M5 Junction 10 Improvements Scheme

Options Consultation

Have Your Say

14 October to 25 November 2020

Gloucestershire COUNTY COUNCIL

This consultation will run for six weeks from 00:01 on 14 October 2020 until 23:59 on 25 November 2020.

Gloucestershire County Council

is the Highway Authority for Gloucestershire. Alongside day-to-day highway and maintenance work and smaller improvements schemes, Gloucestershire County Council also undertakes major projects on key parts of the road network. The M5 Junction 10 Improvements Scheme will be delivered by Gloucestershire County Council, with support from Highways England and Homes England.

Highways England

is the government owned company charged with operating, maintaining and improving England's motorways and major A roads. In the south west, its network totals 620 miles, and encompasses the M5 motorway amongst other major roads in Gloucestershire. Highways England has been working closely with Gloucestershire County Council on the development of the M5 Junction 10 Improvements Scheme to date and will continue to support it moving forward. Its formal role is that of a statutory consultee for the Gloucestershire County Council led scheme. For more information about Highways England, see: **www.highwaysengland.co.uk**

Homes England

is the government's housing agency. Gloucestershire County Council is working with Homes England to secure infrastructure funding. They have the appetite, influence, expertise and resources to drive positive market change. By using their investment products to drive market change and releasing more land to developers who want to make a difference, they are making possible the new homes that England needs and helping to improve neighbourhoods and grow communities. The Housing Infrastructure Fund is administered and monitored by Homes England. The programme is helping to deliver up to 300,000 new homes across England by providing local authorities with grant funding for new infrastructure, to unlock homes in areas of greatest housing demand. For more information about Homes England, see: **www.gov.uk/government/organisations/homes-england**

highways england | Homes England | Gloucestershire COUNTY COUNCIL

About this brochure

In this brochure, we explain our proposals for the M5 Junction 10 Improvements Scheme.

Have Your Say:

Your feedback will help shape the scheme going forward, including:

- **Identifying** a preferred option for the new Junction 10 design and link road.
- **Ensuring** that our proposed improvements at Coombe Hill and along the A4019 work for you and the local community.

This brochure is designed to be read before completing the M5 Junction 10 Improvements Scheme survey, to help you formulate your response to the proposals.

Responses received as part of the consultation will be anonymised, stored and handled in accordance with Gloucestershire County Council's policy on General Data Protection Regulation. More information can be found at: **www.gloucestershire.gov.uk**

If you are not able to respond online, then please complete the enclosed survey and return to the freepost address on the envelope.

The package of improvements includes:

- **Scheme element 1**
  Improvements to Junction 10 on the M5 and a new road linking Junction 10 to west Cheltenham.
- **Scheme element 2**
  A38/A4019 Junction Improvements at Coombe Hill.
- **Scheme element 3**
  A4019 widening.

An upgrade to Arle Court Park and Ride is also included as part of the package of improvements funded by Homes England. Gloucestershire County Council has decided to take this forward through a different planning route meaning that this scheme will be consulted upon separately. Please check **www.gloucestershire.gov.uk/major-projects** for progress updates on Arle Court Park and Ride.

The need for the M5 Junction 10 Improvements Scheme

New housing and employment sites are proposed for development close to Junction 10 of the M5.

To unlock these housing and job opportunities, we need to ensure that there is sufficient highway capacity to accommodate the increased motorised and non-motorised traffic it will generate.

An all movements junction has been identified as a key infrastructure requirement to enable the housing and economic development proposed by the Gloucestershire Local Enterprise Partnership's Strategic Economic Plan: **www.gfirstlep.com/about-us/our-vision/strategic-economic-plan** and is central to the transport network sought by the council in our adopted Gloucestershire Local Transport Plan: **www.gloucestershire.gov.uk/transport/gloucestershires-local-transport-plan-2015-2031**

