

Repairs

CATHODIC PROTECTION

Biggin Hill



FREYSSINET
SUSTAINABLE TECHNOLOGY

Client
Breyer Construction

Other Agencies Involved
Mott MacDonald (Designer)

Works Commenced
November 2013

Works Completed
December 2013

Freyssinet were contacted by our client who required the services of a specialist cathodic protection provider. During construction of a steel framed building it was found that steelwork provided had potential corrosion risks as a result of sub-contract supplier issues. In order to facilitate the long term adequacy of the structure, an investigation was undertaken which identified potential inadequacies in the corrosion protection methods to the steelwork at the multi storey housing development at Main Road Biggin Hill.

Freyssinet through its subsidiary CCSL and in close association with Mott MacDonald carried out a design for the corrosion protection system proposed for the steel work. For the steelwork in voids, a corrosion inhibitor was installed. This provides the steelwork with a minimum of two years protection.

For the steelwork forming the frame to the car park area and at roof level, Freyssinet embedded within masonry an impressed current cathodic protection based on Elgard 100 Anode Mesh Ribbon providing 3.5m A/m system. A permanent 6V power supply was installed to each of the three blocks in order to 'energise' the system.

For the steelwork supporting hollow core slabs and isolated areas, galvanic cathodic protection was installed. Mapishield E25 self adhesive Zinc Layer plate was installed.

The system was fully commissioned on 2nd December 2013 by representatives from both Corrosion Control Services Limited (Freyssinet's Corrosion Control Subsidiary) and Mott MacDonald.



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