ARCHAEOLOGICAL SERVICES WYAS

Barden Fell Track

Bolton Abbey Estate, Yorkshire Dales

Archaeological Survey

September 2010

Report No. 2118

CLIENT

Bolton Abbey Estate

Barden Fell Track
Bolton Abbey Estate, Yorkshire Dales

Archaeological Survey

Summary

A rapid archaeological survey was undertaken of the route of a proposed track on Barden Fell, on the eastern side of the Bolton Abbey Estate, Yorkshire Dales. No previously recorded archaeological sites were identified on the Yorkshire Dales National Park Authority HER, the English Heritage NMR, or on historical Ordnance Survey maps. A walkover survey was carried out of the route and identified a number of earthen mounds that appear to be the result of post-medieval and modern drainage activity. A small area of former peat extraction was also identified, as well as two former boundary stones.

Report Information

Client:	Bolton Abbey Estate
Address:	Estate Office, Bolton Abbey, Skipton, North Yorkshire, BD23 6EX
Report Type:	Archaeological Survey
Location:	Yorkshire Dales
County:	North Yorkshire
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Report:	Mitchell Pollington
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1 Introduction

Archaeological Services WYAS (ASWYAS) was commissioned by the Bolton Abbey Estate to undertake an archaeological survey along the length of a proposed track across Barden Fell, on the south-eastern side of the Yorkshire Dales National Park.

The specification for this work has been defined by Miles Johnson, Countryside Archaeological Advisor, Yorkshire Dales National Park Authority (YDNPA).

Location, topography and land-use

The proposed route of the track is situated on the eastern edge of Hazlewood Moor, on the southern side of Barden Fell. Its route runs for approximately 2km from SE 1048 5743 to SE 1153 5591 (see Fig. 1), across moorland which rises gradually to the north from a height of 320m to 390m AOD (see Fig. 2).

The southern end of the proposed route of the track begins on the eastern side of a dry stone wall, at the end of an existing track leading from Black Hill Farm to the south. From here the route runs northwards parallel with the south-east to north-west alignment of the dry stone wall, initially along the south-western edge of an enclosure known as Shepherd Close. Along this section the proposed route is currently followed by a 1.5m wide drainage channel and an adjacent bank of upcast soil from the channels construction (Plate 1). The ground cover in this area largely comprises hummocky grass, moss and sporadic heather growth, with a number of small streams or drains feeding into Black Sike which flows along the shallow valley bottom to the north-east. The proposed route continues onto Old Peat Moor through a gate in the northern side of Shepherd Close after a distance of approximately 580m. Here the ground cover comprises heather moorland, although extensive areas have previously been burnt off (Plate 2). The proposed route then crosses through a gate at SE 1102 5657, onto the western side of the dry stone wall, into an area of heather moorland, with a row of shooting buts to the route's immediate west. The proposed route then runs parallel to the wall for a further 500m (Plate 3), before following a curving route westwards to avoid a boggy area around a number of streams. The route then curves back towards the east, with a 200m length at its northern end again running parallel to the western side of the dry stone wall, before joining the line of an existing track at close to Gledstones at its northern end.

Much of the northern half of the route from SE 1048 5743 to SE 1070 5698 is already in use as an un-made track or path, although between SE 1056 5730 and SE 1070 5698 this has been partially metalled with stone, and apparently embanked in places (Plate 4).

The construction of the proposed track will involve the removal of 0.2m to 0.25m of top soil along its route, using a tracked excavator working from the end of the track. This will then be lined with a geo-textile and covered by a layer of broken sandstone. The stone will be delivered on demand rather than stored on site, minimising any damage to the adjacent ground surface.

Geology

The underlying geology comprises Namurian Millstone Grit (BGS 2001). Along much of the southern route of the proposed track the overlying soil consists of slowly permeable, seasonally waterlogged, fine loamy soils, with a peaty surface horizon. On the northernmost 850m of the route this gives way to blanket peat (Soil Survey of England and Wales 1980).

2 Methodology

The survey area covers the proposed route of the track and a 50m buffer along each side in order to determine the presence of any immediately adjacent archaeological features.

Information sources

Background information on previous archaeological finds and investigations within the survey area was obtained from the YDNPA Historic Environment Record (HER) and the English Heritage National Monuments Record (NMR). Historical 6 inch Ordnance Survey maps were also consulted (see Figs 3 to 5).

Information on designated sites of archaeological or historical significance, including Scheduled Monuments and Listed Buildings, was obtained from the English Heritage NMR.

Information on the underlying geology and soils within the survey area was taken from data collected by the British Geological Survey (2001) and the Soil Survey of England and Wales (1980).

Walkover survey

A detailed walkover survey was undertaken on the 16th September 2010 in order to assess the survival of previously recorded and documented features, and to identify any further archaeological sites visible on the ground.

Where previously unrecorded archaeological features were identified their location was recorded using navigation grade GPS equipment (+/- 4m) to provide a central National Grid Reference (NGR). Each feature was given a unique identifying number, and details of the feature, including its type, form and measurements were recorded. These details are listed in the Catalogue in Section 4, and where these features are mentioned in the text the relevant catalogue number is given in bold type.

Where exposed sections were visible through peat deposits due to path or stream erosion, the approximate depth of these deposits were measured and their position recorded with the GPS equipment.

