

Report on archaeological testing conducted under excavation licence 12E023

Site location:	Cavan Road, Oldcastle, Co. Meath
Planning ref:	KA110533
Client:	Mr Ronan Healy of Fore Enterprises on behalf of RJVB
	Property Partnership
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OBB	

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1. Introduction

Mícheál Ó Droma of Wolfhound Archaeology conducted a programme of archaeological testing under licence **12E023** at a proposed development site at Cavan Rd, Oldcastle, Co. Meath in February 2012. The works were carried out at the request of the client, Mr Ronan Healy of RJVB property partnership, in relation to a request for further information from Meath Co. Council in the matter of planning application **KA110533** for a proposed housing development.

The proposed development will consist of; 53 No. two storey houses (comprising 6 no. 2 bed semi-detached houses, 9 No. 2 bed terraced houses, 34 No. 3 bed semi-detached houses, 2 No. 4 bed semi-detached houses and 2 No. 4 bed detached houses) and 1 No. two storey Crèche and all ancillary site works. See plan of proposed development for layout of development (Figure 3). There are to be no onsite sewerage or water treatment works as the development will be connected to the municipal sewerage treatment facility.

Archaeological remains were identified during the testing. The remains are described in section 5 of this report and recommendations for the protection of the archaeological heritage are given in section 8.

The works were carried out as per a method statement submitted to and approved by the DAHG and the NMI and in accordance with the codes of conduct of the IAI.

2 Site location and topography

The site is situated on the northern outskirts of the town of Oldcastle. Oldcastle is situated in the north-west of County Meath close to the border with County Cavan. The site is located at and accessed from the Cavan Road. The site measures *c*. 1.9 Ha or 19,000 m². The centre of the proposed development site is situated at *c*. 106 m OD at Latitude/Longitude co-ordinates $53^{\circ}46'24''/07^{\circ}09'37''$ and Irish National Grid x/y coordinates 655373/780781.

The site is partly bounded to the west and north by industrial units and will be accessed from the west. The site is currently in rough pasture. Throughout the site large stones were noted to protrude from the ground surface. These may represent outcroppings of the underlying bedrock or glacial erratics. The topography of the site and indeed the surrounding countryside is undulating (Plate 1, 2). At the northern limits of the site ground works related to the construction of the industrial units have effectively created a large "section" into the topsoil and underlying geological strata to a depth of c. 3 m.

The topsoil cover within the site varies considerably and measures between 0.1 - 0.6 m in depth (Plate 9). The topsoil is situated on top of two major types of subsoil; a wet, sticky, compact grey to yellow stony boulder clay measuring a minimum of 2.8 m in depth and a sandy stony orange clay. The topography of the surrounding countryside, the character of the exposed geological strata/ soil horizons, and the presence of possible glacial erratics are consistent with landforms of geological derivation. Several well formed drumlin swarms and eskers are present in proximity to the town of Oldcastle.

Quarrying has occurred within the site over an area measuring c. 30 m x 20 m. Scatters of rounded and sub rounded stones of various lithology and size were noted in the vicinity of the now defunct quarrying site. A gravel pit is depicted in approximately this area of the site on the 1st ed. O.S mapping.

A single SW/NE oriented field boundary is situated in the eastern part of the proposed development site (Plate 7). The boundary is composed of a discontinuous earthen bank measuring c. 1.5 m wide and c. 0.6 m high with an intermittent stone wall noted exclusively on the western face of the bank. The stone walling, where present, was

comprised of flattish sub-rectangular stones laid to rough courses. Up to six courses of stone were noted in the best preserved sections. The boundary was topped by a poorly maintained hedgerow of low blackthorn, whitethorn and elder trees. Three breaks or gaps were noted along the discontinuous boundary. One situated at the northern and southern ends and one mid-way along its length. The breaks are utilised as access between the lands either side of the boundary. The boundary is not indicated on the 1st ed. O.S mapping but is present on the 2nd ed. O.S mapping and is likely to have been constructed between *c.* 1850 and 1900.

The boundary at the north east of the proposed development site is partly comprised of an earthen bank and a poorly maintained stone wall topped by a scrubby hedgerow and abutted to the north by a water filled ditch. The water in the ditch originates in a spring fed pond located in an adjacent plot of land to the site of the proposed development. The water filled ditch represents part of a canalised watercourse. The water course is depicted on the 1st ed. O.S mapping. Its course is shown as flowing from east to west along the boundary at the north of the site to where it crossed the N/S running Cavan Rd and continued to flow towards the west, eventually joining a tributary of the River Inny. The course of the water channel had been modified by the time of the 2nd ed. O.S mapping and it no longer appears to flow along the northern boundary of the proposed development site. The watercourse has been further modified by the construction of the industrial units to the north and west of the proposed development in more recent times. At the northern part of the proposed development site extensive areas of the site waterlogged and flooded at the time of the site visit but were noted to be dry at the time of the testing

The northern part of the site was flatter and low lying and along with an area to the north and outside of the limits of the proposed development is thought be a former wetland area than may represent a flood plain related to the now canalised watercourse.

Although no sub-surface alluvial deposits were noted in the northern area of the proposed development site in proximity to the former course of the diverted watercourse, the topsoil was darker and contained a higher percentage of silt than was noted elsewhere on the site. A variation in the subsoil character was noted between the low lying north-western part and the remainder of the site. The change in the subsoil is thought to be related to the low lying area being periodically flooded and the inundation causing a change in the subsoil chemistry and soil structure recognisable by the naked eye. The subsoil in the low lying north-western area was whiter in colour and had higher concentrations of clay. The white colour may be a result of the de-mineralisation of the subsoil through water leaching. This process is likely to have occurred prior to the canalisation of the watercourse in the mid 19^{th} Century.

The views to the north, west and south of the proposed development site are curtailed by existing industrial and residential developments. Views to the east are of rolling undulating countryside characterised by small to medium sized fields bounded by hedgerows and stone walls. The proposed development will have no impact on the visual amenity of any archaeological site. Distant views of the megalithic structures at Loughcrew can be seen from some locations within the site.

Four excavations have taken place in Oldcastle townland according to the excavations bulletins database (accessed Jan 2012) under licences 03E0598, 03E1400, 04E01055 and 05E0165. No features of archaeological significance were identified during these works.

There are no recorded monuments within or in the immediate vicinity of the proposed development site. Several recorded archaeological monuments are noted within the same townland.

