Results of an Archaeological Assessment, Heritage Impact Assessment and Geophysical Survey



South West Archaeology Ltd. report no. 171016



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Land at Gratton Field, Five Lanes, Altarnun, Cornwall Results of an Archaeological Assessment, Heritage Impact Assessment and Geophysical Survey

By P. Bonvoisin & F. Balmond Report Version: FINAL 16th October 2017

Work undertaken by SWARCH for Andrew Wilks of ADW Design Group on behalf of L G Pooley & Mrs M Williams

Summary

This report presents the results of an archaeological assessment, including a desk-based assessment and geophysical survey carried out by South West Archaeology Ltd. (SWARCH) for land at Gratton Field, Five Lanes, Cornwall. The site is located to the west of the village of Five Lanes and south of the medieval and later elements of Altarnun.

The desk-based assessment suggests that the site appears to have been part of a single large agricultural field since at least the start of the 19th century. The HER for the local area shows very few assets within the immediate surrounds of the site. The site inspection did not reveal any evidence of earthworks or artefactual material.

The geophysical survey identified three groups of possible anomalies that relate to archaeological activity. The majority of the anomalies appear to relate to previous agricultural activity, although there are a small number of discrete features of unknown archaeological origin or date.

The site is located c.400m from the village of Altarnun which is a Conservation Area and contains a high number of Listed Buildings and other heritage assets, principle of which is the Parish Church. The church is visible in views from the site, and the proposed development would be visible from the church tower, but would be largely screened in views from the church, churchyard or wider village. Much of this screening is as a result of tree-coverage but the topography would minimise visibility. The development may appear in some more distant views of the Church and Conservation Area, and as such the impact of the development should be considered as **negative/minor**.

Taking into consideration the recorded heritage assets in the wider area, and the results of the geophysical survey, the archaeological potential of the site is low. Based on the results of the walkover and geophysical surveys, further archaeological works on this site are unlikely to add significant additional detail to the archaeological record.



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ACKNOWLEDGEMENTS

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1.0 Introduction

LOCATION: LAND AT GRATTON FIELD, FIVE LANES

PARISH: ALTARNUN
COUNTY: CORNWALL
NGR: SX 22314 80710
PLANNING NO. PA17/07522
SWARCH REF. FLG17

1.1 PROJECT BACKGROUND

South West Archaeology Ltd. (SWARCH) was commissioned by Andrew Wilks of ADW Design Group (the Agent) on behalf of L G Pooley & Mrs M Williams (the Client) to undertake an archaeological assessment, heritage impact assessment and geophysical survey of Land at Gratton Field, Five Lanes, Altarnun, Cornwall, in advance of a proposed residential development. This work was undertaken in accordance with best practice and CIfA guidelines.

1.2 TOPOGRAPHICAL AND GEOLOGICAL BACKGROUND

Gratton Field is located *c*.250m north of the A30, and is situated to the north-east of Bodmin Moor. The site lies *c*.11.6km south-west of the centre of Launceston, and *c*.620m south of St Nonna's Church at Altarnun. The site comprises of south-east section of a field, and is on a north-east facing slope, ranging from 227m AOD in the south-west corner of the site to 207m AOD in the north-east corner of the site. The field is to the east of the settlement of Five Lanes (Figure 1). The soils of this area are the well-drained fine loamy and fine silty soils of the Denbigh 2 group (SSEW 1983), which overly the slate sedimentary bedrock of the Tavy Formation (BGS 2017).

1.3 HISTORICAL & ARCHAEOLOGICAL BACKGROUND

Five Lanes is a village in the parish of Altarnun, in the hundred of Lesnewth and the deanery of Trigg Major. Five Lanes is recorded as the historic site of cattle fairs in June and November (Lysons and Lysons 1814). Altarnun (or Altarnon) was known as Penpont (Penponta) at Domesday and probably belonged to the Trevelyans (Lysons and Lysons 1814). It is likely to have been a monestry before the conquest (MCO 24713). The church at Altarnun was given to the Prior and Convent of Montacute by William Earl Moreton (or Count of Mortain), whose decendents passed it to the church of Exeter in 1236 (Lysons and Lysons 1814). The field opposite the church is believed to be the site of the monestary (MCO 24713). The dedication is to St Nonnet or St Nun, mother of St David, who is believed to have been born and buried here and from whose name the modern name of the settlement derives.

No archaeological fieldwork appears to have taken place in the immediate surroundings, ridge and furrow is present to the north-west of the site at Trewint, with two Bronze Age findspots to the West and East of Altarnun (a stone mould for a flat axe and a flint knife respectively). There are two Grade II listed buildings in Five Lanes; the Kings Head Hotel and a house. Approximately 300m to the North, lies the southern extent of the Altarnun conservation area. Within the settlement of Altarnun there are 37 Grade II listed buildings and one Grade I Listed Building (the Church of St Nonna). There are two Scheduled Monuments: the medieval wheelheaded cross which lies within St Nonna's graveyard and a late medieval/early post medieval bridge footbridge (also Grade II listed).

1.4 METHODOLOGY

This work was undertaken in accordance with best practice. The desk-based assessment follows the guidance as outlined in: Standard and Guidance for Archaeological Desk-Based Assessment (CIFA 2014a) and Understanding Place: historic area assessments in a planning and development context (English Heritage 2012). The gradiometer survey follows the general guidance as outlined in: Geophysical Survey in Archaeological Field Evaluation (English Heritage 2008) and Standard and Guidance for Archaeological Geophysical Survey (CIFA 2014b).

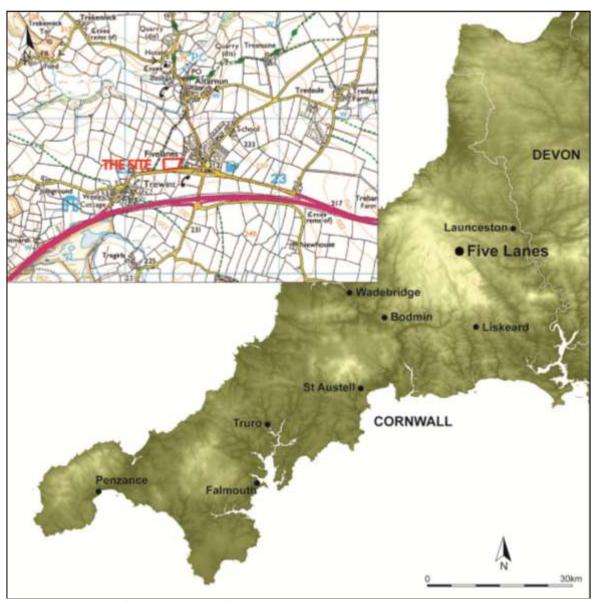


FIGURE 1: SITE LOCATION (THE SITE IS INDICATED).

2.0 DESK-BASED ASSESSMENT

2.1 DOCUMENTARY HISTORY

Altarnun parish lies within the hundred of Lesnewth and the deanery of Trigg Major. Five Lanes is not noted as one of the principal villages within the parish, but is mentioned for its cattle fairs which happened bi-annually. St Nonna's church at Altarnun is mentioned as being the possible burial place of St Nonnet or Nun (Lysons and Lysons 1814). Altarnun (or Altarnon) was known as Penpont (Penponta) at Domesday and may have belonged to the Trevelyans (Lysons and Lysons 1814). It was likely a monestry before the conquest (MCO 24713). The Church at Altarnun was given to the Prior and Convent of Montacute by William Earl Moreton (or Count of Mortain), whose decendents passed it to the church of Exeter in 1236 (Lysons and Lysons 1814).

2.2 CARTOGRAPHIC DEVELOPMENT

2.2.1 OS SURVEYOR'S DRAFT MAP 1808

The first cartographic source available to this study is the 1808 Ordnance Survey surveyor's draft map of the area. The scale of this map makes it difficult to discern any real detail, but the settlement of *Five Lanes* is shown. The site appears to be shown as part of a large field, bounded by two springs/streams.



FIGURE 2: EXTRACT FROM THE ORDNANCE SURVEY DRAFT MAP FOR THE AREA OF LAUNCESTON, 1808 (BL 2017). THE APPROXIMATE SITE LOCATION IS SHOWN.

2.2.2 ALTARNUN TITHE MAP AND APPORTIONMENT 1843

The Altarnun tithe map of 1843 (Error! Reference source not found.) is the first detailed artographic resource available to this study; it shows the settlement of Five Lanes and the field which includes the site in some detail. The site is located within a single arable field which belonged to the holdings of Francis Rodd Esquire (of Trebartha Hall) who also owned some of the surrounding plots. In the Tithe Apportionment the plot containing the site is referred to as *Gratton*, the name survives to the current day. The plots to the north and west; *Pipers Field, Three Corner Park and Hill Park* all belong to *Trewint & Penpont*. Like *Gratton* these plots are owned by Francis Rodd Esquire and farmed by Luke Dunn.



FIGURE 3 EXTRACT FROM THE ALTARNUN TITHE MAP OF 1843. THE APPROXIMATE LOCATION OF THE SITE IS INDICATED (CRO).

Landowner	Occupier	Lands and Premises	Plot number	Plot name	Usage
	Luke Dunn	Trewint & Penpont	1299	Pipers Field	Arable Occasionally
Francis Dodd For			1300	Gratton	Arable Occasionally
Francis Rodd Esq.			1301	Three Corner Park	Arable
			1302	Hill Park	Arable
Edward Nicolls	Richard Smith		2329	Lower Rock Park	Meadow
	John Nicolls	Trewint	2339	Diggorys Field	Arable Occasionally
James Thompson			2340	Long Field	Arable Occasionally
May Chappell Esq.			2341	Five Lanes Meadow	Meadow
			2342	Five Lanes Field	Arable Occasionally
Francis Rodd Esq.	Charles Cowling	New Inn	2374	Garden	=

TABLE 1: EXTRACT FROM THE ALTARNUN TITHE APPORTIONMENT OF 1843. THE SITE OCCUPIES THE PLOTS HIGHLIGHTED.

