

Start of Tunnelling

Western Harbour Tunnel Stage 2

November 2023



Western Harbour Tunnel is a major transport infrastructure project that will make it easier, faster and safer to get around Sydney.

The project has now reached a major milestone with the start of roadheader tunnel excavation to the north side of the Harbour from November 2023 at the Cammeray temporary construction site.

Western Harbour Tunnel will be a 6.5 kilometre road tunnel built with three lanes in each direction. It will connect the Rozelle Interchange to the Warringah Freeway near North Sydney, crossing underneath Sydney Harbour between Birchgrove and Waverton.

The project is being delivered in two stages. Stage 1 work started in June 2022 at the Rozelle Interchange. For more information about Stage 1 visit nswroads.work/whtportal.

Stage 2 work involves the excavation of 4.8 kilometres of twin tunnels, connections to the Warringah Freeway near North Sydney, tunnelling under Sydney Harbour and the complete tunnel fit-out. Work on Stage 2 started in May 2023.

The project has now reached a major milestone with roadheader excavation starting on the north side of the Harbour at the Cammeray temporary construction site.



Online information session

We invite the community to attend an online information session on **Thursday 16 November** prior to tunnelling commencing at Cammeray, where project representatives will share a presentation on roadheader tunnelling and answer questions.

Further detail about registering to attend the session is available on the last page of this notification.

Community information sessions will be scheduled before tunnelling starts in each suburb along the alignment. We will invite you to an information session relevant to your area as the project progresses.

Start of tunnelling

In late November 2023 we plan to launch the first roadheader from the Cammeray construction site to start the excavation of the mainline tunnels. Over the course of the project we will be using seven roadheaders to the north of the harbour and four roadheaders from our site in the Inner West.

The first roadheader will excavate a temporary access tunnel from the Cammeray construction site underneath road reserve towards the Warringah Freeway, where it will start excavating the mainline tunnels, travelling south underneath the Warringah Freeway towards our Ridge Street temporary construction site.

We will hold further community information sessions and communicate with you before tunnelling starts from Ridge Street, North Sydney in 2024.



Roadheader drilling on rock

Tunnel construction

Our investigations show the tunnels are mainly located in Hawkesbury sandstone, a coarse rock that is ideal for excavation due to its uniform structure and strength.

Tunnelling will be carried out by roadheaders that use a rotating head to slowly excavate the rock. This is followed by the installation of ground support such as inserting rockbolts (metal rods) and spraying concrete.



Acoustic sheds are designed to minimise noise, light and dust spill on the local community and are commonly used on tunnelling projects. Photo: example acoustic shed.

Extensive monitoring of the ground is carried out both inside the tunnel and on the surface to pick up any ground movement during tunnelling. Every section of newly excavated tunnel is reviewed by our geotechnical and engineering teams, who then determine the type of roof support required.

Our work hours

Initially, our standard construction hours for tunnelling will be 7am to 6pm Monday to Friday and 8am to 6pm on Saturday. High noise impact activities will stop at 1pm on Saturdays.

We are building a temporary acoustic shed at the construction site at Cammeray to manage and load spoil from our tunnel excavation activities. Once complete, the acoustic shed will minimise noise, light and dust impacts to the local community during our 24 hour tunnelling activities.

Construction and fit out of the acoustic shed will take around three months and is due for completion in early 2024. We will not start our 24 hour tunnelling activities until installation and fit out of the acoustic shed is complete.

Trucks will exit the temporary access tunnel into the acoustic shed where spoil from the tunnelling can be stored and loaded.

Construction noise

The majority of noisy activity at the Cammeray site will occur while we are setting the site up, building the acoustic shed and getting ready for tunnelling. Once we begin tunnelling, most of the work will take place underground and within the acoustic shed.

Due to the relative depth of the tunnels for Stage 2, noise from excavation is expected to be low. We predict noise levels before tunnelling starts under properties by using an advanced noise model that includes extensive data from previous tunnelling projects. We will share the predicted noise levels and duration of impacts prior to tunnelling via weekly email updates.

Please visit our website for further information about noise and vibration during tunnelling.

Stage 2 tunnelling



Map is not to scale. Stage 2 tunnel alignment is subject to detailed design and Planning Modification approval.

LEGEND

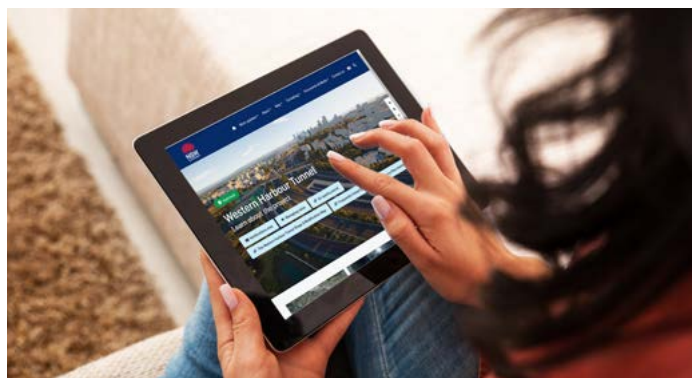
- Stage 1 Roadheader tunnelling – started June 2022
- Stage 2 Tunnel Boring Machine (TBM) tunnelling
- Stage 2 Roadheader tunnelling

Your property during tunnelling

We understand there is concern about the potential for vibration and settlement impacts from tunnelling works. Ground movement does not necessarily result in property damage, in fact it is highly unlikely. Buildings experience ground movement naturally through environmental changes such as seasonal climate variations, vegetation (tree roots), structural effects (different building types of age of construction) or ground effects (reactivity to soil).

Properties above the final tunnel alignment (and within 50 metres of the alignment, in line with planning approvals) will be offered a Property Condition Survey. Even though it is highly unlikely for any damage to occur from our tunnelling, we encourage anyone eligible for a Property Condition Survey to take up this offer following confirmation of the final alignment.

Our team will contact eligible properties via a letter prior to tunnelling commencing nearby.



Keeping you informed

A range of fact sheets are available on the Western Harbour Tunnel website with further information on tunnelling, noise and vibration, parking and truck haulage routes.

You can also subscribe to receive tailored project updates about your suburb, direct to your inbox. Please visit **nswroads.work/whtportal** for more.

Online information session



We will be holding an online information session on Thursday 16 November from 12.30 – 1.30pm where we will share a presentation on roadheader tunnelling.

The session will be hosted on Microsoft Teams. Please visit **nswroads.work/whtportal** or scan the QR code to register for this session.

Community Information Centre

From Tuesday 21 November 2023 you can visit our team and learn more about the project at our Western Harbour Tunnel Stage 2 Community Information Centre. We are located on Level 9, 60 Miller Street, North Sydney and open Monday to Friday between 9am and 5pm, or by appointment.

Contact us



1800 931 189 (ask for Western Harbour Tunnel)



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nswroads.work/whtportal



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Scan the QR code to visit our online portal