

230 metres
Distance to Site Centre

Residential properties on Penally Heights

The site (screened)



Photo Viewpoint 1: Short-range view looking south west from a public footpath between Hill Farm and Crack Farm

270 metres
Distance to Site Centre

Approximate location of site (screened)



Photo Viewpoint 2: Short-range view looking south east from a public footpath between Hill Farm and Crack Farm

420 metres
Distance to Site Centre

Approximate location of site (screened)



Photo Viewpoint 3: Short-range view looking south from a public footpath to the south of the Ridgeway

430 metres
Distance to Site Centre

The site Residential properties
on Penally Heights Penally Court
Farm Campsite



Photo Viewpoint 4: Short-range view looking north from the Wales Coast Path

590 metres
Distance to Site Centre



The site

Residential properties
on Penally Heights

Wales Coast Path

Photo Viewpoint 5: Mid-range view looking north east from the Wales Coast Path

720 metres
Distance to Site Centre



The site

Residential properties
on Penally Heights

Penally

Photo Viewpoint 6: Mid-range view looking north from the Wales Coast Path

1200 metres
Distance to Site centre

Wales Coast Path

Approximate location of site (screened)



Photo Viewpoint 7: Long-range view looking north east from the Wales Coast Path

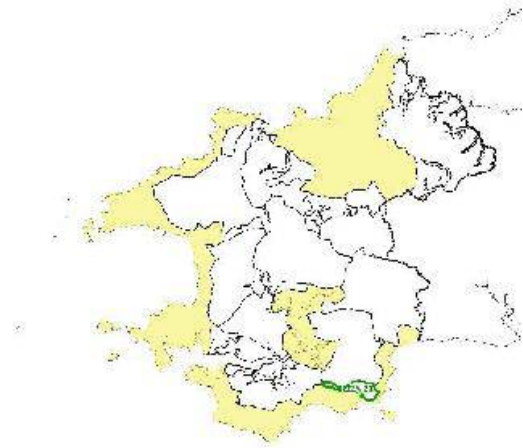
APPENDIX 1

Landscape Character Area 21 'Penally'

Landscape Character Area 21: Penally

Location

Located in the south eastern part of Pembrokeshire to the west of Tenby, including the settlement of Penally and bounded to the south and east by the National Park.





View of the edge of the ridge and skyline across valley floor from the north east



View out to the southwest from the Ridgeway towards the coast at Lydstep



View of ridge skyline and backcloth from the south west within National Park

Summary description

A distinctive and prominent east west ridge top and slopes falling north to the flat bottomed Ritec valley with marshland and slopes to the east falling south to the settlement of Penally with its Conservation Area and associated low lying land just behind coast within the National Park. The area is primarily pastoral with patches of broadleaved woodland on steep slopes. The ridge and slopes form part of the backcloth to the National Park to the south and the area forms a green gap between Penally village and Kiln Park in Tenby to the east.

Key characteristics

- **Prominent ridge top running east west rising to 108m AOD centrally and falling to just over 90m AOD to the east and west.**
- **To the north, the ridge slopes steeply at first and then in a series of gentler slopes and valleys to the then distinctive steep sided and flat bottomed valley of the Ritec at 5m AOD with some small open water bodies. To the south east the slopes are marked and consistent down to Penally at around 5-10m AOD.**
- Geology is dominated by Devonian Old Red Sandstone which forms a prominent ridge running east to west and forming a significant landscape feature. The lower slopes to the north and south east around Penally are formed of Carboniferous limestone which continues in a band to the west in LCA 20. The Ritec valley is a former lake/lagoon in a drowned estuary and separated from sea by the sand dune barrier of the Burrows to the south and similar fluvial lowland lies to the south. The northern slopes of the Ritec are a continuation of Carboniferous limestone/mudstone which covers much of LCA20 to the north.

- **Largely pastoral improved grassland in small to medium irregular fields, with some arable to the north near Gurfreston, enclosed by hedgebanks and hedges with limited trees.**
- **Marshland and reedbeds lie on the valley floor of the Ritec valley** as part of Ritec Fen SSSI and to the south of Penally.
- **Ancient woodland occurs in small patches on steep valley sides associated with the Ritec and tributaries and more extensively on the north facing ridge sides with other broadleaved woodland.** Little Hoyle and Hoyle's Mouth caves and woodland are SSSIs.
- **Occasional scattered farmsteads dominate much of the settlement pattern, mostly being at breaks of slope or set down in the landscape and some with listed buildings** such as West Tarr and Carswell medieval houses and Palmerslake farmhouse. St Florence Conservation Area lies to the west just outside the area.
- Scheduled monuments include Little Hoyle Cave and Longbury Bank Dark Age site on the edge of the valley floor and Carew Beacon round barrows on the western end of the ridge.
- There are non-agricultural uses north of the ridge including golf course at Trefloyne Manor and small solar farm and quad bike trails at Roberts Wall Farm.
- The settlement of **Penally** is the only settlement of size. It is **set on the lower slopes of the ridge just above the levels and has a Conservation Area at its core with associated listed stone and render buildings such as the church, houses and cottages, and pleasant sloping greens.** Housing has expanded to the north and west and there are caravan parks and MoD training camp all defined and constrained by the A4139 coast road to the south and east and a largely wooded backdrop to the north. Modern housing, such as Penally Heights to the west, intrudes on the skyline without mitigation in some views.
- Part of Kiln Park holiday park lies to the east but is well contained by steep landform running up to Four Winds Lane as well as associated vegetation.
- Access to the area is limited to the north apart from the Ridgeway and few minor roads one of which has National Cycle Route 4 running east west and climbing up its western end and the Ritec Walk along the distinctive valley. To the south there is the A4139, railway and the Wales Coast Path.
- **Eastern part has role as green space** designated as Green Wedge in the adopted LDP separating **Penally from Tenby/Kiln Park with rough grassland, golf course, open pastoral/grass fields on gentle slopes up from the coastal burrows, with properties in large gardens and fields further inland.**
- **Narrow ridge top forms a distinctive skyline running east to west and southern slopes are highly intervisible with the National Park to the south, contributing strongly to its backcloth.**
- **The area is largely tranquil along the ridgeway and northwards although this decreases around Penally.**
- **Key views are from the Ridgeway and footpaths on the ridge out to Caldey Island and Carmarthen Bay. Other key views are from the Wales Coast Path inland across the area and to the ridge and from the Ritec Walk.**
- Culturally forms part of an area of rich farmland and English-speaking communities well south of the Landsker line.

* **Note:** Bold text indicates key characteristics and qualities contributing most to sense of place.

Landscape change

- Modern residential and tourism related/recreational development around Penally has eroded its traditional character and there is pressure to increase this.
- Kiln Park has been developed to the east and is well contained and screened by landform at present.

- MoD training camp may be subject to changes in future years, with resultant redevelopment pressure possible.
- Solar energy is small scale at present but there may be pressure for more.
- Small scale renewable energy developments, including wind turbines are visible from the Ridgeway, and there may be pressure for more within the area.
- Much of the low lying land here is prone to increased flooding risk due to climate change.

Landscape guidelines

- Avoid development on ridge skyline and slopes both to the south expanding Penally and to the north in the rural hinterland. The higher up the slope the more sensitive development is and extensions around Penally Heights to the north, east and west should be avoided.
- Maintain the separation between Penally and Kiln Park/Tenby and avoid expansion into the area eroding the separation and the open setting from the Coast Path.
- Avoid any development south and east of the A4139 coast road which tightly defines the housing and leisure developments associated with Penally.
- Improve and soften the built edges of Penally with appropriate planting and green space.
- Encourage broadleaved woodland and trees in hedgerows to reinforce the enclosure and contain built development at lower levels.
- Conserve and enhance hedgerows to maintain the landscape pattern laying if outgrown and avoid use of post and wire if possible.
- Follow County guidance on caravan, chalet and camping development for the area.
- Control the spread of grey willow into valuable grassland habitats.
- Avoid wind energy and solar energy on the ridge and slopes to avoid adverse effects on the National Park and the area to the north.
- Future solar energy should be well contained by trees and hedgerows from key views.
- Accommodate flooding with resilience measures and habitat adaptation.

Adjacent National Park landscape character areas:

LCA2 Tenby

LCA4 Manorbier /Freshwater East

Adjacent/nearby National Park seascape character areas:

SCA38 Lydstep Haven coastal waters- overlaps area

SCA39 Tenby and Caldey Island- overlaps area

LANDMAP aspect areas and value:

Visual and Sensory Aspect Areas	Historic Landscape Aspect Areas	Geological Aspect Areas	Cultural Landscape Services Aspect Areas	Landscape Habitats Aspect Areas
<i>058 – moderate</i> 057 – moderate 060 – moderate 059 – moderate	<i>46080 – high</i> 46175 – high 46177 – high 46154 – high 46153 – high 46173 – outstanding 46176 – outstanding	207 – moderate 216 – moderate 224 - moderate 220 – high 219 – high	<i>109112</i>	<i>392- moderate</i> 885 – moderate 347 – high

Bold italic text indicates the prevailing aspect area where one exists

APPENDIX 2

Significance Criteria for Visual Impact.

Extract of 'Guidelines for Landscape and Visual Impact
Assessment produced by The Landscape Institute and Institute
of Environmental Management & Assessment.

SIGNIFICANCE CRITERIA FOR VISUAL IMPACT

Extract of 'Guidelines for Landscape and Visual Impact Assessment (2nd Edition) produced by The Landscape Institute and Institute of Environmental Management & Assessment (2002).

Substantial adverse impact.

Where the scheme would cause a significant deterioration in the existing view.

Moderate adverse impact

Where the scheme would cause a noticeable deterioration in the existing view.

Slight adverse impact

Where the scheme would cause a barely perceptible deterioration in the existing view.

Slight beneficial impact

Where the scheme would cause a barely perceptible improvement in the existing view.

Moderate beneficial impact

Where the scheme would cause a noticeable improvement in the existing view.

Substantial beneficial impact

Where the scheme would cause a significant improvement in the existing view.

No change

No discernable deterioration or improvement in the existing view.

Pre-Development Tree Survey & Assessment

Of

Penally Training Camp

Prepared By



Ref: TDA/2994/TS&A/RhC/08.24

August 2024

Pre-Development Tree Survey & Assessment

Of

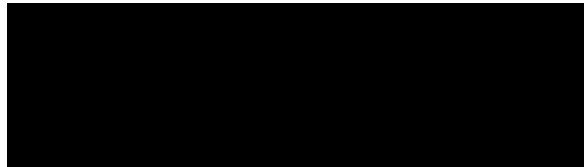
Penally Training Camp

For

Defence Infrastructure Organisation

Prepared by

Tirlun Design Associates Ltd
The Granary
Newland Fawr Farm
Llangan
CF35 5DN

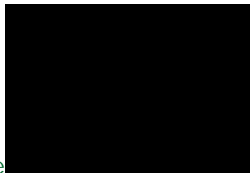


Document Approval

This document has been prepared and checked in
accordance with Tirlun Design Associates' quality control
system

Status: **1st Draft**

Author:



Approved:

Date: **August 2024**

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Drawing no. TDA.2994.01 - Tree Survey Plan (BS5837:2012)

1.0 Supporting Information and Explanatory Keys

1.1 INTRODUCTION

1.11 Generally

Trees are of vital importance to the landscape and are essential for enhancing the rural and urban environment. They provide scenic character, visual amenity and are vital habitats for dependent wildlife populations.

The retention of existing trees not only benefits a site and its surroundings but also raises the overall quality of an area and enhances property value.

Trees which are damaged, or their immediate environment significantly changed may subsequently decline and die resulting in all positive benefits being lost.

1.12 Purpose of Survey

Tirlun Design Associates were appointed by the Defence Infrastructure Organisation to undertake a pre-development survey and assessment of existing trees located on and adjacent to their site at the Penally Training Camp.

This document is a record of the survey and its purpose is to provide the client with a concise presentation of the position, dimensions, condition and future life expectancy of existing trees on site.

Recommendations are provided on arboricultural works which should be undertaken in the interests of safety, or as part of sound management practice. However, the tree survey conducted and the results presented within this report are specifically designed to meet the BS5837 standard, and are not a substitute for either a full Tree Safety Survey or Management Plan designed to provide a detailed appraisal of the risk and liability associated with responsibility for individual trees or groups of trees.

The survey is illustrated by drawing no. TDA.2994.01 which shows the location and assessed category of surveyed trees.

1.13 The Site

The site comprises a former military training camp with numerous small buildings and associated hard-standing, trees comprise larger groups to the periphery with some small internal trees. Species include cypress, Sycamore, Sorbus and Cherry.

1.2 METHODOLOGY

1.21 Generally

The on-site survey of trees was carried out by Rhodri Crandon B.A. (Hons), Dip LA, who is experienced in arboriculture. He was assisted by Andrew Perrigo BSc (Hons), Dip LA. The survey was undertaken during July 2024.

Site data was recorded onto standardised survey forms and subsequently transposed in the office onto fair copies of the relevant forms for inclusion within this document. The location of individual trees and tree groups is based on a digital Ordnance Survey map modified as necessary by the topographical survey. The record drawing is numbered TDA.2994.01 and included within Appendix 1.

Trees were located, numbered, identified and their height determined by clinometer measurements. The trunk/stem diameters and crown clearances of trees were measured using a 10m tape. Branch spread was taken with a 10m tape to the cardinal points.

Age, structural/physical condition, management recommendations and estimated contribution in years were judged from an examination of the tree or tree group in question and each tree was categorised according to standardised criteria i.e. BS5837: 2012.

1.22 Conventions and Assumptions

In the pursuit of this survey, assumptions have been made and conventions followed.

1.23 Data Summary

The collected data has been summarised and plotted on drawing no. TDA.2994.01 (Appendix 1). The drawing identifies the trees by number and category as follows:

Category A	High Quality and Value	Retention Most Desirable
Category B	Moderate Quality and Value	Retention Desirable
Category C	Low Quality and Value	Could Be Retained
Category U	Remove	Unsuitable for retention

The drawings are intended to reduce the need for reference to the text. The user of the survey can clearly identify the merit of each tree from the drawings and, if required, refer to the specific notes in the Tree Survey Schedule.

1.3 KEY

1.31 Survey Classification Key

Tree no.	Numerical reference for each tree on the tree survey plan.
Species.	Common name with abbreviation of the scientific name (see tree species key).
Height.	In metres.
Stem dia.	<p>For single stem trees, diameter of trunk is measured in millimetres at 1.5 metres above adjacent ground level (on sloping ground to be taken on the upslope side of the tree base)</p> <p>For multi stemmed trees with 5 stems or less each stem is measured in millimetres and measurements included in the survey schedule. For multi stemmed trees with 6 stems or more each stem is measured and a mean average included in the survey schedule.</p>
Branch spread.	Branch spread was taken with a 10m tape to the cardinal points.
Crown Clearance.	Height in metres of crown clearance above adjacent ground level (to inform on ground clearance, crown stem ratio and shading).
Age.	<p>Assessment of the age of each tree:</p> <p>Y = Young</p> <p>EM = Early Mature</p> <p>M = Mature</p> <p>OM = Over Mature</p> <p>V = Veteran</p>
Physical Condition.	<p>Assesses the physical condition of each tree:</p> <p>G = Good</p> <p>F = Fair</p> <p>P = poor</p> <p>D = Dead</p>
Structural Condition.	<p>Classification of the structural condition of each tree.</p> <p>DB = Dead</p> <p>DW = Characteristic dead wood</p> <p>WS = Weak structure</p> <p>UB = Unbalanced</p> <p>RC = Regrown coppice</p> <p>TD = Trunk Decay</p> <p>CD = Crown Decay</p> <p>BD = Basal Decay</p> <p>PD = Physical Damage</p> <p>RP = Regrown Pollard</p>

Tree Survey Key - Cont'd

V1	=	High Vigour
V2	=	Normal Vigour
V3	=	Low Vigour

Management

Recommendations. Preliminary management recommendations including further investigation of suspected defects that require more detailed assessment and potential for wildlife habitat.

