

## M3 Clonee-North of Kells Contract 5 Kells to North of Kells

Report on the Archaeological Excavation  
of  
**Chapelbride 2, Co. Meath**

Ministerial Directions No.  
A030/009  
E3171

Ed Danaher & Vicky Ginn

December 2008

Final

## PROJECT DETAILS

<b>Project</b>	M3 Clonee–Kells Motorway
<b>Site Name</b>	Chapelbride 2
<b>Ministerial Direction Number</b>	A030/009
<b>Registration Number</b>	E3171
<b>Senior Archaeological Consultant</b>	Donald Murphy
<b>Site Director</b>	Ed Danaher
<b>Excavated</b>	16 – 20 October 2006
<b>Client</b>	Meath County Council, National Roads Design Office, Navan Enterprise Centre, Navan, County Meath
<b>Townland</b>	Chapelbride
<b>Parish</b>	Burry
<b>County</b>	Meath
<b>National Grid Reference</b>	270570, 274770
<b>Chainage</b>	82400
<b>Height</b>	96.47m OD
<b>Report Type</b>	Final
<b>Report Status</b>	Submitted
<b>Date of Report</b>	December 2008
<b>Report by</b>	Ed Danaher and Vicky Ginn

## **ACKNOWLEDGEMENTS**

This report has been prepared by Archaeological Consultancy Services Ltd on behalf of Meath County Council National Roads Design Office (NRDO) and the National Roads Authority (NRA). The excavation was carried out under Ministerial Direction Number issued by the Department of the Environment, Heritage and Local Government (DOEHLG) in consultation with the National Museum of Ireland (NMI).

### **Consulting Engineers - N3 Meath Consult**

Engineer – Peter Thorne and Thomas Meagher

Resident Engineer – Conor Wilkinson

### **Meath County Council, National Roads Design Office**

Senior Engineer – John McGrath

Project Archaeologist – Mary Deevy

Project Liaison Officer – Ambrose Clarke

### **National Monuments, Department of the Environment, Heritage and Local Government**

Archaeologist – Martin Reid

### **Irish Antiquities Division, National Museum of Ireland**

Keeper – Nessa O'Connor

### **NON-TECHNICAL SUMMARY**

This site at Chapelbride 2 was excavated by Archaeological Consultancy Services Ltd (ACS) as part of the M3 Clonee–North of Kells Motorway Scheme on behalf of Meath County Council NRDO and the NRA. The excavation was carried out between 16 and 20 October 2006 under Ministerial Direction Number A030/009 issued by DOEHLG in consultation with the NMI. Very few features were present within this site. An isolated pit was oval in shape with dimensions of 1.34m x 0.86m x 0.40m. Radiocarbon dating suggested an Early Neolithic date (4221-3813 BC).

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## 1 INTRODUCTION

The site at Chapelbride 2 (Figures 1–6) was identified during advanced testing carried out by David Bayley of Irish Archaeological Consultancy (IAC) during June 2004 under licence number 04E1054 (Bayley 2005). Testing revealed the presence of one pit (3.40m x 1.60m x 0.25m) which contained a sherd of prehistoric, possibly Neolithic, pottery (Bayley 2005). A Topsoil Assessment (Appendix 4) was conducted on this site but no finds were recovered. Full resolution of the site occurred in 2006 and relocated the pit.

### *1.1 Development*

Meath County Council and the National Roads Authority are constructing 49km of two-lane, dual-carriageway motorway between Clonee and Kells and 10km of single carriageway from Kells to Carnross, north of Kells, along with additional road upgrades, realignments and associated ancillary works. For the purposes of the Environmental Impact Assessment and the subsequent archaeological investigations the scheme was subdivided into five separate sections as follows: Clonee to Dunshaughlin (Contract 1), Dunshaughlin–Navan (Contract 2), the Navan Bypass (Contract 3) Navan to Kells (Contract 4) and Kells to North of Kells (Contract 5). This section of the scheme (Contract 5) will commence at the N52 Mullingar Road situated to the southwest of Kells in the townland of Calliaghstown (NGR 272828 274647) and runs to the northwest, crosses the River Blackwater at Balgree and terminates in the townland of Derver at the existing border between counties Meath and Cavan (NGR 266012 280943).

The archaeological components of the Environmental Impact Statement published in 2002 where carried out by Valerie J. Keeley Ltd (VJK) and Margaret Gowen and Co. Ltd (MGL) in 2000–2001. This included desk-based studies and field surveys of each section (VJK Sections 1 & 3 and MGL Sections 2, 4 & 5). Additionally on behalf of MGL geophysical survey was undertaken on the Dunshaughlin–Navan section and at Nugentstown on the Navan–Kells section by GSB Prospection (2000 & 2001). These studies carried out as part of the Environmental Impact Assessment were augmented by further geophysical survey conducted by Bartlett-Clark Consultancy on the remainder of the scheme (2002). Archaeological testing was completed by ACS and Irish Archaeological Consultancy Ltd (IAC) in 2004 (ACS Sections 1–3 and IAC Sections 4–5). Excavation of the sites identified during testing was conducted by ACS and IAC between 2005 and 2008 (ACS Sections 1–3 & 5 and IAC Section 4).