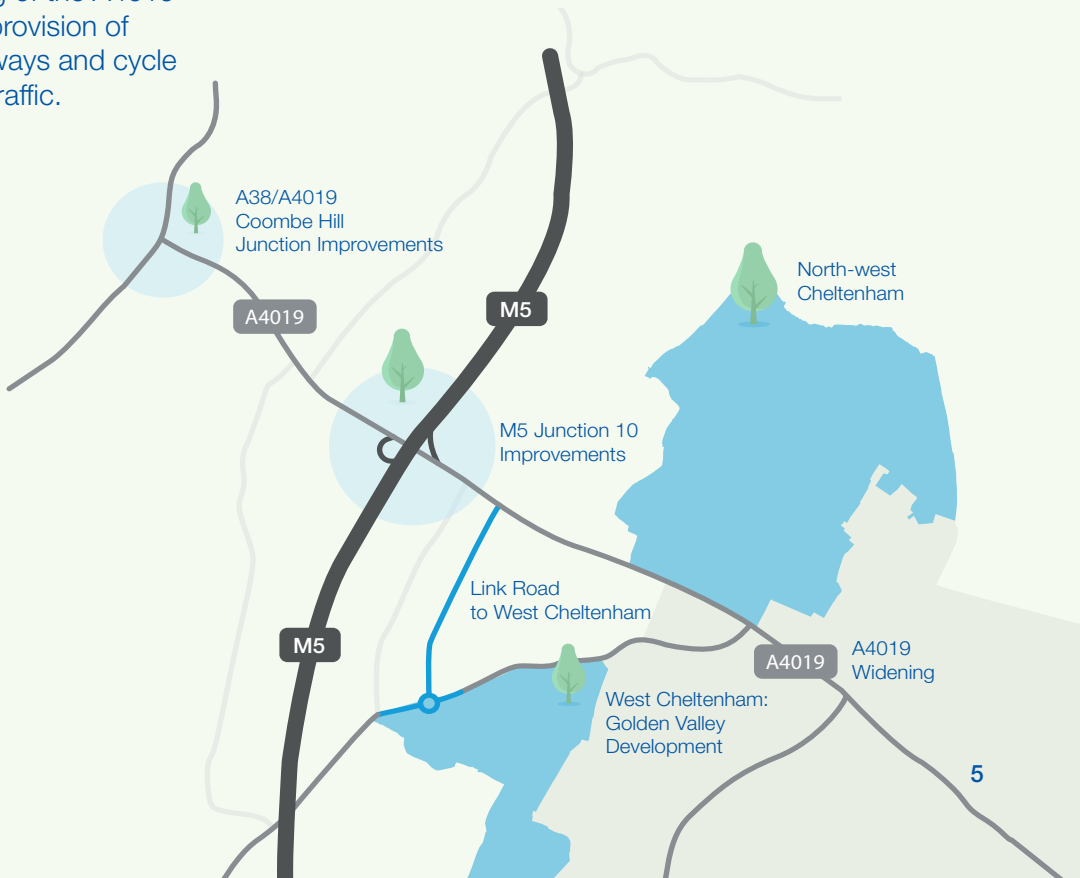
The planned housing and economic growth have been included by Cheltenham Borough, Tewkesbury Borough and Gloucester City Councils in the adopted Joint Core Strategy. More information can be found at: **www.jointcorestrategy.org**

Highways England has also identified in their Birmingham to Exeter Route Strategy that improvements to M5 Junction 10 are a critical requirement to maintain the safe and efficient operation of the M5 corridor, whilst enabling the planned development and economic growth around Cheltenham, Gloucester and Tewkesbury.

- **M5 Junction 10** currently only provides slip roads from the north and to the north. This means that traffic from Cheltenham must access the southbound M5 via Junction 11. This has put increasing pressure on already congested local roads and particularly on Junction 11, which provides access to and from Cheltenham on the eastbound A40.
- **A new link road** is required to allow traffic from the west Cheltenham development to use Junction 10 and thereby reducing pressure on Junction 11 and local roads.
- **Improvements to the A38/A4019 Junction** at Coombe Hill are required to improve the flow of traffic from the A38 to the A4019 and M5 Junction 10. This would also improve the resilience of the local network on occasions when the M5 is closed.
- **Widening the A4019** is required to accommodate the increase in motorised and non-motorised traffic that will be generated from the proposed housing and employment development. The widening includes dualling of the A4019 for motorised traffic and provision of separate, dedicated footways and cycle lanes for non-motorised traffic.

The key objectives are to:

- Provide the transport connections and network capacity in west and north-west Cheltenham to facilitate the delivery of housing and economic development sites allocated or safeguarded in the Joint Core Strategy.
- Provide a transport network in the west and north-west Cheltenham area with the levels of service, safety and accessibility to meet current and future needs.
- Provide greater connectivity between Highway England's strategic road network (M5) and the transport network in west and north-west Cheltenham.
- Provide a more integrated transport network by providing opportunities to switch to more sustainable transport modes within and to west, north-west and central Cheltenham.
- Deliver a package of measures which is in keeping with the local environment and minimises any adverse environmental impacts.



Proposed scheme elements

The story so far

Gloucestershire County Council has been working for a number of years with Highways England to upgrade the M5 Junction 10 to a full movements junction.

A steering group was established in 2013 with support from the local authorities, the Local Enterprise Partnership and Highways England, with the aim of seeking funding to enable the upgrade to take place.

In 2017, Homes England announced the Housing Infrastructure Fund, a fund aimed at enabling Local Highway Authorities to bid for and deliver infrastructure that is required to enable housing to come forward. Gloucestershire County Council submitted an Expression of Interest in September 2017. This Expression of Interest was successful and from early 2018 work continued by Gloucestershire County Council to develop a bid for government.

After submitting a bid for HIF funding in March 2019 to Homes England, Gloucestershire County Council provisionally secured £219 million for the proposed scheme in March 2020. Work has continued since the March 2020 announcement to produce a preferred layout, which is the subject of this public consultation.

