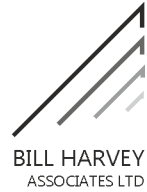




Bridge of the Month No32 August 2013 Calstock Viaduct



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<http://eepurl.com/ccAyL>

As will all previous Bridges of the Month, a pdf copy can be downloaded from the [OBVIS](#) web site.

News and Events

Bill will be in New Zealand from 29th Oct to 6th Dec. Accessible by email
Follow Bill on Twitter @BillHarvey2
Sutherland History Lecture 2012 at <http://bit.ly/J4gblz>

Seminars and Lectures

Leeds WSP offices **25th Sept 2013**
Hertford County Council Offices 29th Jan 2014
Contact Philip@obvis.com

Please contact Philip@obvis.com if you are interested in attending a day seminar on Arches and Archie. The program for this year includes:

Bill's recent work (some interesting bridges!)

Skew Arches

Ring separation

Causes of live load damage

We charge £100 for the day but if you wish to host a session at your office we then wave the charge.

Recent Publications

Bill's paper received the John Henry Garood King Medal. The medal is awarded annually for the best paper published by the Institution on tunnels, soil mechanics or bridges.

Stiffness and damage in masonry bridges. Proceedings of the Institution of Civil Engineers, Bridge Engineering 165 September 2012 Issue BE3 Paper 1100032 Pages 127–134 <http://dx.doi.org/10.1680/bren.11.00032>

A spatial view of the flow of force in masonry bridges, Proceedings of the Institution of Civil Engineers, Bridge Engineering 000 Month 2012 Issue BE000, Paper 1100026, Pages 1–8 <http://dx.doi.org/10.1680/bren.11.00026>

Calstock viaduct is late as railways go (built around 1907) and unusual in that it is built of precast concrete blocks. It is very visible on Google Maps at <http://goo.gl/maps/ygz4J>.

The picture below is stretched by a very wide angle lens. In fact all spans are identical.

Calstock Viaduct

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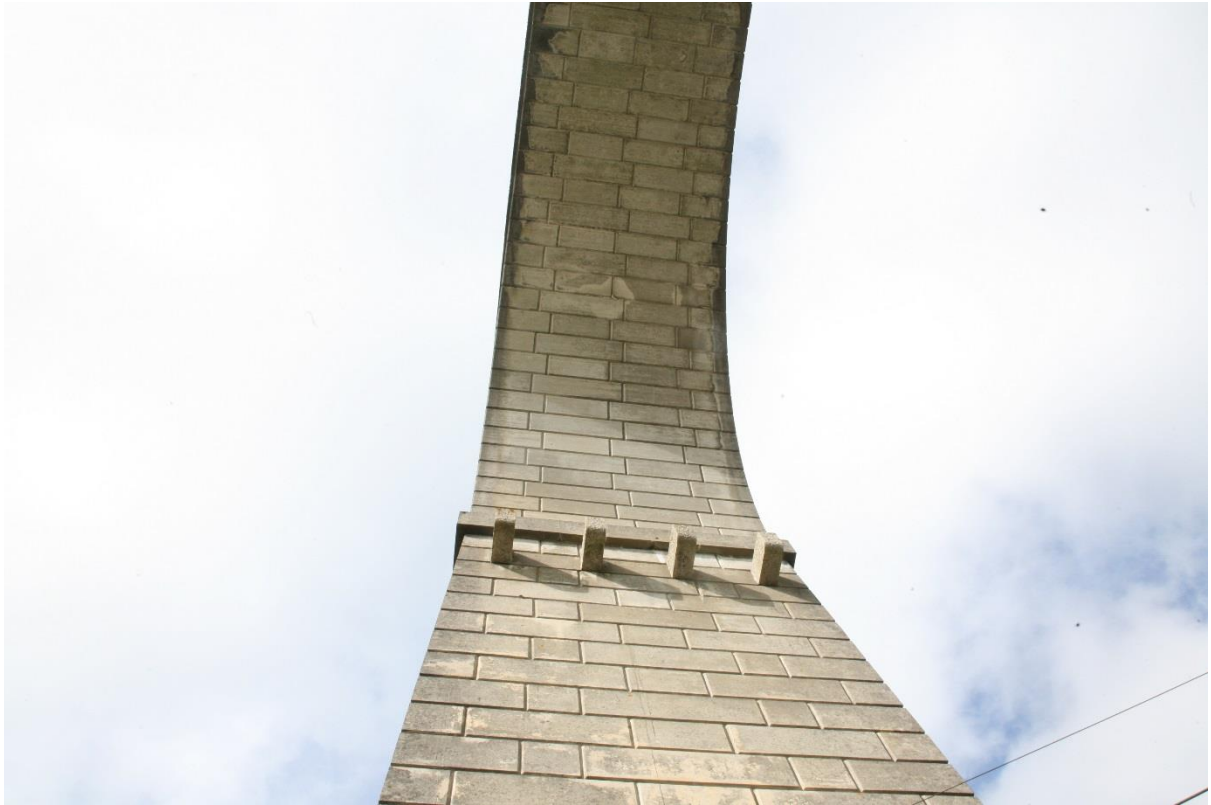
The picture below is stretched by a very wide angle lens. In fact all spans are identical.



A closer look shows that “stones” match, span for span both in the arches and the piers.



In the arches, alternate courses are identical. In the piers, there are make-up pieces to accommodate the taper, but even those match from span to span (of course).



In the closer picture, note how the lime runs match on the soffit and the spandrel. The arches were almost certainly filled with concrete to this level.



The corbels that carried the centres are of granite rather than concrete.

Perhaps the most intriguing thing is the strange construction at the North West Corner.



This warrants a closeup.



I was puzzled until my friend Maurice Hopper mentioned the wagon lift. Calstock is on the Tamar, within the tidal zone and was an important shipping point. Wagons of minerals were lowered to the quay to be shipped to Plymouth for export. The lift tower and siding were all built in steel. See <http://www.archive-images.co.uk/index.gallery.php?gid=6&img=3> for details.