## 2 EXCAVATION

Excavation occurred between 16 and 20 October 2006 under Ministerial Direction Number A030/009 issued to Meath County Council NRDO. The work was carried out by Ed Danaher on behalf of ACS. The topsoil (F24) consisted of a mid-brown loam and was removed by machine equipped with a grading bucket. An orange, clayey sand with stones formed the subsoil (F25).

All archaeological features exposed were recorded and excavated by hand using the single context method. Each feature was assigned a context number. Where appropriate, samples were retrieved in an attempt to obtain evidence for the date and function of these features (Appendix 2). Unless otherwise stated, the features have been measured length-width-depth. All measurements are in metres. All finds were numbered according to the requirements of the National Museum of Ireland from 1 onwards consistent with licence and feature number.

### 2.1 Results

Five contexts of archaeological interest were identified. Full details of all these, and further, contexts are located in Appendix 1.

Sub-oval, northeast–southwest pit F7 (1.34m x 0.86m x 0.40m; Figures 7–8; Plate 1) contained two fills, the primary of which (F8) comprised loose, black silty clay with frequent stones and charcoaled oak. The upper fill (F9) was loose, mid-brown, silty clay with stones and occasional charcoal flecks. Oak from this feature suggested an Early Neolithic date (4221–3813 BC; Beta 247162; Appendix 6). The results of the charcoal analysis are presented in Appendix 5. The charcoal from the site was all oak timber (stemwood) rather than roundwood (branchwood), indicating that a mature tree was felled to provide the wood. The charcoal may represent the charred remains of a post or other structure and was potentially considerably earlier than the activity taking place at Chapelbride 2.

### 2.2 Finds

No artefacts were recovered.

### 3 DISCUSSION

Due to a lack of chronologically diagnostic features or artefacts it is not possible to assign this feature a specific function. The returned calibrated date (4221-3813 BC; Beta 247162) suggested an early Neolithic date. The finding of a sherd of Neolithic pottery from the pit during testing (Bayley 2005) may point to a ritualistic function for the pit. The nature of surrounding sites was one of isolated multiperiod activity. This site may relate to a site at Chapelbride 4 which is located 400m to the south-east (A030/007; Gallagher 2008) where late Neolithic pottery was recovered.

### 4 CONCLUSIONS

Chapelbride 2, (A030/009), excavated (16 – 20 October 2006) by Ed Danaher (ACS) as part of the M3 Clonee–North of Kells Motorway Scheme on behalf of Meath County Council, NRDO, and the NRA, represented one Early Neolithic pit filled with silty clay and oak charcoal.

### 5 REFERENCES

- Bayley, D 2005 *Report on Archaeological Assessment at Testing Area 3, Chapelbride, Co. Meath, Licence Number: 04E1054*. Unpublished report prepared for Irish Archaeological Consultancy Ltd.
- Gallagher, D. 2008 *Interim Report on Archaeological Excavation at Chapelbride 4, Co. Meath E3169*. Unpublished report prepared for ACS Ltd.

Signature:



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Ed Danaher and Vicky Ginn

December 2008



**APPENDIX 1** Context Details

Chapelbride 2: A030/009											
No	Type	Fill of/ Filled with	Strat above	Strat below	Description	Interpretation	Group	Artefacts	Animal bone	Cremated bone	Samples
1-3					used previously during topsoil metal detecting						
4	NON-ARCHAEOLOGICAL										
5	NON-ARCHAEOLOGICAL				Natural stone socket						
6	NON-ARCHAEOLOGICAL										
7	cut	8, 9	25	8	sub-oval, northeast-southwest cut (1.34m x 0.86m x 0.40m) with a sharp break of slope (gradual in south), steep sides and a gradual break of slope leading to a rounded base	isolated pit					
8	fill	9	7	9	loose, black, silty clay with frequent angular, rounded stones and moderate charcoal flecks	primary fill of pit 7					#1charcoal
9	fill	8	8	24	loose, mid-brown, silty clay with frequent angular, sub-angular, rounded stones and occasional charcoal flecks	upper fill of pit 7					
10-23	not assigned										
24	topsoil	N/A	25	N/A	mid-brown loam 0.30 – 0.40m in depth	topsoil					
25	subsoil	N/A	N/A	24	orange clayey sand with frequent stones	subsoil					

## **APPENDIX 2** *Finds List*

There were no artefacts recovered.

