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Department  
for Transport



# South Gloucestershire Challenge Fund and Cycle Ambition Fund

- The Challenge Fund A4174 scheme is coordinated and delivered by South Gloucestershire Council who were awarded £14 million pounds from the Department for Transport.
- This scheme focuses on the maintenance of the A4174 Avon Ring Road between the A38 at Filton and the A4 at Hicks Gate and will include improvements to the carriageway, footpaths, cycle ways and street lighting as well as structural maintenance for the Bromley Heath viaduct.
- The work will minimise maintenance over the next 20 years.
- In addition, we have also been awarded £3.7 million by the Department for Transport for the Cycle Ambition fund to improve cycle provision in South Gloucestershire.



# South Gloucestershire Challenge Fund

The A4174 challenge fund improvements aims to complement the West of England's transport project MetroBus - North Fringe to Hengrove Project and also support the new developments in the:

- Emerson's Green Enterprise Area
- Harry Stoke New Neighbourhood
- University of the West of England campus
- Frenchay Hospital redevelopment
- Filton Enterprise Area
- Cribbs Patchway New Neighbourhood



# South Gloucestershire Challenge Fund

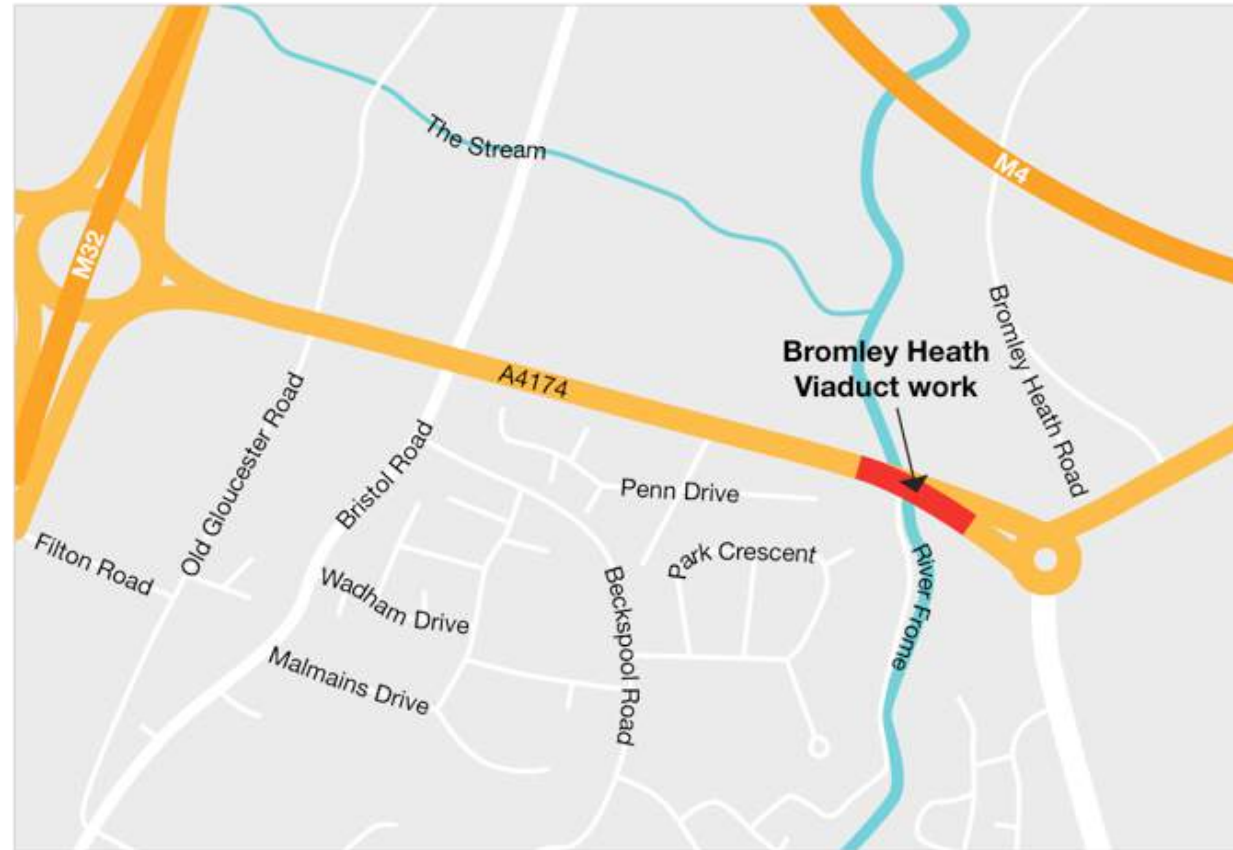
The improvements to the challenge fund A4174 project will:

- Minimise major maintenance requirements for the next 20 years on each carriageway and contribute towards extending the lifespan of the A4174 carriageway.
- Improve road safety.
- Improve road conditions to reduce accidents and vehicle running costs.
- Provide a safer and healthier environment for pedestrians, cyclists and vulnerable people on roads.
- Reduce verge maintenance requirements.
- Provide resilience to flooding along the A4174 carriageway.
- Reduce energy costs as a result of upgrading the street lighting on the A4174.
- Reduce road noise and vehicle pollution benefiting local communities.