A photographic record was made of all identified archaeological features using high-resolution digital cameras, with each shot containing an appropriate scale.

3 The Survey Area

Identified archaeological sites, buildings and features

There are no records any archaeological or historical sites or features within the survey area held on the YDNPA HER or the English Heritage NMR.

Designated sites or areas

The survey area contains no designated Scheduled Monuments, Listed Buildings, Registered Parks and Gardens, Registered Battlefields or Conservation Areas.

Previous archaeological investigations

There are no records of any previous archaeological investigations within the survey area or its immediate surrounding area.

Archaeological background, sites and features

Early prehistoric period

There is evidence for human activity in the Yorkshire Dales from the Palaeolithic, around 10,000 BC, as small nomadic groups began to move northwards following the retreat of the ice sheets. These groups probably occupied caves and rock shelters, and finds such as an antler harpoon found in Victoria Cave, near Settle, have demonstrated human occupation dating to this period (White 1997, 17). By the early Mesolithic period, around 7600 BC, the post-glacial tundra was giving way to woodland, with the increasing animal and plant resources providing improved potential for human activity. Archaeological activity for the Mesolithic period is largely based on finds of flint implements, such as small microlithic blades, concentrations of which may mark the location of seasonal hunting camps such as those discovered at Malham (e.g. Donahue and Lovis 2000). The Neolithic period saw the development of farming, with the tree pollen record showing a decline from about 3000 BC, probably as areas were gradually cleared to make way for agricultural use. The Neolithic also saw the earliest appearance of large monuments in the landscape, such as long barrows and henges. Despite these, however, much of the evidence for Neolithic activity is provided by flint assemblages, such as the extensive concentrations found to the north of Grassington (Raistrick 1937).

There is no evidence for early prehistoric activity recorded within the survey area or identified as surface remains. A Neolithic stone axehead was found in Pickles Gill Beck, however, to the west of the proposed route of the track, and this find suggests that there was activity in the surrounding area during this period (HER ref. MYD 4318).

Bronze Age

The Bronze Age saw increasing settlement across the Dales, and extensive areas of settlement and field systems originating during this period have been recorded at sites such as Lea Green, near Grassington. The Bronze Age also saw the construction of large barrows,

containing both cremations and inhumations, which may also have acted as boundary markers and representations of a individual communities.

Although no Bronze Age activity has been identified within the survey area, the place-name 'Cort How' which marks a change in alignment of the parish boundary between Hazlewood with Storiths and Thruscross, may suggest the former presence of a barrow here (see Fig. 2). The place-name element 'How' probably derives from the Old Norse *haugr*, meaning 'tumulus' or 'mound', and is frequently found associated with Bronze Age barrows (Smith 1962, 201; HER ref. MYD 17763). Such features were often used to align later boundary divisions, and the location of this place-name on the parish boundary, which also marked the former boundary of the Forest of Knaresborough, is therefore significant (see below; Ordnance Survey 1854; 1893; see Figs 3 and 4).

Iron Age and Roman periods

There is extensive evidence for Iron Age settlement across the Yorkshire Dales, consisting of the earthwork remains of field systems, settlements and enclosures (White 1997, 27). During the late Iron Age the Yorkshire Dales formed part of the tribal territory of the Brigantes, who were initially allied to the Romans following the invasion of AD 43, but whose territory was incorporated into the Roman province after AD 71. Although the local population may have had greater access to Roman material goods after this time, it is probable that the character of settlement and land-use continued much as it had during the Iron Age. The line of the Roman road which connected the fort at Ilkley with to the Roman town at Aldborough to the north-east, lies about 2km to the south of the proposed route of the track (Margary 1973, 406; road no. 720b), but no evidence of Iron Age or Roman period activity has been identified within the survey area.

Medieval period

Evidence for the post-Roman and early medieval periods in Yorkshire is scarce, and there is no archaeological evidence for activity dating to these periods from within the survey area.

In 1151 Bolton Priory was established by monks of the Augustinian Order, and following this the foundation acquired an extensive estate in the surrounding area. After the dissolution of the priory in 1539 the estate was sold to the Clifford family, the owners of Skipton Castle, and later the estate passed to the Dukes of Devonshire.

The survey area is situated close to the eastern edge of the estate, as the Black Sike stream marked the boundary with the Forest of Knaresborough to the east (Ordnance Survey 1854; 1893; see Figs 3 and 4). This boundary also marked the division between the parishes of Hazlewood with Storiths and Thruscross, to the east. This boundary may also have been defined by a barrow at Cort How, to the north of the survey area, as well as a number of boundary stones. Close to the southern end of the proposed route of the track the boundary of the Forest of Knaresborough is shown on the First Edition Ordnance Survey map of 1854 to deviate to the west, away from its obvious course along Black Sike. Along this section the

boundary is instead marked by two boundary stones (shown as 'S.'; see Fig. 3). Two stones are currently situated in this area, to the immediate east of the proposed route, although they are not earth-fast and are unlikely to be *in situ* (**8**; see Plate 5). It is not clear why the boundary deviates away from the stream course at this point, but it may have encompassed an earlier feature that is no longer extant. This boundary could also mark the edge of a unit of land that pre-dates the medieval period. Although the place-name element 'black' usually derives from the Anglo-Saxon *blæc* (Smith 1962, 159), it has been suggested that in some cases this name may have a pre-Anglo-Saxon origin as it is frequently found close to the possible boundaries of the post-Roman British kingdom of Craven (Yvonne Luke, English Heritage, pers comm.).

