Report No: 2015R046



Bude and Stratton Business Park Extension, Cornwall. 2015.

Archaeological Watching Brief



Report No	Report Name	Report Author			
2015R045	Bude/Stratton Business Park extension 2015. Archaeological Watching Brief	C. M. Thorpe			
Event Type					
Watching Brie	ef				
Client Organis					
Mr Mark Denn	nis				
Monuments (N	MonUID)				
Fieldwork date Date)	es (From) (To) (Created By)	(Create			
19/06/15	23/06/15 CMT	June 2015			
	tal address; or general location and parish)				
Bude/Stratton	Business Park, Bude/Stratton CP				
(Town – for u					
Bude	EX23 8	3LY			
(Easting) X co-ord (Northing) Y co-ord					
SS 22020	05490				



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1 Introduction

Cornwall Archaeological Unit (CAU), Cornwall Council was commissioned by Mr Mark Dennis to undertake a programme of archaeological recording ahead of the extension of the Bude/Stratton Business Park. Previous archaeological recording of the access road for the park was carried out by HES Projects (now CAU) in 2011 (Figs 1 and 2).

The development which is for the construction of offices welfare facilities and stores is set within an overall area of approximately 6.5 HA. The current phase of work lies on the western side of the development area south of the access road, the roughly trapezoidal area measuring $50m \times 65m \times 68m$, an area of approximately 0.39Ha (Fig 5).

The development was the subject of a planning condition (PA15/01760), which required that archaeological recording took place ahead of construction.

Phil Copleston, Senior Development Officer (Historic Environment) produced a brief (Appendix 3) for archaeological recording (18/7/11) for the original application in 2011 and was consulted over the requirements for the archaeological recording. A written scheme of investigation, outlining the methodology for archaeological recording was produced (12/6/15) by Andy Jones (Principal Archaeologist, CAU) in response to Phil Copleston's brief (Appendix 4).

In 2007 a geophysical survey of the area had been carried out (Johnson 2007) which revealed the possibility of a shallow ditch and some indeterminate ground disturbance in the immediate area examined. Several anomalies of potential archaeological significance were recorded elsewhere within the field.

2 Location and background

The field covered by the watching brief is on gently sloping ground that falls towards the northwest from a height of 45m OD to 40m OD. It lies to the southeast of the settlement of Bude, within the ecclesiastical parish of Stratton (Figs 1, 2 and 4). The field has been utilised for cultivation of wheat, oats and barley but is currently used for grass and pasture. The underlying geology is carboniferous sandstones (with thin limestone beds) of the Bude Formation (Sheet 307/308 Bude). The development area is located within land that falls into an historic character zone which has been classified as "Anciently Enclosed Land" (Cornwall County Council 1996). "Anciently Enclosed Land" is land which has been settled since at least the medieval period and which often contains buried archaeological remains dating to prehistoric and medieval times. There was thus the potential for the preservation of buried archaeological material to survive in the project area.

Identified archaeological sites

A number of sites in the vicinity of the study area were identified from the Cornwall and Scilly Historic Environment Record. They included:

- Romano-British coins were recorded at Binhamy, to the north of the development site (MCO200).
- The moated medieval settlement site at Binhamy (MCO21883) lies 283m to the north.
- A crop-mark lies 418m to the north-east of the site. Initially thought to be an enclosure of probable prehistoric date (MCO38817), this has subsequently been identified as a quarry pit (Good and De Rosa 2013).

3 Aims and objectives

The aims of the project were:

- To ensure that the site works are carried out in such a way as to allow recording as set out in the Written Scheme of Investigation.
- To establish the presence/absence of archaeological remains and record archaeological features and deposits affected by the scheme.
- To determine the extent, condition, nature, character, date and significance of any archaeological remains encountered
- To establish the nature of the activity on the site.
- To identify any artefacts relating to the occupation or use of the site
- To deposit the archive (including any finds) with the relevant museum and disseminate the results of discoveries as a concise archive report and, if merited, wider publication.

Key objectives are:

 To locate and identify and record prehistoric and/or medieval settlement activity in the area of the development, thereby providing further information on the archaeology of the development site and the surrounding area.

4 Working methods

The site soil strip was carried out under archaeological supervision using a machine fitted with a toothless bucket. The soil was stripped cleanly to a level at which archaeological features or layers were expected to be revealed, in this case the top of the natural geology.

The area of the soil strip was inspected by an archaeologist who recorded significant features revealed onto an annotated Ordnance Survey map at a scale of 1:1000. The features were measured in from fixed points on the ground, which are shown on the OS survey mapping, together with compass bearings from recognisable points on the access road for the park. Sample sections (noting the nature of soil depths, layers present, etc.) were also recorded across the site (Fig 5). The ground and spoil heap were also examined for any artefacts.

5 Results

Twenty five sections were recorded across the stripped area, full descriptions of which can be found in the site archive. Five are presented here to illustrate the nature of the ground encountered. Their locations are plotted on Figure 7.

Section 1

Depth	Thickness	Description	Interpretation	Context
0m - 0.05m	0.05m	Grass, roots and topsoil	Topsoil	(1)
0.05m - 0.2m	0.15m	Grey, red-brown clay loam	Ploughsoil	(2)
0.2m - 0.3m	0.1m	Grey-brown clay	Subsoil	(3)
0.3m - 0.35m	0.05m	Grey, yellow-red brown clay	Old land surface?	(4)
At base of excavation	-	Yellow-red brown clay	Decayed natural bedrock	(5)

Section 3

Depth Thickness De		Description	Interpretation	Context	
0m - 0.05m	0.05m	Grass, roots and topsoil.	Topsoil	(1)	
0.05m - 0.2m	0.15m	Grey, red-brown clay loam.	Ploughsoil	(2)	
0.2m - 0.45m	0.25m	Grey-brown clay	Subsoil	(3)	
At base of excavation	-	Yellow, green-brown limestone	Natural bedrock	(5)	

Section 5

Depth	Thickness	Description	Interpretation	Context
0m - 0.05m	0.05m	Grass, roots and topsoil	Topsoil	(1)
0.05m - 0.15m	0.1m	Grey, red-brown clay loam	Ploughsoil	(2)
0.15m - 0.25m	0.1m	Grey-brown clay	Subsoil	(3)
0.25m - 0.3m	0.05m	Grey, yellow-red brown clay	Old land surface?	(4)
At base of excavation	-	Yellow-red brown clay	Decayed natural bedrock	(5)

