

LIST OF APPENDICES

Appendix I	Fire service installations proposal
-------------------	-------------------------------------

Appendix I

Fire service installations proposal

F.S.NOTES:

1. GENERAL

- 1.1 FIRE SERVICE INSTALLATIONS SHALL BE PROVIDED IN ACCORDANCE WITH THE CODES OF PRACTICE FOR MINIMUM FIRE SERVICE INSTALLATIONS AND EQUIPMENT AND INSPECTION, TESTING AND MAINTENANCE OF INSTALLATIONS AND EQUIPMENT 2022 (COP 2022), FSD CIRCULAR LETTERS AND THE HONG KONG WATERWORKS STANDARD REQUIREMENTS. [SEP 2022]
- 1.2 ALL TUBES AND FITTINGS SHALL BE G.M.S. TO BS1387 MEDIUM GRADE WHERE PIPEWORK UP TO Ø150mm.
- 1.3 ALL TUBES AND FITTINGS SHALL BE DUCTILE IRON TO BS EN545 K12 WHERE PIPEWORK ABOVE Ø150mm.
- 1.4 ALL DRAIN PIPES SHALL BE DISCHARGED TO A CONSPICUOUS POSITION WITHOUT THE POSSIBILITY OF BEING SUBMERGED.
- 1.5 ALL PUDDLE FLANGES SHALL BE MADE OF DUCTILE IRON
- 1.6 SMOKE EXTRACTION SYSTEM(S) SHALL NOT BE PROVIDED AS THE AGGREGATE AREA OF OPERABLE WINDOW OF STRUCTURE EXCEEDS 6.25% OF THE FLOOR AREA OF THE COMPARTMENT.
- 1.7 VENTILATION/AIR CONDITIONING SYSTEM NOT TO BE PROVIDED.

2. AUTOMATIC SPRINKLER SYSTEM

- 2.1 AUTOMATIC SPRINKLER SYSTEM SHALL BE PROVIDED AND INSTALLED IN ACCORDANCE WITH LPC RULES FOR AUTOMATIC SPRINKLER INSTALLATIONS INCORPORATING BS EN 12845: 2015 (INCLUDING TECHNICAL BULLETINS, NOTES, COMMENTAR AND RECOMMENDATIONS) AND FSD CIRCULAR LETTER NO. 5/2020. THE CLASSIFICATION OF THE OCCUPANCIES WILL BE ORDINARY HAZARD GROUP III.
- 2.2 ONE 135m³ SPRINKLER WATER TANK WILL BE PROVIDED AS INDICATED ON PLAN. THE TOWN MAIN WATER SUPPLY WILL BE FED FROM SINGLE END.
- 2.3 TWO SPRINKLER PUMPS (DUTY/STANDBY) AND ONE JOCKEY PUMP SHALL BE PROVIDED IN FS PUMP ROOM LOCATED AT EXTERNAL AREA.
- 2.4 SPRINKLER CONTROL VALVE SET AND SPRINKLER INLET SHALL BE PROVIDED AS INDICATED ON PLAN.
- 2.5 A TEST VALVE SHALL BE PROVIDED FOR EACH ZONE OF SPRINKLER PIPE. THIS VALVE SHALL BE AT A CONSPICUOUS POSITION THAT WATER CAN BE DRAINED AWAY EASILY.
- 2.6 ALL SUBSIDIARY STOP VALVES TO BE ELECTRIC MONITORING TYPE.
- 2.7 ALL ELECTRIC TYPE VALVES SHOULD GIVE VISUAL SIGNALS TO FIRE SERVICE MAIN SUPERVISORY CONTROL PANEL TO INDICATE THE STATUS (OPEN/CLOSE) OF THE VALVES.
- 2.8 SECONDARY ELECTRICITY SUPPLY DIRECTLY TEE OFF BEFORE CLP'S INCOMING MAIN SWITCH SHALL BE PROVIDED FOR THE SPRINKLER PUMPS.
- 2.9 THE SPRINKLER SYSTEM DESIGN IS BASED ON THE FOLLOWINGS:
HAZARD CLASS : ORDINARY HAZARD GROUP III
TYPE OF STORAGE : POST-PALLET (ST2)
STORAGE CATEGORY : CATEGORY I
MAXIMUM STORAGE HIEGHT : 3.5m
SPRINKLER PROTECTION : CEILING PROTECTION ONLY
THE MAXIMUM STORAGE AREAS SHALL BE 50m² FOR SINGLE BLOCK
THE MINIMUM CLEARANCE AROUND EACH SINGLE STORAGE CLOCK : 2.4m

