



**- 00 Q37 GREEN ROOFS**

To be read with Preliminaries, General Conditions, Contract Conditions and related Architectural Details

**- 00.1 GENERAL**

**- 00.1.0001 EXTENSIVE BIO SOLAR GREEN ROOF**

**Roof Type:**

ZinCo "Solarvert" with XD20, SB 200 and SGR

Manufacturer: ZinCo Green Roof Systems Ltd., Wittas House, 2 Rivers Industrial Estate, Station Lane, Witney, OX28 4BH; phone: 01993 229700

**Water Proofing:**

- .....

**Root Barrier - optional**

- ZinCo Root Barrier WSF 40. If the waterproofing is not root resistant, the root barrier ZinCo WSF 40 is required additionally

**Insulation**

- .....

**Protection Layer**

- ZinCo Filter Sheet PV – optional in combination with root barrier

**Roof Perimeter Protection**

- ZinCo Protection Mat Strips SM-R

**Drainage Layer with attached Filter Sheet**

- Fixodrain® XD 20

**PV Support System**

- ZinCo Solar Base SB 200, ballasted
- ZinCo Solar Base Frame
- ZinCo Solar Height Adjustment - optional
- ZinCo Solar Wind Bracing
- ZinCo Solar Adapter Profile - optional
- ZinCo Solar Mounting Profile SMP 38/33
- Fallnet SB 200-Rail - optional

**Growing Medium**

- ZinCo System Substrate "Sedum Carpet"

**Vegetation**

- ZinCo Precultivated Vegetation Mat "Sedum Carpet"

**Irrigation during initial period**

- Thorough irrigation after planting and other early irrigations are required depending on the weather and vegetation type.

**Fertilization**

- ZinCo "Plantfit 4 M"

**Gravel Edge**

- Roofing pebbles 20/40 mm

**Inspection Chamber**

- ZinCo Inspection Chamber KS 6 or KS 10

**Eaves Profile - optional**

- ZinCo Eaves Profile DP 120-A / DP 120-E

**Gravel Retainer**

- ZinCo Gravel Retainer "KL 60/80", KL "80/100", KL "100/120"

- **00.2 PERFORMANCE**

- 00.2.0010 GENERAL DESIGN

- Green roof and associated features: Complete the detailed design.
- Proposals: Submit drawings, technical information, calculations and manufacturers' literature
- Performance design: As landscape designer's requirements
- Falls: Check that there is a minimum incline of about 2 % between the highest and the lowest drainage points.
- It must be ensured, that the waterproofing covering ensures a continuity to a vertical height of at least 150 mm above the finished roof level at all abutments, parapets etc.

- 00.2.0015 MAXIMUM PERMITTED GREEN ROOF LOADS

- It is the strict responsibility of the building owner or their appointed design professional to make sure that the building structure and the roof can hold the different loads
- Dead load: Green roof layers: refer to engineer's specification
- Imposed loads:
  - Activity: refer to engineer's specification
  - Vegetation: refer to engineer's specification
  - Allowance for additional loads during construction: refer to engineer's specification
- Service loads: refer to engineer's specification

- 00.2.0020 DOCUMENTED EVIDENCE OF STATIC LOAD CALCULATION

- It is the strict responsibility of the building owner or their appointed design professional to make sure that there is a documented evidence of a static calculation for the necessary load for the PV installation following the latest relevant version of Eurocode 1: Actions on structures - Part 1-4
- Submit aero-dynamic coefficient

- 00.2.0025 INFORMATION REGARDING SEQUENCE OF EXECUTION

Please note, that the sequence of trades during execution of the PV and fall arrest installation is not continuous.

