BEINN THARSUINN TOPSOIL STRIP MONITORING AND STRATHRORY BRIDGE RECORDING

DATA STRUCTURE REPORT

PROJECT 1996

carried out
on behalf of
Scottish Power

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Strathrory Bridge.

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BEINN THARSUINN TOPSOIL STRIP MONITORING AND STRATHRORY BRIDGE RECORDING

DATA STRUCTURE REPORT

PROJECT 1996

by

Sarah Phillips

This document has been prepared in accordance with GUARD standard operating procedures.

Approved by: ……..……..... Date: 20 April 2005
Beverley Ballin-Smith

GUARD

1.0 Executive Summary

In March 2005 Glasgow University Archaeological Research Division (GUARD) was commissioned by Scottish Power to undertake a photographic record of Strathrory Bridge and monitor the topsoil stripping for the construction of an access from the main road for the proposed wind farm at Beinn Tharsuinn, Sutherland. This work was carried out in March 2005 in response to a planning condition imposed by Highland Council for the proposed wind farm.

2.0 Introduction

Glasgow University Archaeological Research Division (GUARD) was commissioned by Scottish Power to undertake the archaeological monitoring of the removal of topsoil for the construction of an access junction on the B9176 for the proposed Beinn Tharsuinn windmill farm. In addition, a photographic record was to be made of the Strathrory Bridge prior to proposed strengthening of the structure. The work was undertaken on 14 March 2005.

3.0 Site Location, Topography and Geology

The wind farm is located on the slopes and summit of Beinn Tharsuinn, Sutherland (general survey area: NGR: NH 6200 8100). The topsoil monitoring of the road junction was located in a flat, banket peat-covered valley, 200 m north of Aultnamainn Inn on the B9176. Strathory Bridge, which crosses the Strathrory River, is located further south on the B9176 at NGR: NH 6603 7756 beside a quarry.

4.0 Archaeological Background

An earlier phase of the project provided a full desk-based assessment, a walk-over survey with an archaeological background for the area (Johnson 2001). In summary, the results of this work concluded that although only a small amount of significant archaeology was identified through the field survey, the post Iron Age development of peat in this area may mask earlier remains. The evidence for prehistoric monuments in the wider area is substantial, including hut circles, field systems, chambered cairns, burnt mounds and brochs. This suggests a considerable activity from the Neolithic through the Bronze and Iron Ages and into the historic periods. In the vicinity of the area a prehistoric carved stone ball was found on the top of Beinn Tharsuinn (see GUARD 1012 Beinn Tharsuinn, Easter Ross unpublished report by Lorna H Johnstone).

5.0 Aims and Objectives

The work had two main aims. The first was to undertake a watching brief by monitoring the topsoil stripping for the wind farm access, and the second was to provide a full photographic record of Strathrory Bridge prior to it being strengthened.

The specific objectives for the watching brief were:

- to strip topsoil/peat from the proposed road junction area in order to expose any archaeological deposits;
- to identify, investigate and fully record any archaeological deposits, features or objects of archaeological significance that will be unavoidable damaged or destroyed by the development.

The specific objectives for the photographic record of the Strathrory Bridge were:

- to provide a full, colour photographic record of the structure, illustrating all the bridges features.
- to produce a scaled ground plan of the bridge indicating locations of where photographs were taken.

6.0 Methodology

6.1 *Archaeological Monitoring of Beinn Tharsuinn Windfarm Access Junction*

The methodology for the watching brief was not applicable as the construction work had already been undertaken prior to the arrival of the archaeologist (see Section 7.0 for Results for details).

6.2 *Photographic Record of Strathrory Bridge*

The photographic record of Strathrory Bridge was undertaken using a digital camera. The bridge was photographed from a variety of viewpoints. Detailed photographs were taken of particular features of the bridge, and scales were used in the photographs when deemed appropriate. All locations where photographs were taken from have been marked onto the architects plan for the bridge provided with this report (Figure 1). An index of the photographs and their locations as well as the photographs themselves is included in Appendix 10.1, below.

