

HILTON BIRMINGHAM METROPOLE HOTEL

Major hotel benefits from Marley Waterproofing's top of the range cold applied waterproofing systems



The prestigious Hilton Birmingham Metropole Hotel, one of the busiest hotels in Europe, has benefitted from Marley Waterproofing's cold applied technology.

Following initial investigations by Cyril Sweett Ltd (consultant), Marley Waterproofing, working in conjunction with Central Roofing and Building Services, was asked to provide a bespoke specification offering a minimum 10 year guarantee to refurbish the hotel and dining room roof areas. The Hotel was to remain fully occupied throughout the duration of the works and disruption to the guests and delegates within the hotel was to be prevented. Therefore, following extensive roof analysis, a tailored system integrating several different cold applied materials, within a single point guarantee, was proposed to reduce the potential for upheaval or impact, particularly to the Dining and Conference areas where the noise was to be kept to an absolute minimum.

This process included the use of a thermographic roof survey, a service that accurately assesses the level of water penetration within the existing roofing system in conjunction with opening up and inspection by the project team. This is carried out by using a state-of-the-art thermal imaging camera which identifies specific areas for removal and those suitable for overlay, the requirement to replace the existing system is reduced. This provides the benefit of reducing waste, thus demonstrating significant savings by minimising the removal of waste, contract duration, cost and environmental impact on site.

Cold applied Mach One single layer bituminous membrane

Project Sector:	Private sector
Application:	Cold applied
System used:	Mach One / Polimar
Contractor:	Central Roofing and Building Services
Started:	March 2008
Completed:	August 2008
Size:	9053m ²

was applied over the main roof areas whilst high performance Polimar liquid waterproofing was installed in detailing the difficult access areas. This combination ensured the integrity of the roofing system was sound throughout, while delivering minimal environmental impact along with minimal noise and odour during installation.

This successful and impressive roofing project is an exemplary demonstration of partnership in action between client, consultant, contractor, system manufacturer and distributor. Materials for the project were stored at Dudley branch of SIG Roofing Supplies and delivered to site when required. A service that reduces the size of vehicles delivering to site as well as the amount of material storage, thus minimising the risk of damage and maximising space available on what was a tight and restricted site.

Speaking on behalf of the client, Peter Sullivan of Savills Commercial Ltd said; "Renewing the roof covering over the principal restaurants, kitchens and 2000 capacity function



room at the Hilton Birmingham Metropole Hotel was never going to be easy. All customer facilities had to remain fully operational without disruption.

“Central Roofing and Building Services, in partnership with Marley Waterproofing, were appointed because both parties demonstrated a proven track record of project delivery under equally demanding situations. They integrated their expertise and pooled their resources to deliver site specific solutions which would conform with the strict requirements of the specification, as well as Marley Waterproofing’s guarantee criteria and Central Roofing and Building Services’ own self-imposed critically high standards. The project was delivered under time, under budget, and under pressure, but both parties over achieved.”

A site survey was carried out in January 2008 to determine the condition of the existing waterproofing system on the lower level dining hall roof area of the hotel. Prior to this investigation, a thermographic survey had been undertaken in October 2007.

40 core samples were taken by Central Roofing and Building Services to confirm the results found in the thermographic survey and Marley Waterproofing confirmed the core sample results. The thermographic survey was proven to be accurate and revealed that some areas had suffered from water ingress, while other areas remained dry. The wet areas of the roof were clearly marked. The wet areas were stripped back to the metal profiled deck. Replacement insulation was installed as well as a new vapour control layer, which was added to the primed metal deck. Fibre board was installed to match the existing build up and bonded in PU adhesive. Bitumen underlay was installed to the primed fibre board to re-create the level of the existing roof covering. In dry areas, existing surfaces

were cleaned and debris and flakes were removed. On these areas the substrate was primed and prepared to accept the new waterproofing system.

The upper Metropole roof was de-chipped and a Mach One system installed in PU adhesive. An automatic welder was used on all side and end laps of the Mach One system, creating a constant bleed throughout all of the installed system ensuring a reduction in possible failure. Polimar details were included. The different systems created a bespoke cold applied installation which, thanks to the final application of Mach One membrane, gives a uniform and superior finish to this prestigious project. Mach One has a Quality in Construction (R&D) Award for Construction Products.

No naked flames were used during the installation. This delivered a decrease in the environmental impact, as well as a reduction in noise pollution, which was at a minimum during the installation of the cap sheet. This was vital as there were numerous seminars held in the rooms below at the time of the installation.

This prestigious project is an excellent example of how cold applied bituminous technology can be used to install a superior roof on a restricted access site with no disruption to the day-to-day workings of the occupants. The installation resulted in no impact or risk to hotel staff or guests staying at the hotel, including those attending the site for seminars and conferences for which external noise was to be avoided. The roof was completely refurbished and staff and visitors were unaware that the work was being carried out.

The project was completed seven weeks ahead of schedule.

