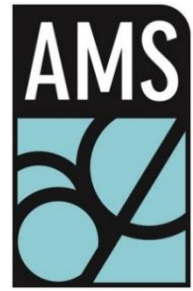


# Appendix C17.06a

## Archaeological Investigations (Testing) Programme Results

### TA1 Drumboe Lower Stage (i)a Test Excavation and Stage (i)h Metal Detection Survey Report

# Archaeological Consultancy Service Contract: Stage (i): TEN-T Priority Route Improvement: TA1 Drumboe Lower Updated Stage (i)a Test Excavation and Stage (i)h Metal Detection Survey Report



Prepared for Donegal County Council  
By Denis Shine and James McKee

Licence Nos.: 20E0455 and 20R0167

Updated July 2022

## TITLE PAGE

**AMS Job No.** J2077

**Project Name:** TEN-T Priority Route Improvement Project: Stage (i), Co. Donegal

**Licence Nos.** 20E0455 and 20R0167

**Townland:** Drumboe Lower

**Site Type:** Enclosure Site (adjacent the site of a possible church site (DG078-005))

**ITM:** 613389, 895433

**Archaeological Consultant:** Archaeological Management Solutions Ltd,  
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## Contents

<b>1</b>	<b>Introduction .....</b>	<b>8</b>
1.1	Brief Description of the Approved Scheme .....	8
1.2	Planning Background .....	8
1.3	Statutory Approvals .....	9
1.4	Previous Assessments and Documented Archaeological Sites .....	9
1.5	Archaeological and Environmental Context .....	9
<b>2</b>	<b>Methods.....</b>	<b>13</b>
2.1	Aims and Scope of Stage (i) Test Excavations .....	13
2.2	Survey and Excavation Methods.....	13
2.3	Finds Retrieval and Sampling Methods.....	14
2.4	Specialist Contributions and/or Consultations .....	15
2.5	Radiocarbon Dating.....	15
2.6	Conditions .....	15
2.7	Constraints on Methods .....	15
<b>3</b>	<b>Stage (i)a Test Excavation Results.....</b>	<b>16</b>
3.1	Drumboe Lower Results.....	16
<b>4</b>	<b>Metal Detection Survey .....</b>	<b>22</b>
4.1	Aims and Scope of the Stage (i)h Metal Detection Survey Services .....	22
4.2	Survey Methodology.....	22
4.3	Survey Constraints .....	22
4.4	Survey Results .....	22
<b>5</b>	<b>Discussion .....</b>	<b>24</b>
<b>6</b>	<b>Significance of Findings.....</b>	<b>25</b>
6.1	Drumboe Lower 1 .....	26
<b>7</b>	<b>Impact Statement &amp; Recommendations .....</b>	<b>27</b>
<b>8</b>	<b>Bibliography.....</b>	<b>28</b>
8.1	References .....	28
8.2	Cartographic Sources .....	28
8.3	Online and Other Resources .....	28
	<b>Appendix 1: List of Contexts .....</b>	<b>30</b>
	<b>Appendix 2: List of Finds.....</b>	<b>34</b>
	<b>Appendix 3: List of Samples.....</b>	<b>37</b>
	<b>Appendix 4: Radiocarbon Dating .....</b>	<b>38</b>
	<b>Appendix 5: Excavation Bulletin .....</b>	<b>40</b>

**Figures****Plates****List of Tables**

Table 1: Names of townlands which contain Testing Areas .....	8
Table 2: Documented Archaeological Sites subject to Stage (i)a Standard Test Excavations .....	9
Table 3: Recorded archaeological monuments within a 0.5km radius of TA1, Drumboe Lower .....	12
Table 4: Samples for priority radiocarbon dating on TEN-T Priority Route Improvement Project.....	15
Table 5: Trenches not completed .....	15
Table 6: Test trench detail .....	16
Table 7: Geophysical survey anomalies and corresponding features .....	18
Table 8: Artefacts recovered as a result of test excavation.....	21
Table 9: Artefacts recovered from Metal Detection Surveys .....	22

**List of Figures**

- Figure 1: Location of the Testing Areas on the TEN-T Priority Route Improvement Project
- Figure 2: TA-1 Drumboe Lower (Testing Area 1), Location showing impacted and surrounding RMP sites
- Figure 3: TA-1 Drumboe Lower, Trenching layout overlaid on 1st edition 6-inch OS map
- Figure 4: TA-1 Drumboe Lower, Trenching layout overlaid on 25-inch OS map
- Figure 5: TA-1 Drumboe Lower, Trenching layout overlaid on modern aerial photography
- Figure 6: TA-1 Drumboe Lower, Trenching layout overlaid on LiDAR survey
- Figure 7: TA-1 Drumboe Lower, Trenching layout overlaid on geophysical survey
- Figure 8: TA-1 Drumboe Lower, Trenching layout showing recorded features
- Figure 9: TA-1 Drumboe Lower, Trenching layout showing recorded features with geophysical survey
- Figure 10: TA-1 Drumboe Lower, Trenching layout in southern field showing recorded features with geophysical survey
- Figure 11: TA-1 Drumboe Lower, Features in Trench 43 and 45 with select section drawings

**List of Plates**

- Cover Plate: A drone shot of Stage (i)a works in progress at Drumboe Lower (September 2020)
- Plate 1: Metal detection survey in progress, facing northwest

- Plate 2: Example of hand-dug trench (T41); facing southwest
- Plate 3: Hand excavation in progress (southwest area); facing northwest
- Plate 4: Example of a machine dug trench (T1); facing south-southwest
- Plate 5: Recording in progress (T43)
- Plate 6: Pit [C.9] (T44); facing south
- Plate 7: North-facing section of pit [C.9] (T44); facing south
- Plate 8: Ditch fill C.10 (T43); facing west-northwest
- Plate 9: Enclosure ditch [C.11] (T45); facing south
- Plate 10: Enclosure ditch [C.11] (T45); looking down
- Plate 11: Enclosure ditch [C.11] (T43), cut by drains [C.18] and [C.19]; facing east
- Plate 12: Enclosure ditch [C.11] (T43), cut by drains [C.18] and [C.19]; facing southwest
- Plate 13: Enclosure ditch [C.11] (T43), cut by drains [C.18] and [C.19]; facing southeast
- Plate 14: Deposit C.20 (T43); facing southwest
- Plate 15: Spread C.21 overlying stone surface C.25, with furnace [C.26] to the north (T45); facing north
- Plate 16: Pit fill C.22 (T45); facing west
- Plate 17: Pit fill C.23 (T45); facing northwest
- Plate 18: Bowl furnace [C.26] (T45); facing northeast
- Plate 19: T45 showing array of recorded features; facing north
- Plate 20: Modern stone deposit C.7 (T16); facing east-southeast
- Plate 21: Modern stone pit [C.12] (T39); facing north
- Plate 22: Iron bloom from bowl furnace [C.26] (T45)
- Plate 23: Possible rotary quern fragment in drain [C.18] (T43)
- Plate 24: Possible saddle quern from topsoil (C.1 in T4)
- Plate 25: Possible rubbing stone from topsoil (C.1 in T43)

## Executive Summary

This updated report describes the results of Stage (i)a Standard Test Excavations and Stage (i)h Metal Detection Surveys in the townland of Drumboe Lower as part of the Archaeological Consultancy Services Contract of the TEN-T Priority Route Improvement Project. The works were commissioned by Donegal County Council as part of the design and environmental evaluation phase of the project. This road scheme is covered by the Code of Practice agreed between the Minister for Arts, Heritage, Regional, Rural and Gaeltacht Affairs (now the Minister for Housing, Local Government and Heritage) and Transport Infrastructure Ireland (TII) (TII 2017). TII nominated Orlaith Egan as Project Archaeologist with responsibility for the management of all archaeological aspects of the project.

The TEN-T Priority Route Improvement Project is part of the Trans-European Transport Network and comprises the construction of three sections of new road: Section 1: N15/N13 Ballybofey/Stranorlar Urban Region; Section 2: N56/N30 Letterkenny to Manorcunningham; and Section 3: N14 Manorcunningham to Lifford/Strabane/A5 link. Drumboe Lower, in Section 1, is one of five Testing Areas (TAs) along the preferred route of the TEN-T project which require Stage (i)a Test Excavations and Stage (i)h Metal Detection Survey Services. The results of works at the other TAs will be reported in separate reports, with works in each location being undertaken under different licence numbers.

The total Stage (i)a testing linear metres excavated at Drumboe Lower was 1,310m, representing a >12% sample of the greenfield area available for test excavations. During the Stage (i)a testing at Drumboe Lower, a single site of archaeological significance was found, comprising a probable early medieval enclosure and range of associated features; this site is adjacent the site of a possible church (DG078-005). Charred cereal (barley) from the upper fill of the enclosure produced a date of cal. AD 1048–1263. As a result of the test excavation process a total of seven stone objects were recovered and subsequently identified to type. In addition, a further seven metal objects were recovered as a result of the Stage (i)h Metal Detection Surveys at TA1 Drumboe Lower. The seven metal objects were assessed and identified where possible to find type.

The site at Drumboe Lower (Drumboe Lower 1) is located directly south of, and entirely outside, the limits of the proposed road take. However, the southern limits of the development are located in very close proximity to the monument recorded during testing and it is recommended that the limits of the road take in this area be fenced in advance of any groundworks to clearly delimit the development and prevent any accidental traffic damage to the subsurface archaeology. No further mitigation is proposed for Testing Area 1 at Drumboe Lower, subject to the scheme's final design not changing.

## Acknowledgements

This report has been prepared by Archaeological Management Solutions (AMS) on behalf of Donegal County Council.

All archaeological excavations and surveys and other relevant archaeological works required were carried out under a licence issued by the National Monuments Service (NMS) of the Department of Housing, Local Government and Heritage (formerly the Department of Culture, Heritage and the Gaeltacht), in consultation with the National Museum of Ireland (NMI).

Many thanks to Kate Robb, of John Cronin and Associates, for providing her working notes on historical research into Drumboe Lower, in advance of submitting an Environmental Impact Assessment Report (EIAR) for the scheme.

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## Disclaimer

The results, conclusions and recommendations contained within this report are based on information available at the time of its preparation. Whilst every effort has been made to ensure that all relevant data has been collated, the authors and AMS accept no responsibility for omissions and/or inconsistencies that may result from information becoming available subsequent to the report's completion.

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## Abbreviations and Definitions

Abbreviation	Definition
AMS	Archaeological Management Solutions
EIAR	Environmental Impact Assessment Report
GPS	Global Positioning System
ITM	Irish Transverse Mercator
NMI	National Museum of Ireland
NMS	National Monuments Service
OD	Ordnance Datum
OS	Ordnance Survey
RMP	Record of Monuments and Places
SMR	Sites and Monuments Record
TA	Testing Area
TII	Transport Infrastructure Ireland

## Coordinate System

All coordinates are in Irish Transverse Mercator (ITM)

## 1 Introduction

This report describes the results of Stage (i)a Test Excavations and Stage (i)h Metal Detection Survey Services in the townland of Drumboe Lower as part of the Archaeological Consultancy Services Contract of the TEN-T Priority Route Improvement Project (Figures 1–11). The works were commissioned by Donegal County Council as part of the design and environmental evaluation phase of the project.

This road scheme is covered by the Code of Practice agreed between the Minister for Arts, Heritage, Regional, Rural and Gaeltacht Affairs (now the Minister for Housing, Local Government and Heritage) and Transport Infrastructure Ireland (TII) (TII 2017). TII nominated Orlaith Egan as Project Archaeologist with responsibility for the management of all archaeological aspects of the project.

### 1.1 Brief Description of the Approved Scheme

The TEN-T Priority Route Improvement Project is part of the Trans-European Transport Network and comprises the construction of three sections of new road: Section 1: N15/N13 Ballybofey/Stranorlar Urban Region; Section 2: N56/N30 Letterkenny to Manorcunningham; and Section 3: N14 Manorcunningham to Lifford/Strabane/A5 link. Drumboe Lower, in Section 1, is one of five TAs along the preferred route of the TEN-T project which require Stage (i)a Test Excavations and Stage (i)h Metal Detection Survey Services. The results of works at the other TAs will be reported in separate reports, with works in each location being undertaken under different licence numbers.

**Table 1: Names of townlands which contain Testing Areas**

Testing Area	Townland	Civil Parish	ITM	Licence Nos.
TA1	Drumboe Lower	Stranorlar	613410, 895454	20E0455 and 20R0167
TA2	Trimragh and Drumgreggan	Leck	621237, 911224	20E0501 and 20R0183
TA3	Carnshannagh	Drumcliffe	628587, 904423	20E0502 and 20R0184
TA4	Murlough	Drumcliffe	631615, 899290	20E0487 and 20R0182
TA5	Curragehalane	Drumcliffe	632263, 897206	20E0503 and 20R0185

### 1.2 Planning Background

Stage (i)a Test Excavations and Stage (i)h Metal Detection Survey Services in the townland of Drumboe Lower were undertaken to provide further information as part of the design and environmental evaluation phase of the TEN-T Priority Route Improvement Project, Co. Donegal.

The investigations described herein are at one of five areas along the preferred route of the TEN-T project and include the areas as listed in Table 1 above.

