YORK ARCHAEOLOGICAL TRUST

PICKERING BECK FAS

TRIAL TRENCHING & WATCHING BRIEF

PICKERING BECK, BLANSBY PARK LANE, PICKERING, NORTH YORKSHIRE

FINAL REPORT
Report number 2014/62

by Toby Kendall

YORK ARCHAEOLOGICAL TRUST

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Registered Office: 47 Aldwark, York, UK, YO1 7BX

Phone: +44 (0)1904 663000 Fax: +44 (0)1904 663024

Email: archaeology@yorkat.co.uk Internet: http://www.yorkarchaeology.co.uk

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Abbreviations

YAT York Archaeological Trust

FAS Flood Alleviation Scheme

BGL Below Ground Level

YAT Project No.	5637			
Dates work took place	18th-20th November 2013. Watching Brief March/April 2014			
Client	Environment Agency			
Planning Application No.	NY/2013/0057/FUL & NYM/2013/0117/FL			
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1. SUMMARY

York Archaeological Trust (YAT) undertook trial trenching and other archaeological observations during and after machine stripping for access roads, site compound and a trial pit at Pickering Beck, Blansby Park Lane, Pickering. The archaeological excavation and additional observations were undertaken between the 18th and 20th November 2013.

Based on the results of these trial trenches further monitoring took place as an archaeological watching brief on the 24th March and 22nd April 2014.

The smaller targeted excavations revealed limited archaeological deposits and the isolated features from the trial trenches were primarily linked with post-medieval landscaping and land drainage. Isolated finds from the topsoil and subsoil could be dated to the Roman period and possibly earlier for a single abraded sherd of pottery, but were not linked with any features. The machine stripping across large areas of the site portrayed a similar story whilst the trial pit revealed, the expected, silted in stream channel.

The watching brief revealed isolated post-medieval landscaping linked with agriculture as well as the natural variations of the stream channel of Pickering Beck.

2. INTRODUCTION

Between the 18th and 20th November 2013 YAT undertook the excavation of trial trenches and other archaeological observations linked with the Pickering Beck Flood Alleviation Scheme (FAS) within the base of Newtondale Valley (NGR SE 8120 8563), 2km north-east of Pickering town centre (see Figure 1 Site location). This work was carried out in accordance with planning applications NY/2013/0057/FUL & NYM/2013/0117/FL and is the phase of targeted evaluation that would then inform further archaeological works during the major groundworks phase of the project.

The initial Written Scheme of Investigation (WSI) (version 3 - 16th September 2103) specified three trenches measuring 30m long and 2m wide, which were to run along the course of the re-aligned channel for Pickering Beck. However, upon arrival on site it became clear that this would not be possible due to both access restrictions and potential for breaching of the current channel. One of the trenches was shortened whilst another was moved to run along the line of the diversion channel which would be dug to carry the flow whilst the main work was underway on Pickering beck itself. Full details can be seen below.

Whilst the trial trenching was underway it was also possible to monitor additional areas of machine stripping which were linked with the access road, temporary bridge and compound. An additional trial pit examining the stability of the ground along a former channel of the beck was also recorded. See Figure 2 Work Location.

Following recommendations based on the results of the late 2013 work an archaeological watching brief was undertaken during the machine stripping for the control structure (24th March 2014) and the stripping and excavation of the terminal end of the key trench (22nd April 2014).

3. METHODOLOGY

3.1 TRIAL TRENCHING

A total of three trial trenches were excavated across the site, see Figure 3 Trench location;

- Trench 1 was 32m long and c.2m wide, with additional sondages extending 2.5-3m to the south at each end.
- Trench 2 was 22m long and c.2m wide, with an additional sondage extending 2.5m to the south at the western end.
- Trench 3 was 32m long and c.2m wide, with an additional sondage extending 3.5m to the south at the western end.

All of the trenches were excavated using a tracked 360º excavator fitted with a 1.8m wide toothless bucket. The topsoil and subsoil was machine excavated in a series of arbitrary spits all the way through to the natural underlying deposits. Additional sondages were excavated into the natural deposits to a depth of 1.1m BGL to investigate any potential for old stream channels. These sondages were backfilled after a photographic record was made for Trenches 1 & 2, with Trench 3 staying open for longer to facilitate recording and the reinstatement of a land drain.

Recording of each trench was completed using photography, plans and context recording cards. Levels have been referenced to a fixed point (borehole monitoring point) so they can be tied in to Ordnance Datum if required. In Trenches 1 & 2 a representative section was drawn, whilst in Trench 3 a section was drawn with the sondage. Any finds were bagged and labelled by individual context.

3.2 MACHINE STRIPPING

Whilst on site it was possible to examine the topsoil and subsoils disturbed during stripping for the access road as well as monitor machine stripping underway across a number of areas;

- Access ramp to the south of Pickering Beck c.5x15m
- Access road towards the compound c.5x20m
- Compound areas c.10x25m & c12.5x30m

Recording was completed using photography and finds which were recovered from the compound area were labelled accordingly.

The same tracked 360º excavator fitted with a 1.8m wide toothless bucket was used for this stripping.

