REVISION NOTES:

Ultra PrevENt Specification

(25 Year Single Point Guarantee)

Specification For:

Moat Court - RA1 (Main Roof), RA2, RA3; Car Park Roofs 4 and 5

Specification Reference Number:

BUR1087.2020

Site Contract Address:
Moat Court
Bournemouth
Dorset
BH4 9LA

Specifier Address:
Aster Group
Prospect House
Sandford Lane
Wareham
BH20 4DY
Contact: Joe Ray

Date of Issue: 21/02/2020
This proposal specification is valid for a period of 12 months from the above date of issue. In the event that the project is not completed during this period, contact should be made with IKO Technical Services Department prior to the commencement of the works.

CONTENTS

SECTION ONE

CONDITION SURVEY REPORT

During this survey, IKO Technical representatives carried out a number of cores samples upon each area to ascertain the existing waterproofing build-up. In consideration of the need to maintain the waterproofing integrity, sampling was kept to a minimum and IKO can accept no liability for any area not tested.

When pricing this contract, it is recommended that the Installing Contractor should conduct their own tests to confirm these findings and notify IKO Technical Services of any such variance as described within this proposal specification.

Project Name:	Moat Court
Date of Survey:	9/12/2019
Undertaken by:	Robert Lovegrove (robert.lovegrove@iko.com)
Weather Conditions:	Sunny
Reason for survey/client brief:	IKO have been asked to undertake a thorough intrusive, physical and visual appraisal of the roofs at Moat Court. As part of this report IKO will provide recommendations in order to offer a 25 year single point guarantee along with a thermal upgrade to 0.18 u-value to meet current legislation.

SURVEY SUMMARY

	RA1 Main Roof RA2 and RA3	Car Park Roofs 4 and 5
Area (m²)	480	150
Building Use	Residential	Residential
Building Height	3 storey	1 storey
Access	Contractor scaffold	Surveyor's ladder
Pitch (+/-5°)	<5deg	<5deg
Falls (how formed?)	In deck	In deck
Surface Finish	Mineral surface	Stone chippings
Existing Waterproofing	Mastic asphalt/bitumen felt overlay	Bitumen felt
Insulation type (thickness?)	40mm Expanded Polystyrene / Wood Fibre Top	None
Vapour Control	No first layer found	No first layer found
Structural Deck (Type, thickness?)	Woodwool	Woodwool
Void Insulation (Thickness?)	Not Determined	Not Determined
Ceiling	Plastered ceiling	Plasterboard
Drainage (Outlets, channels, etc)	Internal Outlets	Internal channels/outlets
Sills and thresholds	None	Window
Perimeter Details	Brick abutment upstand Change in level / step Check kerbs / metal trim Parapet <500mm	Brick abutment upstand Check kerbs / metal trim
Rooflights Type	Glass - wired	Not Applicable
Handrail/fall arrest	None	None
Service Units	Cables	Not Applicable
Pipe penetrations	Soil vent	Not Applicable

CORE SAMPLES AND OBSERVATIONS

RA1 (Main Roof), RA2 and RA3

Core Sample	Components and Build Up	Condition	Probe Reading
CS1	Woodwool - 10mm Asphalt - 40mm EPS - 10mm Fibre Board - 2 layers felt	Weathered	Damp
CS2	Woodwool - 10mm Asphalt - 40mm EPS - 10mm Fibre Board - 2 layers felt	Weathered	Wet
CS3	Woodwool - 10mm Asphalt - 40mm EPS - 10mm Fibre Board - 2 layers felt	Weathered	Wet
CS4	Woodwool - 10mm Asphalt - 40mm EPS - 10mm Fibre Board - 2 layers felt	Weathered	Wet
CS7	Woodwool - 40mm EPS - 10mm Fibre board 2 Layers Felt	Weathered	Wet
CS8	Woodwool - 40mm EPS - 10mm Fibre board 2 Layers Felt	Weathered	Wet

CS = Core Sample, MP = Moisture Probe (This information is based upon information taken at the time of survey, and should be used for guidance purposes only)

View of north side of upper roof, mineral felt overlay poorly bonded to asphalt below. Evidence of standing water around rooflight area. Cables laid directly to weatherproofing hindering water runoff.

Mineral felt heavily weathered, more standing water to edge of channel. Organic growth in channel due to standing water.

	
Main drainage channel to internal outlet. Channel blocked with silt, leaves and grass, despite good falls in channel there is still standing water. No access to the roof for maintenance. Soil vent detail below british standard requirement of 150mm.	Cables need to be fixed securely off of the weatherproofing.
	
Parapet walls to be encapsulated and finished with grp trim. Cables need to be lifted off of the roof.	Rooflight is aged and timber rotten. Lens is single pane of Georgian wired glass and should be considered fragile.
	
Core sample analysis confirmed the roof is wet.	Overall image of RA1.

	
Far Roof RA 3 is an extension roof to a ground floor flat.	Good falls to a blocked channel in the foreground. Upstand height at far perimeter is below 50mm . Mineral felt is weathered and aged.
	
Change in height dividing car park roof RA4. Minimal covering of lead flashing. Cavity trays/DPC will need raising	Channel for RA 3 blocked as is outlet. A maintenance schedule should be adopted to keep drainage clear.
	
Organic growth from within the weather proofing, should be removed as part of a maintenance programme.	Core sample showing build up from the asphalt upwards.

Car Park Roofs 4 and 5

Core Sample	Components and Build Up	Condition	Probe Reading
CS5 & 6	Woodwool - 25mm Asphalt - Stone Chippings	Weathered	Wet

CS = Core Sample, MP = Moisture Probe (This information is based upon information taken at the time of survey, and should be used for guidance purposes only)

Lower roof to car park entrance RA5. Brick upstand height below 150mm will need raising and new cavity trays installed. Lead cover flashing should be a minimum of 70mm over the finished waterproofing. Torch free zone due to the presence of the perb ends. Asphalt weatherproofing aged and cracked.

Perimeter edge trim broken and asphalt cracked

Chanel to internal outlet blocked with silt, organic growth

RA 4 Cover flashing to brick upstand only about 30mm, upstand height at lowest point is about 130mm. Asphalt upstand covered with blisters suggesting the presence of moisture behind the asphalt. DPC will need to raised to achieve a 150mm upstand across the upstand. Organic growth resulting from water retention is preventing rainwater running of.

	
Chanel and outlet blocked with leaves and moss. Asphalt aged and blistered and slumping from the upstand. Trim is broken and the asphalt is open.	Vent pipe has been sealed over so could be redundant and therefore removed. TV cables on brick abutment will need to be relocating.
	
Broken trim and cracked asphalt.	Window cill to far wall may need raising to achieve 150mm upstand height. TV Cables are penetrating the weatherproofing upstand and will need to be relocated.
	
Asphalt delaminated from brick work and edge trim. Slumping of the asphalt due to age. Cover flashing below minimum height.	Asphalt to brick Plinth cracked and bricks exposed. Water ingress to the building fabric will be inevitable.

SURVEY SUMMARY AND RECOMMENDATIONS

IKO have conducted an intrusive survey to the flat roof area's at Moat Court Bournemouth. Access for core sampling to roof 2 was not possible, so this specification is assuming the same build up as Roof 1. Core sample analysis found the roof decks to be brittle and fragile woodwool with a bitumen felt weatherproofing and some insulation was found.

Habitable Roofs

RA1, 2 and 3 are all over liveable spaces and require a thermal upgrade to comply with Building regulations u—value 0.18 W/mK. Roofs 4 and 5 are over the car park and therefore do not require a thermal upgrade.

Roof area's 1 and two have no access. Roof one has two channels and two outlets to drain all the roof area. The survey found this method of drainage was in effective, the channels were blocked and damage to the weatherproofing was clearly visible. IKO would recommend redesigning the roof drainage so as water is directed to new chutes and external hoppers and down pipes.

The two rooflights on RA 1 are timber frame with Georgian wired glass and fragile. These should be replaced with IKO Superlite triple skin rooflights with rotary ventilation.

TV cables need to be lifted off of the roof weatherproofing and laid in cable tray.

Parapet walls should be fully encapsulated and finished with grp trim.

Car-Park Roofs

Should be stripped and new deck laid as the woodwool is classed as fragile under HSG33

Upstand heights to the brick abutment are below British Standards requirement of 150mm. To raise these upstands the DPC and will also need to be raised. Some windows may need raising to accommodate this change.

Some vent pipes appear to be redundant if so they should be removed.

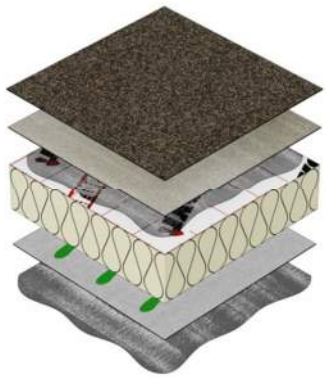
The weatherproofing has clearly failed due to age, damage to the building envelope will accelerate over time if works aren't carried out now to prevent water ingress and damage.

Proposed Works

Strip all roof areas and woodwool deck.
Install new Plyboard deck level.
Install new High Performance IKO weatherproofing system with tapered insulation to new chutes and hoppers and achieve the required 0.18 U- Value. (RA1, 2 and 3)

RA1 (Main Roof), RA2 and RA3 - Proposed Build Up:

Systems S-A VCL
Tapered IKO enertherm ALU Insulation bonded in PU Adhesive for Insulation,
top surface primed with IKOpro Sprayfast MPP
Systems H-A Underlay
Ultra PrevENt T-O Cap Sheet



Car Park Roofs 4 and 5 - Proposed Build Up:

Systems H-A Underlay
Ultra PrevENt T-O Cap Sheet

Refer to specification for full build up, including preparation works, primers, detailing materials and any flame free zones.

Due to continual development, this report is only valid for a period of 12 months from the date of survey.

IKO CONTACTS

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SECTION TWO

SYSTEM CRITERIA

WATERPROOFING

Ultra PrevENt is a high performance Elastomeric built up roofing system guaranteed against faulty design, materials and workmanship. Ultra PrevENt offers the specifier and the client the most advanced flat roofing remedy for new build and refurbishment projects.

BBA (with durability statement)

The Ultra PrevENt roofing system has been independently approved by the British Board of Agrément, certificate number 91/2671.

The BBA certificate 91/2671 states

Durability - *under normal conditions the systems will have a service life in* ***excess of 30 years.***

FIRE RETARDANT WATERPROOFING CAP SHEET (fire rating)

Ultra PrevENt high performance bitumen membrane flat roofing system incorporates the prevENt Graphite Fire Wall Technology and is classified as **BROOF(t4)** in accordance with BS EN 13501-5: 2005 fire classification of construction products and building elements – classification using data from external fire exposure to roof tests.

Ultra PrevENt high performance bitumen membrane flat roofing system incorporates the prevENt Graphite Fire Wall Technology and achieves UK and European fire performance standards which enables **unrestricted use** within Part B of the Approved Documents of the Building Regulations.

Graphite Firewall Technology video.
http://www.ikogroup.co.uk/2017/07/23/iko-graphite-technology-bituminous-reinforced-membrane-fire-test/

NHBC STANDARDS

The NHBC accepts the use of Ultra PrevENt high performance roof waterproofing system, provided it is installed, used and maintained in accordance with this specification, in relation to NHBC standards, Chapter 7.1 *Flat roofs and balconies*.

CE MARKING

The membranes within this specification have CE marking, in accordance with harmonised European Standards BS EN 13707: 2013.

APPROVED CONTRACTOR APPLICATION

IKO Technical Services maintain a national list of approved contractors for each of our waterproofing systems. All of the contractors have been specially selected for their standards of workmanship and professional integrity. Together with top class materials and superior design service, good workmanship enables IKO roofing specifications to complete the quality triangle, which is so important to a high performance installation.

PROJECT START

In line with this system offer **IKO Technical Services** Guarantees Department **MUST BE NOTIFIED** of all **PROJECT STARTS** and/or pre start meetings to ensure the IKO inspection requirements can be undertaken in accordance with the guarantee offer.

- Failure to notify IKO in advance may compromise or delay the issue of any guarantee being offered.

- Once the **IKO Approved Contractor** has been appointed it is their duty to provide adequate notification of the **PROJECT START DATE** in advance to guarantees.uk@iko.com

GUARANTEE

An IKO guarantee is available on this project and includes the following and is subject to:

On Site Monitoring: inspected during the roofing works by an **IKO Technical Engineer**

Site Installation Reports: A written and photographic record of each inspection undertaken by an **IKO Technical Engineer** to which is copied to the installing contractor and the client's representative.

Inspection and Sign Off: by an **IKO Technical Engineer** upon completion to ensure the roofing works have been completed in accordance with this specification.

Guarantee: 25 Year Single Point covering:

- IKO Waterproofing material failure
- IKO Specification and Design
- Workmanship underwritten by the installing contractor
- IKO Approved Contractor insolvency

Applying for the guarantee

Application for the guarantee is made by the IKO Approved Contractor by completing the guarantee application form and forwarding to guarantees.uk@iko.com. The guarantee will then be forwarded to the IKO Approved Contractor for forwarding to the client.

SPECIFICATION SUMMARY

Note: This table provides an outline summary of the proposed specification for this project. It is not intended to be fully comprehensive and must be read in conjunction with the relevant clauses elsewhere in the specification.

	RA1 (Main Roof), RA2 and RA3
Substrate Preparation	Strip to deck, overboard existing deck with 18mm ply or OSB/3
Priming	IKOpro Sprayfast MPP
Air & Vapour Control Layer	Systems S-A VCL
Insulation	Tapered IKO enertherm ALU Insulation bonded in PU Adhesive for Insulation, top surface primed with IKOpro Sprayfast MPP – refer to tapered scheme no. IKO4960
Underlayer	Systems H-A Underlay
Cap Sheet	Ultra PrevENt T-O Cap Sheet
Detailing Materials	Ultra PrevENt hybrid detailing
Flame Free Zones	Safestick Flame Free Zone - refer to Flame Free Zones sections of this specification and note below for full details
Rooflights	IKO Superlite Oversleeve Glazing
Rain Water Outlets	IKO 3.2mm Aluminium Refurbishment Outlet

	Car Park Roofs 4 and 5
Substrate Preparation	Strip to deck, remove deck and install new timber panelled deck (plywood or OSB/3), min. 18mm thick, to provide min. 1:80 fall
Priming	IKOpro Sprayfast MPP
Underlayer	Systems H-A Underlay
Cap Sheet	Ultra PrevENt T-O Cap Sheet
Detailing Materials	Ultra PrevENt hybrid detailing
Rain Water Outlets	IKO 3.2mm Aluminium Refurbishment Outlet

Tapered Insulation

The tapered insulation scheme and design is to be confirmed. Allowance must be made for adjustment of details as necessary, including perimeters, abutments, upstands/cavity trays, sills/thresholds etc. to incorporate the insulation thicknesses proposed according to the tapered insulation design.

Flame Free Zones

This proposal specification has been created with due regard to compliance with the NFRC Safe2Torch guidance for the safe installation of torch-on reinforced bitumen membranes. To the best of our knowledge any potential hazards have been identified and this specification designed to minimise any such associated risk. Flame Free Zones have been identified in the Condition Survey Report according to the information in the NFRC Safe2Torch guidance document.

Should during the installation of these works the installing contractor identify unforeseen potential risk they should notify both the clients representative and the IKO technical department immediately.

The installing contractor is reminded that they have a duty of care and responsibility to carry out their own risk assessment of the proposed works and pre-hot works checks as outlined in the NFRC Safe2Torch guidance. These must consider both site preparation works such as drying up and installation of reinforced bitumen membranes. Safe working practices must be introduced to minimise identified risks. All installing operatives and contractors must adhere to the guidance set out in the NFRC Safe2Torch guidance.

Existing Deck - Woodwool Slabs

The existing deck has been determined as woodwool slabs. This type of roof deck is regarded as a fragile material under the guidance in document “HSG33: Health and safety in roof work” published by the Health and Safety Executive.

Wherever possible, such fragile roof decks should be replaced with a non-fragile alternative, or possibly over-decked with a quality timber based panel in order to remove or minimise future risks.

Where the proposal is to retain woodwool decks, the structure must be confirmed as suitable for additional loadings; it must resist dead, live and wind loads, including storms. It must also be suitable for the proposed roofing system including any proposed over deck, and subsequent use and the decision made by the client and/or his surveyor, structural engineer or other professional/competent persons, and a safe procedure and method of work adopted.

The contractor and installer must ensure a safe and suitable method of work, together with a full risk assessment and associated method statement must be developed and agreed before commencement, in accordance with HSG33 Health and safety in roof work.

SCHEDULE OF MATERIALS

FIELD AREA MATERIALS (except Flame Free Zones)

MULTIPURPOSE PRIMER

IKOpro SPRAYFAST MPP

A specially formulated spray applied primer for use in conjunction with self-adhesive and torch-on membranes. Canister application enables rapid application and promotes a quick drying time. The application system consists of a lance and 3m hose minimising operative discomfort.

Weight: 26 kg
Product Code: 58800115
Coverage: up to 150m²/canister, depending on surface porosity.
Application Temperature: 5 - 30°C
Curing time: dependant on ambient temperature and humidity but is typically – 5-10 mins at 5°C
Tack time: Up to 4 hours at 20°C

MUST BE USED IN CONJUNCTION WITH APPLICATION LANCE, SPRAY TIP & HOSE

RA1 (Main Roof), RA2 and RA3 only:

AIR & VAPOUR CONTROL LAYER

SYSTEMS S-A VAPOUR CONTROL LAYER

High performance, SBS modified, polyester reinforced, self-adhesive vapour control layer with aluminium foil laminate core and a fine mineral finish. Coating protected to the underside and selvedge lap with a release film that should be removed during installation. Used beneath insulation to prevent penetration of water vapour into the roof build up and minimise the risk of interstitial condensation.
Roll size: 15m x 1m
Roll weight: 36 kg
Surfacing: fine mineral
Product code: 62130000

INSULATION BONDING ADHESIVE

IKOpro PU ADHESIVE for INSULATION

A single component, high-foaming, solvent-free polyurethane adhesive, specifically developed to securely bond a wide range of insulation boards to most substrates. Use directly from the container. Coloured green for easy identification.
Independently tested and approved by the BRE.

Size: 6.5kg (6 litres)
Product Code: 58800001
Coverage: 30-35m²/tin, depending on surface porosity. Coverage rate should be doubled to all perimeter and exposed edges.
4 x 15mm continuous beads per 1200 x 1000mm board at 300mm centres to main roof.
8 x 15mm continuous beads per 1200 x 1000mm board at 150mm centres to perimeter edges.
Application Temperature: 5 - 30°C
Open time: 15 mins at 5°C; 7 mins at 20°C; 4 mins at 30°C
Curing time: dependant on ambient temperature and humidity but is typically - 60 mins at 5°C; 30 mins at 20°C

INSULATION

IKO enertherm ALU

High performance, rigid polyisocyanurate (PIR) foam, CFC/HCFC free insulation board with a composite aluminium facing on both sides. Used in high performance cold applied waterproofing system applications. Must be bonded to the VCL using PU adhesive or by mechanical fastening using recommended tube fasteners and fixings.

Note: the top surface of the insulation must be primed with the IKOpro SYSTEMS BONDING AGENT or IKOpro SPRAYFAST MPP to provide a satisfactory bond.

Thermal conductivity: 0.022W/mK
Insulation Thickness: Tapered; Target U-Value: 0.18 W/m2.k. (for the whole build-up)

All Roof Areas:

UNDERLAY

SYSTEMS H-A UNDERLAY

High performance SBS modified polyester reinforced underlay with specially formulated self-adhesive coating that provides a 40% partial bond allowing vapour dispersion between the membrane and substrate. Fine mineral upper surface and protected to the underside with a release film that must be removed during installation. **Substrate must be primed with IKOpro Systems Bonding Agent or IKOpro Sprayfast MPP.** End and side laps are to be hot air welded.
Roll size: 16m x 1m
Roll weight: 36 kg
Surfacing: fine mineral
Product code: 62720000

CAP SHEET

ULTRA PrevENt T-O CAP SHEET

A high performance, polyester reinforced membrane, SBS modified with fire retardant properties, used as a torch-on Cap Sheet within the Ultra PrevENt built-up roofing system.
Roll size: 8m x 1m
Roll weight: 40 kg
Product Codes: Green – 66940000; Brown – 66950000; Black – 66951000

DETAILING MATERIALS (except Flame Free Zones)

HYBRID DETAILING

SELF ADHESIVE MEMBRANE PRIMER

As specified to main field area.

