CASE STUDY

Fortress Sound Barrier
New England Highway Upgrade
Daracon, June 2018

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Fortress Sound Barrier

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THE PROJECT

Jaybro supplied Daracon with 62 metres of Fortress Sound Barrier acoustic curtains.

RMS along with the Australian Rail Track Corporation (ARTC) are currently in the process of upgrading the New England Highway. The New England Highway through Singleton is the main arterial connection between Newcastle and the Upper Hunter.

However, the Main Northern Railway Bridge over the highway north of Singleton unfortunately restricts access for wide loads and heavy vehicles.

Due to this, Roads and Maritime together with ARTC are therefore planning to replace the rail bridge to provide increased horizontal clearance. In turn, this increased clearance will accommodate two travel lanes with wide sealed shoulders and facilities for pedestrians and cyclists.

One of the upgrades includes the Singleton Railway Underpass which will comprise of a new rail bridge. In detail, this underpass and bridge will provide over 5 metres of vertical clearance, together with widening 260 metres of the New England Highway. Ultimately, the road will include two 3.5 metre lanes. What’s more, ARTC plans to relay up to 200 metres of rail track.

THE CHALLENGES

Assessors carried out a review of environmental factors prior to the project, and moreover, parts of the project were deemed to have a negative noise and vibration impact on surrounding suburban areas.

PRODUCT SPECS

- Length: 1.3m
- Height: 2m
- Weight: 6kg - 16kg per panel
- UV and Weather Resistant
- Up to 40db noise reduction

Customer:
Daracon

Project:
New England Highway Upgrade

Location:
Singleton NSW, Australia
For that reason, noise control measures were implemented. The project managers looked at a range of activities to manage and mitigate these impacts. The investigators found the proposal is unlikely to have a significant impact on the environment, and subsequent noise and vibration from the proposed work has been assessed as low impact to nearby residents.

However, safeguards and management measures could still be implemented to address potential noise impacts. Owing to the fact that most of the proposed work would be carried out in standard hours, simple noise management tools could be used. On the other hand, night work at certain times was essential to build the new rail bridge.

Daracon was looking for a simple, easy to set up solution that could form an effective acoustic barrier.

**JAYBRO’S SOLUTION**

Jaybro supplied Daracon with 62 linear metres of Fortress Sound Barrier acoustic curtains. These were installed on temporary fencing around the site to reduce noise to the surrounding residential housing while construction is being undertaken.

The Fortress Sound Barrier acoustic curtains are a cost-effective form of mitigating airborne noise. They are constructed with Velcro joins down either side to ensure maximum strength and protection. Consequently, they form a compliant clip-together kit form barrier.

Furthermore, depending on the installation and environment, these acoustic curtains can offer significant noise reduction - up to 40dB!

Not only do Fortress Sound Barrier acoustic curtains dampen and block sound, they can also help control the spread of dust and fumes.

Flexibility is a huge bonus on these acoustic curtains as they are more versatile and economical than rigid enclosures, allowing for easy access, disassembling and easy transport.

Tough and weatherproof, Fortress Sound Barrier acoustic curtains can installed in both indoor and outdoor applications and are easily cleaned. Additionally, they can be folded in a concertina style to allow a variety of different configurations. The curtains are supplied individually in panels measuring 1.3 x 2 metres, and 3 metre high panels are also available.

This project is set to be completed in 2020.