

BRUNEL'S OTHER BRIDGE NEWS

JULY 2025

WHAT'S IN THE BASIN?

For several years our volunteers Bob Watkins (structural and civil engineer) and Plymouth University undergraduate Charlie Kay have focussed on investigating and recording the historic items in the Cumberland Basin area.

These are summarised on John Willis's innovative website <https://bwhha.wordpress.com/>

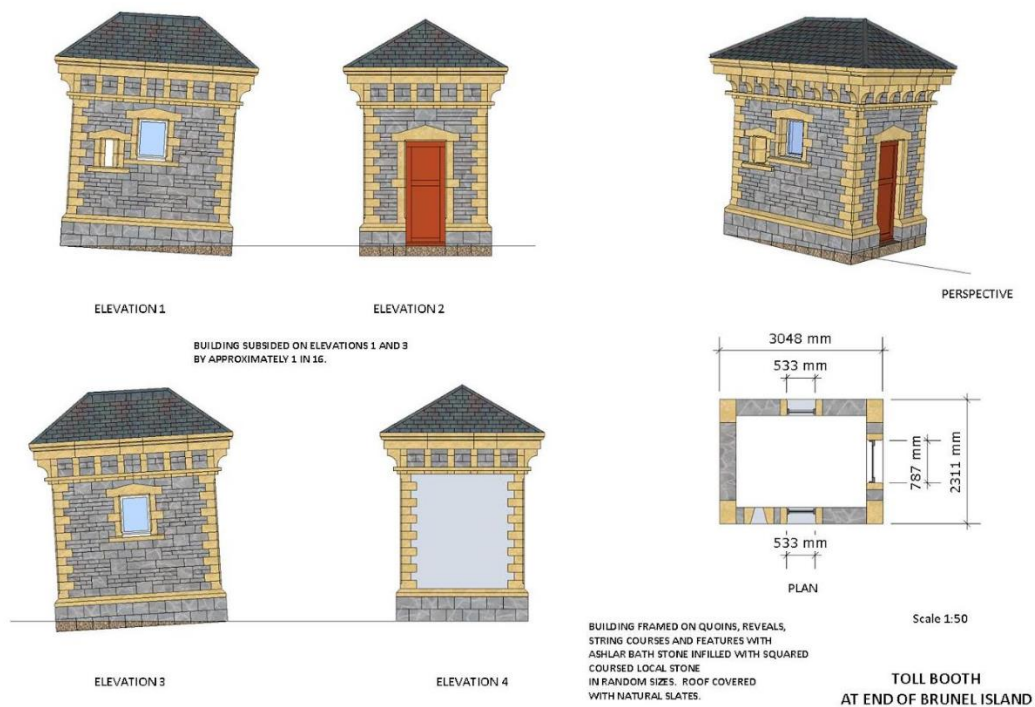


The team's objectives are to:

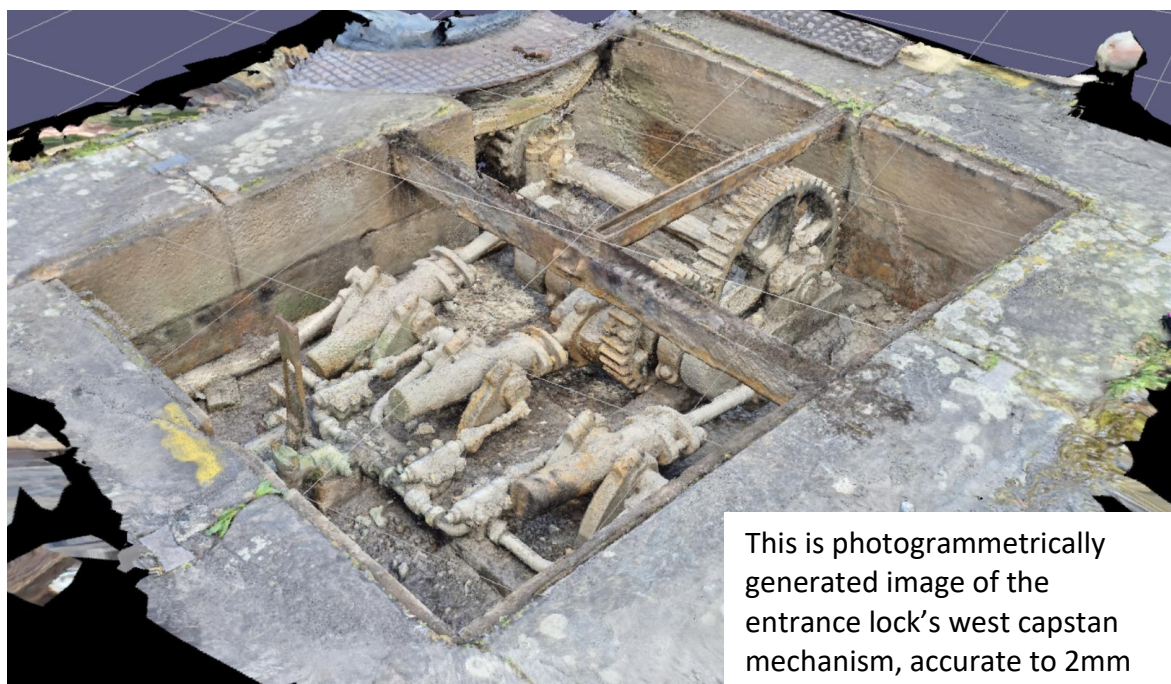
- Locate all existing heritage assets around the Cumberland Basin;
- Find out when they were built and, if possible, by whom,
- Find out how they worked,
- Establish their existing condition.