ANGLE FILLETS

IKO ALU ANGLE FILLETS

To be used at all horizontal and vertical abutments.
Size: 1200mm x 50mm x 50mm
Product code: 40505012

UNDERLAY

SYSTEMS H-A DETAILING UNDERLAY

Specially formulated SBS modified polyester reinforced underlay, used for reinforcing all horizontal and vertical abutments. Coating protected to the underside and selvedge with a release film that should be removed during installation. Applied to substrate primed with IKOpro Systems Bonding Agent or IKOpro Sprayfast MPP and fully bonded by heat activation. End and side laps are to be hot air welded and a visible bead of bitumen must exude from all side and end laps to ensure the bond is achieved.
Roll size: 16m x 1m
Roll weight: 36 kg
Surfacing: fine mineral
Product code: 62710000

CAP SHEET

As specified to main field area.

FLAME FREE ZONES

Flame free zones to extend no less than 900mm from identified area of risk

SELF-ADHESIVE MEMBRANE PRIMER

As specified to main field area.

AIR & VAPOUR CONTROL LAYER

As specified to main field area.

INSULATION BONDING ADHESIVE

As specified for main field area.

INSULATION

As specified for main field area.
Note: the top surface of the insulation must be primed with the IKOpro SYSTEMS BONDING AGENT or IKOpro SPRAYFAST MPP to provide a satisfactory bond.

FIELD AREA UNDERLAY

SYSTEMS T-F UNDERLAY

High performance SBS modified polyester reinforced underlay with specially formulated self-adhesive coating that provides a 40% partial bond allowing vapour dispersion between the membrane and substrate. Film upper surface for use in conjunction with self-adhesive capsheets. Protected to the underside with a release film that must be removed during installation. **Substrate must be primed with IKOpro Systems Bonding Agent or IKOpro Sprayfast MPP.** End and side laps are to be hot air welded.
Roll size: 16m x 1m
Roll weight: 40 kg
Surfacing: black film
Product code: 62740000

ANGLE FILLETS

IKO ALU ANGLE FILLETS

To be used at all horizontal and vertical abutments.
Size: 1200mm x 50mm x 50mm
Product code: 40505012

DETAILING UNDERLAY

SYSTEMS T-F DETAILING UNDERLAY

High performance SBS modified polyester reinforced underlay. Specially formulated self-adhesive coating. Protected to the underside with a release film that must be removed during installation. Applied to substrate primed with IKOpro Systems Bonding Agent or IKOpro Sprayfast MPP and fully bonded by heat activation. End and side laps are to be hot air welded and a visible bead of bitumen must exude from all side and end laps to ensure the bond is achieved.
Roll size: 16m x 1m
Roll weight: 40 kg
Surfacing: black film
Product code: 62730000

FIELD AREA & DETAILING CAP SHEET

SAFESTICK PrevENt CAP SHEET

High performance, SBS modified, polyester reinforced mineral finished cap sheet. Specially formulated self-adhesive coating protected to the underside with a release film that must be removed during installation. All side and end laps are to be heat activated to facilitate a bead of bitumen exuded from the lap.
Roll size: 8m x 1m
Roll weight: 32 kg
Product Codes: Green – 52320208; Brown – 52300208; Black – 52310208

ANCILLARY COMPONENTS

EDGE TRIM

IKOtrim F GRP ROOF EDGE TRIMS are manufactured from pultruded glass fibre reinforced polyester resin. The trims are thermally inert with a low coefficient of expansion. Units supplied in 3.0m lengths, with 40mm, 65mm, 100mm, 150mm or 200mm drips. Colours: Black, White and Grey. Matching 90°, 240mm x 240mm internal/external corners available.

LEAD FREE COVER FLASHING

IKOFLASH is a 3.5mm thick lead free flashing which can be used in areas where traditional lead flashing would be used such as chimney and abutment flashings, around rooflights and pitched valley linings. Where being used as a cover flashing into a chase, standard fixing clips can be used to hold firmly into place. Apply a continuous bead of **IKOpro STICKALL** mastic to the chase. Only IKOpro STICKALL is to be used in conjunction with IKOFLASH

IKOFLASH is made from a modified polyethylene compound with integral aluminium mesh reinforcement, enabling the product to be worked and formed in the same way as lead. The product is faced with a fine grey mineral.
Can be worked and formed in the same way as lead.
Significantly lighter than lead making it easier to handle.
Non toxic

Size: 12m x 150mm, 12m x 250mm, 12m x 300mm, 12m x 400mm, 12m x 645mm (also available in 6m lengths)
Colour: Grey

MODIFIED BITUMEN MASTIC SEALANT

IKOpro STICKALL is used to seal the chase, joints and cracks to the cover flashing detail. IKOpro STICKALL is a dense elastomer modified bituminous sealing mastic that Remains plastic under normal temperatures and adheres well to most building surfaces. IKOpro STICKALL has good UV stability and resistance to sagging at high temperatures.

Size: 310ml cartridge

NEW OVERSLEEVE GLAZING

IKO SUPERLITE OVERSLEEVE GLAZING

The Superlite Oversleeve Glazing system provides an easy to install, cost effective way to upgrade flat roofs and achieve the necessary upstand heights without replacing or adjusting the windows. The system is simply mounted as an oversleeve to existing structures, with no requirement to remove the existing glazing or for internal access.

The glazing panel is a 40mm thick multi-walled polycarbonate sheet, with coextruded UV protection on the outside available in translucent clear or translucent opal diffused to allow light transmission. The structure of the panel offers excellent thermal properties, impact resistance and good resistance to wind pressure. The panels are held in place by an aluminium framework which can be polyester powder coated to any RAL colour.
A range of upstand kerbs are available to suit various applications and roof insulation thicknesses. Ventilation is available as an option.

REFURBISHMENT RAINWATER OUTLETS

IKO 3.2mm ALUMINIUM REFURBISHMENT OUTLETS are formed as a one-piece 3.2mm thick spun aluminium body, including an extra large 445mm diameter flange, giving an excellent membrane bond area, and with a depressed sump to facilitate roof drainage.

The IKO 3.2mm ALUMINIUM REFURBISHMENT OUTLET is designed to suit a range of membrane types and thicknesses. The outlet comes complete with a patented expanding seal to prevent water backing up and accessing between the down-pipe and the outlet spigot, in the event of a blockage. The spigot seal is easily activated using a special hand held or drill bit screwdriver, available from IKO as an approved accessory.

IKO 3.2mm ALUMINIUM REFURBISHMENT OUTLET is primarily used during re-roofing operations, allowing a totally secure connection between the new waterproofing system and existing rainwater drainage systems.

The outlets are available in the following sizes to fit the varying internal diameters of down-pipes, and come complete with a clamping ring and aluminium or superdome leaf-guard.

Outlet Size (mm)	Existing Pipework Internal Diameter (mm)	Max Diameter of Flange (mm)	Spigot Length (mm)	Flow Rate (l/s)*	Product Code
75	72.39 – 84.33	445	305	3.12	58407500[1] 58420075[2]
100	95.00 – 110.49	445	305	3.40	58410000[1] 58420100[2]
150	146.30 – 168.40	445	305	3.72	58415000[1] 58420150[2]

*Flow rates are in litres per second @ 35mm water depth.
[1]with Aluminium Leafguard, [2]with Superdome Leafguard

PREFORMED WELTED DRIP

IKO PREFORMED WELTED DRIP

High performance SBS modified mineral finished membrane factory applied to a pre bent aluzinc metal drip former, to give a traditional welted drip finish, that can be installed quickly and minimise work time to a perimeter edge.

Size: 3m lengths

Colour: slate mineral finish in Green, Brown & Black

SCHEDULE OF WORKS

Note: Refer to notes regarding Risk Assessments in Section Three, prior to works commencing.

ENABLING WORKS

CABLES

Temporarily remove or divert existing cabling to allow necessary roofing works. This should be carried out in conjunction with the building owner by a qualified engineer. Where being replaced on completion it should be secured by the application of membrane straps at 1m centres. Alternatively a proprietary cable fixing can be utilised.

CABLES - REDUNDANT

Existing cables to be disconnected and removed from site. Works to be carried out by qualified persons unless directed otherwise by client.

OUTLETS - REFURBISHMENT OUTLETS

Clean & prepare existing outlet to receive new IKO REFURBISHMENT OUTLET, according to "Materials Schedule". Ensure refurbishment outlet has adequate seal to existing outlet/down-pipe to prevent water back-up under roof covering in the event of blocked pipes/drains.

ROOFLIGHTS

Remove existing Rooflight, existing rooflight kerb to be retained in place. Install new IKO Superlite Rooflight (as specified in Schedule of Materials), sized to sit over and astride the existing rooflight kerb ready for application of the specified waterproofing system. The new rooflight should have a waterproofing upstand of 150mm minimum above the finished roof level.

UPSTAND BELOW SILLS

The upstand height of the finished roof covering will be above the level of the existing window sills. It will therefore be necessary to raise the window sill level by replacing the window frames at these locations to accommodate the required roof covering thickness and minimum waterproofing upstand height of 150mm above the finished roof level. Refer to separate client's instructions for further details of this installation. Allowance should be made during this work for the inclusion of a new IKOflash or code 4 lead cover flashing, to be dressed over the new waterproofing upstand. The guarantee offered for this project will be compromised if minimum waterproofing upstand heights cannot be achieved.

WALL ABUTMENT - RAISE DPC/CAVITY TRAY

The upstand height of the finished roof covering will be above the level of the existing D.P.C./Cavity tray. It will therefore be necessary to insert a new D.P.C./Cavity tray into the wall abutment at a level above the top of the proposed new upstand flashing to accommodate the required roof covering thickness and minimum waterproofing upstand height of 150mm above the finished roof level. Proprietary cavity tray units or IKO Hyload Original D.P.C. may be utilised for this application. Refer to separate client's instructions for details of this installation. Allowance should be made during this work for the inclusion of a new IKOflash or code 4 lead cover flashing, to be dressed over the new waterproofing upstand. The guarantee offered for this project will be compromised if minimum waterproofing upstand heights cannot be achieved.

PREPARATION

All reasonable care has been exercised in the undertaking of this specification to make it as comprehensive as possible. However it is not uncommon for situations on site to arise that may not have been immediately apparent and/or have been unforeseen during any survey. Such situations should normally be covered by way of a contract contingency sum allowance. Such contingency is to provide protection to all contract parties against what may be termed a risk item. In the event such a 'risk' occurs on this project, it should be treated as a contract variation and be valued in accordance with the stipulated contract terms.

RA1 (MAIN ROOF) RA2 AND RA3

Remove all existing waterproofing and associated detailing and remove from site. The building must remain weatherproof at all times, the Approved roofing contractor must only remove areas of existing waterproofing that can be made watertight in the same day, including the provision of day joints.

Overlay the existing deck with 18mm plywood or OSB/3, securely fixed to structural supports with appropriate fixings and providing additional falls as required. To allow for expansion, panels should be fixed with a minimum 3mm between panels and 10mm at roof perimeters and edges. Panels for roof decking must be CE marked in accordance with BS EN13986:2004 and should conform to the relevant standards as follows: Plywood – BS EN 314-2, BS EN 636 and DD ENV 1099; Oriented Strand Board (OSB) – BS EN 300 Design of the roof structure and installation of the panels should be carried out in accordance with BS EN 1995-1-1:2004, DD CEN/TS 12872:2007 or BS 8103-3:2009, as appropriate according to the type of construction. A structural engineer must confirm that the existing structure and deck is capable of withstanding the additional weight loading of the new decking and waterproofing system.

CAR PARK ROOFS 4 AND 5

Remove all existing waterproofing and associated detailing and remove from site. The building must remain weatherproof at all times, the Approved roofing contractor must only remove areas of existing waterproofing that can be made watertight in the same day, including the provision of day joints.

Remove the existing roof decking and remove from site. Provide adequate protection for the building interior. Carry out an inspection of the existing decking supports, replacing any defective areas as necessary. Provide additional supports as necessary to provide a sound support capable of taking any additional dead loads. It must be ensured that any retained components of the existing structure are sound and capable of accepting the imposed loading of the new system and associated installation procedures.

NEW TIMBER PANELLED DECK LAID TO FALLS

Panels for roof decking must be CE marked in accordance with BS EN13986:2004 and should conform to the relevant standards as follows:
Plywood – BS EN 314-2, BS EN 636 and DD ENV 1099
Oriented Strand Board (OSB) – BS EN 300

Design of the roof structure and installation of the panels should be carried out in accordance with BS EN 1995-1-1:2004, DD CEN/TS 12872:2007 or BS 8103-3:2009, as appropriate according to the type of construction.

Provide additional falls using timber firings to achieve a minimum fall of 1:80. Panels must be minimum 18mm thick and supported at not more than 600mm centres with noggins or bearers to support edges. Long edges should be at right angles to the joists.

To allow for expansion, panels should be fixed with a minimum 3mm between panels and 10mm at roof perimeters and edges. Panels should be fixed to the joists at 150mm centres using rounded headed corrosion resistant ringshanked nails or suitable screws. The fixings should penetrate into the supporting timbers by a minimum of 35mm. Nail heads and screws must be driven below the deck surface.

PRIOR TO THE APPLICATION OF THE WATERPROOFING

Any hollows, depressions, deflections, back falls etc. found in the substrate must be rectified prior to installation of the waterproofing system. Thoroughly clean surfaces, remove all debris and sharp objects likely to damage the waterproofing membrane, and ensure the substrate is even and dry.

INSTALLATION OF FIELD AREA MATERIALS (except Flame Free Zones)

MULTIPURPOSE PRIMER

All surfaces must be clean, dry and free from grease, oil, dirt and loose material and structurally sound. All areas to which the waterproofing system is to be bonded must be prepared and primed accordingly. Uneven surfaces may require suitable preparation to the surface prior to the application of the waterproofing.

IKOpro SPRAYFAST MPP is supplied in a canister and must be used in conjunction with the **IKOpro SPRAYFAST LANCE, SPRAY TIP** and **BRAIDED HOSE** to allow dispensing and accurate application of the primer with minimum effort and without waste.
The installing contractor must utilise the correct method of application.

Apply the primer in one full even coat to the surfaces adjusting the spray pattern to approx 300mm wide and allow to dry thoroughly. Only prime the area to be covered with membrane within a normal working day, limiting application to 50m^2 areas, allowing **IKOpro SPRAYFAST MPP** to dry before application to adjacent areas. Where the primer is exposed for longer than the tack life of 4 hours then the surface must be suitably cleaned and the primer reapplied.

Refer to IKOpro Sprayfast MPP literature for details on setting up the canister and spray lance and tip, maintenance and cleaning of the application equipment and emptying and disposal of the canisters.

RA1 (Main Roof), RA2 and RA3 only:

AIR & VAPOUR CONTROL LAYER

Install **SYSTEMS S-A VAPOUR CONTROL LAYER** to the prepared substrate, as soon as possible after the **IKOpro SYSTEMS BONDING AGENT or IKOpro SPRAYFAST MPP** is completely dry.

SYSTEMS S-A VAPOUR CONTROL LAYER is to be finished and sealed at the perimeters to enable linking with the waterproofing system by a minimum of 50mm.

When approaching an angle where the sheet will change from a horizontal to a vertical configuration, use a seam or penny roller to press the membrane firmly into position into the angle. Provide heat activation to all changes of direction of the membrane to ensure a full bond is achieved throughout the detail.

SYSTEMS S-A VAPOUR CONTROL LAYER has a 75mm wide self-adhesive selvedge protected with a strip of release film (zipstrip) to facilitate the bonding of the side lap. All side and end laps (100mm minimum) must be fully bonded by hot air welding to exude a bead of bitumen from the joint

HIGH PERFORMANCE INSULATION

Install **IKO enertherm ALU,** bedded in **IKOpro PU ADHESIVE** for **INSULATION.** All joints are to be staggered and tightly butted to avoid gaps. The insulation boards must be installed into wet PU adhesive at the specified coverage rate and prior to the adhesive 'skinning' (between 3-15mins).

All insulation boards must be protected from moisture prior to installation by storing off the ground and covered with a tarpaulin.

Any hollows, depressions, deflections, back falls etc. found in the deck either before or after stripping should be rectified prior to installation.

On inclined roofs apply additional insulation stops for anchoring the waterproofing system against slippage, at intervals according to the slope as necessary.

No hot works must be used in the installation of **IKO enertherm ALU** or the subsequent underlay.

INSULATION SURFACE PREPARATION FOR SELF ADHESIVE MEMBRANES

All surfaces of the insulation must be clean, dry and free from dirt and loose material and then primed with **IKOpro SYSTEMS BONDING AGENT or IKOpro SPRAYFAST MPP**. Apply the primer to the surfaces using the specified application method limiting application to 50m^2 areas and allow to dry thoroughly before setting out and installing the underlay.

All Roof Areas:

UNDERLAY

Ensure the substrate is free of dust, debris or moisture that will impair the bond.

SYSTEMS H-A UNDERLAY should be applied as soon as possible after the **IKOpro SYSTEMS BONDING AGENT or IKOpro SPRAYFAST MPP** is completely dry.

Install with 75mm side and 100mm end laps by removing the release film and progressively advance the roll whilst applying even downward pressure to bond the underlay to the substrate ensuring no air is trapped.

All laps must be hot air welded and pressure rolled ensuring a visible bead of bitumen is exuded from all side and end laps.

In insulated build-ups, the underlay should link with the vapour control layer at detail works.

CAP SHEET

Apply **ULTRA PrevENt T-O CAP SHEET** fully bonded to the underlayer by the torch on technique with 75mm minimum side laps and 100mm minimum end laps and lay to break joints. The cap sheet should be finished at the top edge of the angle fillet to allow for linking with the detailing cap sheet. Ensure a visible bead of bitumen is exuded (5mm –15mm) from all side and end laps.

TEMPORARY WEATHERING (Day/Night joint)

To ensure waterproofing integrity is maintained during the installation, (where the works need to be temporarily suspended due to dayworks or inclement weather), a temporary waterproofing seal is required from the new to the existing to ensure the building is kept watertight.

This temporary waterproofing seal should be provided to protect any insulation from water ingress. An underlay or equivalent should be lapped and sealed by linking the vapour control layer to the waterproofing layers.

Day/night joints must be applied to all areas, where waterproofing integrity may be compromised due to the progress of the works or inclement weather.

INSTALLATION OF DETAILING MATERIALS (except Flame Free Zones)

HYBRID DETAILING

NOTES

Where using self-adhesive membranes in the formation of waterproofing detailing, both the underlay and cap sheet must be fully bonded throughout the detail. All side and end laps must be fully bonded by heat activation to exude a visible bead of bitumen.

SELF ADHESIVE MEMBRANE PRIMER

All surfaces must be clean, dry and free from grease, oil, dirt and loose material and structurally sound. All areas to which the waterproofing system is to be bonded must be prepared and primed accordingly. Uneven surfaces may require suitable preparation to the surface prior to the application of the waterproofing.

All surfaces to which self-adhesive membranes are being applied must be primed with **IKOpro SYSTEMS BONDING AGENT or IKOpro SPRAYFAST MPP**. Apply 2 coats of primer to the surfaces using the specified application method and allow to dry thoroughly. Only prime the area to be covered with membrane within a normal working day. Where the primer is exposed for longer than 4 hours then the surface must be suitably cleaned and the primer reapplied.

ANGLE FILLETS

IKO ALU ANGLE FILLETS are to be used at all horizontal and vertical abutments. Apply with the facing upper most and tightly butted to the horizontal and vertical abutment.
Adhered and bonded in **IKOpro PU ADHESIVE or IKOpro STICKALL** bituminous mastic sealant.

UNDERLAY

Install **SYSTEMS H-A DETAILING UNDERLAY** fully bonded and dressed to the detail to allow for linking with any vapour control layer and lapped onto the main roof area by a minimum 125mm. Ensure the surface is clean and dry prior to installing the underlay.

The membrane should set out (with laps staggered) and pre-creased through the detail prior to removing the release film. All laps must be hot air welded and pressure rolled ensuring a visible bead of bitumen is exuded from all side and end laps.

SYSTEMS H-A DETAILING UNDERLAY has a fine mineral surface finish; the cap sheet must be torch applied to ensure a full bond is achieved.

CAP SHEET

Apply **ULTRA PrevENt T-O CAP SHEET** being fully bonded by the torching technique being lapped onto the main roof area by a minimum 150mm. Ensure a visible bead of bitumen is exuded from all side and end laps.

