KDK Archaeology Ltd

Topographical Survey and Observation & Recording Report:

Five Knolls
Dunstable Downs
Bedfordshire

on behalf of Chilterns Conservation Board

NGR: TL 0062 2101

David Kaye BA AIfA

KDK: 009/DDF/2

November 2013

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Site Data

KDK project code:	009/DDF		
OASIS ref:	KDKARCHA1-149626	*Accession no:*	LUTNM 2013/7
County:	Bedfordshire		
Village/Town:	Dunstable		
Civil Parish:	Dunstable		
NGR (to 8 figs):	TL 00620 21010		
Present use:	SAM on common land		
Planning proposal:	Repairs to erosion scars		
Local Planning Authority:	Central Bedfordshire		
Planning application ref/date:	N/A		
County:	Bedfordshire		
Client:	Chilterns Conservation Board The Lodge 90 Station Road Chinnor Oxon OX39 4HA		
Contact name:	Rachel Sanderson		

Quality Check

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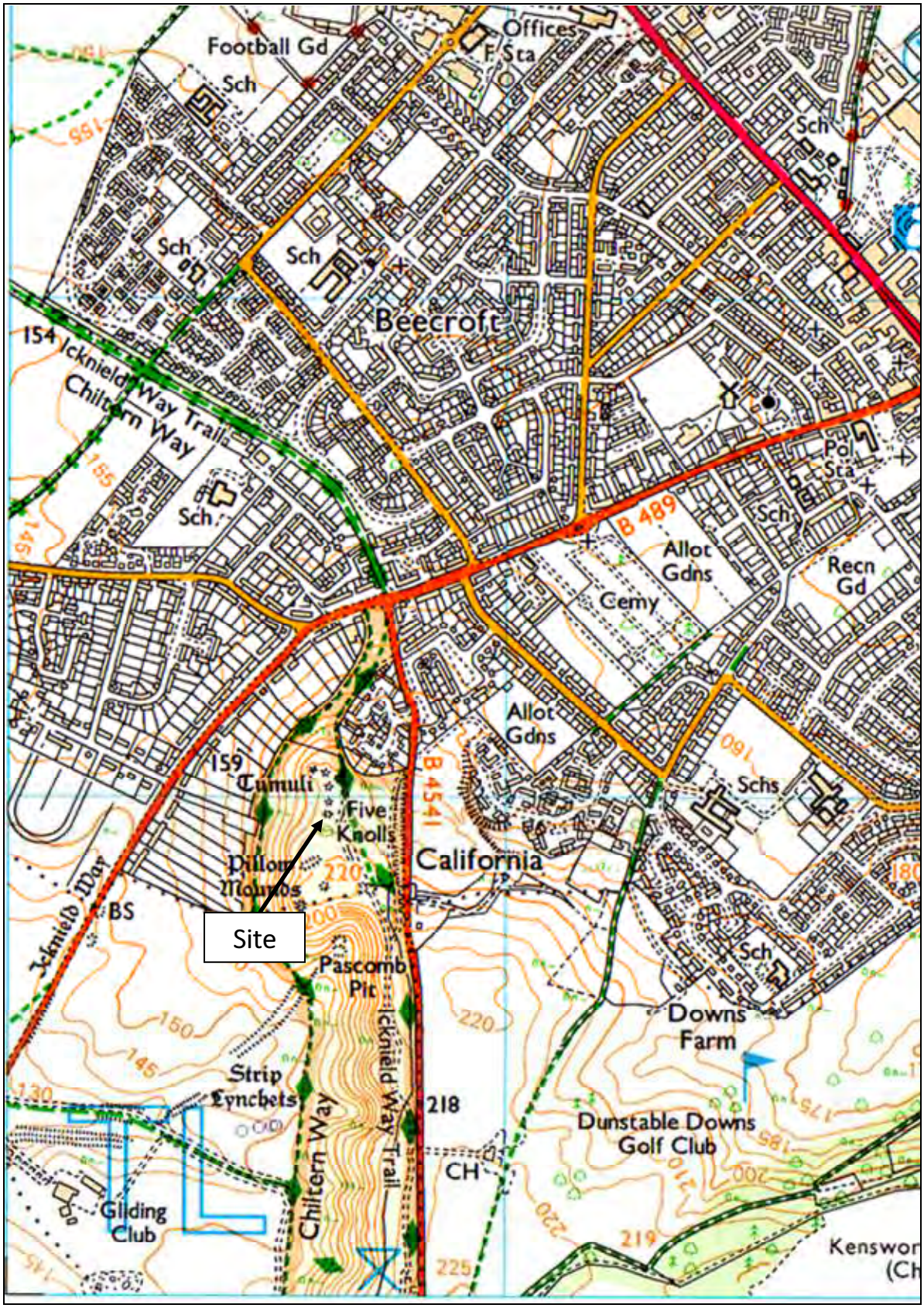


Figure 1: General location *(scale 1:1250)*

Summary

In July 2013 KDK Archaeology carried out a programme of archaeological works at Five Knolls, Dunstable Downs, Bedfordshire, during the repair of erosion scars to the burial mounds. Prior to the commencement of the repair work, a topographical survey was carried out to record the landscape in general, and more specifically to identify the extent of the erosion to the mounds.

The scars were squared off to provide a stable edge to support the chalk and topsoil infill, though the minimum amount of material was removed in order to achieve this. The preparation of the scars revealed that relatively little damage had occurred to the body of the mounds, and that some previous 20th century repairs had endured fairly well. The extent of previous excavations was apparent in some of the barrows, as the material that apparently formed the substantive body of the barrows was a mixture of nodular chalk and topsoil.

No archaeological cut features, deposits, or artefactual evidence of significance was encountered, though some 20th century pieces of 20th century ceramics were noted within a previous repair. None were retained.

1 Introduction

1.1 In July 2013 *KDK Archaeology Ltd* carried out a watching brief at the Five Knolls, Dunstable Downs, Bedfordshire. The project was commissioned by Chilterns Conservation Board (CCB), and was carried out according to a Written Scheme of Investigation prepared by KDK (Semmelmann, 2013), and approved by *Central Bedfordshire Council Archaeologists,* who were acting as archaeological advisor (AA) to the CCB. There was no relevant planning application.

1.2 Planning Background

The work was a requirement of the Heritage Lottery funding secured by the Chilterns Conservation Board for the Chilterns Commons Project, and was defined in a brief (Firth 2013) on behalf of Central Bedfordshire Council, English Heritage, the National Trust and the Chilterns Conservation Board. The site is a Scheduled Ancient Monument (SM 20422).

1.3 The Site

Location & Description

The site is located at the northern end of Dunstable Downs, which is in the town and parish of Dunstable and the administrative district of Central Bedfordshire. The centre of the barrow cemetery is located at National Grid Reference TL 00620 21010 (Fig. 1). Dunstable Downs are registered common land, a site of special scientific interest (SSSI) and the Five Knolls are a Scheduled Monument (HER 138, SM 20422) (Fig. 2). They consist of seven prehistoric burial mounds including two pond barrows and five bell or bowl barrows.

Topography & Geology

The Five Knolls are situated just below the crest of the ridge on the northern Chilterns escarpment, at a height of 200m AOD. The chalk making up the solid geology of this part of the Downs belongs to the Holywell Nodular and New Pit Chalk Formation of the Late Cretaceous period. No superficial geology has been recorded in this area.

Proposed Development

The works were to repair the erosion scars to the burial mounds and associated footpaths, first by squaring off the scars, then backfilling with locally derived chalk and a layer of topsoil. A geotechnical membrane was used to separate the original material from the newly instated. (Fig. 3).

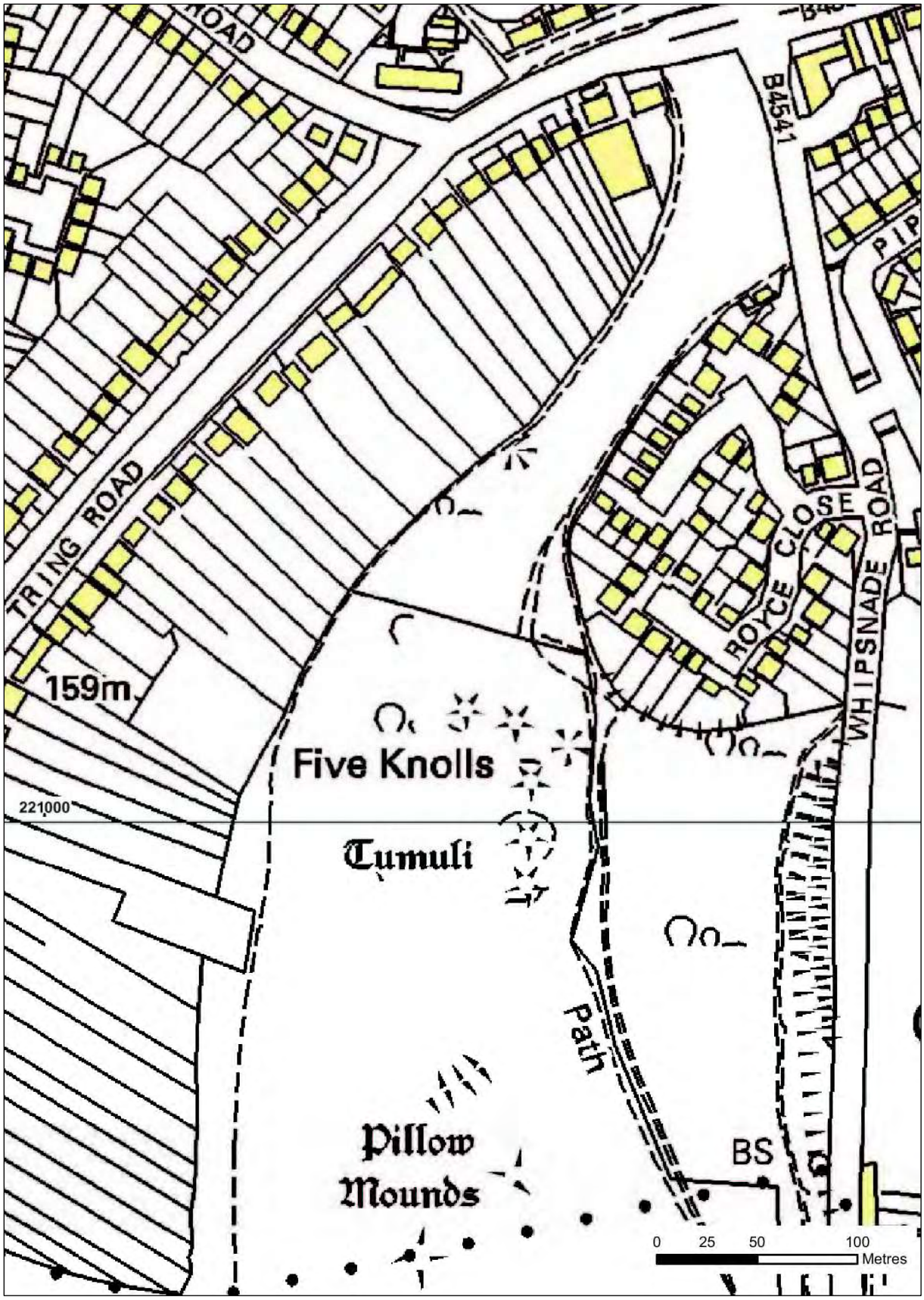


Figure 2: Site layout *(scale as shown)*
(Courtesy of Chilterns Conservation Board)

