

Protecting the UK's Commercial Property

Your Informative Guide to
Industrial and Commercial Roofing



starfish
construction group

**Property Owners, Developers,
Building Surveyors, Consultants, and
Investors turn to Starfish Construction
to provide expert guidance across the
UK's commercial roofing landscape.**





Shaping the Built Environment

Starfish Construction is a multi-faceted commercial and industrial construction services group with diverse divisions that reflect our knowledge and expertise. We deliver building envelope, roofing and ground-up build solutions complemented by our technical surveying division and design consultancy.

As a company, we believe everyone deserves to be in a safe environment. Safety is paramount in everything we do and integrated across all our operations and supply chain. We mitigate risk through our strategy, processes, and knowledge, ensuring buildings are safe, and people are protected.

Our business pillars are Safety, Sustainability, Cost-effectiveness and Legislation. We Diagnose, Design and Deliver, using best-in-class products to enhance how a building looks and performs. All our divisions provide stand-alone solutions and add further value by working seamlessly together.

Starfish Construction carries £15 million worth of Professional Indemnity Insurance (PII), covering both the design and installation of our core services:

- Roofing
- Building envelope and façade work
- Rainscreen cladding
- Asbestos and Environmental
- Mechanical, Electrical and Plumbing
- All types of trades work
- Internal fit-out solutions
- General construction

Our approach and expertise, combined with PII cover, protect us as a business as well as you, your property investment and your reputation. This protection means you can be confident with our overall project quality, budget management and safety. Insight, legislative knowledge, and our customer relationship focus on delivering results.

A combination of diagnostic surveys, in-house design team, technical surveying, and experience of system and substrate interfaces form the crucial heart of our operations and helps minimise risk.

We have prepared this insight document to provide a comprehensive guide to commercial roofing, from industrial units and production plants to student accommodation and hotels.

We're here to guide your decisions through a transparent and informed approach. Starfish Construction is a company you can trust with your property portfolio.

A Valuable Asset is Worth Protecting

The roof is probably the most critical element for any commercial or industrial property but the least visible part of a building. Roofs can account for up to 50% of a building's total surface area and represent 25% of the total value.

Since the early days of the Industrial Revolution, the factory, its ancillary offices and in many instances, nearby accommodation has been critical to the nation's economy, which has changed little over the last 250 years.

Recent industry reports put the total value of commercial property in the UK at around £900 billion. These figures do not include non-residential buildings, including hospitals, schools, colleges, and universities, constituting just £147 billion, a fraction of commercial property value.

Therefore, caring for the roof area is essential to maximise the lifespan of a property. Like any building, the roof has a lifecycle that will require regular maintenance and vital remedial work carried out at some point.

Yet neglected commercial property roofing costs billions per year in preventable replacement and repairs due to a lack of scheduled maintenance. Once water ingress compromises a roof, the property is vulnerable to significant dilapidation if not addressed.

Although the commercial property market is highly cyclical, the average property value growth is around 3% per year. Therefore, ensuring the structural integrity of a property portfolio is essential.



Diagnose, Design and Deliver



The Starfish Construction company ethos is to Diagnose, Design and Deliver solutions across the built environment, which begins with our technical surveying and building design consultancy.

Our technical team offer a wide range of roofing surveys, equipped with industry-leading specialised equipment. In-house CAA qualified drone pilots provide highly effective visual surveys and thermographic drone analysis. Our specialist team can further investigate our initial drone survey findings by onsite moisture mapping, leak detection, and core sampling.

Clients trust us to deliver bespoke solutions safely, on time, within budget and to their exacting standards. Every project has a unique set of requirements, visual aspect, building performance & efficiency, safety and sustainability. Delivering bespoke solutions that meet the demands and legislation is a vital part of any project outcome. Our multi-sector experience and accreditations allow us to provide a valued service and product while guiding you to informed decision making.

Commercial Roof Surveys

Our extensive industrial and commercial roofing industry knowledge and experience enable us to deliver projects from planning to completion. Working closely with our technical surveying and building design consultancy teams, we analyse and plan for every aspect of your roof.



