



PRIVATE AND CONFIDENTIAL

CLARIFICATION FOR LBC/PLANNING

48 King Street
Manchester

May 2024



Contents

1.	Pitched slate roofs (See C&W Drawing 02 – to follow)	3
1.1.	METHODOLOGY	3
1.2.	STATUTORY REQUIREMENTS:	3
2.	Flat Roof to Lightwell (See C&W Drawings 02,03,04,05, 06 & 07 to follow)	3
2.1.	METHODOLOGY:	3
2.2.	STATUTORY REQUIREMENTS:	4
3.	Lead detailing to roof - Lead Flashing to gutters & roof lights and lead lined box gutters:	4
3.1.	METHODOLOGY:	4
3.2.	STATUTORY REQUIREMENTS:	4
4.	Glazing:	4
4.1.	METHODOLOGY:	4
4.2.	STATUTORY REQUIREMENTS:	4
5.	Timber repairs – fascia boards, snow guard boards, window frames & sills	4
5.1.	METHODOLOGY:	4
5.2.	STATUTORY REQUIREMENTS:	5
6.	Stone Repairs (See Marked up Elevation drawings in App. C):	5
6.1.	METHODOLOGY:	5
6.2.	STATUTORY REQUIREMENTS:	5
7.	Masonry repointing (See Marked up Elevation drawings in App. C): :	5
7.1.	METHODOLOGY:	5
7.2.	STATUTORY REQUIREMENTS:	5
8.	Balcony Repairs:	5
8.1.	METHODOLOGY:	6
8.2.	STATUTORY REQUIREMENTS:	6
9.	Decorations:	6
9.1.	METHODOLOGY:	6
9.2.	STATUTORY REQUIREMENTS:	6
Appendix A:	TOR 5972 Elastaseal Brochure	7
Appendix B:	Lithomix Stone Restoration & Repair mortar	8
Appendix C:	Renderoc Data Sheet	9
Appendix D:	Elevation Drawings	10
Appendix E:	Planning Drawings	11

1. Pitched slate roofs (See C&W Drawing 02)

The roof has numerous leaks and it is not known when it was last renewed. Ad hoc repairs have been done to replace or refix damaged slates over the years. The sarking felt, which is the waterproof membrane below the slates, is showing signs of perishing and being end of life. Therefore full replacement is advised.

Works allow to strip off the existing slates and retain to allow the replacement of the sarking felt and timber battens to ensure the roof is water tight. The existing slates will be re-used where possible, but any damaged slates will be replaced with new/reclaimed slates to match existing.

1.1. METHODOLOGY

- Allow to carefully remove all the ridge and verge slates/tiles and set aside all those that can re-used.
- Remove battens and underlay and replace with new breathable roofing membrane, and treated battens.
- Refit retained slates and ridge tiles to the roof and allow to replace any damaged tiles with new to match existing.
 - allow circa 20% new slates *NB this was a guide for tendering purposes. The existing slates will be reused and only damaged slates will be replaced with like for like replacements.*
 - allow 10 replacement ridge tiles tbc on inspection *NB this was a guide for tendering purposes. The existing slates will be reused and only damaged ridge tiles will be replaced with like for like replacements.*
 - contractor to provide samples of replacement slates and ridge tiles for approval.
 - double lap tiles in accordance with BS 5534 and BS EN 1994-1-4 (evidence of calculations in compliance with Technical Requirements R3 and R5 may be required)
 - slates should be fixed using clout or slate nails (these should be either silicon bronze, aluminium to BS 1202-3 or copper to BS 1202-2).
 - galvanized steel nails should not be used for slates and tiles (but are acceptable for fixing battens or underlay)
 - fixings should be a minimum of 38mm long, and penetrate a minimum of 15mm into battens
- Contractor is to allow to remove old and damaged insulation to roof space and replace with 300mm new Rockwool Roof insulation. Rockwool roof insulation to be installed from the outside as the roof is being stripped and recovered. This is due to lack of access internally.

1.2. STATUTORY REQUIREMENTS:

Listed Building Consent & Building Regulations

Building Regulations requires that the renewal of any thermal element such as the roof needs to be meet current standards. Therefore, insulation will be required to roof.

2. Flat Roof to Lightwell (See C&W Drawings 02,03,04,05, 06 & 07)

Allow to strip back and provide a new warm deck roof overlay system with 20 year insurance backed guarantee. Roof surface is nearing end of life, so full strip back and re-roof with guarantee advise. Current make up of roof to be confirmed.

2.1. METHODOLOGY:

- Strip out existing covering back to original deck.
- Allow to clean down roof surface
- Install liquid applied system – See Appendix A. TOR 5972 Elastaseal Brochure – including insulation

- Allow to provide falls to existing outlet
- Allow to provide suitable upstand to lightwell walls with suitable termination bar or flashing detail. Contractor to confirm detail based on manufacturer's recommendations.

2.2. STATUTORY REQUIREMENTS:

Listed Building Consent & Planning

Building Regulations requires that the renewal of any thermal element such as the roof needs to be meet current standards. Therefore, insulation will be required to roof.

NB roof is located within the lightwell and is not visible other than from inside the building.

3. Lead detailing to roof - Lead Flashing to gutters & roof lights and lead lined box gutters:

Retain existing leadwork to roof where possible, and replace with new as necessary. Lead flashing will only be replaced if damaged or split. Repairs will be on a like for like basis to match existing.

3.1. METHODOLOGY:

- Allow to rake out lose and friable joints and replace with lead sealant – eg CT1 flexible sealant. CT1 is a flexible sealant that is being used for lead re-pointing instead of mortar because it maintains the seal with the substrates due to its flexibility. Range of colours available.
- Cut out any defective or split lead and replace with code 7 lead to match existing.

3.2. STATUTORY REQUIREMENTS:

None. Like for like repair to match existing. *NB Once access available, full survey will be possible to quantify the extent of works.*

4. Glazing:

- Glazing to window is single glazed clear glass. Cracks to panes noted to a couple of windows.

4.1. METHODOLOGY:

- Rake out putty and carefully remove damaged glazing.
- Allow to replace with new glass to match existing and use linseed putty to seal.

4.2. STATUTORY REQUIREMENTS:

None. Like for like repair to match existing.

5. Timber repairs – fascia boards, boards to snow guards, window frames & sills

Timber repairs will only be done if defected or damaged sections of timber.

5.1. METHODOLOGY:

- Splice repairs will be undertaken as necessary to retain as much of the existing fabric as possible.
- Treated soft wood to fascia boards and snowguards

- Soft wood to window frames
- Hardwood to window sills.

5.2. STATUTORY REQUIREMENTS:

None. Like for like repairs to match existing. *NB Once access available, full survey will be possible to quantify the extent of works.*

6. Stone Repairs (See Marked up Elevation drawings in App. D):

Stonework to elevations to be surveyed once access available to identify areas of repair required to protect the building - eg rebuilding drip/sill details to allow building to shed water. It is not anticipated any replacement stone will be required.

6.1. METHODOLOGY:

Undertake repairs using Lithomex Restoration and Repair mortar, which is specially formulated mortar based on Natural Hydraulic Lime and aggregates for the repair or simulation of masonry, brick or stone. Pls see data sheet in Appendix B.

6.2. STATUTORY REQUIREMENTS:

None. Like for like repairs to match existing. *NB Once access available, full survey will be possible to quantify the extent of works.*

7. Masonry repointing (See Marked up Elevation drawings in App. D):

High level brickwork and coping stones to elevations appears to have open joints. Allow full inspection once access available.

7.1. METHODOLOGY:

Repoint joints to masonry.

- Allow to carefully rake out loose and friable mortar to joint to minimum depth of 10mm.
- Repoint with lime mortar – Conserv NHL3.5/GL1.
- Care should be used to colour match surrounding pointing.

7.2. STATUTORY REQUIREMENTS:

None. Like for like repairs to match existing. *NB Once access available, full survey will be possible to quantify the extent of works.*

8. Balcony Repairs:

Concrete balconies to elevations are spalling. Contractor to allow to repair in accordance with Structural Engineer's recommendations. NB Structural Engineer has confirmed the balconies are concrete and not stone. Therefore concrete repairs appropriate.

8.1. METHODOLOGY:

- Allow to clean down all surfaces prior to repair.
- Allow to breakout damaged and loose concrete
- Treat corrosion to exposed steel with proprietary rust inhibitor.
- Repair surface Fosroc Renderoc ST or equivalent and leave surfaces smooth and flush with existing. Apply textured finish to match existing. See data sheet in appendix C.

8.2. STATUTORY REQUIREMENTS:

None. Like for like repairs to match existing. *NB Once access available, full survey will be possible to quantify the extent of works.*

9. Decorations:

External decorations appear to have been painted with modern paints. Lead paint test allowed for as part of works.

9.1. METHODOLOGY:

Allow to prepare all previously painted surfaces and decorate.

- Timber frames/soffits etc – paint subject to sampling to ensure like for like (black/white)
- Steel balustrades to balconies - paint subject to sampling to ensure like for like - colour black.
- Steel to Lightwell - paint subject to sampling to ensure like for like - colour black.

9.2. STATUTORY REQUIREMENTS:

None. Like for like repairs to match existing.

Appendix A: TOR 5972 Elastaseal Brochure

**Zero leaks.
Zero odour.
Zero disruption.
Elastaseal Z.**

The complete solution in roof liquid waterproofing systems for up to 30 years of protection.

For every building surface inside and out, we've got it covered.



How we work with you.

1 Free Survey

Our site surveys are FREE. Our first step is to listen, to learn and to collaborate. One of our highly experienced Area Business Managers will meet with you to discuss your project and undertake a free survey of your roof, noting any issues and defects to ensure every aspect of the project is clearly understood and documented thoroughly.

With over forty years' experience, Tor Coatings is a market leader in the field of liquid roofing systems. We are renowned for our high performance coating systems and cutting edge products that include our Elastaseal Z series.

But we don't simply manufacture and market products: we provide clients with a complete service, where you will receive the highest level of technical support and backup right through to the delivery of the finished project. From site surveys and testing, to bespoke specifications and CAD models, we offer our clients complete peace of mind - all at no additional cost..

2 Project Specification

Following your survey, your Area Business Manager will recommend professional contractors to complete your installation. A detailed, bespoke written project specification will then be issued including CAD drawings as required. This specification explains how every detail of the roof will be tackled. While all Tor specifications are designed to be as easy to follow as possible, your Area Business Manager will always be on hand to answer any questions you might have.

For further information please contact:
enquiries@tor-coatings.com

3 Installation

Your Area Business Manager and our technical service team will be there to monitor the various stages of your installation and ensure the project specification is followed correctly. You can be safe in the knowledge that we partner only with contracting companies whose customer service principles and values are aligned with our own.

4 Aftercare

For added peace of mind, all of our systems are offered with a comprehensive range of no quibble warranties. We are also pleased to offer building owners our insurance-backed guarantee, TorGuard.

Elastaseal Z.

Tor Coatings has been supplying high quality roofing systems for over forty years. The Elastaseal Z roof waterproofing system has been developed to solve problems associated with the long-term waterproofing of flat, pitched and domed roofs.

Elastaseal Z is a fully low odour polyurethane coating system incorporating primers, membranes and accessories. It provides flexible, durable, long-lasting protection for up to 30 years to first full maintenance (depending upon which system is specified). The system can also be applied as a wet-on-wet system, dramatically saving time and costs for clients.

Elastaseal Z has been awarded a British Board of Agrément (BBA) Certificate. The Elastaseal Z system has an FAA fire rating when tested under BS476 part 3.

Coatings used in Elastaseal Z™ systems are approved by the British Board of Agrément.



What is liquid roofing?

Liquid roofing is the process of applying high technology waterproof coating systems onto new or existing roof substrates. These innovative systems are suited to all types of roofs, including flat, pitched and domed.

Significantly, there are no hot works required in the application of liquid roof coating systems, meaning a building can remain safely in use during refurbishment. The completed coating system encapsulates the entire roof seamlessly, including any plant and protrusions, to form a breathable, waterproof barrier.

As one of the fastest growing sectors in today's roofing market, liquid applied waterproofing can be used as:



A cold waterproofing roof system



A warm waterproofing roof system



An inverted waterproofing roof system

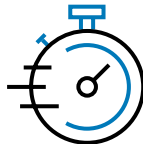


Features and benefits.



Odourless System

Elastaseal Z has no solvent odour which means no disruptions to the day-to-day operations of a building.



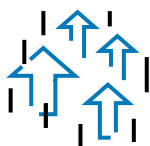
Fast Installation

Wet-on-wet application techniques to dramatically reduce installation times.



Proven Track Record

Established in 1975 and with over 40 years' experience in roof waterproofing systems, Tor Coatings is a true specialist.



Lightweight

Delivers considerable weight savings.



Cold Applied

No need for hot works or naked flames.



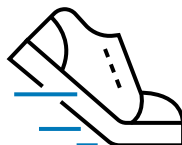
Watertight Guarantee

For added peace of mind, Elastaseal Z comes with a comprehensive range of no quibble warranties.



Cost Effective

Our 30-year system option ensures that we can deliver the ultimate, cost effective, high performance solution.



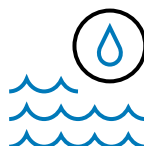
Durable & Slip-Resistant*

Resin technology delivers a tough, slip-resistant surface with unparalleled waterproofing.



Global

Tor Coatings is part of one of the world's largest paint companies and therefore has the scale to deliver.



Ponded Water Resistant

Elastaseal Z is highly resistant to ponded water, providing excellent protection against future leaks.



Seamless

Once applied, Elastaseal Z provides a seamless, joint-free waterproof barrier that allows water to run away freely.



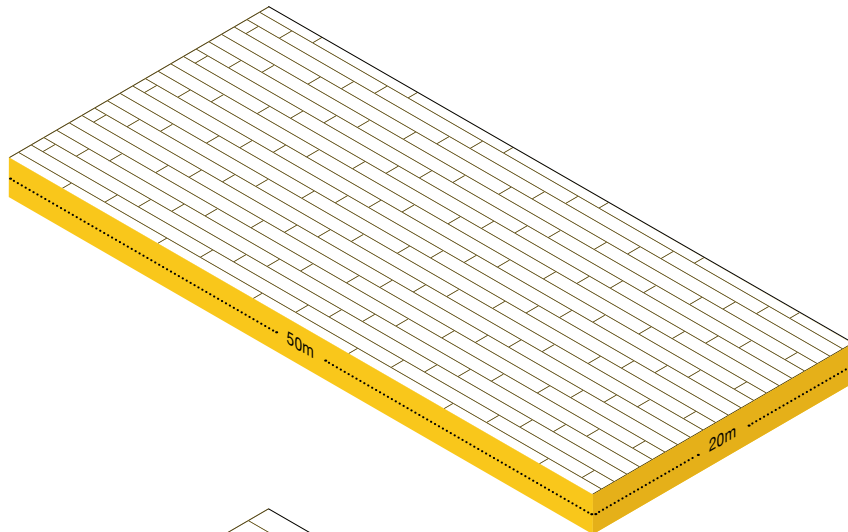
No Disruption

Roof repairs are carried out without removing the existing membrane, minimising disruption.

* Slip resistance is a selectable option.

Zero joints, zero leaks.