We have considered several options for all elements involved in the M5 Junction 10 Improvements Scheme. These were subject to various traffic and environmental surveys and assessments. We have worked with Tewkesbury Borough Council and Cheltenham Borough Council to understand local constraints and ensure that their aspirations for growth and development are accurately represented in our proposal. For an option to be taken forward to public consultation it must achieve the scheme objectives, be affordable and offer value for money.

Details of how we developed our proposals for each element of the project, including rejected options, are set out in this brochure. For more information please see the M5 Junction 10 Technical Appraisal Report and Coombe Hill/A4019 Technical Appraisal Report, which can be found at: **www.gloucestershire.gov.uk/J10**

Scheme element 1

Options selection process

3 concepts were identified:

1. Junction to the north of the existing junction
2. Junction to the south of the existing junction
3. Junction adjacent to the existing junction

6 options were identified from the 3 concepts:

1. Option 1A & Option 5 (to the north)
2. Option 2 & Option 2A (adjacent)
3. Option 3 & Option 4 (to the south)

An initial assessment of the options was completed. The options that did not fully meet our objectives were rejected (Option 3 & 4), leaving 4 options:

Option 1A, Option 2, Option 2A & Option 5

Improvements to M5 Junction 10 & link road to west Cheltenham

As part of the assessment, a further sub-option was added (Option 2B - adjacent), bringing the total to 5 options:

Option 1A, Option 2, Option 2A, Option 2B & Option 5

After a detailed assessment, two of the options no longer addressed the scheme objectives and were rejected (Option 1A & 5), leaving 3 options:

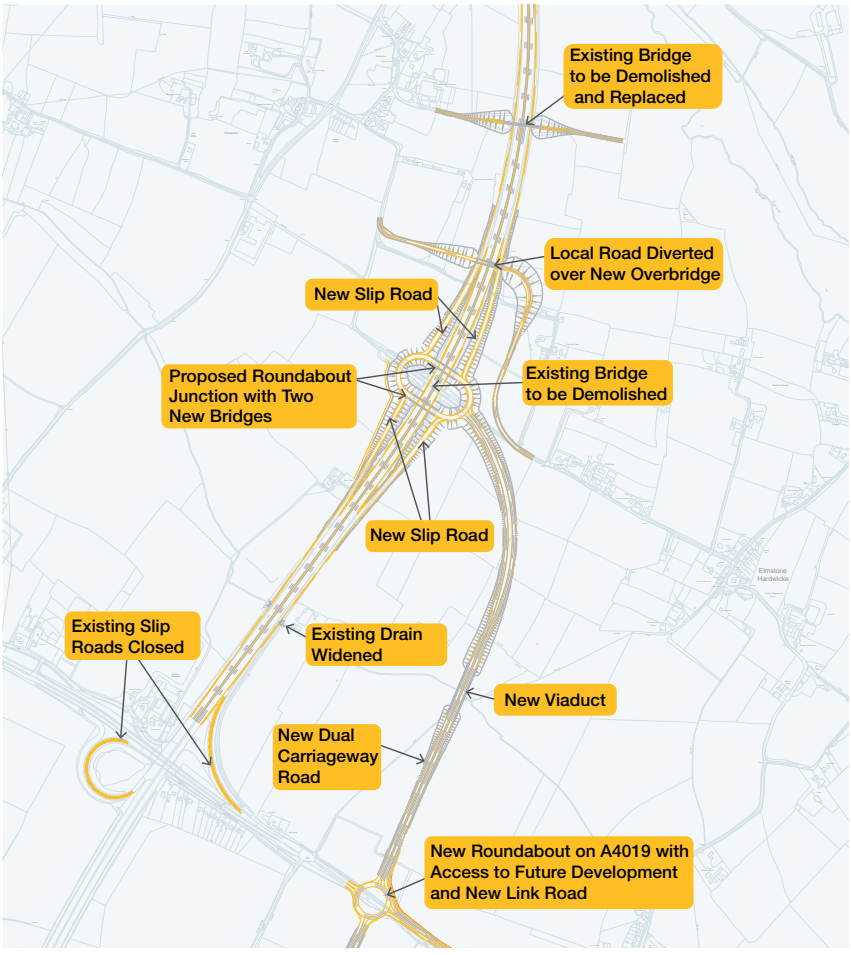
Option 2, Option 2A & Option 2B

Rejected Options

As Option 1A (yellow) and Option 5 (grey) were part of our recent detailed assessment, we have included a short summary of them.

Rejected Option: Option 1A (yellow)

New junction north of existing Junction 10



A new motorway junction would be constructed approximately 1250m north of the existing M5 Junction 10.

This junction would provide access to the M5 in all directions, therefore the existing northbound and southbound slip roads at Junction 10 would be removed, with the existing A4019 bridge maintained for through traffic only.