2.2.3 OS FIRST & SECOND EDITION MAPS, 1883 AND 1906

The First Edition OS Map indicates that the size of the field in which the proposed site is located remains consistent with the current field. The land still appears to be agricultural, with no trees or buildings indicated.

By the second edition OS map nothing has changed on the proposed site, and very little in the wider area with only a small increase in the numbers of buildings within *Fivelanes*.



FIGURE 4: EXTRACT FROM THE OS FIRST EDITION 25" MAP OF 1883. THE APPROXIMATE LOCATION OF THE SITE IS INDICATED (CRO).



FIGURE 5: EXTRACT FROM THE SECOND EDITION OS 25" MAP OF 1906. THE APPROXIMATE LOCATION OF THE SITE IS INDICATED (CRO).

2.3 LATER CHANGES

During the course of the later 20th century the village has expanded to encompass housing in the triangular field to the east of the proposal site.

3.0 GEOPHYSICAL SURVEY

3.1 Introduction

An area of c.0.75ha was the subject of a magnetometry (gradiometer) survey. The purpose of this survey was to identify and record magnetic anomalies within the proposed site. While identified anomalies may relate to archaeological deposits and structures, the dimensions of recorded anomalies may not correspond directly with any associated features. The following discussion attempts to clarify and characterise the identified anomalies. The survey was undertaken on the 29^{th} of September 2017 by P. Bonvoisin; who also processed the survey data.

3.2 METHODOLOGY

The gradiometer survey follows the general guidance as outlined in: *Geophysical Survey in Archaeological Field Evaluation* (English Heritage 2008) and *Standard and Guidance for Archaeological Geophysical Survey* (CIfA 2014b).

The survey was carried out using a twin-sensor fluxgate gradiometer (Bartington Grad601). These machines are sensitive to depths of up to 1.50m. The survey parameters were: sample intervals of 0.25m, traverse intervals of 1m, a zigzag traverse pattern, traverse orientation was circumstantial, grid squares of 30×30m. The gradiometer was adjusted ('zeroed') every 0.5-1ha. The survey grid was tied into the Ordnance Survey National Grid. The data was downloaded onto *Grad601 Version 3.16* and processed using *TerraSurveyor Version 3.0.25.0*. The primary data plots and analytical tools used in this analysis were *Shade* and *Metadata*. The details of the data processing are as follows:

Processes: Clip +/- 3SD; DeStripe all traverses, median. DeStagger of particular grids. Details: 0.70665ha surveyed; Max. 98.92nT, Min. -120.09nT; Standard Deviation 12.80nT, mean - 0.03nT, median 0.00nT.

3.3 SITE INSPECTION

The survey area comprises of *c*.0.75ha of Gratton Field at Five Lanes, extending from the southeast corner of the site. Gratton field is currently pasture with stone lined Cornish hedgebanks on all sides. A public footpath runs along the western boundary of the field. Mature trees line the hedgebanks to the north and west of the site, partially obscuring the view to St Nonna's church and Altarnun. Agricultural machinery was present along the southern boundary of the site. Ploughmarks were also visible during the site walkover, represented as changes is colouration of the grass. A full complement of site photographs can be found in Appendix 2.



FIGURE 6: VIEW ACROSS SITE; TAKEN FACING SOUTH-EAST.



FIGURE 7: VIEW TOWARDS ST NONNA'S CHURCH FROM THE SITE; TAKEN FACING NORTH.

3.4 RESULTS

Table 2 with the accompanying Figures 8 and 9 show the analyses and interpretation of the geophysical survey data. Additional graphic images of the survey data and numbered grid locations can be found in Appendix 1.

Anomaly	Class and	Form	Archaeological	Comments
Group	Certainty		Characterisation	
1	Moderate positive, possible	Fragmented linear	Possible ditch or cut feature	Indicative of a discrete cut feature that may indicate a ditch, or further agricultural activity. Responses of c.+2.1nT to +11.7nT.
2	Weak positive, possible	Fragmented linear	Possible ditch or cut feature	Indicative of a discrete cut feature that may indicate a ditch. Responses of <i>c.</i> +0.8nT to +2.7nT.
3	Very weak positive, possible	Linear	Possible ditch or cut feature	Indicative of a discrete cut feature that may indicate a ditch. Responses of c.+0.2nT to +0.6nT.

TABLE 2: INTERPRETATION OF GRADIOMETER SURVEY DATA.

3.5 DISCUSSION

The survey identified three groups of anomalies. Cartographic and visual sources supporting the discussion and comments can be seen in the desk-based assessment above.

Group 1 is a moderate positive fragmented linear (± 2.1 nT to ± 11.7 nT), indicative of a discrete cut feature such as a ditch, this linear is roughly aligned with agricultural activity within the field and may be further evidence of this as opposed to a feature of possible archaeological significance.

Group 2 is a weak positive fragmented linear (+0.8nT to +2.7nT), indicative of a discrete cut feature such as a ditch; probably associated with anomaly group 3.

Group 3 is a very weak positive linear (+0.2nT to +0.6nT), indicative of a discrete cut feature. The strength of the response could be due to the strong area of magnetic disturbance immediately to the south; probably associated with anomaly group 2.

Agricultural activity, or ploughmarks, are present across the whole of a survey area, this is displayed as parallel positive and negative linears following a similar axis. Modern disturbance, Di-Polar anomalies and magnetic disturbance are also located across the site; the magnetic disturbance along the southern boundary is due to the presence of agricultural machinery.

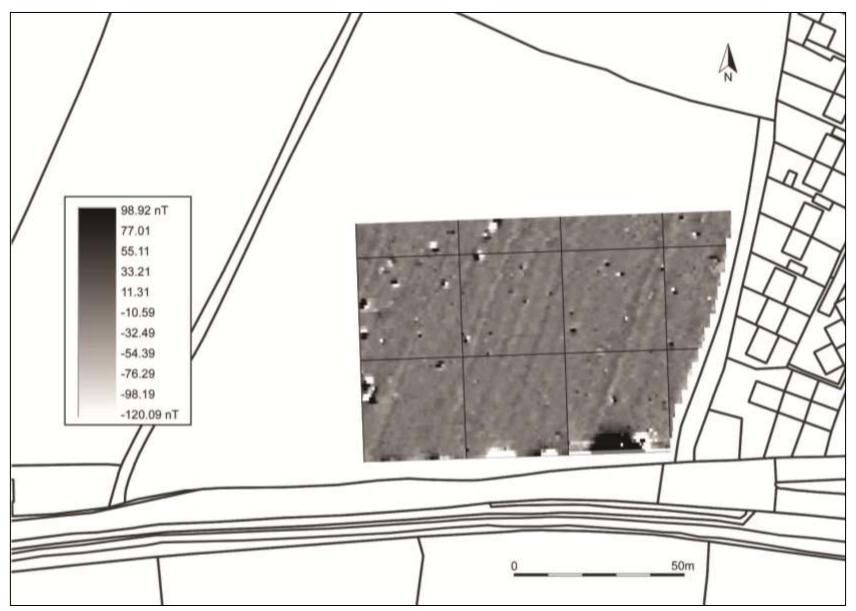


FIGURE 8: SHADE PLOT OF GRADIOMETER SURVEY DATA; MINIMAL PROCESSING.

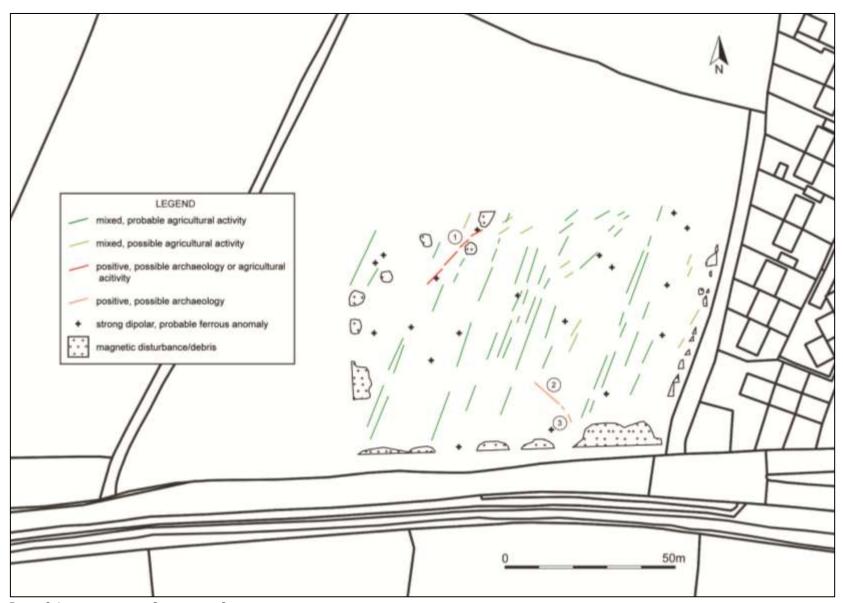


FIGURE 9: INTERPRETATION OF GRADIOMETER SURVEY DATA.

4.0 IMPACT ASSESSMENT

4.1 Heritage Impact Assessment - Overview

The purpose of heritage impact assessment is twofold: Firstly, to understand – insofar as is reasonably practicable and in proportion to the importance of the asset – the significance of a historic building, complex, area or archaeological monument (the 'heritage asset'). Secondly, to assess the likely effect of a proposed development on nearby heritage assets (direct impact) and their setting (indirect impact). The methodology employed in this assessment is based on the staged approach advocated in *The Setting of Heritage Assets* (GPA3 Historic England 2015), used in conjunction with the ICOMOS (2011) and DoT (DMRB vol.11; WEBTAG) guidance. Sections 5.2-5.6 discuss policy, concepts and approach; section 5.7 covers the methodology, and section 5.8 individual assessments.

