

during cleaning. Prior to the discovery of T3a, the largest known turret was at Melkridge (T40b)<sup>47</sup> which was 0.03 m wider internally at 5.79 m; however, externally the turret was at least 2.05 m narrower east–west than T3a (T3a was 10.26 m wide and T40b was 8.21 m wide). The reason for this was that the foundations for T3a’s walls were twice as wide at around 2.4 m than T40b’s which were 1.21 m wide.

The unusually large size of Turret 40b is thought to be attributed to the wide area within view of the structure, with Milecastle 30 and Milecastle 50 being clearly visible in good weather.<sup>48</sup> Viewshed analysis of T3a<sup>49</sup> (6 km search radius with ‘eyeball’ height set to 7.6 m) demonstrates that *Pons Aelius* Roman fort is within view but *Condercum* and *Segedunum* are not. To the east, T3a would have had clear views towards T2a, T2b and MC3 and to the west there would have been clear sightlines towards all Wall installations up to perhaps T5b/MC6.

The original plan for Hadrian’s Wall was a system of milecastles and turrets, built to standardised dimensions, along a turf or stone wall, with the forts and Vallum added before the original system was completed. The stone Wall was also amended from a ‘broad’ wall to a narrower wall, with the narrow wall installed in some places on the originally intended broad wall foundations. Within the Newcastle to Wallsend section, Hadrian’s Wall was built using only the later narrower gauge of wall. With the evident variation in size of turrets, especially within the central sector, it is possible that this represents another amendment to the original plan in the form of having non-standardised dimensions for turrets.<sup>50</sup> The discovery of T3a at the top of the Ouseburn valley has provided new insights to the construction of Hadrian’s Wall and its installations. It indicates that local factors influenced the positioning of structures along the Wall and that strategic interests outweighed the original spacing scheme. Our investigation clearly demonstrated that significant remains relating to the Wall can and do survive within the more built-up areas of urban Tyneside.

#### SUPPLEMENTARY MATERIAL

None submitted

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## 4. NORTHERN ENGLAND

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### CUMBRIA

(1) **High Street**, *Roman Road*, Margary 74:<sup>51</sup> with the release by Defra of Lidar data for the full length of this road a reappraisal was undertaken. A 3D model of the route was assembled enabling

<sup>47</sup> R.P. Wright, ‘Roman Britain in 1946: I. Sites Explored: II. Inscriptions’, *Journal of Roman Studies* 37 (1947), 165–82.

<sup>48</sup> R.P. Wright, ‘Roman Britain in 1946: I. Sites Explored: II. Inscriptions’, *Journal of Roman Studies* 37 (1947), 165–82.

<sup>49</sup> Undertaken by Erik Graafstal.

<sup>50</sup> David Breeze pers. comm.

<sup>51</sup> Information provided by D. Ratledge.

the route to be explored and viewed from all directions. However, in this case the road proved to be unlike any other road in north-west England. No Roman *aggers* were visible, only hollow-ways often meandering and braided with side banks. In several places straight alignments were perfectly feasible but instead there appeared to be only wandering trackways. Three views from the model will be described but these were very typical of the route in general (FIG. 10). These examples are taken in order from north to south.

A general view (FIG. 10, top) looking south towards High Street (the mountain) from above the Cockpit. The beginnings of wandering braided trackways are evident. Middle view: Loadpot Hill. The route skirts around Loadpot Hill and is indicated by red arrows. It begins (from the left/north) as a prominent hollow-way but what is referred to as the Roman road branches off as a very insignificant track. The more prominent hollow-way appears to continue on but is not commensurate with a route to High Street. Lower view: Passing Red Crag and heading towards High Raise. Two possible routes for High Street are indicated with the right-hand one generally regarded as the definitive route. The straight feature visible is an enclosure wall which clearly indicates a typically straight Roman alignment was feasible here.