Post-medieval period

The existing dry stone wall, which runs parallel to the proposed route of the track for much of its course, is likely to date to no earlier than the 19th century, and in many places can be seen to overlay modern drainage features and has had recent additions or repairs. The alignment of the wall is shown on the First Edition Ordnance Survey map of 1854, and probably represents a boundary established as part of the 18th or 19th century enclosure of the moorland. The wall contains no orthostatic stones which may have been indicative of a much earlier date for its original construction, and apart from a small culvert close to the proposed routes southern end (**7**; Plate 6), it has no wall furniture.

The drainage of parts of the moorland has seen the construction of a number of drainage channels or the expansion of existing streams. These cross the proposed route of the track in numerous places, with the existing track carried over the larger channels by stone and concrete culverts (**3**; Plate 7). This drainage work is also likely to account for a number of irregularly shaped low mounds found along the western side of the dry stone wall. One of these is overlain by the wall itself, but does not appear to continue on the wall's eastern side (**1**; Plate 8). The other mounds appear to abut, and therefore post date, the wall (**4** and **5**; Plate 9). The drainage channel that runs along the southern section of the proposed route in Shepherd Close, is up to 1.5m wide and 0.4m deed, and has an adjacent bank up to 2m wide and 0.3m high comprising upcast material from the channel's construction (see Plate 1). This is likely to have destroyed any subsurface archaeological remains along its course.

During the post-medieval period peat extraction appears to have taken place in the area to the north-east of the proposed route of the track, suggested by the place-name 'Old Peat Moor' (Ordnance Survey 1854; 1893; 1909; see Figs 3 to 5). A rectangular depression, measuring about 30m north-south and 6m east-west, was also recorded on the southern side of Old Peat Moor, and is likely to represent the remains of peat cutting (**6**; Plate 10). There has also been small scale sandstone quarrying in the area, with two quarries marked to the immediate north-east and north-west of the survey area on the First Edition Ordnance Survey map of 1854 (see Fig. 3; HER ref. MYD 17725). These were probably used as a local source of material for the construction of the nearby dry stone wall.

Peat deposits

Peat deposits can preserve important environmental evidence for changes in vegetation and land use. They may also seal earlier archaeological deposits which pre-date the peat formation, such as flint tool assemblages marking the sites of Mesolithic activity.

The depth of peat deposits were measured where sections had been exposed through water action or erosion adjacent to, or on the line of, the proposed route of the track. No systematic or intrusive measurements were carried out. A summary of the peat depths recorded and their location is provided in a table in Appendix 1.

The peat was generally only between 0.15 and 0.3m deep overlying the sandy sub-soil, along the northern half of the proposed route. Along parts of this section, especially between SE 1065 5712 and SE 1070 5698, vehicle rutting was between 0.15 and 0.25m deep, and had completely eroded away the peat to expose the underlying soil. Further to the south the peat appeared to be slightly deeper, between 0.3m and 0.4m deep. Where the proposed route runs along the eastern side of the dry stone wall, through Old Peat Moor, the peat appears not to have been greatly disturbed, away from areas of deliberate extraction (**6**) and burning to the east of its line.

4 Catalogue

Catalogue entries for archaeological sites and features recorded during the survey or as part of the documentary research have been ordered geographically from west to east and given a numerical identifier, and also include a National Grid Reference (NGR) number.

1. Mound **SE 1052 5738**

A low, irregularly shaped earthen mound, approximately 6m in diameter, is situated close to the northern end of the proposed route of the track (Plate 8). This appears to be overlain by the dry stone wall and is likely to represent upcast material from a drainage channel to its immediate south-east.

2. Sub-circular depression **SE 1057 5729**

A large sub-circular depression, about 8m in diameter and up to 0.4m deep, crossed by the line of the dry stone wall. This is probably an area of naturally boggy ground further eroded by an adjacent drainage channel and other water action.

3. Culvert **SE 1069 5698**

A culvert carrying the existing track across a tributary of the Pickles Gill Beck. The present structure consists of a modern concrete pipe with a surrounding structure of dry stone construction (Plate 7).

4. Mound **SE 1092 5672**

An irregular shaped earthen mound, approximately 4m in diameter and up to 0.3m high. It appears to abut the western side of the dry stone wall, as there is no sign of a continuation of the mound on the wall's eastern side.

5. Mound(s) **SE 1097 5664**

Two earthen mounds divided by the line of the existing track (Plate 9). On the western side of the track the smaller of the two mounds is oval in plan and measures approximately 5m north-south by 3m east-west, and is up to 0.6m high. The mound to the east of the track abuts the dry stone wall and measures about 9m north-south by 3m east-west, and is up to 0.5m high. It is possible that these represent the remains of a single larger mound that has been cut across, or eroded, by the existing track. There is, however, no trace of a continuation of the mound on the eastern side of the dry stone wall, which it therefore appears to post-date.

6. Peat cutting **SE 1112 5642**

A sub-rectangular depression situated on Old Peat Moor, immediately to the north of Shepherd Close, probably representing an area of former peat extraction (Plate 10). This measures approximately 30m north-south by 6m east west, and is 0.5m deep on its western side and 0.3m deep on its eastern side. At its northern end the eastern side of the feature turns inwards at a right-angle, leaving a narrower depression about 4m wide. This appears to post-date the line of the dry stone wall 3m to its west, as it follows the wall's alignment on its long axis.