Cost

£306 million

Benefit Cost Ratio[1]

1.72

Value for Money[2]

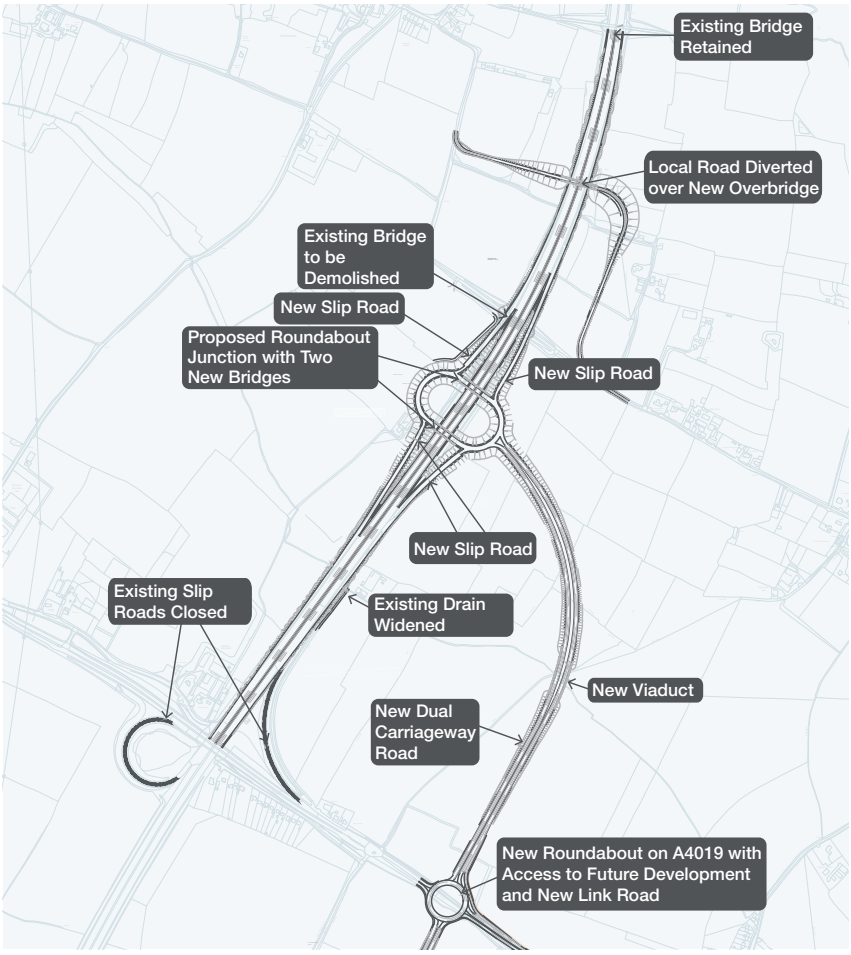
Medium

[1] A Benefit Cost Ratio is used by the Department for Transport to determine whether the economic benefits of a project will be greater than the cost of implementation.

Improvements to M5 Junction 10 & link road to west Cheltenham

Rejected Option: Option 5 (grey)

New junction north of existing Junction 10 (in alternative position to Option 1A)



A new motorway junction would be constructed approximately 1000m north of the existing M5 Junction 10.

This junction would provide access to the M5 in all directions, therefore, the existing northbound and southbound slip roads at Junction 10 would be removed, with the existing A4019 bridge maintained for through traffic only.

Cost

£294 million

Benefit Cost Ratio

1.83

Value for Money

Medium

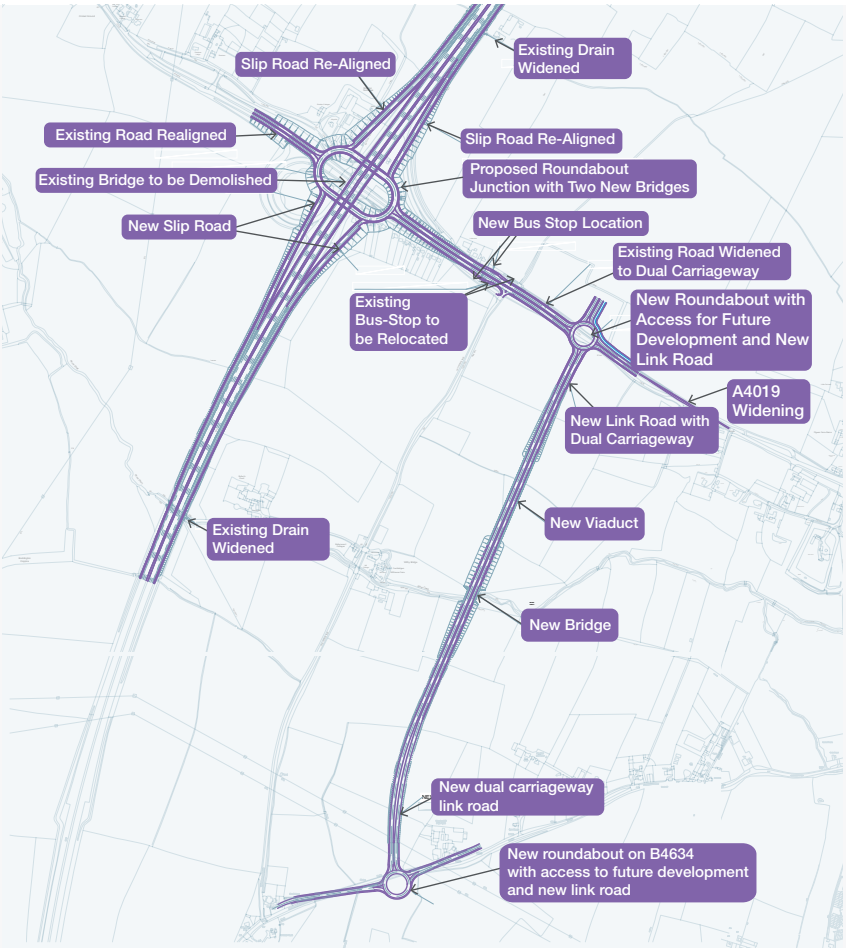
Both options have been rejected as they do not provide high value for money and would have a significant impact on high quality agricultural land.

