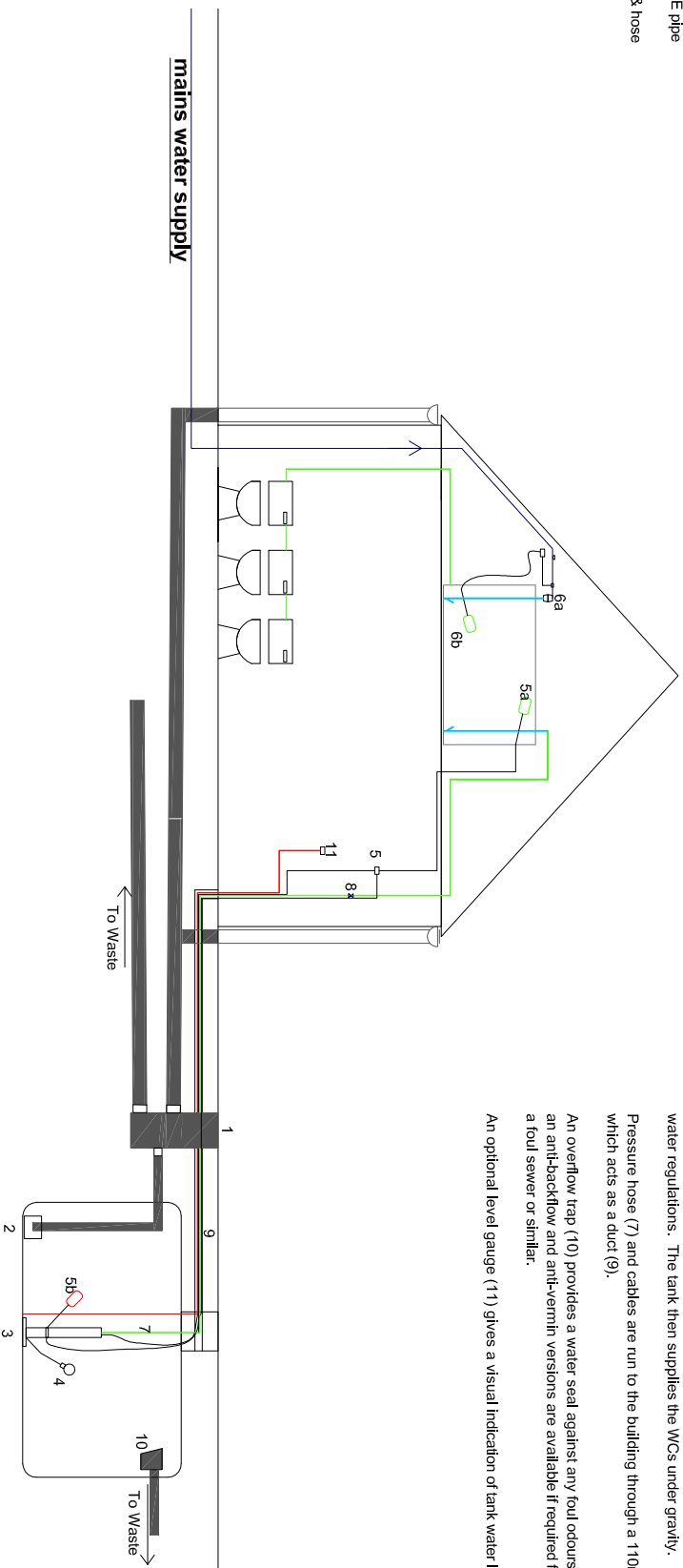


Components

1. Microstrain Filter
2. Smoothing Inlet
3. Submersible pump
4. Floating suction filter (or fixed suction filter)
5. Control panel
- 5a. Demand float switch
- 5b. Dry-run protect float switch
6. Internal break tank
- 6a. Solenoid valve & tundish
- 6b. Top-up float switch
7. Pressure hose or MDPE pipe
8. Non return valve
9. 110mm duct for cable & hose
10. Overflow trap
11. Level gauge (optional)



Rainwater is collected from the roof drainage system by the underground filter or filters (1). This filters out the debris from the water and diverts about 90% of it into the storage tank. Excess water goes to soakaway or storm drain in the usual manner, as does the overflow water from the tank. As water enters the tank it passes through a smoothing inlet (2) which calms the flow of water and prevents disturbance of the float switch and any sediments.

Water is then supplied on demand by the submersible pump (3) through a floating suction filter (4) to header tank and on to WCs etc. The pump is controlled by a panel (5) that receives inputs from a float switch (5a) in the header tank to detect demand, and a float switch (5b) in the rain tank to provide dry-running protection.

Mains water top-up is provided by a solenoid valve (6a) activated by a third float switch (6b). The water is discharged to the tank via a type A air gap tundish compliant with current water regulations. The tank then supplies the WCs under gravity.

Pressure hose (7) and cables are run to the building through a 110mm drainage pipe which acts as a duct (9).

An overflow trap (10) provides a water seal against any foul odours from drains. N.B - an anti-backflow and anti-vermin versions are available if required for connection to a foul sewer or similar.

An optional level gauge (11) gives a visual indication of tank water level.

MICROSTRAIN RAINWATER HARVESTING SYSTEM not to scale

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microstrain
sustainable engineering solutions

CLIENT:	PROJECT:	DRAWING TITLE:	CONTRACT:
		Microstrain Rainwater Harvesting System	Ivan McFadden
Ref No.:	SCALE:	SIZE:	DATE:
Drawn By: R1	N.T.S.	A4	
REV:	DRG. NO.:	001	

NOTE:
ALL LEVELS TO BE CHECKED
AND CONFIRMED ON SITE.