7.0 Results

7.1 *Archaeological Monitoring of Beinn Tharsuinn Windfarm Access Junction*

The proposed area of the access junction was approximately 7 m by 10 m. The exact measurements were difficult to ascertain as the site was completely covered in 0.3 m of mud after bad weather over the preceding weekend. Prior to the arrival of the archaeologist on site the peat had already been stripped-off and a large quantity of the subsoil had been removed. In areas where the subsoil had not been removed, the depth of mud made it impossible to determine if any archaeological features remained. Heavy mechanical plant was continuously driving over this area making it unlikely that any surface archaeological remains would have survived.

7.2 *The Photographic Record of Strathrory Bridge*

The Strathrory Bridge is of rubble construction with two segemental arches of unequal size, and triangular cutwaters running north to south across the Strathrory River. The course of the river runs primarily through the north arch, only travelling through the south arch during extreme flooding. At the time of the fieldwork it was possible for detailed photographs to be taken of the inside of the south arch. The inside of the north arch was not photographed due to the river flowing beneath it.

The fabric of the bridge consists of a variety of local stone including quartz and granite. Some of the stone may have come from the river as cobbles, which were split using heat. This may account for the flat-faced stones seen in the photographs (Plate 6 shows a detail of the stonework). Small quartz pebbles in a cement matrix remain in places attached to the face of the stonework. This suggests that the bridge originally was faced, with the facing being later removed or fallen off, to reveal the stonework beneath. Lime mortar was originally used as the bonding material for the stones of the bridge, but later re-pointing used cement. Large red sandstone blocks were used as capping stones along the top of the bridge (Plates 33 and 35). The bridge is not symmetrical as the two arches are not the same size and their construction differs. The Royal Commission on the Ancient and Historical Monuments of Scotland (Canmore database) suggests that the north arch has been rebuilt.

Repairs have been made to both the east and west sides of the bridge. The major repairs occur at the south end of the west side of the bridge on the body and along its top (Plates 10 and 39). The bridge has been repaired using blocks of quartz pebble concrete, grey in colour with cement as a bonding material. These blocks, measuring 0.45 m by 0.2 m by 0.18 m are rectangular and have a groove down either side (Plates 36, 37 and 38).

In the central part of the east side of the bridge some of the sandstone capping stones have been replaced with similar concrete blocks. These blocks have been laid on their sides (Plates 31 and 32).

At the north end of the east side of the bridge there is an Ordnance Survey benchmark (Plates 19, 20 and 21).

The banks north and west of the bridge have been augmented by a stone platform that slopes down towards the river (Plates 40 and 41 and architect's plan).

On the west side of the road running north to south towards the north end of the bridge there is a dry-stone wall (Plates 42 and 43). This substantial wall survives in places but in other areas the stones have been removed. The wall joins the north end of the west side of the bridge (Plate 44).

7.2.1 *The North Arch*

The north arch of the bridge has been constructed with uniform sized and shaped red sandstone blocks, although their length varies. The stones are well fitted and are in a clean condition. It is possible that this arch has been rebuilt. (Plates 7 and 8).

7.2.2 *The South Arch*

The south arch of the bridge is different from the northern arch. Although it is built in a similar manner using regularly shaped sandstone blocks, these blocks are not well fitted or are as neat in their finish or condition. The stonework on the south arch resembles the construction of the main stonework of the bridge. On both the east and west sides of the south arch there are three iron ties evenly placed along the top of the arch (Plates 9 and 22 with details in Plates 11 and 24). These ties are not found on the north arch.

8.0 Conclusions

A photographic record was undertaken to record the Strathrory Bridge prior to it being strengthened. The examination of the stonework revealed that the north arch had been repaired, but the main construction of the bridge was in good condition.

Full archaeological monitoring of the junction to the Beinn Tharsuinn Windfarm could not be undertaken as the ground works were in progress prior to the archaeologist being in place on the site.

