

# Bailey

**Project Reference:**

P40220

**Project Name:**

Civic Centre - Hillingdon

**System Type:**

Bailey System 17000

**Revision:**

0

**Date:**

06/03/2023



## FLAT ROOF REMEDIAL REFURBISHMENT SPECIFICATION

Project Name:	Civic Centre - Hillingdon
Project Ref:	P40220
Revision Number:	0

## PRELIMINARY CLAUSE SECTION

	<p><b>SITE MONITORING AND FINAL REPORT REQUIREMENTS</b></p> <p>Bailey Total Building Envelope's Technical Department must be informed, with fair notice, of the commencement date of this project in order to arrange monitoring of the ongoing works. Failure to provide this information prior to commencement may compromise the guarantee being offered.</p> <p>As part of the complete Bailey Total Building Envelope service, we will provide regular site visits which will be documented within our project inspection report which will contain all relevant photographic evidence. This document, when complete, will be sent by email to all parties until the satisfactory completion of this project following "sign off".</p> <p>Safe access is required to be provided for all visits including the final inspection which will be carried out once works are complete. This final visit will be carried out when all following trades have completed their works and the roof area cleared of debris, protection and materials.</p> <p>Any snagging items noted should be addressed without delay, the final report will then be provided on completion of these items allowing for the release of the guaranteee to the contractor.</p>		
	<p><b>STANDARD DETAIL HEIGHTS</b></p> <p>Following BS 6229 (2018) Bailey Total Building Envelope require all details (Except balcony situations with an overflow) to terminate a minimum of 150mm above finished roof level. This should not be confused with waterproofing level as components used in inverted systems have also to be considered.</p> <p>To conform with this requirement, and allow for any agreed insulation upgrade, it may be necessary to raise/replace existing windows / thresholds. Failure to do so may result in a downgrade in the guarantee.</p> <p>Cavity Tray considerations must also be met as part of these works, the client/contractor should ensure that these details, if present, are at a height which will not obstruct standard detailing and termination. If the cavity tray presents an issue allowance should be made within the sum quoted.</p>		
	<p><b>ROOF FALLS AND DRAINAGE</b></p> <p>Standing water and the imposed load created by this is to be avoided, carrying out remedial works to improve falls should be undertaken as part of any re-roofing works. Following guidance document BS 6229 (2018) Bailey may recommend the installation of a full tapered insulation scheme in order to counteract any structural deflections and those created by roof mounted plant loading.</p> <p>If a tapered scheme is required, the scheme designed should have a minimum fall of 1:40 to ensure actual overall falls of 1:80 are achieved on completion. This is recommended for the field area and all internal gutter areas; the use of flat board areas where possible should be avoided. When the proposed specification does not include any enhancement of the existing roof falls, a roof which currently suffers with the presence of standing surface water will continue to do so following the installation of the new system.</p> <p>All internal outlets should be sumped with exposed insulation edges protected with timber hard edges. New leaf guard protected refurbishment outlets should be installed with proprietary seal of the spigot introduced to prevent the backing up of the drainage system potentially compromising the waterproofing system. Important note: Where other refurbishment outlets have previously been installed, including lead sleeves, these must be removed to ensure a positive seal with the existing downpipe and to avoid the reduction of the outlet opening.</p> <p>Due to the existing outlet type or position it may not be practical to introduce a refurbishment product. In this situation remove the leaf guard, clamping ring and existing waterproofing. Clean outlet flanges and bowl and prime prior to introducing the new waterproofing membrane ensuring a suitable bond has been created. Replace clamping ring and leaf guard on completion. All outlets should be loosely covered during works to prevent blockages. On completion the contractor should ensure that the outlet drainage is clear and free flowing.</p>		
	<p><b>NFRC SAFE2TORCH RECOMMENDATIONS – Including Drying Out Processes</b></p> <p>The contractor is reminded that they have a responsibility to carry out their own risk assessment and pre-hotworks checks outlined within the NFRC Safe2Torch guidelines. All installing operatives should be provided with safe working practices when drying out roof areas/RBM application in order to remove or minimise any associated risk. All operatives should be fully trained for the task they are undertaking and understand, and be fully compliant with, the Safe2Torch guidelines.</p> <p>This specification has been created to the best of our knowledge, to identify and minimise any associated risk through hot works. Please note that the fire hazard areas are not limited to the areas identified in this proposal specification.</p> <p>Should the contractor, following commencement of works, identify an unforeseen risk not covered within this specification they are required to suspend works in that area and notify the Client and Bailey Total Building Envelope immediately.</p> <p>During insulation upgrades, it may be necessary to raise details using combustible materials such as timber. To these areas, Safe2Torch rules apply and be detailed up to 900mm from the detail in Bailey flame-free waterproofing systems.</p> <p>Bailey Total Building Envelope has a duty of care to the client and the premises being re-roofed, should any member of the Bailey Total Building Envelope Site Support team witness installation practices that, in their opinion, are unsafe then we have an obligation to immediately highlight this to the contractors' management.</p>		

	<p><b>GENERAL PRELIMINARIES Section 1</b></p> <p>This specification proposal has been provided following the client's brief. The contractor is obliged to follow the specification and relevant conditions. Any variations to the specification, must be authorised by Bailey Total Building Envelope prior to commencement/continuation of the installation. It shall be the responsibility of the Contractor to ensure that any work carried out on asbestos based or asbestos-cement components complies with the Asbestos (Licensing) Regulations, the Control of Asbestos at Work Regulations and all requirements of the Health and Safety Executive, including Codes of Practice and guidance A0, A9 and A12.</p> <p>Detailed Health and Safety Procedures, together with method statements, must be submitted as part of the Health and Safety Plan with regard to any works to, clean, remove or dispose of Asbestos based products. On sites where asbestos has or has possibly been detected, it is to be treated in accordance with the Control of Asbestos Regulations 2012. Bailey specification documentation is subject to any revisions necessary pending the findings from the above. It is the roofing contractor's responsibility to check the buildings' asbestos register. All materials used are to be installed strictly in accordance with Bailey's installation instructions contained within this proposal specification and in accordance BS 6229:2018 and all other relevant Standards and Industry Codes of Practice.</p> <p>Bailey Total Building Envelope Technical Department continually vet our network of approved contractors to ensure their standards of workmanship and professional integrity meet our own high standards. This system must be installed by a Bailey Total Building Envelope Approved Contractor. Failure to do so may result in the guarantee becoming downgraded. Bailey recommends that a regular maintenance inspection takes place following completion of the roof in accordance with Bailey's maintenance guidelines and terms of the guarantee (set out in more detail in the guarantee section below).</p>	
	<p><b>GENERAL PRELIMINARIES Section 2</b></p> <p>All details and build-ups are to be installed in accordance with the Building Regulations and Approved Document B. To any Bailey specification that proposes overlaying the existing waterproofing system and structural deck, the proposal to overlay the existing waterproofing is being submitted on the basis that Bailey cannot accept responsibility for the structural integrity of the existing deck or the attachment of the existing waterproofing system. All projects on which an overlay is suggested must be checked by a qualified structural engineer that the structure is in suitable condition to accept the additional loading. The responsibility for the decision to overlay remains with the Client.</p> <p>All reasonable efforts have been made in the creation of this specification proposal to make it as comprehensive as possible. This having been said, it is not uncommon for situations on site to arise that may not have been immediately apparent during the survey. Such situations would normally be covered by way of a contract contingency sum allowance. This contingency is to provide protection to all contract parties against what may be termed a potential 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.</p>	
	<p><b>APPROVED CONTRACTOR NETWORK</b></p> <p>By using high quality Bailey products and with conscientious specification and design, our approved contractor network can produce exceptional quality installations for our valued clients.</p> <p>Contractors are recommended based on Bailey's current knowledge and experience. Any company entering into contractual agreements with a contractor from the Bailey Total Building Envelope Approved Installer list must satisfy themselves of the suitability of the contractor for the project, in terms of quality of workmanship, financially in terms of insurance cover and any other essential requirements.</p>	
	<p><b>CONTRACTOR RESPONSIBILITIES Section 1</b></p> <p>The contractor is responsible to ensure that all necessary access equipment, scaffolding, handrails, materials storage and off-loading facilities, hoisting etc. is provided to conform with current health and safety regulations, CDM requirements and to the satisfaction of the Contracts Administrator (CA).</p> <p>The contractor is responsible to organise installation, re-installation or moving of any plant, services or M &amp; E equipment, where necessary, by a qualified engineer. They are also responsible to liaise with other trades to ensure the integrity and serviceability of the flat roof waterproofing system, and all associated details, during and after installation. Introduction of suitable roof mounted protection will be required to protect the waterproofing system from following trades and is not to be subjected to excessive traffic. On areas where the new waterproofing has been installed, the storage of materials that are not part of the waterproofing system being installed, must be avoided.</p> <p>The contractor is responsible for agreeing the method statements covering all associated works, programme of works and health and safety plan conforming to current legislation before commencement of works on this project.</p> <p>Materials are to be stored in accordance with the manufacturer's instructions, in clean, dry conditions and the site is always to be maintained in a clean and tidy condition. Rubbish is to be cleared from the roof as it arises, and good tidiness and discipline maintained throughout. Adhesion tests are to be undertaken by the contractor at regular intervals during the installation process to ensure the system being installed is bonding correctly, any issues should be highlighted to Bailey Total Building Envelope immediately.</p>	
	<p><b>CONTRACTOR RESPONSIBILITIES Section 2</b></p> <p>The Contractors nominated in conjunction with this specification proposal are approved to install Bailey Total Building Envelope materials and will be in possession of the Health &amp; Safety data sheets relating to any hazardous products marketed by Bailey Total Building Envelope 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 8000-0:2014) and that relevant Health &amp; Safety information will be obtained from the manufacturers of any other roof components which are not supplied by Bailey Total Building Envelope.</p> <p>Bailey cannot be held responsible for faults in the specification due to insufficient information, unknown site conditions or changes to the building. The use of materials not supplied, marketed or approved by Bailey Total Building Envelope Technical Department may invalidate the guarantee.</p> <p>All Intellectual Property in the specifications, drawings and calculations or any other material supplied, created and/or developed by Bailey Roofing Systems in any form, remain vested with Bailey Roofing Systems. No part of this specification or associated drawings, calculations and other material may be copied, reproduced, scanned or stored, whether in part or in whole, in any form or by any means, by or given to any third party not directly involved in the project, without the express permission of Bailey Roofing Systems.</p>	

