

1. HOSE REEL SYSTEM

3. FIRE ALARM SYSTEM
- 3.1 FIRE ALARM SYSTEM SHALL BE PROVIDED THROUGHOUT THE ENTIRE BUILDING IN ACCORDANCE WITH BS 5839-1 : 2017 AND FSD CIRCULAR LETTER NO.6/2021. ONE ACTUATING POINT AND ONE AUDIO WARNING DEVICE SHOULD BE LOCATED AT EACH HOSE REEL POINT. THE ACTUATION POINT SHOULD INCLUDE FACILITIES FOR FIRE PUMP START AND AUDIO / VISUAL WARNING DEVICE INITIATION.
- 3.2 AN ADDRESSABLE TYPE FIRE ALARM PANEL TO BE PROVIDED AND LOCATED INSIDE G/F SPR. & F.S. PUMP ROOM.
4. MISCELLANEOUS F.S. INSTALLATION
- 4.1 PORTABLE FIRE EXTINGUISHER WITH SPECIFIED TYPE AND CAPACITY TO BE PROVIDED AT LOCATIONS AS INDICATED ON PLANS.
- 4.2 SUFFICIENT EMERGENCY LIGHTING SHALL BE PROVIDED THROUGHOUT THE ENTIRE BUILDINGS/STRUCTURES IN ACCORDANCE WITH BS 5266-1: 2016, BS EN 1838:2013 AND FSD CIRCULAR LETTER NO.4/2021.
- 4.3 SUFFICIENT DIRECTIONAL AND EXIT SIGN SHALL BE PROVIDED IN ACCORDANCE WITH BS 5266-1: 2016 AND FSD CIRCULAR LETTER 5/2008.
- 4.4 NO EMERGENCY GENERATOR TO BE PROVIDED FOR SERVING THE EMERGENCY POWER. DUPLICATED POWER SUPPLIES FOR ALL FIRE SERVICES INSTALLATIONS COMPRISING A CABLE CONNECTED FROM ELECTRICITY MAINS DIRECTLY BEFORE THE MAIN SWITCH.
- 4.5 WHEN A VENTILATION/AIR CONDITIONING CONTROL IS PROVIDED, IT SHALL STOP MECHANICALLY INDUCED AIR MOVEMENT WITHIN A DESIGNATED FIRE COMPARTMENT.
- 4.6 NO DYNAMIC SMOKE EXTRACTION SYSTEM SHALL BE PROVIDED SINCE EITHER THERE BE NO FIRE COMPARTMENT EXCEEDING 7000 CUBIC METRES OR THE AGGREGATE AREA OF OPENABLE WINDOWS OF THE RESPECTIVE COMPARTMENT EXCEEDS 6.25% OF THE FLOOR AREA OF THAT COMPARTMENT.
- 4.7 THE AGGREGATE AREA OF OPENABLE WINDOWS ABOUT 736 SQUARE METRES EXCEEDING 6.25% OF THE FLOOR AREA OF THE STRUCTURE 1.
- 4.8 THE MAXIMUM STORAGE AREA OF A SIGNAL BLOCK NOT EXCEED 50M².

DESCRIPTION	PRESSURE (BAR)	FLOW (L/MIN.)	PUMP SPEED (RPM)	PUMP RATING (KW)	POWER SUPPLY (volts/phases/Hz)
SPRINKLER JOCKEY PUMP (SJP-1)	5	60	2900 MAXIMUM	2.2 KW	380/3/50
SPRINKLER PUMPS (SP-1 AS DUTY & SP-2 AS STAND-BY PUMP)	1.4 / 2.9 / 3.2	2250 / 1350 / 1100	2900 MAXIMUM	18.5 KW	380/3/50
FIRE SERVICES PUMPS (FP-1 AS DUTY, FP-2 AS STAND-BY PUMP & FJP AS JOCKEY PUMP)	5	60	2900 MAXIMUM	2.2 KW	380/3/50