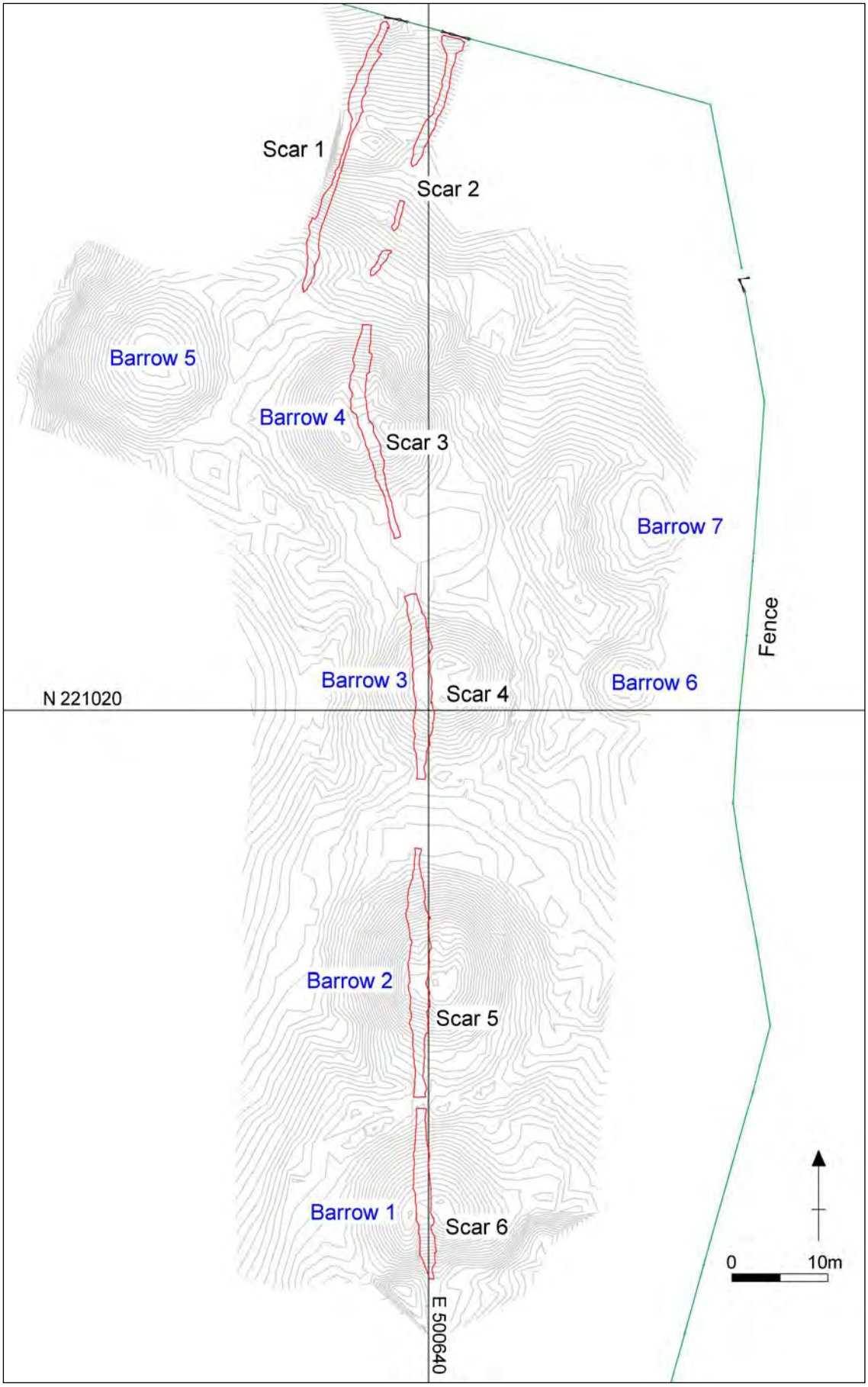
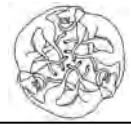


Figure 3: Proposed development *(scale 1:600)*



2 Aims & Methods

2.1 *Aims*

The aims of this watching brief as defined in the approved WSI (Semmelmann, 2013), were:

- To establish the date, nature and extent of activity associated with the barrows
- To establish the relationship of any remains found to the surrounding contemporary landscapes
- To recover palaeo-environmental remains to determine local environmental conditions.

In addition, the following themes were established as more specific research aims for this project:

- The internal and external condition of the barrow earthworks
- Any surviving evidence for the 19th and 20th century excavations
- Any surviving evidence for the original construction techniques
- Secondary re-use of the barrows, from the later Bronze Age
- Re-use of the barrows from the post-Roman period

2.2 *Methods*

In line with the requirements of the brief, the methods used were as follows:

Topographical Survey of the 5 Knolls and their immediate environs (including the two pond barrows)

- Measurements taken at intervals appropriate to the local terrain and the grid and height data will be related back to the Ordnance Survey National Grid.
- The survey is sufficiently detailed to present the data in plan form illustrating contours at 0.25 metres vertical separation;
- At least two profiles of each barrow drawn at a scale of no smaller than 1:200 (for example, north – south and east – west);
- Profiles of each erosion scar drawn at a scale of no smaller than 1:200.
- Measurements taken at a distance of no greater than 0.25 metres along the length of each scar and enough points will be recorded in order to establish even the most subtle breaks of slope
- A plan of the erosion scars and the location of all the profiles plotted on to the 1:1250 Ordnance Survey base map for the area.

The results of the survey were presented to the Chilterns Conservation Board, the National Trust, the Central Bedfordshire Council Archaeologists and English Heritage for review prior to the commencement of the repair works.

2.3 *Standards*

The work conformed to the following requirements:

- The design brief
- The relevant sections of the Institute for Archaeologists' *Standard & Guidance Notes* (IFA 2008a) and
- The Institute for Archaeologists' *Code of Conduct* (IFA 2010),
- Current English Heritage guidelines (EH 1991)

- The Association of Local Government Archaeological Officers East of England Region *Standards for Field Archaeology in the East of England* (ALGAO 2003), to English Heritage guidelines (EH 1991)

3 Archaeological and Historical Background

The importance of Dunstable Downs in archaeological and historical terms is evident in the number and range of surviving features in the landscape. It presents a similar palimpsest of archaeological remains as Therfield Heath, Hertfordshire where the Neolithic and Bronze Age ritual landscape is supplemented by tracks and droveways, quarries and ephemeral huts, Victorian rifle ranges and World War II gun emplacements and POW camp associations. It is a Site of Special Scientific Interest within the Chilterns Area of Outstanding Natural Beauty (AONB) and has two scheduled Ancient Monuments, of which the Five Knolls is one.

Five Knolls (HER 138, SAM 20422) is a cemetery of round barrows located on a projecting spur of the Chilterns overlooking the traditional route of the Icknield Way (HER 353). It consists of two bowl barrows, three bell barrows and two possible pond barrows. The earliest excavations into the barrows were undertaken by the Bedfordshire Architectural and Archaeological Society in the 1850s, which were followed up in the 1920s.

The group comprises seven barrows in a tight cluster, the focus of which is three bell barrows arranged roughly north-south. The cemetery appears to have been used over a long period of time as Mortimer Wheeler discovered when he excavated the north-western barrow (Barrow 5 below) in the 1920s. He found a series of burial events starting with that of a middle aged woman, who had been buried in a small pit in a crouched position with polished flint knife. Two secondary burials were added in the Bronze Age. Both were cremations, one of which was in a large urn. Finally, the barrow became the focus of some 100 burials in the 6th century, including a number of deviant burials often associated with execution site (cf Reynolds 1999).

The barrows are close to, and in some cases, impacted by later quarrying and tracks. Archaeological investigations have suggested chalk quarrying has occurred on the Downs since the prehistoric period (Albion Archaeology 2008: 19) and appears to have disturbed the northernmost of the Five Knolls barrows (Fig. 3). The relationships between quarry pits and holloways indicate a long and extensive use of the Downs as a communication route and chalk source for marling fields, lime production and other purposes. It is possible that some of the holloways were part of the Icknield Way. Many were orientated north-south but four are recorded as being on a northeast to southwest alignment and appeared to be heading towards the Five Knolls (*ibid*: 16). The presence of wheel ruts at the base of the holloways would suggest that these tracks did not cross the barrow themselves, but foot and horse traffic over the centuries has caused erosion problems that have vexed the local authorities since at least 1962.

Barrow 1: Monument no. 1251902: TL 0064 2096

A bowl barrow of probable Bronze Age date, this is the southernmost of the Five Knolls barrow group (TL 02 SW 18 and associated records). The mound survives as an earthwork circa 15 metres in diameter and 2 metres high. It is surrounded by traces of a ditch 3-4 metres wide and 0.5 metre deep. A low bank circa 2 metres wide is visible on the southern side. The ditch appears to be linked to that of the bell barrow immediately to the north. There is no evidence of any excavation, antiquarian or recent, being undertaken. It is presumed to be of Bronze Age date.

