



Case Study

Royal Alexandra & Albert School



Specialist contractor **Cemplas Waterproofing and Concrete Repairs Ltd** were asked by BHM Architects on behalf of the Royal Alexandra & Albert School to survey and produce a report on the concrete structure surrounding the Schools dining hall. A full survey was undertaken by Cemplas who were subsequently appointed to undertake the works.

Cemplas surveyors found the concrete was carbonated resulting in localised areas of the concrete spalling and the masonry coating was also in very poor condition and delaminating from the concrete. Cemplas surveyors also found that poor detailing of the lead flashing was allowing water to penetrate and ingress the top beam of the window surrounds causing the concrete to spall.

Cemplas commenced works by cordoning off work areas with tape, cones and signs to provide a safe working area. Mobile access towers were erected and all windows, floors and surrounding areas were protected by the use of polythene and plywood.

Once protection and access was in place all concrete surfaces were high-powered Jet washed to remove all dirt, dust, laitance and moss. This was followed by scraping off any existing loose and flaky areas to provide a sound substrate prior to the application of a protective coating.

The existing lead flashing was removed to the top of window surround and the substrate thoroughly cleaned prior to applying two coats of RIW Heaviseal specialist waterproof liquid membrane to provide a seamless, waterproof finish which would prevent any future water ingress and

further damage to the concrete underneath. Once applied a new lead flashing was reinstated.

As part of the remedial works Cemplas allowed for an up-stand detail between the concrete and the brickwork to provide a full waterproof angle detail and all defective concrete was broken out. Steel reinforcement bars were cleaned and treated with Sika Monotop 610 rust inhibitor to protect the steels against future corrosion and the broken out concrete was reinstated using Sika Monotop 615 high build polymer modified concrete repair mortar. Any other minor undulations to the concrete were treated to provide a smooth sound substrate on which to apply the new protective coating.

On completion of all repairs and preparation, to improve adhesion to the substrate Sikagard Primer was applied prior to applying two full coats of Sika Elastocolor 675W protective/decorative anti-carbonation coating.

The works were completed on schedule and to the full satisfaction of the Architect and their client.

For further information on the operational range of services provided by Cemplas, please visit www.cemplas.co.uk.

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