# Challenge Fund - Bromley Heath Viaduct structure

- Bromley Heath Viaduct will undergo a £5.9 million maintenance programme to strengthen the 1960s structure and provide improvements for cyclists and pedestrians.



# South Gloucestershire Challenge Fund

- The Bromley Heath Viaduct was constructed in February 1966 as a single carriageway road over the River Frome and in 1988 was changed to a dual carriageway.
- Today, the viaduct carries approximately 55,000 vehicles and 500 cyclists a day.
- In its current form the viaduct is in need of maintenance work on:
  - pier strengthening
  - bearing and hinge replacement
  - drainage improvements
  - water proofing
  - parapet replacement
  - concrete repairs

# South Gloucestershire Challenge Fund

The cycle ambition scheme on the Bromley Heath viaduct includes:

- Widening the southern viaduct by 2 meters by constructing a cantilever composite bridge.
- A wider new path will help to increase capacity and reduce incidents between path users.
- A barrier between the path and the carriageway, which will reduce the risk of collisions with vehicles.
- The scheme will provide a high standard and safer shared use facility and two way path.

# Challenge Fund - Bromley Heath Viaduct

- At the last Environment Committee Services committee meeting (Wednesday 18 January) councillors decided to begin work in June/July this year (2017) for a maximum duration of one year but with an aim to try to secure additional funding to accelerate the work programme and reduce the timescale.
- Both the essential maintenance of the viaduct structure and the improvements to widen the shared footpath for cyclists and pedestrians will be combined, which means that the total maximum time required on site would be one year rather than two.





# Bromley Heath viaduct

from South Gloucestershire Council



02:14



HD vimeo

# Bromley Heath Viaduct programme

This scheme includes six stages over a one year build programme:

## **Spring 2017 - stage 1**

Temporary scaffold below viaduct

## **Summer 2017 – stage 2**

Bearing replacement

- east and west abutment bearing replacement

## **Summer 2017 - stage 3**

Pier strengthening

- freysinnet hinges and pier top x 4 piers

# Bromley Heath Viaduct programme

## **Autumn 2017 - stage 4**

South cantilever strengthening/widening

- removal of the existing canteliver
- canteliver construction.

## **Early spring 2018 - stage 5**

North cantilever strengthening

- demolition to existing canteliver
- cantilever construction

## **Late spring 2018 - stage 6**

Waterproofing, resurfacing, draining and expansion joints

# Bromley Heath Viaduct visualisation



# Bromley Heath Viaduct

Completed preliminary work in 2016

- Bat licence received to remove existing bats in the viaduct
- Site compound and ground clearance carried out
- Environmental checks and mitigation completed.

Scheduled preliminary work in 2017

- Site investigation – winter 2017
- Creation of the cross overs on either side of the viaduct
  - this will involve overnight single lane closure (Mon – Fri) on both the west and eastbound carriageway between 8pm – 6am from Monday 6 February over eight weeks.