Est. remaining

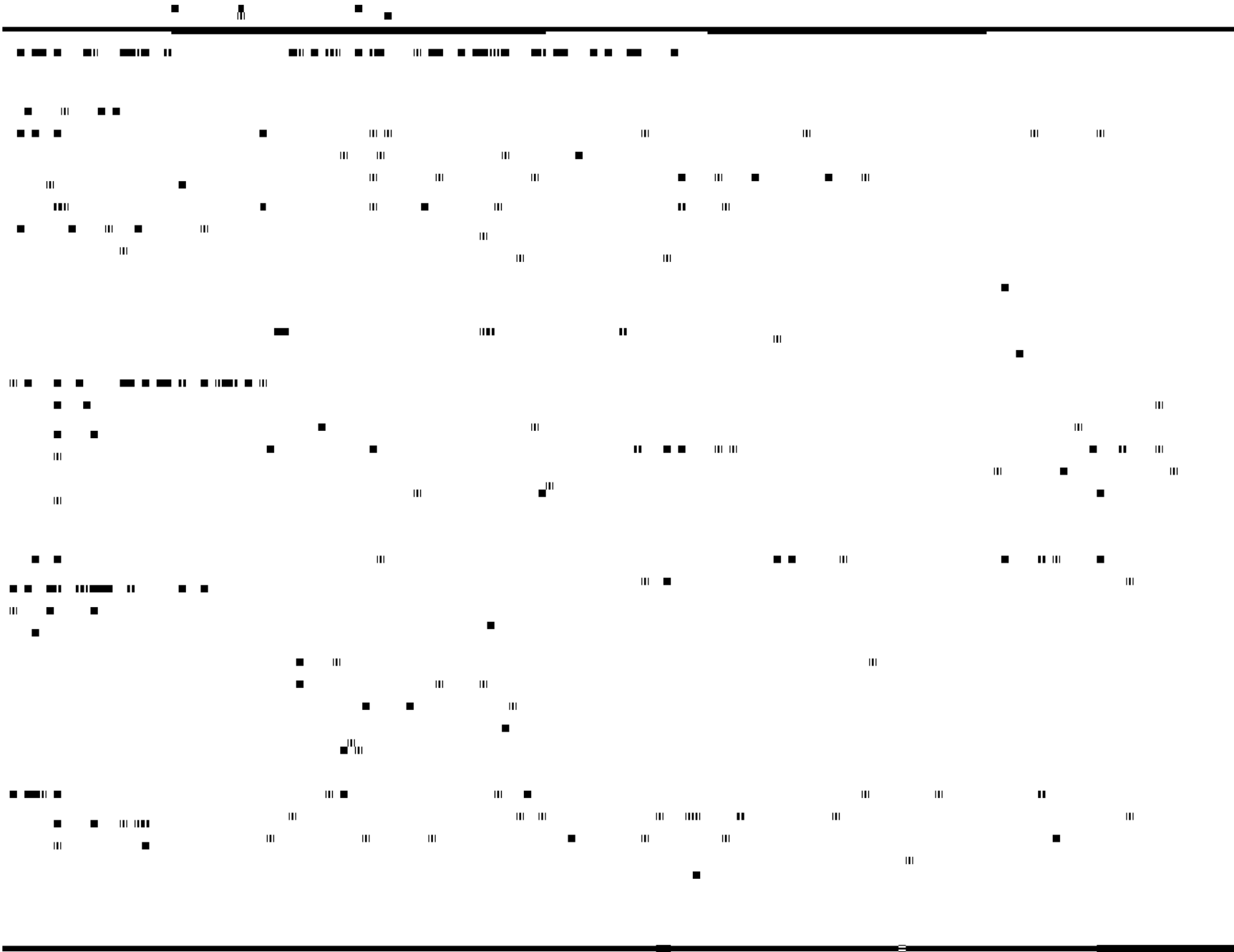
Contribution. Estimated remaining contribution in years:

<10,
10-20,
20-40
40>

Category.

U or A to C category grading to be recorded on the tree survey plan.
(Refer to Tree Category Description Key).

1.32 Tree Category Description Key



1.33 Tree Survey Species Key

A ca	Acer campestre	P ca	Populus canadensis
A S	Acer Saccharinum	P co	Pyrus communis
A co	Alnus cordata	P eu	Populus euramericana
A gr	Acer griseum	P h	Platanus hispanica
A hi	Aesculus hippocastanum	P l	Prunus lusitanica
A pl	Acer platanoides	P n	Pinus nigra
A plc	Acer platanoides 'Crimson King'	P pi	Pinus pinea
A ps	Acer pseudoplatanus	P n lt	Populus nigra 'Italica'
B da	Buddleja davdii	P r	Pinus radiata
B pe	Betula pendula	P se	Prunus serrula
B pa	Betula papyrifera	P sp	Prunus spinosa
B s	Buxus sempervirens	P sy	Pinus sylvestris
B uj	Betula utilis jaquemontii	P ta	Populus tacamchacca
C a 'G'	Cedrus atlantica 'Glaucua'	P tr	Populus tremula
C av	Corylus avellana	Q c	Quercus coccinea
C d	Cedrus deodora	Q ce	Quercus cerris
C b	Carpinus betulus	Q il	Quercus ilex
C l	Cotoneaster lacteus	Q pe	Quercus petraea
C la'E'	Cham. Lawsonia 'Elwoodii'	Q ro	Quercus robur
C Le	Cupressocyparis 'Leylandii'	Q ru	Quercus rubra
C ma	Cupressus macrocarpa	R ps	Robinia pseudoacacia
C mo	Crataegus monogyna	R t	Rhus Typhina
C ox	Crataegus oxycantha	S a	Salix alba
C sa	Castanea sativa	S ar	Sorbus aria
E g	Eucalyptus gunnii	S ar L	Sorbus aria 'Lutescens'
F c	Ficus carica	S au	Sorbus aucuparia
F ex	Fraxinus excelsior	S bt	Salix babylonica 'Tortuosa'
F or	Fraxinus ornus	S ca	Salix caprea
F sy	Fagus sylvatica	S ci	Salix cinerea
F sy 'P'	Fagus sylvatica 'Purpurea'	S da	Salix daphnoides
G tr	Gleditsia triacanthos	S fr	Salix fragilis
I aq	Ilex aquifolium	S in	Sorbus intermedia
J re	Juglans regia	S ni	Sambucus nigra
L an	Laburnum anagyroides	S pu	Salix purpurea
Ln	Laurus nobilis	S se	Sequoia sempervirens
L t	Liriodendron tulipifera	S vi	Salix viminalis
M cv	Malus (cultivar)	S vit	Salix vitellina
M gr	Magnolia grandiflora	T ba	Taxus baccata
M gl	Metasequoia glyptostroboides	T b'F'	Taxus baccata 'Fastigiata'
M sy	Malus sylvestris	T co	Tilia cordata
P s A	Prunus subhirtella 'Autumnalis'	T euch	Tilia euchlora
P ab	Picea abies	T eur	Tilia europaea
P av	Prunus avium	U gl	Ulmus glabra

2.0 Collected Data

2.1 TREE SURVEY SCHEDULE

Tree Survey Schedule to be read in conjunction with Tree Survey Key, Tree Category Description Key, Tree Species Key and drawing no. TDA.2994.01.

Tirlun Design Associates Ltd

Tree Survey Schedule (BS5837:2012)

Site: Penally

Arboricultural Consultants/Surveyors: RhC / AMP

Date of Survey: July 2024

Sheet Number: 1 of 2

Tree / Tag no.	Species	Height (m)	Stem dia.(mm)	Branch spread (m)	Crown clearance (m)	Age	Physical condition	Structural condition	Management recommendations	Est.remaining contribution (years)	Category
G1	Cle	11	600	N 4 E 4 S 4 W 4	1.5	EM/ M	F/P	DW, WS, UB, TD, V2	Consider removal & replacement with native species	20-40	C
1	SarL	9	300	N 5 E 4 S 2 W 2	1.5	EM/ M	P	DW, UB, TD, V2	Monitor Trunk decay	40+	C
2	SarL	8	400	N 2 E 5 S 3 W 2	3	EM/ M	P	DW, WS, PD, TD, V2	Inosculation of branches at 2 metres. Significant deadwood. Remove	10-20	U
G2	Cle	20	850 Av	N 8 E 3 S 4 W 3	0.5	M	F/P	DW, WS, UB, V2	Linear group of mutually suppressive conifers. Extensive deadwood on southern side. Consider removal	20-40	C
3	Prunus Spp.	5.5	200	N 3 E 3 S 3 W 3	2	Y/ EM	F	DW, V2	None	20-40	C
4	Cle	14	500	N 6 E 3 S 6 W 4	4	EM/ M	P	DW, V2	Sparse crown. Extensive deadwood. Consider removal & replacement with native species	10-20	C
5	Cle	13.5	700	N 4 E 4 S 4 W 4	3	M	F/P	DW, V2	Consider removal & replacement with native species	20-40	C

Tirlun Design Associates Ltd

Tree Survey Schedule (BS5837:2012)

Site: Penally

Arboricultural Consultants/Surveyors: RhC / AMP

Date of Survey: July 2024

Sheet Number: 2 of 2

Tree / Tag no.	Species	Height (m)	Stem dia.(mm)	Branch spread (m)	Crown clearance (m)	Age	Physical condition	Structural condition	Management recommendations	Est.remaining contribution (years)	Category
6	Aps	14	400	N 4 E 6 S 6 W 3	2	EM	P	DW, UB, V2	Sparse crown dying back.	<10	U
7	Sau	6	200	N 3 E 3 S 3 W 3	2	Y/ EM	F/P	V3	None	20-40	C
G3	Sau	7.5	300	N 2 E 2 S 2 W 2	2	Y/ EM	F/P	PD, TD, V2	Growing in narrow strip between concrete & wall edge	40+	C

3.0 Conclusion

3.1 TREE SURVEY SUMMARY

During July 2024 a total of 7 no. individual trees and 3 no. tree groups were surveyed and assessed at the Penally site.

Following survey and assessment in accordance with the British Standard for Trees in Relation to Design, Demolition and Construction (BS 5837: 2012), trees were categorised as follows: -

Category A	High Quality and Value	Retention Most Desirable
Category B	Moderate Quality and Value	Retention Desirable
Category C	Low Quality and Value	Could Be Retained
Category U	Remove	Unsuitable for Retention

Of the individual trees, 5 no. were assessed as Category C (Low Quality & Value) and 2 no. were assessed as Category U (Unsuitable for Retention).

Of the tree groups, G1, G2 and G3 were assessed as Category C (Low Quality & Value).

There are no trees of particular note on site.

An Offsite Ash on the western boundary is infected with *Hymenoscyphus fraxineus* (Ash dieback) and is overhanging the site. Depending on the proximity of any proposed structures, removal may be necessary.

End of report: August 2024 (Valid for 12 months from survey date).

4.0 Appendix 1

KEY :
Assessment of trees in accordance with BS 5837: 2012

A. High Quality and Value


B. Moderate Quality and Value

C. Low Quality and Value

U. Unsuitable / Remove



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Environment | Landscape | Design

CLIENT

DEFENSIVE INFRASTRUCTURE ORGANISATION

DRAWING NUMBER

TDA.2994.01

SCALE

1:500 @ A0

DRAWN

RHC/AMP

DATE

AUGUST 2024

PROJECT

PENALLY TRAINING CAMP

DRAWING TITLE

TREE SURVEY DRAWING

Sustainability Appraisal (SA) of the Penally Training Camp Site

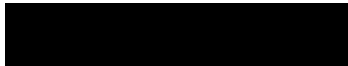
Pembrokeshire County Council LDP Proposed Site
Submission

10037212-AUK-XX-XX-RP-TC-0001-P1.2-SA of Penally Training Camp Site

December 2024

Contacts

SARAH TOOBY
Associate Technical Director



Arcadis (UK) Limited

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Revision Control

Revision	Date	Author	Checker	Reviewer	Approver	Changes
1	28.11.24	ST	CW	AP	AP	Version for client review
2	09.12.24	ST/AL	CW	AP	AP	Updated Version for Submission

This report dated 09 December 2024 has been prepared for Avison Young Limited (the “Client”) in accordance with the terms and conditions of appointment dated 29 October 2024(the “Appointment”) between the Client and **Arcadis (UK) Limited** (“Arcadis”) for the purposes specified in the Appointment. For avoidance of doubt, no other person(s) may use or rely upon this report or its contents, and Arcadis accepts no responsibility for any such use or reliance thereon by any other third party.

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1 Introduction

1.1 Overview

Arcadis Consulting (UK) Limited has been commissioned by Avison Young Limited to undertake the Sustainability Appraisal (SA) of the Penally Training Camp Site (the Proposed Site) on behalf of the Defence Infrastructure Organisation (DIO). The site is located at Barracks Road, Penally, Pembrokeshire SA70 7QL, and extends to 5.83 hectares (14.4 acres). This SA has been written so that its findings could be directly inputted into the Sustainability Appraisal of the Pembrokeshire County Council (PCC) Local Development Plan (LDP2), and its findings compared to the other sites assessed in the SA. It is noted that this is not intended to be a standalone SA Report and is intended to be read alongside the SA Report accompanying the second Deposit LDP2 for consultation 2024.

1.2 Pembrokeshire County Council Local Development Plan Review (LDP2)

The second Deposit LDP2 identifies a need for 5,840 new homes between 2017 and 2033 (365 a year) including 2,000 affordable homes. Consultation on the plan runs between 21 October and 16 December 2024. The Plan proposes revised town and village boundaries (known as settlement boundaries) and a range of sites are allocated (identified) for different land uses, including 54 sites for housing.

1.3 The Proposed Site

It is proposed that the Proposed Site is submitted to PCC as an alternative site, via an objection to the second Deposit LDP2. The Proposed Site is previously developed, and would be of low density (30 dwellings per hectare), with 118 units to be included using the following mix:

- 2 - bedroom link = 15
- 3 - bedroom link = 15
- 3 - bedroom detached = 53
- 4 - bedroom detached = 35

A Location Plan, Indicative Masterplan, and Constraints Plan will be submitted in support of the Proposed Site, together with a suite of supporting surveys and assessments. These have been used as the basis of this SA.

1.4 Sustainability Appraisal Methodology

The second Deposit LDP2 'Sustainability Appraisal and Strategic Environmental Assessment Report – Re-Deposit Plan' is available on the PCC website ([Part1.pdf](#)) (SA Report).

The assessment of the Proposed Site for promotion is based on the existing SA undertaken on the second Deposit LDP2. The assessment has been undertaken using the adapted SA Framework that has been used to assess the other sites. Further details of how the SA Framework has been developed is included within the SA/SEA reporting available online. Other key sources of information used in this appraisal include:

- Constraints Plan, Land at Penally, Tenby
- OAD5371 Masterplan, Land and Penally, Tenby
- Local Policies of relevance (see Section 2)

- Baseline information, key issues and opportunities and future trends data (SA Report September 2024)
- Existing appraisals so that the assessment of the proposed site is proportionate and consistent with the approach taken - Appendix 6, assessment of allocations, SA Report September 2024
- Interactive Constraints Map, available: [Deposit - Pembrokeshire County Council](#)
- Natural Resources Wales, [Check your flood risk](#)

1.5 Assessment Criteria

The SA Report notes that, in adoption to the SA Framework, 'more site-specific appraisal criteria' were used to assess the impact of the proposed development sites. This is included within the Candidate Site Methodology. The SA Framework and scoring criteria are presented below and have been used in the assessment of the Proposed Site. In relation to the Candidate Site Assessment Methodology, it is noted this was undertaken ahead of the SA process, and not as an integral part of the assessment. It has not been possible to fully replicate this process for the Proposed Site (for example, in terms of consulting internal PCC departments and key organisations). However, the relevant criteria have been mapped against the SA Objectives, and included within the assessment, as presented in section 2. One of the key objectives of the LDP preparation process is to ensure that sites allocated for development represent viable and deliverable opportunities. This is particularly the case for housing development to ensure that the housing land requirements of the LDP can be met.

Avison Young have undertaken an initial viability assessment of the Site's proposed residential development using the Development Viability Model (DVM) provided by the Council, which demonstrates that the Proposed Site represents a viable and deliverable opportunity for residential development. The Site is not encumbered by any known legal constraints / covenants and is wholly owned by the client, the Defence Infrastructure Organisation (DIO). Its development could be delivered within the Plan period.

2 SA of the Proposed Site

As set out in the SA Report (Appendix 6), the assessment of the effects of the sites against the Sustainability Objectives includes the following considerations of whether the effect would be:

- Negative (adverse), neutral or positive (beneficial);
- Direct or indirect;
- Short, medium or long term;
- Isolated or cumulative; and/or
- Reversible or irreversible.

Appendix 6 also notes that any site allocations would need to include mitigation measures to minimise or obviate any predicted negative effects. These include key mitigation measures that are required by the following policies, which have been taken to consideration in this assessment. Any additional measures will be included within the assessment, as necessary.

Figure 2-1 LDP Development Management Policies of relevance

Key	Policy Reference	
A.	GN1 (2)	Local Amenity: It would not result in a significant detrimental impact on local amenity in terms of visual impact, loss of light or privacy, odours, smoke, fumes, dust, air quality or an increase in noise or vibration levels.
B.	GN1(4)	Soil Quality: It would not cause an unacceptable adverse effect (a harmful impact that cannot be satisfactorily mitigated) on soils
C.	GN(5)	Biodiversity: It respects and protects the natural environment with no unacceptable adverse effects (a harmful impact that cannot be satisfactorily mitigated) on the environment including protected sites, habitats and species;
D.	GN1(6)	Sustainable Transport: It will incorporate sustainable transport and accessibility principles and would not result in a detrimental impact on highway safety or in traffic exceeding the capacity of the highway network.
E.	GN1(9)	Water Quality: It would not have a significant adverse impact on water quality (see also policy GN 47);
F.	GN1(10)	Light Pollution: Any proposal with significant light pollution potential must include a lighting scheme. Proposals must minimise their light impact through appropriate mitigation wherever possible.
G.	GN1(11)	Waste and Pollution: It minimises the generation of waste during implementation and manages any waste generated.
H.	GN1(12)	Health and Safety: It would not cause or result in unacceptable harm to health and safety, including through flood risk
I.	GN2	Sustainable Design
J.	GN1(3)	Landscape: It would not cause an unacceptable adverse effect (a harmful impact that cannot be satisfactorily mitigated) on landscape character, quality or diversity .. including the special qualities of the Pembrokeshire Coast National Park and neighbouring authorities;
K.	GN28	Historic Environment: Development will only be supported where it conserves, protects, preserves or enhances the following cultural and historic assets and their setting
L.	GN1(8)	Flooding: It would not cause or result in unacceptable harm to health and safety, including through flood risk.
M.	SP19	Welsh language: Must not have an unacceptable impact on the vitality and viability of the Welsh language and development to be managed sensitively through mitigation and measures to enhance the interests of the Welsh language and culture.

In addition, emerging LDP Policy GN15 also stipulates that all new build residential development on sites of 5 or more units must provide a minimum of 20% of properties built to Lifetime Homes Standards (in response to the significant increase in the proportion of the population with a disability) and in addition, wheelchair user dwellings will be supported. Policy GN20 sets the requirements for Affordable Housing, under which the Proposed Site is deemed to be Band 4. As there is no requirement included within the policy for over 100 dwellings, a figure of 40% has been assumed.

