

Inverclyde Met. Mast: Archaeological Monitoring

Data Structure Report



by Alan Matthews
issued 17th December 2013
on behalf of 2020 Renewables

RATHMELL 
ARCHAEOLOGY LTD

Quality Assurance

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Signed

Date ...17th December 2013.....

In keeping with the procedure of Rathmell Archaeology Limited this document and its findings have been reviewed and agreed by an appropriate colleague:



Checked

Date ...17th December 2013.....

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Introduction

1. This Data Structure Report has been prepared for 2020 Renewable in support of the erection of a meteorological mast on Corlic Hill, Greenock. The archaeological works were designed to mitigate any adverse impact on the archaeological remains within the development area. The location of the mast is in proximity to several known archaeological sites including two scheduled monuments, protected under the terms of Ancient Monuments and Archaeological Areas Act 1979:
 - Lurg Moor, Roman Fortlet and Roman Road (No. 1653)
 - Lurg Moor, Hut Circle 1180m SW of Knockmairshill (No. 12800)
2. The erection of the mast and the route of the access road have been designed so that they do not impact on known archaeological sites. Rathmell Archaeology has been appointed by 2020 Renewables to undertake the implementation of archaeological mitigation works in compliance with a Method Statement provided by 2020 Renewables and prepared by CFA Archaeology Ltd (Mudie 2013).
3. The Data Structure Report is designed to meet the requirement of 2020 Renewables and Inverclyde Council. Inverclyde Council have acted in consultation with Historic Scotland to place a condition on planning consent for the erection of the meteorological mast (met. mast) on Corlic Hill.

Archaeological and Historical Background

4. Several archaeological sites exist in proximity to Corlic Hill. These have been reviewed in work previously carried out by CFA Archaeology Ltd in support of the initial planning application. The location of the mast and the proposed access route from the B788 to the SE is based on this work. The following archaeological and historical background of the area is a summary review of the information contained in the National Monuments Record of Scotland (NMRS).
5. Approximately 900m to the north of the proposed site of the met. mast is a roman fortlet (Canmore ID: 41342) and connected roman road (Canmore ID: 71827). The Roman fortlet on Lurg Moor, which was probably built in the mid-2nd century AD was first observed on a National Survey air photograph in 1952. It measures 52.0m E-W by 44.0, transversely, and has a broad, heather-covered rampart about 10.0m wide. This rampart is best preserved on the E side where it has an internal height of 0.8m and an external height of 1.6m. Here the rock-cut outer ditch is also well-preserved, the scarp being 0.8m high. The road traversed the shoulder of a ridge and was built on a narrow terrace which had been cut into a layer of clay. It extends south from the fortlet.
6. Lug Moor Hut Circle (Canmore ID: 41334) is a round house measuring about 10m in diameter over 1m wide foundations of boulder-faced rubble, and has a 1m wide entrance on the east. Projected from the S is a rectangular foundation 2m wide. The Lug Moor Hut Circle, the roman fortlet and the roman road are all scheduled monuments protected under the terms of Ancient Monuments and Archaeological Areas Act 1979.
7. Several other sites are known to exist in proximity to the proposed works including; a possible bomb crater (Canmore ID: 41374), a further extension of the roman road to the west (Canmore ID: 41372) and a hut circle to the south-west (Canmore ID: 332051). In addition a group of two hut circles (Canmore IDs: 332040, 41375), a mound (Canmore ID: 42449) and an enclosure (Canmore ID: 41340) exist to the south-east. It is this latter group of features which was closest to the proposed access route from the mast location to the B788.



Figure 1: View SE from mast location to B788



Figure 2: Laying out the Anchor Points

Project Works

8. Archaeological monitoring works took place on the 10th, 11th and the 16th of December 2013. On the 10th the access route (Figure 1) from the B788 was reviewed along with the proposed location of the mast. Representatives of 2020 Renewables, Chillwind Ltd and Rathmell Archaeology Ltd were present. Due to a discrepancy in the proposed location no further work was carried out on the 10th December and therefore no further archaeological monitoring was required. The location of the mast had been agreed by start of work on 11th December.

Findings

9. Archaeological work began on the 11th December with walking the access route from the B788 to the agreed location of the mast ahead of plant and equipment in order to mitigate the impact on previously unknown archaeological sites. No new sites were discovered in the course of this work and all known sites which had been flagged in the work carried out by CFA Archaeology Ltd were avoided. The route was agreed to be compatible with the requirement of Chillwind Ltd.
10. Excavation for the erection of the 70m met. mast included the placement of eight anchor holes at 20m spacing (Figure 2), two along each direction (Table 1). Excavation was carried out using a 20t 360 excavator. The intention was to excavate each of these points to a depth of 2m to place the base for the anchor cable. In practise several of these pits uncovered *in situ* bedrock within the first meter of excavation and so it was necessary to peck away the bedrock or in some cases drill and set the anchor point into the rock. Archaeological monitoring stopped when the excavations hit *in situ* bedrock.

