Archaeology Wales

Crane Cross, Saundersfoot

Archaeological Evaluation



By

Philip Poucher

Report No. 1237



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Crane Cross, Saundersfoot

Archaeological Evaluation

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Contents

Summary	1	
1. Introduction		
2. Site Description	2	
3. Historical Background	3	
4. Methodology	3	
5. Results	5	
5.1 Trench 1	5	
5.2 Trench 2	5	
5.3 Trench 3	6	
5.4 Trench 4	7	
5.5 Artefactual and environmental data	7	
6. Discussion and Conclusion	8	
7. Bibliography		

Appendix 1 – Context Descriptions Appendix 2 – Written Scheme of Investigation

List of Illustrations

Figure 1	Location of the proposed development site
Figure 2	Trench location plan
Figure 3	Extract from the 1889 Ordnance Survey map
Figure 4	Plan and Section of Trench 1
Figure 5	Plan and section of Trench 2
Figure 6	Plan and section of Trench 3
Figure 7	Plan and section of Trench 4
Photos 1	General site photo
Photos 2 - 4	Trench 1 photos
Photos 5 - 7	Trench 2 photos
Photos 8 - 11	Trench 3 photographs
Figure 12 - 14	Trench 4 photographs

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Summary

In June 2014 Archaeology Wales Ltd (AW) carried out a trenched evaluation on land at Crane Cross, near Saundersfoot, Pembrokeshire, hereafter 'the site'. The investigation was commissioned by Pembrokeshire County Council, on the recommendation of Dyfed Archaeological Trust Planning Services, prior to planned development of the site as a Civic Amenity and Recycling Centre.

The evaluation of the proposed development site comprised the excavation of four machine cut trenches to determine the potential of the archaeological resource, investigating in particular two linear features previously identified on the site that were potentially associated with post-medieval coal-mining activity. Trenches 1 and 2 were located across the line of the south-western linear feature, Trenches 3 and 4 were located across the line of the north-eastern linear feature. The trenches measured between 20m and 21m long, and were 1.8m wide.

The north-eastern linear feature was shown to correspond to two parallel linear ditches with an internal bank typical of a post-medieval hedge-bank field boundary, which can also be seen on late 19th and 20th century map sources. The south-western linear feature was more indistinct, but appears to be associated with late 19th and 20th century field drainage activity and, possibly, an undefined farm track running across the field.

No evidence of coal-mining activity was uncovered, and no finds, features or deposits of archaeological significance were noted. It is concluded, therefore, that the archaeological potential of the site is low, and no further archaeological work is recommended.

1 Introduction

- 1.1 This report has been prepared by Archaeology Wales Ltd (AW) in response to a request by Richard Lawrence, Building Control and Structures Manager, Pembrokeshire County Council to provide an archaeological evaluation of the potential impacts of proposed development on a site at Crane Cross, near Saundersfoot (Archaeology Wales Project Number 2246, site code CCS/14/EV).
- 1.2 The site is located on agricultural land off Devonshire Drive, close to the small settlement of Crane Cross, some 3.4km to the west of Saundersfoot, Pembrokeshire; NGR SN 11743 03933, see Figures 1 and 2. A planning application has been submitted to develop the site as a Civic Amenity and Recycling Centre (planning reference 13/1110/PA). The main site covers an area of approximately 1ha, with additional access tracks to the south, and road widening to the north along Devonshire Drive, and currently comprises a single pasture field with areas of wetland scrub, bounded by mature hedgerows.
- 1.3 An archaeological appraisal had been produced by Hyder Consulting, incorporated within an Environmental Report (Scorey 2014). This study identified two small, shallow linear features within the field, approximately 20m to 30m apart. These features were initially interpreted as possible drainage features, although given the

evidence of known post-medieval coal-mining activity in the vicinity, they may also relate to previous mining activities on the site.

- 1.4 Consequently Dyfed Archaeological Trust Planning Services (Henceforth DAT-PS), in its capacity as archaeological adviser to the local authority, Pembrokeshire County Council, recommended that an archaeological field evaluation was undertaken in order to assess the potential for the archaeological resource at the site.
- 1.5 A Written Scheme of Evaluation for the archaeological evaluation was produced by Archaeology Wales and approved by DAT-PS (see Appendix 2). The subsequent evaluation used four strategically placed trial trenches to locate and describe the two features. The work aimed to elucidate the presence or absence of archaeological material, its character, distribution, extent, condition and relative significance that may be disturbed by the proposed development process. The investigations concentrated on the two linear features.
- 1.6 The excavations took place between 25th and 27th June 2014. The work was carried out under the supervision of Jerry Bond, under the management of Phil Poucher.
- 1.7 All work conformed to the IFA's Standards and Guidance for Archaeological Field Evaluation (IfA 1994, revised 2008 with updates Nov 2013), and were undertaken by suitably qualified staff to the highest professional standards.