FLAME FREE ZONES

Flame free zones to extend no less than 900mm from identified area of risk

SELF-ADHESIVE MEMBRANE PRIMER

As specified for main field area.

AIR & VAPOUR CONTROL LAYER

As specified for main field area.

HIGH PERFORMANCE INSULATION

As specified for main field area.

INSULATION SURFACE PREPARATION FOR SELF ADHESIVE MEMBRANES

All surfaces of the insulation must be clean, dry and free from dirt and loose material and then primed with **IKOpro SYSTEMS BONDING AGENT or IKOpro SPRAYFAST MPP**. Apply the primer to the surfaces using the specified application method limiting application to 50m^2 areas and allow to dry thoroughly before setting out and installing the underlay.

FIELD AREA UNDERLAY

Ensure the substrate is free of dust, debris or moisture that will impair the bond.

SYSTEMS T-F UNDERLAY should be applied as soon as possible after the **IKOpro SYSTEMS BONDING AGENT or IKOpro SPRAYFAST MPP** is completely dry.

Install with 75mm side and 100mm end laps by removing the release film and progressively advance the roll whilst applying even downward pressure to bond the underlay to the substrate ensuring no air is trapped.

All laps must be hot air welded and pressure rolled ensuring a visible bead of bitumen is exuded from all side and end laps.

In insulated build-ups, the underlay should link with the vapour control layer at detail works.

FIELD AREA CAP SHEET

Ensure the underlay is clean and dry prior to installing **SAFESTICK PrevENt CAP SHEET**. Fully bond the SAFESTICK PrevENt CAP SHEET to the underlay. Remove the release film and progressively advance the roll whilst applying even downward pressure to bond the cap sheet to the underlay surface ensuring no air is trapped.

Install SAFESTICK PrevENt CAP SHEET with minimum 100mm side and end laps; these must be sealed by hot air welding, ensuring a visible bead of bitumen is exuded (5mm –15mm) from all lap joints. SAFESTICK PrevENt CAP SHEET should be finished at the top edge of the angle fillet to allow for linking with the specified detailing underlay and cap sheet.

ANGLE FILLETS

IKO ALU ANGLE FILLETS are to be used at all horizontal and vertical abutments. Apply with the facing upper most and tightly butted to the horizontal and vertical abutment. Adhered and bonded in **IKOpro PU ADHESIVE or IKOpro STICKALL** bituminous mastic sealant.

NOTES

Where using self-adhesive membranes in the formation of waterproofing detailing, both the underlay and cap sheet must be fully bonded throughout the detail. All side and end laps must be fully bonded by heat activation to exude a visible bead of bitumen.

DETAILING UNDERLAY

Install **SYSTEMS T-F DETAILING UNDERLAY** fully bonded by heat activation and dressed to the detail to allow for linking with any vapour control layer and lapped onto the main roof area by a minimum 125mm. Ensure the surface is clean and dry prior to installing the underlay.

The membrane should set out (with laps staggered) and pre-creased through the detail prior to removing the release film. All laps must be hot air welded and pressure rolled ensuring a visible bead of bitumen is exuded from all side and end laps.

DETAILING CAP SHEET

Apply **SAFESTICK PrevENt CAP SHEET** fully bonded by heat activation to the self-adhesive underlay and lapped onto the main roof area by a minimum of 150mm. Ensure the underlay is clean and dry prior to installing the cap sheet.

The membrane should be set out (with laps staggered) and pre-creased through the detail prior to removing the release film. All laps must be a minimum of 100mm, hot air welded and pressure rolled ensuring a visible bead of bitumen is exuded from all side and end laps.

WATERPROOFING DETAILS

All details are to be formed in accordance and agreement with IKO installation recommendations. All waterproofing details should be detailed in accordance with IKO Standard details and those set out in BS8217. If a detail is not able to be formed in accordance with IKO recommendation, IKO Technical Services must be contacted for further advice.

IKO cannot be responsible for any details not formed in accordance these British Standards or IKO recommendations.

This specification should be read in conjunction with the detailing drawings found in section four of this document.

The tapered insulation scheme and design is to be confirmed. Allowance must be made for adjustment of details as necessary, including perimeters, abutments, upstands/cavity trays, sills/thresholds etc to incorporate the insulation thicknesses proposed according to the tapered insulation design.

SPECIFICATION VARIATIONS

Should any variation to this specification occur prior to or during the progress of the works, then these must be notified immediately to both the IKO Technical Services Department and the clients representative.

No variation should be undertaken until such time that both IKO has approved any such variation and has been agreed by the client's representative in writing to all parties.

SECTION THREE

CLIENT NOTES

C.D.M. & SAFETY

CONSTRUCTION (DESIGN AND MANAGEMENT) REGULATIONS 2015

The Construction (Design and Management) Regulations (CDM) are the main set of regulations for managing the health, safety and welfare of construction projects.

The 2007 CDM Regulations have been replaced to help workers, contractors, designers and clients work together to improve health and safety.
From Monday 6 April 2015, the Construction (Design and Management) Regulations 2015 require small and medium size construction businesses to plan and manage health and safety.

CDM applies to **all** building and construction work and includes new build, demolition, refurbishment, extensions, conversions, repair and maintenance.

Key changes of the new CDM Regulations 2015

- The revised Regulations apply to all projects including **domestic client jobs**
- All projects must have a written **construction phase plan**
- The role of **CDM co-ordinator** in the previous CDM Regs 2007 has been removed and replaced with a new role of **principal designer**
- There is a duty to make sure all persons doing the job have the right **skills, knowledge, training and experience**
- A Principal designer and principal contractor must be appointed on projects that will have **more than one contractor**.

The HSE have produced guidance *Managing health and safety in construction – Construction (Design and Management) Regulations 2015 – (L153)* on the legal requirements for CDM 2015. They have also revised their construction webpages, produced a short client leaflet and a new construction phase plan template for small projects.

HEALTH & SAFETY GUIDANCE NOTES

The Contractors nominated in conjunction with this specification are approved to install IKO materials and will be in possession of the Health & Safety data sheets relating to any hazardous products manufactured and marketed by IKO which have been included within this specification.
It is assumed that the Contractor/s will be working to the guidelines of the relevant British Standard Codes of Practice (in particular BS 8000: 1989) and that relevant Health & Safety information will be obtained from the manufacturers of any roof components which are not manufactured by IKO.

RISK ASSESSMENTS - GENERAL

Works must comply with the requirements of the Health and Safety at Work Act and any additional requirements of the Client. The contractor must ensure that the works are carried out in accordance with a written method statement for the project, which should be based on a project specific risk assessment. Prior to commencing work, the contractor must liaise with the client or building occupier to establish the nature of any hazards which exist, and agree a system of work for adoption in accordance with health and safety requirements.

In addition to the normal hazards associated with roofing work at height and hot works, we recommend that particular attention be paid to the following aspects, although this list is not intended to be exhaustive and contractors & clients must assure themselves that all potential risks have been accounted for;

Gas flues. Determine whether flues are live, and if so establish working method to ensure that flues are not covered or obstructed in any way.
Microwave transmitters. Establish safe working method to prevent personnel from being exposed to microwave radiation.
Air-intakes. Precautions should be taken to prevent the ingress of any fumes from the roofing works entering the building.

NFRC SAFE2TORCH GUIDANCE & USE OF GAS TORCHES

This proposal specification has been created with due regard to compliance with the NFRC Safe2Torch guidance for the safe installation of torch-on reinforced bitumen membranes. To the best of our knowledge any potential hazards have been identified and this specification designed to minimise any such associated risk. However should during the installation of these works the installing contractor identify unforeseen potential risk they should notify both the clients representative and the IKO technical department immediately.

The installing contractor is reminded that they have a duty of care and responsibility to carry out their own risk assessment of the proposed works and pre-hot works checks as outlined in the NFRC Safe2Torch guidance. These must consider both site preparation works such as drying roofs and installation of reinforced bitumen membranes. Safe working practices must be introduced to minimise identified risks. All installing operatives and contractors must adhere to the guidance set out in the NFRC Safe2Torch guidance.

ROOFLIGHTS/OPENINGS

The Construction (Design and Management) Regulations places a duty on designers and specifiers to give proper consideration to eliminating or reducing risks at the design stage.

Unless there is definite information to the contrary, existing rooflights (which may be constructed from glass, GRP or polycarbonate) should be assumed to be fragile, and all appropriate measures taken to prevent people falling though them. The contractor for the works is required to provide a Risk assessment and Method Statement for the safe working of personnel around existing rooflights or openings.

HSG 33 *health and safety in roof work* draws attention to the responsibilities of those specifying rooflights.

HSG 33 states that where rooflights are required, designers should consider.

- Specifying rooflights that are non-fragile.
- Fitting rooflights deigned to project above the plane of the roof and which cannot be walked on (these reduce the risk but they should be capable of withstanding a person falling onto them)
- Protecting rooflights, e.g. by means of mesh or grids fitted above or below the rooflight.
- Specifying rooflights with a design life that matches that of the roof, taking account of the likely deterioration due to ultraviolet exposure, environmental pollution and internal and external building environment.

We would recommend that all fragile roof lights be replaced with new **IKO Superlite Rooflights,** a range of high quality PVCu 3-cell kerb and frame modules, combined with individually glazed UV stable, triple skin polycarbonate domes. The **IKO Superlite Rooflight** is fully compliant with

the requirements of Part L of the Building Regulations 2010 and has been independently tested and approved by the **BBA under certificate no 10/4714,** in that the whole unit U Value is at least or better than, 1.8 W/m²K, including the roof mounting. **IKO Superlite Rooflights** conform to **Class B Non Fragile** to ACR [M] 001:2000 (Test for Fragility for Roofing Assemblies). The fire performance of the rooflights is to be **Class 1 to BS476 Pt 7.**

EDGE PROTECTION ALERT – ROOF/PLANT MAINTENANCE

Once completed, access to the roof will be required for future inspections and maintenance to the roof. In addition maintenance of roof outlets any plant items and services etc. will be required to ensure the long term performance of the roofing system. In accordance with the client obligations under the Management of Health & Safety at Work Regulations 1999 (and associated Health and Safety Legislation) and under the Construction (Design & Management) Regulations 2015.

IKO Technical Services department would advise that consideration should be given to providing fall protection at all roof perimeters. In addition, we would advise protection for any newly installed waterproofing membrane, by the provision of dedicated walkways.

DESIGN ADVICE

BUILDING REGULATIONS - PART L- THERMAL INSULATION (OUTLINE GUIDANCE)

The roofing works to be carried out will need to comply with the requirements of Building Regulations 2010, Part L (and subsequent revisions) in England & Wales, or The Building (Scotland) Regulations 2004, Section 6 of the Building Standards Technical Handbook in Scotland.

The calculation of thermal transmittance, or U-Values, for a roof is controlled by the above mentioned regulations. There are different procedures according to whether the roofing work is for new-build or refurbishment. Where the refurbishment works is part of a change of use of the building, the works should comply with the latest Building Regulations and any revision thereof.

In all circumstances, it is recommended that advice be sought from your local Building Control Office, as to the compliance requirements for this particular project.

IKO roofing refurbishment specifications are prepared on the basis of current Building Regulations. Where we have specified a thermal insulation thickness which will not comply with current standards, it should be assumed that we have acted on the instruction of the client in this regard.

DRAINAGE & ROOF FALLS

The minimum recommended fall for a flat roof, according to BS6229, is 1:80, but the Code also advises better falls than this, to counteract the effects of movement within the roof and deflections. Where a roof specification does not incorporate measures to improve or enhance roof falls (e.g. by use of designed insulation schemes), the installation of a roof covering and flat thermal insulation boards – or just the roof covering alone – will not make any improvement to the drainage of the roof. If a roof which is being refurbished experiences ponding of rainwater currently, it can be expected to continue to experience water ponding following refurbishment unless specific measures are taken to alleviate the matter.

The insulation section of the Schedule of Materials within this specification will advise whether measures have been included for the improvement of roof drainage, by way of a designed tapered insulation scheme for the project.

GENERAL NOTES

THE SPECIFIED IKO ROOFING SYSTEM IS ONLY TO BE LAID BY AN IKO APPROVED ROOFING CONTRACTOR.

IKO products as specified within the materials schedule must be used throughout and installed in accordance with IKO recommendations. Products not specified and approved by IKO will not be covered within the guarantee.

Where this document is to be included within the clients/clients representative own specification documentation, a copy of such document must be forwarded to IKO Technical Services Department for final approval before commencement of the works.

Before the works commence, the roofing contractor should ensure that the surfaces to receive the new roofing system are acceptable and that the specification conforms to the requirements.

Allowance should be made by the installing contractor for the extent of, volume and degree of difficulty in stripping and removal from site the existing waterproofing and associated build up.

The installing contractor is to liaise with the client's representative to establish if any hazards exist (e.g. microwave transmitters) or whether gases or noxious/flammable fumes are vented at roof level. If hazards exist, an agreed working pattern must be adopted in accordance with health and safety requirements.

The works must comply with the requirements of the Health and Safety at Work Act and specific requirements as set out by the client. All risk assessments must be undertaken and recorded by the installing contractor.

Any retained components from the existing structure must be sound and capable of accepting the imposed loading of the new roofing system and associated installation procedures.

Insulation boards must be stored under cover in dry conditions, off the ground and being covered by a tarpaulin when not being used; insulation boards must not be installed if wet or damaged.

Where the new roofing system includes a tapered insulation or an increase in insulation thicknesses, allowance must be made for the raising of upstands, sills and DPC/cavity trays to a minimum height of 150mm above the finished roof level, as required by the code of practice. Failure to raise these details to this requirement may compromise the guarantee being offered.

Progress of the works is to be organised to maintain the waterproofing integrity of the roofing system and to ensure that the finished roof area(s) are adequately protected from damage by subsequent building operations. Failure to undertake this may result in additional works being necessary before any guarantee is issued.

Works in severe or continuously wet weather conditions should be suspended unless an effective temporary roof is provided over the working area.

Self-adhesive membranes should be stored above 5°C for 24 hours prior to use. It is not recommended that self-adhesive membranes be stored on the roof overnight or during hot weather conditions.

Do not undertake the works in poor weather conditions. (Where the wind speeds are in excess of 7m/s or temperatures are below 5°C). Suspend work in severe or continuously poor weather unless an effective temporary roof is provided.

Daywork joints in warm roof decks should be protected with a lapped and fully bonded strip of underlayer felt.

No petroleum based solvents or other chemicals harmful to bitumen should be allowed to come into contact with the roofing system.

Protect outlets and apertures from ingress of debris and remove protection to outlets during non-operating periods. All rainwater outlets and drainage should be checked upon completion of the works to ensure that they are free flowing.

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REGISTER OF SPECIFICATION AND DRAWINGS AND ISSUE

Project Title:	**Moat Court - RA1 (Main Roof), RA2, RA3; Car Park Roofs 4 and 5**
Specification Number:	**BUR1087.2020**

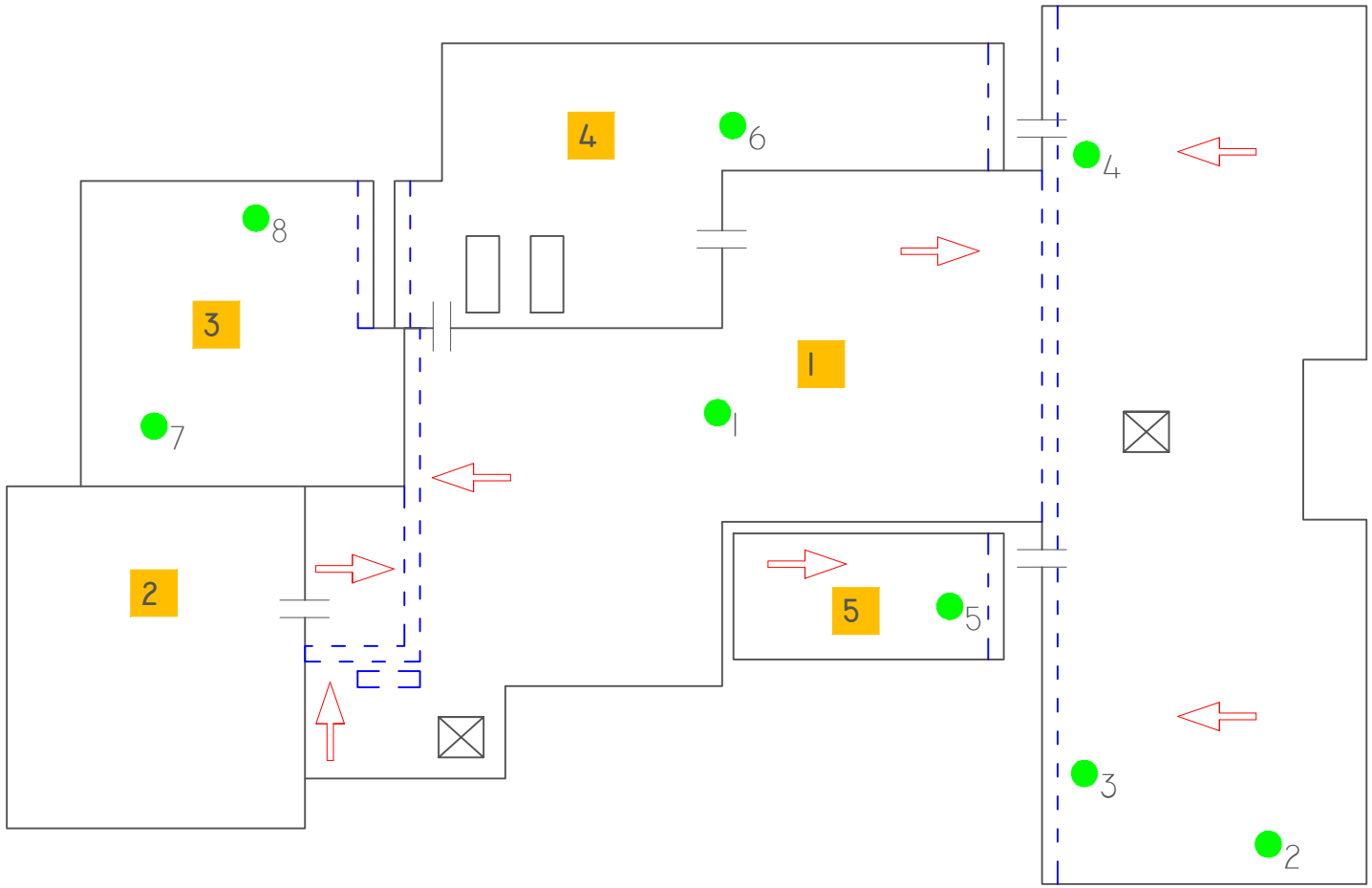
Day	**21**
Month	**02**
Year	**20**

DWG No	Drawing Title	Scale	
	Specification Document	N/A	✓
01	Roof Plan	NTS	✓
A3	Parapet - GRP Trim	NTS	✓
A9	Parapet - Encapsulate Copings – Batten & Panel	NTS	✓
B1	Upstand - Cover Flashing	NTS	✓
B5	Upstand - Cill	NTS	✓
B14	Rooflight - New Proprietary Kerb - IKO Superlite	NTS	✓
B15	Rooflight - New Proprietary Kerb - Oversleeve Kerb	NTS	✓
C3	Check Kerb - Timber - GRP Trim	NTS	✓
D3	Internal RWO - IKO Refurbishment Outlet	NTS	✓
F3	Pipe Penetrations - Cold Pipe - Lead Sleeve	NTS	✓
G1	Change In Level	NTS	✓
G2	Step Detail	NTS	✓
G4	Internal Gutter - Gutter within Insulation	NTS	✓
G5	Internal Gutter - Gutter within Deck	NTS	✓
H2	Plinth Detail - Cold (Plant Support)	NTS	✓
K1	Drainage Chute	NTS	✓

Distribution List:	Number of Copies Issued
Aster Group	1
IKO Business Manager: Robert Lovegrove	1
File: Technical Services Department	1

Issued For:

☐	Information	✓	Approval	☐	Construction	☐	Pricing
✓	Email	☐	Post	☐	By Hand	☐	Facsimile



