

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

HS2 Update

Greatworth Green Tunnel | August 2023



High Speed Two (HS2) is the new high speed railway for Britain. You can sign up for regular updates in your local area at www.hs2inyourarea.co.uk

Delivery of Green Tunnel Segments

In preparation for the main construction of the Greatworth Green Tunnel, we will soon begin receiving deliveries of precast tunnel segments.

These segments are built in a factory in Derbyshire and then transported to Greatworth, where they are assembled within the excavated tunnel trench with a crane. Once in place, the segments will be covered with earth and landscaped to fit into the surrounding countryside.



You may see HGVs carrying these distinctive, curved concrete structures to our Greatworth compound. Most of these deliveries will not require any traffic management or vehicle escorts. They will travel at normal speeds along the highway, similar to other HGV traffic.

The precast method uses approximately half the amount of concrete, 20% less steel and significantly reduces the construction time required. It also eliminates the need to have heavy and disruptive manufacturing on-site near Greatworth.

We have also carefully considered the material choices for this structure. Concrete and steel are some of the biggest sources of carbon emissions within the construction industry and by reducing the amount of both materials needed for the tunnel, it is also expected to more than halve the amount of carbon that would have been embedded in the structure.

When will these deliveries take place?

The installation of precast sections of the Greatworth Green Tunnel will commence in late August 2023.

The deliveries will take place Monday to Friday, with a few deliveries each day, rising to approximately 10 to 15 deliveries each day during the peak construction period.

Wherever possible, we will minimise the impact on other road users by coordinating deliveries and avoiding peak times.

To deliver our widest segments safely, some occasional short periods of traffic management may be required early on Sunday mornings. We do not anticipate this to be a regular occurrence.

Construction of the tunnel is expected to be completed in 2025.

What route will be used to deliver the tunnel segments?

The tunnel segments are delivered to our Greatworth Compound via one of two routes.

Route 1: Leaving the M1 at Junction 15a, then traveling along the A43 and onto the B4525.

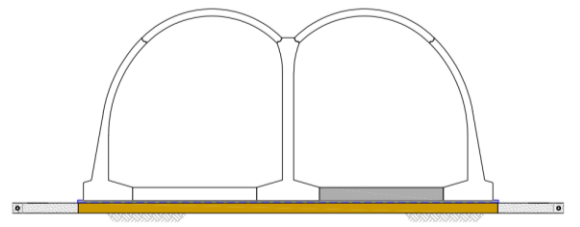
Route 2: Leaving the M40 at Junction 11, then along the A422, and onto the B4525



How will you construct the Green Tunnel?

A green tunnel, or cut-and-cover tunnel, is made by excavating a trench and building a tunnel in the open space, then the land on top of the tunnel is restored so it blends into the landscape.

Designed as a double arch, the tunnel will have two separate halves for southbound and northbound trains. For the Greatworth Green Tunnel, around 5000 individual tunnel segments will be produced and installed.



The structure of the tunnel is made of five curved, interlocking segments.

These will be slotted together to achieve the double arch – one central pier, two side walls and two roof slabs. Each one will be reinforced with steel, with the largest weighing up to 43 tonnes.

The tunnel will have specially designed 'porous portals' at either end to reduce the noise of trains entering and exiting the tunnel and small portal buildings to house safety and electrical equipment.