It is a similar story over High Street and the steep descent down Scot Rake is more typical of a packhorse route than a Roman road. In addition, no connection to Brougham fort (Penrith) was visible, neither was a connection to Ambleside fort evident. With the discovery of a Roman road from Ambleside to Old Penrith the need for a road over High Street is much diminished.<sup>52</sup> On the basis of the Lidar evidence it is difficult to reconcile this road as being of Roman construction.

#### NORTH YORKSHIRE

(1) **Aldbrough**, (SE 4414 4678):<sup>53</sup> excavation was undertaken close to the north gate of Isurium Brigantum. The aim of the work was to characterise the development of the town, in particular finding evidence for early and late activity, as well as how this area of the town was used in relation to buildings on the geophysics in 2018 and work in 2021.<sup>54</sup> Work in 2022 further clarified the character of the late Roman building sequence and provided new evidence for the second- to third-century phases of development. The objectives were to investigate further the phases of late Roman–early post-Roman timber buildings and the sequence of earlier buildings, with a particular focus on characterising the industrial activity and establishing the chronology of the planned town. Excavation in 2022 clarified and added considerable detail to knowledge of the stratigraphic sequence (FIG. 11). However, the complexity of the sequence again meant that we were unable to reach the bottom of the sequence.

The earliest deposits reached in the excavation were found in two areas (pre-Period 1). This comprises a very dark deposit with much charcoal and pottery provisionally dated to the late first century. At the northern end of the trench, removal of the cobbled surface under the blacksmith's shop revealed a clay layer. Period 1 deposits revealed a street sequence. This comprises a very dark deposit with much charcoal and pottery provisionally dated to the late first century. At the northern end of the trench, removal of the cobbled surface under the blacksmith's shop revealed a clay layer. In Period 1B these features were overlain by an

<sup>52</sup> D. Ratledge, 'Cumbria's Roman Roads, A LiDAR Update', *Transactions of the Cumberland and Westmorland Antiquarian and Archaeological Society* Ser. 3, 17 (2017), 1–22.

<sup>53</sup> Professor M. Millett sent the information. Excavation supported by the Society of Antiquaries of London and McDonald Institute and Faculty of Classics in the University of Cambridge.

<sup>54</sup> R. Ferraby and M. Millett, *Excavations at Aldbrough (Isurium Brigantum) 2021: Interim report (2022)*. <https://doi.org/10.17863/CAM.82323>.

