

**Preliminary Assessment Report on the Results of  
Metro West Archaeological Test Trenching,  
AC114A Area MW203 (Testing Area 1)  
Kildonan, Co. Dublin**

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## CONTENTS

List of Figures

List of Plates

<b>SUMMARY</b> .....	<b>4</b>
<b>1.0 INTRODUCTION</b> .....	<b>6</b>
1.1 General.....	6
<b>2.0 ARCHAEOLOGICAL AND HISTORICAL BACKGROUND</b> .....	<b>8</b>
2.1 Site Location and Topography.....	8
2.2 Archaeological and Historical Background.....	8
2.3 Summary of Previous Archaeological Fieldwork .....	10
2.4 Cartographic Analysis.....	10
<b>3.0 PROJECT BACKGROUND</b> .....	<b>12</b>
3.1 Environmental Impact Statement .....	12
3.2 Geophysical Survey.....	12
<b>4.0 ARCHAEOLOGICAL TEST TRENCHES</b> .....	<b>14</b>
4.1 General.....	14
4.2 Description of Test Trenches.....	14
4.2.1 Geophysical Survey Areas GA48A and GA48B .....	15
4.3 Conclusions .....	18
4.4 Interpretive Assessment of the Geophysical Survey Anomalies .....	19
<b>5.0 IMPACT ASSESSMENT AND MITIGATION STRATEGY</b> .....	<b>20</b>
5.1 Impact Assessment .....	20
5.2 Mitigation .....	20
<b>6.0 PROPOSED POST-EXCAVATION ANALYSIS</b> .....	<b>22</b>
<b>7.0 REFERENCES</b> .....	<b>23</b>

### Appendix

Appendix 1.0 Context Register  
Appendix 2.0 Sample Register  
Appendix 3.0 Photo Register  
Appendix 4.0 Drawing Register  
Appendix 5.0 Archive Register

### Figures

### Plates

### List of Figures

- Figure 1:** Site location
- Figure 2:** Kildonan 1 with trench locations, geophysical results and identified features
- Figure 3:** Kildonan 1 section drawings

### List of Plates

- Plate 1:** TT 1, Ditch **C15** and Postholes **C17** and **C19**, facing east
- Plate 2:** TT 1, Ditch **C15**, facing east
- Plate 3:** TT 1, back-filled trench, facing north
- Plate 4:** TT 2, Drain **C21**, facing northwest
- Plate 5:** TT 2, possible ditch, facing northeast
- Plate 6:** TT 3, showing Kilns **C7** and **C12**, facing northeast
- Plate 7:** TT 3, Kiln **C12**, facing northwest
- Plate 8:** TT 3, Kiln **C12**, facing southeast
- Plate 9:** TT 3, Kiln **C7**, facing southeast
- Plate 10:** General working shot, facing south

### List of Tables

- Table 4.1:** Excavated test trenches in Geophysical Survey Areas GA48A and GA48B

## SUMMARY

Irish Archaeological Consultancy Ltd has prepared this report on behalf of the RPA to study the impact on the potential archaeological resource of one of three sites targeted for advance archaeological testing along the route of the proposed Metro West, Co. Dublin. The three sites were identified as having archaeological potential in the Environmental Impact Statement (EIS) (RPA 2010, BK 1). This report addresses Testing Area 1 (TA 1) and was undertaken by Edmond O'Donovan of IAC Ltd (Licence Ref.:10E0462).

This report follows on from a geophysical survey carried out by Target Archaeological Geophysics during 2009 (Nicholls 2010; Licence Ref.: 09R195) which identified three areas of archaeological potential along the proposed route. The geophysical anomalies in Kildonan townland were interpreted as a possible prehistoric enclosure (Area MW203 SA48, GA's 48A and 48B). A total of three trenches (TT 1–TT 3) were excavated at Kildonan as part of this assessment. The remaining two sites (AC128 – Merryfalls and Silloge) of archaeological potential identified in the geophysical survey were tested under separate licences (Licence Ref. 10E0459 and 10E0460) and the results of this testing will be the subject of separate reports.

The geophysical survey identified a partial enclosure with possible additional features in Kildonan townland (Testing Area 1 [TA 1]; AC114A). The results of the geophysical survey suggest that the enclosure measures c. 35m x 25m. The archaeological testing identified the presence of a ditch relating to this enclosure within TT 1 (Kildonan 1). Two postholes were recorded on either side of the ditch and may indicate the presence of an associated palisade. A comma-shaped corn drying kiln and the probable flue of a second corn-drying kiln were located in TT 3. It is possible that the sub-rectilinear enclosure and corn-drying kilns are contemporary, however due to the lack of secure dating evidence and direct stratigraphical relationships between these features, the possibility that the remains at Kildonan 1 represents multi-phased occupation should also be considered. This site remains undated at present and a definitive interpretation of the phasing and function of this site requires further archaeological investigation.