2 Site description

- 2.1 The main area of the development site comprises an improved grassland field with small areas of marshy ground, bounded by mature hedgerows. The land is relatively level at 70m to 80m OD. The eastern extent of the site is not physically defined and extends into the wider area of farmland. The western extent is defined by Devonshire Drive, a narrow road connecting the A478 at its north-eastern extent to the B4318 and St Florence in the south west. Beyond the road lies a railway line. Adjoining the western boundary of the site is a small parcel of land used for the storage of agricultural/boating equipment.
- 2.2 The site is located within a wider area of agricultural farmland, characterised by small field boundaries and interspersed with areas of mature woodland and hedgerows. A camping / caravan site is located to the north-east of the site, while at a distance beyond and to the south east, a small number of residential properties are located. Saundersfoot lies on the coast 3.4km further to the east.
- 2.3 The underlying geology comprises mudstones, siltstones and sandstones of the South Wales Upper Coal Measures Formation.

3 Historical Background

- 3.1 An archaeological Appraisal was been undertaken for the site as part of an Environmental Report (Scorey 2014).
- 3.2 Prehistoric activity is recorded in the wider landscape, largely in the form of standing stones, the closest of which lies under 900m to the southeast (PRN 13022). A field name to the northwest ('Hoarstone') may suggest a further standing stone in the area (PRN 8001).
- 3.3 In relatively close proximity to the site, a medieval ridge and furrow field system has been recorded (PRN 44346), adjacent to a series of earthworks (PRN 44345) that appear to be associated with a former dwelling or farmstead close to North Vatson Farm. The farm itself may have medieval origins. To the east, lies Ffynnon Fair, or Lady Well (PRN 3676), the site of a medieval holy well that was possibly associated with a chapel (PRN 7627).
- 3.4 The majority of previously recorded archaeological sites in the area date to the postmedieval period. Various agricultural buildings and dwellings are recorded in the area, including a manse and chapel (NPRN 11024) a short distance to the east in the small settlement of Bethesda Cottages. To the southeast lies the site of a 19th and early 20th century racecourse (PRN 45522). Several small 18th and 19th century coal mines are recorded in this area, in particular Vatson Mine (PRN 23775) and Hollybush Mine (PRN 23774), which although not accurately located, may lie in relatively close proximity to the site. These mines were in operation in the late 18th and early 19th century, but appear to have been relatively small-scale affairs (Price 1982).
- 3.5 No known archaeological site is recorded within the bounds of the planned development. Historic map sources indicate this area has remained undeveloped farmland since at least the late 19th century. Map evidence indicates that the area was formerly subdivided into narrower fields, largely orientated east west (Figure 3), and that a field boundary divided the current field in half. This boundary remained present on maps until the late 20th century before being removed, although information from the local landowner suggests the boundary was removed some time prior to that, possibly during the mid-20th century.

4 Methodology

- 4.1 Prior to the evaluation taking place, a WSI was produced detailing the methodology for the archaeological evaluation. This was agreed by DAT-PS and a copy is included as an appendix (Appendix 2).
- 4.2 Four machine excavated evaluation trenches were excavated across the two linear features identified during the initial archaeological appraisal (Figure 2). All four trenches were between 20m and 21m long, and were 1.8m wide. Trenches 1 and 2 were excavated across the line of the south-western linear feature, while Trenches 3 and 4 were excavated across the line of the north-eastern linear.
- 4.3 The machine excavated trenches were excavated by a JCB Backhoe excavator equipped with a toothless ditching bucket. The trenches were excavated to the

natural soil horizon, with areas of each trench excavated deeper to prove the natural soil horizon.

- 4.4 All areas were hand cleaned to prove the presence, or absence, of archaeological features and to determine their significance. Recording was carried out using Archaeology Wales recording systems (pro-forma context sheets etc), using a continuous number sequence for all contexts.
- 4.5 Written, drawn and photographic records of an appropriate level of detail were maintained throughout the course of the project. Digital photographs were taken using cameras with resolutions of 5 mega pixels or above.
- 4.6 Plans and sections were drawn to a scale of 1:50, 1:20 and 1:10 as required, see Figures 4 7.