The full assessment of the Allocations can be found in Appendix 6 here: [Appendices Appendix 1 SA of the LDP Vision \(1\).pdf](#)

Table 2-1 Scoring Matrix

++	There is a generally consistent strong positive association between the policy option and the Sustainability Objective
+	There is a weak or inconsistent, but generally positive association between the policy option and the Sustainability Objective.
0	There is not a significant association between the policy option and the Sustainability Objectives, or the association is neutral (the combination +/- is used where it is believed a policy will have both positive and negative effects with regard to a particular Sustainability Objective).
-	There is a weak or inconsistent, but generally negative association between the policy option and the Sustainability Objectives.
--	There is a generally consistent strong negative association between the policy option and the Sustainability Objectives.
?	The association between the policy option and the Sustainability Objectives is uncertain, may be used in association with other symbols to indicate a degree of uncertainty in the conclusion.

2.1 Assessment

Table 2-2 Sustainability Appraisal of Proposed Site

No.	SA Objective	Appraisal commentary	Effect Score	Mitigation	Proposed Project Commitments
1.	Develop and maintain a balanced population structure.	Provision of housing sites can have direct positive effects on the population structure, in the short medium and long term. For instance, in the short-term younger people may be able to stay in the county if there is suitable housing at an affordable price. Over time, these communities may stay in the area and have families, leading to a cumulative positive effect.	+	n/a	n/a
2.	Promote and improve human health and well-being through a healthy lifestyle, access to healthcare and recreation opportunities and a clean and healthy environment.	The Proposed Site would comprise the development of high-quality housing and include an increase in trees and vegetation cover in comparison to the existing site. The community would have access to woodland, green areas, and local areas of play, which could lead to benefits for health and wellbeing locally. The site is on the edge of the Penally settlement, and so would enable residents to have easy access to open spaces, which could lead to health and recreational opportunities and health benefits in the medium and long term. The closest GP surgery (Tenby Surgery) is 2.3 miles by walking, 3.1 miles by road, or 25 minutes by bus from the site. This is considered to be acceptable in terms of accessibility.	++	n/a	n/a
3.	Improve education opportunities to enhance the skills and knowledge base.	The closest schools to the site are located in Tenby and include Ysgol Greenhill School (2.3 miles away); There are also Welsh medium and English medium primary schools within 2.5 miles of the site. There is a special educational unit, the Penally Centre, 1.1 miles from the Proposed Site. In comparison to the provision of housing elsewhere, the Proposed Site could support the enhancement of the community skills base in the medium to longer terms, through the provision of housing in relatively close proximity to educational facilities.	+	n/a	n/a

No.	SA Objective	Appraisal commentary	Effect Score	Mitigation	Proposed Project Commitments
4.	Minimise the need to travel and encourage sustainable modes of transport.	The closest bus stop is approximately 150m from the Proposed Site, which would enable new residents to access services and facilities, as well as employment, via public transport. Once out of the village, there is also a footpath to Tenby, with the full walking distance being approximately 2 miles. The availability of sustainable modes of transport could lead to beneficial effects against this objective.	+	n/a	The scheme could commit to providing off-road pedestrian access to the closest bus stop.
5.	Provide a range of high-quality housing including affordable housing to meet local needs.	The development of the Proposed Site would lead to the delivery of a range of high-quality housing, to meet local needs leading to a permanent beneficial effect. As a large site, the scheme creates the potential to generate a large proportion of affordable housing within the local area. 20% of properties built to Lifetime Homes Standards (in response to the significant increase in the proportion of the population with a disability) and in addition, wheelchair user dwellings will also be supported.	++	GN15 and GN20	The scheme could commit to ensure that affordable housing remains affordable over time.
6.	Build safe, vibrant and cohesive communities which have improved access to key services and facilities.	It is considered that the re-use of the site would lead to an improvement for community cohesion and vibrancy over the existing previously developed site use, which includes empty buildings. The Proposed Site is approximately 2 miles from Tenby, which supports a wide range of services and facilities. Residents would also have access to more local facilities, such as the church and the public house, within the village itself, 0.5 miles away.	+	n/a	The provision of additional services or facilities could improve the significance of this potential effect.
7.	Protect and enhance the role of the Welsh language and culture.	Ysgol Hafan y Môr is a Welsh medium primary school, located 2.1 miles from the site. In comparison to the provision of housing elsewhere, could support the enhancement of the role of the Welsh language, through the provision of housing in relative proximity to Welsh medium educational facilities.	+	n/a	n/a
8.	Provide a range of good quality employment opportunities accessible to all	The provision of high-quality housing in the local area could lead to an increase in the number of skilled workers living locally. Alongside an improvement in the attractiveness of the area through the redevelopment of a disused site, this could improve the viability and attractiveness of the area to potential inward investors, who may bring employment opportunities.	+	n/a	n/a

No.	SA Objective	Appraisal commentary	Effect Score	Mitigation	Proposed Project Commitments
	sections of the population.	Temporary and short-term employment opportunities may result from the construction of the site and the marketing and selling of the dwellings.			
9.	Support a sustainable and diverse local economy.	There may be some long term and indirect benefits to the local economy through the increase in the population locally as well as the provision of affordable housing, which could enable local people to continue to live locally.	+	n/a	n/a
10	Prepare for and reduce the impact of Pembrokeshire's contribution to climate change.	The proposed masterplan for the site shows an improvement in vegetation cover above the existing site, including the provision of SuDs. Alongside the requirements for development provided by the LDP policies, it is considered that the development of the scheme could have a net beneficial effect, when compared to the potential provision of the same number of residential units elsewhere in the County.	+	B, C, D, E, G, I, L	n/a
11	Maintain and improve air quality.	Although the development of additional residential accommodation would be likely to lead to an increase in air pollution, it is considered that the combined effect of the increase in vegetation cover within the masterplan, and the potential use of sustainable transport modes to access nearby services and facilities, alongside policy requirements would reduce this effect. In line with the assessments provided within the SA Report, this has been scored as positive, in comparison to the potential for locating this housing need elsewhere.	+	GN1(2)	n/a
12	Minimise the generation of waste and pollution.	The development of a residential site is likely to increase the amount of waste being generated locally, leading to a potential negative effect. However, the potential for this effect to be significant will be minimised through the masterplan design. The site location may minimise potential pollution, through the use of sustainable modes of transport, and other measures, such as sustainable design, as stipulated by LDP policy.	-	A-G, I	The scheme could commit to re-using existing materials on site as much as is feasible.
13	Encourage the efficient production, use, re-use and recycling of resources.	The development of the site would comprise the redevelopment of previously used land. This could be considered to be an efficient use of resources in order to provide residential accommodation.	+	In line with Spatial Strategy	It is recommended that the Proposed Site could re-use as much on site material as

No.	SA Objective	Appraisal commentary	Effect Score	Mitigation	Proposed Project Commitments
					possible, to reduce waste.
14	<p>Maintain and protect the quality of inland and coastal water.</p> <p>Candidate site methodology: Presence of species/watercourse</p>	<p>There does not appear to be any watercourses within, or within proximity to, the site. The redevelopment of a disused site may lead to long terms benefits for water quality, through the potential for soil remediation.</p> <p>The Outline Drainage Statement sets out that the majority of the surface water runoff from the site's impermeable area 5,500m² - circa 36%) drains to the existing foul network. All on-site surface water drainage systems will be designed and constructed to comply with the (SDSSW) and building regulations requirements. The current high-level proposals seek to offer sufficient attenuation and flow control in order to provide a 50% betterment/reduction to the calculated existing brownfield runoff rate. The detailed design of the scheme will incorporate the philosophies outlined in the drainage strategy report.</p> <p>The existing foul water network discharges to an onsite pumping station near the southern boundary. The Proposed Site will not drain to the foul water network, and thus, may free up capacity in that system from the baseline conditions. This capacity will then be sufficient to accommodate the increase in foul drainage demand as a result of the development. Therefore, an overall positive effect is predicted against this objective.</p>	+	E	It is envisaged that the entire site's surface water runoff will be treated and conveyed by various SuDS features such as bioretention areas and swales at a rate half of the calculated brownfield rate.
15	<p>Reduce the impacts of flooding and sea level rises.</p> <p>Candidate site methodology: spatial assessment: flood risk</p>	<p>The site is at 'very low risk' from floodings from rivers, the sea or from surface water and small watercourses. The proposed masterplan for the site shows an improvement in vegetation cover above the existing site, including the provision of SuDs. Alongside the requirements for development provided by the LDP policies, it is considered that the development of the scheme could have a net beneficial effect, when compared to the potential provision of the same number of residential units elsewhere in the County.</p>	+	L	n/a

No.	SA Objective	Appraisal commentary	Effect Score	Mitigation	Proposed Project Commitments
	Is the site itself at risk of flooding or causing pollution?				
16	<p>Use land efficiently and minimise contamination.</p> <p><i>Candidate site methodology:</i> spatial assessment: contaminated land.</p>	<p>The development of the site would comprise the redevelopment of previously used land. This could be considered to be an efficient use of resources in order to provide residential accommodation.</p> <p>There is the possibility of contamination from the sites former use. A Phase 1 Land Quality Assessment has been undertaken, which concludes there are moderate risks to future residential users from the potential presence of hydrocarbons associated with underground fuel storage tanks, heavy metals, hydrocarbons, asbestos in burning grounds, demolished buildings (including the incinerator, gas hut, range workshops and vehicle repair shop), tips and burning areas, infilled ground, stockpiled bunds and the sewage treatment works; and from potential soil gas from the sewage treatment works, infilled ground and off-site landfill. The redevelopment of a disused site may lead to long terms benefits for soil quality, through the potential for soil remediation.</p>	+	B	Detailed site investigation will be undertaken to establish potential risks and mitigation measures.
17	<p>Safeguard soil quality and quantity.</p> <p><i>Candidate site methodology:</i> spatial assessment: mineral and soil safeguarding</p>	<p>The development of the site would comprise the redevelopment of previously used land. This could be considered to be an efficient use of resources in order to provide residential accommodation. The redevelopment of a disused site may lead to long terms benefits for soil quality, through the potential for soil remediation.</p> <p>The site is not within a mineral or soil safeguarding area.</p>	+	B	n/a
18	Maintain, enhance and value biodiversity and promote the resilience of ecosystems.	The site is not within an area protected for nature conservation. However, part of the site is within the 300m buffer for a Special Area of Conservation. Effects in relation to this are currently unknown and will be screened as part of requirements under the Habitats Regulation.	+	C	A Habitats Regulations Assessment Screening exercise will be undertaken to determine likely effects on the SAC from the

No.	SA Objective	Appraisal commentary	Effect Score	Mitigation	Proposed Project Commitments
	<p><i>Candidate site methodology:</i></p> <p>spatial assessment: sites protected for nature conservation importance.</p> <p>Does the current habitat provide valuable ecosystem service?</p> <p>Is loss of protected woodland/trees/hedgerows proposed?</p> <p>Are there protected or locally important species or habitats present?</p>	<p>The Preliminary Ecological Appraisal (PEA) concludes that the majority of habitats within the main camp were assessed as having relatively low value for wildlife, with the exception of the areas of high flora biodiversity on the northern boundary. There is an area of land located south of the subject site, beyond the A4139, which is deemed to have high potential for wildlife with priority habitat wet woodland being present. The woodland and hedgerow habitats surrounding the site were assessed as having high ecological value.</p> <p>The Proposed Site was found to have potential to support a range of protected and notable species including bats; breeding birds; amphibians; reptiles; other mammals (hedgehog); terrestrial and aquatic invertebrates; notable flora; and Invasive Non-Native Species (INNS).</p> <p>The proposed masterplan for the site shows an improvement in vegetation cover above the existing site, including the enhancement of trees, woodland areas and hedgerows. Amenity and biodiversity benefits to the site will be provided in the form of rain gardens, the swale and attenuation basin which will be incorporated throughout the site and also form part of the attenuation storage for the site and, along with the main attenuation basin, these will maximise the available green infrastructure within the development site which may improve air quality and water quality of the site. Alongside the requirements for development provided by the LDP policies, and national guidance, it is considered that the development of the scheme could have a net benefit for biodiversity, over the medium and long term</p>			<p>Proposed Site and the need for Appropriate Assessment.</p> <p>Further survey work is likely to be required to confirm presence and populations of these species, to inform any future ecological impact assessment and identify what necessary impact avoidance and mitigation measures will be required to progress development at the site.</p>
19	<p>Protect and enhance the landscape and geological heritage.</p> <p><i>Candidate site methodology:</i></p>	<p>The site is approximately 118m from the national park boundary. It is considered that the effect on landscape considerations would be neutral or slightly improved, as the existing site screening would be maintained and enhanced through the development of the site. A Landscape Character and Visual Impact Assessment has been undertaken. Overall, it is considered that the site can accommodate a new residential development without</p>	+	J	n/a

No.	SA Objective	Appraisal commentary	Effect Score	Mitigation	Proposed Project Commitments
	How does the site relate to the landscape, landform and other site features?	unacceptable landscape character or visual amenity impacts upon its immediate setting or the wider landscape in which it is located.			
20	Encourage quality locally distinct design that complements the built heritage.	The proposed masterplan for the site shows an improvement in vegetation cover above the existing site, including the enhancement of trees, woodland areas and hedgerows. As a disused site, it is considered that there is an opportunity to develop an exemplar residential scheme that would be an improvement in design over the existing provision, leading to beneficial effects against this objective.	+	I	n/a
21	Protect, enhance and value the built heritage and historic environment. <i>Candidate site methodology:</i> spatial assessment: sites, areas and buildings protected for heritage importance.	<p>None of the structures hold an official heritage designation, however local historians have acknowledged the heritage value associated with the former HQ building and the NAAFI accommodation building. It is noteworthy that a significant proportion of the existing buildings on the site are currently rated as being in fair-to-poor condition.</p> <p>In terms of archaeology, due to the current uncertain potential for buried archaeological remains within the site, further assessment may be required.</p> <p>As a disused site, it is considered that the scheme would be an improvement in design over the existing provision, leading to beneficial effects against this objective.</p>	+	I	All principal components identified as having heritage value could be incorporated and preserved in any future development proposal for the site. However, where this is not possible, a historic building record should be completed to ensure they are preserved by record. These works can form part of the post-consent process, as part of a condition on

No.	SA Objective	Appraisal commentary	Effect Score	Mitigation	Proposed Project Commitments
					any future planning application.

2.2 Cumulative Effects

The SA Report doesn't seem to have a full assessment of cumulative effects including the site assessments, so it has not been possible to consider how the Proposed Site should be considered within these.

2.3 Summary of Findings

Overall, it is considered that the Proposed Site would lead to potential significant benefits against SA Objectives relating to: Promoting and improving human health and well-being; and providing a range of high-quality housing including affordable housing to meet local needs.

Positive effects have also been predicted against all of the other SA objectives, with the exception of a minor negative score against the objective for waste, as there would inevitably be some waste associated with new development. However, this effect is unlikely to be significant.



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Tree Constraints Plan

For

Penally Training Camp

Prepared By



Ref: TDA/2994/TCP/RhC/08.24)

August 2024

Tree Constraints Plan

For

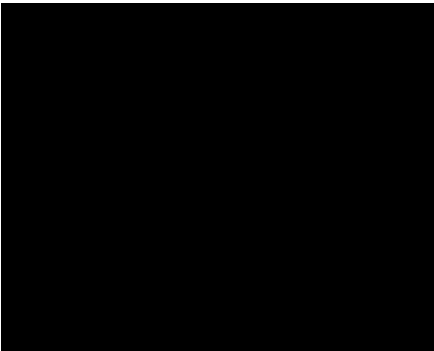
Penally Training Camp

On behalf of

Defence Infrastructure Organisation

Prepared by

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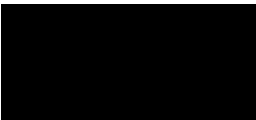


Document Approval

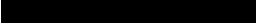
This document has been prepared and checked in accordance with Tirlun Design Associates' quality control system

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1.0 Supporting Information

1.1 INTRODUCTION

1.11 Generally

Trees are of vital importance to the landscape and are essential for enhancing the rural and urban environment. They provide scenic character, visual amenity and are vital habitats for dependent wildlife populations.

The retention of existing trees not only benefits a site and its surroundings but also raises the overall quality of an area and enhances property value.

Trees which are damaged, or their immediate environment significantly changed may subsequently decline and die resulting in all positive benefits being lost.

1.12 Purpose of Tree Constraints Plan

Following the completion of a Pre-Development Tree Survey and Assessment of land at the Penally Training Camp, Tirlun Design Associates were instructed by the Defence Infrastructure Organisation to prepare a Tree Constraints Plan for the site.

The purpose of this plan is to provide the client with an accurate record of above and below ground constraints presented by the existing retained trees.

These constraints are illustrated by drawing no. TDA.2994.02 which shows the locations and assessed category of retained trees together with their crown spread, root protection areas (RPA) and shadow patterns.

1.2 METHODOLOGY

1.21 Generally

The Pre-Development Tree Survey & Assessment of the Penally site was carried out during July 2024 by Tirlun Design Associates and information gathered during this survey was subsequently used to inform the Tree Constraints Plan.

1.22 Tree Categorisation

It is intended that the Tree Constraints Plan reduces the need for reference to the text within the Pre-Development Tree Survey & Assessment prepared by Tirlun Design Associates, document ref: TDA/2994/TS&A/RhC/08.24.

The user of the plan can clearly identify the merit of each tree from the drawings and, if required, refer to the specific notes in the Tree Survey Schedule included in the Pre-Development Tree Survey & Assessment.

