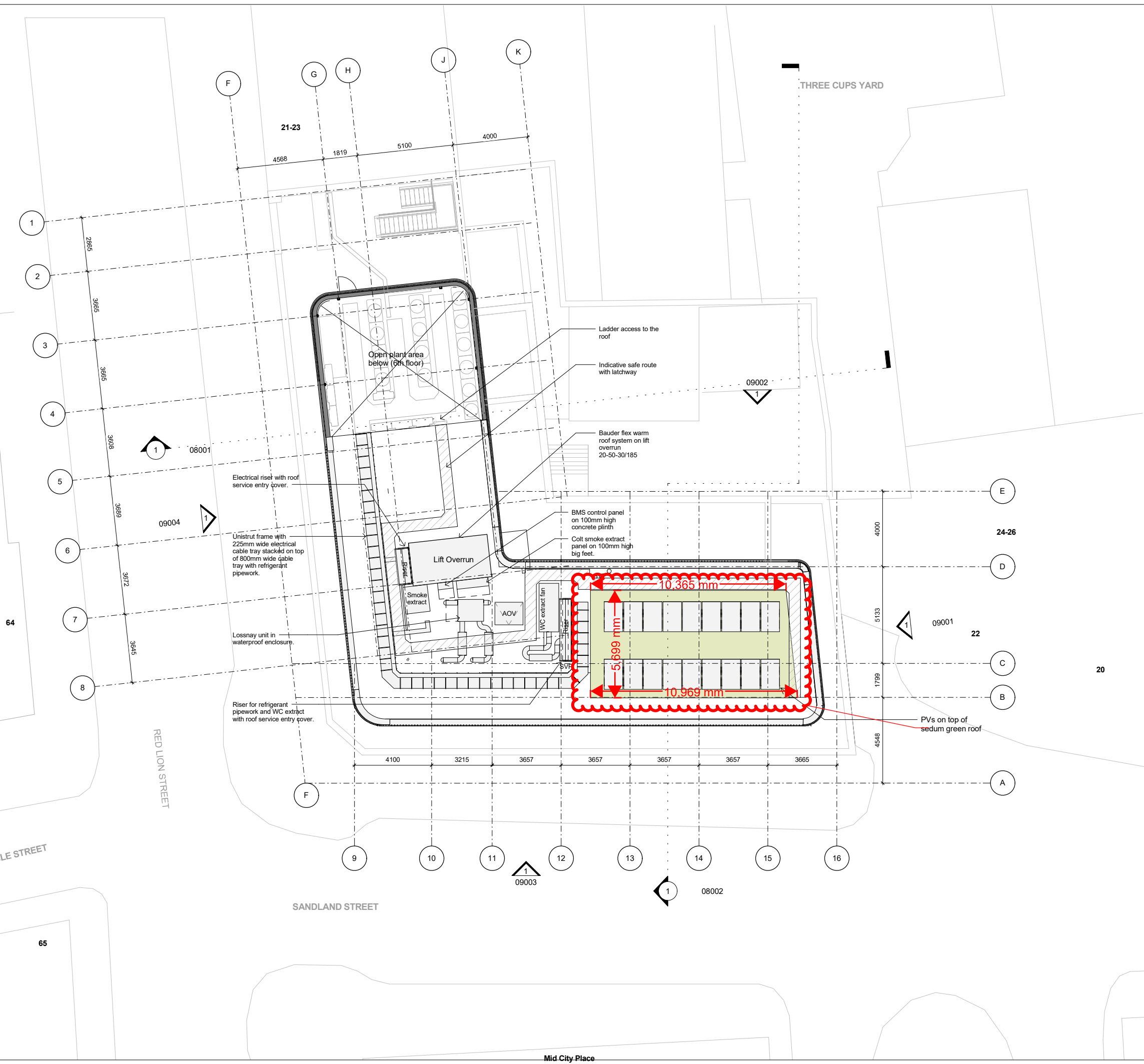


56-61



Do not scale. All dimensions to be confirmed on site. Information contained in this drawing is the sole copyright of Orms designers + architects ltd and is not to be reproduced without permission.