RMP no	Туре	Description	Townland
ME009-014-	<i>Rath</i> / ringfort	Circular area defined by scarp with traces of earthen bank ESE-SW (diam. 36m). No visible fosse or entrance.	Oldcastle
ME009-013	<i>Rath</i> / ringfort	Raised circular area defined by earthen bank (diam. 32m) with external fosse SSW-W. Entrance at ESE.	Oldcastle
ME009-089	Holy Well	No description available on NMS database at time of writing.	Oldcastle
ME009-018	Church	Dopping's Visitation Book 1682-5 notes that church was in ruins since 1641 (RMAHS 1965, 171-2). C of I church stands on site. Disc-headed cross outside church.	Oldcastle
ME009-024	Castle - motte and bailey	Flat-topped mound of earth (diam. of top 13m, diam. of base 25m, H 3m) with raised crescent-shaped bailey (W 16m) attached W-ENE.	Oldcastle

Table of archaeological monuments within Oldcastle Townland, Co. Meath

3.1 Prehistoric

The wider landscape in the vicinity of Oldcastle is rich in archaeological remains. The nearby Loughcrew megalithic cemetery located c. 3 km to the south-east is indicative of extensive Neolithic activity in the region. The townlands of Carnbane, Ballinvalley, Drumsawry/ Summerbank, Drumlerry, Loughcrew, Newtown, Patrickstown, Forkill Corstown contain an extensive complex of prehistoric and megalithic sites and monuments. A dense complex of archaeological remains is present in the megalithic cemetery of *Slieve* na Calliagh. The archaeological remains are not confined to the uplands with numerous monuments present in the low lying areas surrounding the hillsides. Passage tombs, a possible cursus monument, barrows, standings stones, stone circles and fulachtaí fia testify to prolonged and intensive prehistoric activity in the area. The Slieve na Calliagh uplands comprise the highest point in Co. Meath and appear to be the focus of ritual and burial activities for prolonged periods in the prehistoric periods. Passage tombs have been shown to have been constructed here in the Neolithic period (Cooney and Grogan, 1994). Barrows located within the Slieve na Calliagh uplands suggest that the area remains a focus of activity into the Bronze Age. Excavations within the tombs also revealed the presence of Iron Age material (Raftery, 1994).

Although not currently subject to the same levels of study as the archaeological complexes elsewhere in the Boyne valley, such as Tara and *Brú na Boinne*, the character and extent of the remains in the Loughcrew area suggest that an archaeological landscape of similar complexity is present on and around the *Slieve na Calliagh* uplands. The full extent of the archaeological complex is unclear as is the nature of the settlements of the communities who constructed and utilised the archaeological monuments of the Loughcrew complex. It is likely that extensive prehistoric settlement is present in the countryside surrounding Loughcrew, including the Oldcastle area.

3.2 Early Medieval

Numerous earthen enclosures situated in the vicinity of Oldcastle indicate the presence of extensive early medieval settlement activity. Many of these earthen enclosures are likely to comprise the remains of early medieval enclosed settlement sites commonly referred to as ringforts and *raths.* These sites were typically constructed and occupied from the $6^{th} - 11^{th}$ centuries. Individual early medieval enclosed settlement sites have been shown through the results of recent excavations to have had complex individual site narratives. These monuments can be seen to roughly conform to broad patterns of chronology, site morphology and settlement activities. Excavations at Colp West and Baronstown, Co Meath are good examples of early medieval enclosed settlement sites (Kinsella, 2008). The earthen enclosures (ME009-014 and ME009-013) situated within Oldcastle townland indicate early medieval settlement within the vicinity of the proposed development site.

3.3 Medieval

The presence of a motte and bailey castle (ME009-024) on the southern outskirts of Oldcastle and located *c*. 1 km south of the proposed development site indicate that the area continued to be occupied after the Norman colonisation of County Meath in the late 12^{th} century. It is unclear if any additional medieval settlement activity occurred in the vicinity of the motte and bailey castle. In the mid 17^{th} century a ruinous church was noted in the town on the site now occupied by the Church of Ireland. Toponymic evidence derived from Castle Street and the name of the town itself hints at the former presence of a fortified structure at the northern side of the town.

3.4 Post-medieval

The modern town of Oldcastle and its street pattern appear to derive from its establishment in the 17th and 18th Centuries. The town was developed by the Napper family who had received the lands around Oldcastle as a grant from the crown, the lands having been confiscated from the Plunkett family.

The town of Oldcastle was an important market town in the 18th and 19th centuries and much of its streetscape including the buildings and the market house date from this period. The railway and railway station were an important element in the economy of the town at this time.

4 Testing methodology

The monitoring was conducted by the author and there were no constraints on the archaeological methods of testing utilised. There was no surface trace within the site of any archaeological remains based on a visual site inspection conducted on the ground. Analysis of aerial photography from the OSI website (1995, 2000 and 2005 orthostatic imagery) and Google Earth revealed no indication of subsurface remains. The test trench array was designed to cover the maximum amount of terrain relative to the total area of the site, and to target undulations in the ground and areas of potential archaeological significance identified in the geophysical survey carried out by Earthsound Archaeology.

A series of test trenches excavated across the site with a mechanical excavator fitted with a *c*. 1.8 m wide grading bucket was monitored by the author. The test trenches were excavated through the topsoil down to the level of the subsoil/geology or the archaeological remains. The testing was stipulated in condition 14B to planning.

The area of the test trenches amounted to *c*. **15%** of the total area of the site. This amounts to *c*. 2602 m² or approx 11.3% of the total area of the proposed development site at *c*. 1.9 ha or 19,000 m². See the test trench layout (Figure 4 & Plate 15).

The allowance that had been made in the costed schedule of works agreed with the client to extend the investigated area up to 15% of the site if areas of potential archaeological significance are identified within the test trenches was necessary and fully utilised. This allowed for areas of potential archaeological significance identified within the test trenches to be properly assessed during the testing phase.

Ground conditions were initially thought by the author to preclude the effective use of non-invasive geo-physical prospection techniques. The author successfully requested that a condition of the planning (Planning condition 14, A. states that "*the assessment should include geophysical survey*") to utilise non-invasive geo-physical techniques as part of the testing methodology be removed.

Further to a conversation with James Bonsall of Earthsound Geophysics after a testing licence had been issued to the author the opportunity to carry out a geophysical survey

became available. Mr Bonsall expressed an interest in assessing an "unsuitable" site using geophysical prospecting techniques as part of a Phd research project he is currently engaged in.

Mr Bonsall agreed to use geophysical survey techniques on the site in the areas between the test trenches as specified in the method statement that accompanied the licence application. In addition the author agreed to investigate areas of potential archaeological remains that lay outside the test trench array to further assess the effectiveness of geo-physical survey in sites of this type. The results of the geophysical survey and a brief assessment of its effectiveness are described in section 5 below.

Seventeen test trenches were excavated and four areas of archaeological significance were identified (Figure 4, 5, 6 and 7). In addition three areas of potential archaeological significance identified during the test trenching were investigated and found to be non archaeological.

Test trenches 1-6 were located in the east field with trenches 7-17 located in the west field. Archaeological remains were identified in several locations throughout the site and the results from each trench are described in detail below. Each feature was allocated a feature number (F.1, F.2 etc) specific to each trench.

In addition to the archaeological remains described per trench a large area was stripped of topsoil where a high density of archaeological remains was identified. The dense concentration of archaeological remains was situated centrally within the footprint of the proposed development site and is referred to henceforth as Area 1 (Figure 6).

