

Godmanchester Town Bridge Proposed Improvement Scheme for Cyclists



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Background

This report is to investigate options to improve cycling infrastructure across the Town Bridge following concerns raised by Godmanchester town council and the local member for the safety of cyclists and particularly the children cycling to and from Hinchbrooke school. It is anticipated that there will be a long term increase in cycling during and following COVID-19 which it is hoped can be sustained by making the area safer for cyclists.

The stone bridge on The Avenue, over the river Great Ouse between Huntingdon and Godmanchester, is a scheduled ancient monument and is currently subject to a 7.5T weight limit. It links Godmanchester to Huntingdon ring road (Castle Moat Road) and is also used as a through route from Huntingdon to the A14 and A1198 and vice versa.

There is an existing footbridge on the west side of the stone bridge which is nearing the end of its life and it is not cost effective to carry out improvements to it.

On the west/south side of Castle Moat Road there is a shared use footway/cycleway route which continues round into The Avenue. Cyclists are required to dismount when crossing the footbridge in either direction.

At the traffic island at the junction of Castle Moat Road and The Avenue there is a traffic island with a pedestrian crossing either side. Cyclists travelling east towards Hartford then join the shared use route through Riverside Park. Cyclists travelling to Godmanchester from Riverside Park either re-join the carriageway at the first pedestrian crossing and cycle over the bridge or they dismount and use the central island and two pedestrian crossings to cross to the west side. The footbridge then joins a shared use footway/cycleway which terminates in Post Street.

This cycle route is heavily used by pupils of Hinchbrooke School who live in Godmanchester and who cycle north bound in the morning and south bound in the afternoon.

Observations by CCC Officers of the use of the area by vehicles and cyclists indicated that confident cyclists use the carriageway in both directions and the less confident ones use the footbridge. Although there are 'cyclist dismount' signs on the footbridge, it was noted that cyclists were riding over the footbridge when there were no pedestrians. However, if a pedestrian walked onto the footbridge then the cyclists were dismounting and there did not appear to be any conflict. It should be noted that the area was observed and the report written in the school summer holidays so does not take into account use of the route by school children cycling between Godmanchester and Hinchbrooke school.

As part of the new A14 scheme, a new link road (Pathfinder) was to be opened on 15th August 2020. This provides a link to the west of the bridge from the Huntingdon ring road to the A1307 (the old A14) allowing vehicles to access the A1198 and A14 eastbound at Swavesey without travelling through Godmanchester. It is anticipated that this will lead to a significant reduction in vehicles using this bridge.

Godmanchester Town Council have drafted a scheme which they have asked us to consider and we have also considered other options.

Option A: Godmanchester Town Council Proposal

This consists of a two way cycle lane on the stone bridge, traffic signals to facilitate shuttle vehicle flow across the bridge and an island on Castle Moat Road to assist vehicles turning into The Bridge hotel.

Pros:-

- Cyclists travelling in both directions will use the stone bridge on the west side eliminating conflict with pedestrians on the footbridge and facilitating a quicker journey time.
- Traffic signals will allow only vehicles from one direction to cross the bridge at any one time thus eliminating two way traffic meeting at the narrowest section of the bridge.

Cons:-

- The bridge is not sufficiently wide enough to accommodate a two way cycle lane.
- Potential conflict caused to cyclists entering/leaving the cycleway by cyclists directly joining the cycleway from the west without using the pedestrian crossings. Also, potential for collisions with vehicles for cyclists crossing the carriageway at this point.
- The proposed island on Castle Moat Road is not feasible due to the existing road alignment. Also, it may have a detrimental effect to the overall flow of traffic along the Ring Road and it may lead to sudden-braking collisions. It will also encourage pedestrians to cross Castle Moat Road at this point instead of at the controlled crossing which may lead to accidents.
- The signalised road length of 150m is the maximum that would be feasible and the private access to an office and carpark on the north east side of the bridge will mean that the signals will have to be three way with a set of signals erected within their curtilage. This will mean that the signal sequence may restrict the flow of traffic around the ring road and may also lead to driver frustration due to the timing of the signals. Also, an objection may be received from the owner of the building to this proposal and they may refuse to have signals erected within their curtilage. It is possible that a fourth set of signal heads may be deemed necessary for the property at the end of Bridge Place which may make traffic signals untenable.
- Ducting for the traffic signal cable will be required in the bridge deck and this may not be possible due to existing utilities.