**APPENDIX 3** *Sample List*

<b>Sample No</b>	<b>Context No</b>	<b>Description</b>	<b>Results</b>
1	8	charcoal	2g charcoal

**APPENDIX 4** *Topsoil Assessment by Derek Gallagher*

<b>Project</b>	M3 Clonee to North of Kells Motorway Scheme, Contract 5: Kells – North of Kells
<b>Directions</b>	A030/009 (excavation) A030/027 (test pitting)
<b>Report by</b>	Derek Gallagher
<b>Report Date</b>	December 2006

Figure 1                      Chapelbride 2 Test Pit Distribution

**1. INTRODUCTION**

This report details the results of test pitting of topsoil at Chapelbride 2, an archaeological site on Contract 5: Kells–North of Kells, the planned M3 Clonee–North of Kells Motorway Scheme. The proposal for archaeological resolution on Contract 5 included an assessment of the potential for features and finds retrieval from topsoil and subsoil at archaeological sites. This assessment was achieved by a program of systematic test pitting at sites prior to topsoil removal. The work was carried out under direction (A030/027) from DoEHLG in consultation with the NMI.

**2. ARCHAEOLOGICAL ASSESSMENT****2.1 Test Pit Survey Methodology**

Where deemed necessary, a number of pre-designated test pits were dug at various locations within the site. The test pits measured 1m<sup>2</sup> and their precise position was surveyed. Each test pit was dug by hand to the depth of subsoil with the resulting loose topsoil sifted on site for the recovery of finds. All finds were bagged and numbered citing DOE record number, context and individual number. Their location was recorded with reference to the specific test pit from where it was collected.

**2.2 Results**

Eight test pits were dug within the area of Chapelbride 2 (Figure 2). No finds were recovered.

**3. CONCLUSIONS**

Test pits were excavated at Chapelbride 2 to a mean depth of 0.40m. No finds were recovered, therefore the potential for finding more artefacts is considered to be minimal.





Features resolved during phase 2 works

Chapelbride 2, Metal Detection /  
Field Walking Grid

1

2

3

4

5

6

7

8

CPO Line

Key:



Test Pit locations

20 m



**Archaeological Consultancy**

**Services Ltd.** Unit 21, Boyne Business Park,  
Greenhills, Drogheda, Co. Louth

Site: M3 Clonee-North of Kells PPP Scheme

Contract 5, Chapelbride 2

Issued for: Excavation Report

Client: Meath County Council

Scale: 1: 400 A4

Date: Jul '08

Origin: Client/ACS Ltd

Drawing no.: 04\_01\_C9259i

**APPENDIX 5** *Charcoal analysis by Durham University*



# **Chapelbride 2, M3 Motorway Project, Co Meath, Ireland**

## **Charcoal analysis**

*on behalf of*

**Archaeological Consultancy Services Ltd**

**Report 2085**  
November 2008

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## **1. Summary**

### ***The project***

- 1.1 An excavation was undertaken at Chapelbride 2, Co Meath, Ireland by Archaeological Consultancy Services Ltd. This report presents the results of charcoal analysis of the primary fill of a sub-oval pit (C7).

### ***Results***

- 1.2 The sample was composed of oak timber charcoal fragments.

## **2. Project background**

### ***Location and background***

- 2.1 An excavation was undertaken by Archaeological Consultancy Services Ltd at Chapelbride 2, Co Meath, Ireland (NGR 270570 274770). This report presents the results of charcoal analysis of the primary fill of a sub-oval pit (C7). Radiocarbon dating indicated a prehistoric date for the feature.

### ***Objective***

- 2.2 The objective was to analyse the charcoal from the pit fill in order to provide information about the feature, and to identify material suitable for radiocarbon dating.

### ***Dates***

- 2.3 Samples were received by Archaeological Services Durham University in April 2008. Analysis and report preparation was conducted between April – November 2008.

### ***Personnel***

- 2.4 Sample processing was undertaken by Archaeological Consultancy Services Ltd. The charcoal identifications were carried out by Mr Lorne Elliott. Report preparation was by Dr Charlotte O'Brien.

### ***Archive***

- 2.5 The licence number is A030/009. The charcoal sample is currently at the Environmental Laboratory at Archaeological Services Durham University awaiting collection or return.

### 3. Methods

- 3.1 Following Boardman (1995), identifications were made on all charcoal fragments >4mm. The transverse, radial and tangential sections were examined at up to x600 magnification using a Leica DMLM microscope. Identifications were assisted by the descriptions of Hather (2000) and Schweingruber (1978), and modern reference material held in the Environmental Laboratory at Archaeological Services Durham University. Where possible, radiocarbon dating of oak timber should be avoided, due to the potential longevity of the heartwood. However, this was the only material available from this context, and therefore a fragment of oak timber charcoal, weighing 50mg, was provided for dating.

### 4. Results and discussion

- 4.1 The results of the charcoal analysis are presented in Table 4.1. The sample comprised 11 fragments of oak charcoal. The fragments were all timber (stemwood) rather than roundwood (branchwood), indicating that a mature tree was felled to provide the wood. Oak was an important structural timber in prehistory (Stuijts 2007), and therefore the charcoal may represent the charred remains of a post or other structure. As oak achieves high temperatures when burning, it was also frequently used as firewood, and was the main fuel used on prehistoric cremations (O'Donnell 2007).