5 Results

5.1 <u>Trench 1 (Figure 4, Photos 2 – 4)</u>

- 5.1.1 Trench 1 was located towards the northern end of the south-western linear feature. The trench measured 21m long and 1.8m wide, orientated east - west and excavated to a maximum depth of 0.65m. Initially it was hoped to extend this trench across the northern end of both linear features, although it became clear when on site that the linear features were spaced too far apart to both appear in a single 20m trench, therefore this trench was confined to the south-western linear only. This linear feature was visible at ground level as a faint linear hollow heading in a roughly north – south direction (Photo 1).
- 5.1.2 The topsoil (100) consisted of a dark red-brown silty-clay with the occasional stone inclusion. This deposit represents an agricultural soil, typically 0.12m thick, spread consistently throughout the trench. This overlay a 0.14m thick deposit of mid greybrown clayey-silt (101), which also appeared consistently throughout the trench. Contained within this deposit was a small patch of burnt clay and charcoal flecks. This patch did not correspond to an individual feature, it was contained within deposit 101, although it may have originated from a nearby fire-pit. This deposit also appears to represent an agricultural soil.
- 5.1.3 Underlying deposit 101 was a firm mid yellow-brown clay (102). This deposit, which occurred at depths of between 0.2m and 0.3m below current ground levels, would appear to represent the naturally occurring alluvial clays, and appeared consistently throughout all four trenches. This deposit was further excavated for a depth of 0.35m without revealing any underlying deposits.
- 5.1.4 Towards the eastern end of the trench a ceramic field drain was uncovered within the natural clay (102), orientated NE-SW. No cut mark was visible, suggesting the pipe was mole driven. One section of the pipe was impressed with the manufacturers' mark of "Browne & Co", and is considered to be of late-19th to 20th century date. Towards the western end of the trench a stone-filled land drain was visible cutting through deposits 101 and 102, orientated east west. This drain was installed within the last 10 years, according to a local land owner.
- 5.1.5 No finds, features or deposits of archaeological interest were noted within the trench. No evidence of the linear feature was identified, either in plan or section, suggesting it is confined to the upper soil layers (100 & 101).

5.2 <u>Trench 2 (Figure 5, Photos 5 – 7)</u>

- 5.2.1 Trench 2 was located further south along the south-western linear feature. This trench measured 21m long and 1.8m wide, orientated east west and excavated to a maximum depth of 0.5m.
- 5.2.2 The topsoil (200) consisted of dark grey-brown silty-clay, 0.15m to 0.2m thick. Towards the western end of the trench this topsoil overlay a deposit of firm dark grey-brown sandy-clay (202), which contained small patches of fragmented coal and gravel. This deposit was up to 0.25m thick, but thinned out to the east. This deposit lies in an area where the vegetation suggests marshy ground, but also roughly

corresponds to the line of the linear feature identified at ground level. Further excavation showed it to overlay a ceramic field drain, almost identical to that found within Trench 1, and considered to be late 19th or 20th century in date. The deposit presumably therefore relates to the installation of these field drains.

- 5.2.3 Underlying deposit 202 in the western half of the trench, and directly underlying the topsoil in the eastern half of the trench, was the firm mid yellow-brown natural alluvial clays (201).
- 5.2.4 Two further recent stone-filled land drains were also recorded cutting through deposits 201 and 202.
- 5.2.5 No finds, features or deposits of archaeological interest were noted within the trench. The line of the linear feature corresponded roughly to the centre of deposit 202.

5.3 <u>Trench 3 (Figure 6, Photos 8 – 11)</u>

- 5.3.1 Trench 3 was located towards the northern end of the north-eastern linear feature. This trench measured 21m long and 1.8m wide, orientated SSW – NNE, and excavated to a maximum depth of 0.7m. The linear feature is visible as a slightly more pronounced hollow running in a roughly east – west direction across the field.
- 5.3.2 Underlying the 0.15m thick topsoil (300) two parallel ditches (305 & 310), 1.2m apart, and an internal bank (312) were identified, running in a roughly east – west direction. The easternmost ditch (305) was the deeper of the two, 2.5m wide by 0.56m deep, with a shallow, slightly concave eastern edge, and a stepped western edge with a concave base. The lower fill (304) comprised a dark grey-brown siltyclay, up to 0.4m thick, and appeared to represent gradual silting up of the ditch. The base of the ditch appears to have been waterlogged, resulting in the build-up of an organic-rich (peaty) deposit. Deposit 304 shows some evidence of re-cutting, with the remainder of the ditch then deliberately backfilled with deposit 303, a mottled grey and orange-brown clay. The westernmost ditch (310) was 2.7m wide and 0.34m deep with very shallow concave sides and a base that was relatively flat along its western side, more concave and dipping down slightly on its eastern side. Along its eastern side the ditch was in-filled with a deposit of grey-brown silty-clay (309) that appears to represent gradual silting. This was overlaid by two deposits (308 & 307) similar to the internal bank material (312) before then being deliberately filled in with the mottled grey and orange-brown clay (306) also visible in the easternmost ditch. Lying in between the two ditches was a mid-brown silty-clay (312) that would appear to represent remains of an internal bank. Both ditches cut into the naturally occurring pale grey to orange-brown alluvial clays (302).
- 5.3.3 The linear feature identified at ground level corresponds to the two parallel ditches (305 & 310) typical of a former hedge bank (deposit 312) flanked by drainage ditches, which itself is visible on map sources from the late-19th through to the late-20th century (Figure 3). No further finds, features or deposits of archaeological interest were recorded within this trench.

