

# BAE SYSTEMS, BARROW-IN-FURNESS

## REFURBISHMENT CASE STUDY



### Project Overview

BAE Systems have a number of impressive facilities, one of which is situated in Barrow-in-Furness. Unfortunately, the roof on Building A22 had proven to be problematic with regular leaks over a number of years – costly repairs had followed costly repairs and so the decision was eventually taken to completely reroof the expansive facility.

However, this challenging project not only required a new roof. The building also needed to remain fully operational at all times, and it was essential that any water ingress was eliminated throughout the duration of the works, which could take up to 12 months.

### The Challenge

An experienced roofing contractor was therefore required who could take on the challenge of reroofing the substantial building whilst it was still fully operational. Although BAE Systems already had access to a number of roofing contractors, MAC were finally selected following extensive research by BAE into the MAC business, its project experience and its capability to take on such a large project. Extensive feedback was also sought from MAC's previous customers, all of whom commented positively on MAC's excellent standards of workmanship and customer service.



**Sector**  
Utilities



**Size / Value**  
6,500m<sup>2</sup>



**Client**  
BAE Systems

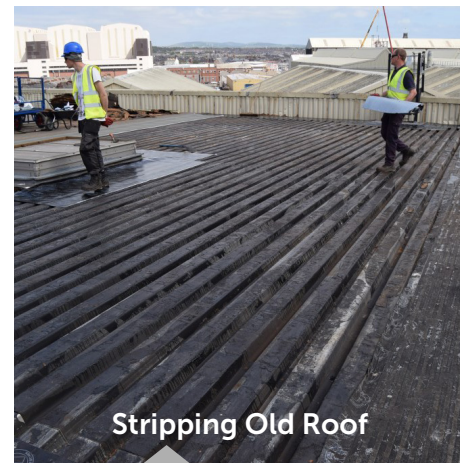


### Solution Provided

- Full Strip of Existing Roof System & Provision of Temporary Waterproofing
- Installation of Composite Roof Cladding System



Roof Before Works



Stripping Old Roof

**MAC Roofing & Contracting Ltd**

Group Locations:  
Bromborough | Cambridge | Manchester | Glasgow

(T) 0151 346 2670  
(E) [enquiries@macroofing.com](mailto:enquiries@macroofing.com)  
[www.macroofing.com](http://www.macroofing.com)

**MAC**

GROUP OF COMPANIES



## Establishment of Primary Support Steelwork



## Composite Panels Being Lifted into Place



## Completing the Project

Although originally due to start in November 2016, it was decided to delay the project until after the Christmas holidays, in order to ensure that the roof was never left exposed to the weather. The site was therefore set up in January 2017 with the installation commencing in February.

The complex project initially involved removing the existing roofing system and then providing temporary waterproofing to the existing metal decking. 1500 metal cleats were then fixed through the deck into the steelwork to support the Ashgrid primary support steelwork, and a new metal composite roof was then installed, including new membrane lined gutters with retrofit rainwater outlets.

Weather conditions presented an extreme challenge due to the coastal location of the project, with MAC having to endure two winters on site. However, efficient project planning meant that only 2 days' cramage were lost due to severe weather. Another problem was the large population of gulls that resided on the roofs, which were aggressive during the nesting season and continually leaving huge amounts of droppings, feathers, bones and other objects they deposited on the roof! MAC addressed this obstruction by employing someone to continually clean the mess and spray the working areas to prevent the chance of infection to the workforce.

The project was successfully completed within 12 months and included numerous additional works which were added to MAC's programme. The client was extremely pleased and commented that MAC had performed admirably throughout the installation period, delivering on time and under budget.

Overall, this project clearly demonstrates the benefit of involving a roofing specialist early in the development of an upcoming project. They can provide expert advice, introduce new materials and techniques and importantly save money and time. As the Client explains in their own words: "We used to take our projects through to RIBA Stage 4, but have now decided to go to RIBA Stage 2 and then consult with the specialist contractors. MAC delivered the package in a very professional manner - their site operatives and management were first class and provided a roof installation we are all proud of."

## The Tendering & Selection Process

The next stage of the process involved the preparation of tender documents, and MAC were invited to site to establish if they would be interested and capable of handling this type of project. The Client initially met with MAC's Estimating Director, who expressed an interest in being included on the tendering list. Shortly afterwards, MAC's Managing Director, and Senior Contracts Manager visited site to evaluate the tasks and challenges that the project presented. With significant experience in delivering this type of work, both individuals were able to provide a number of useful comments and advice. They were actually able to offer an alternative system which could have been more cost effective, although the programme was too far advanced to make such a change.

An extensive tendering programme followed involving numerous roofing contractors with MAC Roofing eventually being selected as the preferred option. The bid and support information complied with the strict processes and audits employed by BAE Systems.

## Installation of Composite Panels