Anchor Point	(NS) Easting	Northing
A1	29570	72867
A2	29584	72878
A3	29540	72863
A4	29525	72877
A5	29545	72836
A6	29534	72817
A7	29574	72833
A8	29568	72822

Table 1: Location of Anchor Points

11. The top layer of sediment was always grass and heather on very humic peat topsoil (001). The depth of the topsoil varied from 300mm to 500mm and was shallowest in areas where the bedrock (003) was close to the surface (Figure 3). Anchor points A1, A2, A3, A4, A6 and A7 reached *in situ* bedrock which had to be pecked away or drilled to provide an anchor. An anchor point A5 and A8 also reached *in situ* bedrock but at a much deeper level and it was sufficiently fractured that it could be pulled away by the machine bucket. The deeper excavations also hit sandy silt subsoil, (002) and (004), which varied slightly in colour (Figure 4).
12. A small vegetation scrape extended approximately 15m out from the location of the mast towards A5 to provide clear access for the lift anchor. This excavation was to depth of no more than 200mm and always within the topsoil (001).



Figure 3: A1 excavated to bedrock



Figure 4: A5 excavated to 2m depth



Figure 5: Drainage from A1 and A7



Figure 6: Drainage from A4

13. Archaeological monitoring work continued briefly on 16th December because it became necessary to excavate two ditches to drain water which had accumulated in the anchor holes. A1 and A7 were drained by a single ditch approximately 30m long by 1m wide by 500mm deep (Figure 5). This ditch extended roughly south-west from A1 through A7. Another small ditch was excavated east for about 3m from A4 (Figure 6). Both of these drainage ditches were excavated within topsoil and peat (001). No archaeological material was uncovered during these excavations.
14. No anthropic material was uncovered during the archaeological work and no structural remains were uncovered. Archaeological monitoring work stopped as no further soft sediment excavation was planned in the course of the work.

Discussion

15. The access route between the location of the mast and the B788 was as far as possible the same as the mapped route which was based on the work carried out by CFA Archaeology Ltd and designed to avoid known archaeological sites in the area. Slight variations in the route were agreed to avoid landscape features which may have been hazardous to plant or equipment. No previously unknown archaeology was observed while walking this route.
16. During monitoring of excavations for the anchor points no anthropic material was uncovered and no structural remains were encountered. All excavations encountered *in situ* bedrock and so we can be certain that no archaeological material exists within the footprint of each excavation. Similarly the vegetation scrape and the excavation for drainage did not encounter archaeological material but did not go deep enough to reach archaeologically sterile natural soil.

Recommendations

17. No significant archaeological deposits were uncovered and no anthropic material was recovered. As all soft sediment excavation works relating to this erection of this met. mast have been completed. Rathmell Archaeology Ltd therefore recommend that no further archaeological monitoring works are required on site in relation to this development.
18. The appropriateness and acceptability of our recommendations rest with and Inverclyde Council.

Conclusion

19. A programme of archaeological monitoring was carried out in support of the erection of a meteorological mast on Corlic Hill, Greenock. The archaeological works were designed to mitigate any adverse impact on the archaeological remains within their development area. The location of the mast is in proximity to several known archaeological sites including two scheduled monuments; Lurg Moor Roman Fortlet and Lurg Moor Hut Circle. The work was carried out by Rathmell Archaeology Ltd on behalf of 2020 Renewables. The works were designed to mitigate the impact on the archaeological remains within their development area and took place on the 10th and 11th of December 2013.
20. No archaeologically significant deposits were uncovered during the course of this work and no anthropic material was recovered. As no further soft sediment excavation was planned Rathmell Archaeology Ltd recommends that no further archaeological work is required with regards to this development.

References

Mudie, G., 2013, Response Statement on Cultural Heritage matters in respect of Historic Scotland Letter dated 3rd June 2013 and Method Statement. CFA Archaeology Ltd.

Appendix 1: Registers

Within this appendix are all registers pertaining to works on-site during the archaeological mitigation.