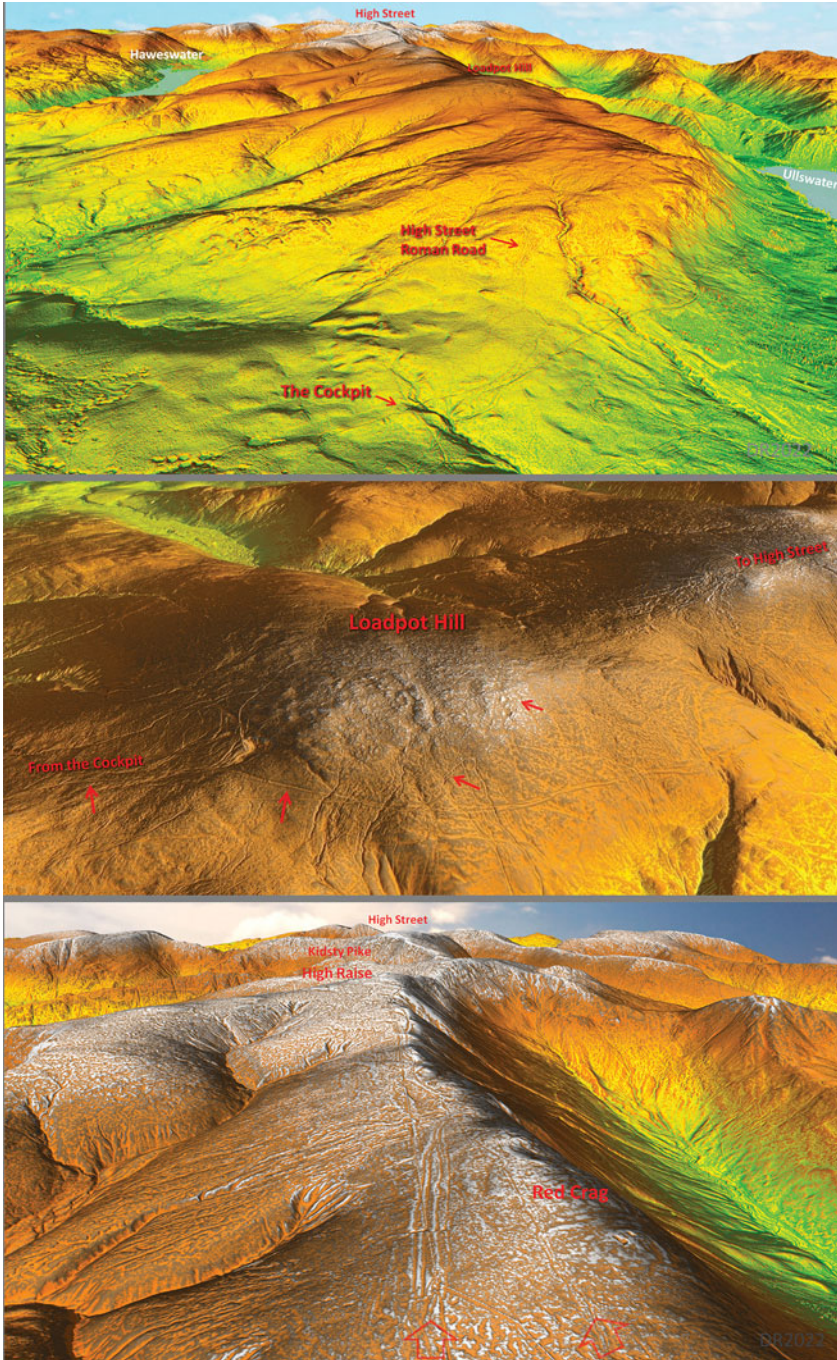


FIG. 10. High Street. Views from the 3D Lidar model described in the text. (© D. Ratledge. Base LiDAR data © Crown Copyright)



FIG. 11. Aldborough. Annotated view of the trench. (© R. Ferraby and M. Millett. Photogrammetry © D. Powlesland)

accumulation of finely laminated deposits of ash, coal and iron slag derived from blacksmithing. Period 1C was defined by the straight cut of a beam slot [309] which is presumed to represent the frontage of a timber building adjacent to the alley. It contained a complete, inverted pot, deposited when the building was demolished. The small amount of pottery suggests a date in the second half of the second century.

In Period 2A the sequence of deposition of smithing material continued to accumulate across the whole of the northern area, but a new building was constructed with a foundation on a north–south alignment that cut across the alleyway and continued to the limit of excavation to the north. In the

area to the north, accumulated smithing deposits built up. A date in the second half of the second century seems likely. The Period 2A structure may have been relatively short lived, and in Period 2B there is evidence for its demolition and the continued use of the alley. A series of smithing deposits accumulated to the north of the alley while to the south there were surfaces within the accumulation of smithing debris as well as a hearth suggesting workshop use. The pottery indicates a later second- to mid-third-century date. The sequence continued in Periods 2C and 2D with a substantial stone-built furnace or hearth with a likely date in the early third century. There is some uncertainty over the phasing in Period 2E, with construction of post-holes indicating both the continued existence of the property boundary that had been marked by the alley and a change in its character with the replacement of the alley by the building of a major wall. This wall line continued in various forms through the remaining Roman-period occupation of the area. A date in the first half of the third century seems most likely.