	HOSE REEL W/ LOCKABLE GLASS FRONTED NOZZLE BOX, STRIKER, C/W FIRE ALARM BELL & BREAK GLASS UNIT
	150mm FIRE ALARM BELL
	BREAK GLASS UNIT
	FAST RESPONSE TYPE SPRINKLER HEAD
	FLOW SWITCH
	MONITORED GATE VALVE
	SPRINKLER ZONE SUBSIDIARY CONTROL VALVE ASSEMBLY INCLUDES ZONE SUBSIDIARY CONTROL VALVE, FLOW SWITCH, TEST GATE VALVE AND DRAIN VALVE
	GATE VALVE
	NON RETURN VALVE
	VORTEX INHIBITOR
	BALL FLOAT VALVE
	PRESSURE SWITCH
	PRESSURE GAUGE WITH COCK
	AUTOMATIC AIR VENT WITH COCK
	SPRINKLER / HOSE REEL PIPE
	SPRINKLER CONTROL VALVE SET
	LEVEL SWITCH (HIGH LEVEL SIGNAL & LOW LEVEL SIGNAL)
	FLEXIBLE CONNECTOR
	CHECK METER POSITION
	PLUG
	Y-STRAINER
	SPRINKLER / F.S. INLET
	SPRINKLER PROVING PIPE

	HOSE REEL W/ LOCKABLE GLASS FRONTED NOZZLE BOX, STRIKER, C/W FIRE ALARM BELL & BREAK GLASS UNIT
	150mm FIRE ALARM BELL
	BREAK GLASS UNIT
	SPRINKLER HEAD
	SPRINKLER HEAD (DOUBLE LAYER)
	FLOW SWITCH
	MONITORED GATE VALVE
	SPRINKLER ZONE SUBSIDIARY CONTROL VALVE ASSEMBLY INCLUDES ZONE SUBSIDIARY CONTROL VALVE, FLOW SWITCH, TEST GATE VALVE AND DRAIN VALVE
	GATE VALVE
	NON RETURN VALVE
	VORTEX INHIBITOR
	BALL FLOAT VALVE
	SPRINKLER / HOSE REEL PIPE
	PRESSURE SWITCH
	SPRINKLER METER VALVE SET
	CHECK METER POSITION
	SPRINKLER / F.S. INLET
	5Kg CO2 TYPE FIRE EXTINGUISHER
	4Kg DRY POWDER TYPE FIRE EXTINGUISHER
	PUMP
	150mm WATER ALARM GONG
	EMERGENCY LIGHTING
	EXIT SIGN
	ADDRESSABLE TYPE FIRE ALARM PANEL
	PUMP CONTROL PANEL

