

Document Reference	Appendix No.	Title
4.01.9c	9.3	
		Archaeological Evaluation Trenching Part 4



Plate 83. S-facing shot of Trench 46



Plate 84. W-facing section of ditch [4603]



Plate 85. NW-facing shot of Trench 47



Plate 86. S-facing shot of Trench 50



Plate 87. NE-facing shot of Trench 48



Plate 88. NW-facing representative section of Trench 48 and ditch [4803]



Plate 89. N-facing shot of Trench 52



Plate 90. NE-facing section of linear [52003]

Appendix I: Context Inventory

Trench Number	Context Number	Context Type	Description
1	1000	Topsoil	Mid grey brown, silty clay
1	1001	Subsoil	Mid yellow brown, silty clay
1	1002	Natural	Mid brownish yellow clay and limestone bedrock
1	1003	Cut	Cut of pit
1	1004	Fill	Fill of [1003], mid white grey, sandy silt
1	1005	Fill	Fill of [1003], dark greyish black silty clay with charcoal
1	1006	Fill	Fill of [1003], mid brownish red sandy silt
1	1007	Cut	Cut of possible ditch
1	1008	Fill	Fill of [1007], mid brown orange sandy clay
2	2000	Topsoil	Mid yellowish brown silty clay
2	2001	Natural	Mid grey brown clay silt
2	2002	Structure	Land drain
2	2003	Cut	Cut of ditch
2	2004	Fill	Fill of [2003], dark grey brown silty clay
2	2005	Cut	Cut of ditch
2	2006	Fill	Upper fill of [2005], mid orange brown, silty clay
2	2007	Fill	Lower fill of [2003], mid grey brown with orange hue, silty clay
3	3000	Topsoil	Greyish brown clay silt
3	3001	Subsoil	Mid brownish grey silty clay
3	3002	Natural	Light brownish-yellow silty clay
3	3003	Cut	Cut of land drain
3	3004	Fill	Fill of land drain [3003]
3	3005	Structure	Modern land drain
3	3006	Structure	Stone lined drain, fill of [3003]
4	4000	Topsoil	Mid grey brown, clay silt
4	4001	Natural	Mid orange brown, clay silt
4	4002	Cut	Cut of curvilinear
4	4003	Fill	Fill of [4002], dark brownish grey silty clay
5	5000	Topsoil	Mid grey brown, clay silt
5	5001	Natural	Light yellow brown silty clay and bedrock
6	6000	Topsoil	Mid greyish brown clay silt
6	6001	Subsoil	Mid orange brown silty clay
6	6002	Natural	Mid orange/yellow brown silty clay and bedrock
7	7000	Topsoil	Mid greyish brown silty loam
7	7001	Natural	Light yellowish brown silty clay and bedrock
7	7002	Cut	Cut of pit
7	7003	Fill	Fill of [7002], mid orange brown with grey mottling, silty clay
7	7004	Fill	Fill of [7002], light brown grey silty with gravels
7	7005	Structure	Modern land drain
8	8000	Topsoil	Mid grey brown clay silt
8	8001	Natural	Mid orange brown silty clay

8	8002	Structure	Modern land drain
9	9000	Topsoil	Dark blackish brown, clay silt
9	9001	Natural	Mid orange brown silty clay
9	9002	Structure	Modern land drain
9	9003	Structure	Modern land drain
9	9004	Structure	Modern land drain
10	10000	Topsoil	Mid grey brown clay silt
10	10001	Natural	Light yellowish brown silty clay and bedrock
10	10002	Structure	Modern land drain
10	10003	Cut	Cut of ditch
10	10004	Fill	Fill of [10003], mid yellowish brown clay silt
11	11000	Topsoil	Dark brownish grey clay silt
11	11001	Subsoil	Dark greyish brown silty clay
11	11002	Natural	Mid yellowish brown clay and limestone bedrock
11	11003	Cut	Cut of ditch
11	11004	Fill	Upper fill of [11003], mid greyish brown silty clay
11	11005	Cut	Cut of ditch
11	11006	Fill	Fill of [11006], light greyish brown silty clay
11	11007	Fill	Lower fill of [11003], mid greyish brown silty clay
11	11009	Cut	Cut of linear
11	11010	Fill	Fill of [11009], greyish brown silty clay
11	11011	Fill	Fill of [11009], yellowish brown clay
11	11012	Cut	Cut of ditch
11	11013	Fill	Fill of [11012], mid yellow brown, Silty clay
11	11015	Structure	Modern land drain
11	11016	Structure	Modern land drain
12	12000	Topsoil	Mid brownish grey
12	12001	Natural	Orange brown silty clay with brown grey mottling
12	12002	Subsoil	Mid greyish brown silty clay
12	12003	Cut	Cut of ditch
12	12004	Fill	Fill of [12003], mid orange brown clay silt
13	13000	Topsoil	Mid greyish brown silty clay
13	13001	Subsoil	Mid brownish yellow silty clay
13	13002	Natural	Light greyish yellow clay with orange brown mottling
13	13003	Cut	Cut of gully
13	13004	Fill	Mid greyish brown silty clay
13	13005	Cut	Cut of gully
13	13006	Fill	Mid greyish brown silty clay
13	13007	Structure	Modern land drain
14	14000	Topsoil	Light greyish yellow silty clay
14	14001	Subsoil	Mid brownish grey clay silt
14	14002	Natural	Light greyish yellow silty clay
14	14003	Cut	Cut of ditch
14	14004	Fill	Fill of [14003], mid yellowish grey silty clay
14	14005	Cut	Cut of ditch
14	14006	Fill	Fill of [14005], mid yellowish brown, silty clay