3.3 TRIAL PIT

The excavation of an additional trial pit c.2m wide and c.4.5m long was monitored as it was dug by the same machine as the trial pits and area stripping. Upon completion the trench was too deep to enter, 2.1m deep, so recording was completed by photography.

All of the work was undertaken on behalf of the Environment Agency. The principle contractors on the site were Jackson civil engineering.

3.4 WATCHING BRIEF

Two stages of watching brief were undertaken, see Figure 4 Watching brief monitoring points;

- The first during the topsoil stripping around the control structure had stripping down to a depth of up to 400mm BGL.
- The second was during the stepped excavation of the key trench, well into undisturbed natural clays.

Recording was completed using photography and notes. Again a tracked 360º excavator fitted with a toothless bucket was used for these phases of work.

During the first stage watching brief it was also possible to view the full length of the recently excavated diversion trench for any archaeological which may have been disturbed.

All of this work was undertaken on behalf of the Environment Agency. The principle contractors on the site were Jackson civil engineering.

4. LOCATION, GEOLOGY AND TOPOGRAPHY

The site sits across the flat base of Newtondale to the north-east of Pickering town centre. The section of the glacial melt-water valley being impacted upon by the flood alleviation scheme drains from the northeast to southwest. This is immediately before the last major curve in the valley before it turns south and enters Pickering from the north.

The relatively flat base of the valley is made up of alluvial clays, silts, sands and gravels which overlay the solid geology of limestone. This stone can be easily seen where it is eroding out of the steep sides of the valley adjacent to the north of the site.

Although the base of the valley is relatively flat the mobility of Pickering Beck as it has developed though time gives rise to isolated undulations, particularly closer to the current stream channel.

5. ARCHAEOLOGICAL AND HISTORICAL BACKGROUND

The site is positioned within an area which has rich archaeological and historical resources dating back over many millennia. The position within this landscape means that numerous periods and subsequently types of archaeological features and finds may be encountered.

Prehistoric archaeology is represented by sites and spot finds linked with the exploitation of the hills of the North York Moors and the Vale of Pickering to the north and south. This itself may also sit within a larger system running from east to west across this region. Star Carr is one of the most significant Mesolithic sites in the country and sits only 24km to the east of the site; along the route way which existed.

Roman finds and features have been recorded in close proximity to the site, along the north flank of Newtondale.

The development of Pickering from its pre-conquest origins is well documented, though how this smaller area was utilised is less well known.

More recently the development of the railway line adjacent to the site in the first half of the 19th century had a major impact on the valley with the engineering of the route adopted.

6. RESULTS

6.1 TRIAL TRENCHING

See Figures 5 Plans & 6 Sections

6.1.1 TRENCH 1

Plate 1.

The earliest deposit encountered was undisturbed natural sandy clays (1002) at c.300mm Below Ground Level (BGL). This was overlain by c.150mm of yellowy grey silty clay sand subsoil (1001) and then a further c.150mm of soft greyish brown topsoil.

6.1.2 TRENCH 2

Plate 2.

The archaeology within Trench 2 was similar to that found in Trench one. In this instance natural deposits (2002) were encountered at a slightly deeper c.400mm BGL, the subsoil (2001) was c.220mm deep, and topsoil (2000) was c.180mm deep. In general the deposits were more sandy, which may be linked with being slightly closer to the tree canopy and stream channel.

Roughly central to the trench a ceramic land drain (2003) was cutting into natural, running nne-ssw towards the stream.

A single piece of highly abraded pottery which may be prehistoric, Roman or immediately post-Roman was recovered from the subsoil (2002).

6.1.3 TRENCH 3

Plate 3.

Within Trench 3 the natural clay deposits (3002) gradually sloped down from the east to the west, following the slope visible at ground level, though natural deposits were c.450mm BGL along this profile.

Plate 4.

A more pronounced slope was visible for the last c.6m at the western end of the trench, possibly a natural hollow which previously existed. This hollow had been infilled (3005) with orangey brown sandy silt which contained fragments of tile and pot from the 19th century. The previous buried topsoil was visible at the base of this deposit, but was not assigned a new number. This hollow, or the further slope at its southern edge (visible on the section), may be linked with a field boundary which is visible on the late 19th century map of the area.

At the western end of the trench, cutting through the infilling, three separate land drains were encountered. These were aligned approximately east-west, running towards the southern curve of Pickering Beck to the east. Two of the drains (3003 & 3006) were ceramic, whilst one (3004) was constructed using a fill of limestone rubble.

The uppermost sequence of up to c.250mm of subsoil and then c.200mm of topsoil was as encountered in the other trenches.

6.2 MACHINE STRIPPING

6.2.1 ACCESS ROAD

The materials stripped during the creation of the access road were examined where it was stockpiled. The only finds within this were relatively modern fragments of tile and rough stone fragments. The subsoil was of a predominantly silt/sand nature which indicated that it was alluvial in nature and may be along the line of previous stream channels.

6.2.2 ACCESS RAMP TO SOUTH OF PICKERING BECK

The subsoil immediately adjacent to the Beck was silt/sand as seen on the north of the channel. However this quickly became dominated by clay further away from the beck due to the clay natural below; where there was no indication of former channels. No finds were recovered from this area.

