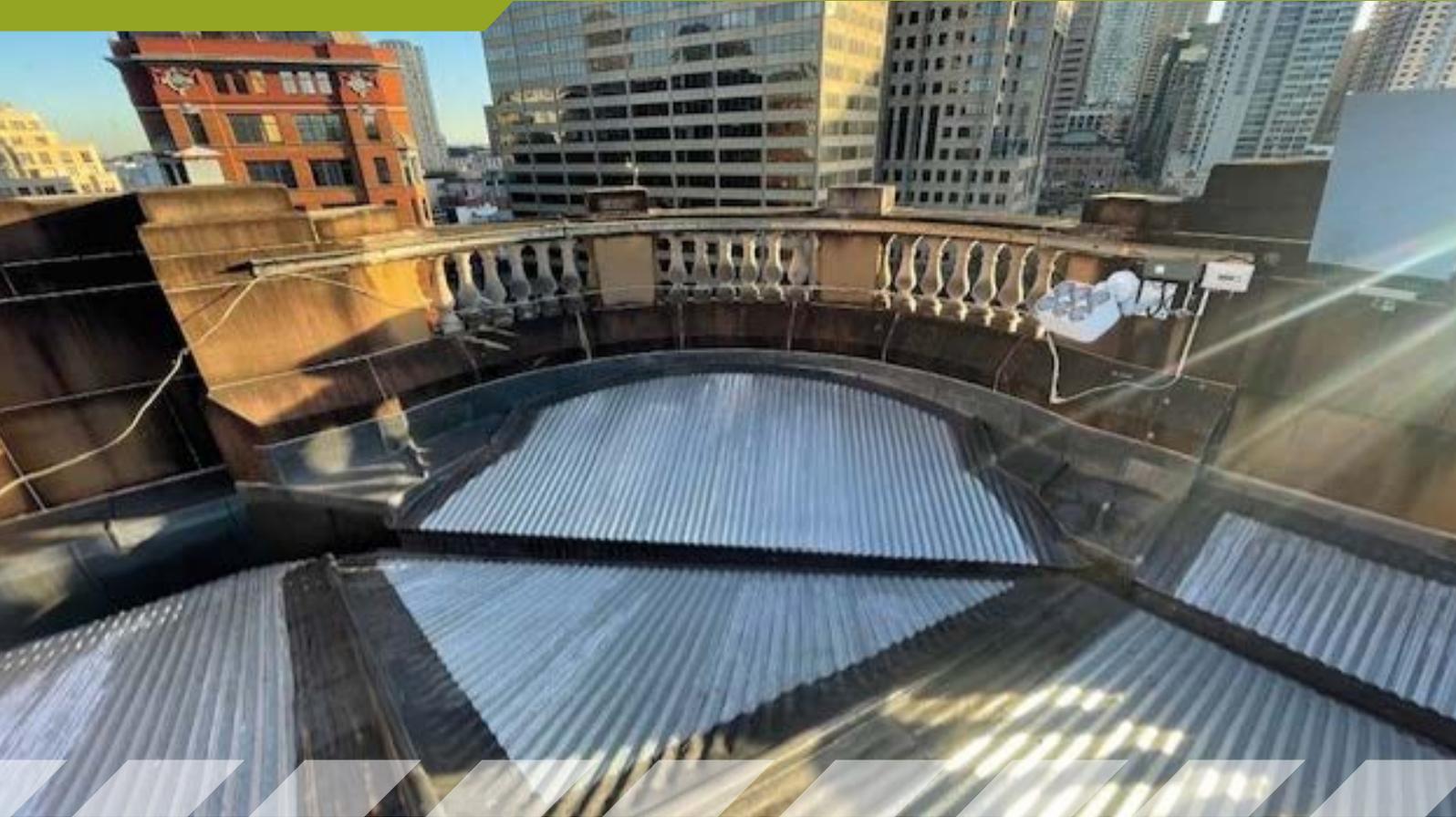


CASE STUDY

ROOF RESTORATION AT CENTRAL RAILWAY STATION, SYDNEY



Sydney's Central Railway Station is Australia's largest and busiest train station, serving over 250,000 passengers daily. Central Station opened in 1906, replacing earlier, smaller stations that could no longer handle the city's growing rail traffic. It was designed by Government Architect Walter Liberty Vernon in the Federation Free Classical style, giving it the look of a grand civic building rather than a functional transport hub. 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. The train sheds originally used large spans of iron and steel trusses to create vast, open platforms protected from the weather. 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 our machine cast lead. After a period of wet weather delayed work by 3 months, 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 ridges 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.

CASE STUDY

ROOF RESTORATION AT CENTRAL RAILWAY STATION, SYDNEY

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.

Major works are still ongoing at Central Railway Station and the surrounding areas, including new metro platforms and a Central

Walk pedestrian concourse under platforms, and the Sydney Terminal Building Revitalization programme to improve passenger experience. Refurbishment of more roofs will likely also 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.



The iconic clock tower at Sydney Central Railway Station



New lead hips and ridges are added for strength and aesthetic appeal



The new roof at the iconic Central Railway Station keeps the building fit for future generations