The drawings identify the trees by number and category as follows:

Category A	High Quality and Value	Retention Most Desirable
Category B	Moderate Quality and Value	Retention Desirable
Category C	Low Quality and Value	Could Be Retained

1.23 Below Ground Constraints

To enable the successful retention of existing trees identified as categories A-C by the Pre-Development Tree Survey & Assessment it is essential that the rooting environments of these trees are not damaged.

In order to achieve this, Root Protection Areas (RPA) should be plotted around all category A, B and C trees. This is the minimum area, in square metres, which should be left undisturbed around each tree to be retained to ensure their successful retention.

The RPA's for retained trees at the Penally site have been calculated in accordance with Section 4.6 of BS5837:2012 – Root Protection Area. (See Appendix 1)

For single stem trees, this is equivalent to a circle with a radius 12 times the stem diameter (measured at 1.5m above ground level during the on-site survey).

Any deviation in the RPA from the original circular plot should take account of the following factors whilst still providing adequate protection to the root system:

- A) The morphology and disposition of the roots, when influenced by past or existing site conditions (e.g. the presence of roads, structures and underground apparatus.
- B) Topography and drainage.
- C) The soil type and structure.
- D) The likely tolerance of the tree to root disturbance or damage, based on factors such as species, age, condition and past management.

Stem diameters used to calculate the RPA's for existing retained trees at the Penally site can be seen in the Pre-Development Tree Survey and Assessment prepared by Tirlun Design Associates, document ref: TDA/2994/TS&A/RhC/08.24.

1.24 Above Ground Constraints

In addition to constraints below ground, the Tree Constraints Plan illustrates above ground constraints which comprises both the extent of existing tree crowns and the shadow patterns created by existing trees.

The branch spread of each tree was based on topographical survey data and included in the Pre-Development Tree Survey and Assessment prepared by Tirlun Design Associates, document ref: TDA/2994/TS&A/RhC/08.24.

These measurements were used to create an accurate spread for each tree which has been plotted onto the Tree Constraints Plan and coloured according to Tree Categorisation.

In order to represent the shadow patterns created by existing trees to be retained their heights were calculated during the on-site survey using a clinometer.

These were then used to plot a 'shadow segment' for each retained tree on the Tree Constraints Plan. This segment with a radius from the centre of the stem, equal to the height of the tree, is drawn from due north west to due east to indicate the shadow pattern through the main part of the day.

Shadow segments have been split into three categories considering the different characteristics of individual trees assessed during the on-site survey. These are:

Heavy Shade	Existing evergreen trees	Purple
Medium Shade	Existing deciduous trees with dense crowns	Royal Blue
Light Shade	Existing deciduous trees with light crowns	Sky Blue

The shadow segments also consider the crown clearance for each of the retained trees. This clearance (measured with a 10m tape during the on-site survey) is illustrated by removing a piece of the shadow segment, which has a radius equal to the crown clearance, adjacent to the main stem.

Tree heights, crown clearances and other characteristics used to calculate the 'shadow segments' for existing retained trees at the Penally site can be seen in the 'Pre-Development Tree Survey and Assessment' prepared by Tirlun Design Associates, document ref: TDA/2994/TS&A/RhC/08.24.

2.0 Conclusion

2.1 SUMMARY OF TREE CONSTRAINTS PLAN

In order to identify the above and below ground constraints presented by existing retained trees at the Penally site, the locations, numbers and assessed category of these trees, together with their crown spread, root protection areas (RPA) and shadow patterns, have been summarised and plotted on to the Tree Constraints Plan, drawing no: TDA.2994.02. This drawing is included in Appendix 2.

Where possible, development proposals for the site will need to accommodate both the above and below ground constraints illustrated by the Tree Constraints Plan to successfully retain existing trees.

Furthermore, development proposals should seek to include adequate space between existing trees and new structures to avoid any future management conflicts/issues.

Where tree removal is unavoidable, losses should be compensated with suitable native species.

3.0 Appendix 1

Calculating The RPA



4.0 Appendix 2

KEY :
Assessment of trees in accordance with BS 5837: 2012

- A. High Quality and Value
- B. Moderate Quality and Value
- C. Low Quality and Value
- Root Protection Area Based on BS5837:2012
- Shadow Pattern of Existing Deciduous Trees with Light Crowns
- Shadow Pattern of Existing Deciduous Trees with Dense Crowns
- Shadow Pattern of Existing Coniferous Trees with Dense Crowns



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DRAWING NUMBER TDA.2994.02 SCALE 1:500 @ A0

DRAWN RHC/AMP DATE AUGUST 2024

PROJECT PENALLY TRAINING CAMP

DRAWING TITLE TREE CONSTRAINTS DRAWING



Defence Estate Optimisation Portfolio

STAGE 1 ARCHAEOLOGICAL AND HERITAGE DESK BASED ASSESSMENT

Penally Training Camp





Defence Estate Optimisation Portfolio

STAGE 1 ARCHAEOLOGICAL AND HERITAGE DESK BASED ASSESSMENT

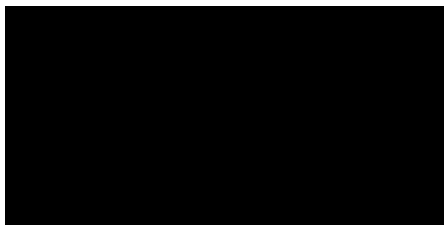
Penally Training Camp

PROJECT NO. 62302982

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DATE: MARCH 2024

WSP



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QUALITY CONTROL

Issue/revision	First issue	Revision 1	Revision 2	Revision 3
Remarks	Submission for DIO Review	P02 – updates and final		
Date	24.01.2024	04.03.2024		
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Signature	AR	AR		
Checked by	Rachel Drabble	Rachel Drabble		
Signature				
Authorised by	Stefan Boss	Stefan Boss		
Signature	SB	SB		
Project number	62302868			
Report number	P01			
File reference	62302982-20-1006-WEX-REP-001			



SETA Stage 1 Heritage and Archaeology Desk-Based Assessment

Penally Camp



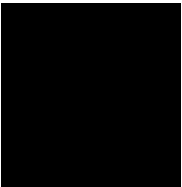
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Summary

Penally Camp is situated to the west of the village of Penally, occupying former agricultural land. It forms an integral part of a broader military training area that encompasses a section of land known as The Burrows (Penally Camp Range) to the east. This assessment primarily concentrates on the main camp.

Built in 1860 as a musketry camp to train local militia, Penally Camp featured various facilities, including a hospital, officers' mess and quarters, a stable and kitchen block, stores, a magazine, cookhouse, urinals, soldier's quarters, and two underground water tanks. All of the original 1860s structures remain, except the urinals.

Penally Camp experienced increased activity during both the First World War and Second World War, leading to redevelopment efforts in both the main camp and the range. Remnants of the First World War expansion are still present on the site, represented by three huts and an ablution block. Additionally, several Turner Curved Asbestos Huts from World War Two still survive, scattered throughout the camp.

The earliest evidence of human activity within the site may date to the medieval period and comprises the potential for remains of a 14th century fortified house. However, it is not clear from the current evidence where the house was precisely sited, and it is possible that it may have been outside the site. There is also potential for Second World War practice trenches to exist below ground in the western section.

This assessment has found that the site is a non-designated heritage of medium to high significance. This is primarily based on its past role as a late 19th century military camp and that most of the original structures survive. The former layout of the camp remains legible even today. There is also further significance derived from the later additions which illustrate its 162 years of service by the British Army.

The surviving 1860 buildings are non-designated heritage assets of high significance while the surviving First World War structures are of medium significance. This is based on the overall rarity of the structures together with their group values. All are considered potential candidates for designation as Listed Buildings.

Any future proposals would likely entail the need to undertake the following mitigation

Built Heritage

- All of the principal components identified should be incorporated and preserved in any future proposals for the Site. Should this not prove feasible, a historic building record should be completed to ensure that they are preserved by record. These works can form part of the post-consent process, as part of a condition on any future planning application.
- There are designated historic assets located in vicinity of the Site that could be affected by future development in the Site. A setting assessment may be required to understand if harm would occur which should accompany any planning application.
- Engagement should be undertaken with the heritage team for Pembrokeshire County Council and Cadw to identify whether the principal components are candidates for designation. Completing this process as part of a future planning application could cause lengthy and expensive delays if not identified prior to the completion and submission of any future redevelopment proposals.



- The details of any survey would need to be agreed in consultation with Pembrokeshire County Councils heritage team and the Historic Environment Team at the DIO. Cadw may also need consulting.

Archaeology

- Due to the current uncertain potential for buried archaeological remains within the Site, further assessment may be required. This may take the form of an initial nonintrusive survey (geophysics) in the currently open areas of the Site. However, the survey may be hampered by likely presence of services and potential for ferrous material.
- Geophysical results would be used together with the information in this assessment to complete an archaeological strategy, which may include intrusive evaluation trenching to determine the absence or presence of archaeological deposits.
- The details of any further works should be agreed upon in consultation with Pembrokeshire County Council's heritage team and with the Historic Environment Team at DIO.

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SETA Stage 1 Heritage and Archaeology DBA

Penally Camp

1 INTRODUCTION

1.1 General

- 1.1.1 The Defence Estate Optimisation Programme (DEOP) is a long-term approach to transforming the defence estate from one built for previous generations into one that better supports today's modern defence requirements.
- 1.1.2 The strategy aims to reduce the built estate by 30 per cent and, through the release of land no longer required, offers the opportunity to contribute land for a potential of 55,000 new homes to reach the government's housing targets.
- 1.1.3 Wessex Archaeology has been commissioned by WSP to undertake an assessment of the historic environment (heritage and archaeology) within Penally Camp, Pembrokeshire. A separate assessment has been prepared for the Penally Camp Range (WA 2023).

1.2 The Site

- 1.2.1 Penally Camp (hereafter 'the Site') comprises two irregular parcels of land located to the west of the village of Penally (**Figure 1**). The northern Site parcel contains the main military site and covers some 5.6 hectares (ha). It is bound to the south by the A4139, to the east by modern residential housing, to the west by farmland and to the north by an area of woodland and areas of scrub. The southern Site parcel is the former site of a sewer treatment works and is approximately 0.16 ha. It is bound to the north by the A4139 and in all remaining directions by farmland and woods.
- 1.2.2 The underlying bedrock geology of the Site is recorded by the British Geological Survey Viewer as the Avon Group Limestone with the northeast corner of the northern parcel containing the Skrinkle Sandstone Formation. There are no recorded superficial deposits.
- 1.2.3 The Site is situated on a slope with the topography of the northern parcel falling from 35 m above Ordnance Datum (aOD) on the northern boundary to the 15 m on the southern boundary. The topography of the southern parcel is more gradual and runs from 13 m to 12 m aOD north to south.

2 SCOPE AND METHODOLOGY

2.1 General

- 2.1.1 The purpose of this assessment is to draw together the available information to describe and assess the significance of the Site and its principal components and, where possible, any current and future risks to that significance. The assessment will be used to inform future development proposals and to support any development applications made.

2.2 Standards and Guidance

2.2.1 This assessment has been carried out in line with the C8: Phase One Heritage/Archaeology Desk Based Assessment Task Directive (hereafter 'the Task Directive') issued by the DIO, relevant legislation governing the treatment of the historic environment within the planning process, national and local planning policy and industry standard guidance and best practice set out within the documents listed below:

- Ancient Monuments and Archaeological Areas Act 1979, as amended by the Historic Environment (Wales) Act 2016
- Historic Environment (Wales) Act 2016
- Planning Policy Wales (PPW) Edition 11 2021
- The Protection of Military Remains Act 1973
- Future Wales – The National Plan 2040 (2019, updated February 2021)
- Planning (Listed Buildings and Conservation Areas) (Wales) 1990 Act, as amended by the Historic Environment (Wales) Act, 2016
- Standard and guidance for historic environment desk-based assessment (ClfA 2020) and
- Setting of Historic Assets in Wales (2017c)
- Managing Historic Character in Wales (2017d)
- Pembrokeshire Local Plan (Pembrokeshire County Council 2013)
- Pembrokeshire Coast National Park Authority Historic Environment (Archaeology) Supplementary Planning Guidance (Pembroke Coast National Park Authority 2021).

2.3 Significance

2.3.1 Current national guidance for the assessment of the significance of historic assets is based on criteria provided by Cadw's (2017) *Heritage Impact Assessment in Wales*. Significance is weighed by consideration of the potential for the asset to demonstrate the following value criteria:

- evidential value: the extent to which the physical fabric tells how and when your historic asset was made, how it was used and how it has changed over time. There may be buried or obscured elements associated with your historic asset which may also be an important potential source of evidence.
- historical value: your historic asset may illustrate a particular past way of life or be associated with a specific person or event; there may be physical evidence for these connections which it could be important to retain
- aesthetic value: the design, construction and craftsmanship of your historic asset. This can also include setting and views to and from the historic asset, which may have changed through time.

- communal value: your historic asset may have particular significance to people for its commemorative, symbolic or spiritual value, or for the part it has played in local cultural or public life. This will be particularly important in the case of buildings in public use or sites where public access must be maintained or improved.

2.3.2 There is no industry standard method for assessing how significant historic assets are, however, there are criteria set out within the Design Manual for Roads and Bridges (DMRB) as well as government policies such as Conservation Principles which are widely used across the industry. DMRB sets out a series of levels of significance of an asset which for this assessment has been adapted, with reference to Conservation Principles, to encompass both designated and non-designated heritage assets.

Table 1 Categories of significance

Significance	Description
High	World Heritage Sites, Scheduled Monuments, Grade I and II* Listed Buildings, Grade II Listed Buildings that can be shown to have exceptional qualities in their fabric or historical associations. Registered Battlefields, Inventoried Gardens and Designed Landscapes, and non-designated assets of equivalent heritage significance which are considered to be potentially nationally important.
Medium	Grade II Listed Buildings, regionally important archaeological features and areas (as defined in the Historic Environment Record). Grade II Registered Parks and Gardens. Conservation Areas, which are considered regionally important.
Low	Sites and features noted as locally important in the Historic Environment Record. Other, non-designated features of cultural heritage significance.
Negligible	Assets compromised by poor preservation and/or poor contextual associations. Or very common archaeological features / buildings of little or no value at local or other scale.

2.3.3 Whilst the categorisation of Listed Buildings by Cadw implies different levels of significance, as reflected in the table about, all Listed Buildings are afforded the same level of legal protection.

2.3.4 While this table nominally sets out significance levels, in all instances professional judgement will be used in determining significance. Where assets are placed in a different category to those set out above, a rationale and justification will be made explicit in the text, where relevant.

2.4 Setting

2.4.1 The significance of a historic asset is also informed by its setting. The manner in which the setting assessment was undertaken was informed by the guidance published by Cadw (2017c) in *Setting of Historic Assets in Wales*.

2.4.2 This guidance defines setting as:

'the surroundings in which it is understood, experienced and appreciated, embracing present and past relationships to the surrounding landscape... Setting is not itself a historic asset... The importance of setting lies in what it contributes to the significance of a historic asset' (Cadw 2017, 2).

- 2.4.3 The guidance advocates a systematic and staged approach to the assessment of the effects of development:

Stage 1: Identify the historic assets that might be affected by a proposed change or development.

Stage 2: Define and analyse the settings to understand how they contribute to the significance of the historic assets and, in particular, the ways in which the assets are understood, appreciated and experienced.

Stage 3: Evaluate the potential impact of a proposed change or development on that significance.

Stage 4: If necessary, consider options to mitigate or improve the potential impact of a proposed change or development on that significance.

2.5 Sources Consulted

- 2.5.1 The following sources were consulted for this assessment:

- Designated historic assets received in digital format from the Cadw (Cof Fymru)
- Historic Environment Record data supplied by Dyfed Archaeological Trust
- Historic maps provided via a Envirocheck search received from the client and items accessible online
- Historic Environment Record of Wales (Archwilio)
- Historic maps available online; and
- Documentary sources found online or ascertained from archive repositories.

2.6 Site Visit

- 2.6.1 A site visit was undertaken on the 25th September 2023 by a member of the heritage team who was escorted by representatives from the DIO, including members of the DIO Historic Environment Team. Photography was permitted in most areas and a selection of photographs are provided at the end of this assessment. Internal access was not provided to all buildings.

2.7 Consultation with DIO Historic Environment Team

- 2.7.1 The DIO Historic Environment Team provided a number of historic plans and documents to assist in the production of this assessment.

2.8 Assumptions and Limitations

- 2.8.1 Data used to compile this report consists of secondary information derived from a variety of sources, only some of which have been directly examined for the purposes of this Study.



The assumption is made that this data, as well as that derived from other secondary sources, is reasonably accurate.

- 2.8.2 The records held by the Dyfed Archaeological Trust are not a record of all surviving heritage assets, but a record of the discovery of a wide range of archaeological and historical components of the historic environment. The information held within it is not complete and does not preclude the subsequent discovery of further elements of the historic environment that are, at present, unknown.

3 SITE DEVELOPMENT

3.1 Introduction

- 3.1.1 The following section is a summary of the archaeological and historical development of the Site, compiled from the sources listed above.

3.2 Historical and Archaeological Background

Medieval

- 3.2.1 According to research undertaken in 2001, a fortified house may have existed within the northern parcel (PC_9). The house was noted on the William Rees's map of South Wales dated to the 14th century. However, as the map is not an accurate representation of the landscape, the precise whereabouts of the medieval building is not known and the identification of the former structure in the location recorded by the HER could be inaccurate.