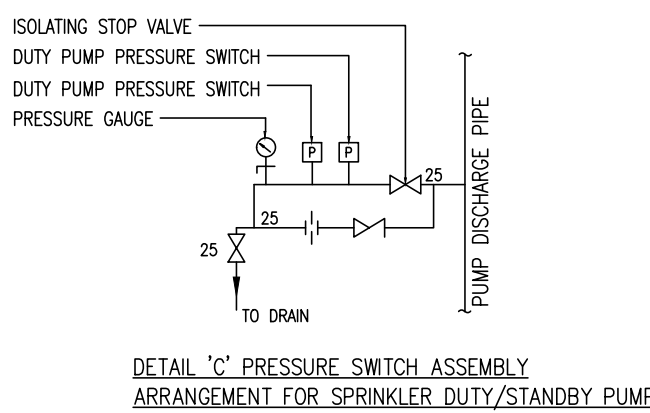
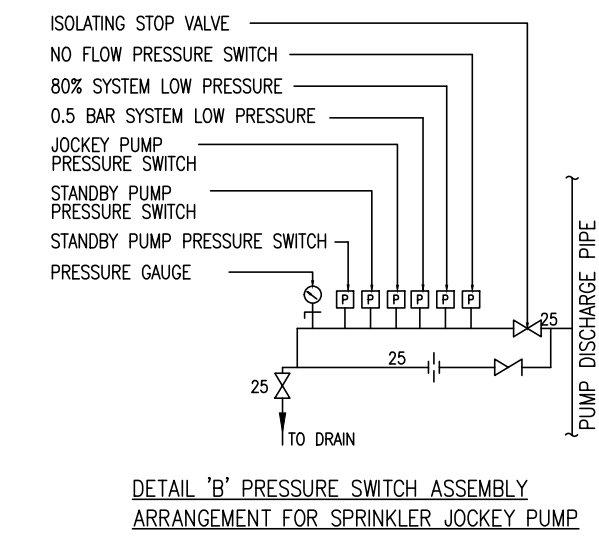
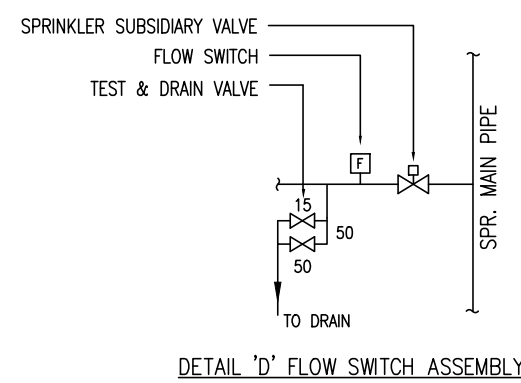
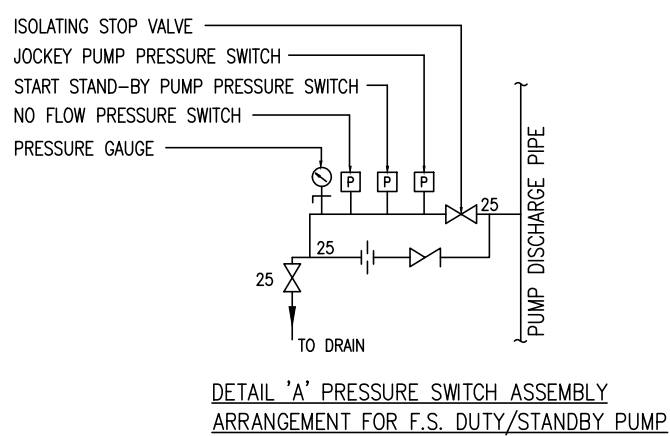


H.R.	HOSE REEL
F.S.	FIRE SERVICES
SPR.	SPRINKLER
U/G	UNDERGROUND
T/A	TO ABOVE
T/B	TO BELOW
F/A	FROM ABOVE
F/B	FROM BELOW
H/L	HIGH LEVEL
M/L	MIDDLE LEVEL
L/L	LOW LEVEL
W/	WITH
FFL	FINISHED FLOOR LEVEL
FE	FIRE EXTINGUISHER
DP	DESIGN POINT

PIPE SIZES	COLOUR
ø25mm	LIGHT GREEN
ø32mm	RED
ø40mm	PURPLE
ø50mm	YELLOW
ø65mm	BLUE
ø80mm	GREEN
ø100mm	LIGHT BROWN
ø150mm	DEEP BROWN

DRAWING NO.	REVISION	DRAWING TITLE
FS-01	B	F.S. NOTES., BLOCK PLAN, LEGEND, ABBREVIATION, DRAWING LIST, PIPE MATERIAL SCHEDULE, PUMP SCHEDULE. VERTICAL LINE DIAGRAM,
FS-02	B	FIRE SERVICES INSTALLATION LAYOUT PLAN