All of the archaeological features identified during the testing phase were photographed, drawn and recorded as per standard archaeological procedures. In addition a representative number were manually investigated and recorded. The results are contained within the testing archive. All finds from the topsoil have been retained in the site archive. The features identified within the test trench array are described here. Each feature is ascribed an archaeological significance based on the location, morphology, fill and finds. Features of low archaeological significance do not require further work, Features described in this report as being of medium significance have archaeological potential and they should be fully exposed during pre-development archaeologically monitored topsoil removal. Features of known or likely high archaeological significance should be fully investigated and excavated prior to any further development taking place.

A dense cluster of archaeological remains was noted in Area 1 and is also described in this section (Section 5.2).

5.1 Description of results per test trench

Archaeological features deemed to be of medium and high potential have been highlighted as follows:

Medium

TEST TRENCH 1

(East field) Length = 27.5 m. Oriented N/S.

Subsoil - orange sandy clay interspersed with bands of sand and gravel with occasional rock outcrops.

Feature	Description	Archaeological significance
F.1	E/W linear. 0.5 m wide. Produced post-medieval pottery.	Low
F.2	E/W linear. 0.8 m wide.	Low
F.3	Stone socket.	None
F.4	E/W linear. 0.8 m wide.	Low

TEST TRENCH2 (East field) Length = 40 m. Oriented N/S.

Subsoil - orange sandy clay interspersed with bands of sand and gravel with occasional rock outcrops.

Feature	Description	Archaeological
		significance
F.1	Possible post-hole. Half sectioned. Proved to be a deposit of	None
	black macerated limestone. Geology.	5
F.2	E/W linear. 0.8 m wide.	Low
F.3	E/W linear. Min 0.6 m wide.	Low

TEST TRENCH 3 (East field) Length = 129 m. Oriented N/S. (Plate 2)			
Subsoil - o	range sandy clay interspersed with bands of sand and gravel wi	th occasional rock	
outcrops.	01		
Feature	Description	Archaeological	
		significance	
F.1	E/W linear. 0.6 m wide. Filled by mid greyish brown silt.	Low	
F.2	E/W linear. 0.7 m wide. Filled by mid greyish brown silt with frequent stone inclusion.	Low	
F.3	E/W linear. 0.7 m wide. Filled by mid greyish brown silt with frequent stone inclusion.	Low	
F.4	Curving charcoal rich linear. Measures c 1 m long by 0.08	Low	
	m wide and 0.02 m deep. Edges unclear and boundary		
	diffuse. May represent a burnt out tree root located close to		
	the N/S tree lined field boundary.		

F.5	Small circular possible post-hole. Half sectioned and La	ow - <mark>Medium</mark>
	measures c 0.16 m long by 0.12 m wide and 0.04 m deep.	
	Shallow and may represent a stone socket. No charcoal	
	noted in silt fill. Located 1 m N of F4 and 0.8 m W of F6	
F.6	Small circular possible post-hole. Half sectioned and La	OW
	measures c 0.1 m long by 0.09 m wide and 0.05 m deep.	
	Shallow and may represent a stone socket. No charcoal	
	noted in silt fill. Located 1.6 m N of F4 and 0.8 m E of F.5	٢.

TEST TRENCH 4 (East field) Length = 128 m. Oriented N/S.

Subsoil - orange sandy clay interspersed with bands of sand and gravel with occasional rock outcrops.

Feature	Description	Archaeological
		significance
F.1	E/W linear. Measured 0.6 m wide by 0.2 m deep. U- shaped in section. Filled by mid to light brown silty clay with moderate large stone and frequent intrusive tree root inclusions.	Low
F.2	Large oval pit. Measured 1.8m long (NE/SW) by 1.4 m wide and 0.45 m deep. Steep sides. Contains 2 fills. Upper fill comprised of dark grey silt. Lower fill comprised of large angular stones up to 0.2 m long. Large voids noted between the stones. Thought to represent field clearance and to be post-medieval in date. (Plate 4)	Low - <mark>Medium</mark>
F.3	E/W linear. Measured 0.6 m wide.	Low
F.4	Possible post-hole. Circular in plan. Measured 0.2 m in diameter. Black soft fill. Upon half sectioning proved to be a macerated piece of limestone.	None

F. 5	E/W linear. Measured 0.4 m wide. Filled by mid brown silt.	Low

TEST TRENCH 5 (East field) Length = 30 m. Oriented ENE/WSW

Subsoil - a yellow sticky clay interspersed with rock outcrops and bands of geologically derived gravel.

No features in this trench

TEST TRENCH 6 (East field) Length = 37 m. Oriented NE/SW.

Subsoil a yellow sticky clay interspersed with rock outcrops and bands of geologically derived gravel.

No features in this trench

TEST TRENCH 7 (West field) Length = 170 m. Oriented E/W. (Plate 5)

Subsoil - varies between a yellow sticky clay interspersed with rock outcrops and bands of geologically derived gravel and patches of orange clay with occasional stone inclusions.

Description	Archaeological	
	significance	
NE/SW oriented linear. Measured 0.6 m wide by 0.3 m	Low	
deep. Thought to represent a field drain.		
NE/SW oriented linear. Measured 0.6 m wide by 0.3 m	Low	
deep. Thought to represent a field drain.		
NE/SW oriented linear. Measured 1.2 m wide by 0.3 m	Low	
deep. Thought to represent a field drain. Dark black silt fill.		
Contains red brick fragments and post-medieval pottery.		
	DescriptionNE/SW oriented linear. Measured 0.6 m wide by 0.3 m deep. Thought to represent a field drain.NE/SW oriented linear. Measured 0.6 m wide by 0.3 m deep. Thought to represent a field drain.NE/SW oriented linear. Measured 1.2 m wide by 0.3 m deep. Thought to represent a field drain. Dark black silt fill.Contains red brick fragments and post-medieval pottery.	

F.4	NE/SW oriented linear. Measured 0.6 m wide by 0.3 m	Low
	deep. Thought to represent a field drain.	
F.5	E/W oriented linear drain, Measured 0.4 m wide by 0.3 m	Low
	deep with a V-shaped profile. Filled with dark brown peat.	
F.6	NE/SW oriented linear. Measured 1 m wide. Filled by dark	Low
	brown silt. Thought to represent a field drain.	
F.7	E/W oriented linear drain. Measured 0.8 m wide.	Low
F.8	N/S oriented linear drain. Measured 1 m wide by 0.15 m	Low
	deep. U-shaped profile. Filled with dark brown peat.	5,
F.9	Junction of two drainage ditches. One running SW/NE	Low
	measured 0.5 m wide by 0.25 m deep filled by dark grey	
	brown silt with frequent large stone inclusions. The larger	
	drain was stone lined, ran NW/SE, measured 0.85 m wide	
	by 0.4 m deep has steep to vertical sides and a flat base. The	
	sides, top and base of the ditch was lined by flat limestone	
	slabs and form a classic French drain. Located in low lying	
	waterlogged northern part of site. (Plate 13).	
F.10	E/W oriented linear drain. Measured 0.7 m wide. Filled by	Low
	dark brown silt.	