- Phase 1: green roof company installs (root barrier/optional), protection layer, moisture control layers, SB 200, (SGR-HV Height adjustment/optional), SGR, Wind bracing, (fall arrest/optional)
- Phase 2: green roof company or PV installer mounts SMP 33/38
- Phase 3: green roof company installs ballasts and growing medium
- Phase 4: PV company executes the entire PV-installation
- Phase 5: green roof company installs the vegetation

- **00.3 PRODUCTS**

- 00.3.0003 ROOT BARRIER - OPTIONAL

**Manufacturer:**

- ZinCo Green Roof Systems Ltd

**Product reference:**

- ZinCo Root Barrier WSF 40

**Materials and properties:**

- Electronically tested root barrier of high-pressure polyethylene (PE-LD), bitumen resistant, UV-stabilised
- Thickness: ca. 0.34 mm
- Weight: ca. 320 g/m<sup>2</sup>

- 00.3.0005 PROTECTION LAYER (OPTIONAL)

**Manufacturer:**

- ZinCo Green Roof Systems Ltd

**Product reference:**

- ZinCo Filter Sheet PV

**Material and Properties:**

- Thermally strengthened, UV-stabilized filter sheet made of 100 % polypropylene, highly resistant to mechanical stress.
- Thickness: ca. 1.60 mm
- Weight: ca. 300 g/m<sup>2</sup>
- Penetration force according to EN ISO 12236: ca. 4300 N, strength class 5, Tensile strength (200 mm) according to EN ISO 10319 lengthwise/crosswise: ca. 23.0 kN/m, Tensile extension lengthwise/crosswise: ca. 50% / 55%

- 00.3.0009 ROOF PERIMETER PROTECTION

**Manufacturer:**

- ZinCo Green Roof Systems Ltd

**Product reference:**

- Protection Mat Strips SM-R

**Material and properties:**

- Separation and protection layer of non-rotting synthetic fibres; thickness ca. 3 mm, weight ca. 320 g/m<sup>2</sup>, strength class 3

**Location:**

- Along upstands at roof perimeter and penetrations

- 00.3.0010 PROTECTION AND DRAINAGE LAYER WITH FILTER SHEET

**Manufacturer:**

- ZinCo Green Roof Systems Ltd

**Product reference:**

- Fixodrain<sup>®</sup>XD 20

**Material and Properties:**

- Drainage, water retention and protection mat with attached filter sheet, openings for diffusion, connecting lengthwise on interlocking studs
- Material: Polyolefin, mainly PE
- Colour: black / grey
- Height: ca. 20 mm
- Weight: ca. 1.0 kg/m<sup>2</sup>
- Water storage capacity: ca. 3 l/m<sup>2</sup>
- Compressive strength at 10 % compression: ca. 50 kN/m<sup>2</sup>
- In-plane water flow capacity tested according to EN ISO 12958

**Size:**

- ca. 1.00 x 20.00 m (roll)

- 00.3.0011 PV - LOAD DISTRIBUTION LAYER

**Manufacturer:**

- ZinCo Green Roof Systems Ltd

**Product reference:**

- ZinCo Solar Base SB 200
- ZinCo Solar Base SB 200-Q (for crosswise installation)
- ZinCo Solar Base SB 200-4 (with 4 screws for east-west-installation)

**Material and Properties:**

- Solar Base of recycled hard plastic (ABS), water storage cells and multidirectional drainage channels, incl. integrated aluminium profiles and structurally tested for combination with Solar Base Frame
- Dimensions: ca. 1 m x 2 m
- Height: ca. 43 mm
- In-plane water flow capacity tested according to EN ISO 12958,
- Weight, incl. aluminium profile: ca. 7 kg
- Filling volume: ca. 16 l/m<sup>2</sup>
- Compressive strength at 10 % compression: ca. 250 kN/m<sup>2</sup>

**Bulk Material**

- Suitable bulk material in order to achieve the project specific ballast requirements: Zincolit®, ZinCo System Substrate, gravel, or comparable bulk material.

- 00.3.0012 PV - SUBSTRUCTURE

**Manufacturer:**

- ZinCo Green Roof Systems Ltd

**Product reference:**

- ZinCo Solar Base Frame SGR

**Material and Properties:**

- Structurally proven and tested aluminium frame for the installation of photovoltaic/solar thermal systems, matched to the ZinCo Solar Base SB 200, pre-punched for the installation of the Solar Mounting Profile SMP 33/38.
- Length: ca. 950 mm
- Front height: ca. 350 mm.
- Available sizes:
  - Rear height 430 mm and inclination of mounting surface 5° (SGR 5)
  - Rear height 520 mm and inclination of mounting surface 10° (SGR 10)
  - Rear height 610 mm and inclination of mounting surface 15° (SGR 15)
  - Rear height 700 mm and inclination of mounting surface 20° (SGR 20)
  - Rear height 790 mm and inclination of mounting surface 25° (SGR 25)
  - Rear height 900 mm and inclination of mounting surface 30° (SGR 30)
  - Rear height 1020 mm and inclination of mounting surface 35° (SGR 35)
  - Rear height 1150 mm and inclination of mounting surface 40° (SGR 40)
  - Rear height 1300 mm and inclination of mounting surface 45° (SGR 45)
- Rear height: .....mm
- Inclination: .....°

Include fasteners clamps, and all other material according to project specific material list.