[2] According to the Department for Transport, achieving value for money can be described as using public resources in a way that creates and maximises public value, and is a key consideration of the decision making process.

Proposed Options

Proposed Option: Option 2 (purple)

Upgrade existing junction with grade separated roundabout centred on the existing junction



The existing junction would be changed by constructing a new grade separated roundabout and four new slip roads to provide access in all directions. With this option, the existing bridge over the motorway would be demolished and two new bridges constructed to carry the new (grade separated) roundabout[3].

The location of this option would be next to the existing Junction 10.

Cost

£255 million

Benefit Cost Ratio

2.28

Value for Money

High

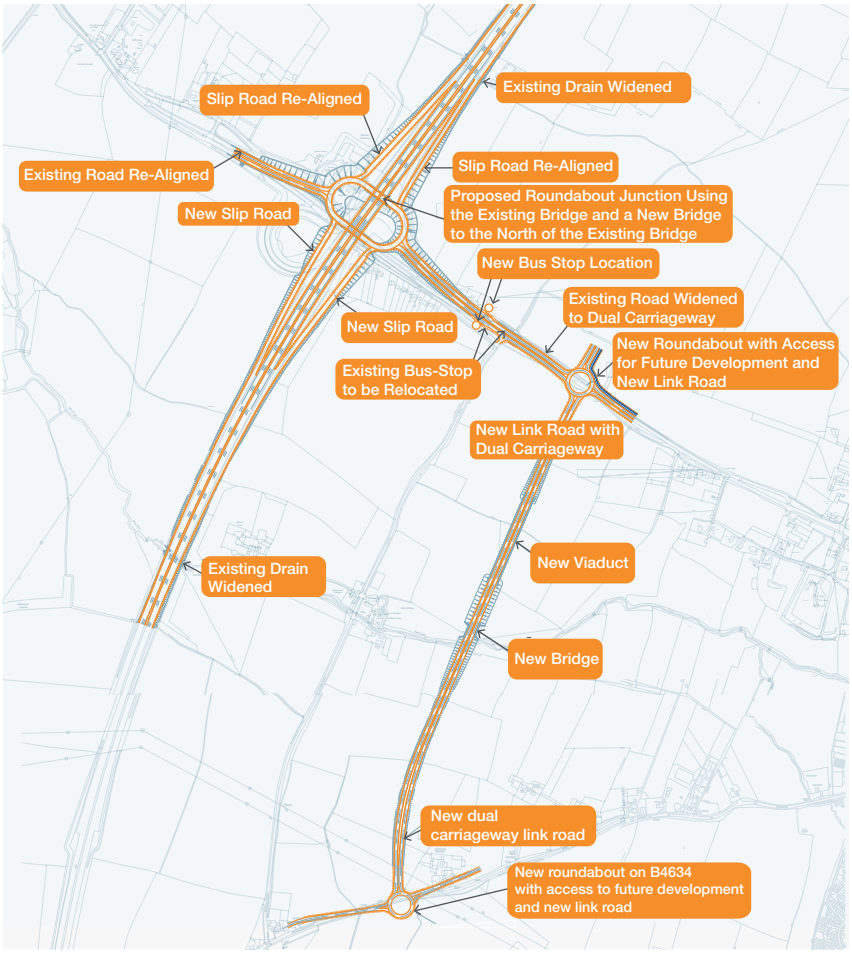
We want to know your thoughts on this option
- please fill in our survey

[3] A grade separated roundabout is a roundabout constructed above or below the motorway and connects the motorway slips roads to the local roads.