Section 14

Depth	Thickness	Description	Interpretation	Context
0m - 0.05m	0.05m	Grass, roots and topsoil	Topsoil	(1)
0.05m - 0.25m	0.2m	Grey, red-brown clay loam	Ploughsoil	(2)
0.25m - 0.45m	0.2m	Grey-brown clay	Subsoil	(3)
0.45m - 0.5m	0.05m	Grey, yellow-red brown clay	Old land surface?	(4)
At base of excavation	-	Yellow-red brown clay	Decayed natural bedrock	(5)

Section 24

Depth	Thickness	Description	Interpretation	Context
0m - 0.05m	0.05m	Grass, roots and topsoil	Topsoil	(1)
0.05m - 0.2m	0.15m	Grey, red-brown clay loam	Ploughsoil	(2)
0.20m - 0.35m	0.15m	Grey-brown clay	Subsoil	(3)
0.35m - 0.4m	0.05m	Grey, yellow-red brown clay	Old land surface?	(4)

At base of	-	Yellow-red brown clay	Decayed	(5)
excavation			natural bedrock	

These sections represent the range of the soil profiles found across the whole area of the excavation. The only changes observed were variations in the soil depth. At the southern upslope end, the soil profile was approximately 0.25m deep (section 15) By contrast at the lower, northern end of the field, the recorded soil profile was 0.5m deep (sections 20 or 21). The increase in depth is probably a consequence of soil creep due to gravity resulting from ploughing.

Over most of the area a thin layer of clay, context (4) was recorded that is possibly remnants of an old land surface immediately above the natural. It is from this layer that most of the flints found were recovered. It averaged about 0.05m in thickness though this did vary.

A strip of un-weathered bedrock (limestone) forming a band measuring 2m wide, context (6) was seen running from west to east across the field close to the line of the road from SS 22116 10557 to SS 22075 10558 (Figs 5, and 6). This probably marked the line of a removed field boundary, the line of solid bedrock having been protected from ploughing by being sealed beneath the boundary bank. This boundary appears faintly on the geophysical survey (Johnson 2007). A very ephemeral ditch, cut [7] ran along the southern edge of this feature. This was roughly 0.4m wide and reached a depth of 0.1m but in places it was so shallow that it was removed during the soil stripping (Figs 5, and 6). This ditch was infilled by a fine red-brown silty clay, context (8) which contained a single sherd of medieval pottery of *circa* 13th century date. However, the sherd was quite heavily abraded and could be residual, so it does not necessarily provide a date for this boundary. The boundary does not appear on the 1840 Tithe map so its removal must have predated this. It is possible that this feature may be the part of a field system associated with Binhamy Castle.

A second band of un-weathered bedrock (again of limestone), context (9) again roughly 2m wide was recorded in the southern part of the site running roughly west to east across the field from SS 22059 10554 to SS 22119 10553. This again may mark the line of a removed field boundary but could also just be a line of more resistant bedrock (Figs 5, 7 and 10). This feature is suggested as being possibly geological in nature on the geophysical survey (Johnson 2007) however it appears to be on the line of a boundary shown on the NMP and therefore is more likely to be part of the medieval field system.

A small pit like feature, context [10] was recorded at SS 22110 10558 (Fig 5). Subrectangular in shape but with ragged ill-defined edges it measured roughly 1.2m x 0.7m with the long axis orientated north-east to south-west. It was infilled with dark grey-brown clay with numerous charcoal fragments, context (11). Though it was not observed from what depth this feature had been dug, it could be seen to cut through the old land surface (4) into the natural clay. On investigation this proved to be a very shallow (up to 0.12m deep) feature with an uneven bottom. The fill contained scraps of plastic indicating a modern origin for this feature. It is uncertain what this feature was, there was certainly no evidence for any *in-situ* burning in that the surrounding natural clay appeared to be unaffected by heat (Figs 5 and 8).

At the southern end of the site running along the property boundary were three pits features [12], [13] and [14] which had the appearance of being modern and machine cut in nature (Fig 5). Set roughly 20m apart each measured $2m \times 0.8m$ orientated north-west to south-east. They had been infilled with grey-brown clay with numerous stone fragments. These were apparently geotechnical ground investigation trenches so were not examined further (Figs 5 and 10).

Very ephemeral plough marks were seen running in a northwest to southeast direction running parallel with the existing hedge boundary. This trend was also picked up by the geophysical survey (Johnson 2007).

A scatter of flints was recovered from the thin deposit of clay, context (4). This is possibly an old land surface, which occurred in varying thickness across the site. A small number of unstratified flints were also recovered from within the plough soil. The flint assemblage appears to be of Late Neolithic to Early Bronze Age date (Anna Lawson-Jones below, Appendix 2) and the pieces are very 'fresh' looking and unabraded, which implies that they were in sealed contexts (Fig 11). This points to significant prehistoric activity in the area, although its character remains to be established. No other features of archaeological interest or artefacts were recorded over the area of the site.

The watching brief at the Bude / Stratton Business Park did not lead to the discovery of any major archaeological features, it did however, result in the discovery of an old land surface which, based on the recovery of an assemblage of pristine flints, points to significant Late Neolithic / Early Bronze Age activity in the vicinity. It is therefore recommended that further archaeological recording takes place as the site expands.

6 References

6.1 Primary sources

Ordnance Survey, c1880. 25 Inch Map First Edition (licensed digital copy at CAU)

Ordnance Survey, c1907. 25 Inch Map Second Edition (licensed digital copy at CAU)

Ordnance Survey, 2007. Mastermap Digital Mapping

Tithe Map and Apportionment, c1842. Parish of Stratton (licensed digital copy at CAU) British Geological Survey map sheet 307 / 308 Bude.

6.2 Publications

Cornwall County Council, 1996. *Cornwall: A Landscape Assessment 1994* report produced by Landscape Design Associates in association with Cornwall Archaeological Unit. Report 1994R062.

Good, O and De Rosa, D 2013. *Binhamy Farm, Bude, Cornwall. Archaeological Evaluation Report.* Wessex Archaeology (Rep 88100.03).

Johnson, AE, 2007. Land at Bude Stratton business park, Bude, Cornwall. Magnetometer (Gradiometer) Survey. Exeter Archaeology.

Thorpe, C, 2011. Bude/Stratton Business Park extension, Archaeological Watching Brief. HE/CC Archive Report 2011R096.