Post-medieval (AD 1500 – 1900)

- 3.2.2 Manorial records of post-medieval origin indicate that Penally was a small rural village and comprised of four farm, seven houses, three cottages, two public houses and the Church of St Nicholas and St Teilo. A painting of the village from the 18th century shows the buildings were scattered along the main road and in the hills to the north of the town with a concentration around the church.¹ There is no indication that any structures existed within the Site at this time.
- 3.2.3 In 1859, Royal Assent was given for an extension to the South Wales Railway (SWR) between Tenby and Pembroke Dock that became known as The Pembroke and Tenby Railway Line (PTRL). The line was constructed from 1861 to 1864 and a station was established at Penally. The line is located approximately 50 m south of the southern parcel while the station is approximately 730 m to the east.
- 3.2.4 The creation of the PTRL acted as a catalyst for the development of a lime quarrying industry in the local area. Two large quarries, Black Rock Quarry and Trefloyne Quarry, were opened north of Penally that were supported by a series of small quarries dotted throughout the area and several limekilns. Although the HER has a record for a post-medieval limekiln within the northern parcel, based on the First Edition Ordnance Survey map, it is in fact further to the south (**Figure 4**). The extent of the quarry is still legible on satellite imagery (**Figure 1**).

Development of Penally Camp and Range

- 3.2.5 Penally Camp was established in the Site in 1860 following the purchase of land belonging to the Picton Castle Estate.² Its inception was prompted by the unsatisfactory resolution of the Crimean War (1853-1856) and escalating distrust between France and Great Britain. This growing mistrust was fuelled by an assertive French foreign policy, the launch of the world's first ironclad warship by France, and a foiled attempt to assassinate Napoleon III. These factors collectively contributed to a French invasion scare in Great Britain, prompting a substantial expansion of the Royal Navy, construction of a network of large fortresses to

¹ <https://www.peoplescollection.wales/items/1680801>

² It is unclear from the historic records when the Picton Castle Estate obtained the land. Picton Castle was first built in the 13th century and later became the home of the Phillips family who were made Barons in 1611 by James I. The Phillips were most powerful family in Pembrokeshire exercising both tremendous political, social and economic influence over all aspects of local life and held considerable landholdings in the county.

safeguard dockyards and strategic centres, and the enhancement of the training of regular and militia regiments.

- 3.2.6 As part of the program, a Royal Commission was established to assess the existing training programme and after its completed in 1858, it was decided that a recognised musketry course should be developed as part of the annual training syllabus for militia units. Consequently, a series of 'Musketry Camps' were built to cater for this need with Penally selected as one location. This decision was not only based on the opportunities that the area provided but it was also to serve as a part of a wider defensive network of camps and forts defending South Wales, specifically Milford Haven.
- 3.2.7 Construction of the Penally Musketry Camp took place in 1860 to the west of the village. At its inception it consisted of a guardhouse, hospital, officers mess and quarters, a stable and kitchen block, stores, a magazine, cookhouse, urinals, soldier's quarters and two underground water tanks (**Figure 3**). The camp could accommodate four single officers, 84 non-commissioned officers and soldiers, a warden for the camp and stabling for two horses. Although originally intended for militia training, over time, the site also began to host regular soldiers and artillery training; Transportation of personnel and equipment to the facility was facilitated by the PTRL railway.
- 3.2.8 The musketry camp was supported by the development of a training landscape to the east known as Penally Camp Range. Unfortunately, no plans of the original design of the range have been preserved, and surviving records do not clarify whether any permanent training features were constructed. However, historical ordnance survey maps from 1887-91 reveal the existence of a series of butts that could be associated with the 1860 range. Additionally, there are indications that the range may have incorporated a railway line, though it remains uncertain whether the line was developed to support the training area or was originally connected to the preceding limekilns and quarries scattered across the training grounds.
- 3.2.9 During the late 19th and early 20th centuries, the demand for the camp exceeded its official capacity, leading to the ad-hoc requisition of surrounding land for temporary soldier accommodation. Soldiers were housed in bell tents, with makeshift arrangements for cookhouses, ablutions, and storage facilities. The Penally History Group archive contains several photographs from the early 1900s depicting the layout of these improvised spaces.³ It is likely that the open areas of the Site (both the northern and southern parcel) were used for temporary accommodation.
- 3.2.10 Following the outbreak of the First World War it became quickly apparent that the quartering of large number of troops under canvas did not contribute to efficient training, especially during the winter months. This was particularly the case at Penally where the camps were subject to harsh weather conditions due to their exposure to storms. As a result, the camp was expanded with new accommodation huts built across the Site. The huts were rectangular in plan built from timber frame clad in corrugated steel sheets set on raised brick pads. Alongside the new accommodation, additional facilities were introduced, including a telephone room, institute, further stores, an enhanced sergeant's mess, lecture hall, kitchens, and ablutions (Dyfed Archaeological Trust 2015:14).
- 3.2.11 Before being sent to the Western Front new recruits were trained in how to construct trenches and completed military training in how to attack and defend the systems. Practice trenches were developed across Great Britain, predominantly at military training

³ <https://www.peoplescollection.wales/user/57226/author/57226/sort/date/query/penally%20camp>

installations. They were often extensive comprising of multiple lines to mimic the network on the Western Front.

- 3.2.12 A network of First World War practice trenches survives in Penally Range, approximately 330 m to the south of the Site, designated as a Scheduled Monument. The Penally system spans 260 m from east to west and 100 m from north to south. It comprises two sets of firing trenches, interconnected and prolonged by communication trenches or saps. These trenches face north and seem to align with a field boundary feature running from east to west. At certain points, the system has been excavated through bedrock.
- 3.2.13 In addition to the construction of the training trenches, historic map regression has shown that the main range underwent changes during the First World War (Dyfed Archaeological Trust 2019: 22). They included alterations to the 19th century range and construction of a larger range in the eastern section. A second area of practice trenches may also have existed directly west of the First World War range, east of the Scheduled Monument.
- 3.2.14 Increased levels of activity at Penally Camp returned with the outbreak of the Second World War. During the War, ever greater demands were placed on the camps accommodation as it saw use by the Home Guard, artillery regiments, the Royal Marines as a sniper school and regular infantry units. As a result, 29 Turner Curved Asbestos Huts were built main camp (northern parcel; PC_21, PC_22 and PC_28) while a 600-yard gallery range was built in the western part of the range to provide additional training facilities.⁴ Other additions made to the Site during the Second World War include the asphalt square in the western part of the northern parcel and two trenches on the northern and western boundary of the square for training. Several new buildings were also added of varying use. The changes made to the northern parcel are illustrated in **Figure 5**.
- 3.2.15 In response to the heightened demands on existing services resulting from the redevelopment of the main camp, a sewage works was constructed in the southern parcel to handle the increased number of stationed servicemen. The initial layout of the sewage system is documented in the 1967-8 Ordnance Survey map, revealing two tanks and two ranges of buildings (**Figure 5**). According to historic maps (viewed online), the sewage works were removed at some point between 1988 and 2000.
- 3.2.16 A program of redevelopment of the main camp (northern parcel) was undertaken in 2001-2003 that saw the removal of most of the First World War accommodation huts and ablutions. A series of modern accommodation blocks were added to the brick platforms of the First World War huts while other buildings were altered internally with new fittings and partition walls. Although none of the 1860s buildings were removed, only two First World War huts and an ablution block were kept.

⁴ The Turner Curved Asbestos Huts are often mistaken for Nissen huts with the primary difference being the use of asbestos instead of the prefabricated steel corrugated sheets.

4 HISTORIC ENVIRONMENT SURROUNDING THE SITE

4.1 Introduction

- 4.1.1 The purpose of this section is to outline the archaeological and historical evolution of the 1 km Study Area. It does not aim to cover all the HER records in the area, but rather to offer a general overview of the past human activities in the wider landscape.

4.2 Archaeological and historic background

- 4.2.1 On Penally Camp Range to the east, evidence of prehistoric activity has been recorded comprising a bank initially documented in the 19th century which was re-surveyed as part of a regional project by Pembroke National Park Authority. It was reinterpreted as a robbed Bronze Age barrow based on its overall form, featuring a 5 m diameter and a height of 0.5 m (DAT4236). The reinterpretation was informed by the materials recovered in the 19th century, including charred human bones and badly burnt pottery, suggesting a cremation burial.
- 4.2.2 Another Bronze Age burial site is documented in the centre of the Range near the western rifle range (DAT4237). Discovered in 1888, scant details are available, but the findings included charred human remains and pottery. It is possible that this burial represents a second barrow that may have been lost during the creation of the range.
- 4.2.3 In addition to the barrow and burial, several middens have also been found in the eastern section of the Range on Giltar Point (DAT4238).⁵ These middens yielded a significant number of lithics and other waste, indicating occupation from the Mesolithic to the Romano-British period. While it has been suggested that a defended settlement may have existed on Giltar Point, archaeological investigation is needed to confirm this. If such a settlement existed, it might have historical ties to a larger defended settlement at Tenby. The settlement at Tenby had begun as a defended enclosure in the Bronze Age but had developed into an Iron Age Hillfort and regional centre by the Late Prehistoric period (NPRN 304240 and 304238).
- 4.2.4 The broader landscape also included evidence of Prehistoric activity. Situated 700 m and 1.2 km north of the Site are two cave systems, designated as Scheduled Monuments (PE427 and PE428). These caves earned their designation owing to the abundance of archaeological deposits spanning the Palaeolithic and Mesolithic periods, featuring nationally significant faunal remains. Moreover, PE428's designation is also attributed to the discovery of an Early Medieval assemblage, which included high status ceramics and glass. This finding suggests the presence of a significant settlement along the ridge of Longbury Bank, with the potential for further Early Medieval archaeology within the caves.
- 4.2.5 During the 1st century AD, the Roman Empire successfully conquered Wales. Following this conquest, key centres were established in the eastern region. These centres, comprising new urban areas and strategically positioned military sites, were designed not only to quell the local populace but also to oversee the extraction of mineral resources from the region. The military sites played a crucial role in maintaining control and strategic dominance. In contrast, West Wales remained relatively untouched by Roman influence, with the nearest major centre to the Site located in Carmarthen over 40 km to the northeast, showcasing the uneven spread of Romanisation (Campbell and Lane 1994). However,

⁵ Middens are categorised as pits that have been used for the deposition of domestic waste and are typically associated with settlement, often long-term.

apart from the material recovered of Romano-British date in the previously discussed middens in the Site, there is no recorded of any further activity during the period within the Study Area.

- 4.2.6 The village of Penally can trace its roots back to the Early Medieval period. The earliest documented mention dates back to the 6th century and recounts the life of the Welsh Christian saint, Saint Teilo, who was both born and laid to rest at the church in Penally. The church in question is thought to be an earlier iteration of the Church of St Nicholas.
- 4.2.7 The name Penally, when translated, is derived from the Welsh term 'Penalun,' signifying a location at the head of the Alun stream. Extensive research conducted by the Penally Historical Group has also revealed that at least three farms within the village have their origins in the early to mid-14th century.
- 4.2.8 Further settlements of Early Medieval date also exist within the Study Area. This includes the coastal town of Tenby which served as the regional centre during the period and monastic complexes on St Margaret's Island and Cadley Island. The monastery on Cadley Island is believed to have been created in the 6th century and might have had a historical connection with the village of Penally. Overall, the evidence highlights a well-developed settlement pattern within the region.
- 4.2.9 The only HER record within the Study Area of Early Medieval relates to the potential for remains of the 6th century church to reside below the Grade II* listed Church of St Nicholas and its churchyard. There is also only a single medieval record which is associated with the ruins of a 12th century chapel (DAT4233).
- 4.2.10 Apart from the development of the Lime industry in the wider landscape, the post-medieval period saw little change to the Study Area. Most areas remained as agricultural land and the settlements of Penally and Tenby underwent limited expansion. Most of the changes to the two settlements occurred in the latter half of the 20th century with the creation of new residential areas outside their historic core.

4.3 Designated Historic Assets

Site

- 4.3.1 There are no designated historic assets within the Site.

Study Area

- 4.3.2 Located within the 1 km radius of the Site are the following designated historic assets:

- Grade II* Church of St Nicholas, located 130 m to the west of the Site (5992)
- Grade II* West Set of Kilns, located 830 m to the north of the Site (16918)
- 15 Grade II Listed Buildings located within the historic core of Penally and in the former site of the Black Rock Quarry
- First World War Practice Trenches Scheduled Monument, located 330 m to the southeast of the Site (PE483)
- Little Hoyle Cave and Longbury Bank Dark Age Site Scheduled Monument, located 700 m to the north (PE428); and



- Two Scheduled Monuments for post-medieval limekilns located 1 km to the northeast of the Site (PE436).

4.3.3 The significance of designated historic assets within the Study Area may be affected by future development within the Site through a change in their setting. They will need to be considered in any future development proposals.

4.3.4 Designated historic assets are illustrated in **Figure 5**.

5 SIGNIFICANCE

5.1 The Site

- 5.1.1 The significance of the Site is primarily derived from its use as a long-established military training camp and from the architectural and historical interest of the constituent historic buildings.
- 5.1.2 Most of its interest is derived from the relative completeness of the original camp. Established in 1860 as part of a wider development program by the Army to provide facilities for militia training, Penally Camp may be the last surviving musketry camp in Great Britain and if not the last, the most complete. It retains all but one of its historic buildings, with many retaining their historic external appearance, and the layout of the camp can still be experienced and understood. Furthermore, the 1860s military buildings may also be the last surviving examples of their type. No similar examples could be identified during research for this assessment in Wales. There are some surviving examples outside Wales which were built post-Crimean War to serve a similar purpose, however, they often take the form of single grandly designed structures built in major towns to also act a threat against uprising (Corbett 2022: 93), or single buildings of small-scale serving as drill halls (Historic England 2017:6).
- 5.1.3 The later changes made to the Site during the First and Second World War also contribute towards its historical interest. The surviving accommodation is a physical representation of how utilised Penally Camp was and how it developed into an important training facility. Many regiments within the British Army would temporary call Penally Camp home during its 162 years of service. Having three phases of key military events in our history represented within one garrison and for this to be easily read in the buildings is unique in Wales.
- 5.1.4 The Site also features a series of trenches in the western section believed to have been dug for training use during World War Two. The trenches could contain material culture and improve our understanding of military training regimes.
- 5.1.5 The setting of the Site, specifically its intervisibility and historic and functional association with Penally Camp Range to the east, contributes towards its significance. The Site was only one part of a much larger training landscape, and it is the last surviving example of such an area in Wales, based on the research undertaken as part of this assessment, of its age (Dyfed Archaeological Trust 2014, Gwyned Archaeological Trust 2015). Nevertheless, most of the historic elements of the Penally Camp Range has been lost (WA 2023). Furthermore, the encroachment of the modern residential development to the east has had negatively altered the Site's setting, especially as the estate is located on area used for temporary accommodation during times of increased activity at the camp.
- 5.1.6 Overall, the Site is considered a non-designated heritage of medium to high significance.

5.2 Principal Components

1860 Musketry Camp Buildings (PC_10, PC_11, PC_12, PC13, PC_15, PC_16, PC_19 and PC_23)

- 5.2.1 The assets comprise original structures built as part of the 1860 musketry camp at Penally. All of the buildings are constructed from brick that historically stucco rendered, which has been replaced with cement, under hipped roof clad in slate. Some of the structure retain their timber-framed windows while others have been replaced with uPVC alternatives. When first constructed they were used as a hospital (PC_10), guardhouse (PC_18: Plate 1), officers mess and quarters (PC_16), a stable and canteen (PC_11: Plate 5), stores

(PC_15: Plate 4), a magazine (PC_19: Plate 2), two kitchens (PC_13 and PC_23: Plate 3), urinals (demolished) and soldier's quarters (PC_12: Plate 6).

- 5.2.2 The significance of the assets is derived from their architectural interest as examples of mid-19th century military buildings that retain to a large degree their historic external appearance and their historical interest associated from their former role as a musketry camp. They illustrate the very real threat that France posed following the disaster of the Crimean War and show the willingness of the Government to ensure that volunteer regiments had the necessary training and skills to defend Great Britain at a time when military spending was restricted and concerns about the threat a trained force at home were rife through Parliament.
- 5.2.3 The group value of the buildings also contributes greatly to their significance as they provide insight into military base planning post-Crimean War. This is especially important for the hospital which was sited away from all other structures and shows the growing attention given to soldier health following the war. Indeed, the hospital at Penally Camp is considered to be one of the earliest examples of its type in Great Britain that greatly enhances its historical interest (Dyfed Archaeological Trust 2015). Furthermore, no evidence of a similar group of buildings could be identified during this assessment in Wales, England or Scotland.
- 5.2.4 The setting of the assets is integral and makes a positive contribution towards their significance as the continued presence of the surrounding military buildings maintains their identity as military structures. The group also has a historical and function association with the Penally Camp Range located to the east of Penally Camp. Though, no remains of the 1860 range survive.
- 5.2.5 Overall, the assets are non-designated heritage assets of high significance and are strong candidates for designation as Listed Buildings.

First World Huts and Ablutions Block (PC14, PC_17, PC_20 and PC_36)

- 5.2.6 The assets comprise two First World War accommodation Huts (PC_14, PC_17 and PC_36: Plates 7-9) and an ablutions block (PC_36: Plate 10). All four buildings are constructed from timber frame with corrugated sheet walls and a hipped roof clad in corrugated sheet. All of the windows on the Ablutions Block are original wooden fixed-frame sashes while most on the First World Huts have been replaced with uPVC.
- 5.2.7 The significance of the assets lies in their architectural and historical interest as surviving examples of the First World War expansion of Penally Camp and in their overall design and use of materials. Given that these types of buildings were designed to be temporary and most have been lost through redevelopment or removal at military bases across Wales, this adds to significance. In particular, the ablution block is considered to be a rare surviving example (Dyfed Archaeological Trust 2015:21).
- 5.2.8 Overall, the assets are non-designated heritage assets of medium significance and are possible candidates for designation as Listed Buildings.