15	15000	Topsoil	Mid greyish brown clay silt
15	15001	Subsoil	Mid brownish grey clay silt
15	15002	Natural	Mid yellowish brown silty clay with occasional limestone bedrock
15	15003	Cut	Cut of ditch
15	15004	Fill	Fill of [15003], light greyish brown silty clay
16	16000	Topsoil	Mid greyish brown clay silt
16	16001	Natural	Mid yellowish brown silty clay with grey mottling
17	17000	Topsoil	Mid greyish brown silty clay loam
17	17001	Natural	Light greyish yellow silty clay
17	17002	Structure	Modern land drain
18	18000	Topsoil	Mid greyish brown clay silt
18	18001	Natural	Mid yellowish brown silty clay with occasional limestone bedrock
18	18002	Cut	Cut of ditch
18	18003	Fill	Fill of [18002], dark greyish brown silty clay
19	19000	Topsoil	Dark greyish brown silty clay
19	19001	Subsoil	Mid greyish brown silty clay
19	19002	Natural	Mid greyish brown clay
19	19003	Structure	Modern land drain
20	20000	Topsoil	Mid greyish brown silty clay
20	20001	Subsoil	Mid yellowish brown silty clay
20	20002	Natural	Light brownish yellow silty clay
21	21000	Topsoil	Greyish brown silty clay.
21	21001	Natural	Yellowish-brown clay with darker grey clays bands and outcrops of limestone bedrock.
21	21002	Cut	Circular, steep sided cut for cremation burial pit .
21	21003	Fill	Firm dark grey clay with charcoal and burnt bone inclusions.
21	21004	Fill	Fill and contents of cremation urn. Comprises burnt bone, ash and charcoal.
21	21005	Urn (Pottery)	Cremation urn. Unglazed dark grey fabric, turning to mid orange-red towards top of vessel with herringbone incised decoration towards rim.
21	21006	Structure	Modern land drain.
21	21007	Structure	Modern land drain.
21	21008	Cut	Cut of ditch
21	21009	Fill	Fill of [21008], mid yellowish brown silty clay.
21	21010	Structure	Modern land drain.
21	21011	Cut	Cut of sub oval feature, probable tree bole.
21	21012	Fill	Upper fill of [21011], mid brownish orange silty clay.
21	21013	Fill	Lower fill of [21011], mid brownish yellow silty clay.
21	21014	Structure	Modern land drain.
21	21015	Cut	Cut of circular pit
21	21016	Fill	Fill of [21015], mid to light brownish yellow silty clay
22	22000	Topsoil	Dark greyish brown silty clay
22	22001	Subsoil	Mid greyish brown silty clay
22	22003	Natural	Mid yellowish brown clay

23	23000	Topsoil	Mis greyish brown silty clay
23	23001	Subsoil	Mid brownish grey silty clay
23	23002	Natural	Light yellowish brown clay
24	24000	Topsoil	Mid greyish brown clay silt
24	24001	Natural	Light yellowish grey sandy clay
24	24002	Cut	Cut of plough scar
24	24003	Fill	Fill of [24002], mid greyish brown clay silt
24	24004	Cut	Cut of plough scar
24	24005	Fill	Fill of [24004], mid greyish brown clay silt
24	24006	Cut	Cut of plough scar
24	24007	Fill	Fill of [24006], mid greyish brown clay silt
24	24008	Cut	Cut of plough scar
24	24009	Fill	Fill of [24008], mid greyish brown clay silt
24	24010	Subsoil	Mid brownish grey clay silt
24	24011	Cut	Cut of land drain
24	24012	Fill	Fill of land drain
24	24013	Deposit	Layer of light greyish brown silty clay
24	24014	Deposit	Layer of redeposited natural, light greyish brown silty clay
25	25000	Topsoil	Mid greyish brown clay silt
25	25001	Natural	Light greyish yellow silty clay
25	25002	Cut	Cut of plough scar
25	25003	Fill	Fill of [25002], mid orange brown clay silt
25	25004	Cut	Cut of plough scar
25	25005	Fill	Fill of [25004], mid orange brown clay silt
25	25006	Cut	Cut of plough scar
25	25007	Fill	Fill of [25006], mid orange brown clay silt
25	25008	Deposit	Layer of dark blackish grey silty clay
25	25009	Deposit	Layer of mid greyish brown clay
25	25010	Deposit	Layer of light yellowish brown silty clay
25	25011	Cut	Cut of ditch
25	25012	Deposit	Layer of mid greyish brown silty clay
25	25015	Fill	Fill of [25011], mid orange-yellow silty clay
25	25016	Structure	Stone slab drain
25	25017	Deposit	Layer of mid greyish brown silty clay
26	2600	Topsoil	Dark greyish brown clay loam
26	2601	Subsoil	Mid greyish brown clay silt
26	2602	Natural	Light greyish brown clay
26	2603	Deposit	Layer of dark blackish brown silty clay
27	2700	Topsoil	Mid greyish brown silt
27	2701	Subsoil	Mid yellowish grey clay silt
27	2702	Natural	Light yellowish brown silty clay
27	2703	Cut	Cut of modern linear
27	2704	Fill	Fill of [2703], dark brownish black/mid brownish orange, coal dust/sandy clay
28	2800	Topsoil	Mid greyish brown clay loam
28	2801	Subsoil	Mid greyish brown clay silt