Improvements to M5 Junction 10 & link road to west Cheltenham

Proposed Option: Option 2A (orange)

Upgrade existing junction with grade separated roundabout offset to the north



The existing junction would be upgraded to provide a new grade separated roundabout using the existing bridge over the motorway and constructing a new bridge to the north.

Four new slip roads would connect the junction to the motorway, providing access in all directions. The location of this option would be adjacent to the existing Junction 10.

Cost

£230 million

Benefit Cost Ratio

2.52

Value for Money

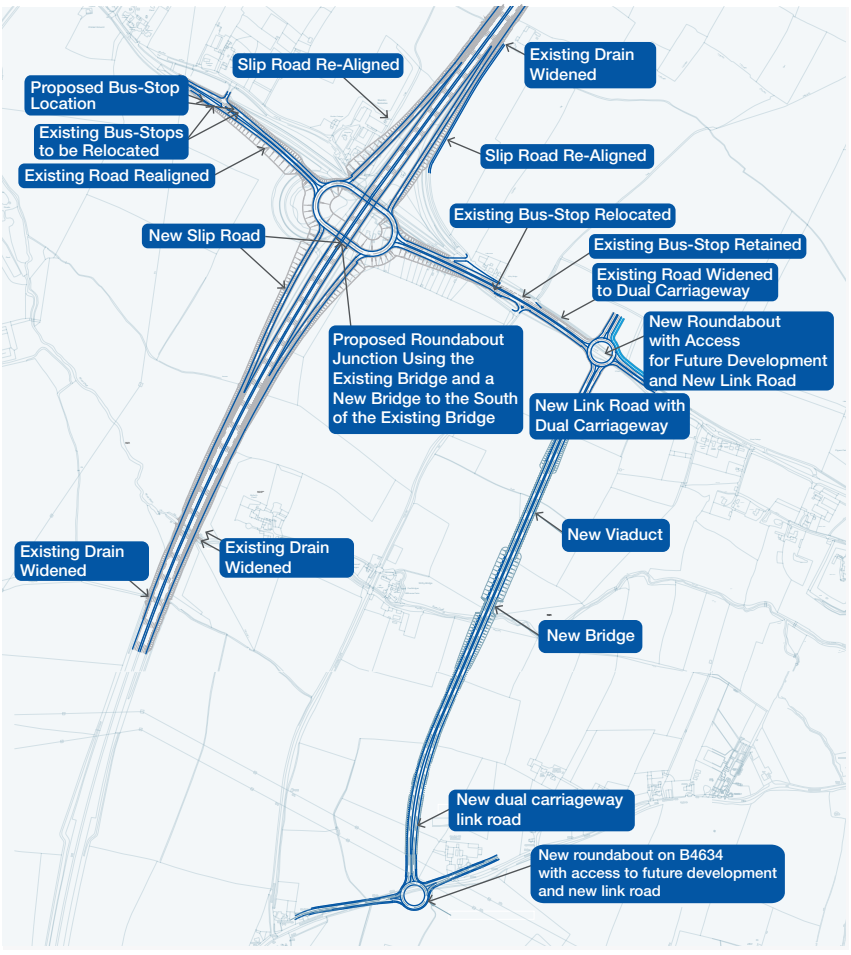
High

We want to know your thoughts on this option
- please fill in our survey

Improvements to M5 Junction 10 & link road to west Cheltenham

Proposed Option: Option 2B (blue)

Upgrade existing junction with grade separated roundabout offset to the south



The existing junction would be upgraded to provide a new grade separated roundabout using the existing bridge over the motorway and constructing a new bridge to the south.

Four new slip roads would connect the junction to the motorway, providing access in all directions. The location of this option would be adjacent to the existing Junction 10.

Cost

£246 million

Benefit Cost Ratio

2.36

Value for Money

High

We want to know your thoughts on this option
- please fill in our survey

Proposed Options Summary:

Option 2 (purple)
Upgrade existing junction with grade separated roundabout centred on the existing junction

Option 2A (orange)
Upgrade existing junction with grade separated roundabout offset to the north

Option 2B (blue)
Upgrade existing junction with grade separated roundabout offset to the south

Option Comparison

Key information on the potential impacts of each option can be found in the following tables so you can compare like for like with the three options we are presenting.

Environment

Indicators	Option 2 (purple)	Option 2A (orange)	Option 2B (blue)
Air quality	**Equal impact** Monitoring work has been undertaken to understand baseline air quality levels; further modelling work to show the expected changes to these baselines will be carried out once a preferred layout has been agreed.		
Noise and vibration	**Equal impact** A road traffic noise impact assessment will be undertaken to define whether any noise mitigation measures are required in line with current legislation.		
Biodiversity	**Equal impact** Once the road is in use, none of these options are anticipated to adversely affect any designated sites. Designated sites are those protected at an international, European or national level for wildlife.		
Drainage and water environment	**Equal impact** Mitigation work to maintain flood flows and compensate for construction in the floodplain will establish no adverse impact on flood risk, across all options.		
Landscape and visual impact	**Equal impact** The overall impact of each option on the landscape is negligible. Mitigation measures established during the construction stage will mean that any adverse visual effect of the scheme would lessen as planting matures over time.		
Geology and soils	**Equal impact** Impacts on land contamination, geology and geomorphology have been assessed as neutral to minor beneficial following mitigation, therefore not resulting in any significant residual effects for all scheme options in the operational stage.		
Cultural heritage	**Equal impact** There are not expected to be any significant adverse effects on cultural heritage across any option.		