Key Plan:

CDM:

⚠ Risks

Notes:

Matt emulsion paint finish to all plaster/plasterboard walls and ceiling. Spec. ref - 35-38-60/195

T01	28.07.17	Issued for Tender
T02	05.12.17	Mechanical layout in plant enclosure co-ordinated
T03	13.12.17	Mechanical equipment added to roof
T04	18.12.17	PVs removed for Bauder
T05	09.01.18	Co-ordinated PV layout
T06	12.02.18	Rooftop plant co-ordinated
Rev.	Date	Description

Issued for:
S2 - INFORMATION

Orms

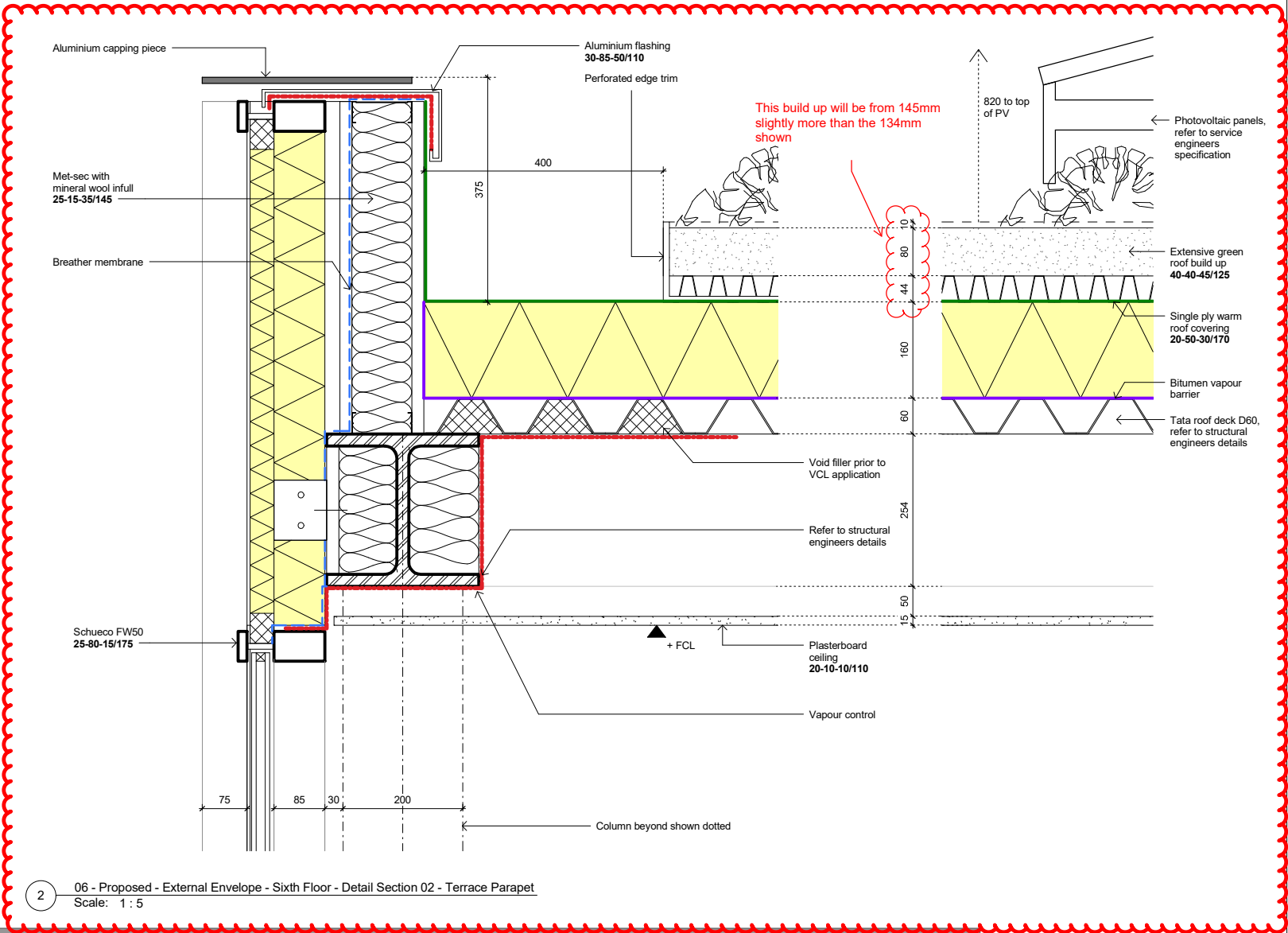
1 Oliver's Yard
55-71 City Road
London
EC1Y 1HQ
0207 833 8533
orms@orms.co.uk
orms.co.uk

Project:
20 Red Lion Street

Drawing title:
Proposed
General Arrangement
Plant Level Plan

Scale@A1
1 : 100
Project No.
2077

Drawing Number
Rev.
Project Originator Zone Location Type Role Number
RLS - ORM - 00 - 07 - DR - A - 07007 T06



2 06 - Proposed - External Envelope - Sixth Floor - Detail Section 02 - Terrace Parapet
Scale: 1 : 5

Do not scale. All dimensions to be confirmed on site. Information contained in this drawing is the sole copyright of Orms designers + architects ltd and is not to be reproduced without permission.