### 1.3 Statutory Approvals

The test excavations detailed in this report were carried out under Licence No. 20E0455 (Test Excavations). The metal detection survey was undertaken under Licence No. 20R0167. Permits were issued by the Department of Culture, Heritage and the Gaeltacht (now Department of Housing, Local Government and Heritage) in consultation with the National Museum of Ireland (NMI).

### 1.4 Previous Assessments and Documented Archaeological Sites

There have been no previous intrusive archaeological investigations for the TEN-T project. An Environmental Impact Assessment Report (EIAR) is currently being prepared by Kate Robb of John Cronin and Associates but was not available at the time of writing. Geophysical and LiDAR assessments undertaken in 2020 are described in further detail below.

A total of five documented archaeological sites were subject to Stage (i)a Standard Test Excavation Services, as listed in Table 2 below.

**Table 2: Documented Archaeological Sites subject to Stage (i)a Standard Test Excavations**

TA No.	Townland	RMP No	ITM	Classification
TA1	Drumboe Lower	DG078-005	613410, 895454	Site of Church
TA2	Trimragh and Drumgreggan	DG53-028 and DG053-28001	621237, 911224	Site of Church and Graveyard
TA3	Carnshannagh	DG062-024	628587, 904423	Site of Enclosure
TA4	Murlough	DG070-048	631615, 899290	Site of Standing Stone
TA5	Curraghalane	DG070-082	632263, 897206	Souterrain

### 1.5 Archaeological and Environmental Context

The proposed route for the new road partially traverses the northwest corner of a field known locally as the ‘Abbey Field’ (Gallinagh 2015, 63), which contains a Recorded Monument (DG078-005) listed as a ‘Church’. The abbey is recorded as having been founded in the sixth or seventh century by Mochonna, the brother of St Mura of Fahan (c.550–645) (O’Donovan 1835, 181), although no reference is made to Mochonna or Drumboe in “The Martyrdom of Donegal” (1864), a text translated from the original Gaelic by O’Donovan himself. No upstanding remains survive and whilst very little is known of the site, research combining local history articles, cartography and folklore collections indicate an Abbey was founded on the site in the sixth or seventh century and existed, albeit in a ruined form, until possibly as late as the eighteenth century. The research presented here will be elaborated upon following the completion and submission of the EIAR associated with the TEN-T project.

The SMR records the church site (DG078-005) as follows: “Traditionally believed to be the site of an 'Abbey' and marked as the site of a church on the OS 6-inch maps, there are no traces of any antiquity. The site is located in the valley of the River Finn in excellent but now wooded land”.

An examination of the existing cartography shows no trace of an abbey or church is indicated on the first-edition six-inch Ordnance Survey (OS) map (1836). The site is shown as undeveloped agricultural land divided into rectangular and square fields. The steeply sloping area at the southwestern corner of the development area is indicated as wooded at this time. The 25-inch OS map (c.1905) does indicate a ‘*Church (Site of)*’, as does the six-inch Cassini third-edition OS map (c.1940). These maps also indicate some realignment and removal of field boundaries since the time of the first edition.

A series of earlier maps suggest the survival of a church building at the site until the eighteenth century. The scale of these maps is extremely varied, and they are lacking detail; as such, the location is deduced by depicted neighbouring towns and surrounding topographical features. These maps include:

- The Provenance of Ulster, Francis Jobson (1590)
- Map of TirConnell, John Norden (c.1608), as mentioned by O’Donovan in the Ordnance Survey Letters
- *Ultonia; hibernis Cui-Gvilly; anglis Vlster* by Joan Blaeu (1654)
- *Regnum Hiberniae divisum in quatuor partes quae sunt Ultonia, Conachia, Lagenia, et Momonia quae et sunt divisae in omnes suos comitatus* [‘Kingdom of Ireland divided into Four Parts...’] by Frederik de Wit (1680)
- Maps of the Roads of Ireland, Taylor and Skinner (1777)

The earliest map showing a structure on the site location dates to 1590. Cartographer Francis Jobson’s map of the Provenance of Ulster depicts a possible church/abbey at a bend on the River Finn which is likely to correspond to the location of the Abbey Field at Drumboe Lower, notably at the north bank of a similar bend of a river. Unfortunately, the text on the map accompanying the illustrated structure is indecipherable.

The Ordnance Survey Letters by John O’Donovan (1834–41) note the site’s depiction on Norden’s Map of TirConnell dating from c.1608. An examination of a copy of this map proved unable to verify this.

The next clear cartographic appearance of the site is in 1654 in Dutch cartographer Joan Blaeu’s ‘Map of Ulster’. The townland of Drumboe Lower is indicated on the map and beside this text a church structure is illustrated, again located at the northern banks of a bend in the River Finn.

Another Dutch cartographer, Frederik de Wit, created a ‘Map of Ireland divided into Four Provinces’ which was included in the *Atlas Novas* published in 1680. De Wit’s map covers the entirety of Ireland

in considerable detail, and again features a structure at *Drumboe Lower* on the northern banks of the River Finn.

Taylor and Skinner's *Maps of the Roads of Ireland* (1777) depicts a tall structure at a bend in the River Finn at Drumboe Lower. The 'X' depicted at the top of the structure may, however, be indicative of a windmill, so it remains unclear that this is an illustration of a church/monastery structure. An examination of all available mapping post-1777, such as John Rocque's Map of Ireland (1794), William McCrea's Map of Donegal (1796), John Pinkerton's Map (1813) and the first-edition six-inch OS map (1836), revealed no depiction of a structure or structural ruins at the location of the site. The site appears again on mapping in Griffith's Valuation dated between 1848–64 as a dashed rectangle annotated '*Site of Church*'. Subsequent mapping of c.1905 and c.1940, the 25-inch and Cassini OS maps respectively, depict the site as a simple cross annotated '*Church (Site of)*'.

The John O'Donovan Ordnance Survey Letters (1834–41) which mentioned the site's depiction on Norden's Map of TirConnell dating from c.1608 also record some other detail on Drumboe Lower. O'Donovan credits Mochonna as the abbot (according to the life of his brother, St Mura of Fahan) and notes that O'Donnell camped at the site in 1490 (O Donovan 1835, 181); the latter account cites the Annals of the Four Masters which record O'Donnell's troops as camping at the site from 'November Day to Christmas to wit'<sup>1</sup>; the annals also mention Drumboe Lower as on the fringes of the Battle of Craebh-tulcha in 1003.<sup>2</sup>

No mention of the townland of Drumboe Lower or its monastic ruins is made in Lewis's 1837 Topographical Dictionary of Ireland. Local historian Tony Gallinagh (2015, 63) proposes that the abbey site was not destroyed until 'plantation times' and also recalls the site of a holy well in the adjoining woodland, which was visited by sick and elderly people 'in his lifetime'; this well is not listed on the RMP but is mentioned in the Folklore Collection. The well is also listed in the SMR (DG078-005001-) as an '[un]located holy well within the townland of Drumboe Lower... located close to the site of Drumboe Monastery (DG078-005)'. Ó Muirgheasa also records the well, as no 76 in his survey, as the 'Abbey Well', noting its proximity to the monastery (Ó Muirgheasa 1936, 155). Gallinagh argues that stone from the monastery, including grave markers, were only removed at the time Drumboe Estate was established to be incorporated into the construction of estate buildings and field boundaries.

The Irish Folklore Commission's Schools Collection was a state-wide project between 1937 and 1939 that enlisted schoolchildren to collect folklore in their local districts, recorded from their parents,

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<sup>1</sup> U1490.26 <https://celt.ucc.ie/published/G100001C/text113.html>

<sup>2</sup> M1003.12 <https://celt.ucc.ie/published/T100005B/text011.html>

grandparents and neighbours. It has proven to be an invaluable record of oral history, topographical information, folklore and legends. The Schools Collection contains numerous entries on Drumboe Lower relating to the holy well and abbey/monastery, as well as Drumboe Castle and woods. One entry records a monastery as having existed on the site in the ‘middle ages’, and that the Hayes family, the residents of Drumboe Castle from 1789–1912, “wiped out nearly all traces of Drumboe monastery”. This account coincidences with the absence of any cartographic evidence from the end of the eighteenth century. The account also notes that “in recent times objects have been found which indicate the spot where the monks once laboured”. Veering towards the supernatural, the account goes on to relate the apparition of monks walking at the site with candles at 12 midnight on ‘bonfire night’.<sup>3</sup> The well is also documented in two entries which record it as ‘sprouting’ from a branch placed in rock by a priest<sup>4</sup>, and another which documents the association of the well and abbey and bad luck which befell a landlord for sealing the well.<sup>5</sup>

**Table 3: Recorded archaeological monuments within a 0.5km radius of TA1, Drumboe Lower**

SMR No.	Townland	Classification	ITM
<b>DG078-005</b>	Drumboe Lower	Church	613389, 895443
<b>DG078-005001-</b>	Drumboe Lower	Ritual site - holy well	613389, 895443

<sup>3</sup> The Schools’ Collection, Volume 1096, 38, <https://www.duchas.ie/en/cbes/4493703/4413004>

<sup>4</sup> The Schools’ Collection, Volume 1096, 67, <https://www.duchas.ie/en/cbes/4493703/4413141>

<sup>5</sup> The Schools’ Collection, Volume 1096, 77, <https://www.duchas.ie/en/cbes/4493703/4413151>

## 2 Methods

### 2.1 Aims and Scope of Stage (i) Test Excavations

The overall aim of Stage (i)a Test Excavations was to ascertain the location, nature, date, character, extent and significance of any archaeological features or deposits that may be present in the areas assigned for testing. In this way, the horizontal extent of all archaeological sites/features/deposits and the vertical extent of archaeological stratigraphy could be established and a preliminary report on the findings produced.

Stage (i)a Test Excavation Services were carried out across a minimum of 12% of the testable greenfield areas and also targeted anomalies recorded in the geophysical survey undertaken between May and October in 2020 (Gimson 2020).

### 2.2 Survey and Excavation Methods

The Stage (i)a Test Excavations undertaken within the footprint of the Testing Area were carried out by a single team, utilising one mechanical excavator, working under the direction of James McKee and Ed Danaher. Apart from the directors, the team consisted of a supervisor, three site assistants and a logistics officer. Survey services were provided by Ger Dowling. The Senior Archaeologist on the project was Denis Shine.

The Stage (i)a Test Excavations took place at Drumboe Lower between 31 August and 4 September 2020, when Stage (i)h Metal Detection Surveys were also completed. Stage (i)h Metal Detection Surveys were completed across all other TAs the week commencing 14 September 2020. The metal detection surveys were completed by Ed Danaher and Ger Dowling, with additional metal detection undertaken on the trench spoil by the testing team (see below).

The total area available for test excavations at Drumboe Lower was originally 4.75 greenfield hectares, across three fields (the northernmost of which was also divided further by paddock fencing).

A proposed (indicative) test trench layout was set out in the testing Method Statement submitted to the National Monuments Service (NMS) on 6 August 2020 (Egan 2020). Excavation Licence 20E0455 and Detection Licence 20R0167 were subsequently transferred to James McKee and Ed Danaher respectively on 1 September 2020.

In general, the test trenching layout followed a standard array consisting of a centreline trench in each field with offset trenches at right-angles, at regular intervals and to the limits of the footprint of the field. In some places, the layout was adapted to target features identified either through geophysics or during the course of testing and to ensure adequate testing of available lands. Hand-dug trenches

in the southern field specifically targeted geophysical anomalies associated with church site DG078-005. The location of each test trench was 'set-out' and re-surveyed after excavation, where required, using GPS equipment by the AMS surveyor Daniel Keane (see below).

As part of the investigations, topsoil was removed from the test trenches by a 13-tonne 360° mechanical excavator equipped with a toothless grading bucket working under the direct and continuous supervision of an Excavation Director. Where archaeologically significant features were identified, these were cleaned and tested by hand. Context numbers were used sequentially at each site, starting from number 1. A written and photographic record was prepared of identified features, and all trenches and features were surveyed using a Leica Viva GS20 with smart antenna GPS and related to Ordnance Datum (OD) and the Irish Transverse Mercator Grid (ITM).

The testing areas were assessed and recorded in accordance with the archaeological Method Statement, the contract with Donegal County Council and in a manner consistent with the Code of Practice agreed between TII and the Minister for Arts, Heritage, Regional, Rural and Gaeltacht Affairs (TII 2017). A full list of features and finds recovered are included in the appendices.

### 2.3 Finds Retrieval and Sampling Methods

Every effort was made to ensure the highest possible level of identification and retrieval of archaeological objects in the course of excavations. Archaeological objects of all periods were retained at each TA, with the exception of obvious 'scrap' or modern metal. In total, seven finds were recovered from Drumboe Lower during archaeological testing (including a saddle quern, a granite rubbing stone and a granite rotary quern fragment) an additional seven metal finds (20E0455:1:6–12) were also retained during metal detection surveys (see appendices).

The treatment of artefacts complied with the policies of the NMI as set out in *Advice Notes for Excavators* (NMI 2010) and the Code of Conduct for the Treatment of Archaeological Objects ratified by the Institute of Archaeologists of Ireland (IAI 2006).

None of the finds recovered during the works required immediate conservation; however, provision was made for this during the works, as required and set out in the Method Statement.