THE SPRINKLER SYSTEM DESIGN IS BASED ON THE FOLLOWINGS:
HAZARD CLASS : ORDINARY HAZARD GROUP III
TYPE OF STORAGE : FREE STANDING
STORAGE CATEGORY : CATEGORY I
MAXIMUM STORAGE HIEGHT : 4m
SPRINKLER PROTECTION : CEILING PROTECTION ONLY
THE MAXIMUM STORAGE AREAS SHALL BE 50m² FOR SINGLE BLOCK
THE MINIMUM CLEARANCE AROUND EACH SINGLE STORAGE CLOCK : 2.4m

3. FIRE DETECTOR SYSTEM

- 3.1 THE STAND-ALONE FIRE DETECTOR SHALL BE PROVIDED IN ACCORDANCE WITH THE "STAND-ALONE FIRE DETECTOR GENERAL GUIDELINES ON PURCHASE, INSTALLATION & MAINTENANCE [SEP 2021]"
- 3.2 WHERE TWO OR MORE STAND-ALONE FIRE DETECTORS ARE INSTALLED IN AN ENCLOSED STRUCTURE, ALL DETECTORS SHALL BE INTERCONNECTED (EITHER WIRED OR WIRELESSLY) SUCH THAT WHEN ONE OF THE DETECTORS IS TRIGGERED, ALL CONNECTED DETECTORS SHALL SOUND AN ALARM SIMULTANEOUSLY.

4. EMERGENCY LIGHTING

- 4.1 EMERGENCY LIGHTING SHALL BE PROVIDED IN ACCORDANCE WITH 'BS 5266-1 :2016 AND BS EN 1838 :2013", AND THE FSD CIRCULAR LETTER NO. 4/2021, COVERING ALL AREA. EMERGENCY LIGHTINGS SHALL BE BACKED UP BY BUILT-IN BATTERY AND CAPABLE OF MAINTAINING FUNCTION OF NOT LESS THAN 2 HOURS IN CASE OF POWER FAILURE

5. EXIT SIGN

- 5.1 ALL EXIT SIGNS/DIRECTIONAL EXIT SIGNS SHALL BE PROVIDED IN ACCORDANCE WITH BS 5266-1 :2016 AND FSD CIRCULAR LETTER NO. 5/2008, FOR THE BUILDING. EXIT SIGNS/DIRECTIONAL EXIT SIGNS SHALL BE BACKED UP BY BUILT-IN BATTERY AND CAPABLE OF MAINTAINING FUNCTION OF NOT LESS THAN 2 HOURS IN CASE OF POWER FAILURE.

6. PORTABLE APPLIANCES

- 6.1 PORTABLE HAND OPERATED APPLIANCES SHALL BE PROVIDED AS INDICATED ON PLAN.
- 6.2 A SUITABLE TYPE OF PORTABLE FIRE EXTINGUISHER SHALL BE PROVIDED IN LOCATIONS WHERE EASILY ACCESSIBLE BY PERSON IN CHARGE WHERE THE NO. OF F.E. SHALL BE PROVIDED ACCORDING TO THE FORMULA = [STORAGE AREA] (M²) X (0.003]
- 6.3 A 20-35 KG WHEELED TYPE DRY CHEMICAL FIRE EXTINGUISHER IN EVERY 500M² ON EVERY FLOOR OF THE PREMISES AND SHALL BE PROVIDED TO ENSURE THAT EVERY PART OF THE PREMISES CAN BE REACHED BY WHEELED TYPE DRY CHEMICAL FIRE EXTINGUISHER FROM A DISTANCE OF NOT MORE THAN 30M