TEST TRENCH 8 (West field) Length = 150 m. Oriented E/W.

Subsoil - varies between a yellow to white wet sticky clay interspersed with rock outcrops and bands of geologically derived gravel and patches of orange clay with occasional stone inclusions.

Feature	Description	Archaeological significance
F.1	Possible post-hole/stone socket. Circular in plan. Measured	Low

	0.28 m in diameter.	
F.2	N/S oriented ditch. U-shaped profile. Measured 0.6 m wide	Low
	by 0.3 m deep. Filled by dark brown silt. Contained a sherd	
	of black glazed red earthenware.	
F.3	Large modern stone deposit in low lying depression.	Low
	Measured c. 7 m in diameter. Comprised of large, angular	
	to sub-rounded limestone. Contained sherds of white glazed	
	modern ceramic material. Thought to represent field	
	clearance or deliberate deposition of stone in a low lying	5
	waterlogged part of the site.	2,
F.4	E/W oriented linear drain. Measured 0.8 m wide. Filled by	Low
	dark brown silt.	
F.5	E/W oriented linear drain. Measured 0.8 m wide. Filled by	Low
	dark brown silt.	
F.6	SE/NW oriented linear ditch. Measured 0.5 m wide. Filled	Low
	by dark brown silt with frequent large stone inclusions.	
F.7	Ditch situated adjacent to and running parallel with the	Low
	western side of the tree lined SW/NE running field	
	boundary that bisects the site into West and East fields.	
0	Ditch had a V-shaped profile and measured 1.3 m wide by	
\sim	0.45 m deep. Contained two fills the lower fill comprised of	
	silt, large angular limestone blocks and slumped natural.	
	The upper fill comprised of dark brown silt. A large modern	
	iron object thought to be a piece of agricultural equipment	
	was retrieved from the upper fill. (Plate 7).	
1		

TEST TRENCH 9 (West field) Length = 133 m. Oriented SW/NE.

Subsoil - varies between a yellow to white wet sticky clay interspersed with rock outcrops and bands of geologically derived gravel in the north of the trench and patches of orange clay with occasional stone inclusions in the south of the trench. A large deposit of geologically derived sand measuring at least 0.6 m deep was noted in the southern part of the trench.

Feature	Description	Archaeological
		significance
F.1	E/W oriented linear drain. Measured 0.8 m wide. Filled by	Low
	dark brown silt.	
F.2	E/W oriented linear. Possible furrow. Measured 0.4 m wide	Low
F.3	E/W oriented linear. Possible furrow. Measured 0.4 m wide.	Low
	Filled by dark brown silt. Contained black glazed red	
	earthenware.	
F.4	E/W oriented linear. Possible furrow. Measured 0.4 m wide.	Low
	Filled by dark brown silt. Contained black glazed red	
	earthenware.	
F.5	E/W oriented linear. Possible furrow. Measured 0.4 m wide.	Low
\sim	Filled by dark brown silt. Contained black glazed red	
	earthenware.	
F.6	E/W oriented linear. Possible furrow. Measured 0.5 m wide.	Low
	Filled by dark brown silt.	
F.7	E/W oriented linear. Possible furrow. Measured 0.45 m	Low
	wide. Filled by dark brown silt. Contained black glazed red	
	earthenware.	
F.8	Possible pit. Oval in plan. Measured 0.8 m long by 0.6 m	<mark>Medium</mark> - <mark>High</mark>

wide and 0.22 m deep. Contained a single mid to dark	
greyish brown silt fill with occasional charcoal fleck and	
heat shattered stone inclusions. Half sectioned. (Plate 6).	

TEST TRENCH 10 (West field) Length = 105 m. Oriented NE/SW.

This trench was excavated in three discontinuous sections. The two discontinuous southern sections had no features of archaeological significance. The subsoil in the two southern discontinuous sections of the trench was comprised of patches of orange clay with occasional stone inclusions interspersed with rock outcrops.

In the northern low lying section of the trench the subsoil comprised of yellow to white wet sticky clay interspersed with rock outcrops and bands of geologically derived gravel.

In the higher ground the subsoil comprised of patches of orange clay with occasional stone inclusions in the south of the trench.

A correlation between the location of archaeological features and the areas with the orange clay subsoil was noted.

Feature	Description	Archaeological
		significance
		8
F.1	Possible pit. Circular in plan. Located immediately north of	Medium
	Area 1. Measured 0.5 m in diameter. Filled by dark brown	
	charcoal flecked silt.	
F.2	Possible pit. Circular in plan. Located immediately north of	Medium
	Area 1 and 1.3 m north-east of F.1. Measured 0.4 m in	
	diameter. Filled by dark brown charcoal flecked silt.	
F.3	Possible large pit/linear. Extended beyond eastern limits of	Medium
	test trench. Located <i>c.</i> 2 m northeast of F.1 and F.2.	
	Measured a minimum of 1.6 m long by 1.3 m wide. Filled	
	by dark greyish brown silt.	

F.4	Large oval pit. Located <i>c.</i> 4 m northeast of F.1 and F.2. Medium
	Measured 1.5 m long by 1.15 m wide. Filled by dark greyish
	brown silt with occasional small stone and charcoal fleck
	inclusions.
F.5	E/W oriented linear. Possible furrow. Measured 0.5 m wide Low
	by 0.3 m deep. Filled by dark brown silt and occasional
	small to medium angular limestone.
F.6	SW/NE oriented linear drain. Measured 0.4 m wide by 0.25 Low
	m deep. Filled by medium to large angular limestone.

TEST TRENCH 11 (West field) Length = 21 m. Oriented E/W.

Subsoil - comprised of patches of orange clay, sand and extensive rock outcropping.

No features in this trench

TEST TRENCH 12

(West field) Length = 105 m. Oriented N/S and SW/NE.

Subsoil - varies between a yellow to white wet sticky clay interspersed with rock outcrops and bands of geologically derived gravel (at site north) and patches of orange clay with occasional stone inclusions (at site south).