The methodology employed in this assessment can be found in Appendix 2.

4.2 THE STRUCTURE OF ASSESSMENT

This HIA groups and discusses heritage assets by category (e.g. chapel, historic settlement etc.) and then addresses each site individually. The initial discussion establishes the baseline sensitivity of a given category of monument or building to the proposed development, the individual entry elaborates on local circumstance and site-specific factors. The following heritage assets selected for discussion are: Grade I Church of St Nonna and Altarnun Conservation Area. The listed buildings at Trewint are not considered in this assessment as the topography means that no intervisibility is possible. The listed buildings within Five Lanes are also screened by modern development and topography.

A comprehensive series of baseline photographs can be found in Appendix 3.

4.3 ASSESSMENT BY CLASS OF MONUMENT OR STRUCTURE

4.3.1 HISTORIC SETTLEMENTS

Clusters of Listed Buildings within villages or hamlets; occasionally Conservation Areas

The context of the (usually) Grade II Listed buildings within settlement is defined by their setting within the village settlement. Their significance is determined by their architectural features, historical interiors or role/function in relation to the other buildings. The significance of their setting to the experience of these heritage assets is of key importance and for this reason the curtilage of a property and any small associated buildings or features are often included in the Listing and any changes must be scrutinised under relevant planning law.

Most village settlements have expanded significantly during the 20th century, with rows of cottages and modern houses and bungalows being built around and between the older core Listed structures. The character of the settlement and setting of the heritage assets within it are continually changing and developing, as houses have been built or farm buildings have been converted to residential properties. The setting of the heritage assets within a village, dependant on the form and location of the settlement, can be harmed by unsympathetic development. The relationships between the houses, church and other Listed structures need not alter, and it is these relationships that define their context and setting in which they are primarily to be experienced, but frequently the journey taken by the experient to reach that setting can be affected.

The larger settlements and urban centres usually contain a large number of domestic and commercial buildings, only a very small proportion of which may be Listed or protected in any way. The setting of these buildings lies within the townscape, and the significance of these buildings, and the contribution of their setting to that significance, can be linked to the growth and development of the individual town and any associated industries. The original context of any churches may have changed significantly since construction, but it usually remains at the heart of its settlement. Given the clustering of numerous individual buildings, and the local blocking this inevitably provides, a distant housing development is unlikely to prove particularly intrusive.

What is important and why

Historic settlements constitute an integral and important part of the historic landscape, whether they are hamlets, villages, towns or cities. The physical remains of previous occupation may survive beneath the ground, and the built environment contains a range of vernacular and national styles (evidential value). Settlements may be archetypal, but development over the course of the 20th century has homogenised most, with streets of terraced and semi-detached houses and bungaloid growths arranged around the medieval core (limited historical/illustrative value). As dynamic communities, there will be multiple historical/associational values relating to individuals, families, occupations, industry, retail etc. in proportion to the size and age of the settlement (historical/associational). Settlements that grew in an organic fashion developed fortuitously into a pleasing urban environment (e.g. Ledbury), indistinguishable suburbia, or degenerate urban/industrial wasteland (aesthetic/fortuitous). Some settlements were laid out quickly or subject to the attention of a limited number of patrons or architects (e.g. late 19th century Redruth and the architect James Hicks, or Charlestown and the Rashleigh family), and thus strong elements of design and planning may be evident which contribute in a meaningful way to the experience of the place (aesthetic/design). Component buildings may have strong social value, with multiple public houses, clubs, libraries (communal/social), chapels and churches (communal/spiritual). Individual structures may be commemorative, and whole settlements may become symbolic, although not always in a positive fashion (e.g. the Valleys of South Wales for post-industrial decline) (communal/symbolic). Settlements are complex and heterogeneous built environments filled with meaning and value; however, beyond a certain size threshold distant sight-lines become difficult and local blocking more important.

4.3.2 ALTARNUN CONSERVATON AREA

Asset Name: Altarnun Conservation Area

Parish: Altarnun

Designation: CA Condition: good overall

Description: Altarnun is a village on the eastern edge of Bodmin Moor. The Conservation Area is characterised by a high survival of historic buildings within a popular tourist area. It was designated a Conservation Area in 1980.

Topographical Location & Landscape Context: The Altarnun Conservation Area encompasses the settlement of Altarnun on the eastern edge of Bodmin Moor. The A30 is located approximately 600m to the south of the conservation area boundary. Altarnun lies in the valley of Penpont water, with the main part of the settlement on the sloping hillside to the south of the river crossing. The Cornwall Historic Landscape Characterisation identifies the land surrounding the village as medieval farmland, rough ground and post-medieval farmland.

Setting: The main part of the settlement is south of Penpont Water, crossed by a medieval/early post-medieval footbridge, located on ground which rises up to the settlement of Fivelanes. Altarnun contains 37 Grade II listed buildings and 1 Grade I Listed building. The listed houses date to the seventeenth, eighteenth and nineteenth centuries with modern K6 telephone kiosk also Grade II listed within the conservation area. Listed medieval structures include a medieval cross in the garden of the Old Vicarge.

Principal Views: The village is entered from the north and south along deep, hedgebanked country lanes, limiting views around the settlement. These widen out towards the river, revealing a more urban character with houses fronting the street and gardens visible. Rose Hill leads past the village hall and cemetary to an area of more modern residential development before returning to a deep hedgebank topped lane, affording views back into the settlement, including the tower of St Nonna's Church.

Landscape Presence: The village is largely screened in the wider landscape by its topographic location. It forms part of the wider settlement pattern within the surviving semi-rural landscape.

Sensitivity of Asset: The Conservation Area is sensitive to additions of a modern nature within its key historic streets and changes to streetscape views within its protected area. This can include more distant visual effects if they appear in the more sensitive views.

Magnitude of Impact: The deep narrow lanes into the village and the low lying nature of much of the open urban aspect focus views along the streets and screen wider landscape views. It appears unlikely that there are any clear views to the proposed development from within the village or Conservation Area, although partial glimpses may be possible, these would have no affect on the setting or character.

Impact Assessment: Neutral impact overall.

4.3.1 CHURCHES AND PRE-REFORMATION CHAPELS

Church of England parish churches and chapels; current and former places of worship

Most parish churches tend to be associated with a settlement (village or hamlet), and therefore their immediate context lies within the setting of the village (see elsewhere). Church buildings are usually Grade II* or Grade I Listed structures, on the basis they are often the only surviving medieval buildings in a parish, and their nature places of religious worship.

In more recent centuries the church building and associated structures functioned as *the* focus for religious devotion in a parish. At the same time, they were also theatres of social interaction, where parishioners of differing social backgrounds came together and renegotiated their social contract.

In terms of setting, most churches are still surrounded by their churchtowns. Viewed within the context of the settlement itself, churches are unlikely to be affected by the construction of a wind turbine unless it is to be located in close proximity. The location of the church within its

settlement, and its relationship with these buildings, would remain unchanged: the church often being the visual focus on the main village street.

This is not the case for the church tower. While these structures are rarely open to the public, in rural communities they are frequently the most prominent visual feature in the landscape, especially where the church is itself located in a topographically prominent location. The towers of these structures were clearly *meant* to be highly visible, ostentatious reminders of the presence of the established church with its message of religious dominance/assurance. However, churches were often built and largely maintained by their laity, and as such were a focus for the *local* expression of religious devotion. It was this local devotion that led to the adornment of their interiors and the elaboration of their exteriors, including the tower.

As the parishes in Devon and Cornwall can be relatively small (certainly in comparison with the multi-township parishes of northern Britain) the tower would be visible to the residents of multiple parishes. This would have been a clear expression of the religious devotion – or rather, the competitive piety – of a particular social group. This competitive piety that led to the building of these towers had a very local focus, and very much reflected the aspirations of the local gentry. If the proposed turbine is located within the landscape in such a way to interrupt line-of-sight between towers, or compete with the tower from certain vantages, then it would very definitely impact on the setting of these monuments.

As the guidance on setting makes clear, views from or to the tower are less important than the contribution of the setting to the significance of the heritage asset itself. The higher assessment for the tower addresses the concern it will be affected by a new and intrusive vertical element in this landscape. However, if the turbine is located at some distance from the church tower, it will only compete for attention on the skyline from certain angles and locations.

Churchyards often contained Listed gravestones or box tombs, and associated yard walls and lychgates are usually also Listed. The setting of all of these assets is usually extremely local in character, and local blocking, whether from the body of the church, church walls, shrubs and trees, and/or other buildings, always plays an important role. As such, the construction of a wind turbine is unlikely to have a negative impact.

What is important and why

Churches are often the only substantial medieval buildings in a parish, and reflect local aspirations, prosperity, local and regional architectural trends; they usually stand within graveyards, and these may have pre-Christian origins (evidential value). They are highly visible structures, identified with particular geographical areas and settlements, and can be viewed as a quintessential part of the English landscape (historical/illustrative). They can be associated with notable local families, usually survive as places of worship, and are sometimes the subject of paintings. Comprehensive restoration in the later 19th century means many local medieval churches are associated with notable ecclesiastical architects (historical/associational). They are often attractive buildings that straddle the distinction between holistic design and piecemeal/incremental development, all overlain and blurred with the 'patina of age' (aesthetic/design and aesthetic/fortuitous). They have great communal value, perhaps more in the past than in the present day, with strong commemorative, symbolic, spiritual and social value. In general terms, the evidential, historical and communal value of a church would not be particularly affected by individual developments; however, the aesthetic of the tower and its role as a visible symbol of Christian worship in the landscape/soundscape could be.