KEY TO SYMBOLS

- Direction of Falls
- Core Sample / Moisture Probe
- Rooflight
- Drainage Chute

KEY TO LINES

Internal Gutter - Gutter Edges

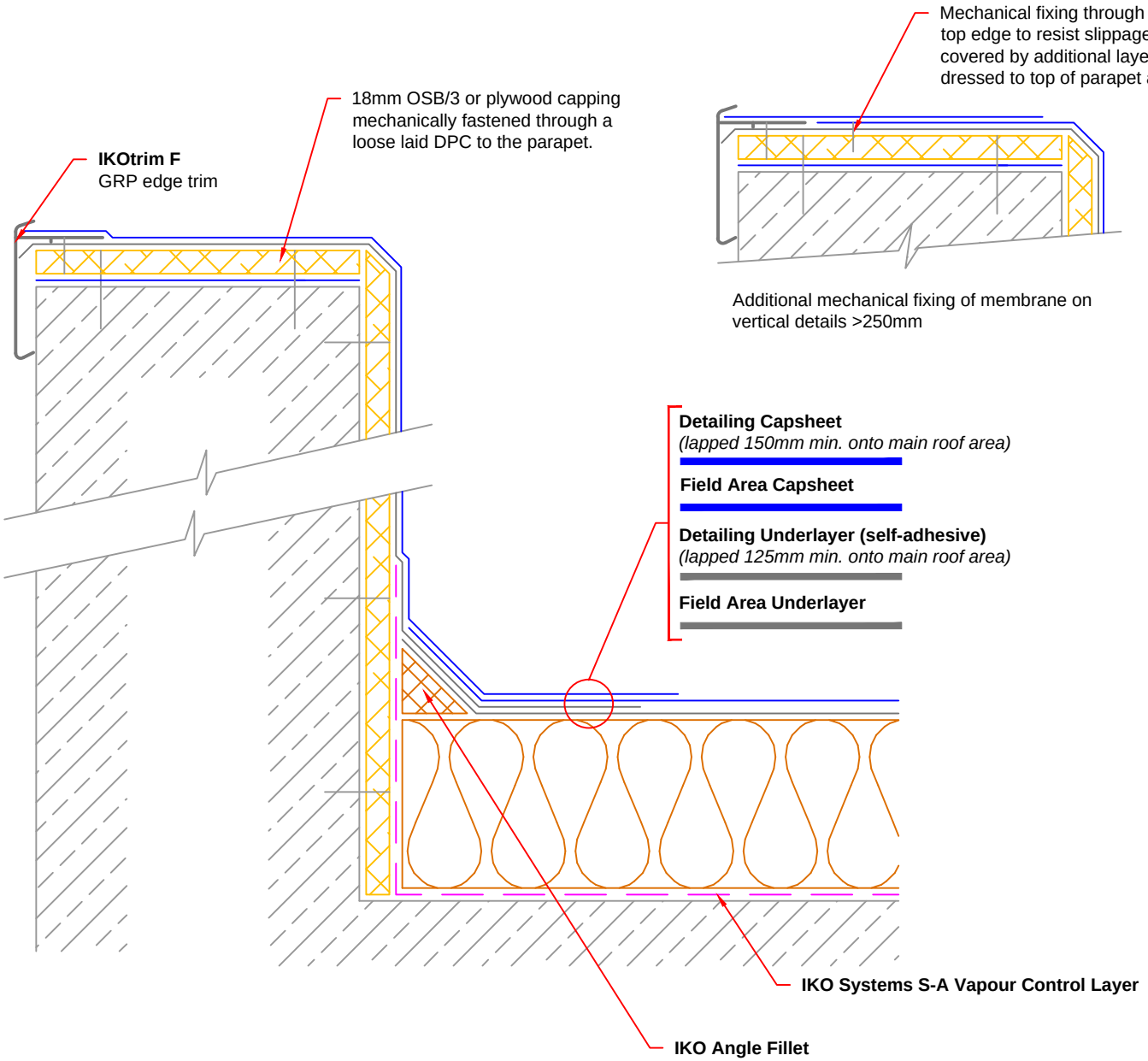
FLAME FREE ZONES

If indicated, 'Flame Free Zones' are for guidance only and may not be all-inclusive. *All Details to be completed with due regard to compliance with the NFRC Safe2Torch guidance for the safe installation of torch-on reinforced bitumen membranes and the client/contractor risk assessment for the works using appropriate materials and application techniques as specified. Where a risk is identified a minimum 900mm flame-free zone must be adopted as indicated. Flame Free Applications must be used direct to potentially combustible substrates.*

Email: technical.uk@iko.com

Project Name:	Drawing Title:			Dwg No:	
Moat Court Bournemouth Dorset BH4 9LA	ROOF PLAN			01	
	Spec No:	Date:	Notes/Revisions:	Scale:	Drawn By:
	BUR1087.2020	21/02/2020	N/A	NTS	SVM

NB: This drawing has been drawn using the information provided at survey stage. If there are any amendments to the drawing, IKO Technical Services must be contacted immediately. This drawing is for indicative purposes only and must not be used for scaling/ measurement purposes.



PARAPET - GRP trim

Remove any cavity tray from within the parapet, which directs water internally to the roof area. Care should be taken not to bridge over any DPC/Cavity tray when installing the new waterproofing system. Inspect and carry out any maintenance work to the parapet as necessary.

Apply an 18mm OSB/3 or plywood panel providing positive falls towards the roof to the top of the parapet over a loose laid DPC using suitable mechanical fixings. Negative falls to the top of the parapet are not acceptable. Apply an 18mm OSB/3 or plywood panel to the vertical face of the parapet secured by mechanical fixings.

Apply sufficient coats of the specified **IKO PRIMER** to the detail.

Apply **IKO SYSTEMS S-A VAPOUR CONTROL LAYER** to the primed upstand & dressed to link with the Underlayer by 50mm minimum.

Apply the specified **IKO ENERTHERM INSULATION** to the Vapour Control Layer, to be bonded as per IKO Specification Proposal.

Provide 50mm x 50mm specified **IKO ANGLE FILLETS** to the junction of all horizontal & vertical abutments.

Apply the specified waterproofing detailing fully bonded to the vertical and horizontal surfaces of the parapet, lapped and fully sealed onto the main area as indicated. The Detailing Underlayer should be finished so as to drape over the outer edge as shown.

Apply **IKOTRIM F** edge trim, mechanically fastened to the timber capping at maximum 300mm staggered centres (150mm maximum for areas of high wind uplift) and sandwiched between waterproofing layers as indicated.

Apply Detailing Capsheet fully bonded to the vertical and horizontal surfaces of the parapet, dressed into the channel of the **IKOTRIM F** edge trim, lapped and fully sealed onto the main roof area as indicated.

NOTES:

Detail to be completed with due regard to compliance with the NFRC Safe2Torch guidance for the safe installation of torch-on reinforced bitumen membranes and the client/contractor risk assessment for the works using appropriate materials and application techniques as specified. Self-adhesive membranes must be used direct to potentially combustible substrates.

All details to be installed in accordance with BS8217, BS6229, and IKO recommendations.

All waterproofing detailing must be undertaken as two layers and as separate items.

All surfaces must be clean, dry, and suitably prepared to accept the waterproofing system.

During the application of all bitumen membranes a visible bead of bitumen must be exuded from all side and end laps.

Additional mechanical fixing through the membrane at the top edge to resist slippage will be required on vertical details >250mm (as indicated).

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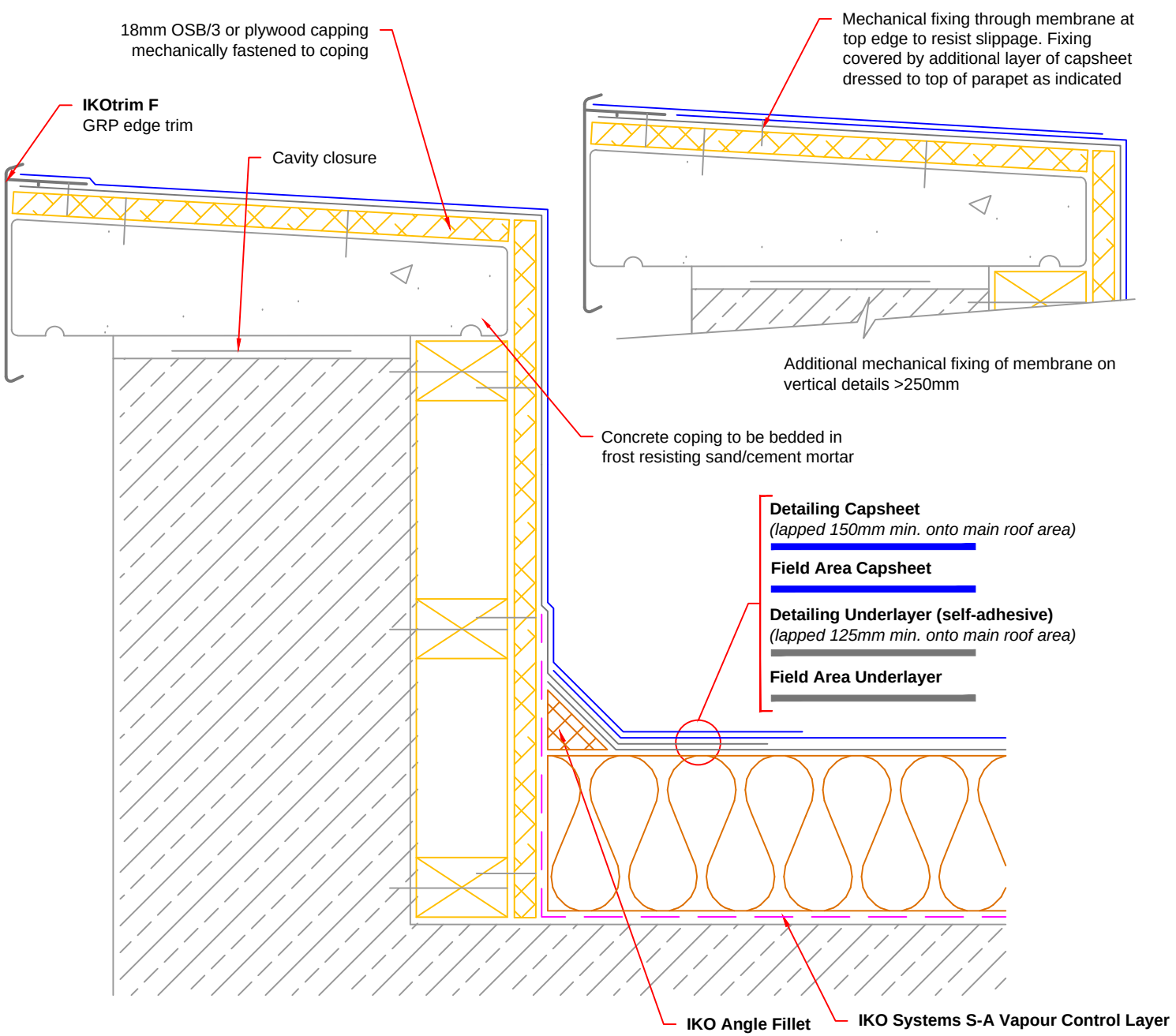
STANDARD DETAIL

DRAWING TITLE: PARAPET - GRP trim		DWG NO: A3	
DATE: 2018	NOTES/REVISIONS: N/A	SCALE: NTS	DRAWN BY: IKO



PARAPET - Encapsulate Copings - Batten & Panel

Remove any cavity tray from within the parapet, which directs water internally to the roof area. Care should be taken not to bridge over any DPC/Cavity tray when installing the new waterproofing system.

Ensure that the existing coping stones are securely fixed, rebedding in frost resistance sand/cement mortar as necessary. Inspect and carry out any maintenance work to the parapet as necessary.

Fix sufficient timber battens of appropriate dimensions to the vertical surface to allow application of an 18mm OSB/3 or plywood panel to the vertical face as indicated.

Apply an 18mm OSB/3 or plywood panel to the top of the coping secured by mechanical fixings.

Apply sufficient coats of the specified **IKO PRIMER** to the detail.

Apply **IKO SYSTEMS S-A VAPOUR CONTROL LAYER** to the primed upstand & dressed to the full height of the parapet and onto the coping stone to link with the Underlayer by 50mm minimum and fully encapsulate the insulation.

Apply the specified **IKO ENERTHERM INSULATION** of appropriate thickness to the Vapour Control Layer, to be bonded as per IKO Specification Proposal.

Provide 50mm x 50mm specified **IKO ANGLE FILLETS** to the junction of all horizontal & vertical abutments

Apply the specified waterproofing detailing fully bonded to the vertical and horizontal surfaces of the parapet, lapped and fully sealed onto the main area as indicated.

Apply **IKOTRIM F** edge trim, mechanically fastened to the timber capping at maximum 300mm staggered centres (150mm maximum for areas of high wind uplift) and sandwiched between waterproofing layers as indicated.

Apply Detailing Capsheet fully bonded to the vertical and horizontal surfaces of the parapet, dressed into the channel of the **IKOTRIM F** edge trim, lapped and fully sealed onto the main roof area as indicated.

NOTES:

Detail to be completed with due regard to compliance with the NFRC Safe2Torch guidance for the safe installation of torch-on reinforced bitumen membranes and the client/contractor risk assessment for the works using appropriate materials and application techniques as specified. Self-adhesive membranes must be used direct to potentially combustible substrates.

All details to be installed in accordance with BS8217, BS6229, and IKO recommendations.

All waterproofing detailing must be undertaken as two layers and as separate items.

All surfaces must be clean, dry, and suitably prepared to accept the waterproofing system.

During the application of all bitumen membranes a visible bead of bitumen must be exuded from all side and end laps.

Additional mechanical fixing through the membrane at the top edge to resist slippage will be required on vertical details >250mm (as indicated).

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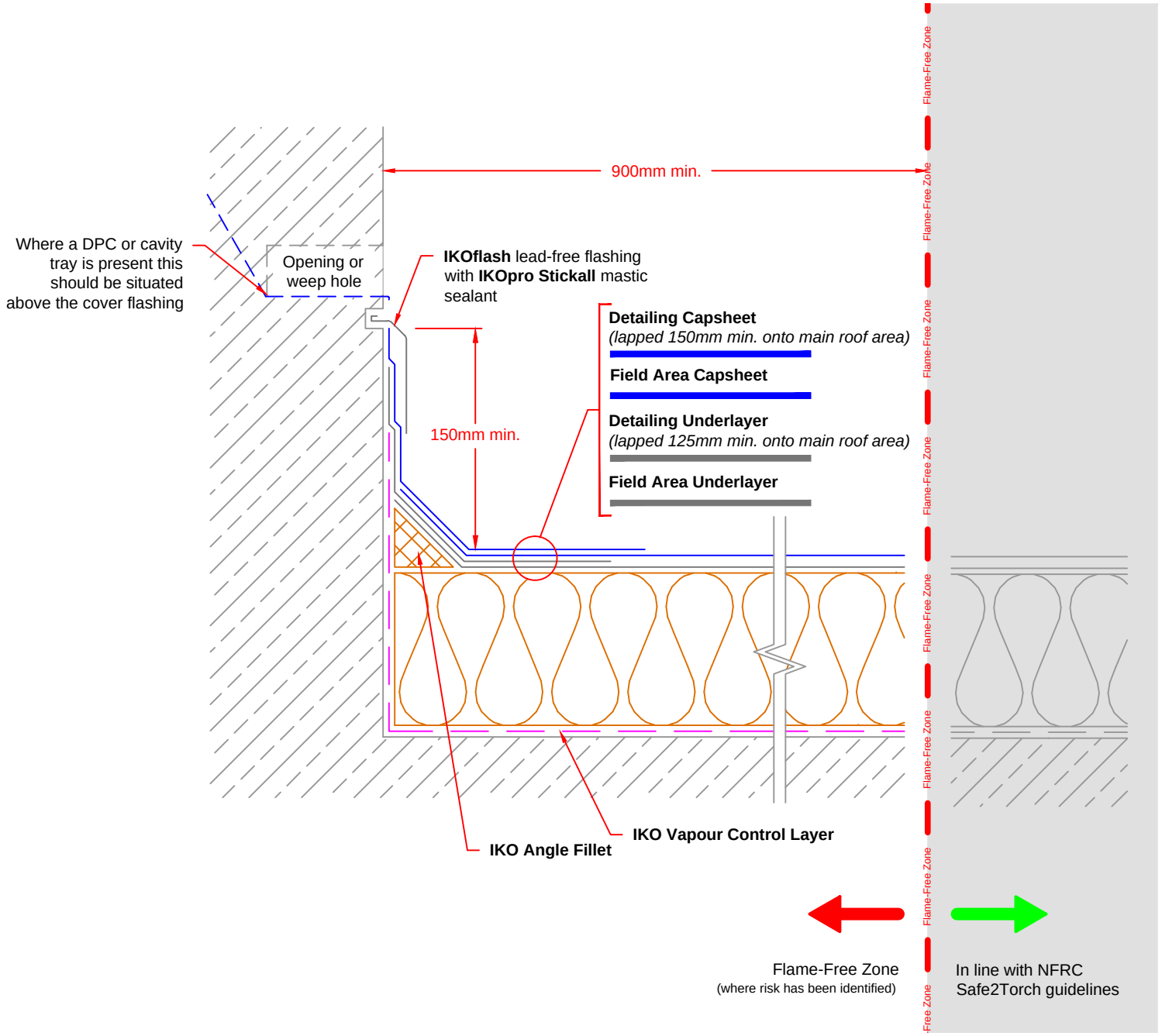
STANDARD DETAIL

DRAWING TITLE: PARAPET - Encapsulate Copings - Batten & Panel		DWG NO: A9	
DATE: 2018	NOTES/REVISIONS: N/A	SCALE: NTS	DRAWN BY: IKO



UPSTAND - Cover Flashing

Carefully rake/cut out the joint to a depth of not less than 25mm, at a height of 150mm minimum above the finished roof level. The chase should be below the level of any DPC or cavity tray.

Apply sufficient coats of the specified **IKO PRIMER** to the detail.

Apply the specified **IKO VAPOUR CONTROL LAYER** to the primed upstand & dressed to link with the Underlayer by 50mm minimum.

Apply the specified **IKO ENERTHERM INSULATION** to the Vapour Control Layer, to be bonded as per IKO Specification Proposal.

Provide 50mm x 50mm specified **IKO ANGLE FILLETS** to the junction of all horizontal & vertical abutments

Apply the specified waterproofing detailing fully bonded to the upstand. Detailing Underlayer and Capsheet must be lapped and fully sealed onto the main area as indicated.

Provide **IKOFLASH LEAD FREE FLASHING** to the provided chase lengths not exceeding 1.5m ensuring end laps are not less than 100mm & that a minimum cover of 75mm is provided to the upstand.

The chase should then be pointed with a one or two part polysulphide sealant or **IKO STICKALL MASTIC SEALANT.**

NOTES:

Detail to be completed with due regard to compliance with the NFRC Safe2Torch guidance for the safe installation of torch-on reinforced bitumen membranes and the client/contractor risk assessment for the works using appropriate materials and application techniques as specified. Where a risk is identified a minimum 900mm flame-free zone must be adopted as indicated. Self-adhesive membranes must be used direct to potentially combustible substrates.

Completed waterproofing upstand details should always be installed so as to achieve a height of 150mm minimum above the finished roof level.

All details to be installed in accordance with BS8217, BS6229, and IKO recommendations.

All waterproofing detailing must be undertaken as two layers and as seperate items.

All surfaces must be clean, dry, and suitably prepared to accept the waterproofing system.

During the application of all bitumen membranes a visible bead of bitumen must be exuded from all side and end laps.

Additional mechanical fixing through the membrane at the top edge to resist slippage will be required on vertical details >250mm.

