PROJECT

Rutland — Asbestos Roof & Gutter Refurbishment

Location:
Rutland

Roof Type / System:
Asbestos Cement Roofing

Approximate Roof Area:
1100

Project Date / Year:
2023



Project photograph

PROJECT OVERVIEW

Elite Waterproofing undertook a comprehensive refurbishment of an ageing asbestos cement roof, concrete gutter system and rooflights following prolonged exposure to harsh winter weather and heavy rainfall.

The approximately 70-year-old roof had received little maintenance and was suffering from widespread water ingress. The refurbishment involved liquid-applied waterproofing treatments to the roof sheets and gutters, alongside a clear protective coating system for the rooflights to preserve natural daylight within the building.

The project was completed over approximately 21 days during February by a team of four operatives.

THE CHALLENGE

Following a particularly harsh winter and periods of heavy rainfall, the property had developed multiple leaks through its ageing asbestos cement roof sheets, rooflights and concrete gutters.

The concrete gutters were leaking at almost every joint, allowing water to penetrate the building and affect the external brickwork. Repeated moisture penetration, combined with temperature fluctuations and freeze-thaw cycles, was contributing to cracking and surface deterioration of the masonry, increasing the risk of further water ingress.

The deteriorating roof and drainage systems also presented potential safety concerns for employees working within the building, alongside the risk of continued damage to the property.

A comprehensive waterproofing solution was required to address the various points of water ingress while retaining the existing roof coverings where practicable.

SURVEY & ASSESSMENT

The existing roofing and drainage systems were assessed to identify the principal sources of water ingress and determine suitable refurbishment methods.

The assessment identified several areas requiring attention:

- Ageing asbestos cement roof sheets with evidence of deterioration and water ingress.
- Multiple leaking rooflight areas requiring weatherproofing treatment.
- Concrete gutter joints exhibiting widespread leakage.
- Water-related deterioration of external brickwork, including cracking and surface damage.
- The need for a waterproofing system capable of accommodating normal thermal movement within the roof and gutter substrates.

The proposed refurbishment approach focused on addressing these defects through appropriate surface preparation and the application of compatible liquid waterproofing systems.

PROPOSED SOLUTION

A liquid-applied waterproofing refurbishment system was selected for the existing roof sheets and concrete gutters.

The specified approach incorporated flexible waterproofing coatings and sealants designed to accommodate normal movement associated with temperature changes and substrate expansion and contraction.

For the concrete gutters, a fibre-reinforced waterproofing system was selected to provide additional reinforcement across the affected joints and help prevent further water penetration.

A clear protective coating system was also selected for the rooflights, allowing the existing natural daylight transmission to be retained while improving weather resistance.

The overall objective was to address the multiple sources of leakage without requiring wholesale replacement of the existing roofing system.

WORKS UNDERTAKEN

The refurbishment works were undertaken by a four-person team over approximately 21 days during February.

Works included:

- Preparation of the existing roof sheet surfaces and associated details to receive the specified liquid-applied waterproofing system.
- Application of flexible waterproofing coatings and sealants to the prepared roof surfaces.
- Preparation and treatment of the concrete gutter system, including the leaking gutter joints.
- Application of a fibre-reinforced waterproofing system to the gutters to strengthen vulnerable areas and provide a continuous protective barrier.
- Application of a clear protective coating system to the existing rooflights, maintaining natural light transmission into the building.
- Treatment of the identified areas of water ingress as part of the wider roof and drainage refurbishment.

The works were carried out during February, requiring consideration of winter weather conditions throughout the programme.

PROJECT OUTCOME

The project delivered a coordinated refurbishment of the property's ageing roof sheets, concrete gutters and rooflights, addressing the identified areas of water ingress through specialist liquid-applied waterproofing systems.

The flexible roof coating system was intended to accommodate normal substrate movement, while the fibre-reinforced gutter treatment provided additional protection at vulnerable gutter joints.

The clear coating applied to the rooflights retained natural daylight transmission into the building while providing a protective weatherproofing treatment.

By refurbishing the existing roof and drainage systems, the works provided an alternative to wholesale roof replacement.

The refurbishment was completed over approximately 21 days by a four-person team during February.

PROJECT PHOTOGRAPHY



Rutland Asbestos Roof Refurbishment – Before Works



Rutland Asbestos Roof – Biocide Treatment & Cleaning



Rutland Asbestos Roof – First Waterproofing Coat



Rutland Asbestos Roof – Waterproofing Preparation & Detailing

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