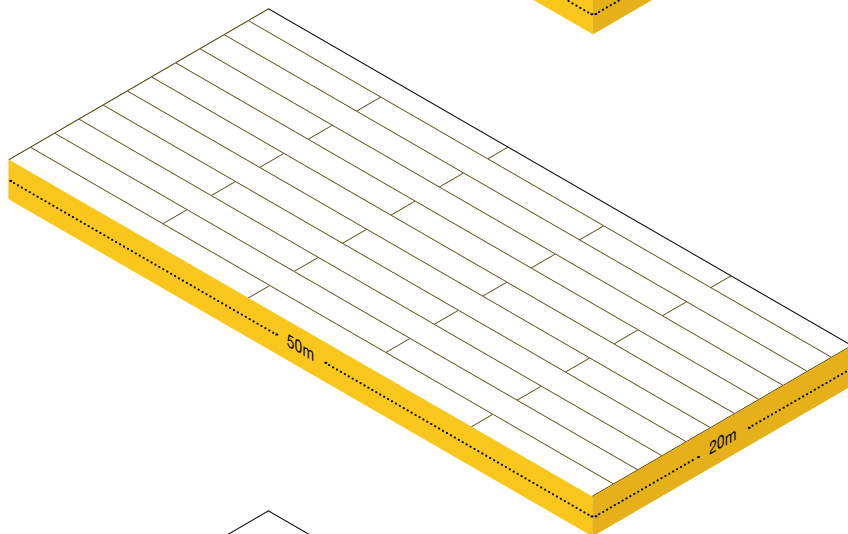
On traditional roof membranes, the potential for leaks is concentrated around the joints and roof details. This graphic demonstrates how liquid waterproofing delivers you unrivalled performance.



Felt Roof

On a 1000m² Felt Roof, the total distance of all joints and seams amounts to a vulnerable area of

1,364 metres



Single Ply Roof

On a 1000m² Single Ply Roof, the total distance of all joints and seams amounts to a vulnerable area of

652 metres



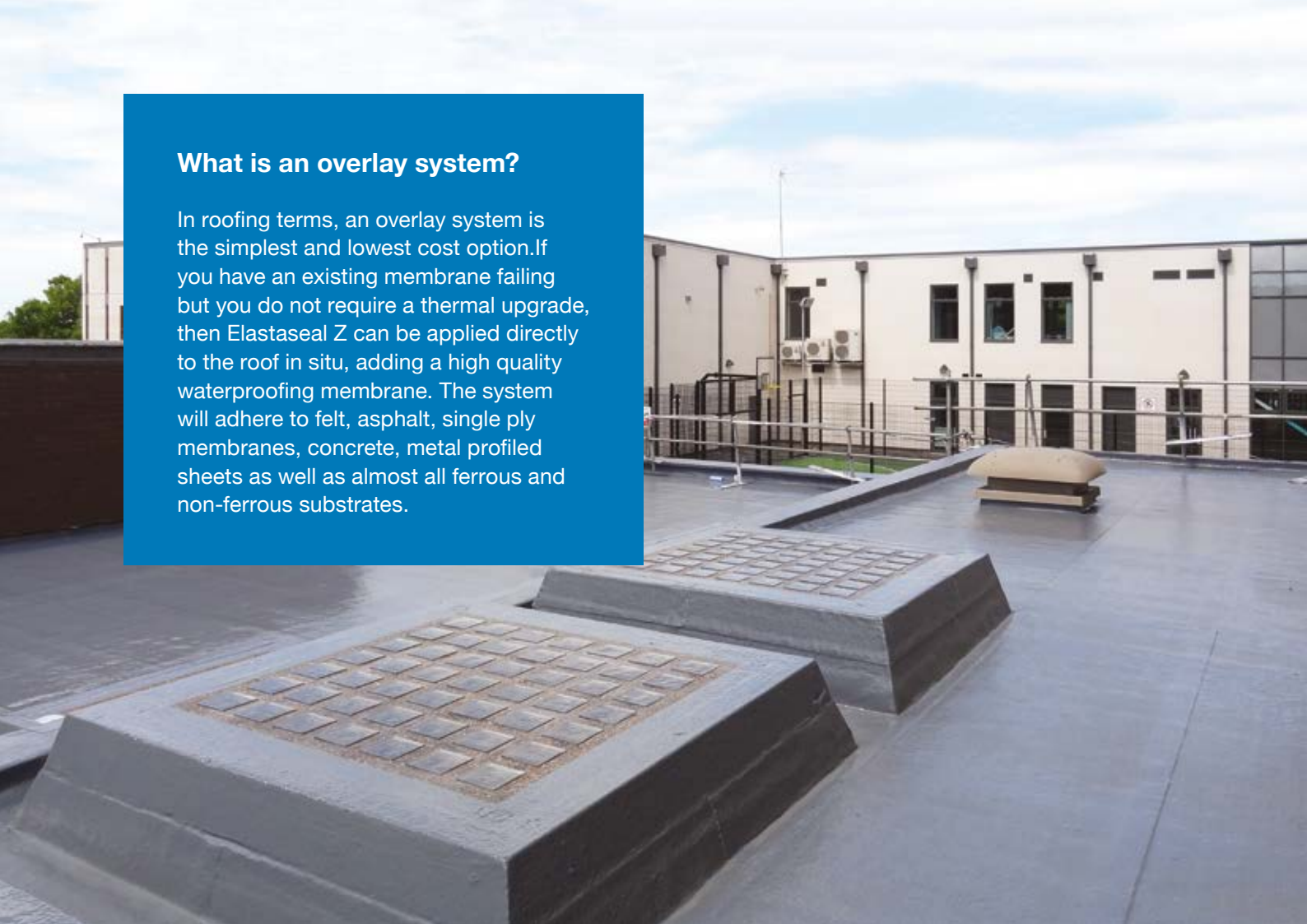
Liquid Roof

On a 1000m² Elastaseal Z Liquid Roof, the total distance of all joints and seams amounts to a vulnerable area of

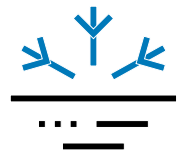
0 metres

What is an overlay system?

In roofing terms, an overlay system is the simplest and lowest cost option. If you have an existing membrane failing but you do not require a thermal upgrade, then Elastaseal Z can be applied directly to the roof in situ, adding a high quality waterproofing membrane. The system will adhere to felt, asphalt, single ply membranes, concrete, metal profiled sheets as well as almost all ferrous and non-ferrous substrates.



Cold overlay roof system.



Elastaseal Z is suitable for waterproofing many types of traditional roofing materials including felt, asphalt, bitumen, asbestos cement sheet, fibre cement sheet, concrete, single ply membranes and profiled metal sheets.

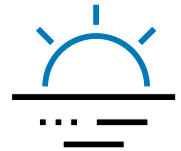
The Elastaseal Z cold liquid system is ideal for roof refurbishment projects as well as new builds. The system is compatible with the majority of existing roof membranes and is particularly beneficial as a long-term solution to commercial buildings with leaking flat roofs.

For further technical information on cold roofs, please visit www.tor-coatings.com

Key features and benefits:

- Cold liquid applied - no hot works on roof
- Safe to install and unobtrusive repairs
- Easy to apply and detail
- Wet-on-wet application
- Compatible with most existing roof membranes
- No need to remove serviceable existing membranes, minimising landfill waste and ensuring the building remains protected during installation
- Up to 30-year systems available
- British Board of Agrément (BBA) accredited
- Permanently elastomeric and seamless
- Excellent resistance to ponded water
- Fibre reinforced for maximum film strength
- Easy to maintain and cost effective

Warm and cut to falls roof systems.



The Elastaseal Z warm roofing system provides long-term waterproofing and a complete thermal upgrade to improve the thermal efficiency of your building and reduce your energy bills. Once installed, the system helps lower energy costs by conserving heat within the building during colder months the building during warmer months.

How do we deliver it?

The Elastaseal Z warm roofing system offers a relatively lightweight installation. we will carry out core sampling, U value calculations and a condensation risk analysis in order to determine the thickness of insulation required to deliver compliance with Part L of the Building Regulations. The system build up incorporates a vapour control layer (where required), the fixed insulation boards, a carrier membrane and the the Elastaseal Z waterproofing system

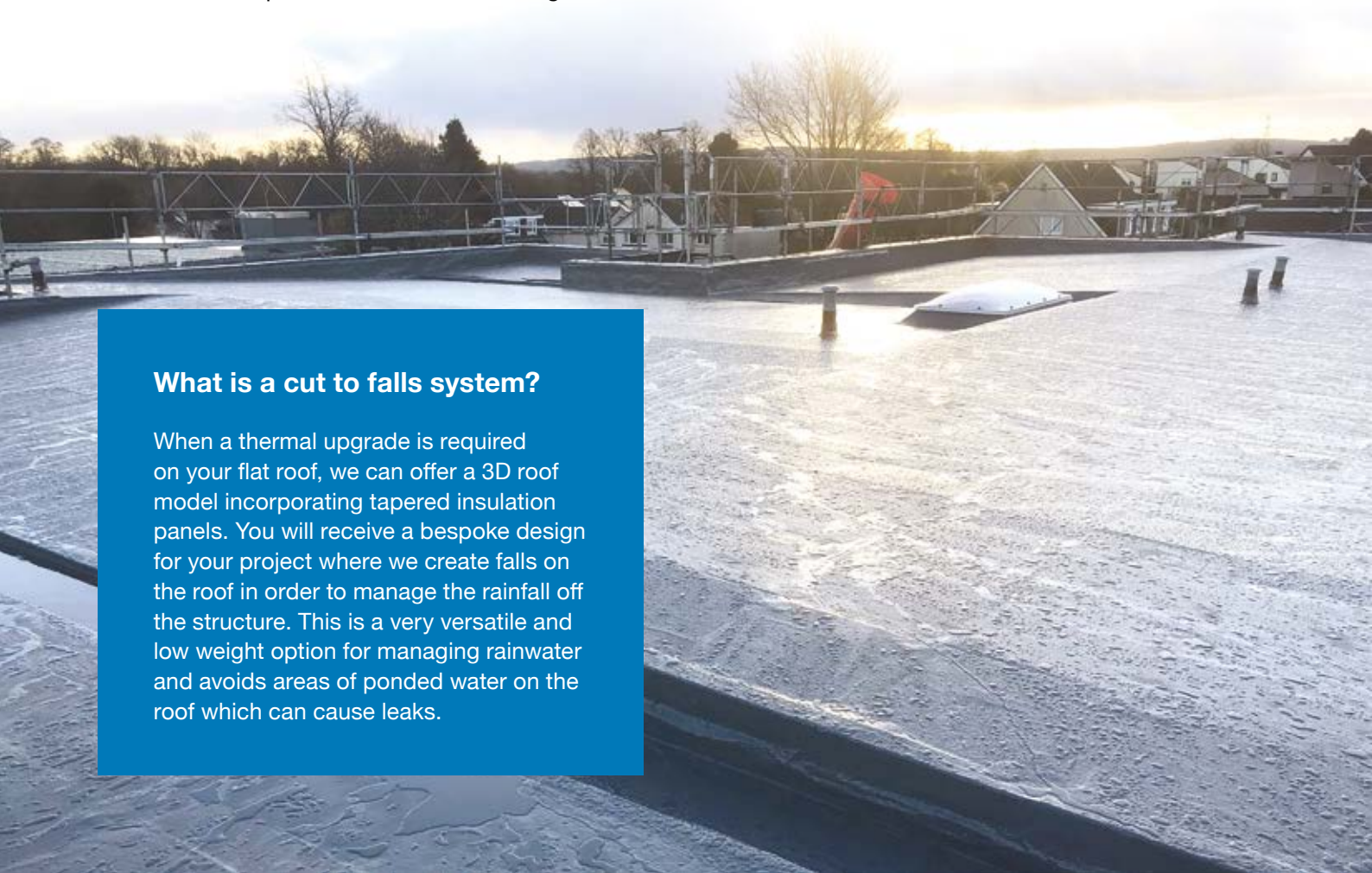
For further technical information on warm and cut to fall roofs, please visit www.tor-coatings.com

Key features and benefits:

- Provides all of the benefits of the Elastaseal Z system
- Cost effective
- Ideal roof refurbishment solution
- Improves thermal efficiency and reduces energy bills
- Wet-on-wet application
- Relatively low weight loadings
- Cut to falls insulation schemes can be designed to manage rainwater off the roof
- Tapered option improves drainage of rainwater
- Minimal disruption to building occupants during installation
- Up to 30-year systems available
- The Elastaseal Z 20 and 25 systems require less coats, saving time and money on-site

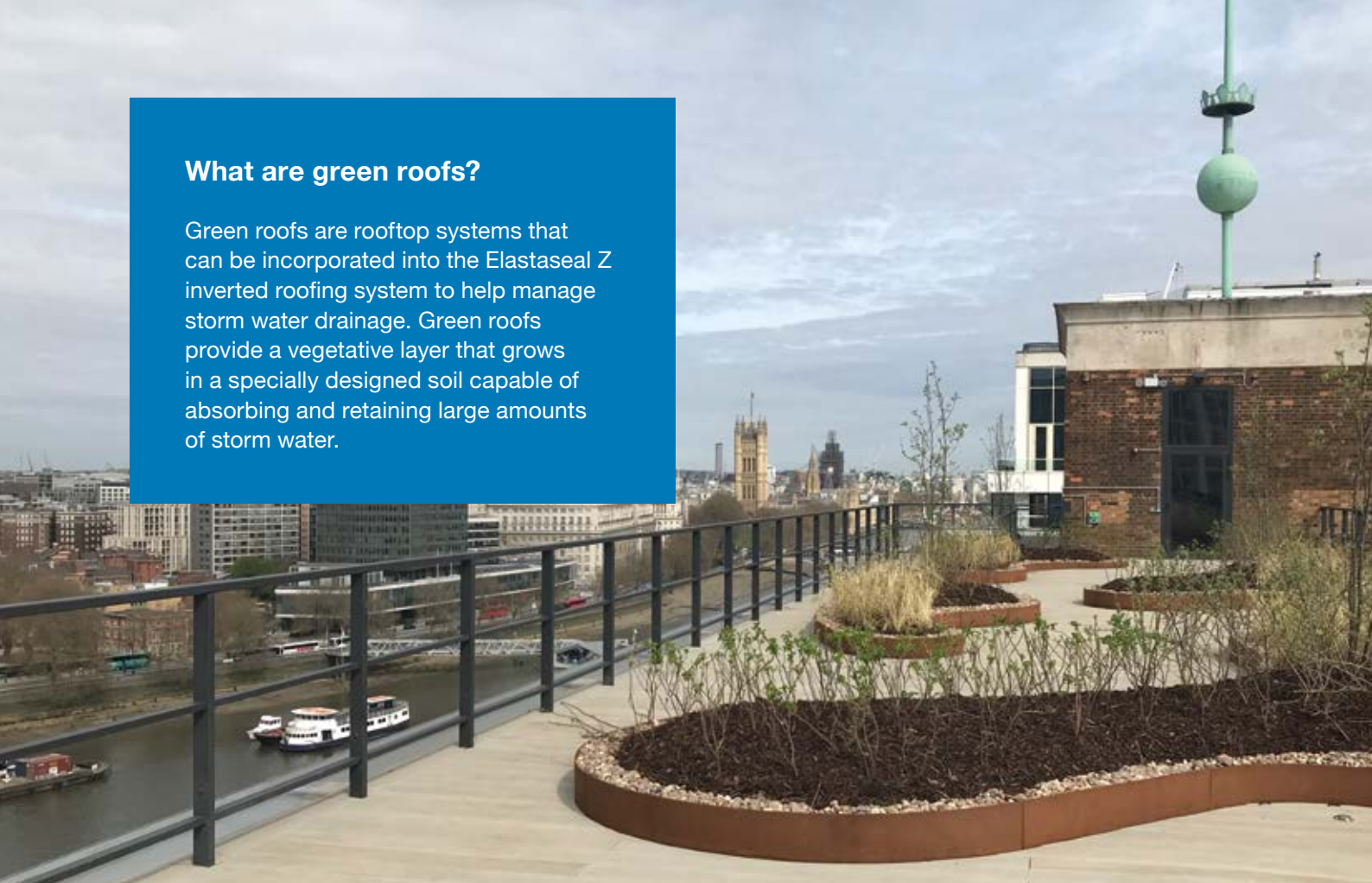
What is a cut to falls system?