Feature	Description	Archaeological
		significance
F.1	E/W oriented linear. Possible ditch. Measured 0.7 m wide.	Low
F.2	E/W oriented linear. Possible ditch. Measured 1.5 m wide.	Low
F.3	E/W oriented linear. Possible ditch. Measured 0.8 m wide.	Low
F.4	Very large deposit of stone, gravel and charcoal. Extensive evidence of <i>in situ</i> burning. Coincides with areas of	Low

	quarrying visible at the surface prior to topsoil removal.
	Also depicted on OS mapping. Very large area measuring a
	minimum of 15 m long (N/S) by 4 m wide. Some of the
	disturbance quite recent as plastic retrieved from gravel
F.5	Large pit/linear. Extends beyond eastern limit of test trench Low-Medium
	(This was picked up in geophysical survey). Measured a
	minimum of 1.5 m wide (N/S) and an unknown distance in
	length (min 3 m). Upper fill comprised of mid grey silty
	clay with frequent large to medium stone inclusions. Post-
	medieval pottery retrieved from upper fill of feature.
	Unknown function but may represent gravel pit depicted on
	OS mapping.
F.6	E/W oriented linear. Possible ditch. Measured 1 m wide. Low

TEST TRENCH 13 (West field) Length = 145 m. Oriented N/S.		
Feature	Description	Archaeological significance
F.1	SE/NW oriented linear. Possible ditch. Measured 0.6 m wide. Filled with mid brown silt.	Low
F.2	SE/NW oriented linear. Possible ditch. Measured 0.5 m wide. Filled with mid brown silt.	Low
F.3	Large pit. Measured c . 6 m long (N/S) and a minimum of 0.35 m wide. Filled with dark grey silt. Clay pipe stem retrieved from fill.	Low
F.4	Oval deposit. Burnt gravel. Measured c. 1.9 m wide (E/W).	Low
F.5	Burnt deposit. Charcoal and gravel. Situated between two	Low

	large natural rock outcrops. Measured 0.6 m wide.	
F.6	E/W oriented linear. Possible ditch. Measured 0.7 m wide.	Low
F.7	SW/NE oriented linear ditch. Drainage ditch. Noted to coincide with the change in subsoil from orange to whitish grey.	Low
F.8	Possible pit/ stone socket. Circular in plan. Measured 0.2 m in diameter. Dark grey fill.	Low - <mark>Medium</mark>
F.9	E/W oriented linear ditch. Drainage ditch.	Low
F.10	E/W oriented linear ditch. Drainage ditch.	Low

TEST TRENCH 14 (West field) Length = 148 m. Oriented N/S.

Subsoil- varies between a yellow to white wet sticky clay interspersed with rock outcrops and bands of geologically derived gravel (at site north) and patches of orange clay with occasional stone inclusions (at site south).

Feature	Description	Archaeological
		significance
F.1	Pyrolithic pit. Oval in plan. Measured c. 0.95 m long by	High
	0.75 m wide and 0.07 m deep. Filled by compact mottled	
	orange light grey sandy silty clay. Contains moderate heat	
	shattered sandstone chunks (more prevalent at centre of	
	feature) and occasional localised charcoal fleck and chunk	
	inclusions randomly distributed throughout the fill. Half	
	sectioned.	
F.2	Possible pit. Circular in plan. Measured c. 0.6 m in	Medium
	diameter. Silt filled. Located 0.6 m north of F.1.	
F.3	Possible pit. Circular in plan. Measured c. 0.6 m in	Medium

	diameter. Silt filled. Located 0.6 m north of F.1.	
F.4	E/W oriented linear ditch. Drainage ditch/furrow. Measured 0.5 m wide. Filled with mid brown silt. Contained black glazed red earthenware.	Low
F.5	E/W oriented linear ditch. Drainage ditch/furrow. Measured 0.5 m wide.	Low
F.6	E/W oriented linear ditch. Drainage ditch/furrow. Measured 0.5 m wide.	Low
F.7	E/W oriented linear ditch. Drainage ditch/furrow. Measured 0.6 m wide.	Dow
F.8	E/W oriented linear ditch. Drainage ditch/ furrow. Measured 0.5 m wide.	Low
F.9	E/W oriented linear ditch. Drainage ditch/ furrow. Measured 0.7 m wide.	Low
F.10	SW/NE oriented linear drain. U-shaped profile. Measured 0.8 m wide and 0.2 m deep. Filled by black peaty silt fill with occasional small stone inclusions. A clay pipe stem was retrieved from this fill. (Plate 8, 17).	Low
F.11	Pit. Oval in plan. Measured <i>c.</i> 1.8 m long by 0.5 m wide. Filled with black silt with frequent small stone inclusions. Contained red brick fragments.	Low
F.12	Pit. Modern glass and plastic retrieved in fill	None
F.13	Possible pit. Measured 1 m wide. Similar to F.12	Low
F.14	Large pit. Oval in plan. Measured 3 m long (N/S). Dark brown silt with frequent stone inclusions. Contained several sherds of black glaze red earthenware.	Low

F.15	Large deposit of angular stone. Composed of large angular	Low
	limestone blocks. Situated in a low lying wet area at the	
	north of the site. Measured c. 5 m long by 4 m wide.	

TEST TRENCH 15 (West field) Length = 40 m. Oriented N/S.

Subsoil - varies between a yellow to white wet sticky clay interspersed with frequent rock outcrops (at site north) and patches of orange clay with occasional stone inclusions (at site south).

Π.						
Feature	Description	Archaeological				
		significance				
F.1	Possible pit. Irregular oval shape in plan. Measured 1.8 m	Low - <mark>Medium</mark>				
	long by 1.4 m wide and 0.1 m deep. Filled with dark greyish					
	brown silt with occasional stone and burnt bone inclusions.					
	A sherd of glazed grey probable post-medieval pottery was					
	retrieved from this feature as was a glass bottle stopper.					
F.2	E/W oriented linear ditch. Drainage ditch/furrow.	Low				
	Measured 0.7 m wide.					
F.3	E/W oriented linear ditch. Drainage ditch/furrow.	Low				
\sim	Measured 0.7 m wide.					
		т				
F.4	E/W oriented linear ditch. Drainage ditch/turrow.	Low				
	Measured 0.7 m wide.					
F.5	Possible pit. Irregular oval snape in plan. Measured c.1.3 m	Low - Medium				
	long by 0.8 m wide. Filled with dark greyish brown silt.					
F.6	Possible pit. Irregular oval shape in plan Measured 2 m	Low - <mark>Medium</mark>				
1.0						
	long by 1.5 m. Filled with dark greyish brown silt.					

TEST TRENCH 16 (West field) Length = 13 m. Oriented N/S.

(This trench is joined to the west side of Trench 13.)

Subsoil - varies between a yellow to white wet sticky clay interspersed with frequent rock outcrops (at site north) and patches of orange clay with occasional stone inclusions (at site south).

Feature	Description	Archaeological
		0
l		significance
F.1	Pyrolithic pit. Oval in plan. Measured 0.4 m long by 0.35 m	High
	wide. Black charcoal enriched silt fill with c. 40 % heat	
	shattered sandstone inclusions. (Plate 9).	
F.2	Pyrolithic pit. Oval in plan (extends beyond northern limits	High
	of trench). Measures c. 0.3 m long (mm) by 0.3 m wide.	
	Black charcoal enriched silt fill with c. 25 % heat shattered	
	sandstone inclusions.	

5.2 Description of remains in Area 1

A small deposit of charcoal rich silt with inclusions of heat shattered sandstone was initially identified in the western side of test trench 10. An additional area of topsoil was removed to ascertain the nature and extent of this deposit. The small deposit noted in the test trench proved to be the eastern edge of a large extensive archaeological feature, thought to represent the remains of a *fulacht fia*. Additional topsoil removal in this area revealed several additional features of archaeological significance.

