

# Sydney Harbour Bridge Cycleway Ramp Project

## Managing construction noise

November 2024



Transport for NSW is delivering a new ramp and cycle path from the Sydney Harbour Bridge cycleway to the bike network in Milsons Point. The project will improve the cycling experience for all bike users at this iconic landmark

**We know our work can be noisy at times, which is why we will use a range of measures to reduce the impact to the community.**

The project team have carefully planned the construction methodology to reduce the impact to the local community. Key elements of the cycleway ramp such as the bridge sections and piers will be fabricated off-site before being delivered to site for installation.

### What is noise?

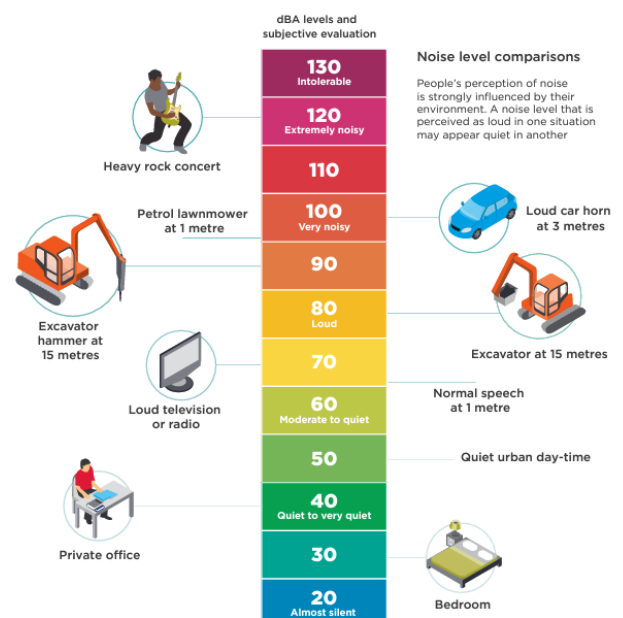
The human ear detects fluctuations in air pressure (i.e. sound) over a considerable range of intensities and frequencies. When sound is loud, unpleasant or causes disturbance, it is considered to be noise.

We measure noise in decibels (dBA). Our ears generally do not notice changes of one to two decibels. We also do not hear changes in noise incrementally. Many of us can hear a change of 10 decibels as about half or double the previous noise.

For example, a lawnmower is about 90 decibels and a motorcycle is about 100 decibels, however, to the ear, a motorcycle can be perceived as almost twice as loud as a lawnmower.

### Construction noise

Construction noise is measured, predicted and assessed in accordance with the relevant legislative guidelines. These include the [Interim Construction Noise Guideline \(ICNG\)](#), Transport for New South Wales [Construction Noise and Vibration Guideline \(CNVG\)](#) and various Australian Standards. Predicted and measured construction noise levels are assessed to determine the level of noise impact and to confirm appropriate mitigation measures to reduce noise impacts.



**Note:**

- A change of 1 dBA or 2 dBA in the level of a sound is difficult for most people to detect.
- A 3-5 dBA change corresponds to a small but noticeable change in loudness.
- A 10 dBA change corresponds to an approximate doubling or halving in loudness.



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

To build the project we need to use machinery and equipment that will create noise. The table below outlines some of our activities and the machinery and equipment used.

Construction activity	Construction equipment we may use
Locating, removing and relocating services and utilities	Vacuum trucks, light vehicles, heavy vehicles, lighting towers, hand tools, excavators, saw cutters, diggers, road saws grinders, welders, generators, compressors, compactors and diggers
Clearing and trimming trees and vegetation	Chainsaws, excavators, elevated work platforms
Installing and removing concrete barriers	Excavators, hand tools, utility vehicles and crane trucks
Drainage works	Excavators, sweepers, road saws, hammers, light vehicles, heavy vehicles, compactors, crane trucks and lighting towers
Establishing temporary construction sites including temporary fencing	Construction vehicles, traffic controllers, elevated working platforms, cranes, delivery trucks, hand tools, generators and light vehicles
Bored piling work	Cranes, piling rigs, trucks, excavators, rollers, concrete agitators, concrete pumps trucks, hand tools, lighting towers, light vehicles and heavy vehicles
Installation pre-cast piers and bridge structures	Construction vehicles, traffic controllers, elevated working platforms, cranes, delivery trucks, hand tools, generators and light vehicles