Possible 14th century fortified house

- 5.2.9 The Site has potential for remains of a possible 14th century fortified house PC_9. Though the precise location of the house has never been confirmed. If it was located within the Site, then remains could survive. Discovery of such remains would offer insights into what was an important feature of medieval Wales. Built by wealthy families, the fortified house, often

referred to as a tower house, were not only a symbol of status but offered protection to its occupant in a period of history that was marked by internal strife in Wales.

- 5.2.10 Any remains of the house are likely to be of at least medium significance.

6 ISSUES PRESENTLY AFFECTING SIGNIFICANCE

6.1 The Site

- 6.1.1 Since Penally Camp was closed in 2022, the buildings have been placed into care and maintenance. This has begun to affect some of the buildings. Signs of damp and damage by water ingress were identified in a couple of the structures such as the Cold War structure located in the southeast corner of the Site (PC_22).

6.2 Principal Components

- 6.2.1 Internal access was not possible to most of the buildings but what could be seen externally was structures that have been underutilised, especially the hospital building in the northeast corner (PC_10). Under similar circumstances to the Hospital the Canteen and Stables (PC_11) are in an equally poor state that access internal has been restricted.
- 6.2.2 Conditions within the soldiers' quarters (PC_12) were reasonable as the building had seen constant use as accommodation until the camps closure while the Magazine (PC_19), Guardroom (PC_18), Officers Mess (PC_16) and Stores (PC_15) were in a fair condition given their age. Internal access was not provided for the remaining structures.
- 6.2.3 The internal condition of the First World War buildings is unclear as access was not possible. Externally they are in poor condition. Though this is not unexpected given their age and original temporary nature.

7 POTENTIAL FUTURE ISSUES AFFECTING SIGNIFICANCE

7.1 The Site

- 7.1.1 The primary concern relating to future of the Site that would affect its significance would be the demolition of buildings. If removed, the Site would lose its military identity and our appreciation of its 162 years of service would be lost. This would see a complete loss of its significance.
- 7.1.2 If the buildings were to remain, then ensuring that necessary repair work is undertaken and that they are placed under an appropriate care program would be required.

7.2 Principal Components

- 7.2.1 The primary issue for the principal components would be their demolition leading to a complete loss of their significance. Given the rarity of the structures this would be a significant loss to military history and understanding of Wales' role in military training over the past 162 years.
- 7.2.2 Any development within the Site could lead to a change in the settings of the historic assets which may also lead to a diminishment of its significance.

8 RECOMMENDATIONS AND FURTHER STUDIES

8.1 Suggested mitigation

8.1.1 At present, a masterplan has not been prepared for the future of the Site. Any future proposals would likely entail the need to undertake the following mitigation:

Built Heritage

- All of the principal components identified should be incorporated and preserved in any future proposals for the Site. Should this not prove feasible, a historic building record should be completed to ensure that they are preserved by record. These works can form part of the post-consent process, as part of a condition on any future planning application.
- There are designated historic assets located in vicinity of the Site that could be affected by future development in the Site. A setting assessment may be required to understand if harm would occur. This would need to be completed pre-determination of a planning application.
- Engagement with the heritage team for Pembrokeshire County Council and Cadw to identify whether the principal components are candidates for designation. Completing this process as part of a future planning application could cause lengthy and expensive delays if not identified prior to the completion and submission of any future redevelopment proposals.
- The details of any survey would need to be agreed in consultation with Pembrokeshire County Council's heritage team and the Historic Environment Team at the DIO. Cadw may also need consulting.

Archaeology

- Due to the current uncertain potential for buried archaeological remains within the Site, further assessment may be required. This may take the form of an initial nonintrusive survey (geophysics) in the currently open areas of the Site. However, the survey may be hampered by likely presence of services and potential for ferrous material.
- Geophysical results would be used together with the information in this assessment to complete an archaeological strategy, which may include intrusive evaluation trenching to determine the absence or presence of archaeological deposits. This could be conditioned and dealt with post-determination of a planning application at the discretion of the archaeological advisor to Pembrokeshire County Council.
- The details of any further works should be agreed upon in consultation with Pembrokeshire County Council's heritage team and with the Historic Environment Team at DIO.

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<http://www.old-maps.co.uk/index.html>

<http://www.british-history.ac.uk/>

<https://www.bgs.ac.uk/map-viewers/bgs-geology-viewer/>

<https://www.abct.org.uk/airfields/airfield-finder/swanton-morley/>

<http://www.ukairfields.org.uk/swanton-morley.html>

https://heroesofourtime.co.uk/raf-swanton-morley_100group.html

Historic Environment Records

Dyfed Archaeological Trust Historic Environment Record

Cartographic and documentary sources (viewed online)

1842 Tithe map of Penally

1888-1891 Ordnance Survey map

1908 Ordnance Survey map

1917 Plan of Penally Range



1860 Plan of Penally Camp
Plan of First World War Penally Camp (unknown date)

Appendices

Appendix 1: Plates



Plate 1) View of the 1860 Guardroom (PC_18)



Plate 2) View of the 1860 Magazine (PC_19)



Plate 3) View of the 1860 southern kitchen



Plate 4) View of the 1860 Stores



Plate 5) View of the 1860 Stables and Canteen



Plate 6) View of the 1860 Barracks



Plate 7) View of the First World War Hut PC_17



Plate 8) View of the First World War Hut PC_14



Plate 9) View of the First World War Ablution Block



- Site
- Penally Camp
 - Penally Range
- Gazetteer Assets
- Gazetteer Assets

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Scale: 1:7500 at A3	Revision: 0	

Figure 1: Site Location and Gazetteer Assets



Site

Penally Camp

Gazetteer Assets

Gazetteer Assets

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Date: 14/11/2023

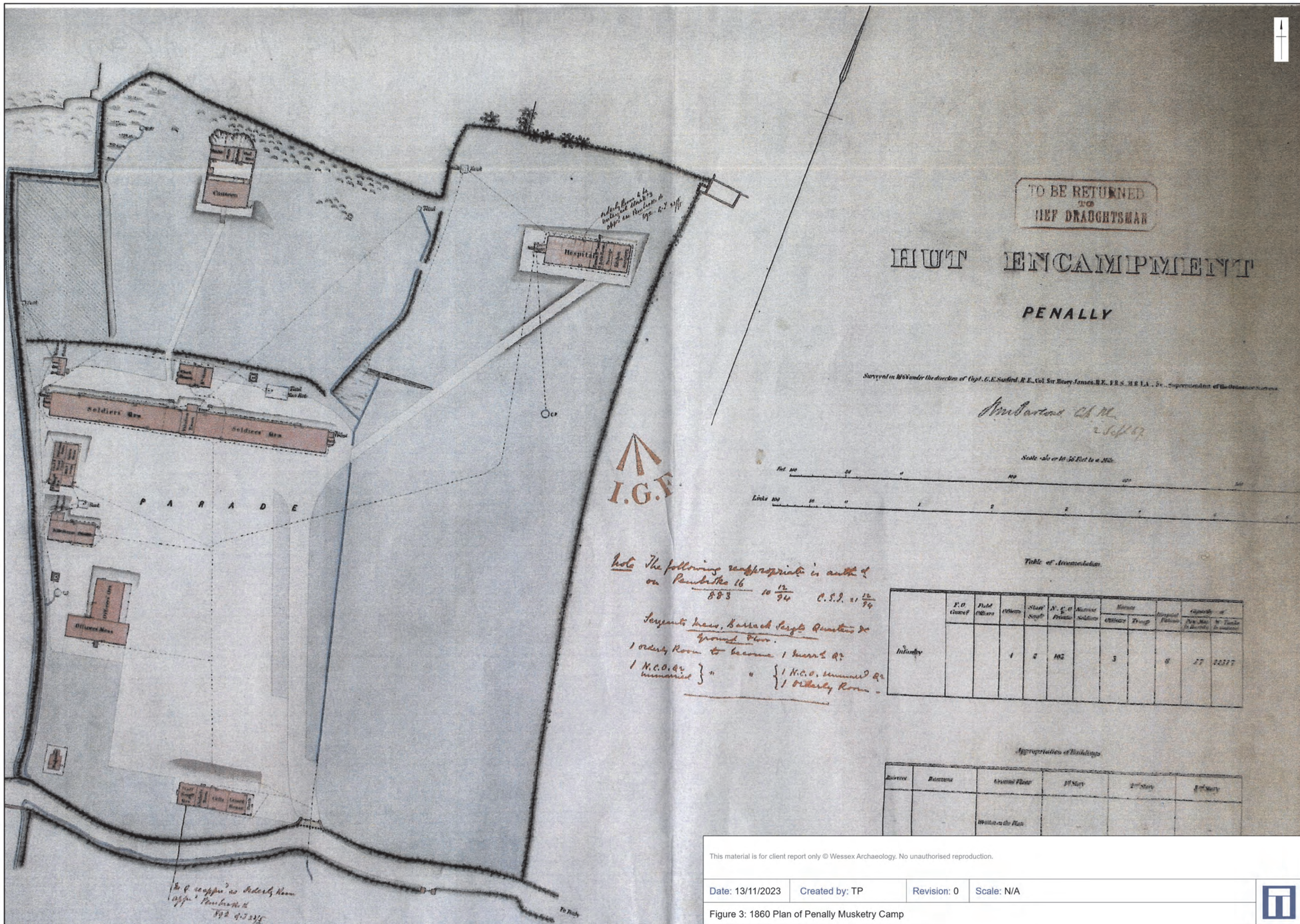
Created by: TP

Scale: 1:1250 at A3

Revision: 0



Figure 2: Detailed view of Gazetteer Assets



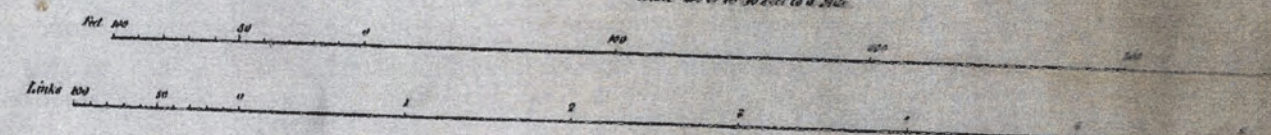
TO BE RETURNED
TO
THE CHIEF DRAUGHTSMAN

MUT ENCAMPMENT PENALLY

Surveyed in 1860 under the direction of Capt. C.E. Stanford, R.E., Col. Sir Henry James, B.E., F.R.S., M.B.L.A., &c., Superintendent of the Ordnance Survey.

Am. Barton
2 Sept 67

Scale 1 inch = 40 feet to a Mile



Note The following reappropriation is authorized
on Remittance 16
883 10 12/94 C.S.D. 21 12/94
Sergeants Mess, Barrack Sergeants Quarters &
Ground Floor.
1 orderly Room to become 1 married Q.
1 N.C.O. Q. } " " { 1 N.C.O. unmarried Q.
unmarried } " " { 1 orderly Room -

Table of Accommodation

	F.O. Garrison	Field Officers	Others	Sergeants Mess	N.C.O. Private	Married Soldiers	Married		Unmarried Soldiers	Capacity	
							Officers	Privates		As Married	As Single
Infantry			1	2	102		3	8	25	22377	

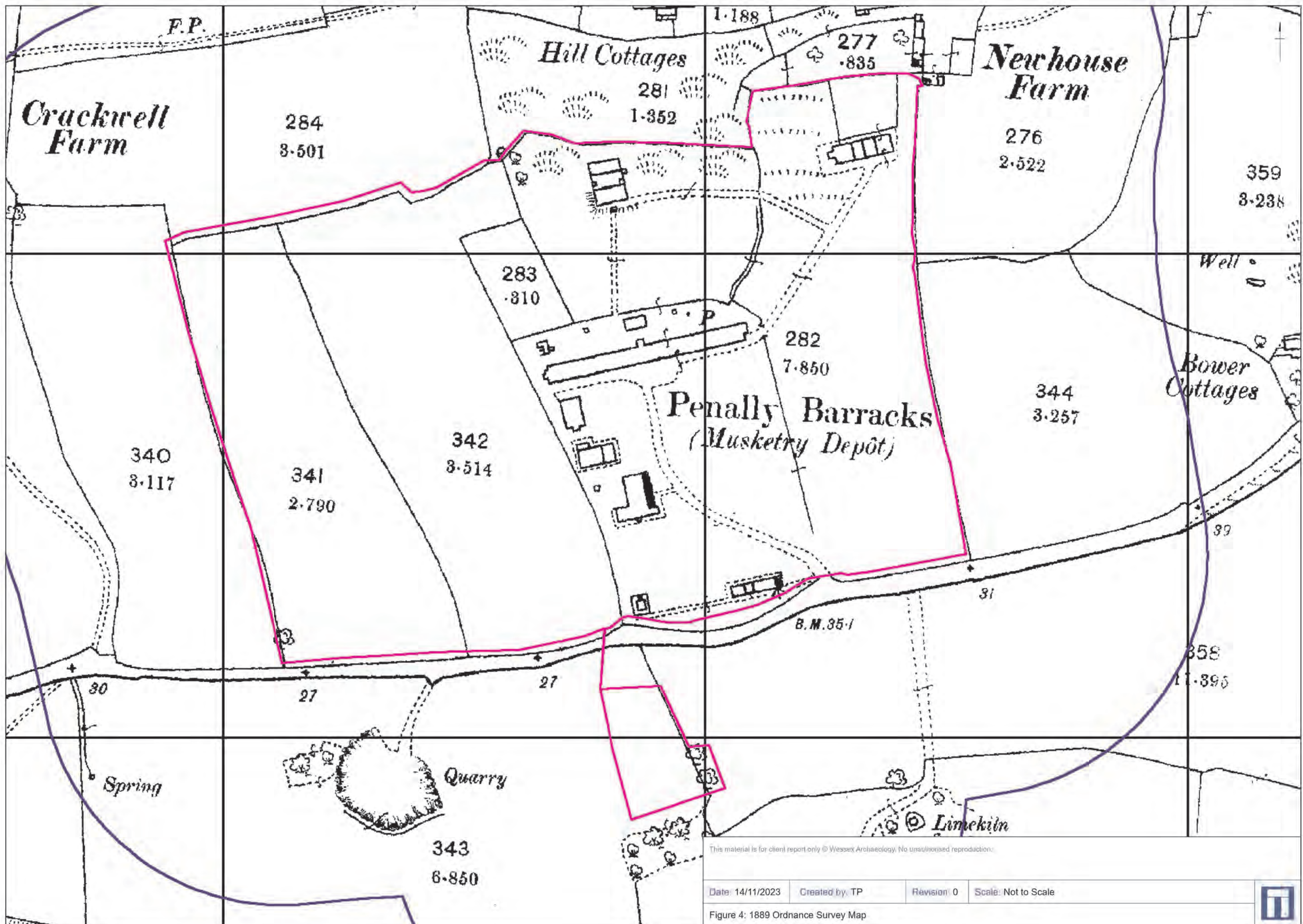
Appropriation of Buildings

Building	Remarks	Ground Floor	1st Story	2nd Story	3rd Story
		Used as the Main			

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Figure 3: 1860 Plan of Penally Musketry Camp



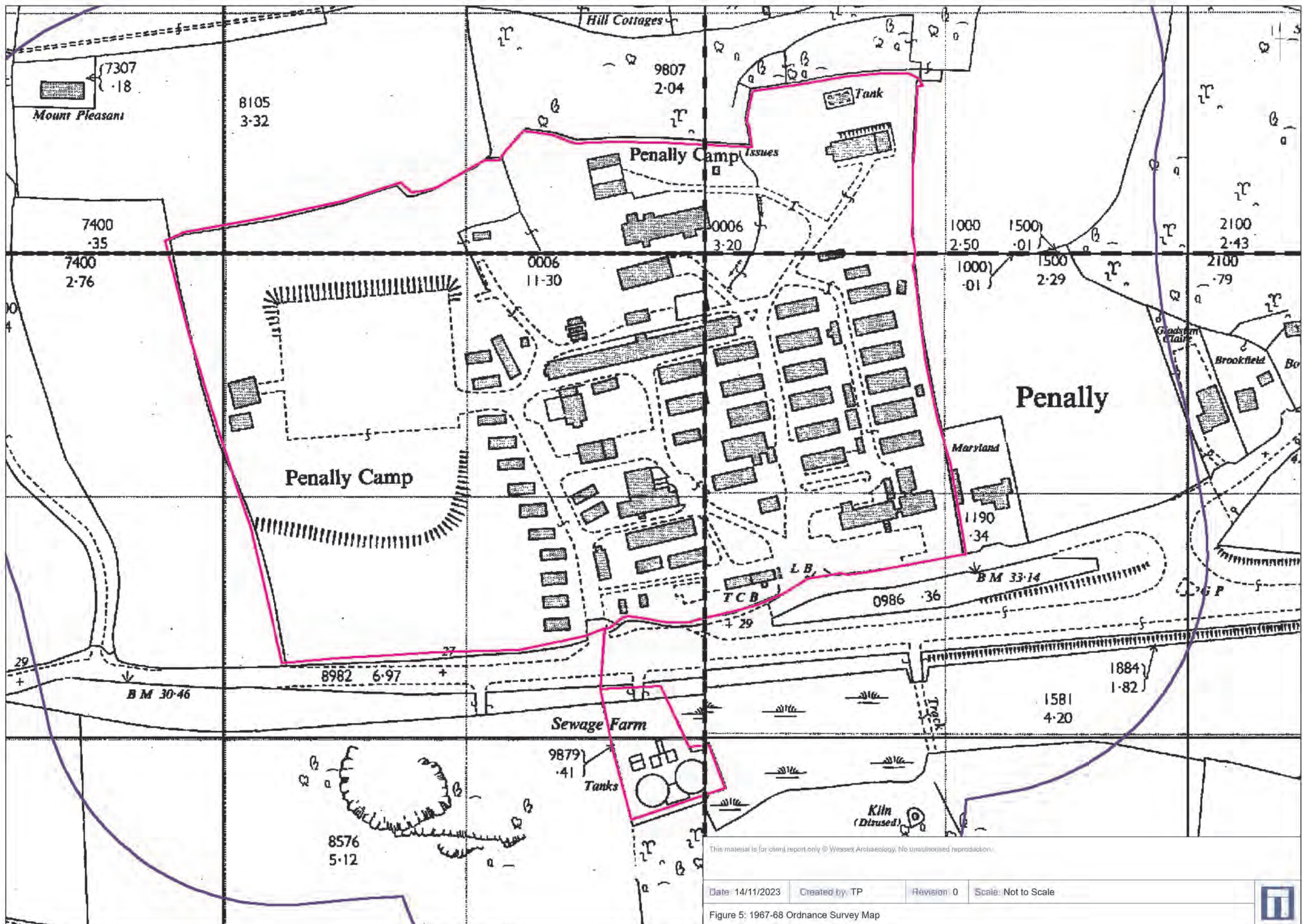


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Figure 4: 1889 Ordnance Survey Map