5.4 <u>Trench 4 (Figure 7, Photos 12 – 14)</u>

- 5.4.1 Trench 4 was located further south along the same linear feature, which is likely to correspond to a former field boundary. This trench was 20m long and 1.8m wide, orientated SSW NNE, and excavated to a maximum depth of 0.55m.
- 5.4.2 The topsoil (400) consisted of a dark grey-brown clayey-silt, 0.33m thick. As with Trench 3 two parallel linear ditches were identified with traces of an internal bank. The ditches were 3.6m apart, the greater distance accounted for by the fact that these ditches appeared more deeply truncated leaving only the base of the ditches visible. The westernmost ditch (404) was 1.2m wide, 0.35m deep, with moderately sloping, slightly concave sides and a relatively flat base. It was largely filled with a dark grey-brown clayey-silt (403), overlain by remnants of a mid yellow-brown clay (402) that appears similar to the deliberate backfilling visible in the ditches within Trench 3. Only very slight remains of the easternmost ditch (406) were recorded, too shallow to be visible in section. In plan the line of the ditch was picked out by a mid grey-brown clayey-silt fill (407), 0.25m wide. Traces of internal bank material were visible along the eastern edge of ditch 404, represented by a dark grey-brown silty-clay (405) 1.2m wide. These ditches cut into the naturally occurring alluvial clays (401).
- 5.4.3 The two ditches (404 & 406) and internal bank (405) appear to represent a continuation of the former late post-medieval field boundary also identified in Trench 3, and corresponding to the linear feature visible at ground level. No further finds, features or deposits of archaeological interest were recorded within this trench.

5.5 Artefactual and Environmental Data

- 5.5.1 The only finds identified during the archaeological excavation were fragments of modern ceramic field drain within Trenches 1 and 2. One fragment was impressed with the manufacturers' mark of "Browne & Co", and is considered to be of late 19th or 20th century date. The fragments were not retained and the field drains remain *in situ*.
- 5.5.2 No deposits were revealed deemed suitable for environmental sampling.

6 Discussion and Conclusions

- 6.1 The archaeological evaluation was undertaken primarily to establish the origin of the two linear features located within and close to the planned development area, and thereby to assess the archaeological potential of the site.
- 6.2 The north-eastern linear feature was identified within Trench 3 and 4, and corresponded to two parallel linear ditches with remnants of an internal bank. This arrangement is typical of a post-medieval hedge-bank field boundary, and indeed the boundary itself is visible on historic map sources. This former field boundary will remain largely outside the area of development.
- 6.3 The south-western linear feature was not clearly defined within Trench 1 and 2. Within Trench 2, however, the line of the feature appeared to correspond to an area associated with the installation of field drains datable to the late 19th or 20th century. The linear feature may, therefore, be associated with the installation of drainage across the field. It may also be of note that the feature heads roughly in the direction of the field gate that opens into to the adjoining field, and may therefore be partly associated with a rough farm trackway. The lack of evidence for the linear feature within Trench 1 in particular, suggests that the feature is relatively insubstantial and contained within the upper agricultural soils.
- 6.4 No finds, features or deposits of archaeological interest were noted within the evaluation trenches. Small patches of crushed coal were observed, associated with the drainage activity in Trench 2, but such deposits are likely to be relatively common in such a coal-rich area. No clear evidence of coal-mining activity was identified within the evaluation trenches.
- 6.5 The results of the evaluation suggest that the archaeological potential for the site is low. Therefore, no further archaeological work is recommended.

7 Bibliography

Dyfed Archaeological Trust Historic Environment Record

Price, MRC 1982 Industrial Saundersfoot

RCAHMW Coflein Online Database

Scorey, A 2014 Pembrokeshire County Council, Crane Cross Civic Amenity and Recycling Centre: Environmental Report Hyder Consulting (UK) Ltd Report No. 002-UA004581-UE31-1

Maps

British Geological Sur	vey	2003 1:250000 Geological Map of Wales Solid Geology
Ordnance Survey	1889	1 st edition 1;2500 Pembrokeshire
Ordnance Survey	1907	2 nd edition 1;2500 Pembrokeshire
Ordnance Survey	1974	1;10000 Pembrokeshire



Fig.1: Site location map, based on the Ordnance Survey 1;10000 map

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Photo 1: Looking NE across the site. The south-western linear is visible in the foreground (arrow)



Photo 2: Looking east along Trench 1, showing natural clay 102, cut by a stone-filled land drain running along the trench. 1m & 2m scales.