### Monitoring noise

Throughout construction we regularly monitor noise from our work at different times of the day and night to ensure noise is within our predicted noise levels. This monitoring lets us know if we need to change our construction methods, adjust our mitigation measures or adjust our predictions.

The following table below outlines potential noise impacts for residents based on the noise level of our work above background noise levels for work outside of standard construction hours (OOH).

Noise level above background noise level	Potential noise impacts for closest residents for OOHW
5-10 dBA	Noticeable
10-20 dBA	Clearly audible
20-30 dBA	Moderately audible
>30 dBA	Highly intrusive

To predict the potential noise levels from our work the CNVG considers

Ground features  
hills, slopes and depressions



Existing buildings  
houses, apartments and structures such as walls

Time of day  
when work is taking place



Distance of noise source to you

Type of noise  
generated from machinery



## Noise mitigation

We acknowledge that construction work can be impactful and disruptive. Our work activities will require the use of machinery that generates noise. We implement extensive controls to ensure any noise impacts are mitigated as much as possible. Nearby residents may hear construction noise during our work. Construction noise is temporary and often changes as work progresses.

To minimise the impact of our work we:

- turn off machinery when not in use
- where feasible, use acoustic blankets and hoarding to minimise noise
- direct temporary light down and away from properties to reduce light spill
- where possible plan activities that are close to residents during standard construction hours or early evening
- fit equipment with devices to minimise noise, particularly non-tonal reversing beepers
- monitor noise periodically so we can manage any potential impacts and adjust our work as required.

All work will be carried out in line with the projects' environmental approvals.

## Standard working hours

Where possible, we will carry out work during the day however, work outside of standard construction hours will be needed to maintain safety for road users and workers, and to keep people moving during peak travel times.

Our approved standard construction hours are **7am to 6pm Monday to Friday** and **8am to 1pm on Saturday**.

No work will be carried out on Kirribilli Market days.

## Working outside of standard construction hours

We stage our out of hours work to help minimise impacts for residents. Nightwork is currently proposed to occur periodically across the construction program. These works will be carried out for short times only and will be minimised as much as possible.

## Why we work outside of standard construction hours

There are several reasons why we would need to carry out work outside of standard construction hours, including:



### Safety

To reduce interactions between motorists, pedestrians and workers when we are building over and next to roads and live traffic.



### Emergency

There may be times when we are directed by NSW emergency services or by utility providers for safety reasons to undertake road work at night (including to prevent injury or loss of life, to avoid damage or loss of property, or to prevent environmental harm).



### Service and utility disruptions

To minimise disruption to essential services and utilities for local communities.



### Oversized deliveries

To allow delivery of oversized machinery or structures that police or other authorities determine require special arrangements to transport along public roads.



### Managing traffic

Working next to, over or on existing roads means traffic may be stopped, detoured or reduced to one lane while work is carried out. Where possible we will carry out work during the day, however, there will be times when we will need to carry out this work at night to minimise delays and journey times so motorists are less impacted.

Generally, night work takes place between **8pm and 5am**. We aim to complete high noise activities before midnight, where possible.

## Keeping you informed

We'll keep the community updated as construction progresses. Residents will be notified about our work with via email and website updates.

Sign up to receive email updates by completing a form on our website at [nswroads.work/cycleway](https://nswroads.work/cycleway) or email us at [sydneyharbourbridgeprojects@transport.nsw.gov.au](mailto:sydneyharbourbridgeprojects@transport.nsw.gov.au)

## Contact us



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**[nswroads.work/cycleway](https://nswroads.work/cycleway)**



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