- 00.3.0013 PV – SUBSTRUCTURE ACCESSORIES: HEIGHT ADJUSTMENT

**Manufacturer:**

- ZinCo Green Roof Systems Ltd

**Product reference:**

- ZinCo Solar Height Adjustment SGR-HV

**Material and Properties:**

- Structurally proven base element made of aluminium, matched to the ZinCo Solar Base Frames SGR and the ZinCo Solar Base SB 200. Allows for a continuous height adjustment of the applied Solar Base Frame of up to 210 mm. The given inclination (5° to 45°) can be adapted up to ± 2°.
- Material: Aluminium
- Length: ca. 950 mm

- Height: ca. 350 mm
- Weight: ca. 1.0 kg

**Required Fixing material:** Screw set for SGR-HV

- 00.3.0014 PV – SUBSTRUCTURE ACCESSORIES: WIND BRACING

**Manufacturer:**

- ZinCo Green Roof Systems Ltd

**Product reference:**

- ZinCo Solar Wind Bracing

**Materials and Properties**

- Two pre-punched aluminium profiles for crosswise stabilization of two Solar-Base-Frames (distance: 1.0 m); incl. stainless steel screws

**Required units:**

- Photovoltaic systems - install wind bracings in a distance of max. 10 m (axial dimension)
- Solar thermal plants: - install wind bracings in a distance of max. 7 m. Due to the high dead load of thermal collectors additional wind bracings must be installed at the front side. Please contact ZinCo for the exact positioning of the wind bracings.

- 00.3.0015 PV – SUBSTRUCTURE ACCESSORIES: ADAPTER PROFILE

**Manufacturer:**

- ZinCo Green Roof Systems Ltd

**Product reference:**

- ZinCo Solar Adapter Profile

**Materials and Properties**

- Adapter Profile manufactured from one piece for the installation of particularly large modules on the ZinCo Solar Base Frame SGR.
- Material: Aluminium
- Length: ca. 700 mm
- Weight: ca. 0.45 kg
- Fixation with minimum 2 screws per profile. Contact surface to the Base Frame min. 250 mm long, to allow for adapter profiles to cantilever max. 450 mm.

00.3.0016 PV – SUBSTRUCTURE ACCESSORIES: SOLAR MOUNTING PROFILE

**Manufacturer:**

- ZinCo Green Roof Systems Ltd

**Product reference:**

- ZinCo Solar Mounting Profile SMP 33/38

**Materials and Properties**

- Made of extruded aluminium, natural AlMgSi 0.5, mill finish, with profile channel both on the upper and the bottom side.
- Length: ca. 6.000 mm
- Width: ca. 38 mm
- Height: ca. 33 mm
- Weight: ca. 0.75 kg/m
- Fixing materials: Include all required fixing materials and accessories, see data sheet.
- Further technical data on data sheet.

- 00.3.0017 LINEAR FIXING DEVICE FOR FALL PROTECTION - OPTIONAL

**Manufacturer:**

- ZinCo Green Roof Systems Ltd

**Product reference:**

- ZinCo Fallnet® SB 200-Rail

**Materials and Properties**

- Linear fixing device for fall protection according to European Standard EN 795 Class E, incl. horizontally gliding runner. To be installed in combination with ZinCo Solar Base SB 200. Installed without any roof penetration using superimposed load layout and ballast must be verified and confirmed by the ZinCo technical department.

**System includes:**

- Rail: high quality aluminium alloy, ca. 30x30 mm, standard lengths 2.0 m or 3.0 m
- Runner: stainless steel, with 4 wheels and a rotating eye
- Rail support: stainless steel, to fix the rail on the Solar Base SB 200 or Guardrail Base GB of the previous position of this specification.
- Connectors, corners, stoppers, junction pieces, 3-way junction units, etc. as needed according to project specific layout.
- Suitable bulk material, such as Zincolit® or ZinCo System Substrate, gravel or a comparable bulk material.

