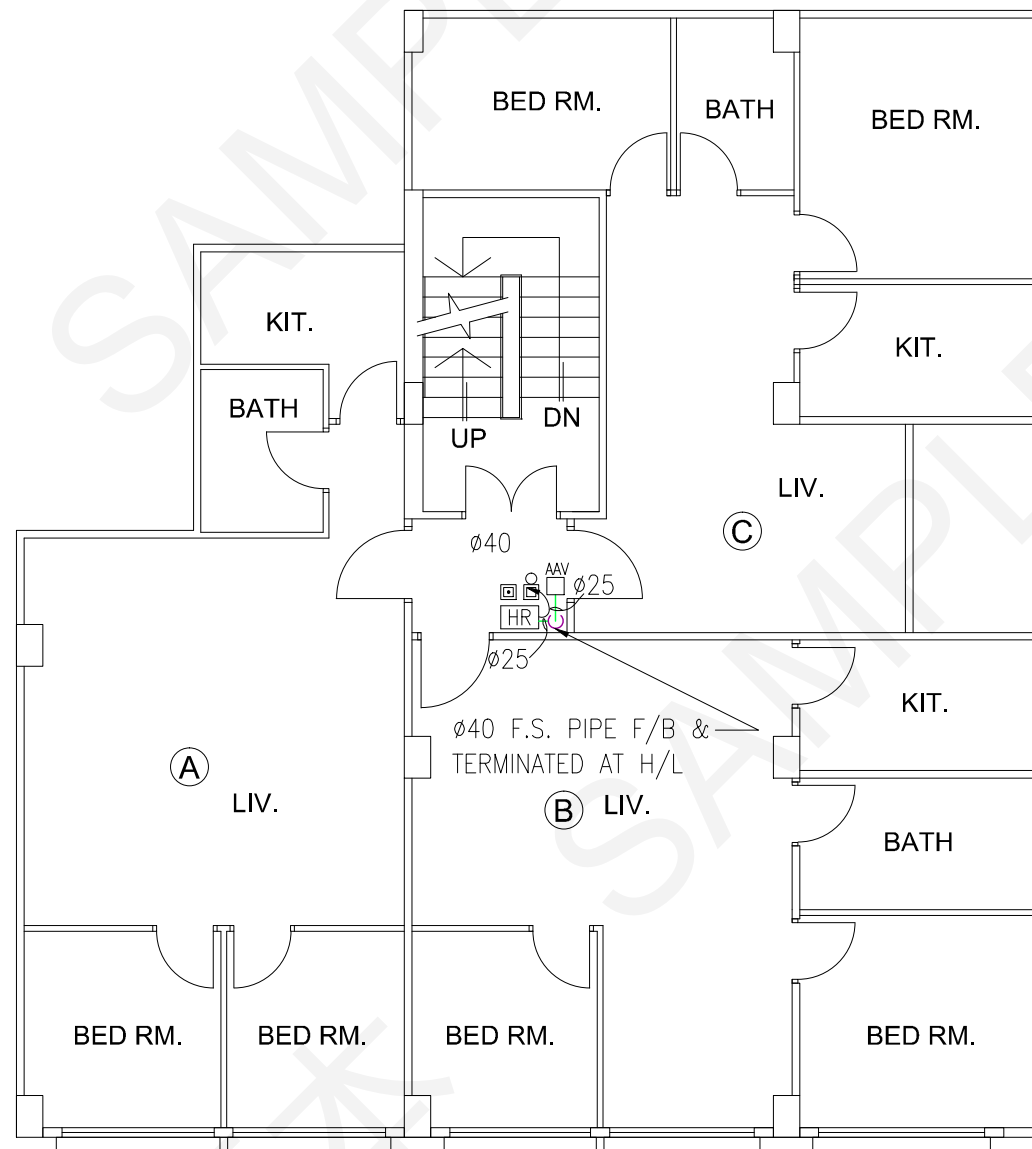
DRAWING NO.: FS-06
 SCALE: 1:100

DATE: 6.7.2024
 REVISION: A

Guidance Notes:
 1. The layout plan as shown are indicative only. RFSIC / Consultant should prepare the F.S. layout plan based on the approved general building plans.



2ND FLOOR TO 4TH FLOOR PLAN
 (TOTAL: 3 NOS. OF FLOOR)



5TH FLOOR PLAN

SPACE RESERVED FOR
 FSD APPROVAL CHOP
 Min. (60mm x 45mm)

REV.	DESCRIPTION	DATE
0	1ST SUBMISSION	3.1.2024
A	2ND SUBMISSION	6.7.2024

FSI CONTRACTOR / -CONSULTANT
 ABC FIRE ENGINEERING
 COMPANY LIMITED
 ADDRESS: UNIT 01, 10/F.,
 XXX YYY COMMERCIAL BUILDING,
 TAI KOK TSUI, KOWLOON
 TEL.: XXXX XXXX

