

F. S. NOTES:

1. GENERAL

- 1.1 ALL TUBES AND FITTINGS SHALL BE G.M.S. TO BS1387 MEDIUM GRADE WHERE PIPEWORK UP TO  $\phi 150\text{mm}$ .
- 1.2 ALL TUBES AND FITTINGS SHALL BE DUCTILE IRON TO BS EN545 K12 WHERE PIPEWORK ABOVE  $\phi 150\text{mm}$ .
- 1.3 ALL DRAIN PIPES SHALL BE DISCHARGED TO A CONSPICUOUS POSITION WITHOUT THE POSSIBILITY OF BEING SUBMERGED.
- 1.4 ALL PUDDLE FLANGES SHALL BE MADE OF DUCTILE IRON
- 1.5 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.
- 1.6 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  $135\text{m}^3$  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 HEIGHT : 3.5m  
 SPRINKLER PROTECTION : CEILING PROTECTION ONLY  
 THE MAXIMUM STORAGE AREAS SHALL BE  $50\text{m}^2$  FOR SINGLE BLOCK  
 THE MINIMUM CLEARANCE AROUND EACH SINGLE STORAGE CLOAK : 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

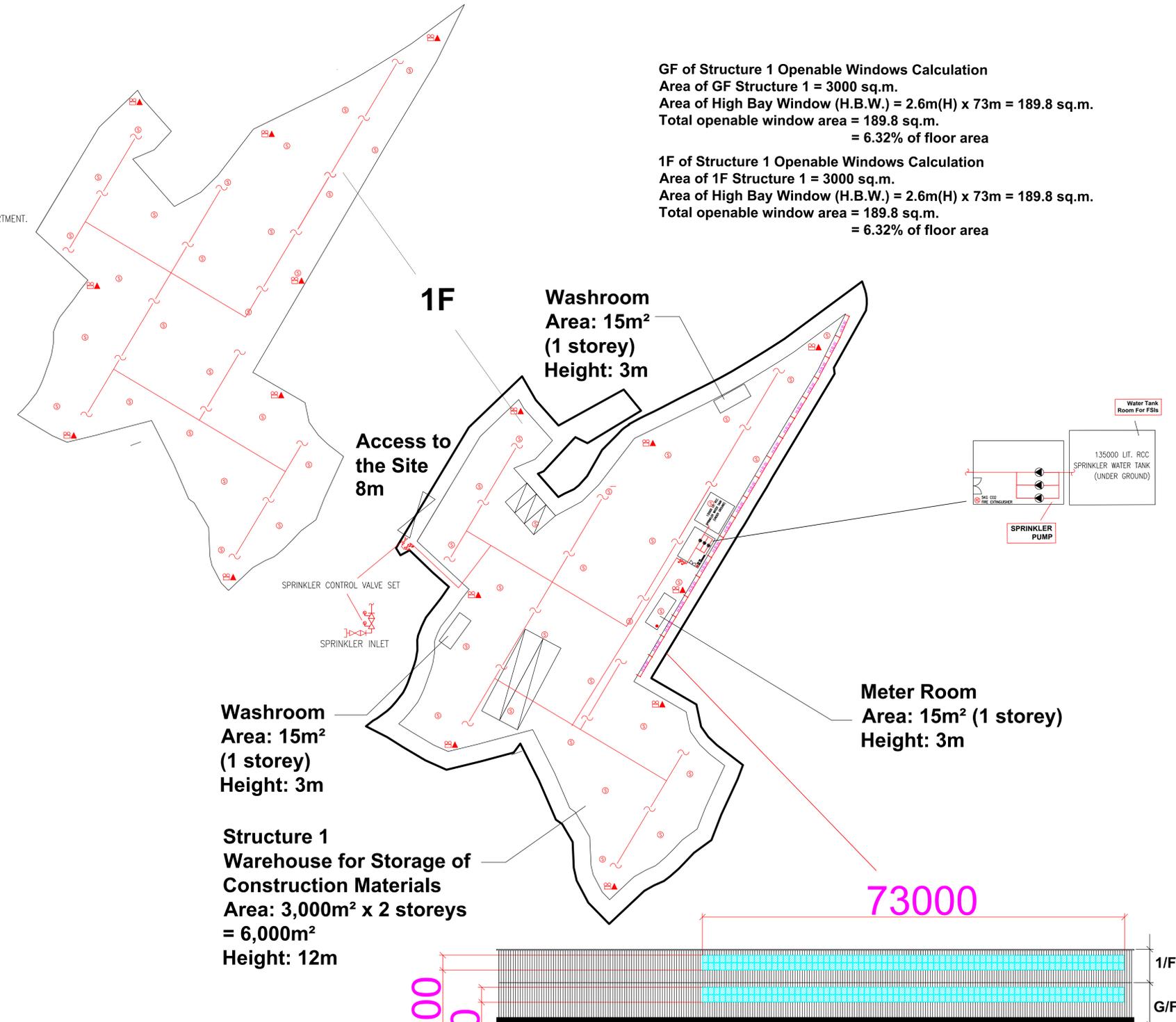
- 5.1 ALL EXIT SIGNS/DIRECTIONAL EXIT SIGNS SHALL BE PROVIDED IN ACCORDANCE WITH BS 5266-1 :2016 AND FSD CIRCULAR LETTER NO. 5/2008, FOR THE BUILDING. EXIT SIGNS/DIRECTIONAL EXIT SIGNS SHALL BE BACKED UP BY BUILT-IN BATTERY AND CAPABLE OF MAINTAINING FUNCTION OF NOT LESS THAN 2 HOURS IN CASE OF POWER 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 ] (M<sup>2</sup>) X (0.003]
- 6.3 A 20-35 KG WHEELED TYPE DRY CHEMICAL FIRE EXTINGUISHER IN EVERY  $500\text{m}^2$  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