Photo 3: Looking west along Trench 1, showing natural clay 102 and ceramic field drain crossing the trench in the foreground. 1m & 2m scales.



Photo 4: Representative north-facing section of Trench 1. 0.5m & 2m scales.



Photo 5: Looking east along Trench 2, showing natural clays (201) cut by a stone-filled land drain in the foreground, and dark deposit 202 underlying the scales. 1m & 2m scales.



Photo 6: Looking west along Trench 2, showing natural clays 201. 1m & 2m scales.



Photo 7: Representative north-facing section of Trench 1. 0.5m & 2m scales.



Photo 8: Looking NNE along Trench 3, showing natural clays 302 cut by modern stone-filled land drains. 1m & 2m scales.



Photo 9: Looking SSW along Trench 3. 1m & 2m scales.



Photo 10: West facing section of ditch 305. 0.5m & 2m scales.



Photo 11: West facing section of ditch 310. 0.5m & 2m scales.



Photo 12: Looking NNE along Trench 4, showing natural clays 401 in the foreground. 1m & 2m scales.



Photo 13: Looking SSW along Trench 4, showing natural clays 401. 1m & 2m scales.



Photo 14: West facing section of ditch 404. 0.5m & 1m scales (north arrow incorrect within photo).

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APPENDIX I: Context Descriptions

Context Descriptions

Context Number	Context Type	Description	Dimensions (Length x width x thickness)	
Trench 1				
100	Layer	 Topsoil Moderate, dark red-brown silty-clay with common small sub-angular stone No finds 	21m x 1.8m x 0.12m	
101	Layer	 Agricultural soil Moderate, mid grey-brown clayey-silt with common small sub-angular stone and rare charcoal flecks Burnt clay 	21m x 1.8m x 0.14m high	
102	Layer	 Natural alluvial Fairly compact, mid yellow-brown clay No finds 	21m x 1.8m x >0.35m	
Trench 2				
200	Layer	 Topsoil Moderate, dark grey-brown silty-clay with common small sub-angular stone No finds 	21m x 1.8m x 0.2m	
201	Layer	 Natural alluvial Fairly compact, mid yellow-brown clay No finds 	21m x 1.8m	
202	Layer	 Layer Fairly compact, dark grey-brown sandy- clay with rare small angular stone, rare small coal fragments No finds 	21m x 1.8m x 0.25m	
Trench 3				
300	Layer	 Topsoil Moderate, very dark grey-brown clayey- loam with common small sub-rounded stone No finds 	21m x 0.8m x 0.15m	
301	Layer	 Relic ploughsoil Moderate, dark grey-brown silty-clay with common small sub-rounded stone No finds 	6.6m x 1.8m x 0.1m	
302	Layer	 Natural alluvial Fairly compact, pale grey to orange-brown clay with rare small sub-rounded stone No finds 	21m x 1.8m	
303	Fill	• Fill of ditch 305, redeposited natural	0.8m x 1.6m x 0.55m	

		• Fairly compact, mottled mid grey to	
		orange-brown clay	
		No finds	
304	Fill	• Fill of ditch 305, silting	0.8m x 2.4m x 0.4m
		• Moderate, dark grey-brown silty-clay with	
		rare small sub-angular stone	
305	Cut	• Ditch, former field boundary drainage	1.8m x 2.5m x 0.6m
		Linear in plan	
		 Shallow, slightly concave eastern edge, 	
		and a stepped western edge with a	
		concave base	
		Orientated E-W	
		• Filled by 304 & 303	
306	Fill	Fill of ditch 310, redeposited natural	1.8m x 2.3m x 0.3m
		 Fairly compact, mottled mid grey to 	
		orange-brown clay	
		No finds	
307	FIII	• Fill of ditch 310	? x 0.6m x 0.1m
		Fairly compact, mid grey-brown silty-clay	
200		No finds Fills for the 210 methods with the second to be a second to be	20.6
308	FIII	Fill of ditch 310, redeposited topsoli	? X U.6M X U.18M
		Loose, dark brown silty-loam	
200		No linds Fill of ditch 210 cilting	1.9m y 1.2m y 0.2m
509		Fill Of allen 310, silling	1.0111 X 1.5111 X 0.5111
		Moderate, mid grey-brown sitty-clay No finds	
210	Cut	No Illus Ditch former field houndary drainage	1 9m v 2 7m v 0 29m
510	Cut	Ditch, former neid boundary dramage	1.0111 X 2.7111 X 0.30111
		 Very shallow concave sides relatively flat 	
		hase along its western side more concave	
		and dipping down slightly on its eastern	
		side	
		Orientated E-W	
		• Filled by 309, 308, 307 & 306	
311	Layer	Layer	1.8m x 1.4m x 0.3m
		• Loose, dark brown silty-loam with rare	
		small sub-angular stone	
		No finds	
312	Layer	Bank, former field boundary hedgebank	1.8m x 1.75m x 0.4m
		 Moderate, mid brown silty-clay with 	
		common small sub-angular stone and	
		common inclusions of redeposited natural	
		No finds	
Trench 4	1		I
400	Layer	Topsoil	20m x 1.8m x 0.33m
		Moderate, dark grey-brown clayey-silt with	
		rare small angular stone	
		No finds	