Barrow 2: Monument no. 1251944: TL 0064 2099

A bell barrow, which is one of a line of three whose encircling ditches appear to be interlinked, although the precise relationships have never been tested by excavation. The barrow is extant as an earthwork mound 20 metres in diameter and 3 metres high. The

surrounding ditch varies between 2 and 3 metres wide, and is up to 0.5 metres deep, and separated from the mound by a berm. Some excavation was undertaken in 1925 by the University College and Hospital (London) Anthropological Society, although only a brief note has ever been published. A large central area appears to have been uncovered in an unsuccessful attempt to locate a primary burial. Two secondary cremations were apparently present. Finds recovered during the excavations included a quantity of Early Neolithic plain bowl sherds plus a couple of decorated sherds, one sherd of Peterborough Ware and two Grooved Ware sherds. 8 Beaker sherds were also present, 7 of which belonged to one vessel. Sherds representing a collared urn and other earlier Bronze Age vessels and two sherds of Iron Age date were also present. The flints were re-examined recently by Robin Holgate. Some 558 flints are extant from Barrow 2. A significant proportion appears to be Mesolithic, the remainder being broadly of Neolithic and earlier Bronze Age date. Other finds included animal bones and part of a red deer antler. A Beaker sherd was recovered from the surface of the mound in 1953. The absence of further detail makes interpretation of the site problematic. The barrow is generally assumed to be of Early Bronze Age date, although the quantity of Neolithic pottery and the presence of a Neolithic ring ditch among the Five Knolls group (Barrow 5 - TL 02 SW 94) raises the possibility that the monument may have had earlier origins.

Barrow 3: Monument no. 1252022: TL 0064 2099

This bell barrow is the middle of a line of three bell Barrows and is approximately 15 metres in diameter and up to 2 metres high. It was investigated in 1850 by members of the Bedfordshire Architectural and Archaeological Society as part of the entertainment on an excursion. A few animal bones were present in the mound. Once the trench reached the chalk below the mound, "a few circular holes were found, about two feet in diameter each, and about 18 inches in depth". The lack of finds and burials, plus indications that the barrow had been dug into before, caused them to move on to another barrow. In 1921, the barrow was again examined, this time by the University College and Hospital (London) Anthropological Society, led by Professor Elliot Smith. Little was published, but they were apparently disappointed with the results. Below the mound, three hollows, interpreted as empty graves, were found. A cremation with a fragment of Roman pottery was found just below the turf in the centre of the barrow. A few flints of Mesolithic to Bronze Age date were found, as was a bone awl of probable Bronze Age date.

Barrow 4: Monument no. 1252041: TL 0063 2105

The barrow is the northernmost of a group of three bell barrows whose encircling ditches appear to be interlinked, although the precise relationship between the three is unclear. The ditch of barrow 4 also appears to overlie the ditch of barrow 5 (TL 02 SW 94) to the northwest. The barrow is extant as an earthwork mound circa 20 metres in diameter and up to 2.5 metres high, surrounded by a berm and a ditch which is circa 35 metres in diameter. A large rectangular depression on the north-eastern side presumably marks the location of an unrecorded episode of digging.

Barrow 5: Monument No. 1252043: TL 0061 2105

This mound measures approximately 19.5m in diameter and is 1.4m high. There is a fragmentary ditch to the south and quarrying to the immediate east. The barrow was originally dug into in 1850, the excavation being abandoned because the presence of human remains close to the surface of the mound was taken as a sign of recent disturbance. In 1926-9, during total excavation of the barrow, around 100 inhumations were found, the majority inserted into the east and southeast sectors of the mound, and in an area immediately adjacent to the mound's southeast side. Some had been buried in grave pits while others had been inserted into the ground in a more irregular manner. Some were laid out in a fairly orderly manner while many were arranged in a more haphazard, sometimes jumbled manner. About one-third appeared to have their hands tied behind their backs. Dating proved difficult. The finds recovered with the skeletons included an Iron Age brooch, a Roman bronze goblet, two "worn" Roman coins, buckles and keys of late Roman or pagan Saxon type, and some Roman and Saxon potsherds. The only find definitely associated with a burial was one of the coins, found on the breast of a female skeleton and pierced for wearing on a necklace. Generally a 5th or 6th century date seems to be favoured. The tied hands have prompted suggestions that the barrow may have been used as, or stood near, a gallows.

The barrow appears to have been the earliest of the group and was built over the grave of a woman buried in an oval grave cut into the chalk. Two secondary burials were added in the later Bronze Age, one of which was in an inverted cremation urn and the other is a slight hollow approximately 1.9m east of the primary burial (Dyer 1991: 27).

Barrow 6: Monument no. 1252081: TL 0066 2102

This barrow is possibly an Early Bronze Age pond barrow, one of two such features within the Five Knolls barrow group (TL 02 SW 18 and associated monuments). The site appears as a flat-bottomed hollow surrounded by a raised bank. It measures 8 metres in diameter and is up to 1 metre deep, surrounded by outer bank 2 metres wide. There is no evidence for any excavation.

Barrow 7: Monument no. 1252102: TL 0066 2103

Barrow 7 is also a possible Early Bronze Age pond barrow, one of a pair of such features within the Five Knolls barrow group (TL 02 SW 18 and associated monuments). This site appears as a flat-bottomed hollow 2 metres deep and 10 metres in diameter, surrounded by a bank which is circa 3 metres wide. There is no evidence of any excavation.

To the south of the barrow group are two features that were originally thought to have been burial mounds (HER 139, SAM 24409/1 & 24409/2). Although Dyer raised the possibility that one of these may be a Neolithic bank barrow, they are now generally considered to have been rabbit warrens probably associated with the Augustinian priory in Dunstable.

Adjacent to the pillow mounds, but not scheduled is a small, undated mound.

Another barrow once stood approximately 1km to the south of the Five Knolls (HER 10025). Now under the golf course, the barrow was recorded in the 19th century has having been 3m high and 14m in diameter (Dyer 1991: 27). It contained a large grave cut, approximately 3.6m long, surrounded by 6 or 7 other graves including that of a woman and child supposedly buried in a crouched position and surrounded by sea urchins. The other grave cuts contained a variety of deposits; one had a jaw bone, another the remains of a cremation along with burnt fragments of the cremation urn and a third had fragments of an inhumation burial.

A second barrow, which stood 230m south of the above, was recorded and destroyed in the late 19th century had a similar arrangement of grave cuts within it. The central grave cut,

which was empty, was 1.2m square, as were those surrounding it. Only one cut was left untouched; that of a couched burial of a teenage boy (*ibid*: 28).

4 Results

4.1 *Introduction*

The topographical survey carried out prior to the repair of the erosion scars provided a detailed plan of the site, and of the extent of the damage that had occurred to the barrows. An overall site plan was produced, together with separate profiles of each of the barrows.

The erosion scars, were to be the subject of the watching brief element of the project, and those impacting on the barrows themselves were profiled both longitudinally and latitudinally. The edges of each scar were squared off, a layer of geotextile lining placed in the cut, and locally sourced chalk was compacted in to fill most of the void. Topsoil or turf was then laid over the chalk to allow the native plants to recolonize the affected areas.
All the data relating to the survey is presented in Appendix 3.

4.2 Condition of *Erosion Scars*

The watching brief was focussed on the damage that had occurred to the burial mounds, and the paths accessing the monument from the north.

Scar 1 was the largest single affected area, and was associated with the western pedestrian access gate, located on the north fence, with the scar orientated between Barrows 4 and 5 (Fig. 4). The scar was 29.5m long and 1.58m at its widest point. It varied in depth from 0.08-0.3m, of which typically 0.07m was a sandy, silty clay topsoil, overlying decayed, nodular chalk (Plates 1 & 2). The depth of the scar was due to a combination of the concentration of pedestrian traffic leading up to the gate and the flow of rain water channelled along its length, down the steep northern side of the Downs.

Scar 2 ran parallel to Scar 1, approximately 7m to the east, and was associated with the eastern pedestrian access on the northern fence (Fig. 4). The erosion damage was less substantial than that of Scar 1, with the affected area being 26.3m, in three separate parts, by 2.3m at its widest point, close to the gate. The depth of the scar varied between 0.04m and 0.15m, the deepest part being closest to the gate (Plate 3).

At the southern end of the scar, close to the base of Barrow 4, there is a lessening in the gradient of the slope and a thickening of the topsoil (Plate 4). This may be due to a natural undulation in the underlying geology being filled with a colluvial deposit washed down from Barrow 4. However, the consistency of the matrix appears identical to that of the rest of the monument, and so there is the possibility that the deposit is a result of the reconstruction of the barrow following previous excavation.

Scar 3 was a continuous dog-legged cut which crossed the brow of Barrow 4 and formed part of the main pathway which traversed the monument north to south, encompassing 4 of the 5 principal mounds which make up the site (Fig. 5). Measuring 26.3m in length and 1.6m at its widest point, it formed the largest single area of damage to the burial mounds, though it only cut into the underlying chalk and topsoil matrix in relatively small, isolated patches. This was due to the relatively deep layer of overlying topsoil, which in places reached 0.2m (Plates 5 & 6).

Scar 4 was similar to Scar 3 in that it only cut through the 0.1-0.25m of topsoil (Plates 7 & 8). It was 19.2m in length and up to 2.2m wide, cutting a straight swathe on both the north and

south sides of Barrow 3 (Fig. 6). Fragments of modern brick were noted within the topsoil. The current path is now slightly off-set to the west of the scar.

Scar 5 was the largest single affected area of the monument itself, totalling over 40 square meters of erosion. It measured 25.8m in length and reached over 2m in width at several points along its course (Fig. 7). The north side of the scar consisted of *c.* 0.13m of topsoil overlying nodular chalk, but on the south side no chalk was exposed (Plates 9 & 10) . This was due to the presence of a previous, underlying repair contributing to the depth of topsoil and forming a layer at least 0.25m thick (Plate 11).

The repair itself was approximately 0.6m wide and 0.08m deep, and was present along the entire length of the south facing slope of Barrow 2. It is likely that it was also present on the north facing slope, but as it was not necessary to remove sufficient quantity of the overlying topsoil to expose the cut at that point. Twentieth century artefacts such as pottery sherds and glass were present in the fill, and it is likely this material was imported onto site specifically for the purpose.

Scar 6 straddled the brow of Barrow 1, and constituted the smallest area of damage, measuring 17.m in length and 1.8m at its widest point (Fig. 8). Similarly to Scar 5, it did not breech the top soil, which varied between 0.08-0.2m (Plates 12 & 13). Some 20th century artefacts were noted within the topsoil, as were occasional small pieces of chalk. There is a likelihood that this barrow has undergone the same type of earlier repair observed on Barrow 2, but the depth of the present cut was insufficient to expose it.