When a thermal upgrade is required on your flat roof, we can offer a 3D roof model incorporating tapered insulation panels. You will receive a bespoke design for your project where we create falls on the roof in order to manage the rainfall off the structure. This is a very versatile and low weight option for managing rainwater and avoids areas of ponded water on the roof which can cause leaks.

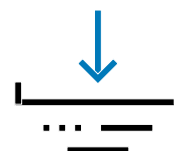


What are green roofs?

Green roofs are rooftop systems that can be incorporated into the Elastaseal Z inverted roofing system to help manage storm water drainage. Green roofs provide a vegetative layer that grows in a specially designed soil capable of absorbing and retaining large amounts of storm water.



Inverted and green roof systems.



Often referred to as a 'protected membrane' or 'upside-down roof', the Elastaseal Z inverted roofing system is applied on top of the waterproofing membrane to improve the appearance of the roof with paving or grass to create roof gardens, terraces or private balconies. Like the warm roof system, the inverted system helps lower energy costs by reducing heat loss from the building. Its seamless nature provides maximum protection and offers significant advantages over sheet systems.

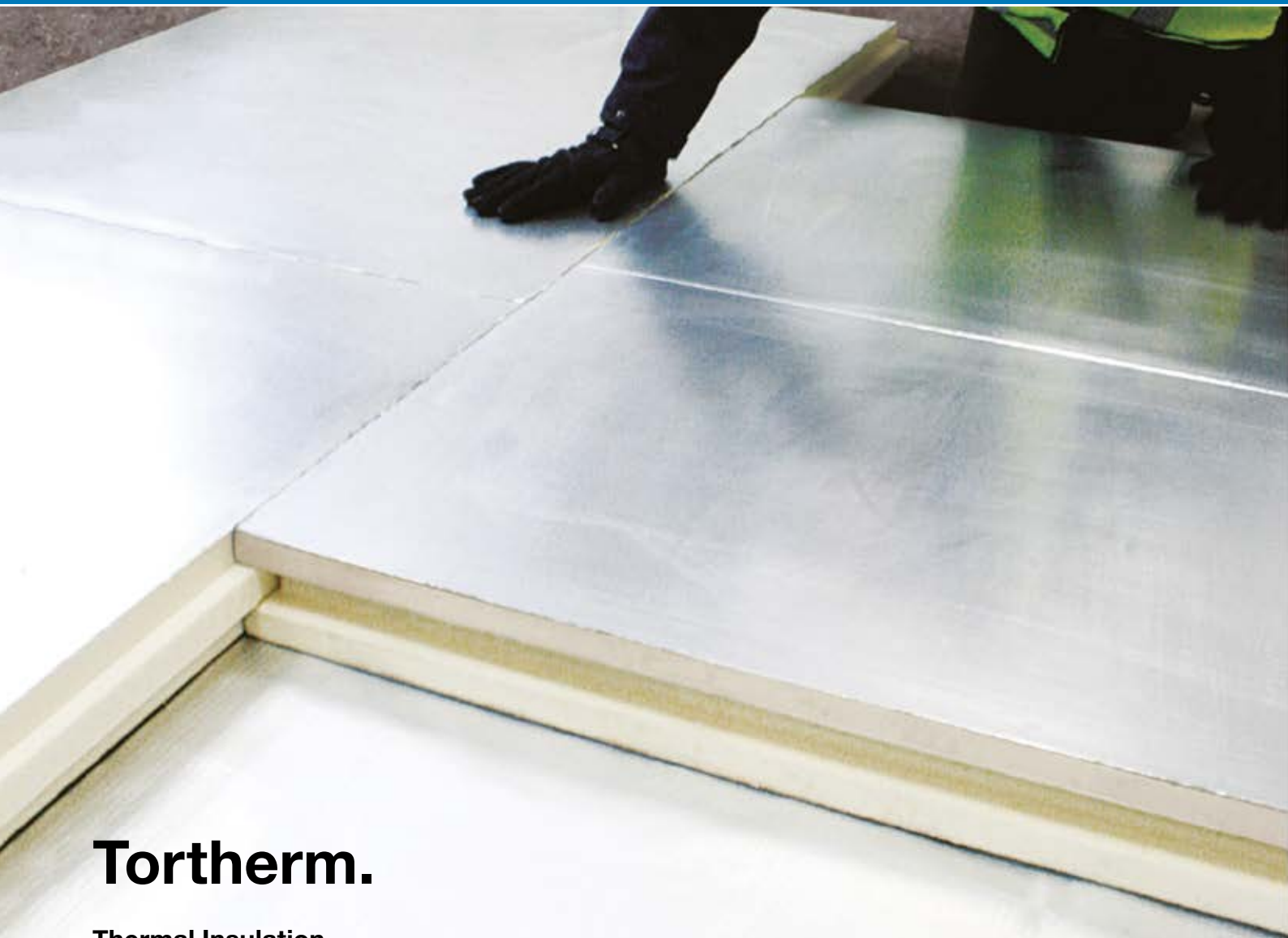
How do we deliver it?

The Elastaseal Z inverted roofing system provides a waterproofing membrane below the insulation layer and directly over the existing roof substrate. The system is usually finished with paving materials to create roof terraces and balconies that can withstand heavy foot traffic. They can also be used with sedum banks to create green roofs or roof gardens.

Key features and benefits:

- Allows creative use of roof space e.g. terraces and roof gardens
- Up to 30-year systems available
- Use of paving to provide an attractive appearance
- Green roofs help with rainwater attenuation
- Comprises high performance insulation and can easily achieve required U-values
- Tough, flexible roofing membrane
- Ideal for new build and refurbishment

For further technical information on inverted roofs, please visit www.tor-coatings.com



Tortherm.

Thermal Insulation

Tortherm is a high performance PIR (polyisocyanurate) rigid foam board, available with a tongue and groove edge detail to help prevent thermal bridging at board joints and provide easy alignment and rapid installation.

When used in conjunction with Tor liquid applied waterproofing systems, Tortherm provides efficient thermal insulation in built-up (BUR) warm roof assemblies, reducing heat loss, boosting energy efficiency and eliminating the need for roof ventilation.

The Tortherm cut to falls schemes offer some real on-site benefits to client and contractors alike. The falls are engineered into the scheme, ensuring the desired effect is delivered as planned rather than relying on the skilled labour on-site.

The boards are also fully bonded during manufacturing, resulting in a faster installation time and considerable weight advantages compared to timber firrings or screeds laid to falls.

Key features and benefits:

- Lightweight and durable
- Rot-proof and maintenance-free
- Inherently safe from harmful interstitial condensation when correctly stored, handled and installed
- The boards are easily cut using a shaped wing-knife or fine-toothed saw

Elastatherm:

We also have a tissue faced PIR board - Elastatherm. This is a square edge board that can be used to reduce costs.

Elastaseal FIA:

Elastaseal FIA is a foaming PU adhesive used for installing Tortherm and Elastatherm. It is delivered by an aerosol / gun combination to give a fast grab and strong adhesive bond.

TorVap.

Vapour Control Layer and Carrier Membrane

TorVap Vapour Control Layer and Carrier Membrane (VCL/CM) is a self-adhesive bituminous waterproofing membrane that forms a total barrier against vapour and gases. It can be used in the Elastaseal Z warm roof system as a self-adhesive vapour control layer and as the self-adhesive carrier membrane over Tortherm Insulation.

TorVap VCL/CM consists of a self-adhesive, low thickness bituminous compound, self-protected by a glass fibre and a reinforced aluminium film. The glass fibre and polyester reinforcement makes the membrane resistant to heavy worksite traffic.

As a vapour control layer, TorVap can be use over most roofing substrates including concrete, timber, metal surfaces, roofing felt, asphalt, single ply membranes. Porous surfaces will require a primer to be applied and cured. As a carrier membrane, TorVap VCL/CM adheres directly onto the silver-faced Tortherm Insulation panel.

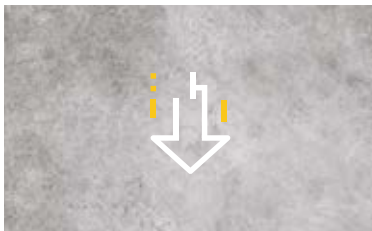
Key features and benefits:

- Waterproof and self-adhesive
- Cold applied without use of flames
- Protected with reinforced aluminium film
- Excellent puncture resistance and tensile strength
- Polyester surface accepts most polyurethane adhesives
- Vapour, radon and methane gas barrier
- Fast installation does not require skilled personnel
- Unaffected by environmental pollution and ozone
- Reinforced with glass fibre

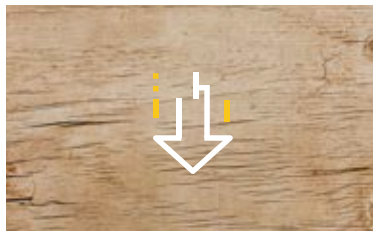


TorVap can be use over most roofing substrates:

Concrete Surfaces



Timber Surfaces



Metal Surfaces



Roofing Felt



Asphalt



Single Ply Membranes



Tortrim.

Roof Trims

The Tortrim range has been developed to complement the Elastaseal Z series and provide a neat, professional finish.

Tortrim can be used with Elastaseal Z warm and cold liquid roofing systems to encourage or prevent water movements off the roof edges.

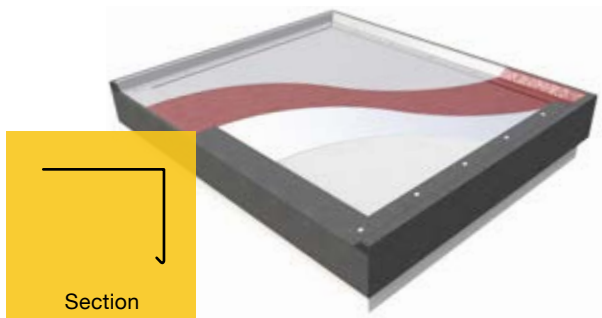
The range is made from high quality GRP and comprises of standard 90 degree drip trims, water check trims with drip details, a hard edge for insulation termination, an internal angle for upstand detailing and a termination bar. It also accommodates the vertical trim depth requirements for the common Tortherm Insulation depths, to ensure a quality, professional finish is achieved. Tortrim is also supplied with a reinforcing strap to allow easy gluing of the trim lengths before fixing.



Product range.

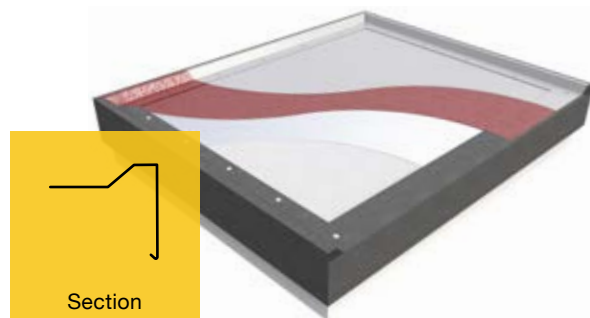
Tortrim Drip Trim

A GRP drip trim finished in black, available with **75, 130 or 150mm** vertical drop.



Tortrim Water Check

A GRP watercheck trim finished in black, available with **75, 130 or 150mm** vertical drop.



Tortrim Hard Edge

Used to create a firm termination when constructing gutters in a warm roof.



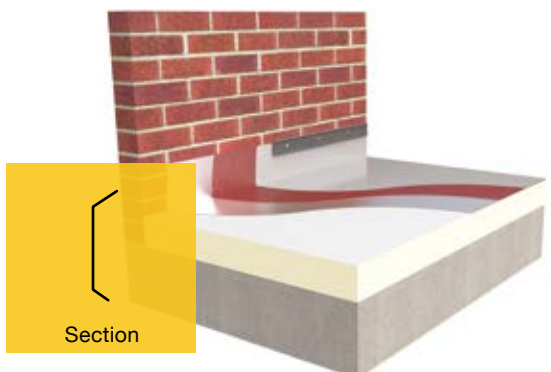
Tortrim Upstand Fillet

Creates a smooth, even surface when trying to coat uneven upstands.



Tortrim Termination Bar

For use on a variety of upstands to professionally terminate the waterproofing system.



“We were very pleased with the work done to our Early Years roof thanks to the professionalism of Tor Coatings and our contractors Sterling Roofing. Everything was explained to us about the product and the application, all of the work was completed before the estimated time, and the site was left clean and tidy. The back-up and warranty from Tor Coatings was another reason for us choosing them for our project.”

Andy Mercer, Early Years Centre

TorGuard:

For added peace of mind, all of our clients and specifiers also benefit from our insurance-backed guarantee, TorGuard. TorGuard is provided free of charge for projects installed by our Tor Partners contractor network to give an additional level of cover. If a fault develops due to either an application or product fault then the issue will be remedied under the guarantee.

Our watertight guarantees.

At Tor Coatings, we are passionate about the work we do and take pride in delivering the results you want, the way you want them. That's why our service doesn't just end when your project ends. By choosing us as your supplier, you can be safe in the knowledge that you'll be receiving a high quality system, outstanding service and complete peace of mind throughout your project and beyond.



Warranties:

All of our roofing systems are covered by our comprehensive no quibble warranties. Each scheme is also covered by an insurance backed policy which we pay for*.

And by no quibble, we mean just that. If you experience complications with any aspect of your project following completion, our experienced team of site specialists will work with you to resolve any issues as quickly and efficiently as possible. No challenges, no problems, no fuss. That's our promise to you.

* subject to underwriters terms and conditions

Training.

We all know that any roofing system is only as good as the people who install it on your site so, here at Tor Coatings, we have invested in a state-of-the-art training facility at our head office in Birtley.

As part of a drive to ensure that our clients receive the highest quality roof installations, every month we have 4 days put aside for training. Our Tor Partner contractors receive practical demonstrations and can apply the coating systems onto realistic roofing rigs which simulate real life challenges.