In Period 3A, in preparation for the construction of the stone buildings, the area seems to have been levelled and then trenches dug for the construction of two east–west walls and the sub-floor structures in the building plot in the north part of the trench. At the south end of the trench, the foundations for a wall were cut into the edge of the east–west street. In Period 3B, the southern wall had the remains of a stone flagstone floor. To the south of this wall there were contemporaneous road surfaces with a build-up of silts against the wall. These imply a long period of use. The principal structure so far examined includes part of a channelled hypocaust in the building in the northern part of the trench. It is not clear how long the hypocaust had remained in use but the remnants of irregular stone flooring over the infilled hypocaust channels indicates a complex use history which probably continued through Period 4. A date in the second half of the third century seems likely for the beginning of this phase. In Period 4 the sequence of buildings in the northern and southern parts of the trench differ. The building with a hypocaust in the northern part of the area apparently continued in occupation, while that to the south was demolished with a cobbled courtyard surface laid over it, while the street to the south spread across the line of the robber trench of the former wall. The cobbling dates to around the middle of the fourth century.

In Period 5, the whole of the excavated area was covered with a layer of later Roman rubble and dark earth. It was not possible to differentiate strata within this, and the large quantities of animal bone and other material indicate use as a midden. Within this accumulation, but presumably predating the midden, there was extensive evidence for the construction of a series of substantial timber buildings. A cobble wall foundation was built on top of the earlier, Period 3, wall indicating that property boundaries were being maintained. Incorporated in the foundation of this wall was a substantial Tuscan-type Roman column capital (FIG. 12). A series of three horse heads and one cow's head had been carefully laid in a line within its footings, presumably as a foundation deposit. To the south, a series of stone alignments appear to represent sills on which timbers were set to support another strip building occupying the area of the Period 4 cobbled courtyard. At the western edge of the trench there was a well-built stone hearth on the axis of this building with a sequence of associated floor deposits. A series of quern stones had been deployed to provide roof supports on the axis of this building.

The 2022 excavation has provided much information on a rich sequence of deposits. Work in 2023 is planned to further explore the Period 3 buildings and the early sequence.<sup>55</sup>

<sup>55</sup> The work was undertaken with support from Sir Andrew Lawson-Tancred and thanks are due to Messrs N. Bailes and E. Craggs for letting us excavate in the field. Thanks are also due to the Friends of Roman Aldborough for organising various aspects of the excavation and to the Boroughbridge Allotment Society.



FIG. 12. Aldborough. Tuscan-type column capital in foundations of wall. Period 5. (© R. Ferraby and M. Millett)

#### SOUTH YORKSHIRE

(1) **Hoylandswaine**, *Roman Road from Manchester to Doncaster* (SE 26306 04731):<sup>56</sup> the road, the discovery of which was reported in 2022,<sup>57</sup> was traced with high confidence as far east as Hoylandswaine where its route could be interpolated across the village. This course would take the road under the Old Post Office in Hoylandswaine before it merged into Barnsley Road. However, in January 2023 the Old Post Office was demolished and excavated down to its cellar level. Clearly visible in the west wall of the excavation was a very disturbed, but obvious, layer of slabs (probably sandstone) (FIG. 13). It was of the expected width at around 7–8 m and was directly on the suggested line. There can be little doubt now that this is Roman road 715x with the sandstone slabs being the surviving foundation layer.

#### EAST RIDING OF YORKSHIRE

(1) **Driffield**, *Solar Site north of Skerne village* (TA 0453 5596):<sup>58</sup> evaluation determined that archaeological remains of Roman date indicating small-scale occupation and agricultural activity existed in the proposed development area. The north-western area of the development site contained dense occupational remains of Roman date, including the remains of foundations of a possible stone structure. The remains of foundations of a probable building were recorded to the south-western end of Trench 1. This included a stone wall, south-west of a kiln or hearth, with a deposit containing fired clay between them, and a second wall north-east of the kiln or hearth. The geophysical survey identified evidence of intensive burning in this area,

<sup>56</sup> Information provided by D. Ratledge.

<sup>57</sup> *Britannia* 53, 430–32.

<sup>58</sup> Work undertaken by CFA Archaeology Ltd on behalf of BayWa r.e. UK Ltd. Information provided by Jess Reeves and Gina Daly of CFA Archaeology Ltd.