Asset Name: Church of St Nonna

Designation: GI Condition: good/excellent

Description: Parish Church of Perpendicular Gothic Style. Norman origins although largely rebuilt in circa later C15 when the north and south aisles were added. Restored in 1867 by E. Sedding. The tower was probably started in the late C14, the second and third stages added in the C15. The north and south aisles and porches are probably late C15.

Setting: The church stands to the north end of the main street in the village, with the village square immediately south. The church stands in a raised churchyard, its body screened behind an avenue of trees. The enclosed main street of the village opens up around the church, which dominates views across the village and beyond, a display of its importance within this rural community.

Principal Views: There are key views to and from the church along the main street in the village and from Rose Hill. There are some wider landscape views to and from the church tower, although the body of the church is largely hidden from view due to the topographic location of the village.

Landscape Presence: The church is a landmark within the wider landscape although the steepness of the hills to the north and west of the settlement diminish the visibility of the church tower within the landscape.

Sensitivity of Asset: As a key skyline feature the church is very sensitive to landscape changes. As a dominant asset within the village and Conservation Area, the church is sensitive to changes within the village.

Magnitude of Impact: The site may be visible in views of the Church from wider afield, whilst the proposals will form part of a larger existing settlement, this has a cumulative effect. The overall impact is slight.

Overall Impact Assessment: Negative Minor

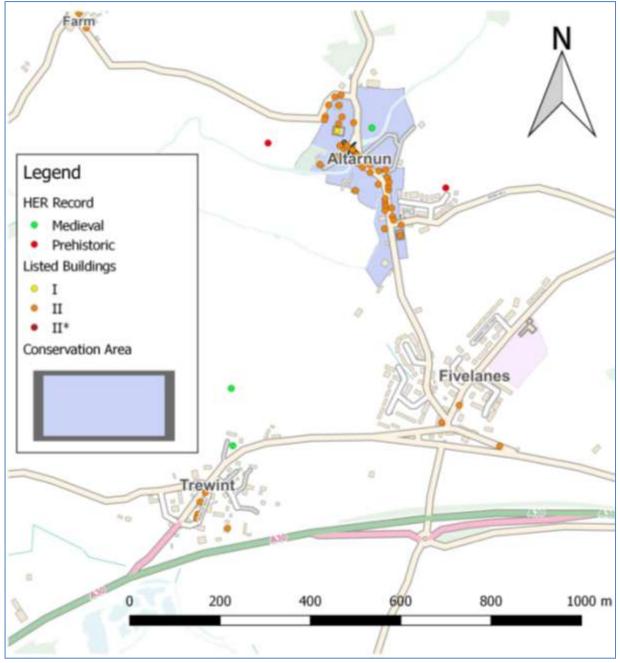


FIGURE 10: MAP SHOWING HERITAGE ASSETS NEAR THE SITE

5.0 CONCLUSION

The desk-based assessment suggests that the site appears to have been part of a single large agricultural field since at least the start of the 19th century. The HER for the local area shows very few assets within the immediate surrounds of the site and the site inspection did not reveal any evidence of earthworks or artefactual material.

The geophysical survey identified three groups of possible anomalies that relate to archaeological activity. The majority of the anomalies appear to relate to previous agricultural activity, although there are a small number of discrete features of unknown archaeological origin or date.

The site is located c.400m from the village of Altarnun which is a Conservation Area and contains a high number of Listed Buildings and other heritage assets, principle of which is the Parish Church. The church is visible in views from the site, and the proposed development would be visible from the church tower, but would be largely screened in views from the church, churchyard or wider village. Much of this screening is as a result of tree-coverage but the topography would minimise visibility. The development may appear in some more distant views of the Church and Conservation Area, and as such the impact of the development should be considered as **negative/minor**.

Taking into consideration the recorded heritage assets in the wider area, and the results of the geophysical survey, the archaeological potential of the site is low. Based on the results of the walkover and geophysical surveys, further archaeological works on this site are unlikely to add significant additional detail to the archaeological record.

6.0 BIBLIOGRAPHY & REFERENCES

Published Sources:

Borlase, W. C. 1878: "The Presidents Address" in the Journal of the Royal Institution of Cornwall, Vol. VI, No. XX.

Chartered Institute of Field Archaeologists 2014a: *Standard and Guidance for Historic Environment Desk-based Assessment*.

Chartered Institute for Archaeologists 2014b: *Standard and Guidance for Archaeological Geophysical Survey.*

English Heritage 2008: *Geophysical Survey in Archaeological Field Evaluation.*

Lysons, D. & Lysons, S. 1814: *Magna Britannia, volume 3: Cornwall*. London.

Schmidt, A. 2002: *Geophysical Data in Archaeology: A Guide to Good Practice.* ADS series of Guides to Good Practice. Oxbow Books, Oxford.

Soil Survey of England and Wales 1983: Legend for the 1:250,000 Soil Map of England and Wales (a brief explanation of the constituent soil associations).

Watts, V. 2004: The Cambridge Dictionary to English Place Names. Cambridge University Press.

Williams, A. & Martin G.H. 2002: Domesday Book. Penguin Books, London.

Websites:

Archaeological Data Service (ADS) 2017: Archsearch & Grey Literature

http://archaeologydataservice.ac.uk

British Geological Survey 2017: Geology of Britain Viewer.

http://maps.bgs.ac.uk/geologyviewer_google/googleviewer.html

Cornwall Council Interactive Map 2017: HER and HLC

https://map.cornwall.gov.uk

Cornwall Record Office (CRO) 2017: National Archives

http://discovery.nationalarchives.gov.uk

Environment Agency 2017: LiDAR, Digital Surface Model data

http://environment.data.gov.uk/ds/survey#

Unpublished Sources:

British Library

Ordnance Survey Surveyor's Draft 1808

Cornwall Record Office

Altarnun tithe map and apportionment 1843

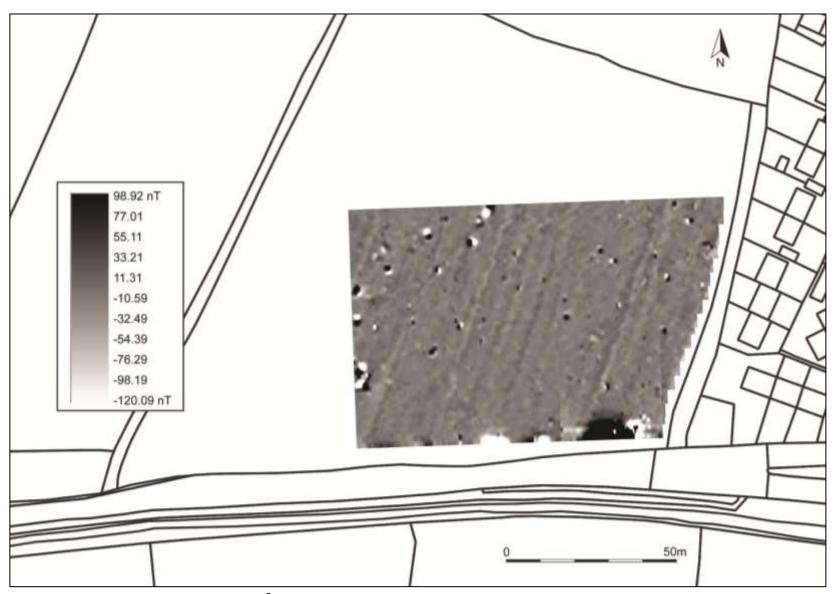
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Ordnance Survey Second Edition 25 Inch Map

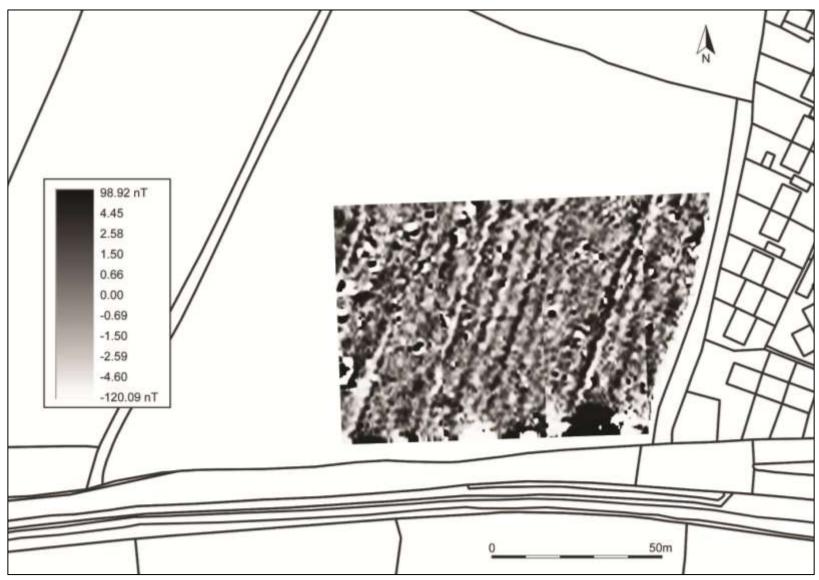
APPENDIX 1: ADDITIONAL GRAPHICAL IMAGES OF THE GRADIOMETER SURVEY



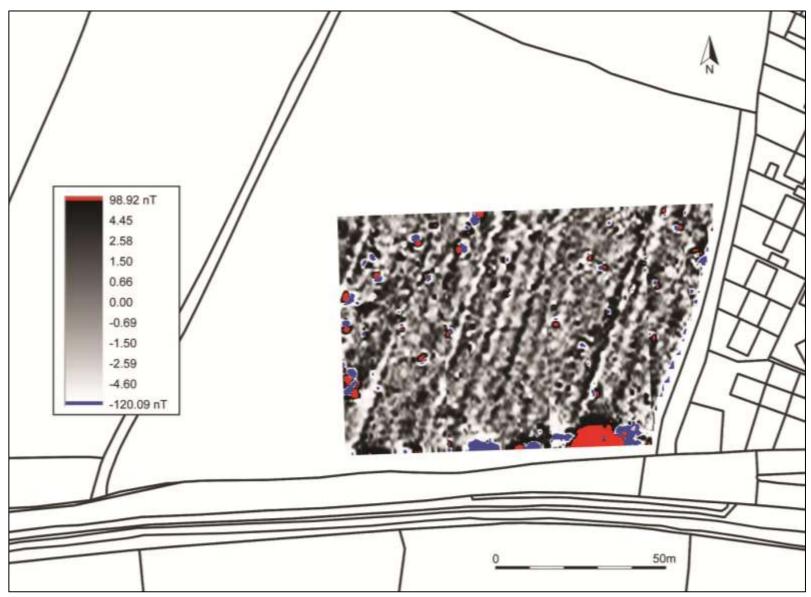
GEOPHYSICAL SURVEY GRID LOCATION AND NUMBERING.