	<p>CDM: Construction (Design and Management) Regulations 2015</p> <p>The Construction (Design and Management) Regulations 2015 are regulations for managing the health, safety and welfare of construction projects. The 2007 CDM Regulations have been replaced by the 2015 regulations to help workers, contractors, designers and clients work together to improve health and safety.</p> <p>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.</p> <p>Key changes of the new CDM Regulations 2015 are:</p> <ul style="list-style-type: none"> <li>•The revised Regulations apply to all projects including domestic projects.</li> <li>•All projects must have a written construction phase plan</li> <li>•The role of CDM co-ordinator in the previous CDM Regulations 2007 has been removed and replaced with a new role of principal designer</li> <li>•There is a duty to make sure all persons doing the job have the right skills, knowledge, training and experience</li> <li>•A Principal designer and principal contractor must be appointed on projects that will have more than one contractor.</li> </ul> <p>Bailey Total Building Envelope will be happy to assist with the new waterproofing system design; however, we will not undertake the role of principal designer of this project.</p> <p>More details available from the link below:</p> <p><a href="http://www.hse.gov.uk/construction/cdm/2015/index.html">http://www.hse.gov.uk/construction/cdm/2015/index.html</a></p>	
	<p><b>MATERIAL STORAGE</b></p> <p>It is recommended that all materials are stored in an area which is clean and dry prior to installation. If this is not possible and products need to be stored externally, all insulation will need completely covering with waterproof sheeting and standing on stillages. Manual handling should be kept to a minimum as Bailey will not accept the installation of wet or damaged boards within our systems.</p> <p>Do not store the product on roofs when temperatures lower than +10°C or higher than +30°C occur. With temperatures below +10°C it is necessary to apply the product ensuring the following precautionary measures are practiced. Bailey do not accept responsibility for failure of self-adhesive systems if the following points are not adhered to:</p> <p>Store the rolls in an upright position in the original packaging. Ensure that they are stored in warm and dry conditions. Care must be taken that the rolls are not placed on damp ground even if under cover as this will affect the self-adhesive backing and the render the membrane unsuitable for laying. Self-Adhesive RBM should be protected from direct sunlight prior to installation as this may cause issues with the removal of the silicone release film on Self-Adhesive products.</p> <p>The rolls must be moved to the area they are to be laid only at the time of installation, not before.</p> <p>The ideal application occurs at temperatures above +10°C, however it is possible to apply the product below +5°C bringing the rolls to the ideal temperature with a hot air gun or gas torch. If using gas torches to warm the rolls, the NFRC's "Safe2Torch" guidance must be adhered to.</p> <p>All solvent based products are combustible and as such careful storage and use is required as per HSG 51. Store in a safe, cool and well-ventilated area away from potential sources of ignition and keep all lids closed when not in use. Refer to all available product data which includes, but is not limited to, Material data sheets, Technical data sheets and product labels which carry product specific advice including spillage prevention and control.</p>	
	<p><b>INSTALLATION NOTES 1</b></p> <p>Roof membranes must have side laps of at least 75mm and end laps of at least 150mm. A continuous bitumen bead must protrude from all joint edges and all joints in alternate layers must be staggered.</p> <p>Welding of joints and flashings in Flame Free Systems and Self-Adhesive membranes in fire-hazard areas is to be carried out using Bailey recommended hot air machines or hand-held guns (with digital temperature display) with the temperature set between 500-600°C depending on ambient and wind conditions.</p> <p>The standard weld is to be a minimum of 75mm, excluding the pre-weld (this operation must be performed before the main weld). A continuous bitumen bead must protrude from all joint edges.</p> <p>Details to be installed in accordance with BS8217 &amp; BS6229 (2018).</p> <p>Throughout the application process of all reinforced bitumen membranes, a visible bead of bitumen must be extruded from all side and end laps.</p> <p>Detail to be completed to ensure full compliance with the NFRC Safe2Torch guidance for the safe installation of torch-on reinforced bitumen membranes. The client/contractor risk assessment for the works should ensure the appropriate materials and application techniques are specified and undertaken.</p>	
	<p><b>INSTALLATION NOTES 2</b></p> <p>Please note that any areas of brickwork that contain open perpends, open access to internal cavities, open vents, open pipes etc. as set out in the NFRC Safe2Torch guidance, automatically revert to the Bailey Safe2Torch Self-Adhesive Specification Systems within 900m of the afore-mentioned fire hazard areas.</p> <p>If Bailey have not attended site to carry out a full site survey or the fire hazard areas are not identified on a roof plan at the beginning of this document, these remain the responsibility of the contractor to identify on site.</p>	