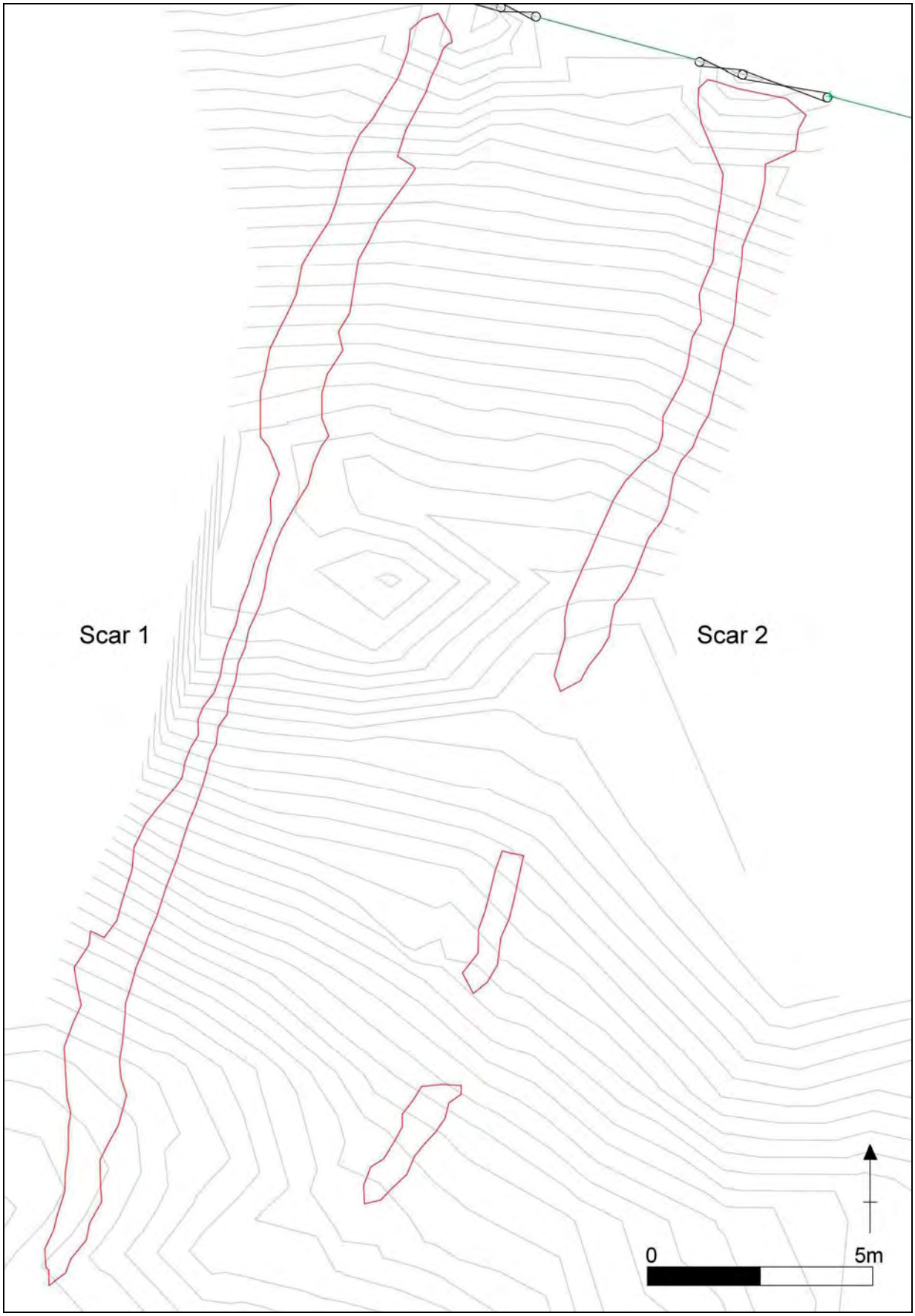


Figure 4: Scars 1 & 2 *(scale 1:125)*

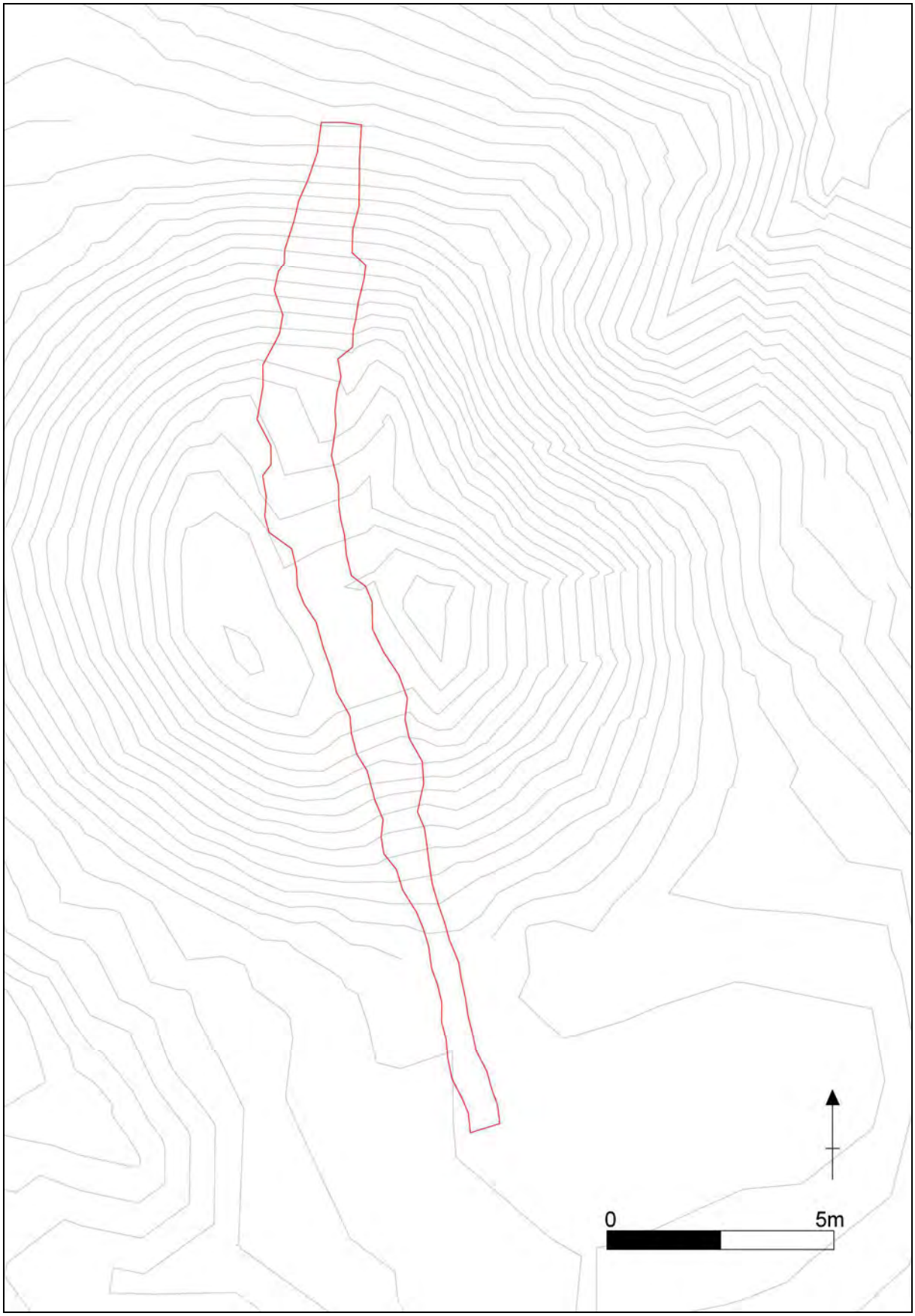


Figure 5: Scar 3 *(scale 1:125)*

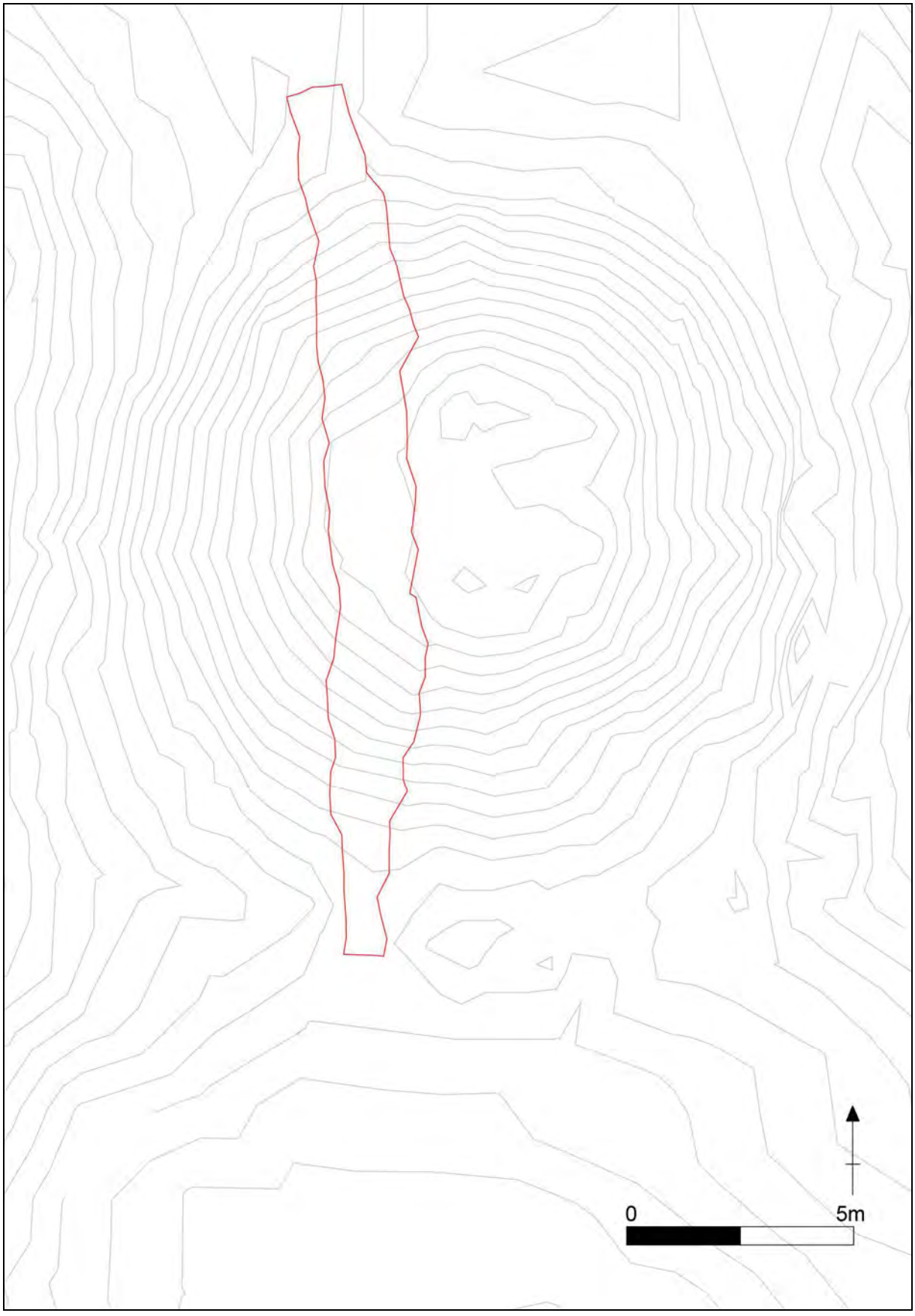


Figure 6: Scar 4 *(scale 1:125)*

Figure 7: Scar 5 *(scale 1:125)*

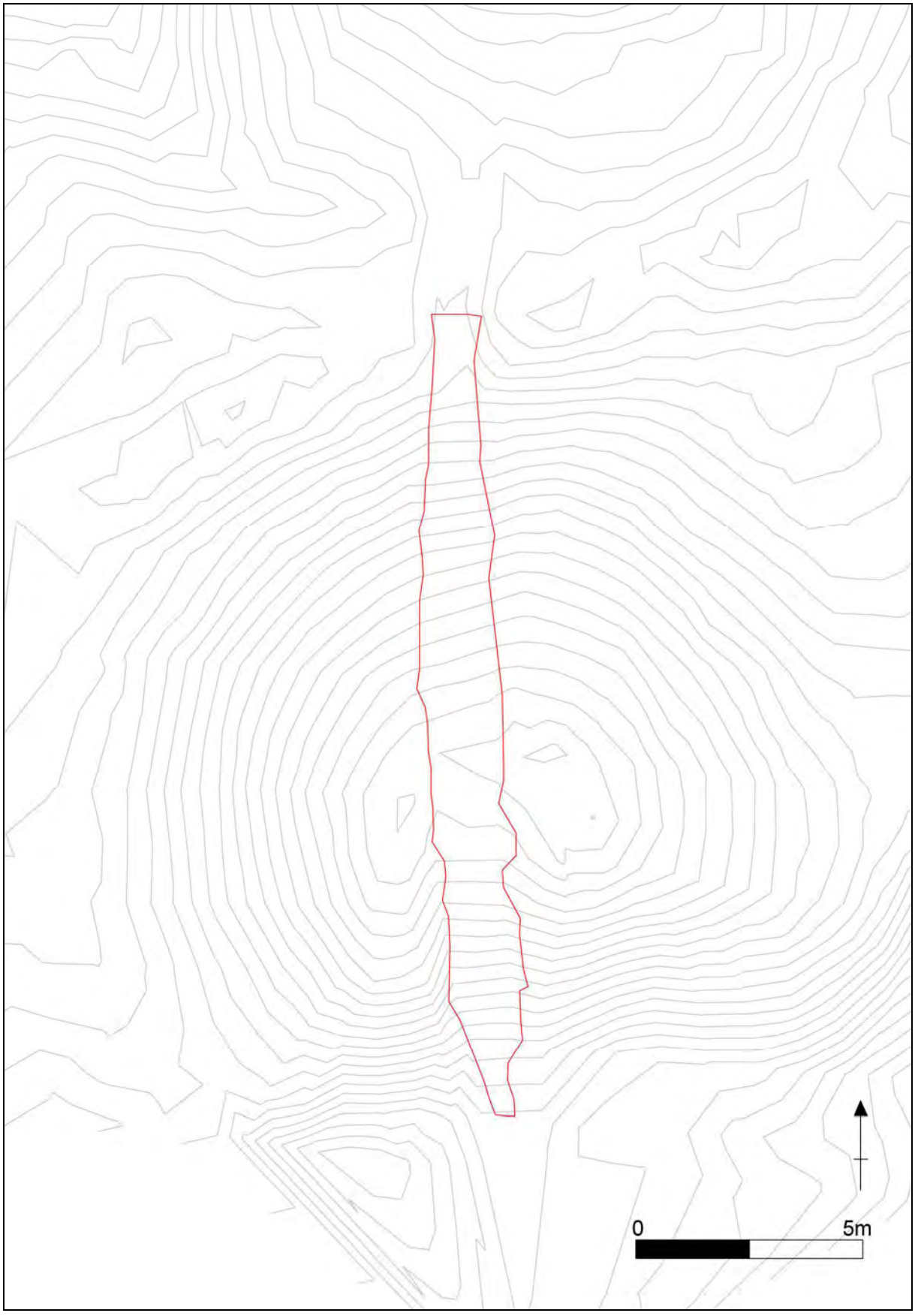


Figure 8: Scar 6 *(scale 1:125)*

4.3 Repair of *Erosion Scars*

Prior to the watching brief element of the project, a topographical survey of the monument was carried out, which included profiling the Barrows and the erosion scars, as a record of the damage that had occurred (Figs 9-13).

The survey of the scars pinpointed the areas where erosion had taken place. However, the repair programme concentrated on those parts where significant indentation had taken place, and no attempt was made restore the overall profile of the mounds back to an assumed original shape.

The edges of each scar were squared off and the loose material removed from the base. The cut was then lined with a geotechnical membrane and backfilled with compacted, locally sourced, chalk. This was then covered with either a layer of topsoil or turf (Plates 14-23).

Whilst the topographical survey appears to show the scars straddling the brow of the barrows, the repairs were carried out by removing as little as possible of the monument's fabric. Consequently, in all but Scar 6, only the worst affected areas on the sides of the mounds were cut back and filled (Plates 24-33).