Finds were housed temporarily on-site and following this at the AMS Head Office where they are currently stored. The storage of artefacts has been undertaken in accordance with the *Advice Notes for Excavators* (NMI 2010).

## 2.4 Specialist Contributions and/or Consultations

As a result of the test excavation process a total of seven stone objects were recovered. The seven stone objects were examined by Conor Brady to provide an identification where possible and to ascertain typology and geological composition (Table 8). The results of Conor's assessment have been incorporated into this report (Appendix 2). In addition, a further seven metal objects were recovered as a result of the Metal Detection Surveys at TA1 Drumboe Lower (Table 9). The seven metal objects were assessed and identified where possible to find type by Orla Scully. The results of Orla's assessment have been incorporated into this report (Appendix 2).

## 2.5 Radiocarbon Dating

As part of the Stage(i)a works, samples from select contexts at three of the five sites investigated on the TEN-T Priority Route Improvement Project were forwarded to the <sup>14</sup>CHRONO Centre, Queens University Belfast for priority radiocarbon dating. The nominated sites were Drumboe Lower 1, Carnshannagh 1 and Curraghalane 1&2 (Table 4).

**Table 4: Samples for priority radiocarbon dating on TEN-T Priority Route Improvement Project**

Site name	Site type	Sample No.	Context	Sample type
Drumboe Lower 1	Enclosure	6	C.17: fill of enclosure ditch C.11	Barley ( <i>Hordeum vulgare</i> )
Carnshannagh 1	Settlement, possible	1	C.12: fill of pit C.11	Barley ( <i>Hordeum vulgare</i> )
Curraghalane 1 & 2	Enclosure	3	C.6: upper fill of enclosure ditch C.27 (Curraghalane 1)	Barley ( <i>Hordeum vulgare</i> )
Curraghalane 1 & 2	Settlement, possible	2	C.12: fill of pit C.54 (Curraghalane 2)	Hazel ( <i>Corylus</i> )

## 2.6 Conditions

The weather conditions during the Stage (i) works comprised a mixture of dry and wet days, with heavy rain on a number of days during archaeological testing.

## 2.7 Constraints on Methods

There were no significant constraints encountered during Stage (i)a works.

**Table 5: Trenches not completed**

Trenches	Reason not excavated
N/A	At Drumboe Lower all planned trenches were completed.

### 3 Stage (i)a Test Excavation Results

The total linear metres excavated was 1,310m (Figures 3–9, Plates 2–5), representing a >12% sample of the greenfield area available for test excavations. During the Stage (i)a testing, a single archaeological site, consisting of a bivallate enclosure and associated features, was identified.

#### 3.1 Drumboe Lower Results

<u>Site Name</u>	<b>Drumboe Lower 1</b>
ITM	613389, 895433
Townland	Drumboe Lower
No. of Trenches	45
Total Meterage	1,310m

##### 3.1.1 Summary

Drumboe Lower's Testing Area comprised three large pasture fields, some of which are further divided by post and wire fencing. An overhead powerline traverses the southern portion of the TA, running along an east to west orientation. The topography of the TA is gently undulating with a steeper slope at its southwestern corner. The site is elevated with good visibility especially to the west toward the Bluestack Mountains and southwest to Barnes More Gap.

As stated, a full programme of trenching was completed, with several hand-dug trenches excavated closest to the church site (DG078-005). In total, 45 test trenches were excavated, totalling 1,310 linear metres (Figures 6–11; Plates 2–21). The topsoil (C.1) ranged, on average, from 0.20m to 0.50m in depth, being deeper towards the base of slopes and was a mid brown sandy and stony clay. The natural subsoil (C.2) was predominantly a light orangey-brown sandy clay.

**Table 6: Test trench detail**

Area	Trench	Length (m)	Width (m)	Archaeological Features	Non-Archaeological Features
N Field	1	188	1.8	N/A	N/A
N Field	2	19	1.8	N/A	N/A
N Field	3	54	1.8	N/A	N/A
N Field	4	19	1.8	N/A	N/A
N Field	5	59	1.8	N/A	N/A
N Field	6	21	1.8	N/A	N/A
N Field	7	26	1.8	N/A	N/A
N Field	8	26	1.8	N/A	N/A
N Field	9	31	1.8	N/A	N/A
N Field	10	53	1.8	N/A	N/A
N Field	11	31	1.8	N/A	N/A

Area	Trench	Length (m)	Width (m)	Archaeological Features	Non-Archaeological Features
N Field	12	17	1.8	N/A	N/A
N Field	13	31	1.8	N/A	N/A
N Field	14	44	1.8	N/A	N/A
N Field	15	35	1.8	N/A	N/A
N Field	16	43	1.8	N/A	Y
N Field	17	22	1.8	N/A	N/A
N Field	18	24	1.8	N/A	N/A
N Field	19	23	1.8	N/A	N/A
N Field	20	34	1.8	N/A	N/A
N Field	21	31	1.8	N/A	N/A
N Field	22	33	1.8	N/A	N/A
N Field	23	33	1.8	N/A	N/A
N Field	24	35	1.8	N/A	N/A
N Field	25	33	1.8	N/A	N/A
N Field	26	35	1.8	N/A	N/A
N Field	27	33	1.8	N/A	N/A
N Field	28	24	1.8	N/A	N/A
N Field	29	26	1.8	N/A	N/A
N Field	30	17	1.8	N/A	N/A
N Field	31	13	1.8	N/A	N/A
N Field	32	10	1.8	N/A	N/A
W Field	33	39	1.8	N/A	N/A
W Field	33b	5.5	1.8	N/A	N/A
W Field	33c	5.5	1.8	N/A	N/A
W Field	33d	5	1.8	N/A	N/A
N Field	34	4	1.8	N/A	N/A
N Field	35	4	1.8	N/A	N/A
N Field	36	4	1.8	N/A	N/A
S Field	37	5.5	1.8	N/A	N/A
S Field	38	5	1.8	N/A	N/A
S Field	39	17	1.8	N/A	Y
S Field	40	12	1.8	N/A	N/A
S Field	41	9.5	1.8	N/A	N/A
S Field	42	12	1.8	N/A	N/A
S Field	43	24	1.8	Y	N/A
S Field	44	4	1.8	Y	N/A
S Field	45	31	1.8	Y	N/A

### 3.1.2 Geophysical Survey

In 2020, several anomalies were identified at Drumboe Lower (Figure 7) in geophysical surveys carried out by Heather Gimson (Earthsound Geophysics: licence 20R0078) to investigate numerous archaeological areas and potential archaeological areas within and adjacent to the preferred routes of the TEN-T Project. In order to achieve the best possible results, the geophysical survey was undertaken using a combination of survey techniques; Earth Resistance (ER) Survey, Magnetic Gradiometer (MG) Survey, and Ground Penetrating Radar (GPR) Survey. The combined techniques mitigated against magnetic interference due to geological conditions and greatly added to the number of anomalies detected. A total of 200 anomalies were identified at the TA1 site. Preliminary results revealed an archaeological site with a large multi-ditched enclosure, enclosing numerous potential internal archaeological features, interpreted as possible pits, structural remains and graves. Potential archaeological features were also identified outside the enclosure to the northwest. These features were interpreted as associated with church site DG078-005 and suggestive of an early monastic enclosure at TA1, possibly with associated external features to the northwest.

An abundance of high and low resistivity responses and trends were detected across TA1. Extensive targeted testing focused on these readings. In many cases investigation showed the readings to be geological or ferrous in nature; however, in the case of three trenches (Trenches 43–45), a substantial archaeological area was revealed.

A number of features identified through targeted test trenching corresponded with anomalies identified during the geophysical surveys, in some case from a number of different survey techniques. A large outer enclosure ditch [C.11] was confirmed that corresponded with Anomalies Nos. 11, 158 and 162, and a land drain [C.18] cut into [C.11] also corresponded with Anomaly 15. Internal ditch/linear C.10 corresponded with Anomaly 21. The concentration of features found in the southern end of Trench 45 (spread C.21, probable pits C.22 and C.23, bowl furnace C.24, and metallated surface C.25) all corresponded with Anomaly 19 and Anomaly 87. The significant anomalies which correspond with revealed features are summarised below (Table 7).

**Table 7: Geophysical survey anomalies and corresponding features**

Feature/ Context No.	Anomaly Ref	Form of Anomaly	Description	Technique
Internal ditch/ linear C.10	21	Two arcing low resistivity anomalies	Two sections of an oval enclosure ditch. Bounding an area 31m in diameter these anomalies are likely to be archaeological in origin.	Earth Resistance
Ditch [C.11]	11	Arcing low resistivity anomaly	Arcing ditch which represents a probable enclosure ditch. Measuring 71m in length and c.3m in width, this anomaly is likely to extend	Earth Resistance

Feature/ Context No.	Anomaly Ref	Form of Anomaly	Description	Technique
			into anomaly 12 (another arcing ditch 46m in length).	
	158	Medium depth – large oval anomaly	Oval archaeological enclosure ditch. Measuring 57m N–S and c.75m E–W this ditch represents the outer enclosure of a potential monastic site. Contained within 158 are two further possible defensive elements	Combined Ground Penetrating Radar
	162	Medium depth – two curvilinear anomalies	Two curvilinear anomalies which were detected on the inside of anomaly 158. These features may represent a ditch or bank or may be associated with boundary ditches 158 or 161	Combined Ground Penetrating Radar
Drain [C.18]	158	Medium depth – large oval anomaly	Oval archaeological enclosure ditch. Measuring 57m N–S and c.75m E–W this ditch represents the outer enclosure of a potential monastic site. Contained within 158 are two further possible defensive elements	Combined Ground Penetrating Radar
Spread C.21, Probable Pits C.22 and C.23, Bowl furnace C.24, Metalled Surface C.25	19	Three isolated low resistivity anomalies	Three large possible pits located within enclosure (Anomalies 11–14). Measuring between 4m and 7m in width, these are probably archaeological in origin.	Earth Resistance
	87	Series of highly magnetic anomalies	Series of features which suggest burnt material. These form possible structural remains. 16 x 13m.	Magnetic Gradiometer

The archaeological investigations here were carried out with particular reference to the identified geophysical anomalies. Whilst the outer enclosure [C.11] and internal ditch/linear C.10 were confirmed, as well as several internal features, no structural features or grave cuts were encountered.

### 3.1.3 LiDAR Survey

An archaeological LiDAR survey was also commissioned for the TEN-T Project by Donegal County Council to capture low- and high-resolution data to assist with the archaeological assessment of the TEN-T study area as part of the Design and Environmental Assessment Phase. The archaeological LiDAR data was captured and provided by BlueSky and subsequently assessed by Dr Richard Clutterbuck of AMS (Clutterbuck 2020). This survey identified two possible LiDAR sites at Drumboe Lower (Figure 6) as follows:

- [L123-1] – ‘a roughly rectangular enclosed area measuring 70m by 43m; with surrounding banks c.0.4m high and c.12m wide, having an internal irregular area 27m E-W by 18m N-S, 0.3m high possibly corresponding with the church. Possible annex to N measuring 67m E-W by 28m N-S and banks c.10m wide and c.0.2m high’

- To the north of [L123-1], a second site [L123-5], described as ‘a roughly circular mound feature sited on the edge of a slope to the W, measuring c.26m in diameter, 0.2m high, possibly associated with church site [L123-1] 36m to S’.

### *RMP Site DG078-005*

Testing at Drumboe Lower was conducted in close proximity to the site of a possible church site (DG078-005), which is located at the southern end of the TA, just outside the limits of the proposed road take.

#### *3.1.4 Archaeological Features*

A total of 26 archaeological contexts were recorded from Drumboe Lower, which are presented in full in Appendix 1. These features, likely representing an early medieval enclosure, included a minimum of one ditch, one ‘inner’ linear, three pits (one of which was sectioned), a probable bowl furnace, three deposits (including a metalled surface) and two drains (Figures 8–11; Plates 6–19). The archaeological features can be summarised as follows:

- An outer enclosing ditch [C.11], containing a series of fills (C.6, C.15, C.16, C.14 and C.17 in stratigraphic sequence) recorded in Trenches 43 and 45. The upper fills of this ditch were cut by a field drain, [C.18] (filled by C.4) in Trench 43. A second field drain, [C.19] (filled by C.5), was also recorded in this trench.
- An internal ditch/linear, C.10, recorded in Trenches 43 and 45, which was not sectioned.
- Three small pits, only one of which, [C.9] (filled by C.8), in T44 was sectioned. The other two likely pits C.23 and C.22 were recorded in Trench 45.
- A probable bowl furnace, [C.26] (filled by C.24), in Trench 45.
- Two deposits, namely C.20 in Trench 43 and C.21 in Trench 45; the latter of these directly overlay a probable metalled surface C.25.

Collectively, the features indicate an enclosure at the site. The enclosure is provisionally interpreted as early medieval in date on the basis of a single radiocarbon date of a cal. AD 1048–1263 (UBA- 44855, Appendix 4) obtained from charred cereal (barley) from the upper ditch fill (C.17). The enclosing ditch surrounds a number of internal features, including pits, deposits, a metalled surface and bowl furnace – although no evidence of burials or structures was recorded. The finds recovered from the site included seven stone artefacts all of which were examined by Conor Brady to ascertain typology and geological make-up (Table 8, Appendix 2). Amongst the identified artefacts were a saddle quern and a granite rotary quern stone fragment. The latter of these in particular supports a suggestion of an early medieval date, which is also consistent with much of the known history and folklore for Drumboe Lower (see above).