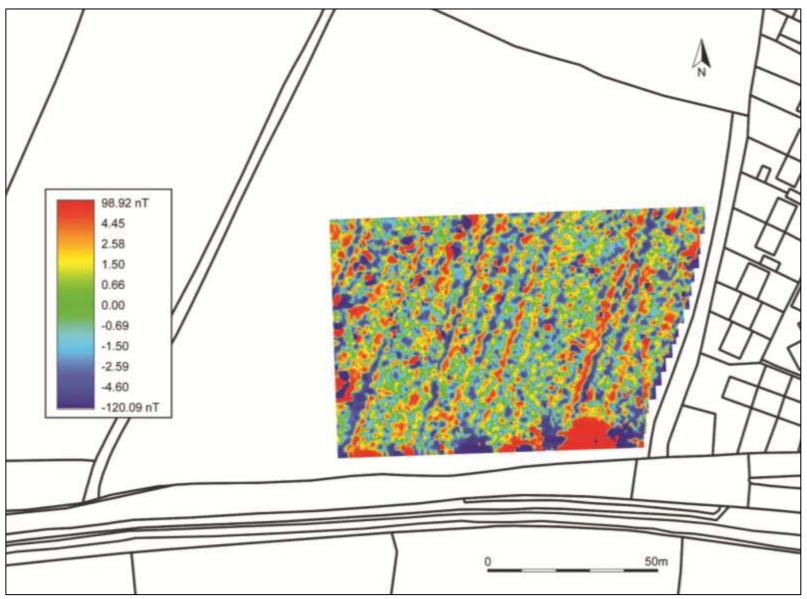
SHADE PLOT OF GRADIOMETER SURVEY DATA; GRADIATED SHADING.



SHADE PLOT OF GRADIOMETER SURVEY DATA; BADN WEIGHT EQUALISED; GRADIATED SHADING.



RED GREYSCALE BLUE SHADE PLOT OF GRADIOMETER SURVEY DATA; BADN WEIGHT EQUALISED; GRADIATED SHADING.



RED-BLUE-GREEN(2) SHADE PLOT OF GRADIOMETER SURVEY DATA; BAND WEIGHT EQUALISED; GRADIATED SHADING.

APPENDIX 2: HERITAGE IMPACT METHODOLOGY

National Policy

General policy and guidance for the conservation of the historic environment are now contained within the *National Planning Policy Framework* (Department for Communities and Local Government 2012). The relevant guidance is reproduced below:

Paraaraph 128

In determining applications, local planning authorities should require the applicant to describe the significance of any heritage assets affected, including the contribution made by their setting. The level of detail should be proportionate to the assets' importance and no more than is sufficient to understand the potential impact of the proposal on their significance. As a minimum the relevant historic environment record should be consulted and the heritage assets assessed using appropriate expertise where necessary. Where a site on which a development is proposed includes or has the potential to include heritage assets with archaeological interest, local planning authorities should require developers to submit an appropriate desk-based assessment and, where necessary, a field evaluation.

Paragraph 129

Local planning authorities should identify and assess the particular significance of any heritage asset that may be affected by a proposal (including by development affecting the setting of a heritage asset) taking account of the available evidence and any necessary expertise. They should take this assessment into account when considering the impact of a proposal on a heritage asset, to avoid or minimise conflict between the heritage asset's conservation and any aspect of the proposal.

A further key document is the Planning (Listed Buildings and Conservation Areas) Act 1990, in particular section 66(1), which provides *statutory protection* to the setting of Listed buildings:

In considering whether to grant planning permission for development which affects a listed building or its setting, the local planning authority or, as the case may be, the Secretary of State shall have special regard to the desirability of preserving the building or its setting or any features of special architectural or historic interest which it possesses.

Cultural Value - Designated Heritage Assets

The majority of the most important ('nationally important') heritage assets are protected through *designation*, with varying levels of statutory protection. These assets fall into one of six categories, although designations often overlap, so a Listed early medieval cross may also be Scheduled, lie within the curtilage of Listed church, inside a Conservation Area, and on the edge of a Registered Park and Garden that falls within a world Heritage Site.

Listed Buildings

A Listed building is an occupied dwelling or standing structure which is of special architectural or historical interest. These structures are found on the *Statutory List of Buildings of Special Architectural or Historic Interest*. The status of Listed buildings is applied to 300,000-400,000 buildings across the United Kingdom. Recognition of the need to protect historic buildings began after the Second World War, where significant numbers of buildings had been damaged in the county towns and capitals of the United Kingdom. Buildings that were considered to be of 'architectural merit' were included. The Inspectorate of Ancient Monuments supervised the collation of the list, drawn up by members of two societies: The Royal Institute of British Architects and the Society for the Protection of Ancient Buildings. Initially the lists were only used to assess which buildings should receive government grants to be repaired and conserved if damaged by bombing. The *Town and Country Planning Act 1947* formalised the process within England and Wales, Scotland and Ireland following different procedures. Under the 1979 *Ancient Monuments and Archaeological Areas Act* a structure cannot be considered a Scheduled Monument if it is occupied as a dwelling, making a clear distinction in the treatment of the two forms of heritage asset. Any alterations or works intended to a Listed Building must first acquire Listed Building Consent, as well as planning permission. Further phases of 'listing' were rolled out in the 1960s, 1980s and 2000s; English Heritage advise on the listing process and administer the procedure, in England, as with the Scheduled Monuments.

Some exemption is given to buildings used for worship where institutions or religious organisations (such as the Church of England) have their own permissions and regulatory procedures. Some structures, such as bridges, monuments, military structures and some ancient structures may also be Scheduled as well as Listed. War memorials, milestones and other structures are included in the list, and more modern structures are increasingly being included for their architectural or social value.

Buildings are split into various levels of significance: Grade I (2.5% of the total) representing buildings of exceptional (international) interest; Grade II* (5.5% of the total) representing buildings of particular (national) importance; Grade II (92%) buildings are of merit and are by far the most widespread. Inevitably, accuracy of the Listing for individual structures varies, particularly for Grade II structures; for instance, it is not always clear why some 19th century farmhouses are Listed while others are not, and differences may only reflect local government boundaries, policies and individuals.

Other buildings that fall within the curtilage of a Listed building are afforded some protection as they form part of the essential setting of the designated structure, e.g. a farmyard of barns, complexes of historic industrial buildings, service buildings to stately homes etc. These can be described as having *group value*.

Conservation Areas

Local authorities are obliged to identify and delineate areas of special architectural or historic interest as Conservation Areas, which introduces additional controls and protection over change within those places. Usually, but not exclusively, they relate to historic settlements, and there are c.7000 Conservation Areas in England.

Scheduled Monuments

In the United Kingdom, a Scheduled Monument is considered an historic building, structure (ruin) or archaeological site of 'national importance'. Various pieces of legislation, under planning, conservation, etc., are used for legally protecting heritage assets given this title from damage and destruction; such legislation is grouped together under the term 'designation', that is, having statutory protection under the

Ancient Monuments and Archaeological Areas Act 1979. A heritage asset is a part of the historic environment that is valued because of its historic, archaeological, architectural or artistic interest; those of national importance have extra legal protection through designation.

Important sites have been recognised as requiring protection since the late 19th century, when the first 'schedule' or list of monuments was compiled in 1882. The conservation and preservation of these monuments was given statutory priority over other land uses under this first schedule. County Lists of the monuments are kept and updated by the Department for Culture, Media and Sport. In the later 20th century sites are identified by English Heritage (one of the Government's advisory bodies) of being of national importance and included in the schedule. Under the current statutory protection any works required on or to a designated monument can only be undertaken with a successful application for Scheduled Monument Consent. There are 19,000-20,000 Scheduled Monuments in England.

Registered Parks and Gardens

Culturally and historically important 'man-made' or 'designed' landscapes, such as parks and gardens are currently "listed" on a non-statutory basis, included on the 'Register of Historic Parks and Gardens of special historic interest in England' which was established in 1983 and is, like Listed Buildings and Scheduled Monuments, administered by Historic England. Sites included on this register are of **national importance** and there are currently 1,600 sites on the list, many associated with stately homes of Grade II* or Grade I status. Emphasis is laid on 'designed' landscapes, not the value of botanical planting. Sites can include town squares and private gardens, city parks, cemeteries and gardens around institutions such as hospitals and government buildings. Planned elements and changing fashions in landscaping and forms are a main focus of the assessment.