28	2802	Natural	Light greyish brown clay
28	2803	Cut	Cut of furrow
28	2804	Fill	Fill of [2803], mid brownish grey silty clay
29	2900	Topsoil	Light greyish brown silty loam
29	2901	Subsoil	Dark yellowish brown silty clay
29	2902	Natural	Mid yellowish brown silty clay
30	30000	Topsoil	Dark greyish brown clay silt
30	30001	Subsoil	Mid brownish grey silty clay
30	30002	Natural	Mid yellowish brown clay with grey mottling
30	30003	Cut	Cut of ditch
30	30004	Fill	Fill of [30003], mid yellowish brown clay
31	31000	Topsoil	Mid greyish brown clay loam
31	31001	Subsoil	Mid brownish grey clay silt
31	31002	Natural	Light greyish brown clay
32	3201	Topsoil	Mid greyish brown clay loam
32	3202	Subsoil	Mid brownish grey clay
32	3203	Natural	Light yellowish brown clay
32	3204	Cut	Cut of plough scar
32	3205	Fill	Fill of [3204], mid yellowish brown clay
32	3206	Cut	Cut of gully
32	3207	Fill	Fill of [3206], mid brownish grey sandy clay
32	3208	Cut	Cut of posthole
32	3209	Fill	Fill of [3208], dark brownish grey sandy clay
33	3300	Topsoil	Dark greyish brown silty loam
33	3301	Subsoil	Mid yellowish brown silty clay
33	3302	Natural	Mid brownish yellow and mid bluish grey clay
34	3400	Topsoil	Mid greyish brown clay loam
34	3401	Subsoil	Mid brownish grey silty clay
34	3402	Natural	Light greyish brown silty clay
34	3403	Cut	Cut of gully
34	3404	Fill	Fill of [3403], mid greyish brown silty clay
35	3500	Topsoil	Mid greyish brown silty clay
35	3501	Subsoil	Dark greyish brown silty clay
35	3502	Natural	Mid yellowish grey clay
35	3503	Cut	Cut of ditch
35	3504	Fill	Fill of [3503], mid brownish grey sandy clay
36	3600	Topsoil	Mid brownish grey silty clay
36	3601	Subsoil	Mid greyish brown silty clay
36	3602	Natural	Mid brown yellow clay and limestone bedrock
36	3603	Cut	Cut of ditch
36	3604	Fill	Fill of [3603], mid yellow brown silty clay
37	3700	Topsoil	Mid greyish brown silty clay
37	3701	Subsoil	Dark greyish brown silty clay
37	3702	Natural	Mid greyish yellow clay with dark grey mottling
37	3703	Fill	Fill of [3704], dark greyish black silty clay
37	3704	Cut	Cut of gully

37	3705	Fill	Fill of [3704], dark greyish black silty clay
37	3706	Fill	Fill of [3704], mid brownish grey silty clay
37	3707	Cut	Cut of posthole
37	3708	Fill	Fill of [3707], mid greyish brown silty clay
37	3709	Cut	Cut of land drain
37	3710	Fill	Fill of [3709], dark brownish grey silty clay
37	3711	Cut	Cut of land drain
37	3712	Fill	Fill of [3711], mid brownish grey silty clay
38	3800	Topsoil	Mid greyish brown silty loam
38	3801	Subsoil	Mid greyish brown silty clay
38	3802	Natural	Dark greyish brown silty clay
39	3900	Topsoil	Mid greyish brown silty clay
39	3901	Subsoil	Mid greyish brown silty clay
39	3902	Natural	Mid yellowish brown clay
39	3903	Cut	Cut of furrow
39	3904	Fill	Fill of [3903], mid greyish brown with brown orange mottling silty clay
40	40000	Topsoil	Mid reddish brown silty clay
40	40001	Subsoil	Mid yellowish brown clay silt
40	40002	Natural	Light yellowish brown clay silt with grey mottling and manganese.
41	4100	Topsoil	Light brown grey, Silty loam
41	4101	Subsoil	Mid brownish grey silty loam
41	4102	Natural	Mid brownish yellow and blue grey clay
42	4200	Topsoil	Light greyish brown silty loam
42	4201	Subsoil	Mid greyish brown silty loam
42	4202	Natural	Light yellowish brown clay
43	4300	Topsoil	Mid reddish brown silty clay loam
43	4301	Subsoil	Dark yellowish brown and mid blue grey clay
43	4302	Natural	Mid yellowish brown clay
44	4400	Topsoil	Mid reddish brown silty clay
44	4401	Deposit	Ploughsoil, mid greyish brown silty loam
44	4402	Subsoil	Mid yellowish brown silty clay
44	4403	Natural	Mid yellowish brown and blue grey clay
45	4500	Topsoil	Light greyish brown silty clay loam
45	4501	Subsoil	Mid greyish brown silty clay
45	4502	Natural	Mid yellow brown clay
45	4503	Cut	Cut of ditch
45	4504	Fill	Fill of [4503], dark greyish brown silty clay
46	4600	Topsoil	Mid greyish brown clay loam
46	4601	Subsoil	Mid yellowish brown clay loam
46	4602	Natural	Mid yellowish grey sandy clay
46	4603	Cut	Cut of ditch
46	4604	Fill	Upper fill of [4603], mid greyish brown silty clay
46	4605	Fill	Lower fill of [4603], mid brownish grey clay
47	4700	Topsoil	Mid greyish brown clay silt
47	4701	Natural	Light bluish grey silty clay