No archaeological features or stratigraphy were identified in TT 2.

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**Title: Metro West Advance Archaeological Testing TA 1 Kildonan, Co. Dublin**

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Kildonan 1 is located within the footprint of the proposed Metro West Kildonan Stop and Kildonan Park & Ride facility. If construction of the proposed scheme is proceeded with, it will have a direct permanent negative impact on Kildonan 1. It is recommended that the wider area be further tested during the proposed second phase of centre-line testing to ensure that the full extent of the site and any associated features are identified. Following on from Phase 2 testing archaeological preservation by excavation will be required at Kildonan 1. In this event, it is recommended that a minimum buffer zone of 20m is established around the limits of Kildonan 1 for archaeological excavation to ensure that all the features and anomalies are archaeologically investigated.

## **1.0 INTRODUCTION**

### **1.1 General**

The following report describes the results of a programme of advance archaeological testing undertaken along the route of the proposed Metro West at Kildonan, Co. Dublin (Figure 1). Transport 21 provides for the delivery of a metro line (Metro West) from Tallaght to the Airport in west Co. Dublin. The proposed scheme will serve approximately a 25km corridor from the junction of Belgard Road/Blessington Road in Tallaght to Dardistown, where Metro West will connect with Metro North just south of Dublin Airport. Metro West is a twin track light rail system running under line of sight operation on a generally segregated alignment. For ease of reference the Metro West preferred route corridor has been divided into three areas (Area MW201, Area MW202 and Area MW203). Testing Area 1 (TA 1) in Kildonan townland is located in Area MW203. A Railway Order Application for Metro West was lodged with An Bord Pleanála in October 2010. This phase of advanced archaeological testing has been undertaken in order to inform the Archaeological Strategy of Metro West.

Three areas of archaeological potential were identified during a geophysical survey undertaken in 2009 (Nicholls 2010; Licence Ref. 09R0195). This assessment (Licence Ref.:10E0462) was undertaken in the vicinity of the proposed Kildonan Stop and Kildonan Park & Ride, an area also highlighted in the Metro West EIS (RPA 2010, BK 1) as a possible enclosure (Ref. AC114a). The testing was undertaken by Edmond O'Donovan of Irish Archaeological Consultancy Ltd, on behalf of the Railway Procurement Agency (RPA). The remaining two sites of archaeological potential (AC128 – Merryfalls and Silloge) identified in the geophysical survey were tested under separate licences (Licence Ref. 10E0459 and 10E0460) and the results of this testing will be the subject of separate reports. The purpose of this phase of advance testing was to determine the presence or absence of archaeological features, structures, deposits, artefacts or ecofacts at the three targeted locations along the route of the Metro West.

Test trenching commenced at the Kildonan site on 10th November 2010 and lasted for one day. This was carried out using a 13 tonne mechanical excavator with a toothless ditching/grading bucket, under strict archaeological supervision. A total of

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**Title: Metro West Advance Archaeological Testing TA 1 Kildonan, Co. Dublin**

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three trenches, measuring 70 linear metres, were mechanically investigated across TA 1.

## **2.0 ARCHAEOLOGICAL AND HISTORICAL BACKGROUND**

### **2.1 Site Location and Topography**

The test area will form part of the proposed route of Metro West (Area MW203). The proposed scheme will serve a c. 25km corridor from the junction of Belgard Road/Blessington Road in Tallaght to Dardistown, where Metro West will connect with Metro North just south of Dublin Airport. It is currently proposed to locate Kildonan Stop and a Park & Ride facility at the site of TA 1. TA 1 is located within the townland of Kildonan, Co. Dublin to the immediate northwest of the M50 motorway and southeast of Kildonan House (Figure 1). TA 1 is located in a large pasture field forming part of the lands at Kildonan House. The pasture field is bound to the south by the M50 motorway, to the northeast by the avenue leading to Kildonan House and to the west by part of the townland boundary between Kildonan and Cappoge.

### **2.2 Archaeological and Historical Background**

Although the broad environs of TA 1, comprising the lands of south Fingal, exhibit evidence for human occupation from at least the Neolithic period, no definitive evidence for the occupation of the immediate landscape surrounding the test area exists prior to the early medieval period.