401	Layer	Natural alluvial	20m x 1.8m x >0.25m
		• Fairly compact, mid yellow-brown clay	
		No finds	
402	Fill	• Fill of ditch 404, redeposited natural	? x 0.71m x 0.16m
		• Fairly compact, mid yellow-brown clay	
		No finds	
403	Fill	• Fill of ditch 404	1.8m x 1.2m x 0.25m
		 Fairly compact, dark grey-brown clayey- 	
		silt	
		No finds	
404	Cut	• Ditch, former field boundary drainage	1.8m x 1.2m x 0.35m
		Linear in plan	
		 Moderately sloping, slightly concave sides 	
		and a relatively flat base	
		Orientated E-W	
		• Filled by 403 & 402	
405	Layer	Bank, former field boundary hedgebank	1.8m x 1.2m
		 Moderate, dark grey-brown silty-clay 	
		No finds	
406	Cut	• Ditch, former field boundary drainage	1.8m x 0.25m
		Linear in plan	
		• Filled by 407	
407	Fill	• Fill of ditch 406	1.8m x 0.25m
		 Moderate, mid grey-brown silty-clay 	
		No finds	

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APPENDIX II: Written Scheme of Investigation

ARCHAEOLOGY WALES LIMITED:

Specification

for Field Evaluation

on

Crane Cross Civic Amenity and Recycling Centre, Saundersfoot, Pembrokeshire

Prepared for: Richard Lawrence Pembrokeshire County Council County Hall Haverfordwest Pembrokeshire SA61 1TP

23rd May 2014

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NON TECHNICAL SUMMARY

This Written Scheme of Investigations details a proposal for a field evaluation on land at Crane Cross Civic Amenity and Recycling Centre, Saundersfoot, Pembrokeshire. It has been prepared by Archaeology Wales Ltd for Richard Lawrence, Building Control and Structures Manager, Pembrokeshire County Council.

1 Introduction

The proposed development is for the development of a Civic Amenity and Recycling Centre on currently open land at Crane Cross, Saundersfoot, Pembrokeshire, and is centred around SN11743 03933 (Henceforth – the site, Fig 1). The development proposal has been submitted by Pembrokeshire County Council. The local planning authority is Pembrokeshire County Council (PCC).

This specification has been prepared by Chris E Smith (MIfA), Project Manager, Archaeology Wales Ltd (Henceforth - AW) at the request of Richard Lawrence, Pembrokeshire County Council. It provides information on the methodology which will be employed by AW during the field evaluation at the site.

The field evaluation has been recommended by Dyfed Archaeological Trust (DAT) in its capacity as archaeological adviser to the planning authority. Details laid out in this specification have been discussed with Louise Austin (DAT). The evaluation was recommended to investigate the potential mining features within the site area (see Section 2) identified during an initial archaeological appraisal that accompanied an Environmental Report (Scorey 2014) as part of the planning application. This evaluation will used strategically placed trial trenches to investigate the two identified linear features.

AW is a Registered Organisation with the Institute for Archaeologists (IfA). All work will be undertaken by suitably qualified staff and in accordance with the standards and guidelines of the IfA.

2 Archaeological Background

The site has previously been the subject of an archaeological appraisal carried out by Hyder Consulting Ltd, included as a section within an Environmental Report (Scorey 2014). The regional Historic Environment Record (HER) lists medieval ridge and furrow in an adjacent field and other medieval earthworks within *c*.250m of the site. In the nearby village of Bethesda, over 100m to the east, records indicate the site of two post-medieval coal mines. Other nearby records relate to post-medieval structural remains in Bethesda or nearby farms, although no features are recorded within the site area on the HER. In the wider landscape lie a prehistoric standing stone, a medieval holy well or spring, post-medieval industrial activity in terms of mining, quarrying and lime burning, a former racecourse, and several post-medieval farmsteads and associated features. Historic map regression recorded little change within the site area itself since the mid-19th century, although a former internal field boundary appears to have been recently removed.

