

Archaeological Impact Assessment

Proposed Local Authority Residential Development

Liscahane, Millstreet, Co. Cork

In Support a Part VIII Planning Application

Housing Directorate Cork County Council

Planning Status: Part VIII Application

Excavation Licence No: 23E0376

Licensee: Daniel Noonan

Report By: Daniel Noonan, David Hegarty & Robin Turk

Date of Report: 7th June 2023

DNAC Project No: 23_16

SUMMARY

A comprehensive Archaeological Impact Assessment of the proposed local authority residential development site in Liscahane, Millstreet, Co. Cork was conducted; to inform and support the Part VIII Planning application that is in preparation. Background research did not uncover any features of archaeological interest within the confines of proposed development site. Similarly, the geophysical survey of the site did not produce features or anomalies of archaeological interest.

During the test trenching phase of the assessment one archaeological feature F3, a possible medieval charcoal making pit was uncovered. Apart from pit feature, the proposed development will not impact on any other known archaeology within the area that was available for assessment. Unmitigated, the development will severely impact on the feature. Therefore, one of two mitigation options can be explored.

Option A is to preserve the find in situ, which is the presumptive option with respect to safeguarding the archaeological resource. This would require the creation of a development-free buffer zone, in the order of 15-20m around the feature.

Option B is to preserve the find by record, through the excavation of the feature and an appropriate area surrounding it.

On balance, it is recommended that the pit is preserved by record, through excavation. This is determined by the fact that the pit small in nature, and not part of an overall, recognised archaeological landscape or intensity of other features within the development site, or its locality. When taken with a view to the current housing needs, excavation of the pit a more reasonable mitigation than preserving it in situ and rearranging the layout of the housing scheme, which if done so, including a development-free protective buffer zone, could result in the reduction in the number of housing units that can be accommodated on the site.

It is recommended that the local authority housing development proceed as per the proposed scheme, on the proviso that the pit is resolved as an enabling action in advance of construction commencing.

It is further recommended that the local authority seek the advice of its County Archaeologist on this matter, before deciding a course of action.

CONTENTS

SUMMARY	ii
CONTENTS	iii
1. Introduction.....	1
2. Assessment Methodology.....	1
3. Nature of the Proposed Development	2
4. Development Control Policy	2
5. Site Inspection	3
6. Synopsis of Geophysical Survey Results	3
7. Archaeological Potential of the Proposed Development Site.....	4
Excavations Database	6
Historic Mapping Sources	8
Aerial Imagery.....	9
Built Heritage	10
Synopsis of Background Analysis	10
8. Results of Test Trenching	11
Test Trenching Strategy	11
Trench 1	12
Trench 2	13
Trench 3	16
Trench 4	17
Trench 6	18
Trench 7	18
Trench 8	19
Trench 9	19
Trench 10	20
Discussion of Findings.....	20
9. Impact Assessment & Recommendations	21
10. Sources, References & Guidelines Consulted.....	23
ASSESSMENT RECORD DRAWINGS	
APPENDIX A – GEOPHYSICAL SURVEY	

Copyright © 2023 Daniel Noonan Archaeological Consultancy

Daniel Noonan Archaeological Consultancy retains the copyright of any commissioned reports or other project documents, under the Copyright and Related Rights Act 2000 with all rights reserved; excepting that it hereby supplies an exclusive licence to the commissioning client for the use of such documents and material by the commissioning client in all matters directly relating to the project.

All Ordnance Survey of Ireland (OSi) mapping is reproduced under
Licence No. CYAL50298677 © Ordnance Survey Ireland/Government of Ireland

1. Introduction

Daniel Noonan Archaeological Consultancy (DNAC), acting on behalf of the applicant, the Housing Directorate of Cork County Council, has prepared this Archaeological Impact Assessment (AIA) of a proposed local authority residential housing development on a greenfield site in the townland of Liscahane, Millstreet, Co. Cork (see **Drawings 01-02**). The AIA is required to support a Part VIII Planning application by the Housing Directorate.

A development of twenty-six (26) residential units and all ancillary development works is proposed for a 1.1-hectare greenfield site, centred on ITM coordinates 527775, 589852, in Liscahane. Given the size of the development site, in excess of the 0.5-hectare threshold, in accordance with Objective HE 16-9: Archaeology and Infrastructure Schemes (*Cork County Development Plan 2022, Volume 1, 16.2.7*), Cork County Council requires an archaeological assessment of the proposed development.

This local authority development is a new phase of housing that adjoins the early 2000's development of Old Coach Avenue/Old Coach Avenue. During groundworks for that development a souterrain, CO039-243----, was discovered and excavated (03E1424); the site of the monument was 30m from the western boundary of the proposed development. Beyond this, the development site is located 600m to the southeast of the historic core of the early 18th century market town of Millstreet. The general Millstreet locality contains evidence of several prehistoric and historic archaeological sites and landscapes.

This report is the AIA, prepared through a program of detailed background research, geophysical survey and comprehensive on-site test trenching. Geophysical survey was conducted under Detection Licence 23R0078 by Ger Dowling; and testing was conducted under Excavation Licence 22E0376 by Daniel Noonan.

One feature of archaeological interest was discovered during the test trenching stage of the assessment process, a possible charcoal-making pit, Feature **F3** in Trench 2, which may be medieval in origin. As an appropriate mitigation is recommended that this feature be preserved by record. A single object, a possible cereal processing, granite, rubbing stone (potentially used in conjunction with a saddle quern), find number 23E0376:01:01 was recovered from the topsoil in Trench 2.

2. Assessment Methodology

This assessment of the proposed housing development at Liscahane was conducted through background research into the location, known archaeological monuments, historical resources, and available historical mapping, site inspection, geophysical survey and follow-up test trenching.

The sources consulted include the listings of National Monuments, Preservation Orders, Register of Historic Monuments, the Sites and Monuments Record (SMR) and Record of Monuments and Places (RMP) for County Cork, 1997. The National Monuments Service (NMS) online database, the National Monuments Service (NMS) Archive, and the Post-Medieval Archaeological Survey Records of Cork were consulted. In addition, documentary sources such as local histories and antiquarian journals were reviewed.

The desk study incorporates the results of the background research, the site inspection, geophysical survey and follow-up test trenching, with a review of the development drawings prepared by the Architects Department of the Housing Directorate of Cork County Council; to inform this assessment of the proposed local authority housing development at Liscahane, Drishane, Millstreet.

3. Nature of the Proposed Development

The proposed residential development at Liscahane consists of twenty-six (26) social houses and the associated site development works and facilities; adjacent to existing local authority residential developments (see **Drawing 02**). The scheme will consist of eighteen (18) two bed, two storey houses, and eight (8) one bed apartments over two storeys. The structures will be sited on the flat, higher ground that forms the eastern half of the site, while road and pedestrian access will be from the west.

4. Development Control Policy

The archaeology and development objective of Cork County Council with regard to large scale development in excess of 0.5 hectares, regardless of the presence of known sites or monuments or not on the site, is as follows:

County Development Plan Objectives

HE 16-9: Archaeology and Infrastructure Schemes

All large scale planning applications (i.e. development of lands on 0.5 ha or more in area or 1km or more in length) and Infrastructure schemes and proposed roadworks are subjected to an archaeological assessment as part of the planning application process which should comply with the Department of Arts, Heritage and the Gaeltacht's codes of practice. It is recommended that the assessment is carried out following pre planning consultation with the County Archaeologist, by an appropriately experienced archaeologist to guide the design and layout of the proposed scheme/development, safeguarding the archaeological heritage in line with Development Management Guidelines.

Source: Cork County Development Plan 2022-2028, Volume 1: Chapter 16: Built and Cultural Heritage, page 361.

5. Site Inspection



Image 1: Composite, panoramic view of the site, looking south.

In advance of test trenching, and to evaluate its suitability for geophysical survey, the site was inspected. The broadly rectangular, 1.1 hectare site under short pasture, roughly divides in two, with the western half consisting of sloping ground, which rises to the flatter eastern half (see **Drawing 05** for topographic survey details). No surface indicators, suggestive of subsurface archaeological features were observed.

6. Synopsis of Geophysical Survey Results

A geophysical survey of the available areas of the proposed development site was conducted by Ger Dowling Geophysical Surveyor under licence 23R0078. No anomalies of archaeological potential were identified by the survey; however, this conclusion has been heavily influenced by site conditions. The following is the conclusion of the geophysical survey:

No anomalies of archaeological potential were identified by the survey at Liscahane. The dominant responses recorded reflect modern activity relating, in the main, to the presence of iron litter and other magnetised material. Further complicating factors include likely ground disturbance, as well as magnetic disturbance from modern metallic features (e.g., the transformer box). This, together with possible natural variations in the underlying soils, means that geomagnetic methods are unable to establish whether any potential archaeological features may be present at the site.

The full geophysical survey report, including an interpretative plan, is attached as **Appendix A**.

7. Archaeological Potential of the Proposed Development Site

The 1.1-hectare development site, situated in the townland of Liscahane, is located 600m to the southeast of the historic core of the early 18th century market town of Millstreet (see **Drawings 03**). Located in the Blackwater River valley, the town developed from the early 18th century onwards, from a settlement around a corn mill into a successful market town with locally based industries of milling, brewing, weaving, brick-making, and a coal yard (Power 2022, 295). The general vicinity has extensive prehistoric and early medieval monuments (ibid.). During the medieval period the lands around Millstreet, in the Barony of Muskerry, were in the control of the Gaelic Mac Carthy clan. The Mac Carthy's resisted the Anglo-Norman attempts to colonise the region in the later 12th and early 13th centuries (Power et al. 2022, 278); eventually winning recognition from the new arrivals when Dermot MacCarthy was created 1st Lord of Muskerry by the English in 1353 (Gillman 1892). The family went on to build and secure the powerful lordship of Muskerry. The families' local powerbase was at Drishane Castle, monument reference CO039-078001-, which is located 1.6km north-northeast of the development site.

In the Down Survey the townland of Liscahane is recorded as consisting of 538 Irish Plantation Acres, and in 1641 is in the ownership Donnogh McOwen, and in 1670 Callaghan MacCarthy, Earl of Clancarthy (<https://downsurvey.tchpc.tcd.ie/landowners.php#mc=52.04846,-9.036838&z=14> – accessed 14/04/2023). The townland is recorded on the corresponding Down Survey parish map, c.1655, although there are no features of note depicted (**Figure 1**).



Figure 1: Extract from the Down Survey Parish of Drishane and Kilciorney, c. 1655. The townland is outlined in red.

The townland of Liscahane is in the civil parish of Drishane, in the barony of Muskerry West. The topographic origin of the townland name, with a literal interpretation of *Lios Catháin* or Ó Cathain's (Keane or Kane) ringfort or enclosure, is attested by the presence of four known Ringfort – rath type monuments within the modern extents of the townland (Placenames Database of Ireland <https://www.logainm.ie/12681.aspx> - accessed 14/04/2023). The earliest written record of the townland is *Lyssicahane*, in the Calendar of Patent Rolls of James I for 1621 (ibid.).

The general Millstreet locality contains evidence of several prehistoric and historic archaeological sites and landscapes; with an enquiry of the Archaeological Survey of Ireland's online *Historic Environment Viewer* showing twenty-three (23) known sites and monuments within 1km of the proposed development site (<https://maps.archaeology.ie/HistoricEnvironment/> - accessed 17/04/2023). These are tabulated in the following **Table A**. For the location of those in the immediate vicinity see **Drawing 0??**

Table A: Known Sites and Monuments Within 1km of the Proposed Development Site.

SMR/RMP NO.	CLASS	TOWNLAND	PERIOD
CO039-055001-	Ringfort - Rath	Coomlogane	Early-Medieval
CO039-055002-	Souterrain	Coomlogane	Early-Medieval
CO039-059----	Country House	Mountleader	Early-Modern
CO039-060----	Quarry	Liscahane	Unknown?
CO039-061001-	Ringfort - Rath	Liscahane	Early-Medieval
CO039-061002-	Souterrain	Liscahane	Early-Medieval
CO039-062001-	Ringfort - Rath	Liscahane	Early-Medieval
CO039-062002-	Souterrain	Liscahane	Early-Medieval
CO039-062003-	Urn Burial - Disturbed	Liscahane	Bronze Age
CO039-062004-	Ogham Stone	Liscahane	Early-Medieval
CO039-062005-	Ogham Stone	Liscahane	Early-Medieval
CO039-063001-	Ringfort - Rath	Liscahane	Early-Medieval
CO039-063002-	Souterrain	Liscahane	Early-Medieval
CO039-065----	Ringfort - Rath	Tullig (Muskerry West By.)	Early-Medieval
CO039-068001-	Ringfort - Rath	Lackabane (Muskerry West By.)	Early-Medieval
CO039-068002-	Kiln - Lime	Tullig (Muskerry West By.)	19 th Century

SMR/RMP NO.	CLASS	TOWNLAND	PERIOD
CO039-069----	Enclosure	Lackabane (Muskerry West By.)	Early-Medieval
CO039-070----	Enclosure	Lackabane (Muskerry West By.)	Early-Medieval
CO039-127001-	Graveyard	Lis cahane	Early-Modern?
CO039-127002-	Church	Lis cahane	Early-Modern?
CO039-220----	Souterrain	Tullig (Muskerry West By.)	Early-Medieval
CO039-243----*	Souterrain	Lis cahane	Early-Medieval
CO039-244001-	Ogham Stone (Present Location)	Coomlogane	Early-Medieval

*This local authority development is a new phase of housing that adjoins the early 2000's development of Old Coach Avenue/Old Coach Avenue. During groundworks for that development a souterrain, CO039-243----, was discovered and excavated (03E1424); the site of the monument was 30m from the western boundary of the proposed development.