FIG. 13. Hoylandswaine. The excavated cellars of the Old Post Office. The red arrow marks the approximate 7 to 8 m width of the surviving Roman road visible in the side of the excavation. Inset: The Old Post Office before demolition, showing the road was well below modern ground level. The hollow red arrow denotes the route of the Roman road. (© D. Ratledge)

which was confirmed by the excavation of the kiln or hearth. A mid-fourth-century coin was recovered from the deposit within the kiln or hearth.

(2) **Brough-on-Humber, *Petuaria*** (SE 9380 0268):<sup>59</sup> the aim of the 2022 excavation was to continue the investigation of the northern and eastern defences of Roman Brough in two trenches located outside of the scheduled area in the north-west corner of the Burrs Playing Field, directly to the south of Welton Road. This was done to assess the conclusions of the work carried out by Philip Corder and his team in the 1930s, and thereby continuing the excavation of 2021. It was possible to locate Corder's original excavation trenches shown on his rather schematic published plans, but either his team had not recorded all the trenches or more likely there have been other unrecorded excavations over the years. Corder's 1935 excavation records a clay rampart as being one of the later features. This was immediately visible once the topsoil had been cleared. The crushed limestone layer which had been deposited to protect archaeological layers during the conversion of the Burrs from farmland to a playing field in the early 1970s was absent in this area. Several sections were cut across the rampart revealing various phases of Roman activity. Under the clay was a layer of large stones, which had also been encountered by Corder and under that, what is likely to be the original sand rampart of the first-century fort. The ramparts were found to be not as homogenous as

<sup>59</sup> Information sent by Peter Halkon and James Lyall. With thanks to the members of the Elloughton cum Brough Playing Field Association, particularly to its chair Martin Credland who is also chair of *Petuaria ReVisited*. Project sponsors include the Society for the Promotion of Roman Studies and several local businesses.



FIG. 14. Brough. The northeast corner of the walled enclosure. (© P. Halkon and J. Lyall)

Corder's descriptions had suggested, as he had clearly named them after their most common constituent. Many of the pottery sherds from this year's excavation were found at the south-western edge of the excavation and are likely to have been residual, possibly disturbed from earlier layers during the construction of the later ramparts. These included sherds of figured samian and mortaria, Nene Valley colour coated wares and East Yorkshire greywares, mainly from Holme-on-Spalding Moor. Other finds included a decorated finger ring made of finely twisted copper-alloy wire with close parallels in Germany, military style belt fittings and a bone die. The latest coin found was one of the emperor Magnentius (A.D. 350–353).

In 2021 we excavated what we thought was part of a curtain wall first exposed by Corder in 1935.<sup>60</sup> On enlarging the trench this year, we found that there was little structure to the stonework and although it was on the approximate alignment of the wall, it had been heavily disturbed, presumably during Corder's excavation. Fortunately, several sections to the south-east remained intact, including several courses laid in a so-called herringbone pattern, and at the outer corner were some remaining worked limestone blocks (FIG. 14). We were able to open a trench in the garden immediately to the east of the Burrs to investigate the possible outer ditch mapped by Corder but not fully investigated and the probable route of the Roman road leading to the east gate of the walled enclosure. At first, this looked unpromising due to large dumps of relatively modern detritus and several drains. However, at the eastern end of the trench we found what was possibly part of the northern *agger* of the road and in the final days of the excavation, large unabraded sherds of Roman pottery were encountered.<sup>61</sup>

<sup>60</sup> *Britannia* 53, 432–3.

<sup>61</sup> A highlight of this year was the fantastic response and participation of people living in the immediate vicinity. On one day we had three generations of a family digging together. None of this would have been possible without the work of our amazing team of volunteers.