## PRODUCT LIST SECTION

1	AIR & VAPOUR CONTROL LAYER	£/m <sup>2</sup>	QTY	TOTAL
1.A	<p><b>BAILEY BITUMEN PRIMER</b></p> <p>AMC High Penetration Bitumen Primer is a bituminous priming solution for the preparation of porous and dusty surfaces prior to the application of bitumen waterproofing membranes. To be applied in 2 coats if necessary, by brush, roller or spray with coverage dependent on surface porosity.</p> <p>Size: 25 litre tin Coverage: 100m<sup>2</sup> per tin (dependent on porosity of surface) Product code: F-604-HP25</p>			
1.B	<p><b>BAILEY ALPHA-VENT VENTING LAYER</b></p> <p>This is a perforated venting layer designed to let gasses caused during the torch-on process onto PIR insulation disperse, preventing blisters. This membrane is to be loose laid to the substrate with a 50mm lap, this membrane should be cut 500mm short of all perimeters and details where full bonding is required. Please note that this product is not suitable for use with self-adhesive underlays.</p> <p>Roll size: 30m x 1m Roll weight: 23kg Surface finish: Torch-Fusible Film Product code: F-609</p>			
1.B	<p><b>BAILEY ALPHA-BAR TORCH-ON AIR &amp; VAPOUR CONTROL LAYER</b></p> <p>Alpha-Bar Torch-On AVCL is a high-performance aluminium foil laminate core membrane providing a vapour tight finish. This product is to be fully bonded following the Torch-On process (except in fire risk areas) and is required as part of any warm roof build-up in order to reduce the risk of moisture contamination and interstitial condensation. The use of a roll bar is also recommended in order to prevent any trapped pockets of air during application and promote the 5-10mm consistent bead of bitumen required at all side and head laps.</p> <p>Roof membranes must have 75mm side laps at the selvedge and head laps are to be a minimum of 100mm. A continuous bitumen bead must protrude from all joint edges and all joints in alternate layers must be staggered. Cross bonding of layers will not be excepted.</p> <p>Roll size: 10m x 1m Roll weight: 30kg Surface finish: Sand Product code: F-605</p>			
2	ADHESIVE / FIXINGS	£/m <sup>2</sup>	QTY	TOTAL
2.A	<p><b>BAILEY SURE-BOND PU INSULATION ADHESIVE</b></p> <p>This product is a single component PU Adhesive which is suitable for gaining a secure bond to most substrates and insulations. It is to be used straight from its container and applied in either 25mm wide ridges or a serpentine pattern at 200mm centres which will be doubled at all perimeters and details.</p> <p>Pack Size: 6.5kg (6 litres) Coverage Rate: 30-35m<sup>2</sup>/tin, depending on surface porosity. Coverage rate should be doubled to all perimeter and exposed edges. Application Temperature: 5 - 30°C Curing Time: Dependant on ambient temperature and humidity but is typically 2 to 6 hours Product code: F-621</p>			
2.B				
3	INSULATION	£/m <sup>2</sup>	QTY	TOTAL
3.A	<p><b>BAILEY SURE-THERM BITUMEN-FACED PIR TAPERED INSULATION</b></p> <p>This product is a high performance, rigid polyisocyanurate (PIR) foam, CFC/HCFC free bitumen faced insulation scheme which is "cut-to-falls". This will be designed to reduce standing water and aid surface water drainage. All tapered schemes are bespoke to the individual project requirements.</p> <p>This product is bonded with PU Adhesive as per the scheme drawing, reference number XXXXX.</p> <p>Sure-Therm has a 2008 Green Guide Summary Rating of A as certified by the BRE.</p> <p>Product Code: E-CTF Target average or minimum u-Value: XXX W/m<sup>2</sup>K</p>			
4	VENTING LAYERS & UNDERLAYS	£/m <sup>2</sup>	QTY	TOTAL
4.A	<p><b>BAILEY ALPHA-VENT VENTING LAYER</b></p> <p>This is a perforated venting layer designed to let gasses caused during the torch-on process onto PIR insulation disperse, preventing blisters. This membrane is to be loose laid to the substrate with a 50mm lap, this membrane should be cut 500mm short of all perimeters and details where full bonding is required. Please note that this product is not suitable for use with self-adhesive underlays.</p> <p>Roll size: 30m x 1m Roll weight: 23kg Surface finish: Torch-Fusible Film Product code: F-609</p>			

4.B	<p>BAILEY SYSTEM 17000 3mm UNDERLAY</p> <p>This product is to be fully bonded using the Torch-On process (except in fire risk areas). The use of a roll bar is also recommended in order to prevent any trapped pockets of air during application and promote the 5-10mm consistent bead of bitumen required at all side and head laps.</p> <p>Roof membranes must have 75mm side laps at the selvedge and head laps are to be a minimum of 100mm. A continuous bitumen bead must protrude from all joint edges and all joints in alternate layers must be staggered. Cross bonding of layers will not be accepted.</p> <p>Roll size: 10m x 1m Roll weight: 42kg Surface finish: PE Film Product code: C-17300</p>	
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5	CAPSHEET	£/m <sup>2</sup>	QTY	TOTAL
5.A	<p>SYSTEM 17000 FR TORCH-ON CAPSHEET</p> <ul style="list-style-type: none"> <li>Apply a capsheet of Bailey System 17000 FR Black FR Mineral, code C-17521-FR fully bonded to underlay by torching. (If laying on roofs with falls in excess of 5°, mechanical fixing requirements according to BS 8217 should be observed).</li> <li>Side laps must be a minimum of 75mm and end laps 100mm. A 5-10mm visible bead of bitumen must be extruded along all joints.</li> </ul>			
5.B				

## PREPARATION & INSTALLATION SECTION

6	PREPARATION	£/m <sup>2</sup>	QTY	TOTAL
6.A	<p>STRIP-UP BACK TO EXISTING CONCRETE DECK</p> <ul style="list-style-type: none"> <li>Cut back and remove all details and cover flashings and dispose of in accordance with the CA's instructions and all relevant Health &amp; Safety Guidance.</li> <li>Strip up the existing waterproofing system back to the structural concrete deck and dispose of in accordance with the CA's instructions and all relevant Health &amp; Safety Guidance.</li> <li>Ensure that the existing structural deck is sound and able to take the imposed loadings of the new waterproofing system. A structural engineer must be instructed to carry out a survey and sign off the existing roof after determining its ability to take the weight loadings of the new system.</li> <li>Ensure that the deck is firmly fixed, fully dry, clean and clear of dirt, dust, debris, plant life and other contaminants and is suitable for the application of the primer and vapour barrier. Thoroughly check that no fixings or protrusions occur that could puncture or damage the membrane.</li> <li>Prime the existing concrete with Bailey AMC High Penetration Primer, code F-604-HP25 at a rate of 250g/m<sup>2</sup> (dependent on the porosity of the substrate). Apply with a brush or roller and allow volatiles to evaporate and the primer to fully dry. Once primed, installation of membrane to not be more than 1 day.</li> </ul>			

7	INSTALLATION OF PRIMER & AIR/VAPOUR CONTROL LAYER	£/m <sup>2</sup>	QTY	TOTAL
7.A	<p>VENTING LAYER</p> <ul style="list-style-type: none"> <li>Apply a layer of Bailey Alpha-Vent Perforated Venting Layer, code loose-laid onto the insulation. (If laying on roofs with falls in excess of 5°, mechanical fixing requirements according to BS 8217 should be observed).</li> <li>Please note, the venting layer is to be stopped 300mm from all upstands, pipes and other details.</li> </ul>			
7.B	<p>BITUMINOUS ALUMINIUM CORED TORCH-ON AIR &amp; VAPOUR BARRIER</p> <ul style="list-style-type: none"> <li>Install a layer of Bailey Alpha-Bar Torch-On Vapour Barrier, code F-605 fully bonded by gas torching to the primed substrate. (Please note: This product is not to be used in fire hazard areas. Revert to self-adhesive primer and self-adhesive vapour barrier in these areas).</li> <li>Side laps must be a minimum of 75mm and end laps 100mm. A 5-10mm visible bead of bitumen must be extruded along all joints.</li> <li>The vapour barrier is to be turned up at all upstands and details for a minimum of 100mm above the new finished roof level to link up with the subsequent underlay layer to completely encapsulate the insulation.</li> </ul>			

8	INSTALLATION OF INSULATION	£/m <sup>2</sup>	QTY	TOTAL
8.A	<p>ADHERED BITUMEN FACED POLYISOCYANURATE (PIR) FLAT-BOARD INSULATION</p> <ul style="list-style-type: none"> <li>Install Bailey Sure-Therm PIR Bitumen Faced Insulation Board (CFC and HCFC-free, zero ODP), code E-PIRBT-130, to achieve required minimum 'U' value of 0.18W/m<sup>2</sup>K, thickness 130mm, adhered to the vapour barrier with Bailey Sure-Bond PU Insulation Adhesive at a rate of 250g/m<sup>2</sup> (increased at perimeter and corner zones to prevent wind-uplift).</li> <li>Install treated softwood insulation stop batten to all unprotected edges of insulation and ensure joints of insulation board are staggered.</li> </ul>			

