Archaeology Wales

Harlech Castle
Harlech, Gwynedd

Archaeological Field Evaluation

By
Chris E Smith BA (Hons) MA MIFA

Report No. 1080

Archaeology Wales Limited,
Rhos Helyg, Cwm Belan,
Llanidloes, Powys, SY18 6QF
Tel: +44 (0) 1686 440371
Email: admin@arch-wales.co.uk

Archaeology Wales

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Harlech, Gwynedd

Archaeological Field Evaluation

Prepared For: Dr Kate Roberts

On Behalf of:Cadw

Edited by:	
Signed:	
Position:	
Date:	

Authorised by:	
Signed:	
Position:	
Date:	

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Date: **September 2012**

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Non-Technical Summary

This report results from work undertaken by Archaeology Wales Ltd (AW) for Dr Kate Roberts of Cadw. It draws upon the results gained by an archaeological field evaluation of three separate areas outside and associated with the entrance to Harlech Castle, Harlech, as part of a proposal to install a new access bridge. A total of five small trenches were excavated associated with the current access route into the castle whilst a geotechnical assessment was also undertaken in the car park adjacent to the visitor centre. The car park area was found to be composed of made ground to at least 1m depth whilst the bridge pier was found to be constructed on a rubble levelling deposit, located directly above natural bedrock. Trenches within the drawbridge pit located a possible medieval floor horizon.

1 Introduction

1.1 Location and scope of work

1.1.1 In August 2012 Archaeology Wales Ltd (AW) carried out an archaeological field evaluation on areas associated with the wooden bridge providing access into Harlech Castle, Harlech, Gwynedd (SH 58082 31244 – Fig 1), at the request of their client, Dr Kate Roberts of Cadw. The work was undertaken to inform design decisions for a proposed new access bridge and associated visitor centre.

1.1.2 After a pre-contract meeting with Dr Kate Roberts it was agreed that a total of five small trenches would be excavated and one geotechnical borehole drilled for assessment. The walls of the drawbridge pit were also to be subject to assessment and photographic recording.

1.2 Geology and topography

1.2.1 The underlying solid geology of the area is comprised of middle Cambrian sedimentary formations and undifferentiated lower Cambrian rocks, including mudstone, siltstone and sandstone (Geological Survey Map, 2001).

1.2.2 The castle is located 49m above sea level on a rocky outcrop with a commanding view of Tremadog Bay. The ground to the east of the castle rises steeply to some 258m above sea level. The linear settlement of Harlech, located largely along the route of the B4573, appears almost to occupy a thin terrace within the sloping landform (Fig 1).

1.3 Archaeological and Historical Background

1.3.1 The archaeological and historical background area can be dated back at least as far as the Bronze Age and Neolithic. The uplands surrounding Harlech are dotted with evidence of prehistoric activity as shown by the presence of stone circles, standing

stones, cairns and evidence of settlement on the nearby high ground of Moel Goedog and the burial chamber at nearby Llanfair.

1.3.2 The main focus of the assessment area is Harlech Castle. Harlech Castle is one of the four castles built by Edward I (1239-1307) to surround and control Gwynedd.

1.3.3 The castle was begun in May 1283 at the instigation of Sir Otto de Grandison, a Savoy nobleman who led the central contingent of the English invasion army. Like the other Royal castles it was designed by Otto's compatriot James of St George, Master of the King's Works in Wales. Levelling the summit and ditching the site seem to have occupied the first two years, but from 1285 a rapid building campaign employed up to 950 workmen. The castle was virtually complete by the end of 1289, the Pipe Rolls recording and expenditure of £8184 (Pettifer, 2000).

1.3.4 The Gatehouse is the dominant feature of a square enclosure which is defended by a strong curtain wall and circular corner towers. It is a formative example of the quadrangular plan which would become the standard for later English castles. It is surrounded by an outer curtain wall, so Harlech is one of that distinguished group of concentric castles (Pettifer, 2000).

1.3.5 Despite the grandeur of the castle the town proved to be the smallest of the Edwardian planned boroughs. Evidence from Subsidy Rolls suggest that the medieval town never exceeded 150 persons (Soulsby, 1983).

1.3.6 Harlech was subjected to siege on four occasions: The first in 1404, then again in 1408, both during the Glyndwr revolt. The third siege was as part of the Wars of the Roses in 1468 with the final action being seen in the Civil War where the castle held out for a creditable nine months until March 1647 (Pettifer, 2000).