**Table 8: Artefacts recovered as a result of test excavation**

Testing Area	Brief Identified Object Description	Specialist
<b>TA 1 (Drumboe Lower)</b>	Seven objects (Three worked cobble stone fragments, a granite rubbing stone, a sandstone burnisher, a saddle quern and a rotary quern stone fragment)	Conor Brady

### ***3.1.5 Non-Archaeological Features***

Two modern features were recorded, namely C.7 (in Trench 16) and [C.12], filled by C.13, (in Trench 39) which consisted of a modern stone dump in a natural depression and a pit containing stone. These features corresponded with geophysical survey Anomalies No. 149 and No. 156 respectively, which were interpreted as possible archaeology. Both features presumably relate to modern field clearance.

## 4 Metal Detection Survey

### 4.1 Aims and Scope of the Stage (i)h Metal Detection Survey Services

Metal detection surveys were completed across the other four TAs in the week starting Monday 14 September by Ed Danaher and Ger Dowling; Stage(i)h surveys were completed previously at Drumboe Lower, simultaneously to the programme of site works, from Monday 31 August to Friday 4 September.

### 4.2 Survey Methodology

The metal detection survey employed a metal detector with a penetration depth of 0.5m and was designed to recover from the topsoil all items of metalwork of possible historical or archaeological significance. All finds were recorded using a Leica Viva GS20 with smart antenna GPS and related to Ordnance Datum (OD) and Irish Transverse Mercator Grid (ITM).

### 4.3 Survey Constraints

There were no significant constraints encountered during Stage (i)h works.

### 4.4 Survey Results

The results of the metal detector surveys are summarised below in (Table 9) The Stage (i)h Metal Detection survey in the townland of Drumboe Lower recovered six ferrous items and one copper alloy artefact. All of the recovered objects were assessed and subsequently identified to type where possible by metal artefact specialist Orla Scully (Appendix 2).

None of the finds recovered during the works required immediate conservation. Finds were housed temporarily at the AMS Strokestown Office. They are currently stored at the permanent and secure AMS Head Office Post-Ex Facility in Kilrush. The storage of artefacts has been undertaken in accordance with the *Advice Notes for Excavators* (NMI 2010).

**Table 9: Artefacts recovered from Metal Detection Surveys**

Testing Area	Description	Licence Number
<b>TA 1 (Drumboe Lower)</b>	Seven objects (three unidentified iron, one iron staple, one iron horseshoe, one tip or sock of plough share and one copper alloy buckle)	20R0167
<b>TA 2 (Trimragh)</b>	One copper alloy halfpenny coin	20R0183
<b>TA 3 (Carnshannagh)</b>	One coin and a single lead waste piece (note: a copper alloy fitting was recovered from spoil during testing)	20R0184
<b>TA 4 (Murlough)</b>	None	20R0182

Testing Area	Description	Licence Number
<b>TA 5 (Curraghane)</b>	One copper alloy sixpence coin and one copper alloy mount	20R0185

## 5 Discussion

As stated, the site comprises a probable early medieval ecclesiastical foundation, consisting of an enclosure surrounding a range of internal features. The archaeology appears to confirm both the geophysical results (which identified the outer ditch at the site) and the probable existence of a 'Church' as indicated by the Record of Monuments and Places (DG078-005). The archaeology uncovered, including the small assemblage of finds, is consistent with an early medieval foundation, suggesting the site may have been founded in the sixth or seventh century, as suggested by some commentators. Later activity is indicated by a date of cal. AD 1048–1263 (Appendix 4) for charred cereal (barley) from the upper fill of the enclosure. Although no archaeology was recorded which could be clearly attributed to a later medieval abbey, it has been argued that stone buildings – and grave markers – at the site may have been razed to provide materials for the construction of Drumboe Estate. Alternatively, only a small percentage of the 'Abbey Field' was subject to testing, with only the northwest corner of the field to be impacted by the development. It is probable the archaeological remains related to an abbey/church attested to in historical records that may be contained within the 'Abbey Field', outside the archaeological testing limits. Most of the early medieval monument at the site – as indicated by geophysics – was also not tested, as again the entirety of this monument appears to be located directly south, and outside, the limits of the proposed road take.

## 6 Significance of Findings

The following significance criteria have been taken from Appendix 2 of the *Guidelines for the Assessment of Archaeological Heritage Impacts of National Road Schemes* (NRA 2005). They are not presented in any ranking order but can be used to evaluate the significance of an archaeological site, monument or complex. They should not, however, be regarded as definitive; rather they are an indicator which contributes to a wider judgment based on the individual circumstances of each feature.

### Existing Status

The level of protection associated with a monument or complex is an important consideration.

### Condition/Preservation

The survival of a monument's archaeological potential both above and below ground is an important consideration and should be assessed in relation to its present condition and surviving features. Well-preserved sites should be highlighted; this assessment can only be based on a field inspection.

### Documentation/Historical Significance

The significance of a monument may be enhanced by the existence of records of previous investigations or contemporary documentation supported by written evidence or historical maps. Sites with a definite historical association or an example of a notable event or person should be highlighted.

### Group Value

The value of a single monument may be greatly enhanced by its association with related contemporary monuments or with monuments from different periods indicating an extended time presence in any specific area. In some cases, it may be preferable to protect the complete group, including associated and adjacent land, rather than to protect isolated monuments within that group.

### Rarity

The rarity of some monument types can be a central factor affecting response strategies for development, whatever the condition of the individual feature.

### Visibility in the Landscape

It is important to recognise sites that have a limited distribution. Monuments that are highly visible in the landscape have a heightened physical presence. The inter-visibility between monuments may also be explored in this category.

### Fragility/Vulnerability

It is important to assess the level of threat to archaeological monuments from erosion, natural degradation, agricultural activity, land clearance, neglect, careless treatment or development.

The nature of the archaeological evidence cannot always be specified precisely but it may still be possible to document reasons to justify the significance of the feature. This category relates to the probability of monuments producing material of archaeological significance as a result of future investigative work.

**Amenity Value**

Regard should be taken of the existing and potential amenity value of a monument.

## 6.1 Drumboe Lower 1

**Existing Status:** The site is included on the Record of Monuments and Places.

**Condition/Preservation:** The site has no upstanding remains. However, the work described herein confirms the presence of well-preserved below ground archaeological features.

**Documentation/Historical Significance:** The identification of a 'site of church' at the site on a number of cartographic sources – including the historic 25-inch Ordnance Survey (OS) map (1900–05) – indicates a past historical significance for the site. The site is also documented in a number of historical sources and in local folklore, as outlined above.

**Group Value:** No other sites are located within 500m of the Recorded Monument (DG078-005); although it is likely further features associated with this site are preserved below ground with the Abbey Field.

**Rarity:** It is uncommon to find early medieval enclosures/ecclesiastical sites on schemes such as these.

**Visibility in the Landscape:** Not visible.

**Fragility/Vulnerability:** The known features associated with the site will not be removed under the current road scheme design.

**Amenity Value:** No amenity value.

**Conclusion:** A probable monastic enclosure, dating from the early medieval period. The significance of this site is rated as **high** and it is considered of **regional** significance.

## 7 Impact Statement & Recommendations

The early medieval monument at the site, as identified by archaeological testing and geophysics, appears to be located directly south of, and entirely outside, the limits of the proposed road development. Archaeological testing within the preferred option corridor revealed no further evidence for archaeological features, with the limits of the early medieval monument appearing to be well defined.

However, the southern limits of the development are located in very close proximity to the known monument and it is recommended that the limits of the road take in this area be fenced in advance of any groundworks to clearly delimit the development and prevent any accidental traffic damage to the subsurface archaeology. No further mitigation is proposed for Testing Area 1 at Drumboe Lower, subject to the final design of the scheme not changing.

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## Appendix 1: List of Contexts

Context	Area	Trench	Description	Dimensions (m)
1	All	All	Number used to record topsoil.	N/A
2	All	All	Number used to record subsoil.	N/A
3	All	All	Number used to record bedrock.	N/A
4	S Field	43	Sole fill of drain [C.18]. Dark brown silty clay. Loose compaction. Frequent sub-angular and rounded stones. Contained a granite rotary quern fragment <b>(20E0455:4:1)</b>	1.9 (L) (as exposed in Trench 43, extends into both E and W baulk) x 0.98 (W) x 0.24m (D)
5	S Field	43	Sole fill of drain [C.19]. Dark brown silty clay. Loose compaction. Frequent sub-angular and rounded stones.	1.36 (L) (extends into W baulk) x 0.88 (W) x 0.48m (D)
6	S Field	43, 45	Upper fill of enclosure ditch [C.11]. Mid brown silty clay. Moderate inclusions of stone and occasional charcoal and slag. Contained a worked quartzite cobble stone fragment <b>(20E0455:6:1)</b> .	19.8 (L) (minimum, 1.9m exposed in Trench 43 and 0.9m exposed in Trench 45, c.16m apart, extends into both E and W baulk in both trenches) x 3.15 (W) x 0.12m (D)
7	N Field	16	Modern deposit of stones in a natural depression.	5.0 (L) x 0.6m (W) x (D) unverified (feature not sectioned)
8	S Field	44	Single fill of pit [C.9]. Dark brown silty clay. Loose compaction. Frequent sub-angular stones.	0.64 (L) x 0.55m (W) x (D) unverified (feature not sectioned)
9	S Field	44	Cut of pit containing C.8. Partially exposed and excavated. Sub-oval in plan. Sharp break of slope at the top with irregular concave sides and an imperceptible break of slope at the base, which was flat.	0.64 (L) x 0.55m (W) x (D) unverified (feature not sectioned)

Context	Area	Trench	Description	Dimensions (m)
10	S Field	43, 45	Curvilinear light grey clay deposit/fill. Partially exposed and not excavated. Probable fill of a ditch/linear feature. Feature appears to correspond to geophysical anomaly 21.	20.8 (L) (minimum, 1.9m exposed in both Trench 43 and Trench 45, c.17m apart, extends into both E and W baulk in both trenches) x 0.8m (W) x (D) unverified (feature not sectioned)
11	S Field	43, 45	Cut of enclosure ditch. Partially exposed and excavated. Curvilinear in plan. Sharp break of slope at the top with steep concave sides and a sharp break of slope at the base, which is flat. Filled by C.6, C.14, C.15, C.16 and C.17. Feature appears to correspond to geophysical anomalies 11, 158 and 162.	19.8m (L) (minimum, 1.9m exposed in both Trench 43 and Trench 45, c.16m apart, extends into both E and W baulk in both trenches) x 3.15 (W) x 1.26m (D)
12	S Field	39	Modern pit filled with C.13/large stones.	2.5 (L) x 1.7 (W) x 0.7m (D)
13	S Field	39	Fill of stones in modern pit [C.12].	2.5 (L) x 1.7 (W) x 0.7m (D)
14	S Field	43, 45	Secondary fill of enclosure ditch [C.11]. Mid brown silty clay. Moderate compaction. Occasional charcoal and slag.	18.8m (L) (minimum, 0.9m exposed in Trench 43 and 1.2m exposed in Trench 45, extends into both E and W baulk in both trenches) x 1.8 (W) x 0.3m (D)
15	S Field	43, 45	Fill of enclosure ditch [C.11]. Mid brown silty, gravelly clay. Firm compaction. Occasional charcoal.	18.8m (L) (minimum, 0.9m exposed in Trench 43 and 1.2m exposed in Trench 45, c.16m apart, extends into both E and W baulk in both trenches) x 1.8m (W) x 0.2m (D)
16	S Field	45	Fill of enclosure ditch [C.11]. Mid brown silty clay. Firm compaction. Moderate stones and occasional charcoal.	1.2 (L) (exposed in Trench 45) x 1.2 (W) x 0.6m (D)
17	S Field	45	Fill of enclosure ditch [C.11]. Mid brown sandy clay. Loose compaction.	1.2 (L) (exposed in Trench 45) x 0.9 (W) x 0.1m (D)

Context	Area	Trench	Description	Dimensions (m)
18	S Field	43	Cut of drain containing C.4. Partially exposed and excavated. Feature appears to correspond to geophysical anomaly 158.	1.9 (L) (as exposed in Trench 43, extends into both E and W baulk) x 0.98 (W) x 0.24m (D)
19	S Field	43	Cut of drain containing C.5. Partially exposed and excavated.	1.36 (L) (extends into W baulk) x 0.88 (W) x 0.48m (D)
20	S Field	43	Deposit of dark grey sandy silt, containing frequent stones and charcoal. Partially exposed and not excavated	2.80 (L) (extends into W baulk) x 1.45m (W) x (D) unverified (feature not sectioned)
21	S Field	45	Spread of dark brownish black silty clay, with frequent charcoal, overlying metallised surface C.25. Partially exposed and not excavated. Feature appears to correspond to geophysical anomaly 19.	1.9 (L) (extends into W baulk) x 1.9m (W) x (D) unverified (feature not sectioned)
22	S Field	45	Sub-circular deposit/fill of dark grey sandy clay with occasional charcoal. Probable upper fill of a pit, which was not excavated. Feature appears to correspond to geophysical anomaly 19.	0.66 (L) x 0.61m (W) x (D) unverified (feature not sectioned)
23	S Field	45	Sub-circular deposit/fill of dark grey sandy clay with occasional charcoal. Probable upper fill of a pit, which was not excavated. Feature appears to correspond to geophysical anomaly 19.	0.7 (L) x 0.6m (W) x (D) unverified (feature not sectioned)
24	S Field	45	Sole fill of bowl furnace [C.26]. Black sandy clay. Soft compaction. Frequent charcoal. Occasional slag and bloom.	0.81 (L) (extends into E baulk) x 0.75 (W) x 0.25m (D)