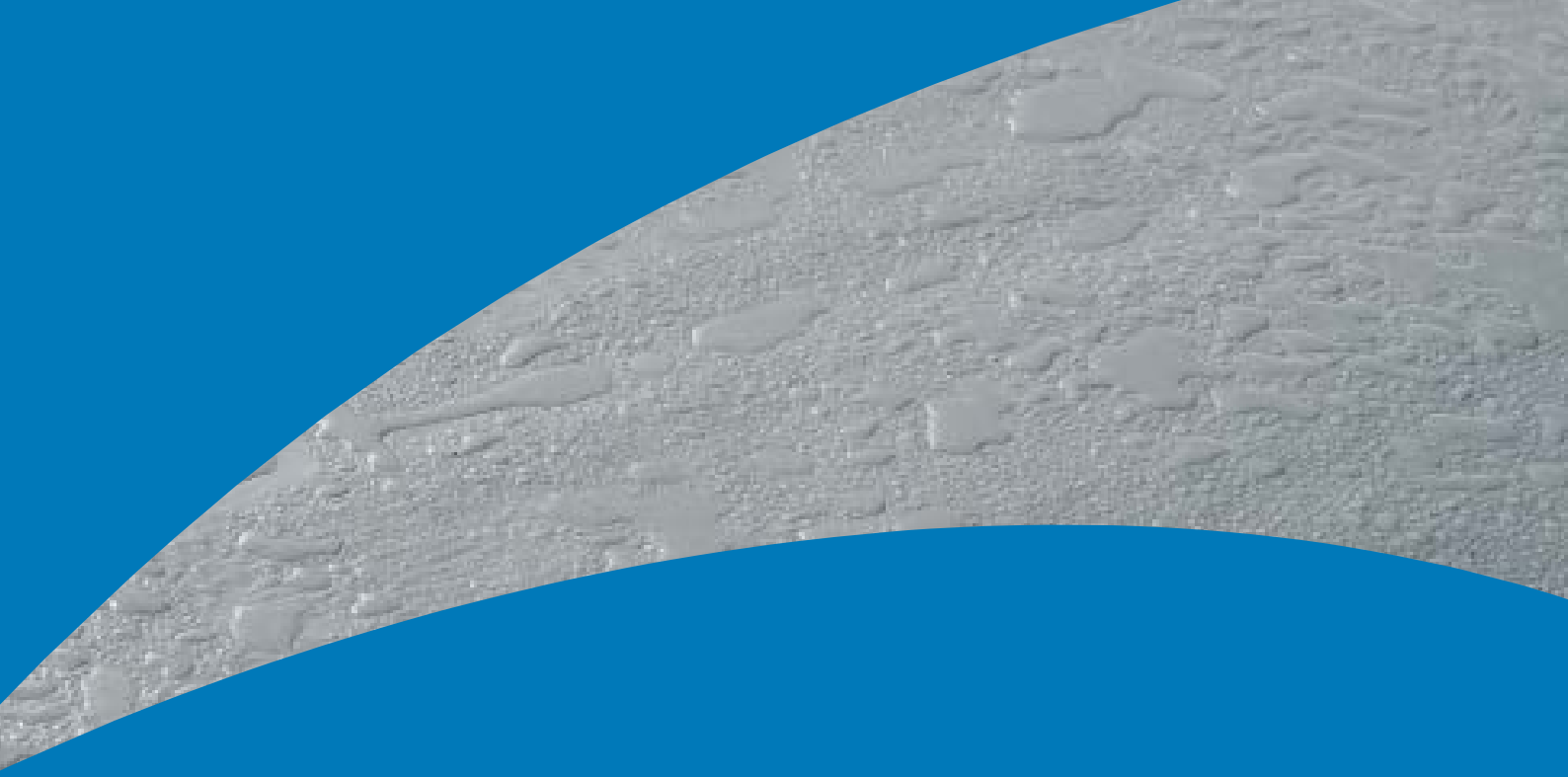
We also offer the same training in London to service the Southern contractor base and can do training at the contractor's offices provided we have a safe place to use. Our technical services team also carry out site inspections and reports to ensure that our projects are being installed to the correct standards.



"We use the Elastaseal Z range on a nuclear facility in Cheshire. It was the only product to pass internal air monitoring tests. Additionally, the low odour range extends to primers, something that is very often overlooked. Site application is good and our operatives comment on ease of use - it also helps to add the accelerator to speed up drying in winter."

Jim Kennedy, Surface Protection





The scale to deliver

Our nationwide team of Area Business Managers offer unrivalled expertise and knowledge supported by our dedicated customer services team, our team of experienced coatings chemists and our technical help desk.

To arrange your FREE site survey, please contact us either via our website at www.tor-coatings.com/elastaseal or on the phone number below.



Tor Coatings

Unit 21, White Rose Way
Follingsby Park, Gateshead
Tyne & Wear, NE10 8YX

T: +44 (0)191 410 6611

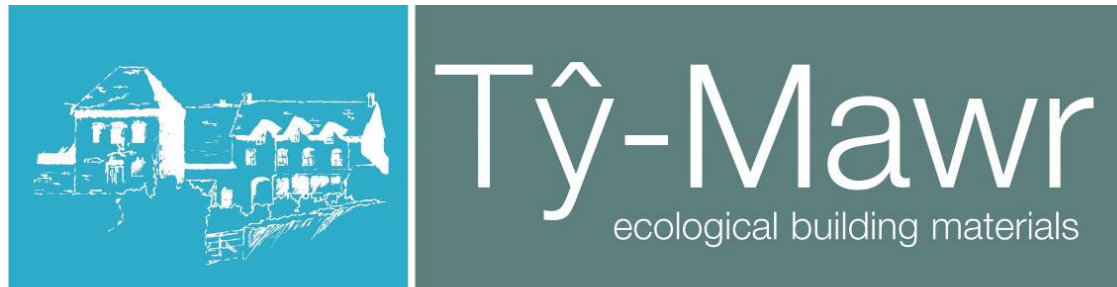
F: +44 (0)191 492 0125

E: enquiries@tor-coatings.com

www.tor-coatings.com



Appendix B: Lithomix Stone Restoration & Repair mortar



Lithomex Stone Restoration and Repair Mortar

See Also: [Stone Repair User Guidelines](#) [Lithomex Health and Safety Information](#)

Specially formulated mortar based on Natural Hydraulic Lime and aggregates for the repair or simulation of masonry, brick or stone. Lithomex is a neutral white or pre coloured mortar supplied in 1KG to 25KG bags to which mixing water is added. Mixing and use: Can be mixed manually or mechanically by whisk, adding up to 180ml water per kilogram of Lithomex used. Mix well for 3-5 minutes. The application surface must be clean, free from dust and oils. On porous surfaces, ensure that suction is controlled by pre-wetting and apply Lithomex before this is fully dry. Never apply to surfaces that are over saturated or have standing water. It can also be applied on metal laths. For application on dense impervious materials, please consult us.

The minimum thickness is 5mm (can be dressed or cut back to a feather edge). The maximum thickness in 1 pass is 40mm. In cases where a thickness of more than 40mm is required, apply in layers of a maximum of 40mm, each one approximately 24 hours apart. Always dampen application areas. The mortar should be well pressed back in place. If required re-compact by pressing after a couple of hours to avoid possible shrinkage marks due to suction from the background. In some instances support of the fresh mortar is required by using wires, anchorages, stainless steel fixings or formers, etc... Simulation of stone / brick features, rough finishes, false joints etc. can be made approximately 5 hours from application (in damp cold weather up to 24 hours).

Shaping and forming of details can be carried out for up to 1 week after placing by scraping to profile or level with metal tools, such as the edge of a trowel or steel float however most shaping and finishing work can be done within 24 hours. Sculpting, using appropriate tools, requires

waiting up to a week or more depending on the weather conditions. Its unique qualities allow it to be tooled, shaped and sculpted even after the final set has taken place. This affords sufficient time to achieve the very highest standard of work with the best quality reproduction.

Where ashlar masonry or very finely jointed masonry has had considerable damage to the arises, flush finishing in Lithomex with a false struck joint is the ideal solution.

If building details are damaged and require repair prior to the facade being lime washed or painted, plain Lithomex should be used as it will readily accept lime washes and paints.

On rendered areas Lithomex can be used to form decorative stone or brick features such as mouldings and cornices.

Technical Data

Bulk density:(kg/m³) : 1325 - 1360

Granulometry: from 0.8 to 0.08mm

Consumption: 1.6 to 1.7 kg. per m² per mm. of thickness

Setting time (in water with no surcharge): start 1h30min / end 2h30min. Tests on paste (water addition 18.7%)

Tests on hardened mortar (water addition at 18.7%)				
Capillarity 2.06 gr.cm ² . root2 min		LOW tested at 28 days		
Water permeability 2.5 litres x m ² x day		LOW tested at 28 days		
Vapour permeability 0.75gr.m ² .hour.mmHg		VERYHIGH tested at 28 days		
	Tensile Strength	Compressive Strength	Elasticity Moduli	Shrinkage

	N/mm ²	N/mm ²	MPa	mm.m
7 days	2.20	6.20		0.81
28 days	2.38	7.25	7690	0.85

Stone Repair Mortar - Lithomex from St Astier

Plastic repair materials for natural stone and masonry

See Also: [Lithomex Datasheet](#) [Lithomex Health and Safety Information](#)

The term plastic repair is generally held within the construction industry to be the application of a wet plastic repair mortar, usually cementitious in nature, to the eroded, damaged face or edges of natural stone masonry to return it to its former shape or plane with any former decorative detailing applied to the repair in such a way as to as closely as possible reproduce the host masonry. Most plastic repairs are coloured to match the recipient masonry.

Plastic repairs are usually carried out as a low cost means of repairing masonry facades or individual units of masonry. In practice they are often carried out by low skilled labour with little attention to the quality of the finish and little regard to the materials used, so long as the repair looks reasonable, rather than performing any specific function.

Plastic repairs can and should be more correctly called patch repairs and should be used to reinstate details, line, level and planes of masonry that left without repair will result in undue weathering of surrounding masonry, leading to accelerated decay of otherwise sound elements. In addition, they offer a significant advantage over wholesale masonry replacement.

Much of the masonry replaced in the last 30 years or so has resulted in partial or complete removal of predominantly structurally sound masonry that has suffered from little more than face weathering, often through neglect and lack of maintenance of basic building details such as gutters and down pipes.

The arbitrary use of replacement stone in these circumstances has left many buildings with thin skins of new stone, seldom matching the true characteristics of the original, and often leading to highly invasive intervention in what was an otherwise stable structure. Many of the thin skins are backed up in concrete, brick or any number of inappropriate mediums, or indeed with significant voids left behind the new veneers.

For surface repairs to be successful the materials employed need to have certain characteristics. They should:

Have characteristics similar to the host masonry.

Have adequate bond strength.

Have a good modulus of elasticity.

Be vapour permeable.

Be durable.

Be capable of being dressed with similar tools to the original masonry.

Remain workable long enough to allow details to be fashioned.

Match in colour and texture.

Adsorb water sufficiently in wetting and drying periods to match adjacent masonry.

They must always be reversible.

They should never:

Become significantly stronger than surrounding masonry.

Have a significantly lower rate of Absorption or Adsorption than surrounding units.

Create a barrier to Diffusion.

For materials to meet these criteria, the materials themselves do not require to match every characteristic of the host masonry.

The main visual characteristic of masonry is colour, matching of colour can be subjective, different people see colour in different ways, many men for instance are red green colour blind to a greater or lesser degree, so one person may see a colour match differently from another, but it is generally controllable.

Lithomex can be accurately colour matched with proven light fast pigments.

The finish of a repair material is subject to some degree of licence from the applicator and is not directly attributable to the material, although if the material can be worked correctly with traditional tools after setting it will afford good physical matching.

Lithomex is capable of being dressed with standard masons tools or at time of placing by skilled operatives.

The physical properties of the masonry can and do vary from one area of the building to the next.

Absorption, is a process by which the materials take in a fluid to fill its voids. It can vary depending on a number of factors, not least the surface finishing. The finished repair mortar must have similar characteristics.

Lithomex can be seen by demonstration to Absorb water on to its set and hardened surface.

Adsorption is the process in which molecules adhere to the surface of the material, and should be similar in the repair material.

Surface Adsorption is noticeable in Lithomex repairs

Ageing is due to the changing of properties and appearance of materials with time (natural process) and is often a function of the previous two characteristics.

Lithomex does weather as a result of both of the above being sufficiently absorbent to take in pollutants over time, although not unduly.

Breathe-ability The extent to which a building material is able to allow moisture to move to the surface and evaporate harmlessly should be at least matched or exceeded by the repair material. The greater the degree of breathe-ability of the repair material the faster the release of moisture from the host masonry.

Lithomex has a very high degree of Breathe-ability by virtue of its Vapour Permeability.

Capillarity - the ability of a material that is in contact with water, to raise water through capillary canals (capillaries). This is not a desirable quality of any construction or repair material. Capillary pores occur mainly in dense cement materials and hold water, reducing evaporation, many naturally occurring sandstones do have a degree of capillarity, but it is seldom continuous.

Porosity - defines the amount of holes (pores) in the unit of the material volume and can have a bearing on the durability and breathe-ability of the masonry and the repair material. The porosity of the masonry and the repair material is a function of the Pore size
Pore dimensions cover a very wide range. Pores are classified according to three main groups depending on the access size

- Micropores: less than 2 microns diameter
- Mesopores: between 2 and 50 microns diameter
- Macropores: larger than 50 microns diameter

Matching the porosity is not therefore essential, what is essential is to maintain good Breathe-ability, this is a function of the extent and nature of interlinked pores. There are two main and important typologies of pores: closed and open pores. Closed pores are completely isolated from the external surface, not allowing the access of external fluids in neither liquid nor gaseous phase. Closed pores influence parameters like density, mechanical and thermal properties. Open pores are connected to the external surface and are therefore accessible to fluids, depending on the pore nature/size and the nature of fluid. Open pores can be further divided in dead-end or interconnected pores.

Suitable repair materials should have interconnected pores-Micropores structure with tiny microscopic holes or pores approximately 5 microns in diameter interlinking the general pore structure. Water droplets are typically 500-5000 microns in diameter 'drizzle' droplets can be as small as 200 microns in diameter. Attraction between the water molecules forces molecules to group together in a droplet. Water droplets are too large to penetrate the Micropores without substantial pressure. It is difficult for water droplets to pass through, and therefore the material is reasonably waterproof. Water vapour molecules are much smaller (typically less than 0.0003 microns) and pass easily through the holes, carrying moisture away.

Lithomex does have some Porosity, but this is not linked to Capillarity

Materials that are suitable for masonry repairs should have a measurable and high vapour permeability range.
As a comparison, the following charts show the vapour permeability range of cement lime sand mixes against different lime mortar mixes.

Portland cement mixes.	1:1:6	1:2:9
Permeability (Vapour exch.Gr of air x m ² x hour x mmHg	0.23	0.25
Lime Mortar Mixes	1:3	2:5>

Permeability (Vapour exch.Gr of air x m ² x hour x mmHg	0.63	0.71
Hydraulic Lime Mortar Mixes (NHL 5 / NHL2)	1:3	1:3
Permeability (Vapour exch.Gr of air x m ² x hour x mmHg	0.52	0.71

Lithomex has a vapour permeability figure of 0.75

	Tensile Strength N/mm ²	Compressive Strength N/mm ²	Elasticity Moduli MPa
7 Days	2.20	6.20	
28 Days	2.38	7.25	7,690
Tests on hardened mortar (water addition at 18.7%)			
Capillarity	2.06 gr.cm ² . √2 min	LOW	Tested at 28 days
Water permeability	0.25 ml.m.day	LOW	Tested at 28 days
Vapour permeability	0.75 gr.m ² .hour.mmHg	VERYHIGH	Tested at 28 days

The Modulus of elasticity is a key component in the ability of the material to flex with the stress imposed during curing and later through thermal, physical movement etc. the lower the number the greater the degree of flexibility. A cement lime sand mix of 1:1:6 ratio has a modulus of elasticity at 28 days of 16,200 compared with Lithomex at 7690 and lime putty in a 1:3 ratio with sand of approximately 9,000.

