

National Asset Delivery Technical Surveys and Testing

Site Information for the 4no M5 Deck Refurbishment schemes and 2 associated crossovers

Covers Schemes:

- 603426 – M5 J25 MP206.7&8 Blackbrook IC
- 603427 – M5 J24-25 MP 206.0 River Tone
- 603632 - M5 J24-25 Bathpool Railway
- 603636 – M5 J24-25 Bathpool Canal

Please note – any references to drainage surveys should be disregarded

SITE INFORMATION

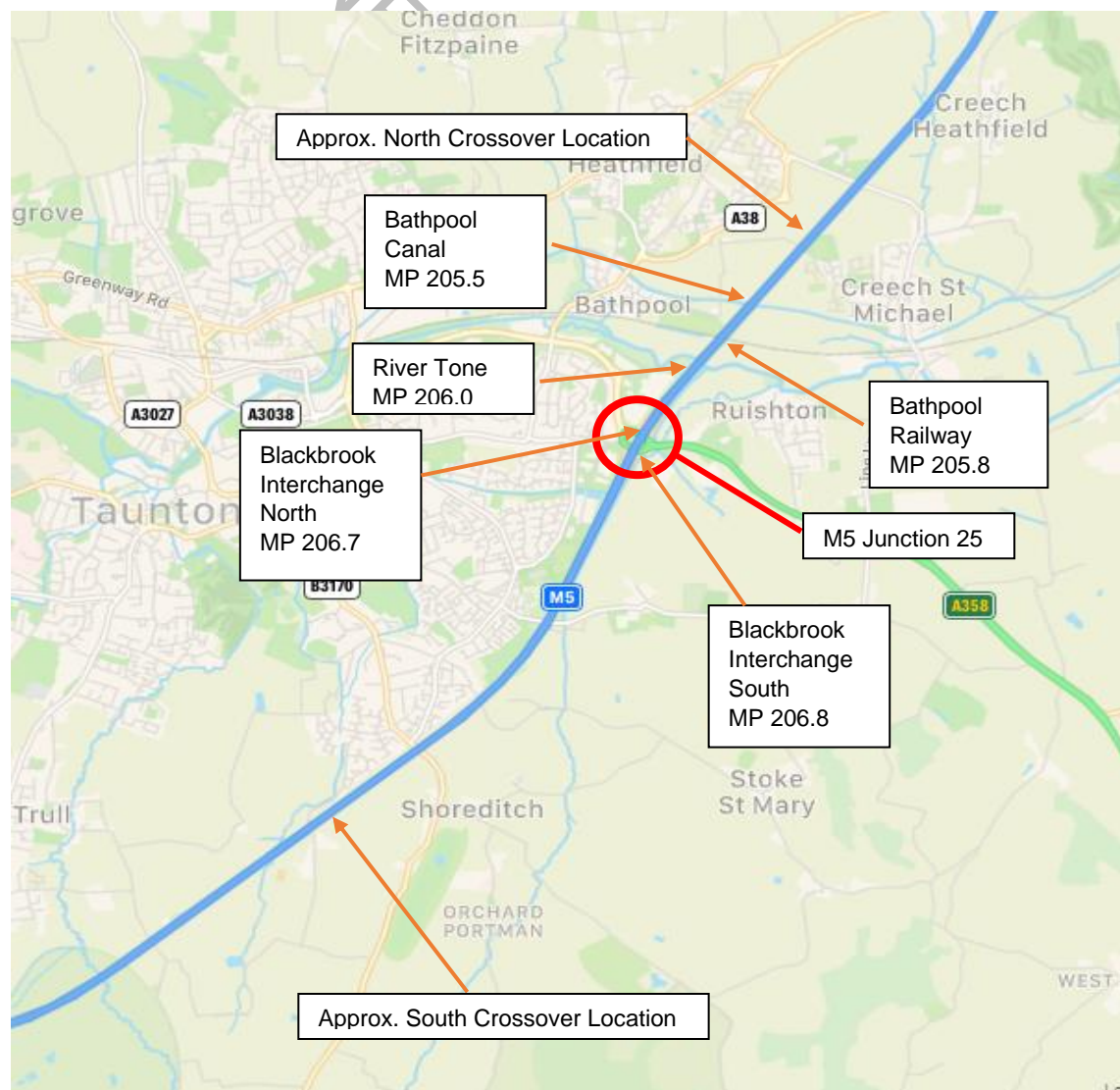
This document covers the works associated with the following schemes:

