

Case Studies ~ Pontcysyllte Aqueduct, Llangollen Canal

Exceptional heritage asset value

When UNESCO declared the aqueduct to be a World Heritage site, it explained:

'The Pontcysyllte Aqueduct is a highly innovative monumental civil engineering structure, made using metal arches supported by high, slender masonry piers. It is the first great masterpiece of the civil engineer Thomas Telford and formed the basis of his outstanding international reputation. It bears witness to the production capacities of the British ironmaking industry, which were unique at that time.'



The aqueduct is also a Scheduled Ancient Monument which means that consent is required (from Cadw, the Welsh Assembly Government's historic environment service) before any repairs or alterations can be made to the structure. The aqueduct is also set in a conservation area designated by Wrexham, the local council.

Authenticity

The authenticity and integrity of the surviving structure was a major factor in achieving these listings. Built between 1795 and 1805, the canal is carried 126 feet above the River Dee in the original cast iron trough.

Parapets

On one side there is no parapet, creating a real sense of drama for passengers crossing on board boats.

All private boat-licence holders are sent a copy of The Boater's Handbook that contains detailed advice on boat safety. This includes information to the steerer about where to stand and warnings to stop passengers standing or sitting in the way of the tiller. Boaters are warned to keep within the profile of the boat and not to go on the roof.

Hirers are given similar advice by the boatyard before they set off.





The opposite side carries the old towing path, allowing people to freely walk across the aqueduct. The iron railings that form the parapet on the towing path side offer protection from the drop. They are, however, more widely spaced than would be permitted in a new structure.

In consequence, there is an identified risk of young children squeezing between the railings. However, as the structure is of exceptional heritage asset value there is a presumption against the introduction of physical risk controls that would adversely impact on the authenticity and integrity of the original design.

The [Canal & River Trust](#), who are responsible for the aqueduct, have undertaken visitor safety assessments of the site and concluded that although the gaps are wider than one would construct today, to reduce the width would not only have an adverse impact on the heritage value, but also increase the wind loading on the structure which could have a detrimental effect on the aqueduct. They have therefore chosen to leave the railings unaltered, but apply management controls to ensure that parents and guardians are made aware of the risks that will be encountered if they choose to take children across.

Signs

Prominent signs and posts use pictograms to convey clear advice to walkers before they reach the aqueduct.



Wider heritage context

You can better appreciate the importance of the aqueduct to the locality by downloading these documents produced by Wrexham Borough County.

["Pontcysyllte Aqueduct Conservation Area Assessment and Management Plan"](#)

["Pontcysyllte Aqueduct and Canal World Heritage Site Presentation"](#)

This case study was written by Ken Dodd and was published in October 2015

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