The compressive strength of Lithomex 7.25 N/mm² sufficiently high enough for the material to be robust enough for general conditions is considerably lower than most masonry units including soft-fired hand made bricks that usually have a compressive strength around 8-14 N/mm². Sandstones fall in the range 20-100N/mm². Lithomex is not suitable for step or tread repairs. For step and tread repairs Litholiant is a powder to which aggregates similar to the original stone is added. This will make a material suitably robust for aggressive wear conditions.

Appendix C: Renderoc Data Sheet

Fosroc®

Renderoc ST 05



constructive solutions

High performance, multi-purpose cementitious protective coating, fairing and levelling mortar for applications from feather edge to 5mm, conforming to the requirements of BS EN 1504-3 Class R4

Uses

Renderoc ST 05 is a polymer modified cementitious material for application to concrete, masonry, brick/blockwork and mild steel. Renderoc ST 05 can be applied to floors, walls and ceilings, both indoors and outdoors.

It can be used as a thin-section repair mortar for discrete patch repairs, for filling of blowholes and other imperfections and as a reprofiling mortar / fairing coat over large areas. After curing the material can either be left as a self-finish or overcoated. Renderoc ST 05 acts as a chloride and carbonation barrier, it can therefore be used to increase or restore effective cover to steel reinforcement at substantially lower application thickness than normal concrete.

As a moisture barrier it provides water pressure resistance as well as resistance to aggressive ground water, certain chemicals and mild acids. Typical applications include basement wall lining, construction joint over-banding, swimming pools (prior to application of tiles), marine structures and potable water tanks. (See Limitations)

Renderoc ST 05 provides excellent wear resistance, it can therefore be used in areas subject to traffic such as balconies and walkways.

Renderoc ST 05 can be applied to properly prepared steelwork as a barrier coating. Typical applications include onto cut ends of reinforcement bars in core holes and service penetrations, as well as where protection and repair to concrete encased steel beams and girders are required (in conjunction with a thick section Renderoc repair mortar).

Renderoc ST 05 is suitable for repair methods:

1.3, 2.2, 5.1, 6.1 and 8.2 as defined by BS EN 1504-2:
3.1, 7.1 and 7.2 as defined by BS EN 1504-3 WRAS approved when cured for 21 days at 7°C.

Advantages

- Easy to mix and apply
- Can be applied vertically, horizontally and overhead
- Excellent bond to concrete without priming
- Abrasion resistant, can be subjected to traffic
- Carbonation barrier
- Chloride barrier
- High frost resistance
- High compressive strength



CE 0370 09 0370-CPR-0845	UK CA 0836 22 UK 0836-CPR-21/F508 UK 0836-CPR-22/F6049 UK 0836-CPR-21/F510
DOP: UK9-14	
Fosroc International Limited	
Drayton Manor Business Park, Coleshill Road, Tamworth, B78 3XN, UK	
Renderoc ST05	
EN1504-2: Surface protection systems methods 1.3, 2.2, 5.1, 6.1 and 8.2	
EN1504-3: Structural and non-structural repair methods 3 and 7	
EN1504-7: Reinforcement Corrosion Protection, method 11.2.	
Adhesion strength by pull-off test	≥2.0 MPa
Reaction to fire	Class A2 s1 d0
Dangerous substances	Complies with 5.4
Permeability to CO ₂	sd > 50 m
Permeability to water vapour	Class 1
Capillary absorption and permeability to water	≤ 0.1 kg/m ² h ^{0.5}
Abrasion resistance	< 3000 mg
Impact resistance	Class II
Chemical resistance	Class II
Compressive strength	Class R4: ≥ 45 MPa
Chloride ion content	≤ 0.05 %
Carbonation resistance	≤ ref. concrete
Thermal compatibility: freeze-thaw cycling with immersion	≥ 2.0 MPa
Corrosion protection	Pass

Renderoc ST 05

Properties

Material tested at liquid : powder ratio of 0.22 and temperature at 20°C

Test method	Standard	EN 1504 Requirement	Test result
Compressive Strength	EN 12190:1999	≥ 45 MPa	@ 1 Day 13 MPa @ 3 Days 26 MPa @ 7 Days 37 MPa @ 28 Days 50 MPa
Bond strength by pull off:	EN 1542:1999	≥ 2.0 MPa	2.8 MPa
Chloride ion content:	EN 1015-17:2000	≤ 0.05 %	0.01%
Freeze thaw cycling:	EN 13687-1:2002	≥ 2.0 MPa	2.7 MPa
Resistance to carbonation d_k	EN 13295:2005	≤ ref concrete	Pass
Fire rating	EN 13505-1	-	Class A2 S1 d0 (Non-Combustible)
Flexural strength	Method TI-B 27	-	11 MPa @ 28 days
Fresh wet density	-	-	Nominally 1950 kg/m³
Alkali reactive particles	Method TI-B 52	-	≤ 1% vol%
Resistance to severe chemical attack	EN 13529	Hardness reduction < 50% Class III - 28 days with pressure	Class III in groups 3,10,11,12,14a
Capillary absorption	EN 13057	≤ 0.5 kg/m²h ^{0.5}	0.2 kg/m²h ^{0.5}
Application of repair mortar overhead	EN 13395-4	≥ 2 MPa	2.8 MPa
Permeability to water vapour	EN ISO 7783-2	-	Sd 0.48m (Class I)
Determination of liquid water transmission	EN 1062-3	≤ 0.1 kg/m²h ^{0.5}	0.08 kg/m²h ^{0.5}
Permeability to CO ₂	EN 1062-6	Sd > 50 m	Sd = 57 m
Abrasion resistance	EN ISO 5470 -1	Weight loss < 3000 mg	2785 mg
Impact resistance	EN ISO 6272-1	Class III ≥ 20 Nm	24.5 Nm
Chloride ion ingress	EN 13396	-	0.171% after 6 months in 3% NaCl solution at 4-6 mm depth
Chloride penetration (w/c 0.45)	NT Build 443	-	1 mm of Renderoc ST 05 is equivalent to 13mm of concrete with a 0.45 w/c ratio
Carbonation Barrier Properties	NT Build 357	-	<R(b) = 21 mm for a 2 mm thickness of Renderoc ST 05
Corrosion Protection	EN 15183:2007	Specimens free of corrosion & rust creep	Pass (bars and plates)

Clarification of property values: The typical properties given above are derived from laboratory testing. Results derived from testing field applied samples may vary.

Build characteristics	Thickness	Volume of liquid per 20kg bag of powder	Coverage per pack (Coverage can vary due to substrate)
Vertical applications: Brush/roller Trowel Trowel blow hole filler	1 mm 2 mm Skim applied	4.5 - 5.0 litres 4.0 - 4.5 litres 5 litres	11.5 - 12 m² @ 1 mm 5.5 - 5.75 m² @ 2 mm Circa 12m² dependent on surface
Horizontal applications: Trowel / screed Brush / roller	5 mm 2 mm	4.5 - 5 litres 5 litres	2.2 - 2.4m² @ 5mm 5.75 - 6.0 m² @ 2 mm



constructive solutions

Fosroc®

Renderoc ST 05

Description

Renderoc ST 05 consists of powder and polymer components. The powder is added to the liquid, the mixing ratio depends on the required consistency and use. The consistency of the product may be adjusted as required for application by trowel, brush or roller, in thicknesses from 0-5mm in a single layer.

The powder consists of a blend of cements, graded aggregates and chemical additives, with a maximum grain size of 0.5 mm.

The liquid component, based on modified acrylic polymers, gives Renderoc ST 05 a creamy consistency with extremely good application and barrier characteristics.

The product exhibits excellent thermal compatibility with concrete and is fully compatible with other Renderoc mortars and Dekguard coatings.

Specification Clause

The protective and levelling mortar shall be Renderoc ST 05, a two component powder and polymer mortar conforming to the requirements of BS EN 1504-3 Class R4. The cured mortar shall achieve a compressive strength of 50 MPa at 28 Days and Carbonation Barrier Properties of $<R(b) = 21$ mm for a 2 mm thickness when tested in accordance with NT Build 357. The product shall be mixed, applied and cured in accordance with the manufacturer's written instructions to a correctly prepared substrate.

Standards Compliance

Renderoc ST 05 complies with repair principles 1.3, 2.2, 5.1, 6.1 and 8.2 as defined by BS EN 1504-2

Renderoc ST 05 complies with Class R4 according to BS EN 1504-3, repair principles 3.1, 7.1, 7.2.

Renderoc ST 05 is defined as a barrier coating according to BS EN 1504-7, repair principle 11.2.

Renderoc ST 05 complies with LU Standard 1-085 'Fire Safety Performance of Materials'

Water Regulations Advisory Scheme Approved.
BS 6920:2014 Effect on Water Quality.

Application Instructions

Preparation

Concrete, masonry, brick, block and steel surfaces must be clean and sound, with no traces of loose material, cement paste, laitance, dust, plaster, oil, grease, corrosion deposits or algae. Prepare the surfaces by mechanical means. Remove oil and grease with suitable detergent. Finally the cleaned surfaces should be blown clean with oil free compressed air before continuing.



If Renderoc ST05 is to be used in conjunction with Protectosil CIT corrosion inhibitor, always apply Protectosil CIT prior to Renderoc ST05. Allow Protectosil CIT to fully dry before proceeding with Renderoc ST05 application.

For repairs to concrete clad steel beams, break out any spalled concrete back to the steel below. Prepare steel surface as described above.

On floors or walls, small areas greater than 5mm depth should be filled with Renderoc Patch. On floors, larger areas >12mm depth may also be filled with Patchroc GP. Finish either material with a scratch comb. Application of Renderoc ST05 may commence once the chosen infill material has reached its final set (typically 1 – 2 hours depending on temperature). Refer to the Renderoc Patch or Patchroc GP datasheets for further details.

Refer to HSE information sheet CIS36 regarding control of exposure to construction dust, available at www.hse.gov.uk.

Pre-soaking

Porous substrates should be thoroughly soaked with clean water prior to application of Renderoc ST 05, to achieve a saturated surface dry condition. Any residual surface water should be removed prior to application.

Priming

Under normal circumstances priming is not required. However, very porous substrates may require sealing with Nitobond AR, diluted 1:10 with water. This is scrubbed onto the pre-wetted substrate and allowed to become tacky before applying Renderoc ST 05.

Mixing

Renderoc ST 05 should be mixed in a forced action mixer of adequate capacity. Mixing in a suitable sized drum using a Conbextra paddle with a slow speed (500 rpm) heavy-duty drill is acceptable.

Place the required amount of Renderoc ST 05 liquid component (see table) in the mixer and add the full bag of Renderoc ST 05 powder. Mix for 5 minutes until fully homogeneous. Let the mix rest for 5-10 minutes and adjust the consistency, if necessary by addition of additional liquid component. Mix for another minute until the required consistency is obtained. Polymer level can be varied to application method.

Mixing ratios: Refer to table on previous page.

Application to porous substrates

Renderoc ST 05 can be applied by brush, roller or trowel depending on consistency and application. See table.

The surface finish of the final coat can be obtained in the following ways:

- I) Smooth surface: Finish with a sponge.
- II) Rough, granulated surface: Finish with a roller.
- III) Skid resistant surface: Sprinkle dry quartz sand in the wet surface or brush finish.

Fosroc®

Renderoc ST 05

Application to steel

Apply two coats, each at a minimum of 1mm thickness. The 2nd coat should be finished in a direction at right angles to the first.

For application over cut ends of reinforcement bars, ensure a 20mm overlap onto the surrounding concrete.

For repairs to concrete encased steel frames, once the 2nd coat of Renderoc ST 05 has cured, a thick section repair system can be subsequently applied. Refer to the chosen Renderoc product for further details.

Multiple layers

When applying multiple layers, allow the first application to dry for between 2-4 hours (at 20°C). Lightly scratch and dampen surface between layers.

Note: when applying in layers, the maximum total thickness is 15mm.

Low temperature working

Normal precautions for winter working with cementitious materials should be adopted. In cold conditions down to +5°C, both components should be kept at +15°C to +25°C prior to use. Protect applied product from freezing for the first 24 hours.

Note: working time and time taken to gain strength will be increased at lower temperatures.

High temperature working

At ambient temperatures above 35°C both components should be stored in the shade. Note working times will be reduced at elevated temperatures.

Curing

Renderoc ST 05 is a cement-based repair mortar. In common with all cementitious materials, it must be cured immediately after finishing in accordance with good concrete practice. The use of Nitobond AR, sprayed on to the surface of the finished mortar in a continuous film, is recommended. A low pressure atomising sprayer is essential for applying the Nitobond AR. Any excessive run-off on verticals or drips on soffits should be removed by brush before they harden.

Large areas should be cured as trowelling progresses (0.5 m² at a time) without waiting for completion of the entire area. If applying Renderoc ST 05 in multiple layers, only the final layer requires curing with Nitobond AR.

Renderoc ST 05 can be subjected to foot traffic after 12 hours at 20°C.

Applications covered by the Water Regulations Advisory Scheme - Approved Material: mix and apply as per manufacturer's instructions. WRAS approved when cured for 21 days at 7°C. Cold water use only.

Application over Existing Coatings

Renderoc ST 05 is formulated for application to clean, sound substrates, however application over existing acrylic based coatings or paints may be possible in certain circumstances where filling or smoothing over undulations in the substrate is required before overcoating. Before proceeding, the bond strength of the existing coating to the substrate should be assessed, followed by a test panel application of Renderoc ST 05 with a bond strength test and compatibility assessment conducted.

Renderoc ST 05 should not be applied over elastomeric coatings, epoxy, polyurethane, polyurea, polyaspartic or MMA based coatings, or over any coating subject to traffic. In such circumstances the existing coating should be removed. The existing coating should be prepared by high pressure water jetting, any areas of flaking or crazing in the existing coating should be removed back to an area soundly bonded. Application thickness of Renderoc ST 05 when applied over existing coatings should not exceed 2mm.

When applied over existing coatings or paints, the performance characteristics and bond of Renderoc ST 05 may be impaired and its fire rating invalidated.

Overcoating with protective decorative finishes

Renderoc ST 05 is extremely durable and will provide long-term protection to the embedded steel reinforcement within the repaired locations. The surrounding parts of the structure will benefit from the application of a barrier/decorative coating to limit the advance of chlorides and carbon dioxide, bringing them to the same protective standard as the repair itself. Fosroc recommend the use of the Dekguard range of protective, anti-carbonation coatings. These products provide a decorative and uniform appearance as well as protecting areas of the structure which might otherwise be at risk from the environment. Dekguard products may be applied over the repair area without prior removal of the Nitobond AR curing membrane. Other curing membranes must be removed prior to the application of Dekguard products.

Cleaning

Renderoc ST 05 should be removed from tools, equipment and mixers with clean water immediately after use. Cured material can only be removed mechanically.

Estimating

Supply

Renderoc ST 05 is supplied in 20kg bags of powder and 5.0 litres of liquid.



Fosroc®

Renderoc ST 05

Coverage and yield

Approximately 12 litres per pack depending on mix ratio - see table for coverage.

Limitations

Renderoc ST 05 should not be applied when the substrate and/or air temperature is below +5°C and falling.

Application at high humidity and/or on a falling thermometer may result in a white surface discolouration. This will not affect product performance and should decrease with time.

Potable water tanks are for use on consumer premises only. This product is not DWI listed.

Not suitable for heavily trafficked floors.

Exposure to rainfall prior to the final set may result in water uptake and severe reduction in the performance of the hardened product. Exposure to mist or high humidity prior to sufficient hardening may result in discolouration of the surfaces. These white discolourations will decrease with time.

Renderoc ST05 should not be used in areas where Fosroc Nitodek FS is to be subsequently applied.