7. Culvert **SE 1151 5593**

A small rectangular culvert in the dry stone wall to the north of the gate at the southern end of the proposed route of the track, measuring 0.3m high by 0.2m wide (Plate 6).

8. Boundary stones? **SE 1151 5594**

Two stones situated to the immediate eastern side of the southern end of the proposed route of the track (Plate 5). These both measure approximately 0.4m by 0.5m, and neither are earth-fast, but they are the only large exposed stones in this area. Two boundary stones are marked in this approximate location on the First Edition 6 inch Ordnance Survey map of 1854 (see Fig. 3), and these may be the former boundary stones, albeit no longer *in situ*.

9. Gate post **SE 1152 5593**

A former stone gate-post lying about 10m to the east of the southern end of the proposed route of the track. This measures about 1.4m long, 0.4m wide and 0.25 in breadth. Presumably moved due to the recent re-building of the nearby gate and adjacent sections of the dry stone wall.

5 Conclusion

There are no archaeological features recorded within the Yorkshire Dales National Park HER or the English Heritage NMR that could be impacted upon by the construction of the proposed track.

The majority of the features recorded as part of the walkover survey appear to represent the earthwork remains of modern activity, primarily associated with land drainage, and are assessed to be of negligible significance.

The construction of a drainage channel running along the southern end of the proposed route is likely to have destroyed, or heavily disturbed, any previously surviving sub-surface archaeological features on its course.

A small area of probable peat extraction was identified on the southern side of Old Peat Moor. This is assessed as being of limited significance only as a small part of a more extensive area of peat cutting activity across the moor.

The two possible boundary stones identified on the eastern side of the southern end of the proposed route do not appear to be *in situ*, but these do highlight a possibly significant deviation in the boundary between the Bolton Abbey Estate and the former Forest of Knaresborough to the east. The proposed route will not impact on the present position of these stones.

Peat deposits along much of the route vary in depth between 0.15m and 0.4m, and may be completely destroyed along sections where they are shallower than the 0.2m to 0.25m depth of the proposed track's foundation. This could potentially expose early prehistoric deposits surviving at the horizon of the peat and the sub-soil, and may require further archaeological assessment to be agreed with the Yorkshire Dales National Park Authority.