47	4702	Structure	Modern land drain
48	4800	Topsoil	Mid brownish grey silty clay
48	4801	Subsoil	Mid greyish brown silty clay
48	4802	Natural	Mid brownish yellow clay
48	4803	Cut	Cut of ditch
48	4804	Fill	Fill of [4803], dark brownish grey silty clay
49	4900	Topsoil	Mid brownish grey silty clay
49	4901	Subsoil	Mid greyish brown silty clay
49	4902	Natural	Mid brownish yellow and grey clay
50	5000	Topsoil	Mid greyish brown clay silt
50	5001	Natural	Mid bluish grey silty clay with yellow mottling
51	5100	Topsoil	Mid greyish brown clay silt
51	5101	Natural	Mid bluish grey silty clay with orange mottling
51	5102	Structure	Modern service cable
52	52000	Topsoil	Mid greyish brown clay silt
52	52001	Natural	Dark yellowish brown silty clay
52	52002	Structure	Modern land drain
52	52003	Cut	Cut of linear feature, possible drain
52	52004	Fill	Fill of [52003], mid brownish grey clay silt

Appendix II: Written Scheme of Investigation

**Written Scheme of Investigation for an
Archaeological Field Evaluation
at
Land at Pancross, Redland and Oaklands Farm, near Bonvilston, Vale of
Glamorgan**

Prepared for:
Sirius Planning

Project No: 2798

March 2022



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Figure 1. Site location

Figure 2. Trench Plan

Figure 3. Trench Plan Overlaying Results from Geophysical Survey

Appendix I: Data Management Plan

1. Introduction and Planning Background

- 1.1. This Written Scheme of Investigations (WSI) details the proposal for an Archaeological Field Evaluation associated with proposed development at land at Pancross, Redland and Oaklands Farm, near Bronvilston, Vale of Glamorgan, 5km to the north of Cardiff Airport, Vale of Glamorgan, centred on NGR ST 07000 72770.
- 1.2. Following on from a Desk Based Assessment (DBA) and Geophysical Survey undertaken by Archaeology Wales (henceforth- AW) in September 2021, Glamorgan-Gwent Archaeological Trust - Archaeological Planning Management (GGAT-APM) recommended that an archaeological field evaluation is carried out to assess the potential impact of the development on the archaeological resource.
- 1.3. This WSI has been prepared by Menna Griffiths, Archaeology Wales Ltd at the request of Sirius Planning (henceforth – ‘the client’).
- 1.4. The methodology set out in this WSI has been agreed with GGAT-APM in its capacity as archaeological advisors to the local planning authority. The purpose of the proposed archaeological Evaluation is to determine the presence or absence of archaeological features, structures, deposits, artefacts or ecofacts, and their research potential, within the development area (ClfA 2020) and to provide the local planning authority with the information they are likely to request in respect of the proposed development, the requirements for which are set out in Planning Policy Wales Revised Edition.11, Section 6.1 (2021) and Technical Advice Note (TAN) 24: The Historic Environment (2017). The work is to highlight and assess the impact of the proposed development on the archaeological resource.
- 1.5. All work will conform to the Standards and Guidance for an Archaeological Field Evaluation (ClfA 2020) and be undertaken by suitably qualified staff to the highest professional standards. AW is a Registered Organisation with the ClfA.

2. Site Description

- 2.1. The proposed development site is located approximately 1.2km to the south of Bronvilston and 5km north of Cardiff Airport, Vale of Glamorgan centred on ST 07000 72770. The site is currently made up of 126 hectares of enclosed agricultural fields and comprises of three areas. Area One is bounded to the north and south by enclosed fields, the east by the A4226, and to the west by a single-track road. Area Two is situated to the east of Area One and it is bounded to the north-west by enclosed fields, to the north-east, east, and south by woodland, and to the west by the A4226. Area 3 is situated to the south of Area 1, and it is bounded to the north by enclosed fields, and to the east, south and west by woodland (Figure 1).
- 2.2. The underlying geology Varies between Mary's Well Bay Member, comprised of interbedded limestone and mudstone formed approximately 199 to 210 million years ago in the Jurassic and Triassic Periods, Penarth Group, comprised of interbedded mudstone and limestone formed approximately 201 to 210 million years ago in the Triassic period, and Lavermock Shales Members, comprised of mudstone forms approximately 199 to 201 million years ago in the Jurassic Period. No superficial deposits are recorded throughout the site (BGS 2022)