3 Objectives

The primary objectives will be to locate and describe, by means of strategic trial trenching, archaeological features which may be present within the development area.

The evaluation will aim to clarify the nature, date, chronology, quality, quantity, significance and state of preservation of any archaeological remains identified by the evaluation trenches.

Preservation in situ will be advocated where at all possible, but where engineering or other factors may result in loss of archaeological deposits, preservation by record will be recommended.

4 Method statement for strategic trial trenching

Preliminary work

The archaeological project manager in charge of the work will satisfy him/herself that all constraints to ground works have been identified, including the siting of live services, Tree Preservation Orders and public footpaths. As an area of previous mining activity, particular attention will be paid to the health and safety aspect of the work. Any areas deemed unsafe to enter, either by mechanical excavator or on foot, will be avoided and a minimum 5m exclusion zone observed around the location. A separate risk assessment will be drawn up by AW and made available to all site staff.

Evaluation

A total of 4 trenches are proposed (see figure 2). The precise location of the trenches will be agreed with DAT (with any on-site constraints taken into consideration) prior to the commencement of on-site works. The trenches will be excavated initially using a machine fitted with a wide toothless ditching blade. Thereafter all identified archaeological contexts will be excavated manually unless otherwise agreed with the curator in advance.

Each trench will measure a total of 20m in length and 2m in width and will be located on the ground so as to maximise retrieval of site data.

All modern overburden and non-archaeological subsoils will be removed down to the level of the first recognisable archaeological horizon. All archaeological contexts subsequently located will be adequately sampled in order to define their function, date, and relationship to adjacent features.

All trench sides and bases will be cleaned manually by trowelling to reveal contexts in plan and profile. This must be completed even if the trench apparently reveals only natural deposits. Spade or shovel cleaning only of trench bases and sides will not be acceptable. The level of natural soils below the archaeology should be tested for in at least one trench section location in each trench by means of machine/manual excavation or auguring.

As a minimum:

i) small discrete features will be fully excavated;

ii) larger discrete features will be half-sectioned (50% excavated); and

iii) 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 the above 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. Such a requirement will be discussed with, and approval sought from the planning archaeologist at DAT prior to full excavation taking place. Additional excavation may also be required for the taking of palaeoenvironmental samples and recovery of artefacts.

Any variation of the above will be undertaken in agreement with DAT.

All spoil heaps will be examined for the recovery of artefacts.

Human remains will be left *in situ*, covered and protected when discovered. No further investigation will normally be permitted and DAT and the local Coroner must be informed immediately. After discussion, it may be appropriate to take bone samples for C14 dating. If removal is essential it will take place under the appropriate Ministry of Justice and Environmental Health regulations.

If excavation is undertaken through loose/friable material, such as rubble, consideration will be given to shoring, stepping or battering of trench edges to avoid slumping/collapse. The depth of the excavation will conform to current safety requirements. Any excavation into capped mine workings will be immediately halted on health and safety grounds. The client and DAT will be informed immediately.

Recording will be carried out using AW recording systems (pro-forma context sheets etc), using a continuous number sequence for all contexts.

Written, drawn and photographic records of an appropriate level of detail will be maintained throughout the course of the project. Digital photographs will be taken using cameras with resolutions of 14 mega pixels or above.

Plans and sections will be drawn to a scale of 1:50, 1:20 and 1:10 as required, and these will be related to Ordnance Survey datum and published boundaries where appropriate.

The locations of each trench will be recorded using a Topcon GTS725 Total Station.

<u>Artefacts</u>

Archaeological artefacts recovered during the course of the field evaluation will be cleaned and labelled using an accession number, which will be obtained from the local museum. A single number sequence will be allocated to all finds. The artefacts will be stored appropriately until they are deposited with a suitable local museum.

All finds of gold and silver will be removed to a safe place and Natural Resources Wales, Cadw and the local coroner informed, within the guidelines of the Treasure Act

1996.

Any finds which are considered to be in need of immediate conservation will be referred to a UKIC qualified conservator (Phil Parkes at Cardiff University).

Radiocarbon, Environmental and Technological Samples

Archaeological contexts will be sampled as required for environmental remains, industrial waste, small-sized artefacts and/or radiocarbon as appropriate, when significant deposits are located. Technological samples will be taken where necessary when significant deposits are located. Samples will be retained as part of the project archive should post excavation analysis be deemed necessary at a later date. Reports on sampling will be added to the finished report as an addendum.