6.2.3 COMPOUND AREAS

Plate 5.

The extensive area stripped linked with the compounds was stripped of topsoil and some subsoil. Depths of this stripping ranged between 150 and 300mm depending on slope and underlying soils.

Towards the gate for crossing the railway line deliberate dumping and consolidation of the ground was indicated by limestone and 19th century or later tile rubble; this diminished further away from this point. Other isolated patches of 19th century or later tile dumping were observed, but those were the only recognisable features across this area.

A single piece of grey fabric Roman pottery was recovered from the topsoil.

6.3 TRIAL PIT

Plate 6.

In excavating the trial pit it was possible to discern a former line of Pickering Beck. On the eastern side of the pit the steep slope of the former stream channel was indicated by a

buried soil which was similar to the soils seen on the banks over the rest of the site. The fill of the stream channel was made up of grey and yellow silty sands overlain by what looked like deliberate infilling in the uppermost deposits. These upper deposits contained stone and tile of 19th century or later date, nothing was retained.

6.4 WATCHING BRIEF

6.4.1 CONTROL STRUCTURE

In the area of the control structure the ground had already been significantly disturbed during the removal of the trees which previously flanked the original channel of the Beck. This had little bearing on the survival of any archaeological deposits as the area was devoid of anything other than natural silts and sands. Once the area was cleared the only changes in the underlying natural deposits were linked with variations in the natural clays opposed to silts and sand from the early channel of Pickering Beck.

Other stripping/investigations in this area showed nothing of archaeological significance.

6.4.1 KEY TRENCH

Plates 7 & 8

At the terminal end of the key trench the uppermost topsoil had been stripped in advance of the work, but no clear features were seen in the stripped area. As excavation continued into the deeper deposits the colluvial material from the southern slope of the valley was easily identified. There were no archaeological deposits associated with or sealed by this material (plate 7).

Further away from the valley side a single possible pit/ditch was backfilled with material that contained no dating evidence. A single 20th century was also observed in the trench section. However these were isolated features in undisturbed natural clay (plate 8)

6.4.1 DIVERSION CHANNEL

The diversion channel ran along the approximate line of trench 3 from the trial trench. Both sides of the full length of the channel were assessed and no features of archaeological significance were observed.

6.5 DISCUSSION

The excavations and additional observations undertaken in the first phase of work revealed very little in the way of archaeology across the site. It is unlikely that the movement of Trench 3 from within the line of the proposed control structure to the line of the temporary diversion

added to this. Perhaps even the opposite is possible; as in its new location Trench 3 picked up the most in the way of features. Compounded with the lack of archaeological features in the areas monitored during stripping and during the trial pit it would suggest that there may be a relative paucity of archaeology across large tracts of the site being remodelled during the flood alleviation scheme.

Perhaps the most interesting element of these works is the lack of any significant archaeological deposits across the whole site. The surrounding landscape is well known to have been utilised since prehistory and substantial Roman remains have been revealed less than 500m to the west. It may be that the only early activity in this section of the valley was on the northern side, and it has been covered or removed during the 19th century construction of the railway line.

The watching brief and additional observations made on other parts of the site revealed no significant archaeological features. This indicates that the proposed strategy for monitoring the groundworks from the interim report (see Appendix 3) had been successful in managing the risk of destruction to the archaeological record.

7. ACKNOWLEDGEMENTS

Research and author	T. Kendall
Illustrations	T. Kendall
Fieldwork	T. Kendall & Arran Johnson
Editor	D. Aspden

Many thanks to team on site from Jackson civil engineering and the input from the Environment Agency.