3. Archaeological Background

- 3.1. A DBA was undertaken by AW in January 2021 (Evans 2021) in order to determine the archaeological potential of land at Pancross, Redland and Oaklands Farm, near Bonvilston, Vale of Glamorgan, centred on ST 07000 72770. The assessment was undertaken on land within a 1km radius of the site. It identified 136 previously recorded sites of archaeological interest including eight Scheduled Monuments and ten Listed Buildings. This assessment determined that fourteen of these sites are located within the proposed development area. Two of these sites comprised cropmarks of an enclosure and field system within Area One (GGAT03998s; NPRN 309275 & NPRN 309284). This assessment identified three new sites of archaeological interest within Area One: a structure (OFV01), an old quarry/limekiln (OFV02), and a further old quarry (OFV03). However, subsequent studies of historic mapping, aerial photography and a site visit established that OFV03 was outside the development area. The remaining previously recorded sites are located within Area Two, and these are made up of industrial and agricultural post-medieval sites.
- 3.2. Following the desk-based assessment, consultation with GGAT—APM

highlighted an unpublished excavation to the south of the proposed development which would increase the likelihood of encountering archaeological activity in the area.

- 3.3. As a part of improvement works to the A4226 (Five Mile Lane), to the south of the proposed development area, a range of archaeological features were picked up during a geophysical survey (GSB Prospection, 2015). Subsequently, excavations revealed extensive archaeological evidence dating from the prehistoric onwards. This included a villa site, prehistoric circular enclosures, field systems and the excavations of over 450 inhumations/cremations (Red River Archaeology, forthcoming).
- 3.4. A geophysical survey was also undertaken by AW on the development site itself (Thomas, 2021). The results of the survey indicated the possible presence of buried features across the site with evidence of historic field boundaries and agricultural features across the site. A number of features of archaeological interest were identified within Area 1 including a number of linear anomalies. A possible curvilinear was also identified in Area 1. A possible prehistoric burnt mound was identified in the southern part of Area 1 and two curving bands were identified in the eastern part of Area 1. Features of archaeological potential were identified within Area 2 with linear anomalies being identified within multiple fields. A curve of magnetic material of approximately 200m in length with six magnetic responses to its north were identified within Area 2 as well as a roughly circular anomaly of a strong positive response with corresponding negative responses around the interior and exterior, though it is possible that this is not archaeological in nature as there are three dipolar responses running east to west above the above the anomaly. Features of potential archaeological interest were identified within Area 3 including linear anomalies, two curvilinear features, a wide band of possible thermoremanent material, and two areas of strong magnetic disturbances, six irregularly shaped features ranging from approximately 6m to 24m, a curvilinear and a large circular area of possible thermoremanent material, four sub-circular features of similar size and a single curvilinear feature.

4. Objectives

Field Evaluation

- 4.1. The objective of the intrusive trial trench evaluation will be to locate and describe archaeological features that may be present within the development area as suggested. The work will elucidate the presence or absence of archaeological material, its character, distribution, extent, condition, and relative significance. The work will include an assessment of regional context

within which the archaeological evidence rests and will aim to highlight any relevant research issues within national and regional research frameworks.

- 4.2. A report will be produced that will provide information which is sufficiently detailed to allow the archaeological resource to be better understood. The information could then be used to help inform further archaeological work undertaken in association with the proposed development.

5. Timetable of Works

- 5.1. The archaeological field excavation should start on the 11th April 2022. GGAT-APM will be informed of any changes to the schedule.
- 5.2. The report will be submitted to the client and to GGAT-APM within three months of the completion of the fieldwork. A copy of the report will also be submitted to the local planning authority. A copy of the report will also be sent to the regional Historic Environment Record.

6. Methodology

Field Evaluation

- 6.2. The work will be undertaken to meet the standard required by The Chartered Institute for Archaeologist's Standard and Guidance for Archaeological Field Evaluation (2020).
- 6.3. The archaeological project manager in charge of the work will satisfy herself that all constraints to ground works have been identified, including the siting of live services and Tree Preservation Orders.
- 6.4. The agreed evaluation trenches will be positioned to maximise the retrieval of archaeological information within accessible areas, and to ensure that the archaeological resource is understood. Positioning will be led by the results of the previously undertaken geophysical survey .
- 6.5. It is proposed that 52 trenches are machine excavated within the development area, 31 of which will measure 50m in length, 12 will measure 40m, eight will measure 30m and the remaining trench will measure 60 m in length. All the trenches will be cut to 1.8m in width.
- 6.6. The exact positioning of the trenches will depend on the position of an extant services or other obstructions that come to light during the initial phase of ground works. The locations and dimensions of the trenches have been agreed with GGAT-APM.