Key Plan:

CDM:

⚠ Risks

Notes:

1. All vertical fins and aluminium backing panels to be finished with corrosion protection paint 35-85-60/180

T01	28.07.17	Issued for Tender
Rev.	Date	Description

Issued for:
D2 - TENDER

Orms

1 Oliver's Yard
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Project:
20 Red Lion Street

Drawing title:
Proposed
External Envelope
Sixth Floor Terrace

Scale@A1
1 : 5

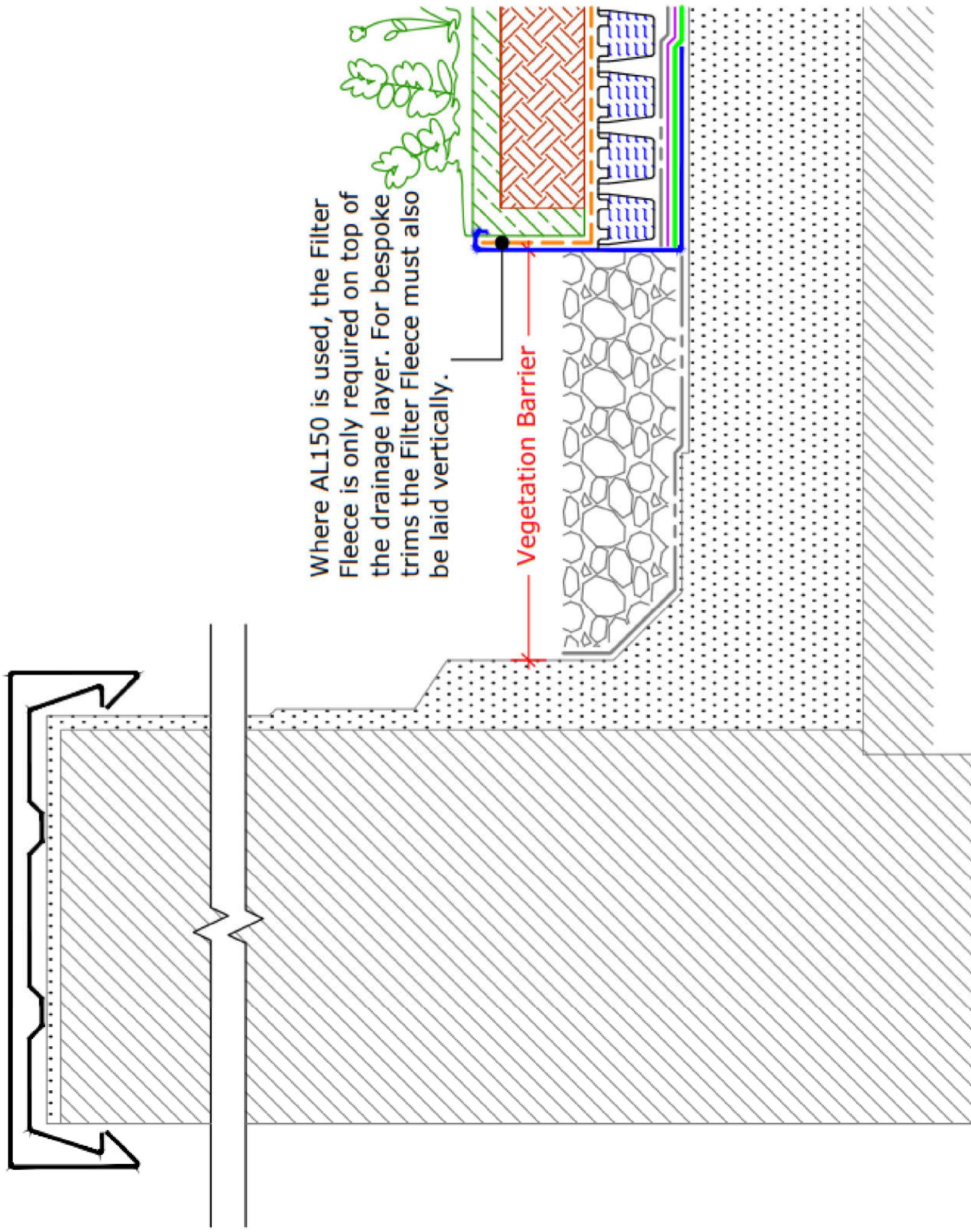
Project No.
2077

Drawing Number	Project	Originator	Zone	Location	Type	Role	Number	Rev.
RLS-ORM-00-06-DR-A-20416								T01

GREEN ROOF CONFIGURATIONS 6

Here are some green roof component build ups that are typically specified for different green roof scenarios.