RUN OF DISTRIBUTION PIPE FROM CONTROL VALVE TO DESIGN POINT	PIPE SIZE (mm)	PIPE LENGTH (m)	FITTINGS	NOS.	EQU. LENGTH OF FITTINGS	TOTAL EQUIV. LENGTH OF FITTINGS	TOTAL EQUIV PIPE LENGTH (M)	CALCULATED BY HAZEN - WILLIAMS FORMULA P =
PIPE TO DESIGN POINT D	150	207.1	TEE	0			235.1	0.182 BAR
			GATE VALVE	2	1.1	2.2		
			90° ELBOW	6	4.3	25.8		
PIPE TO DESIGN POINT D	100	25	TEE	0			25	0.139 BAR
			GATE VALVE	0				
			90° ELBOW	0				
TOTAL								0.321 BAR (LESS THAN 0.5 BAR)

$$P_1 = \frac{6.05 \times 10^5}{C^{1.85} \times d^{4.87}} \times L \times Q^{1.85}$$


D	REVISE	29-03-2025	WC
C	REVISE	01-03-2025	WC
B	REVISE	11-10-2017	HY
A	FSD SUBMISSION	10-07-2017	HY
REV	DESCRIPTION	DATE	BY

FSI CONTRACTOR

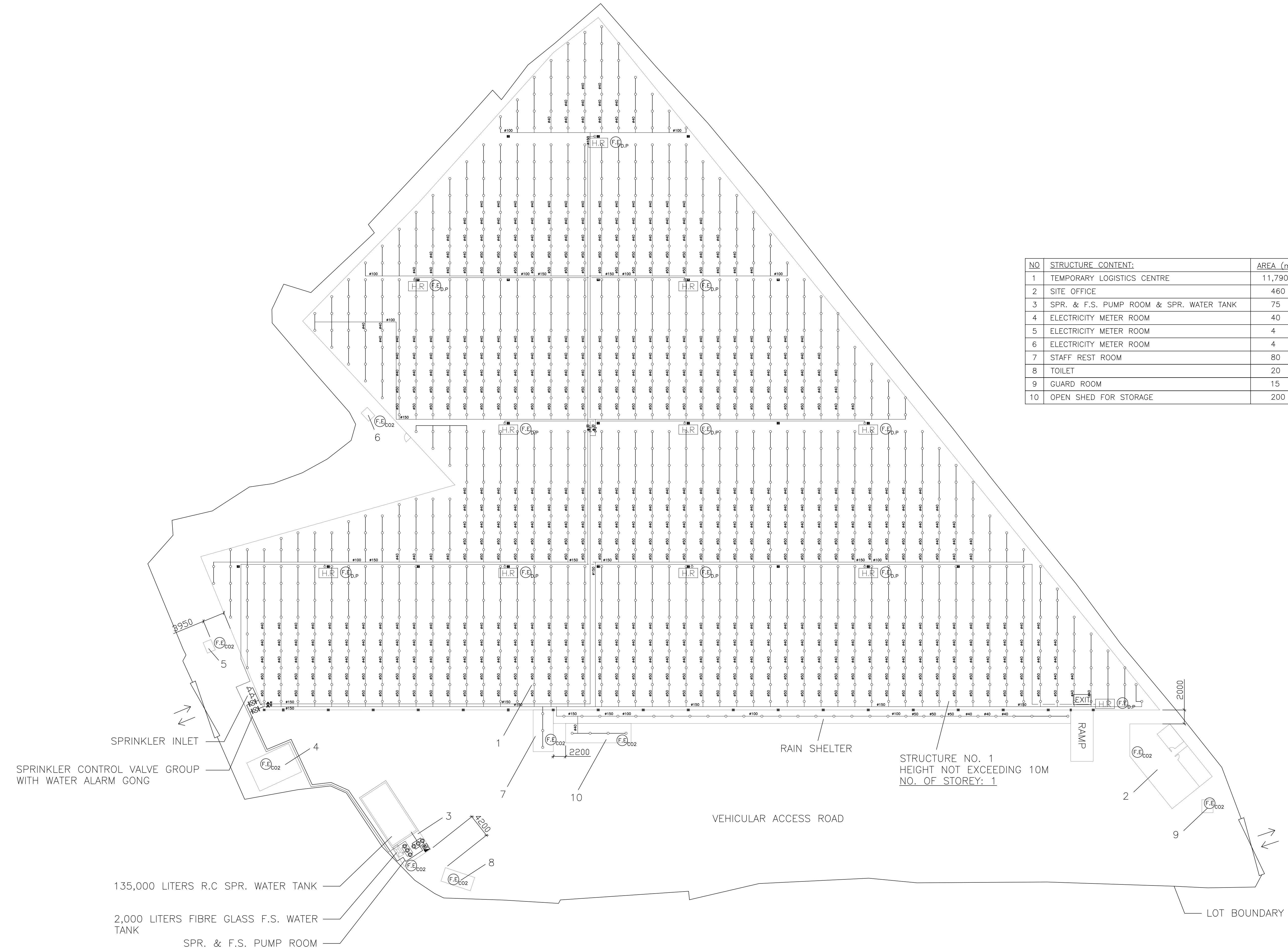
East Power Engineering Limited



PROJECT
FIRE SERVICES INSTALLATION WORK AT
LOTS 3043(PART), 3044(PART), 3051(PART), 3052,
3053(PART), 3054, 3055(PART), 3056
S.A(PART),3056 S.B(PART), 3057, 3058(PART),
3059, 3060, 3061, 3062(PART), 3063(PART),