**Table 4.1:** Charcoal from Chapelbride 2

Context	8
Sample	1
Feature	Pit
<i>Charcoal (g/number of fragments)</i>	
Total charcoal (g)	1.138
Percentage of sample analysed	100
Total charcoal analysed >4mm (g)	0.421
Number of analysed charcoal fragments >4mm	11
<i>Quercus</i> sp (Oak)	0.421 (11F)
Unidentified <4mm fraction	0.717

F = number of charcoal fragments.

## 5. Sources

Boardman, S J, 1995 Charcoal and charred macrofossils, in K, Branigan & P, Foster (eds) *Barra: archaeological research on Ben Tangaval, Sheffield: SEARCH Volume 1*, 149-157

Hather, J G, 2000 *The identification of the Northern European Woods: a guide for archaeologists and conservators*, London

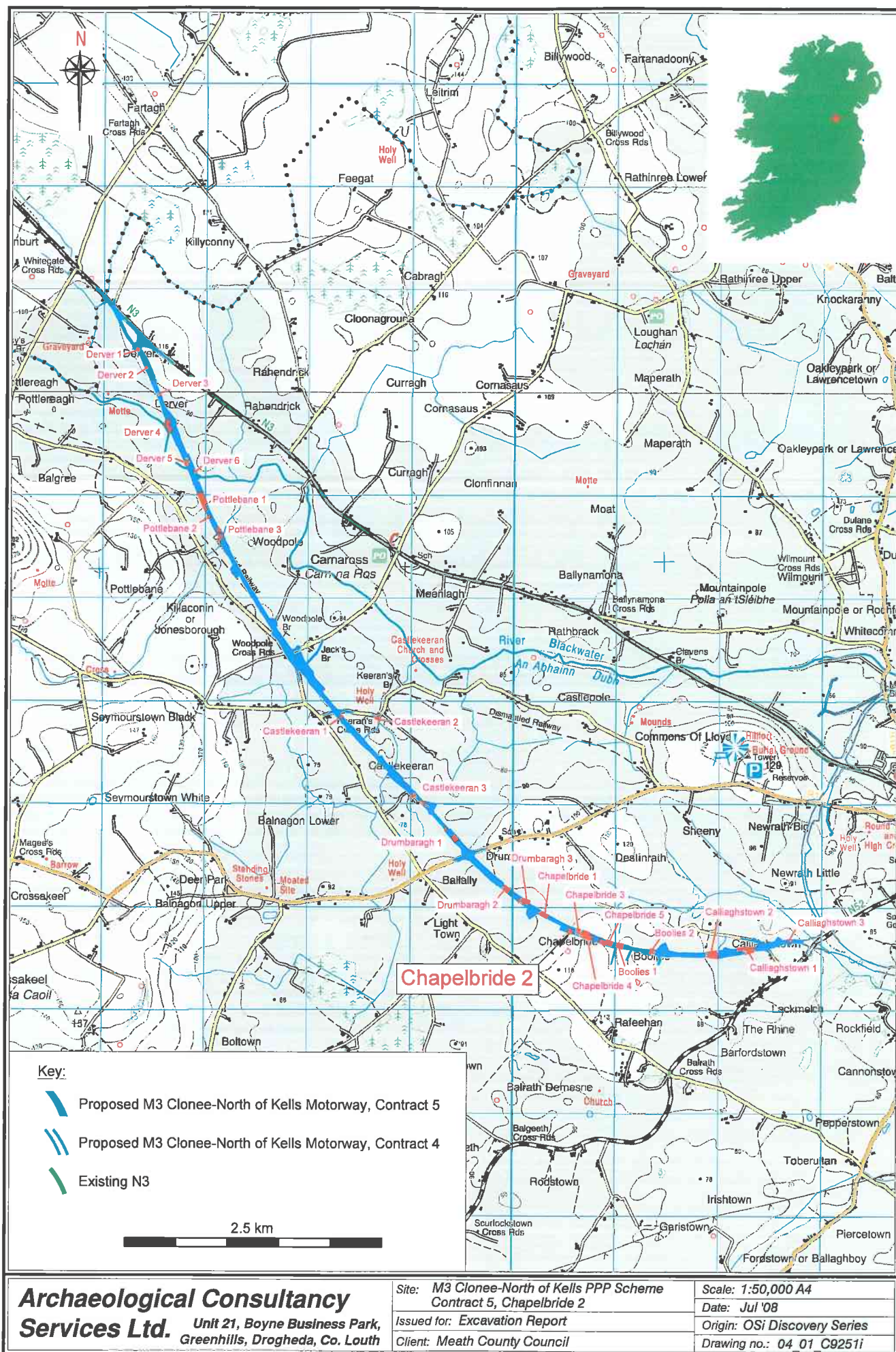
O'Donnell, L, 2007 Charcoal and wood, in Grogan, E, O'Donnell, L, & Johnston, P, *The Bronze Age landscapes of the Pipeline to the West, an integrated archaeological and environmental assessment*, Wicklow