Excavations Database

An enquiry of the online excavations database (<https://excavations.ie/> - accessed 14/04/2023) found that in addition to the souterrain monument uncovered and excavated on the previous local authority development, two other excavations have occurred to-date in Lis cahane townland.

In 1982/83 a rescue excavation was conducted on the remains of a ploughed-ringfort, reference CO039-062001- and a souterrain within it, reference CO039-062002-, 680m south-southwest of the current proposed development site. In addition, an urn burial, CO039-062003- and two ogham stones, CO039-062004- & CO039-06205- were recovered from the site.

In 2007 a test excavation of a private housing development was conducted on a site 680m south of the current proposed development site; no archaeological features or objects were discovered.

The excavations are summarised below in **Table B**.

Table B: Summaries of Previous Excavation Results in Lis cahane Townland.

Year/Reference	Excavator	Summary
1982/ -? -	B. O Donnabháin	167. LISCAHANE (21 W 283893). Excavation by B. O. Donnabháin of Department of Archaeology, University College, Cork began in April 1982 with the aim of removing an ogham stone which acted as a roofing slab of a souterrain. This souterrain is within a ploughed-out ring-fort. Much of

		<p>this ring-fort had been destroyed by gravel quarrying and the souterrain was in danger of collapse.</p> <p>An area adjacent to the quarry edge and over the souterrain was excavated. A series of E.- W. cultivation trenches, a hearth site and the trench dug to accommodate the souterrain were uncovered. The original entrance to the souterrain was also exposed and was found to contain another capstone with an ogham inscription.</p> <p>A second cutting was opened to investigate the remains of the ring-fort bank and ditch. The lowest layers of an earthen bank were found. The ditch, previously visible only as a crop-mark, was found to have been 2 m wide and 1.7 m deep. It had been backfilled to half its depth at some stage during the occupation of the ring-fort and a stone-lined drain was built into this shallower ditch. A third cutting in the quarry uncovered a stone-lined culvert that drained the end chamber of the souterrain.</p>
2003/03E1424/ 2003:0285	Margaret McCarthy	<p>The construction of a local authority housing estate on the outskirts of Millstreet led to the discovery of a previously unrecorded souterrain. The excavation was carried out on behalf of Cork County Council and took place over a period of one week in July 2003. The site appeared, on initial inspection, as a single drystone-built chamber roofed by three large capstones. The drystone walling remained intact at the north-east end of the chamber and this also represented the terminus to the souterrain. The chamber measured 2.5m in length, 0.85m in width and reached a maximum height of 1.07m. A 6m by 6m area was opened around the chamber and the subsequent excavation suggested that this monument was abandoned before completion. Firstly, there was no evidence for an entrance and access was provided through the south-west corner of the chamber, which was open-ended.</p> <p>The occurrence of a large rectangular pit at a right angle to the south-east corner of the chamber seemed to represent a continuation to the souterrain. Excavation revealed that this pit was physically separated from the chamber by 1.9m, but the overall dimensions of both features were similar. The pit appeared to have been backfilled relatively quickly after it was dug and the occurrence of large amounts of medium and large stones on both sides indicated that an unsuccessful attempt had been made to construct a stone facing. Two long narrow trenches measuring 30m in length were extended in a southern and a western direction from the main trench, but there was no evidence for an enclosing feature associated with the souterrain.</p>
2007/07E0724/ 2007:295	Margaret McCarthy	<p>A test excavation was undertaken at Liscahane on the southern outskirts of Millstreet prior to the construction of a private residential housing scheme. The development is adjacent to an existing housing estate, which was constructed by Cork County Council in 2003, when a previously unknown</p>

		<p>southern was exposed and excavated by the writer for the Department of Archaeology, University College, Cork (Excavations 2003, No. 285, 03E1424). The test excavation forming the subject of this summary was carried out to establish the existence or otherwise of other potential archaeological monuments associated with the southern excavated in 2003.</p> <p>The grass vegetation at the time of the test excavation was low and grazed and there were no surface anomalies to indicate denuded archaeological features in any of the tested areas. In all, seven test-trenches were excavated across those areas of the site where the new houses were to be constructed. The soil profile was mostly uniform in the trenches, consisting of sod, a layer of loose topsoil and underlying shale and orange boulder clay. All were excavated to a level into the natural subsoil and no features or finds of archaeological significance were noted in any of the investigated areas.</p>
--	--	---

Historic Mapping Sources

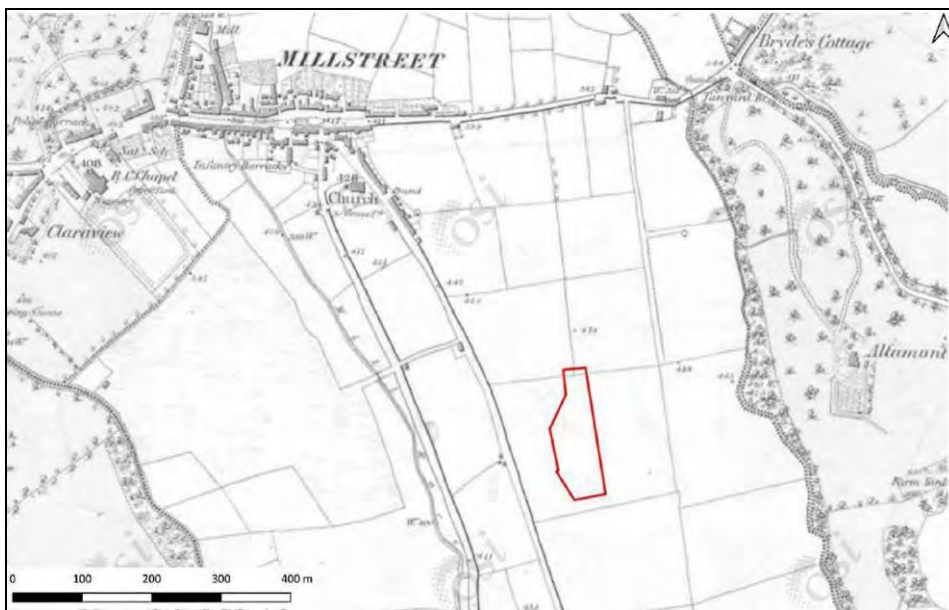


Figure 2: Extract from historic Ordnance Survey 6-inch mapping, Cork sheet 039, 1844.

As part of this evaluation, the illustrative historic, and Ordnance Survey, mapping for the development area were consulted. As shown above, the townland of Liscahane is recorded in the Down Survey mapping (**Figure 1**), although there are no features of note shown that indicate the potential for the discovery of previously unknown sites or monuments within the development site.

The historic Ordnance Survey First Edition of the 6-inch to 1 mile (1:10,560) of 1844, Cork sheet CO039 (**Figure 2**) shows the proposed development site contained in one large, square field, with no features of note. However, the later the later Ordnance Survey mapping at 1:2,500 scale for circa 1903 (**Figure 3**) and the Cassini 1:10,560, circa 1934 (not illustrated), show the early-19th century field subdivided into three, with the development site now straddling two roughly east to west orientated rectangular fields,

with the north to south running boundary of them surviving today as the development site's eastern boundary. Within the extents of the application site, the east to west running field boundary, which roughly divides the development site in half, is now gone from surface view.

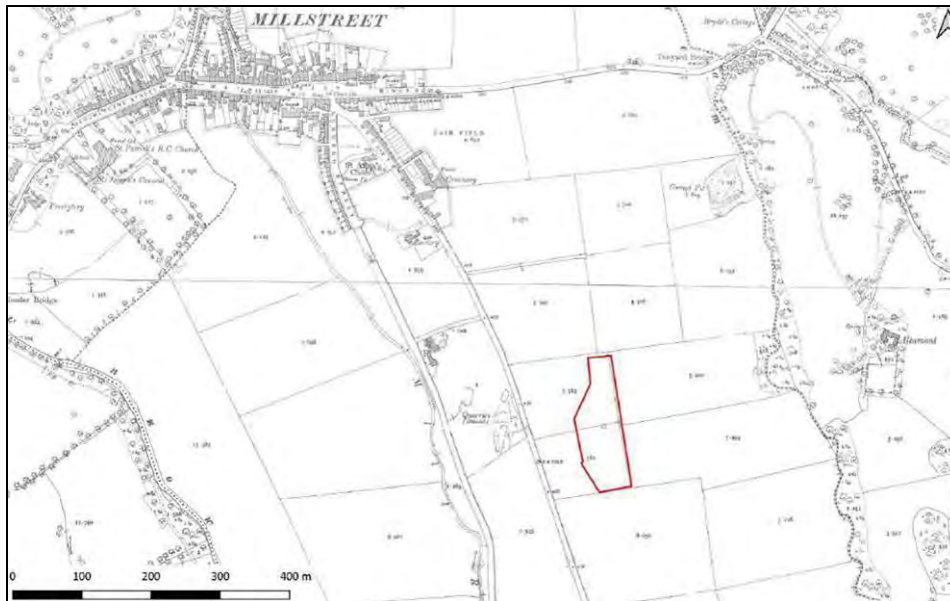


Figure 3: Extract from historic Ordnance Survey 25-inch (1:2,500) mapping, circa. 1903.

Aerial Imagery

As part of this evaluation, aerial imagery for the proposed development site was sourced and reviewed through the Ordnance Survey Geohive online viewer, Google Earth, and the Cambridge University Collection of Aerial Photography (CUCAP). The inspection of aerial imagery did not reveal any evidence or indicators for archaeological remains, surface or subsurface on the proposed development site at Lisachane. What is of note, on the 2005 Geohive aerial, is that a substantial part of the site was used for stockpiling during construction of the Old Coach Road/Drive housing scheme (**Figure 4**).

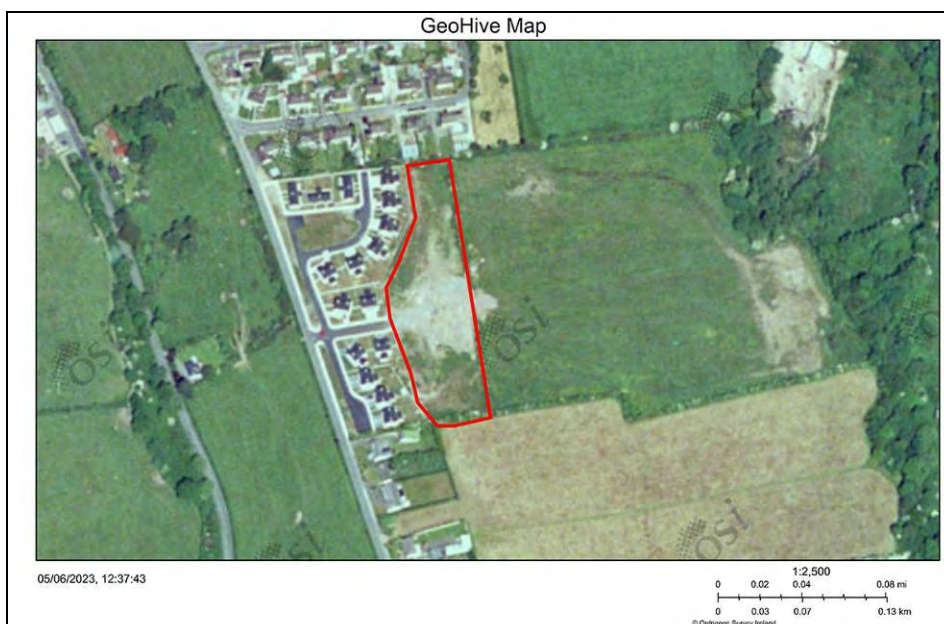


Figure 4: Ordnance Survey Geohive aerial imagery 2005.

Note the substantial surface damage on the site from construction activities related to the existing housing.

Built Heritage

There are no Built Heritage considerations regarding the proposed development at Liscahane.

The proposed development site does not contain any structures or built heritage features within its boundary, which are entered in the current Record of Protected Structure (RPS) for Cork (*Cork County Development Plan 2022-2028*), or the National Inventory of Architectural Heritage (NIAH). The closest site of built heritage interest is the former Church of Ireland rectory (RPS 1167/NIAH 20817012) located 350m north northwest of the development site.

