LOW-NOISE ROCK EXCAVATION FOR NIGHT WORKS

CASE STUDY



Project: Eastern Freeway Upgrade – Burke to Hoddle
Industry: Road Infrastructure
Location: Blackburn, Victoria
Project Scope: Rock excavation works within a live residential freeway environment, requiring night shift operations under strict noise and vibration constraints

FOCUS MACHINERY

THE **PROBLEM**

As part of the Eastern Freeway widening works, excavation needed to be completed in close proximity to residential areas.

The challenge wasn't just the rock.
The works had to be carried out:

- At night to maintain programme sequencing
- Within strict noise and vibration limits
- Inside a confined corridor between barrier and rock face

Traditional rock breaking methods would have generated excessive noise and vibration, preventing night works and creating significant community disruption.

Failure to meet these constraints would have:

- Delayed the programme
- Restricted working hours
- Increased risk of compliance breaches

THE **SOLUTION**

Focus Machinery engineered a low-impact excavation package to meet both production and compliance requirements.

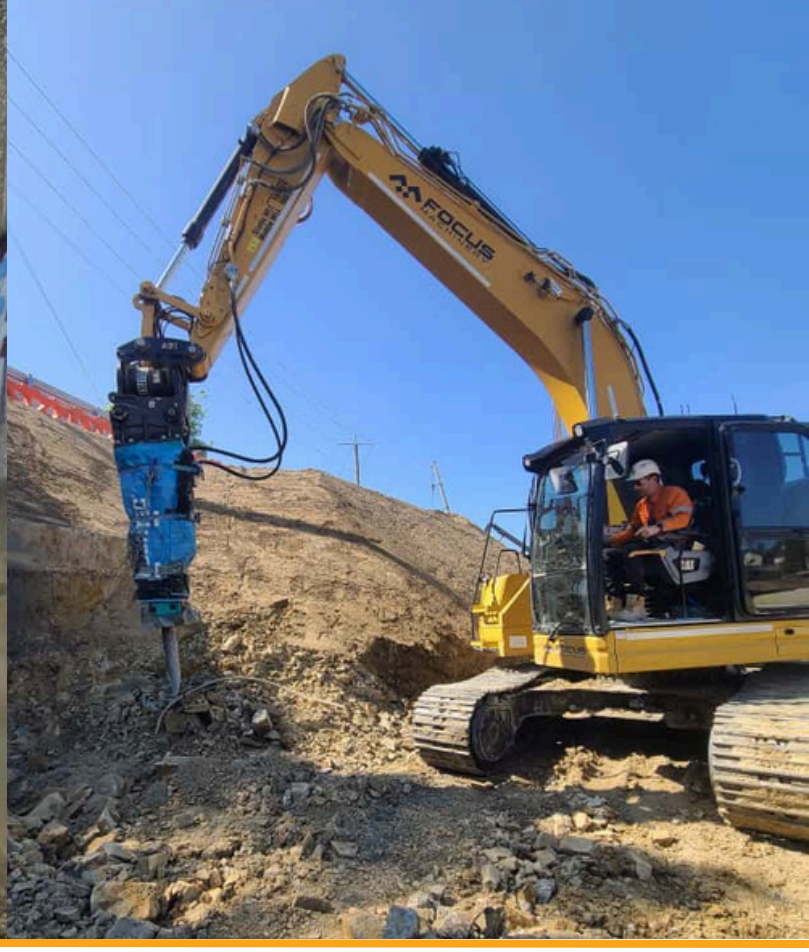
The solution included:

- 2 x Cat 325 25T excavators with 3D GPS for precision excavation
- 2T hydraulic rock breaker fitted with Hushtec sound suppression shroud
- Drum cutter attachment to enable low-noise, low-vibration rock removal
- Zero swing configuration to operate safely within confined access

Attachments were delivered and commissioned on-site, ensuring machines were fully configured and ready for immediate night shift operation.

This combination allowed excavation to proceed without exceeding environmental limits, while maintaining productivity.





THE **RESULTS**

The engineered solution enabled continuous night works without community impact or compliance risk.

- Night works completed within noise restrictions
- 100% uptime achieved across operating period
- Zero compliance events recorded
- Programme maintained without delay

By reducing noise and vibration at the source, the project team was able to continue excavation works during critical night shifts without disruption.

Compliance | Performance | Reliability | Certainty

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