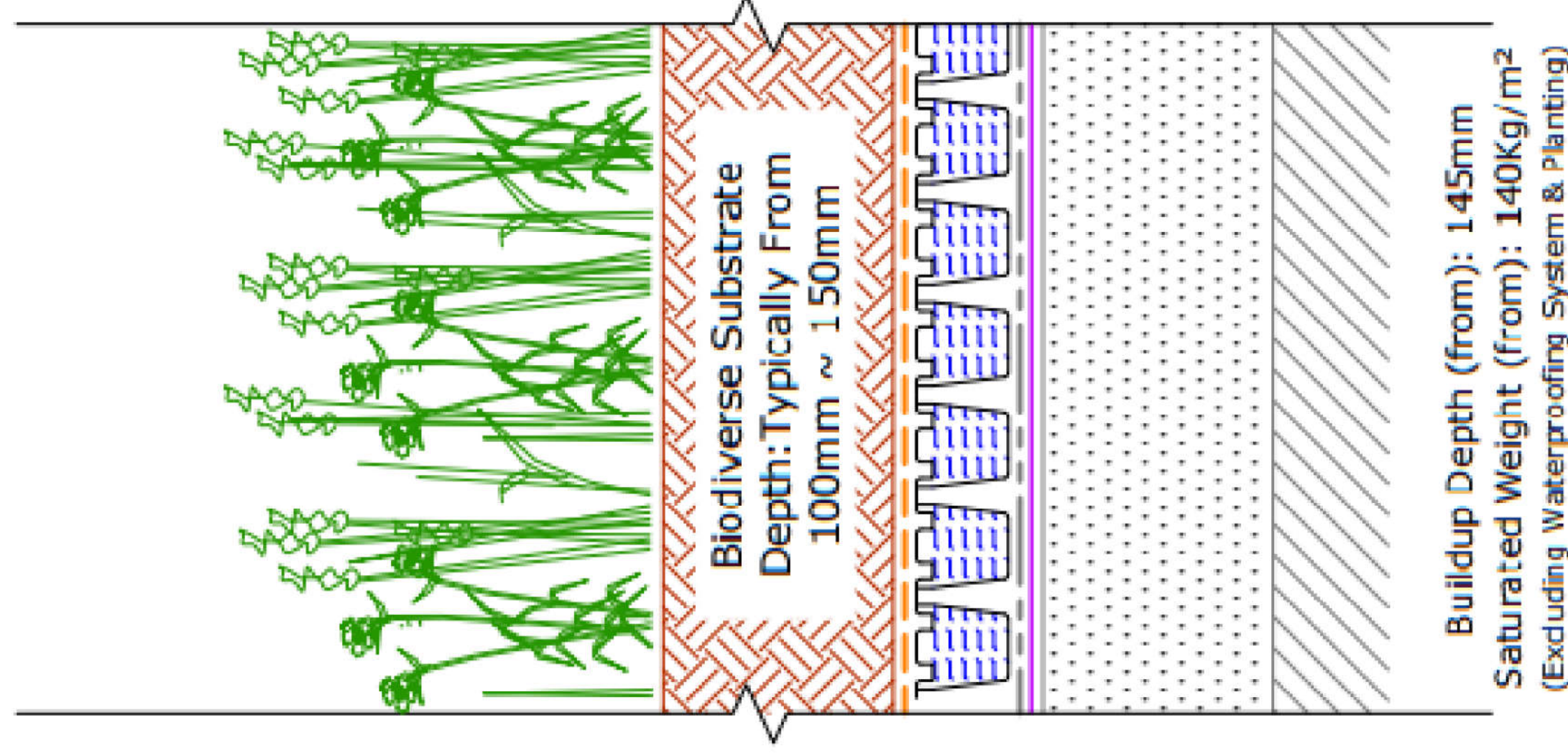
Intensive Green Roofs					Extensive Green Roofs				
Configuration 1					Configuration 2				
Flat roofs soft &/or hard landscaping					Flat roofs soft &/or hard landscaping				
Substrate and Vegetation					Substrate and Vegetation				
Filter Layer					Filter Fleece				
Water Storage / Drainage Layer					DSE 40				
Protection Layer					FSM 1100				
Separation Layer					PE Foil				
XF301 sedum blanket system					XF301 System				
SDF Mat					SDF Mat				
Not required					Not required				
Separation Layer					Not required				
Configuration 3					Configuration 4				
Sloped roofs soft landscaping					Drainage only for soft landscaping				
Substrate and Vegetation					Substrate and Vegetation				
Filter Fleece					Filter Fleece				
Reservoir Board					Drainage Board				
FSM 1100					FSM 1100				
PE Foil					PE Foil				
Biodiverse					Seeded roof				
Substrate and Vegetation					Substrate and Vegetation				
Filter Fleece					Filter Fleece				
DSE 20					DSE 40				
FSM 600					Eco Mat				
PE Foil					PE Foil				