Excellent progress has been made, and the work is ongoing as follows:

Surveying includes establishing the dimensions of all the features and locating them in plan and elevation. The features are then referred to Ordnance Survey grid and datum. We have been able to borrow a sophisticated total station surveying instrument to carry out some of this work, and hope to be able to do so again to complete the areas not already covered.



So far we have surveyed, capstans, covers to many of the underground pits and manholes around Howard's Lock, and most of the bollards. We plan to extend this survey to cover more of Cumberland Basin.



Many of the heritage assets are actually hidden from view in underground pits and manholes or below water (or mud) which makes surveying difficult, so we have to extrapolate known data.

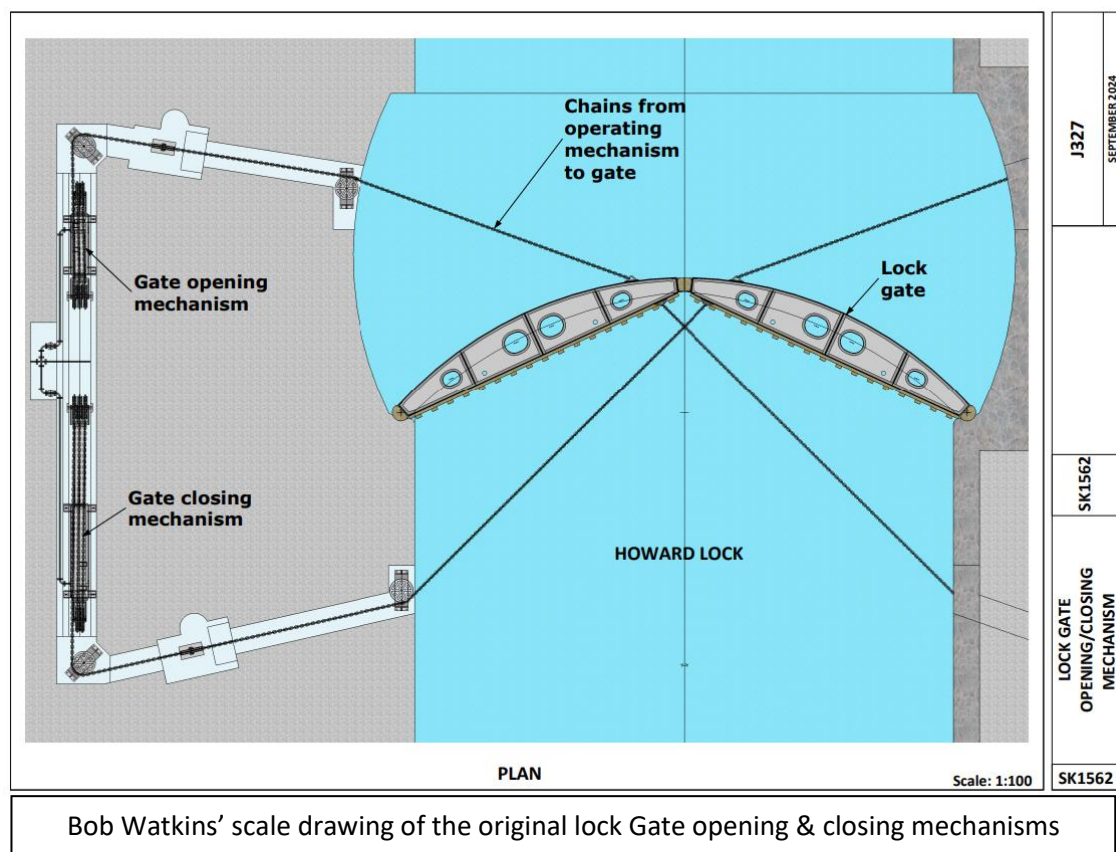
Historical research. The team is searching Bristol Archives' large number of microfilm copies of historical record drawings originally held by the Port of Bristol Authority and associated organisations. Unfortunately, many of these drawings are not catalogued with

sufficient clarity to be able to trace a particular feature and this has increased the time spent searching for details.

Additionally, Bristol Archives hold minutes of meetings, correspondence and other records which describe some of the features found and these sometimes provide a timeline for their construction or acquisition.