**GF of Structure 1 Openable Windows Calculation**  
 Area of GF Structure 1 = 3000 sq.m.  
 Area of High Bay Window (H.B.W.) = 2.6m(H) x 73m = 189.8 sq.m.  
 Total openable window area = 189.8 sq.m.  
 = 6.32% of floor area

**1F of Structure 1 Openable Windows Calculation**  
 Area of 1F Structure 1 = 3000 sq.m.  
 Area of High Bay Window (H.B.W.) = 2.6m(H) x 73m = 189.8 sq.m.  
 Total openable window area = 189.8 sq.m.  
 = 6.32% of floor area



LEGEND

- STAND ALONE BATTERY TYPE SMOKE DETECTOR
- EMERGENCY LIGHT
- SPRINKLER CONTROL VALVE SET
- PUMP SET
- PRESSURE GAUGE
- SUBSIDIARY VALVE / FLOW SWITCH
- 25KG WHEELED TYPE DRY CHEMICAL FIRE EXTINGUISHER
- EXIT SIGN
- GATE VALVE
- Y-TYPE STRAINER
- SPRINKLER HEAD (ON PLAN)
- 5KG CO2 FIRE EXTINGUISHER
- NON-RETURN VALVE
- GATE TYPE (With MONITORING)
- SPRINKLER INLET
- 5KG DRY POWDER FIRE EXTINGUISHER

PROJECT : <b>Proposed Temporary Warehouse for Storage of Construction Materials for a Period of 3 Years at Lots 1445SBss2, 1445SBRP, 1489, 1490, 1492 &amp; 1494 in DD76</b>	DRAWING TITLE : <b>F.S. Notes, Legend, Fire Service Installation Layout Plan</b>		ARCHITECT :	CONSULTANT :	FIRE SERVICE CONTRACTOR : <b>Century Fire Service Engineering Co., Ltd.</b>	NAME C.K.NG	DATE 15 Mar 2026	DRAWING NO : <b>FS-01</b>	REV. <b>0</b>
						DRAWN BY		SCALE : 1 : 300 (A0)	
						CHECKED BY		SOURCE : B.O.O. Ref. BD F.S.D. Ref. FP	
						APPROVED BY			
REV		DESCRIPTION		DATE					