There is no Architectural Conservation Area for Millstreet.

Synopsis of Background Analysis

The background research into the development site in Liscahane townland has not uncovered any known evidence or indicators for the presence of archaeological features or monuments within the confines of the proposed development site. Archaeological monitoring of groundworks associated with the construction of the adjoining housing development in 2003 did uncover a souterrain, CO039-243---, which was subsequently excavated. Aerial photographic sources that are contemporary show that a substantial part of the site was used for stockpiling during the construction works. Nothing from the background research suggests any previous knowledge of archaeological features or monuments within the confines of the proposed development site.

8. Results of Test Trenching

Test Trenching Strategy

Given that no anomalies or features of clear archaeological interest were detected during the geophysical survey of the proposed development site (Dowling 2023), a general array of test trenching, consisting of four long trenches along the long axis of the site and six on the short axis on the sloping ground to the east, was conducted (see **Drawing 05**).

The site at Liscahane is situated on high ground, overlooking the Cork County Council housing development of Old Coach Drive to the west. The surrounding ground level at the entrance to the site continued a gentle rise from west to east to eventually form a generally level platform to the east and south, however the ground level gradually fell away in the northern extent of the site. The site was in pasture but partly buried building debris was littered around the site. The ten test trenches were excavated under strict archaeological supervision with the mechanical assistance of an eight-ton tracked excavator using a toothless grading bucket with a width of 1.8m (see **Photographs 1-3**).



Photograph 1: Test trenches viewed looking northwest, from the southeast corner.



Photograph 2: Test trenches viewed looking south, from the middle of the site.



Photograph 3: Test trenches viewed looking north, from the middle of the site.



Photograph 4: Test Trench 1, looking north from southern end.



Photograph 5: Test Trench 1, looking north from middle.

Trench 1

Test Trench 1 had a length of 180m, a width of 1.9m and depths ranging from 0.3m to 0.7m. It had a north to south orientation and was positioned parallel to the eastern boundary of the site. Once the sod was removed the topsoil consisted of a greyish brown pebbly silty clay with depths of 0.25m to 0.67m. This topsoil overlay an orangey to pinkish brown stony clay silt natural subsoil with pockets of loose

shale bedrock at the northern side of the trench (**Photograph 4 & 5**). Modern building debris had been mixed with the topsoil especially in the middle and southern side of the Test Trench (**Photograph 6**). The continuation of the field boundary **F1**, also uncovered in Test Trench 2. The historic Ordnance Survey First Edition of the 6-inch to 1 mile (1:10,560) of 1844, Cork sheet CO039 (**Figure 2**) shows the proposed development site contained in one large, square field, with no features of note. However, the later Ordnance Survey mapping at 1:2,500 scale for circa 1903 (**Figure 3; Drawing 07**) and the Cassini 1:10,560, circa 1934 (not illustrated), show the early-19th century field subdivided into three, with the development site now straddling two roughly east to west orientated rectangular fields, with the north to south running boundary of them surviving today as the development site's eastern boundary. Within the extents of the application site, the east to west running field boundary, which roughly divides the development site in half, is now gone from surface view.

Nothing of archaeological significance was uncovered in Test Trench 1.



Photograph 6: The modern building debris mixed with the topsoil in the middle to south of Test Trench 1.

Trench 2

Test Trench 2 had a length of 180m, a width of 1.9m and depths ranging from 0.1m to 0.3m. It had a north to south orientation and was positioned between Test Trench 1 to the east and the fenced ESB transformer to the west. Once the sod was removed the topsoil consisted of a greyish brown pebbly silty clay with depths of 0.1m to 0.3m. This topsoil overlay an orangey to pinkish brown stony clay silt natural subsoil with pockets of loose shale bedrock at the northern side of the trench (**Photograph 7 & 8**). Modern building debris had been mixed with the topsoil especially in the middle and southern side of the Test Trench (**Photograph 9**); confirming the site's use for construction activities during the building of the adjoining housing in the early to mid-2000s.



Photograph 7: The southern extent of Test Trench 2.



Photograph 8: The northern extent of Test Trench 2.



Photograph 9: The modern building debris mixed with the topsoil in the middle to south of Test Trench 2.

The northeast to southwest running field boundary, uncovered as feature **F1** in Trench 1, was uncovered in Trench 2, labelled **F2** (**Photograph 10**; **Drawing 07**).

A dark coloured, charcoal rich feature, **F3** was uncovered close to the southern extent of Test Trench 2 (**Drawing 06**). The feature was revealed beneath a noticeable small wet patch in the site. Modern

building debris was noticeably mixed in with the carefully removed topsoil. This revealed a black charcoal rich feature which had a length of 1.47m north to south and a width of 0.89m east to west (**Photograph 11**). An area 5m by 5m was topsoil stripped to the west of Test Trench 2 (**Photograph 12**), to determine its extent and to investigate if any other associated features were located close by. The possible charcoal-making pit, feature **F3** may be early medieval in origin; but this speculative pending further investigation. The feature was hand cleaned and recorded; and remains preserved in situ, having been covered in plastic sheeting and carefully backfilled, pending resolution.

A single object (**Photograph 13**), a possible cereal processing, granite, rubbing stone (potentially used in conjunction with a saddle quern), find number 23E0376:01:01, was recovered from the topsoil, at the southern end of the trench.

No other archaeological features or objects were uncovered in Test Trench 2.



Photograph 10: The remains of an historic field boundary that was uncovered in Test Trench 1 & 2.



Photograph 11: Feature 1 the charcoal rich Feature uncovered close to the southern extent of Test Trench 2.



Photograph 12: The westward extension of Test Trench 2 around Feature 1.



Photograph 13: Possible rubber stone 23E0376:01:01 recovered from the topsoil in Test Trench 2.

Trench 3

Test trench 3 had a length of 65m, a width of 1.9m and depths ranging from 0.1m to 0.3m. It had a north to south orientation and was positioned on gentle sloping ground extending southward from the southern side of the fenced ESB transformer. Once the sod was removed the topsoil consisted of a greyish brown pebbly silty clay with depths of 0.1m to 0.3m. This topsoil overlay an orangey to pinkish brown stony clay silt natural subsoil (**Photograph 14**).

Nothing of archaeological significance was uncovered in Test Trench 3.



Photograph 14: Test Trench 3 From the south.

Trench 4

Test trench 4 had a length of 50m, a width of 1.9m and depths ranging from 0.1m to 0.3m. It had a north to south orientation and was positioned on gentle sloping ground extending northward from the northern side of the fenced ESB transformer. Once the sod was removed the topsoil consisted of a greyish brown pebbly silty clay with depths of 0.1m to 0.3m. This topsoil overlay an orangey to pinkish brown stony clay silt natural subsoil (**Photograph 15**).

Nothing of archaeological significance was uncovered in Test Trench 4.



Photograph 15: Test Trench 4 From the south.

Trench 5

Test trench 5 had a length of 28m, a width of 1.9m and a depth of 0.30m. It had an east to west orientation and was positioned on gradually sloping ground on the western side of the site. Once the sod was removed the topsoil consisted of a greyish brown pebbly silty clay with depths of 0.2m to 0.3m. This topsoil overlay an orangey brown stony clay silt natural subsoil (**Photograph 16**).

Nothing of archaeological significance was uncovered in Test Trench 5.



Photograph 16: Test Trench 5 from the west.

Trench 6

Test trench 6 had a length of 25m, a width of 1.9m and depths ranging from 0.2m to 0.3m. It had an east to west orientation and was positioned on gradually sloping ground on the western side of the site. Once the sod was removed the topsoil consisted of a greyish brown pebbly silty clay with a depth of 0.25m. This topsoil overlay a loose shaley bedrock (**Photograph 17**).

Nothing of archaeological significance was uncovered in Test Trench 6.



Photograph 17: Test Trench 6 From the west.

Trench 7

Test trench 7 had a length of 22m, a width of 1.9m and depths ranging from 0.2m to 0.4m. It had an east to west orientation and was positioned on gradually sloping ground on the western side of the site. Once the sod was removed the topsoil consisted of a greyish brown pebbly silty clay with depths of 0.2m to 0.37m. This topsoil overlay an orangey brown stony clay silt natural subsoil (**Photograph 18**).

Nothing of archaeological significance was uncovered in Test Trench 7.



Photograph 18: Test Trench 7 From the west.

Trench 8

Test trench 8 had a length of 21m, a width of 1.9m and depths ranging from 0.2m to 0.4m. It had an east to west orientation and was positioned on gradually sloping ground on the western side of the site. Once the sod was removed the topsoil consisted of a greyish brown pebbly silty clay with depths of 0.2m to 0.37m. This topsoil overlay an orangey brown stony clay silt natural subsoil (**Photograph 19**).

Nothing of archaeological significance was uncovered in Test Trench 8.



Photograph 19: Test Trench 8 From the west.

Trench 9

Test trench 9 had a length of 20m, a width of 1.9m and depths ranging from 0.2m to 0.3m. It had an east to west orientation and was positioned on gradually sloping ground on the western side of the site. Once the sod was removed the topsoil consisted of a greyish brown pebbly silty clay with depths of 0.2m to 0.3m. This topsoil overlay an orangey brown stony clay silt natural subsoil (**Photograph 20**).

Nothing of archaeological significance was uncovered in Test Trench 9.



Photograph 20: Test Trench 9 From the west.

Trench 10

Test trench 10 had a length of 15m, a width of 1.9m and depths ranging from 0.2m to 0.3m. It had an east to west orientation and was positioned on gentle sloping ground on the western side of the site. Once the sod was removed the topsoil consisted of a greyish brown pebbly silty clay with depths of 0.2m to 0.3m. This topsoil overlay an orangey brown stony clay silt natural subsoil (**Photograph 21**).

Nothing of archaeological significance was uncovered in Test Trench 10.



Photograph 21: Test Trench 10 From the west.

Discussion of Findings

The relict field boundary, features **F1** and **F2**, was uncovered running east to west through Test Trenches 1 & 2. The historic Ordnance Survey First Edition of the 6-inch to 1 mile (1:10,560) of 1844, Cork sheet CO039 (**Figure 2**) shows the proposed development site contained in one large, square field, with no features of note. However, the later Ordnance Survey mapping at 1:2,500 scale for circa 1903 (**Figure 3**; **Drawing 07**) and the Cassini 1:10,560, circa 1934 (not illustrated), show the early-19th century field subdivided into three, with the development site now straddling two roughly east to west orientated

rectangular fields, with the north to south running boundary of them surviving today as the development site's eastern boundary. Within the extents of the application site, the east to west running field boundary, which roughly divides the development site in half, is now gone from surface view.

The charcoal rich pit **F3**, presents the characteristics of a medieval charcoal making pit. Several examples from road schemes in County Kerry have returned 11th to 13th century radiocarbon dates (Paul O'Keeffe TII Project Archaeologist, pers. comm.).

The granite rubbing stone 23E0376:01:01 is an unprovenanced object that was uncovered from the topsoil at the southern extent of Test Trench 2. It may be prehistoric in origin. However, the development site's proximity to the souterrain CO039-243---- that was discovered 30m from the western boundary of the site is an indication of a domestic early medieval settlement in the locality, outside the development site.

9. Impact Assessment & Recommendations¹

A comprehensive Archaeological Impact Assessment of the proposed local authority residential development site in Liscahane, Millstreet, Co. Cork was conducted; to inform and support the Part VIII Planning application that is in preparation. Background research did not uncover any features of archaeological interest within the confines of proposed development site. Similarly, the geophysical survey of the site did not produce features or anomalies of archaeological interest.

During the test trenching phase of the assessment one archaeological feature **F3**, a possible medieval charcoal making pit was uncovered. The pit is located at the southern end of the development site, in a car parking area between housing units 23 and 24 (see **Drawing 08**). Additionally, one archaeological object, a granite rubbing stone, find number 23E0376:01:01, of indeterminable date was recovered from topsoil.

Apart from the charcoal making pit **F3**, the proposed development will not impact on any other known archaeology within the area that was available for assessment. Unmitigated, the development will severely impact on the feature **F3**. Therefore, one of two mitigation options can be explored.

¹ Note on Recommendation

All mitigation measures are recommendations only and the decision on implementation, amendments, etc. rests ultimately with the Planning Authority - Cork County Council, the Development Applications Unit of the Department of Housing, Local Government and Heritage, and the National Museum of Ireland.

Option A is to preserve the find in situ, which is the presumptive option with respect to safeguarding the archaeological resource. This would require the creation of a development-free buffer zone, in the order of 15-20m around the feature.

Option B is to preserve the find by record, through the excavation of the feature and an appropriate area surrounding it.