PROJECT TITLE:
 FIRE SAFETY IMPROVEMENT
 WORKS FOR
 NO. 42 TAI KOK TSUI ROAD,
 KOWLOON

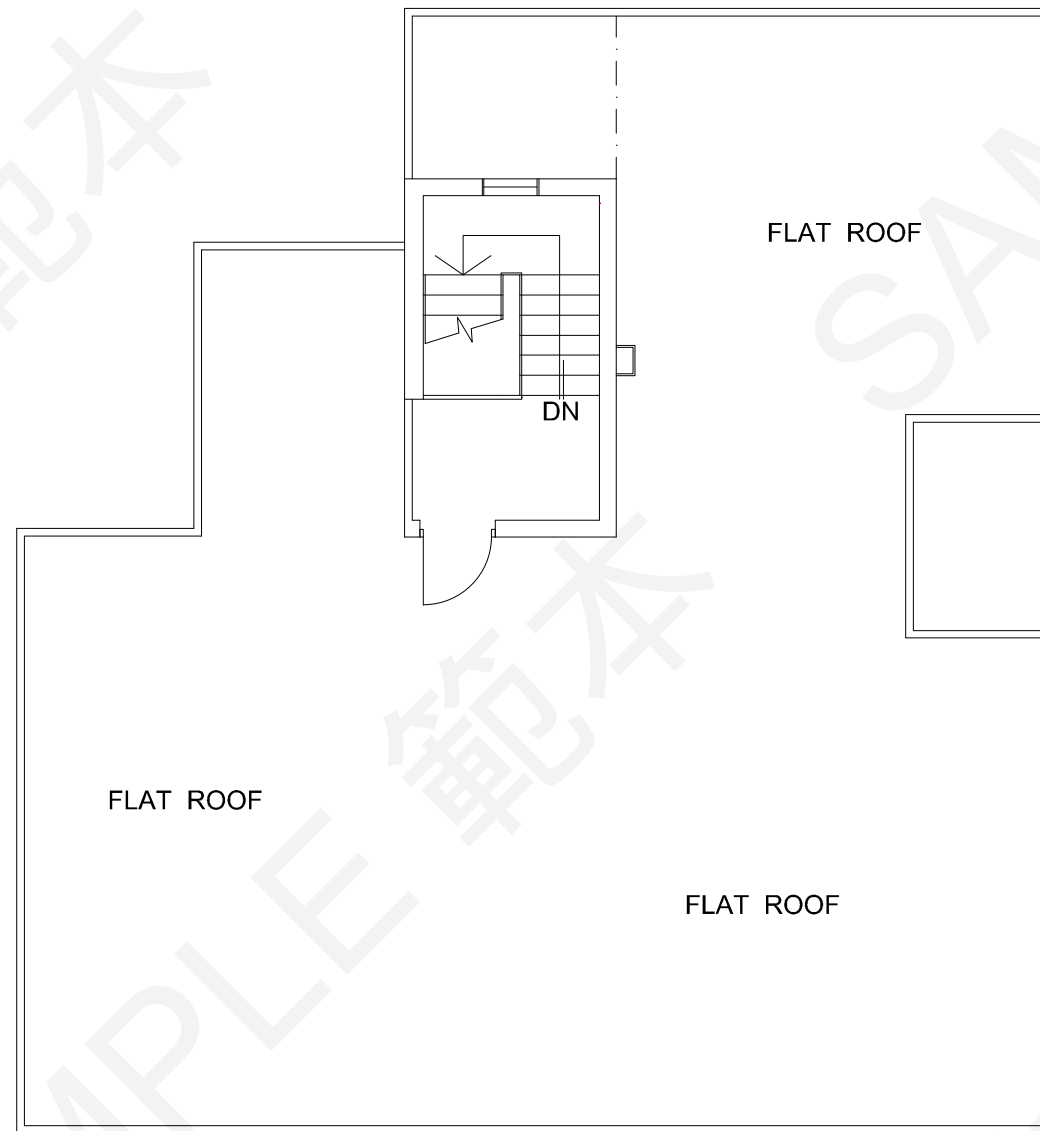
DRAWING TITLE:
 F.S. LAYOUT PLAN OF
 2ND FLOOR TO 4TH FLOOR
 AND 5TH FLOOR

DRAWING NO.:	SCALE:
FS-07	1:100

DATE:	REVISION:
6.7.2024	A

Guidance Notes:

1. The layout plan as shown are indicative only. RFSIC / Consultant should prepare the F.S. layout plan based on the approved general building plans.



ROOF PLAN

FOR REFERENCE ONLY

REV.	DESCRIPTION	DATE
0	1ST SUBMISSION	3.1.2024
A	2ND SUBMISSION	6.7.2024

FSI CONTRACTOR / -CONSULTANT

ABC FIRE ENGINEERING
COMPANY LIMITED

ADDRESS: UNIT 01, 10/F.,
XXX YYY COMMERCIAL BUILDING,
TAI KOK TSUI, KOWLOON
TEL.: XXXX XXXX

PROJECT TITLE:

FIRE SAFETY IMPROVEMENT
WORKS FOR
NO. 42 TAI KOK TSUI ROAD,
KOWLOON

DRAWING TITLE:

F.S. LAYOUT PLAN OF ROOF

DRAWING NO.:	SCALE:
FS-08	1:100

DATE:	REVISION:
6.7.2024	A