Thorpe, C, 2011b. Bude/Stratton Business Park extension, Archaeological Watching Brief: Addendum. HE/CC Archive Report 2011R111.

7 Project archive

The CAU project number is 146497

The project's documentary, digital, photographic and drawn archive is maintained by Cornwall Archaeological Unit, Cornwall Council, Fal Building, County Hall, Treyew Road, Truro, TR1 3AY. The contents of this archive are as listed below:

1. Projects file containing site records and notes, project correspondence and administration (146497).

- 2. Field plans and copies of historic maps stored in an A2-size plastic envelope (GRE 838/1-2).
- 3. Digital photographs stored in the directory: R:\Historic Environment (Images)\SITES.A-D\Bude and Stratton Business Park 2015 WB 146497
- 4. English Heritage/ADS OASIS online reference: cornwall2-215653
- 5. This report text is held in digital form as: G:\TWE\Waste & Env\Strat Waste & Land\Historic Environment\Projects\Sites\Sites B\Bude Stratton Business Park extension WB 2011074\2015 recording 146497\Report
- 6. Artefacts retained during the course of this project have been given the site code SBBP 15. These are temporarily held at the CAU archive store.

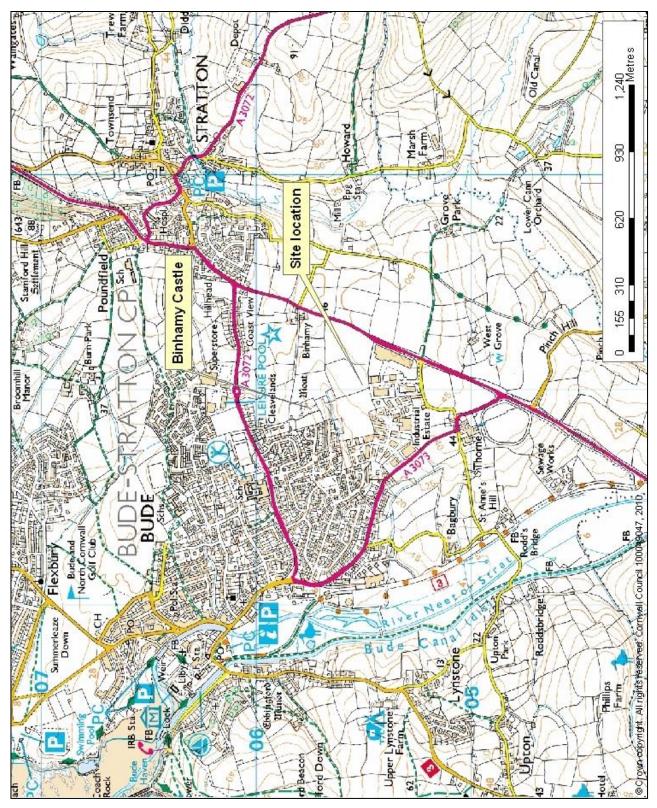


Figure 1. Site location.

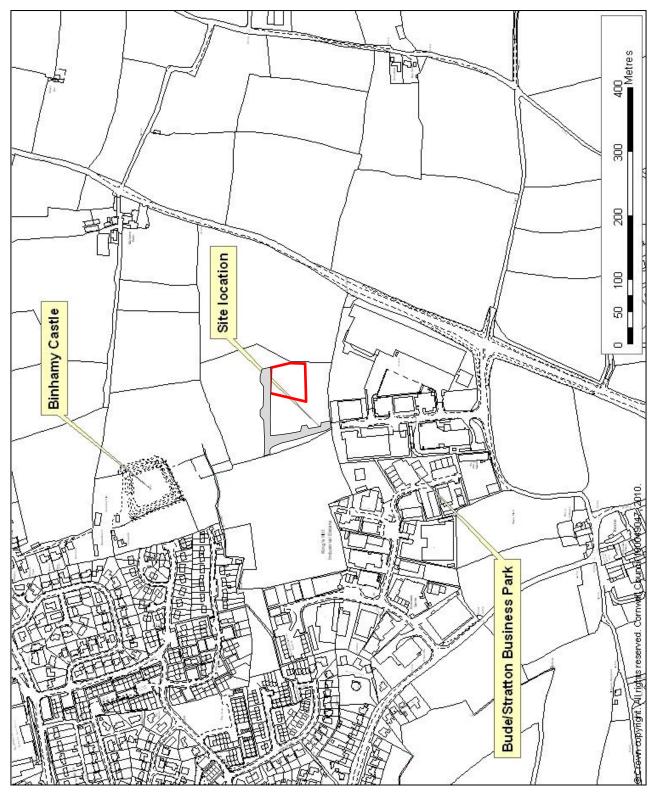


Figure 2. Detailed site location. Area investigated in the current project shown in red. The 2011 road corridor is shown in grey.

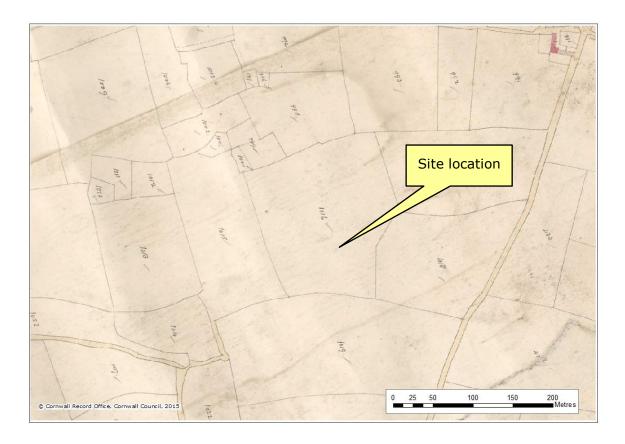


Figure 3. Stratton Tithe Map, 1842.



Figure 4. Aerial photograph of site, Cornwall Council 2005.

