

## Secondary Glazing

## **Reading Town Hall**



**Benefit:** Quieter

Type: Refurbishment

**Listing:** Grade II\*

Wedding ceremonies are made more peaceful in this highly ornamental and imaginative Grade II and II\* Listed Town Hall following acoustic adaptations to block noise from Reading town centre.

Deep in the heart of Reading, just a stone's throw from Reading Abbey in the county of Berkshire is the historic Reading Town Hall. This magnificent Grade II listed building was built in phases between 1786 and 1897. The main façade was designed in 1875 by renowned architect Alfred Waterhouse in the Victorian Gothic style; this particular area of the building is Grade II\*. In 1943, the Town Hall fell victim to an air raid and suffered extensive damage, some of which was visible until 1990, when restoration work commenced on the building.

The town's civic offices were situated in the Town Hall until 1976 but moved when Reading Civic Centre was built. The library was also moved in 1986 to a dedicated central library building in nearby Kings Road. Following

a major refurbishment in 2000, the Town Hall now houses the Reading Museum, a large concert hall, conference rooms and a café.

The Town Hall's Grade II Listed facilities offer space for conferencing, weddings, parties, and Christmas events. One such area, the Registry Office's Ceremony Room,









By Appointment to Her Majesty The Queen Manufacturer and Supplier of Secondary Glazing Selectaglaze Ltd.

## Secondary Glazing



in the Grade II\* part of the building required better acoustic insulation on seven of the primary windows, to ensure minimal breakthrough of outside noise during wedding registries. As the building is Listed, the traditional single glazed sash windows were retained as an important architectural feature and secondary glazing was chosen as a way of dealing with mitigating noise from the busy thoroughfare.

Selectaglaze, the UK's leading specialist of secondary glazing systems worked closely with main contractor Lakehouse and Reading Borough Council to devise appropriate designs. These needed to be engineered to meet the acoustic requirements but also had to be as unobtrusive as possible.

A total of 23 units were installed to 7 enormous original windows in the Ceremonies Room. The very large Gothic arched primary windows were just over 4 metres high, so had to be treated with a combination of units to ensure the perfect acoustic insulation. Each opening was treated a combination of three or four transom coupled secondary glazed units with a Series 42 curved fixed light system affixed at the top. The slimline Series 10 horizontal sliding units specified for the lower units

on the wider windows, whereas the Series 45 side hung casement was selected for the narrower windows. This ensured that sightlines from the primary windows were not compromised irrespective of the differing widths of the primary windows. 6.4mm acoustic laminate glass was specified for each and a cavity of 100mm from the original windows ensured that secondary glazing units reduced noise levels by between 40-45dB. In most instances this achieves World Health Organization guidelines for quiet environments. An additional benefit of this treatment was that the thermal controls were also enhanced, making the room warmer.

Well-designed secondary glazing can play an important role in improving the environment of buildings of all styles but as a reversible adaptation it is particularly suited to Listed and traditional buildings. Secondary glazing can achieve very significant noise insulation of 45dB or more, reduce the U-value of a window to around 1.8 and enhance security though the use of strengthened glass and locks.

Following on from the work completed by Selectaglaze, obscurity films were installed by the council to the bottom secondary glazing sashes to ensure enhanced privacy during wedding ceremonies. The staff are impressed with the units and the change in noise levels is clear for all to experience. The joining of two people in wedded matrimony will be a more peaceful, private and intimate moment.