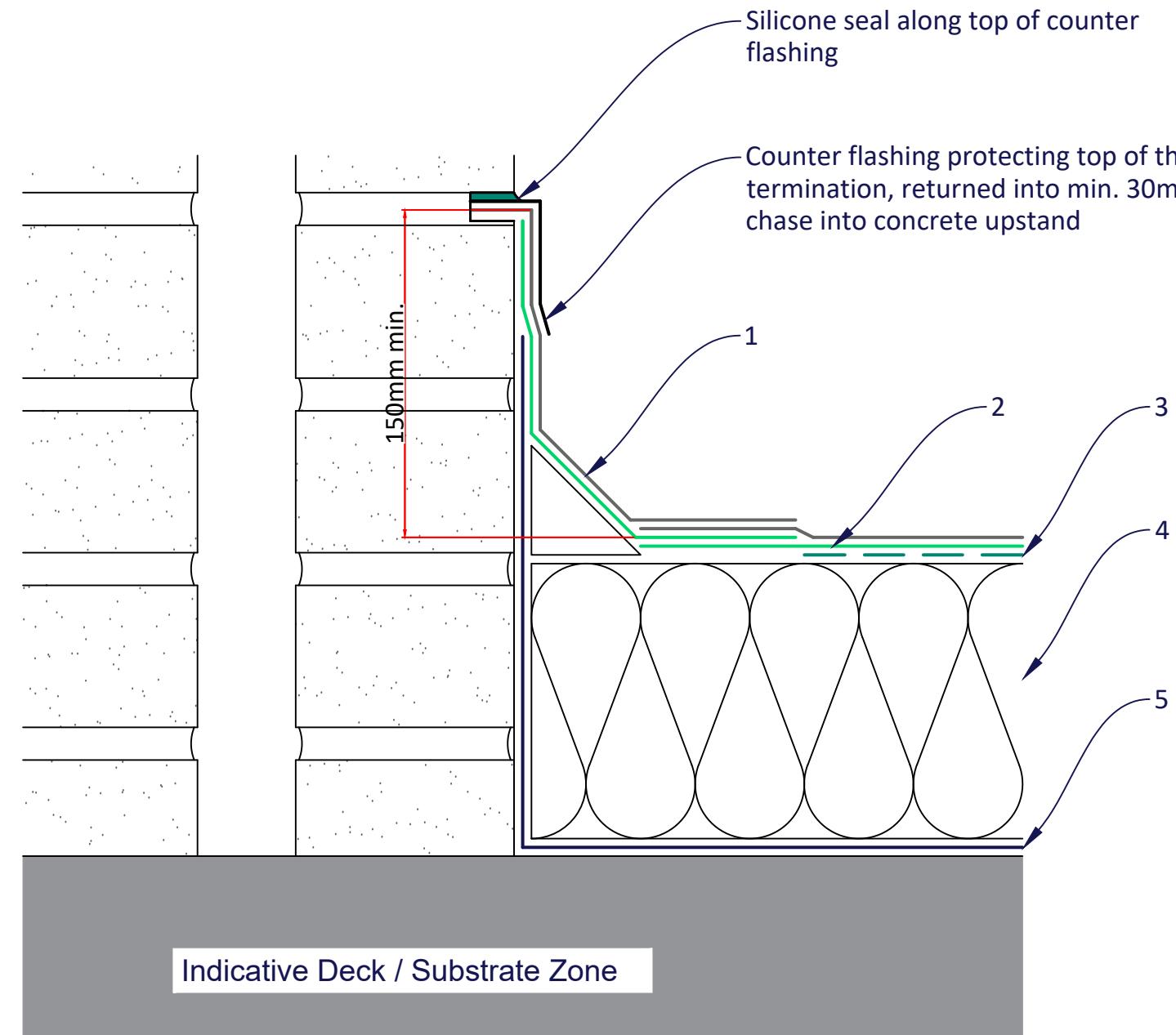
8.B	ADHERED BITUMEN FACED POLYISOCYANURATE (PIR) TAPERED INSULATION <ul style="list-style-type: none"> <li>Install Bailey Sure-Therm PIR Bitumen Faced Insulation Board (CFC and HCFC-free, zero ODP), code E-CTF, to achieve required minimum overall 'U' value of 0.18W/m<sup>2</sup>K, adhered to the vapour barrier with Bailey Sure-Bond PU Insulation Adhesive, code F-621 at a rate of 250g/m<sup>2</sup> (increased at perimeter and corner zones to prevent wind-uplift). The boards must be bonded in accordance with the relevant Bailey Tapered Insulation Scheme Drawing.</li> <li>Install treated softwood insulation stop batten to all unprotected edges of insulation and ensure joints of insulation board are staggered.</li> </ul>	
9	INSTALLATION OF UNDERLAY & CAPSHEET	£/m <sup>2</sup> QTY TOTAL
9.A	VENTING LAYER <ul style="list-style-type: none"> <li>Apply a layer of Bailey Alpha-Vent Perforated Venting Layer, code loose-laid onto the insulation. (If laying on roofs with falls in excess of 5°, mechanical fixing requirements according to BS 8217 should be observed).</li> <li>Please note, the venting layer is to be stopped 300mm from all upstands, pipes and other details.</li> </ul>	
9.B	SYSTEM 17000 UNDERLAY <ul style="list-style-type: none"> <li>Apply an underlay of Bailey System 17000 Underlay, code C-173000 bonded to the insulation/perforated layer by torching. (If laying on roofs with falls in excess of 5°, mechanical fixing requirements according to BS 8217 should be observed).</li> <li>Side laps must be a minimum of 75mm and end laps 100mm. A 5-10mm visible bead of bitumen must be extruded along all joints.</li> </ul>	
9.B	SYSTEM 17000 FR TORCH-ON CAPSHEET <ul style="list-style-type: none"> <li>Apply a capsheet of Bailey System 17000 FR Black FR Mineral, code C-17521-FR fully bonded to underlay by torching. (If laying on roofs with falls in excess of 5°, mechanical fixing requirements according to BS 8217 should be observed).</li> <li>Side laps must be a minimum of 75mm and end laps 100mm. A 5-10mm visible bead of bitumen must be extruded along all joints.</li> </ul>	

## DETAILING SECTION

10	DETAILING	£/m <sup>2</sup> QTY TOTAL
10.A	CAVITY TRAY <p>Inspect existing wall to determine if there is a cavity tray installed, any cavity trays below 150mm above new finished waterproofing level should be raised. Please allow extra over sum for these works to be carried out.</p> <ul style="list-style-type: none"> <li>Remove three bricks from the wall forming a 675mm opening (an angle grinder /cutter is ideal for cutting out).</li> <li>Insert one cavitray together with the flashing intended for dressing over the skirting of the roof finish (flashing approx 50mm into wall).</li> <li>Replace two bricks in the wall into the Cavitray. They are jointed and securely slate pinned, leaving the wall above safe and firm. A Weepvent is incorporated in the middle perp. Two more bricks are removed again forming a three brick space. The flashing is extended and a second Cavitray inserted. The integral U clip joins the trays, ensuring that no water can penetrate. Two more bricks are inserted and a weephole again formed. There are now two adjoining but completely self-contained Cavitrays. The method is continued until the required run is completed. (Always bed on mortar. Do not dry bed).</li> </ul>	
10.B	PARAPET OUTLETS - LEAD CHUTES <ul style="list-style-type: none"> <li>Remove existing outlets and discard in accordance with the CA's instructions.</li> <li>Supply and install new code 5 lead outlets, ensuring that the chute is recessed into the insulation to prevent a build-up of membrane at the outlet mouth.</li> <li>Apply Bailey AMC High Penetration Bitumen Primer, code F-604-HP25 to lead chute and allow to dry. Trim underlay away from outlet and weather main capsheet into the outlet, ensuring a continuous bead of bitumen is obtained when sealing to the lead chute.</li> </ul>	
10.C	INTERNAL GUTTERS <ul style="list-style-type: none"> <li>Treated timber battens are to be inserted either side of the detail which are 100mm wide and cut to finish 10mm below the leading edge of the insulation in warm roof build-ups to reduce the possibility of lap build up slowing surface water movement.</li> <li>This detail can be adhered with Bailey Sure Bond Adhesive for Insulation if the detail is internal and not within 500mm of the perimeter.</li> <li>Angle fillets should be installed at all 90-degree angles where the gutter depth allows.</li> <li>Allow the underlay to extend down into the gutter and across the base. The capsheet detail membrane should be installed in a minimum of 2 independent details; one being a single strip of gutter sole which is designed to reduce laps, however this may rise to 3 details if the step down into the gutter is above 100mm in depth.</li> <li>All surfaces must be clean, dry, and suitably prepared to accept the waterproofing system.</li> </ul>	