Context	Area	Trench	Description	Dimensions (m)
25	S Field	45	Spread of flat stones under C.21, representing a metallised surface. Partially exposed and not excavated. Feature appears to correspond to geophysical anomaly 87.	1.42 (L) (extends into W baulk) x 0.60m (W) (partially exposed) x (D) unverified (feature not sectioned)
26	S Field	45	Sub-oval cut of bowl furnace containing C.24. Partially exposed and excavated. Sharp break of slope at the top, with concave sides and an imperceptible break of slope at the base which is rounded.	0.81 (L) (extends into E baulk) x 0.75 (W) x 0.25m (D)

## Appendix 2: List of Finds

Find number	Field	Trench	Context	Full Name	Description	Dimensions in cm
20E0455:1:1	-	41	C.1	Sandstone burnisher	A complete burnisher in fresh condition. On an elongated water rolled pebble, utilised as a rubber/burnisher. No signs of deliberate shaping but clear signs of rubbing on all surfaces. <b>Weight:</b> 112.2g	(L)10.40 x (W)3.50 x (T)1.90
20E0455:1:2	-	38	C.1	Worked sandstone cobble fragment	An incomplete sandstone cobble fragment in fresh condition. Fragment of large water-rolled cobble. Deliberately struck with systematic breaks on three sides. <b>Weight:</b> 138.3g	(L)8.30 x (W)4.10 x (T)2.60
20E0455:1:3	-	39	C.1	Worked sandstone cobble fragment	An incomplete sandstone cobble fragment in fresh condition. Fragment of small water-rolled cobble/field stone. Appears to have been deliberately split. Single break surface running along the length of the stone. <b>Weight:</b> 237.5g	(L)7.70 x (W)6.80 x (T)3.40
20E0455:1:4	-	43	C.1	Granite rubbing stone	A complete granite rubbing stone? In fresh condition. Water-rolled cobble. No signs of having been used extensively for either hammering or rubbing. <b>Weight:</b> 600g	(L)10.20 x (W)6.70 x (T)6.10
20E0455:1:5	-	43	C.1	Saddle quern	A complete stone saddle quern. The quern is on a natural sandstone slab. It is sub-rectangular in shape with a well-worn and dished upper surface and can be classified as an elongated sub-rectangular quern (Connolly 1994, Fig. 3, 29). There are no signs of areas of secondary usage for grinding or polishing nor are there any signs of other deliberate marking. Dims. 615 mm x 350 mm x 100 mm. Max depth of the hollow c. 20 mm. Weight c. 2300 g.  See Connolly, A. 1994. 'Saddle Querns in Ireland' Ulster Journal of Archaeology, 57, 26–36.	(L)61.50 x (W)35.00 x (T)10.00

Find number	Field	Trench	Context	Full Name	Description	Dimensions in cm
20E0455:4:1	-	43	C.4	Granite rotary quern fragment	An incomplete granite rotary quern fragment in fresh condition. Fragment of the upper stone of a rotary quern. Portion of inner perforation present. Portion of outer edge of quern also present. Upper surface curves from central perforation towards edge, curvature increases approaching edge. Lower surface flatter and smoother, although still relatively coarse. <b>Weight:</b> 1362g. Approx. original diam. 360 mm. Perforation approx. original diam. 70 mm.	(L)17.60 x (W)16.70 x (T)3.90
20E0455:6:1	-	45	C.6	Worked quartzite cobble fragment	An incomplete quartzite cobble fragment in fresh condition. Fragment of water-rolled cobble. Deliberately struck with six breaks/flake scars. <b>Weight:</b> 194g	(L)7.40 x (W)4.90 x (T)4.00
20E0455:1:6	-	-	C.1	Unidentified iron object	Cast heavy rectangular block of iron with one extended rectangular flange, which is set perpendicular to base block. The protruding flange has a circular aperture near the top (5mm). <b>Weight:</b> 416g	(L)9.17 x (W)6.13 x (T)3.55
20E0455:1:7	-	-	C.1	Iron horseshoe	Branch of iron horseshoe, very corroded, possible horseshoe nail protrudes from corrosion products, rectangular in cross-section, no details apparent; for large animal, no part of the toe of the shoe survives.	(L)13.32 x (W)2.92 x (T)2.18
20E0455:1:8	-	-	C.1	Copper alloy buckle	Rectangular small buckle with remains of a wrap-round iron pin on one side, opposite side of frame has a functioning roller.	(L)3.49 x (W)3.03 x (T)0.61
20E0455:1:9	-	-	C.1	Iron staple	Iron U-shaped staple with sub-square cross-section; one arm missing, remaining arm missing its tip.	(L)5.40 x (W)3.65 x (T)1.05
20E0455:1:10	-	-	C.1	Unidentified iron object	Heavy iron rectangular object with one flat face, the other uneven but mostly convex; one end is	(L)15.00 x (W)6.00 x (T)3.38

Find number	Field	Trench	Context	Full Name	Description	Dimensions in cm
					semi-circular with traces of a socket at the top; traces of some silver-coloured metal (tin?) adhering on parts of the upper (convex) side which may be incorporated in corrosion products from an associated object. Too narrow to be blade of a loy.	
<b>20E0455:1:11</b>	-	-	C.1	Unidentified iron object	Thick short iron bar, gently tapered; broader end has a bulbous terminal, opposite end is slightly concave; shaped like a pestle.	(L)7.83 x (W)4.16 x (T)4.19
<b>20E0455:1:12</b>	-	-	C.1	Iron tip or sock of plough share	Small iron open-socketed incomplete share tip, (also called the sock); the tip is present but detached; one flange is missing, the other is curved inward but possibly incomplete; the unflanged side is convex and the object has an overall triangular outline.	(L)7.09 x (W)4.33 x (T)1.06

*Note: Finds 20E0455:1:6–12 were all recovered from Stage(i)h Metal Detection Survey (20R0167).*

### Appendix 3: List of Samples

Sample	Context	Feature	Sample type	Vol./ Weight	Process	Flot weight/ Retent weight (g)
1	C.6	Fill C.6 of enclosure ditch C.11	Slag	2507.93g	Retained	N/A
2	C.14	Fill C.14 of enclosure ditch C.11	Slag	1072.46g	Retained	N/A
3	C.6	Fill C.6 of enclosure ditch C.11	Soil	5L	Retained	N/A
4	C.10	Curvilinear deposit/ditch fill C.10	Slag	2599.94g	Retained	N/A
5	C.14	Fill C.14 of enclosure ditch C.11	Soil	10L	Flotation	6.72/1233
6	C.17	Fill C.17 of enclosure ditch C.11	Soil	10L	Flotation	2.51/1723
7		Discontinued				
8	C.20	Deposit C.20	Slag	3505.08g	Retained	N/A

## Appendix 4: Radiocarbon Dating

Radiocarbon dating was conducted by the <sup>14</sup>CHRONO Centre, Queens University Belfast

Lab. Code	Sample No.	Sample Weight	Material	Context	Years BP	pMC <sup>6</sup>	68.3% calibration	95.4% calibration	Calibration dataset
UBA-44855	6	0.03g	Barley ( <i>Hordeum vulgare</i> )	C.17: fill of enclosure ditch C.11	867±32	89.77±0.36	cal. AD 1162–1220	cal. AD 1048–1263	Incal20.14c Reimer <i>et al.</i> 2020

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<sup>6</sup> The 'percent Modern Carbon' (pMC) value is obtained by multiplying by 100 the 'Fraction Modern Carbon' (F14C) figure supplied by the <sup>14</sup>CHRONO Centre.

Cristina Ocejo  
Archaeological Management  
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Fahy's Road  
Drimna  
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<sup>14</sup>CHRONO  
Centre  
Queens  
University  
Belfast  
42 Fitzwilliam  
Street  
Belfast BT9  
6AX  
Northern  
Ireland

### Radiocarbon Date Certificate

Laboratory Identification: UBA-44855  
Date of Measurement: 2021-06-04  
Site: Drumboe Lower  
Sample ID: Ten-T\_20E0445\_S6\_C17  
Material Dated: charred seed or nutshell  
Pretreatment: AAA  
mg Graphite: 0.936  
Submitted by: Louise Nugent AMS

Conventional <sup>14</sup> C Age:	867±32 BP
Fraction corrected	using AMS δ <sup>13</sup> C

#### RADIOCARBON CALIBRATION PROGRAM\* CALIB REV8.2

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\*To be used in conjunction with:  
Stuiver, M., and Reimer, P.J., 1993, Radiocarbon, 35, 215-230.

UBA-44855 44855	Radiocarbon Age BP	867 +/- 32	
	Calibration data set:	intcal20.14c	# Reimer et al. 2020
	% area enclosed	cal AD age ranges	relative area under probability distribution
	68.3 (1 sigma)	cal AD 1162- 1220	1.000
	95.4 (2 sigma)	cal AD 1048- 1082	0.111
		1131- 1138	0.010
		1151- 1263	0.879
	Median Probability:	1187	

#### References for calibration datasets:

Reimer P, Austin WEN, Bard E, Bayliss A, Blackwell PG, Bronk Ramsey C, Butzin M  
Edwards RL, Friedrich M, Grootes PM, Guilderson TP, Hajdas I, Heaton TJ, Hogg A  
Kromer B, Manning SW, Muscheler R, Palmer JG, Pearson C, van der Plicht J, Reim  
Richards DA, Scott EM, Southon JR, Turney CSM, Wacker L, Adolphi F, BÄntgen U,  
Fahrni S, Fogtmann-Schulz A, Friedrich R, KÄhler P, Kudsk S, Miyake F, Olsen J  
Sakamoto M, Sookdeo A, Talamo S. 2020.  
The IntCal20 Northern Hemisphere radiocarbon age calibration curve (0-55 cal kB  
Radiocarbon 62. doi: 10.1017/RDC.2020.41.

## Appendix 5: Excavation Bulletin

Bulletin Field	Bulletin Detail
Excavation Completion Date	4 September 2020
Year	2020
County	Donegal
Author	James McKee
Author's Address	c/o Archaeological Management Solutions Ltd, Fahy's Road, Kilrush, Co. Clare
Site Number	To be assigned by excavations.ie
Site Name	Drumboe Lower 1
Site Type	Enclosure Site
ITM Coordinates	613389, 895433
Site and Monuments Record No.	DG078-005
Excavation Licence No.	20E0455 (and 20R0167)
Description	<p>James McKee of Archaeological Management Solutions Ltd undertook Stage (i)a Standard Test Excavations and Stage (i)h Metal Detection Surveys in the townland of Drumboe Lower as part of the Archaeological Consultancy Services Contract of the TEN-T Priority Route Improvement Project in Donegal.</p> <p>The TEN-T Priority Route Improvement Project is part of the Trans-European Transport Network and comprises the construction of three sections of new road: Section 1: N15/N13 Ballybofey/Stranorlar Urban Region; Section 2: N56/N30 Letterkenny to Manorcunningham; and Section 3: N14 Manorcunningham to Lifford/Strabane/A5 link. Drumboe Lower, in Section 1, is one of five Testing Areas (TAs) along the preferred route of the TEN-T project which require Stage (i)a Test Excavations and Stage (i)h Metal Detection Survey Services.</p> <p>The total Stage (i)a testing linear metres excavated at Drumboe Lower was 1,310m, representing a &gt;12% sample of the greenfield area available for test excavations. These excavations targeted anomalies identified through previous geophysical and LiDAR surveys at the site; these surveys were themselves undertaken to assess RMP site (DG078-005), one of five known monuments which could be impacted by the scheme.</p> <p>During the Stage (i)a testing at Drumboe Lower, a single site of archaeological significance was found, comprising a probable early medieval enclosure and range of associated features. Recorded features included one enclosure ditch, one linear ditch, three pits (one of which was sectioned), a probable bowl furnace, three deposits (including a metallised surface) and two drains. Charred cereal (barley) from the upper fill of the enclosure produced a date of cal. AD 1048–1263.</p> <p>Collectively the features indicate an enclosure at the site associated with known RMP site (DG078-005), the site of a possible church, which historically also has early medieval associations. The finds recovered from the site included 7 stone artefacts, amongst them three worked cobble fragments, a rubbing stone, a burnisher, a saddle quern and a rotary quern stone fragment. The latter of these in particular</p>

Bulletin Field	Bulletin Detail
	<p>support a suggestion of an early medieval date, which is also consistent with much of the known history and folklore for Drumboe Lower.</p> <p>The site at Drumboe Lower (Drumboe Lower 1) is located directly south of, and outside, the limits of the proposed road take and should not be adversely impacted by the development, although this is contingent on the scheme's final design.</p>

