

**NORTHERN ARCHAEOLOGICAL ASSOCIATES LTD.**  
**TROD BECK, WOLSINGHAM: CULVERT REPLACEMENT**  
**NEGATIVE WATCHING BRIEF REPORT**

**Site name:** Trod Beck Culvert, Uppertown, Wolsingham

**Grid reference:** NZ 07845 37876

**Parish:** Wolsingham

**District:** Wear Valley

**County:** Co. Durham

**Administrative authority:** Durham County Council



**Client:** The Environment Agency

**Contractor:** Esh Group / Lumsden and Carroll

**Planning application reference:** N/A

**Site supervisor:** Greg Speed / Matthew Town

**Project manager:** Matthew Town

**Date(s):** 15<sup>th</sup> September to 3<sup>rd</sup> November 2016

**NAA project number:** 1304

**Site code:** WOL16

**Development:** The works comprised the replacement of a culvert. The culvert extended from the road bridge south-west of the Bay Horse Hotel, where the beck entered. The culvert ran under a grassed area south of the bridge, parallel to the road, and then

under a row of houses (No's 48-60) to its exit, immediately west of Ainscough House/Gable Cottage (Plate1).

The culvert had been assessed as in poor and dangerous condition; as a result, a new culvert was to be inserted in an open cut to be excavated down the unnamed back lane running roughly parallel to Uppertown (B6296) and to the rear of the cottages, and subsequently backfilled. Access to the culvert was provided by a series of concrete manhole chambers at key changes in alignment. The existing culvert was to be sealed and grouted.

In addition to the works on the culvert, a trash screen was also added at the inlet to the culvert with a larger two stage screen. To accommodate the larger screen a section of river bank upstream of the existing screen was widened, which included tree felling and vegetation removal.



*Plate 1: southern end of stone arched culvert, at exit point into open section*

#### **Reasons for watching brief:**

The focus of the watching brief was the culvert, which probably dated to the early 19th century. The culvert was originally open, but presumably was stone-arched once

the houses were built along the roadside; the section under the grassed area appeared to have had a concrete pipe inserted into it, probably in the 1950s. The houses were shown on the First Edition Ordnance Survey mapping (1858), and therefore the stone arched culvert is likely to date to the early 19th century. The Environment Agency archaeologist was also interested in any potential early deposits which could be encountered where the virgin ground was to be excavated as part of the new culvert insertion. There was also some question as to whether the Bay Horse Hotel could have earlier origins as a mill, in view of its position adjacent to the watercourse (Kemp *pers. comm.*).

## Results:

A watching brief was maintained during the excavation of the trench to accommodate the culvert, which was excavated in sections (typically 6m long, 2.5m wide, and 2.5m deep). Into each excavated section, a 1.2m bore reinforced plastic pipe was laid, and then the pipe was backfilled with sub-base. As the trench edges were unstable, a trench box was used during most of the excavation works. The excavation process was quite slow, in part hampered by the presence of sewer pipes, as well as water, gas and electricity mains, and therefore the watching brief was intermittent.



*Plate 2: trench stratigraphy*

The stratigraphy identified in the trench was broadly similar along the whole excavated length (Plate 2). The base of the trench was cut into the solid geology, which comprised weakly bedded shales and mudstones, and thin coal seams. The solid geology rose northwards, so that the northern end of the trench was cut through 1m of rock in places. This was overlain in places by thin deposits of very hard blackish grey boulder clay, with gravel inclusions. Overlying this was a thick deposit of mid greyish brown silty clay with lots of sandstone inclusions, which appears to represent a deliberate dump to raise the ground level. This varied in depth between 1m and 2.5m. The final upper deposits comprised between 0.3m and 0.5m of weak asphalt and road planings forming a succession of bedding layers for the back lane.



*Plate 3: removal of concrete culvert; a short stub of the culvert wall is visible to the right of the concrete culvert*

No archaeological features were identified during the watching brief. At the northern end of the watching brief area, immediately south of the bridge, a section of the culvert wall was identified (Plate 3) and removed. This comprised the eastern wall of

the open culvert, and was constructed of well-dressed sandstone blocks in a cement mortar. Into this culvert, the concrete culvert had been inserted in the 1950s, and backfilled with a granular fill. The concrete pipe was broken out to allow the insertion of the new pipe.

North of the bridge, the insertion of the new trash screen required the excavation of two sections of bank along the western side of the beck to accommodate the structure (Plate 4). The excavations only removed slumps of topsoil down the bankside edge; at the base of this, weakly bedded sandstone was identified. No archaeological features were observed.



*Plate 4: excavated sections of bank edge to accommodate trash screen, facing south*

**Documentation:** the archive comprises pro-forma trench sheets for the excavation works, and an archive of digital images

**Archive deposition:** the archive is currently held by NAA. A copy of this report will be submitted to the Archaeological Data Service via the OASIS website.

**Report number:** NAA 17/06

**Report date:** *January 2017*