Accurate diagnosis of a defect is an essential prerequisite to specifying a suitable repair. Understanding whether or not the failure is due to system or detail will assist in selecting a suitable and cost-effective solution without necessarily overspecifying or adopting an over-optimistic approach.



Starfish Construction has invested in technical surveying products and training for our surveyors to provide our clients with as much information as possible. We have an in-house capability to undertake:

- Drone Surveys
- Thermographic Drone Analysis
- Electronic Leak Detection
- Moisture Mapping
- Core Sampling

Our skilled survey team, backed by our highly experienced project managers, carry out surveys on every roof type and at heights of over 45m. Over many years Starfish Construction has achieved an outstanding reputation for correctly diagnosing problems, designing innovative solutions, and delivering cost-effective, on-time projects.

Flat Roof Survey

When a roofing product manufacturer undertakes a survey and inspection of a flat roof area, they often recommend a complete strip and replacement. These recommendations are usually based on a visual walk around and minimal core sampling, if any. Although this is the most common method to survey a roof, it is impossible to ascertain an accurate picture of the roof condition without employing the correct moisture mapping equipment or core sampling. Starfish Construction would not recommend this as an efficient or cost-effective way to ensure value for money.

It's about ensuring our clients have all the facts and evidence to be in the position to make informed decisions based on a comprehensive inspection, reducing the risk of unforeseen complications after the project begins.

Our highly experienced team of technical surveyors concluded that less than one in ten flat roofs they surveyed required a complete strip back to deck. In most cases, a partial strip, infill and overlay can provide a fully compliant, cost-effective and warranted system.

The completed CAD or Google Earth Plan survey we provide will highlight any wet areas with a key to help you make sense of the identified areas of concern.





Drone Survey

Many roofs can be completely inaccessible by traditional access methods. Fragile roofs and ageing roofs with asbestos content can be a Health & Safety risk. Using a drone survey, we can gather detailed photographic data and thermal imaging of the roof and high-level elements without the risk of falling or disturbing and releasing asbestos or loose material.

Starfish Construction has a team of surveyors trained in high-level aerial building surveys and inspections across the UK, providing an independent survey service to property managers, owners, and commercial property real estate consultants.

Our surveyors are CAA approved drone pilots, skilled in flying aerial survey drones to capture the problem areas, ensuring no surprises. We can fly our drones close to the roof or building to get detailed aerial video and still images, providing critical data.



Designing a Solution for Now and the Future

Optimum material selection, fire safety, acoustic design considerations and lifespan are all part of our process to provide you with information to make the right decisions. Operational excellence comes from highly skilled, experienced and accredited roofing installers overseen by our knowledgeable industry project managers.

Starfish Construction has a reputation as a trusted, reliable partner formed over many years due to our collaborative approach with clients and successful project outcomes. Our product-neutral approach offers whole of market solutions. We work closely with clients and can assist in budget planning and control operational downtime management during your project.

- Diagnostic Reports
- Technical Drawings
- Fire Performance Reviews
- Structural and Loading
- Acoustic Design
- U-value Calculations
- Condensation Risk Analysis

Our design team plays a pivotal role in ensuring your vision, products and materials, and the visual aspect matches your aspirations. Our design processes and knowledge allow us to reimagine your existing roofing structure to fit the demands of today. The design doesn't merely stop at how a building looks, and our acoustic modelling will help control sound impact.

Everything we do starts with you and your specifications. Whether designing a roof, a cladding system or a complete building, we put our clients at the heart of every project and guide your objectives with informed consultation.

