



GLOUCESTER & SHARPNESS CANAL REMOTE-CONTROLLED BRIDGES

Highways and Emergency Services Focus Group Meeting Note 31 March 2015

Attending:

Liz Kirkham	Gloucestershire County Council	Nick Worthington	CRT Waterway Manager
Daniel Tiffney	Gloucestershire County Council	Darren Martin	CRT Principal Electrical Engineer
Mike Hammond	Stroud District Council and local resilience forum / emergency planning	Rob Eaton	CRT operations manager
Nikki Humphries		Madge Bailey	CRT Consultation project manager
Simon Hale	Police		
Julie Watt	Police		
Chris Davies	Civil Protection Team, Glos C Council		

Meeting note also to be sent to:

Bill Parkin	Ambulance
John Beard, Dave Bence	Fire & Rescue

Key points in Q and A form (some answers contain more detail than was said at the meeting to provide further info to attendees)

Can anyone download the app? What's to stop anyone misusing the system?

Only boat-licence holders can download the app. A check is made against their customer details. The app holds a unique identifying code for that boater (not their personal details which are protected). Each time a bridge sequence is triggered, the system records the unique identifying code of the boater. In the unlikely event that a boater misused the system, e.g. by triggering an opening and deliberately not going through, the control centre could then trace the identity of the boater and get in touch with them.

How resilient are the lasers?

The lasers are protected in a strong metal box (same as the Network Rail lasers). A protective shutter opens when the sequence is triggered. Tamper alarms are in place. CCTV will record each bridge 24/7 and would capture anyone interfering with the lasers. This is a low vandalism area and there has been no tampering with the lasers at Sandfield over the last year. If a laser was damaged and the system unable to operate, then we would send a member of staff to operate the bridge manually.

Can people standing on the bridge deck prevent the opening sequence? Or a stationary car?

When the sequence is triggered the alarms would sound to alert people that the road barriers were about to lower. If the people/car don't move off the bridge, the lasers will detect them and the barriers won't be able to lower. After a few attempts the sequence would abort and the control centre would be alerted; they could then make contact via the on-site speakers if people still failed to clear the area. CCTV will be recording the bridges.

How will CRT manage peak boat traffic so that bridges are not held open for long periods, delaying road traffic?

We have data on trends and peaks so we can plan for busier periods and keep a closer watch on the bridges we expect to be busy. We can set different types of limits on bridge openings such as the number of openings per hour, maximum time for any one opening etc. Using feedback from the consultation we can develop operating protocols for each bridge if necessary. We can also put notices up for pre-planned special events which might delay road or canal users and during extreme peaks we would consider putting a member of staff on a bridge if necessary.

How will CRT manage boats clustering together through a bridge and holding up traffic?

The lasers which detect passing boats will be pre-set with a maximum bridge open time, after which the canal traffic lights go to red and the bridge would begin to close. Assuming boats obey the lights this would break up any cluster. If a boat obstructed the bridge closing zone, then the sequence would be halted and the control centre alerted. The centre could give instructions via the speakers. CCTV will be recording the bridges. If necessary our team could identify boats causing problems and get in touch with them. In the unlikely event that a boater continues to misuse the system, their app could be disabled and even their boat licence revoked.

What happens if there is a traffic jam around a bridge? Will you still open it for a boat?

As we do now, if road traffic builds up, then it may be best to make the boats wait for a while until the road traffic has eased. The cameras will provide the control centre with good views of road traffic (as well as the canal) so they can manage this situation and temporarily prevent boats from triggering the sequence (the boaters would receive a message on the app). Road users can contact the control centre if they spot a problem.

How will emergency vehicles get through?

The Bridge Control Centre provides a single point of contact for emergency and highways services. On receiving a 999 call, the emergency service will contact the Bridge Control Centre who can then instantly control bridges so they stay in the closed position for road vehicles. The centre can also over-ride openings being triggered by a boater's smart-phone if the sequence has not started. If an opening sequence has started (and needs to finish) it should last no more than 3 minutes so it is highly unlikely an emergency vehicle will have arrived at the bridge by then. This is more reliable than currently where the emergency services have to call ahead to each individual bridge-keeper.