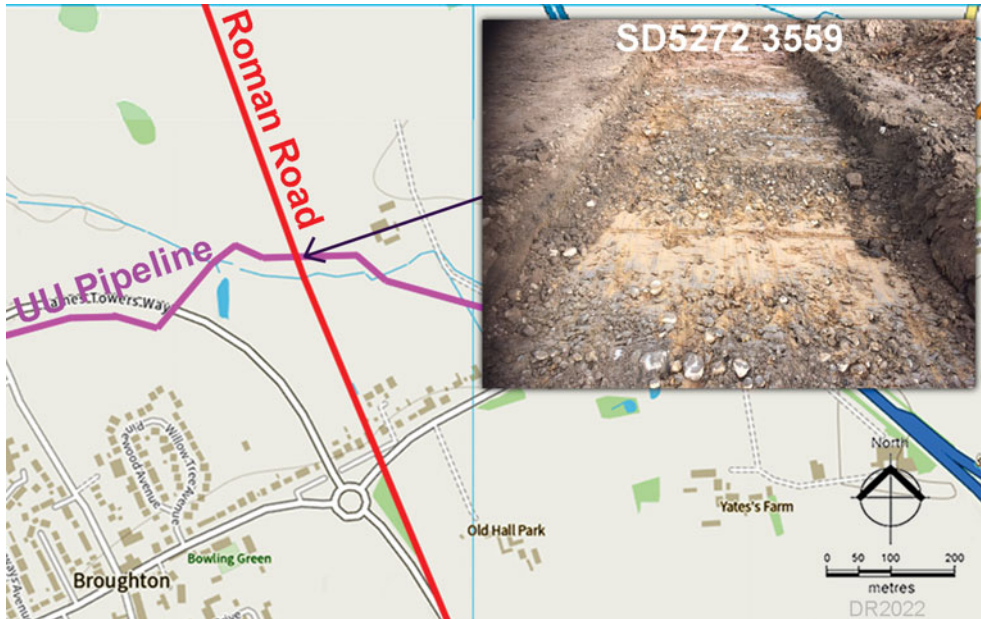


FIG. 15. Broughton. The route of Roman Road Margary 70d where it intersected with the United Utilities pipeline, north of Whittingham Lane. Inset: surviving remains of the road evident.

#### LANCASHIRE

(1) **Broughton**, *Walton-le-Dale to Lancaster Roman Road, Margary 70d* (SD 5272 3559):<sup>62</sup> during late 2021 and early 2022 United Utilities laid a new water pipeline to the north of Whittingham Lane, Broughton. This was to intersect the line of the Roman road Margary 70f previously revealed by Lidar.<sup>63</sup> Permission was kindly given to Wyre Archaeology to inspect the trench following excavation but before the new water main was laid. Several hundred metres of the trench were examined but in general there were very few sporadic stones visible along it. However, on the suggested line for the Roman road there was a considerable spread of stones, approximately 8 to 10 m wide (FIG. 15). It was clear that the trench had cut through the remains of the road at this spot. This is now believed to be the furthest south fixed point for the road.

(2) **Catterall**, *Ribchester to Catterall Roman Road, Margary 704* (SD 50155 42914):<sup>64</sup> a private excavation was carried out at Moon's Farm. The location was close to its junction with the Roman road from Walton-le-Dale, just to the north of a farm track (FIG. 16). The road was located only 150 mm below the surface, it had a slight camber and was estimated at 8 m wide. Despite an extensive search no evidence for a crossing of the River Brock was located. However, it was clear the River Brock had been moved southwards in recent times to accommodate several mill ponds.

<sup>62</sup> Information provided by D. Ratledge.

<sup>63</sup> D. Ratledge, 'Lancashire's Roman Roads: A LiDAR Reassessment', *Transactions of the Lancashire and Cheshire Antiquarian Society* 110 (2017), 77–107.

<sup>64</sup> Information provided by D. Ratledge.