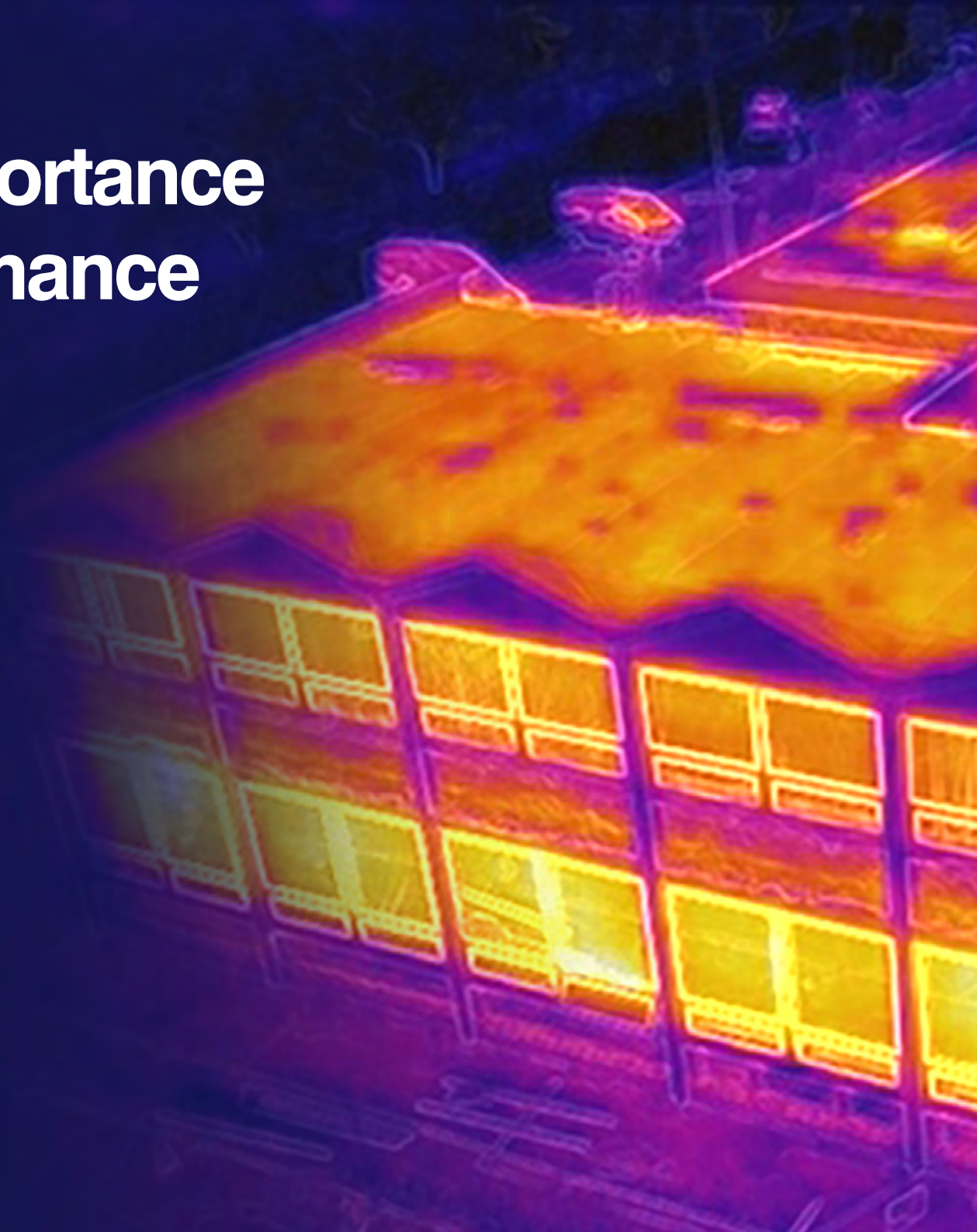
U-values – the Importance of Thermal Performance

U-values are the measurement of a building's thermal performance and how the loss of heat affects the overall efficiency of the structure. Calculations are crucial when establishing a construction strategy - the lower the U-value, the better insulation within a building.



A building's U-value is extremely important and must meet building regulations and standards. A U-value calculates the thermal resistances of the layers that make up an entire building element: roof, wall or floor. It also includes adjustments for any fixings or air gaps.

The roof is one of the most critical components of any structure, and where the loss of thermal efficiency is more likely to occur over time. As part of any survey, calculating the current U-values is key to designing the correct solution to ensure the project's lifespan.



