

A4174 Junction Improvement Scheme

Frequently Asked Questions



1. Why are you making changes to these junctions along the A4174? The current traffic levels don't seem that high.

The A4174 Ring Road is a key transport corridor in South Gloucestershire providing a link between the A4 and Bath to the south and the M32 and the M4 to the north, serving as a strategic route to avoid travelling through the Bristol urban area. The ring road also provides access to local residential and employment areas.

Currently, there are high levels of congestion at the A4174 junctions during peak periods. It is anticipated that with no intervention, the congestion will worsen due to the planned local growth in the area. This will lead to increased journey times, poor journey time reliability and reduced air quality.

The scheme aims to relieve congestion and improve the capacity of some junctions along the A4174 Ring Road by better utilising available space on the approach to junctions, changing the type of some of the junctions, and expanding traffic signal control to locations that currently have no traffic lights.

2. I don't drive. How will the scheme benefit me?

The scheme will also aim to improve connections for active travel modes (e.g. walking and cycling) and other non-road users where possible, as well as helping the flow of public transport through improved junction performance.

3. What are throughabouts? Is it usual to have more than one throughabout in a row?

We are proposing a series of throughabouts as part of this scheme (for the Siston Hill, Deanery Road and Kingsfield junctions). A throughabout is a roundabout which has been converted into a signal-controlled junction with lanes of traffic running through the middle of it for major traffic movements. It is also sometimes known as a 'hamburger roundabout'. The aim of a throughabout is to help improve the flow of traffic, especially in areas where the majority of traffic is travelling straight ahead at the junction.

Examples of areas where more than one throughabout has been used successfully include the A52 approach to Nottingham and the Southern Oxford Ring Road.

The proposals for the scheme have been developed by testing a number of different options, with throughabouts on the Siston Hill, Deanery Road and Kingsfield roundabouts found to be the best solution for providing enough capacity for traffic. The tests showed that the other two junctions (Lyde Green and the Rosary) would benefit from remaining as signal-controlled roundabouts.

4. Why doesn't this scheme include the other junctions along the A4174?

The Wick Wick, Bromley Heath and Hambrook junctions are not included within this scheme, as plans to resolve overcapacity at these locations form part of a separate scheme of complementary measures included as part of M4 J18a, which also aim to reduce congestion along the A4174.

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Minor changes to the geometry and/or signal timings of these junctions may be required to match the final scheme designs and traffic flows.

The Dramway Roundabout is not included in the scheme as the existing layout of the junction is predicted to be effective for the traffic flows forecasted. The Wraxall Road (also known as the Woodstock) Roundabout was previously consulted on as part of a separate scheme and is currently under construction.

The Hicks Gate Roundabout is part of a separate package of works, which are being progressed by Bath and North East Somerset Council, with similar objectives to the A4174 scheme.

5. How does this scheme fit in with other schemes in the area?

This scheme is part of a wider package of improvements to ring road junctions proposed in the Joint Local Transport Plan 4 (2020-2036) for the West of England. This scheme area includes the A4174 which was identified by the Government in 2017 as part of the Major Road Network (MRN) which made it eligible for Government funding. The MRN includes the most strategic local routes in England under local authority control which provide essential connections to the Strategic Route Network (in the A4174's case the M4 and M32) managed by Highways England.

6. Who makes the final decision on whether the scheme will go ahead?

This consultation will support the development of a full business case for the scheme that will be provided to the Department for Transport in order to secure the majority of the funding for the scheme.

Following the close of the consultation, we will prepare a report on the feedback received and South Gloucestershire Council cabinet members will use the report to take a decision on proceeding with the scheme or whether changes are required. They will then seek funding from the Department for Transport. The estimated cost of the engineering works for the scheme is around £30 million.

7. When will construction begin?

If funding is approved, we would expect construction to begin in 2022.

8. How long will it take to carry out the construction work on the junctions? Will it be one at a time?

We are planning to work on multiple junctions at the same time in a phased manner to ensure that construction can be completed as quickly as possible and disruption kept to a minimum. The construction programme is still yet to be determined but it is envisaged that the completion of all works will be a minimum of 3 years.

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Frequently Asked Questions



9. How will you minimise disruption?

A construction management plan will be prepared to minimise the impact of the works on local people, road users, businesses and the environment. This will include the maximum permitted working hours and controls to the level of disruption and noise permitted during the works.

During construction, we expect to use traffic management techniques to minimise the impact on road users.

10. Will you need to remove any trees?

Some of the vegetation and trees on the existing roundabouts and approaches to the junctions will need to be removed to enable us to construct the scheme safely. New vegetation and trees will be planted in other areas, such as along the ring road, to compensate for this loss. We are currently assessing the trees so that we can replace them with appropriately sized species.

11. Will you be building into undeveloped land to expand the width of the road?

Yes, for some of the junctions we will be widening the existing approaches to the junctions to provide more entry lanes. This will require the use of some undeveloped land adjacent to the highway, currently owned by South Gloucestershire Council, which is currently outside the highway boundary and has been confirmed as available for the scheme.

12. How does the scheme fit in with the council's carbon targets?

In July 2019, South Gloucestershire Council declared a Climate Emergency. The council has taken urgent steps to address this situation and prepare for the local impact of climate change and reducing carbon emissions.

Transport is a key generator of carbon emissions, contributing 383,000 tCO₂e from 280,000 vehicles within South Gloucestershire each year, and represents the largest source of in district emissions (domestic 342,000 tCO₂e and non-domestic 308,500 tCO₂e). An important part of our transport response is to provide a step-change in providing for walking, cycling and public transport. To do this we will be looking to reallocate road space from cars to people in particular in our populated residential areas and town and district centres. This will be delivered through a package of works to look to support the removal of non-essential car journeys from our populated residential streets and town centres through investment in public transport, public realm and walking and cycling infrastructure.

This scheme supports that sustainable transport investment and is designed to encourage necessary strategic car trips to remain on the A4174 as the most suitable road designed to accommodate longer distance car and freight journeys, and deter traffic rerouting through our local communities and consequently maintaining the travel hierarchy without rat running on to smaller roads mid journey.

The production of the business case will include an appropriate assessment of CO₂ and particulate emissions. These outputs will be shared when available.

A4174 Junction Improvement Scheme

Frequently Asked Questions



13. How does the scheme fit in with the council's objectives to improve air quality?

It is anticipated that with no intervention, the congestion along the A4174 and on adjacent traffic routes will worsen due to planned local growth in the area. The increased journey times and poor journey time reliability resulting from this will worsen air quality along the corridor.

The surrounding local roads (such as the A420) pass directly through environmentally sensitive areas, Air Quality Management Areas (AQMAs) such as Kingswood, and residential and shopping areas. Any additional traffic loading on these sensitive routes is inappropriate and against the council's transport policies. This scheme is designed to encourage necessary strategic car trips to remain on the A4174 as the most suitable road designed to accommodate longer distance car and freight journeys, and deter traffic rerouting through our local communities.

The production of the business case will include an appropriate assessment of CO₂ and particulate emissions and these outputs will be shared when available.