Specialists

In the event of certain finds/features etc. being discovered, the site archaeologist may have to seek specialist opinion for assistance. Such specialists will be accessed either internally within AW itself or from an external source should any such analysis be deemed necessary. A list of specialists is given in the table below. Specialist reports will be added to the finished report as an addendum.

Туре	Name	Tel No.	
Flint	Amelia Pannett	02920 899509	
Animal bone	Jen Kitch	07739 093712	
CBM, heat affected clay, Daub etc.	Rachael Hall	01305 259751	
Clay pipe	Hilary Major	01376 329316	
Glass	Andy Richmond	01234 888800	
Cremated and non-cremated human bone	Malin Holst	01759 368483	
Metalwork	Kevin Leahy	01652 658261	
Neo/BA pottery	Dr Alex Gibson	Bradford University	
IA/Roman pottery	Jane Timby	01453 882851	
Post Roman pottery	Mr Stephen Clarke		
Charcoal (wood ID)	John Carrot	01388 772167	
Waterlogged wood	Nigel Nayling	University of Wales (Lampeter)	
Molluscs and pollen	Dr James Rackham	01992 552256	
Charred and waterlogged plant remains	Wendy Carruthers	01443 233466	
Palaeoenvironmental sampling and analysis	Dr Martin Bates	University of Wales (Lampeter)	

5 Post-Fieldwork Programme

Conservation

After agreement with the landowner arrangements will be made for the long term conservation and storage of all artefacts in an appropriate local or county museum.

Archive

The site archive will be prepared in accordance with *Management of Research Projects in the Historic Environment* (English Heritage 2006). It will comprise all the data recovered during the fieldwork and shall be quantified, ordered and indexed and will be internally consistent. The archive will be deposited with the finds in a suitable local museum.

Reporting

The results of the archaeological work will be submitted in an illustrated and bound report, which will include the following material:

- Non-technical summary
- Location plan showing the area/s covered by the archaeological evaluation, all artefacts, structures and features found
- Plan and section drawings with ground level, ordnance datum and vertical and horizontal scales.
- Desk-based research will be undertaken to provide an historical background and appropriate context to the results of the evaluation.
- Written description and interpretation of all deposits identified, including their character, function, potential dating and relationship to adjacent features. Specialist reports, 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
- Statement of local, regional and national context of the remains
- 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.

6 Monitoring

DAT will be contacted at least one week prior to the commencement of site works, and subsequently once the work is underway.

Any changes to this specification that AW may wish to make after approval will be communicated to DAT for approval on behalf of Planning Authority.

Representatives of DAT will be given access to the site so that they may monitor the progress of the work. DAT will be kept regularly informed about developments, both during the site works and subsequently during the post-fieldwork programme.

If significant detail is discovered, all works will cease and a meeting will be convened with the client and DAT to discuss the most appropriate way forward.

7 Resources and timetable

Standards

The fieldwork will be undertaken by AW staff using current best practice.

<u>Staff</u>

The project will be undertaken by suitably qualified AW staff. Overall management of will be undertaken by Phil Poucher.

Equipment

The project will use existing AW equipment.

Timetable of archaeological works

No start date has yet been agreed though work will be undertaken at the convenience of the client.

Insurance

Archaeology Wales Limited (AW) is an affiliated member of the CBA, and holds Insurance through the CBA insurance service.

Health and safety

All members of staff will adhere to the requirements of the *Health & Safety at Work Act*, 1974, and the AW Health and Safety Policy.

AW will produce a detailed Risk Assessment for approval by the client before any work is undertaken.





Pe	Pembrokeshire County Council Cyngor Sir Penfro	LOCATION PLAN	Scale 1/10000
Pembrokeshile Cy		PROPOSED CA SITE	Date 18/12/2013
Sir Pest		CRANE CROSS	
Pr Ce Ca Pe Te	Produced by Policy & Corporate Planning Central Units County Hall, Haverfordwest Pembrokeshire, SA61 1TP Tel 01437 764551	Based upon the Ordnance Survey mapping with the permission of the Controller of HMSO © Crown Copyright. Unauthorised reproduction infringes Crown Copyright and may lead to prosecution or civil proceedings.Pembrokeshire County Council. Licence No.100023344 Yn seiliedig a'r Ordnance Survey chaniatad Rheolwr Llyfrfa Ei Mawrrhydi © Hawlfraint yGoron. Y mae atgynhyrchu heb awdurdod yn torri Hawlfraint y Goron a gall arwain at erlyn iad neu achosion sifil. Cyngor Sir Penfro, Rhif Trwydded 100023344	



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