



Controlling Critical Risks



Rozelle Interchange Project use “Silent Piler” at highly sensitive site

The Rozelle Interchange Project team recently used an innovative sheet piling technology supplied by Japanese company Giken, for a highly sensitive site.

Implemented for piling the cofferdam for pier 2 of the Brennan St Bridge, the Giken was chosen for its silent and vibration-free mechanics, minimising the impacts associated with traditional piling. Reducing construction-related vibration was necessary due to proximity to the Sydney Light Rail embankment (four metres from the piles) and the heritage storm water canal (one metre from the works).

The machine used was the Giken SW100 the smallest machine in the Giken range. Weighing 8.2-tonnes, with a two-ton reaction frame, the

machine conducts piling via the press-in method by climbing the already installed sheets, without requiring any access to the rig. The SW100 can pile in corners and change the direction itself. The process is complete when all sheets are pressed-in and the machine locks the last corner, sealing the cofferdam.

Furthermore, the SW100 proved particularly speedy when conducting the works, reducing the time further by 50 percent.

This innovation was extremely successful in fulfilling each of the requirements associated with the piles and while its use is a first for the project, its efficiency and minimal community impacts proved highly beneficial for the project.