- 00.3.0021 GROWING MEDIUM

**Manufacturer:**

- ZinCo Green Roof Systems Ltd

**Product reference:**

- ZinCo System Substrate "Sedum Carpet"

**Material and Properties:**

- Substrate for extensive green roof applications consisting of Zincolit® Plus (sorted high quality crushed brick) and other selected mineral aggregates, enriched with Zincohum® (substrate compost enriched with fibre and clay materials), non-flammable, stable in structure and frost resistant, suitable for pumping. All chemical and physical properties meet the requirements of the FLL Guidelines for the Planning, Construction and Maintenance of Green Roofing - Green Roofing Guideline, 2008
- Volume weight dry (compacted): ca 1120 kg/m<sup>3</sup>
- Volume weight at max. water capacity (compacted): 1400 kg/m<sup>3</sup>
- Maximum water capacity: ca. 30 vol %
- Compaction factor: ca. 1.12
- Required depth (after compaction): average .....mm, according to plan.

**Supply:**

- 1.2 m<sup>3</sup> bulk bags, loose or 25 litre bags

- 00.3.0023 VEGETATION

**Precultivated Vegetation Mat**

**Manufacturer:**

ZinCo Green Roof Systems Ltd

**Product reference:**

ZinCo Pre-cultivated Vegetation Mat "Sedum Carpet"

**Material and Properties:**

- Mats with firmly rooted vegetation, plant species suitable for extensive green roofs, outdoor pre-cultivated over one growing season, with decomposable carrier, including thorough irrigation of the complete build-up.
- Delivery weight: ca. 16–20 kg/m<sup>2</sup>
- Height: ca. 30–40 mm

- Vegetation coverage: at least 75%.
  - Plant types:  
Minimum 4–5 adapted Sedum types, e.g. Sedum album, Sedum sexangulare, Sedum spurium, Sedum floriferum and Sedum hybridum.
  - Also available: ZinCo Precultivated Vegetation Mats with non-decomposable carrier.
- 00.3.0024 IRRIGATION
- Thorough irrigation after planting.
  - Other early irrigations as required depending on the weather. Vegetation has to be watered and kept moist for minimum of 4 to 5 weeks.
- 00.3.0025 FERTILIZER
- Manufacturer:**
- ZinCo Green Roof Systems Ltd
- Product reference:**
- ZinCo "Plantfit 4 M"
- Material and properties:**
- Slow release fertilizer NPK 23-5-10, granulated and compacted, with at least 80% coated particles, applied evenly onto the substrate layer after planting.
  - The recommended period to fertilize: March to Mid-June.
  - Amount to be spread: ca. 25 g/m<sup>2</sup>
  - Development and maintenance fertilization as needed every 2–3 years: 25 g/m<sup>2</sup>
- 00.3.0027 GRAVEL EDGE
- Material and Properties:**
- Roofing pebbles 20/40 mm  
at roof perimeters, in areas of upstands, around penetrations, inspection chambers, fixing devices (Ø ca. 50 cm) and similar, according to roof plan
- 00.3.0040 ACCESSORIES - INSPECTION CHAMBERS
- Manufacturer:**
- ZinCo Green Roof Systems Ltd
- Product reference:**
- ZinCo Inspection Chamber KS 6 or KS 10
- Material and Properties:**
- Inspection chamber made of plastic-coated aluminium, detachable and walkable cover made of galvanized and plastic-coated steel or alternatively with galvanized grill, with pull out flange at two opposite sides.
  - Lateral drainage slots according to DIN 1986
  - Load bearing capacity: Class H, according to DIN 19599
  - Outer dimension of the Chamber: ca. 300 x 300 mm, including flange: ca. 300 x 530 mm
  - Aperture dimension: ca. 240 x 240 mm
  - Height: ca. 30 mm (KS 6), ca. 100 mm (KS 10)
  - Also available: extension pieces KSA 8 (height 80 mm) / KSA 20 (height 200 mm) - *include where needed*
  - With or without set of interlocks (*please delete as appropriate*)
  - Cover: .....
  - Height including extension pieces:..... mm
- 00.3.0043 ACCESSORIES - ROOF EDGE: EAVES PROFILES - Optional
- Manufacturer:**
- ZinCo Green Roof Systems Ltd