Storage

Renderoc ST 05 Powder has a shelf life of 12 months if kept in a dry store in the original, unopened packaging. If stored at high temperatures and/or high humidity conditions the shelf life may be reduced.

Renderoc ST 05 Liquid has a shelf life of 12 months if kept in a dry store in the original, unopened packaging. The liquid should be protected against frost. If the product has been exposed to frost and the liquid component becomes grainy, it should not be used.

Precautions

Health and safety

For further information refer to the Safety Data Sheets available at www.fosroc.com.

Fosroc, Renderoc and Dekguard are trademarks of Fosroc International Limited



Important note

Fosroc products are guaranteed against defective materials and manufacture and are sold subject to its standard Conditions for the Supply of Goods and Services, copies of which may be obtained on request. Whilst Fosroc endeavours to ensure that any advice, recommendation, specification of information it may give is accurate and correct, it cannot, because it has no direct or continuous control over where or how its products are applied, accept any liability either directly or indirectly arising from the use of its products, whether or not in accordance with any advice, specification, recommendation of information given by basis. All Fosroc datasheets are updated on a regular basis. It is the user's responsibility to obtain the latest version.

Fosroc International Limited

Drayton Manor Business Park
Coleshill Road, Tamworth,
Staffordshire B78 3XN, UK

telephone:
+44 (0)1827 262222

fax:
+44 (0)1827 262444

email:
enquiryuk@fosroc.com

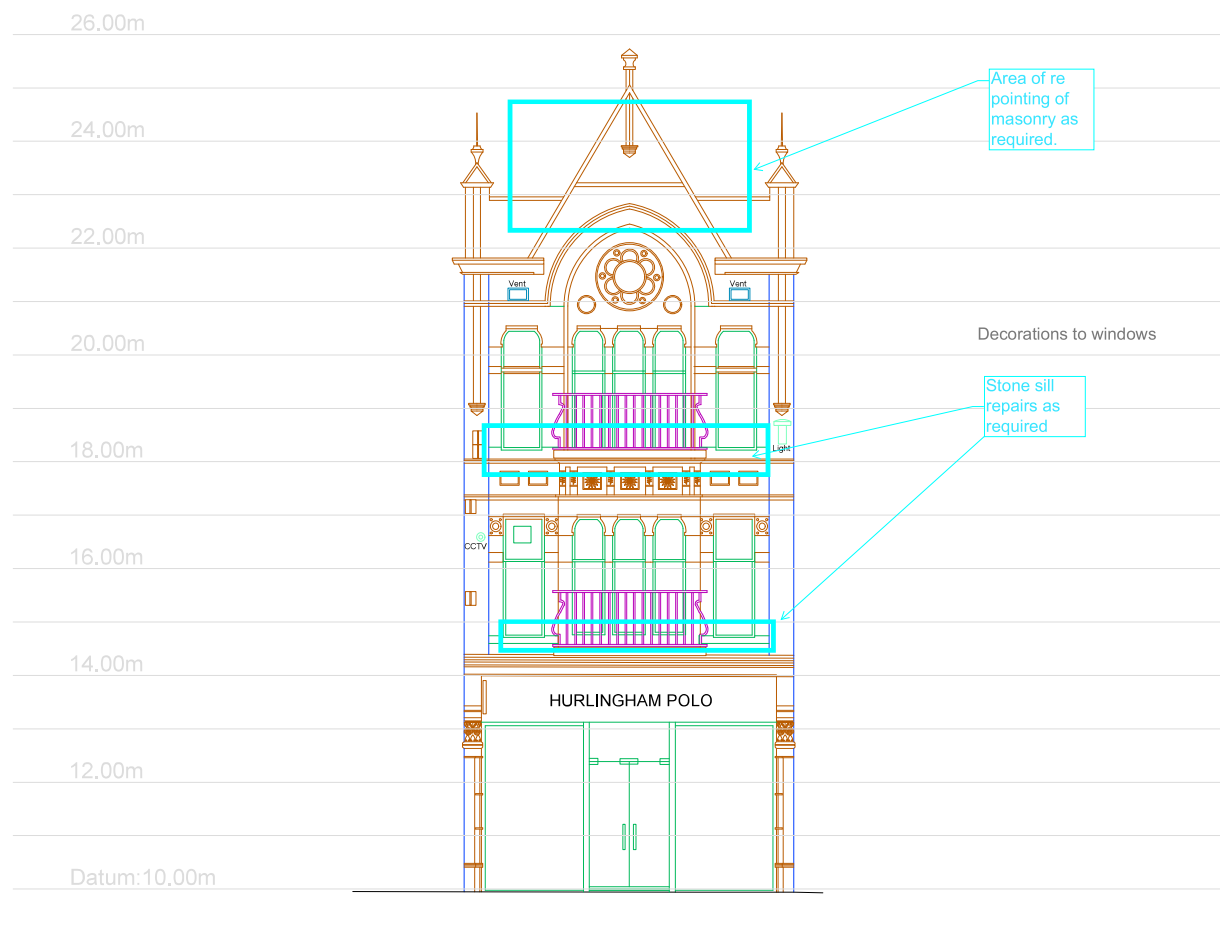


www.fosroc.com

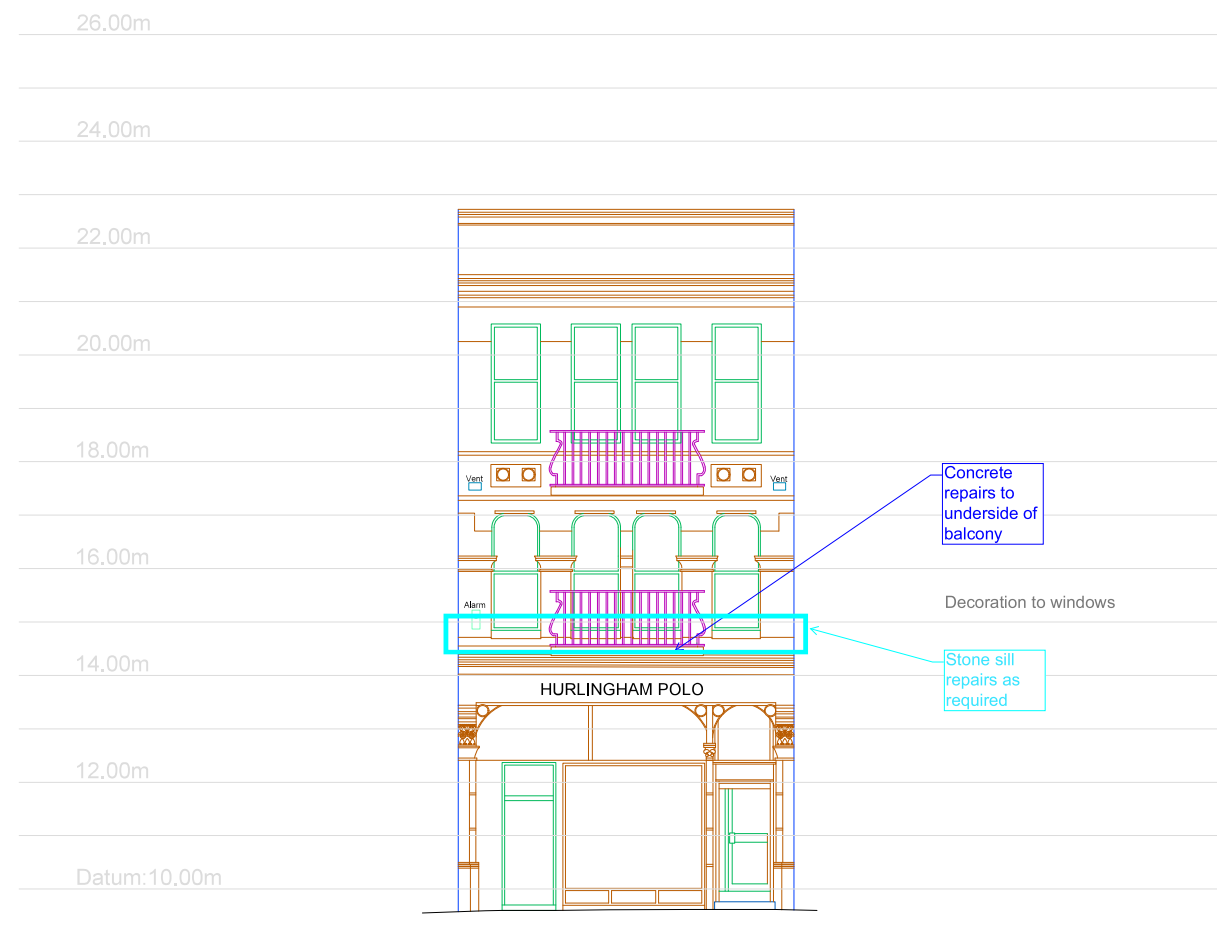
December 2022

Appendix D: Elevation Drawings

48 King Street Elevations



Elevation 1



Elevation 2

Topographic Legend

-----	Bottom of Bank	~~~~~	OH Electric
-----	Top of Banking	~~~~~	Railway Line
-----	Building	~~~~~	Road Centre
-----	Building Canopy	~~~~~	Road Markings
-----	Concrete Base	~~~~~	SC Hard Hat
-----	Contour Major	~~~~~	SC Hard-Soft
-----	Contour Minor	~~~~~	SC Soft-Soft
-----	Fences	~~~~~	Slope
-----	General	~~~~~	Tree Canopy
-----	Kerb Bottom	~~~~~	Vegetation
-----	Kerb Drop	~~~~~	Visible Trench
-----	Kerb Top	~~~~~	Walls
-----	OH Comm	~~~~~	Water Edge

Topographic Abbreviations			
AV	Air Valve	PB	Pedestrian Beacon
BO	Borehole	PBX	Post Box
BO(L)	Borehole	PGR	Pedestrian Guard Rail
BS	Burn Site	PL	Post Light
CB	Cabinet	PO	Post
COL	Cover Level	RE	Rodding Eye
CO	Column	RP	Road Sign (Illuminated)
Conto	Concrete	RWP	Rain Water Pipe
CP	Cable Channel	SD	Shallow Drain
DFBIN	Down (Buried)	SPCam	Speed Camera
DP	Down Pipe	ST	Stop
EL	Electricity	SV	Street Valve
ER	Earth Road	SVP	Soil Vent Pipe
FFL*	Finished Floor Level	TBox	Telephone Box
FL	Fire Hose	TL	Top of Light
GP	Gas Pipe	TBox	Top of Fence Level
GV	Gas Valve	U	Up
GV	Gas Valve	TP	Telecoms Pole
Gy	Gully	VP	Vent Pipe
I	Inspection Cover	W	Water
KC	Keib Coult	WB	Water Bottom Level
LP	Lamp Post	WM	Window Meter
M	Manhole	WC	Water Closet
MR	Marker	WT	Window Top Level
MP	Marker Post	WV	Water Valve
	MW	Monitoring Well	

Measured Building Legend

	External Building Line
	Internal Building Line
	Building Overheads
	Stairs/Steps
	Doors
	Windows
	Sanitaryware
	Kitchen Furniture
	Direction of Stairs (Arrow points up)
	Direction of Stair Ceiling (Arrow points down)
	Window Sill and Head Height
	Double door
	Single door
	Window
	Ceiling Height
	False Ceiling Height
	Finished Floor Level

Utility Legend

	Air Line		SWD Sewer
	Alarm Cable		Survey / Potential
	BT Cable		Heating Pipe
	CATV Cable		HV Electric Cable
	Chamber Extent		Kingston Corrosion
	Comms Cable		Oil Pipe
	CWD Sewer		Rising Main
	Earth Wire/Tape		Traffic Control
	Electric Cable		Unknown Detection
	Fibre Optic Cable		Vent Pipe
	Fuel Line		GPR Detection
	FWD Sewer		Assumed Route
	Gas Pipe		Recorded Route
			Cable Rider
	Band of Cables		Drainage
	Empty Service Duct		Backdrop

Utility Abbreviations

CP	Cathodic Protection	LoS	Loss of Signal
Cut	Disconnected Utility	MDPE	Medium Density PE
DI	Disinfectant Iron	SI	Soft Iron
DoB	Depth of Bottom	TLC	Traffic Light Control
DoC	Depth of Cover	UDI	Unstable Depth Info
ED	Empty Duct		Unpasticized
EoT	End of Trace	uPVC	Polyvinyl Chloride
PE	Polyethylene	UTR	Unable to Raise
HDPE	High Density PE	VC	Vitrified Clay

	Manufacturer Stated Depths
10' - 12'	10' - 12'
12' - 14'	12' - 14'
14' - 16'	14' - 16'
16' - 18'	16' - 18'
18' - 20'	18' - 20'
20' - 22'	20' - 22'
22' - 24'	22' - 24'
24' - 26'	24' - 26'
26' - 28'	26' - 28'
28' - 30'	28' - 30'
30' - 32'	30' - 32'
32' - 34'	32' - 34'
34' - 36'	34' - 36'
36' - 38'	36' - 38'
38' - 40'	38' - 40'
40' - 42'	40' - 42'
42' - 44'	42' - 44'
44' - 46'	44' - 46'
46' - 48'	46' - 48'
48' - 50'	48' - 50'
50' - 52'	50' - 52'
52' - 54'	52' - 54'
54' - 56'	54' - 56'
56' - 58'	56' - 58'
58' - 60'	58' - 60'
60' - 62'	60' - 62'
62' - 64'	62' - 64'
64' - 66'	64' - 66'
66' - 68'	66' - 68'
68' - 70'	68' - 70'
70' - 72'	70' - 72'
72' - 74'	72' - 74'
74' - 76'	74' - 76'
76' - 78'	76' - 78'
78' - 80'	78' - 80'
80' - 82'	80' - 82'
82' - 84'	82' - 84'
84' - 86'	84' - 86'
86' - 88'	86' - 88'
88' - 90'	88' - 90'
90' - 92'	90' - 92'
92' - 94'	92' - 94'
94' - 96'	94' - 96'
96' - 98'	96' - 98'
98' - 100'	98' - 100'
100' - 102'	100' - 102'
102' - 104'	102' - 104'
104' - 106'	104' - 106'
106' - 108'	106' - 108'
108' - 110'	108' - 110'
110' - 112'	110' - 112'
112' - 114'	112' - 114'
114' - 116'	114' - 116'
116' - 118'	116' - 118'
118' - 120'	118' - 120'
120' - 122'	120' - 122'
122' - 124'	122' - 124'
124' - 126'	124' - 126'
126' - 128'	126' - 128'
128' - 130'	128' - 130'
130' - 132'	130' - 132'
132' - 134'	132' - 134'
134' - 136'	134' - 136'
136' - 138'	136' - 138'
138' - 140'	138' - 140'
140' - 142'	140' - 142'
142' - 144'	142' - 144'
144' - 146'	144' - 146'
146' - 148'	146' - 148'
148' - 150'	148' - 150'
150' - 152'	150' - 152'
152' - 154'	152' - 154'
154' - 156'	154' - 156'
156' - 158'	156' - 158'
158' - 160'	158' - 160'
160' - 162'	160' - 162'
162' - 164'	162' - 164'
164' - 166'	164' - 166'
166' - 168'	166' - 168'
168' - 170'	168' - 170'
170' - 172'	170' - 172'
172' - 174'	172' - 174'
174' - 176'	174' - 176'
176' - 178'	176' - 178'
178' - 180'	178' - 180'
180' - 182'	180' - 182'
182' - 184'	182' - 184'
184' - 186'	184' - 186'
186' - 188'	186' - 188'
188' - 190'	188' - 190'
190' - 192'	190' - 192'
192' - 194'	192' - 194'
194' - 196'	194' - 196'
196' - 198'	196' - 198'
198' - 200'	198' - 200'
200' - 202'	200' - 202'
202' - 204'	202' - 204'
204' - 206'	204' - 206'
206' - 208'	206' - 208'
208' - 210'	208' - 210'
210' - 212'	210' - 212'
212' - 214'	212' - 214'
214' - 216'	214' - 216'
216' - 218'	216' - 218'
218' - 220'	218' - 220'
220' - 222'	220' - 222'
222' - 224'	222' - 224'
224' - 226'	224' - 226'
226' - 228'	226' - 228'
228' - 230'	228' - 230'
230' - 232'	230' - 232'
232' - 234'	232' - 234'
234' - 236'	234' - 236'
236' - 238'	236' - 238'
238' - 240'	238' - 240'
240' - 242'	240' - 242'
242' - 244'	242' - 244'
244' - 246'	244' - 246'
246' - 248'	246' - 248'
248' - 250'	248' - 250'
250' - 252'	250' - 252'
252' - 254'	252' - 254'
254' - 256'	254' - 256'
256' - 258'	256' - 258'
258' - 260'	258'

- Detected Using Electromagnetic Location Methods
e.g. Any metallic pipe/cable. Accuracy $\pm 2.5\%$ of depth reading.
- Detected Using Electromagnetic Location Methods
e.g. Using a Sonde to locate drainage pipework
Accuracy $\pm 2.5\%$ of depth reading.
- Detected Using Ground Penetrating Radar
e.g. A plastic pipe or service not located by other means.
Accuracy depends on ground conditions.