Option B: Signalised Crossing with Cycle Advance Stop Line at either end of the bridge

This consists of a one way cycle lane on the stone bridge for cyclists travelling north towards Huntingdon and traffic signals with cycle advance stop lines to facilitate shuttle vehicle flow across the bridge. Cyclists travelling south from the west could either dismount and use the footbridge or cross to the east side using the pedestrian crossings and re-join the carriageway at the advance cycle stop line and then cycle on the carriageway. Cyclist travelling south from the east can either re-join the carriageway at the advance cycle stop line and then cycle on the carriageway or cross to the west side using the pedestrians crossing to push their cycle over the footbridge. Making the footbridge a designated shared use footway/ south bound cycleway was considered but is not possible due to the height of the railings. It is anticipated that this option would cost approx. £100k plus design costs.

Pros:-

- Residents of Godmanchester and through traffic accessing businesses can still use the bridge.
- Traffic signals will allow only vehicles from one direction to cross the bridge at any one time thus eliminating two way traffic meeting at the narrowest section of the bridge.
- Segregation of north bound cyclists will be possible on the stone bridge increasing their confidence to use the cycle lane instead of the foot bridge.
- Cyclists travelling south can either use the advance stop line and stay on the carriageway in front of the other vehicles or cross to the west side using the two pedestrian crossings and push their cycles across the footbridge depending upon their ability and confidence.
- It may be possible to narrow the north bound traffic lane on the north side of the bridge to widen the two pinch-points at either end of The Bridge hotel.

Cons:-

- The signalised road length of 150m is the maximum that would be feasible and the private access to an office and carpark on the north east side of the bridge will mean that the signals will have to be three way with a set of signals erected within their curtilage. This will mean that the signal sequence may restrict the flow of traffic around the ring road and may also lead to driver frustration due to the timing of the signals. Also, an objection may be received from the owner of the building to this proposal and they may refuse to have signals erected within their curtilage.

- An additional set of signal heads may be deemed necessary for the property at the end of Bridge Place and, if it is not possible either to physically locate the head or if a fourth head is not feasible, then the scheme may not be tenable.
- Detectors will be required on the bridge to ensure that there are no stopped vehicles. It is likely that permission would be needed from English Heritage to erect these.
- Ducting for the traffic signal cable will be required in the bridge deck and this may not be possible due to existing utilities.
- The arrangement might result in confusion and frustration for both cyclists and drivers and may lead to conflict or collisions.

Option C: Provision of Bus Gate at either end of the bridge

This consists of a bus gate which would only permit buses, permitted vehicles and cyclists to cross the bridge making it safe for cyclists to use the stone bridge.

Pros:-

- Significant reduction of traffic over the bridge and along The Avenue and Post Street as all traffic except buses, permitted vehicles and cycles will use Pathfinder link road with little impact on the ring road.
- The bridge will be shared by both cyclists and permitted vehicles.
- The footbridge will only be used by pedestrians thus reducing potential conflict with cyclists.
- When the footbridge gets to the end of its life it may be possible to provide a footway across the stone bridge.

Cons:-

- The Traffic Management Act 2004 only permits Automatic Number Plate Recognition (ANPR) Bus Gates to be utilised where Civil Parking Enforcement is in force. As this is not the case in Huntingdonshire District then the only option would be to install a physical measure such as rising bollards or a barrier at each end of the bridge. These would cost a minimum of £60k to install. Transponders/fobs/pin code would need to be issued to all buses, emergency vehicles and any other permitted vehicles and resources identified to administer the allocation of them.

- Rising bollards/barriers will need to be maintained which has proved costly in the past.
- Ducting for a cable to allow the rising bollards/barriers at each end to synchronise will be required in the bridge deck and this may not be possible due to existing utilities.
- There is no available space for a turning head on the Godmanchester side of the bridge. The last point to avoid the bus gate would be at the Cambridge Road/Causeway junction so large signs to indicate the restriction would be needed which would detract from the ancient street scene. Cars and LGVs would need to turn around in Park Lane/Post Street which would require a TRO to remove on-street parking. The only option for HGVs and larger vehicles to turn would be in Huntingdonshire District Council's car park. This may cause a potential issue in the future if the car park was sold off for development.
- The diversion would be long and inconvenient for many residents and in particular those of Post Street and The Avenue. The length of the maximum diversion for residents of Riverside Mill and Bridge Place located in The Avenue would be 4.6km.
- There is potential for a loss of passing trade for businesses in the vicinity, including a bakery, 2 convenience stores, Coop and 2 cafes and a 4 public houses, however this could possibly be offset by other scheme benefits in improving the environment for people on foot or bicycle.

Option D: New Footbridge

Pros:-

- The existing footbridge is nearing the end of its life so a new footbridge which was suitable to accommodate both cyclists and pedestrians could be installed.