1.3.7 The later history of Harlech is poorly documented and appears to have been uneventful (except for the two later sieges). Speed's map of 1610 suggests the borough failed to recover from the ravages of Glyndwr, who held the castle for nearly five years, and he indicates a mere handful of tenements lining Stryd Fawr with the beginnings of a second street atright angles to it, the present Pen Dref. A contemporary description of the borough referred to 'a verye poore towne… having no traphicke or trade', and 200 years later Fenton was still able to observe that it was 'the most forlorn, beggarly place imaginable' (Soulsby, 1983).

2 Aims and Objectives

2.1 Evaluation

2.1.1 The Field Evaluation was undertaken to:

- Establish the presence/absence of archaeological remains within, and immediately surrounding, the area of proposed development;

- Determine the depth, extent, condition, nature, character, quality and date of any archaeological remains present;
- Establish the ecofactual and environmental potential of archaeological deposits and features;
- To produce a record of the features.

3 Methodology

3.1 Evaluation

3.1.1 The on-site work was undertaken by Chris E Smith and Freya Blockley. The overall management of the project was undertaken by Chris E Smith (MIfA).

3.1.2 All trenches were excavated by hand by suitably qualified AW staff.

3.1.3 All areas were photographed using high resolution (14+ Mega Pixels) digital photography.

3.1.4 All on-site illustrations were undertaken on drafting film using recognised conventions and scales (1:10, 1:20, 1:50) as appropriate.

3.1.5 All works were undertaken in accordance with the IfA's *Standards and Guidance: for an archaeological evaluation* (revised 2011) and current Health and Safety legislation.

3.2 Finds

3.2.1 No finds were recovered during the course of the excavation.

3.3 Palaeo-environmental evidence

3.3.1 No deposits suitable for environmental sampling were encountered during the course of the excavation.

3.4 Geotechnical Borehole

3.4.1 The drilling of the geotechnical borehole was undertaken by E-geo Solutions Ltd under the supervision of Huw Littler-Jones. The borehole report is included as Appendix 3.

4 Evaluation Results

4.1 Soils and ground conditions

4.1.1 The soils varied between trenches though the ground conditions were initially dry. Substantial rainfall occurred during backfilling, resulting in some localised puddling within the trenches.

4.2 **Description – Trench 1 – Plates 1&2**

4.2.1 This trench measured 3m in length by 1.5m in width and was aligned on an east - west axis. The trench was located at the northern end of the castle car park in a small area of seating, overlooking a children's play area (Fig 2).

4.2.2 Removal of paving slabs (101) revealed a compact sand bedding (102). The sand was found to be approximately 0.15m deep and to be located above a tarmac surface (103). Excavation of a 1x1m slot through the tarmac surface (103) revealed a deposit of crushed slate fragments with occasional plastic inclusions (104). Owing to the extremely loose nature of the crushed slate deposit (104), excavation ceased at a depth of 0.9m to prevent undermining of surrounding features. No finds or features of archaeological significance were located within this trench.

4.3 **Description – Trench 2 – Plates 3&4**

4.3.1 This trench measured 3m in length by 2m in width. The trench was located within one of the medieval access bridge pier bases situated within the defensive ditch surrounding the castle (Fig 2).

4.3.2 Removal of rotted vegetation, root material and a brown humic overburden (201) revealed a deposit of large stones (202). These stones were up to 0.5x0.5m in size and appeared to have been deposited on top of the solid bedrock natural (203) in order to provide a level platform foundation for the medieval access bridge pier. Bedrock natural was visible in places beneath the stone deposit. No finds or further archaeological features were located within this trench.

4.4 **Description – Trenches 3-5 – Plates 5-7**

4.4.1 Trenches 3 – 5 each measured 0.5x0.3m. All three were located at the bottom of the drawbridge pit within the entrance to the castle (Fig 2).

4.4.2 The drawbridge pit is a fully enclosed space measuring approximately 5m in length by 3.5m in width. It is situated directly beneath the main gate. Access to the drawbridge pit is achievable only by a ladder. The walls of the drawbridge pit, which were subject to photographic recording (Plates 8-15), have clearly been repaired in places. However, the lichen and, in places, modern cement pointing make it difficult to ascertain exactly which parts are original medieval material.

4.4.3 The base of the drawbridge pit is covered in a sandy gravel material though bedrock is visible jutting through the surface in places. Three trenches were excavated within the pit to ascertain the depth of material at its base.