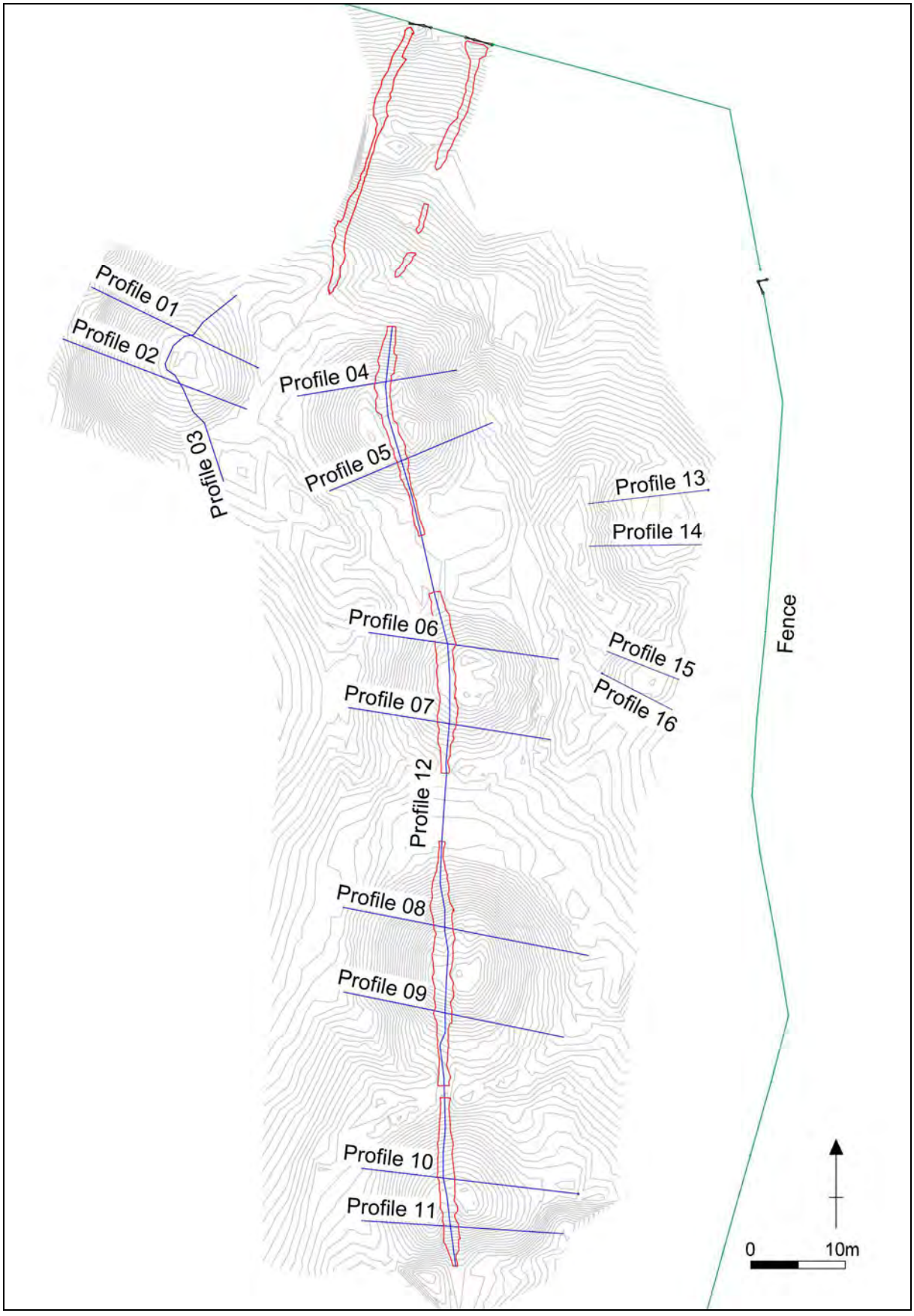


Figure 9: Location of profiles *(scale 1:600)*

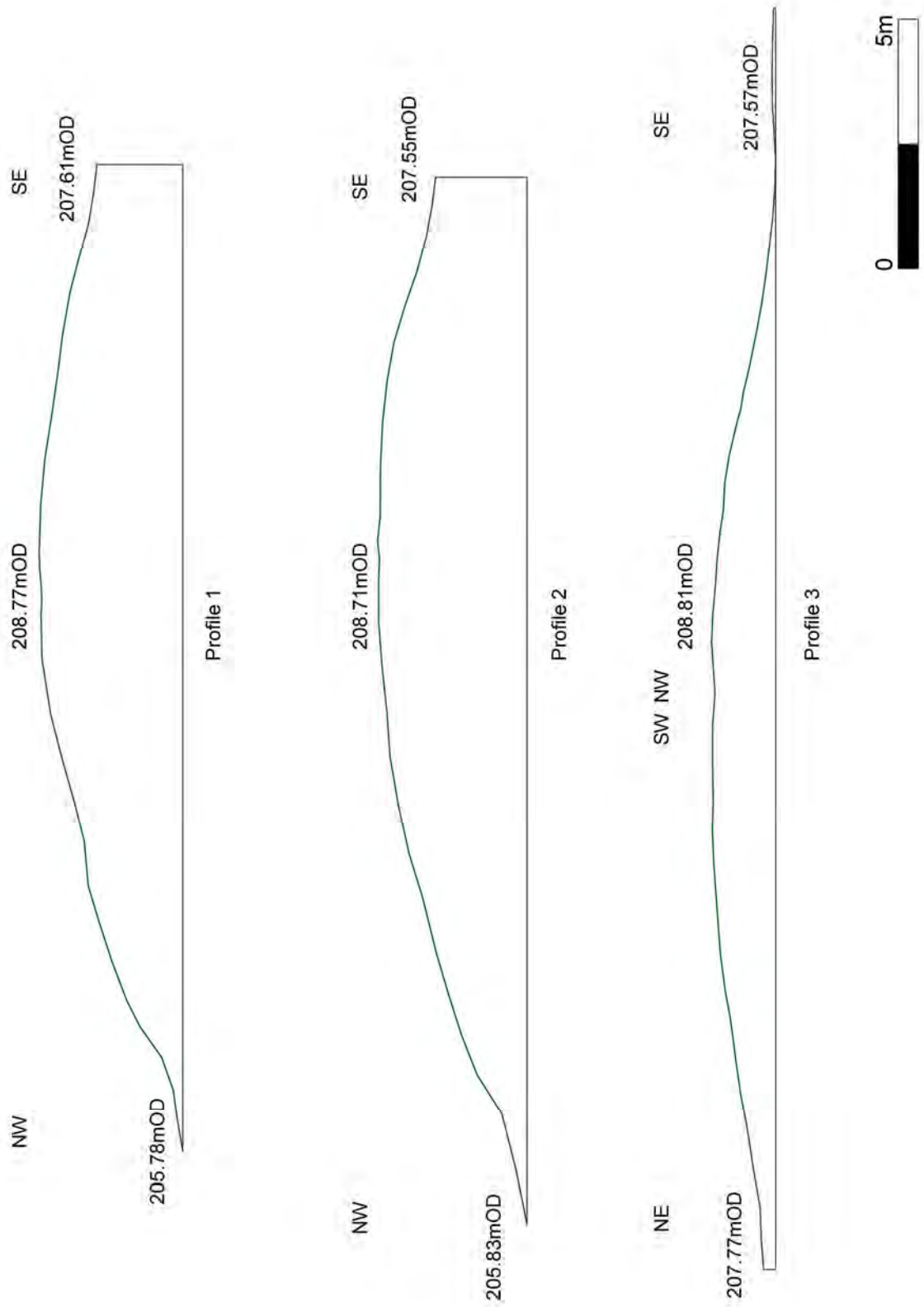


Figure 10: Profiles 1-3 *(scale 1:125)*

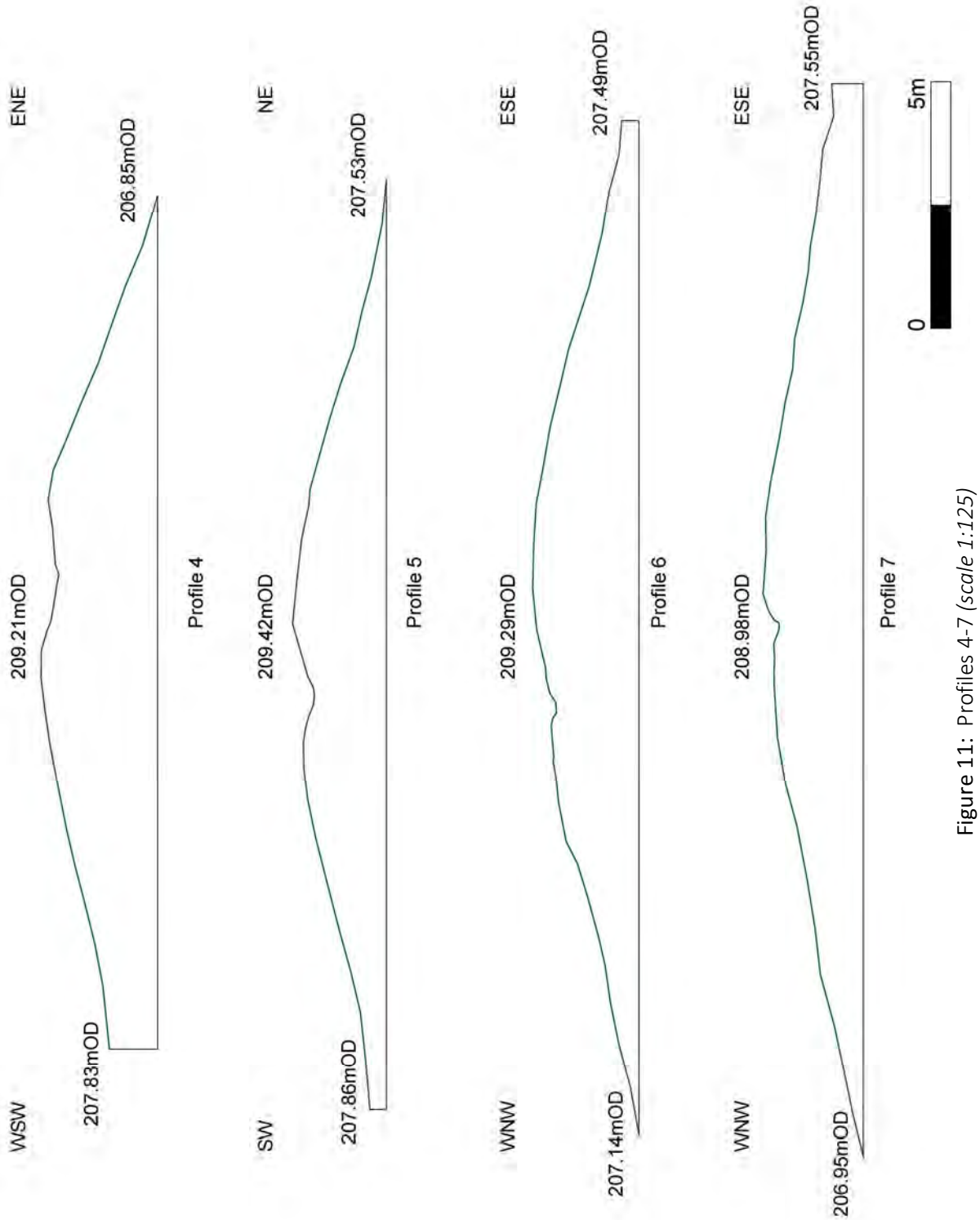


Figure 11: Profiles 4-7 *(scale 1:125)*

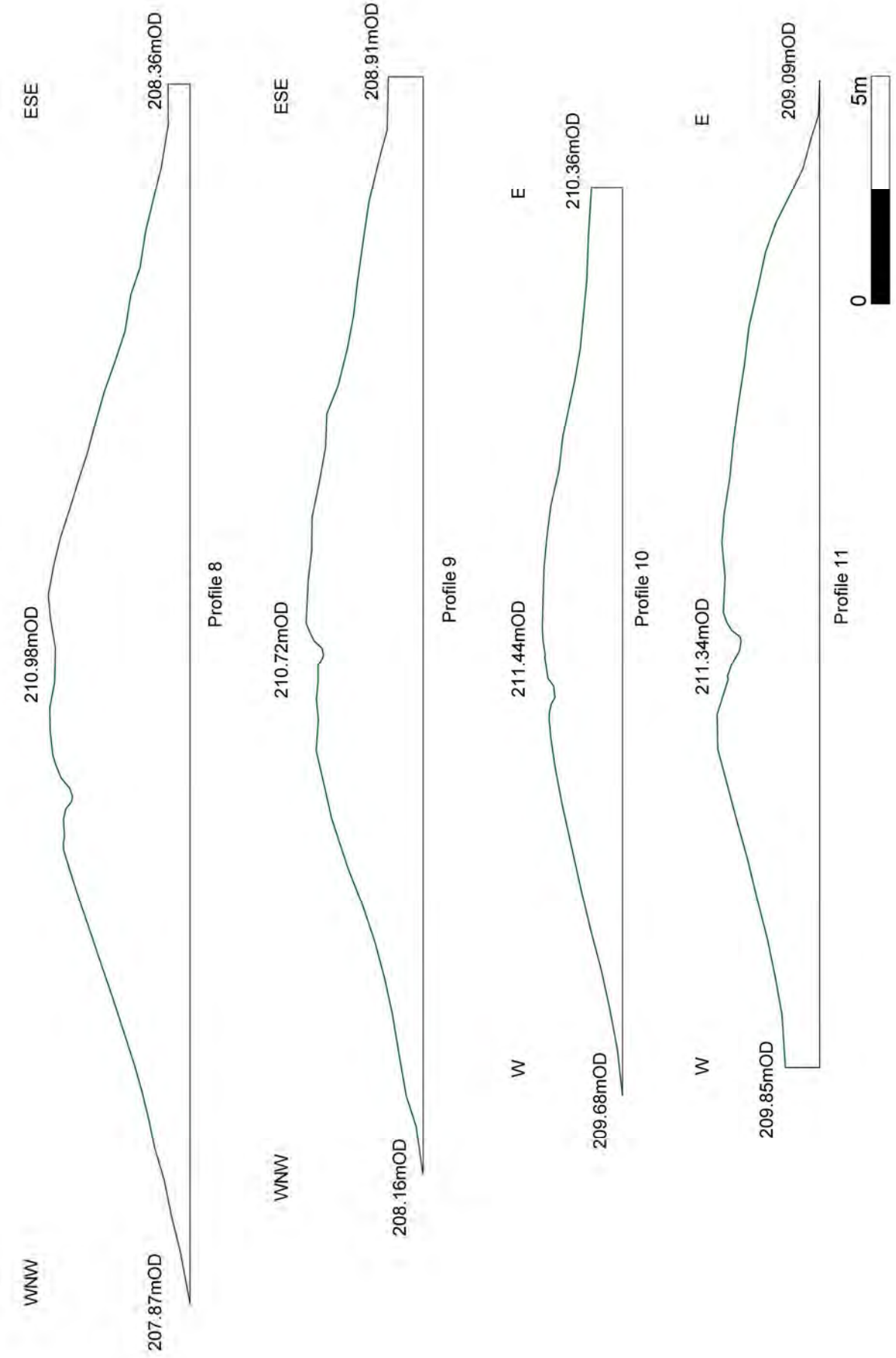


Figure 12: Profiles 8-11 *(scale 1:125)*

N
Barrow 4
209.32mOD
207.45mOD
208.03mOD
Barrow 3
209.28mOD
208.14mOD

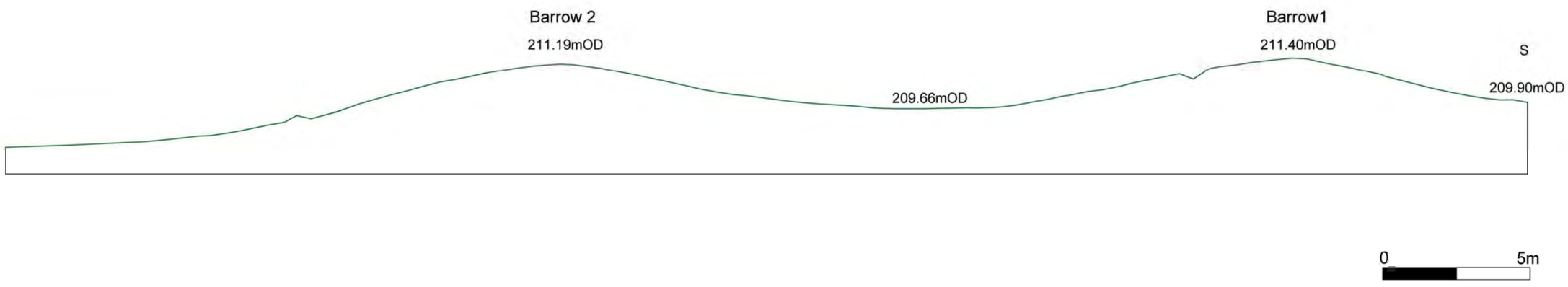

Barrow 2
211.19mOD
209.66mOD
Barrow1
211.40mOD
S
209.90mOD
0
5m

Plate 1: Scar 1, facing south

Plate 2: Stratigraphy of Scars 1 & 2

Plate 3: Scar 2, facing north

Plate 4: Topsoil deposit, Scar 2

Plate 5: Scar 3, facing south

Plate 6: Scar 3, facing north

Plate 7: Scar 4, facing south

Plate 8: Scar 4, facing north

Plate 9: Scar 5, ,facing south

Plate 10: Scar 5, facing north

Plate 11: Scar 5, earlier repair

Plate 12: Scar 6, facing south

Plate 13: Scar 6, facing north

Plate 14: Scar 1, prepared, facing south

Plate 15: Scar 2, prepared, facing south

Plate 16: Scar 3, prepared, facing south

Plate 17: Scar 3, prepared, facing north

Plate 18: Scar 4, prepared, facing south

Plate 19: Scar 4, prepared, facing north

Plate 20: Scar 5, prepared, facing south

Plate 21: Scar 5, prepared, facing north

Plate 22: Scar 6, prepared, facing south

Plate 23: Scar 6, prepared, facing north

Plate 24: Scar 1, repaired, facing south

Plate 25: Scar 2, repaired, facing south

Plate 26: Scar 3, repaired, facing south

Plate 27: Scar 3, repaired, facing north

Plate 28: Scar 4, repaired, facing south

Plate 29: Scar 4, repaired, facing north

Plate 30: Scar 5, repaired, facing south

Plate 31: Scar 5, repaired, facing north

Plate 32: Scar 6, repaired, facing south

Plate 33: Scar 6, repaired, facing north

5. Conclusions

Both the topographical survey and programme of repairs to the scars added some information relating to the condition of the monument. None of the repair preparation revealed what could be considered “clean” chalk. Most of the scars were cut into either topsoil, or a mixture of topsoil and fairly loose, nodular chalk. It is likely that this a result of previous excavations, which at least in one case, appear to have half sectioned the barrow, and subsequently reconstructed the barrow with a mixture of the excavated material.

The thick deposit of topsoil at the northern base of Barrow 4 could also be the result of excavated spoil deposition. The topographical survey of this barrow highlights an uneven formation to the mound on the north-eastern quadrant, consisting of a localised increase in the angle of the slope, an apparent indentation in the face, and a linear band of material orientated northeast-southwest. This may be result of a poor reconstruction of the mound, and subsequent settling of the redeposited material. It is known that some unrecorded excavation has taken place on the mound.

Barrow 1 also shows some signs of possible excavation and reconstruction, though none has been previously recorded. The southern quadrant appears to have been disturbed, resulting in an increase in the angle of the slope relative to the main portion of the barrow, and a small additional mound in the southeast corner disrupts what could be assumed to be the natural line of the feature.

The previous repair identified on Barrow 2 (Scar 5) demonstrates that the current programme of works is a continuation of an ongoing process, and that the recent damage has been dealt with at an earlier stage than in the past. It is likely that there have been other earlier repairs carried out to the monument, but as so little material was removed during the present project the overlying topsoil was not breeched, and therefore evidence of the earlier damage remained covered.

No archaeological cut features, deposits or artefacts were identified during the project. It is likely this was due to a combination of the area under investigation being previously disturbed, and the shallowness of the excavated areas to be backfilled.