3072(PART), 3108(PART), 3144(PART), 3200
RP(PART), 3207(PART), 3208, 3209 RP(PART),
3210(PART), 3211 RP(PART) & 3213 S.RP(PART)
IN D.D. 129, HA TSUEN , YUEN LONG, N.T

F.S. NOTES., BLOCK PLAN, LEGEND, ABBREVIATION, DRAWING LIST,
PIPE MATERIAL SCHEDULE, PUMP SCHEDULE. VERTICAL LINE
DIAGRAM.

	INITIAL	DESIGNATION	DATE
DRAWN BY	HY	A. ENG	10-07-2017
DESIGN BY	CM	PM	10-07-2017
CHECK BY	CM	PM	10-07-2017
APPROVED BY	-	-	-
PROJECT NO.	10309		
PAPER SIZE	A1	PLOT SCALE	1 : 1
DRAWING NO. EP-10309-FS01			
SCALE	N.T.S	REVISION	D



NO	STRUCTURE CONTENT:	AREA (m ²)	NO. OF STOREY	HEIGHT (m)
1	TEMPORARY LOGISTICS CENTRE	11,790	1	13
2	SITE OFFICE	460	2	8
3	SPR. & F.S. PUMP ROOM & SPR. WATER TANK	75	1	5
4	ELECTRICITY METER ROOM	40	1	3
5	ELECTRICITY METER ROOM	4	1	3
6	ELECTRICITY METER ROOM	4	1	3
7	STAFF REST ROOM	80	1	3
8	TOILET	20	1	3
9	GUARD ROOM	15	1	3
10	OPEN SHED FOR STORAGE	200	1	6

D	REVISE	29-03-2025	WC
C	REVISE	01-03-2025	WC
B	REVISE	11-10-2017	HY
A	FSD SUBMISSION	10-07-2017	HY
REV	DESCRIPTION	DATE	BY