- 6.7. The evaluation trenches will be excavated to the top of the archaeological horizon by a 360 excavator or similar machine fitted with a toothless grading bucket under close archaeological supervision.
- 6.8. All areas will be subsequently hand cleaned using pointing trowels and/or hoes to prove the presence, or absence, of archaeological features and to determine their significance. The excavation of the minimum number of archaeological features will be undertaken, to elucidate the character, distribution, extent and importance of the archaeological remains. As a minimum, small discrete features will be fully excavated, larger discrete features will be half-sectioned (50% excavated) and long linear features will be sample excavated along their length – with investigative excavations distributed along the exposed length of any such feature and to investigate terminals, junctions and relationships with other features. Should this percentage excavation not yield sufficient information to allow the form and function of archaeological features/deposits to be determined full excavation of such features/deposits may be required.
- 6.9. Sufficient excavation will be undertaken to ensure that the natural horizons are reached and proven, where this can be practically and safely achieved. If safety reasons preclude manual excavation to natural, a hand auger may be used to try to assess the total depth of stratification within each area. The depth of the excavation will conform to current safety requirements. If excavation is required below 1m the options of using shoring will be discussed with the client and GGAT-APM, but the intention would be to stop at safe depths.

Contingency

- 6.10. Should potentially significant archaeological features be encountered during the course of the evaluation then GGAT-APM and the client will be informed at the earliest possible opportunity.
- 6.11. GGAT-APM may subsequently request that further archaeological work is undertaken in order to fully evaluate areas of significant archaeological activity. Such work may require the provision of additional time and resources to complete the archaeological investigation. The scope of such work will be agreed with GGAT-APM and the client prior to any extended works being undertaken.

Recording

- 6.12. Recording will be carried out using AW recording systems (pro-forma context

sheets, etc.) using a continuous number sequence for all contexts.

- 6.13. Plans and sections will be drawn to a scale of 1:50, 1:20 or 1:10 as required and related to Ordnance Survey datum and published boundaries where appropriate.
- 6.14. All features identified will be tied into the OS survey grid and fixed to local topographical boundaries. Photographs will be taken in digital format with an appropriate scale, using a 10MP+ camera with photographs stored in Tiff format.

Finds

- 6.15. The professional standards set in the Chartered Institute for Archaeologists' Standard and guidance for the collection, documentation, conservation, and research of archaeological (2020) will form the basis of finds collection, processing, and recording.
- 6.16. Finds will be carefully excavated by hand. The excavation of fragile or particularly significant finds will be undertaken in consultation with an appropriate archaeological conservator. Finds will be bagged by archaeological context, the location of special finds and flint working deposits will be recorded three dimensionally.
- 6.17. In most cases all finds will be recovered from site, quantified and assessed by specialist. Finds retention and discard policies will be drawn up in conjunction with specialist advice and the requirements of the receiving archive or regional/national guidelines (NPAAW 2019) in conjunction with the ClfA Selection Strategy Tool Kit (ClfA 2019). If large quantities of material are identified, an onsite discard policy may be implemented under the guidance of relevant finds specialists and the local authority archaeologists.
- 6.18. Retained finds will be suitably bagged, boxed and marked. Following cataloguing and initial analysis finds of low archaeological significance may be discarded .
- 6.19. Finds recovered that are regarded as Treasure under The Treasure Act 1996 will be reported to HM Coroner for the local area.
- 6.20. Any finds which are considered to be in need of immediate conservation will be referred to a UKIC qualified conservator (normally Phil Parkes at Cardiff University).

Environmental Sampling Strategy

- 6.21. Deposits with a significant potential for the preservation of paleoenvironmental material will be sampled, by means of the most appropriate method (bulk, column etc). Where sampling will provide a significant contribution to the understanding of the site AW will draw up a site-specific sampling strategy alongside a specialist environmental archaeologist. All environmental sampling and recording will follow English Heritage's Guidelines for Environmental Archaeology (2nd Edition 2011).

Human remains

- 6.22. In the event that human remains are encountered, their nature and extent will be established, the client, GGAT-APM and the coroner informed.
- 6.23. Measures will be put in place to ensure that any such remains are fenced off, covered, and protected from deterioration and damage, and that human remains, and burial goods will be treated in a respectful manner.
- 6.24. Where preservation in situ is not possible the human remains will be fully recorded and removed under conditions that comply with all current legislation and include acquisition of licenses and provision for reburial following all analytical work.
- 6.25. Human remains will be excavated in accordance with the Chartered Institute for Archaeologists' Updated Guidelines to the Standards for Recording Human Remains (2017). A Ministry of Justice Licence will be obtained before remains can be lifted, this applies to both inhumation and cremated remains.

Specialist advisers

- 6.26. In the event of certain finds, features or sites being discovered, AW will seek specialist opinion and advice. A list of specialists is given in the table below although this list is not exhaustive.