	PIPES & PENETRATIONS	
10.D	<p>•If existing plant/PV is not to be removed it should be ensured a minimum of 150mm waterproofing upstand above the finished roof level is present. Should it not be possible to remove any plant and/or associated fixings in order to introduce the necessary detailing required, Bailey Technical Services should be contacted in order to agree any revised detailing. Bailey Sure-Coat Cold-Applied Liquid may be required to any difficult shaped details that prove to difficult to weather in membrane.</p> <p>•Extend pipework where necessary to provide a minimum upstand height of 150mm above finished roof level.</p> <p>•Apply a traditional felt collar formed from the capsheets membrane, ensuring a minimum of 150mm vertical height above finished roof level is achieved. (For green roofs, vertical height must be a minimum of 150mm above finished green roof level).</p> <p>•Install a proprietary pipe sleeve in accordance with the manufacturer's recommendations or following recommendations from the Lead Sheet Association to the pipework to achieve a minimum upstand height of 150mm above finished roof level.</p> <p>•The flange of the sleeve should be sandwiched between the underlay and the capsheets.</p> <p>•Once detailing works are complete provide a proprietary apron/collar flashing to the pipe to terminate the pipe/vent.</p> <p>•The top edge, should it not be solvent welded, should be sealed with a suitable sealant and subject to regular inspections and maintenance throughout the guarantee duration.</p>	
10.E	<p>RAINWATER OUTLETS</p> <p>•Remove the existing outlets back to the existing pipework and discard from site.</p> <p>•The installation of a treated insulation stop batten is required which should be 100mm wide and 10mm less in depth than any insulation in a warm roof build-up, creating a sump opening of 300mm x 300mm minimum. If this detail is an internal detail the timber may be bonded in Bailey Sure Bond PU Adhesive for insulation instead of being mechanically fixed.</p> <p>•Install Bailey Sure-Flow Stainless Steel Retro-Fit Outlets securely fastened to the deck. The unit ordered should be the correct design and of sufficient size so that the opening is not restricted in any way. Please ensure the proprietary seal supplied with the unit has been installed to the manufacturers recommendations in such creating a positive seal with the existing downpipe limiting damage caused should the rainwater system back up.</p> <p>•Seal the capsheets membrane to the outlet flange ensuring a consistent bead of bitumen is achieved at all joints.</p> <p>•During replacement works, ensure the existing down pipe is temporarily covered in order to prevent blockage caused by loose debris, this item should be removed on completion/when works cease.</p>	
10.F	<p>PLANT / MACHINERY / CABLE TRAYS</p> <p>•Remove all unnecessary plant and machinery and dispose of in accordance with the CA's instructions and all relevant Health &amp; Safety guidance.</p> <p>•All plant, machinery and cabling that is to be retained is to be removed temporarily to allow for the new Bailey waterproofing system to be properly installed. On completion of the new Bailey waterproofing system, the plant and machinery must be re-installed onto suitable proprietary pedestal feet / support system onto sacrificial patches of capsheets membrane to eliminate the dangers of point loadings onto the new membrane and to preserve the integrity of the main waterproofing layer.</p> <p>•Contact Bailey Technical Sales Department for more project specific guidance.</p> <p>•Cables are to be re-installed into suitable proprietary cable trays. The trays are to be fitted onto suitable support feet placed onto sacrificial patches of capsheets membrane to preserve the integrity of the main waterproofing layer.</p>	
11	GUARANTEE	
11.A	<p>On completion, the Contractor is to arrange for final inspection by Bailey and subsequent issue of the 20-year insurance backed labour and materials guarantee in favour of London Borough of Hillingdon. To qualify for this guarantee, the following points must be observed:</p> <p>•The above specification must be adhered to. Any variations must be approved in writing to Bailey.</p> <p>•Work must be carried out by a contractor from the Bailey recommended list.</p> <p>•The Contractor is to give Bailey 7 days' notice of his intention to commence work on site and is to secure at each stage of the work a progress report demonstrating competent workmanship and adherence to the specification.</p> <p>•On completion, the Contractor is to secure a final report demonstrating competent workmanship and adherence to the specification.</p> <p>•The Contractor must allow a sum for electronic leak testing in their quotation as this must be carried out if Bailey requires it, prior to issuing the guarantee.</p> <p>•For areas under 200m<sup>2</sup> a site inspection fee of £220 will be charged for each inspection required.</p> <p>•The costs of materials for the 20-year guarantee are subject to a premium, prices will be made available by Bailey at quotation/tender stage.</p>	
12	MAINTENANCE	
12.A	<p>In accordance with the client obligations Under the Management of Health &amp; Safety at Work Regulations 1999 (and associated Health and Safety Legislation) and under the Construction (Design &amp; Management) Regulations 2015, the client is obligated to make provision for safe access with special consideration given to perimeter protection in order to carry out routine inspections and maintenance. Bailey Technical department will be happy to advise you on system compatible products.</p> <p>Important Note: Before carrying out annual inspections the client should ensure that safe access has been arranged for the contractor and that all necessary safety precautions are taken at roof level with any fragile areas excluded from works.</p> <p>During these visits, the contractor should clear all gutters, sumps and outlets of organic growth and any other debris to allow for the unrestricted flow of surface water. Check all maintainable goods such as sealants for deterioration and replace with a suitable product. Should there be damage to the waterproofing membrane on the field area or associated details it is suggested that the installing contractor, if still trading, carries out the repairs required. In the event of an issue arising with the system, the installing contractor and Bailey Technical Department must be informed.</p> <p>Important Note: Routine maintenance of this roof area is required to conform to the guarantee terms and conditions.</p>	
13	PROTECTION OF WATERPROOFING AND BUILDING INTEGRITY PRIOR TO COMPLETION	

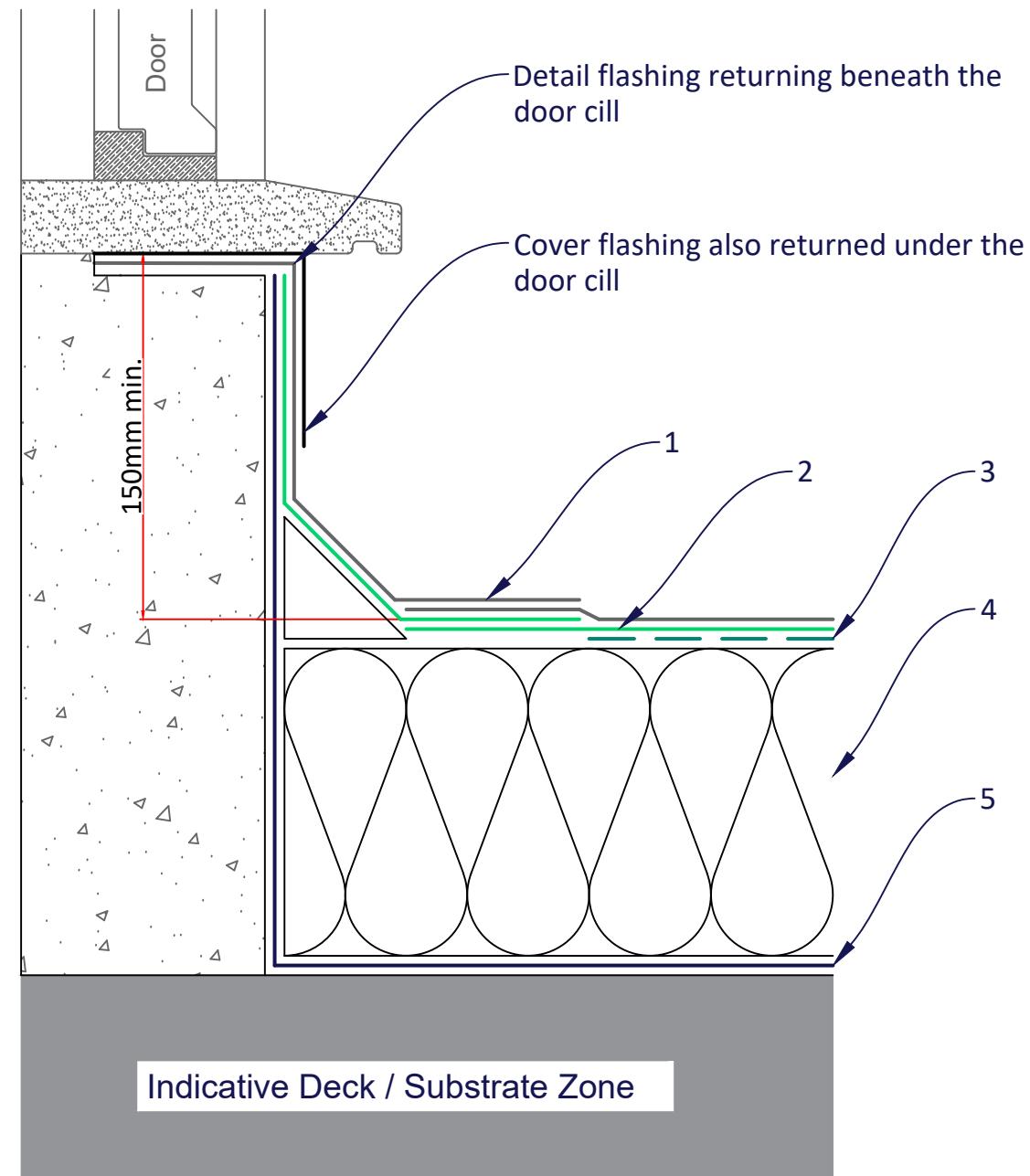
13.A	<p>During the installation of this project the contractor should allow for, and implement, protection of the waterproofing installed against the activities of follow-on trades.</p> <p>The contractor is also reminded that they must ensure the building always remains watertight with tight joints installed to protect the building and new insulation. This should be created with a compatible product at the suspension of the day works and during spells of inclement weather.</p> <p>Bailey Total Building Envelope reserve the right to request an Electronic Leak Detection Test (ELD) prior to the release of the guarantee offered.</p> <p>Important Note: It is considered good practice to carry out this form of testing on any inverted system where the principal waterproofing system is buried under podium &amp; green roofs and areas covered by extensive areas of roof mounted plant such as, but not limited to, PV arrays.</p>	
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Product Description	
1	Bailey Bitumen Felt Mineral Capsheet (As Specified)
2	Bailey Bitumen Felt Underlay (As Specified)
3	Bailey Venting Layer (Not needed if venting underlay / self-adhesive underlay is used)
4	Bailey Sure-Therm Insulation (As Specified)
5	Bailey Vapour Barrier (As Specified)