Area 1 comprised of a roughly trapezoidal area where topsoil was removed. The top of the trapezoidal area measured 37 m long (E/W), the bottom of the trapezoidal area measured 22m long (E/W) with the sides measuring *c*. 32 m N/S (See Figure 6).

At least eight archaeological features are situated within Area 1 (Plates 10, 11, 12). The remains comprise at least one *fulacht fia*/burnt mound and numerous pits filled with pyrolithic material. Three lithics were retrieved from this area.

Feature	Description	Archaeological significance
F.1	Pyrolithic pit. Oval in plan. Measured 0.8 m long by 0.7 m	High
	wide. Black charcoal enriched silt fill with <i>c.</i> 60 % heat	
	shattered sandstone.	
F.2	Pyrolithic pit. Circular in plan. Measured 0.6 m in	High
	diameter. Black charcoal enriched silt fill with c. 60 % heat	
	shattered sandstone.	
F.3	Fulacht fia/burnt mound. Classic horseshoe shape in plan,	High
	Measured c . 13 m long by 6 m wide and a minimum of 0.1	
	m deep. A low lying depression was noted in the open end	
	of the horseshoe shape situated at the west of the <i>fulacht</i> .	
	The depression measures c. 3 m long by 1.6 m wide. This	
	was noted to be filled by a peaty deposit with occasional	
	inclusions of heat shattered stone and may represent the	
	remains of a trough. The peat deposit measures a minimum	
S	of 0.18 m deep and upon limited hand investigation was	
	found to overlay a layer of larger heat shattered stones.	
	The mound of heat shattered stone is situated upslope of	
	and around three sides of the depression. The composition	
	of the mound varies between large and small fragments of	
	heat shattered stone (40% - 80%) and various	
	concentrations of charcoal (5% - 20%).	
F.4	Pyrolithic pit. Located 4 m W of F.3 and 1 m N of a large	High
	natural limestone outcrop. Circular in plan. Measured 0.6	

	m in diameter. Black charcoal enriched silt fill with c. 60 %	
	heat shattered sandstone.	
F.5	Fulacht Fia/burnt spread or possible pyrolithic pit. Located	High
	c. 9 m WNW of F.3. Oval in plan. Measured 7 m long	
	(N/S) by 4 m wide and a minimum of 0.03 m deep. Black	
	charcoal enriched silt fill with <i>c.</i> 40% - 80% heat shattered	
	sandstone.	
F.6	Pit. Located 1.2 m N of F.3. Circular in plan. Measured 0.6	<mark>Medium</mark> - <mark>High</mark>
	m in diameter. Filled with mid brown peaty silt with	
	occasional heat shattered stone inclusion. Upper fill	7
	contained post-medieval pottery remains. The heat	
	shattered stone may be residual material in a late feature or	
	the post medieval ceramic remains may represent intrusive	
	material in an early feature related to the <i>fulachtaí fia</i> /burnt	
	mounds.	
F.7	Linear. E/W oriented ditch or drain. Measured c . 14 m long	Medium - <mark>High</mark>
	by 1.5 m wide and 0.1 m (min) deep. Filled by mid brown	
	silt. Probably post-medieval.	
F.8	Pit. Located 3 m W of F.5. Circular in plan. Measured <i>c.</i> 1	High
	m in diameter. Black charcoal enriched silt fill with c. 40 -	
5	60% heat shattered sandstone.	
0	\mathcal{L}	1

Finds V

A possible chert core (Find No: 12E023:01) was retrieved from topsoil in the vicinity of the large *fulacht fia* type feature F.3. Limited manual cleanback in the vicinity of F.5, at the interface between the subsoil and topsoil, produced two small pieces of possible debitage (Find No: 12E023:02 & 03). A probable saddle quern (Find No: 12E023:04) was retrieved from topsoil removed from Area 1 in the vicinity of the *fulacht fia*. Several dozen diagnostic post-medieval ceramic and glass objects were retrieved from topsoil and the fills of post-

medieval features throughout the site. These have been retained but have not been ascribed find numbers. See appendix 3 for further details on the finds.

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6 Discussion

The archaeological remains identified on the site are thought to be prehistoric and postmedieval in date. The earliest remains on the site are prehistoric and comprise of the remains of at least one *fulacht fia*/burnt mound and several pits filled by pyrolithic material.

6.1 Prehistoric

The earliest remains on the site are prehistoric and comprise of the remains of at least one *fulacht fia*/burnt mound and several pits filled by pyrolithic material.

Fulachtaí fia are typically characterised by subsoil cut troughs and a nearby mound of charcoal and heat shattered stone. Although occurring in isolation they are often found in groups and to date constitute the most common and widespread prehistoric field monument in Ireland (O'Sullivan and Downey, 2004). Found throughout the island of Ireland and with dated examples from the Neolithic to the Medieval period, as may be expected they display a wide typological diversity. Troughs can be circular to rectangular in plan, lined with clay, stone, timbers, wickerwork and indeed unlined. Post-holes and stakeholes can be associated often in considerable numbers or entirely absent. Pits and wells are also commonly found in association with this monument and may also be lined and associated with stake and post-holes.

A related feature type is the burnt spread or mound. These terms can be used to describe an extensive deposit of heat shattered stone and charcoal found without an associated trough. This expression of hot stone technology may derive from the stone being fired *in situ* and used in a dry heating or roasting process. However it has been suggested that as the stones from these sites also appear to have shattered due to thermal heat stress from contact with cold water, there may have been a free standing trough or vessel perhaps of wood or animal skin used in association with these mounds of which no direct evidence survives. Although burnt mounds and spreads in Ireland certainly bear a superficial resemblance to such mounds of burnt stone found elsewhere in north-west Europe it may be safer to describe them as f*ulacht fia* to which they likely have more in common than the similarly named but very different Burnt Mounds of Britain. Although displaying considerable individual variety in the arrangement of trough, mound and other elements, invariably the entire corpus of monuments were utilised in the same way. The troughs were filled with water, stones were heated in a fire and placed in the trough, thereby heating the water. The heated stones often shattered on contact with the cold water due to thermal stress. If the resulting fragments were too small and unsuitable for re-heating they were discarded when the trough was cleaned out. The discarded stones eventually formed a mound located near to the trough. Very often the mound formed around three sides of the trough in a crescent shape with the trough located between the "horns" of the mound. It is this mound, the discarded waste from the use of the monument rather than the functional element, i.e the trough that constitutes the greater part of the remains as they are found in the field.

This type of hot stone/pyrolithic technology is known from elsewhere in prehistoric Europe such as the Burnt Mounds of Britain and the *Hvarskarshogen* of Scandinavia, among other regional expressions. It would appear that pyrolithic technology was exploited in Ireland on a wider scale and for longer periods than was the case elsewhere in Europe.