9.0 Recommendations

No further recommendations are suggested for the works intended at Strathrory Bridge or for the road junction.

10.0 Acknowledgements

The author would like to acknowledge John Atkinson and Jen Cochrane both of GUARD for their help and advice. I would also like to thank Andy Bailey (Morrison Construction and Co) for providing the architectural plan. The report was edited by Beverley Ballin Smith of GUARD and John Arthur provided Figure 1. The report was prepared and distributed by Jen Cochrane and John Carroll.

11.0 Bibliography

1012 & 1012.2 Johnson, L with additions by O Lelong 2001 *Beinn Tharsuinn Windfarm assessment.* Unpublished GUARD reports.

12.0 Appendices

12.1 *Digital Photographic Record*

Photo	*Subject*	*Taken From*	*Location No*	*Plan*
1	General view of the West side of Strathrory Bridge	NW	1	1
2	General view of the West side of Strathrory Bridge	W	2	1
3	General view of the West side of Strathrory Bridge	SW	3	1
4	North arch, West side of Strathrory Bridge	NNW	4	2
5	North end, West side of Strathrory Bridge	W	4	2
6	Detail of bridge stonework demonstrating evidence of previous facing	W	4	2
7	Detail of inside of the North arch, West side of Strathrory Bridge	NNW	4	2
8	Detail of inside of the North arch, West side of Strathrory Bridge	SSW	5	2
9	South arch, West side of Strathrory Bridge	W	6	1
10	Close-up of South arch, West side of bridge showing later amendments to bridge	SW	7	2
11	Detail of one of the three iron rivets over the South arch, West side of Strathrory Bridge	W	8	2
12	Inside the South arch of Strathrory Bridge	S	9	2
13	Between the two arches on the West side of Strathrory Bridge	W	5	2
14	Detail of centre point of the two arches, West side of Strathrory Bridge	W	5	2
15	General view of the East side of Strathrory Bridge	NNE	10	2
16	General view of the East side of Strathrory Bridge	SSE	11	2
17	North arch, East side of Strathrory Bridge	E	12	2
18	North arch, East side of Strathrory Bridge	SE	13	2
19	North end, East side of Strathrory Bridge	E	14	2
20	Bridge stonework and Ordnance survey bench mark	E	12	2
21	Detail of Ordnance survey bench mark	E	12	2
22	South arch, East side of Strathrory Bridge	E	13	2
23	Inside of South arch, East side of Strathrory Bridge	NNE	15	2
24	Detail of one of the three iron rivets over the South arch, East side of Strathrory Bridge	NNE	15	2
25	Centre of East side of Strathrory Bridge	E	15	2
26	Detail of central point between the two arches on the East side of Strathrory Bridge	E	15	2
27	Top view of Strathrory Bridge	S	16	2
28	Top view of Strathrory Bridge	N	17	2
29	View of East Side of Strathrory Bridge at road level	S	18	2
30	View of East Side of Strathrory Bridge at road level	SSW	18	2
31	Quartz pebble concreted blocks used to repair stone capping for bridge in central part on East side of Strathrory Bridge	W	19	2
32	Blocks viewed from above	S	19	2
33	Original red sandstone capping for East side of Strathrory Bridge	S	18	2
34	View of West Side of Strathrory Bridge at road level	SSE	18	2
35	Sandstone capping at North end, West side of Strathrory Bridge	N	20	2
36	Quartz pebble concreted blocks used to mend South end, West side of Strathrory Bridge	N +above	21	2
37	Quartz pebble concreted blocks used to mend South end, West side of Strathrory Bridge	E	21	2
38	Quartz pebble concreted blocks used to mend South end, West side of Strathrory Bridge	E	22	2
39	Detail of South end of West side of Strathrory Bridge taken from road level	N	22	2

12.1 *Digital Photographic Record* (cont)