- Site
- Penally Camp
 - Penally Range
- Study Area
- Study Area
- Designated Historic Assets
- Grade II Listed Building
 - Grade II* Listed Building
 - Scheduled Monuments

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Figure 6: Site, Study Area and Designated Historic Assets




Appendix 2: Site gazetteer

Penally Camp

Asset Number	Asset Name	Designation	Designated/Non-designated ref	Easting	Northing	Significance
PC_01	First World War Practice Trenches, Penally Range	Scheduled Monument	PE483	211213	198534	High
PC_02	Lime Kiln, Penally Beach		524919/DAT29910	212148	198738	Negligible
PC_03	Loopholed Wall		270839	212145	198692	Unknown
PC_04	Penally Rifle Range	Non-designated	413327	211784	198715	Low
PC_05	Giltar Point Settlement and Middens	Non-designated	420433	212289	198474	Low
PC_06	Bronze Age Barrow	Non-designated	DAT4237	211376	198407	Medium
PC_08	Penally Camp	Non-designated		210949	198945	Medium - High
PC_09	Fortified House		21824	210925	199046	Unknown
PC_10	Hospital	Non-designated		211060	199045	High
PC_11	Canteen	Non-designated		210955	199031	High
PC_12	Barracks	Non-designated		210971	198963	High
PC_13	Kitchen	Non-designated		210969	198976	High
PC_14	Military Training Site	Non-designated		210974	198993	Medium
PC_15	Stores	Non-designated		210936	198935	High


Asset Number	Asset Name	Designation	Designated/Non-designated ref	Easting	Northing	Significance
PC_16	Officers Mess	Non-designated		210972	198902	High
PC_17	Military Residence	Non-designated		210976	198886	Medium
PC_18	Guardhouse	Non-designated		211019	198866	High
PC_19	Magazine	Non-designated		210971	198857	High
PC_20	Ablutions Block	Non-designated		211060	198931	Medium
PC_21	Turned Curved Asbestos Huts	Non-designated		210902	198959	Low
PC_22	Cold War Structure	Non-designated		211077	198895	Low
PC_23	Building 90	Non-designated		210951	198921	High
PC_24	Building 61	Non-designated		210954	198947	Low
PC_25	Building 83	Non-designated		210990	198877	Low
PC_26	Building 81	Non-designated		210972	198874	Low
PC_27	Building 77	Non-designated		210953	198875	Low
PC_28	Building 43 and 44	Non-designated		210947	198898	Low
PC_29	Building 88	Non-designated		211053	198966	Low
PC_30	Building 87A	Non-designated		211064	198921	Low


Asset Number	Asset Name	Designation	Designated/Non-designated ref	Easting	Northing	Significance
PC_32	Building 45	Non-designated		210988	198927	Low
PC_33	Building 56	Non-designated		211027	198897	Low
PC_34	Building 77A	Non-designated		210961	198855	Low
PC_36	First World War Hut	Non-designated		211038	198977	Medium
PC_37	Pipe outfall			212175	198652	Unknown
PC_38	Post-medieval quarry			212265	198502	Negligible
PC_39	Bronze Age crouched Burial			212025	198952	Unknown
PC_40	Concrete structure			212146	198556	Unknown
PC_41	Post-medieval lime kiln			211615	198652	Negligible
PC_42	Former Rail Track			211926	198842	Negligible
PC_43	First World War butt and hut	Non-designated		211807	198634	Low

Asset Name	Designation	
Penally Camp	Non-designated	
Significance	Designated/Non-designated ref	
Medium - High		
Heritage at Risk Asset?		
No		
Asset Description		
<p>Penally Camp was first established in 1860 as a musketry camp, part of a series of defences built to protect Milford Haven. The need for the defences had followed growing tensions between UK and France following the Crimean War. Early plans show that it consisted of guardhouse, officers' quarters and mess, sergeants' mess, soldiers' quarters and ablutions, a stable, stores, magazine, guardhouse, kitchen block, cookhouse, canteen and two underground water tanks. Most of these structures still remain.</p> <p>The camp was used extensively during the First World War for training with soldiers billeted under canvas. In addition to practice with weaponry, soldiers were instructed how to build trenches with Penally Range and land north of the village use for this purpose. Overtime a series of permanent accommodation blocks were built together with new service buildings, such as a magazine.</p> <p>The camp saw heightened activity during World War Two with 31 Nissen Huts built to accommodate additional recruits. After World War II it was used on an ad hoc basis by the MoD alongside the rifle range. The camp officially closed in 2022.</p>		<div>Potential for crashed aircraft?</div> <div>None</div>
		Setting Description
		<p>The asset is located on the southwestern outskirts of the village of Penally with a small area of residential development to the east, a farm to the west and agricultural land to the north. To the south lies Penally Range which it has historical and functional associations with. Views southwards to watch and monitor activity in the Celtic Sea would have been an important reason for its position together with being able to react quickly in the event of a landing on the beach head to the east.</p>
Issues affecting asset - Present		
<p>The camp has not been used since 2022 and there are signs of deterioration in many of the buildings. Several are in poor condition.</p>		
Issues affecting asset - Future		
<p>Issues affected the future of the asset relate to its continued maintenance. Several of the structures are in poor condition already and without repair could be lost. Removal of the 19th century and surviving First World War and World War Two buildings would result in harm to the significance of the asset.</p>		


Asset Name	Designation	
Fortified House		
Significance	Designated/Non-designated ref	
Unknown	21824	
Heritage at Risk Asset?		
No		
Asset Description		Potential for crashed aircraft?
Record of settlement shown of William Rees's map of South Wales in the 14th century. However, unknown if this was the exact location of the house.		None
		Setting Description
		N/A
Issues affecting asset - Present		
N/A		
Issues affecting asset - Future		
N/A		

Asset Name	Designation	
Hospital	Non-designated	
Significance	Designated/Non-designated ref	
High		
Heritage at Risk Asset?		
No		
Asset Description		Potential for crashed aircraft?
<p>A single storey structure constructed from red brick under a hipped slate roof, with stucco on the principal elevation. The building features uPVC windows and several doorways on both the north and south elevation; some of the openings exhibit original joinery.</p> <p>The building was built as part of the camp in 1860 to serve as a hospital but found use during the First World War as a sergeant's mess, store and married quarters. The building is one of the first military hospital buildings in the built in the UK, built subsequent to the reforms introduced as a consequence of the Crimean War.</p>		None
		Setting Description
		<p>The setting of the asset is defined by its position within Penally Camp. Located in the northeast corner, it was designed to stand apart from the main camp as part of the changes brought in following the Crimean War regarding disease control and rehabilitation. The building has group value with the surviving contemporary structures while the modern additions add to the visible longevity of the site as a military garrison in use for over 160 years.</p>
Issues affecting asset - Present		
<p>The primary issue affecting the asset is maintenance of the structure due to its age. The building appears to be in poor condition.</p>		
Issues affecting asset - Future		
<p>The primary issue is the potential for the asset to be demolished which would lead to a total loss of its significance. Should the asset remain, its maintenance will remain the primary issue in the future. Any development within the vicinity would almost certainly lead to a change in the setting of the asset, which may lead to a diminishment of its significance.</p>		

Asset Name	Designation	
Canteen	Non-designated	
Significance	Designated/Non-designated ref	
High		
Heritage at Risk Asset?		
No		
Asset Description		
<p>Small rectangular brick built structure under a hipped slate roof with modern cement render. To the rear of the building is a brick built stables former coal store and outhouse. The building was constructed as part of the 1860 musketry camp and was re-used during the First World War.</p>		Potential for crashed aircraft?
		None
Setting Description		
		<p>The setting of the asset is defined by its position within Penally Camp. The building has group value with the surviving contemporary structures while the modern additions add to the visible longevity of the site as a military garrison in use for over 160 years.</p>
Issues affecting asset - Present		
<p>The primary issue affecting the asset is maintenance of the structure due to its age. Externally the building is in a fair condition.</p>		
Issues affecting asset - Future		
<p>The primary issue is the potential for the asset to be demolished which would lead to a total loss of its significance. Should the asset remain, its maintenance will remain the primary issue in the future. Any development within the vicinity would almost certainly lead to a change in the setting of the asset, which may lead to a diminishment of its significance.</p>		

Asset Name	Designation	
Barracks	Non-designated	
Significance	Designated/Non-designated ref	
High		
Heritage at Risk Asset?		
No		
Asset Description		
<p>Rectangular single storey building constructed from brick under a gabled roof clad in slate. Features a series of window openings on the south and north elevation, most of the historic windows have been replaced with uPVC windows. The building previously had a series of chimney but the have been removed to the ridge line level. It has also been rendered in cement and features two small extensions off each gable end that provide internal access.</p> <p>The building was built as part of the 1860 musketry camp and identified on the First World War plan of the camp as a barracks.</p>		
Potential for crashed aircraft?		
None		
Setting Description		
<p>The setting of the asset is defined by its position within Penally Camp. The building has group value with the surviving contemporary structures while the modern additions add to the visible longevity of the site as a military garrison in use for over 160 years.</p>		
Issues affecting asset - Present		
<p>The primary issue affecting the asset is maintenance of the structure due to its age. Externally the building is in a fair condition.</p>		
Issues affecting asset - Future		
<p>The primary issue is the potential for the asset to be demolished which would lead to a total loss of its significance. Should the asset remain, its maintenance will remain the primary issue in the future. Any development within the vicinity would almost certainly lead to a change in the setting of the asset, which may lead to a diminishment of its significance.</p>		

Asset Name	Designation	
Kitchen	Non-designated	
Significance	Designated/Non-designated ref	
High		
Heritage at Risk Asset?		
No		
Asset Description		Potential for crashed aircraft?
<p>Single storey rectangular building constructed from brick under a gabled roof clad in slate. Cement render has been added along with modern uPVC windows.</p> <p>The building was constructed as part of the 1860 musketry camp as a kitchen and stable but marked on the First World War plan as in use for servants' quarters.</p>		None
		Setting Description
		<p>The setting of the asset is defined by its position within Penally Camp. The building has group value with the surviving contemporary structures while the modern additions add to the visible longevity of the site as a military garrison in use for over 160 years.</p>
Issues affecting asset - Present		
<p>The primary issue affecting the asset is maintenance of the structure due to its age. Externally the building is in a fair condition.</p>		
Issues affecting asset - Future		
<p>The primary issue is the potential for the asset to be demolished which would lead to a total loss of its significance. Should the asset remain, its maintenance will remain the primary issue in the future. Any development within the vicinity would almost certainly lead to a change in the setting of the asset, which may lead to a diminishment of its significance.</p>		

Asset Name	Designation	
Military Training Site	Non-designated	
Significance	Designated/Non-designated ref	
Medium		
Heritage at Risk Asset?		
No		
Asset Description		
<p>Single storey building, timber framed with box-profile cladding on the external elevations. Features a gabled roof of corrugated sheeting and modern uPVC windows.</p> <p>The building is noted on the First World War plan as in use as a lecture room. It is one of two surviving structures that relate to the First World War expansion of Penally Camp.</p>		<div>Potential for crashed aircraft?</div> <div>None</div>
		Setting Description
		<p>The setting of the asset is defined by its position within Penally Camp. The building has group value with the surviving contemporary structure while the earlier and modern additions add to the visible longevity of the site as a military garrison in use for over 160 years.</p>
Issues affecting asset - Present		
<p>The primary issue affecting the asset is maintenance of the structure due to its age. Externally the building is in a fair condition.</p>		
Issues affecting asset - Future		
<p>The primary issue is the potential for the asset to be demolished which would lead to a total loss of its significance. Should the asset remain, its maintenance will remain the primary issue in the future. Any development within the vicinity would almost certainly lead to a change in the setting of the asset, which may lead to a diminishment of its significance.</p>		

Asset Name	Designation
Stores	Non-designated
Significance	Designated/Non-designated ref
High	
Heritage at Risk Asset?	
No	

Asset Description

Single storey building broadly L-shaped in plan constructed from brick under a gabled roof clad in slate. A small lean to off the north elevation of the central range has a sloped roof while there is an enclosed courtyard off the west elevation, defined by a high brick wall. The entire building has been rendered in cement. A single chimney stack remains in the south range.

The building was constructed as part of the 1860 musketry camp and later used during the First World War for storage.

Potential for crashed aircraft?

None

Setting Description

The setting of the asset is defined by its position within Penally Camp. The building has group value with the surviving contemporary structures while the modern additions add to the visible longevity of the site as a military garrison in use for over 160 years.

Issues affecting asset - Present

The primary issue affecting the asset is maintenance of the structure due to its age. Externally the building is in a fair condition.

Issues affecting asset - Future

The primary issue is the potential for the asset to be demolished which would lead to a total loss of its significance. Should the asset remain, its maintenance will remain the primary issue in the future. Any development within the vicinity would almost certainly lead to a change in the setting of the asset, which may lead to a diminishment of its significance.



Asset Name	Designation
Officers Mess	Non-designated
Significance	Designated/Non-designated ref
High	
Heritage at Risk Asset?	
No	



Potential for crashed aircraft?

None

Asset Description

Single storey building, broadly a T-shaped but with a projecting gable off the western end of the east-west aligned range and a series of lean-to extension off the east elevation of the north range and east end of the east-west aligned range. Constructed from brick under a gabled roof clad in slate and feature several single chimney stacks. Most of the windows are uPVC.

The building was constructed as part of the 1860 musketry camp where it was used as officers quarters. It was used for the same purpose during the First World War.

Setting Description

The setting of the asset is defined by its position within Penally Camp. The building has group value with the surviving contemporary structures while the modern additions add to the visible longevity of the site as a military garrison in use for over 160 years.

Issues affecting asset - Present

The primary issue affecting the asset is maintenance of the structure due to its age. Externally the building is in a fair condition.

Issues affecting asset - Future

The primary issue is the potential for the asset to be demolished which would lead to a total loss of its significance. Should the asset remain, its maintenance will remain the primary issue in the future. Any development within the vicinity would almost certainly lead to a change in the setting of the asset, which may lead to a diminishment of its significance.

Asset Name	Designation
Military Residence	Non-designated
Significance	Designated/Non-designated ref
Medium	
Heritage at Risk Asset?	
No	



Potential for crashed aircraft?
None

Asset Description
<p>Single storey building set on a brick plinth with corrugated cladding and roof within a water tower at its western. Features a gabled roof with corrugated sheeting and uPVC windows.</p> <p>The building is first shown on the First World War plan of Penally Camp and a surviving element of the First World War expansion program.</p>

Setting Description
<p>The setting of the asset is defined by its position within Penally Camp. The building has group value with the surviving contemporary structure while the earlier and modern additions add to the visible longevity of the site as a military garrison in use for over 160 years.</p>

Issues affecting asset - Present
<p>The primary issue affecting the asset is maintenance of the structure due to its age. Externally the building is in a fair condition.</p>

Issues affecting asset - Future
<p>The primary issue is the potential for the asset to be demolished which would lead to a total loss of its significance. Should the asset remain, its maintenance will remain the primary issue in the future. Any development within the vicinity would almost certainly lead to a change in the setting of the asset, which may lead to a diminishment of its significance.</p>

Asset Name	Designation
Guardhouse	Non-designated
Significance	Designated/Non-designated ref
High	
Heritage at Risk Asset?	
No	



Potential for crashed aircraft?

None

Asset Description

Single storey rectangular buildings constructed from brick with a gabled roof clad in slate. A small lean to guard room has been added onto the eastern gable end. The building is divided into three spaces which were previously heated through single chimney stacks. A number of historic safes and reinforced doors remain in the building.

The building has served as a guardhouse since its construction as part of the 1860 musketry camp.

Setting Description


The setting of the asset is defined by its position within Penally Camp. The building has group value with the surviving contemporary structures while the modern additions add to the visible longevity of the site as a military garrison in use for over 160 years.

Issues affecting asset - Present

The primary issue affecting the asset is maintenance of the structure due to its age. Externally the building is in a fair condition.

Issues affecting asset - Future

The primary issue is the potential for the asset to be demolished which would lead to a total loss of its significance. Should the asset remain, its maintenance will remain the primary issue in the future. Any development within the vicinity would almost certainly lead to a change in the setting of the asset, which may lead to a diminishment of its significance.