Action

- 1. Simon Hale: Police will put a flag in their system on all addresses relying on bridge access which alerts their control room to contact the Bridge Control Centre.**
- 2. Ambulance and Fire services to do likewise with their systems. Nick Worthington from CRT to attend LRF to formalise this issue.**

What would happen if a bridge fails in the open position and prevents road traffic from passing?

In the unlikely event of a power or software failure, a bridge could be manually swung closed by a member of staff or we could install portable generators for power. If there was a problem preventing them closing the bridge such as an obstruction or breakdown, we would deal with it as we do now, by a mobile diagnostic and repair crew. We would also consider holding nearby bridges in the closed position to enable a road traffic diversion.

What if there is a power cut at the Bridge Control Centre?

The Control Centre would lose visual contact by CCTV and communication with each bridge. Whilst each bridge has its own operating system and could continue to be operated via the app, we would hold bridges in the closed position to enable road traffic to pass and send staff to operate bridges as necessary.

How secure is the Wifi and software at each bridge?

The Wifi is a closed system solely for operating the bridge opening sequences. Each bridge has its own individual Wifi and control system. Being a closed system, rather than public, there is less chance of it being hacked. The system has been specified to high security standards. In the unlikely event that a bridge Wifi or software was unable to function, we would send a member of staff to operate the bridge manually.

Post meeting note

- 1. Darren Martin has sent Wifi system specification to Simon Hale who will refer it to his security colleagues for their view.**

How safe are the personal details of boaters who use the app?

When a boater downloads the app, a check is made against their boat-licence and customer details (to ensure they are eligible to download the app). At the point of download, the boater is assigned a unique identifying code for their use of the app. Once installed the app does not hold their personal details or have any access to them which are protected in a separate system.

Each time a bridge sequence is triggered by a boater's smart device, the system records the unique identifying code of the boater. Currently the bridge-keepers manually record the licence number of each boat that passes through their bridge.

Is there an app or a website where road users can check the current status of a bridge, receive alerts of unplanned closures/faults and time of any booked openings?

We currently run a stoppage alert system for boaters which residents could also conceivably sign up for. We would need to look at whether that would be useful and relevant enough for them. Through the new operating system we also have the ability to provide data about each bridge including any lifting embargoes, faults and of course its current status (opening or closing). However it must be recognised that a bridge's current status could change just after checking because a boater may arrive at any moment and trigger an opening. We will explore this further with residents and boaters to see what information is wanted.

Action

- 1. Madge Bailey and Darren Martin to discuss further.**

Will this definitely go ahead?

Sandfield Bridge will become fully remote-controlled later this year. We plan to phase the remaining bridges over the following 2 years. With any scheme of this scale, there is always a possibility that the plans might be deferred if, for example, the funds required (in this case £4 million) have to be diverted to essential repair work that arises on our 200 year-old network. The aim of the public consultation is to fully consider every concern, suggestion and issue raised as we plan to set up the system.

Other issues

Highways

CRT and Gloucester CC Highways have been reviewing the road approaches to bridges. More site surveys to follow. Recommendations on highways, traffic control and safety will follow and need to be considered in the remote-control programme. Clear need to work jointly and pool funds.

Gloucester CC Highways to liaise closely with CRT re pot hole repairs which could affect ducting for remote-control system.

Consultation

Councillors have been invited to a focus group. Also Stroud District Council local resilience staff. Possible restrictions re "purdah".

Post meeting note

1. **Nikki Humphries confirmed to Madge Bailey that residents affected should all be represented by the councillors invited. Nikki can also attend the meeting.**

CRT to be clear with residents on potential extension to canal opening hours **Action Madge Bailey**

CRT to target the residents affected by Wig-Wag noise **Action Madge Bailey**

CRT to notify Stagecoach bus operator **Action Madge Bailey**

Overall views

Overall views of Highways and Emergency Services attending were positive and that there were some specific positives and reassurances.

Feedback on emerging operating protocols

Those attending were happy to respond by email to drafts circulated by CRT

Advisory Group

Those attending were happy to consider being reps on the Advisory Group to provide ongoing review and advice throughout implementation. **Simon Hale agreed to be one rep, others to consider nearer the time (Advisory Group likely to be set up in autumn 2015).**

Liaison with press office

Those attending would advise their press office to be prepared for requests for comment and views

Full detail including plans and timescale for each bridge plus Q&A's is on www.canalrivertrust.org.uk/gsbbridges