FSD CONTRACTOR

East Power Engineering Limited

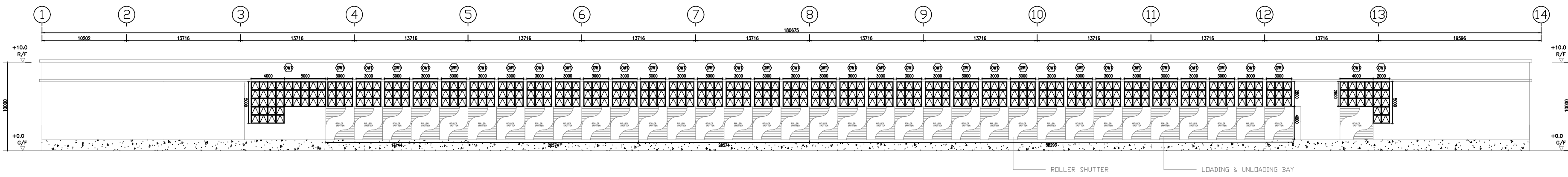


PROJECT
FIRE SERVICES INSTALLATION WORK AT
LOTS 3043(PART), 3044(PART), 3051(PART), 3052,
3053(PART), 3054, 3055(PART), 3056
S.A(PART),3058 S.B(PART), 3057, 3058(PART),
3059, 3060, 3061, 3062(PART), 3063(PART),
3072(PART), 3108(PART), 3144(PART), 3200
RP(PART), 3207(PART), 3208, 3209 RP(PART),
3210(PART), 3211 RP(PART) & 3213 S.B RP(PART)
IN D.D. 129, HA TSUEN , YUEN LONG, N.T.

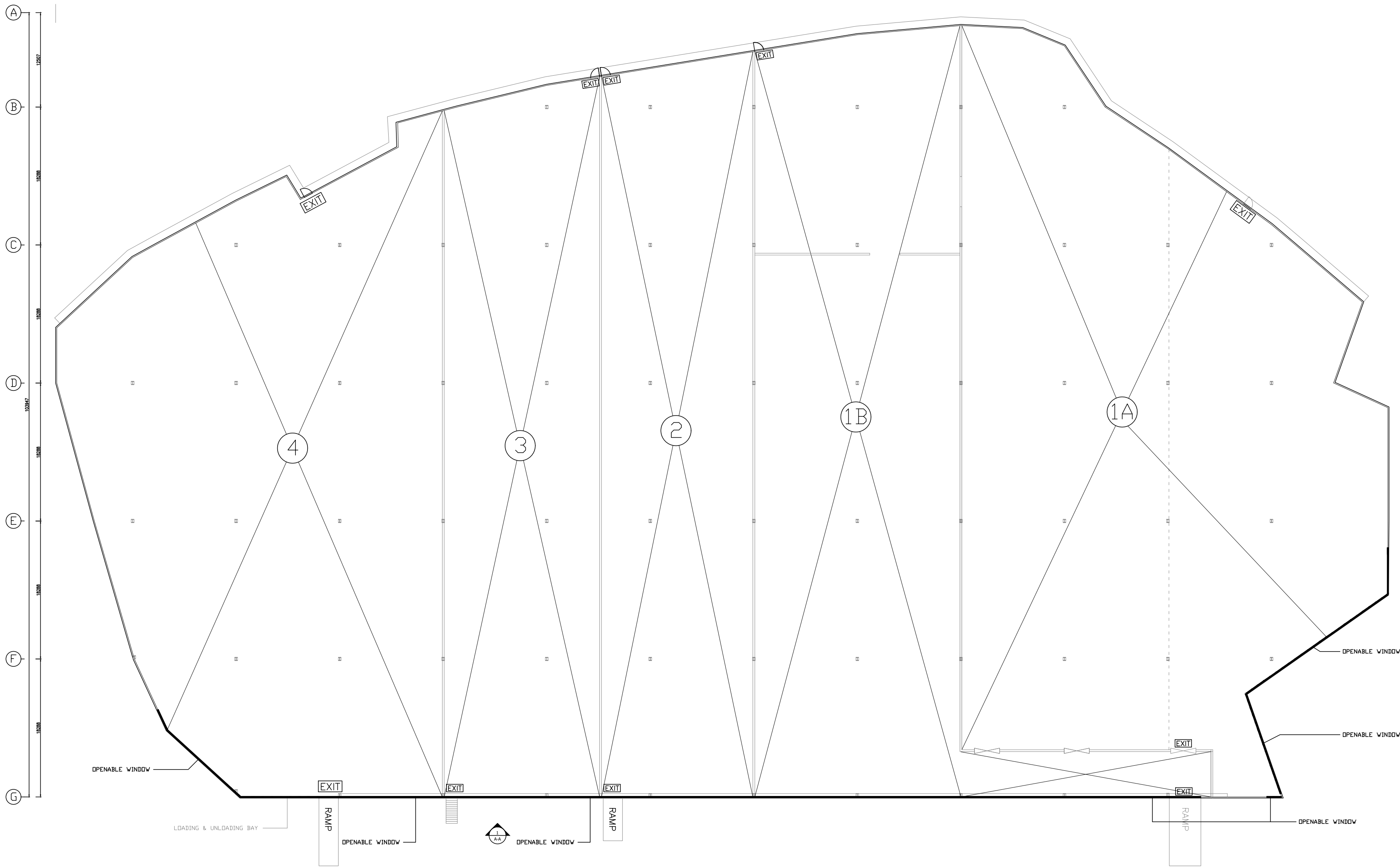
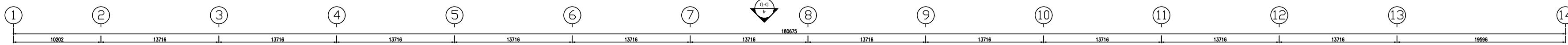
DRAWING TITLE