LEGEND

- Ⓢ

STAND ALONE BATTERY TYPE SMOKE DETECTOR
- ▲

25KG WHEELED TYPE DRY CHEMICAL FIRE EXTINGUISHER
- Ⓛ

EMERGENCY LIGHT
- EXIT

EXIT SIGN
- ↯

NON-RETURN VALVE
- ⚙

SPRINKLER CONTROL VALVE SET
- ⌵

GATE VALVE
- ⚙

GATE TYPE (With MONITORING)
- ⚙

PUMP SET
- ⌵

Y-TYPE STRAINER
- ⌵

SPRINKLER INLET
- Ⓢ

PRESSURE GAUGE
- SPRINKLER HEAD (ON PLAN)
- 5KG DRY POWDER FIRE EXTINGUISHER
- ⚙

SUBSIDIARY VALVE / FLOW SWITCH
- Ⓢ

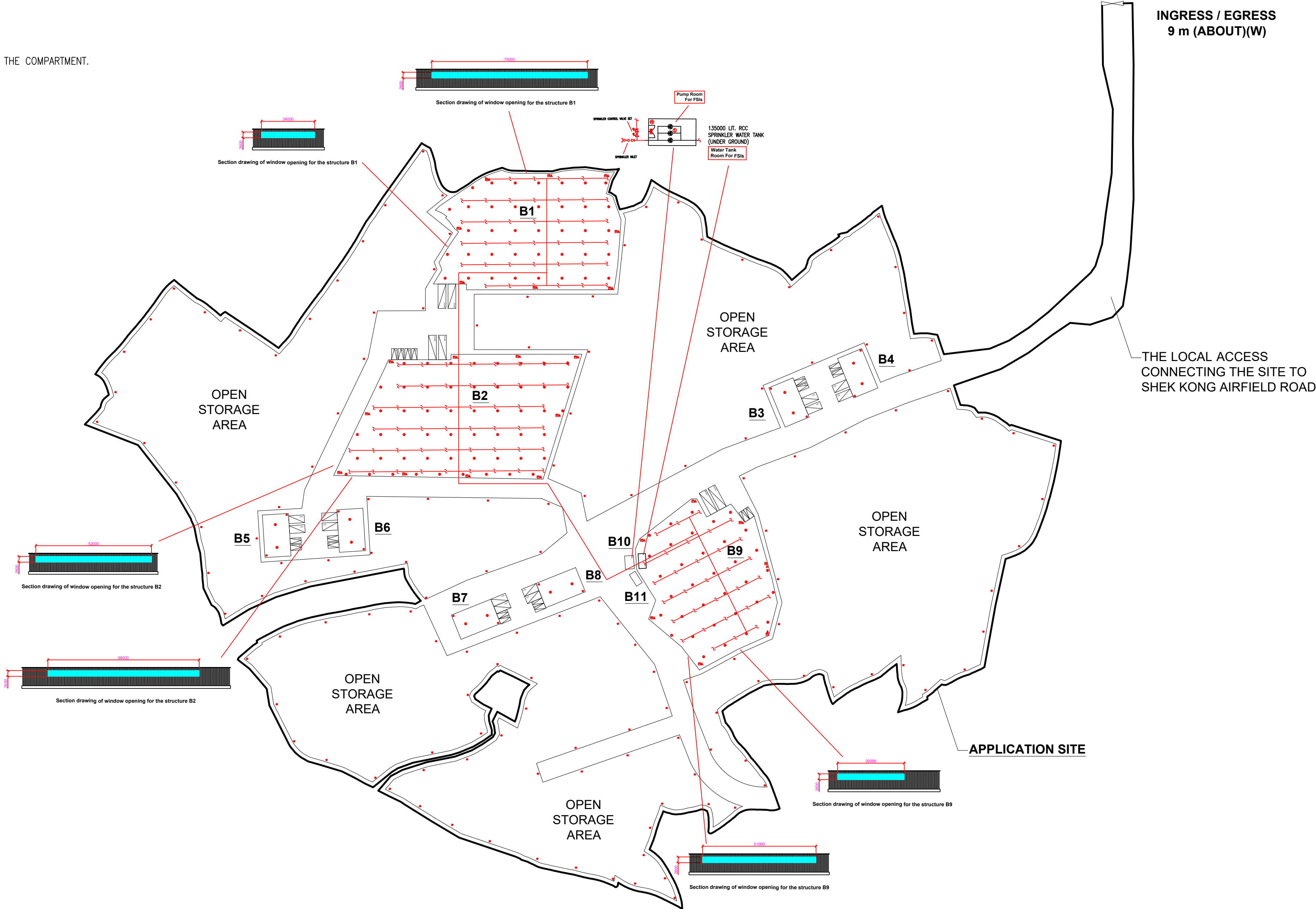
5KG CO2 FIRE EXTINGUISHER
- ➡

DIRECTIONAL SIGN

Structure B1 Openable Windows Calculation
Area of Structure B1 = 3908 sq.m.
Area of High Bay Window (H.B.W.) = 2.6m(H) x 94m = 244.4 sq.m.
Total openable window area = 244.4 sq.m.
= 6.25% of floor area