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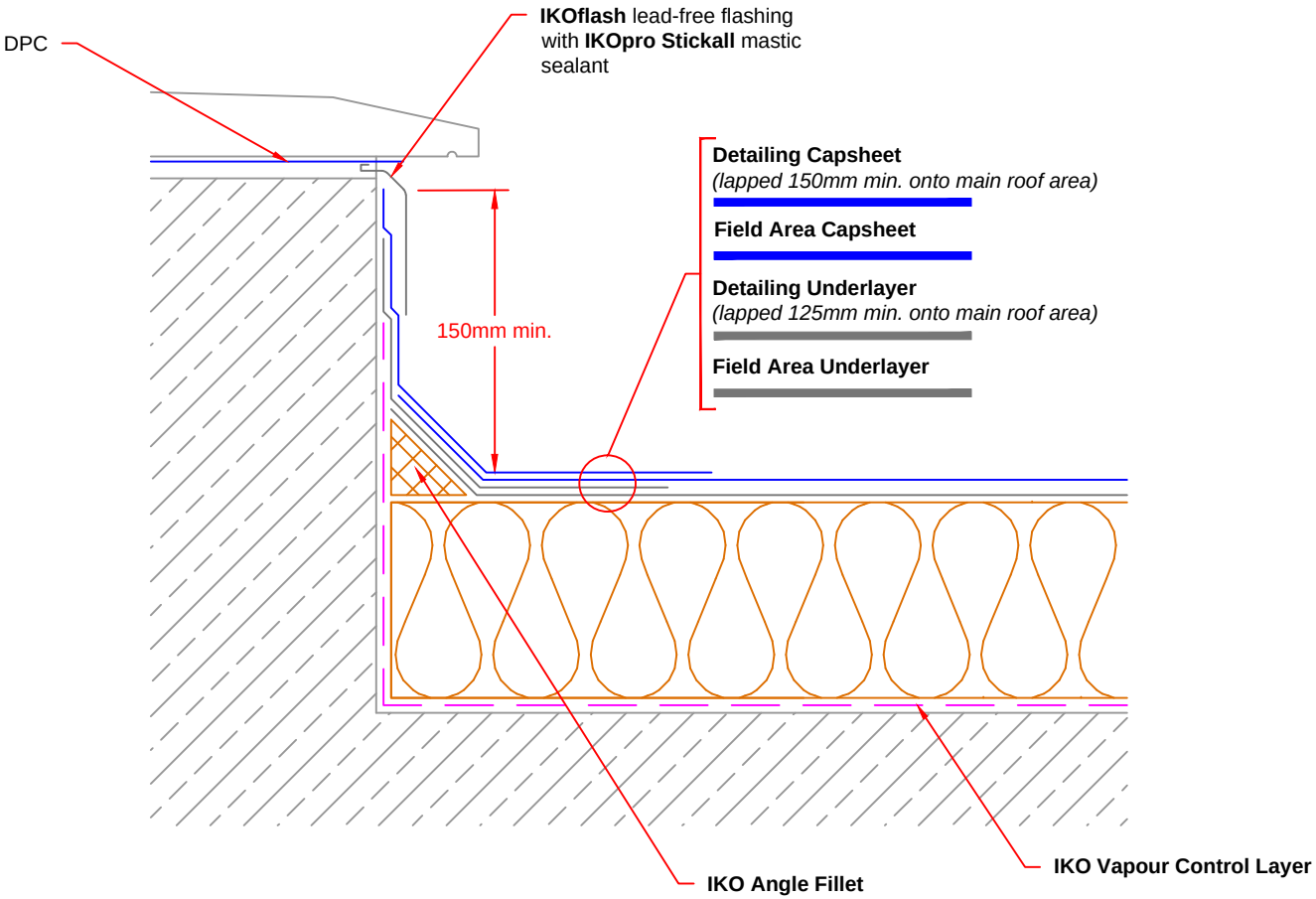
STANDARD DETAIL

DRAWING TITLE: UPSTAND - Cover Flashing		DWG NO: B1	
DATE: 2018	NOTES/REVISIONS: N/A	SCALE: NTS	DRAWN BY: IKO



UPSTAND - Sill

Carefully rake/cut out the joint to a depth of not less than 25mm directly beneath the sill as necessary.

Apply sufficient coats of the specified **IKO PRIMER** to the detail.

Apply the specified **IKO VAPOUR CONTROL LAYER** to the primed upstand & dressed to link with the Underlayer by 50mm minimum.

Apply the specified **IKO ENERTHERM INSULATION** to the Vapour Control Layer, to be bonded as per IKO Specification Proposal.

Provide 50mm x 50mm specified **IKO ANGLE FILLETS** to the junction of all horizontal & vertical abutments

Apply the specified waterproofing detailing fully bonded to the upstand. Detailing Underlayer and Capsheet must be lapped and fully sealed onto the main area as indicated.

Provide **IKOFLASH LEAD FREE FLASHING** to the provided chase lengths not exceeding 1.5m ensuring end laps are not less than 100mm & that a minimum cover of 75mm is provided to the upstand.

The chase should then be pointed with a one or two part polysulphide sealant or **IKO STICKALL MASTIC SEALANT.**

NOTES:

Detail to be completed with due regard to compliance with the NFRC Safe2Torch guidance for the safe installation of torch-on reinforced bitumen membranes and the client/contractor risk assessment for the works using appropriate materials and application techniques as specified. Self-adhesive membranes must be used direct to potentially combustible substrates.

Completed waterproofing upstand details should always be installed so as to achieve a height of 150mm minimum above the finished roof level. Where window or door sills are situated such that an upstand height of 150mm above the finished waterproofing surface cannot be achieved, the sill should be raised sufficiently to allow for this requirement. This may necessitate the complete replacement of the frame. Rotten or defective sills must be removed & replaced with new material.

All details to be installed in accordance with BS8217, BS6229, and IKO recommendations.

All waterproofing detailing must be undertaken as two layers and as seperate items.

All surfaces must be clean, dry, and suitably prepared to accept the waterproofing system.

During the application of all bitumen membranes a visible bead of bitumen must be exuded from all side and end laps.

Additional mechanical fixing through the membrane at the top edge to resist slippage will be required on vertical details >250mm.

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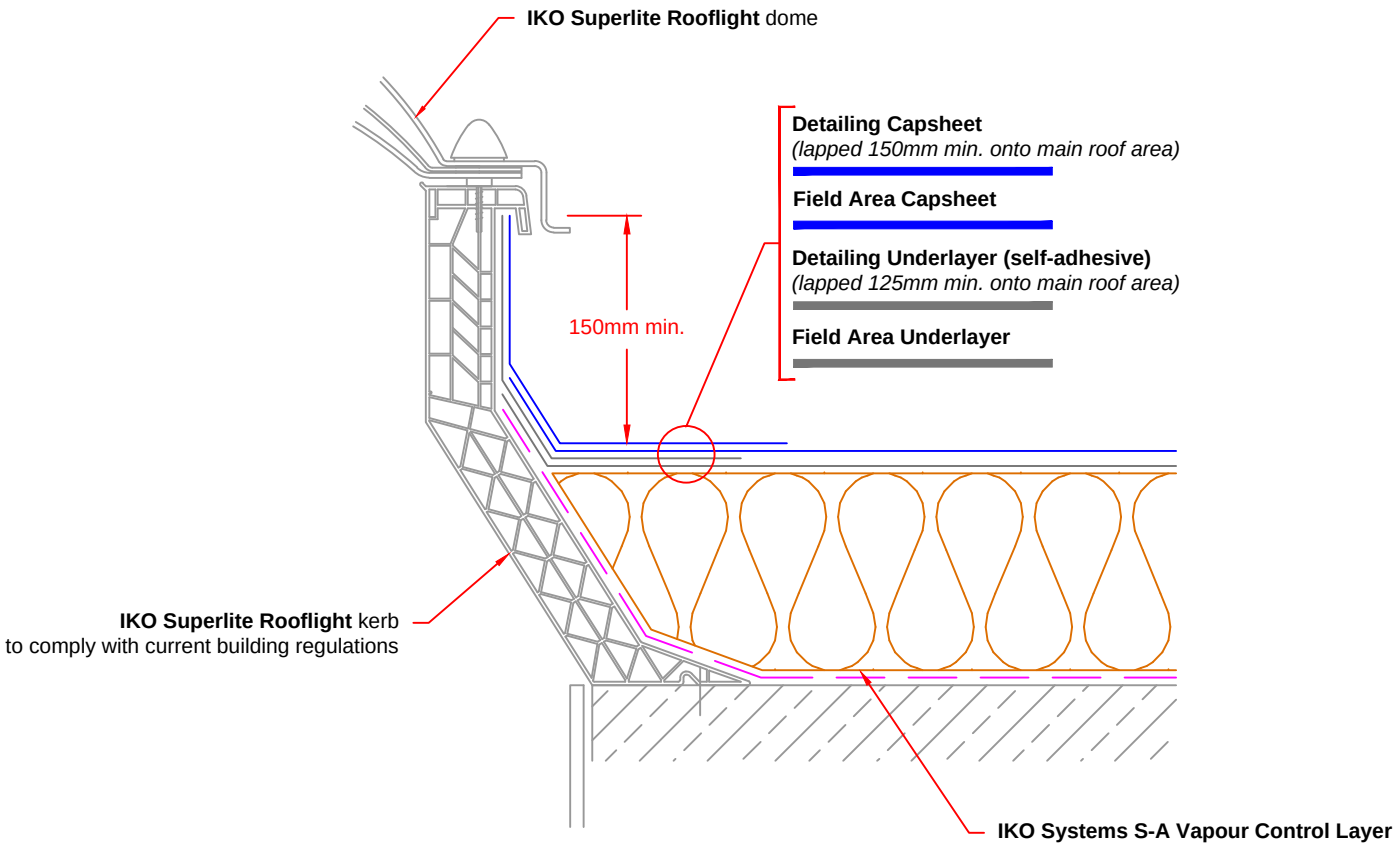
STANDARD DETAIL

DRAWING TITLE: UPSTAND - Sill		DWG NO: B5	
DATE: 2018	NOTES/REVISIONS: N/A	SCALE: NTS	DRAWN BY: IKO



ROOFLIGHT - New Proprietary Kerb - IKO Superlite

Existing rooflights should be assumed to be fragile & all appropriate measures taken to prevent people falling through them. The Contractor for the works is required to provide a Risk Assessment & Method Statement for the safe working of personnel around rooflights.

Remove the existing rooflight cover unit & kerb & dispose off site. Any exposed openings **must** be protected against objects/personnel falling through.

Apply the specified new **IKO SUPERLITE ROOFLIGHT** kerb being mechanically fixed to the deck/timber kerb in strict accordance with the manufacturers recommendations.

Apply sufficient coats of the specified **IKO PRIMER** to the detail.

Apply **IKO SYSTEMS S-A VAPOUR CONTROL LAYER** to the primed upstand & dressed to link with the Underlayer by 50mm minimum.

Apply the specified **IKO ENERTHERM INSULATION** to the Vapour Control Layer, to be bonded as per IKO Specification Proposal.

Apply the specified waterproofing detailing fully bonded to the rooflight kerb. Detailing Underlayer and Capsheet must be lapped and fully sealed onto the main area as indicated.

The **IKO SUPERLITE ROOFLIGHT** assembly includes a unique termination detail to ensure the waterproofing is fully fixed & protected.

Fix **IKO SUPERLIGHT ROOFLIGHT** dome in accordance with manufacturers guidance.

Allowance should be made for making good any interior decoration, where the unit has been raised to accommodate the detail.

NOTES:

Detail to be completed with due regard to compliance with the NFRC Safe2Torch guidance for the safe installation of torch-on reinforced bitumen membranes and the client/contractor risk assessment for the works using appropriate materials and application techniques as specified. Self-adhesive membranes must be used direct to potentially combustible substrates.

All details to be installed in accordance with BS8217, BS6229, and IKO recommendations.

Completed waterproofing upstand details should always be installed so as to achieve a height of 150mm minimum above the finished roof level.

All waterproofing detailing must be undertaken as two layers and as seperate items.

All surfaces must be clean, dry, and suitably prepared to accept the waterproofing system.

During the application of all bitumen membranes a visible bead of bitumen must be exuded from all side and end laps.

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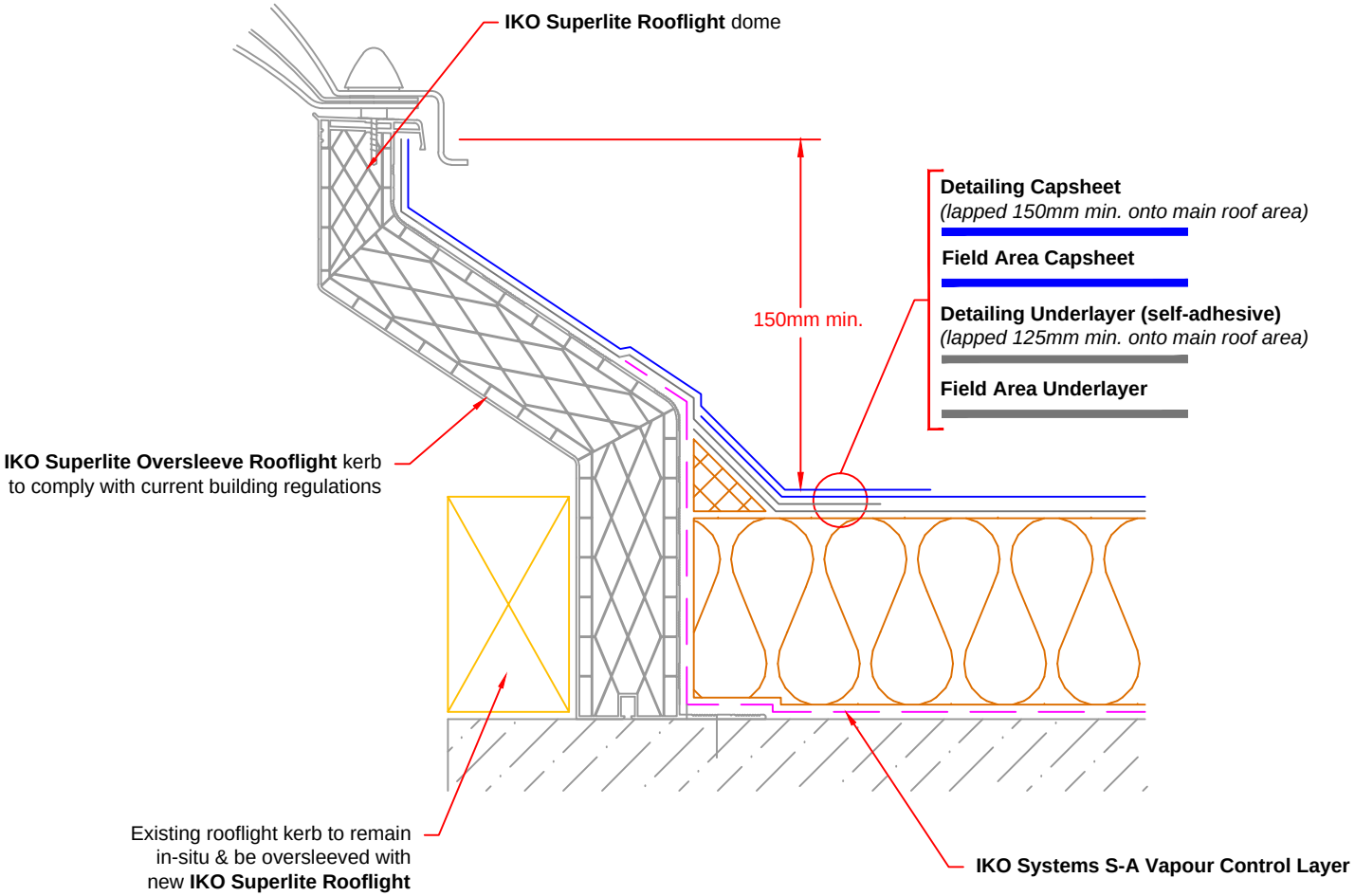
STANDARD DETAIL

DRAWING TITLE: ROOFLIGHT - New Proprietary Kerb - IKO Superlite		DWG NO: B14	
DATE: 2018	NOTES/REVISIONS: N/A	SCALE: NTS	DRAWN BY: IKO



ROOFLIGHT - New Proprietary Kerb - IKO Superlite Oversleeve Kerb

Existing rooflights should be assumed to be fragile & all appropriate measures taken to prevent people falling through them. The Contractor for the works is required to provide a Risk Assessment & Method Statement for the safe working of personnel around rooflights.

Remove the existing rooflight cover unit & dispose off site. The existing rooflight kerb is to remain in situ and be oversleeved with the new unit. Any exposed openings **must** be protected against objects/personnel falling through.

Apply the specified new **IKO SUPERLITE OVERSLEEVE ROOFLIGHT** kerb being mechanically fixed to the deck/timber kerb in strict accordance with the manufacturers recommendations, sized to oversleeve the existing kerb which is to remain in-situ.

Apply sufficient coats of the specified **IKO PRIMER** to the detail.

Apply **IKO SYSTEMS S-A VAPOUR CONTROL LAYER** to the primed upstand & dressed to link with the Underlayer by 50mm minimum.

Apply the specified **IKO ENERTHERM INSULATION** to the Vapour Control Layer, to be bonded as per IKO Specification Proposal.

Provide 50mm x 50mm specified **IKO ANGLE FILLETS** to the junction of all horizontal & vertical abutments.

Apply the specified waterproofing detailing fully bonded to the rooflight kerb. Detailing Underlayer and Capsheet must be lapped and fully sealed onto the main area as indicated.

The **IKO SUPERLITE ROOFLIGHT** assembly includes a unique termination detail to ensure the waterproofing is fully fixed & protected.

Fix **IKO SUPERLIGHT ROOFLIGHT** dome in accordance with manufacturers guidance.

Allowance should be made for making good any interior decoration, where the unit has been raised to accommodate the detail.

NOTES:

Detail to be completed with due regard to compliance with the NFRC Safe2Torch guidance for the safe installation of torch-on reinforced bitumen membranes and the client/contractor risk assessment for the works using appropriate materials and application techniques as specified. Self-adhesive membranes must be used direct to potentially combustible substrates.

All details to be installed in accordance with BS8217, BS6229, and IKO recommendations.

Completed waterproofing upstand details should always be installed so as to achieve a height of 150mm minimum above the finished roof level.

All waterproofing detailing must be undertaken as two layers and as seperate items.

All surfaces must be clean, dry, and suitably prepared to accept the waterproofing system.

During the application of all bitumen membranes a visible bead of bitumen must be exuded from all side and end laps.

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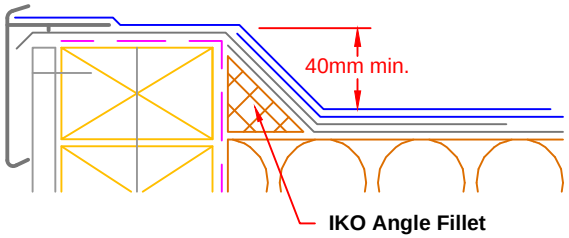
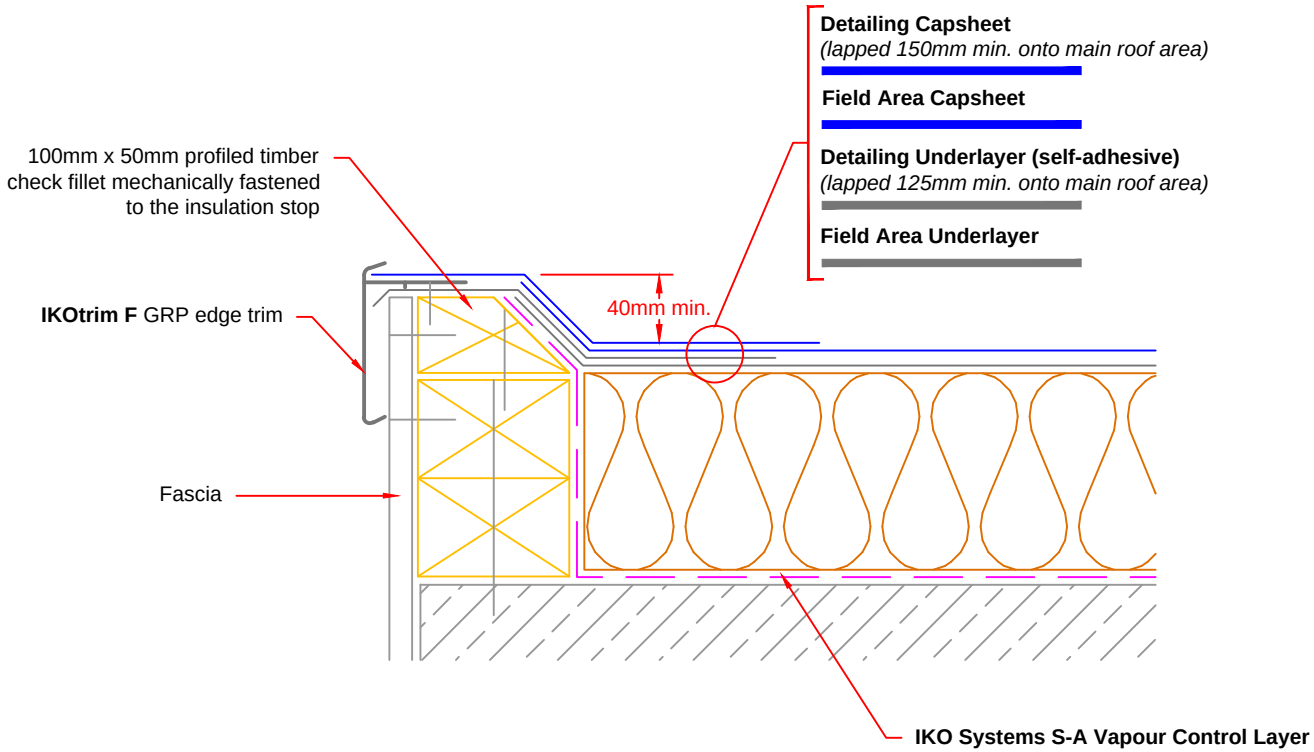
STANDARD DETAIL

DRAWING TITLE: ROOFLIGHT - New Proprietary Kerb - IKO Superlite Oversleeve Kerb		DWG NO: B15	
DATE: 2018	NOTES/REVISIONS: N/A	SCALE: NTS	DRAWN BY: IKO

This detail is representative of a typical situation and provided for illustration purposes. Where shown insulation thickness may differ in accordance with specifiers U value requirement. To be read in conjunction with the IKO project specification. Refer to specification and product literature for product descriptions and application information.