**Product reference:**

- ZinCo Eaves Profile DP 120-A / DP 120-E

**Material and Properties:**

- Roof edge/eaves profile with drainage slots for water run-off and perforation in the support leg, stainless steel or aluminium
- Material thickness: 0.8 mm
- Profile height: ca. 120 mm
- Support leg: ca. 140 mm
- Available accessories (*include as needed*):
  - Connectors, internal and external 90 ° corners, leg length approx. 250 mm
- Material: ..... (Aluminium or stainless steel)

- 00.3.0047 ACCESSORIES-GRAVEL RETAINER - Optional

**Manufacturer:**

- ZinCo Green Roof Systems Ltd

**Product reference:**

- ZinCo Gravel Retainer
- "KL 60/80", "KL 80/100", "KL 100/120"

**Material and Properties:**

- Angle profile made of extruded aluminium with drainage slots on both legs
- Material thickness: ca. 1.5 mm (type 60/80 mm, type 80/100 mm), ca. 1.8 mm (type 100/120)
- Profile height: ca. 60/80 mm, 80/100 mm or 100/120 mm
- Available accessories (*include as necessary*)
  - connectors: 60/80 mm, 80/100 mm ,100/120 mm
  - corner connectors: 60 mm, 80 mm, 100 mm, 120 mm
  - fastener (for welding to the water proofing)
  - welded preassembled corners on request
- Installation height: ..... mm

- 00.7 EXECUTION

- 00.7.0000 INSTALLATION GENERALLY

- Preparation: Clear all surfaces of debris.
  - Timing: After certification of waterproof membrane integrity
  - Surface condition: Visually inspect waterproof membrane, report any damage or possible sources which might affect the condition
- Faults in waterproof membrane: Report
- Contamination: Do not use materials detrimental to healthy plant growth
- Storage: Do not overload
  - Point loads: Avoid
- Outlets: Do not block
  - Outlet grilles: Installed

- 00.7.0001 ADVERSE WEATHER

- Unfinished work: Secure from damage and wind uplift
- Conditions: Do not install or work with frozen materials

- 00.7.0003 ROOT BARRIER INSTALLATION - OPTIONAL

- Extent: Install Root Barrier WSF 40 continuously over entire roof area above the non-root resistant water proofing.
- Joints: Minimize.
- Fitting: Lay loose with overlaps.



- Overlaps: (minimum): 1500 mm
  - Upstands: Extend to a vertical height of at least 150 mm above the finished roof level.
  - Water outlets: Fit closely around penetrations and outlets.
  - General: Follow manufacturer's specific installation instructions
- 00.7.0005 PROTECTION LAYER INSTALLATION - OPTIONAL
- Extent: Install protection layer continuously over entire roof area above the water proofing or root barrier.
  - Joints: Minimize.
  - Overlaps: minimum 100 mm
  - Fitting: loose laid
  - Upstands: Extend to a vertical height of at least 150 mm above the finished roof level.
  - Water outlets and roof penetrations: cut the protection mat in situ and fit closely around penetrations and outlets.
  - General: Follow manufacturer's specific installation instructions.
- 00.7.0009 ROOF PERIMETER PROTECTION INSTALLATION
- Extent: Install continuously on top of water proofing or root barrier along upstands at roof perimeter and penetrations in such a way that the waterproofing on the upstand is protected from mechanical impact.
  - Joints: Minimize.
  - Overlaps: minimum 100 mm, on the roof surface SM-R is to be laid below the Fixodrain® XD 20
  - Fitting: loose laid
  - Upstands: Extend to a vertical height of at least 150 mm above the finished roof level.
  - Water outlets and roof penetrations: cut the protection mat in situ and fit closely around penetrations and outlets.
  - General: Follow manufacturer's specific installation instructions.
- 00.7.0010 DRAINAGE LAYER INSTALLATION
- Extent: Install XD 20 continuously over entire roof area on protection layer
  - Joints: Minimize.
  - Fitting: Lay loose with overlaps of 30 mm and connect by interlocking studs lengthwise, ensure that pre-attached filter sheet overlaps completely at joints.
  - Water outlets and roof penetrations: Cut in situ and fit closely around penetrations and outlets.
- 00.7.0011 LOAD DISTRIBUTION LAYER INSTALLATION
- Extent: Install the Solar Base SB 200 according to the layout plan on the protection mat or on the drainage element Fixodrain XD 20.
  - Fitting: butt joint or with distance according to layout plan
  - Ballast: After installation of the Solar Base Frame, completely fill and cover the Solar Base SB 200 with bulk material according to the project specific ballast requirements.
  - General: Follow manufacturer's specific installation instructions
- 00.7.0012 PV SUBSTRUCTURE INSTALLATION
- Fitting: Place the Solar Base Frame above the fixing points of the Solar Base SB 200 and tighten the screws, tightening torque > 20 Nm. (1–3) .
  - Note: If photovoltaic or solar thermal panels are not installed immediately, horizontal mounting profiles and the wind bracing must be installed immediately after installation of the Solar Base Frame.
  - General: Follow manufacturer's specific installation instructions.

