



# GREEN ROOFERS

---

Green Roofers Ltd | 1st Floor | 2 Woodberry Grove | Finchley | London | N12 0DR

## Q37 | GRX60 - SEDUM GREEN ROOF SYSTEM

NBS SPECIFICATION

# 22 Frognal Way – Security Hut

## OVERVIEW

Prepared By: **Andrew Sheldon**

Date: **25.10.2021**

Project Number:

Document Version: **1**

Client Details:

Company Name: **Randle Siddeley**

Contact Name: **Henri Hurtebize**

Contacts:

**Ryan Hendy** | Managing Director | [ryan@greenroofers.co.uk](mailto:ryan@greenroofers.co.uk) | 07506 786 721

**Richard Longden** | Technical Director | [richard@greenroofers.co.uk](mailto:richard@greenroofers.co.uk) | 07593 023 552

**Connor Deal** | Operations Manager | [connor@greenroofers.co.uk](mailto:connor@greenroofers.co.uk) | 07807 781 945

---

Green Roofers Office | [info@greenroofers.co.uk](mailto:info@greenroofers.co.uk) | 020 7754 0365

## GUARANTEE PERIOD:

10 years with approved **Maintenance Contract**

## ROOF TYPE:

**Roof Substrate:** Unknown

**Slope:** Flat

**Protection Layer:** TBC

**Drainage Layer:** **GRD20** nominal **20mm** rigid compression cell multi-flow drainage/water retention layer with a 105g/m<sup>2</sup> filtration layer supplied by Green Roofers Ltd.

**Growing Medium:** Green Roofers engineered lightweight extensive green roof substrate. The material will contain a mixture of pumice, expanded clay and crushed brick amongst other ingredients such as fillers of coarse sand. It will contain organic peat free compost and have a bulk dry weight of 936kg/m<sup>3</sup>. Installed to a finally settled depth of **60mm** including an allowance for **20% settlement** in accordance with the GRO Code of Best Practice.

**Vegetation Layer:** **GRS38** Sedum mat, average 25mm thick pre-grown mat containing a minimum of 11 species of sedum (sourced from 38 different varieties) at 90% coverage upon delivery and harvest.

**Vegetation Break:** 300mm wide, Coastal 20, 20/40mm washed rounded pebble margin, free from sharp edges and contaminants

**Perimeter Trim:** 80mm high aluminium slotted trim, mechanically fixed to underlayer to serves as a separation barrier to perimeters.

## 210. ROOF PERFORMANCE

- General: Firmly adhered, free draining and completely weather tight
- Will have limited access for annual maintenance, be low maintenance and/or self sustaining
- All vegetation be suitable for the location and climate

May form part of the SUDs strategy within the scheme

## 355. MOISTURE RETENTION & DRAINAGE LAYER

- Green Roofers *GR300u* underlayer with 300g/m<sup>2</sup>
- *GRD20* rigid compression cell multi-flow drainage layer, with a 105g/m<sup>2</sup> filtration fleece
- Manufactured containing recycled plastics
- 20mm nominal thickness
- Water Storage capacity – approx 5.3 l/m<sup>2</sup>

## 390. EXTENSIVE GROWING MEDIUM

- Green Roofers *GRLE60*, engineered lightweight extensive green roof substrate
- Minimum of finally settled thickness of **60mm** thickness for sedum mat roof
- Detailed nominal thickness as average thickness to allow biodiversity of the planting medium to thrive
- Declaration that it contains no hazardous materials and comes from a peat free source

## 400. VEGETATION

- **GRS38 Sedum Mat**, average 25mm thick pre-grown mat containing a minimum of 11 species of sedum (sourced from 38 different varieties) at 90% coverage upon delivery and harvest
- Supplied as a system by Green Roofers Ltd. Manufactured and grown from various sources

## **420. STONE BALLAST / WHERE REQUIRED AS A VEGETATION BARRIER.**

- Green Roofers Ltd Coastal 20 Washed, rounded aggregate graded 20/40mm free from fines and sharp angles
- Ensure that aluminium gravel guards are fitted to all outlets
- Spread evenly to a minimum depth of 50 mm

It is assumed that the building owner or his advisors have satisfied themselves that the roof structure and deck are suitable to receive the dead load of the above described system and any associated loadings.