Photographic Register

Image No.	Digital	Description	From	Date
1	165	From mast site back to road	NW	11/12/2013
2	166	From mast site back to road	NW	11/12/2013
3	167	Mast site	SW	11/12/2013
4	168	Mast site	SW	11/12/2013
5	169	Laying out mast anchors	NE	11/12/2013
6	170	Laying out mast anchors	NE	11/12/2013
7	171	Laying out mast anchors	NE	11/12/2013
8	172	Laying out mast anchors	NE	11/12/2013
9	173	Laying out mast anchors	NE	11/12/2013
10	174	Laying out mast anchors	NE	11/12/2013
11	175	Laying out mast anchors	NE	11/12/2013
12	176	Laying out mast anchors	NE	11/12/2013
13	177	Laying out mast anchors	NE	11/12/2013
14	178	Laying out mast anchors	NE	11/12/2013
15	179	Laying out mast anchors	E	11/12/2013
16	180	Laying out mast anchors	E	11/12/2013
17	181	A1	S	11/12/2013
18	182	A1	S	11/12/2013
19	183	A1	S	11/12/2013
20	184	A1	S	11/12/2013
21	185	A2	S	11/12/2013
22	186	A2	S	11/12/2013
23	187	A3	W	11/12/2013
24	188	A3	W	11/12/2013
25	189	A3	W	11/12/2013
26	190	A3	W	11/12/2013
27	191	A4	W	11/12/2013
28	192	A4	W	11/12/2013
29	193	A5	S	11/12/2013
30	194	A5	S	11/12/2013
31	195	A5	S	11/12/2013

Image No.	Digital	Description	From	Date
32	196	A5	S	11/12/2013
33	197	A5	S	11/12/2013
34	198	A5	S	11/12/2013
35	199	A6	S	11/12/2013
36	200	A6	S	11/12/2013
37	201	A7	W	11/12/2013
38	202	A7	W	11/12/2013
39	203	A8 backfilled	N	11/12/2013
40	204	A8 backfilled	N	11/12/2013
41	205	Veg scrape centre	E	11/12/2013
42	206	Veg scrape centre	E	11/12/2013
43	207	Veg scrape centre	E	11/12/2013
44	208	Veg scrape centre	E	11/12/2013
45	209	Mast before raising	S	16/12/2013
46	210	Mast before raising	S	16/12/2013
47	211	Drain from A1	NW	16/12/2013
48	212	Drain from A1	NW	16/12/2013
49	213	Drain from A1	NW	16/12/2013
50	214	Drain from A1	NW	16/12/2013
51	215	Drain from A1	SW	16/12/2013
52	216	Drain from A1	SW	16/12/2013
53	217	Drain from A1 and A7	SW	16/12/2013
54	218	Drain from A1 and A7	SW	16/12/2013
55	219	Drain from A4	W	16/12/2013
56	220	Drain from A4	W	16/12/2013
57	221	Raising the gin pole	SW	16/12/2013
58	222	Raising the gin pole	SW	16/12/2013
59	223	Raising the gin pole	SW	16/12/2013
60	224	Raising the gin pole	SW	16/12/2013
61	225	Raising the gin pole	SW	16/12/2013
62	226	Raising the gin pole	SW	16/12/2013

Context Register

Context No.	Area/ Trench	Type	Description	Interpretation
001	Mast location	Deposit	Very humic peat with a surface of heather and grass.	Turf and peat.
002	Mast location	Deposit	Orange brown silty sand. With frequent small rounded stones	Subsoil
003	Mast location	Deposit	Rock with some shatted rock on surface	In situ bedrock
004	Mast location	Deposit	Dark grey silty sand with frequent small and mid sized angular stones.	Subsoil

Appendix 2: Discovery & Excavation in Scotland

LOCAL AUTHORITY:	Inverclyde
PROJECT TITLE/SITE NAME:	Inverclyde Met. Mast
PROJECT CODE:	RA13077
PARISH:	Kilmacolm
NAME OF CONTRIBUTOR:	Alan Matthews
NAME OF ORGANISATION:	Rathmell Archaeology Limited
TYPE(S) OF PROJECT:	Monitoring
NMRS NO(S):	
SITE/MONUMENT TYPE(S):	
SIGNIFICANT FINDS:	None
NGR (2 letters, 8 or 10 figures)	NS 29557 72850
START DATE (this season)	10 th December 2013
END DATE (this season)	11 th December 2013
PREVIOUS WORK (incl. <i>DES</i> ref.)	None
MAIN (NARRATIVE) DESCRIPTION: (may include information from other fields)	Eight pits were excavated to place anchor points for the meteorological mast. No archaeologically significant deposits were uncovered during the course of this work and no anthropic material was recovered.
PROPOSED FUTURE WORK:	None
CAPTION(S) FOR ILLUSTRS:	None
SPONSOR OR FUNDING BODY:	2020 Renewables
ADDRESS OF MAIN CONTRIBUTOR:	Unit 8 Ashgrove Workshops, Kilwinning, Ayrshire KA13 6PU
E MAIL ADDRESS:	contact@rathmell-arch.co.uk
ARCHIVE LOCATION (intended/deposited)	Report to Inverclyde Council and archive to RCAHMS Collections.

Contact Details

21. Rathmell Archaeology can be contacted at our Registered Office or through the web:

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22. The Inverclyde Council Planning can be contacted at their office:

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