- 00.7.0013 PV SUBSTRUCTURE ACCESSORIES INSTALLATION
  - Place the Height Adjustment SGR-HV above the fixing points of the Solar Base SB 200, and tighten the screws, tightening torque > 20 Nm. Slide the Solar Base Frame SGR in from above, align it and fix it to the Height Adjustment SGR-HV at the pre-punched holes, using the screw set for SGR-HV .
- 00.7.0014 PV SUBSTRUCTURE ACCESSORIES INSTALLATION
  - Install the two pre-punched aluminum flat profiles crosswise to two Solar Base Frames SGR (distance approx. 1.0 m) at their pre-punched holes, using the included stainless steel fasteners. In case of photovoltaic systems, install wind bracings in a distance of max. 10 m (axial dimension), in case of solar thermal installations in a distance of max. 7.0 m. Due to the high dead load of thermal collectors additional wind bracings shall be installed at the front side. If the photovoltaic or solar thermal panels are not installed immediately, ensure to install at least the horizontal mounting profiles and wind bracing at once.
  - General: Follow manufacturer's specific installation instructions
- 00.7.0015 PV SUBSTRUCTURE ACCESSORIES INSTALLATION
  - Install Adapter Profiles on Solar Base Frame SGR with minimum 2 screws per profile. Contact surface to the Base Frame min. 250 mm long, to allow for adapter profiles to cantilever max. 450 mm.
- 00.7.0016 PV SUBSTRUCTURE ACCESSORIES INSTALLATION
  - General: Install the Solar mounting profiles with the suitable fastening means according to manufacturer's instructions.
  - Movement joints: Provide ca. 15 mm wide movement joints every ca. 12–18 m to allow for linear thermal expansion of the aluminium profiles. The screw at the butt connector is to be fastened therefore only slightly. For structural reasons, butt joints are to be provided only between the second and the second last Solar Base Frame.
  - Note: For the assembling of framed photovoltaic modules, middle and end clamps are required. Such accessories are available from specialized retailers and can also be offered by ZinCo.
- 00.7.0017 FIXING DEVICES FOR FALL PROTECTION INSTALLATION
  - Extend: Install the Fallnet SB 200-Rail according to the project specific layout plan
  - Please note:  
ZinCo will, irrespective of the product liability, only take consultancy liability in cases where the installation has been undertaken in accordance with our project specific layout design. Any installations undertaken without ZinCo planning are done at the installer's own risk. The installation instructions and the instructions for use, both of which are delivered with the products, are to be consulted in every case.
  - Installation steps:  
Position the rail supports according to the project specific layout plan. Connect the rail supports to the solar subconstruction according to the manufacturer's instructions. Apply the necessary superimposed load, filling and covering the base with a suitable bulk material, such as Zincolit® or ZinCo System Substrate, gravel or a comparable bulk material.
  - Labelling: Ensure that all of the work has been carried out correctly and that the labelling is going to remain visible. Only labelled fixing points may be used. Pass the Fallnet® SB 200-Rail Documents on to the Builder/Owner.
  - General: Follow detailed manufacturer
- 00.7.0021 GROWING MEDIUM INSTALLATION
  - Handling: Minimize.

