

Testing and Commissioning Checklist for Street Fire Hydrant System

I. REFERENCE

Project	FSD Ref.
Address	Location
.....	

II. TYPE OF SYSTEM

	Yes	No	N/A	Remarks
2.1 Supplied Directly from Town Main	[]	[]	[]	
2.2 Supplied from Gravity Tank	[]	[]	[]	
2.3 Supplied from Pumps and Tank	[]	[]	[]	
2.4 Supplied from Sea Water Pumps	[]	[]	[]	

III. LAYOUT CHECKING AGAINST APPROVED BUILDING PLANS

FSD Ref. of Approved Building Plans.....				
	Tally with drawings?			
	Yes	No	N/A	Remarks
3.1 Quantity of street hydrants	[ ]	[ ]	[ ]	.....
3.2 Location of street hydrants	[ ]	[ ]	[ ]	.....
3.3 Location of pump room/enclosure	[ ]	[ ]	[ ]	.....
3.4 Location of tank	[ ]	[ ]	[ ]	.....
3.5 Tank capacity	[ ]	[ ]	[ ]	.....

IV. ON SITE INSPECTION

4.1 GENERAL

4.1.1 Hydrant body is painted in red for fresh water system and in yellow for sea water system (with white band when fed directly from government trunk main).	[ ]	[ ]	[ ]	.....
4.1.2 For hydrant not in service, cap for 100mm outlet is painted in blue.	[ ]	[ ]	[ ]	.....
4.1.3 Each hydrant is equipped with a control valve.	[ ]	[ ]	[ ]	.....
4.1.4 Each hydrant is equipped with an isolating valve (applicable to system fed directly/indirectly from government main).	[ ]	[ ]	[ ]	.....
4.1.5 Spindle of underground hydrant valve is within 250 mm to 500 mm below valve pit cover.	[ ]	[ ]	[ ]	.....
4.1.6 Size of underground control valve pit cover is not greater than 300 mm x 300 mm with “FH” marking engraved on the surface. (Remarks: Isolating valve pit cover shall conform to WSD standard.)	[ ]	[ ]	[ ]	.....

	Yes	No	N/A	Remarks
4.1.7 The valve pit of control valve is located between 1.5 m to 3 m from the street hydrant.	☐	☐	☐	
4.1.8 The valve pit of control valve is located outside the designated emergency vehicular access.	☐	☐	☐	
4.1.9 V-shaped arrow head (100 mm high and 50 mm wide) pointing toward the control valve is painted on hydrant top (yellow arrow for red hydrant and red arrow for yellow hydrant).	☐	☐	☐	
4.1.10 The hydrant number with size not less than 75 mm is painted at the hydrant (in yellow for red hydrant and in red for yellow hydrant).	☐	☐	☐	
4.1.11 There is no obstruction within 1.5 m in front and on two sides of the hydrant.	☐	☐	☐	
4.1.12 Tank refilling system is in efficient working order (applicable to system with tank).	☐	☐	☐	
4.1.13 The number assigned for the hydrant shall be painted on the body facing the roadway with size not less than 75 mm (in yellow for red hydrant and in red for yellow hydrant).	☐	☐	☐	
4.2 PUMP (if provided)				
4.2.1 Duplicate pumps are provided for duty and standby use.	☐	☐	☐	
4.2.2 Mode of power for driving the pump is:				
4.2.2.1 Electricity [] or				
4.2.2.2 Secondary power supply provided.	☐	☐	☐	
4.2.2.3 If no, diesel engine driven standby pump provided.	☐	☐	☐	
4.2.2.4 Starting instruction for diesel engine driven pump are prominently displayed in the pump room enclosure.	☐	☐	☐	
4.2.3 No automatic means of stopping the pump other than by switching off at the pump room/enclosure.	☐	☐	☐	
4.2.4 For duplicate electric motor driven pump arrangement, the pump starters are wired through a selector switch for duty and standby pump selection.	☐	☐	☐	
4.2.5 The motor/engine for the pump is rated to give 20% more power in addition to the hydraulic power required for the rated flow of the system.	☐	☐	☐	
4.2.6 Pumps are permanently primed.	☐	☐	☐	