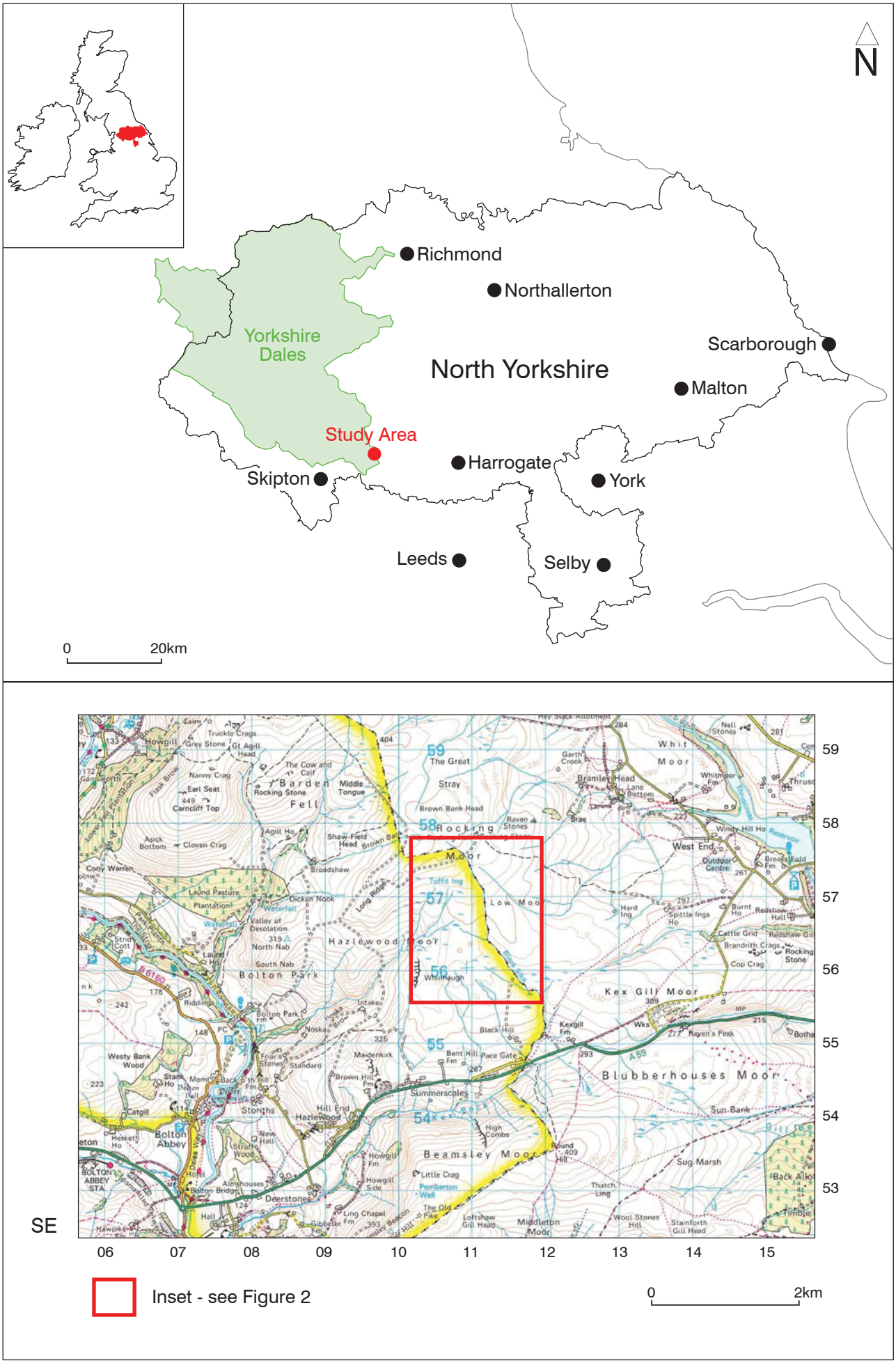

Fig. 1. Site location

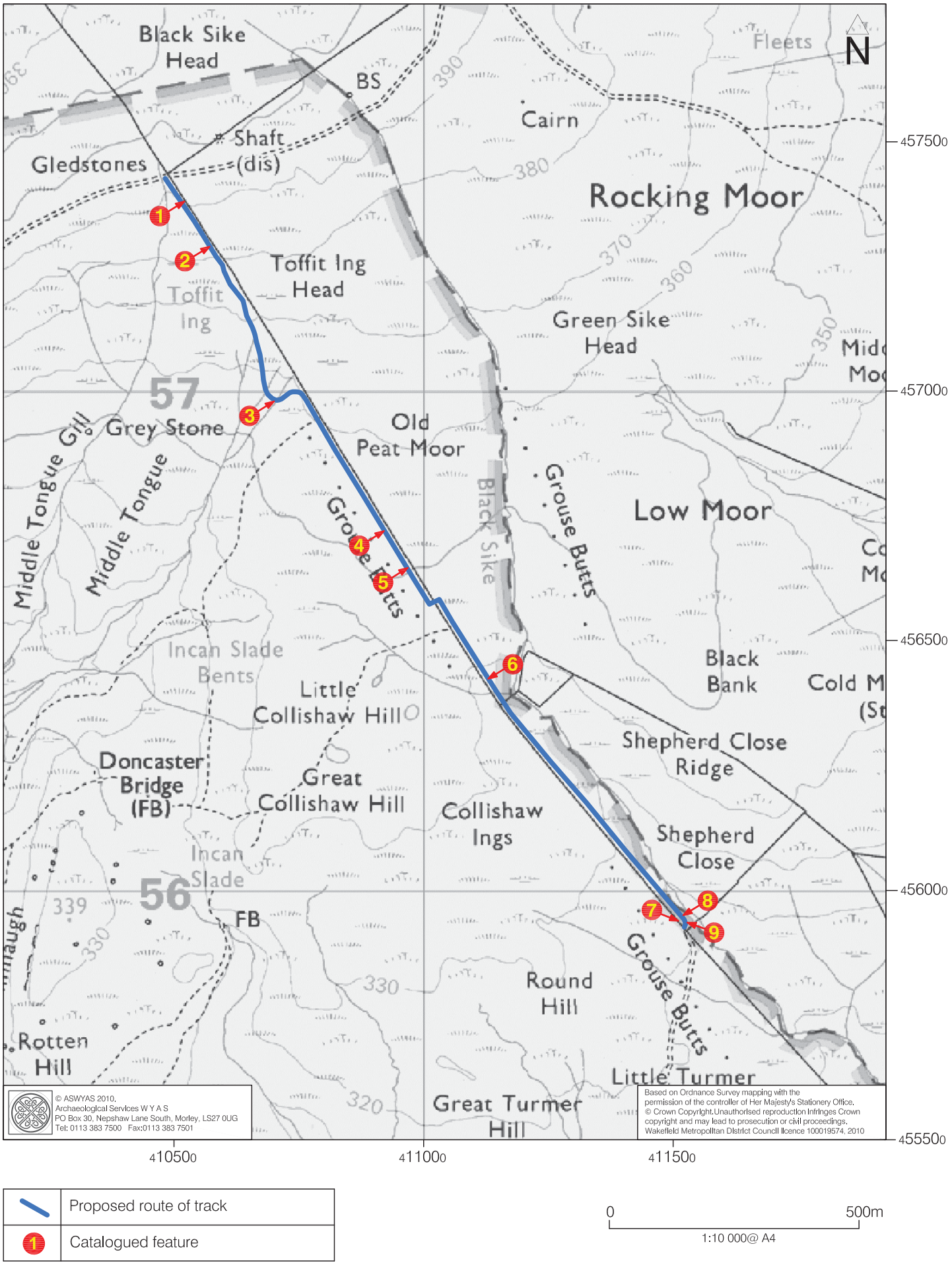

Fig. 2. The proposed route of the track with the location of catalogued features (1:10 000 scale)

