

Westnewton Bridge – Scour protection works Heritage Statement

1.0 Description and Assessment of Significance

The site is located on the College Burn between the hamlets of Westnewton and Kirknewton in the Glen Valley approximately 5 miles west of Wooler in north Northumberland.



Figure 1 – Location of Westnewton Bridge

The landscape is predominantly rural with the valley floodplains of the River Glen, River Bowmont and the College Burn, but surrounded by the foot hills of the Cheviots. Westnewton Bridge is a seven span stone arch structure that carries the B6351 over the College Burn and is a Grade II Listed Building built c1820.

The bridge has a broad central segmental arch flanked by smaller rounded arches and pairs of flood arches. The flood arches are now buried under the general ground level beyond the river embankments. There are triangular cutwaters to the two centre piers and the random rubble spandrels have ashlar label courses framing the arches. Arches are ashlar stonework.

Locally, the College Burn is characterised by a meandering channel over extensive deposits of river cobbles and gravels, with adjacent eroding earth banks. Habitats along the river corridor comprise rough semi-improved grassland, areas of scattered and dense scrub comprising gorse, broom and alder woodland, plantation woodland and semi-natural woodland. Surrounding land use comprises mainly of livestock pasture.

This bridge makes a significant contribution to the visual character of the local landscape, but does not compliment any other buildings or structures within view. The bridge itself is prominent when driving along the B6351 highway mostly because the driver has to negotiate a tight bend onto the bridge when approaching from the east. The bridge is largely hidden from view when walking along Kirknewton footpath no 7.

2.0 Design Concept

The concrete apron bounded up and downstream by steel sheet piling is primarily required to safe guard the bridge foundations against scour during flood events. The purpose of the apron will be to seal the gravels and boulders around the bridge and stop migration of sediments in flood events. The sheet piling will act as a protective screen to undercutting of the apron again during flood events.

The apron is to be covered with cobbles over its whole area to improve the boundary conditions of the river bed against scour during flood events. The geomorphological study and modelling has shown that this will lessen the force of fast water at bed level and so material will be less likely to move and cause scour.

Following consultation with the NNPA Building Conservation Officer, Sarah Dyer, design details have been modified to ensure that there is a structural disconnection between the concrete of the proposed apron and the existing masonry piers and abutments of the bridge.

3.0 Impact of Development

The appearance of the apron will be softened by the cobbles cast into its top surface. The cobbles will be sourced from a supply similar to that of the naturally occurring materials.

The sheet piling will be installed with the top edge flush to the existing invert level and should not be visible.

In conclusion, there will be no detrimental, visual impact to Westnewton Bridge as a result of these works. Furthermore, the works will improve the resilience of the bridge to damage from river scour and help secure the public highway.