**Bailey**

Client	-	Drawing Title	Upstand To Masonry Detail	Scale	NTS	
Project Title	Bitumen Standard Detail	Drawing Number	C-200-01	Drawn By	C.E.P	
		Revision	1	Date	13.01.2021	
				Status		



## Product Description

1	Bailey Bitumen Felt Mineral Capsheet (As Specified)
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3	Bailey Venting Layer (Not needed if venting underlay / self-adhesive underlay is used)
4	Bailey Sure-Therm Insulation (As Specified)
5	Bailey Vapour Barrier (As Specified)

# Bailey

Client

Project Title

Bitumen Standard Detail

Drawing Title

Upstand To Door Threshold Detail

Scale  
NTS

Drawn  
By  
C.E.P

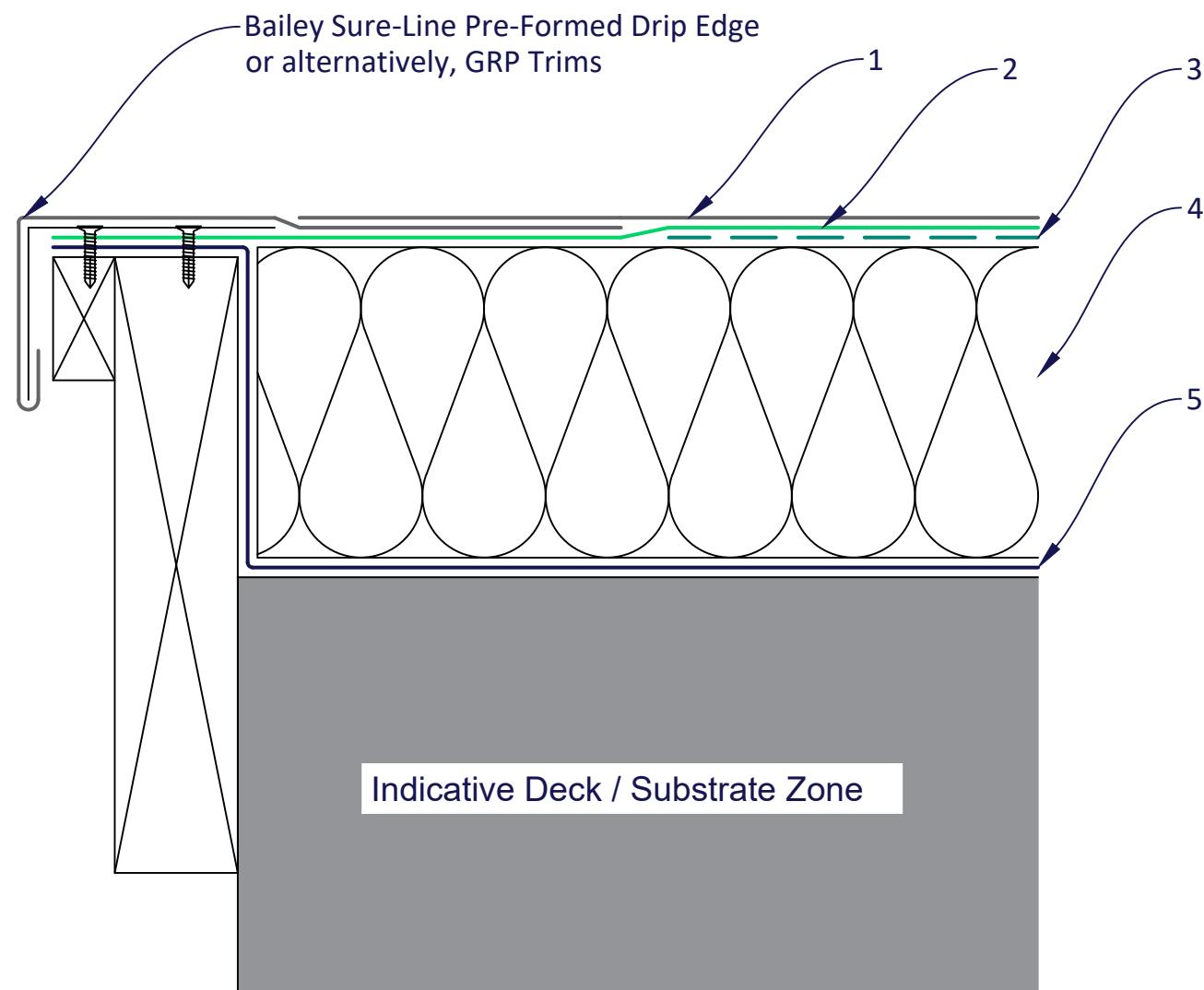
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13.01.2021

Status

Drawing Number

C-350-01

Revision  
1



Product Description	
1	Bailey Bitumen Felt Mineral Capsheet (As Specified)
2	Bailey Bitumen Felt Underlay (As Specified)
3	Bailey Venting Layer (Not needed if venting underlay / self-adhesive underlay is used)
4	Bailey Sure-Therm Insulation (As Specified)
5	Bailey Vapour Barrier (As Specified)