- 603426 – M5 J25 MP206.7&8 Blackbrook IC
- 603427 – M5 J24-25 MP 206.0 River Tone
- 603632 - M5 J24-25 Bathpool Railway MP 205/8
- 603636 – M5 J24-25 Bathpool Canal MP 205/5

And includes works associated with the 2no crossovers at the North and South site extents (see section 1.1 below). For the purpose of this documentation and for ease of understanding this document groups all schemes together and treats the survey works as one 'site'.

1.1 Site boundary, extents and access arrangements

The 4 schemes cover works on 5no structures; Blackbrook Interchange South, Blackbrook Interchange North, River Tone Underbridge, Bathpool Railway Underbridge and Bathpool Canal. The locations of these structures can be seen on the diagram below.



Name: Blackbrook Interchange South
Structure Key: 1857
Reference Number: /M5//206.80//
Approx. MP: 206/8

Name: Blackbrook Interchange North
Structure Key: 1856
Reference Number: /M5//206.70//
Approx. MP: 206/7

Name: River Tone
Structure Key: 1855
Reference Number: /M5//206.00//
Approx. MP: 206/0

Name: Bathpool Railway
Structure Key: 1854
Reference Number: //M5//205.80//
Approx. MP: 205/8

Name: Bathpool Canal
Structure Key: 1852
Reference Number: //M5//205.50//
Approx. MP: 205/5

The site length from the proposed south crossover location to the north crossover location is 2.9km. The distance between the structures (Blackbrook Interchange to Bathpool Canal) is approximately 1.3km. The planned survey works should be carried out with traffic management in place covering the full extents of the works.

Following any excavation works in the carriageway, hard shoulder or verges the contractor must ensure that a suitable reinstatement is completed prior to re-opening the carriageway. The contractor is required to submit details of the method of works and materials to be used to reinstate the existing carriageway.

Constraints:

- The M5 at this location has 3 running lanes and a hard shoulder in both directions.
- The Junction 25 on and off slips need to be considered within the TM arrangements and when planning the works.
- There is currently an M5 Queue Detection scheme on site between J25 & J24 and is not due to be completed until January 2021. As such, the contractor will have to coordinate all survey works with the Principal Contractor for this scheme (MJ Church).

Considering this, and following discussions with the Highways England PM's, it is thought that MJ Church should be used to complete the proposed survey works.

- Works are currently being carried out by Taunton Borough Council on the roundabout around junction 25. Therefore, if the contractor wishes for any work to be completed during a full closure the local authority should be consulted with prior to approval.
- Bathpool Railway carries the M5 motorway over the Bristol to Exeter GWR mainline. The proposed survey works are to be carried out on the bridge deck and carriageway within the Highways Boundary and should therefore not affect the railway. However, control measures should be in place whilst the works are carried out to ensure tools, waste and operatives do not impact the railway.
- River Tone carries the M5 over the River Tone. The proposed survey works are to be carried out on the bridge deck and carriageway within the highways boundary and therefore the river should not be impacted by the works.
- River Tone underbridge has inspection galleries at both abutments. These galleries have history of containing drug paraphernalia and there is also evidence of anti-social behaviour in the area. Whilst the proposed works are largely confined to the carriageway and highways boundary the contractor should be aware of this and have suitable measures in place if deemed required.
- Bathpool Canal carries the M5 over Bathpool canal. The proposed survey works are to be carried out on the bridge deck and carriageway within the highways boundary and therefore the canal should not be impacted by the works.
- There are 2 no overbridges located at the north extent of the proposed worksite called Hyde Lane (MP205.00) and Langaller Lane (MP204.40). There are no known height restrictions in place on these structures.

1.2 Pavement

The M5 carriageway varies in width across the extent of the site. However, there are 3 running lanes and a hard shoulder at all times within the works area.