Registered Battlefields

Battles are dramatic and often pivotal events in the history of any people or nation. Since 1995 Historic England maintains a register of 46 battlefields in order to afford them a measure of protection through the planning system. The key requirements for registration are battles of national significance, a securely identified location, and its topographical integrity – the ability to 'read' the battle on the ground.

World Heritage Sites

Arising from the UNESCO World Heritage Convention in 1972, Article 1 of the Operational Guidelines (2015, no.49) states: 'Outstanding Universal Value means cultural and/or natural significance which is so exceptional as to transcend national boundaries and to be of common importance for present and future generations of all humanity'. These sites are recognised at an international level for their intrinsic importance to the story of humanity, and should be accorded the highest level of protection within the planning system.

Value and Importance

While every heritage asset, designated or otherwise, has some intrinsic merit, the act of designation creates a hierarchy of importance that is reflected by the weight afforded to their preservation and enhancement within the planning system. The system is far from perfect, impaired by an imperfect understanding of individual heritage assets, but the value system that has evolved does provide a useful guide to the *relative* importance of heritage assets. Provision is also made for heritage assets where value is not recognised through designation (e.g. undesignated 'monuments of Schedulable quality and importance' should be regarded as being of *high* value); equally, there are designated monuments and structures of *low* relative merit.

Table 3: The Hierarchy of Value/Importance (based on the DMRB vol.11 tables 5.1, 6.1 & 7.1).

	Hierarchy of Value/Importance				
Very High	Structures inscribed as of universal importance as World Heritage Sites;				
	Other buildings of recognised international importance;				
	World Heritage Sites (including nominated sites) with archaeological remains;				
	Archaeological assets of acknowledged international importance;				
	Archaeological assets that can contribute significantly to international research objectives;				
	World Heritage Sites inscribed for their historic landscape qualities;				
	Historic landscapes of international value, whether designated or not;				
	Extremely well preserved historic landscapes with exceptional coherence, time-depth, or other critical factor(s).				
High	Scheduled Monuments with standing remains;				
	Grade I and Grade II* (Scotland: Category A) Listed Buildings;				
	Other Listed buildings that can be shown to have exceptional qualities in their fabric or historical associations not				
	adequately reflected in the Listing grade;				
	Conservation Areas containing very important buildings;				
	Undesignated structures of clear national importance;				
	Undesignated assets of Schedulable quality and importance;				
	Assets that can contribute significantly to national research objectives.				
	Designated historic landscapes of outstanding interest;				
	Undesignated landscapes of outstanding interest;				
	Undesignated landscapes of high quality and importance, demonstrable national value;				
	Well-preserved historic landscapes, exhibiting considerable coherence, time-depth or other critical factor(s).				
Medium	Grade II (Scotland: Category B) Listed Buildings;				
	Historic (unlisted) buildings that can be shown to have exceptional qualities in their fabric or historical				
	associations;				
	Conservation Areas containing buildings that contribute significantly to its historic character;				
	Historic Townscape or built-up areas with important historic integrity in their buildings, or built settings (e.g.				
	including street furniture and other structures);				
	Designated or undesignated archaeological assets that contribute to regional research objectives;				
	Designated special historic landscapes;				
	Undesignated historic landscapes that would justify special historic landscape designation, landscapes of regional				
	value;				
	Averagely well-preserved historic landscapes with reasonable coherence, time-depth or other critical factor(s).				
Low	Locally Listed buildings (Scotland Category C(S) Listed Buildings);				

	Hierarchy of Value/Importance			
	Historic (unlisted) buildings of modest quality in their fabric or historical association;			
	Historic Townscape or built-up areas of limited historic integrity in their buildings, or built settings (e.g. including			
	street furniture and other structures);			
	Designated and undesignated archaeological assets of local importance;			
	Archaeological assets compromised by poor preservation and/or poor survival of contextual associations;			
	Archaeological assets of limited value, but with potential to contribute to local research objectives;			
	Robust undesignated historic landscapes;			
	Historic landscapes with importance to local interest groups;			
	Historic landscapes whose value is limited by poor preservation and/or poor survival of contextual associations.			
Negligible	Buildings of no architectural or historical note; buildings of an intrusive character;			
	Assets with very little or no surviving archaeological interest;			
	Landscapes with little or no significant historical interest.			
Unknown	Buildings with some hidden (i.e. inaccessible) potential for historic significance;			
	The importance of the archaeological resource has not been ascertained.			

Concepts - Conservation Principles

In making an assessment, this document adopts the conservation values (evidential, historical, aesthetic and communal) laid out in Conservation Principles (English Heritage 2008), and the concepts of authenticity and integrity as laid out in the guidance on assessing World Heritage Sites (ICOMOS 2011). This is in order to determine the relative importance of setting to the significance of a given heritage asset.

Fvidential Value

Evidential value (or research potential) is derived from the potential of a structure or site to provide physical evidence about past human activity, and may not be readily recognised or even visible. This is the primary form of data for periods without adequate written documentation. This is the least equivocal value: evidential value is absolute; all other ascribed values (see below) are subjective. However,

Historical Value

Historical value (narrative) is derived from the ways in which past people, events and aspects of life can be connected via a place to the present; it can be illustrative or associative.

Illustrative value is the visible expression of evidential value; it has the power to aid interpretation of the past through making connections with, and providing insights into, past communities and their activities through a shared experience of place. Illustrative value tends to be greater if a place features the first or only surviving example of a particular innovation of design or technology.

Associative value arises from a connection to a notable person, family, event or historical movement. It can intensify understanding by linking the historical past to the physical present, always assuming the place bears any resemblance to its appearance at the time. Associational value can also be derived from known or suspected links with other monuments (e.g. barrow cemeteries, church towers) or cultural affiliations (e.g. Methodism).

Buildings and landscapes can also be associated with literature, art, music or film, and this association can inform and guide responses to those places.

Historical value depends on sound identification and the direct experience of physical remains or landscapes. Authenticity can be strengthened by change, being a living building or landscape, and historical values are harmed only where adaptation obliterates or conceals them. The appropriate use of a place – e.g. a working mill, or a church for worship – illustrates the relationship between design and function and may make a major contribution to historical value. Conversely, cessation of that activity – e.g. conversion of farm buildings to holiday homes – may essentially destroy it.

Aesthetic Value

Aesthetic value (emotion) is derived from the way in which people draw sensory and intellectual stimulation from a place or landscape. Value can be the result of conscious design, or the fortuitous outcome of landscape evolution; many places combine both aspects, often enhanced by the passage of time.

Design value relates primarily to the aesthetic qualities generated by the conscious design of a building, structure or landscape; it incorporates composition, materials, philosophy and the role of patronage. It may have associational value, if undertaken by a known architect or landscape gardener, and its importance is enhanced if it is seen as innovative, influential or a good surviving example. Landscape parks, country houses and model farms all have design value. The landscape is not static, and a designed feature can develop and mature, resulting in the 'patina of age'.

Some aesthetic value developed *fortuitously* over time as the result of a succession of responses within a particular cultural framework e.g. the seemingly organic form of an urban or rural landscape or the relationship of vernacular buildings and their materials to the landscape. Aesthetic values are where proposed developments usually have their most pronounced impact: the indirect effects of most developments are predominantly visual or aural, and can extend many kilometres from the site itself. In many instances the impact of a development is incongruous, but that is itself an aesthetic response, conditioned by prevailing cultural attitudes to what the historic landscape should look like.

Communal Value

Communal value (togetherness) is derived from the meaning a place holds for people, and may be closely bound up with historical/associative and aesthetic values; it can be commemorative, symbolic, social or spiritual.

Commemorative and symbolic value reflects the meanings of a place to those who draw part of their identity from it, or who have emotional links to it e.g. war memorials. Some buildings or places (e.g. the Palace of Westminster) can symbolise wider values. Other places (e.g. Porton Down Chemical Testing Facility) have negative or uncomfortable associations that nonetheless have meaning and significance to some and

should not be forgotten. *Social value* need not have any relationship to surviving fabric, as it is the continuity of function that is important. *Spiritual value* is attached to places and can arise from the beliefs of a particular religion or past or contemporary perceptions of the spirit of place. Spiritual value can be ascribed to places sanctified by hundreds of years of veneration or worship, or wild places with few signs of modern life. Value is dependent on the perceived survival of historic fabric or character, and can be very sensitive to change. The key aspect of communal value is that it brings specific groups of people together in a meaningful way.

Authenticity

Authenticity, as defined by UNESCO (2015, no.80), is the ability of a property to convey the attributes of the outstanding universal value of the property. 'The ability to understand the value attributed to the heritage depends on the degree to which information sources about this value may be understood as credible or truthful'. Outside of a World Heritage Site, authenticity may usefully be employed to convey the sense a place or structure is a truthful representation of the thing it purports to portray. Converted farmbuildings, for instance, survive in good condition, but are drained of the authenticity of a working farm environment.

Integrity

Integrity, as defined by UNESCO (2015, no.88), is the measure of wholeness or intactness of the cultural heritage and its attributes. Outside of a World Heritage Site, integrity can be taken to represent the survival and condition of a structure, monument or landscape. The intrinsic value of those examples that survive in good condition is undoubtedly greater than those where survival is partial and condition poor.

Summary

As indicated, individual developments have a minimal or tangential effect on most of the heritage values outlined above, largely because almost all effects are indirect. The principle values in contention are aesthetic/designed and, to a lesser degree aesthetic/fortuitous. There are also clear implications for other value elements (particularly historical and associational, communal and spiritual), where views or sensory experience is important. As ever, however, the key element here is not the intrinsic value of the heritage asset, nor the impact on setting, but the relative contribution of setting to the value of the asset.