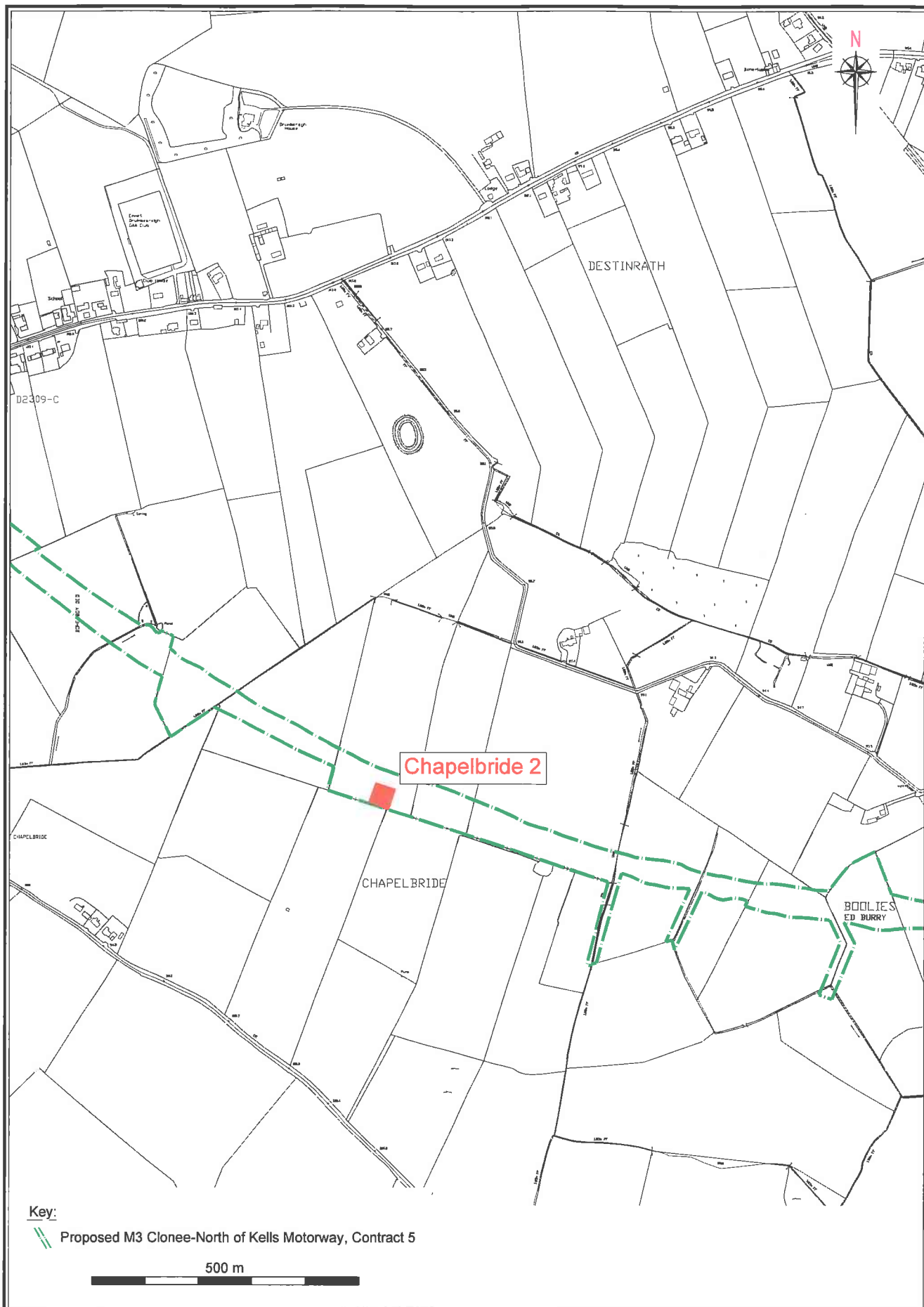
Schweingruber, FH, 1978 *Microscopic wood anatomy*, Birmensdorf

Stuijts, I, 2007 Wood and Charcoal Research in Ireland, in Murphy, EM & Whitehouse, NJ (eds), *Environmental Archaeology in Ireland*, Oxford

**APPENDIX 6** Radiocarbon dates by Beta Analytic

<b>Context</b>	<b>Sample No.</b>	<b>Material</b>	<b>Species I.D.</b>	<b>Lab</b>	<b>Number</b>	<b>Date Type</b>	<b>Lab Calibrated Date</b>	<b>Conventional Date (BP)</b>	<b>Oxcal Calibrated Date</b>	<b>13C/12C Ratio ‰</b>
8	1	Charcoal	Oak	Beta	241162	AMS (Std)	Cal BC 4040-3950	5180 +/-40	4221-3813 BC	-25.5