Scheme Location

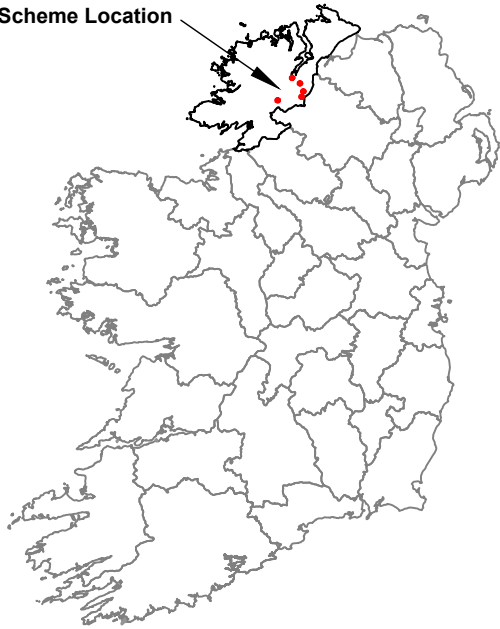




Figure No. 1

TEN-T Priority Route Improvement Project, Donegal

Location of the Testing Areas on the TEN-T Priority Route Improvement Project

Legend

-  Scheme Corridor
-  Stage (i) Testing Area

Scale 1:125000@A4

Date 14 12 20

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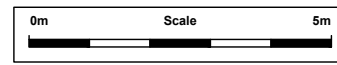





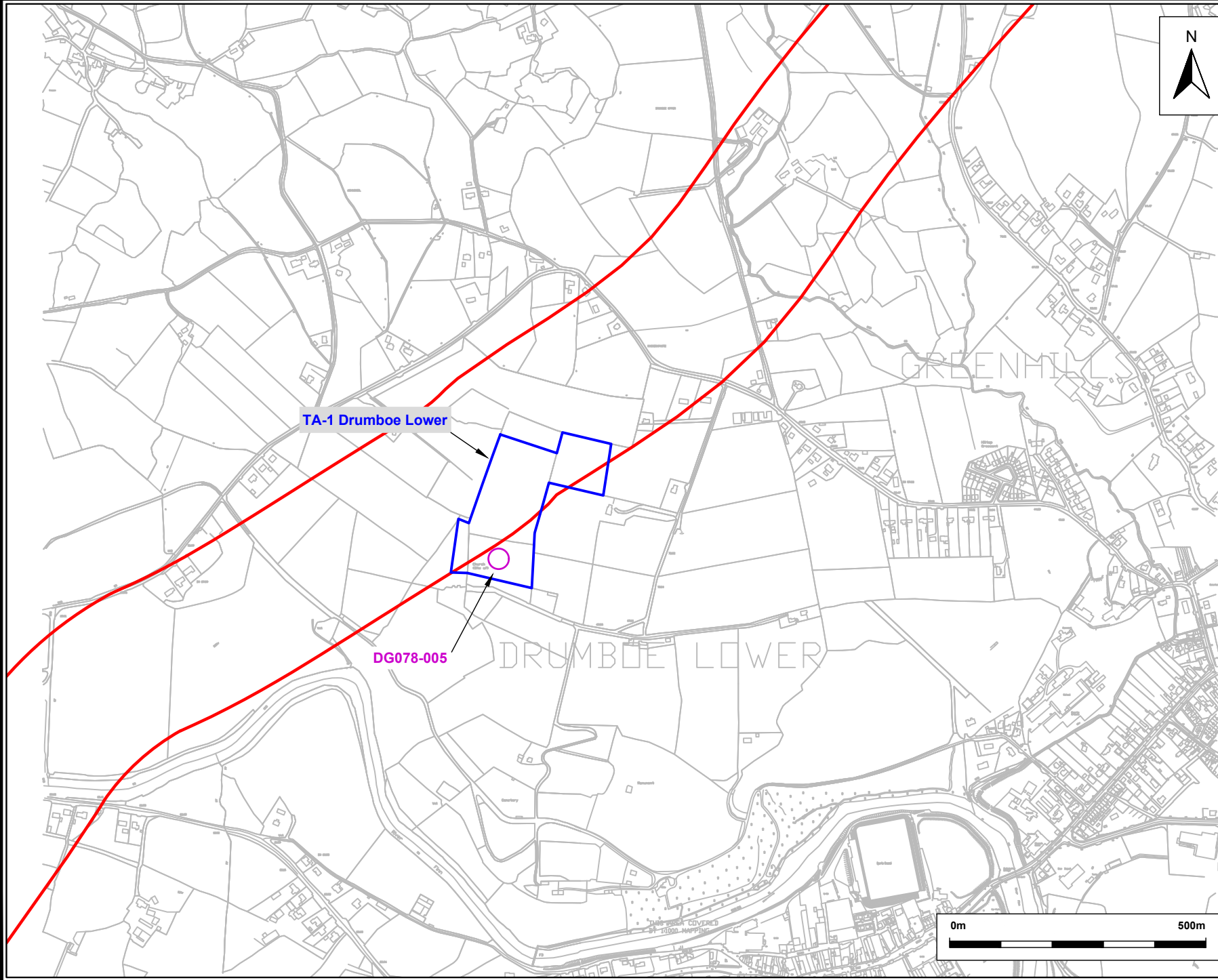
Figure No. 2

TEN-T Priority Route Improvement Project, Donegal

TA-1 Drumboe Lower (Testing Area 1)  
Location showing impacted and surrounding RMP sites

Legend

-  Scheme Corridor
-  Stage (i) Testing Area
-  Recorded Monument and Zone of Notification



Scale  
1:10000@A4

Date  
14 12 20

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Figure No. 3

TEN-T Priority Route Improvement Project, Donegal

TA-1 Drumboe Lower Trenching layout overlaid on 1st edition 6-inch OS map

Legend

-  Scheme Corridor
-  Stage (i) Testing Area
-  Recorded Monument and Zone of Notification
-  Stage (i)a test trenches

Scale 1:2500@A4

Date 14 12 20

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TA-1 Drumboe Lower

DG078-005

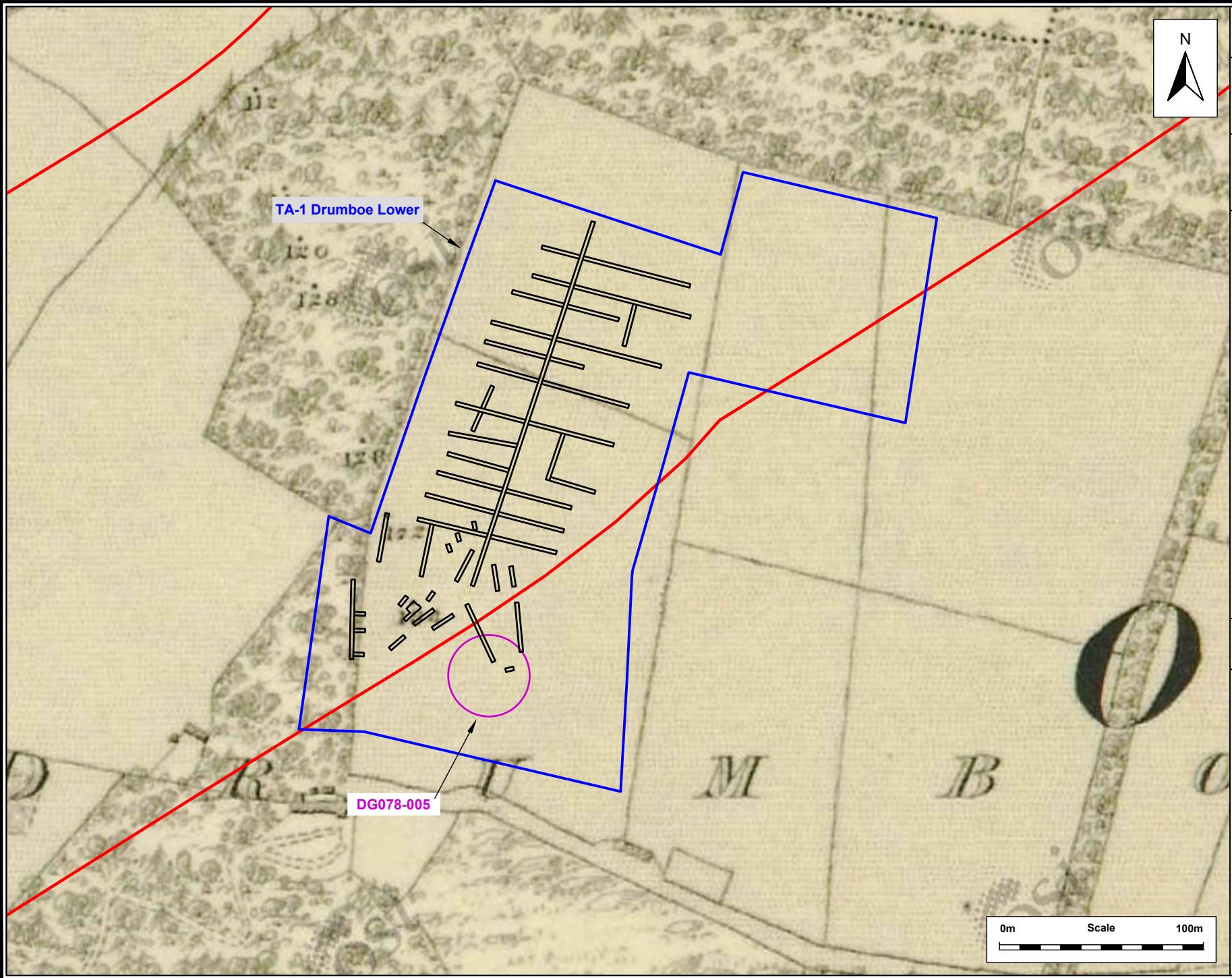
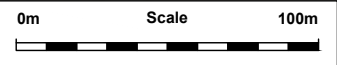






Figure No. 4

TEN-T Priority Route Improvement Project, Donegal

TA-1 Drumboe Lower  
Trenching layout overlaid on  
25-inch OS map

Legend

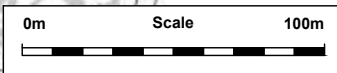
-  Scheme Corridor
-  Stage (i) Testing Area
-  Recorded Monument and Zone of Notification
-  Stage (i)a test trenches



TA-1 Drumboe Lower

Church  
(Site of)

DG078-005



Scale 1:2500@A4	Date 14 12 20
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Figure No. 5

TEN-T Priority Route Improvement Project, Donegal

TA-1 Drumboe Lower Trenching layout overlaid on modern aerial photography

Legend

-  Scheme Corridor
-  Stage (i) Testing Area
-  Recorded Monument and Zone of Notification
-  Stage (i)a test trenches

Scale 1:2500@A4

Date 14 12 20

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TA-1 Drumboe Lower

DG078-005

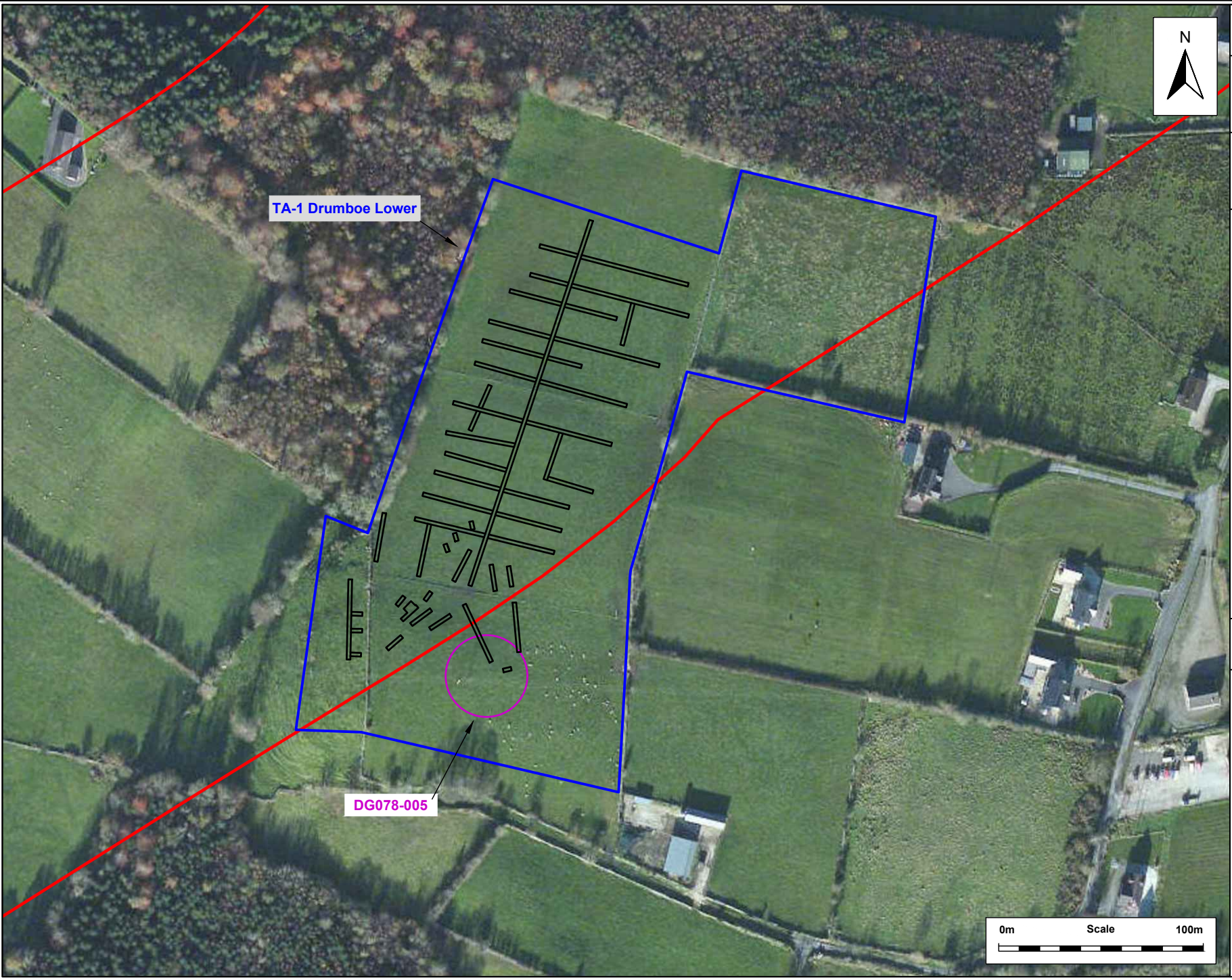
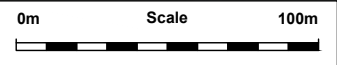






