

# CASE STUDY

## MANLY FIRE STATION NSW



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## PROJECT OVERVIEW

The notable Manly Fire Station has been serving as an iconic part of the Northern Beaches of Sydney since its construction in the 1920s. For over 100 years, the Sydney Rd building has been providing an essential service to the local community.

In 2020, the Fire Station secured crucial funding to undergo unique heritage works to restore the historically significant building for both FRNSW and the Manly community, and ensure that the space continued to meet the demands of protecting the local community.

As an emblematic part of the Northern Beaches community, it was important for all concerned that the building honoured its original form by retaining its aesthetic with subtle modern upgrades that would celebrate the station's history, and also structurally secure the station for future generations to come.

## THE PROBLEM TO SOLVE

The three-storey structure incorporated two adjoining buildings that were connected by the external fabric and displayed lateral movement caused by expansion over time, this meant a stabilisation solution was needed to ensure long-term building sustainability that was both non-disruptive and installed easily and quickly.



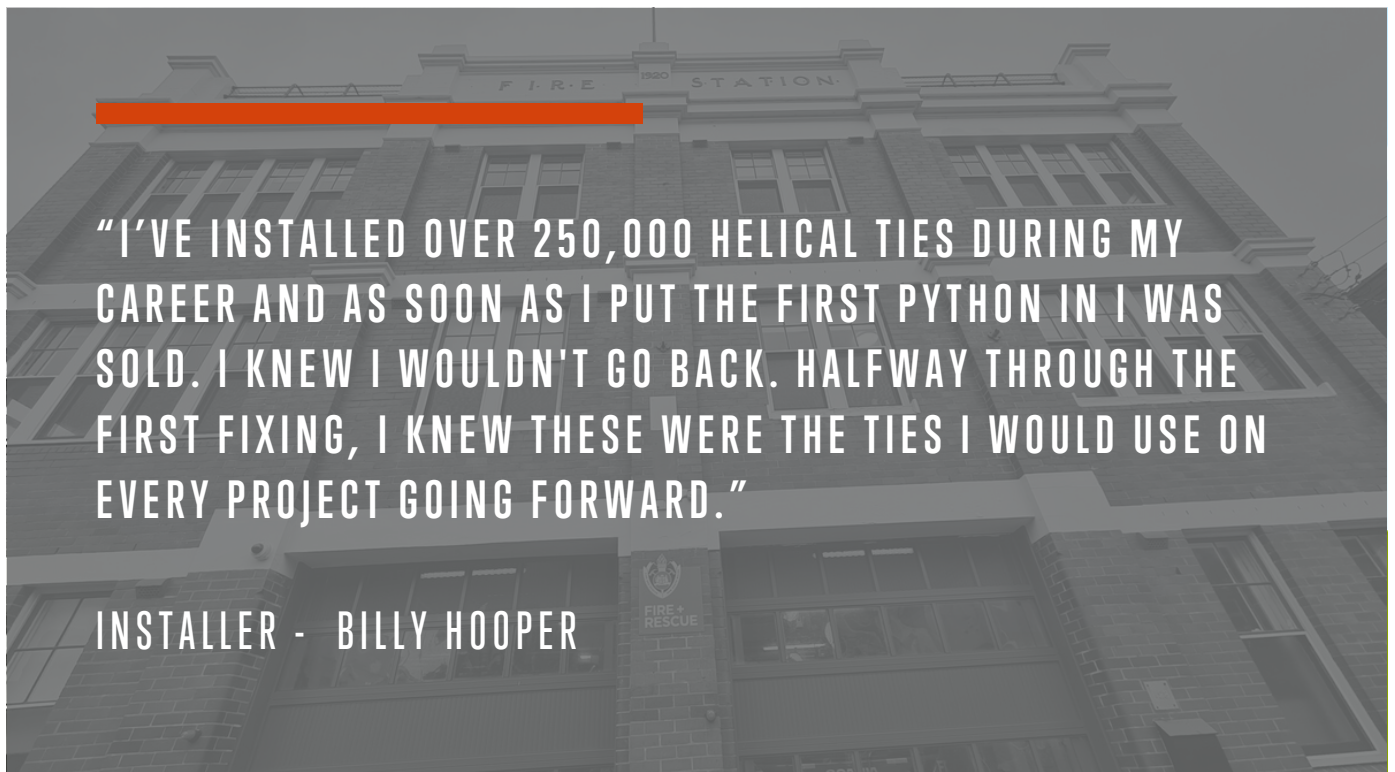
## THE SOLUTION

Project Engineer Paul Grogan from Birzulis Associates, working alongside main contractor Axis Constructions and Masonry Installer Billy Hooper from Final Constructions, specified PYTHON Fixings as a solution due to the building fabric.