6 Acknowledgements

KDK Archaeology is grateful to Rachel Sanderson for commissioning this report on behalf of Chilterns Conservation Board. Thanks are also due to Jon Powell of the National Trust, Nick Downes and his colleagues at Tower Surveys, Jon Hicks and his colleagues at Greenford Ltd, and Stephen Coleman of Central Bedfordshire and Luton HER for providing historic environment records and other relevant documents. The project was monitored by Hannah Firth on behalf of Central Bedfordshire Council.

7. Archive

7.1 The project archive will comprise:

1. Brief
2. Project Design
3. Initial Report
4. Site record drawings
5. List of photographs
6. B/W prints & negatives
7. CDROM with copies of all digital files.

7.2 The archive will be deposited with Luton Museum.

8. References

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Appendix 1: List of Photographs

SITE NAME: Five Knolls< Dunstable Downs, Dunstable			SITE NO/CODE:009/DDF
Shot	B&W	Digital	Subject
1	X	X	Scar 1, facing south
2		X	Scar 1, facing south
3	X	X	Scar 2, facing south
4		X	Scar 2, facing south
5	X	X	Scar 7, facing south
6		X	Scar 7, facing south
7	X	X	Scar 7, facing north
8		X	Scar 7, facing north
9	X	X	Scar 3, facing south
10		X	Scar 3, facing south
11	X	X	Scar 3, facing north
12		X	Scar 3, facing north
13	X	X	Scar 3, facing north
14		X	Scar 4, facing south
15	X	X	Scar 4, facing south
16		X	Scar 4, facing north
17	X	X	Scar 4, facing north
18		X	Scar 5, facing south
19	X	X	Scar 5, facing south
20		X	Scar 5, facing north
21	X	X	Scar 5, facing north
22		X	Scar 6, facing south
23	X	X	Scar 6, facing south
24		X	Scar 6, facing north
25	X	X	Scar 6, facing north
26		X	Working Shot
27		X	Working Shot
28		X	Working Shot
29		X	Working Shot
30		X	Working Shot
31		X	Test hole in Scar 4, facing north
32		X	Test hole in Scar 4, facing east
33		X	Working Shot
34		X	Working Shot
35		X	Working Shot
36		X	Scar 1, prepared, facing south
37	X	X	Scar 1, prepared, facing south
38		X	Scar 2, prepared, facing south
39	X	X	Scar 2, prepared, facing south
40		X	Scar 2 strat, facing east
41	X	X	Scar 2 strat, facing east
42		X	Scar 2 strat, close up, facing east
43	X	X	Scar 2 strat, close up, facing east
44		X	Scar 2 strat, facing east
45	X	X	Scar 2 strat, facing east
46		X	Scar 2 strat, facing north
47	X	X	Scar 2 strat, facing north
48		X	Scar 2 strat, facing north

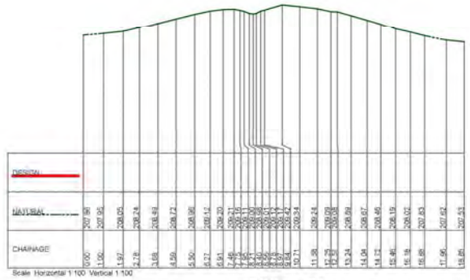
49	X	X	Scar 3, prepared, facing south
50		X	Scar 3, prepared, facing south
51	X	X	Scar 3, prepared, facing north
52		X	Scar 3, prepared, facing north
53	X	X	Scar 4, prepared, facing south
54		X	Scar 4, prepared, facing south
55	X	X	Scar 4, prepared, facing north
56		X	Scar 4, prepared, facing north
57	X	X	Scar 5, prepared, facing south
58		X	Scar 5, prepared, facing south
60	X	X	Scar 5, prepared, facing north
61		X	Scar 5, prepared, facing north
62	X	X	Scar 6, prepared, facing south
63		X	Scar 6, prepared, facing south
64	X	X	Scar 6, prepared, facing north
65		X	Scar 6, prepared, facing north
66	X	X	Section through previous repair, facing north
67		X	Section through previous repair, facing north
68	X	X	Scar 1, repaired, facing south
69		X	Scar 1, repaired, facing south
70	X	X	Scar 2, repaired, facing south
71		X	Scar 2, repaired, facing south
72	X	X	Scar 3, repaired, facing south
73		X	Scar 3, repaired, facing south
74	X	X	Scar 3, repaired, facing north
75		X	Scar 3, repaired, facing north
76	X	X	Scar 4, repaired, facing south
77		X	Scar 4, repaired, facing south
78	X	X	Scar 4, repaired, facing north
79		X	Scar 4, repaired, facing north
80	X	X	Scar 5, repaired, facing south
81		X	Scar 5, repaired, facing south
82	X	X	Scar 5, repaired, facing north
83		X	Scar 5, repaired, facing north
84	X	X	Scar 6, repaired, facing south
85		X	Scar 6, repaired, facing south
86	X	X	Scar 6, repaired, facing north
87		X	Scar 6, repaired, facing north
88	X	X	General view, facing north east