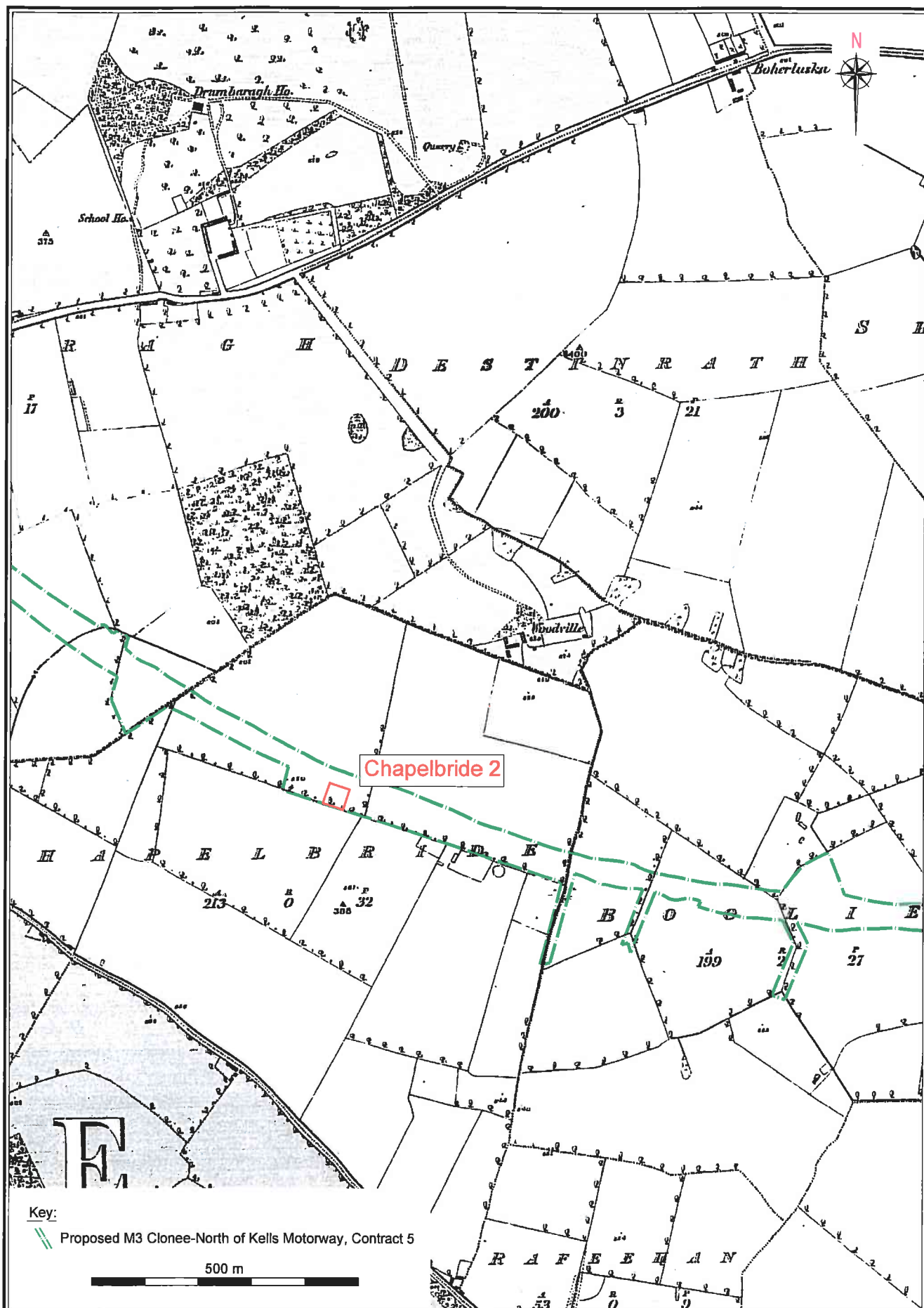
**Archaeological Consultancy  
Services Ltd.** Unit 21, Boyne Business Park,  
Greenhills, Drogheda, Co. Louth

Site: M3 Clonee-North of Kells PPP Scheme  
Contract 5, Chapelbridge 2  
Issued for: Excavation Report  
Client: Meath County Council

Scale: 1:10,000 A4  
Date: Jul '08  
Origin: Client/ACS Ltd.  
Drawing no.: 04\_01\_C92521

Figure 2: Location of Chapelbridge 2 on current OS background





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Client: Meath County Council