Thermal Drone Analysis

A thermal drone survey will help pinpoint areas of the roof affected by the loss of thermal efficiency. Any areas highlighted can be subjected to core sampling and moisture mapping, allowing for a complete picture of the remedial works required.

The key to designing a suitable roofing solution is identifying if a building could be suffering from heat loss, water ingress, cold bridging, or defective insulation. Identifying these anomalies before any work commences can help you maintain your property, save money, and reduce your carbon footprint.

A thermal image survey will scan the roof area and produce a colour-coded visualisation that our expert team can decode and provide you with clear and concise results. Using thermal images in this way can reduce the need for potentially expensive and unnecessary building works.



Moisture Mapping

Moisture mapping will help identify where the roof is failing and allow you and your client to make an informed decision on the best course of action. Not only will it highlight the areas with zero or minimal issues, but it will also show where there is a complete system failure. In the long term, this can be an excellent cost-saving and preventative approach to avoid further damage to the fabric of the building.

There are many advantages to flat roof construction, but some areas require close monitoring, as with all roof types. Any water trapped in the build-up will develop into leaks and degrade the thermal performance.

Emphasis on building performance has never been stronger, with monitoring becoming a significant factor. When an owner sells a property, good thermal qualities can make it a more attractive purchase proposition, helping to improve saleability and achieve a higher sale price.

The roof survey will determine if:

- It can be reliably repaired by stripping out all damaged insulation
- It is possible for vacuum dewatering to refresh the insulation and repairs as required
- A complete overlay or patch repair is required
- It requires an entire strip and replace

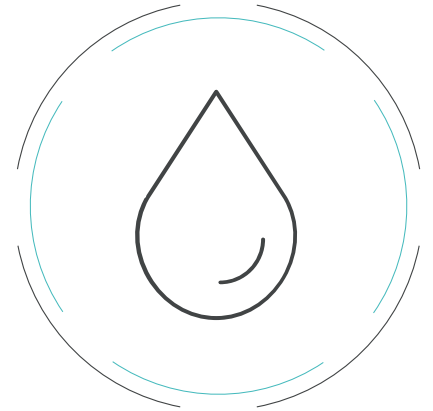
There are significant benefits of carrying out a moisture mapping survey, not only for the property owner. As a surveyor or consultant, providing your client with a complete picture of the current state of the property roof enhances your position as a trusted advisor.



Electronic Leak Detection

(ELD) is a non-destructive and non-invasive diagnostic used to identify water leak entry and trapped water within a flat or low pitched roof. This survey type is ideal with less visible signs of water ingress, ponding, or pooling – as the industry often refers to it, but where leaks are a factor.

All membrane roofs are more or less non-conducting; the electrical pulse chooses a path across the moisture to pinpoint the leak, eliminating the need for traditional and potentially damaging flood testing. The process can detect missed leaks within traditional 'by naked eye only' survey assessments.



Safely Repairing and Replacing Asbestos Roofs

Asbestos is a naturally occurring mineral that has been in use for thousands of years. Its resistance to heat, electricity and corrosion made it an ideal building material. As early as 1925, the link between lung disease and cancers were associated with asbestos exposure. The complete ban on using asbestos products did not become law in the UK until 1999, following a partial ban in the 1980s.

There has never been a governmental plan to remove asbestos products from properties; therefore, it has been left in situ until a building needs some remedial, highlighting a potential problem.

Although asbestos roofing isn't intrinsically dangerous, as the coating and fibres break down over time or are damaged, this is cause for concern. Corrective action will be required to limit deterioration and possible exposure.

Our environmental and asbestos removal division provides you with the safety and legislation your building requires. At Starfish Construction, this is an area in which we add value and protection for our clients. The applicable regulations controlled by authorities across domestic and commercial buildings means owners must ensure their building meets all legislation criteria. For many of our customers, it's not only a desire to meet legislation but an approach to deliver a best-in-class property that drives their environmental decisions.