CAUTION LIVE SERVICES PRESENT - EXTREME CARE
SHOULD BE TAKEN WHEN EXCAVATING

ZS Surveys Ltd., and their agents or partners, are not responsible for any situation or loss resulting from actions or planning resulting from total reliance upon this drawing or accompanying information. The completeness of the underground network information cannot be wholly guaranteed and as such no guarantees or warranties are provided or implied. The information is for informational purposes only and does not positively indicate whether it is live or dead. A service indicated from records that has not been located or identified on site does not necessarily imply that it does not exist or is dead; however, its presence should be anticipated.

Electromagnetic detection techniques are not infallible and ground probing for the actual position and depth of services should be established.

If this drawing and any associated drawings should be used in relation to works, we advise that the users of this information follow the principles detailed by the Health and Safety Executive guidance directive HSG 47, 'Avoiding Danger from Underground Services'. Further details of this directive are available at www.hse.gov.uk <<http://www.hse.gov.uk>>

Notes

THIS DRAWING SHOULD ONLY BE USED FOR ITS ORIGINAL PURPOSE.
ZS SURVEYS LTD. ACCEPTS NO RESPONSIBILITY FOR THIS DRAWING IF
SUPPLIED TO ANY PARTY OTHER THAN THE ORIGINAL CLIENT.

ALL LEVELS RELATE TO LOCAL LEVEL OF 10.00M FOR THE GROUND
FLOOR

ALL DIMENSIONS SHOULD BE VERIFIED ON SITE PRIOR TO
CONSTRUCTION.

ALL HATCHING IS FOR PRESENTATIONAL PURPOSES ONLY.

Client	 BELSTAFF ENGLAND 1924		
Site Location:	50 KING STREET MANCHESTER M2 4ND		
Drawing Type:	Measured Building Survey		
Surveyed:	CR	Drawn:	SS
Checked:	ZH	Authorised:	SS
Date:	08/4/2024	Scale:	1:50@A0
			
Land, Building & Engineering Surveys www.zssurveys.com  info@zssurveys.com 			
Project Number:	3737		
Sheet Number:	P4		



Elevation 3



Elevation 4

Topographic Legend

Bottom of Bank

Top of Banking

Building

Building Canopy

Concrete Base

Contour Major

Contour Minor

Fences

General

Kerb Bottom

Kerb Drop

Kerb Top

OH Comms

OH Electric

Railway Line

Road Centre

Road Markings

SC Hard Hard

SC Hard Soft

SC Soft Soft

Steps

Tree Canopy

Vegetation

Visible Trench

Walls

Water Edge

Topographic Abbreviations

AV

BH

BO(L)

BS

Cal

COL

Conc

DC

DFBin

DP

EP

ER

FFL

FH

FP

GP

GV

OY

IC

KO

LP

MH

MP

MW

Air Valve

Bowhole

Bollard (Illuminated)

Cabinet

Cover Level

Concrete

Drainage Channel

Dog Food Bin

Down Pipe

Electricity Pole

Earth Rod

Finished Floor Level

Fire Hydrant

Flag Pole

Gale Post

Gas Valve

Gully

Inspection Cover

Lamp Post

Manhole

Marker

Marker Post

Monitoring Well

PB

PBox

PGR

PM

Post

RE

RWP

SP(L)

SPCam

ST

SV

SVP

TBox

TL

TOF

TOF

TP

WB

WB

WO

WV

WV

Pedestrian Beacon

Post Box

Pedestrian Guard Rail

Parking Meter

Rodding Eye

Road Sign (Illuminated)

Rain Water Pipe

Sign Post (Illuminated)

Speed Camera

Stop Tap

Sub Vent Pipe

Telephone Box

Traffic Light

Top of Fence Level

Top of Wall Level

Telecoms Pole

Waste Bin

Waste Bin

Wash Out

Window Top Level

Water Valve

Measured Building Legend

External Building Line

Internal Building Line

Building Overheads

Stairs/Steps

Doors

Windows

Sanitaryware

Kitchen Furniture

Direction of Stairs (Arrow points up)

Direction of Skipped Ceiling (Arrow points down)

Window Sill and Head Height

Double door

Single door

Window

CH+0.00

FOH+0.00

FFL+0.00

Ceiling Height

False Ceiling Height

Finished Floor Level

Utility Legend

Air Line

Alarm Cable

BT Cable

CATV Cable

Chamber Extent

Comms Cable

CWD Sewer

Earth Wire/Tape

Electric Cable

Fibre Optic Cable

Fuel Line

FWD Sewer

Gas Pipe

Band of Cables

Empty Service Duct

SWD Sewer

Survey Extents

Heating Pipe

HV Electric Cable

Kingston Comms

CL Pipe

Rising Main

Traffic Control

Unknown Detection

Vent Pipe

QPR Detection

Assumed Route

Records Route

Cable Riser

Drainage Backdrop

Utility Abbreviations

CP

CU

CU

DoC

ED

EoT

PE

HDPE

Catholic Protection

Disconnected Utility

Drainage Iron

Depth of Bottom

Depth of Cover

Empty Duct

End of Trace

Polystyrene

High Density PE

LoS

MDPE

SI

TLC

UD

Unfinished

UPVC

UTR

VC

Loss of Signal

Medium Density PE

Span Iron

Traffic Light Control

Unfinished Depth into

Unfinished

Polyvinyl Chloride

Unlikely to Rust

Vitrified Clay

Manufacturer Stated Depths

Detected Using Electromagnetic Location Methods

e.g. Any metallic pipe/cable. Accuracy ± 2.5% of depth reading.

Detected Using Electromagnetic Location Methods

e.g. Using a Sonde to locate drainage pipework. Accuracy ± 2.5% of depth reading.

Detected Using Ground Penetrating Radar

e.g. A plastic pipe or service not located by other means. Accuracy depends on ground conditions.

CAUTION - LIVE SERVICES PRESENT - EXTREME CARE SHOULD BE TAKEN WHEN EXCAVATING

ZS Surveys Ltd., and their agents or partners, are not responsible for any situation, incident or loss resulting from actions or omissions resulting from total reliance upon this drawing or accompanying information. The completeness of the underground network information cannot be wholly guaranteed and as such no guarantees or warranties are provided or implied. The location and/or identification of a service will not positively indicate whether it is live or dead. A service indicated from records that has not been located or identified on site does not necessarily imply that it does not exist or is dead. However, its presence should be anticipated. The results of Electric Magnetic and GPR detection techniques are not infallible and ground profiling for the actual position and depth of services should be established.

If this drawing and any associated drawings should be used in relation to works, we advise that the users of this information follow the principles detailed by the Health and Safety Executive guidance directive HSG 47, "Avoiding Danger from Underground Services". Further details of this directive are available at: www.hse.gov.uk or <http://www.hsp.gov.uk/>.

Notes

THIS DRAWING SHOULD ONLY BE USED FOR ITS ORIGINAL PURPOSE. ZS SURVEYS LTD. ACCEPTS NO RESPONSIBILITY FOR THIS DRAWING IF SUPPLIED TO ANY PARTY OTHER THAN THE ORIGINAL CLIENT.

ALL LEVELS RELATE TO LOCAL LEVEL OF 10.00M FOR THE GROUND FLOOR.

ALL DIMENSIONS SHOULD BE VERIFIED ON SITE PRIOR TO CONSTRUCTION.

ALL HATCHING IS FOR PRESENTATIONAL PURPOSES ONLY.

Client

BELSTAFF

ENGLAND 1994

Site Location:

50 KING STREET

MANCHESTER

M2 4ND

Drawing Type:

Measured Building Survey

Surveyed:

CR

Drawn:

SS

Checked:

ZH

Authorised:

SS

Date:

08/4/2024

Scale:

1:50@A0

ZS Surveys Ltd

Land, Building & Engineering Surveyors

Achieve

www.zssurveys.com

info@zssurveys.com

ISO 9001

REGISTERED

CEM

REGISTERED

Project Number:

3737

Sheet Number:

P5

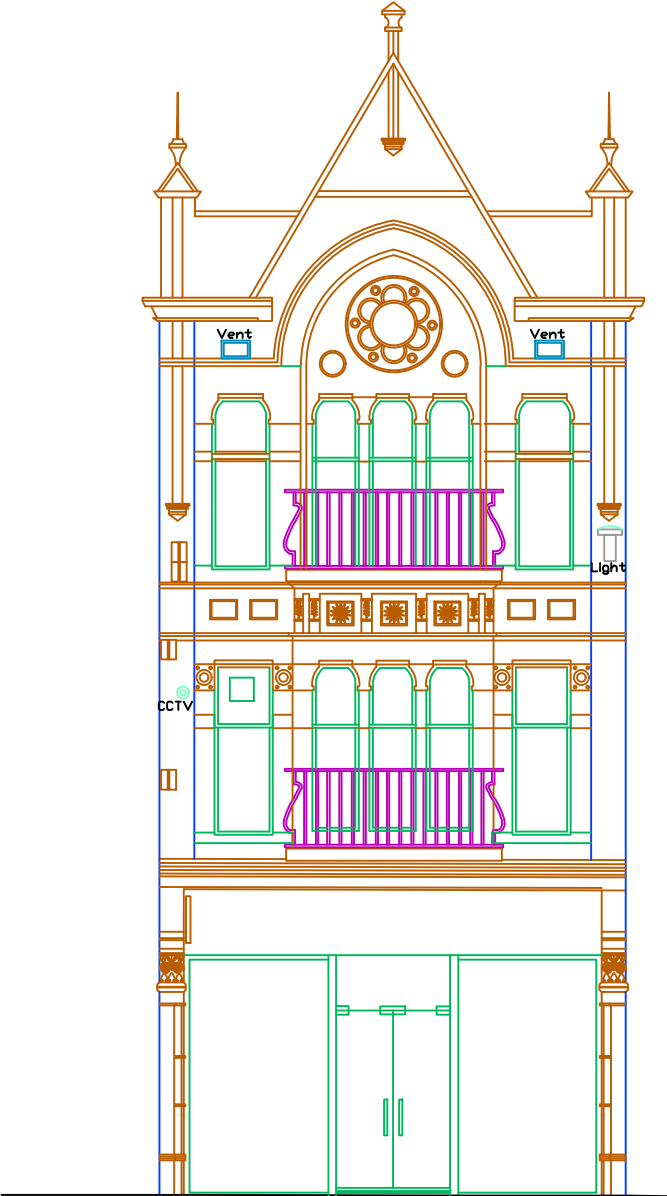


Client	 BSL STAFF ENGLAND 1954		
Site Location:	50 KING STREET MANCHESTER M2 4ND		
Drawing Type:	Measured Building Survey		
Surveyed	CR	Drawn	SS
Checked	ZH	Authorised	SS
Date	08/4/2024	Scale	1:50@A0
			
Land, Building & Engineering Surveys www.zssurveys.com info@zssurveys.com 			
Project Number:		3737	
Sheet Number:		P6	

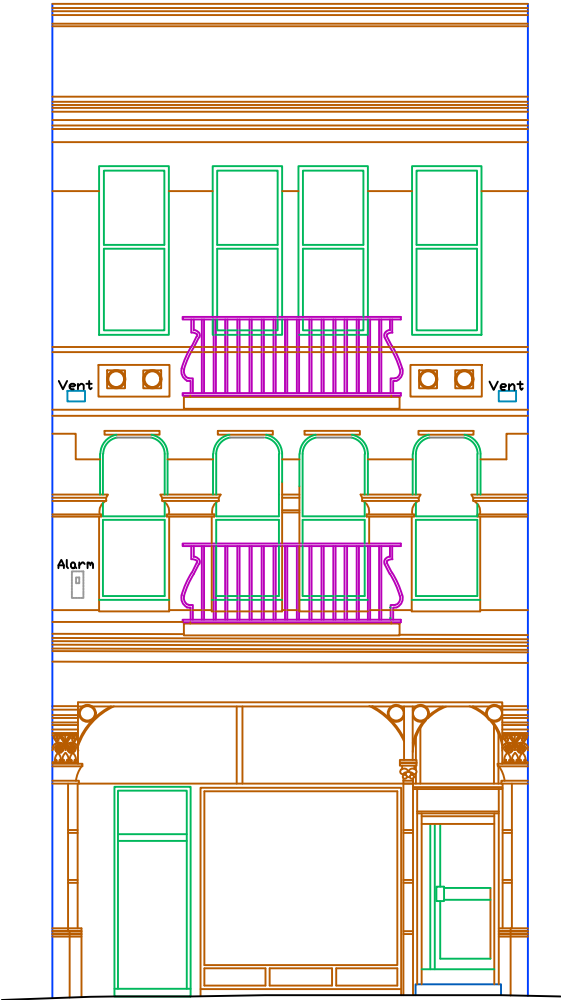
Appendix E: Planning Drawings

Do not scale this drawing - In all cases figured dimensions to be followed
All dimensions to be checked on site before work commences
© This drawing is the copyright of DTZ and may not be reproduced in part or in whole without prior written permission

Notes



EXTERNAL ELEVATION
KING STREET.



EXTERNAL ELEVATION
SOUTH KING STREET.

0 1 2 3 4 5 metres

Rev	Description	Date	Drawn



Project and Building Consultancy
North West
No. 1 Marsden Street
Manchester
M2 1HW
Tel: +44 (0) 161 236 9595
Fax: +44 (0) 121 228 7097

Client: Glasgow City Council.

Project: 48 King Street,
Manchester.

Drawing: Sketch External Elevations.

Scale: 1:100 - A1 Drawn by: SS.