The term "*fulacht fia*" is composed of two Irish words. The first means "recess" or "cavity" and by extension can be used to describe pits, pits specifically used for cooking, the act of cooking and sometimes even the food itself (Ó Drisceoil 1988, 673; Ó Drisceoil 1990, 158)). The second word has a number of possible interpretations: *fiadh*, meaning of the deer or of the wild, or *fian*, a term used in medieval Gaelic literature to describe a band of hunters or warriors. The term is most commonly associated with "*Fionn Mac Cumhail agus Na Fianna*" and is related to a number of heroic tales recounting the adventures of Fionn and his followers. The Fianna cannot be directly associated with a historical figure and are historico-mythical warriors with supernatural powers who hunted and lived outdoors having numerous adventures (Ó Drisceoil 1988, 673). In North Tipperary the Ordnance Survey maps indicate the presence of '*Fulacht fia*' (Farrelly and O'Brien 2002, 38). The term *fulacht fia* is utilised in this report to indicate a single feature with the plural rendered *fulachtaí fia*.

Although references to "*fulacht*" occur as early as the ninth century AD, the term "*fulacht fiadh*" itself does not appear until the nineteenth century (Ó Drisceoil 1990, 158). Besides the use of the term '*fulacht*' a number of documentary references from Ireland (see below)

include explicit descriptions of the process of boiling liquid using heated stones for both cooking and bathing purposes (O'Neill 2004, 79). The earliest recorded reference to the term '*fulacht*' occurred in *Cormac's Glossary* from approximately 900 AD (Ó Drisceoil 1988, 673), however many of the sources in which the term is found have their roots in the oral tradition making the term difficult to accurately date (Ó Drisceoil 1990, 157). A text from the 12th century (*Agallamh Beg*) describes how a site located on the bank of a stream is regarded as both a cooking place and ancient bathing place (Ó Drisceoil 1988, 673).

The earliest description of burnt stone technology, where a basin of gruel is cooked with fire-heated stones, is from the medieval 'Latin Life of St. Munnu' and dates to before the 15th century (O'Neill 2004, 79). Chronologically the next account is contained in Geoffrey Keating's early seventeenth century *The History of Ireland (Foras Feasa ar Éirinn)* where a lot of detail is given about how the '*Fian*' would cook their quarry over pits of hot stones and in water-filled pits heated by hot stones. In this account the hunters would use a second pit of boiling water to bathe (*ibid.*, 80). The Romance of *Mis* and *Dubh Ruis* is another well known account of a deer being boiled in water heated by hot stones and the water subsequently being used for bathing (*ibid.*)

The term '*fulacht*' can be seen to derive from Gaelic Ireland which had some familiarity with pyrolithic technology. *Fulachtaí fia* as an archaeological field monument, for the most part, have been shown to be Bronze Age in date. The Gaelic world although considerably removed in time from the Bronze Age has provided us a term that not only gives a local flavour to a uniquely Irish expression of a widespread prehistoric technology but may help us as archaeologists to bridge the gap between our concepts of the past and the words used by the inhabitants of that past to label the components of their world.

The purposes to which *fulachtaí fia* were utilised for has been the subject of a long and ongoing debate. The possible range of uses of the heated water produced by these sites is simply enormous. Although the individual morphology of some sites suggests a specific function, there is currently no synthesis of excavated sites that would allow us to relate an individual site typology with a particular activity. Experimental archaeology has verified that cooking, bathing, brewing, leather and textile/ plant fibre processing were all possible uses. Other theories suggest that they were utilised for oak mast processing, sweat houses and saunas, birthing pools and sites for the processing of human and animal remains. The debate over *fulachtaí fia* boils down to a single question; what was the heated water used for? Ultimately there can be no single answer to this question.

6.2 Post-medieval

The post-medieval remains are primarily agricultural in character. The post-medieval remains from the site comprised of boundaries, field clearance and drainage features. The low lying waterlogged nature of the land and subsoil in the northern part of the proposed development site suggests that it was marginal and relatively unproductive land. Evidence for peat formation was identified in the north-west of the site adjacent to the watercourse. The low lying areas of the sites are likely to have been unsuitable for crop cultivation and would have likely been utilised as grazing land in the drier months of the year. Attempts were made to improve the productivity and usefulness of the land through drainge and land reclamation.

E/W oriented furrows were identified in both the test trenches and the geophysical survey in the higher dryer ground at the central and southern areas of the site. This land is likely to have been suitable for tillage. Multiple E/W oriented narrow linear features were revealed by the geophysical survey. These are thought to represent the remains of furrows sitauted in the topsoil. These were not evident in the test trenches and geophysical survey provides the only evidence of their existence. Several of the investigated furrows, ditches and drains all produced similar material; clay pipe bowl and stem fragments and black glazed red earthenware consistent with a 19th - 20th century date.

The client has decided not to proceed with the excavation of the identified remains and now intends to sell the site rather than carry out the proposed development themselves. The client intends to sell the proposed development site and let the purchaser complete any archaeological works that are required. The test trenches and the large area of topsoil removal in Area 1 remain open and have yet to be backfilled. In the interim the archaeological remains have been covered by plastic. The character of the archaeological remains identified, being comprised of burnt stone, are thought to be relatively stable despite no longer being covered by topsoil. However the client has been informed that the current arrangements are temporary and in the long term the archaeological remains should be covered by geotextile and backfilled to ensure their continued preservation and integrity.

Given that archaeological remains have been retrieved from the topsoil and the difficulty for non archaeologists in recognising features of cultural heritage it is imperative that no backfilling or machine works on site take place in the absence of an archaeologist.

In the opinion of the author, the most appropriate way to mitigate against negative impact on the archaeological heritage, is preservation *in situ* until such time as the new owners are set to proceed with the proposed development. Preservation *in situ* is stipulated in condition 14 C to planning. This preservation *in situ* is a temporary measure.

Prior to any further development taking place on the site it is imperative that the appropriate measures to protect the archaeological remains identified and described in this report are made.

Any such works, if deemed to be the most appropriate way to mitigate against negative impact on the archaeological heritage, will be subject to ratification by the statutory authorities.

The author and Mr James Bonsall intend to co-author a paper on the results of the geophysical survey of the site in the near future.

A final report on the results of the archaeological testing will be submitted to the relevant agencies within the specified timeframe and an entry will be made in the relevant years excavations bulletins.

8 Recommendations

The archaeological testing has revealed the presence of archaeological remains at the site. The remains appear to be prehistoric and comprise of a *fulacht fia* and several associated pits. The presence for further archaeological remains to be situated within the proposed development site is high.

In the opinion of the author it is recommended that;

- No further ground works on the site should take place in the absence of an archaeologist.
- The identified remains should be fully excavated prior to the proposed development taking place.
- Temporary preservation *in situ* of the identified remains is the most appropriate strategy to mitigate against negative impacts on the archaeological heritage until such time as the development is to proceed.
- The areas of archaeological significance should be backfilled under archaeological supervision at the earliest opportunity.