4.4.4 Trench 3, the westernmost trench, was located at the base of the west wall of the drawbridge pit and measured 0.5x0.3m. Removal of the sandy gravel material (301) revealed, at a depth of less than 0.1m, a compact lime mortar surface (302). It appeared to be a possible sub-floor horizon, likely bedding material for flooring since removed. Excavation ceased at this depth.

4.4.5 Trench 4 was located in the very middle of the base of the drawbridge pit. It again measured 0.3x0.5m and was positioned immediately adjacent to a bedrock outcrop. Removal of the sandy gravel material (401) again revealed a compact lime mortar surface within 0.1m depth. The lime mortar (402) was noted to be butting up against the edge of the natural outcrop. It again appeared to be a likely sub-floor horizon. Excavation ceased at this depth.

4.4.6 Trench 5, the easternmost trench within the drawbridge pit, was located approximately 1m away from the base of the eastern drawbridge pit wall so as to avoid an area of modern disturbance. Removal of the sandy gravel material (501) revealed an area of very rough-hewn cobbling (502) only 0.05m beneath the surface. They appeared to be set within a lime mortar horizon, likely the same horizon as seen in trenches 3 & 4. Excavation ceased at this depth.

5 Geotechnical Borehole

5.1 Borehole

5.1.1 The drilling of a geotechnical borehole was undertaken by E-geo Solutions Ltd, subcontracted to Archaeology Wales Ltd. A borehole location was settled upon after discussion with Cadw and engineers from Mott McDonald. The borehole was drilled under close archaeological supervision though no archaeological obstructions were encountered.

5.1.2 The full required depth of borehole was not achievable within the first attempt. A second borehole was thus drilled adjacent to the first, with similar results.

5.1.3 The full results and report on the borehole from E-Geo Solutions Ltd is contained within Appendix 3.

6 Drawbridge Pit – Walls

6.1 Photographs

6.1.1 The photographs taken of the drawbridge pit walls are presented in plates 8-15. As previously mentioned, unsympathetic repair and lichen covering has made identification of original fabrics very difficult. It is worth noting, however, that the lime mortar horizon identified in trench 5 did appear to butt directly against the wall suggesting that, if indeed the horizon is medieval in date, the walls lower courses at least may be original.

7 Interpretation & Discussion

7.1 Interpretation – Trench 1

7.1.1 Trench 1 was excavated on a small seating area adjacent to the car park. The car park and the seating area were known to have been laid down within the last 20 years. The

slate deposit (104) encountered within this trench is therefore likely to represent imported levelling material. Unfortunately, owing to the extremely loose nature of the deposit, further excavation could not be undertaken without undermining surrounding features.

7.2 Interpretation – Trench 2

7.2.1 Trench 2 was located on the inside of one of the 15th century fortified bridge towers. The excavation showed that no floor levels survived but did show a rubble deposit piled on top of the natural bedrock, upon which the tower appears to have been built. The rubble deposit appears to have been laid down to provide a level base from which to build on. Bedrock is still visible in places beneath the rubble deposit. The lack of anything but modern finds, as well as a distinct lack of soil, would appear to suggest that this area has been previously excavated.

7.3 Interpretation – Trenches 3-5

7.3.1 Trenches 3, 4 & 5, located within the base of the drawbridge pit, appeared to show that rather than being bare bedrock, a lime mortar and rough cobble floor was laid down here. Whilst extremely likely, the lime mortar and rough cobbling cannot be definitively ascribed to the medieval period but it would appear to predate most modern, restorative, works to the castle.

7.4 Overall interpretation

7.4.1 The overall interpretation gained by the field evaluation is:

- That the area of trench 1 contains modern material down to at least 1m below the current ground surface which is attributable to 1980's remodelling of the car park area;
- That the area of trench 2 consists of a 15th century levelling deposit located directly above bedrock natural;
- That the base of the drawbridge pit appears to have intact, likely medieval, flooring deposits less than 0.1m beneath the current overburden covering.

7.5 Acknowledgements

7.5.1 Many thanks are due to Freya Blockley (AW) for her assistance with the on-site work; to Dr Kate Roberts (Cadw) for her help in running the project and to Huw Littler-Jones (E-geo Solutions Ltd) for his assistance with the geotechnical borehole assessment.