Figure No. 6

TEN-T Priority Route Improvement Project, Donegal

TA-1 Drumboe Lower Trenching layout overlaid on LiDAR survey

Legend

-  Scheme Corridor
-  Stage (i) Testing Area
-  Recorded Monument and Zone of Notification
-  Stage (i)a test trenches

Scale 1:2500@A4

Date 14 12 20

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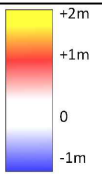
TA-1 Drumboe Lower

DG078-005

L123-5

Church (Site of)

 LiDAR Sites  
 High Res. Tile Index



Detrend model of 0.5m-resolution DTM generated from LiDAR, 75% transparent, over a multi-direction hillshade model (d.16, h. 35) generated in RVT 2.2.1.


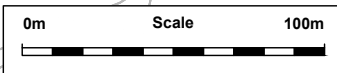













Figure No. 7

TEN-T Priority Route Improvement Project, Donegal

TA-1 Drumboe Lower Trenching layout overlaid on geophysical survey

Legend

-  Scheme Corridor
-  Stage (i) Testing Area
-  Recorded Monument and Zone of Notification
-  Stage (i)a test trenches
-  Probable Archaeology
-  Possible Archaeological Zone
-  Ditch or Cut Feature
-  Disturbed Ground
-  Hard or Compact Feature
-  Land Drains

Scale 1:2500@A4

Date 14 12 20

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TA-1 Drumboe Lower

Church (Site of)

DG078-005

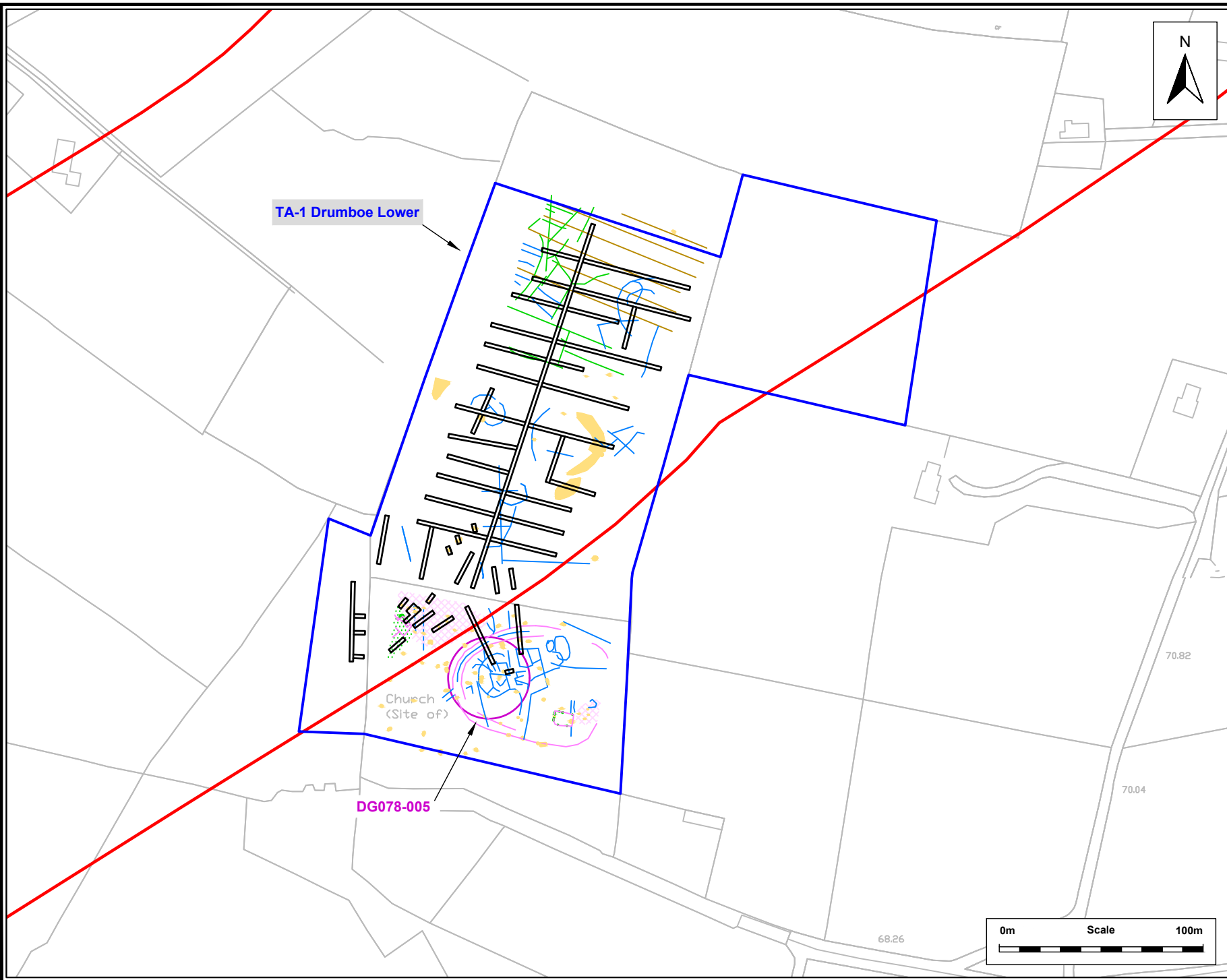
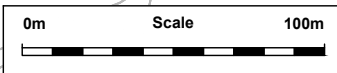








Figure No. 8

TEN-T Priority Route Improvement Project, Donegal

TA-1 Drumboe Lower  
Trenching layout showing recorded features

Legend

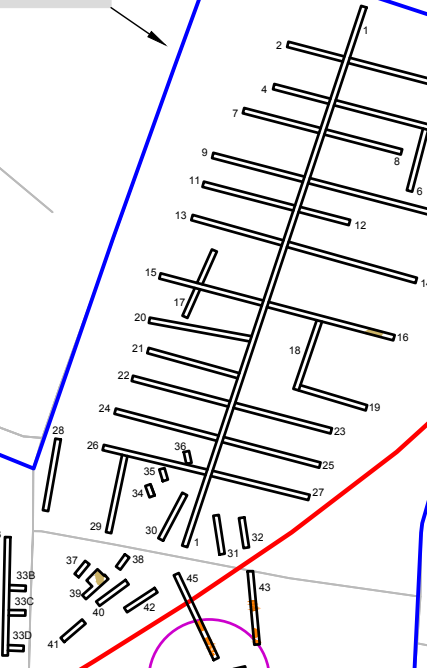
-  Scheme Corridor
-  Stage (i) Testing Area
-  Recorded Monument and Zone of Notification
-  Stage (i)a test trenches
-  Archaeological Feature
-  Other Feature

Scale 1:2500@A4	Date 14 12 20
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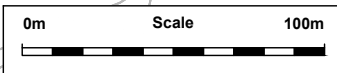
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TA-1 Drumboe Lower



Church  
(Site of)  
DG078-005















**Figure No. 9**

TEN-T Priority Route  
Improvement Project, Donegal

**TA-1 Drumboe Lower**  
Trenching layout showing  
recorded features with  
geophysical survey

**Legend**

-  Scheme Corridor
-  Stage (i) Testing Area
-  Recorded Monument and Zone of Notification
-  Stage (i)a test trenches
-  Archaeological Feature
-  Other Feature
-  Probable Archaeology
-  Possible Archaeological Zone
-  Ditch or Cut Feature
-  Disturbed Ground
-  Hard or Compact Feature
-  Land Drains

Scale  
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Date  
14 12 20

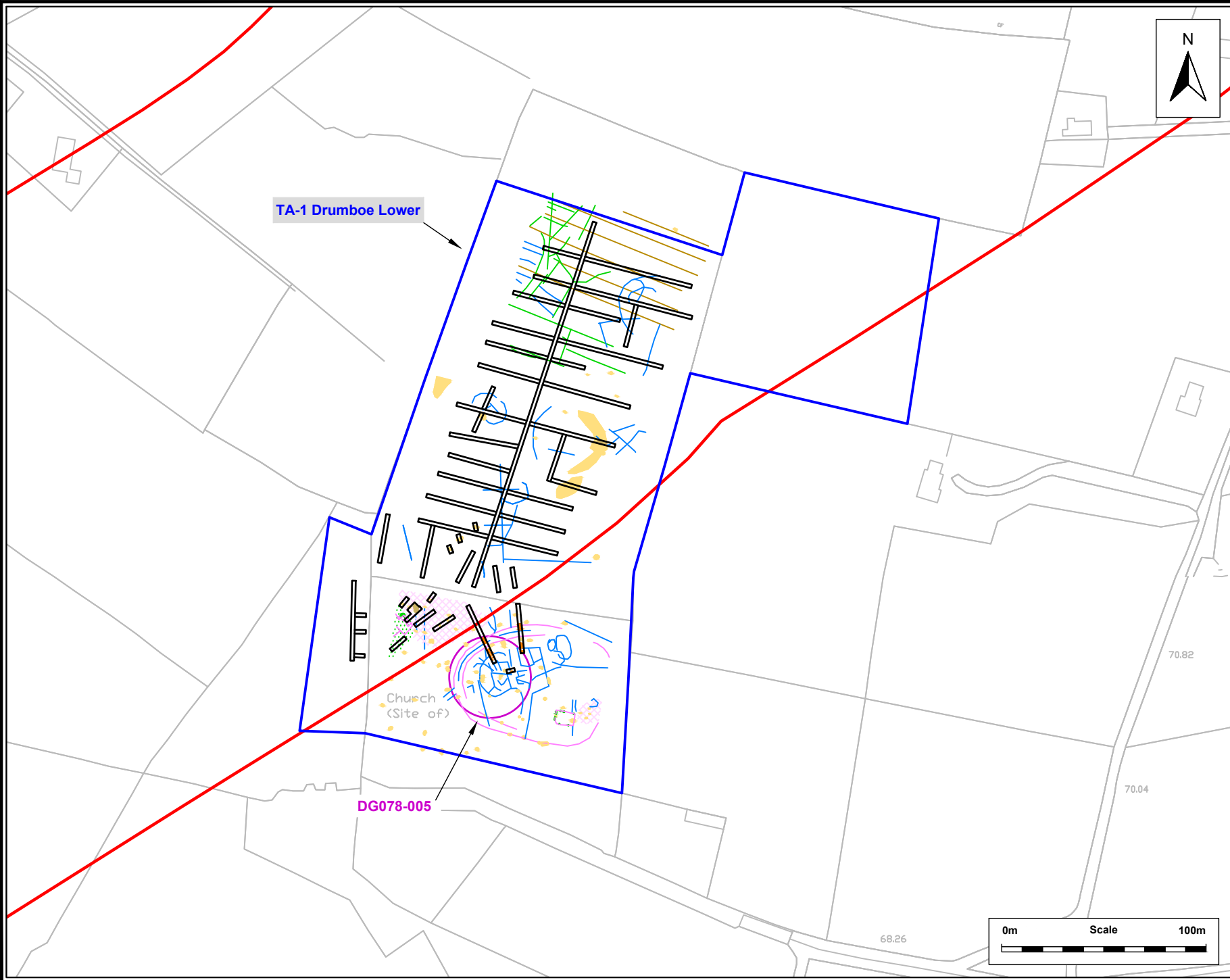
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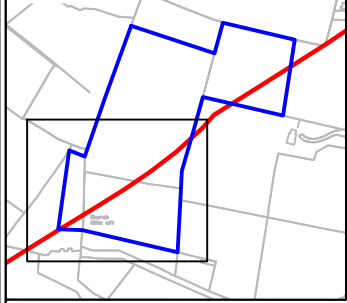
TA-1 Drumboe Lower

Church  
(Site of)