FIRE SERVICES INSTALLATION LAYOUT PLAN

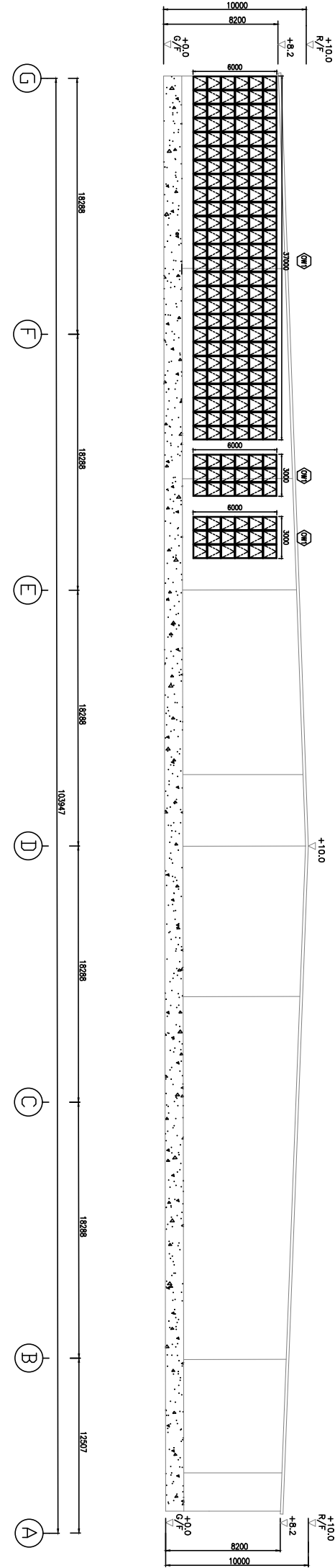
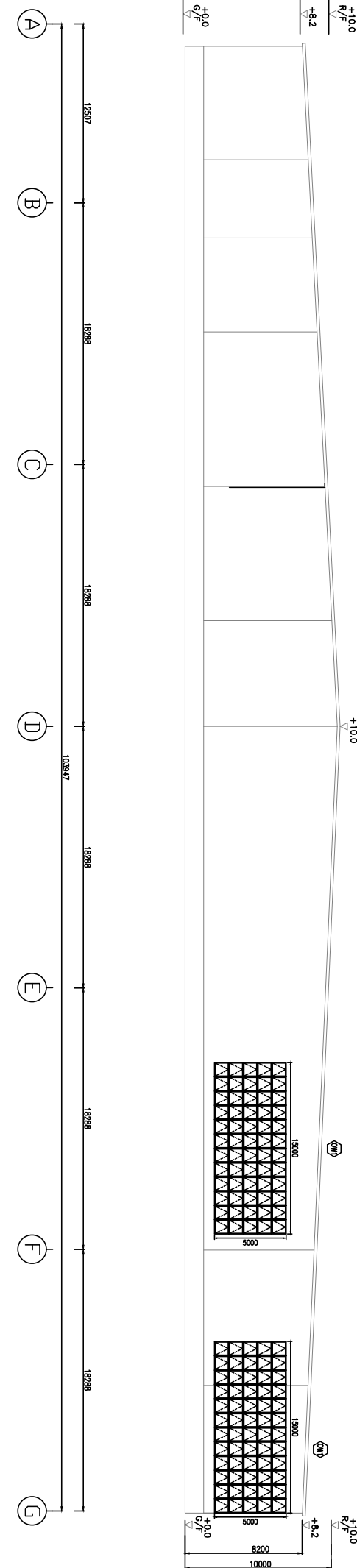
	INITIAL	DESIGNATION	DATE
DRAWN BY	HY	A. ENG	10-07-2017
DESIGN BY	CM	PM	10-07-2017
CHECK BY	CM	PM	10-07-2017
APPROVED BY	-	-	-
PROJECT NO.	10309		
PAPER SIZE	A1	PLOT SCALE	1 : 1
DRAWING NO.	EP-10309-FS02		
SCALE	1 : 350 @A1	REVISION	D