8 Bibliography and references

British Geological Survey 2001, 4th Edition, *Solid Geology Map, UK South Sheet*

Institute for Archaeologists 2008, revised 2011, *Standard and Guidance for an Archaeological Evaluation*

Pettifer, A. 2000. *Welsh Castles.* Boydell Press, Woodbridge

Soulsby, I. 1983. *Towns of Medieval Wales.* Phillimore, Sussex

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APPENDIX I:
Figures

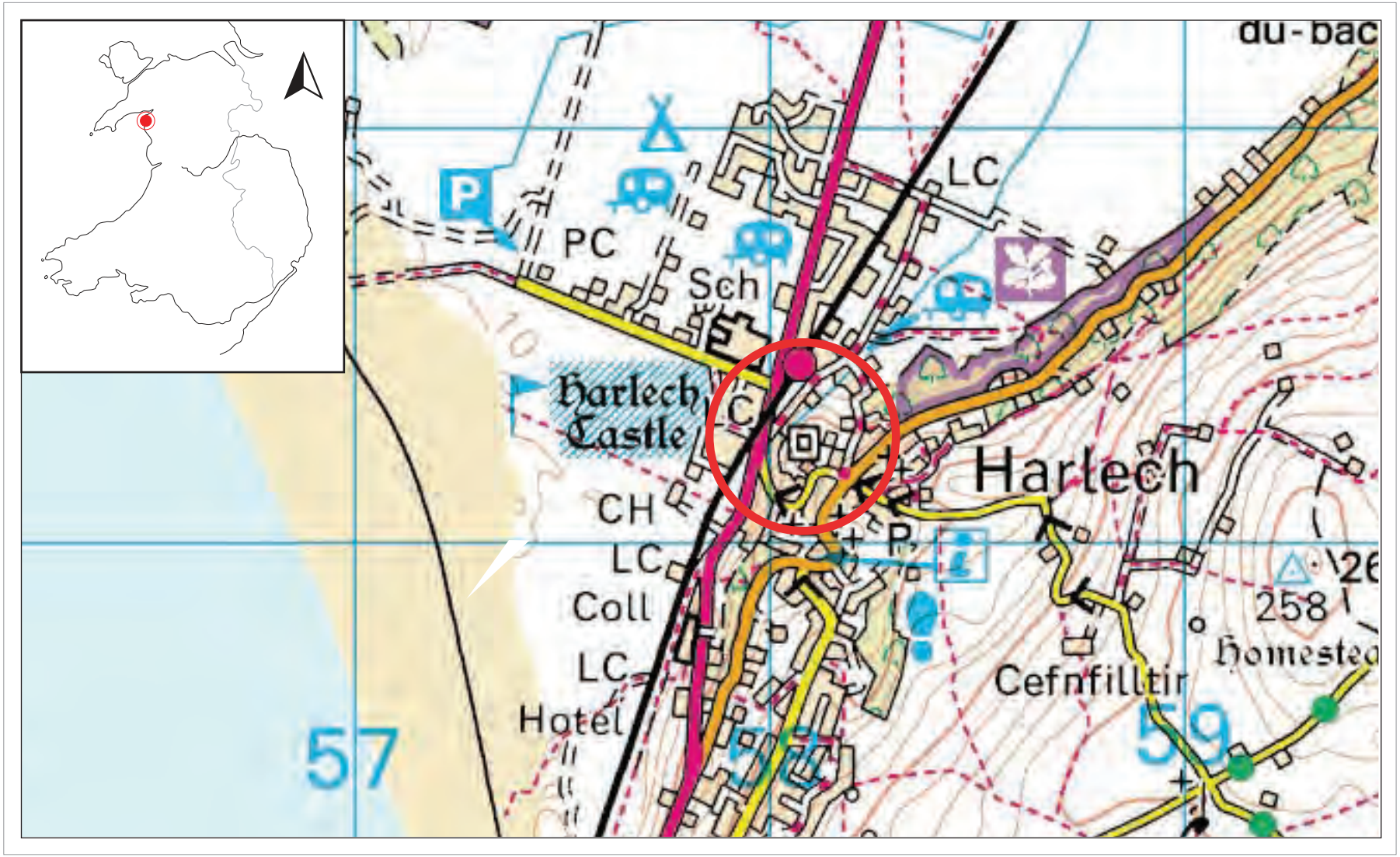

Fig 01: Map showing location of assessment area

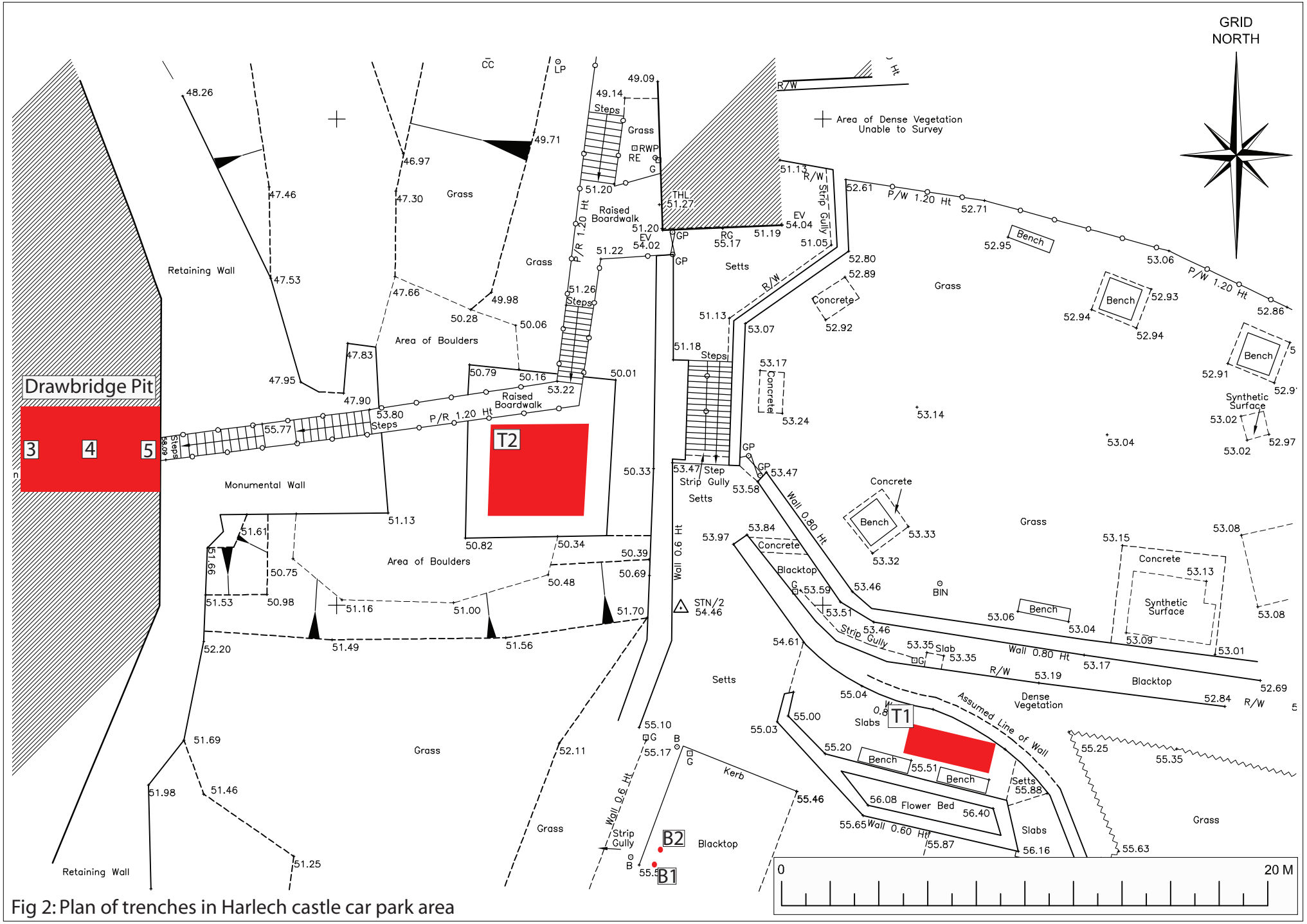

Fig 2: Plan of trenches in Harlech castle car park area

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APPENDIX II:

Plates

Plate 1: View of Trench 1 within Car park seating area
Looking east, Scale 1x1m

Plate 2: View of Trench 1 within Car park seating area
Looking east, Scale 1x1m

Plate 3: View of Trench 2 within base of bridge pier
Scale 1x1m

Plate 4: View of Trench 2 within base of bridge pier
Scale 1x1m

Plate 5: View of lime mortar horizon within trench 3 at base of west wall of drawbridge pit.
Looking west, scale 1x1m

Plate 6: View of trench 4 in middle of drawbridge pit base immediately adjacent to natural rock outcrop. Note lime mortar horizon. Scale 1x1m