Appendix 2: KDK OASIS Sheet

PROJECT DETAILS			
Project Name:	Five Knolls, Dunstable Downs, Beds.	OASIS reference:	KDKARCHA1-149626
Short Description:	In July 2013 KDK Archaeology carried out a programme of archaeological works at Five Knolls, Dunstable Downs, Bedfordshire, during the repair of erosion scars to the burial mounds. Prior to the commencement of the repair work, a topographical survey was carried out to record the landscape in general, and more specifically to identify the extent of the erosion to the mounds. The preparation of the scars revealed that relatively little damage had occurred to the body of the mounds, and that some previous 20th century repairs had endured fairly well. The extent of previous excavations was apparent in some of the barrows, as the material that apparently formed the substantive body of the barrows was a mixture of nodular chalk and topsoil. No archaeological cut features, deposits, or artefactual evidence of significance was encountered, though some 20th century pieces of 20th century ceramics were noted within a previous repair. None were retained.		
Project Type:	Topographical survey and watching brief		
Previous work: (eg. SMR refs)	None	Site status: (eg. none, SAM, listed)	SM 20422
Current land use:	SAM	Future work: (yes/no/unknown)	None
Monument type:	Burial mounds	Monument period:	Bronze Age
Significant finds: (artefact type & period)	None		
PROJECT LOCATION			
County:	Bedfordshire	OS reference: (8 figs min)	0062 2101
Site address: (+ postcode if known)	Five Knolls, Dunstable Downs, Dunstable		
Study area: (sq. m. / ha)	c.5500sq.m	Height OD: (metres)	c.200
PROJECT CREATORS			
Organisation:	KDK Archaeology Ltd		
Project brief originator:	Central Bedfordshire Council	Project design originator:	KDK Archaeology
Project Manager:	Karin Semmelmann	Director/Supervisor:	David Kaye
Sponsor / funding body:	Chilterns Conservation Board		
PROJECT DATE			
Start date:	30/07/2013	End date:	13/08/2013
PROJECT ARCHIVES			
	Location (Accession no.)	Content (eg. pottery, animal bone, files/sheets)	
Physical:	Luton Museum LUTNM 2013/7	None	
Paper:		Site records, report, drawing	
Digital:		CD of photos and topographical survey data	
BIBLIOGRAPHY (Journal/monograph, published or forthcoming, or unpublished client report)			
Title:	TOPOGRAPHICAL SURVEY AND OBSERVATION AND RECORDING REPORT: FIVE KNOLLS, DUNSTABLE DOWNS, BEDFORDSHIRE		

Serial title & volume:	KDK Ltd Report ref. 009/DDF		
Author(s):	David Kaye		
Page nos	44	Date:	15/08/2013

Appendix 3: Topographical Survey



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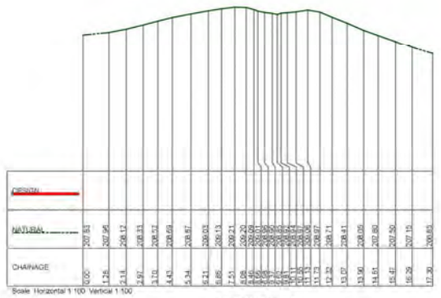

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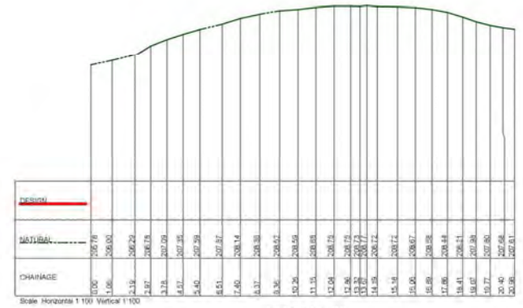

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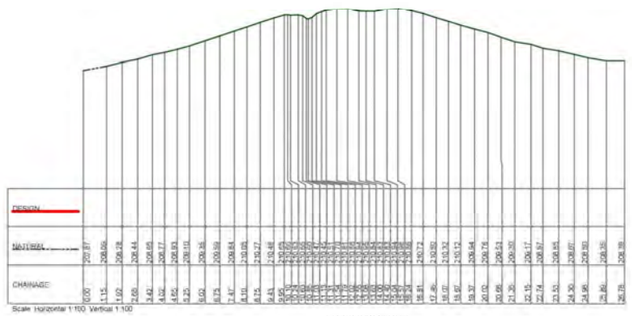

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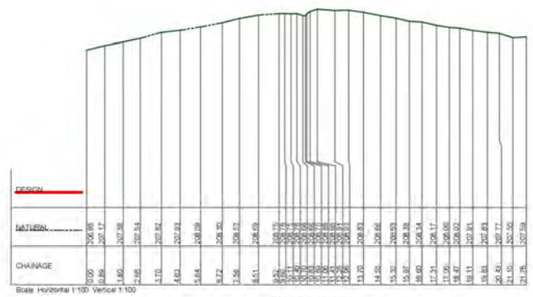

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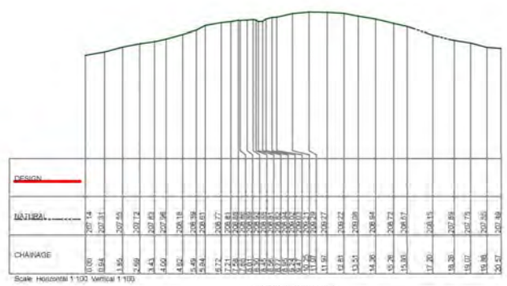

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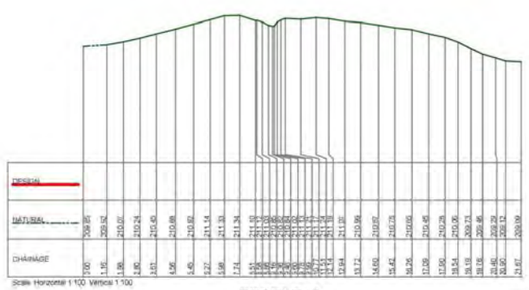

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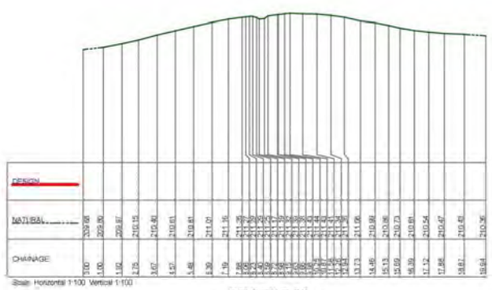

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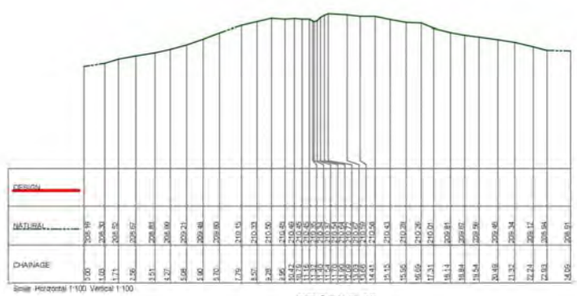

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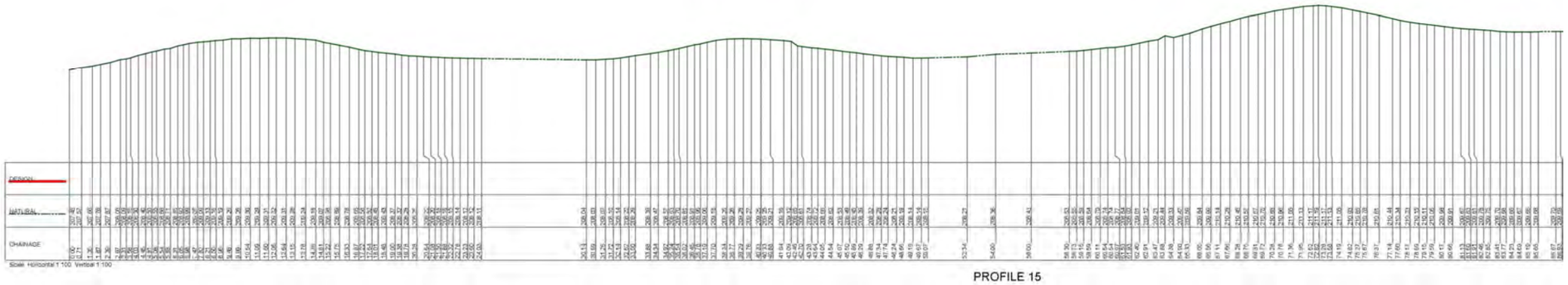

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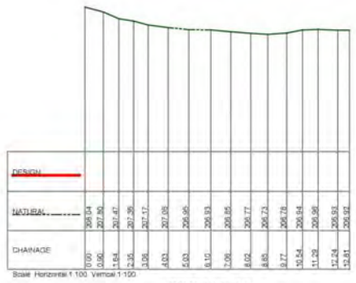

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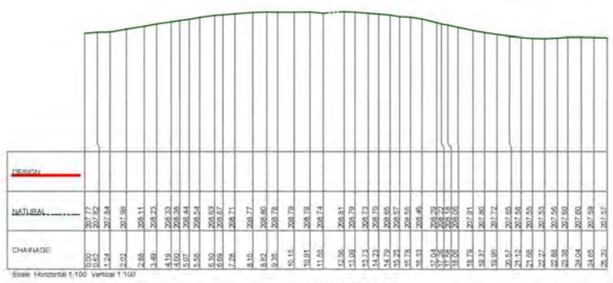

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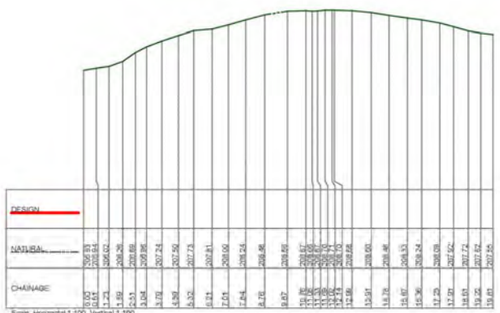

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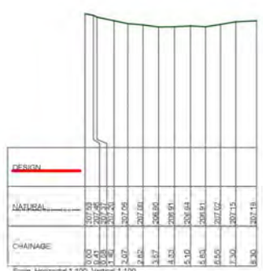

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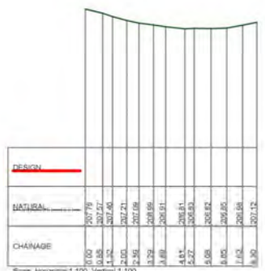

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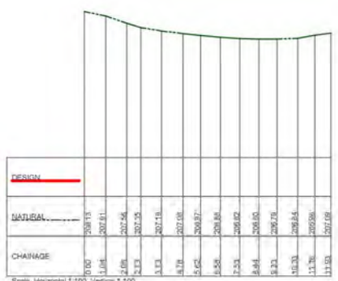

PROFILE 13