FIG. 16. Catterall. Left – The location of the excavation trench across the Roman road from Ribchester to Catterall. Right – the excavation trench looking east. (© D. Ratledge. Base mapping © Lancashire County Council's Mario web site under an Open Government Licence)

(3) **Caton**, *Lancaster to Burrow-with-Burrow Roman Road*, Margary 705:<sup>65</sup> the course of the Roman road across Caton has proved elusive to pin down over the years with suggestions ranging from passing Gresgarth Hall in the south to a possible feature running north of Caton Green Road at Brookhouse. The advent of LiDAR provided a better understanding of the road's general course, but it needed physical confirmation on the ground. A series of site inspections and excavations of the road around Caton was undertaken during 2022 (FIG. 17).

Site A (SD 52726 64139): the terraced incline down from Escowbeck House towards a crossing of Escow Beck had been noted before from LiDAR imagery.<sup>66</sup> An excavation towards the bottom of the incline revealed the road construction, which was edged with a line of larger stones. The trench was extended as far as possible across the road, but it could not be fully exposed as modern landscaping of the incline meant the road would be too deep to dig by hand. However, sufficient of the road was uncovered to be confident that this was a substantial road and not a narrow garden path.

Sites B and C (SD 53270 64300 and SD 53345 64314): this is the general location of the Artle Beck Milestone (*RIB* 2272). It was exposed after a storm in 1803, but its exact location was poorly documented. The milestone is plotted on OS first edition mapping and an alternative location was given as 245 yards upstream from the bridge leading from Caton to Brookhouse.<sup>67</sup>

<sup>65</sup> Information provided by D. Ratledge.

<sup>66</sup> D. Ratledge, 'Lancaster's Roman roads: some recent developments', *Contrebis* 40 (2022), 56–64.

<sup>67</sup> A. White, 'Roman finds and J.S. Slinger', *Contrebis* 17 (1992), 38–9.