Setting - The Setting of Heritage Assets

The principal guidance on this topic is contained within two publications: The Setting of Heritage Assets (Historic England 2015) and Seeing History in the View (English Heritage 2011). While interlinked and complementary, it is useful to consider heritage assets in terms of their setting i.e. their immediate landscape context and the environment within which they are seen and experienced, and their views i.e. designed or fortuitous vistas experienced by the visitor when at the heritage asset itself, or those that include the heritage asset. This corresponds to the experience of its wider landscape setting.

Where the impact of a proposed development is largely indirect, *setting* is the primary consideration of any HIA. It is a somewhat nebulous and subjective assessment of what does, should, could or did constitute the lived experience of a monument or structure. The following extracts are from the Historic England publication *The Setting of Heritage Assets* (2015, 2 & 4):

The NPPF makes it clear that the setting of a heritage asset is the surroundings in which a heritage asset is experienced. Its extent is not fixed and may change as the asset and its surroundinas evolve.

Setting is not a heritage asset, nor a heritage designation. Its importance lies in what it contributes to the significance of the heritage asset. This depends on a wide range of physical elements within, as well as perceptual and associational attributes, pertaining to the heritage asset's surroundings.

While setting can be mapped in the context of an individual application or proposal, it does not have a fixed boundary and cannot be definitively and permanently described for all time as a spatially bounded area or as lying within a set distance of a heritage asset because what comprises a heritage asset's setting may change as the asset and its surroundings evolve or as the asset becomes better understood or due to the varying impacts of different proposals.

The HIA sets out to determine the magnitude of the effect and the sensitivity of the heritage asset to that effect. The fundamental issue is that proximity and visual and/or aural relationships may affect the experience of a heritage asset, but if setting is tangential to the significance of that monument or structure, then the impact assessment will reflect this. This is explored in more detail below.

Landscape Context

The determination of *landscape context* is an important part of the assessment process. This is the physical space within which any given heritage asset is perceived and experienced. The experience of this physical space is related to the scale of the landform, and modified by cultural and biological factors like field boundaries, settlements, trees and woodland. Together, these determine the character and extent of the setting.

Landscape context is based on topography, and can vary in scale from the very small – e.g. a narrow valley where views and vistas are restricted – to the very large – e.g. wide valleys or extensive upland moors with 360° views. Where very large landforms are concerned, a distinction can be drawn between the immediate context of an asset (this can be limited to a few hundred metres or less, where cultural and biological factors impede visibility and/or experience), and the wider context (i.e. the wider landscape within which the asset sits).

When new developments are introduced into a landscape, proximity alone is not a guide to magnitude of effect. Dependant on the nature and sensitivity of the heritage asset, the magnitude of effect is potentially much greater where the proposed development is to be located within the landscape context of a given heritage asset. Likewise, where the proposed development would be located outside the landscape context of a given heritage asset, the magnitude of effect would usually be lower. Each case is judged on its individual merits, and in some instances the significance of an asset is actually greater outside of its immediate landscape context; for example, where church towers function as landmarks in the wider landscape.

Views

Historic and significant views are the associated and complementary element to setting, but can be considered separately as developments may appear in a designed view without necessarily falling within the setting of a heritage asset *per se*. As such, significant views fall within the

aesthetic value of a heritage asset, and may be *designed* (i.e. deliberately conceived and arranged, such as within parkland or an urban environment) or *fortuitous* (i.e. the graduated development of a landscape 'naturally' brings forth something considered aesthetically pleasing, or at least impressive, as with particular rural landscapes or seascapes), or a combination of both (i.e. the *patina of age*, see below). The following extract is from the English Heritage publication *Seeing History in the View* (2011, 3):

Views play an important part in shaping our appreciation and understanding of England's historic environment, whether in towns or cities or in the countryside. Some of those views were deliberately designed to be seen as a unity. Much more commonly, a significant view is a historical composite, the cumulative result of a long process of development.

The Setting of Heritage Assets (2015, 3) lists a number of instances where views contribute to the particular significance of a heritage asset:

- Views where relationships between the asset and other historic assets or places or natural features are particularly relevant;
- Views with historical associations, including viewing points and the topography of battlefields;
- Views where the composition within the view was a fundamental aspect of the design or function of the heritage asset;
- Views between heritage assets and natural or topographic features, or phenomena such as solar and lunar events;
- Views between heritage assets which were intended to be seen from one another for aesthetic, functional, ceremonial or religious reasons, such as military or defensive sites, telegraphs or beacons, Prehistoric funerary and ceremonial sites.

On a landscape scale, views, taken in the broadest sense, are possible from anywhere to anything, and each may be accorded an aesthetic value according to subjective taste. Given that terrain, the biological and built environment, and public access restrict our theoretical ability to see anything from anywhere, in this assessment the term *principal view* is employed to denote both the deliberate views created within designed landscapes, and those fortuitous views that may be considered of aesthetic value and worth preserving. It should be noted, however, that there are distance thresholds beyond which perception and recognition fail, and this is directly related to the scale, height, massing and nature of the heritage asset in question. For instance, beyond 2km the Grade II cottage comprises a single indistinct component within the wider historic landscape, whereas at 5km or even 10km a large stately home or castle may still be recognisable. By extension, where assets cannot be seen or recognised i.e. entirely concealed within woodland, or too distant to be distinguished, then visual harm to setting is moot. To reflect this emphasis on recognition, the term *landmark asset* is employed to denote those sites where the structure (e.g. church tower), remains (e.g. earthwork ramparts) or – in some instances – the physical character of the immediate landscape (e.g. a distinctive landform like a tall domed hill) make them visible on a landscape scale. In some cases, these landmark assets may exert landscape *primacy*, where they are the tallest or most obvious man-made structure within line-of-sight. However, this is not always the case, typically where there are numerous similar monuments (multiple engine houses in mining areas, for instance) or where modern developments have overtaken the heritage asset in height and/or massing.

Yet visibility alone is not a clear guide to visual impact. People perceive size, shape and distance using many cues, so context is critically important. For instance, research on electricity pylons (Hull & Bishop 1988) has indicated scenic impact is influenced by landscape complexity: the visual impact of pylons is less pronounced within complex scenes, especially at longer distances, presumably because they are less of a focal point and the attention of the observer is diverted. There are many qualifiers that serve to increase or decrease the visual impact of a proposed development (see Table 2), some of which are seasonal or weather-related.

Thus the principal consideration of assessment of indirect effects cannot be visual impact *per se*. It is an assessment of the likely magnitude of effect, the importance of setting to the significance of the heritage asset, and the sensitivity of that setting to the visual or aural intrusion of the proposed development. The schema used to guide assessments is shown in Table 3 (below).

Methodology

The methodology adopted in this document is based on that outlined in *The Setting of Heritage Assets* (English Heritage 2011 and 2015 Guidance Note). The assessment of visual impact at this stage of the development is an essentially subjective one, and is based on the experience and professional judgement of the authors.

Visibility alone is not a clear guide to impact. People perceive size, shape and distance using many cues, so context is critically important. For instance, research on electricity pylons (Hull & Bishop 1988) has indicated scenic impact is influenced by landscape complexity: the visual impact of pylons is less pronounced within complex scenes, especially at longer distances, presumably because they are less of a focal point and the attention of the observer is diverted. There are many qualifiers that serve to increase or decrease the visual impact of a proposed development (see Table 3), some of which are seasonal or weather-related.

The principal consideration of this assessment is not visual impact *per se*. It is an assessment of the likely magnitude of effect, the importance of setting to the significance of heritage assets, and the sensitivity of that setting to the visual intrusion of the proposed development. The schema used to guide assessments is shown in Table 3 (below). A key consideration in these assessments is the concept of *landscape context* (see below).

Assessment and Landscape Context

The determination of *landscape context* is an important part of the assessment process. This is the physical space within which any given heritage asset is perceived and experienced. The experience of this physical space is related to the scale of the landform, and modified by cultural and biological factors like field boundaries, settlements, trees and woodland.

Landscape context is based on topography, and can vary in scale from the very small – e.g. a narrow valley where views and vistas are restricted – to the very large – e.g. wide valleys or extensive upland moors with 360° views. Where very large landforms are concerned, a distinction can be drawn between the immediate context of an asset (this can be limited to a few hundred metres or less, where cultural and biological factors impede visibility and/or experience), and the wider context (i.e. the wider landscape within which the asset sits).

When new developments are introduced into a landscape, proximity alone is not a guide to magnitude of effect. Dependant on the nature and sensitivity of the heritage asset, the magnitude of effect is potentially much greater where the proposed development is to be located within the landscape context of a given heritage asset. Likewise, where the proposed development would be located outside the landscape context of a given heritage asset, the magnitude of effect would usually be lower. Each case is judged on its individual merits, and in some instances the

significance of an asset is actually greater outside of its immediate landscape context, for example, where church towers function as landmarks in the wider landscape.

Type and Scale of Impact

The effect of a proposed development on a heritage asset can be direct (i.e. the designated structure itself is being modified or demolished, the archaeological monument will be built over), or indirect (e.g. a housing estate built in the fields next to a Listed farmhouse, and wind turbine erected near a hillfort etc.); in the latter instance the principal effect is on the setting of the heritage asset. A distinction can be made between construction and operational phase effects. Individual developments can affect multiple heritage assets (aggregate impact), and contribute to overall change within the historic environment (cumulative impact).

Construction phase: construction works have direct, physical effects on the buried archaeology of a site, and a pronounced but indirect effect on neighbouring properties. Direct effects may extend beyond the nominal footprint of a site e.g. where related works or site compounds are located off-site. Indirect effects are both visual and aural, and may also affect air quality, water flow and traffic in the local area.

Operational phase: the operational phase of a development is either temporary (e.g. wind turbine or mobile phone mast) or effectively permanent (housing development or road scheme). The effects at this stage are largely indirect, and can be partly mitigated over time through provision of screening. Large development would have an effect on historic landscape character, as they transform areas from one character type (e.g. agricultural farmland) into another (e.g. suburban).

