Transport for NSW

Mount Ousley interchange

Piling factsheet

March 2025

Australian Government
BUILDING AUSTRALIA

NSW GOVERNMENT

Transport for NSW acknowledges the Dharawal and Wodi Wodi people as the Traditional Custodians of the lands on which we work and pays respect to Elders past and present.

The Australian and NSW governments are investing in a new interchange on the M1 Princes Motorway at the base of Mount Ousley to improve connectivity, safety and efficiency for those travelling through the gateway to Wollongong.

Upcoming piling work for the Mount Ousley interchange

Piling is required to build solid foundations for new structures we are building as part of the project.

What is piling?

The installation of piles into the ground creates a solid foundation to support large structures, such as bridges, ramps and retaining walls. The piles penetrate the ground, reaching a strong layer of rock. There are different methods of piling, depending on the type of soil and/or the type of structure to be built. The number of piles required in an area is also dependent on these factors.

Piling activities are supported by a mobile crane, which is used to assist the piling rig by placing a steel reinforcement cage into the ground.

What are some common impacts caused by piling work?

Piling work has the potential to create noise, vibration and dust. To reduce noise and vibration impacts, most of our piling activities will be carried out during standard daytime construction hours from 7am to 6pm Monday to Friday and 8am to 1pm on Saturdays.

Work may need to be carried out at night when working near live traffic to minimise traffic disruptions and ensure the safety of workers and road users. The community will be notified of night work in advance if required via letterbox notifications, email and SMS updates. Visit our website transport.nsw.gov.au/mountousley to register for regular updates on the project.

Above: One of our piling rigs at the Northfields Avenue pedestrian bridge site

Types of piling we're using on the Mount Ousley interchange

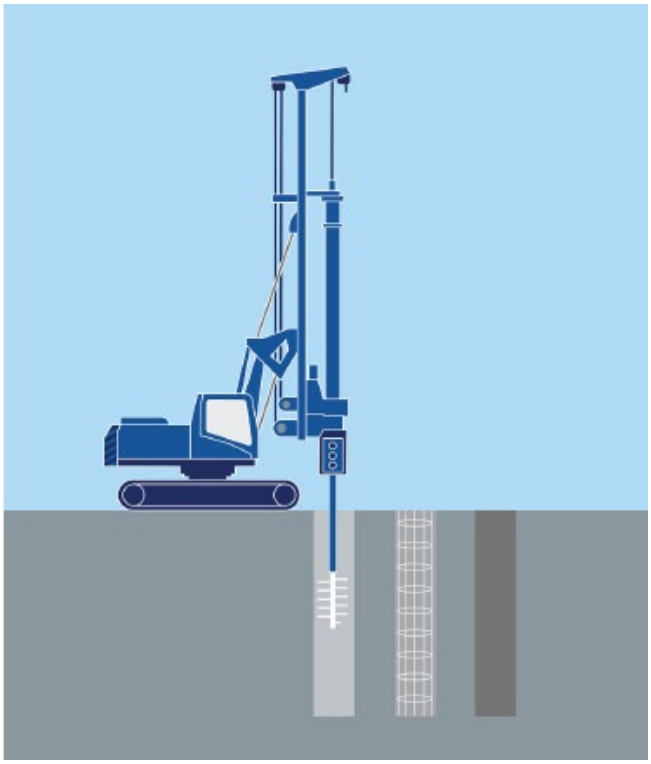

Figure 1 – Example of the bored piling method

Bored piling

On this project, we will mainly be using a bored piling method to minimise noise impacts to surrounding neighbours.

A piling rig with an auger is used to drill into the ground to create a deep hole, removing material.

Once the hole is created, a steel reinforcement cage is carefully lowered into the space. Concrete is then poured in to form the pile. Once the concrete sets, the bored pile is complete. The bored piling method will be used for our larger structures like bridges and retaining walls.

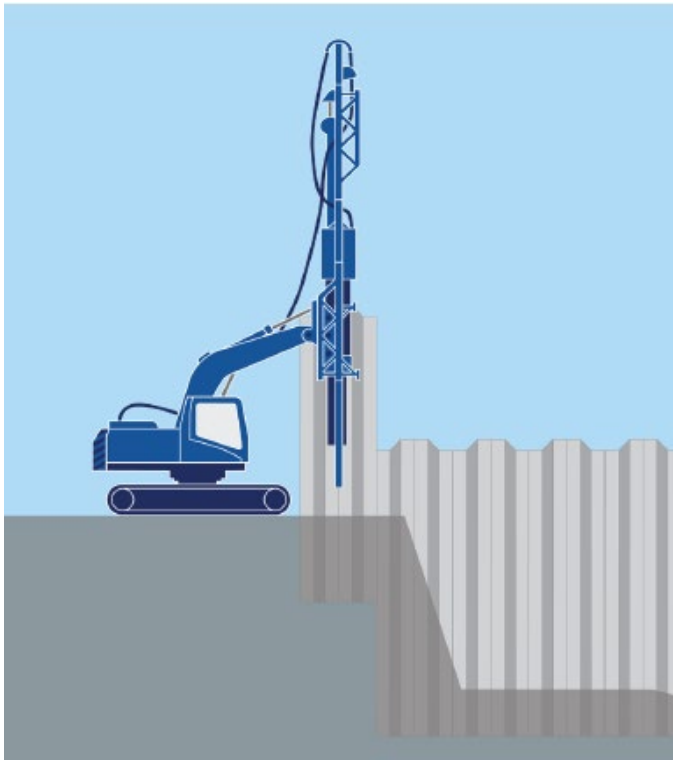

Figure 2 – Example of the sheet piling method

Sheet piling

Sheet piling involves using vibration to drive interlocking sheets of metal into the ground to form a barrier similar to a retaining wall.

We will be using the sheet piling method in some areas across the project where it is necessary to stabilise the ground to build retaining walls and large utility pits.

Reducing the impact on you

We will make every effort to minimise impacts from piling works by

- turning off machinery when not in use
- using acoustic blankets/shields around equipment to minimise noise where feasible
- when working at night, where feasible, directing temporary lighting down and away from houses
- planning activities in relation to noise and vibration modelling, followed by verification to ensure we don't exceed approved levels
- carrying out activities close to residents during construction hours or early evening, where possible
- fitting equipment with devices to minimise noise, particularly non-tonal reversing beepers
- monitoring noise and vibration periodically so we can manage any potential impacts and adjust our work as required
- scheduling noisiest work to take place before midnight where possible
- implementing a minimum of one hour's respite for highly intensive noise work, and not undertaking this work for periods longer than three hours

- working in accordance with the Project's Environment Protection Licence (EPL) for out-of-hours work. This includes working no more than two consecutive nights per week, three non-consecutive nights per week or 10 nights per month in the same noise catchment
- monitoring weather conditions and distributing adverse weather alerts to field staff
- deploying water carts, using non-potable water as much as possible
- reviewing, modifying or stopping work practices during periods of high wind.

Piling work locations

The below map highlights the locations where piling works will occur for the project.

Contact us

If you have any questions or would like more information, please contact us on:

1800 792 918

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If you need help understanding this information, please contact the Translating and Interpreting Service on 131 450 and ask them to call us on 1800 792 918.