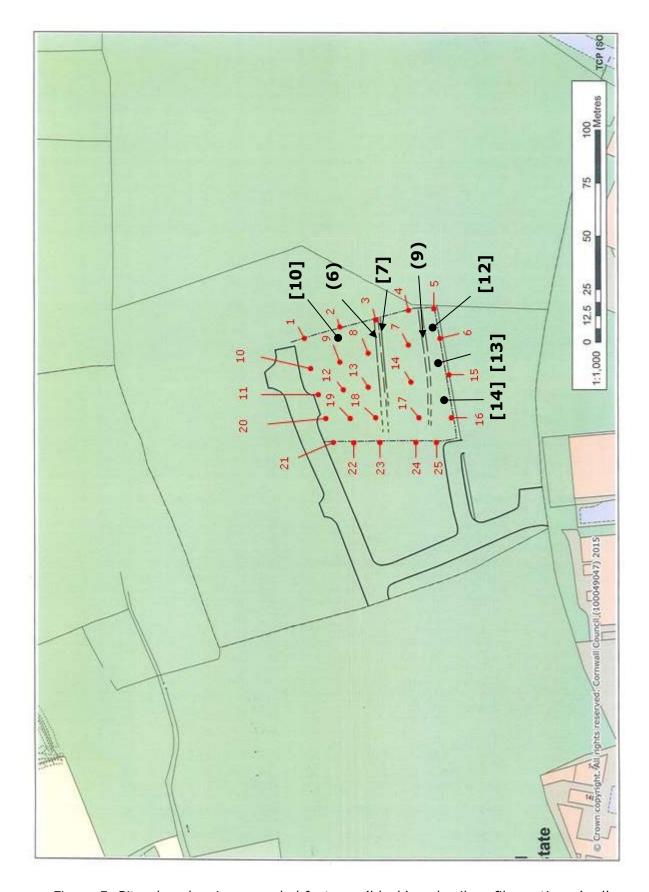


Figure 5. Site plan showing recorded features (black) and soil profile sections (red).



Figure 6. Site showing feature (6) and ditch [7]. View looking east.



Figure 7. Site showing feature (9). View looking west.



Figure 8. Modern feature [10] after cleaning. Unknown function. Fill contained plastic fragments.



Figure 9. Section 20 showing nature of the ground across field including layer (4) the possible old land surface.



Figure 10. Southern end of site looking west in area of sections 16, 24 and 25 showing feature (9) and geotechnical pits [12] and [13].



Figure 8. A selection of flint artefacts recovered from the old land surface, layer (4).

Appendix 1. Context list.

Context Number.	Category	Description/Interpretation
(1)	Layer.	Grass, roots and topsoil. Occurs over area examined. Topsoil
(2)	Layer.	Grey, red-brown clay loam. Occurs over area examined. Plough soil
(3)	Layer.	Grey-brown clay. Occurs over area examined. Subsoil
(4)	Layer.	Grey, yellow-red brown clay containing occasional flint. Occurs over area examined. Old land surface?
(5)	Layer.	Yellow-red brown clay. Occurs over area examined. Decayed natural bedrock
(6)	Layer.	A strip of un-weathered bedrock (limestone) forming a band measuring 2m wide. Traced for about 55m in an east-west direction. This probably marked the line of a removed field boundary.
[7]	Cut.	A very ephemeral ditch roughly 0.4m wide and reached a depth of 0.1m but in places it was so shallow that it was removed during the soil stripping. Traced for about 45m in an east-west direction.
(8)	Fill.	Fine red, grey-brown silty clay. Single sherd of medieval pottery recovered from top of fill. Fill of ditch [7]
(9)	Layer.	A strip of un-weathered bedrock (limestone) forming a band measuring 2m wide. Traced for about 55m in an east-west direction. This probably marked the line of a removed field boundary.
[10]	Cut.	Sub-rectangular in shape cut but with ragged ill-defined edges it measured roughly 1.2m x 0.7m with the long axis orientated north-east to south-west. Shallow, irregular bottom (up to 0.12m deep). Pit? Function unknown.
(11)	Fill.	Dark grey-brown clay with charcoal fragments. Fragments of plastic present within fill indicating Modern origin for feature.
[12]	Cut.	Sub-rectangular shaped cut 2m x 0.8m orientated north-west to south-east. Geotechnical ground investigation trench.
[13]	Cut.	Sub-rectangular shaped cut 2m x 0.8m orientated north-west to south-east. Geotechnical ground investigation trench.
[14]	Cut.	Sub-rectangular shaped cut 2m x 0.8m orientated north-west to south-east. Geotechnical ground investigation trench.
(15)	Fill.	Grey-brown clay with numerous stone fragments. Fill of pit [12].
(16)	Fill.	Grey-brown clay with numerous stone fragments. Fill of pit [13]
(17)	Fill.	Grey-brown clay with numerous stone fragments. Fill of pit [14]

Appendix 2. Finds catalogue

The flints

Anna Lawson-Jones

Thirty one pieces of flint were recovered during the watching brief: three were unstratified and 28 came from Old Land Surface (4). These are remarkably undamaged by surface exposure, wear-and-tear or other post-depositional damage, and show no sign of later plough damage.

The unstratified material consists of:

• Much of a cortical flake – removed during initial core preparation; a small burnt flake; and the proximal end of a burnt, soft hammered blade with parallel dorsal scarring suggestive of a later Mesolithic date (circa 6-4000 cal BC).

The Old Land Surface (4) material consists of:

- One abraded multiplatform pebble flake core probably reused as a hammerstone.
- An orange-brown single platform pebble flake and blade core with platform crushing indicative of scraper reuse. Bronze Age (circa 2500-1500 cal BC).
- A dark brownish grey single platform pebble flake and blade core with platform crushing suggesting scraper use but perhaps indicative of core management – possibly Late Mesolithic but more likely to be of Bronze Age date.
- An exhausted remnant cherty flake and blade core.
- Five cortical pebble flakes including a split pebble all undiagnostic waste.
- A long fresh cortical pebble flake with slight cutting use wear along the non-corticated edge.
- Three unused, undiagnostic blade pieces
- The mid-section of a broad, partially burnt probable blade with parallel scarring of possible Late Mesolithic date.
- Six miscellaneous waste flake pieces one burnt, one heated, one strikingly fresh, one small broken blade and one retaining some pebble cortex.
- A thick flake with peripheral pebble cortex, showing steep c.80 ° retouch across the platform and down both sides. An aberrant scraper form of Late Neolithic character (circa 3000-2500 cal BC).
- A distinctively treacle coloured plunging flake with a brad, slightly retouched distal notch. Slight lateral wear from hand held use? Late Neolithic to Bronze Age in date.
- A plunging pebble flake with bilateral retouch on both flared edges. Proximal end missing. Probable butt end of a point?
- A fresh, longitudinally split, well formed, soft hammered flake with dorsal scarring from the removal of thinning flakes. The remnant distal side shows slight wear. Its controlled, broad, deliberately thinned body is more suggestive of a projectile than a knife or scraper although insufficient remains to be certain. The flint is flawless, high quality and a distinctive rich brown. The split is probably deliberate.
- A distinctive pale orange, triangular sectioned simple knife with slightly uneven curving sides. Both long edges show possible slight use. Slight modification at

the proximal end suggests hafting or binding. Late Neolithic to Bronze Age in date.