**Bailey**

Client

-

Project Title

Bitumen Standard Detail

Drawing Title

Draining Edge - Sure-Line Detail

Scale

NTS

Drawn

By

C.E.P

Date

13.01.2021

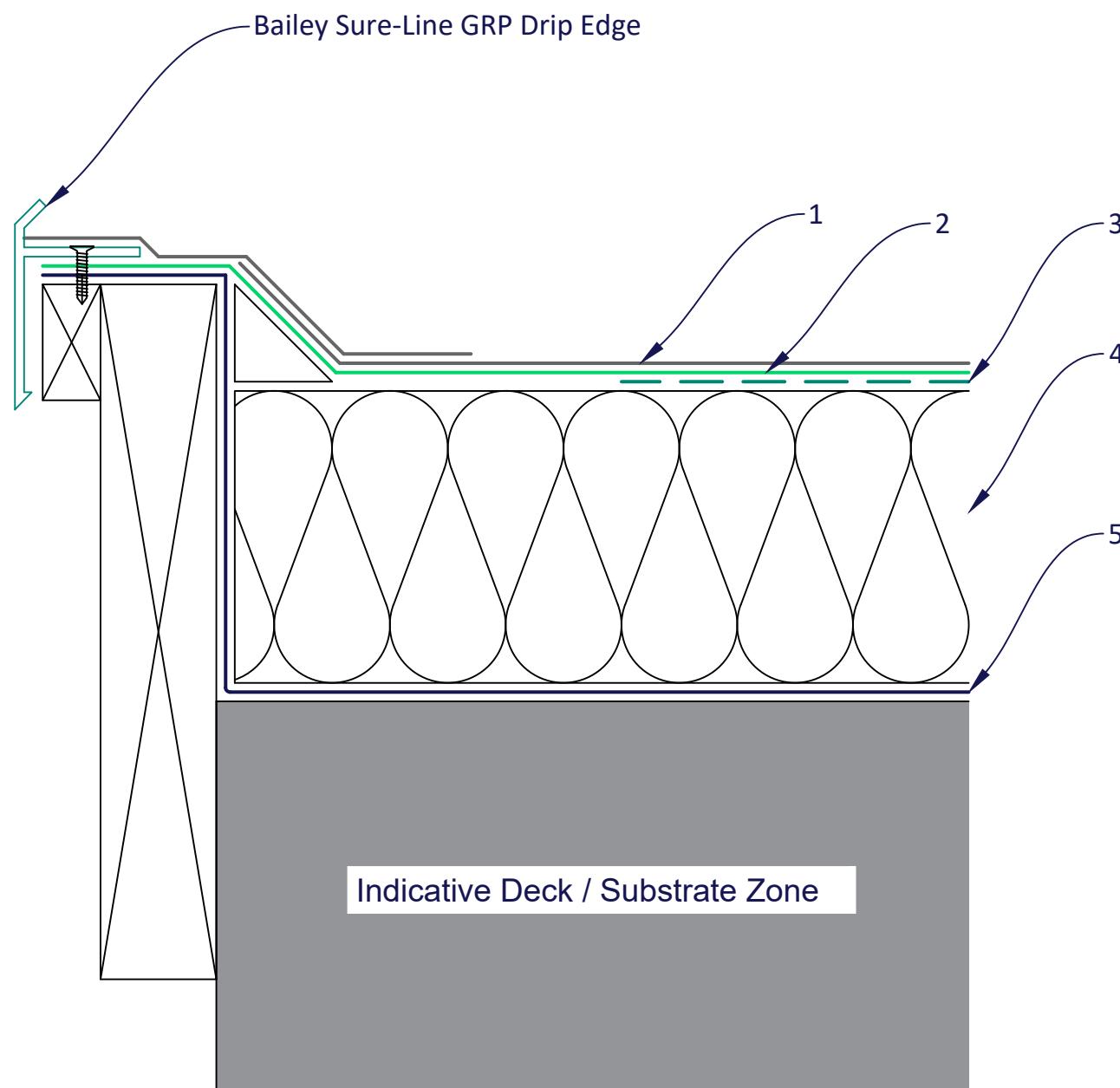
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Drawing Number

C-400-01

Revision

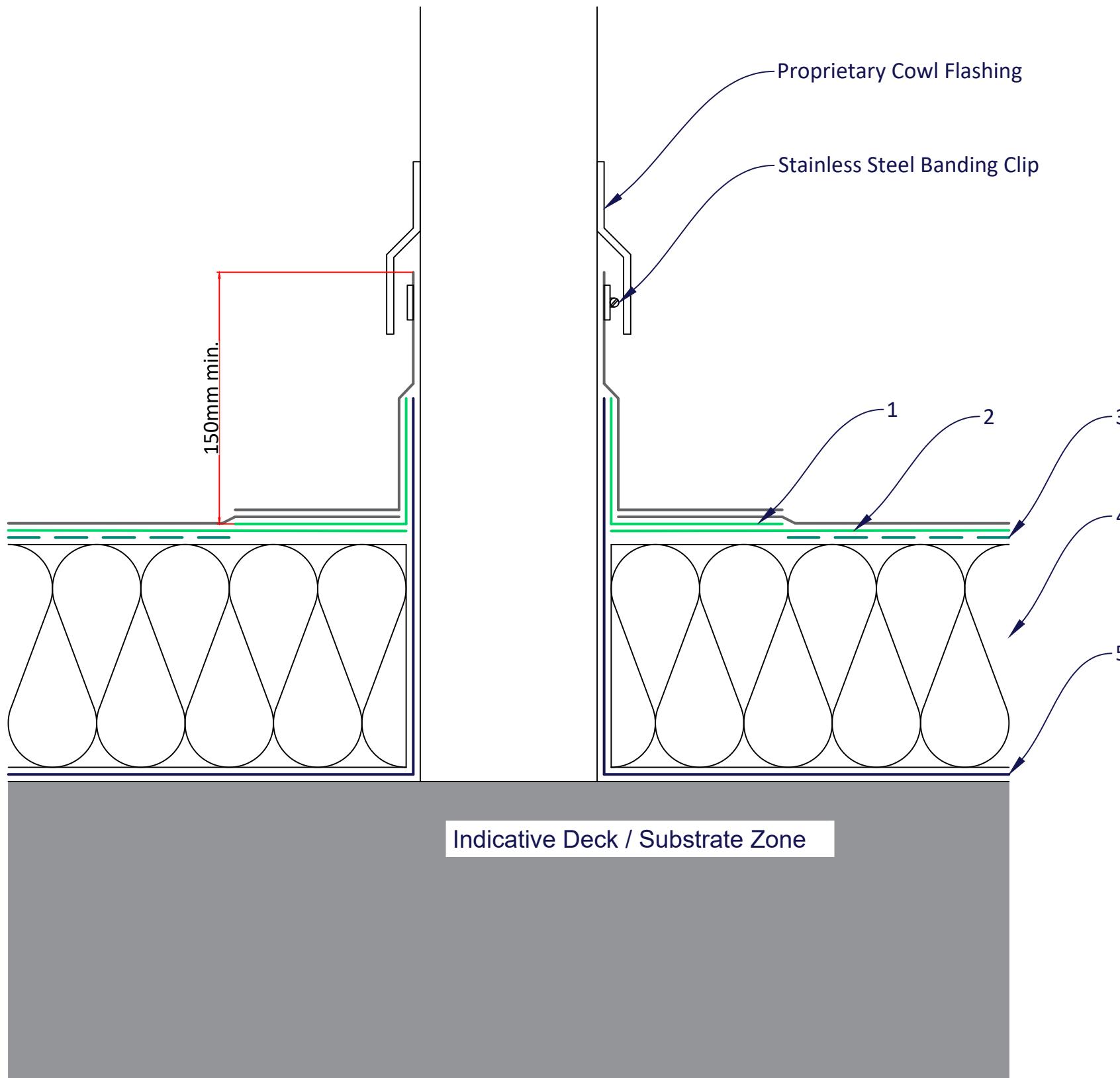
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Product Description	
1	Bailey Bitumen Felt Mineral Capsheet (As Specified)
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5	Bailey Vapour Barrier (As Specified)