Artefact type	Specialist
Lithics	Dr Julie Birchenall (Freelance)
Animal bone	Dr Richard Madgwick (Cardiff University) Dr Hannah Russ (Freelance)
CBM, heat affected clay, Daub etc.	Dr Siân Thomas (Archaeology Wales) Dr Phil Mills (Freelance) Sandra Garside Neville (Freelance)
Clay pipe	Charley James Martin (Archaeology Wales)
Glass	Rowena Hart (Archaeology Wales)

Artefact type	Specialist
Cremated and non-cremated human bone	Malin Holst (University of York) Dr Richard Madgwick (Cardiff University)
Metalwork	Dr Rhiannon Philp (Archaeology Wales) Dr Kevin Leahy (PAS/University of Leicester) Quita Mould (Freelance)
Metal work and metallurgical residues	Dr Tim Young (GeoArch)
Neo/BA pottery	Dr Alex Gibson (Bradford University) Dr David Mullin (Freelance)
IA/Roman pottery	Dr Jane Timby (Freelance)
Roman Pottery	Dr Siân Thomas (Archaeology Wales) Dr Peter Webster (Freelance)
Medieval and Post Medieval Pottery	Paul Blinkhorn (Freelance)
Charcoal (wood ID)	Dana Challinor (Freelance)
Waterlogged wood	Professor Nigel Nayling (University of England – Lampeter) Damian Goodburn (MOLA) Mike Bamforth (Freelance)
Marine Molluscs	Dr Rhiannon Philp (Archaeology Wales)
Pollen	Dr Rhiannon Philp (Archaeology Wales)
Charred and waterlogged plant remains	Wendy Carruthers (Freelance) Kath Hunter Dowse (Freelance)

- 6.27. Specialist finds and paleoenvironmental reports will be written by AW specialists, or sub-contracted to external specialists when required.

Monitoring

- 6.28. GGAT-APM will be contacted prior to the commencement of archaeological site works, and subsequently once the work is underway.
- 6.29. Any changes to the WSI that AW may wish to make after approval will be communicated to GGAT-APM for approval on behalf of the Planning Authority.
- 6.30. GGAT-APM will be given access to the site so that they may monitor the progress of the mitigation work. No area will be back-filled until GGAT-APM has had the opportunity to inspect it unless permission has been given in advance. GGAT-APM will be kept regularly informed about developments, both during the site works and subsequently during post-excavation.

7. Post-Fieldwork Programme

Site Archive

- 7.1. An ordered and integrated site archive will be prepared in accordance with: Management of Research Projects in the Historic Environment (MoRPHE)

(2015) upon completion of the project.

- 7.2. The site archive – including all artefacts, soil samples, paper, and digital records – will be subjected to selection in order to establish those elements that will be retained for long term curation. The selection strategy will be agreed with all stakeholders and will be detailed in the Selection Strategy and Data Management Plan (ClfA 2020). It will be developed taking into consideration the aims and objectives of the project and will be informed through a detailed consideration of the Research Agenda of the Archaeology of Wales and other relevant research frameworks. The manner in which the records will be prepared for long time storage will be guided by the requirements established by the repositories. A detailed justification for the disposal of both records and materials will be written and included within the Data Management Plan.
- 7.3. The site archive (including artefacts and samples) will be prepared in accordance with the National Monuments Record (Wales) agreed structure and deposited with an appropriate receiving organisation, in compliance with ClfA Guidelines (Standard and guidance for the creation, compilation, transfer and deposition of archaeological archives, 2014). It will also conform to the guidelines set out in The National Standard and Guidance to Best Practice for Collecting and Depositing Archaeological Archives in Wales (National Panel for Archaeological Archives in Wales 2017). The legal landowner's consent will be gained for deposition of finds. The project will adhere to the Welsh Archaeological Trust's joint Guidance for the Submission of Data to the Welsh Historic Environment Records (2018).

Analysis

- 7.4. Following a rapid review of the potential of the site archive, a programme of analysis and reporting will be undertaken.
- 7.5. This will result in the following inclusions in the report:
- A bilingual non-technical summary
 - The aims and methods adopted in the course of the archaeological works, and the background and circumstances of the report (including development proposals and planning background)
 - Location plan showing the area/s covered by the trenched evaluation, including the locations of all artefacts, structures and features found
 - Plans and section drawings (if features are encountered) with ground level, ordnance datum and vertical and horizontal scales.

- A written description and interpretation of all deposits identified, including their character, function, potential dating, and relationship to adjacent features. Specialist descriptions and illustrations of all artefacts and soil samples will be included as appropriate. An indication of the potential of archaeological deposits which have not been disturbed by the development, and proposals for further necessary analysis
- The report will contain a discussion of the local, regional, and national context of the remains by means of reviewing published reports, unpublished reports, historical maps, documents from local archives and the regional HER as appropriate.
- A detailed archive list at the rear listing all contexts recorded, all samples, finds and find types, drawings and photographs taken. This will include a statement of the intent to deposit, and location of deposition, of the archive.

Report to Client

- 7.6. Copies of all reports associated with the mitigation, together with inclusion of supporting evidence in appendices as appropriate, including photographs and illustrations, will be submitted upon completion to GGAT-APM for comment and approval. Following approval, a copy will be sent to the client, and for formal submission to the Local Planning Authority.

Additional Reports

- 7.7. After an appropriate period has elapsed, copies of all reports will be deposited with the relevant county Historic Environment Record (GGAT), the National Monuments Record and, if appropriate, Cadw. The report and all relevant information will be submitted to the Historic Environment Record following the guidelines and procedures laid out in the Guidance for the Submission of Data to the Welsh Historic Environment Records (WAT 2018).