Asset Name	Designation	
Magazine	Non-designated	
Significance	Designated/Non-designated ref	
High		
Heritage at Risk Asset?		
No		<div>Potential for crashed aircraft?</div> <div></div>
Asset Description		Setting Description
<p>Small rectangular building constructed from brick under a gabled roof clad in slate. The building has had cement render applied to the external walls.</p> <p>The building served as a former magazine and was constructed as part of the 1860 musketry camp.</p>		<p>The setting of the asset is defined by its position within Penally Camp. The building has group value with the surviving contemporary structures while the modern additions add to the visible longevity of the site as a military garrison in use for over 160 years.</p>
Issues affecting asset - Present		
<p>The primary issue affecting the asset is maintenance of the structure due to its age. Externally the building is in a fair condition.</p>		
Issues affecting asset - Future		
<p>The primary issue is the potential for the asset to be demolished which would lead to a total loss of its significance. Should the asset remain, its maintenance will remain the primary issue in the future. Any development within the vicinity would almost certainly lead to a change in the setting of the asset, which may lead to a diminishment of its significance.</p>		

Asset Name	Designation
Ablutions Block	Non-designated
Significance	Designated/Non-designated ref
Medium	
Heritage at Risk Asset?	
No	



Potential for crashed aircraft?

None

Asset Description

small rectangular building set on a brick plinth with corrugated box-profile walls and a gabled roof with corrugated sheeting, which is a modern change. It features historic two over four pane windows.

The building was constructed as part of the First World War expansion of Penally Camp and served as an ablutions block for several of the former accommodation units. It was considered during the rapid survey by Dyfed Archaeological Trust as a rare surviving example of its type.

Setting Description

The setting of the asset is defined by its position within Penally Camp. The building has group value with the surviving contemporary structure while the earlier and modern additions add to the visible longevity of the site as a military garrison in use for over 160 years.

Issues affecting asset - Present

The primary issue affecting the asset is maintenance of the structure due to its age. Externally the building is in a fair condition.

Issues affecting asset - Future

The primary issue is the potential for the asset to be demolished which would lead to a total loss of its significance. Should the asset remain, its maintenance will remain the primary issue in the future. Any development within the vicinity would almost certainly lead to a change in the setting of the asset, which may lead to a diminishment of its significance.

Asset Name	Designation
Turned Curved Asbestos Huts	Non-designated
Significance	Designated/Non-designated ref
Low	
Heritage at Risk Asset?	
No	

Asset Description

Series of Turned Curved Asbestos Huts built during World War II as part of an expansion of the accommodation at Penally Camp. The huts are built to standard plans with corrugated asbestos sheeting and brick ends that have been cement rendered and painted green. Several of the huts have had corrugated sheeting added to the ends as well while the original asbestos sheeting has been replaced on buildings 25, 24, 23, 22, 21, 20 and 19 . Each end features a small central doorway with two windows either side.

Potential for crashed aircraft?

None

Setting Description

The setting of the asset is defined by its location within the camp and through its association with the other constituent buildings and earlier additions. Collectively they are a visible testament to the longevity of the site, which has been in active military service since 1860.


Issues affecting asset - Present

The primary issue affecting the asset is maintenance of the structure due to its age. Externally the buildings are in a poor to fair condition.

Issues affecting asset - Future

The primary issue is the potential for the assets to be demolished which would lead to a total loss of their significance. Should the assets remain, their maintenance will remain the primary issue in the future. Any development within the vicinity would almost certainly lead to a change in the setting of the assets, which may lead to a diminishment of their significance.



Asset Name	Designation	
Former Sergeants Mess	Non-designated	
Significance	Designated/Non-designated ref	
Low		
Heritage at Risk Asset?		
No		
Asset Description		
<p>Three rectangular buildings that are connected to form a large T-shaped range. Constructed from brick with the north-south range rendered in concrete while the remaining range features corrugated sheeting on the external walls. The roof for the entire building is modern corrugated sheets while the windows are wooden and uPVC.</p> <p>The two sections that form the eastern range were built in WWII as the sergeants mess and workshop with the remainder of the structure building between 1943 and 1972.</p>		
Potential for crashed aircraft?		
None		
Setting Description		
<p>The setting of the asset is defined by its location within the camp and through its association with the other constituent buildings and earlier additions. Collectively they are a visible testament to the longevity of the site, which has been in active military service since 1860.</p>		
Issues affecting asset - Present		
<p>The primary issue affecting the asset is maintenance of the structure due to its age. Several of the windows and corrugated sheeting on the external walls of the east-west aligned range are in poor condition. Internally, water ingress and damp have begun to cause issues to the ceiling and paintwork.</p>		
Issues affecting asset - Future		
<p>The primary issue is the potential for the asset to be demolished which would lead to a total loss of its significance. Should the asset remain, its maintenance will remain the primary issue in the future. Any development within the vicinity would almost certainly lead to a change in the setting of the asset, which may lead to a diminishment of its significance.</p>		

Asset Name

Building 90

Designation

Non-designated

Significance

High

Designated/Non-designated
ref

Heritage at Risk Asset?

No

Asset Description

Small rectangular buildings constructed from brick under a gabled roof clad in slate. Access is via a set of double doors on the eastern gabled end or via an doorway in the south elevation. Features wooden windows with a top hinge on the gable ends and south and north elevations.

The building served as a former kitchen and was constructed as part of the 1860 musketry camp.



Potential for crashed aircraft?

None

Setting Description


The setting of the asset is defined by its location within the camp and through its association with the other constituent buildings and earlier additions. Collectively they are a visible testament to the longevity of the site, which has been in active military service since 1860.

Issues affecting asset - Present

The primary issue affecting the asset is maintenance of the structure due to its age. Externally the building is in a fair condition however damage to the walls internal was identified during the walkover survey.

Issues affecting asset - Future

The primary issue is the potential for the asset to be demolished which would lead to a total loss of its significance. Should the asset remain, its maintenance will remain the primary issue in the future. Any development within the vicinity would almost certainly lead to a change in the setting of the asset, which may lead to a diminishment of its significance.

Asset Name	Designation	
Building 61	Non-designated	
Significance	Designated/Non-designated ref	
Low		
Heritage at Risk Asset?		
No		
Asset Description		Potential for crashed aircraft?
<p>single storey rectangular buildings constructed from brick with cement render under a gabled roof with corrugated sheeting. Access is via a concrete platform on the north elevation with the building split into two toilet ranges. Wooden windows features on each gabled end and the south elevation.</p> <p>The building was constructed between 1943 and 1958, possible as part of the Cold War changes.</p>		None
		Setting Description
		<p>The setting of the asset is defined by its location within the camp and through its association with the other constituent buildings and earlier additions. Collectively they are a visible testament to the longevity of the site, which has been in active military service since 1860.</p>
Issues affecting asset - Present		
<p>The primary issue affecting the asset is maintenance of the structure due to its age. Externally the building is in a fair condition.</p>		
Issues affecting asset - Future		
<p>The primary issue is the potential for the asset to be demolished which would lead to a total loss of its significance. Should the asset remain, its maintenance will remain the primary issue in the future. Any development within the vicinity would almost certainly lead to a change in the setting of the asset, which may lead to a diminishment of its significance.</p>		

Asset Name	Designation
Building 83	Non-designated
Significance	Designated/Non-designated ref
Low	
Heritage at Risk Asset?	
No	

Asset Description

Single storey rectangular building of brick construction? With corrugated sheeting on the external walls and features uPVC windows. Roof is gabled and clad with corrugated sheeting.

The building was constructed as part of the World War Two expansion of Penally Camp.

Potential for crashed aircraft?

None

Setting Description

The setting of the asset is defined by its location within the camp and through its association with the other constituent buildings and earlier additions. Collectively they are a visible testament to the longevity of the site, which has been in active military service since 1860.

Issues affecting asset - Present

The primary issue affecting the asset is maintenance of the structure due to its age. Externally the building is in a fair condition.

Issues affecting asset - Future

The primary issue is the potential for the asset to be demolished which would lead to a total loss of its significance. Should the asset remain, its maintenance will remain the primary issue in the future. Any development within the vicinity would almost certainly lead to a change in the setting of the asset, which may lead to a diminishment of its significance.



Asset Name	Designation
Building 81	Non-designated
Significance	Designated/Non-designated ref
Low	
Heritage at Risk Asset?	
No	



Asset Description	Potential for crashed aircraft?
<p>Single storey rectangular buildings constructed from brick that has been cement rendered and painted green. Features a gabled roof clad in corrugated sheets. Windows appear to be a mixture of wooden and uPVC.</p> <p>The building was constructed as part of the World War Two expansion of Penally Camp.</p>	None
	Setting Description
	<p>The setting of the asset is defined by its location within the camp and through its association with the other constituent buildings and earlier additions. Collectively they are a visible testament to the longevity of the site, which has been in active military service since 1860.</p>

Issues affecting asset - Present
<p>The primary issue affecting the asset is maintenance of the structure due to its age. Externally the building is in a fair condition.</p>
Issues affecting asset - Future
<p>The primary issue is the potential for the asset to be demolished which would lead to a total loss of its significance. Should the asset remain, its maintenance will remain the primary issue in the future. Any development within the vicinity would almost certainly lead to a change in the setting of the asset, which may lead to a diminishment of its significance.</p>

Asset Name	Designation
Building 77	Non-designated
Significance	Designated/Non-designated ref
Low	
Heritage at Risk Asset?	
No	

Asset Description

Single storey rectangular buildings with a stepped profile. Constructed from brick that has been rendered with cement and painted green. The roof of both sections is gabled and clad in corrugated sheeting. Access is via the west and north elevations and it features several wooden windows.

The building was constructed as part of the World War Two expansion of Penally Camp.

Potential for crashed aircraft?

None

Setting Description

The setting of the asset is defined by its location within the camp and through its association with the other constituent buildings and earlier additions. Collectively they are a visible testament to the longevity of the site, which has been in active military service since 1860.

Issues affecting asset - Present

The primary issue affecting the asset is maintenance of the structure due to its age. Externally the building is in a fair condition.

Issues affecting asset - Future

The primary issue is the potential for the asset to be demolished which would lead to a total loss of its significance. Should the asset remain, its maintenance will remain the primary issue in the future. Any development within the vicinity would almost certainly lead to a change in the setting of the asset, which may lead to a diminishment of its significance.



Asset Name	Designation
Building 43 and 44	Non-designated
Significance	Designated/Non-designated ref
Low	
Heritage at Risk Asset?	
No	

Asset Description

Two Nissen Huts or Turned Curved Asbestos Huts constructed in close proximity. Built to the standard design with corrugated sheeting, fixed pane windows and brick infilled ends.

The Nissen Huts constructed during the World War II expansion to Penally Camp.

Potential for crashed aircraft?

None

Setting Description

The setting of the asset is defined by their location within the camp and through their association with the other constituent buildings and earlier additions. Collectively they are a visible testament to the longevity of the site, which has been in active military service since 1860.

Issues affecting asset - Present

The primary issue affecting the asset is maintenance of the structure due to its age. Externally the building they are in fair condition.

Issues affecting asset - Future

The primary issue is the potential for the assets to be demolished which would lead to a total loss of their significance. Should the assets remain, their maintenance will remain the primary issue in the future. Any development within the vicinity would almost certainly lead to a change in the setting of the assets, which may lead to a diminishment of their significance.



Asset Name	Designation
Building 88	Non-designated
Significance	Designated/Non-designated ref
Low	
Heritage at Risk Asset?	
No	



Potential for crashed aircraft?

None

Asset Description

single storey rectangular building constructed from brick that has been clad in corrugated sheeting. Features a hipped roof clad in corrugated sheeting and historic fixed pane wooden windows. It has a single doorway located on the south elevation.

The building was constructed as part of the World War Two expansion of Penally Camp.

Setting Description

The setting of the asset is defined by its location within the camp and through its association with the other constituent buildings and earlier additions. Collectively they are a visible testament to the longevity of the site, which has been in active military service since 1860.

Issues affecting asset - Present

The primary issue affecting the asset is maintenance of the structure due to its age. Externally the building is in a fair condition.

Issues affecting asset - Future

The primary issue is the potential for the asset to be demolished which would lead to a total loss of its significance. Should the asset remain, its maintenance will remain the primary issue in the future. Any development within the vicinity would almost certainly lead to a change in the setting of the asset, which may lead to a diminishment of its significance.


Asset Name	Designation
Building 87A	Non-designated
Significance	Designated/Non-designated ref
Low	
Heritage at Risk Asset?	
No	




Asset Description	Potential for crashed aircraft?
<p>Single storey rectangular building constructed from brick that has been rendered in cement. Features a gabled roof that is clad in corrugated sheeting. Access into the building is via a doorway in the south elevation that is accessed by a set of concrete steps.</p> <p>The building was constructed as part of the World War Two expansion of Penally Camp.</p>	None
	Setting Description
	<p>The setting of the asset is defined by its location within the camp and through its association with the other constituent buildings and earlier additions. Collectively they are a visible testament to the longevity of the site, which has been in active military service since 1860.</p>

Issues affecting asset - Present
<p>The primary issue affecting the asset is maintenance of the structure due to its age. Externally the building is in a fair condition.</p>

Issues affecting asset - Future
<p>The primary issue is the potential for the asset to be demolished which would lead to a total loss of its significance. Should the asset remain, its maintenance will remain the primary issue in the future. Any development within the vicinity would almost certainly lead to a change in the setting of the asset, which may lead to a diminishment of its significance.</p>

Asset Name	Designation	
Building 45	Non-designated	
Significance	Designated/Non-designated ref	
Low		
Heritage at Risk Asset?		
No		
Asset Description		Potential for crashed aircraft?
<p>Nissen Hut. Constructed to standard Nissen Hut design with corrugated sheeting and brick infill at each end. Both ends have been clad in corrugated sheeting. Windows are wooden and historic features of the building.</p> <p>The building was constructed as part of the World War Two expansion of Penally Camp.</p>		None
		Setting Description
		<p>The setting of the asset is defined by its location within the camp and through its association with the other constituent buildings and earlier additions. Collectively they are a visible testament to the longevity of the site, which has been in active military service since 1860.</p>
Issues affecting asset - Present		
<p>The primary issue affecting the asset is maintenance of the structure due to its age. Externally the building is in a fair condition.</p>		
Issues affecting asset - Future		
<p>The primary issue is the potential for the asset to be demolished which would lead to a total loss of its significance. Should the asset remain, its maintenance will remain the primary issue in the future. Any development within the vicinity would almost certainly lead to a change in the setting of the asset, which may lead to a diminishment of its significance.</p>		

Asset Name	Designation	
Building 56	Non-designated	
Significance	Designated/Non-designated ref	
Low		
Heritage at Risk Asset?		
No		
Asset Description		Potential for crashed aircraft?
<p>Single storey buildings likely steel framed and finished with corrugated sheeting. Access is provided by a doorway on the east elevation. This may have replaced a historic double door.</p> <p>The building was constructed as part of the World War Two expansion of Penally Camp.</p>		None
		Setting Description
		<p>The setting of the asset is defined by its location within the camp and through its association with the other constituent buildings and earlier additions. Collectively they are a visible testament to the longevity of the site, which has been in active military service since 1860.</p>
Issues affecting asset - Present		
<p>The primary issue affecting the asset is maintenance of the structure due to its age. Externally the building is in a poor condition.</p>		
Issues affecting asset - Future		
<p>The primary issue is the potential for the asset to be demolished which would lead to a total loss of its significance. Should the asset remain, its maintenance will remain the primary issue in the future. Any development within the vicinity would almost certainly lead to a change in the setting of the asset, which may lead to a diminishment of its significance.</p>		

Asset Name	Designation
Building 77A	Non-designated
Significance	Designated/Non-designated ref
Low	
Heritage at Risk Asset?	
No	



Potential for crashed aircraft?

None

Asset Description

Small single storey rectangular building constructed from brick with a cement render, under a gabled roof clad in corrugated sheeting. Access is through a single doorway on the north elevation while a series of fixed pane windows on the north and side elevations provide light to the internal space.

The building was constructed somepoint between 1943 and 1958.

Setting Description

The setting of the asset is defined by its location within the camp and through its association with the other constituent buildings and earlier additions. Collectively they are a visible testament to the longevity of the site, which has been in active military service since 1860.

Issues affecting asset - Present

The primary issue affecting the asset is maintenance of the structure due to its age. Externally the building is in a fair condition.

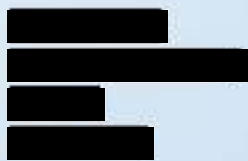
Issues affecting asset - Future

The primary issue is the potential for the asset to be demolished which would lead to a total loss of its significance. Should the asset remain, its maintenance will remain the primary issue in the future. Any development within the vicinity would almost certainly lead to a change in the setting of the asset, which may lead to a diminishment of its significance.

Asset Name	Designation	
First World War Hut	Non-designated	
Significance	Designated/Non-designated ref	
Medium		
Heritage at Risk Asset?		
No		
Asset Description		Potential for crashed aircraft?
Identified as Building 7 and thought to be a surviving hut built during the First World War expansion of Penally. The other huts were demolished during the early 2000s redevelopment of Penally Camp		None
		Setting Description
		The setting of the asset is defined by its position within Penally Camp. The building has group value with the surviving contemporary structure while the earlier and modern additions add to the visible longevity of the site as a military garrison in use for over 160 years.
Issues affecting asset - Present		
The primary issue affecting the asset is maintenance of the structure due to its age. Externally the building is in a poor condition.		
Issues affecting asset - Future		
The primary issue is the potential for the asset to be demolished which would lead to a total loss of its significance. Should the asset remain, its maintenance will remain the primary issue in the future. Any development within the vicinity would almost certainly lead to a change in the setting of the asset, which may lead to a diminishment of its significance.		



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