Additional information about our assessments can be found in technical documents that support this consultation brochure (M5 Junction 10 Technical Appraisal Report and the Preliminary Environmental Assessment of Options Report Non-Technical Summary), both found at: **www.gloucestershire.gov.uk/J10**

In each case, we have outlined which option is anticipated to have a **lower** or **higher** impact relative to each other. Where the difference in impact is negligible, this is stated as **equal impact** across options.

As the scheme progresses all areas of work will be revisited and reassessed to ensure impacts are fully understood and minimised.

People & Communities

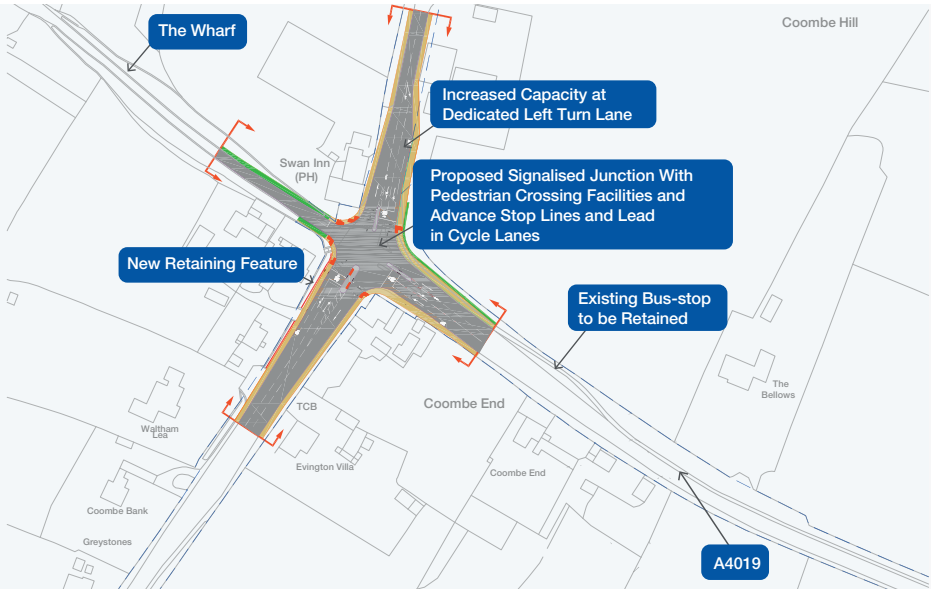
Economy

Indicators	Option 2 (purple)	Option 2A (orange)	Option 2B (blue)
Connectivity	**Equal Impact** All options are anticipated to provide better connectivity for existing and new users of all transport modes in the area.		
Population and human health	**Equal Impact** Across all three options it is considered there will be equal potential benefits to the population including enhanced accessibility to new housing, employment and leisure opportunities.		
Impact on land and /or property	**Higher impact** There will be a requirement to acquire agricultural land. This option will affect a higher number of residential properties as compared to Option 2A.	**Lower impact** There will be a requirement to acquire agricultural land and some residential properties.	**Higher impact** There will be a requirement to acquire agricultural land. This option will affect a higher number of residential properties as compared to Option 2A.
Safety	**Equal Impact** Improving the junction will increase the junction capacity and improve traffic flow, for all vehicles including emergency service vehicles. Queuing on the hard shoulder will be reduced, as will the likelihood of rear shunt collisions.		
Construction impact	**Higher impact** The construction period of two years will involve temporary road closures. This option will have a more significant impact on the M5 due to the requirement for a bridge demolition.	**Lower impact** The construction period of two years will involve temporary road closures.	**Lower impact** The construction period of two years will involve temporary road closures.
Cost	**£255 million**	**£230 million**	**£246 million**
Benefit Cost Ratio	2.28	2.52	2.36
Value for money	High	High	High

Scheme element 2

A38/A4019 Junction Improvements at Coombe Hill

Preferred Option: Option 3
Left turn filter lane



The existing left turn lane from the A38 onto the A4019 is replaced with a longer traffic-light controlled left turn lane. Pedestrian crossing facilities are improved, and on-carriageway cycle lead-in lanes may be provided.

Road lighting provision may be increased to improve safety.

