

Coomera Connector Stage 1

(Second M1)

Construction noise and vibration

The Department of Transport and Main Roads (TMR) is aware of the impact construction noise has on members of the community living and working near the Coomera Connector. This is why TMR follows the Transport Noise Management Code of Practice (the Code) to ensure every effort is made to minimise disruption during construction.

By following the Code, TMR aims to demonstrate compliance with its General Environmental Duty as required by the *Environmental Protection Act 1994*.

Volume 2, March 2016 of the Code provides a framework for the identification and assessment of noise and vibration impacts from transport infrastructure construction. This section of the Code will be used during construction of the Coomera Connector to help manage impacts to neighbouring communities.

Managing construction noise

Compliance with Volume 2 of the Code is monitored through an approved Noise and Vibration Management Plan (NVMP). Each contractor will be required to complete and obtain TMR approval of their NVMP.

The NVMP will outline how they expect to manage and mitigate construction impacts whenever possible, such as providing intermittent respite from ongoing night-time activities, monitoring radio communication volume levels during night works and carrying out noisy activities such as pile-driving during the day.

All reasonable and practicable measures to prevent or minimise disturbance from construction noise will be undertaken. However, as the construction of infrastructure is temporary and provides a benefit to the wider community, it is recognised as an essential part of development and should not be restricted by unreasonable mitigation measures.

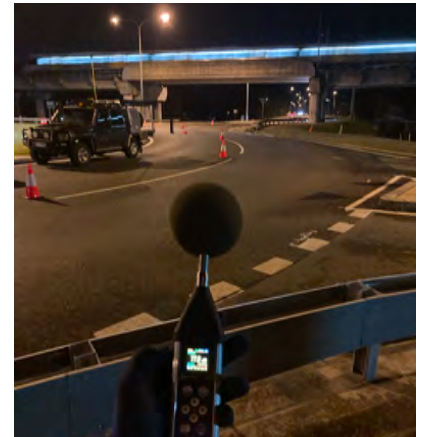
TMR will closely monitor compliance of the NVMPs and ensure regular communication is undertaken with locally affected neighbours. For this reason, TMR is urging all neighbours to register their contact details to ensure they are fully informed of upcoming construction activities.

Minimising disruption

TMR and its contractors are committed to keeping everyone informed of construction activities.

Depending on the impact, advice to residents will be provided in one, or a combination, of the following methods:

- letterbox flyer
- face-to-face meetings
- email traffic alert
- SMS text message
- frequent project e-news updates.



Noise monitoring during nightworks Stage 1 North (Image courtesy Acciona Georgiou Joint Venture).

Timely and accurate information of upcoming construction works will help residents make plans that best suit their individual circumstances and help them mitigate the impacts of the works.

When night works are required:

- advance notice will be provided within the immediate vicinity of the work
- activities that generate the loudest noise such as jackhammering, pile-driving and chain-sawing will be scheduled to finish by midnight whenever possible
- lighting towers will be directed away from properties wherever possible.

Reversing beepers and flashing light beacons on machinery and vehicles are safety requirements and must be used during all night-time activities.

During construction the contractors may include some of the following controls to help minimise disturbance:

- program works to require fewer night-time activities
- give preference to quieter technology
- monitor radio communication volume
- carry out noisy activities such as pile-driving during daytime works.





Source: Ravel.

Vibration

Vibration is caused by the movement of airborne and ground-borne particles that spread in waves. Human perception of vibration depends on varying factors—some people are more susceptible than others to the frequency range, or the direction of travel may be more significant in a particular area due to ground surface conditions.

Interestingly, the activity of a person at the time of vibration will also play a role in sensitivity to that vibration. If a person is sleeping or sitting, they may feel vibratory movement more so than those who are moving about at the time.

Many aspects of the Coomera Connector project involve construction activities that will create airborne and ground-borne movement. However, the vibration levels will vary depending on the location, the type of work and how a structure is built. The subterranean ground conditions of a particular area will also determine vibratory impacts, for example high water tables and saturated sands can increase vibration.

Construction vibration

During construction, the use of heavy machinery might cause vibration above existing levels. This may be particularly evident when installing guard rail and bridge foundations that require significant ground disturbance.

Almost all areas of Stage 1 can expect some form of vibration from work activities. This will be when undertaking:

- rock breaking and blasting activities around natural hard rock formations
- piling, boring and hammering steel and concrete structures to support retaining walls and bridge foundations
- rolling to compact fill material during road surface works
- fracturing concrete pavements with specialised machinery
- tree felling, chain-sawing and demolition equipment is used.

Protecting against vibration

As part of the design of the Coomera Connector, significant soil investigations were undertaken to understand the ground conditions along the route. This data will be used by contractors to help them plan, manage and mitigate any potential impacts to properties caused by construction activities.

The contractors will identify properties that require a building condition inspection before starting such work. This inspection will include an internal and external assessment, documented by either photos or videos of the current condition of structures. Once all construction activities have been completed, the contractor will organise for a post-construction building inspection to be completed.

These inspections are conducted by independent building condition experts at no cost to the landowner, and a copy of both the pre-and post-construction reports will be made available to landowners upon request.

It is important to note that qualified professionals will identify the properties requiring a building condition inspection based on their proximity to the new road, the type of construction activity required in the vicinity, and the existing ground conditions. Not all properties will be offered a building condition inspection.

As part of the NVMP, noise and vibration will be frequently monitored and assessed.

Need more information?

Residents and motorists are encouraged to subscribe to the free SMS and email traffic alert service to keep up-to-date on the Coomera Connector Stage 1 project.

To register, contact the project team on the details below:

Phone: 1800 568 978 (free call from any landline during business hours, 9am – 5pm, Mon to Fri)

Email: coomeraconnector@tmr.qld.gov.au

Web: www.tmr.qld.gov.au/coomeraconnector

Mail: Department of Transport and Main Roads
PO Box 442, Nerang QLD 4211



Scan the QR Code to go directly to the Coomera Connector web page.

Interpreter and accessibility services

Interpreter service: 13 14 50

TTY/voice calls: 13 36 77 (ask for 13 23 80)

Speak & Listen: 1300 555 727 (ask for 13 23 80)

SMS relay: 0423 677 767 (ask for 13 23 80)

Email: helpdesk@relayservice.com.au (ask for 13 23 80)



13 QGOV (13 74 68)

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