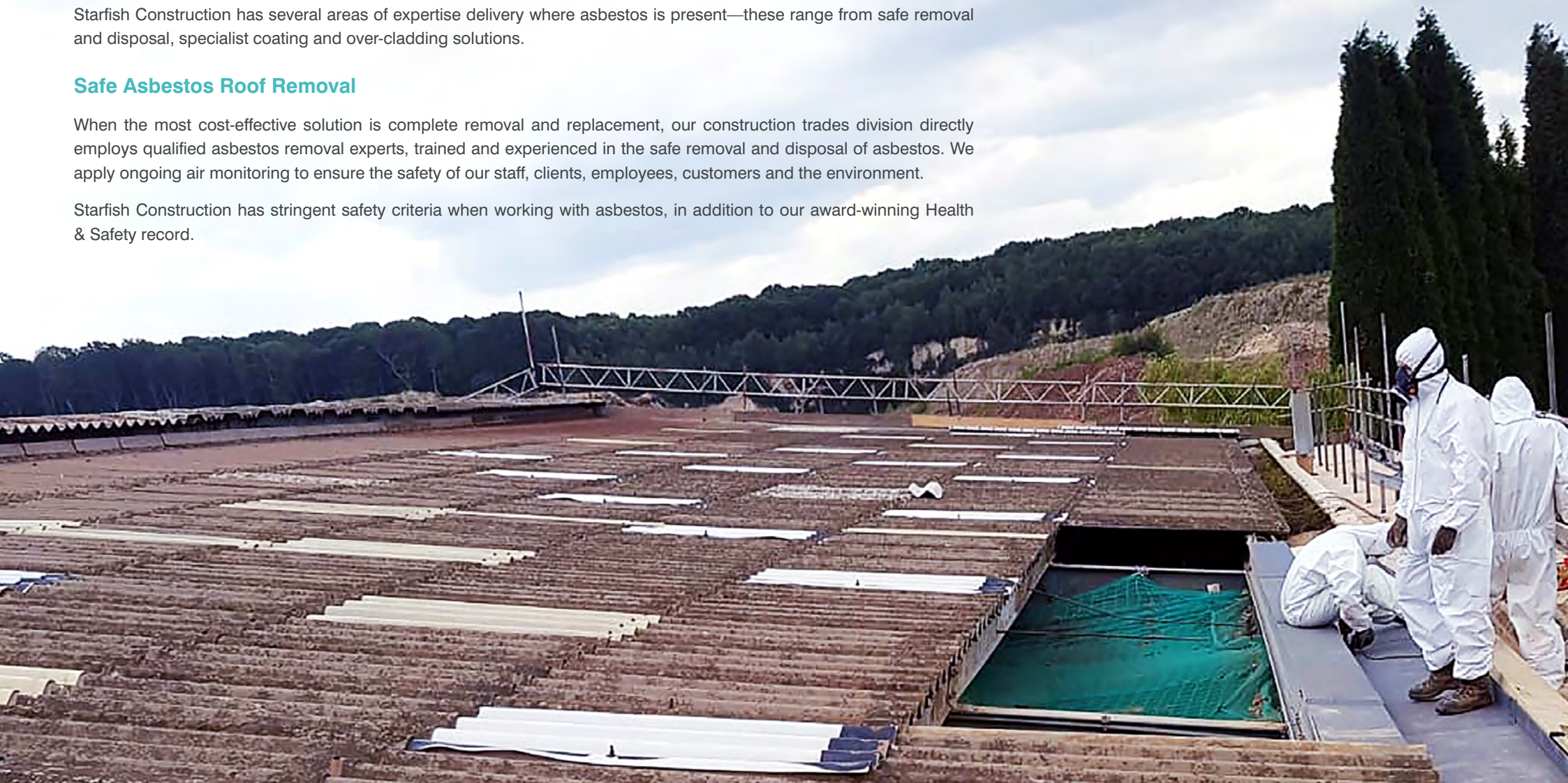
Starfish Construction and Asbestos Solutions

Starfish Construction has several areas of expertise delivery where asbestos is present—these range from safe removal and disposal, specialist coating and over-cladding solutions.

Safe Asbestos Roof Removal

When the most cost-effective solution is complete removal and replacement, our construction trades division directly employs qualified asbestos removal experts, trained and experienced in the safe removal and disposal of asbestos. We apply ongoing air monitoring to ensure the safety of our staff, clients, employees, customers and the environment.