9 References

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Kinsella, J "New discoveries and fresh insights: researching the early medieval archaeology of the M3 in County Meath" in Roads, Rediscovery and Research, Archaeology and the National Roads Authority Monograph Series No. 5 (2008).

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www.excavationsbulletins.ie

Appendix 1 Publication record of Micheál Ó Droma

Published material

Ó Droma, M, 'Archaeological investigations at Twomileborris, Co. Tipperary.' pp 45-58. In *Roads, Rediscovery and Research; Archaeology and the National Roads Authority Monograph Series No. 5 (2008)*

Ó Droma, M, 'Found! Ireland's smallest castle' in *Seanda, NRA Archaeology Magazine Issue 3 (2008)*

Johnston, P, Tierney, J & Drumm, M, 'A Spade Mill and Lime Kiln excavated at Coololla, Co. Galway'. pp 4-12. In *Journal of the Galway Archaeological and Historical Society.* Volume No. 61: (2009)

Hughes, J & Ó Droma, M 'Finding the plot: urban and rural settlement in 13th century Cashel, Co. Tipperary' in *Archaeology and the National Roads Authority Monograph Series No. 7 (2011)*

Ó Droma, M "Beyond the Rock; The Iron Age of the Cashel Bypass" in *Seanda, NRA* Archaeology Magazine Issue 7 (2011)

Ó Droma, M, 'Two medieval coin hoards from recent excavation on road schemes in Co. Tipperary'. In Tipperary Historical journal, (2012), Forthcoming

Unpublished reports lodged with NMI & DAHG

Preliminary reports

AR31/ E2374, AR32/E2375, AR33/E2376, AR38/E2381, AR41/E2383, AR42/E2384, 11E088

Final reports

AR31/ E2374, AR32/E2375, AR33/E2376, AR38/E2381, AR41/E2383, AR42/E2384

Unpublished reports not submitted to NMI & DAHG

09E0534 (pending), 12E054 (Active Licence, works yet to commence), 12E089 (Active licence works underway)

Appendix 2 Copy of Planning Conditions

KA110533 (e) Please provide full details of the proposed surface water outfall structure. Archaeology 14. You are requested to carry out an Archaeological Impact Assessment as follows: a. The applicant is required to engage the services of a suitably qualified archaeologist to carry out an archaeological assessment of the development site. The assessment should include the results of a geophysical survey. No subsurface work should be undertaken in the absence of the archaeologist without his/her express consent. b. The archaeologist should carry out any relevant documentary research and inspect the site. Test trenches may be excavated at locations chosen by the archaeologist (licensed under the National Monuments Acts 1930-2004), having consulted the site drawings. Having completed the work, the archaeologist should submit a written report to c. the Planning Authority and to the Department of the Environment, Heritage and Local Government. Where archaeological material/features are shown to be present, preservation in situ, preservation by record (excavation) or monitoring may be required. Appropriate Assessment 15. Having regard to the nature and the scale of the proposed development with foul sewerage discharges to the public sewerage system and further having regard to the location of a number of Natura 2000 sites (Lough Sheelin SPA, Moneybeg & Clareisland Bogs SAC, the River Boyne and River Blackwater SAC) in the wider catchment area it is considered that sufficient uncertainty remains as to the effects of the proposed development on the Natura 2000 designated sites. Therefore in accordance with Article 6 (3) of the EU Habitats Directive regarding Appropriate Assessment, you are requested to prepare a Natura Impact Statement and submit same to the Planning Authority. 16. If any submission resulting from the above request alters your original proposal requiring the submission of additional data which would be considered significant you are regulred to publish a notice in an approved newspaper. This notice must contain as a heading the name of the Planning Authority, and be marked "Further Information" or "Revised Plans", as appropriate. Please ensure that the format of your notice complies with Articles 35 (1)(a) of the Planning and Development Regulations 2006.

You are also required to erect a site notice on the land or structure to which the Further Information relates, and submit a copy to the Planning Authority (sample of Site Notice attached).

Your response to the above request <u>must be accompanied</u> by an original full page of the newspaper to this office as soon as it is published. If the planning application fee has increased, due to any changes made, please submit the balance of the fee.

Appendix 3 Finds register

Find No.	Туре	Context	Description
12E023:01	Lithic	Topsoil/	Possible chert core. Multiple facets.
		Area 1	(Plate 17)
12E023:02	Lithic	Topsoil/ F.5	Possible flint debitage. Very small c 1
		interface	mm.
		Area 1	12.
12E023:03	Lithic	Topsoil/ F.5	Possible flint debitage. Very small c 1
		interface	mm.
		Area 1	
12E023:04	Stone	Topsoil/	Possible saddle quern. Classic shape,
		Area 1	pick dressed surface. Measurements
		<u>In</u> .	(L= 0.53 m, W= 0.32 max/ 0.20 min) thickness 0.09 m).

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Plates 1 - 18



Plate 1. Looking W. Overview of site. Naturally undulating topography of site visible.



Plate 2: Trench 3 looking S. Scale = 1 m.



Plate 3: Soil sampling in Area 1 as part of geophysical assessment. Looking N.



Plate 4: Mid-ex view of field clearance pit F.2 in Trench 4 in east field. Looking N. Scale = 1 m



Plate 6: Mid-ex view of possible pit F.8 in trench 9. Looking N. Scale = 1 m.

Plate 7: Mid-ex view of ditch adjacent to extant field boundary ditch F.7 in Trench 8. Looking SW. Scale = 1 m.

Plate 8: Mid-ex view of linear ditch F.10 in trench 14. Scale = 1 m. Looking N.

Plate 9: Pre-ex view of pit F.1 in trench 16. Charcoal rich fill with heat shattered stone visible. Looking S. Scale = 1 m.

Plate 10: Pre-ex view of Fulacht fia in Area 1. Approximate extent of mound F.1 of indicated by red dashed line. Scale = 1 m. Looking E.

Plate 11: Pre-ex view of spread F.5 or second fulacht fia in Area 1. Looking N. Scale = 1 m.

Plate 12: Mid-ex view of depression thought to represent the location of the trough associated with fulacht fia F.3 in Area 1. Heat shattered stone visible below peaty fill. Scale = 0.4 m.

Plate 14: View of Area 1 showing temporary preservations measures implemented. Looking ESE.

Plate 16: View of possible saddle quern (Find No. 12E023:05) from Area 1. Scale = 0.4 m.

Plate 17: Representative selection of post-medieval finds retrieved from features throughout investigated area. Including ceramic, clay pipe fragments and glass bottle stopper.

Plate 18: Detail of possible chert core (Find No.12E023:01) retrieved from topsoil in Area 1.Multiple facets were noted on both faces of the possible core.

Figure 1 Discovery series map of Cavan and Meath showing location of Oldcastle, Co. Meath (Indicated by red dot)

Figure 3 Rural place map with location of proposed development site outlined in blue.

OB/H/OR/

Figure 4 Site plan overlaid with proposed location of test trenches (outlined in pink)

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