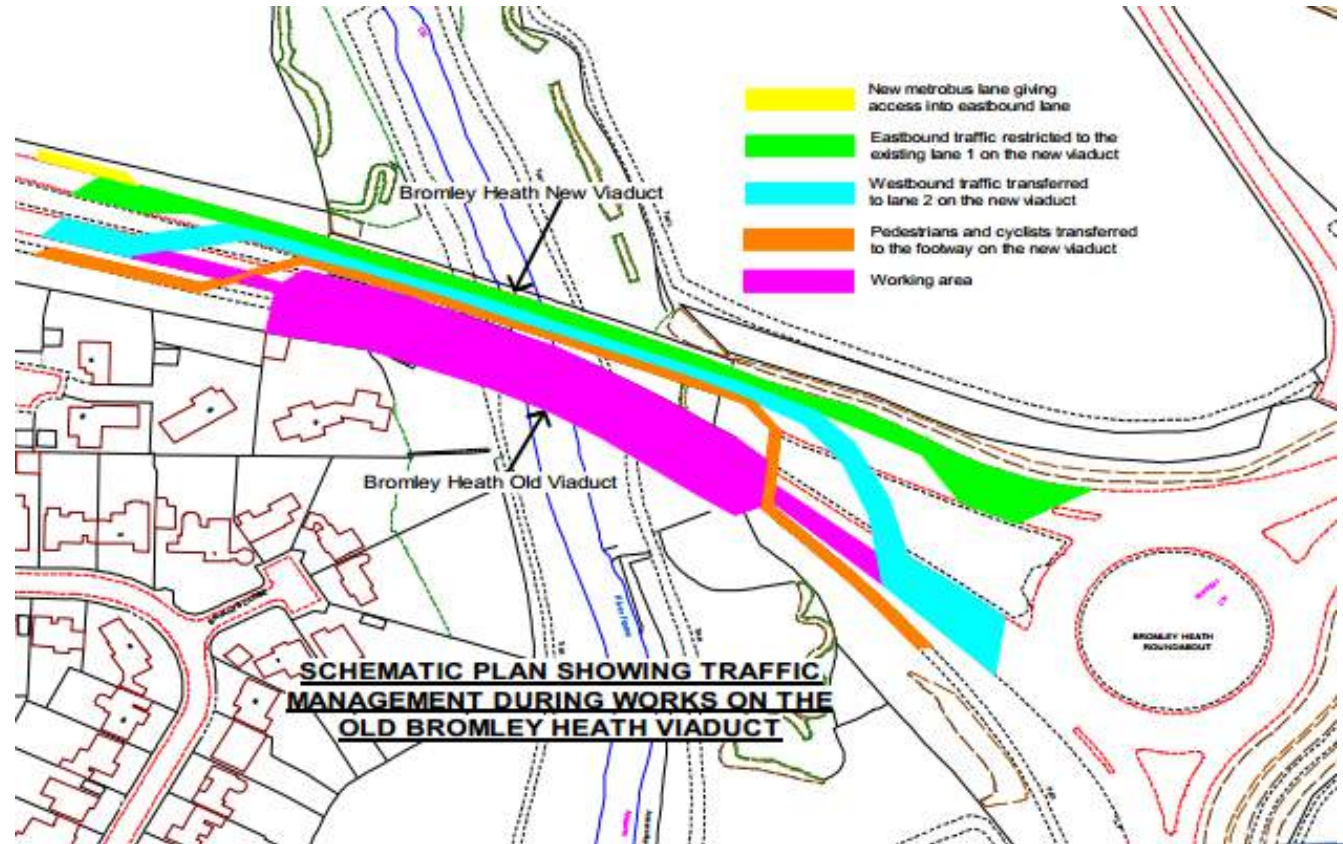
# Bromley Heath Viaduct – traffic management

- The extent of the work requires **the southern viaduct to be completely closed to all traffic for the duration of the project**, this is because the removal of the worn out parts of the structure will mean it is too weak to safely carry any traffic until the maintenance is complete.
- All traffic will be diverted on to the northern viaduct as other options would require a significant one to two mile diversion on to narrow roads.

# Bromley Heath Viaduct – traffic management

The current four lanes will reduce to one lane in each direction on the A4174.

A cross over and road link will be created for the duration of the work.



# Bromley Heath Viaduct – traffic management

- This is one of the busiest sections of the A4174 and will cause significant delays.
- The crossover on this section could cause tailbacks of up to 8km and delays of up to 2 hours at peak times on the road network and putting stress on the M4 and M32.
- Extensive queuing to beyond Emersons Green and beyond junction with M32.
- As part of the traffic management plan, alternative routes are being assessed and will be publicised and signposted once determined.
- We are currently investigating which local roads shouldn't carry traffic and will be diverted away from the viaduct.



# Bromley Heath Viaduct – traffic management

- We aim to working closely with local businesses, health care providers, schools and community organisations so that the traffic management for this scheme provides the best solution we can achieve for all needs and methods of transport.
- Ahead of the work starting, we will be engaging with local residents to get their suggestions and feedback and will be publicising details of engagement events soon.
- We are working closely with the MetroBus team to minimise any impact the Bromley Heath Viaduct works have on the MetroBus services.
- MetroBus have made the decision to not run services along the A4174 ring road until the work at Bromley Heath Viaduct has been completed.

# Bromley Heath Viaduct – traffic management

- We aim to working closely with large employers in the area to look at alternative travel options.
  - Our sustainable travel team will visit businesses to encourage them to:
    - hold meetings away from peak commute times
    - explore flexible working patterns for staff
    - working from home etc during this work,
    - looking at alternative transport methods
    - offering incentives including visits from Dr Bike.
- We would also encourage local residents to see if they are able change their travel choice or time of travel so they can help reduce the impact of any congestion.

# Bromley Heath Viaduct – more information

- A short video has been created to explain the work required visit: <https://vimeo.com/184502794>
- [Read the latest news release](http://www.southglos.gov.uk/news) at [www.southglos.gov.uk /news](http://www.southglos.gov.uk/news)
- More information and FAQ's can be found at [www.southglos.gov.uk/bhviaduct](http://www.southglos.gov.uk/bhviaduct)
- A dedicated email address: [bhviaduct@southglos.gov.uk](mailto:bhviaduct@southglos.gov.uk)

# Bromley Heath Viaduct

We understand that this scheme may cause disruption and disturbance to residents, communities and businesses and we would like to apologise in advance and kindly ask for your patience whilst this work is taking place

Questions?