



# Tunnelling works set to start from Water Orton

June 2023 | [www.hs2.org.uk](http://www.hs2.org.uk)

High Speed Two (HS2) is the new high speed railway for Britain. Balfour Beatty VINCI (BBV) is working in partnership with HS2 Ltd to build the new high-speed railway in your area.

## What we are doing

Final checks and preparations are underway for the operational launch of the Midlands' second tunnel boring machine (TBM) that will be used to construct Bromford Tunnel.

The next phase follows the successful completion of the region's first tunnel in Long Itchington, South Warwickshire. The TBM will bore 3.5 miles of the twin-bore tunnel between Water Orton in North Warwickshire and Washwood Heath in Birmingham. A further TBM is expected to launch in early 2024, with the two TBM's creating a combined length of 7 miles.

## What is a Tunnel Boring Machine (TBM)

A TBM is a large piece of equipment with a cutting disc the diameter of the tunnel being created. In this case it will be bored at a diameter of 8.6m and then lined with concrete sections.

This large disc is turned to cut through the ground in much the same way that a DIY drill makes a hole. Slurry is used to lubricate the cutting. This means that the excavated material, or spoil, can be pumped from the cutting face out of the tunnel. The material is then de-watered at the slurry treatment plant (STP) before the dry material, or cake, is then either used locally or stockpiled for use elsewhere on the project.

## Benefits of Tunnelling

The tunnel from Water Orton to Washwood Heath removes the need for some complex engineering above ground in an environmentally sensitive area, eliminating the construction of a series of large, retained cuttings and a viaduct.

**If you have a question about HS2 or our works, please contact our HS2 Helpdesk team on 08081 434 434 or email [hs2enquiries@hs2.org.uk](mailto:hs2enquiries@hs2.org.uk)**

### Duration of works

June 2023 until late-2025

### What to expect

Heavy Plant operating

Reduced activity around residential areas at night

Some lighting to support night time operations

Traffic marshal managed plant crossing of Attleboro Lane

### What we will do

Keep all sites safe and secure

Minimise night works wherever possible.

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## Notification



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## Benefits of Tunnelling

- Park Hall Nature Reserve will be largely unaffected by construction and we will no longer need to clear a small area of woodland within it.
- The extended tunnel will reduce construction traffic on the road network in Birmingham and around Water Orton. Instead of transporting spoil from Bromford along the local road network, we will transport it from Water Orton along purpose-built construction haul routes. These materials will be used locally near the Water Orton Viaducts, M42/M6 link road viaduct and along the Marsh Lane embankment.
- A deep open cutting below Birmingham Road is no longer required and Birmingham Road does not need to be re-aligned.
- There will be up to 260,000 fewer HGV movements over the course of construction, which will help to minimise our impact on the environment.
- There will be less land required in the Castle Bromwich Business Park area, meaning that fewer properties and businesses will be affected by the new railway line.

To minimise the noise of trains as they exit the tunnel, we will be constructing a porous portal. This is the complex structure that is built at the exit or entry of a tunnel. It retains the land around the tunnel as it enters the ground. A porous portal is designed to allow air pressure diffusion when a high-speed train enters the tunnel. This reduces the noise of the train as it goes from above ground to below.

## Operational works – what will this involve

The first bore is on track to start this month and expected to finish in Summer 2024. The second bore is scheduled to begin in early 2024 and expected to finish in Spring 2025.

Designed specifically for the geology between Water Orton and Washwood Heath, each TBM is an approximately 125m self-contained underground factory, and will dig the tunnel, lining it with concrete wall segments and grouting them into place as it moves forward.

Material will be excavated from the ground 24 hours a day by the TBM, apart from over holiday shutdown periods and planned maintenance.

## How this operation may affect you

Due to the nature of the tunnelling activities, the management of excavated materials (spoil) will be carried out over a 24 hour period. The tunnel spoil is then deposited into holding areas near the slurry treatment plant. The de-watered spoil is then moved across our plant crossing at Attleboro Lane to the works areas between Water Orton and the motorway network for re-use or storage. We use Articulated Dump Trucks (ADT's) to move the de-watered spoil, such as the one shown on page three.