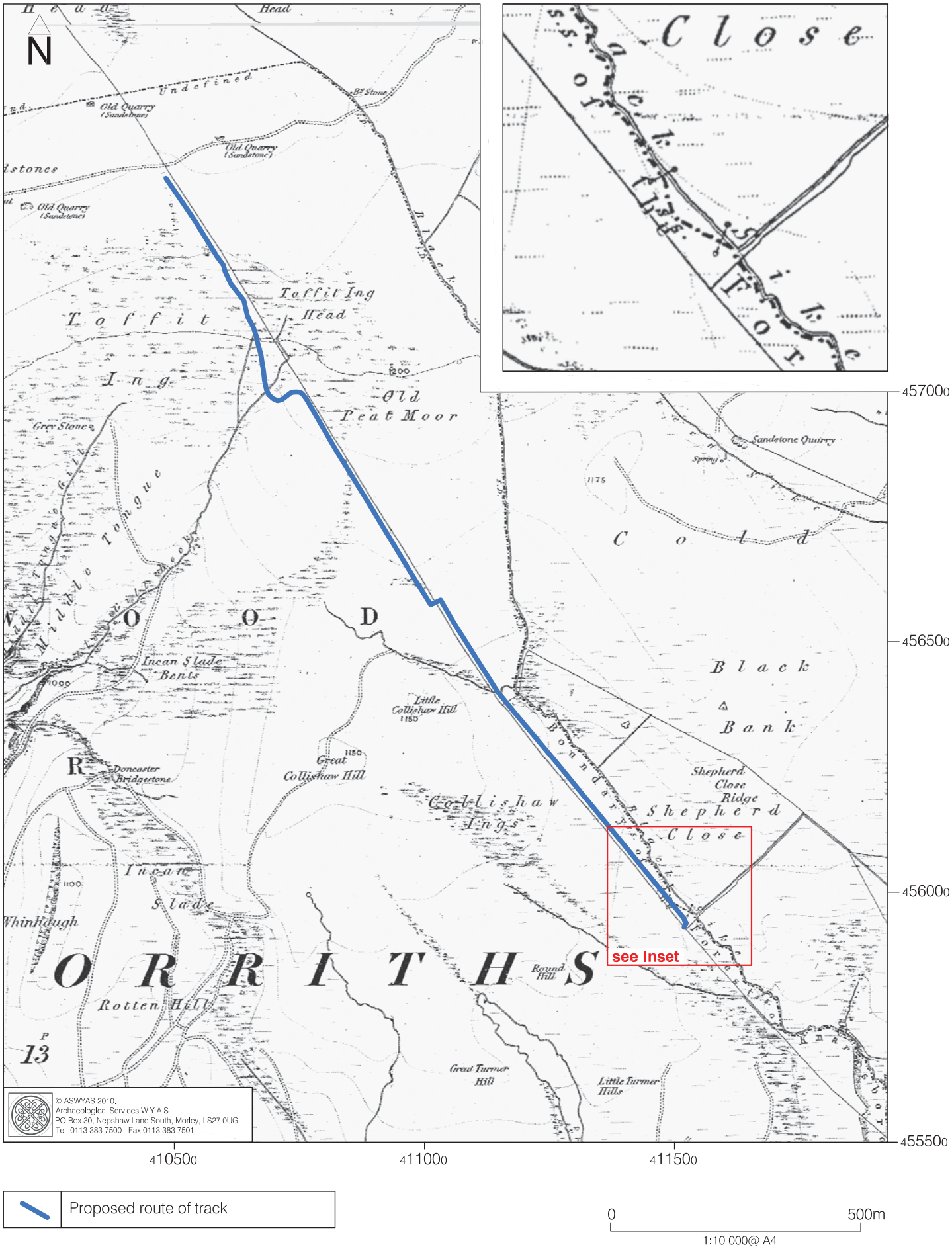

Fig. 3. Extract from the First Edition 6 inch Ordnance Survey map of 1854, with the proposed route of the track highlighted (1:10 000 scale; sheet 152). Inset shows detail of boundary deviation