Starfish Construction has stringent safety criteria when working with asbestos, in addition to our award-winning Health & Safety record.





When working with asbestos material, operatives require specialist knowledge to ensure safety at all times. Our directly employed team are manufacturer trained to clean and coat existing asbestos roofs. As the only BBA approved contractor to apply certain types of asbestos cement coating systems in Scotland, Starfish Construction is the trusted partner to many private clients and organisations within Scotland and beyond.

Applying a coating solution is a more environmentally sound option when a roof is suitable, resulting in minimal contaminated waste. Throughout the process, we monitor manufacturers' guidance to ensure we follow the correct procedures, which validates the ten-year guarantee.

All asbestos coating projects follow strict guidelines:

- All coating installers are BBA approved to apply asbestos cement coating systems
- Asbestos coating projects are carried out under HSE guidelines, and all waste consignment notices are issued to the client for their records
- A water diversion system is installed to divert any contaminated waste into a special holding tank before disposal.
- We carry out 'closed box cleaning' on the existing asbestos roof to prevent watercourse contamination
- Operatives are directly employed and with multi-trade skills

Asbestos Coating Solutions

Asbestos Roof Overcladding

Many asbestos roofs can be fragile and difficult to access. Our drone surveys are the perfect solution when diagnosing and assessing the condition of a roof. After the initial survey and to confirm our findings, we will carry out a full inspection.

If the existing roof is generally in fair condition, an overclad can be the most cost-effective option. There are many benefits to over-cladding an asbestos roof, including:

- Reduces the danger from the asbestos
- Allows the continued use of the building below
- The use of sacrificial netting and crash desks increase safety
- Cost-effective and reduced completion time
- Better thermal performance



End to End Industrial and Commercial Roofing Solutions

Starfish Construction has a reputation as a trusted, reliable partner formed over many years due to our collaborative approach with clients and successful project outcomes. Our product-neutral approach offers whole of market solutions. Working closely with clients, we assist with project planning and management, budget planning and minimising operational downtime during your project.

Optimum material, fire safety, acoustic design and lifespan are all part of our process to provide you with information to make the right decisions. Our site safety record is second to none, emphasising ensuring minimal disruption to business and the public.



Commercial Roofing - We Have It Covered



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When it comes to roofing replacement and repairs, your solution choice is very much dictated by the existing roof, building structure and use. You don't have to replace like for like; there are new and improved material options and solutions now and emerging onto the market all regularly.

As a supplier neutral construction company, we specify the right solution to fit your requirements, now and in the future.

You can explore our project profiles on our website www.starfishconstruction.com/projects-case-studies which demonstrate a wide variety of successful roofing projects in client case studies. Many of these show our effective customer relationships and include customer testimonials. Our approach and successful outcomes provide confidence to engage our services on future projects. The following pages outline some of the roofing types available.

Profile Metal Roofing

Profiled roof systems are best suited for roof pitches of at least 5 degrees. The corrugated profile sheets, typically coated steel or aluminium, are commonly seen on industrial warehousing and modern factory units. They are often used to replace traditional corrugated roofs as they reach the end of their lifecycle.

The range of profiled roofing variants include:

- Single-skin Systems
- Double-skin Built-up Systems
- Composite Panels
- Retro-fit Solutions
- Standing Seam Aluminium
- Secret-fix Systems
- Translucent Roof Light Systems
- PPC Aluminium Plank and Soffit Systems

Our design managers can advise on the suitability of all roofing systems during the consultation stage of your project. As an independent company, we partner with various British and European manufacturers to design bespoke solutions, using the most appropriate systems for our clients.



Liquid Applied Coating

Liquid-applied roofing offers a seamless, cold-applied roof coating. It forms a waterproof membrane that is durable and flexible. This process is flame and heat-free, ideal in locations with a high risk of flammability.