Plate 7: View of Trench 5, note area of rough cobbling.
Scale 1x1m

Plate 8: View of west wall of drawbridge pit
Looking west, Scale 1x1m

Plate 9: View of east wall of drawbridge pit
Looking east, Scale 1x1m

Plate 10: Oblique view of south wall of drawbridge pit
Looking south west, Scale 1x1m

Plate 11: Oblique view of south wall of drawbridge pit
Looking south east, Scale 1x1m

Plate 12: Oblique view of north wall of drawbridge pit, looking north east, Scale 1x1m

Plate 13: Oblique view of north wall of drawbridge pit, looking north west, Scale 1x1m

Plate 14: View of base of drawbridge pit

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APPENDIX III:

Borehole Data Logs

E-GEO SOLUTIONS LTD, OAK HOUSE GROES LWYD, ABERGELE
Tel: 01745 828494. Mob: 07899980958

BOREHOLE LOG

SITE: HARLECH CASTLE FOOTBRIDGE
LOCN: HARLECH CASTLE, HARLECH, GWYNEDD
CLIENT: CADW

BOREHOLE No:
BH 1 DRAFT
Sheet 1 of 1

Dates : 16/08/2012
Elev (maOD) : 55.55
Casing dia : 150mm
Engineer : e-geo Solutions Ltd

Project Ref: e0488
Logged By: HLJ

Depth (m)	Sample/ Test	Field Record	Depth (m)	Description	Casing Depth(m)	Water Depth(m)
				Tarmac wearing and base course		
			0.15			
				Made Ground - Medium dense dark brown and dark grey brown silty very sandy gravel with many sub angular cobbles and occassional boulders. Gravel is sub angular fine to coarse of siltstone and sandstone.		
1.20 1.20	SPT N = 9 D	1,1,2,2,2,3				
			1.60			
2.20	SPT N = R	50 blows for 265mm		**Dense to medium dense dark brown and dark grey brown silty slightly clayey very sandy GRAVEL with many sub angular cobbles and many boulders. Gravel cobbles and boulders are sub angular and of siltstone and sandstone. (possible Made Ground)**		
3.00	SPT N = R	50 blows for 100mm			3.00	
3.30	SPT N = R	50 blows for 60mm				
			3.50			
				Base of borehole at 3.50m		

Remarks

E-GEO SOLUTIONS LTD, OAK HOUSE GROES LWYD, ABERGELE
Tel: 01745 828494. Mob: 07899980958

BOREHOLE LOG

SITE: HARLECH CASTLE FOOTBRIDGE
LOCN: HARLECH CASTLE, HARLECH, GWYNEDD
CLIENT: CADW

BOREHOLE No:
BH 2 DRAFT
Sheet 1 of 1

Dates : 16/08/2012
Elev (maOD) : 55.54
Casing dia : 150mm
Engineer : e-geo Solutions Ltd

Project Ref: e0488
Logged By: HLJ

Depth (m)	Sample/ Test	Field Record	Depth (m)	Description	Casing Depth(m)	Water Depth(m)	
				Tarmac wearing and base course			
			0.15	**Made Ground - Dense to medium dense dark brown and dark grey brown silty very sandy gravel with many sub angular cobbles and occassional boulders. Gravel is sub angular fine to coarse of siltstone and sandstone.**			
				large boulder at 1.30m preventing penetration			
			1.50	**Base of borehole at 1.50m**			

Remarks

e-geo solutions Ltd
Oak House, Groes Lwyd, Abergele, LL22 7SU
Tel : 01745 828494 Fax : 01745 828493

Ground strata on inspection pit at BH2

Ground strata on inspection pit at BH2

Excavated ground from inspection pit at BH1

E0488 Harlech Castle Footbridge
Borehole photographs

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APPENDIX IV:

Archive Cover Sheet

ARCHIVE COVER SHEET

Harlech Castle, Harlech, Gwynedd

Site Name:	Harlech Castle
Site Code:	HCG/12/EVA
PRN:	-
NPRN:	-
SAM:	-
Other Ref No:	-
NGR:	NGR SH 58082 31244
Site Type:	Castle
Project Type:	Evaluation
Project Manager:	Chris E Smith
Project Dates:	August 2012
Categories Present:	Modern-Medieval
Location of Original Archive:	AW
Location of duplicate Archives:	-
Number of Finds Boxes:	-
Location of Finds:	-
Museum Reference:	-
Copyright:	AW
Restrictions to access:	None

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Rhos Helyg, Cwm Belan,
Llanidloes, Powys, SY18 6QF
Tel: +44 (0) 1686 440371
Email: admin@arch-wales.co.uk