Summary Reports for Publication

- 7.8. Short archaeological reports will be submitted for publication in relevant journals; as a minimum, a report will be submitted to the annual publication of the regional CBA group or equivalent journal.

Notification of Important Remains

- 7.9. Where it is considered that remains have been revealed that may satisfy the criteria for statutory protection, AW will submit preliminary notification of the remains to Cadw.

Archive Deposition

- 7.10. The final archive (site and research) will, whenever appropriate, be deposited with a suitable receiving institution. If artefacts are recovered, and dependent

on the size of the final archive, the preferred receiving institution would be a suitable local institution. If no artefacts are recovered then the archive will be deposited with the National Monuments Record, RCAHMW, Aberystwyth. Arrangements will be made with the receiving institution before work starts.

- 7.11. Although there may be a period during which client confidentiality will need to be maintained, copies of all reports and the final archive will be deposited no later than 12 months after completion of the work.
- 7.12. Copies of all reports, the digital archive and an archive index will be deposited with the National Monuments Record, RCAHMW, Aberystwyth. A full Data Management Plan for this project is included in Appendix I.
- 7.13. Wherever the archive is deposited, this information will be relayed to the HER. A summary of the contents of the archive will be supplied to GGAT-APM.

Finds Deposition

- 7.14. The finds, including artefacts and ecofacts, excepting those which may be subject to the Treasure Act, will be deposited with the same institution, subject to the agreement of the legal landowners.

8. Staff

- 8.1. The project will be managed by Charley James-Martin MCIfA (AW Project Manager) and the assessment undertaken by suitably trained and experienced AW staff. Any alteration to staffing before or during the work will be brought to the attention of GGAT-APM and the client.

9. Health and Safety

- 9.1. Prior to the commencement of the site visit AW will carry out and produce a formal Health and Safety Risk Assessment in accordance with the Management of Health and safety Regulations 1992. A copy of the risk assessment will be kept on site and be available for inspection on request.
- 9.2. A copy will be sent to the client (or their agent as necessary) for their information. All members of AW staff will adhere to the content of this document.

Other Guidelines

- 9.3. AW will adhere to best practice with regard to Health and Safety in Archaeology as set out in the FAME (Federation of Archaeological Managers and Employers) health and safety manual Health and Safety in Field

Archaeology (2002).

Insurance

- 9.4. AW is fully insured for this type of work and holds Insurance with Aviva Insurance Ltd and Hiscox Insurance Company Limited through Towergate Insurance. Full details of these and other relevant policies can be supplied on request.

10. Quality Control

Professional standards

- 10.1. AW works to the standards and guidance provided by the Chartered Institute for Archaeologists. AW fully recognise and endorse the Chartered Institute for Archaeologists' Code of Conduct, Code of Approved Practice for the Regulation of Contractual Arrangements in Field Archaeology and the Standard and Guidance for archaeological watching briefs currently in force.
- 10.2. All employees of AW, whether corporate members of the Chartered Institute for Archaeologists or not, are expected to adhere to these Codes and Standards during their employment.

Project tracking

- 10.3. The designated AW manager will monitor all projects in order to ensure that agreed targets are met without reduction in quality of service.

11. Arbitration

- 11.1. Disputes or differences arising in relation to this work shall be referred for a decision in accordance with the Rules of the Chartered Institute of Arbitrators' Arbitration Scheme for the Institute for Archaeologists applying at the date of the agreement.

12. References

British Geological Survey: Geology of Britain viewer:

www.bgs.ac.uk/discoveringGeology/geologyOfBritain/viewer.html

Chartered Institute for Archaeologists, 2019. Toolkit for Selecting Archaeological Archives.

Chartered Institute for Archaeologists, 2020. Standards and guidance for the creation, compilation, transfer and deposition of archaeological archives.

Chartered Institute for Archaeologists, 2020. Standards and guidance for the collection, documentation, conservation and research of archaeological materials.

Chartered Institute for Archaeologists, 2020. Standards and guidance for archaeological field evaluation.

Chartered Institute for Archaeologists, 2020. Standard and Guidance for Geophysical Survey Chartered Institute for Archaeologists

Evans, J. 2021. *Land at Pancross, Redland and Oaklands Farm, near Bonvilston, Vale of Glamorgan. Desk-based assessment.* Archaeology Wales Report No. 1900

GSB Prospection. 2015. Culverhouse Cross to Cardiff International Airport/St Athan Enterprise Zone Link: Geophysical Survey. Report G1506.

National Panel for Archaeological Archives in Wales (NPAAW), 2019. The National Standard and Guidance to Best Practice for Collecting and Depositing Archaeological Archives in Wales

Thomas, S. 2021. *Land at Pancross, Redland and Oaklands Farm, near Bonvilston, Vale of Glamorgan. Geophysical Survey Report* Archaeology Wales Report No. 2041

Welsh Archaeological Trusts, 2018. Guidance for the Submission of Data to the Welsh Historic Environment Records (HERs).

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