On balance, it is recommended that the pit **F3** is preserved by record, through its excavation and a 10m by 10m around it (see **Drawing 09**). This has been determined by the fact that the pit small in nature, and not part of an overall, recognised archaeological landscape or intensity of other features within the development site, or its locality. When taken with a view to the current housing needs, the preservation of the pit through record is a more reasonable mitigation than preserving it in situ and rearranging the layout of the housing scheme, which if done so, including a development-free protective buffer zone, could result in the reduction in the number of housing units that can be accommodated on the site.

It is recommended that the local authority housing development proceed as per the proposed scheme, on the proviso that the pit feature **F3** be resolved as an enabling action in advance of construction commencing.

It is further recommended that the local authority seek the advice of its County Archaeologist on this matter, before deciding a course of action.

10. Sources, References & Guidelines Consulted

- *Record of Monuments and Places for County Cork*, 1998;
- *Urban Archaeological Survey of County Cork*, 1995;
- National Monuments Database - www.archaeology.ie;
- Database of Irish Excavation Reports – www.excavations.ie;
- Ordnance Survey Historic Mapping;
- Down Survey Mapping – www.downsurvey.tcd.ie;
- Placenames database - <https://www.logainm.ie>;
- National Inventory of Architectural Heritage (NIAH) – www.buildingsofireland.ie
- *Cork County Development Plan 2022-2028*;
- *Framework and Principles for the Protection of the Archaeological Heritage*. Department of Arts, Heritage, Gaeltacht and the Islands 1999;
- *Code of Conduct for Archaeological Assessment*. Institute of Archaeologist of Ireland 2006.

Dowling, G. 2023 *Geophysical Survey Report Liscahane, Millstreet, Co. Cork*. Unpublished report prepared by Ger Dowling Geophysical Surveyor.

Gillman, H. W. 1892 Sir Cormac McTeige MacCarthy and the Sept Lands of Muskerry, Co. Cork; with a historical pedigree. *Journal of the Cork Historical and Archaeological Society* **1**, no. 10, pp. 193-200.

McCarthy, M. 2003 *Excavation of Souterrain at Old Coach Drive, Drishane, Millstreet, Co. Cork*. Unpublished report prepared by the Archaeological Services Unit of the Department of Archaeology, University College Cork.

O Donnabháin, B. 1983 167. Liscahane. In Youngs, S. M., Clark, J. and Barry, T.B. (eds) *Medieval Britain and Ireland 1982*. *Medieval Archaeology* **27**, 217.

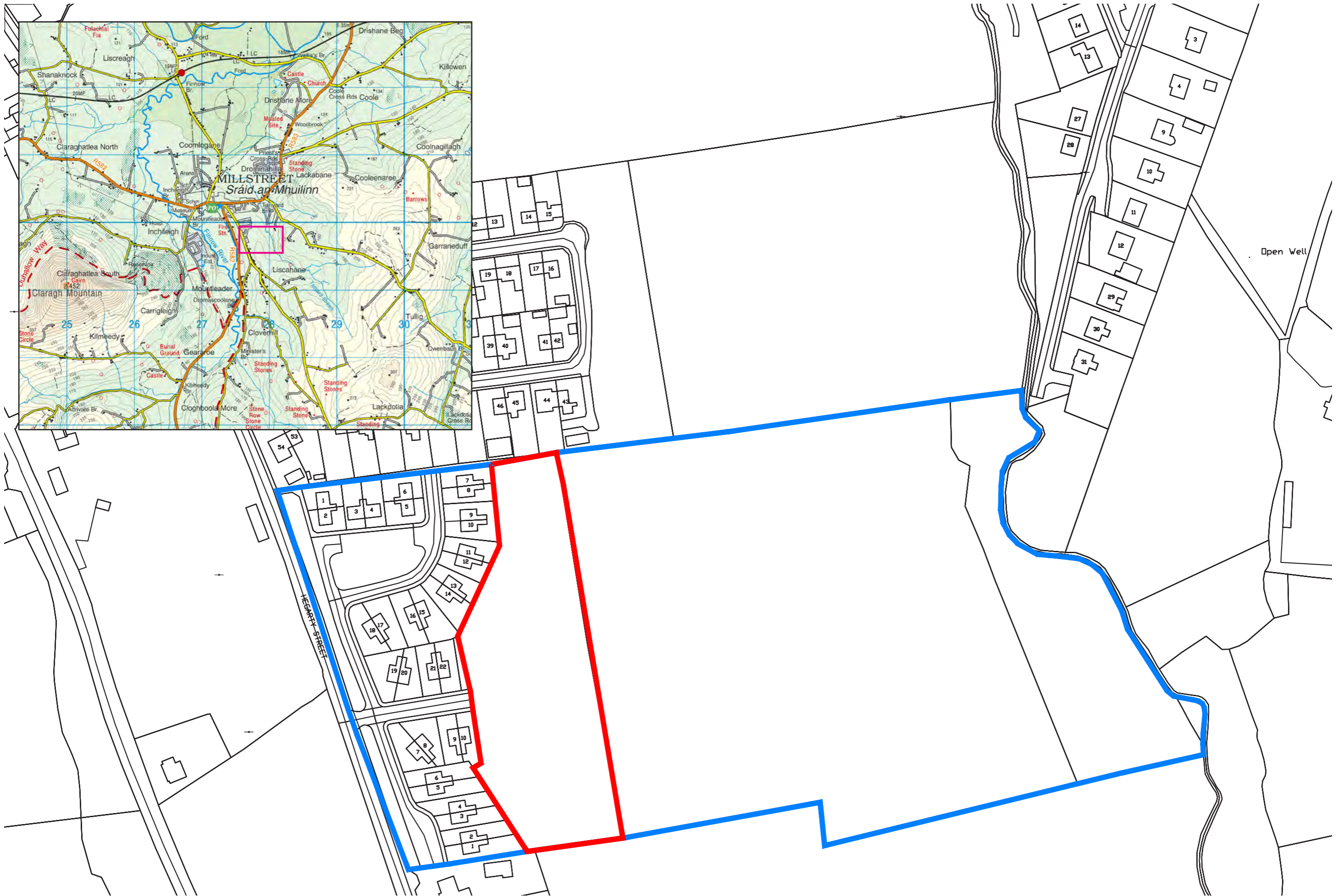
Pochin Mould, D. 1991 *Discovering Cork*. Brandon Books, Dingle.

Power, D. et al. 2000 *Archaeological Inventory of County Cork. Volume 4: North Cork Parts 1 and 2*. Stationery Office, Dublin.

Power, D. et al. 2022 *Heritage Villages and Towns of County Cork*. The Heritage Unit of Cork County Council, Cork.

ASSESSMENT RECORD DRAWINGS

All Ordnance Survey of Ireland (OSi) mapping is reproduced under
Licence No. **CYAL50298677** © Ordnance Survey Ireland/Government of Ireland



DRAWING
01 Site Location

PROJECT
 AIA of Part VIII Housing Development at Drishane Rd, Millstreet, Co. Cork

CLIENT
 Housing Directorate CCC

LICENCE:
 23E0376

DRAWN
 RT

CHECKED
 DN

DATE
 19-04-23

ACKNOWLEDGEMENT
 Drawing Courtesy CCC

APPENDIX A – GEOPHYSICAL SURVEY



SITE STATISTICS

8no. 1 Bed Apartments
18no. 2 Bed Houses

26no. Units Total

- Site Area (Red) - 1.57 HA
- Site Area (Zoned) - 1.08 HA
- Total Open Space
3840m²/10827m² - 35%
- Usable Open Space
945m²/10827m² - 8.7%
- Parking - 49 No. Car Spaces
- Parking requirement - $\frac{49}{46}$ 106%
(1.25x8 + 2x18)
- Density - 23.5 U/HA (26U/1.08HA)

LEGEND

- Phase 01 Site Outline
- All Adjacent Lands Under CCC Ownership
- Private Open Space
- Public Open Space
- TYPE A - 1 over 1 Bed Apartment
- TYPE B - 2 Bed 2 Storey House
- Proposed Internal Road
- Proposed Footpath
- Proposed Shared Surface
- Proposed Parking

TOTAL SITE AREA 6.45 Hectares/ 15.94 Acres
SITE AREA (RED) 1.08 Hectares/ 2.67 Acres

SITE OUTLINED IN RED
ENTIRETY OF LAND HOLDING
OUTLINED IN BLUE
O.S. MAPS
6091-B, 6092-A,
6091-04.

Rev. No.	Revision Description	Date

Project Stage: Information

Project Title: Proposed Housing Development
Hegarty Street, Millstreet, Co.Cork

Drawing Title: Proposed Site Layout
Overall Plan

Conhairle Contae Chorcaí
Ailtirí | Stiúrthóireacht Tithíochta
Cork County Council
Architects | Housing Directorate
County Hall, Cork
Tel: (021) 4285433
e-mail: architects.housing@corkcoco.ie

Job Reference: S_2022_031	Sheet: A3	Design Team: Architect: MM Technician: GD Surveyor: MB Snr. Architect: R. Henry
Dwg. No.: DR_CCC_A_SK_125	Date: May '23	Scale: NTS
Date: May '23	Scale: NTS	Issue for: Information

DRAWING
02 Proposed Housing Layout

PROJECT: AIA of Part VIII Housing Development at Drishane Rd, Millstreet, Co. Cork
CLIENT: Housing Directorate CCC

LICENCE: 23E0376
DRAWN: RT
CHECKED: DN
DATE: 19-04-23
SCALE: 1:500@A3
SCALEBAR: 10m

ACKNOWLEDGEMENT
Housing Directorate CCC

DANIEL NOONAN
ARCHAEOLOGICAL CONSULTANCY
WWW.DNAC.IE | INFO@DNAC.IE | 024 25922



DRAWING
03 Known Sites & Monuments in Vicinity

PROJECT
 AIA of Part VIII Housing Development at Drishane Rd, Millstreet, Co. Cork

CLIENT
 Housing Directorate CCC

LICENCE:
 23E0376

DRAWN
 RT

CHECKED
 DN

DATE
 19-04-23

SCALE
 Scalebar

SCALEBAR
 50m

ACKNOWLEDGEMENT
 Drawing Courtesy Ger Dowling



- Legend**
- Survey area
 - Ferrous response
 - /// Natural/disturbed
 - ⋯ Magnetic disturbance
 - Unsurveyable (gorse)

DRAWING
04 Geophysical Survey Interpretation

PROJECT
 AIA of Part VIII Housing Development at Drishane Rd, Millstreet, Co. Cork

CLIENT
 Housing Directorate CCC

LICENCE:
 23E0376

DRAWN
 RT

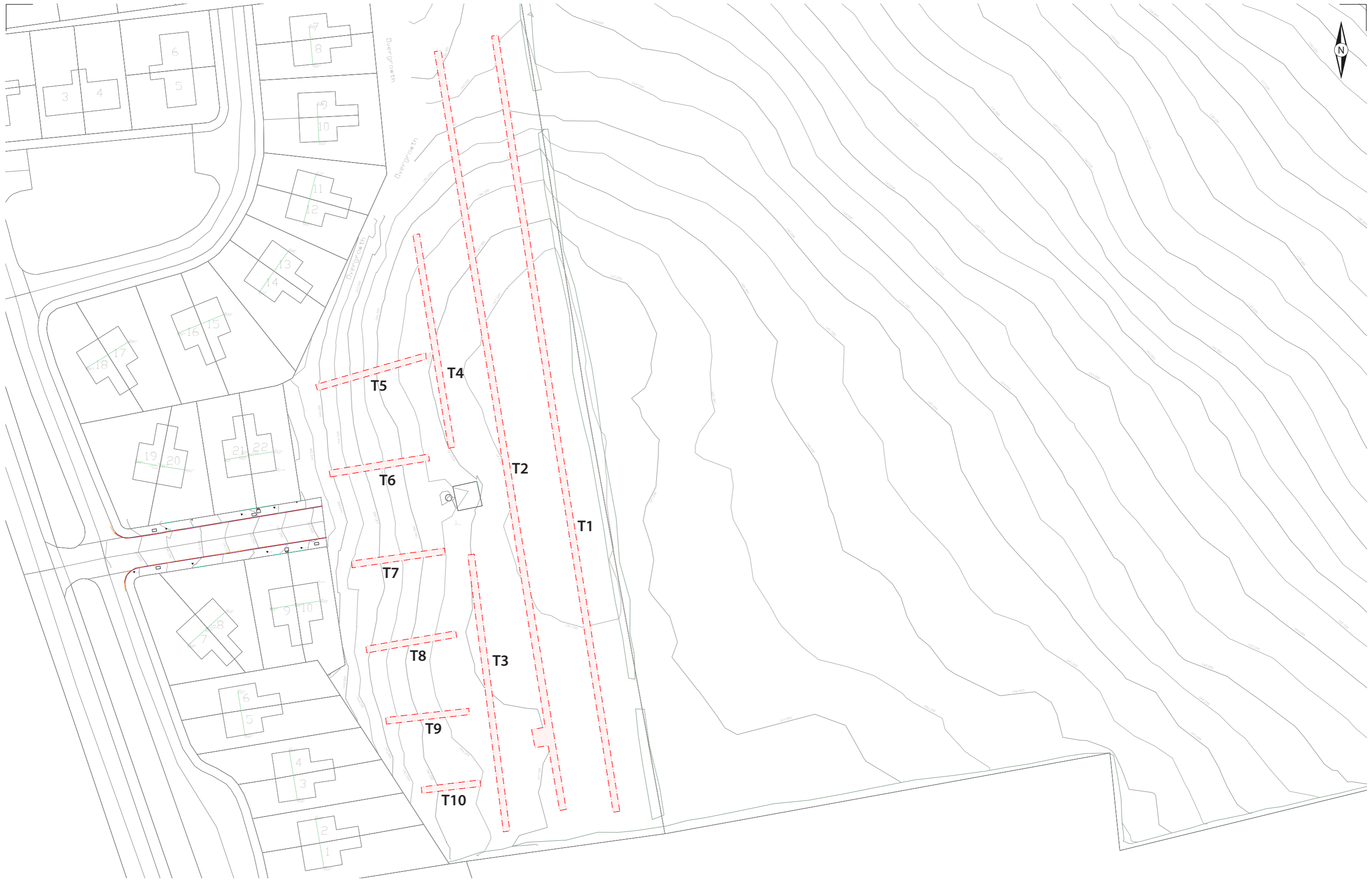
CHECKED
 DN

DATE
 19-04-23

SCALE
 Scalebar

SCALEBAR
 20m

ACKNOWLEDGEMENT
 Drawing Courtesy Ger Dowling



DRAWING
05 Excavated Test Trenches

PROJECT
 AIA of Part VIII Housing Development at Drishane Rd, Millstreet, Co. Cork

