

CASE STUDY

MIDLAND LEAD SUPPORTS MAJOR HERITAGE ROOF RESTORATIONS IN AUSTRALIA



Code 6 king roll lead hips and ridge add strength and aesthetic appeal

We're proud at Midland Lead that our lead has travelled to the opposite end of the world to support two significant roof restorations in Australia! Firstly, at Sydney's Central Railway Station - Australia's largest and busiest train station, which serves over 250,000 passengers daily. Central Station opened in 1906 and was designed by Government Architect Walter Liberty Vernon, in the grand Federation Free Classical style.

The station's sandstone façade, impressive colonnades, and the iconic 75-metre clock tower (completed in 1921) make it one of Sydney's most recognisable architectural landmarks.

The roof has always been an important feature of the design at Central Station. The roof structure incorporated lead sheeting, for its durability, malleability, and weatherproofing qualities. Lead was also widely used in the gutters, flashings, and joints, helping to manage Sydney's heavy rainfalls and ensuring the long life of the building.

In 2021 **Architectural Roofing Services Pty Ltd (ARS)** were appointed to undertake the main roof works at Central Station after the existing lead roof failed, causing leaks, and Midland Lead were delighted to support ARS with BBA & EPD certified lead. Work started in 2021 and took around a year to complete.

The main roof, the clock tower roof and the plant room roofs were all replaced with over 3 tonnes of lead in total. 80m of 40kg/m² Code 8 lead box gutters were installed with expansion joints, to let the lead move safely, and new sump boxes installed to improve water management.

New 30kg/m² Code 6 king roll lead hips and ridge were installed along galvanized roofs – a decorative but functional way of covering the hip joint to protect from water ingress - adding strength and also aesthetic appeal.

In addition, ARS installed 30kg/m² lead vertical cladding in locked seams with capping of stone cornices, and 25kg/m² Code 5 lead cover flashings. New chimney flashings in lead and capping of chimney tops in Code 6 30kg/m² lead added the finishing touch.

Refurbishment of more roofs will likely follow, to keep this important heritage site fit for future generations. At Midland Lead, we're delighted that our lead is contributing to the station's resilience and the survival of much of its original fabric, more than a century later.

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RESTORATION OF GOVERNMENT HOUSE CLOCK TOWER, TASMANIA



A new lead roof and cover flashings at Government House

Over on the island of Tasmania, Government House in Hobart is the official vice-regal residence of the Governor of Tasmania. Designed and constructed in 1857, the building has a striking neo-gothic design and decorative stonework, with a roof design incorporating slate tiles as well as machine cast lead sheet on the building's police and clock towers. With over 160 years in situ, the original lead roof on the towers had understandably started to fail, and Architectural Roofing Services (ARS) were appointed for restoration works, with Midland Lead supplying the lead.

Before the works could commence, the Governor's Standard which flies on the clock tower was lowered, as was the Tasmanian flag which flies on the police tower. The clock (one of the earliest clock imports into the colony) was also stopped during works, to protect its mechanism from any dust.

In fact, the logistical preparations for this work were significant! They included installing safe access system and anchor points on the roof and towers, preparing all lead in the Government House stables, and bringing a crane on-site to lift all materials on and off the roof.

Lead box gutters in 40kg/m² Code 8 were installed with expansion joints, to let the lead move safely. Lead bay roofs in

Police Tower, Hobart Government House

40kg/m² and cover flashings in 25kg/m² lead were also installed. The original lead roof was constructed in 1852, with existing lead internal down pipes and sumps still in working order when the roof was replaced by ARS.

All the lead removed from the roof was recycled, and the replacement new lead roofing should last for over a century. Now the initial roof works of the police and clock towers are complete, the Governor's Standard and Tasmanian flag can once again be seen flying from the Government House roof. Preparation for the next phase of roof works continues, to preserve these magnificent buildings for future generations.

Kevin Allan, Director at ARS comments: **'It's always a pleasure to work on significant heritage restorations, where we're bringing original leadwork back to its former glory. Both roof restorations at Sydney Central Railway Station and Hobart Government House have played an important part in restoring these important buildings for future generations. Thanks to the team at Midland Lead for shipping your lead safely across continents to support our efforts!'**