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## NorthConnex – Tunnelling in your area

Dear resident,

NorthConnex is a nine kilometre tunnel which will link the M1 Pacific Motorway at Wahroonga to the Hills M2 Motorway at West Pennant Hills, removing around 5,000 trucks off Pennant Hills Road each day. For traffic travelling from the M2 in and out of the tunnel, work is being done to build an additional lane westbound between Pennant Hills Road and Windsor Road.

In the next four to six weeks, tunnelling for NorthConnex will start in your area between a depth of 40 to 30m metres underground and will be carried out 24 hours a day, seven days a week.

The NorthConnex tunnels will be excavated to around 14 metres wide with a height of around eight metres, using roadheaders.

A roadheader is an excavation machine that has a rotating, rock-cutting head on the front, mounted to a boom. When the underground rock is cut, a loading device transfers the rock onto a conveyor belt which runs the spoil onto haulage trucks. The roadheader machine travels on bulldozer style tracks and weighs around 100 tonnes.

Tunnelling will take place from four main construction worksites between the M1 and M2 motorways on the project: the Northern, Southern, Trelawney Street and Wilson Road compounds.

In your area, the tunnelling site is located at Trelawney Street, Thornleigh.

The roadheader will progress around 20 metres each week. Tunnelling will occur under individual properties for around one week for each tunnel.

In your area the roadheaders will be between 40 and 30 metres underground and depending on the ground conditions, building type and existing background noise, it is possible that you will not notice the work underneath your property.

### Cross passages

Cross passages are tunnels which connect the northbound and southbound tunnels and are designed to enable tunnel workers and motorists to cross to the other carriageway in the event of an emergency.

The cross passages are located throughout the tunnel around 120 metres apart and will be built around two to three weeks after the main tunnels in that area are complete. It will take around one week to construct each cross passage, depending on ground conditions.



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They will be excavated using a roadheader however rock hammering may also be required. You will be notified in advance if there is a cross passage in close proximity to your property.

### **What to expect**

You will not be able to hear the excavation equipment, but ground borne noise generated by tunnelling activities may be experienced inside your property at shallower depths. Ground borne noise is created when vibration from tunnel excavation travels through the ground and causes the walls and floors of the building to faintly vibrate, creating audible noise.

You may notice a low frequency rumble up to about 45dBA when the roadheader is working beneath your property. By comparison, a normal conversation is about 60dBA and a refrigerator is about 50dBA. This is likely to be for a period of about one week, depending on the size of your property, geological conditions and how far away you are from the tunnel. The enclosed fact sheets provide more information about roadheaders and what to expect when tunnelling is taking place near your property.

You can visit [www.northconnex.com.au](http://www.northconnex.com.au) to stay in touch with the latest project information including tunnelling progress and activities in your area. Information on the depth and route of the main alignment tunnels can be found on the interactive map: [https://gis.aecomonline.net/northconnex/map\\_view.html](https://gis.aecomonline.net/northconnex/map_view.html)

If you have any questions or complaints, please don't hesitate to call us on 1800 997 057, email [enquiries@northconnex.com.au](mailto:enquiries@northconnex.com.au) or visit the NorthConnex Community Information Centre at 118 Yarrara Road, Pennant Hills, open weekdays from 9am to 5pm.

Yours sincerely,

**NorthConnex Project Team**