Although traditionally used to preserve flat roof systems, liquid applied coatings are suitable for a range of roofs, including:

- Flat Roofs, Terraces, Walkways
- Complex Detailing, Up-stands, Penetrations and Terminations
- Warm Roofs, Cold Roofs, and Inverted Warm Roofs
- Green and Brown Roofs
- Heritage Properties and Lead Replacement
- Waterproofing Finlock Gutters, Valley Gutters and Drainage Channels
- Waterproofing Profiled Metal Roofs
- Overlaying Failed Roofing Systems

An aerial photograph of a large building's roof under construction. The roof is covered with a dark grey felt membrane, which has a prominent red horizontal stripe running across its center. Two small, white, rectangular skylights are visible on the roof. The roof is supported by a complex network of metal scaffolding. A blue safety net is draped over the scaffolding, partially obscuring the building's facade. The building's facade features several windows. The overall scene is brightly lit, suggesting a sunny day.

Felt Membrane

Starfish Construction has many years of experience designing, specifying, and installing high-performance felt membranes, including elastomeric, plastomeric and hybrid systems. Our felt systems incorporating high-grade insulation will improve the thermal performance of the building, meet or exceed current building regulations and protect the environment.

Our systems include Safe2torch, mechanically fixed, self-adhered and cold-applied applications. This system for roofing is safe to install, with life expectancies that exceed 40 years.

Slate and Tiling

Starfish Construction has a team of highly skilled, time-served and directly employed roof slaters and tilers. Our roofing division has many years of experience in repair and complete re-roofing solutions using slate and tile. We see the value in recruiting, developing and retaining our traditional employed tradespeople, upskilling them to train the next generation of skilled team members.

We have successfully delivered many projects, including re-roofing listed properties, legacy school buildings, and architectural renovations. We pride ourselves on developing team members through our ranks, nurturing apprentices, and continually ensuring our industry delivers best-in-class property portfolio solutions.





Walkways and Roof Edge Protection

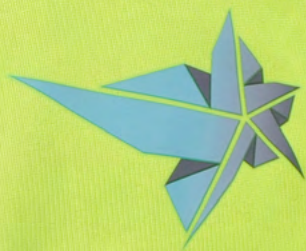
As part of our comprehensive survey and project submission, our team will listen to the client and learn all the requirements for the finished project. Starfish Construction will assess the volume of access required on the roof and design a safe and fit solution for the purpose.

From repair to installation and waterproofing, our roofing specialists can guide you on health and safety, maintenance and provide a range of products and systems to fit individual requirements.

Ensuring balconies and walkways are waterproof is key to preserving the integrity of buildings to prevent water ingress. Repairing or replacing leaking balconies and walkways can be a highly disruptive process that would render vital areas inaccessible.

Starfish Construction can repair and replace systems to ensure minimal damage and keep your building functioning and safe.

All of our access and roof edge protection system are fully compliant with current regulations and provide a temporary or permanent guardrail without requiring mechanical attachment to the roof.



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Guaranteed to Last a Lifetime

Our Professional Indemnity Insurance covers all our divisions, providing peace of mind for customers and their property consultants. In addition, we source products with significant manufacturer guarantees, which will assure that your roofing solution will perform for many years.

Most solutions have a life expectancy far beyond the guaranteed period if a regular maintenance schedule is maintained. In the world of commercial property transactions, guarantees and well-maintained roofs significantly increase saleability.

Accreditations You Can Trust

Starfish Construction has built a reputation for quality projects and an exemplary safety record. Our accreditations and associations give our clients the confidence to trust Starfish Construction with their property portfolio.

Starfish Construction is a member of The National Federation of Roofing Contractors Limited (NFRC), the UK's largest roofing trade association. NFRC actively ensures that all members offer high quality and sound business practice standards through a strict code of practice, vetting procedure, and site inspections.

For five consecutive years, NFRC awarded Starfish Construction Group the Gold Standard Award for Health & Safety.

Starfish Construction acted as principal contractor and designer for the complete works. Our systems and procedures meet the requirements of BS EN ISO 9001, 14001 and OHSAS 45001, implemented throughout our company.

To view our complete list of accreditations, memberships and company policies, visit www.starfishconstruction/resources





For the most up to date guidance and advice contact

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