CHECK KERB - Timber - GRP Trim

Raise open perimeter check kerb, using treated timber, 100mm wide, to give an upstand height of 40mm above the surface of the completed waterproofing and provide an insulation stop. Perimeter timbers must be fixed at maximum 300mm centres (150mm maximum for areas of high wind uplift) using suitable fixings into a structurally sound substrate. The top of the kerb must have positive falls towards the roof, negative falls are not acceptable.

Inner face of kerb to be chamfered to a 45° angle, using either profiled timber or tilt fillets. Alternatively 50mm x 50mm **IKO ANGLE FILLETS** can be used as indicated.

When raising perimeter check kerbs, consideration must be given to the external appearance of the building & the potential requirement for fascia boards or trims with increased depth & or additional cladding sections to be used. It is suggested that guidance is sought from the client & allowance made for this aspect prior to commencing the contract.

Apply sufficient coats of the specified **IKO PRIMER** to the detail.

Apply **IKO SYSTEMS S-A VAPOUR CONTROL LAYER** to the primed upstand & dressed to link with the Underlayer by 50mm minimum.

Apply the specified **IKO ENERTHERM INSULATION** to the Vapour Control Layer, to be bonded as per IKO Specification Proposal.

Apply the specified waterproofing detailing fully bonded to the detail, lapped and fully sealed onto the main area as indicated. The Detailing Underlayer should be finished so as to drape over the outer edge as shown.

Apply **IKOTRIM F** edge trim, mechanically fastened to the timber capping at maximum 300mm staggered centres (150mm maximum for areas of high wind uplift) and sandwiched between waterproofing layers as indicated. Apply Detailing Capsheet fully bonded to the detail, dressed into the channel of the **IKOTRIM F** edge trim, lapped and fully sealed onto the main roof area as indicated.

NOTES:

Detail to be completed with due regard to compliance with the NFRC Safe2Torch guidance for the safe installation of torch-on reinforced bitumen membranes and the client/contractor risk assessment for the works using appropriate materials and application techniques as specified. Self-adhesive membranes must be used direct to potentially combustible substrates.

All details to be installed in accordance with BS8217, BS6229, and IKO recommendations.

All waterproofing detailing must be undertaken as two layers and as separate items.

All surfaces must be clean, dry, and suitably prepared to accept the waterproofing system.

During the application of all bitumen membranes a visible bead of bitumen must be exuded from all side and end laps.

Email: technical.uk@iko.com

STANDARD DETAIL

DRAWING TITLE: CHECK KERB - Timber - GRP Trim

DWG NO: C3

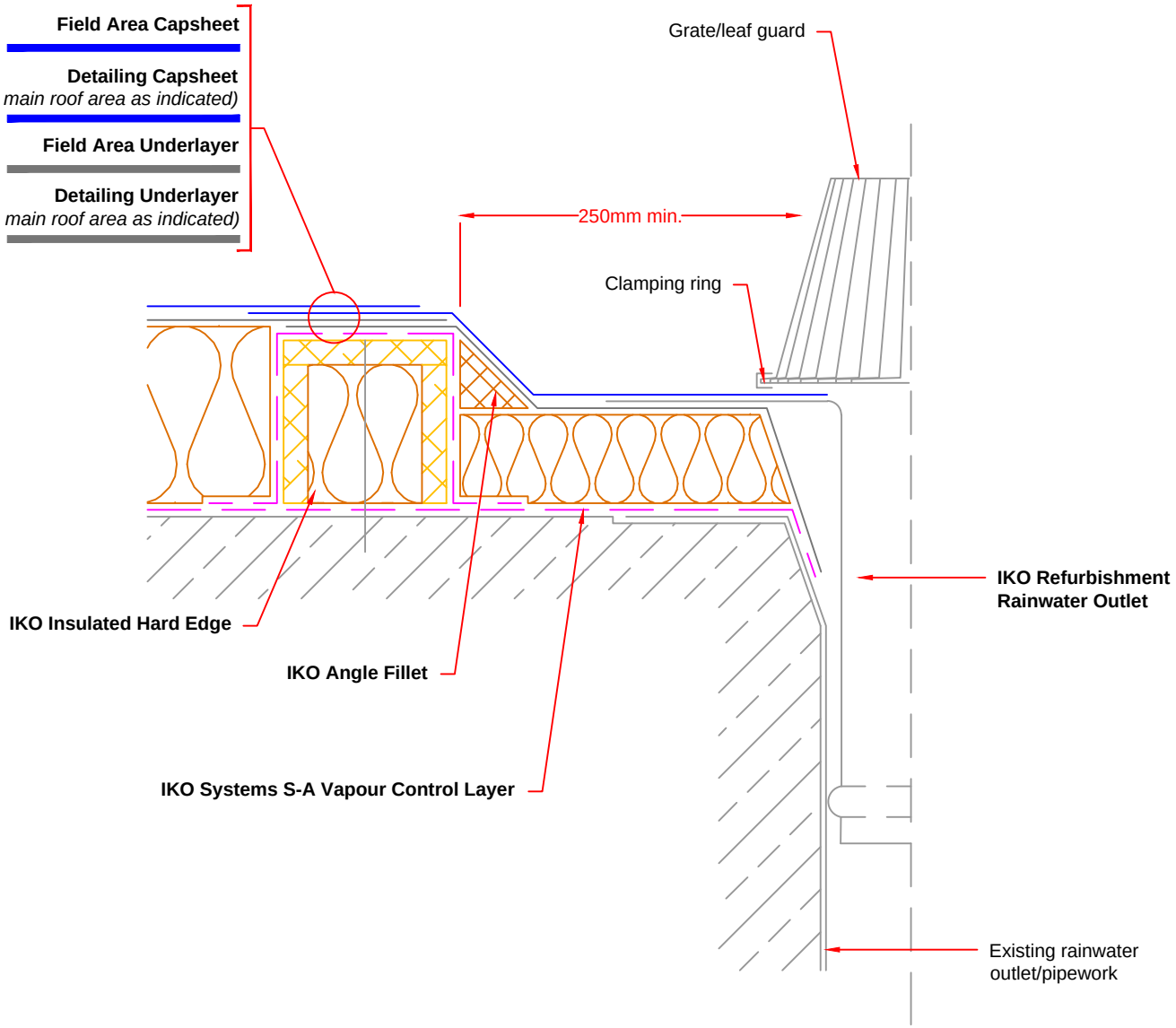
DATE: 2018

NOTES/REVISIONS: N/A

SCALE: NTS

DRAWN BY: IKO

This detail is representative of a typical situation and provided for illustration purposes. Where shown insulation thickness may differ in accordance with specifiers U value requirement. To be read in conjunction with the IKO project specification. Refer to specification and product literature for product descriptions and application information.



INTERNAL RWO - IKO Refurbishment Outlet

Rainwater outlets should be of the correct design & of sufficient size so that the opening is not restricted by the application of the waterproofing system. Roof drainage layout must comply with BS EN 12056-3:2000. Install additional rainwater outlets as required to ensure any standing water is within IKO Technical Services recommendations.

Protect all outlets from any ingress of debris as a result of the roofing works, ensuring any such protection is removed upon the detailing being completed or during non-operational periods.

Remove any existing clamping rings, domes and gratings from existing rainwater outlets & dispose of site.

To improve drainage, create a sump detail minimum 500mm x 500mm around the outlet position by installing a minimum 30mm thickness of insulation in this location. Install **IKO INSULATED HARD EDGE** or a treated timber stop batten (minimum 100mm wide), of a thickness 10mm less than the main roof insulation around the sump perimeter to protect the edge of the insulation; to be mechanically fixed to the roof substrate, or adhered in **IKO PU ADHESIVE**.

Apply sufficient coats of the specified **IKO PRIMER** to the detail including the flanges of the existing outlet as indicated.

Apply **IKO SYSTEMS S-A VAPOUR CONTROL LAYER** to the primed surface & dress as indicated.

Apply the specified **IKO ENERTHERM INSULATION** to the Vapour Control Layer, to be bonded as per IKO Specification Proposal.

Provide 50mm x 50mm specified **IKO ANGLE FILLETS** as indicated.

Apply the specified waterproofing detailing fully bonded to the detail and dressed into the existing outlet as indicated.

Install new **IKO REFURBISHMENT RAINWATER OUTLET**, ensuring that the expansion mechanism is correctly applied to create a positive seal to the existing down-pipe. Prime the flange of the new outlet with the specified primer.

Apply the Detailing Capsheet fully bonded to the detail and sealed onto the flange of the new outlet as indicated.

On completion fix the associated clamping rings & domes/gratings/leaf guards. All rainwater outlets & drainage should be checked upon completion of the works to ensure that they are free flowing.

NOTES:

Detail to be completed with due regard to compliance with the NFRC Safe2Torch guidance for the safe installation of torch-on reinforced bitumen membranes and the client/contractor risk assessment for the works using appropriate materials and application techniques as specified. Self-adhesive membranes must be used direct to potentially combustible substrates.

All details to be installed in accordance with BS8217, BS6229, and IKO recommendations.

All waterproofing detailing must be undertaken as two layers and as separate items.

All surfaces must be clean, dry, and suitably prepared to accept the waterproofing system.

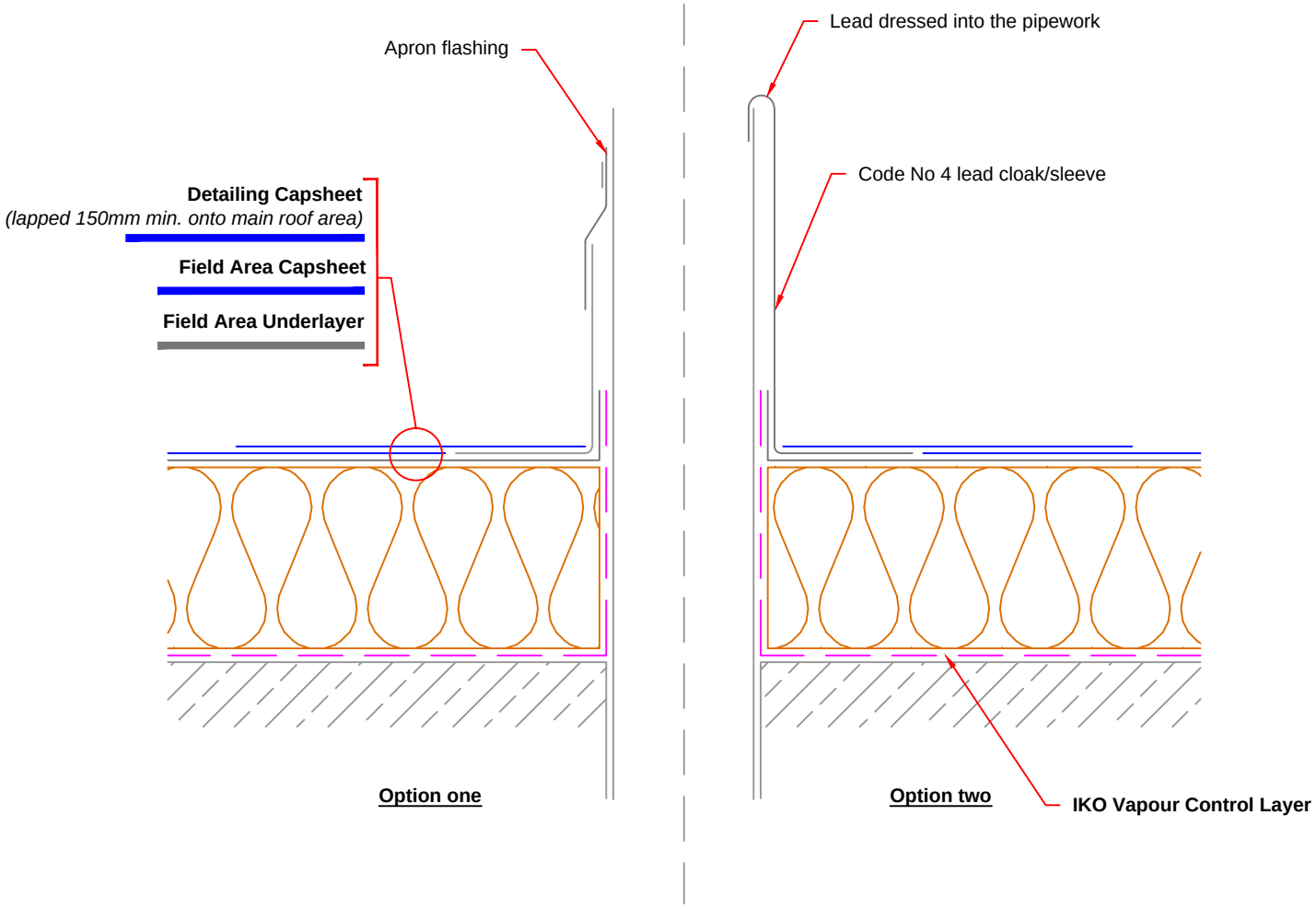
During the application of all bitumen membranes a visible bead of bitumen must be exuded from all side and end laps.

Email: technical.uk@iko.com

STANDARD DETAIL

DRAWING TITLE: INTERNAL RWO - IKO Refurbishment Outlet		DWG NO: D3	
DATE: 2018	NOTES/REVISIONS: N/A	SCALE: NTS	DRAWN BY: IKO

This detail is representative of a typical situation and provided for illustration purposes. Where shown insulation thickness may differ in accordance with specifiers U value requirement. To be read in conjunction with the IKO project specification. Refer to specification and product literature for product descriptions and application information.



PIPE PENETRATIONS - Cold Pipe - Lead Sleeve

Extend pipework as necessary to achieve a minimum upstand height of 150mm above finished roof level.

Apply sufficient coats of the specified **IKO PRIMER** to the detail.

Apply the specified **IKO VAPOUR CONTROL LAYER** to the primed upstand & dressed to link with the Underlayer by 50mm minimum.

Apply the specified **IKO ENERTHERM INSULATION** to the Vapour Control Layer, to be bonded as per IKO Specification Proposal.

Apply the specified Field Area Underlayer fully bonded and dressed to link with the vapour control layer as indicated.

Provide Code 4 or 5 lead pipe flashings preformed to suit each pipe. The sleeve should be dressed between the waterproofing layers. Leadwork should be dressed & turned over the top of the pipe to encapsulate the rim or top edge, being secured with a proprietary flashing & sealed with a suitable mastic sealant to the top edge. Prime the lead flange with the specified primer.

Apply the specified Field Area Capsheet as indicated, followed by the Detailing Capsheet fully bonded to the detail, sealed onto the lead flange, lapped and fully sealed to the main roof area as indicated.

NOTES:

Detail to be completed with due regard to compliance with the NFRC Safe2Torch guidance for the safe installation of torch-on reinforced bitumen membranes and the client/contractor risk assessment for the works using appropriate materials and application techniques as specified. Self-adhesive membranes must be used direct to potentially combustible substrates.

All details to be installed in accordance with BS8217, BS6229, and IKO recommendations.

All waterproofing detailing must be undertaken as two layers and as separate items.

All surfaces must be clean, dry, and suitably prepared to accept the waterproofing system.

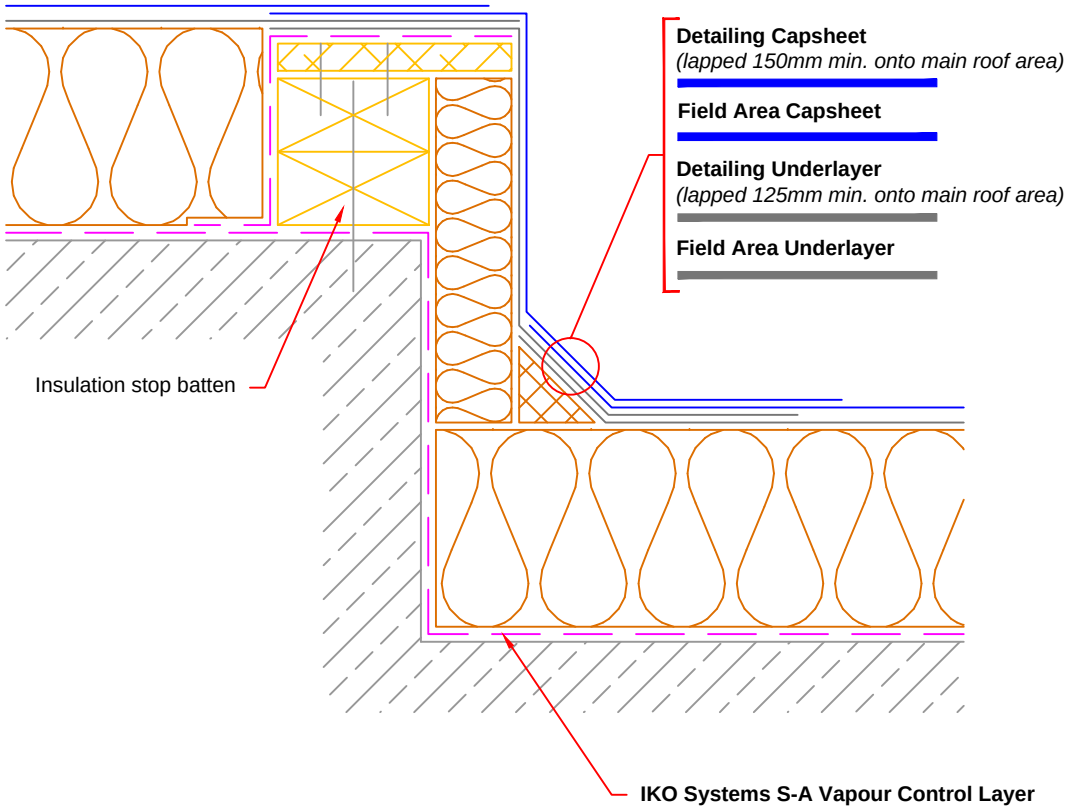
During the application of all bitumen membranes a visible bead of bitumen must be exuded from all side and end laps.

Email: technical.uk@iko.com

STANDARD DETAIL

DRAWING TITLE: PIPE PENETRATIONS - Cold Pipe - Lead Sleeve		DWG NO: F3	
DATE: 2018	NOTES/REVISIONS: N/A	SCALE: NTS	DRAWN BY: IKO

This detail is representative of a typical situation and provided for illustration purposes. Where shown insulation thickness may differ in accordance with specifiers U value requirement. To be read in conjunction with the IKO project specification. Refer to specification and product literature for product descriptions and application information.



CHANGE IN LEVEL

Apply an insulation stop batten to the top edge of the upper level (100mm wide & 30mm thinner than insulation thickness, so as to prevent lap build up) being mechanically fixed to the roof deck, to provide a hard edge to all steps.

Fix 18mm plywood capping piece to oversail stop batten & cover top edge of vertical insulation.

Apply sufficient coats of the specified **IKO PRIMER** to the detail.

Apply **IKO SYSTEMS S-A VAPOUR CONTROL LAYER** to the primed area as indicated, providing an additional piece of vcl to dress onto the insulation stop & link with the Underlayer by 50mm minimum.

Apply the specified **IKO ENERTHERM INSULATION** to the Vapour Control Layer, including vertically, to be bonded as per IKO Specification Proposal.