DG078-005



**Key Plan**



**Figure No. 10**

TEN-T Priority Route Improvement Project, Donegal

**TA-1 Drumboe Lower**  
Trenching layout in southern field showing recorded features with geophysical survey

**Legend**

- Scheme Corridor
- Stage (i) Testing Area
- Recorded Monument and Zone of Notification
- Stage (i)a test trenches
- Archaeological Feature
- Other Feature
- Probable Archaeology
- Possible Archaeological Zone
- Ditch or Cut Feature
- Disturbed Ground
- Hard or Compact Feature
- Land Drains

Scale  
1:1000@A4

Date  
14 12 20

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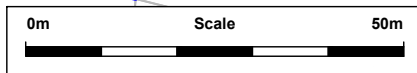
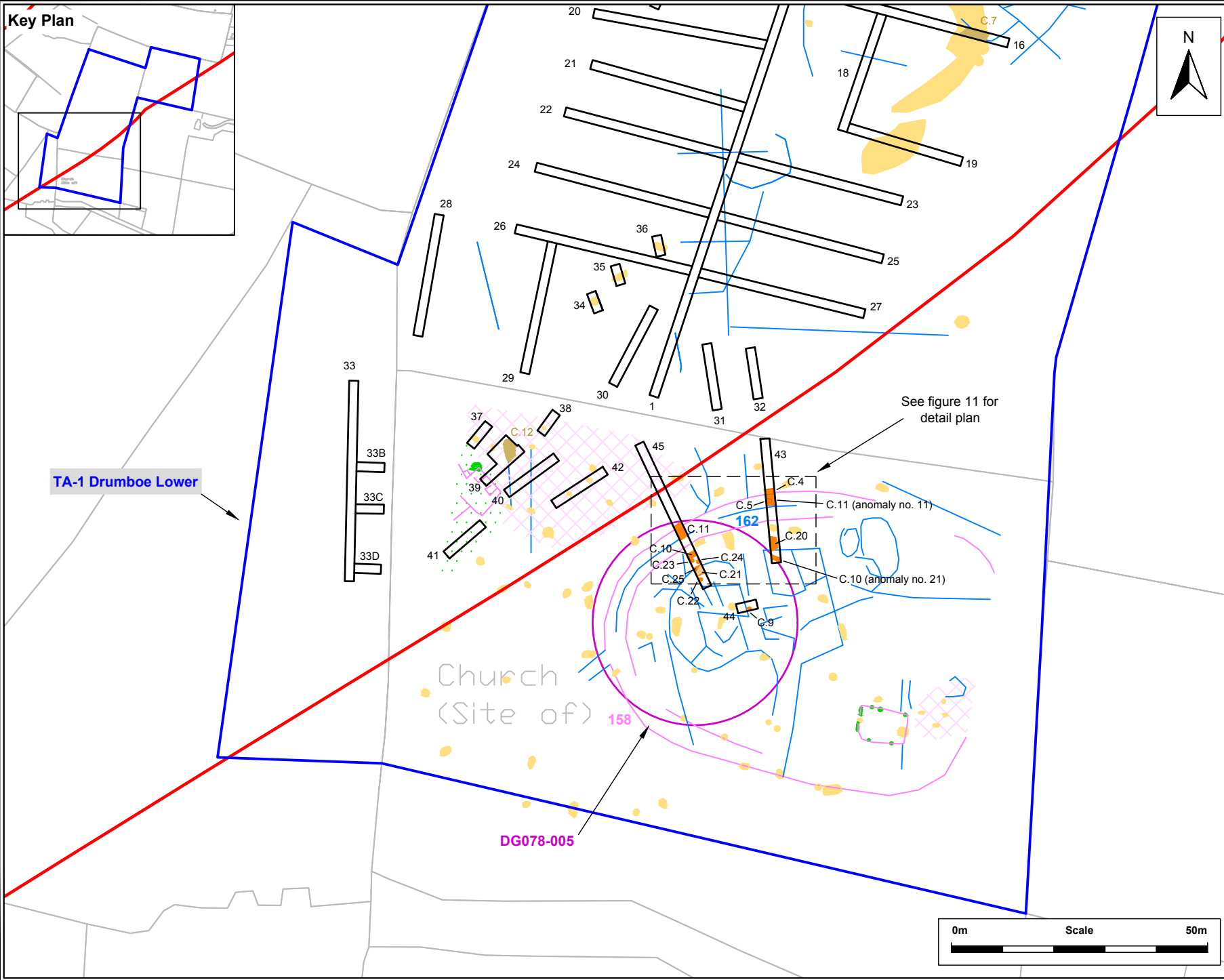
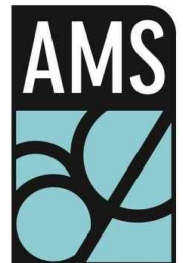






Figure No. 11

TEN-T Priority Route Improvement Project, Donegal

TA-1 Drumboe Lower Features in Trench 43 and 45 with select section drawings

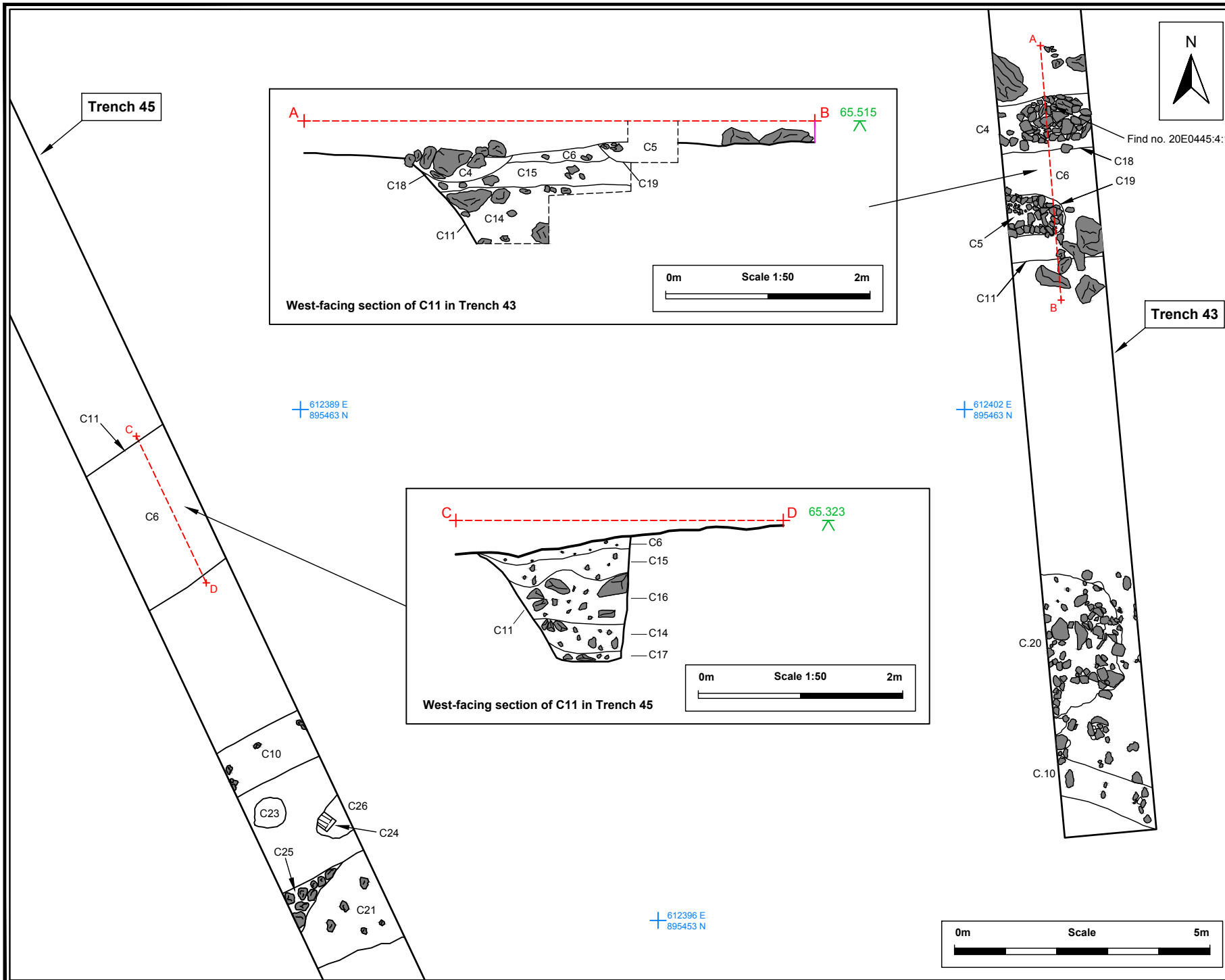
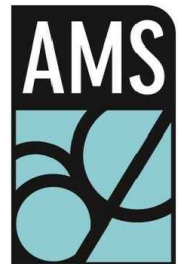
Legend

-  ITM Grid Point
-  Section Point
-  Section Line
-  OD Level

Scale 1:100@A4

Date 14 12 20

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## PLATES



Plate 1: Metal detection survey in progress, facing northwest



Plate 2: Example of hand-dug trench (T41); facing southwest



Plate 3: Hand excavation in progress (southwest area); facing northwest



Plate 4: Example of a machine dug trench (T1); facing south-southwest



Plate 5: Recording in progress (T43)



Plate 6: Pit [C.9] (T44); facing south



Plate 7: North-facing section of pit [C.9] (T44); facing south



Plate 8: Ditch fill C.10 (T43); facing west-northwest



Plate 9: Enclosure ditch [C.11] (T45); facing south



Plate 10: Enclosure ditch [C.11] (T45); looking down



Plate 11: Enclosure ditch [C.11] (T43), cut by drains [C.18] and [C.19]; facing east



Plate 12: Enclosure ditch [C.11] (T43), cut by drains [C.18] and [C.19]; facing southwest



Plate 13: Enclosure ditch [C.11] (T43), cut by drains [C.18] and [C.19]; facing southeast



Plate 14: Deposit C.20 (T43); facing southwest



Plate 15: Spread C.21 overlying stone surface C.25, with furnace [C.26] to the north (T45); facing north



Plate 16: Pit fill C.22 (T45); facing west



Plate 17: Pit fill C.23 (T45); facing northwest



Plate 18: Bowl furnace [C.26] (T45); facing northeast



Plate 19: T45 showing array of recorded features; facing north



Plate 20: Modern stone deposit C.7 (T16); facing east-southeast



Plate 21: Modern stone pit [C.12] (T39); facing north



Plate 22: Iron bloom from bowl furnace [C.26] (T45)



Plate 23: Possible rotary quern fragment in drain [C.18] (T43)



Plate 24: Possible saddle quern from topsoil (C.1 in T4)

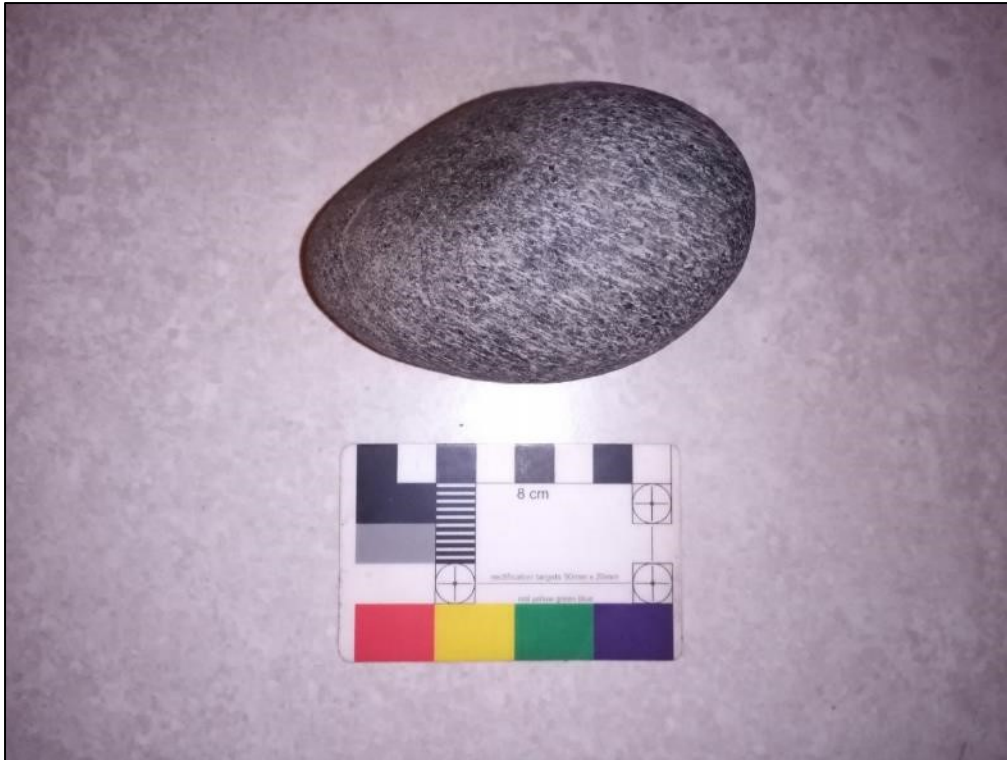


Plate 25: Possible rubbing stone from topsoil (C.1 in T43)