Cumulative Impact: a single development will have a physical and a visual impact, but a second and a third site in the same area will have a synergistic and cumulative impact above and beyond that of a single site. The cumulative impact of a proposed development is particularly difficult to estimate, given the assessment must take into consideration operational, consented and proposals in planning.

Aggregate Impact: a single development will usually affect multiple individual heritage assets. In this assessment, the term aggregate impact is used to distinguish this from cumulative impact. In essence, this is the impact on the designated parts of the historic environment as a whole.

Scale of Impact

The effect of development and associated infrastructure on the historic environment can include positive as well as negative outcomes. However, all development changes the character of a local environment, and alters the character of a building, or the setting within which it is experienced. Change is invariably viewed as negative, particularly within respect to larger developments; thus while there can be beneficial outcomes (e.g. positive/moderate), there is a presumption here that, as large and inescapably modern intrusive visual actors in the historic landscape, the impact of a development will almost always be **neutral** (i.e. no impact) or **negative** i.e. it will have a **detrimental impact** on the setting of ancient monuments and protected historic buildings.

This assessment incorporates the systematic approach outlined in the ICOMOS and DoT guidance (see Tables 4-5), used to complement and support the more narrative but subjective approach advocated by Historic England (see Table 6). This provides a useful balance between rigid logic and nebulous subjectivity (e.g. the significance of effect on a Grade II Listed building can never be greater than moderate/large; an impact of negative/substantial is almost never achieved). This is in adherence with GPA3 (2015, 7).

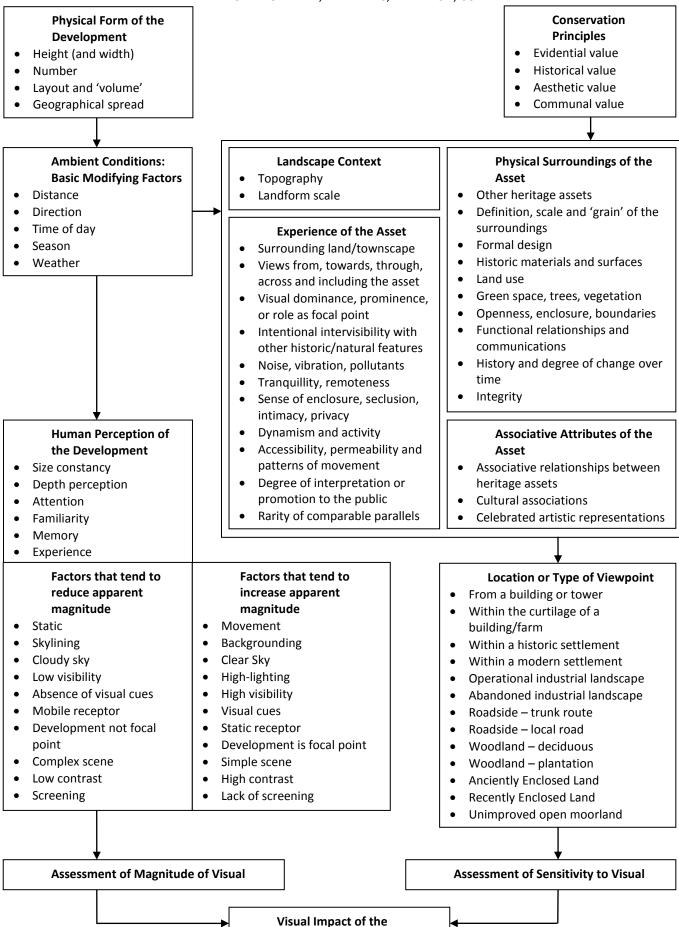


Table 4: The conceptual model for visual impact assessment proposed by the University of Newcastle (2002, 63), modified to include elements of *Assessment Step 2* from the Setting of Heritage Assets (English Heritage 2011, 19).

 $\underline{\mbox{TABLE 5: Magnitude of IMPACT (BASED on DMRB vol.11 tables 5.3, 6.3 and 7.3)}.$

	Factors in the Assessment of Magnitude of Impact – Buildings and Archaeology		
Major	Change to key historic building elements, such that the resource is totally altered; Change to most or all key archaeological materials, so that the resource is totally altered; Comprehensive changes to the setting.		
Moderate	Change to many key historic building elements, the resource is significantly modified; Changes to many key archaeological materials, so that the resource is clearly modified; Changes to the setting of an historic building or asset, such that it is significantly modified.		
Minor	Change to key historic building elements, such that the asset is slightly different; Changes to key archaeological materials, such that the asset is slightly altered; Change to setting of an historic building, such that it is noticeably changed.		
Negligible	Slight change to elements of a heritage asset or setting that hardly affects it.		
No Change	No change to fabric or setting.		
	Factors in the Assessment of Magnitude of Impact – Historic Landscapes		
Major	Change to most or all key historic landscape elements, parcels or components; extreme visual effects; gross change of noise or change to sound quality; fundamental changes to use or access; resulting in total change to historic landscape character unit.		
Moderate	Changes to many key historic landscape elements, parcels or components, visual change to many key aspects of the historic landscape, noticeable differences in noise or sound quality, considerable changes to use or access; resulting in moderate changes to historic landscape character.		
Minor	Changes to few key historic landscape elements, parcels or components, slight visual changes to few key aspects of historic landscape, limited changes to noise levels or sound quality; slight changes to use or access: resulting in limited changes to historic landscape character.		
Negligible	Very minor changes to key historic landscape elements, parcels or components, virtually unchanged visual effects, very slight changes in noise levels or sound quality; very slight changes to use or access; resulting in a very small change to historic landscape character.		
No Change	No change to elements, parcels or components; no visual or audible changes; no changes arising from in amenity or community factors.		

Table 6: Significance of Effects Matrix (based on DRMB vol.11 tables 5.4, 6.4 and 7.4; ICOMOS 2011, 9-10).

Value of Heritage Assets	Magnitude of Impact (positive or negative)				
	No Change	Negligible	Minor	Moderate	Major
Very High	Neutral	Slight	Moderate/Large	Large/Very Large	Very Large
High	Neutral	Slight	Moderate/Slight	Moderate/Large	Large/Very Large
Medium	Neutral	Neutral/Slight	Slight	Moderate	Moderate/Large
Low	Neutral	Neutral/Slight	Neutral/Slight	Slight	Slight/Moderate
Negligible	Neutral	Neutral	Neutral/Slight	Neutral/Slight	Slight

TABLE 7: SCALE OF IMPACT.

	Scale of Impact			
Neutral	No impact on the heritage asset.			
Negligible	Where the developments may be visible or audible, but would not affect the heritage asset or its setting, due to the nature of the asset, distance, topography, or local blocking.			
Negative/minor	Where the development would have an effect on the heritage asset or its setting, but that effect is restricted due to the nature of the asset, distance, or screening from other buildings or vegetation.			
Negative/moderate	Where the development would have a pronounced impact on the heritage asset or its setting, due to the sensitivity of the asset and/or proximity. The effect may be ameliorated by screening or mitigation.			
Negative/substantial	Where the development would have a severe and unavoidable effect on the heritage asset or its setting, due to the particular sensitivity of the asset and/or close physical proximity. Screening or mitigation could not ameliorate the effect of the development in these instances. This is, as is stressed in planning guidance and case law, a very high bar and is almost never achieved.			

APPENDIX 3: SUPPORTING PHOTOGRAPHS: SITE INSPECTION



PHOTOGRAPH 1: VIEW ALONG SOUTHERN BOUNDARY OF THE SITE; TAKEN FACING WEST.



PHOTOGRAPH 2: VIEW ALONG THE EASTERN BOUNDARY OF THE SITE; TAKEN FACING NORTH.



PHOTOGRAPH 3: VIEW OF THE EASTERN BOUNDARY OF THE SITE; TAKEN FACING EAST.



PHOTOGRAPH 4: VIEW ALONG THE EASTERN BOUNDARY OF THE SITE; TAKEN FACING SOUTH.



PHOTOGRAPH 5: VIEW ALONG THE NORTHERN EXTENT OF THE SURVEY AREA; TAKEN FACING WEST.



PHOTOGRAPH 6: VIEW ACROSS THE SURVEY AREA; TAKEN FACING SOUTH-EAST.



PHOTOGRAPH 7: VIEW ALONG THE EASTERN EXTENT OF THE SURVEY AREA; TAKEN FACING NORTH.



PHOTOGRAPH 8: VIEW OF ST NONNA'S CHURCH FROM THE SOUTHERN BOUNDARY OF THE SITE; TAKEN FACING NORTH.



PHOTOGRAPH 9: VIEW ALONG THE SOUTHERN BOUNDARY OF THE SITE TOWARDS THE ENTRANCE; TAKEN FACING EAST.



 $Photograph \ 10: View \ of \ St \ Nonna's \ Church \ from \ the \ north-east \ section \ of \ the \ survey \ area; \ taken \ facing \ north.$



PHOTOGRAPH 11: VIEW ACROSS ALTARNUN BRIDGE, SHOWING WHEEL HEADED CROSS WITHIN CHURCHYARD AND ST NONNA'S CHURCH; TAKEN FACING NORTH-WEST.



PHOTOGRAPH 12: VIEW OF ST NONNA'S CHURCH AND WHEEL HEADED CROSS IN CHURCHYARD; TAKEN FACING NORTH-WEST.



PHOTOGRAPH 13: VIEW TOWARDS SURVEY AREA FROM THE SITE; TAKEN FACING SOUTH.



PHOTOGRAPH 14: VIEW OF THE ALTARNUN BRIDGE; TAKEN FACING SOUTH.



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