Provide 50mm x 50mm specified **IKO ANGLE FILLETS** to the junction of all horizontal & vertical abutments

Apply the specified waterproofing detailing fully bonded to the detail as indicated. Detailing Underlayer and Capsheet must be returned to the inner edge of the insulation stop batten and lapped and fully sealed onto the main area as indicated.

NOTES:

Detail to be completed with due regard to compliance with the NFRC Safe2Torch guidance for the safe installation of torch-on reinforced bitumen membranes and the client/contractor risk assessment for the works using appropriate materials and application techniques as specified. Self-adhesive membranes must be used direct to potentially combustible substrates.

All details to be installed in accordance with BS8217, BS6229, and IKO recommendations.

All waterproofing detailing must be undertaken as two layers and as separate items.

All surfaces must be clean, dry, and suitably prepared to accept the waterproofing system.

During the application of all bitumen membranes a visible bead of bitumen must be exuded from all side and end laps.

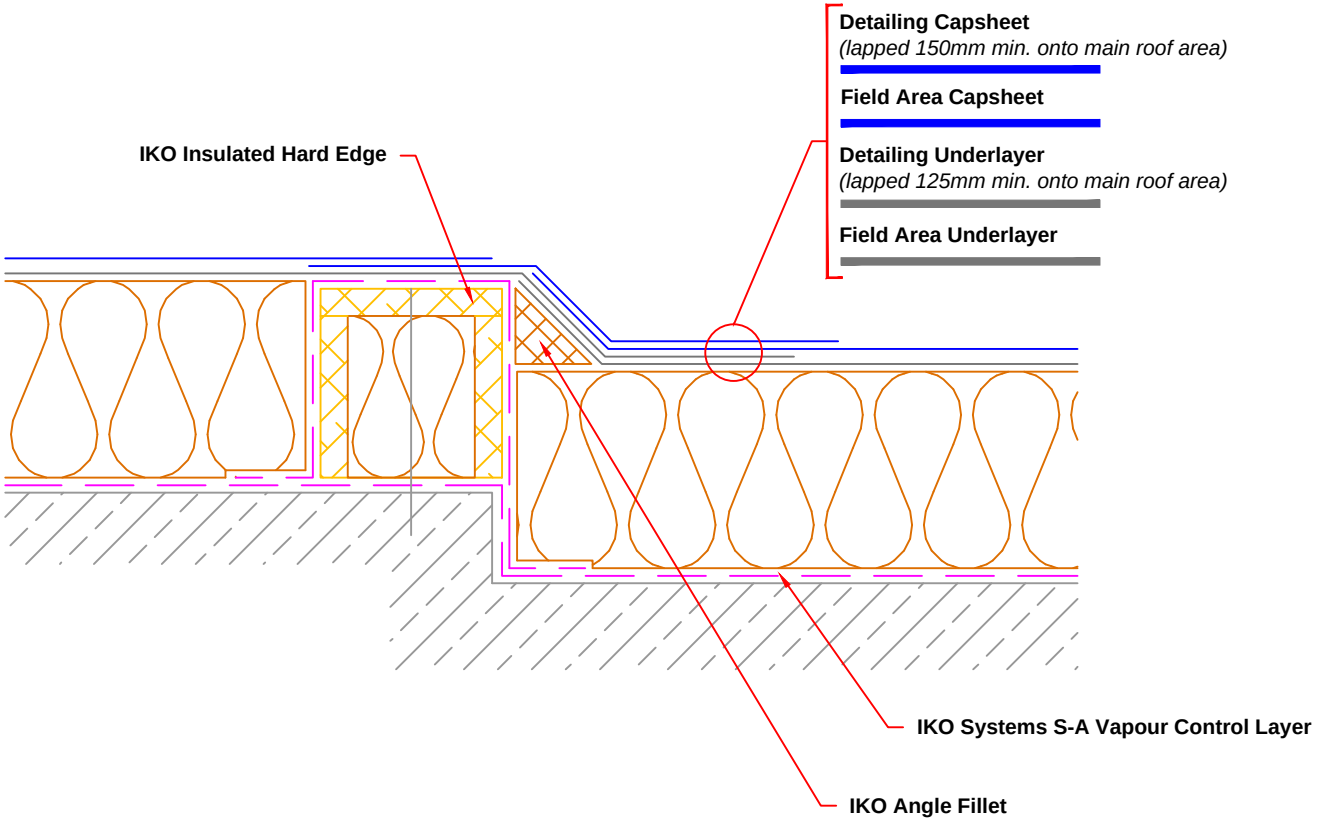
Additional mechanical fixing through the membrane at the top edge to resist slippage will be required on vertical details >250mm.

Email: technical.uk@iko.com

STANDARD DETAIL

DRAWING TITLE: CHANGE IN LEVEL		DWG NO: G1	
DATE: 2018	NOTES/REVISIONS: N/A	SCALE: NTS	DRAWN BY: IKO

This detail is representative of a typical situation and provided for illustration purposes. Where shown insulation thickness may differ in accordance with specifiers U value requirement. To be read in conjunction with the IKO project specification. Refer to specification and product literature for product descriptions and application information.



STEP DETAIL

Apply **IKO INSULATED HARD EDGE** or treated insulation stop batten to the top edge of the upper level (100mm wide & 10mm thinner than insulation thickness, so as to prevent lap build up) being mechanically fixed to the roof deck, to provide a hard edge to all steps.

Apply sufficient coats of the specified **IKO PRIMER** to the detail.

Apply **IKO SYSTEMS S-A VAPOUR CONTROL LAYER** to the primed substrate as indicated.

Apply the specified **IKO ENERTHERM INSULATION** to the Vapour Control Layer, to be bonded as per IKO Specification Proposal.

Provide 50mm x 50mm specified **IKO ANGLE FILLETS** to the junction of all horizontal & vertical abutments

Apply the specified waterproofing detailing fully bonded to the detail as indicated. Detailing Underlayer and Capsheet must be lapped and fully sealed onto the main area as indicated.

NOTES:

Detail to be completed with due regard to compliance with the NFRC Safe2Torch guidance for the safe installation of torch-on reinforced bitumen membranes and the client/contractor risk assessment for the works using appropriate materials and application techniques as specified. Self-adhesive membranes must be used direct to potentially combustible substrates.

All details to be installed in accordance with BS8217, BS6229, and IKO recommendations.

All waterproofing detailing must be undertaken as two layers and as separate items.

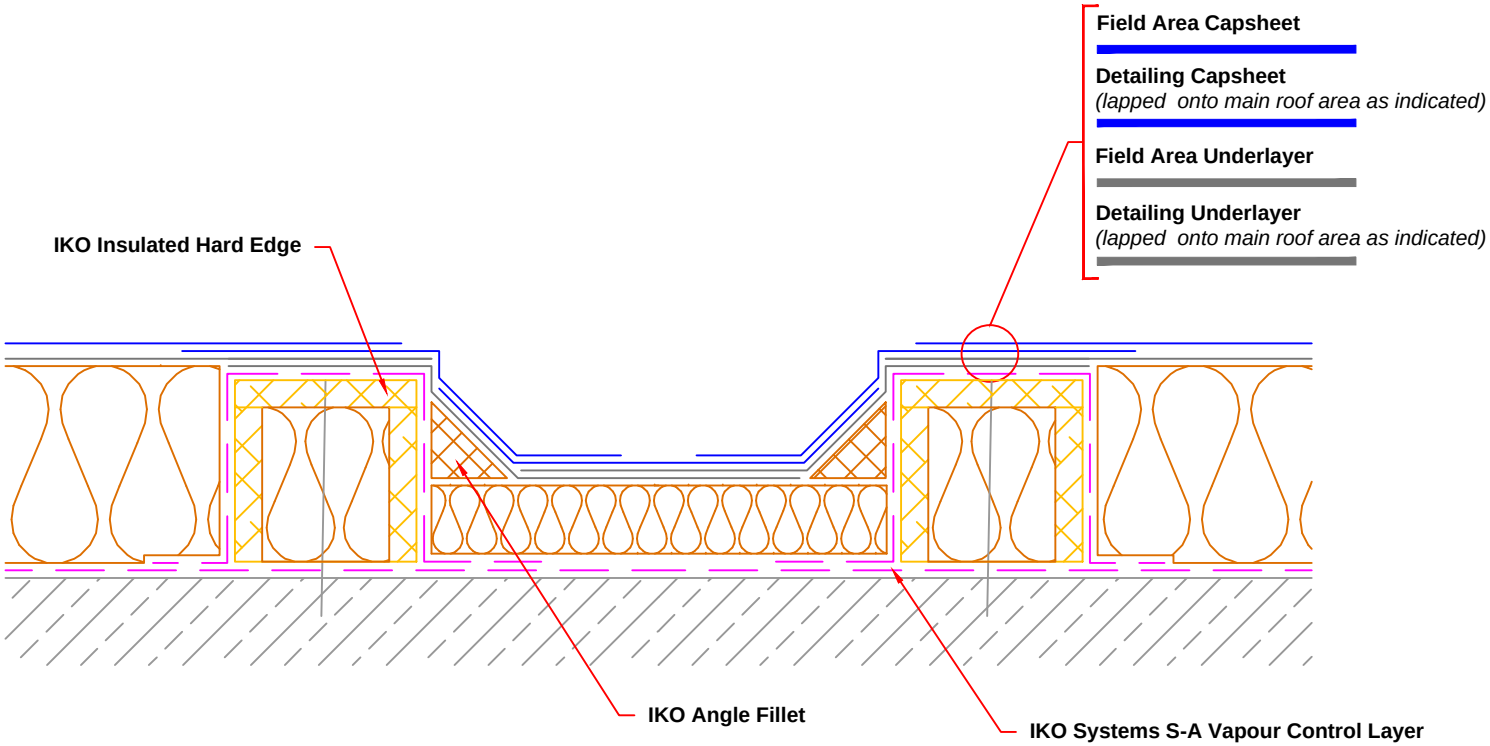
All surfaces must be clean, dry, and suitably prepared to accept the waterproofing system.

During the application of all bitumen membranes a visible bead of bitumen must be exuded from all side and end laps.

Email: technical.uk@iko.com

STANDARD DETAIL

DRAWING TITLE: STEP DETAIL		DWG NO: G2	
DATE: 2018	NOTES/REVISIONS: N/A	SCALE: NTS	DRAWN BY: IKO



INTERNAL GUTTER - Gutter within Insulation

Apply **IKO INSULATED HARD EDGE** or treated timber stop battens to form gutter channel sides (100mm wide & 10mm thinner than the insulation, so as to prevent lap build up) mechanically fixed, or adhered in **IKO PU ADHESIVE** to the roof deck to provide a hard edge to all gutter steps.

Apply sufficient coats of the specified **IKO PRIMER** to the detail.

Apply **IKO SYSTEMS S-A VAPOUR CONTROL LAYER** to the primed substrate & dressed to link with the Underlayer by 50mm minimum.

Apply the specified **IKO ENERTHERM INSULATION** to the Vapour Control Layer, including a thinner insulation than the main roof area to form the internal gutter as indicated, to be bonded as per IKO Specification Proposal.

Provide 50mm x 50mm specified **IKO ANGLE FILLETS** as indicated.

Apply the specified waterproofing detailing fully bonded to the full width and length of the gutter as indicated.

Apply a sacrificial layer of Cap Sheet to run the length of the sole of the gutter to reduce lap build up (not shown).

NOTES:

Detail to be completed with due regard to compliance with the NFRC Safe2Torch guidance for the safe installation of torch-on reinforced bitumen membranes and the client/contractor risk assessment for the works using appropriate materials and application techniques as specified. Self-adhesive membranes must be used direct to potentially combustible substrates.

All details to be installed in accordance with BS8217, BS6229, and IKO recommendations.

All waterproofing detailing must be undertaken as two layers and as separate items.

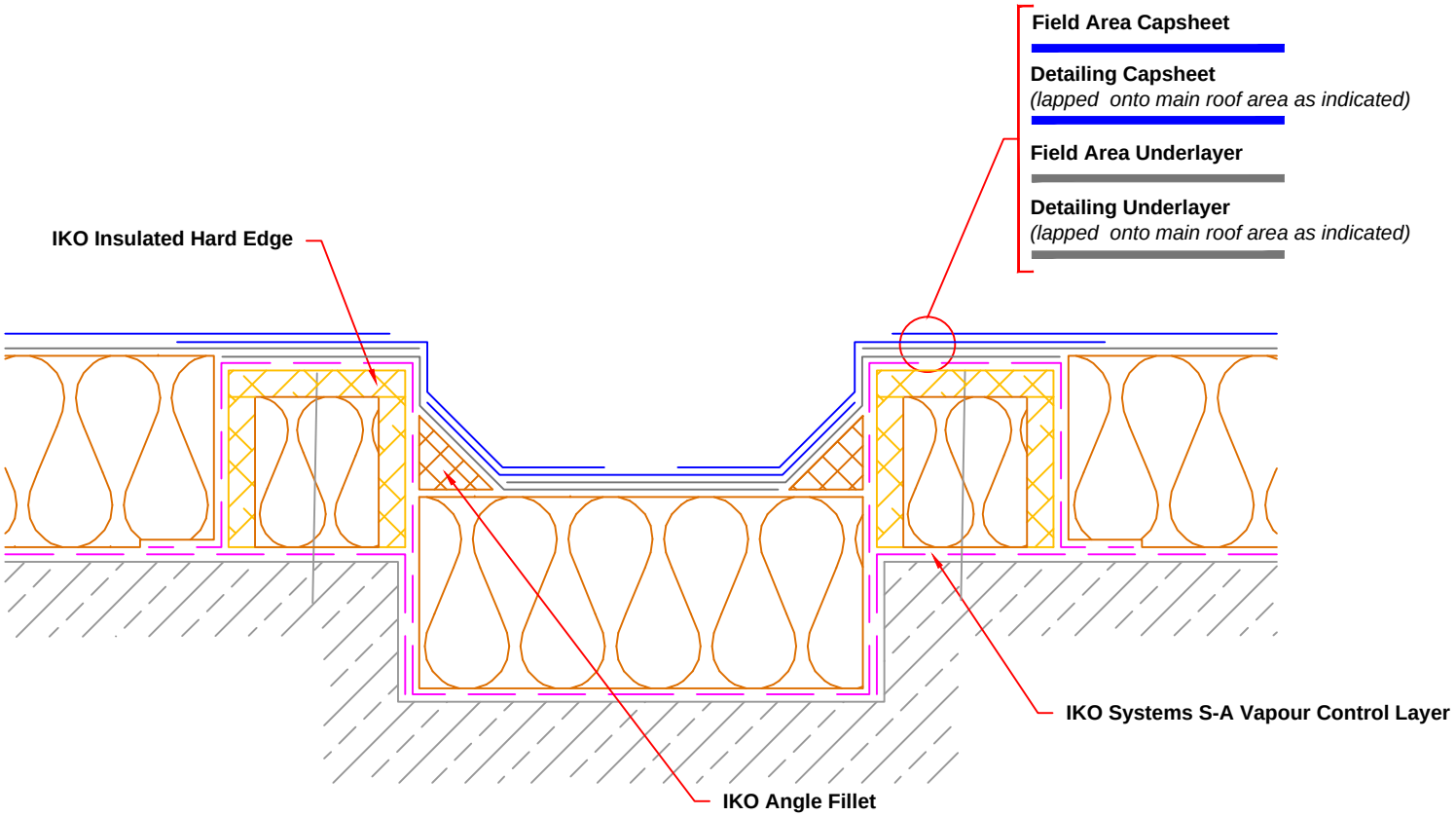
All surfaces must be clean, dry, and suitably prepared to accept the waterproofing system.

During the application of all bitumen membranes a visible bead of bitumen must be exuded from all side and end laps.

Email: technical.uk@iko.com

STANDARD DETAIL

DRAWING TITLE: INTERNAL GUTTER - Gutter within Insulation		DWG NO: G4	
DATE: 2018	NOTES/REVISIONS: N/A	SCALE: NTS	DRAWN BY: IKO



INTERNAL GUTTER - Gutter within Deck

Apply **IKO INSULATED HARD EDGE** or treated timber stop battens throughout the full length to the top edges of the gutter (100mm wide & 10mm thinner than the insulation, so as to prevent lap build up) mechanically fixed or adhered in **IKO PU ADHESIVE** to the roof deck, to provide a hard edge to all gutter steps.

Apply sufficient coats of the specified **IKO PRIMER** to the detail.

Apply **IKO SYSTEMS S-A VAPOUR CONTROL LAYER** to the primed substrate & dressed to link with the Underlayer by 50mm minimum.

Apply the specified **IKO ENERTHERM INSULATION** to the Vapour Control Layer, including to the gutter, to be bonded as per IKO Specification Proposal.

Provide 50mm x 50mm specified **IKO ANGLE FILLETS** as indicated.

Apply the specified waterproofing detailing fully bonded to the full width and length of the gutter as indicated.

Apply a sacrificial layer of Cap Sheet to run the length of the sole of the gutter to reduce lap build up (not shown).

NOTES:

Detail to be completed with due regard to compliance with the NFRC Safe2Torch guidance for the safe installation of torch-on reinforced bitumen membranes and the client/contractor risk assessment for the works using appropriate materials and application techniques as specified. Self-adhesive membranes must be used direct to potentially combustible substrates.

All details to be installed in accordance with BS8217, BS6229, and IKO recommendations.

All waterproofing detailing must be undertaken as two layers and as separate items.

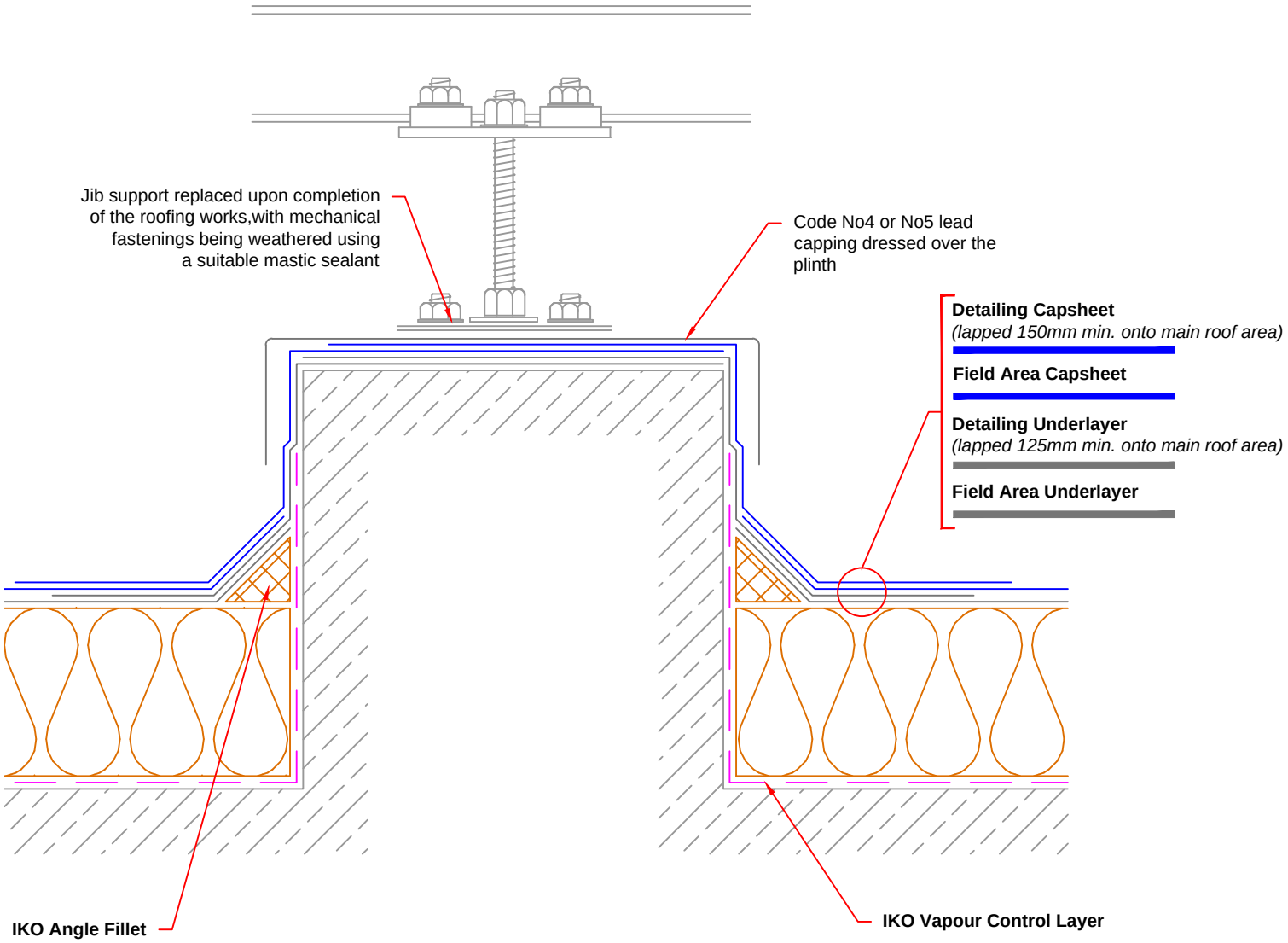
All surfaces must be clean, dry, and suitably prepared to accept the waterproofing system.