Along the extent of the scheme there is varying verge and centre reservation construction details with it varying between soft and hard verge. The VRS system also varies between steel barrier and high containment concrete barrier between the south and north of the scheme extents. Concrete high containment barrier is typically found around the proposed northern crossover location.

1.3 Drainage

The existing drainage system along the site extents varies with gullies and manholes being predominantly used. On River Tone, the drainage system is kerb drainage units. The profile of the carriageway and subsequent location of the drainage system varies on each structure. See Drainage CCTV survey works information pack for further details on the systems to be examined as part of these works.

1.4 Geotechnical

There are no known geotechnical constraints within the aforementioned worksite. As part of the works, Trial Pits will be completed and where necessary PAK testing and soil samples taken for contamination testing. See Trial Holes works information pack for more information.

1.5 Soft Estate and Environment

Some of the proposed works will take place in the soft estate either in the central reserve or verges. On completion, all holes should be reinstated as per the requirements set out in the *works information* packs. Any vegetation clearance carried out to allow the trial holes to be completed should be done so under the guidance of a Kier/Highways England ecologist.

There is some evidence of Bat Activity at River Tone. However, the proposed survey works will be completed on the bridge deck and surrounding carriageway with the underside of the structure not being disturbed.

Both River Tone and Bathpool canal have watercourses under them. Whilst the proposed survey works should not impact on these the contractor should ensure that measures are in place (spill kits, plant nappies) in case of a spill from plant/generators.

1.6 Traffic Signs, Road Markings – not used

1.7 Lighting – not used

1.8 Structures and Buildings

The associated survey works are being carried out on 5no structures covering 4 different schemes. Structure details can be found above. Note, care should be taken when completing any excavation works on the structures bridge decks.

1.9 Tunnels – not used

1.10 Technology

There is currently a technology scheme (M5 Queue detection scheme) on site at the proposed works location. Depending on when the survey works are completed will depend if new technology is installed and commissioned or not as current records will not be up-to-date. If works are completed after January 2021 the position of the new technology cables will need to be obtained prior to the start of works.

1.11 Statutory Undertakers

There are a variety of different apparatus belonging to a variety of Statutory undertakers within each verge along the extents of the site. Please refer to the individual STATS plans for more information.

There are also Overhead cables located along the site extents at a number of different locations. See STATS plan for more information.

Note, discussions will need to be held with the M5 Queue Detection scheme to determine if there are any STATS diversions in place to enable the scheme works to be completed.

The proposed works might impact on ducting located in the verges that contain cables. Contractor to CAT Scan the area to locate services prior to excavation works and use a Permit to Dig system.

1.12 Traffic

Along the extents of the site the M5 has 3 running lanes and a hard shoulder in each direction and a Centre Reservation.

Currently there is TM in place on the hard shoulders with 3 'narrow' lanes running in each direction as part of the M5 Queue detection scheme. This scheme is due to be on site until January 2021. If survey works are to happen before this date, the survey contractors would need to coordinate with MJ Church who are the Principal Contractor for the scheme.

After this date, it is anticipated that the works could be completed with a series of lane closures with a temporary speed limit of 50mph (requirements to be confirmed by Highways England and the TM contractor). If works are being completed in the Hard shoulder/Lane 1 then Lane 2 should also be closed with Lane 3 open to traffic. If works are being completed in Lane 3 and the Central Reservation then Lane 2 should also be closed with traffic running in lane 1. A lane 3 closure should also be provided on the opposite carriageway when works are being completed in the Centre reservation. Alternatively, full carriageway closures should be considered to complete the proposed survey works. The anticipated working hours for the survey works is 2000-0600 dependant on the carriageway traffic counts.

Traffic Counts:

M5 Northbound – Traffic Loop located just south of J25

AADF (One Way – 12hr) – 21, 767

AADF (One Way – 16hr) – 24, 749

AADF (One Way – 18hr) – 25, 210

M5 Southbound – Traffic Loop located just North of J25

AADF (One Way – 12hr) – 21, 244

AADF (One Way – 16hr) – 24, 825

AADF (One Way – 18hr) – 25, 592

Note, all traffic count statistics are taken from Highways England Webtris and is based on the annual report 2019-2020.