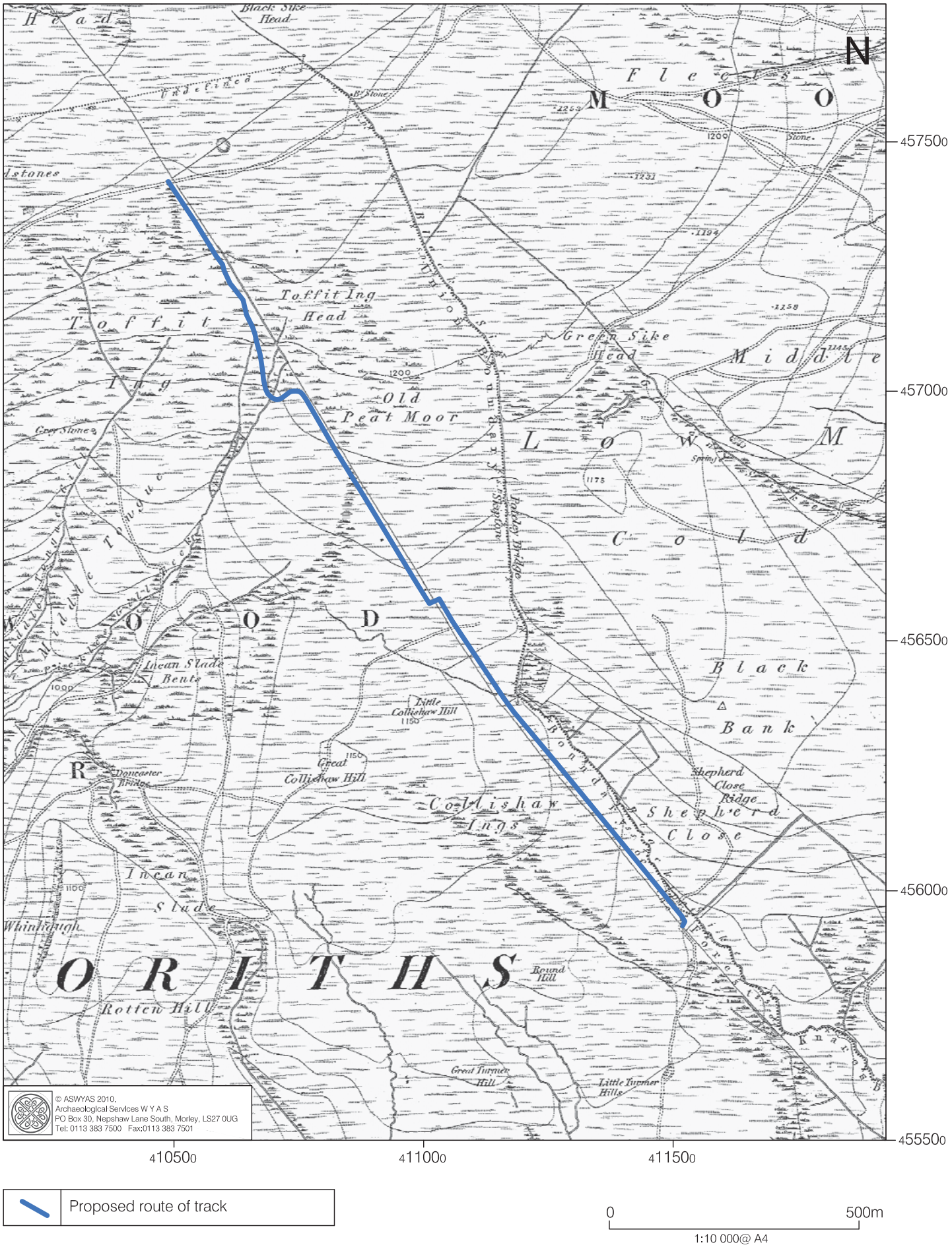

Fig. 4. Extract from the 6 inch Ordnance Survey map of 1893, with the proposed route of the track highlighted (1:10 000 scale; sheet 152)