- A large, distinctive, fresh, rectangular heat treated, mottled grey flake, which has been snapped diagonally. The tool does not show heavy duty wear negating the likelihood of accidental or use related breakage, and has been snapped at its strongest point. One short straight remnant edge shows slight probably post-depositional wear. The other shows the start of shallow invasive retouch along what was probably a knife or cutting edge. The snap cuts through the retouch bringing the tools use to an abrupt and apparently deliberate end. This would have been a very fine large piece. It is likely to have been specifically made for a single event. It was not discarded as a broken tool since the piece is in near pristine condition.
- A complete, broad rectangular knife, with retouch at the distal and proximal ends probably related to blunting for hand held, bound or possibly hafted use. The working edge has fairly minimal 45° angled retouch which has seen sufficient cutting/slicing wear to form a distinct gloss on the ventral side and extreme edge. This is a finely executed, knife, which is most unlikely to have been so conspicuously discarded as waste. Late Neolithic to Bronze Age in date.
- A complete, soft hammered semi-discoidal knife, made on a nodular flake with its distinctive cortex forming the backing for probable hand held use. The steeply convex working edge is very neatly modified with 90° retouch extending from one edge to 70° at the other. There is no ventral wear at all suggesting very limited, if any, use. Late Neolithic to Bronze Age date. This piece does not have a water worn pebble surface and so was not collected from an immediately local beach.

It is possible that some of the material within the assemblage may have a nodular source, indicating the movement of flint via either trade or exchange from Devon, where nodular flint occurs on the mainland.

The character of the assemblage is of a predominantly Late Neolithic to Early Bronze Age date, with only a very small probable Late Mesolithic component. Approximately half the assemblage should be seen as waste, most of which is not diagnostic in terms of date. Twelve pieces are tools, showing clear design or manufacture and/or use. Many of these are not every day or domestic in character. Conspicuous destruction is clearly shown via the use of snapping which rendered two finely worked, distinct tools redundant. Most of the tools, including the snapped pieces are strikingly coloured, some of which may reflect the use of heat treatment – which alters colours as well as the predictable working of flint. Conspicuous consumption and deposition of tools of this date and type is often associated with pits, which may contain other selected artefacts including pottery, worked stone, hazel shells and charcoal.

Pottery

Carl Thorpe

Context No: (8). Field boundary ditch

MATERIAL	WEIGHT (g)	NO OF ITEMS	OBJECT NO	INTERIM BOX NO
Pottery				
Medieval	10g	1	-	1

1 rimsherd Cornish Medieval Coarseware. 13th century.

Appendix 3. Brief For Archaeological Recording

Date: 18 July 2011

Address: Bude-Stratton Business Park Extension

Site: Land adjacent to Bude-Stratton Business Park, Bude

Applicant: Mr M Dennis, Thorne Farm, Bude EX23 OLS

Agent: Peter Wannacott, Rodds Bridge Farm, Bude, Cornwall, EX23 OLS (this brief

supplied to Mark Dennis thornefarm@btconnect.com)

Historic Environment Planning Advice Officer: Phil Copleston, Historic Environment Service, Cornwall Council, Room 82, Luxstowe House, Liskeard, Cornwall, PL14 3DZ Tel. 01579 341406, Email: pcopleston@cornwall.gov.uk

ocal Planning Authority Officer: Simon King, Planning & Regeneration, Cornwall Council, 3-5 Barn Lane, Bodmin PL31 1LZ

This brief is only valid for six months. After this period the Historic Environment Planning Advice Officer (HEPAO) should be contacted. Any written scheme of investigation (WSI) resulting from this brief shall only be considered for the same period. The contractor is strongly advised to visit the site before completing their WSI as there may be implications for accurately costing the project.

Contractors Written Scheme of Investigation (WSI)

No ground works are to be undertaken until the HEPAO and the Local Planning Authority (LPA) have approved the archaeological contractor's WSI.

1 Introduction

This brief has been written by the HEPAO and sets out the minimum requirements for archaeological recording at Bude-Stratton Business Park Extension to discharge condition 6 of planning application 2006/00600 placed on the development.

2 Site Location and Description

The site comprises two fields to the north of the Bude-Stratton Business Park. It is situated to the west of the A39, at OS Grid Reference SS 22104 05582. These fields are on a fairly gentle north west facing slope. The change in height is from approximately 45m to 40m.

3 Planning Background

Outline planning application 2006/00600 was submitted on the 21st March 2006 and was for the change of use of agricultural land to B1, B2 and B8 uses to form an extension to Bude-Stratton Business Park. This application has been approved subject to 6 conditions. Condition 6 states:

No development shall take place within the area to be developed until the applicant has secured the implementation of a programme of archaeological recording based on a written scheme of investigation submitted to and approved by the Local Planning Authority. Reason: To ensure that provision is made to

record finds of archaeological interest in accordance with the requirements of PPG16 Archaeology and Planning.

4 Archaeological Background

The proposed site is on land recorded by the Cornwall and Scilly Historic Environment Record as being 'Anciently Enclosed Land' (AEL). The Cornwall Landscape Assessment 1994 describes AEL as:

Typical Historical/Archaeological Components

Much important archaeological material will survive below the surface, including the Bronze Age, Iron Age and Romano-British settlements and fields of the farmers who originally cleared this zone. (Page 142)

Potential for historical and archaeological research

Considerable. Each farming settlement will contain a wealth of historical, architectural and archaeological information. Surveys of field systems yield considerable agricultural, social, and tenurial information. Buried archaeological features can be expected virtually anywhere in this zone. (Page 143)

Although the fields in question have been under cultivation there may be buried archaeological remains associated with the prehistoric periods mentioned above. Although less likely there is also the potential for medieval remains associated with the moated site. Of particular note is the 'kink' in the field boundary separating the two fields. These abrupt changes in direction can be associated with the boundary skirting a once upstanding monument.

5 Requirement for Work

Ground works associated with the development may disturb buried archaeological remains. Therefore, what is required is an archaeological 'watching brief' undertaken across the whole of the development area during the early stages of groundworks. It is therefore important that a suitably qualified archaeologist(s) is/are present during these works in order to identify and record any features of interest.