CLIENT
 Housing Directorate CCC

LICENCE:
 23E0376

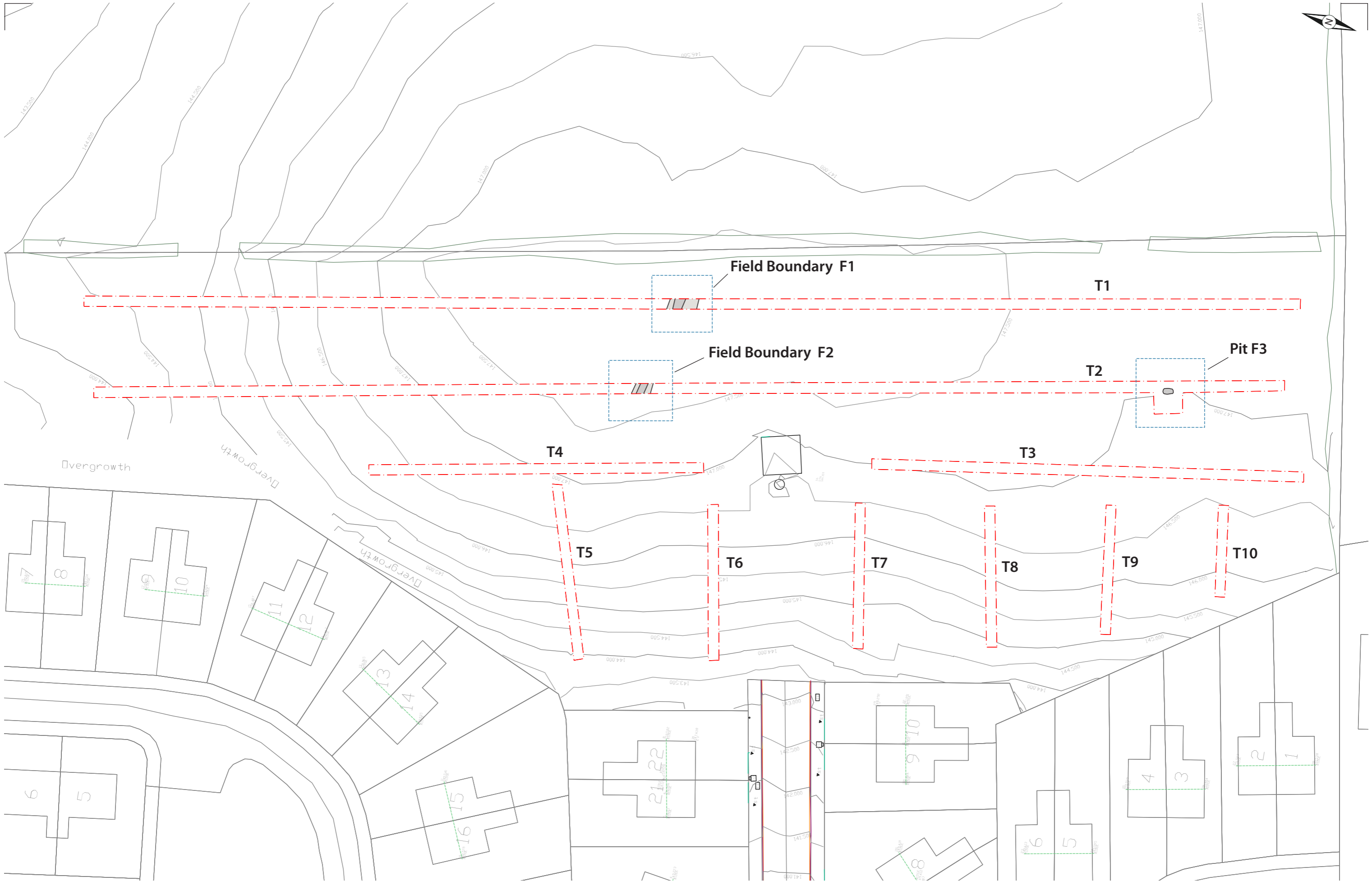
DRAWN
 RT

CHECKED
 DN

DATE
 19-04-23

SCALE
 Scalebar

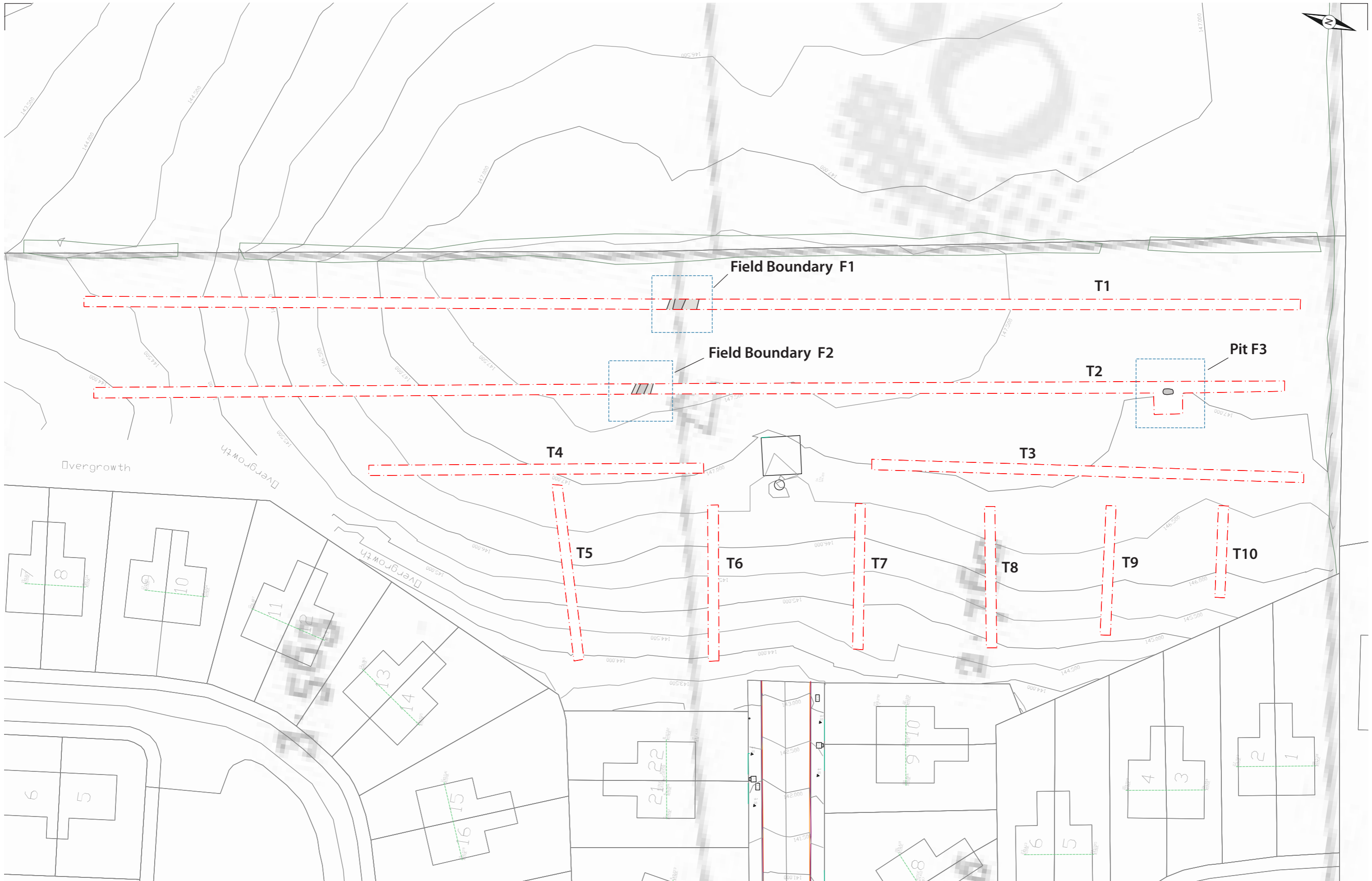
SCALEBAR
 20m



DRAWING
06 Features of Interest

PROJECT: AIA of Part VIII Housing Development at Drishane Rd, Millstreet, Co. Cork
 CLIENT: Housing Directorate CCC

LICENCE: 23E0376
 DRAWN: RT
 CHECKED: DN
 DATE: 19-04-23
 SCALE: 1:500@A3
 SCALEBAR: 10m



DRAWING
07 Historic 25-inch Mapping Overlay

PROJECT
 AIA of Part VIII Housing Development at Drishane Rd, Millstreet, Co. Cork

CLIENT
 Housing Directorate CCC

LICENCE:
 23E0376

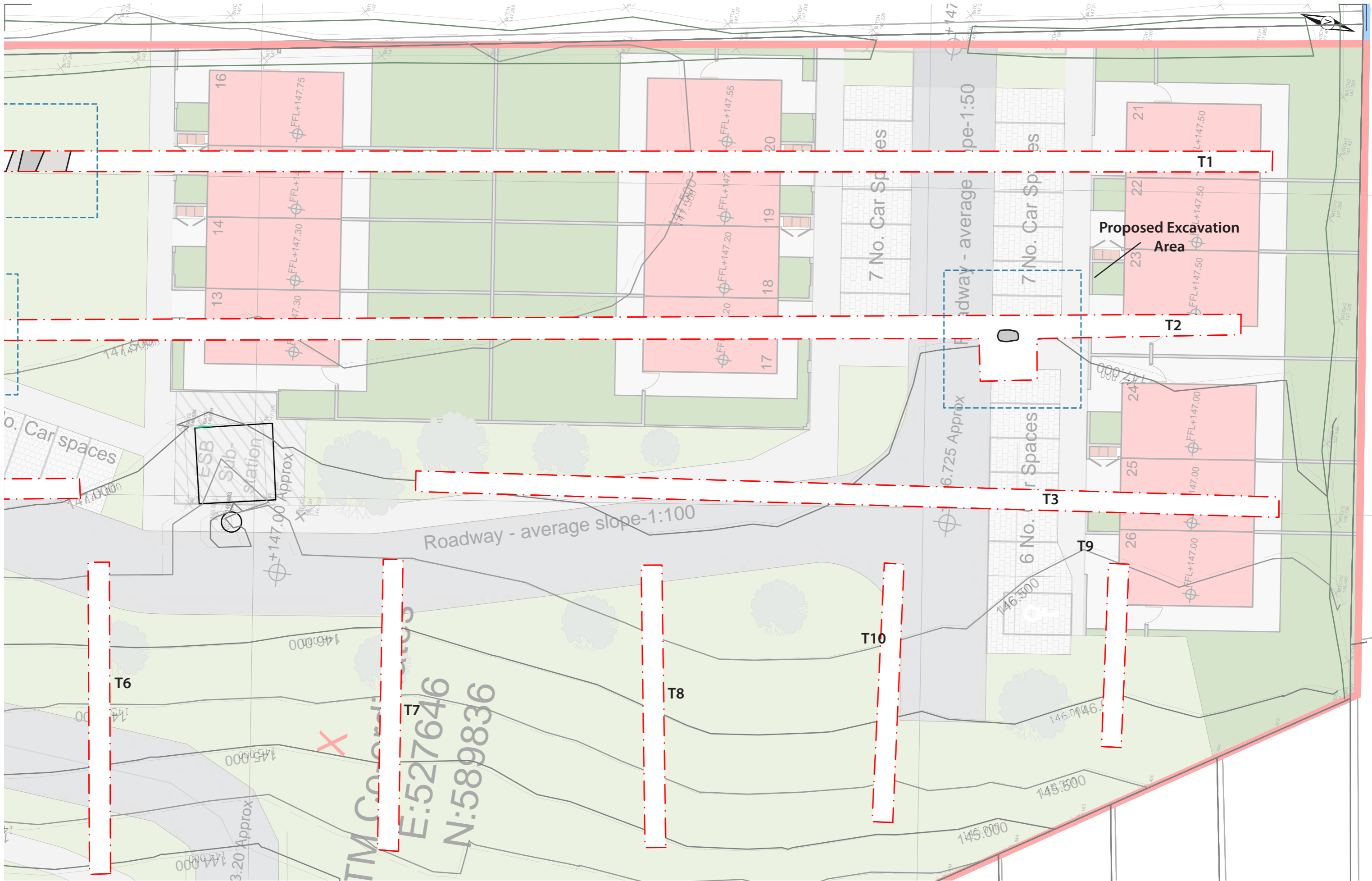
DRAWN
 RT

CHECKED
 DN

DATE
 19-04-23

SCALE
 1:500@A3

SCALEBAR
 10m



DRAWING
08 Feature F3 & Proposed Housing

PROJECT: AIA of Part VIII Housing Development at Drishane Rd, Millstreet, Co. Cork
 CLIENT: Housing Directorate CCC
 LICENCE: 23E0376
 DRAWN: RT
 CHECKED: DN
 DATE: 19-04-23
 SCALE: 1:250@A3
 SCALEBAR: 5m