	Yes	No	N/A	Remarks
4.2.7 Non-return valve(s) are provided to prevent water backflow into the water tank if provided.	[]	[]	[]	
4.2.8 All pumps are housed in suitable room/enclosure designed solely for accommodating pumps or equipment for fire service installations.	[]	[]	[]	
4.2.9 Pump room/enclosure are laid clear of any exit or normal communication routes through the premises.	[]	[]	[]	
4.2.10 Pump room/enclosure is clearly marked in English and Chinese characters.	[]	[]	[]	
4.2.11 Pump room/enclosure is suitably locked to prevent unauthorised tampering.	[]	[]	[]	
4.3 SUPPLY TANK (if provided)				
4.3.1 Water tank and its capacity are clearly marked in English and Chinese characters.	[]	[]	[]	
4.3.2 Fire Service Completion Advice issued.	[]	[]	[]	
4.3.3 For system where the tank bottom is more than 20m above the outlet coupling of the lowest street hydrant, a bypass pipe (of the same size as the pump suction pipe) is provided at the pump suction and discharge pipe. (Please see Figure C in Annex I)	[]	[]	[]	

V. SYSTEM TESTING

(applicable to system with pumps)

5.1 The pump starts automatically upon opening of any hydrant outlet.	[ ]	[ ]	[ ]	.....
5.2 Other than the jockey pump, the pump can only be stopped manually at the pump room, once started.	[ ]	[ ]	[ ]	.....
5.3 The standby pump is energized within 15 seconds upon failure of the duty pump.	[ ]	[ ]	[ ]	.....
5.4 For diesel engine driven pump, the operation of the pump starting pressure switch is not affected by mains power failure.	[ ]	[ ]	[ ]	.....
5.5 The status of each pump comprising “Power Supply On”, “Pump Running” and “Pump Failed” are monitored and displayed at the pump room.	[ ]	[ ]	[ ]	.....
5.6 The pump status signals are repeated to: Fire control centre	[]	or		
A status panel at the building main entrance	[]	or	.....	

	Yes	No	N/A	Remarks
5.7 Tank refilling system is in efficient working order (applicable to system with tank).	[]	[]	[]	

VI. FIELD MEASUREMENTS

- 6.1 Flow rate and pressure tested in accordance
with Figure in Annex I.
- 6.2 When discharging at two 65mm outlets simultaneously:
Flow at one 65mm outlet (l/min) :
Running Pressure (kPa) :

VII. GENERAL COMMENTS & REMARKS

Test conducted by:

..... (Signature)

.....

Name of FSI Contractor's Representative (in block letters)

.....

Company Chop

.....(RC /)

Name of FSI Contractor (FSI Contractor Registration Number)

Date

FIGURES FOR EQUIPMENT ARRANGEMENT FOR TESTING OF PEDESTAL STREET HYDRANT
(2 OPTIONS TO SUIT SITE CONDITIONS)