APPENDIX 1: SITE PLANS

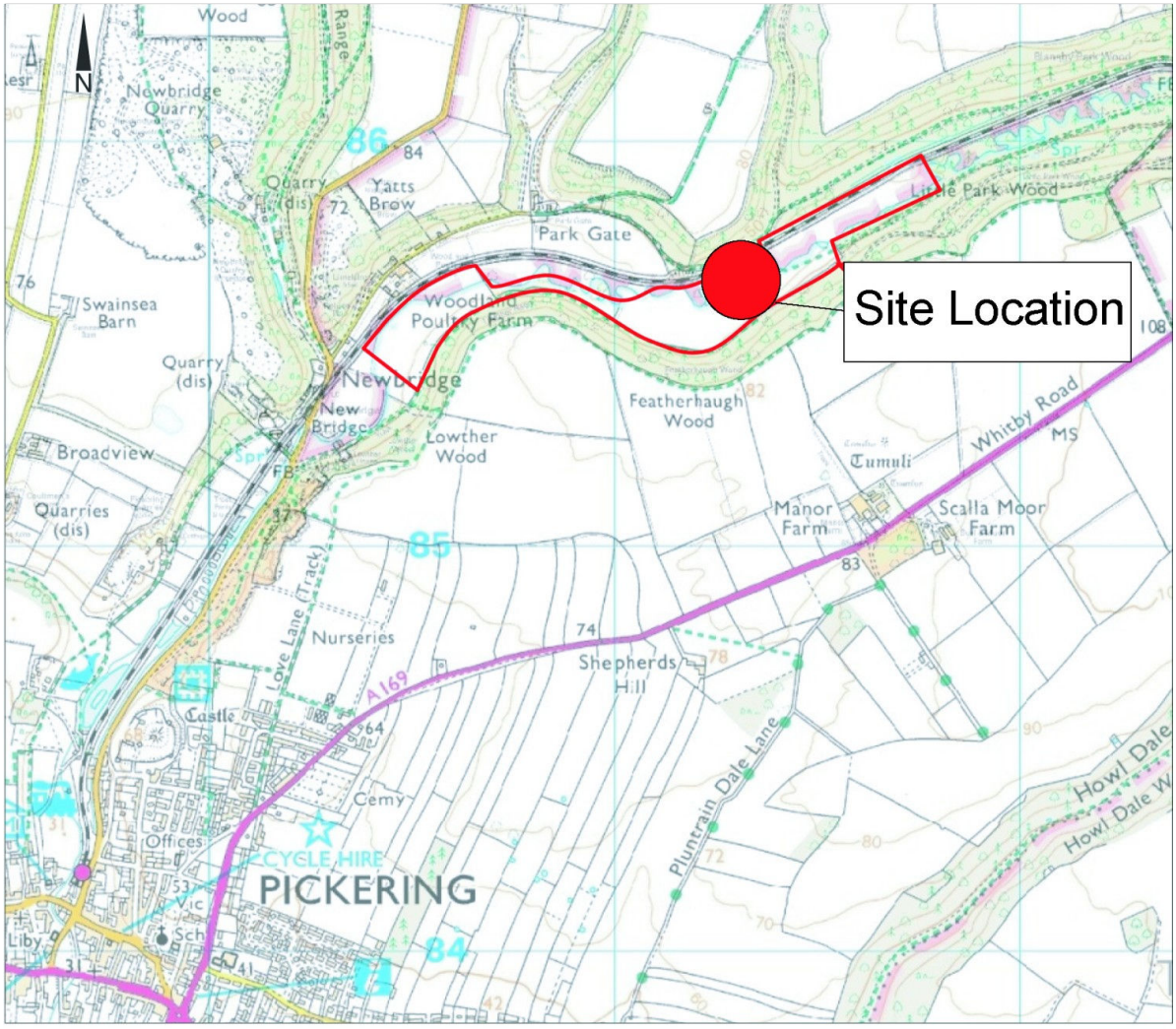

Figure 1 Site location

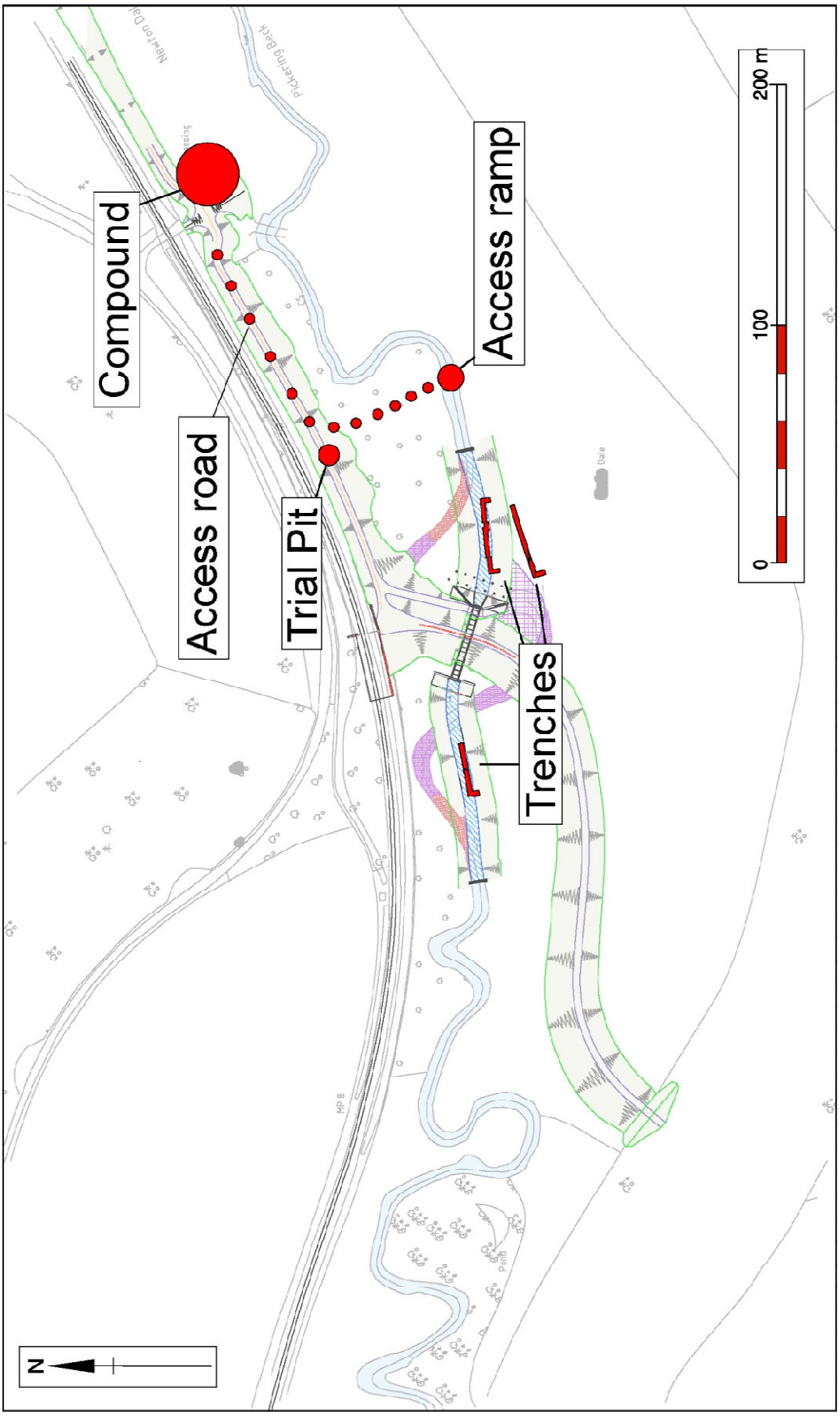

Figure 2 Works location

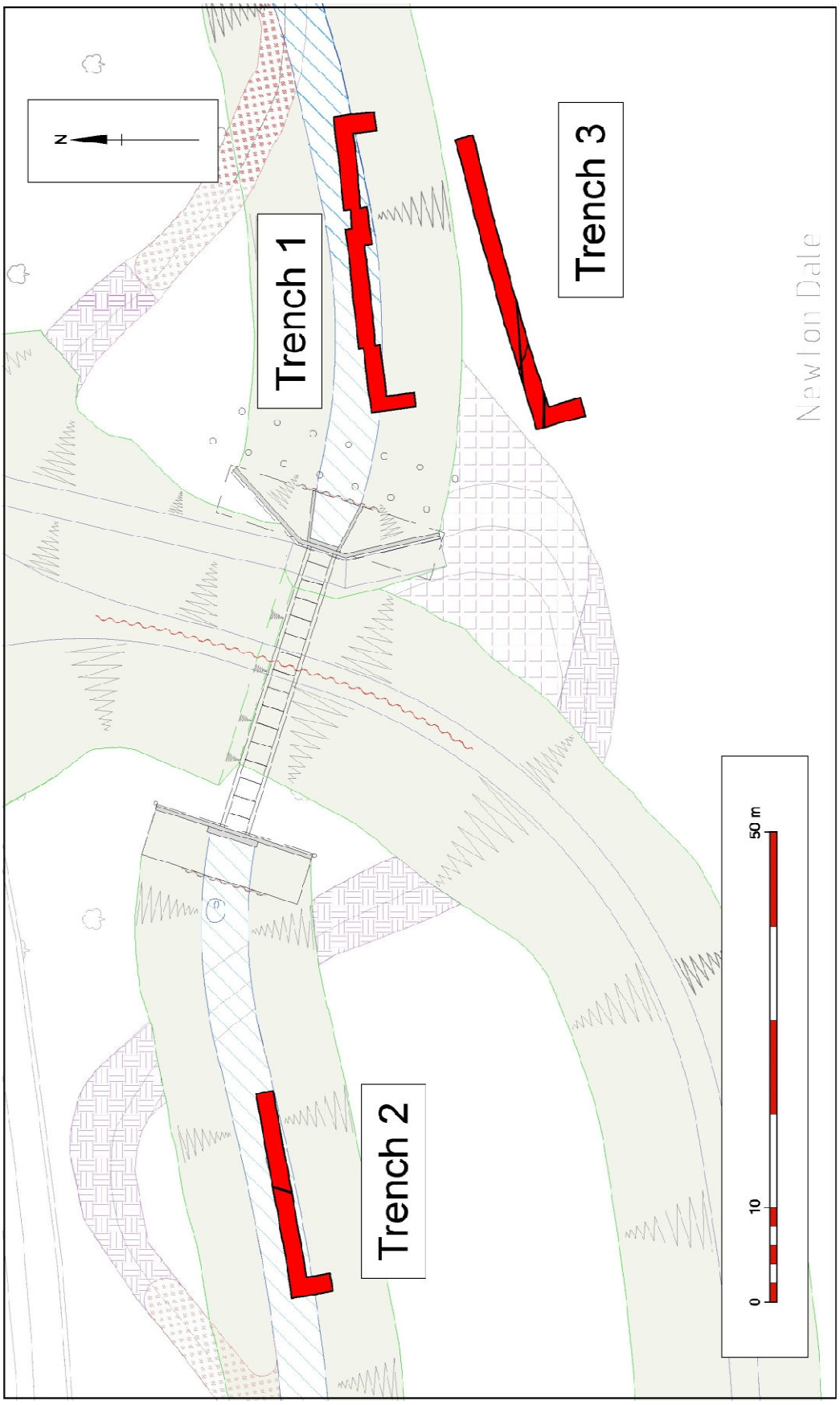

Figure 3 Trench location

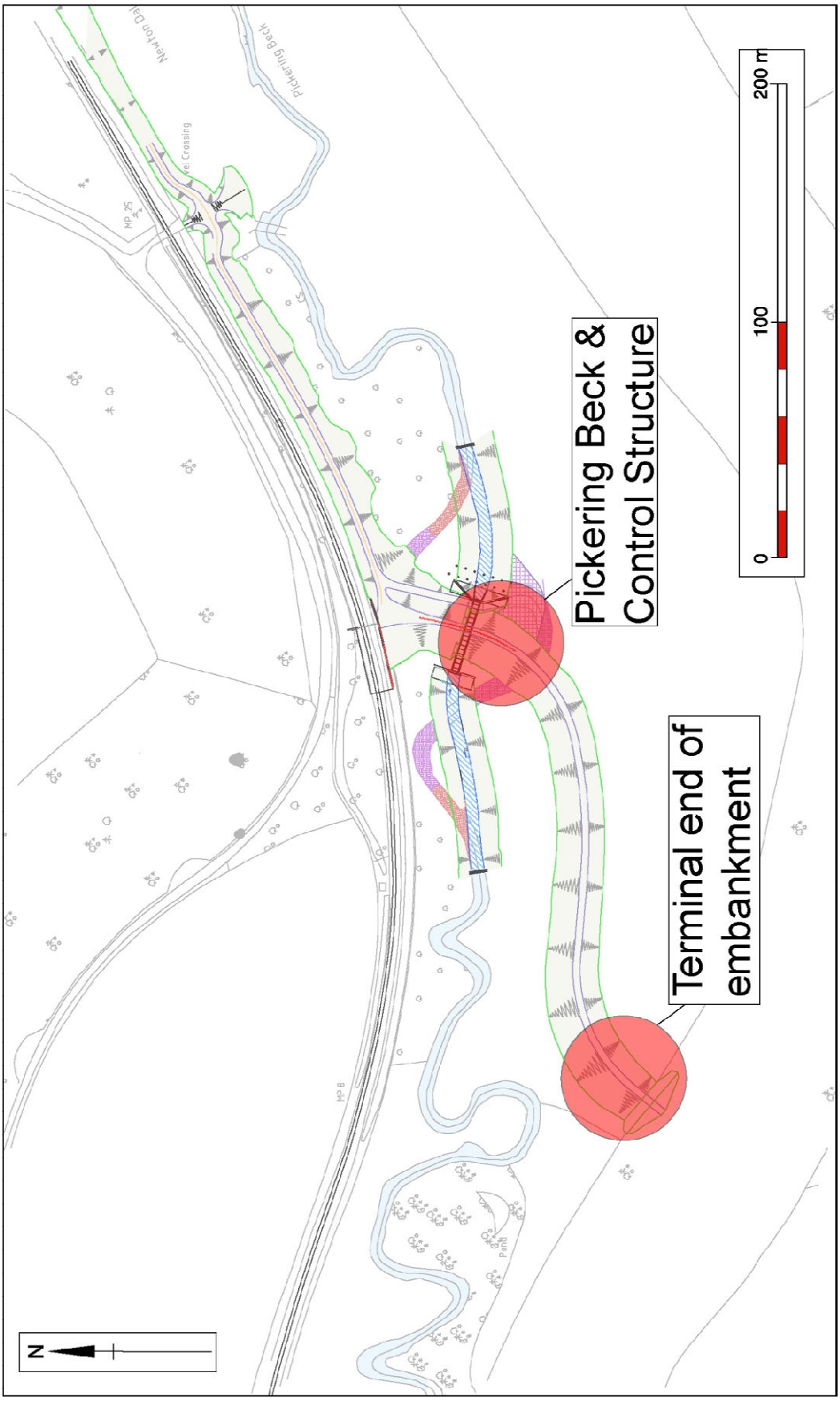

Figure 4 Watching brief monitoring points

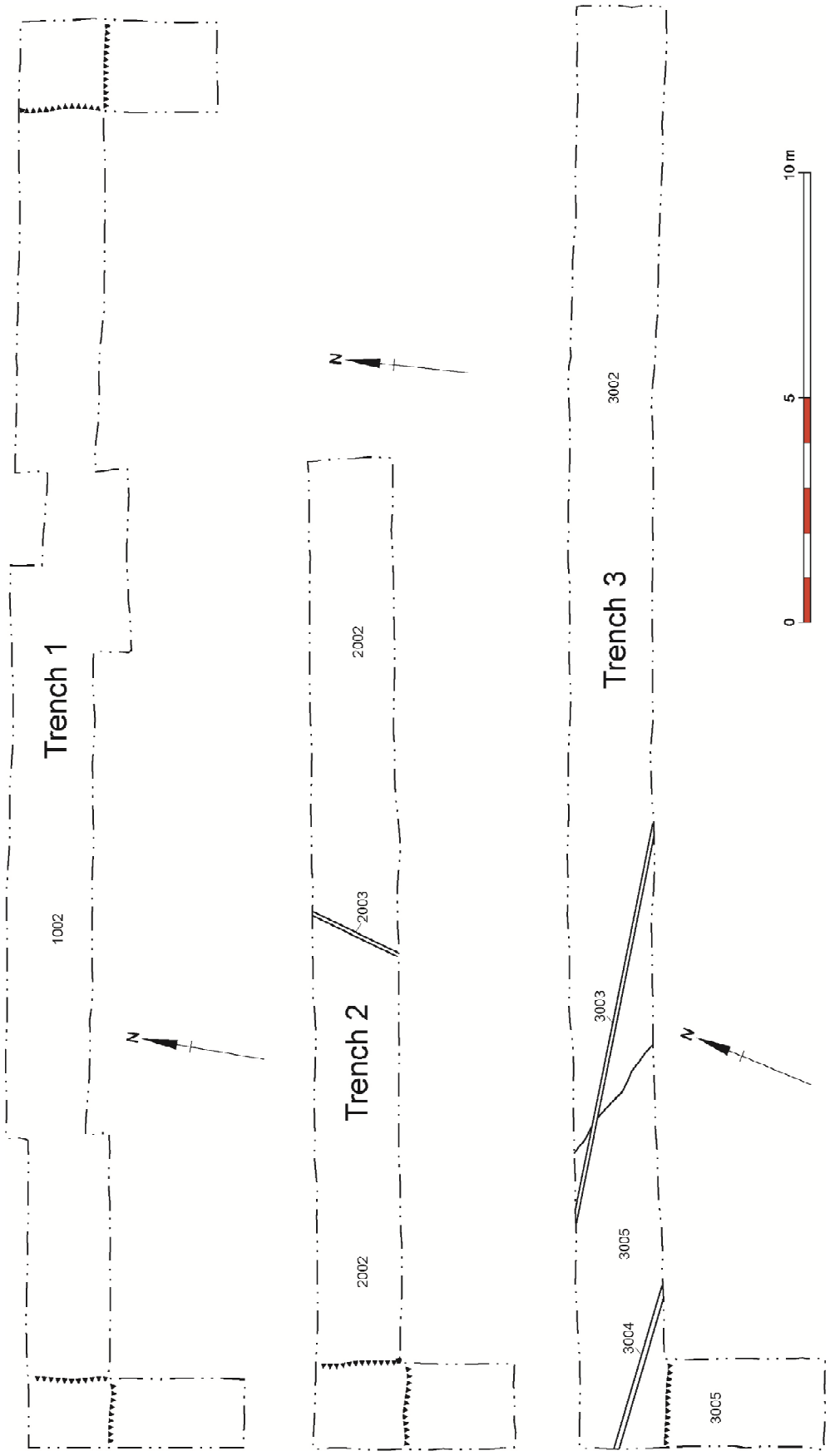

Figure 5 Trench plans

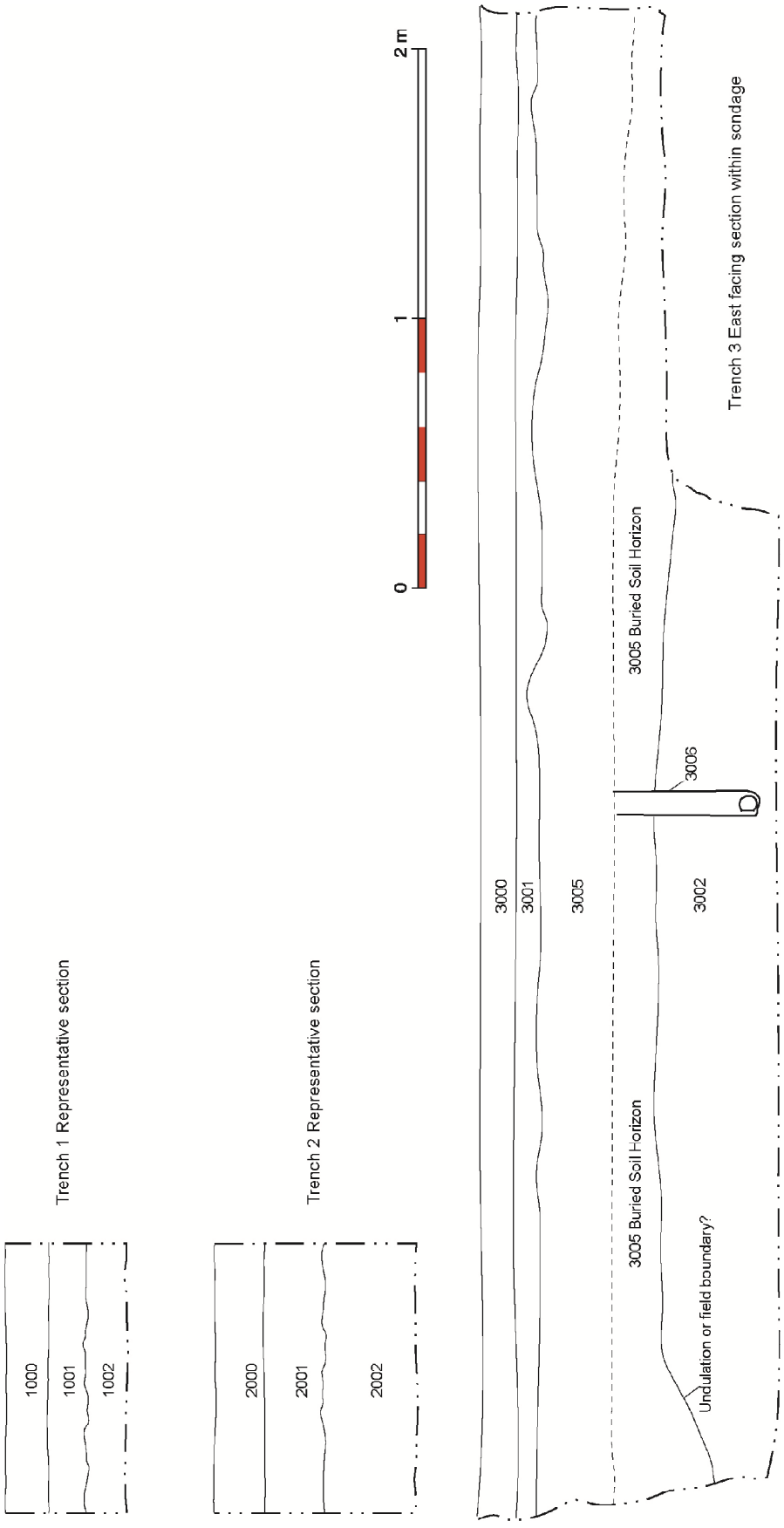

Figure 6 Trench sections

APPENDIX 2: SITE PLATES

Plate 1 Trench 1 looking west

Plate 2 Trench 2 looking west

Plate 3 Trench 3 looking east

Plate 3 Trench 3 sondage east facing section

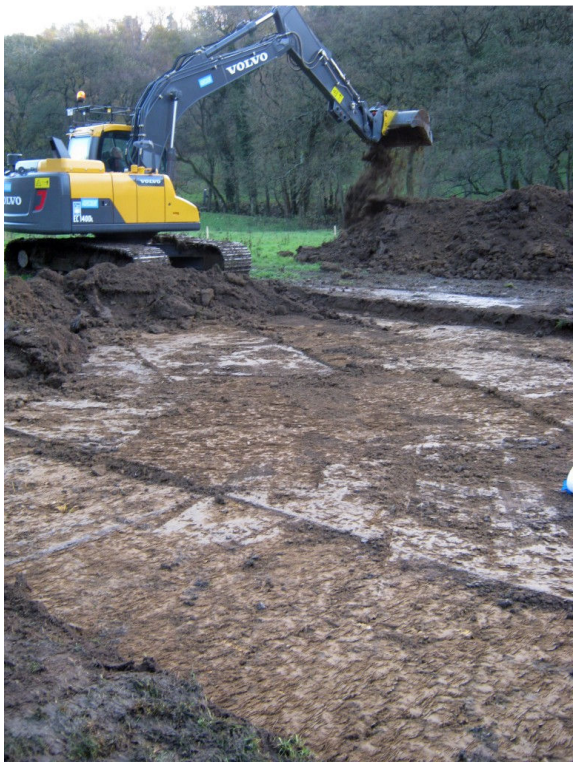

Plate 5 Compound stripping looking south-east