Photo	*Subject*	*Taken From*	*Location No*	*Plan*
40	View of stone platforming on North banks of the river, West side of Strathrory Bridge	SE	5	2
41	Detail of stone platform	S	23	2
42	Dry stone wall leading up to Strathrory Bridge at the North end on the West side	NNW	24	1
43	Detail of dry stone walling	W	25	2
44	Join between dry stone wall and the North end, West side of Strathrory Bridge	NNW	26	2
45	View looking East from the top of the Strathrory Bridge	W	18	2
46	View looking West form the top of Strathrory Bridge	E	27	2

12.2 *DES*

LOCAL AUTHORITY:	Highland Council, Sutherland
PROJECT TITLE/SITE NAME:	Beinn Tharsuinn
PROJECT CODE:	1996
PARISH:	Kilmuir Easter, Edderton
NAME OF CONTRIBUTOR(S):	Sarah Phillips
NAME OF ORGANISATION:	GUARD
TYPE(S) OF PROJECT:	Photographic recording and topsoil strip
NMRS NO(S):	Strathrory Bridge NH67NE 14
SITE/MONUMENT TYPE(S):	Bridge
SIGNIFICANT FINDS:	N/A
NGR (2 letters, 6 figures)	NH 6603 7756 (bridge), NH 6200 8100 (topsoil strip area centred)
START DATE (this season)	14 March 2005
END DATE (this season)	14 March 2005
PREVIOUS WORK (incl. *DES* ref.)	Johnson, L with additions by O. Lelong 2001 *Beinn Tharsuinn Windfarm assessment*. Unpublished GUARD report 1012 & 1012.2.
MAIN (NARRATIVE) DESCRIPTION: (May include information from other fields)	An earlier phase of the project provided a full desk-based assessment, walk-over survey and archaeological background for the area (Johnson 2001). During the current work a photographic record was made of Strathrory Bridge. The topsoil stripping had been undertaken by the contractor prior to the archaeological presence on the site. The site was not monitored although the area was evaluated.
PROPOSED FUTURE WORK:	Watching brief for further topsoil stripping
SPONSOR OR FUNDING BODY:	Scottish Power
ADDRESS OF MAIN CONTRIBUTOR:	Gregory Building, Lilybank Gardens, University of Glasgow, Glasgow, G12 8QQ
EMAIL ADDRESS:	bbs@archaeology.gla.ac.uk
ARCHIVE LOCATION (intended/deposited)	Archive to be deposited in NMRS. Report lodged with Highland Council SMR and NMRS.

12.3 *Photographs*

See following pages.

Plate 1

Plate 2

Plate 3

Plate 4

Plate 5

Plate 6

Plate 7

Plate 8

Plate 9

Plate 10

Plate 11

Plate 12

Plate 15

Plate 16

Plate 17

Plate18

Plate 19

Plate 20

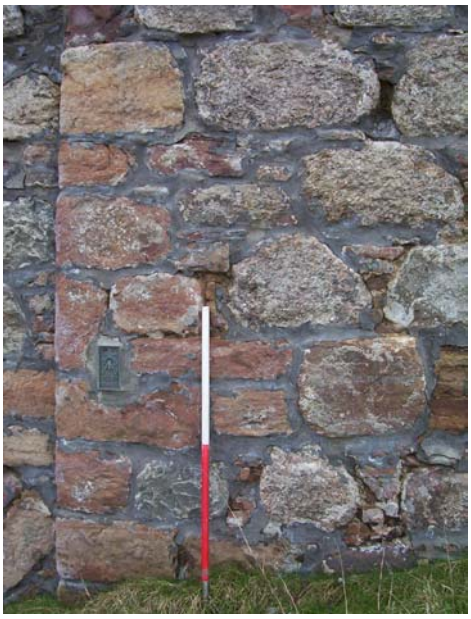

Plate 21

Plate 22

Plate 23

Plate 24

Plate 25

Plate 26

Plate 27

Plate 28

Plate 29

Plate 30

Plate 31

Plate 32

Plate 33

Plate 34

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Plate 37

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Plate 39

Plate 40

Plate 41

Plate 42

Plate 43

Plate 44

Plate 45

Plate 46

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