Geophysical Survey Report

Liscahane, Millstreet, Co. Cork

License No.: 23R0078

RMP/SMR: N/A

ITM (centroid): 527670, 589850



Ger Dowling, PhD MIAI

March 2023

Summary

This report details the results of a geophysical survey (Licence No.: 23R0078) at lands at Lisachane, Millstreet, Co. Cork. The survey was conducted as part of a preliminary (pre-planning) archaeological investigation.

The investigation, comprising high resolution magnetic gradiometry, was implemented over a field of pasture and covered an area of approximately 1 ha. in total size. No anomalies of archaeological potential were identified by the survey, with the dominate responses recorded reflecting modern activity, including buried iron litter.

Survey details

Site Name: Lisachane

Townland: Lisachane

County: Cork

Parish: Drishane

Barony: Muskerry West

RMP No.: N/A

ITM (centroid): 527670, 589850

Land use: Rough pasture

Geology: Green sandstone and purple siltstone (Glenflesk Chloritic Sandstone Forma)

Soils: Coarse loamy drift with siliceous stones (Puckane Series)

Detection License No.: 23R0078

Planning Reference No.: N/A

Survey Type & Instrument: Fluxgate Gradiometer – Five-channel magnetometer

Sample/Transverse Interval: 0.05m/0.5m

Area Surveyed: c.1 ha.

Survey Date: 16 March 2023

License Holder: Ger Dowling

Report Author: Ger Dowling

Report Date: 17 March 2023

Contents

1	Introduction	5
2	Site Location	6
3	Survey Background	7
4	Archaeological Background	8
4.1	Recorded/Known Archaeology.....	8
4.2	Previous Investigations.....	8
5	Survey Location and Aims.....	9
6	Survey Methodology and Instrumentation	10
7	Data Management, Processing and Interpretation	11
8	General Considerations and Complicating Factors.....	12
8.1	Access and Ground Conditions.....	12
8.2	Modern Interference	12
8.3	Natural Soil Variation/Ground Disturbance	12
9	Survey Results.....	13
10	Conclusion.....	14
10.1	<i>Statement of Indemnity</i>	14
11	Figures.....	15
12	Plates.....	23

List of Tables

Table 1. Geophysical survey details

Table 2. Survey results

List of Figures

Figure 1. Site location map, showing survey area highlighted in red

Figure 2. Recorded archaeological sites in the vicinity of the survey area

Figure 3. The survey area overlaid on the first-edition six-inch Ordnance Survey Map (1837—1842)

Figure 4. The survey area overlaid on the first-edition 25-inch Ordnance Survey Map (1888—1913)

Figure 5. Survey Area

Figure 6. Greyscale image of gradiometry results

Figure 7. Interpretative plan showing principal geophysical anomalies

List of Plates

Plate 1. The survey area, viewed from the south

Plate 2. The southern part of the survey area

Plate 3. Transformer box and surrounding steel palisade fence, looking west

Abbreviations

CO	Cork
GPS	Global Positioning System
ITM	Irish Transverse Mercator
nT	nanoTesla (unit of magnetic measurement)
OS	Ordnance Survey
QGIS	Quantum Geographical Information Systems
SMR	Sites and Monuments Record

Coordinate System

All GPS coordinates given in this report are in Irish Transverse Mercator (ITM)

1 Introduction

This report details the results of a geophysical survey (Licence No.: 23R0078) of lands at Lisachane, Millstreet, Co. Cork. The survey, comprising high resolution magnetic gradiometry, was focused on a small area of pasture and encompassed approximately 1 ha. in total size. The investigation was conducted as part of a preliminary (pre-planning) archaeological investigation.

The site has not previously been subjected to geophysical survey and it was hoped that the investigation would identify and map any subsurface archaeology that may be present.

2 Site Location

The survey is located in the townland of Liscahane, Co. Cork (Figure 1). The site, which lies on the southern edge of the town of Millstreet, is in the Civil Parish of Drishane and the Barony of Muskerry West.¹

¹ <https://www.logainm.ie/en/12681>: accessed on 05 February 2023.

3 Survey Background

The survey was conducted as part of a pre-planning study (archaeological reconnaissance). The investigation is prompted by the discovery of a souterrain (SMR CO039-243) in 2003 in the neighbouring land to the west (see Section 4.1 below).

4 Archaeological Background

4.1 Recorded/Known Archaeology

Although there are no recorded archaeological monuments within the survey area (Figure 2), a souterrain (SMR CO039-243) was discovered in 2003 during the construction of local-authority houses in the adjacent land to the west (Figure 2).² The souterrain consisted of single drystone-built chamber (L 2.5m; Wth 0.85m; H 1.07m), roofed by three large lintels and, given the lack of an obvious entrance, it may have been abandoned before completion. No evidence for a surrounding enclosure was revealed during follow-up archaeological works.³ Another souterrain (SMR CO039-055002) lies inside a ringfort-rath (SMR CO039-055001) about 800m to the northwest.

Other recorded sites in the wider environs of the survey area include a ringfort-rath (SMR CO039-068001) and adjacent lime kiln (SMR CO039-068002), a quarry (SMR CO039-060) and a church (SMR CO039-127002) with surrounding graveyard (SMR CO039-0127001).

Early historic maps show the survey area as farmland (Figures 3–4).

4.2 Previous Investigations

No recorded archaeological investigations have previously been conducted at the survey area.⁴

² [Historic Environment Viewer \(archaeology.ie\)](https://excavations.ie/report/2003/Cork/0009595/): accessed on 05 February 2023; see also <https://excavations.ie/report/2003/Cork/0009595/>.

³ Ibid.

⁴ <https://excavations.ie>: accessed on 05 February 2023.

5 Survey Location and Aims

The investigation, comprising high resolution magnetic gradiometry, focused on a small area of pasture, measuring approximately 1 ha. in total size (Plates 1–2; Figure 5). The land rises eastwards from an adjacent residential estate and is bounded by tree-lined hedgerows on the north and east, and a modern concrete wall on the south and west. A large transformer box, surrounded by a steel palisade fence, occupies the approximate centre of the site (Plate 3), with large patches of overgrown gorse dispersed throughout the survey area. These obstacles limited the land available for investigation.

The underlying bedrock of the locality comprises green sandstone and purple siltstone (Glenflesk Chloritic Sandstone Forma).⁵ The soils are dominated by coarse loamy drift with siliceous stones (Puckane Series).⁶

The geophysical investigation aimed to:

- identify any geophysical anomalies of possible archaeological origin within the specified survey area
- accurately locate these anomalies and present the findings in map form
- describe the anomalies and discuss their likely provenance in a written report
- incorporate all of the above in a report to the Client

⁵ Geological Survey of Ireland Spatial Resources, Public Data Viewer Series:

<https://dcenr.maps.arcgis.com/apps/MapSeries/index.html?appid=a30af518e87a4c0ab2fbde2aaac3c228>

[accessed on 05 February 2023].

⁶ Irish National Soils Map, 1:250,000k, V1b (2014): <http://gis.teagasc.ie/soils/map.php> [accessed on 05 February 2023].

6 Survey Methodology and Instrumentation

The survey involved high-resolution magnetic gradiometry survey (Table 1). This technique measures changes in the magnetic properties of the soil and is widely used in modern investigations due to its ability to detect a broad range of sub-surface archaeological remains, including ditches and pits, and industrial features associated with metalworking and pottery production.

The magnetic survey was conducted using a five-channel fluxgate gradiometer system combined with cm-precision GPS (georeferenced to Irish Transverse Mercator and Ordnance Datum). Mounted on a cart and pulled by a quad bike, the system records magnetometer and GPS data simultaneously into a single data file. The data capture strategy involved logging readings every 0.05m intervals along transects spaced 0.5m apart, with a maximum traverse width of 2.5m. The sampling strategy produces a high-resolution dataset, giving clarity to any archaeological features detected.

The highly accurate positioning of the survey data provides strong confidence when integrating the geophysical results with other datasets such as aerial imagery in GIS, and also ensures repeatability should further investigation of anomalies (e.g., test excavation) be required.

Table 1. Geophysical survey details

Technique	Instrumentation	Sensor spacing	Sample rate	Survey Area	Number of recorded data
Magnetic Gradiometry	Five-channel fluxgate gradiometer array	0.5m	50 Hz	c.1 ha.	56,724

7 Data Management, Processing and Interpretation

Gradiometry data was logged to a laptop computer and archived daily to an external hard drive. The collated data was processed using the following methodology:

- Real-time positioning of magnetometer data based on GPS measurements;
- Processing (Zero Mean Transect) of collated magnetometer data;
- Gridding (nearest neighbour interpolation); and
- Export of georeferenced greyscale images at optimum visual range

The processed data was imported into QGIS for final image production (Figures 6 & 7). Final geophysical datasets have been formatted as raster data models/GeoTiffs (projected to ITM, EPSG:2157) to enable subsequent geospatial analysis. Fieldwork, data processing and reporting adhered to the most up-to-date guidelines for conducting archaeo-geophysical surveys.⁷ All geophysical raster datasets will be digitally archived to best practice.⁸

⁷ Schmidt A., Linford P., Linford N., David, A., Gaffney C., Sarris A., and Fassbinder J. 2016. *EAC Guidelines for the Use of Geophysics in Archaeology: Questions to Ask and Points to Consider*. EAC Guidelines 2. [Online] Available from:

https://f64366e3-8f7d-4b63-9edf5000e2bef85b.filesusr.com/ugd/881a59_fdb1636e95f64813a65178895aea87cf.pdf

⁸ Niven, K. 2012. *Raster Images: A Guide to Good Practice*. Archaeology Data Service/Digital Antiquity, Guides to Good Practice. [Online] Available from: http://guides.archaeologydataservice.ac.uk/g2gp/RasterImg_Toc; & Schmidt, A. and Ernenwein, E. 2012. *Guide to Good Practice: Geophysical Data in Archaeology*. Oxford: Oxbow.

8 General Considerations and Complicating Factors

8.1 Access and Ground Conditions

The survey area comprises a small area of pasture. As noted above, a transformer box, with surrounding steel palisade fence, and gorse patches limited the area available for survey. Access to the site was from the east, through a large metal gate. The ground was heavily waterlogged in places, with modern metallic and other debris visible in places both on and protruding from the ground surface at the time of the survey.

8.2 Modern Interference

The dominant magnetic response registered across much of the survey area comprise multiple, large-scale 'ferrous-type' (dipolar) anomalies. These are particularly prevalent across the central and northern parts of the site and represent modern metal and other magnetised debris in the topsoils.

Areas of magnetic disturbance deriving from survey in proximity to wire fence, entrance gate and the transformer box and surrounding metal fence.

8.3 Natural Soil Variation/Ground Disturbance

In tandem with the mass 'ferrous-type' anomalies, amorphous zones of enhanced magnetism were also registered by the survey across the target land. Such responses may represent natural variations in the underlying (gley) soils, possibly, for instance, relating to poor drainage and a consequential build-up of humic/organic material. At the same time, moreover, they may also reflect disturbance from groundworks and other activity (e.g., agriculture) in recent times. This, coupled with the numerous ferrous responses, has had the unfortunate effect of 'masking' or 'hiding' any potential archaeological features that may be present.