**Bailey**

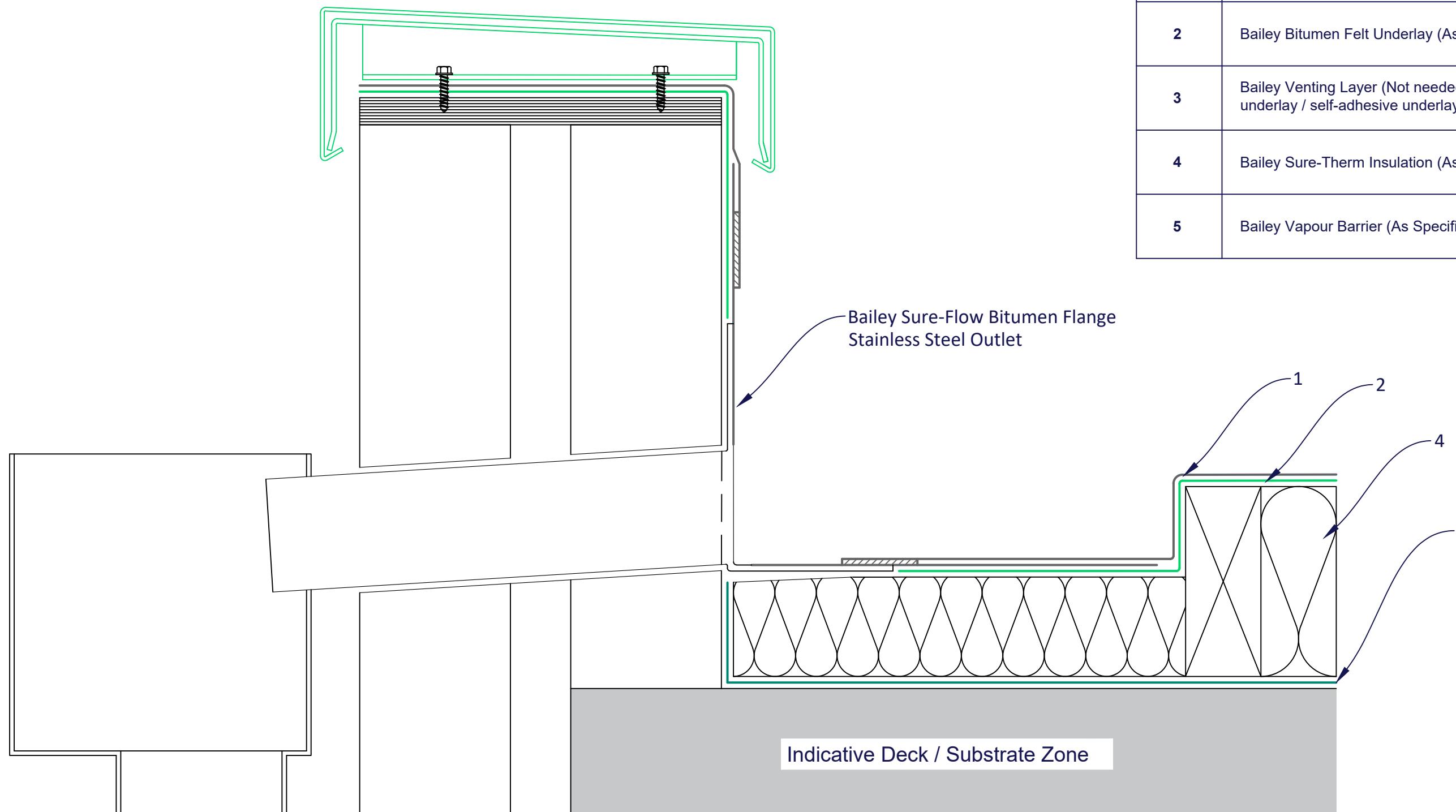
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Project Title	Bitumen Standard Detail	Kerb/Watercheck - GRP Detail	Drawn By	C.E.P
		Drawing Number	Revision	Date
		C-650-01	1	13.01.2021
				Status



Product Description	
1	Bailey Bitumen Felt Mineral Capsheet (As Specified)
2	Bailey Bitumen Felt Underlay (As Specified)
3	Bailey Venting Layer (Not needed if venting underlay / self-adhesive underlay is used)
4	Bailey Sure-Therm Insulation (As Specified)
5	Bailey Vapour Barrier (As Specified)

**Bailey**

Client	-	Drawing Title	Scale	NTS
Project Title	Bitumen Standard Detail	Pipe / Penetration Detail	Drawn By	C.E.P
		Drawing Number	Revision	Date
		C-700-01	1	13.01.2021
				Status

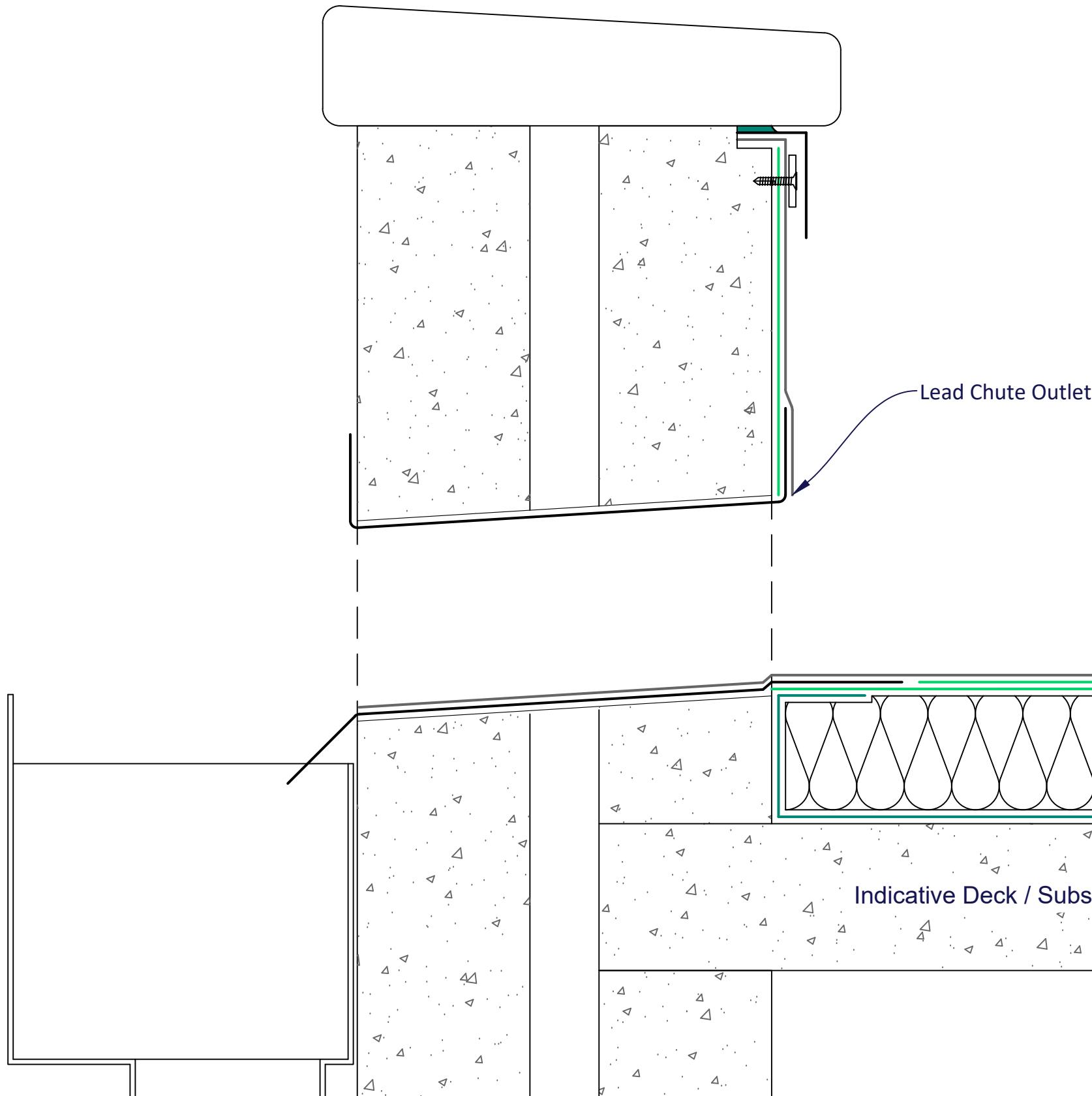


**Bailey**

Client -  
Project Title  
**Bitumen Standard Detail**

Drawing Title  
**St/Steel Parapet Outlet Detail**  
Drawing Number  
**C-2000-01**

Scale **NTS**  
Drawn By **C.E.P**  
Date **13.01.2021**  
Revision **1**  
Status



Product Description	
1	Bailey Bitumen Felt Mineral Capsheet (As Specified)
2	Bailey Bitumen Felt Underlay (As Specified)
3	Bailey Venting Layer (Not needed if venting underlay / self-adhesive underlay is used)
4	Bailey Sure-Therm Insulation (As Specified)
5	Bailey Vapour Barrier (As Specified)

**Bailey**

Client

Project Title  
Bitumen Standard Detail

Drawing Title

**Lead Chute Parapet Outlet Detail**

Drawing Number  
**C-2000-03**

Scale  
**NTS**

Drawn By  
**C.E.P**

Date  
**13.01.2021**

Status

**1**