The site specific aims are to:

- Establish the presence/absence of archaeological remains
- Determine the extent, condition, nature, character, date and significance of any archaeological remains encountered
- To establish the nature of the activity on the site
- To identify any artefacts relating to the occupation or use of the site
- To provide further information on the archaeology of Bude and Stratton from any archaeological remains encountered

6 General Methodology

- 6.1 All stages of the investigation shall be supported by a written scheme of investigation (WSI).
- 6.2 The archaeological contractor is expected to follow the code of the Institute for Archaeologists (IfA).

- 6.3 Details including the name, qualifications and experience of the site director and all other personnel (including specialist staff) shall be included within the WSI.
- 6.4 All of the latest Health and Safety guidelines shall be followed on site.
- 6.5 The IfA's Standards and Guidance should be used for additional guidance in the production of the WSI, the content of the report and the general execution of the project.
- 6.6 Terminology will be consistent with the English Heritage Thesaurus.

7 Archaeological Recording Methodology

- 7.1 Prior to the commencement of on site works the archaeological contractor should familiarise themselves with the site by examining the information held by the Cornwall and Scilly Historic Environment record (HER), the Cornwall Records Office at Truro and the Cornwall Centre at Redruth, where appropriate.
- 7.2 An archaeologist shall be present during all ground works associated with the development, unless circumstances dictate a different approach. A toothless ditching bucket can be used for the removal of any overburden until the first archaeological horizon is exposed. This will then be hand cleaned as appropriate.
- 7.3 Any surviving remains which will be disturbed or destroyed by the development shall be archaeologically excavated and recorded.
- 7.4 Details of how all archaeological contexts and artefacts will be excavated, surveyed, recovered and recorded shall be provided. The site will be tied into the national grid.
- 7.5 Details of the site planning policy shall be given in the WSI. The normal preferred policy for the scale of archaeological site plans is 1:20 and sections 1:10, unless circumstances indicate that other scales would be more appropriate.
- 7.6 The photographic record shall consist of prints in both black and white and colour together with the negatives. Digital photography may be used for report illustration. For both general and specific photographs, a photographic scale shall be included. In the case of detailed photographs it may be appropriate to include a north arrow. The photographic record shall be accompanied by a photographic register detailing as a minimum, feature number, location and direction of shot.
- 7.7 If significant archaeological deposits are exposed, all works must cease and a meeting convened with the client and the HEPAO to discuss the most appropriate way forwards.

8 Finds

8.1 All finds, where appropriate, will be retained from each archaeological context excavated.

- 8.2 All finds, where appropriate, shall be washed.
- 8.3 All pottery, and other finds, where appropriate, shall be marked with the site code and context number.
- 8.4 The WSI shall include an agreed list of specialist consultants, who may be required to conserve and/or report on finds, and advise or report on other aspects of the work including environmental sampling.
- 8.5 The requirements for conservation and storage shall be agreed with the Royal Cornwall Museum prior to the start of work, and confirmed in writing to the HEPAO.
- 8.6 Finds work should be to accepted professional standards and adhere to the Institute for Archaeologists *Guidelines for Finds Work*.
- 8.7 Environmental sampling should be guided by *Environmental Archaeology* (English Heritage Centre for Archaeological Guidelines. 2001/02).
- 8.8 Further English Heritage guidance that may be helpful includes *Geoarchaeology* (2004) and *Archaeometallurgy* (2001).
- 8.9 The English Heritage Advisor for Archaeological Science will be able to provide archaeological science advice if required (Vanessa Straker 0117 975 0689).

9 Human Remains

- 9.1 Any human remains which are encountered must initially be left in situ and reported to the HEPAO and the appropriate authorities (the Coroner), where appropriate. If removal is necessary this must comply with the relevant Government regulations. If burials are encountered their legal status must be ascertained and recording and/or removal must comply with the legal guidelines.
- 9.2 If human remains are not to be removed their physical security must be ensured, preferably by back filling as soon as possible after recording.
- 9.3 If human remains are to be removed this must be done with due reverence and in accordance to current best practice and legal requirements. The site must be adequately screened from public view. Once excavated, human remains must not be exposed to public view.

10 Results

- 10.1 The full report including all specialist assessments of artefact assemblages shall be submitted within a length of time (but not exceeding six months) to be agreed between the applicant and the archaeological contractor, Cornwall Council Historic Environment Service and the Royal Cornwall Museum. A further digital copy shall be supplied on CD-ROM preferably in 'Adobe Acrobat' PDF format.
- 10.2 The archaeological contractor will undertake the English Heritage/ads online access to the index of archaeological investigations (OASIS).

- 10.3 This report will be held by the Cornwall and Scilly Historic Environment Record (HER) and made available for public consultation.
- 10.4 The report must contain:
 - A concise non-technical summary of the project results.
 - The aims and methods adopted in the course of the investigation.
 - A discussion of the archaeological findings in terms of both the site specific aims and the desk based research.
 - A location map, a drawing showing those areas examined as part of the archaeological recording, and copies of any archaeological plans and sections. All plans shall be tied to the national grid.
 - All specialist reports and assessments.
 - A summary of the archive contents and date of deposition.
 - A context register with brief descriptions shall be included as an appendix.
 - A copy of the brief and the approved WSI will be included as an appendix.
- 10.5 A contingency shall be made within the costs for full publication in an appropriate journal. The HEPAO will notify the contractor of such a need within four weeks of receipt of the report.

11 Archive Deposition

- 11.1 An ordered and integrated site archive will be prepared in accordance with: Management of Research Projects in the Historic Environment (MoRPHE) English Heritage 2006 upon completion of the project. The requirements for archive storage shall be agreed with the appropriate museum.
- 11.2 If the finds are to remain with the landowner a full copy of the documentary archive shall be housed with the Cornwall Record Office and with the Courtney Library of the Royal Institution of Cornwall.
- 11.3 The archive including a copy of the written report shall be deposited with the Royal Cornwall Museum within two months of the completion of the full report and confirmed in writing with the HEPAO.
- 11.4 Where there is only a documentary archive this will be deposited with the Cornwall Record Office as well as the Courtney Library of the Royal Institution of Cornwall.
- 11.5 A copy of the report will be supplied to the National Monuments Record (NMR) in Swindon.
- 11.6 A summary of the contents of the archive shall be supplied to the HEPAO.
- 11.7 Only on completion of 11.1 to 11.5 (inclusive) will there be a recommendation for the discharge of any archaeological recording condition.