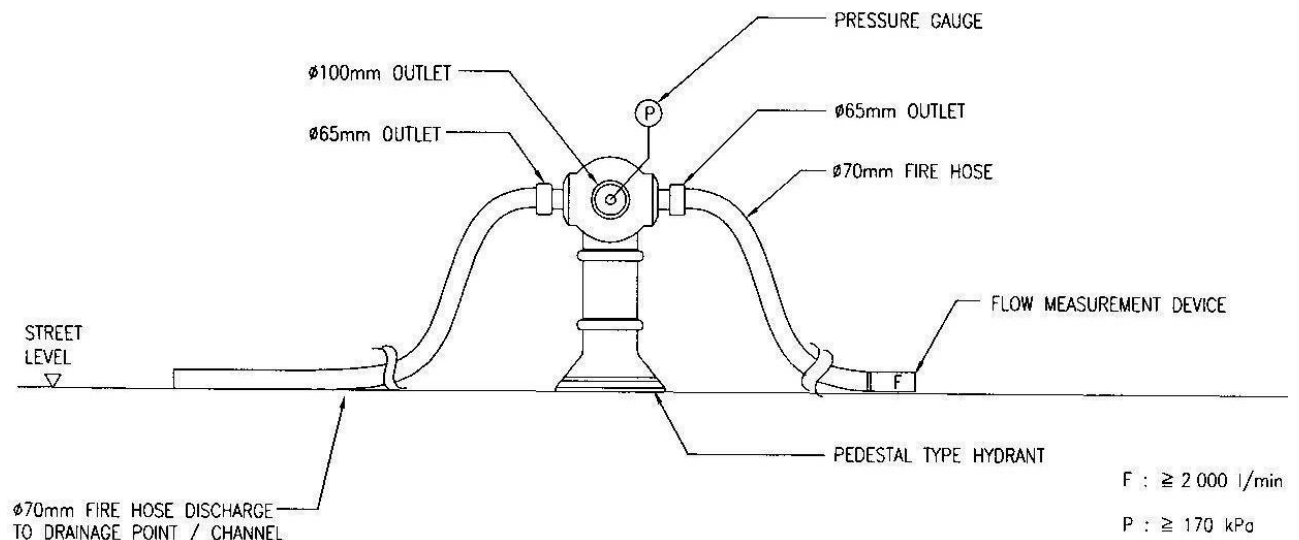


FIGURE A

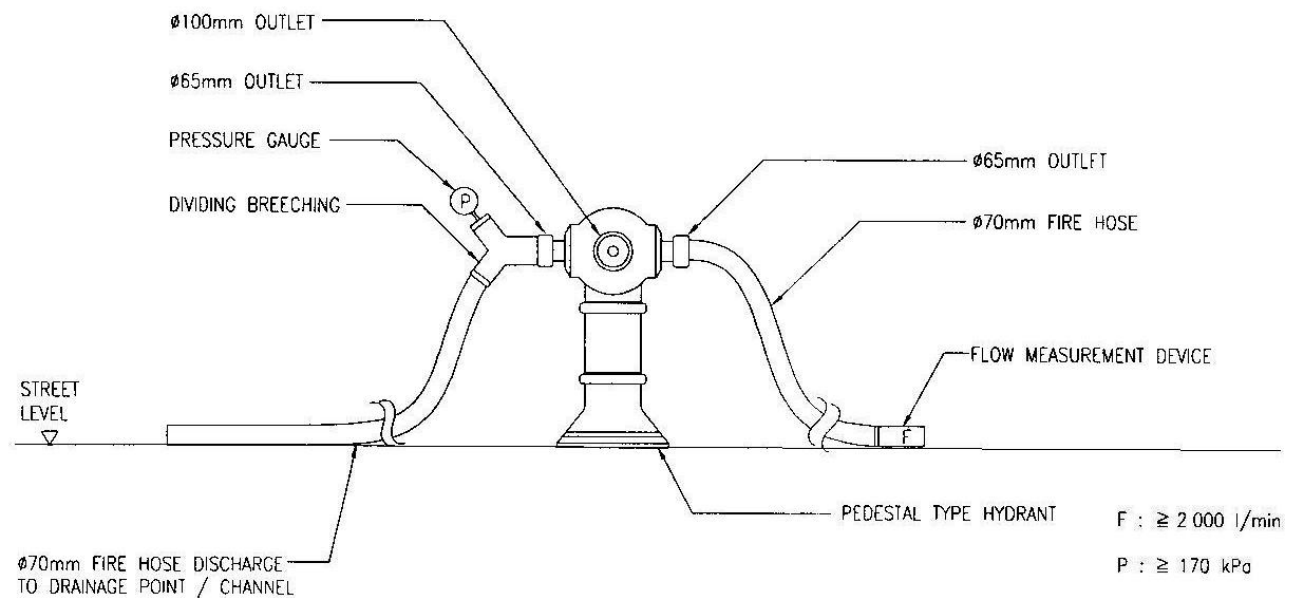


FIGURE B

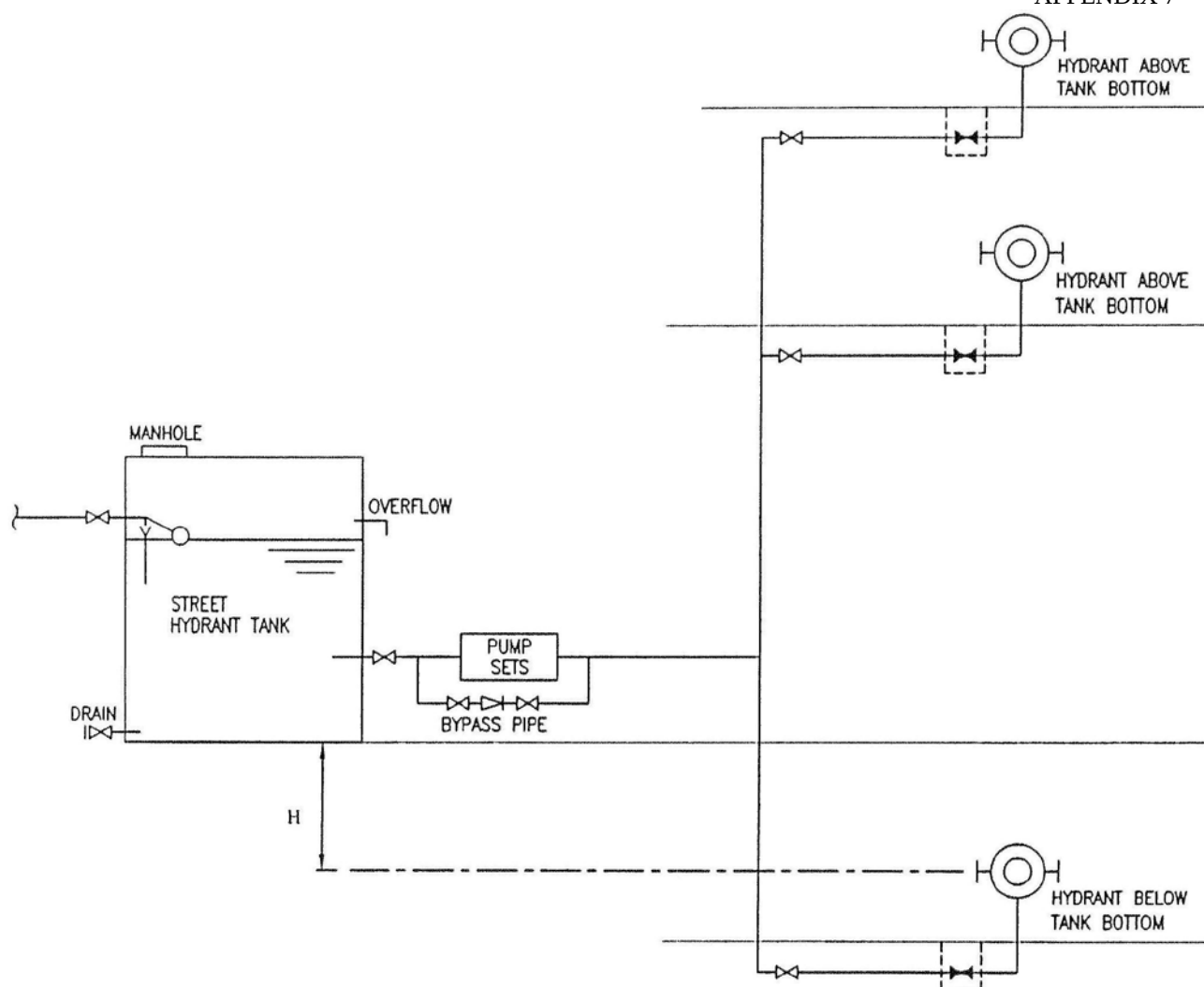


FIGURE C

(SCALE: N.T.S.)

NOTES:

- (1) "H" IS THE HEIGHT DIFFERENCE BETWEEN THE TANK BOTTOM AND THE CENTRE LINE OF THE OUTLET COUPLING OF THE LOWEST STREET HYDRANT IN THE SYSTEM.
- (2) IF $H > 20\text{m}$, THEN A BYPASS PIPE IS REQUIRED AT THE PUMP SETS.