- Conditions: Handle in the driest condition possible. Do not handle or install when wet or frozen.
  - Extent: Install System Substrate "Sedum Carpet" continuously over entire roof area above the filter sheet.
  - Required depth (after compaction): average .....mm, according to plan.
  - Settlement factor: 1.12
  - Sequence: Gently firm each layer before spreading the next. Apply nutrient regime according to planting plan and rake in.
- 00.7.0023 VEGETATION INSTALLATION
- Precultivated Vegetation Mat**
- Handling:
    - Extent: Install precultivated vegetation mat continuously over area to be vegetated.
    - Timing: within day of delivery
    - Storage: must be stored in a cool and shaded area, excessive stacking not permitted
    - Fitting: Roll out vegetation mat and install on level substrate, so not lay dry, damaged or waterlogged blankets
  - Joints: Stagger. Install with tight butt joints, pressing together seams to avoid gaps. Do not stretch blankets. Firm as laying proceeds to ensure full contact with the growing medium.
  - Edges: Finish with whole blankets
  - Dressing: Sedum vegetative material.
    - Brush in to fill joints.
  - Watering:
    - Thoroughly water following installation.
    - To ensure growth, irrigate over a period of 4–5 weeks, if necessary. Irrigate extensively and thoroughly and to let the vegetation mats dry well between the single watering events.
    - Account for climatic variation and seasonality
- 00.7.0027 GRAVEL EDGE INSTALLATION
- Extent: Install roofing pebbles in the required depth at non-vegetated areas, including roof edges, flashing, and roof penetrations
- 00.7.0040 INSPECTION CHAMBER INSTALLATION
- Location: Install KS 6 or KS 10 centrally over drain outlet, place chamber on top of drainage layer.
  - Orientation: Align parallel with adjacent features.
  - Filter Sheet: Install the ZinCo Filter Sheet SF on top of the flange of the inspection chamber.
- 00.7.0043 EAVES PROFILE INSTALLATION
- Cutting: neat, accurate and without spalling
  - Junctions: vertical, secured using proprietary connectors
  - Position: true to line and level, smooth continuous lines
  - Location: on top of protection mat, or if fixed to the water proofing: on top of the water proofing
  - Fixing: The fixing method depends on the field of application.
    - The Profiles can be placed loosely on top of the waterproofing or the protection mat.
    - To avoid any shifts the profiles can be stabilised on the waterproofing by applying short strips of the same waterproofing material and fixing them through the holes in the support leg.

- 00.7.0047 GRAVEL RETAINER INSTALLATION
  - Installation: If used as separation between gravel and growing medium the profiles are applied loosely on top of the filter sheet. As separation of the entire build-up e.g. to a lower gravel strip the profile can be placed loosely on the protection mat.
  - Orientation: Depending on the desired height install the profile with the smaller or larger leg facing up.
  - Joints: The suitable joint connectors are inserted from the inside between the folded edge at the top and the supporting leg.
  - Corners: Place two gravel retainers next to each other, with their supporting legs facing outwards for internal corners, with their supporting legs facing inside for external corners, and insert the corner connector.
  - Fitting: Cut the retainers on site and deburr any sharp grates.
  
- 00.9 COMPLETION
- 00.9.0010 INSPECTION
  - Timing: Before handover
    - Give notice (min.): 3 days
- 00.9.0020 COMPLETION
  - General: Leave the work in a clean, tidy condition
  - Surfaces: Clean immediately before handover.
  - Outlets: Clean and clear obstructions.
  - Completed green roof: Protect from adjacent or high level working.
- 00.9.0030 DOCUMENTATION
  - Timing: Submit at handover.
  - Contents:
    - Growing medium declaration of analysis
    - Manufacturer's guarantees and warranties
    - Procedures for maintenance of the green roof
    - Record drawings showing the location of planting and associated features

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The specification is for guidance only and ZinCo Green Roof Systems Ltd cannot be held responsible for any errors or omissions.

It is the specifier's responsibility to ensure that the specification is suitable for the requirements of the construction. This specification may require adjustment in accordance with project specific requirements. The substitution of any products is strictly prohibited, unless agreed in writing, in advance, with ZinCo.