12 Monitoring

- 12.1 The HEPAO will monitor the work and should be kept regularly informed of progress.
- 12.2 Notification of the start of work shall be given preferably in writing to the HEPAO at least one week in advance of its commencement.
- 12.3 Any variations to the WSI shall be agreed with the HEPAO, preferably in writing, prior to them being carried out.

Appendix 4. Written Scheme of investigation for Archaeological Mitigation at Bude/Stratton Business Park extension

1. Introduction

1.1 Background

Cornwall Archaeological Unit (CAU), Cornwall Council have been requested by Mr Mark Dennis to provide a project design and estimate for a programme of archaeological recording ahead of the extension of the Bude/Stratton Business Park. Previous archaeological recording was carried out by HES Projects (now CAU) in 2011. The development which is for the construction of offices welfare facilities and stores is set within an overall area of approximately 6.5 HA. Further phases of extension will require additional project designs.

The current investigations will be required as part of Planning Condition (PA15/01760). Condition 5 is worded as follows:

- A) No development hereby permitted shall commence until a programme of archaeological work including a Written Scheme of Investigation has been submitted to and approved by the LPA in writing. The scheme shall include an assessment of significance and research questions; and:-
- (i) The programme and methodology of site investigation and recording;
- (ii) The programme for post investigation assessment;
- (iii) Provision to be made for analysis of the site investigation and recording;
- (iv) Provision to be made for publication and dissemination of the analysis and records of the site investigation;
- (v) Provision to be made for archive deposition of the analysis and records of the site investigation;
- (vi) A detailed method statement for construction activities within any archaeologically sensitive areas identified;
- (vii) Nomination of a competent person or persons/organisation to undertake the works set out within the Written Scheme of Investigation.
- B) No development shall take place other than in accordance with the Written Scheme of Investigation approved under condition (A).
- C) The development shall not be brought into use until the site investigation and post investigation assessment has been completed in accordance with the programme set out in the Written Scheme of Investigation approved under condition (A) and the provision made for analysis, publication and dissemination of results and archive deposition has been secured.

Phil Copleston, Senior Development Officer (Historic Environment) produced a brief for archaeological recording (18/7/11) for the original application in 2011 and has been consulted in the preparation of this revised project design His requirements for archaeological recording have guided this project design and estimate.

1.2 Historical background

The development area is located within land which has been characterized as being "Anciently Enclosed Land". "Anciently Enclosed Land" is land which has been settled since at least the medieval period and which often contains archaeological remains dating to prehistoric and medieval times. So there is the potential for the preservation of buried archaeological material to survive in the project area. A number of sites have

been identified in the vicinity of the development area from the Historic Environment Record. They include:

- The proposed development is situated to the south of a crop-mark enclosure of probable prehistoric date (MCO38817).
- Romano-British coins are recorded as being discovered at Binhamy, to the north of the development site (MCO200).
- The proposed development is situated to the south of the moated medieval settlement site at Binhamy (MCO21883).

Potential sites

There is potential for buried archaeological sites to survive within the project area and there is the scope for the survival of previously unrecorded archaeological remains and artefacts of all periods.

2. Aims and objectives

- To ensure that the site works are carried out in such a way as to allow recording as set out in this Written Scheme of Investigation.
- To establish the presence/absence of archaeological remains and record archaeological features and deposits affected by the scheme.
- To determine the extent, condition, nature, character, date and significance of any archaeological remains encountered
- To establish the nature of the activity on the site.
- To identify any artefacts relating to the occupation or use of the site
- To deposit the archive (including any finds) with the relevant museum and disseminate the results of discoveries as a concise archive report and, if merited, wider publication.

2.1 Key objectives are:

• To locate and identify and record prehistoric and/or medieval settlement activity in the area of the development, thereby providing further information on the archaeology of the development site and the surrounding area.

3. Methodology

The archaeological programme will follow five stages: fieldwork; archiving; assessment; analysis; final publication.

3.1 Fieldwork

3.1.1 Archaeological Recording

• The soil strip should be carried out under archaeological supervision using a machine fitted with a toothless bucket. The soil will be stripped cleanly to a level at which archaeological features or layers can be expected to be revealed (ie, top of the "natural"). Machines will not run over the stripped area until the archaeological works are complete. The area will then be inspected by an archaeologist and any archaeological features or layers exposed in the stripped area will be carefully excavated by hand and archaeologically recorded by written description, plan and section and photographic record as appropriate by a CAU archaeologist.

During the archaeological recording the archaeologist will:

• Identify and record any archaeological features that are revealed in the stripped area; the level of recording will be appropriate to the character/importance of the archaeological remains.

If complex and/or significant archaeological deposits are encountered then the archaeological requirements should be reviewed by the client, the Senior Development Officer (Historic Environment) and CAU. In the event that remains cannot be preserved in situ then full-scale excavation may be required. A contingency should be allowed to record any significant archaeological remains which are uncovered during the stripping. The significance of the remains should be agreed between the client, the Senior Development Officer (Historic Environment) and CAU.

Where necessary the detailed archaeological recording may include:

- Excavation of archaeological features exposed in the stripped area and plotting them onto a base map.
- Production of plans and section drawings of the excavated features and recording of features using a continuous numbering system.
- Retrieval of artefacts.

Recording - general

- Site drawings (plans, sections, locations of finds) will be made by pencil (4H) on drafting film; all plans will be linked to the Ordnance Survey Landline (electronic) map; all drawings will include standard information: site details, personnel, date, scale, north-point.
- All features and finds will be accurately located at an appropriate scale. Sections will normally be drawn at 1:10 and plans at 1:20.
- All archaeological contexts will be described to a standard format linked to a continuous numbering sequence.
- Photography: scaled monochrome photography will be used as the main record medium, with colour digital images used more selectively and for illustrative purposes. This will include both general and site specific photographs. Photographs should have a scale and detailed ones should include a north arrow.
- Drawings and photographs will be recorded in a register giving details of feature number and location.
- Sealed/undisturbed archaeological contexts in the form of buried soils, layers or deposits within significant archaeological features (ditches and pits, etc) will be sampled for environmental evidence and dating material. In the event that significant organic remains are encountered, advice may be needed from Vanessa Straker (Regional Advisor for Archaeological Science).
- If human remains are discovered on the site the Senior Development Officer (Historic Environment) and the Ministry of Justice will be informed. All recording will conform to best practice and legal requirements.
- If human remains are uncovered, which require excavation, they will be will be excavated with due reverence. The site will be adequately screened from public view. Once excavated, human remains must not be exposed to public view.
- If human remains are not to be removed their physical security will be ensured, by back filling as soon as possible after recording.