9 Survey Results

Table 3. Survey results

Site name	Liscahane		
ITM (centroid)	527670, 589850		
Area surveyed	c.1 ha.		
Figure Numbers	6 & 7		
Anomaly Number	Form/nature of anomaly	Possible sources(s) of anomaly	Interpretative discussion
	Multiple, large-scale ferrous responses	Modern	Concentrations of iron debris and other magnetised material (e.g., fired brick) in topsoils.
	Amorphous zones of enhanced magnetism	Possible natural/modern	Natural variations in the underlying soils and/or ground disturbance.
	Areas of magnetic disturbance	Modern	Disturbance from entrance gate and the transformer box and surrounding metal fence.

10 Conclusion

No anomalies of archaeological potential were identified by the survey at Liscahane. The dominate responses recorded reflect modern activity relating, in the main, to the presence of iron litter and other magnetised material. Further complicating factors include likely ground disturbance, as well as magnetic disturbance from modern metallic features (e.g., the transformer box). This, together with possible natural variations in the underlying soils, means that geomagnetic methods are unable to establish whether any potential archaeological features may be present at the site.

10.1 *Statement of Indemnity*

The geophysical properties of sub-surface features must contrast sufficiently with the surrounding soils/background variation to enable them to be detected and mapped using geophysical methods. As such, the clarity and definition of buried features can vary considerably, with some having well-defined signatures while others are only barely visible, or not discernible, in geophysical imagery. A lack of geophysical anomalies cannot be taken to imply the absence of archaeological features.

The interpretations presented here are invariably provisional and further work (e.g., test trenching) is required to fully assess the nature and archaeological potential of the anomalies identified by the present investigation.

11 Figures

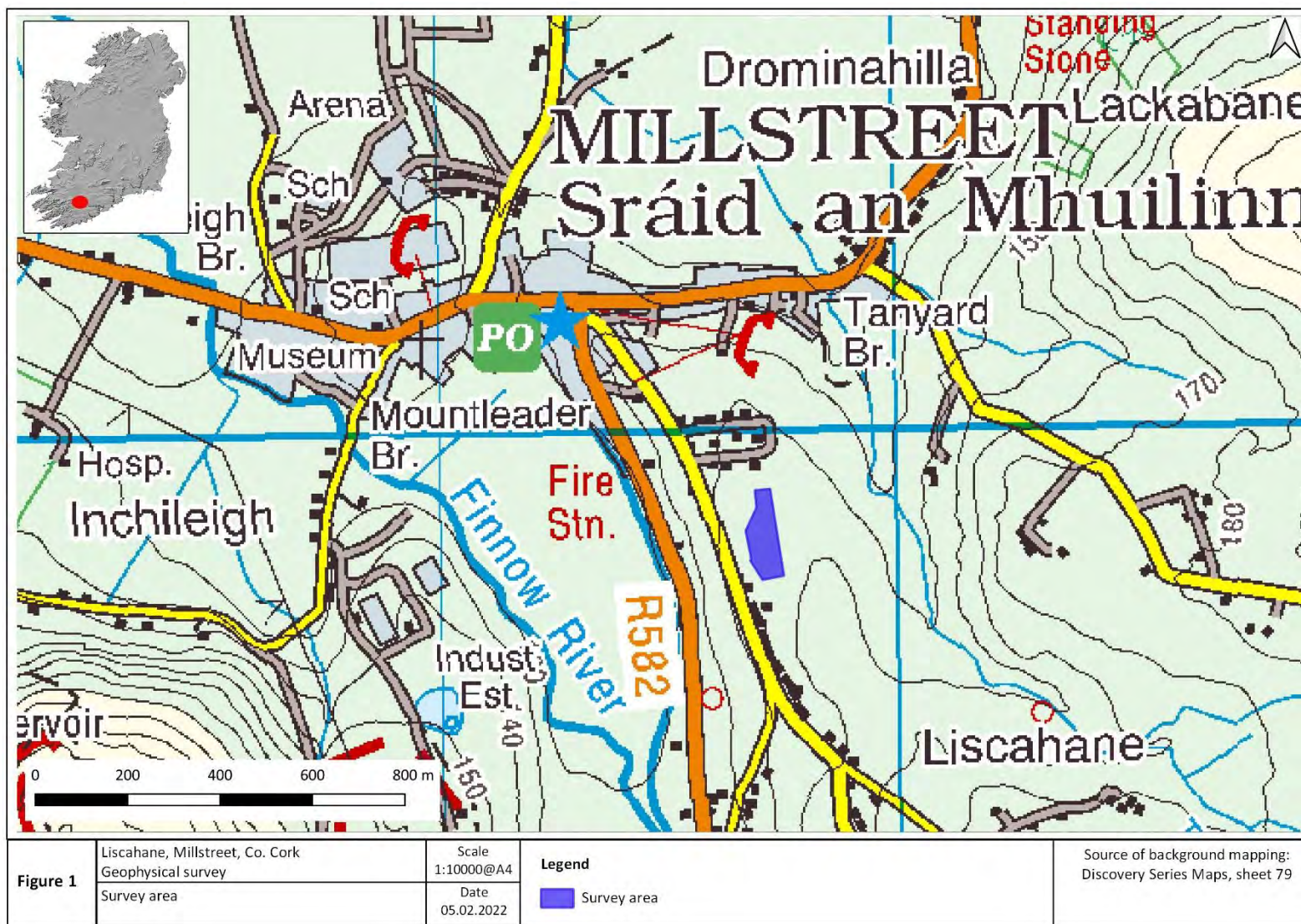


Figure 1. Site location map, showing survey area highlighted in blue.

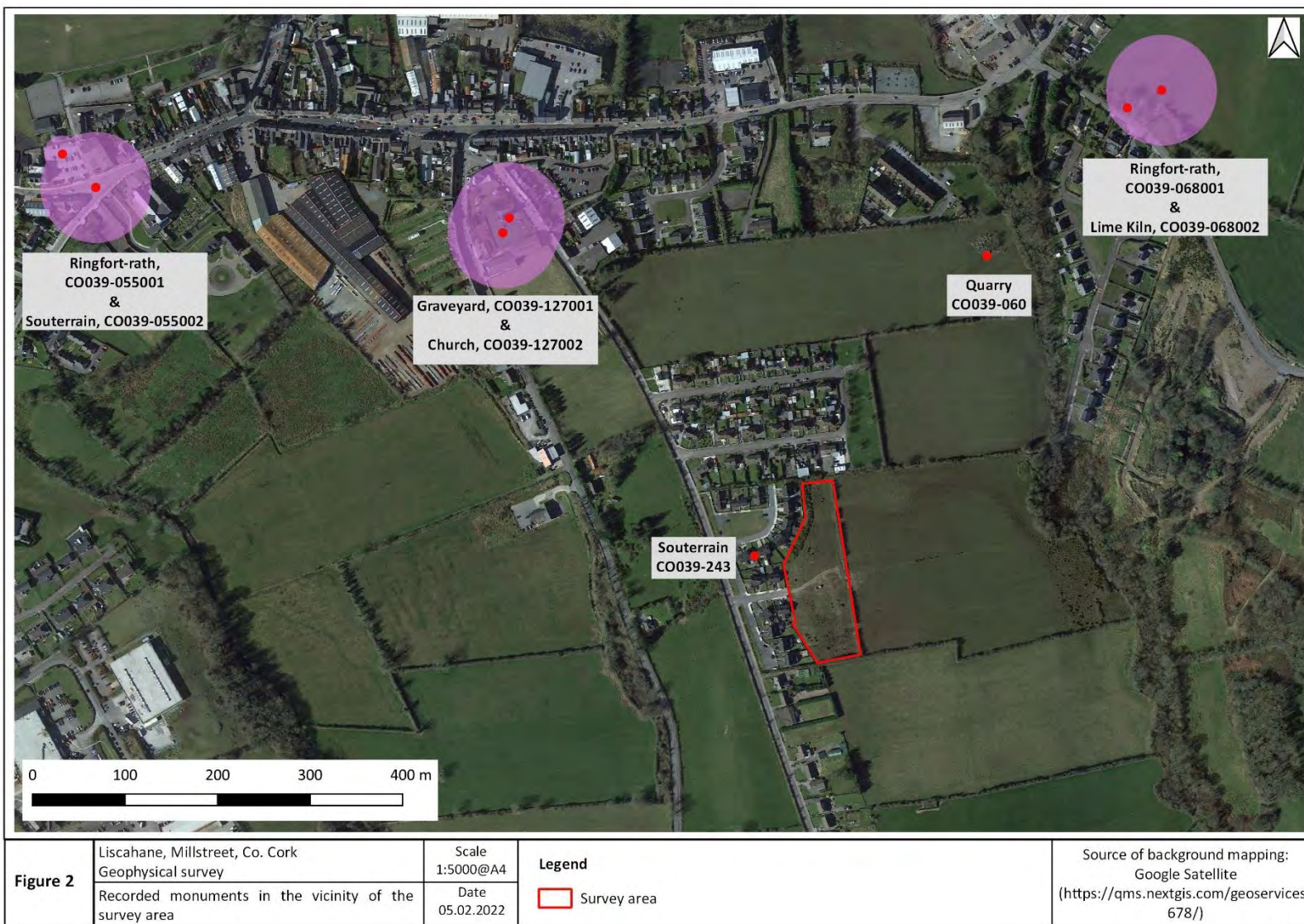


Figure 2. Location of recorded archaeological sites in the vicinity of the survey area.

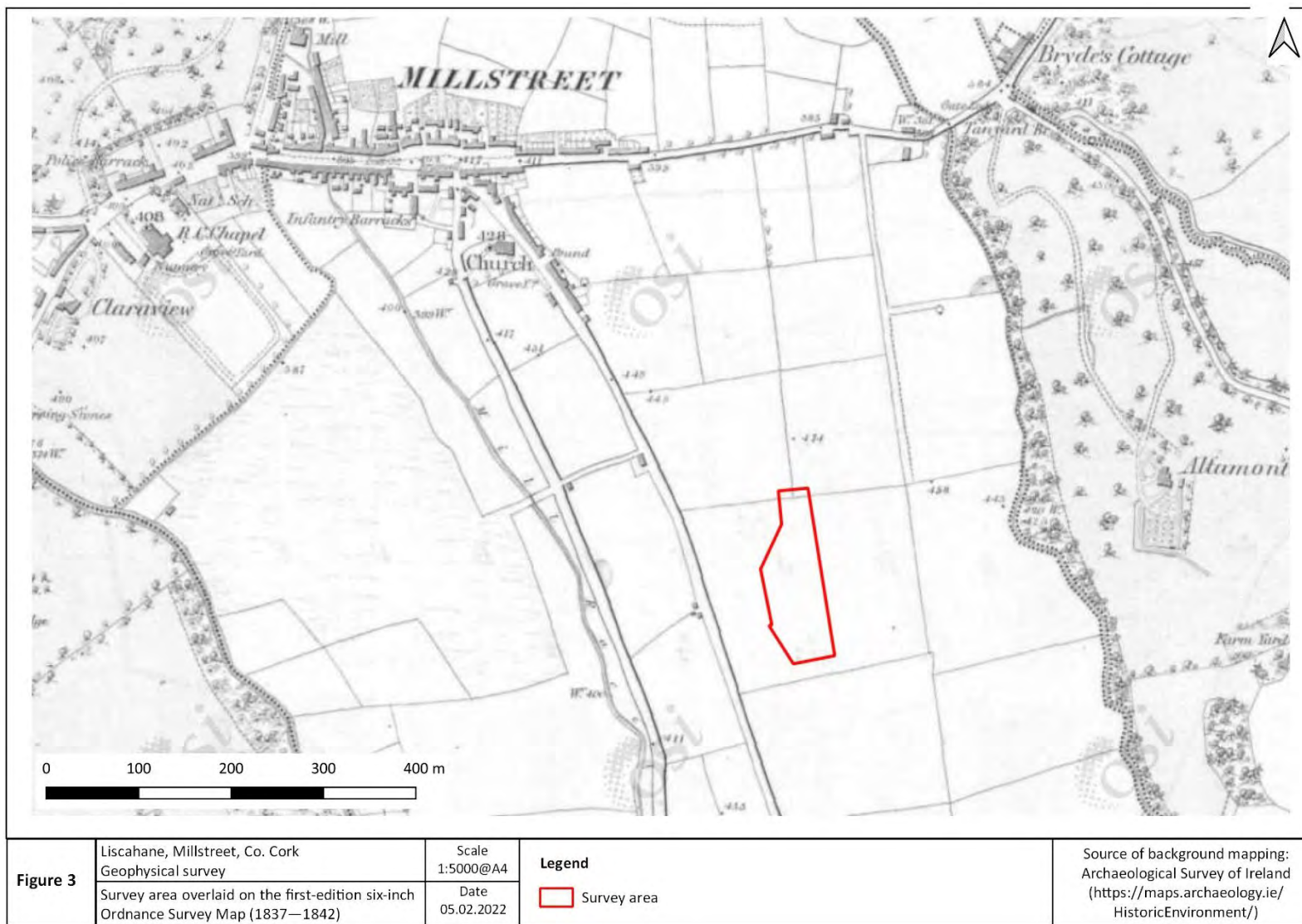


Figure 3. The survey area overlaid on the first-edition six-inch Ordnance Survey Map (1837—1842).