# **EXECUTION**

## **710. INSTALLATION GENERALLY**

- Once waterproofing is complete, clear all surfaces of debris
- Visually inspect waterproofing and report any apparent defects or damage
- Do not use material which are detrimental to healthy plant growth
- Protect drainage outlets
- Do not store materials which may be too heavy for the anticipated roof loadings

## **720. ADVERSE WEATHER**

- Secure all unfinished work and protect from wind uplift
- Do not install frozen materials
- Take care during period of dry weather to ensure that any planting structure is kept sufficiently moist to all it to be worked with

---

## **730. INSTALLATION OF INSULATION**

- Clear areas from debris
- Clean the substrate and inspect for damage
- Loose lay sheets as per manufacturer's recommendations
- Stagger end joints
- Keep cutting to a minimum
- Protect against wind uplift
- Cover with permeability layer, only when there will be sufficient time to protect the permeability layer from wind uplift

## **770. INSTALLATION OF THE COMBINED ATTENUATION AND DRAINAGE LAYER**

- Loose lay drainage board in a stagger bond fashion over the entire roof
- Keep cuts to a minimum

## **790. INSTALLATION OF THE SUBSTRATE**

- Lay in layers not exceeding 150mm
- Gently compact layers to achieve a level area
- Thoroughly water substrate and drainage board after completing this stage to ensure retained moisture within this system

## **800. VEGETATION INSTALLATION**

- Lay within 36 hours of harvesting
- Do not stack on site
- Do not use excessively dry, frozen or waterlogged mats
- Stagger the blankets
- Finish the edges with whole blankets and do not roller

# COMPLETION

## 910. INSPECTION

- Give a minimum of 3 days notice prior to handover

## 920. COMPLETION

- Leave area clean and tidy and free of obstacles and debris

## 930. DOCUMENTATION

- Growing medium declaration of analysis
- Maintenance procedures
- Roof map of planting and features

## NOTES

(a) It is essential that the supporting build-up of drainage layer, filter sheet, substrate and any hard landscaping is completed before installing the Sedum based vegetation blanket.

(b) Thoroughly water the substrate prior to laying the Sedum Based Vegetation Blanket

(c) Lay Sedum Based Vegetation Blanket perpendicular to the direction of the drainage panels.

(d) Gently tamp blanket as laying proceeds to ensure contact with the drainage protection board.

(e) After handover gently water the Sedum based vegetation blanket for a period of 12 weeks, or more as necessary, to ensure that the planting structure is allowed to adhere fully to the drainage board. Water and labour to be supplied by others unless agreed with Green Roofers as part of the agreed contract.

(f) Fertilise slow release nutrient fertilizer at a rate of 25 grams per square metre.

## **INSTALLATION NOTES**

### Autumn:

Trim the roof surface to remove all dead vegetation, rake off debris and cart away

### Spring:

- Inspect substrate surface and vegetation barriers; remove all unwanted grasses, weeds, saplings etc
- Any bare areas of substrate must be re-seeded and lightly raked over, or re-planted
- Ensure that perimeters and roof outlets are free from weeds and other blockages
- Fertilise with slow release nutrient fertilizer at a rate of 25 grams per square metre

## **GENERAL**

Provision must be made to carry out a water test before the landscape is installed. The method and responsibility for carrying out the test must be decided on and written into the tender documents.

It is assumed that the building owner or his advisors have satisfied themselves that the roof structure and deck are suitable to receive the dead load of the proposed green roof system and landscape both during construction and on completion of the works.

Provision should be made to estimate the number of site visits required of the green roof contractor to enable them to complete the contract. The number of visits estimated should be entered into the tender documents in order to facilitate accurate pricing.

Although the system is designed to withstand drought conditions and is not an irrigated system, it is advisable to allow for a water point to be installed in case of extreme conditions.

---

The waterproofing should be taken up all upstands, protrusions etc. a minimum of 150mm above substrate level.

Ideally, a maintenance contract should be included with the Green Roof to ensure that the roof flourishes and performs as expected at the outset of the project. Alternatively, all tendering contractors should allow for a 2-year period of on-going maintenance to allow the roof to fully establish itself. This should be priced accordingly and should not be less than at least two visits per year to remove unwanted material and to inspect the performance and growth of the roof.

An on-going minimum annual inspection after this 2-year period will be required to ensure the continued performance and any changes to the maintenance regime.