As much as possible, movements will be made during our daytime core working hours. As we reach our peak activity during 2024 it will be necessary to extend these hours. We will keep you informed about this in advance of it happening.

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## Working hours

Between June 2023 and late 2025 we will work 24 hours a day, seven days a week. The movement of tunnel spoil will initially take place between 8am to 6pm.

We will put in place all reasonable measures to control the levels of noise, vibration and dust during our on-site operations.

## Find out more – come and see us

There are three drop-ins planned where you can come along to find out more. Details for these are as follows. Click on hyperlink for full details and registration:

### Friday 30 June 2023 between 10am and 12 noon

Water Orton Methodist Church, Birmingham Road, B46 1RL

<https://www.eventbrite.co.uk/e/hs2-bbv-drop-ins-tunnelling-in-water-orton-tickets-653806421607>

### Thursday 13 July 2023 between 4pm and 7pm

The Pavilion, Openfield Croft, Water Orton, B46 1RE

<https://www.eventbrite.co.uk/e/hs2-bbv-drop-ins-tunnelling-in-water-orton-tickets-658251687517?aff=oddtcreator>

### Monday 24 July 2023 between 4pm and 7pm

Armbridge House, Folkstone Croft, Castle Bromwich, B36 8QY

<https://www.eventbrite.co.uk/e/hs2-bbv-drop-ins-castle-bromwich-tickets-658426249637?aff=oddtcreator>



Articulated Dump Truck (ADT)

Contact our HS2 Helpdesk team on **08081 434 434**

# Keeping you informed

We are committed to keeping you informed about work on HS2. This includes ensuring you know what to expect and when to expect it, as well as how we can help you.

## The Residents' Commissioner

The independent Residents' Commissioner oversees and monitors our commitments to you.

The commissioner's reports and our responses can be found at [www.gov.uk/government/collections/hs2-ltd-residents-commissioner](http://www.gov.uk/government/collections/hs2-ltd-residents-commissioner)

The Residents' Commissioner makes sure we fulfil the commitments in the HS2 Community Engagement Strategy (<https://bit.ly/3oOA25j>).

The Residents' Commissioner can be contacted on: [residentscommissioner@hs2.org.uk](mailto:residentscommissioner@hs2.org.uk)

## Construction Commissioner

The independent Construction Commissioner regularly meets our Chief Executive Officer to raise any concerns or emerging trends across HS2.

The Construction Commissioner's role has been developed to monitor the way we manage and respond to construction complaints.

The commissioner mediates on disputes about construction, involving individuals and organisations, that we can't resolve. The commissioner advises members of the public about how to make a complaint about construction.

The Construction Commissioner can be contacted on: [complaints@hs2-cc.org.uk](mailto:complaints@hs2-cc.org.uk)

## Property and compensation

You can find out about HS2 and properties along the route by visiting:

[www.gov.uk/government/collections/hs2-property](http://www.gov.uk/government/collections/hs2-property)

Find out if you can claim compensation at:

[www.gov.uk/claim-compensation-if-affected-by-hs2](http://www.gov.uk/claim-compensation-if-affected-by-hs2)

## Holding us to account

If you are unhappy for any reason you can make a complaint by contacting the HS2 Helpdesk. For more details on our complaints process, please visit: [www.hs2.org.uk/in-your-area/contact-us/how-to-complain/](http://www.hs2.org.uk/in-your-area/contact-us/how-to-complain/)

## Contact us

Contact our HS2 Helpdesk team all day, every day of the year on:

 Freephone **08081 434 434**

 Minicom **08081 456 472**

 Email **[HS2enquiries@hs2.org.uk](mailto:HS2enquiries@hs2.org.uk)**

Write to:

**FREEPOST**

**HS2 Community Engagement**

Website **[www.hs2.org.uk](http://www.hs2.org.uk)**

To keep up to date with what is happening in your local area, visit: **[www.HS2inyourarea.co.uk](http://www.HS2inyourarea.co.uk)**

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