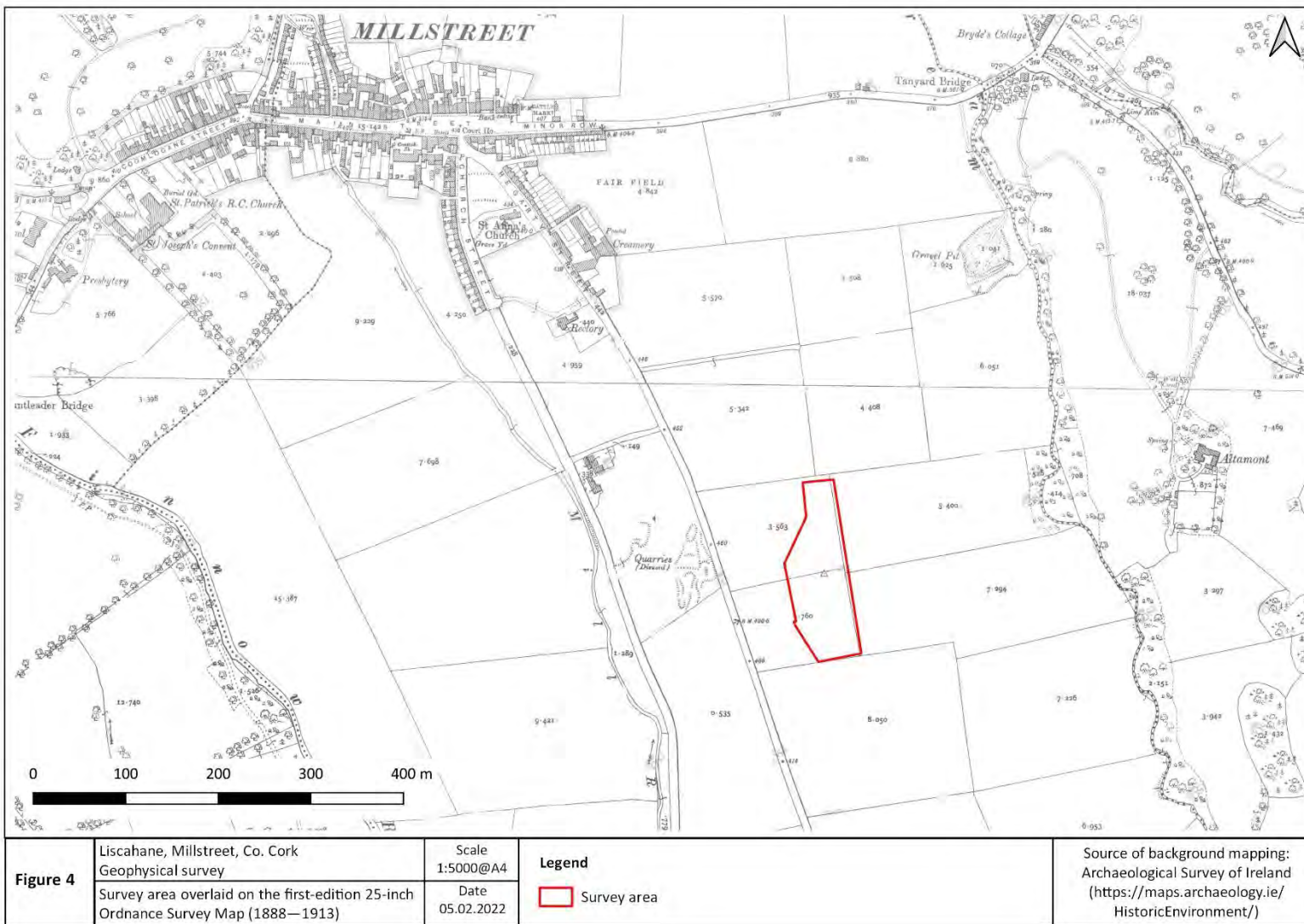


Figure 4. The survey area overlaid on the first-edition 25-inch Ordnance Survey Map (1888—1913).



Figure 5. Survey area.

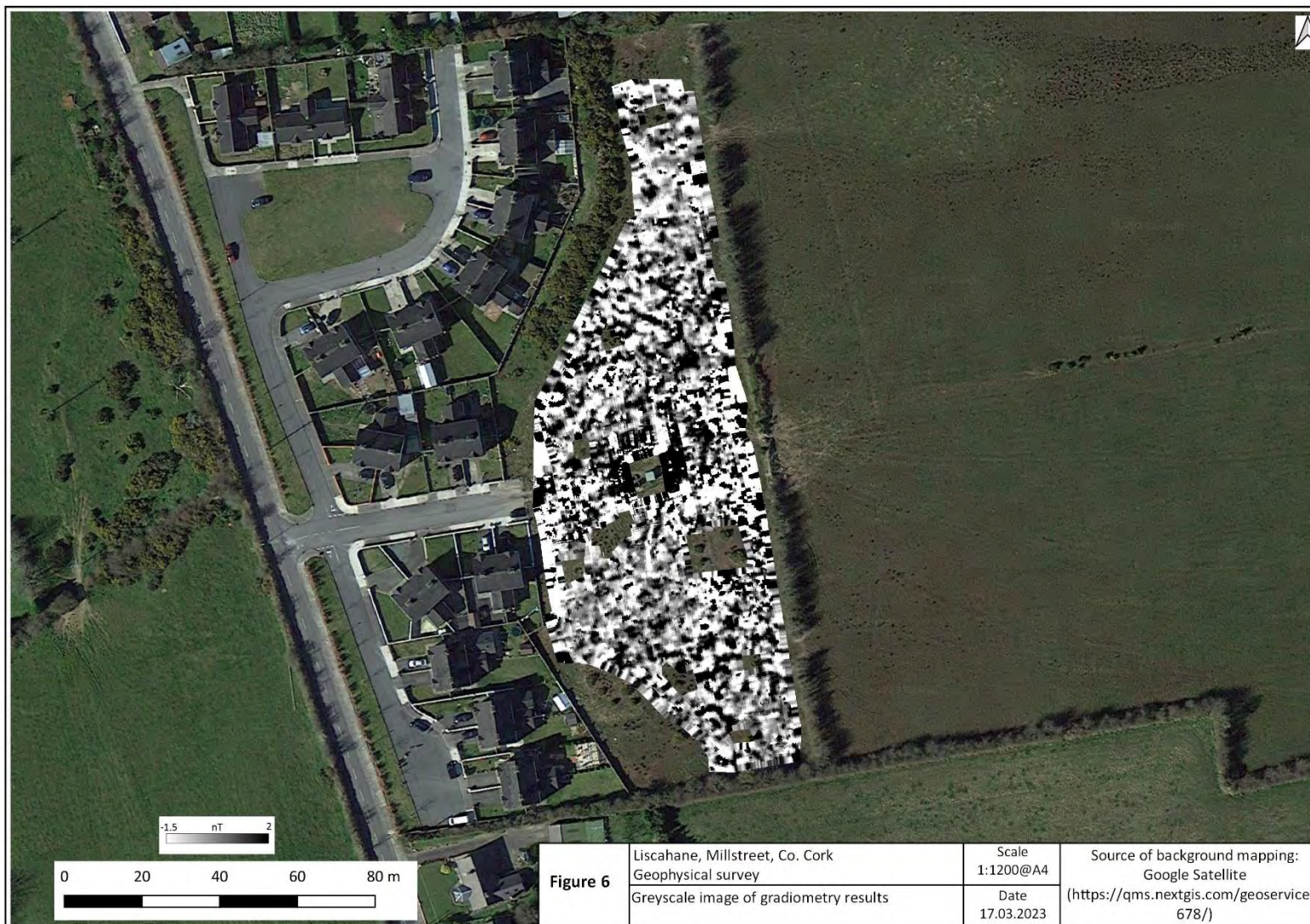


Figure 6. Greyscale image of gradiometry results.



Figure 7. Interpretative plan showing principal geophysical anomalies.

12 Plates



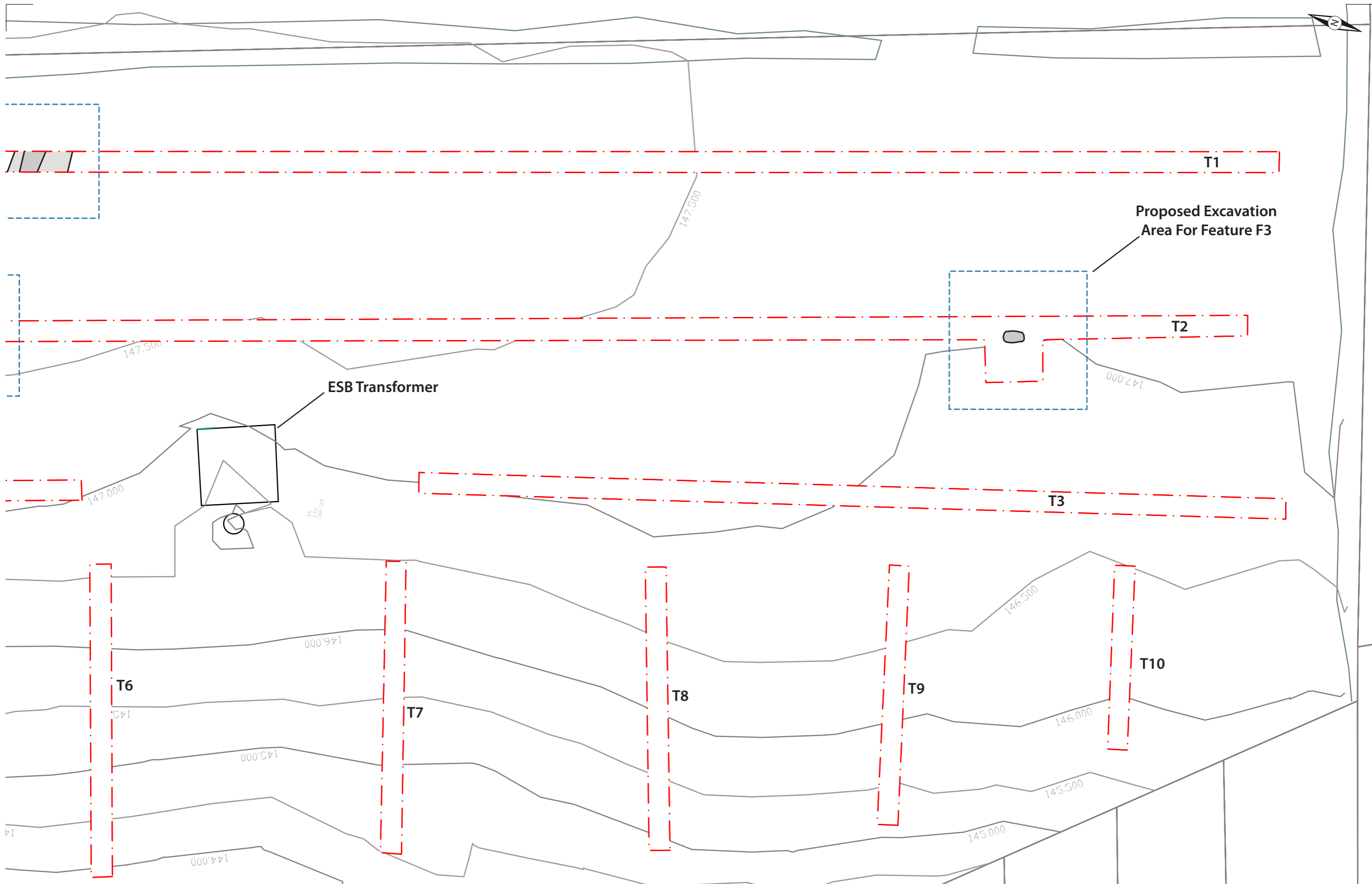
Plate 1. The survey area, viewed from the south.



Plate 2. The southern part of the survey area.



Plate 3. Transformer box and surrounding steel palisade fence, looking west.



DRAWING
09 Proposed Excavation Area for Feature F3

PROJECT: AIA of Part VIII Housing Development at Drishane Rd, Millstreet, Co. Cork
 CLIENT: Housing Directorate CCC

LICENCE: 23E0376
 DRAWN: RT
 CHECKED: DN
 DATE: 19-04-23
 SCALE: 1:250@A3
 SCALEBAR: 5m