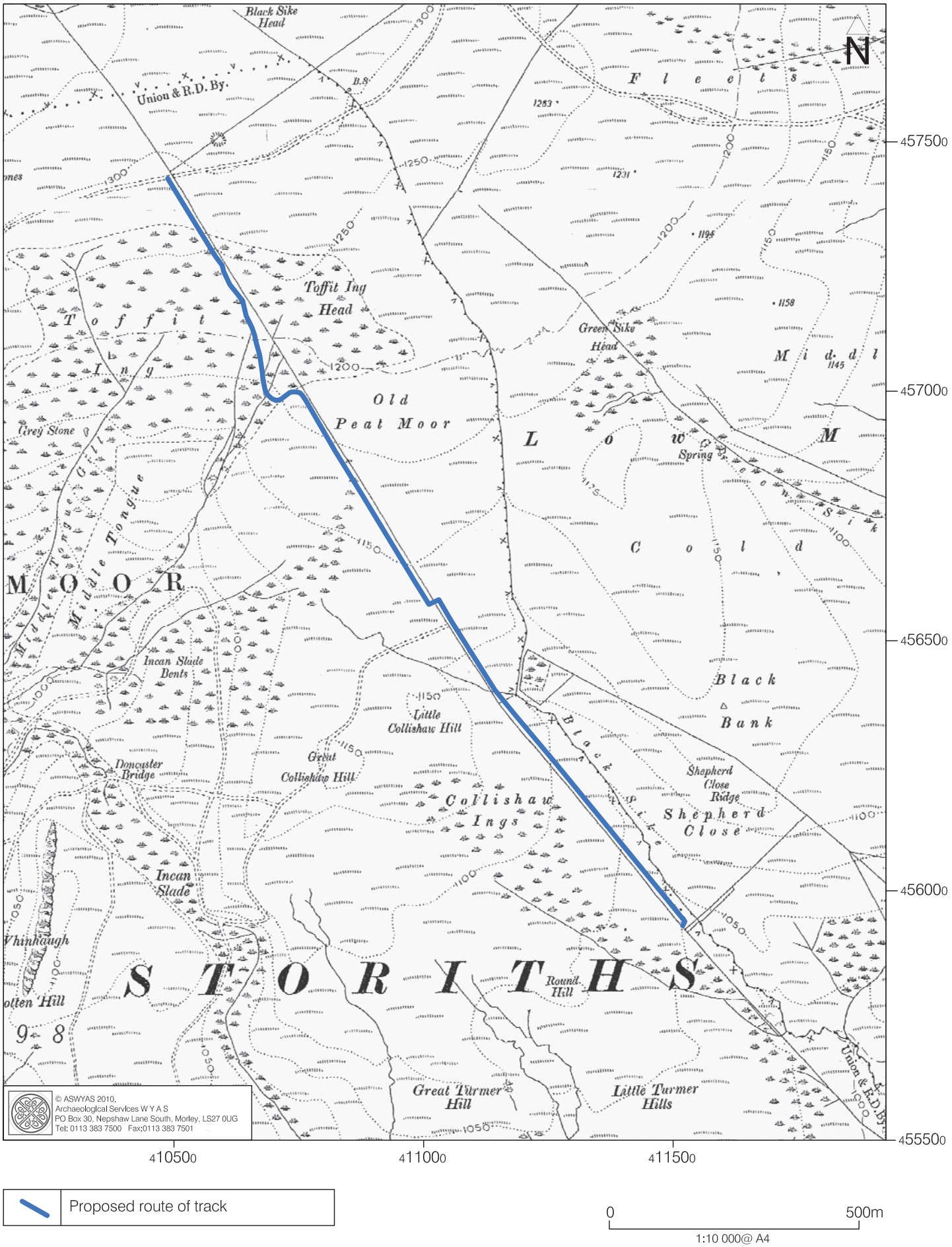

Fig. 5. Extract from the 6 inch Ordnance Survey map of 1909, with the proposed route of the track highlighted (1:10 000 scale; sheet 152 SW)

Plate 1. The southern end of the proposed route of the track through Shepherd Close, looking north-west. The darker vegetation adjacent to the wall marks the course of a drainage channel

Plate 2. The proposed route of the track along the edge of Old Peat Moor, looking south-east

Plate 3. The section of the proposed route of the track on the western side of the wall, looking north-west, with vehicle ruts visible in the heather

Plate 4. Partially metalled section of the existing track in the westward curve of the northern end of the proposed route

Plate 5. Possible former boundary stones close to the southern end of the proposed route of the track, looking west

Plate 6. Culvert in the base of the eastern side of the dry stone wall, close to the southern end of the proposed route of the track

Plate 7. Modern culvert under the existing track along the northern section of the proposed route, looking south-west

Plate 8. A low mound overlain by the dry stone wall along the northern section of the proposed route of the track, looking north-east

Plate 9. Two mounds divided by the existing track, looking south-east

Plate 10. Possible area of former peat cutting in the south-western corner of Old Peat Moor, looking south-east

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Appendix 1

Table of approximate peat depths

NGR	Peat depth	Description
SE 10684 5699	min. 0.15	Vehicle rutting
SE 1086 5682	0.1m – 0.15m	Exposed peat where existing track crosses stream
SE 1093 5670	max. 0.25m	Eroded channel edge
SE 1099 5660	0.4m	Eroded stream edge
SE 1101 5659	0.3m	Eroded stream edge
SE 1135 5614	0.4m	Eroded channel edge

Appendix 2

YDNPA scoping comments

Memorandum

YORKSHIRE DALES
National Park Authority

To Richard Graham | From Miles Johnson

Ref | Copy to Robert White

Subject Barden Moor Trackway Scoping | Date 20/10/09

Thanks for consulting on this Richard.

My initial impression is that the historic environment needs to be considered in more depth in relation to the proposal, than has been suggested by the scoping exercise. The report correctly states that there are no scheduled monuments impacted by the track route, and there are only a few historic sites recorded in the HER in this area. However, the lack of data is likely to reflect a lack of research on that area of moorland, rather than the absence of historic features.

For example, a rapid search of the OS first edition 1856 map shows that the boundary formed by Pace Gate Beck immediately adjacent to a section of the route, formed part of the limits of the Forest of Knaresborough, a Medieval (and potentially older) administrative unit. Such boundaries, whether they follow natural watercourses or are constructed boundaries often have related cultural features nearby. The area adjacent to the northern part of the track route is labelled 'Old Peat Moor' and is almost certainly a former peat cutting ground. This has interesting implications, in that there may be a) earthworks relating to former peat cutting, and b) there is the potential for very old peat to be close to the surface and impacted by the track works. The first edition map also shows extensive networks of historic trackways and hollow ways on Hazlewood moor, some of which extend into the area affected by the proposal.

A similarly rapid scan of the 2001 digital aerial photo layer is less fruitful (mainly because of the heather vegetation and angle of light at the time of the flight), but there appear to be possible earthworks close to the grouse butts near SE114559.

In terms of mitigation, the potential for undocumented historic features needs to be addressed, and a corridor along the proposed route(s) should be subject to an archaeological walkover survey. The construction corridor is given as 6m – there is likely to be a permanent impact on peat deposits, not just through excavation but through compaction. I also note that the proposed excavation depth is 250mm - less than some of the ruts observed by the Senior Conservation Archaeologist on a site visit in this area last year, which suggests that the depth/disturbance will need to be exceeded in places. The contractor undertaking the walkover survey should also be able to make an initial visual assessment (including gauging the depth) of the peat deposits that will be impacted by the track close to Old Peat Moor. This assessment can be used to enable a judgement regarding whether there is a need for environmental sampling.

It is not clear from the proposals how material/machinery will be brought to site (particularly the broken sandstone) or where/whether it will be temporarily stored. The mitigation measures are limited – "a suitably qualified archaeologist should be consulted" is insufficient – there needs to be a mechanism for the YDNPA to approve and for subsequent implementation of any recommendations they may have.

There will be some impact on stone walls but these are unlikely to be particularly significant.

Miles Johnson