Cons:-

- This would be costly – approx. £2 - £5 million - and no budget is available at this time.

Option E: Retain the existing layout with no changes

Pros:-

- Cyclists and drivers are familiar with the layout and the anticipated reduction in vehicles facilitated by the Pathfinder link road could increase cyclists' confidence to ride on the stone bridge.

- There is a constant flow of traffic over the bridge making access for motor vehicles quick and easy.

Cons:-

- Although there will be an anticipated reduction in vehicles, it is likely that the school children will continue to use the footbridge causing conflict with pedestrians.
- The members of the public who have started cycling during COVID may not be experienced or confident. This may lead to conflict with pedestrians if they use the footbridge or collisions if they use the stone bridge.

Option F: Completely close the bridge to all traffic except cycles and pedestrians

Pros:-

- Completely safe for cyclists and pedestrians.
- Low cost - no expensive infrastructure to install or maintain.
- No further changes when the existing footbridge reaches the end of its life.

Cons:-

- The diversion would be long and inconvenient for many residents and in particular those of Post Street and The Avenue. The length of the maximum diversion for residents of Riverside Mill and Bridge Place located in The Avenue would be 4.6km.
- There is potential for a loss of passing trade for businesses in the vicinity, including a bakery, 2 convenience stores, Coop and 2 cafes and a 4 public houses, however this could possibly be offset by other scheme benefits in improving the environment for people on foot or bicycle.
- The emergency services would need to be in agreement as journey time for vehicles would be significantly increased.
- Impact on bus services – journey times would be longer and The Avenue/Post Street may be cut from services as there would be nowhere for vehicles to turn around.

Conclusions and Recommendations

At the moment confident cyclists use the carriageway and less confident ones use the footbridge (either walking or, if there are no pedestrians, cycling). However, the area was observed and the report written in the school summer holidays so does not take into account use of the route by school children cycling between Godmanchester and Hinchbrook school.

There are no recorded accidents involving cyclists in the last 5 years (except where one school child was cycling along the shared use footway/cycleway, collided with another cyclist and fell into the carriageway).

It is likely that the volume of vehicles using the bridge will decrease once the Pathfinder link road opens making the area safer for cyclists.

For options B and C it will be necessary to carry out traffic modelling once the Pathfinder link road is opened to traffic to assess the overall impact of any queues or traffic build-up around the Ring Road and The Avenue.

It will also be necessary to further investigate whether the length of the signals (150m) for option B is feasible and whether it is acceptable to use HDC's car park for HGVs to turn around for option C.

The introduction of any changes which have not been thoroughly investigated with traffic modelling may cause frustration or confusion for both drivers and cyclists leading to conflict or collisions.

It may be possible to install a temporary version of Option B (traffic signals and northbound cycle lane) with temporary traffic signals and barriers as an interim measure until a permanent scheme can be implemented. However, this may cause confusion for both drivers and cyclists and may reduce cyclists' confidence to use the stone bridge leading to more use of the footbridge. It is also likely that there may be technical issues with the signals leading to non-compliance by drivers, and the barriers could be struck by vehicles. Also, until the traffic flows have settled following the opening of Pathfinder link road, the length of queues caused by the signals on the ring road, and therefore the likelihood of collisions, will not be known.

It may also be possible to implement Option C (bus gate) or Option F (full closure) under an Experimental Traffic Order. Option F would need the support of the bus companies and emergency services.

The Police, Fire Service, Ambulance Service and Whippet have been contacted to informally discuss both options and have commented as follows:-

Police – support a full closure on safety and structural grounds.

Fire – full closure not a preferred option but may be manageable. Would need to look at attendance times before confirming.

Ambulance – have concerns about a full closure around response times and would need to look at data before confirming. The route through Godmanchester is the quickest to get to the Offords and the Paxtons and, when response times are critical, a small increase is significant. They would prefer the bus gate option.

Whippet buses – would not support a full closure as they have just increased their services to an hourly service seven days a week and based their fleet size on service times using the bridge. The use of Pathfinder link road and the A1307 would increase journey times meaning that extra buses would be needed to keep the hourly service. At the moment, eight buses an hour use the bridge in peak times and 6 off peak. Also, the stops in Post Street (three in each direction) would need to be abandoned as there is nowhere for the buses to turn around. However, these stops are currently the less busy of the ones in Godmanchester. They would support a bus gate.

The recommendation is therefore to undertake further formal consultation with the fire service, ambulance service and Whippet buses and, if their concerns can be addressed, use an Experimental Traffic Order to close the bridge. Also, to investigate a bus gate using a fob/barrier system to allow buses and emergency vehicles to use the bridge as an alternative experimental solution.