This ingenious solution provided an instant and solid hold with no displacement to engage tensile capacity, and offered a lower impact on the existing brick, unlike chemical fixings, which had previously been explored prior to engaging PYTHON Fixings.

The project team were pleased when they learnt that PYTHON Fixings could be installed from the inside of the building across all elevations using the world's longest masonry fixing, the PYTHON MT (340mm). Utilising this fixing unique to PYTHON meant no scaffolding was required for this project.

Unlike chemical connections, the PYTHON MT provides a fast and effective installation with no downtime, enabling the main contractor to proceed without any delays, and deliver an economic solution.



## THE SOLUTION

Over the course of the project **PYTHON MT Fixings** in 230mm, 340mm and customised lengths were installed to increase the structural capacity of the walls and to connect the floor and roof to the existing brick structures.

PYTHON MT Fixings were utilised to reinstate the connection between the inner and outer leaves of the existing masonry walls. A seamless finish was delivered on-site, with no fixings exposed on the building fabric, providing a fully concealed, non-disruptive masonry reinforcement solution.

“I’ve installed over 250,000 helical ties during my career and as soon as I put the first PYTHON in I was sold. I knew I wouldn’t go back. Halfway through the first fixing, I knew these were the ties I would use on every project going forward.” Installer Billy Hooper explains.

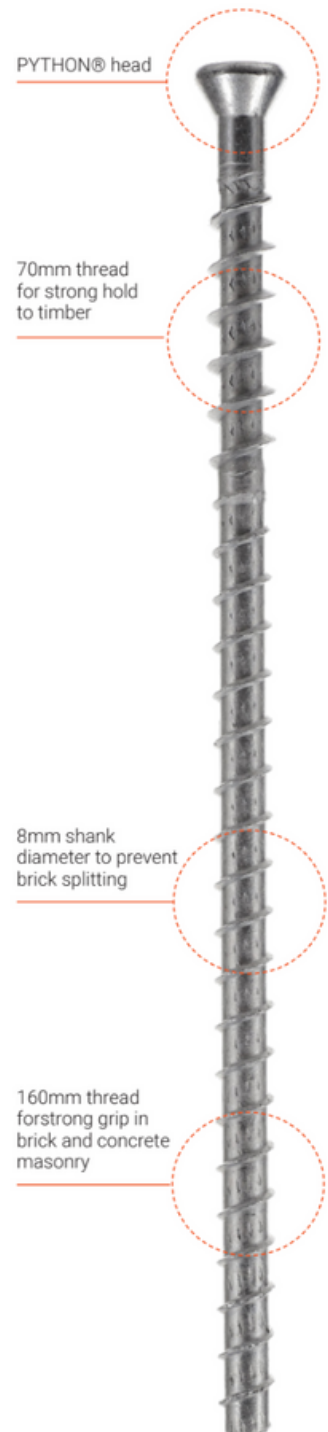
Once all the concealed structural repairs and stabilisation were completed, the now secure structure was able to take shape internally. New spaces in the refurbishment included designated work and living areas, separate sleeping amenities, a new training room, and improved recreational spaces, which will provide staff with the equipment and necessities to help anyone, anywhere, anytime.

The PYTHON Fixings range is seismically rated and purposely designed for remedial and seismic applications. Lightning quick to install with no use of epoxy, see how simple the PYTHON MT is to install [here](#).

To discuss your next project, contact the PYTHON Fixings team at [info@pythonfixings.com.au](mailto:info@pythonfixings.com.au) or call **1800 PYTHON**.

## PYTHON<sup>®</sup> MT

Structural connections to brick and concrete block masonry





# YOUR NEXT PROJECT.

**PYTHON Fixings'** worldwide excellence makes your life easier with our expert knowledge, comprehensive technical support, and engineering design data ready to be used in your project.

Contact the PYTHON team to discuss your next project, email [info@pythonfixings.com.au](mailto:info@pythonfixings.com.au) or call **1800 PYTHON.**

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