

11A Sharpleshall Street & 10 Eglon Mews London NW1

Ref : SP0805Q/SB Living Wall & Green Roof (Rev3)

001 Preliminaries & Design

To produce design drawing, design development, samples and photomontage of Living Wall.

To provide Generic Risk Assessment / Method

Statement tailored to the project and address H&S issues as required by main contractor.

To provide full time CITB - CSMSC foreman for the duration of the contract.

To provide O&M Manual requirements to include :

- a. Schematic of installation
- b. Specification and data sheets for all components
- c. Commissioning and Hand Over Certificate
- d. Electronic and hard copies required for all of the above

002 Living Wall Installation 36.00 m2

To supply 36m2 fully planted Hydroponic Living Wall System

Modules ; HDPE; each 445m high x 600mm wide x 65m deep with 20 pockets; fully planted to approved design.

To supply and install 100mm x 50mm vertical treated softwood cladding rails fixed with countersunk 8mm dia stainless steel / resin anchors at 600mm centres.

To supply & install 2400 x 1200 x 18mm Ecosheet backing boards using 5 x 50 stainless steel screws at approx 300 c/c = 15no / board.

To supply & install 6mm geo-textile void former with laps between sheets to the full façade.

To supply & install 20mm x 15mm batten with pre-fixed clips for drip line at vertical panel centres.

To supply & install irrigation riser in the riser zone on the edge of the wall and connection to the supply pipe/s from the plant room.

To install to layout plan & specification wall modules to void former board.

To supply and fit squareline UPVC gutter or similar approved, with running outlets to base of wall.

To include specified fixings as required.

003 Irrigation

To supply design, materials and labour to fit plant room as to specification and to include :

1. Irrigation Performance Requirements

- a. 2 - 3 bar pressure at all emitters
- b. Drip line is PCND line with outlets at 125mm centres at a rate of 1.6litres per hour per dripper. Full water flow rate is 2.1m3/hour
- c. 15 no emitters / m2
- d. Non return valves @ 1 m centres on the horizontal supply pipes
- e. 20mm supply pipe (looped to supply both sides of individual zones)

2. Irrigation Zones

- a. 2 zones for the Living Wall
- b. 2 zones for the Green Roof

3. Break Tank / Harvesting Tank

- a. 12 minute capacity 1000lt
- b. WRAS approved design

4. Pump

- a. Espa Acuaría 07-5A
- b. Dry run protection to be included

5. Nutrient Dosing Unit

- a. Dosatron D3GL-2
- b. Bye-pass facility to be installed
- c. Ability to control nutrient levels 0.2% - 2%
- d. 100 Micron/155 Mesh disk filter to be include for nutrient tank

6. Nutrient Tank

- a. Size:- 85lt 3 month duration @ 1:500 dosing rate
- b. See- through for internal installation

7. Computer Control Unit

- a. Heron MI-4 Zone multi wire
- b. GSM Module
- c. Water meter & power outage alarm
- d. Min 4 Irrigation cycles per day – but not limited to this

8. Filters

- a. 100 Micron/155 Mesh disk filter and scale reducer to be fitted before the break tank and also before the dosing unit.

9. Flushing / Pressure Sensing

- a. Flushing point and pressure check point to be installed before solenoid valve manifold.

004 Green Roof Installation (Roof 2,11)

To supply & install 150m² Wildflower Biodiverse Green Roof to include -

- a. BBSU - Protection/moisture Layer
- b. TCD2 - Drainage/reservoir
- c. BBSF - Filter/moisture wick
- d. BBS EXT - Extensive soil substrates minimum 80mm of varying depth.

A blend of water retaining aggregates, crushed brick and organic material.

All substrates are composed of composted material from sustainable sources, the crushed brick element is a by-product or a second from the brick manufacturing industry and therefore contains no demolition waste.

Loose Bulk Density: 850 – 900 Kg/m³

Saturated Density: Approx. 1150 kg/m³

pH Value: 6.5 – 7.5

- e. BBS BIO T - BioDiverse Turfs 90% coverage
- f. Pebble margin - 20-40mm

NB. No provision for retention strip but can be supplied and installed for £15.00/linear metre

All our installations are FLL grade or above – consistent with longevity of vegetation

This price assumes materials are "delivered-to-roof" by others i.e. offloading and lifting managed by contractor and delivered to Scotscape on scaffolded roof with priority cranes or tele-handler provided and in place to reach all parts of the roof.

This price is from roof only and assumes one visit.

Assumes minimal falls 1:60

Roof is finished - no other trades on roof while or following Scotscape

Water supply to roof is required to saturate Green Roof 30 litre/m²

Waste is main contractor responsibility

This price assumes roof is waterproof/root-proof

Vegetation mats delivered on pallets

Substrate is delivered in certified multi lift bulk bags

005 ManSafe® System

To supply, install, inspect & certify 2 No. run(s) of Latchways ManSafe totalling approximately 40m fitted to HCL Galvanised Posts.

All works to be carried out in accordance with the recommendations of BS7883.

PC Sum of £516.00 plus vat included -

To supply sets of the following user equipment:

Removable Transfastener

Full Body Harness

1.75m Shock Absorbing Lanyard

006 Living Wall & Green Roof Maintenance (36m² Wall & 150m² Roof)

Health Check Visits (fortnightly) :

To visually inspect wall

To check moisture levels in wall and adjust irrigation as necessary

To check for pest and disease

To check for well being of plants

To check for correct irrigation operation

To clean area below wall

To carry out remedial work to wall as found to be necessary

Horticultural Visits (bi-annual) :

To check moisture levels in wall and adjust irrigation as necessary

To remove weeds

To prune in accordance with seasonal requirements

To dead head as necessary

To treat for pest and disease

To apply feed and nutrient as necessary

To check and service irrigation plant and ensure correct operation

To sweep and tidy below wall

To check run off outlets for blockage

To replant at Scotscape cost any plants that have failed due to poor workmanship. Exceptions :

Replacement of weather damaged plants

Assumptions / Exclusions

Access provided

007 General Assumptions / Exclusions

1. Welfare, Access and Egress by Main Contractor
2. Assumed full scaffold access & scaffold genie hoist to all areas of the Living Wall & Roof areas
3. Main Contractor to supply 'plant room' with suitable floor and wall space in frost free environment for positioning of irrigation tank and component parts.
4. Permanent mains Water supply by Main Contractor to Plant Room.
5. Permanent mains 240v supply by Main Contractor to Plant Room.
6. Main Contractor to supply secure storage area for Living Wall on delivery to site.
7. No provision for trims
8. Assumed wall substrate and/or metal frame suitable to withstand Living Wall loadings of 72kg per m².
9. Main Contractor to supply site skips for clearance of waste.
10. Main Contractor to provide trapped gullies / channels to base of wall for surplus irrigation run off.
11. Main Contractor to carry out all enabling, making good, trunking and conduits as necessary to allow installation of irrigation pipework and electrical wiring.
12. Main Contractor to supply scaffold hoist.

Scotscape Ltd