Scale: 1:10,000 A4

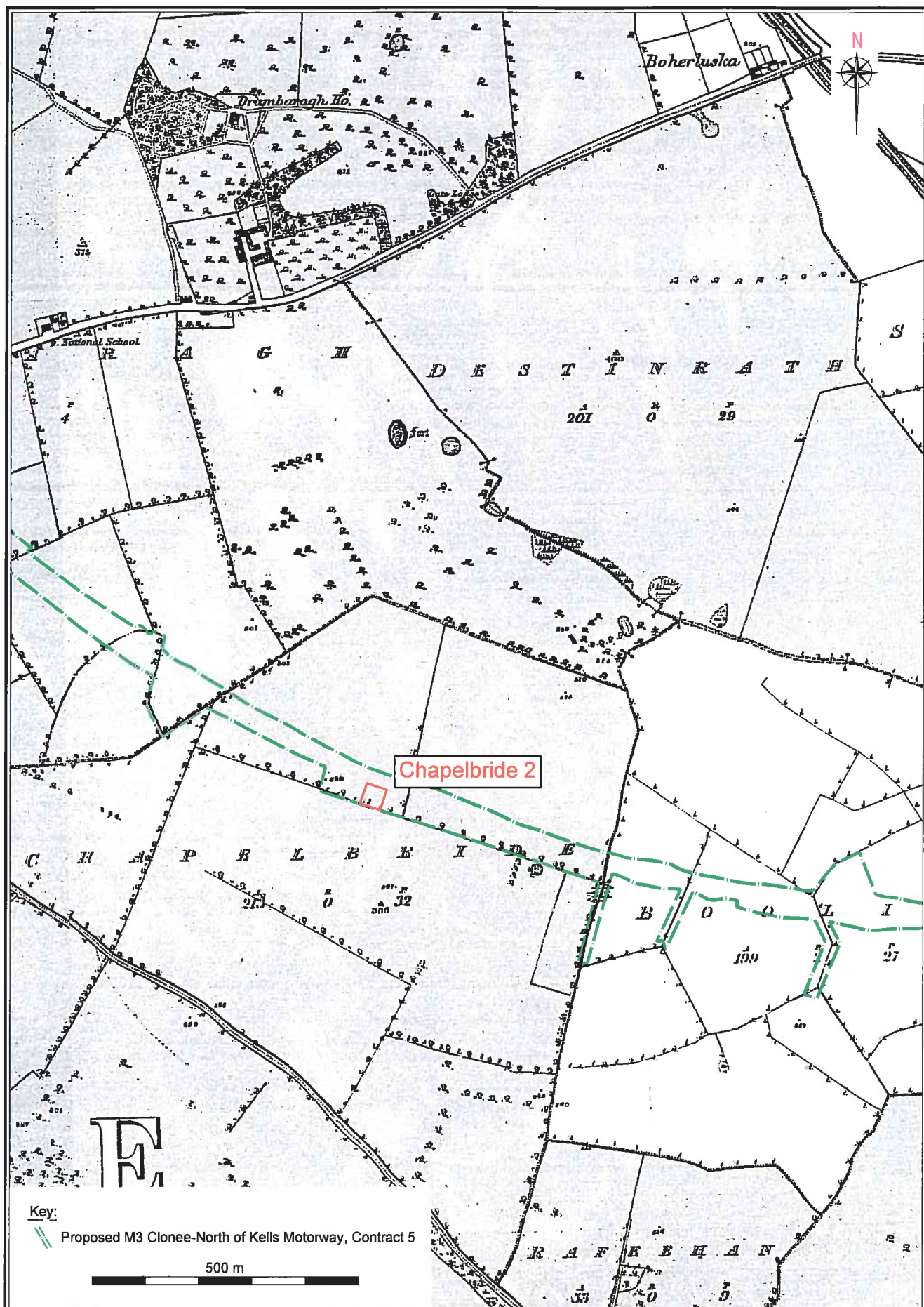
Date: Jul '08

Origin: OSI (1836)

Drawing no.: 04\_01\_C9353i

Figure 3: Chapelbridge 2, extract from 1st edition OS map, Meath sheet 16





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Client: Meath County Council

Scale: 1:10,000 A4  
Date: Jul '08  
Origin: OSI (1882)  
Drawing no.: 04\_01\_C9254i

Figure 4: Chapelbride 2, extract from 2nd edition OS map, Meath sheet 16

Figure 5: Chapelbride 2, extract from 3rd edition OS map, Meath sheet 16



**Archaeological Consultancy  
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Site: M3 Clonee-North of Kells PPP Scheme  
 Contract 5, Chapelbridge 2

Issued for: Excavation Report

Client: Meath County Council

Scale: 1:5,000 A4

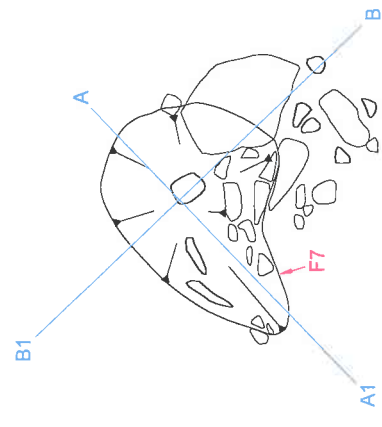
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Origin: Client/ACS Ltd.