ELEVATION PLAN (ELV A-A)



ELEVATION PLAN (ELV C-C)



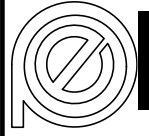
ELEVATION PLAN (ELV B-B)

OPENABLE WINDOW AREA CALCULATION UNDER F.S.D. REQUIREMENT FOR COMPARTMENT EXCEEDING 700m ³				
LOCATION	USABLE FL. AREA (m ²) PER FLOOR	OPENABLE WINDOW AREA REQUIRED	OPENABLE WINDOW AREA PROVIDED	
G/F (STRUCTURE 1)	11,780	11,780 X 6.25% = 736.875	REFER TO ELEVATION-(A-A) = 342.8 REFER TO ELEVATION-(B-B) = 258 REFER TO ELEVATION-(C-C) = 150	TOTAL = 748.8 > 736.875

REV	DESCRIPTION	DATE	BY
D	REVISE	29-03-2025	WC
C	REVISE	01-03-2025	WC
A	GENERAL SUBMISSION	14-09-2018	HY

FSI CONTRACTOR

East Power Engineering Limited



PROJECT
FIRE SERVICES INSTALLATION WORK AT
LOTS 3043(PART), 3044(PART), 3051(PART), 3052,
3053(PART), 3054, 3055(PART), 3056
S.A(PART),3058 S.B(PART), 3057, 3058(PART),
3059, 3060, 3051, 3062(PART), 3063(PART),
3072(PART), 3108(PART), 3144(PART), 3200
RP(PART), 3207(PART), 3208, 3209 RP(PART),
3210(PART), 3211 RP(PART) & 3213 S.B RP(PART)
IN D.D. 129, HA TSUEN , YUEN LONG, N.T.

DRAWING TITLE

FIRE SERVICES INSTALLATION LAYOUT PLAN
6.25% WINDOWS

	INITIAL	DESIGNATION	DATE
DRAWN BY	HY	ENG	14-09-2018
DESIGN BY	CM	PM	14-09-2018
CHECK BY	CM	PM	14-09-2018
APPROVED BY	-	-	-
PROJECT NO.	10309		
PAPER SIZE	A1	PLOT SCALE	1 : 1
DRAWING NO.			
EP-10309-06P01			
SCALE	1 : 350 @A1	REVISION	D