Where visible the present condition of all the historical assets is being recorded photographically and, where appropriate, defects noted. Where the asset is underground multiple overlapping images are taken and a 3D digital coloured image constructed using photogrammetry software. This can then be manipulated to create 2D drawings.

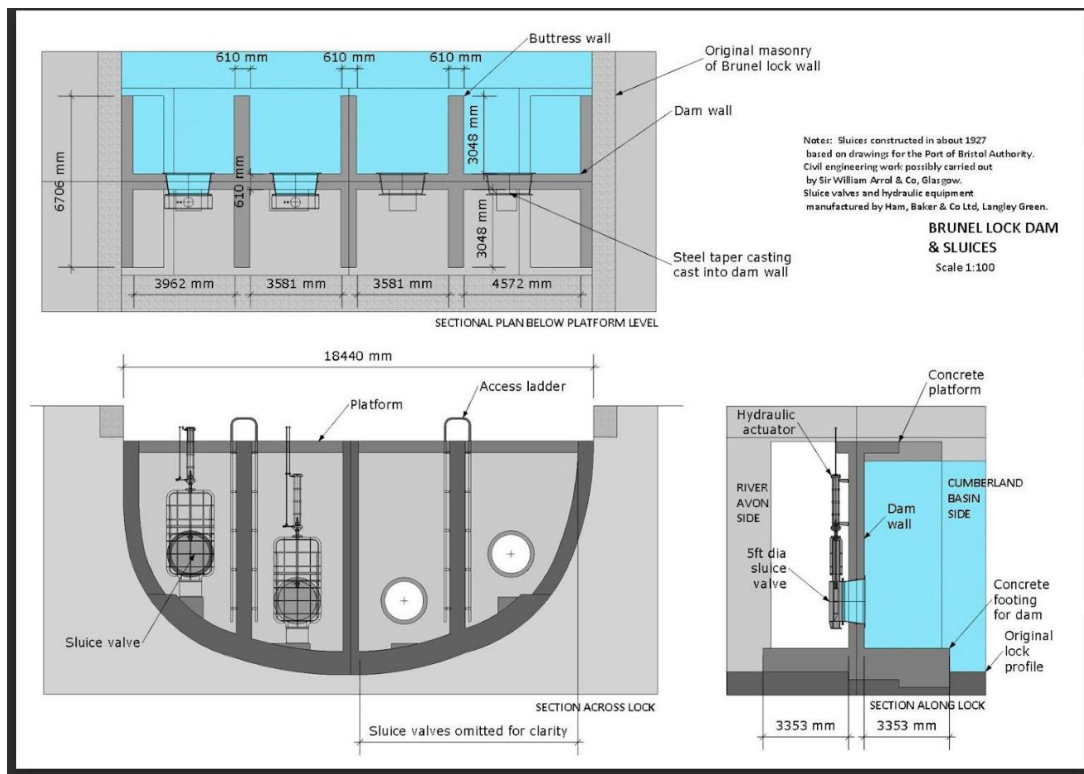
This process requires significant computing power and several hours computation as 4-500 individual images are used to create one accurate model as illustrated below.



All the assets are being added to one of the 34 key plans of the Cumberland Basin area. Individual drawings are also being created to show each asset in more detail.

The assets being recorded include:

- Buildings (Dock Offices, the Toll Booth)
- Bridges (including Brunel's Other Bridge, Replica, and Junction Lock swing bridge).
- Machinery for rotating the bridges.
- Locks (including Howard's Lock, Brunel's original Lock, and Junction Lock)
- The dam across Brunel's Lock.
- Lock gates to Howard's Lock and Junction Lock.
- Lock gate machinery for Howard's Lock and Junction Lock.
- Sluices to Howard's Lock and Junction Lock.
- Bollards and Capstans.
- The hydraulic main around the area.
- Sundry manholes and drainage systems.



Bob, John and Charlie have produced the most comprehensive record of heritage artefacts in the Western Harbour in existence, and the work is ongoing. Well done, and behalf of all who care about these amazing assets..... THANK YOU.

Harbour Authority's new Head of Service

Cliff Brand has recently been appointed Interim Head of Service for the Bristol Harbour Authority, Management of Place - Growth & Regeneration department.

This month we had the pleasure of taking Chris on a walking tour of the heritage assets on the Knuckle. He is based nearby in Underfall Yard.

The City Harbour has its own website with information about infrastructure projects: <https://www.bristol.gov.uk/residents/streets-travel/bristol-harbour>

HARBOUR FESTIVAL and BOB VOLS WORK-DAY

These both take place on 19th July so why not come and join us in the morning and walk up to the Festival in the afternoon ?

A BIG THANK YOU TO OUR VOLUNTEERS FOR YOUR ONGOING SUPPORT

There is a report of each workday on www.brunelsotherbridge.org.uk and on Facebook. Please share, comment & support us on social media.

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