3.2 Treatment of finds

The archaeological fieldwork may produce artefactual material.

• All finds in significant stratified contexts predating 1800 AD (eg, settlement features) should be collected by context and described. Post medieval or modern

finds may be disposed of at the cataloguing stage. This process will be reviewed ahead of its implementation.

• All finds will be collected in sealable plastic bags which will be labelled immediately with the context number or other identifier.

3.3 Archiving

Following review with the CAU Project Manager the results from the fieldwork will be collated as an archive. This will involve washing and cataloguing of finds, the indexing and cross-referencing of photographs, drawings and context records.

All finds, etc will be stored in a proper manner (being clearly labelled and marked and stored according to CAU quidelines).

- All records (context sheets, photographs, etc) will be ordered, catalogued and stored in an appropriate manner (according to CAU guidelines).
- The site archive and finds will initially be stored at CAU premises and transferred to the Royal Cornwall Museum and the RCM conditions for archives will be followed.
 The RCM will be notified of the commencement of the project and included in discussions for sampling and disposal as appropriate.
- In the event that there are no finds or they are retained by the owner, the documentary archive in due course shall be deposited with the Cornwall Record Office, but in the medium term will be stored at Pound and Co. All digital records will be filed on the Cornwall Council network.

3.4 Archive report

The results from the fieldwork will be presented in a concise report.

Copies of the report will be distributed to the Client and the local and main archaeological record libraries. A PDF copy of the report will be produced and deposited with the Historic Environment Record.

This will involve:

- producing a descriptive text;
- producing maps and line drawings;
- selecting photographs;
- report design;
- report editing;
- dissemination of the finished report;
- Deposition of archive and finds in the Royal Cornwall Museum, Truro.

The report will have the following contents:

- Summary Concise non-technical summary.
 - Introduction Background, objectives, aims and methods.
 - Results

 Factual description of the results of the various aspects of the project, with separate sections as necessary for discussion/interpretation and potential for further analysis.
 - Discussion

 Discussion of the interpretation of the results, highlighting information gained on a chronological or thematic basis
 Recommendations for further analysis and publication.
 - Archive A brief summary and index to the project archive.
 - Appendix A copy of the project brief.

- A copy of the WSI
- Illustrations
- General location plan.
- Detailed location plans to link fieldwork results to OS map.
- Selected plans and section drawings (as appropriate).
- Finds drawings (if appropriate).
- Photographs (if appropriate).

An English Heritage/ADS online access to the index of archaeological investigations (OASIS) record will be made.

3.5 Assessment/analysis

The structural and stratigraphic data and artefactual material will be assessed to establish whether further analyses and reporting is appropriate. The outline of the final report, and the work required to produce it will be determined in an updated project design.

In the event of significant remains being recovered (eg, prehistoric or medieval artefacts) it may be appropriate to:

- Consult with the Senior Development Officer (Historic Environment) over the requirements for assessment, analysis and reporting.
- Liaise with specialists (eg, artefacts) to arrange for assessment of the potential for further analysis and reporting.
- Arrange for specialist analyses, where appropriate.

3.6 Final publication

In the event of significant remains being recorded the scope and final form of the report will be reviewed; for example in addition to an archive report the results should be published in an academic journal (eg, *Cornish Archaeology*).

4. Monitoring

- This written scheme of investigation will need to be approved by the Planning authority.
- The recording exercise will be monitored. The Senior Development Officer (Historic Environment) should be informed 1 week in advance of the intention to start the recording.
- CAU will liaise with the Senior Development Officer (Historic Environment) to advise on the programme and progress of work, and agree site meetings as required.
- A summary of the results will be presented to the Senior Development Officer (Historic Environment) within 1 month of the completion of the fieldwork.
- In the event that significant remains are encountered an updated project design will be agreed with the Senior Development Officer (Historic Environment).

5. Project Staff

An experienced archaeologist employed by CAU Projects will carry out the archaeological fieldwork and reporting.

The project will be managed by a manager who is a Member of the Institute for Archaeologists, who will:

- Take responsibility for the overall direction of the project.
- Discuss and agree the objectives and programme of each stage of the project with project staff, including arrangements for Health and Safety.
- Monitor progress and results for each stage.
- Edit the project report.

6. Timetable

The archiving and archive report will be completed within 12 months of the ending of the excavations. The timetable for further stages of assessment, analyses and publication will be agreed with Senior Development Officer (Historic Environment) in the light of the results of the excavations.

7. Health and safety during the fieldwork

7.1 Health and safety statement

- Cornwall Archaeological Unit is within the Economy, Enterprise and Environment Directorate of Cornwall Council. The CAU team follows Cornwall Council's Statement of Safety Policy.
- Prior to carrying out any fieldwork CAU Projects will carry out a risk assessment.

8. Insurance

As part of Cornwall Council, CAU is covered by Public Liability and Employers Liability Insurance.

9. Standards

The CAU follows the Institute for Archaeologists' Standards and Code of Conduct and is a Registered Archaeological Organization.

10. Copyright

Copyright of all material gathered as a result of the project will be reserved to the Cornwall Archaeological Unit. Existing copyrights of external sources will be acknowledged where required.

This project design and estimate is the copyright of Cornwall Archaeological Unit, Cornwall Council.

Use of the material will be granted to the client.

11. Freedom of Information

All information gathered during the implementation of the project will be subject to the rules and regulations of the Freedom of Information Act 2000.

Notes

- It is assumed that the client will supply the mechanical excavator. The cost is not included in the attached estimate.
- The client will be responsible for the Health and Safety arrangements onsite (including fencing, etc), and it is assumed that welfare facilities will be made available.
- In the event that human remains are uncovered the client will ensure that appropriate screening is put in place.
- The post excavation programme (assessment, analysis and reporting) will need to be reviewed in the light of the fieldwork.

Dr Andy Jones 12/6/15

Cornwall Archaeological Unit

Cornwall Council

Fall Building

County Hall

Treyew Road

Truro

TR1 3AY

Tel: 01872 323691