



LEGEND

- WC FT FLOOR TRAP WASHBASIN LONGBATH
- BIDET FW FLOOR WASTE BT BIDET TRAP SINK

FFL: Finish Floor Level

NOTES:

- (1) Top level of all inspection chambers (ICs) and floor traps (FTs) shall be at the same level or higher than the top level of manhole.
- (2) Gradients for all drain-lines including that connecting to public sewer shall comply with requirements in table below

Dia. of drainline	Maximum Gradient	Minimum Gradient	Maximum Gradient at upstream of Backdrop or tumbling bay
150mm/200mm	1:30 (To achieve minimum self-cleaning velocity of 0.9m/s)	1:90 (Not to exceed scouring velocity of 2.4m/s)	1:70

SIZE, LENGTH AND GRADIENT OF DISCHARGE PIPE ON GROUND LEVEL			
Sanitary Appliance/fitting Served	Minimum Size (mm)	Maximum Length (m)	Gradient
Ultra-low capacity WC (< 3.5 L per flush)	75	10	Not flatter than 1:50
Low capacity WC (< 3.5 L to 4.5 L per flush)	100	15	Not flatter than 1:50
Floor trap (receiving flow from sanitary appliances or washing machine)	100	15	Between 1:20 and 1:60
Floor trap (receiving only floor washing water, i.e. no appliance connected)	75	15	Between 1:20 and 1:60
Urinal trap (receiving flow from: (i) up to 3 urinals) (ii) 4 TO 10 urinals.	(i) 75 (ii) 100	15	Between 1:20 and 1:60

ALL DIMENSIONS ARE IN mm.