Upstand to Parapet

(Drg.No: D0901/03-00W_0-4Deg_203-ExtInt-S-DB_001)

XF118 UK Native Species
Wildflower Vegetation Blanket or
Wildflower Plug/Seed Mix Planting
(DSE40 Drainage Layer)



Bauder Xero Flor XF118 UK Native Species Wildflower Blanket

DESCRIPTION

Bauder Xero Flor XF118 is a UK native species wildflower blanket that is unique amongst bio-diverse vegetation mat products developed for use in green roof systems, as it uses a polypropylene mesh substrate retention layer bonded to a moisture permeable base carrier sheet.

This ensures that the blanket substrate doesn't compact over time and helps maintain the vegetation in optimum condition.

The vegetation within this product is a mix of hardy wild flowers, alpinines and herbs, all of which are considered native to the United Kingdom.

Bauder XF118 is intended for application directly on to Bauder Extensive Substrate, which provides the main growing medium. The blanket should not be used on slopes in excess of 15°. This is for practical and safety reasons associated with the annual maintenance and the cutting back and removal of dead vegetation.

TECHNICAL DATA:

Composition

Mineral component
Organic component

Aggregate, expanded clay shale
Compost

Technical Performance

pH value

6.5 – 7

Vegetation support layer
resistant

Geo-textile carrier filter layer with bonded UV
nylon loops

Weights and sizes

Standard roll width

1 m

Standard roll length

2 m

Thickness:

ca. 25mm (excluding vegetation)

Max. Saturated weight

ca. 42kg/m² (use for weight load calculation)

Transport weight

ca.30kg/m² (wet weight / mown vegetation)

Supply Form

2m x 1m Rolls

Maximum slope

15°



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ORDERING AND DELIVERY INFORMATION

- The XF118 Wildflower Blanket has been developed to meet the needs of both BREEAM and Sustainable Homes Code biodiversity roof installations, and as such is intended to persist and naturalise with only minimal maintenance once it is established. Should the visual appearance of the blanket be a key priority, then the provision of an irrigation system and a more 'labour intensive' maintenance program will be required. Please consult Bauder Technical Services for more information if this option is being considered.
- Deliveries of the Bauder XF118 Wildflower Blanket are made from Tuesday to Friday.
- In exceptional weather we are unable to harvest the product for delivery until conditions improve. We are only able to advise the day before delivery if such a problem occurs.
- Order no more blanket to be delivered to site than can be installed within 24 hours of delivery.
- Should the blanket be considered below standard or defective, it is imperative that the Bauder Sales Office is informed on the day of delivery and photographs provided highlighting the issues of concern.
- If, for any reason, it is not possible to install the blanket on the day of delivery, the product should be rolled out on a flat, level surface, lightly watered and left out overnight before re-rolling for lifting to roof level early the following morning.

INSTALLATION INSTRUCTIONS

- Prepare the substrate to either a level surface or a gentle undulation with a minimum depth of no less than 100mm and water to the point of saturation. If large areas are to be installed then watering and installation should be done in sections of as much area as can be completed within four hours.
- Mark out on the substrate the length and width of rolls to be installed. It is important to ensure that the roll widths and lengths to the roof perimeter are at least 1m in each direction. Any cut widths or lengths required are to be made in the field area.
- Working from the bottom of the roof and taking care not to stand on the vegetated surface, unroll the blanket and press down firmly onto the substrate. If any voids are apparent under the blanket then it is to be lifted up, the void filled with substrate and the blanket re-bedded.
- Continue on up the slope with the next roll, taking care to ensure that the junction between the two rolls is tightly butted.

