

PROJECT CASE STUDY

The Restoration of Rugby
Radio Station



RESTORATION OF RUGBY RADIO STATION



History of Rugby Radio Station

Rugby Radio Station, established in Hillmorton, Warwickshire, has a rich history dating back to the aftermath of World War I. In 1926, it made its mark by launching the GBR (16 kHz) Long Wave (Very Low Frequency) service, boasting the world's most potent 350kW thermionic valve transmitter, primarily transmitting Morse code signals for global coverage.

Throughout its existence, Rugby Radio Station played pivotal roles in international communications, including facilitating the first radio telephone service between the UK and the USA, supporting NASA and Concorde communications, and contributing to World War II efforts by jamming German night fighter transmissions.

As time progressed, technological advancements, like transatlantic cables and satellite communication, led to a gradual decline in the station's significance. This culminated in its eventual closure in 2000, marking the end of an era in global telecommunications history.

Project Background

CRL were initially involved in this project back in 2018 where we helped Morgan Sindall develop a scope of work, method of working and provisional program for their initial bid to win the work. Once Morgan Sindall won the project we then had to retender for the works of Historical Brickwork Package and new GRC cornice. Having successfully won the tender stage CRL started on site in May 2020 to complete brickwork and pointing samples for the client and architect (vHH - van Heyningen and Haward Architects).

Techniques Used When Restoring

Internally, the project involved structural modifications such as creating new brickwork openings up to 900mm, installing concrete and stainless steel lintels above them, and adding over 50 padstones for steel frame support. It also included crack stitching, repointing, closing existing openings, infilling with salvaged glazed bricks, concrete repairs, and M&E chases, all completed by Concrete Renovation Ltd.

Externally, the project included re-pointing with 3.5 NHL, installing external padstones for steel support, closing old openings, and repairing brickwork. It also involved replacing damaged bricks, adding new brick fillets, infill panels at Power Hall and Transmission Hall ends, salvaging and re-bedding coping stones, constructing stair tower extensions, and a reception extension with a wheelchair access window. There was work on lintels, rainwater openings, dismantling old parapets, rendering repairs, leadwork on balconies, stainless steel lintels installation, and brickwork. DOFF cleaning was performed on brickwork and stonework, and bespoke coping was created at high levels.

Concrete Renovations Ltd subcontracted the **GRC** design while installing each GRC unit themselves. Each unit was 600kg, 1m deep, 3.5m long on the Transmission Hall. Concrete Renovations installed a secondary bracket system for installation, prioritizing safety. Following this, they added timber, marine ply, lead, and mastic joints to ensure waterproofing.



Before

Before restoration, the image above showed Rugby Radio Station in a state of disrepair: dilapidated buildings, overgrown foliage, rusted infrastructure, and neglect had taken a toll on the once-iconic communication hub, portraying a stark contrast to its vibrant past.



After

After restoration, Rugby Radio Station appeared revitalized and pristine, thanks to concrete renovations. The buildings showcased a renewed grandeur, with refurbished exteriors, preserved historical elements, and a fresh, well-maintained appearance that breathed new life into the iconic site, honoring its heritage.

PROJECT VALUE: £1,200,000.00

RESTORATION OF RUGBY RADIO STATION

Before Restoration



After Restoration



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Rugby Radio Station Before and After

Concrete Renovations Ltd dedicated immense effort to the restoration of Rugby Radio Station, a testament to their unwavering commitment. They meticulously revitalized the site, ensuring every detail aligned with its historical significance. Their hard work breathed new life into the decaying structures, preserving the past while creating a vibrant future. The result is a source of great pride for Concrete Renovations Ltd, a symbol of their dedication to heritage preservation and their ability to transform a neglected relic into a meticulously restored piece of history. The project stands as a shining example of their craftsmanship and deep respect for the cultural and architectural treasures of the past, leaving a lasting legacy for future generations to appreciate.