

Factsheet

July 2023



Purpose

Transport for NSW (Transport) recognises that construction noise can be a source of annoyance, especially in residential areas. Transport is committed to mitigating and minimising construction noise impacts, wherever possible.

What is noise?

Noise is defined as 'unwanted sound'. Noise is perceived differently from one person to the next and is measured on a scale of units called decibels. Transport measure and assess noise within a representative time period in a manner that the human ear perceives it.

What is construction noise?

Construction noise is unwanted sound caused by construction works or activities. It is temporary and often varies as construction activities change and work progresses.

Construction activities that have the potential to generate unwanted noise include, but are not limited to, the following:

- Major earthwork activities.
- Project vehicle movements.
- Reversing alarms and beepers.
- Controlled blasting.
- Rock hammering and crushing.
- Bridge construction.
- Installation of piles.
- Concrete manufacturing.
- Asphaltting and concreting.
- Sawcutting and breaking of rock and concrete.
- Loading, unloading or moving equipment and construction materials.
- Tunneling.

Construction noise guidelines and criteria

Transport's assessment and management of construction noise is guided by five key documents:

- Environmental Planning & Assessment Act 1979 (EP&A Act)
- Protection of the Environment Operations Act 1997 (PoEO Act)
- Department of Environment and Climate Change NSW Interim Construction Noise Guidelines (2009) administered by the NSW EPA.
- Transport's EMF-NV-GD-0056 Construction Noise and Vibration Guideline (Roads) (2023)
- Transport's EMF-NV-GD-0060 Construction Noise and Vibration Guideline (Public Transport Infrastructure) (2023)

Together, these documents provide noise criteria and guidelines which are used in assessing and managing construction noise on projects.

How we assess construction noise?

Potential construction noise issues are considered and assessed during project planning and development.

We carry out background noise measurements and prepare impact assessments that consider the construction activities, type of equipment and distance from the work area to sensitive receivers. Where noise may exceed guidelines and is likely to adversely impact sensitive receivers, Transport actively seek management and other measures to reduce noise impacts and aim to proactively communicate with and advise potentially affected people.

Large or complex projects are assessed in greater detail than small or short duration projects due to the longer duration of potential noise impacts.

How do we manage construction noise?

We prepare a noise and vibration management plan for each project to document how we will work to reduce construction noise and vibration. It includes:

- An outline of all construction noise conditions and requirements.
- Identification of potentially impacted stakeholders (residential and business).
- Details of all mitigation measures that will be considered, where feasible and reasonable, where the construction noise and vibration impacts may exceed guidelines.
- Procedures for managing noise, including for example providing respite periods when works at night and early in the morning are required.

How do we reduce construction noise impacts?

Given that construction noise is temporary, that it varies over time and that it is by nature difficult to mitigate, a feasible and reasonable approach is taken to mitigation, based upon the requirements of the EPA's Interim Construction Noise Guideline, as supported by Transport's guidelines. Mitigation measures adopted to reduce and manage noise during construction may include:

- Maximising the distance between noisy equipment and residential areas.
- Scheduling noisy work at less sensitive time periods (such as during normal daytime work hours where possible).
- Regular maintenance of equipment.
- Installing noise control equipment on machinery and tools.
- Noise compliance monitoring.
- Locating compounds, stockpiles and crushing plants as far as possible away from residential areas.
- Use of temporary noise barriers.
- Scheduling respite periods for high noise activities, such as rock crushing (such as two hours on, two hours off).

- Installing noise mitigation treatments designed for operational noise as early as possible to provide additional relief during construction.
- Scheduling noise generating activities outside of school examination periods.
- Providing advanced notice of planned noisy work to neighbouring communities to help them plan.
- Use of multiple explosive charges of the smallest possible size in sequenced detonation rather than single large blasts.

Unfortunately, in some instances, we have limited options available to reduce noise impacts given the type and range of machinery and equipment required to carry out the tasks. Where noise is excessive and prolonged, respite periods will be scheduled to provide some relief to neighbours.

Out of hours works

Work is carried out during standard construction hours (from 7am to 6pm Monday to Friday and from 8am to 1pm on Saturdays) wherever possible. However, 'out of hours' work, (at night and early in the morning) may also be required where it is necessary to close roads, traffic lanes, or close rail tracks or corridors for construction activities (such as road resurfacing, installing bridges etc), to ensure the safety of our workers and/or to minimise impacts to peak period commuter traffic.

Other activities that may occur outside standard hours include, but are not limited to:

- Delivery of large or oversize machinery, prefabricated elements and construction materials
- Bridge work:
 - lifting and setting of bridge span and beams
 - demolition of existing bridges
- Utility relocation such as telephone, water, power or sewerage.
- Emergency work.

Contact and further information

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