



## Ancient and modern - a contemporary footbridge at Harlech Castle, Wales

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### Abstract

A new pedestrian crossing opened in 2015 to visitors of Harlech Castle providing level access to the castle from the newly opened visitor centre. The installation of the new footbridge was possibly the most ambitious construction project to take place at Harlech since the building of the castle itself. This paper details how the client's aspirations for the footbridge have been fulfilled by the designers, the fabricator and the wider construction team and the challenges they all faced to ensure the scheme made a successful contribution to the local economy.

**Keywords:** footbridge; aesthetics; Vierendeel truss; design development; dynamic behaviour; structural steel.

### 1 Introduction

A new three-span footbridge now links the new visitor centre at Harlech Castle directly to the castle itself, spanning over the existing car park and defence moat, see Figure 1. The project was initiated by Cadw, the Welsh Government's historic environment service, and their desire to open Wales's outstanding heritage to a wider audience by making it more enjoyable for visitors and local people alike, thereby maximising economic impact.

#### 1.1 Context

Harlech Castle is one of the finest surviving 13<sup>th</sup> century castles in Britain, if not in Europe, and forms part of the *Castles and Town Walls of King Edward in Gwynedd* World Heritage Site.



Figure 1. Ancient and modern: Harlech Castle and the new footbridge

The castle is also a Grade I listed building, a scheduled ancient monument and a Guardianship Monument under the care of Cadw. It is sited within a Conservation Area and is also within the Snowdonia National Park.