To improve the flow of traffic from the A38 to the A4019 and M5 Junction 10, three initial options were identified including two roundabout and one traffic signal improvement. When assessed, the traffic signal improvement performed better and was taken forward for further work.

Option 3 alongside Option 2 offers the greatest operational benefits with Option 3 having the least land and environmental impact as well as having the lowest construction cost.

Option 3 has been taken forward as the proposed option.

Three further options were developed and assessed including:

Option 1
A traffic-light controlled junction, but with some lanes leading up to the junction on A4019 and A38 (south) removed and more pedestrian crossings installed.

Option 2
As per Option 1, but left turns from the A38 (north) to the A4019 would be ‘give-way’. Both A38 arms would have pedestrian crossings installed.

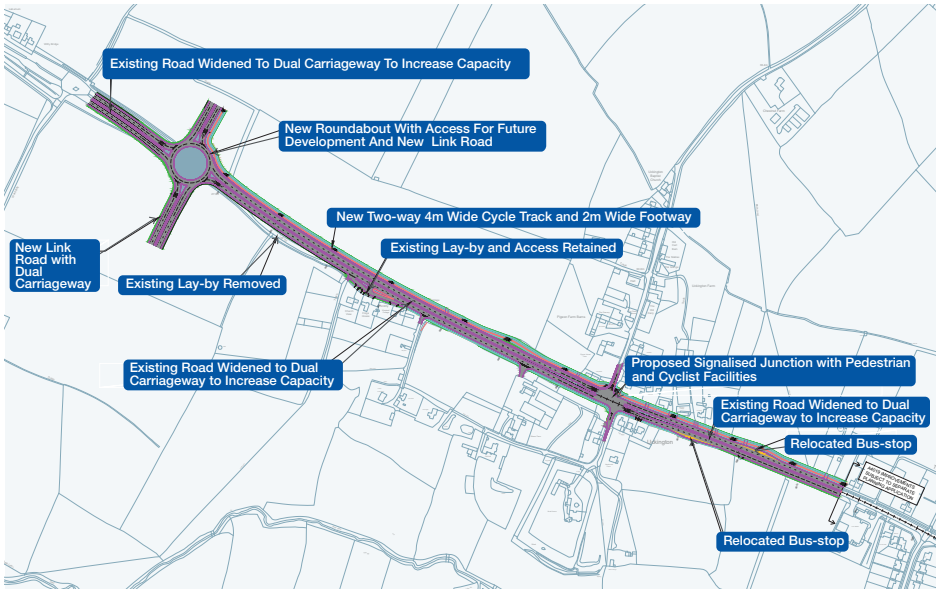
Option 3
As per Option 2, but with traffic-light controlled left turns from the A38 (north) onto the A4019.

Scheme element 3

A4019 Widening

Preferred Option: Option 1

Standard dual carriageway



The existing single carriageway would be converted to a dual carriageway by widening the road, mostly on the northern side.

We are also looking at providing a segregated footway and cycleway to the north of the A4019 with appropriate crossing facilities to connect to properties to the south of the A4019.

In order to meet the scheme objectives, whilst being mindful of local constraints and environmental and cost assessments, one option for the A4019 has been selected to be taken forward. This is a standard dual carriageway, with one segregated footway and one segregated cycleway.

There may be minor changes in noise and air quality levels as a result of the changes in the road layout (dependent on traffic volume and speeds). It would also be necessary to acquire land, predominantly to the north of the A4019, leading to some ecological impacts and potential loss of agricultural land.

We would like to gather your views on this option to help inform the next stages of design.

The benefits of this option include:

- Online widening of the A4019 would ensure it has the capacity to cater for increases in traffic and help reduce congestion and the associated noise and air quality impacts.
- Providing a central reserve with safety barrier would ensure safety is not compromised due to the increased opposing traffic flows.
- Providing one segregated footway and one segregated cycleway provides a safer environment for non-motorised users and promotes alternative modes of transport between Cheltenham and the new developments.

To find out more and have the opportunity to give your views on the scheme please go to:
www.gloucestershire.gov.uk/J10

To view Gloucestershire County Council's General Privacy Statement, please visit:
www.gloucestershire.gov.uk/council-and-democracy/data-protection/service-specific-privacy-notices

Scheme Milestones

- **Preferred Route Announcement:** Spring 2021
- **Public Consultation on preferred route:** Autumn 2021
- **Planning application submitted:** Spring 2022
- **Work commences (if planning consent is granted):** 2023
- **Work complete and open for traffic:** 2024

What Happens Next?

Your views and comments received during the consultation will be considered and summarised in our public consultation report. This feedback received will be combined with the findings from further technical work. This will then inform the decisions that are made for the preferred route. Following a preferred route announcement, we will develop detailed proposals for the scheme. You will have further opportunity to give feedback on the preferred route via statutory consultation expected to be in 2021. After this consultation we will do further work to confirm our scheme before applying for planning consent.

Gloucestershire
COUNTY COUNCIL

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