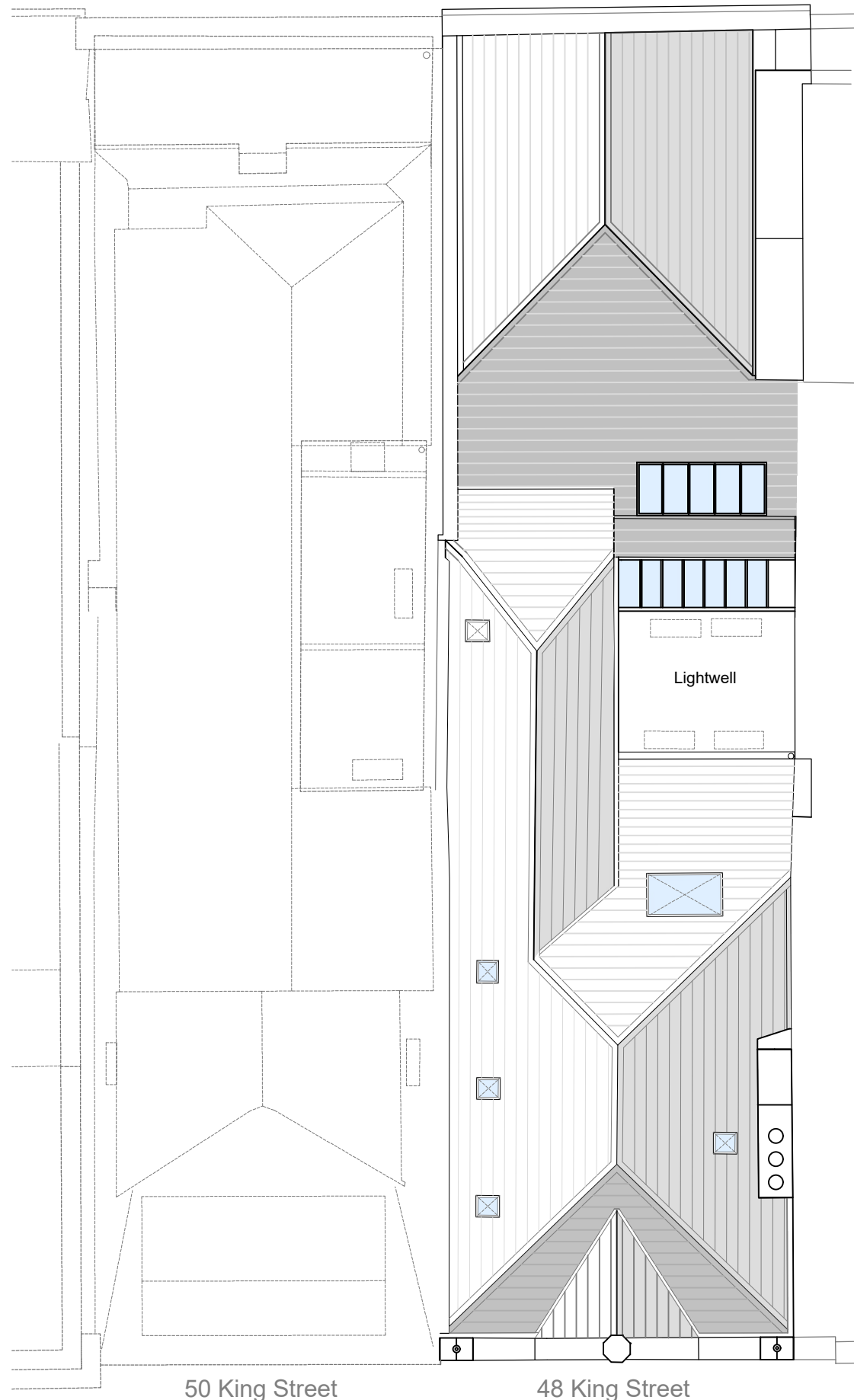
Date: 29.04.24

Drawing Number: .01

Checked by:

Revision:





50 King Street
EXISTING -
SCHEMATIC ROOF PLAN:
48 King Street

Do not scale this drawing - In all cases figured dimensions to be followed
All dimensions to be checked on site before work commences
© This drawing is the copyright of DTZ and may not be reproduced in part
or in whole without prior written permission

Notes

Rev	Description	Date	Drawn

CUSHMAN & WAKEFIELD
Project and Building Consultancy
North West
No. 1 Marsden Street
Manchester
M2 1HW
Tel: +44 (0) 161 236 9595
Fax: +44 (0) 121 228 7097

Client: **Glasgow City Council.**
Project: **48 King Street,
Manchester.**
Drawing: **Existing Roof Plan.**

Scale: **1:100 - A3** Drawn by: **SS.**
Date: **29.04.24** Checked by: **SGS**
Drawing Number: **.02** Revision: **SGS**



EXISTING -
SECTIONAL ELEVATION A-A:

Do not scale this drawing - In all cases figured dimensions to be followed
All dimensions to be checked on site before work commences
© This drawing is the copyright of DTZ and may not be reproduced in part or in whole without prior written permission

Notes

Rev	Description	Date	Drawn



Project and Building Consultancy
North West
No. 1 Marsden Street
Manchester
M2 1HW
Tel: +44 (0) 161 236 9595
Fax: +44 (0) 121 228 7097

Client: Glasgow City Council.
Project: 48 King Street, Manchester.
Drawing: Existing Sectional Elevation A-A.

Scale: 1:100 - A3 Drawn by: SS.
Date: 29.04.24 Checked by:
Drawing Number: .03 Revision:   

Do not scale this drawing - In all cases figured dimensions to be followed
All dimensions to be checked on site before work commences
© This drawing is the copyright of DTZ and may not be reproduced in part or in whole without prior written permission

Notes

Rev	Description	Date	Drawn



Project and Building Consultancy
North West
No. 1 Marsden Street
Manchester
M2 1HW

Tel: +44 (0) 161 236 9595
Fax: +44 (0) 121 228 7097

Client: Glasgow City Council.

Project: 48 King Street,
Manchester.

Drawing: Existing Sectional Elevation B-B.

Scale: 1:100 - A3 Drawn by: SS.

Date: 29.04.24

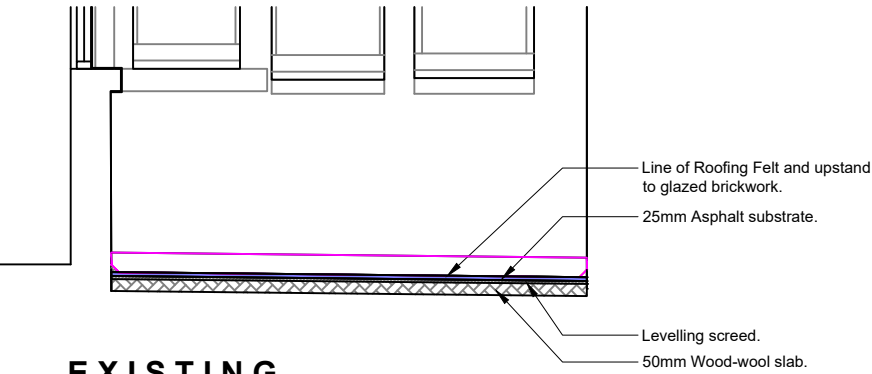
Drawing Number: .04

Checked by:

Revision:

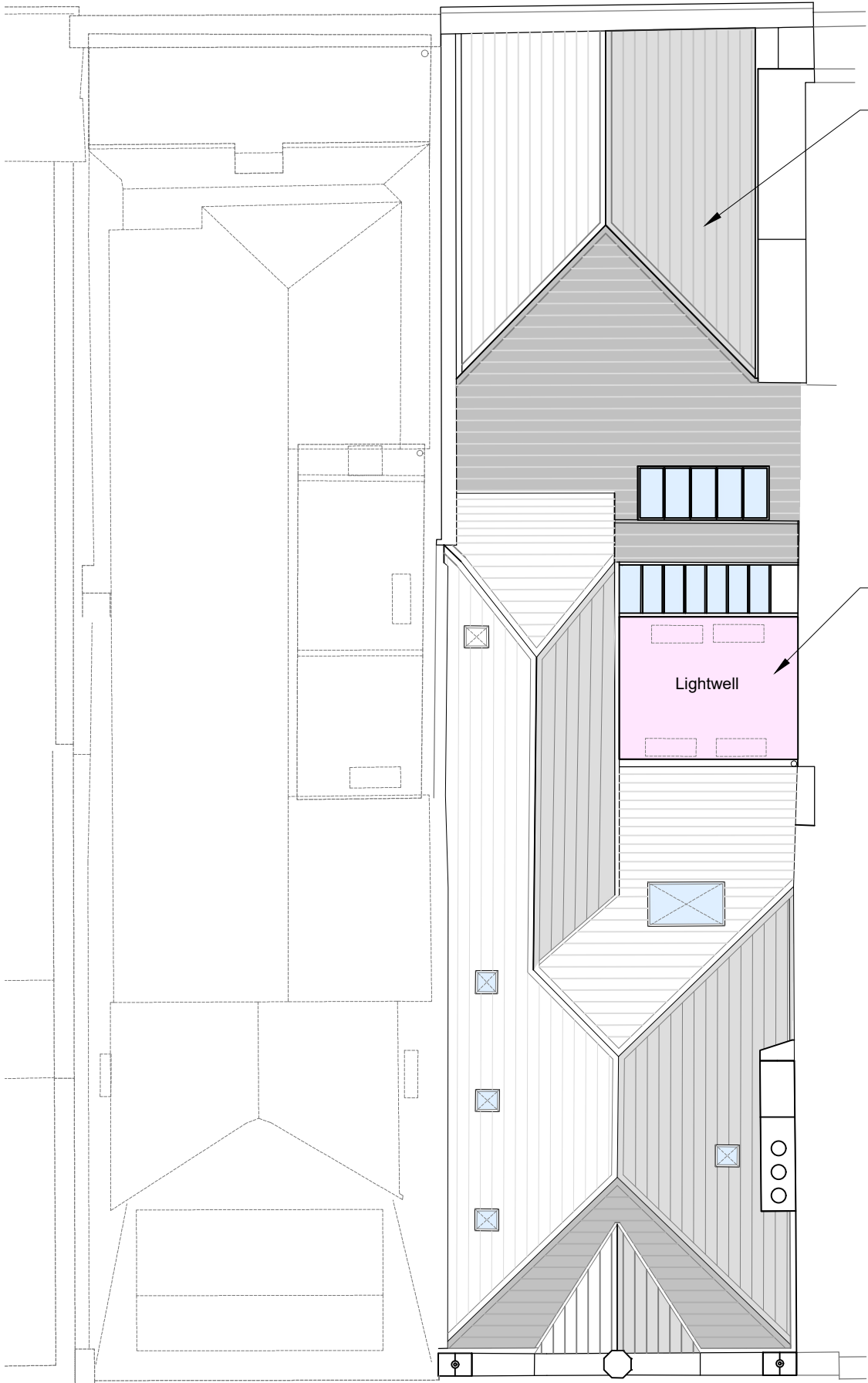


Flat Roof to Lightwell:
See detail drawing 04.



EXISTING -
LIGHTWELL ROOF DETAIL:

EXISTING -
SECTIONAL ELEVATION B - B:



Pitched Slate Roofs:

Remove all ridge & verge slate tiles and set aside for re-use.

Remove battens and underlay and replace with new breathable breathable roofing membrane and treated battens.

Re-fit retained slates and utilise previously removed ridge & verge slate tiles. Allow for the replacement of damaged tiles with new to match (Welsh / Cambrian slate).

Flat Roof to Lightwell:

Strip existing flat roof and provide a new insulated 'warm deck' overlay roof system.

Clean and repair roof surface and install Liquid Applied System (TOR 5972) 'Elastaseal' with insulation. Allow fall to roof to existing drainage outlet.

Dress roof perimeter detail into an upstand detail and dress the the new membrane into the existing drainage outlet.

Do not scale this drawing - In all cases figured dimensions to be followed
All dimensions to be checked on site before work commences
© This drawing is the copyright of DTZ and may not be reproduced in part or in whole without prior written permission

Notes

Rev	Description	Date	Drawn



Project and Building Consultancy
North West
No. 1 Marsden Street
Manchester
M2 1HW
Tel: +44 (0) 161 236 9595
Fax: +44 (0) 121 228 7097

Client: Glasgow City Council.

Project: 48 King Street,
Manchester.

Drawing: Proposed Roof Plan.

50 King Street 48 King Street

**PROPOSED -
SCHEMATIC ROOF PLAN:**

Scale: 1:100 - A3 Drawn by: SS.
Date: 01.05.24 Checked by:
Drawing Number: .02 Revision:   

Do not scale this drawing - In all cases figured dimensions to be followed
All dimensions to be checked on site before work commences
© This drawing is the copyright of DTZ and may not be reproduced in part or in whole without prior written permission

Notes



PROPOSED -
SECTIONAL ELEVATION A-A:

Rev	Description	Date	Drawn



Project and Building Consultancy
North West
No. 1 Marsden Street
Manchester
M2 1HW
Tel: +44 (0) 161 236 9595
Fax: +44 (0) 121 228 7097

Client: Glasgow City Council.

Project: 48 King Street,
Manchester.

Drawing: Proposed Sectional Elevation A-A.

Scale: 1:100 - A3 Drawn by: SS.

Date: 01.05.24

Drawing Number: .06

Checked by:

Revision:



Do not scale this drawing - In all cases figured dimensions to be followed
All dimensions to be checked on site before work commences
© This drawing is the copyright of DTZ and may not be reproduced in part or in whole without prior written permission

Notes

Rev	Description	Date	Drawn



Project and Building Consultancy
North West
No. 1 Marsden Street
Manchester
M2 1HW
Tel: +44 (0) 161 236 9595
Fax: +44 (0) 121 228 7097

Client: Glasgow City Council.

Project: 48 King Street,
Manchester.

Drawing: Proposed Sectional Elevation B-B.

Scale: 1:100 - A3 Drawn by: SS.

Date: 01.05.24

Drawing Number: .07

Revision:



PROPOSED -
SECTIONAL ELEVATION B - B:

Pitched Slate Roofs:

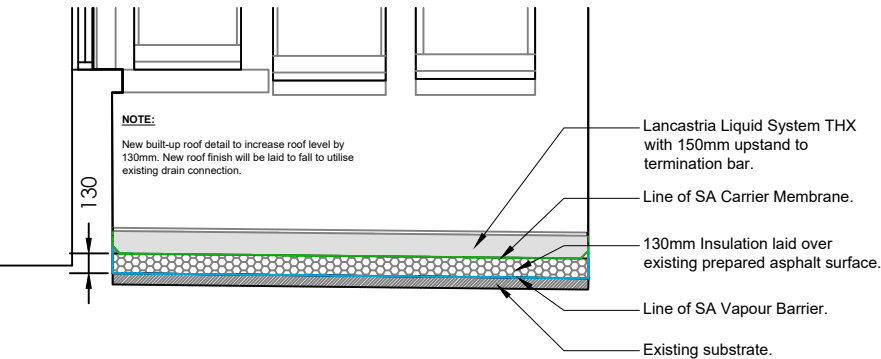
Remove all ridge & verge slate tiles and set aside for re-use.

Remove battens and underlay and replace with new breathable
breathable roofing membrane and treated battens.

Re-fit retained slates and utilise previously removed ridge &
verge slate tiles. Allow for the replacement of damaged tiles with
new to match (Welsh / Cambrian slate).

Flat Roof to Lightwell:

See detail drawing.



PROPOSED -
LIGHTWELL ROOF DETAIL:

Sheet No:

[illegible]

PRIVATE AND CONFIDENTIAL

Cushman & Wakefield