

## **BB2SJ Aquaponics Pilot Plant**

### **Phase 1 Part 5.**

### **Rain Water Harvesting System**

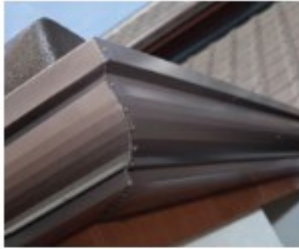
Item	Scope of Work
5.0	<p>To produce working design for Rain Water Harvesting System Feeder suitable for BB2SJ Aquaponics Pilot Plant.</p> <p>Your design shall include followings:</p> <ul style="list-style-type: none"><li>• Overall design flow diagram.</li><li>• Rain Water Collector</li><li>• Dirt/Dust Removal mechanism.</li><li>• Rain Water Filter System.</li><li>• Harvested Water Storage System.</li><li>• Monitoring System</li><li>• Material Inventory.</li></ul>
5.1	To present & obtain approval from officers on overall design
5.2	Procurement of material, construction, testing & commissioning of Rain Water Harvest System.
5.3	To interact and liaising with other project team members to monitor & to propose improvement or modifications.

*\* Please refer to Master Program for timing of execution for each phase.*

*For reference:*

#### **MONIER RAINWATER HARVESTING SYSTEM**





### 1. STABICOR™ GUTTER SYSTEM

A high quality rainwater management solution that is designed with exceptional durability and reliability. It is made from high tensile Aluminium Zinc for enduring colour consistency and corrosion resistance to withstand harsh weather conditions.



### 2. MONIER FILTER COLLECTOR

Removes and prevents debris, leaves and sand from entering the storage tank by directly discharging dirt to the drain.



### 3. FIRST FLUSH DIVERTER

Reduces the pollution of tank water by diverting the first flush of contaminated water away from the tank.



### 4. MONIER RAINWATER TANK

Stores filtered rainwater.



### 5A. AUTO SWITCHING DEVICE

An automatic switchover device that also functions as a pump controller. It receives signals from the sinker float sensor, water pressure sensor and mains water supply sensor; and controls the running of the pump and automatically selects the water source.



### 5B. MONIER PART FILL VALVE

The purpose is to automatically maintain a low level of water in the tank during periods of no or low rainfall. This allows the tank to continually supply water while leaving capacity in the tank for refilling in the next rainfall.



### 6. CENTRIFUGAL PUMP

To boost pressure. The pump is only active when water is drawn from the tank.



### 7. LEVEL INDICATOR

A dial-type indicator that displays the level of water in the tank.



### 8. "NON-POTABLE WATER" SIGN

All water may look the same but it isn't. Install a Non-Potable Water sign to prevent people from drinking unsafe water.