Plate 6 Trial Pit looking east

Plate 7 Watching brief colluvial deposits facing south-east

Plate 8 Watching brief natural clays & key trench profile facing south-west

APPENDIX 3: PROPOSED MONITORING

The following was approved in late 2013 following the trial trenches.

In line with the results of the fieldwork undertaken so far the following suggestions are put forward. These should offer a realistic solution to managing the risk of loss of the archaeological resource across the rest of the groundworks linked with the Pickering Beck flood alleviation scheme;

1 *Targeted visits to monitor stripping associated with the **Main embankment spillway**. This would be focussed on the terminal end of the left abutment, where it will run across the current line of Pickering Beck, and finally during the creation of the control structure. See Figure 6 Suggested monitoring points.*

2 *Targeted watching brief during the key trench (potentially 2m wide and 2m deep) associated with the **Main embankment spillway**. This would be at the same points as in suggestion No.1 unless the stripping has revealed clean, clearly undisturbed, natural deposits. It may be difficult to see colluvial or alluvial activity unless it is recognised in the section of the key trench. Ideally it will be possible to undertake suggestions Nos.1 & 2 at the same time, but this depends on the methodology employed on site.*

3 *Call out as required by the main contractor for other areas. Once the compound is set up it will be easier to call or even send images through to establish if a visit is required. Understandably it cannot be expected that the main contractors will be able to recognise the archaeology, but any concerns could be easily alleviated by quick and effective communication.*

   To assist with the identification of any archaeological features & finds the first monitoring visit for the embankment and control structure will include an Archaeological Risk Identification tool box talk for the on-site groundwork team. This will concentrate on the more subtle prehistoric archaeological finds that may be encountered and include images of worked stone, timber and bone which will be left with the team. A pack of appropriate bags will be left for the immediate stabilisation of organic finds, as well as instructions as to how they should be stored, before YAT can attend on site.

If anything is found during this process it is envisaged that a realistic period of time to record the findings will be made available depending on limitations linked with trench depths and ground conditions. The recording of sections and sampling of deposits will still be possible from the ground level without entering the trench. If we do reveal evidence of a 'buried landscape', rather than just variations in the stream line, this would be worth investigating further.