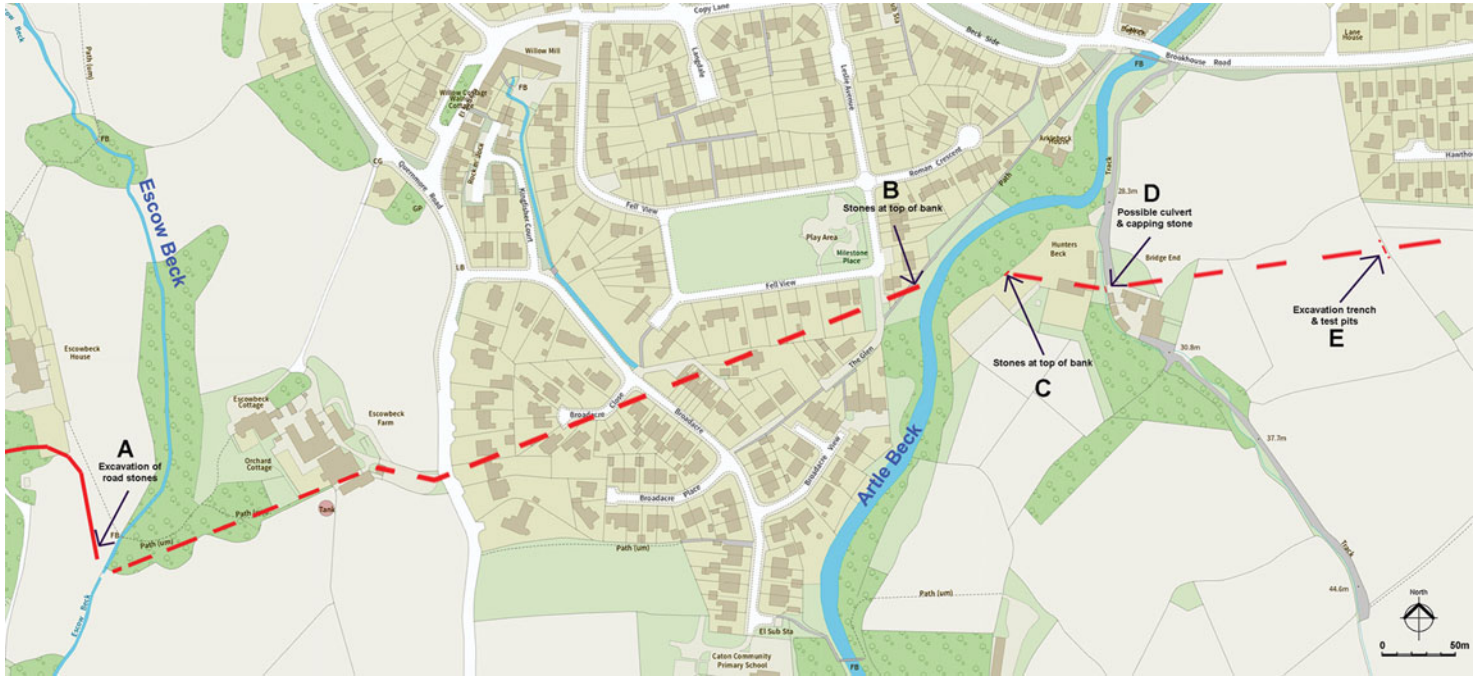


FIG. 17. Caton. Locations of the various sites investigated. (© D. Rattledge. Base mapping © Lancashire County Council's Mario web site under an Open Government Licence)

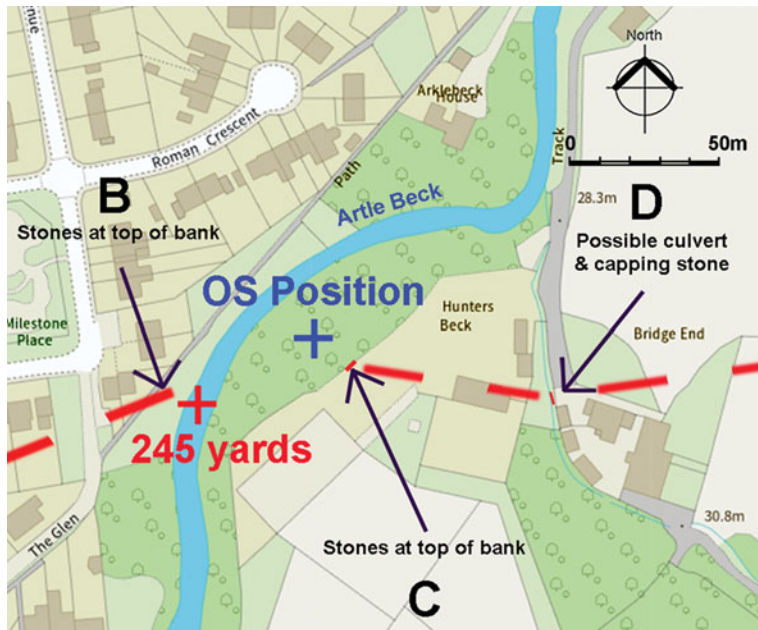


FIG. 18. Caton. Plan showing the locations of Sites B, C and D with the possible milestone locations marked with crosses. (© Lancashire County Council's Mario web site under an Open Government Licence)

A search of the riverbanks in this vicinity was undertaken and at the top of both the west and east banks remains of the road were located. In both cases there was a large amount of surviving substantial foundation stones over an approximate 8 m width with only the occasional stone elsewhere. Both these would fit well with the possible milestone locations (FIG. 18).

Site D (SD 53399 64298): of the sites investigated, this provides the weakest evidence for the course of the road. An old boundary leads up from Site C to a crossing of a small stream. Today there is a modern bridge/culvert, but alongside is evidence for an older masonry culvert with one capping stone surviving.

Site E (SD 53580 64327): an excavation in the second field south of Brookhouse Road, east of Bridge End Farm was carried out. This was on the line suggested by LiDAR but, with only very faint traces visible, it was inconclusive. An initial test pit located a stone surface a few inches below the surface just west of the hedge line. This was extended in stages, eventually forming a trench of around 10 to 11 m. A road of solid construction was revealed around 8 m wide. Small depressions, perhaps infilled ditches, were evident at both edges of the road.

#### SUPPLEMENTARY MATERIAL

None submitted

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