Drawing no.: 04\_01\_C9256i

Figure 6: Detailed location of Chapelbridge 2



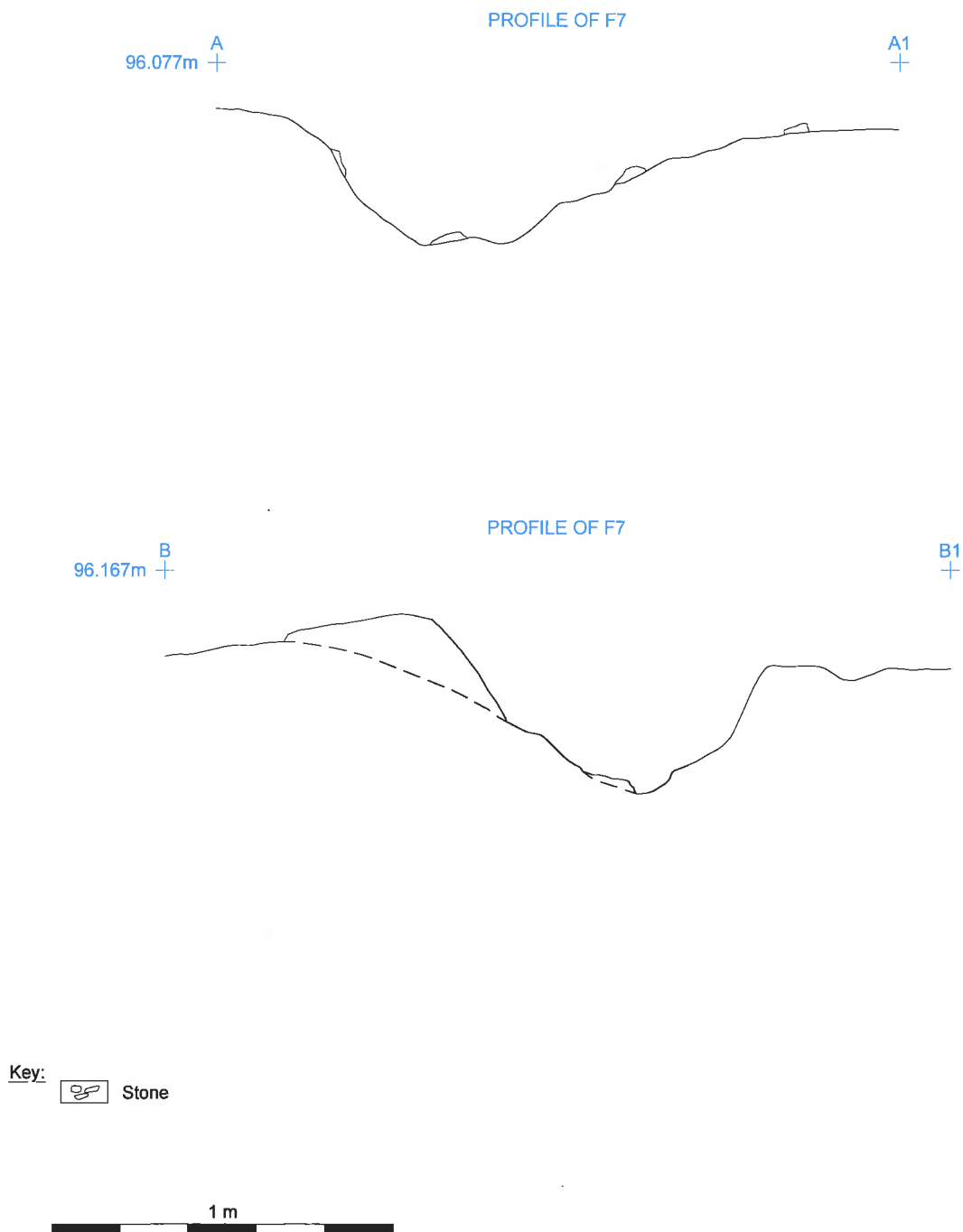


Key:  Stone



<b>Archaeological Consultancy Services Ltd.</b> Unit 21, Boyne Business Park, Greenhills, Drogheda, Co. Louth		Site: M3 Clonee-North of Kells PPP Scheme Contract 5, Chapelbride 2	Scale: 1:20 A4
		Issued for: Excavation Report	Date: Jul '08
		Client: Meath County Council	Origin: ACS Ltd.
			Drawing no.: 04 01 C92571

Figure 7: Plan of features at Chapelbride 2



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Contract 5, Chapelbride 2  
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Client: Meath County Council

Scale: 1:20 A4  
Date: Jul '08  
Origin: Client/ACS Ltd.  
Drawing no.: 04\_01\_C9258i

Figure 8: Profiles of F7



Plate 1: Post-excavation photograph of F7, from the west (04\_01\_Chapelbridge\_CP01\_5)