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- In order to keep all joints correctly spaced and well-made it is recommended that no more than three rolls should be installed before adjacent rolls are added to the installation.
- Commence the next row of blankets with a ½ roll of blanket, to create a staggered 'brick-bond' laying pattern with the row previously installed.
- Upon completion of the area, any surplus substrate is to be used to dress into and to 'make good' joints where the blanket edges are not tightly butted. A small amount of substrate is supplied with each blanket delivery for this purpose.
- At abutments and penetrations the blanket may be cut using a sharp knife and straight edge. It is generally easier to cut up through the carrier on the underside of the blanket than to cut through the vegetation and substrate into the carrier.
- The vegetation barrier functions to secure the exposed blanket edges against wind uplift. It is important that the leading edge is properly ballasted to prevent wind lifting the blanket, especially in the period immediately following installation, before the blanket has become rooted into the underlying growing medium. The blanket is to be dressed vertically down the incline of the substrate where it terminates and backfilled by the vegetation barrier to a minimum depth of 100mm. The vegetation barrier should be a minimum width of 500 mm at all perimeters and penetrations (refer Bauder landscape specification).
- Upon the completion of an area installed over a maximum four hour period, the installation is to be heavily watered to ensure that both the blanket and substrate are saturated before moving on to the next area.
- Upon completion of the installation apply Bauder Organic Fertilizer (slow release) at a rate of 80g/m2 and water in.
- Care must be taken to avoid the blanket being walked or stood upon unnecessarily or otherwise trafficked by other trades during and after the installation, as this will have an adverse effect on the vegetation. Bauder Ltd cannot accept responsibility for vegetation damaged by following trades.

ESTABLISHMENT WATERING AND MAINTENANCE

- After completion of the installation it will be necessary to keep the substrate and blanket damp for a minimum period of 10 weeks using temporary surface mounted sprinklers, or alternatively the permanent irrigation system should one be installed. Watering should be proactively carried out during this period as required, but only if the substrate/ blanket begin to dry out.
- Please do not over-water! It is equally important to ensure that the green roof substrate does not become totally saturated by either excessive watering through periods of cool, wet weather. Further information on watering requirements for this product is available to view or download from the Bauder web site www.bauder.co.uk. Log in and visit our Technical Centre and review the

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document "Watering Requirement Guidelines for Extensive and Bio-diverse Green Roof installations"

- To encourage the plants to survive without too much irrigation and to harden them off in readiness to survive winter, it is important to start cutting back on watering from early September.
- The maintenance requirement in the following years will depend upon the weather experienced through the winter and early spring of each year and should follow our standard biodiversity green roof maintenance guidelines.

SUPPORT

- Modern extensive and bio-diverse green roof installations will normally require only minimal maintenance. Bauder is happy to offer advice on any issues concerning your green roof and enquiries should be forwarded to our Green Roof Technical Department at the address below.
- We believe our products and systems are of the highest standard and are always prepared to discuss any queries or concerns that may arise. Providing photographs or drawings to accompany your queries will help speed our response.

Please note: In the event of any query arising which it is thought may affect the condition of the system, then Bauder Ltd should be contacted at the address below. We cannot accept responsibility for any problem or failure due to use outside those parameters for which the system was designed or 'acts of god' beyond our control e.g. extreme weather conditions or damage through pests.

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Date: 10-04-2010

TECHNICAL DATA SHEET

Bauder DSE40 Drainage and Protection Layer

DESCRIPTION:

Water storage and multi-directional drainage layer that provides a pressure resistant stable base for high loads or support for roof mounted equipment without compression to the drainage capacity.

TECHNICAL DATA:

Composition

Material
Recycled High Density Polyethylene

Weights and sizes

Size: 1.04m x 2.03m
 Thickness: 40mm
 Coverage: 2.1m²
 Weight: 1.8kg/m²
 Saturated Weight: 15.3kg water only/27kg infilled with mineral drain
 Water Storage Capacity: 13.5l/m² empty/8.4l/m² infilled with mineral drain
 Fill Volume (Mineral Drain): 21l/m²
 Compressive Strength: 80kN/m² when empty/ \geq 1000kN/m² when infilled



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