Structure B2 Openable Windows Calculation
Area of Structure B2 = 4918 sq.m.
Area of High Bay Window (H.B.W.) = 2.6m(H) x 120m = 312 sq.m.
Total openable window area = 312 sq.m.
= 6.34% of floor area

Structure B9 Openable Windows Calculation
Area of Structure B9 = 3333 sq.m.
Area of High Bay Window (H.B.W.) = 2.6m(H) x 81m = 210.6 sq.m.
Total openable window area = 210.6 sq.m.
= 6.31% of floor area



STRUCTURE	USE	COVERED AREA	GROSS FLOOR AREA	BUILDING HEIGHT
B1	WAREHOUSE (EXCLUDING D.G.G.)	3,908 m2 (ABOUT)	3,908 m2 (ABOUT)	9 m (ABOUT)(1-STOREY)
B2	WAREHOUSE (EXCLUDING D.G.G.)	4,918 m2 (ABOUT)	4,918 m2 (ABOUT)	9 m (ABOUT)(1-STOREY)
B3	WAREHOUSE (EXCLUDING D.G.G.)	225 m2 (ABOUT)	225 m2 (ABOUT)	4 m (ABOUT)(1-STOREY)
B4	WAREHOUSE (EXCLUDING D.G.G.)	225 m2 (ABOUT)	225 m2 (ABOUT)	4 m (ABOUT)(1-STOREY)
B5	WAREHOUSE (EXCLUDING D.G.G.)	225 m2 (ABOUT)	225 m2 (ABOUT)	4 m (ABOUT)(1-STOREY)
B6	WAREHOUSE (EXCLUDING D.G.G.)	225 m2 (ABOUT)	225 m2 (ABOUT)	4 m (ABOUT)(1-STOREY)
B7	WAREHOUSE (EXCLUDING D.G.G.)	225 m2 (ABOUT)	225 m2 (ABOUT)	4 m (ABOUT)(1-STOREY)
B8	WAREHOUSE (EXCLUDING D.G.G.)	225 m2 (ABOUT)	225 m2 (ABOUT)	4 m (ABOUT)(1-STOREY)
B9	WAREHOUSE (EXCLUDING D.G.G.)	3,333 m2 (ABOUT)	3,333 m2 (ABOUT)	9 m (ABOUT)(1-STOREY)
B10	FIRE SERVICE PUMP ROOM	24 m2 (ABOUT)	24 m2 (ABOUT)	3 m (ABOUT)(1-STOREY)
B11	ELECTRICITY METER ROOM	18 m2 (ABOUT)	18 m2 (ABOUT)	3 m (ABOUT)(1-STOREY)

TOTAL 13,551 m2 (ABOUT) 13,551 m2 (ABOUT)

*ANCILLARY OFFICE AND WASHROOM ARE PROVIDED AT ALL STRUCTURES

PROJECT : PROPOSED TEMPORARY OPEN STORAGE AND WAREHOUSE (EXCLUDING DANGEROUS GOODS GODOWN) WITH ANCILLARY FACILITIES AND ASSOCIATED FILLING OF LAND AND POND FOR A PERIOD OF 3 YEARS	DRAWING TITLE : F.S. Notes, Legend, Fire Service Installation Layout Plan		Appendix I	ARCHITECT :	CONSULTANT :	FIRE SERVICE CONTRACTOR : Century Fire Service Engineering Co., Ltd.		NAME	DATE	DRAWING NO : FS-01	REV. 0
		REV	DESCRIPTION				DATE	DRAWN BY	C.K.NG	22 Aug 2026	SCALE : 1 : 1200 (A1)
							CHECKED BY			SOURCE : B.O.O. Ref. BD F.S.D. Ref. FP	
							APPROVED BY				