During the application of all bitumen membranes a visible bead of bitumen must be exuded from all side and end laps.

Email: technical.uk@iko.com

STANDARD DETAIL

DRAWING TITLE: INTERNAL GUTTER - Gutter within Deck		DWG NO: G5	
DATE: 2018	NOTES/REVISIONS: N/A	SCALE: NTS	DRAWN BY: IKO



PLINTH DETAIL - Cold (Plant Support)

Remove any existing plant & machinery to allow necessary roofing works. Reinstate plant upon completion of the roofing works as necessary.

Inspect & carry out any necessary maintenance work to the plinth (maintenance to concrete should be carried out by a specialist contractor).

Apply sufficient coats of the specified **IKO PRIMER** to the detail.

Apply the specified **IKO VAPOUR CONTROL LAYER** to the primed upstand & dressed to link with the Underlayer by 50mm minimum.

Apply the specified **IKO ENERTHERM INSULATION** to the Vapour Control Layer, to be bonded as per IKO Specification Proposal.

Provide 50mm x 50mm specified **IKO ANGLE FILLETS** to the junction of all horizontal & vertical abutments

Apply the specified waterproofing detailing fully bonded to the vertical and horizontal surfaces of the plinth. Detailing Underlayer and Capsheet must be lapped and fully sealed onto the main area as indicated.

Fix Code 4 lead flashing over the plinth, prior to application of plant. Fixings should be weathered using suitable mastic sealant.

NOTES:

Detail to be completed with due regard to compliance with the NFRC Safe2Torch guidance for the safe installation of torch-on reinforced bitumen membranes and the client/contractor risk assessment for the works using appropriate materials and application techniques as specified. Self-adhesive membranes must be used direct to potentially combustible substrates.

All details to be installed in accordance with BS8217, BS6229, and IKO recommendations.

All waterproofing detailing must be undertaken as two layers and as separate items.

All surfaces must be clean, dry, and suitably prepared to accept the waterproofing system.

During the application of all bitumen membranes a visible bead of bitumen must be exuded from all side and end laps.

Additional mechanical fixing through the membrane at the top edge to resist slippage will be required on vertical details >250mm.

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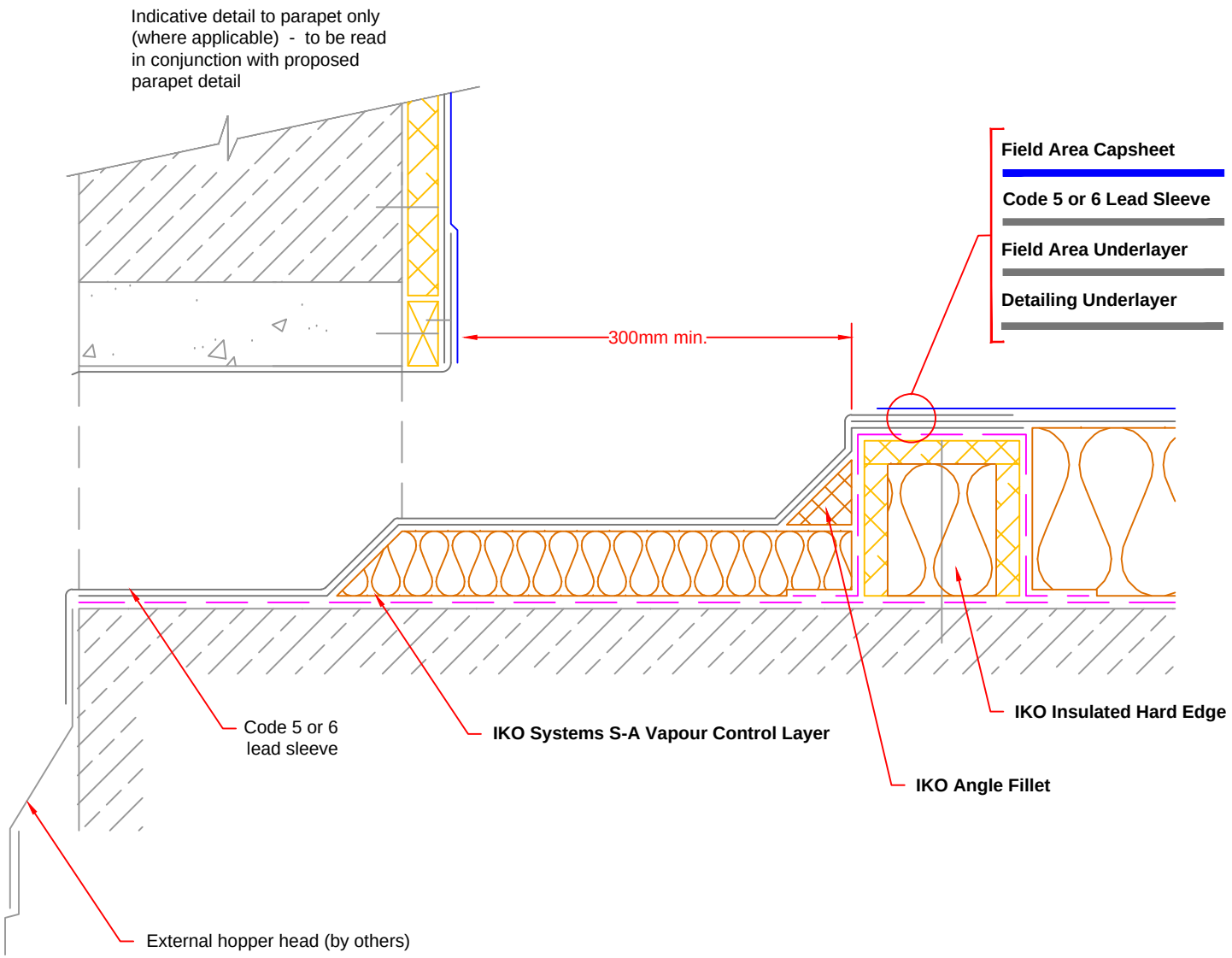
STANDARD DETAIL

DRAWING TITLE: PLINTH DETAIL - Cold (Plant Support)		DWG NO: H2	
DATE: 2018	NOTES/REVISIONS: N/A	SCALE: NTS	DRAWN BY: IKO

This detail is representative of a typical situation and provided for illustration purposes. Where shown insulation thickness may differ in accordance with specifiers U value requirement. To be read in conjunction with the IKO project specification. Refer to specification and product literature for product descriptions and application information.



DRAINAGE CHUTE

Inspect & carry out any maintenance work as necessary & thoroughly clean all surfaces. Enlarge openings as necessary to ensure the opening is not restricted by the application of the new waterproofing system and insulation. It maybe necessary to box out the base and/or cheeks of the drainage chute opening with suitable 18mm OSB/3 or plywood. Any cavity or cavity tray must be closed off or redirected as required.

Apply **IKO INSULATED HARD EDGE** or treated timber stop batten (100mm wide & 10mm thinner than the insulation, so as to prevent lap build up) to create a minimum 300mm sump around the drainage chute mechanically fastened, or adhered in **IKO PU ADHESIVE** to the roof deck.

Apply sufficient coats of the specified **IKO PRIMER** to the detail.

Apply **IKO SYSTEMS S-A VAPOUR CONTROL LAYER** to the primed substrate & dressed to link with the Underlayer by 50mm minimum.

Apply the specified **IKO ENERTHERM INSULATION** to the Vapour Control Layer, to be bonded as per IKO Specification Proposal.

Provide 50mm x 50mm specified **IKO ANGLE FILLETS** to the junction of all horizontal & vertical abutments

Apply the specified waterproofing detailing fully bonded and dressed to link with the vapour control layer as indicated.

Apply a Code 5 or 6 lead sleeve through the parapet/kerb. Lead sleeves are to be installed & detailed in accordance with the Lead Sheet Association recommendations. Prime the flange of the new lead sleeve with the specified primer.

Apply the specified Field Area Capsheet fully bonded and sealed onto the flange of the new lead sleeve as indicated.

NOTES:

Detail to be completed with due regard to compliance with the NFRC Safe2Torch guidance for the safe installation of torch-on reinforced bitumen membranes and the client/contractor risk assessment for the works using appropriate materials and application techniques as specified. Self-adhesive membranes must be used direct to potentially combustible substrates.

All details to be installed in accordance with BS8217, BS6229, and IKO recommendations.

All waterproofing detailing must be undertaken as two layers and as separate items.

All surfaces must be clean, dry, and suitably prepared to accept the waterproofing system.

During the application of all bitumen membranes a visible bead of bitumen must be exuded from all side and end laps.

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STANDARD DETAIL

DRAWING TITLE: DRAINAGE CHUTE		DWG NO: K1	
DATE: 2018	NOTES/REVISIONS: N/A	SCALE: NTS	DRAWN BY: IKO

Revisions
A Roof 5 relabelled roof 2
B Changed scheme to fully mitred as requested.

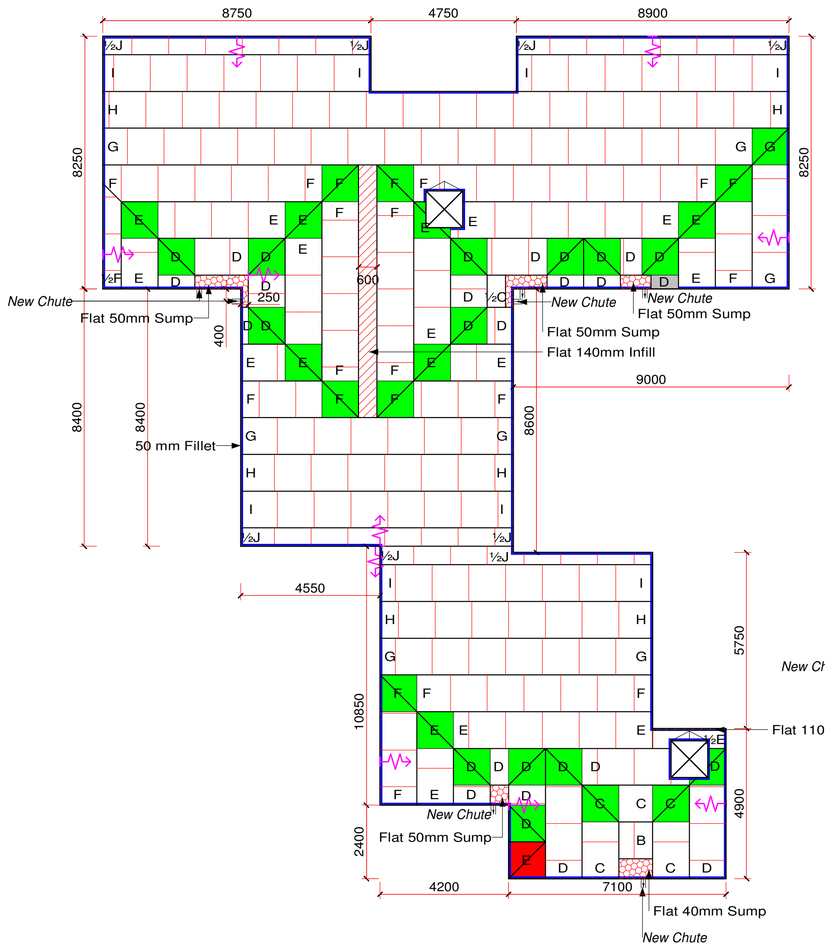
Date	By
05.02.20	SH
18.02.20	KH

Notes:

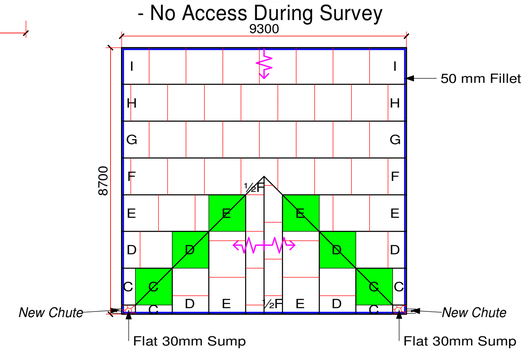
1. Scheme based on : Site Survey.
2. Scheme based on : Stripped to deck (ASSUMED LEVEL).
3. U-value based on : Plywood deck with plasterboard ceiling.
4. All height details to be considered PRIOR TO ORDER / All edging details to be raised to suit where required.
5. Scheme to be approved PRIOR TO ORDER.
6. All roof dimensions and drainage details / locations to be confirmed PRIOR TO ORDER.
7. New Chute Locations to be confirmed prior to ORDER
8. Existing channels on Roof 1 to be infilled level by others once stripped.

INSULATION BOARD LEGEND			
Schedule	Size	½ Board Size	Fall
Type: Enertherm PIR ALU		1200 x 1200	
B	40-60		1:60
C	60-80	60-70	1:60
D	80-100		1:60
E	100-120	100-110	1:60
F	120-140	120-130	1:60
G	140-160		1:60
H	160-180		1:60
I	180-200		1:60
½J		200-210	1:60
Fillet	50		165m

Roof Area 1 - 345m²
- Existing Channels to be infilled level by others



Roof Area 2 - 81m²
- No Access During Survey



Small Roof Light Deflector
Cut on site to suit

Large Roof Light Deflector
Cut on site to suit

Contractor Set Out Points

Full Boards Supplied, Cut To Length On Site

Flat Gutters / Sumps (Gutters / Sumps May Hold Water)
Cut on site to suit

Pre Cut Valley Mitres

Pre Cut Hip Mitres

If In Doubt Please Contact
IKO Technical Services
Tel: 01257 256864

Notes

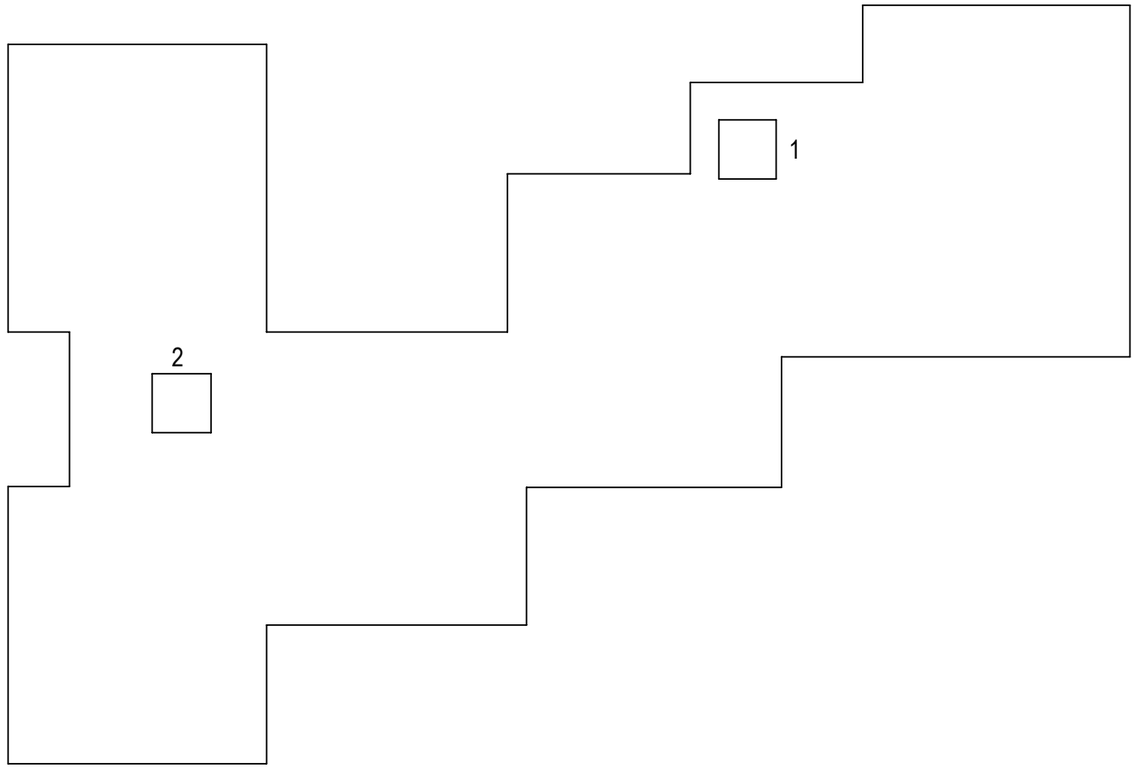
1) This Drawing Assumes There Are No Hollows Or Backfalls In The Roof Deck, Unless Shown.
2)All Dimensions, Positions Of Outlets Etc. To Be Checked And Confirmed By The Contractor.
3)Unloading And Storage Of Material Is The Responsibility Of The Contractor, Insulation Products Must Always Be Stored In Dry Conditions. Day Joints Should Be Sealed At The End Of Each Day.
4)Material Should Be Installed In Accordance With The Relevant Codes Of Practice And This Drawing. Where Practical Boards Should Be Laid With Staggered Joints. Laid Insulation Must Be Covered Immediately With The Waterproofing System
5)Raise Upstands/Curbs/Rooflights Etc., To Suit As Necessary.
6)Treated Timber Battens 5mm Less Than The Insulation Thickness, Should Be Installed To Protect Exposed Insulation Edges.
7)Quotations Are Based On The Scheme As Shown In This Drawing And Include Infill Boards And Gutter/Sump Boards Where Shown. Fillets/Upstand Boards/Flat Boards Are Excluded Unless Specifically Shown In Our Quotation.
8)All Boards Are Supplied As Either Full Or Half Boards As Shown. Sufficient Material Will Be Supplied To Allow For Square And Raking Cutting, And Mitres, But All Part Boards Should Be Retained And Used Whenever Possible. All Cutting To Be Carried Out On Site By The Contractor.

9)LAYOUT FROM HIGH BOARDS, UNLESS SHOWN OTHERWISE.

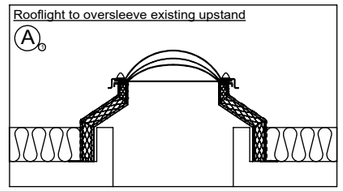
Email: technical.uk@iko.com

Fall: 1:60	U Value Achieved (W/m²K): Annex C 0.18	Roof Area: 426m²
Scale: 1:100@A1	Date: 24/01/2020	Dwn: LOR
Project: Moat Court, 42 Branksome Wood Road, Bournemouth, BH4 9LA		Drawing No: IKO4960
		Revision: B

Proposed Rooflight Replacement Scheme



Rooflight to oversleeve existing upstand



Unit(s) 1-2 will fully oversleeve the existing upstand after the removal of the existing glazing and any metal/ventilation sections. New unit(s) will require weathering.

Unit(s) 1-2 will accommodate 200mm of new insulation. If the new insulation exceeds this, the 100mm wide timber grounds will need to be formed to accommodate the extra depth of insulation. All internal finishes by others/contractor.

The above units will comply with Approved Document Part L - 2010 regulations.

Em-Dome units detailed above are manufactured to BBA certification (Certificate No. 09/4691), and are certified to CE EN1873.

Notes:
- Do not scale from this drawing
- Unloading and storage of material is the responsibility of the contractor
- All rooflights, curbs and accessories must be stored in accordance with installation instructions
- Rooflights should be installed in accordance with installation instructions, relevant codes of practice and this drawing
- All dimensions and rooflight replacement types must be confirmed by the contractor
- Section drawings are indicative and may not represent the actual detail

Rooflight Schedule

RL No	Type	Size (mm)	Accessories
1-2	A1	1300 x 1300	Vented

Revision notes:

Rev:	Date:	Note:

Drawn by: K JAMES

Client: IKO Plc

Project: Moat Court

Drawing Title: ROOFLIGHT LAYOUT PLAN

Date: 19-12-2019

Scale@ A3: NTS

Revision:

Project No: P00060024

IKO Setting the Standard