Settlement across Co. Dublin advanced during the early medieval period when the area now known as Co. Dublin straddled the ancient kingdoms of Brega (north of the River Tolka) and Laigin (south of the Tolka). One of the most common indicators of settlement during this period is the ringfort, with 105 examples recorded within Co. Dublin. Ringforts were often constructed to protect rural farmsteads and are usually defined as a broadly circular enclosure delimited by a bank and ditch. Ringforts can be divided into three broad categories – univallate sites, with one bank or ditch; multivallate sites with as many as four levels of enclosing features and platform or raised ringforts, where the interior of the ringfort has been built up. When the radiocarbon and dendro-chronological dates from ringfort excavations are compared (Stout 1997, 22–31), not only is the ringfort clearly an early medieval phenomenon, but a strong case emerges for dating the phase of ringfort construction to a period between the 7th and 9th centuries AD.

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Title: Metro West Advance Archaeological Testing TA 1 Kildonan, Co. Dublin

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Whilst there are no recorded ringforts located within the immediate vicinity of TA 1, within the wider landscape, a ringfort is recorded within the townland of Cappoge c. 800m southwest of the test area (DU014-029). The ringfort survives as a raised earthen mound measuring c. 26m in diameter. The ringfort is also recorded on the list of Recorded Protected Structures by Fingal County Council (Ref. 682).

By the mid 9th century Dublin Vikings ruled lands north of the River Liffey around TA 1, a territory known as *Finne Gall* (RPA 2010, BK 1, 447).

Following the submission of Irish kings and the Anglo Norman lords in Ireland to Henry II in 1172, the Anglo Norman presence continued to expand in Ireland. The territory of the old Gaelic kingdom of Meath, at this time containing the barony of Castleknock, was granted to Hugh de Lacy. Geographically, Fingal became a core area of the Pale, and that part of Ireland most intensively settled by the Normans and in due course the English. There are no known archaeological sites located in proximity to TA 1 dating to this period.

The physical landscape of Ireland changed considerably during the post-medieval period and in the 17th century open fields were enclosed and consolidated into compact farms. This 17th century change in the land division heavily influenced Ireland's cultural heritage and is reflected in the current pattern of field division within the study area. The test area is located within the townland of Kildonan and formed part of the demesne associated with Kildonan House. The latter, though rebuilt in the mid 19th century, is located c. 220m to the north.

In the early 20th century the fields to the east of Kildonan House were used as an Aerodrome (Haughton and Kelly, 1999). Three different companies operated consecutively at Kildonan between 1931 and 1938 at which time the lands were in the ownership of the Fitzpatrick family. Kildonan had a big hangar and the aerodrome itself could accommodate the largest aircraft of the day. Following the closure of Kildonan airfields in 1938 the activity moved to Cloghran (near present day Dublin Airport) in the late 1950s. A large quantity of ferrous disturbance was noted in this area by the geophysical survey. This may relate to the former use of the site as an aerodrome.

### **2.3 Summary of Previous Archaeological Fieldwork**

A review of the Excavations Bulletin (1970–2007) has revealed that several previous archaeological excavations have been carried out within the vicinity of the test area.

Monitoring was carried out along the length of the Dublin North Fringe Water Supply Scheme, Contract 3 in April 2004 (Moore 2004). The route of the scheme passed through the townlands of Cappoge, Kildonan, North Park, Finglas, Meakstown, Poppintree and Ballymun. Several features of possible archaeological interest were investigated however nothing of archaeological significance was noted during the duration of the works.

Several programs of archaeological excavations were undertaken in the neighbouring townland of Cappoge in recent years however nothing of archaeological significance was identified (Channing 1991; Murphy 1995; Myles 2000).

### **2.4 Cartographic Analysis**

#### **2.4.1 Rocque, J. 1760. Map of the county of Dublin.**

TA 1 is illustrated within a field of pasture to the southeast of 'Killodin'. There are 6 small structures at Killodin associated with a square formal garden to the south. A laneway is shown providing access to Kildonan House from the east.

#### **2.4.2 First Edition Ordnance Survey Map, 1837, Scale 1:10,560**

TA 1 is illustrated as a greenfield area to the south of Kildonan House. The laneway, as previously illustrated in Rocque's map, running to the north of TA 1 is oriented northwest–southeast and is set out in its current layout. Kildonan House is annotated as 'in ruins'. Three small gravel pits are shown to the southwest of Kildonan House. Cappoge is shown further to the southwest. The ringfort DU014-029 is illustrated on this map and annotated as a 'fort'.

#### **2.4.3 Third Edition Ordnance Survey Map, 1907–1909, Scale 1:10,560**

TA 1 remains in a greenfield with no structures/ features shown in the vicinity. Two field boundaries which were illustrated on the earlier first edition OS map located to the west and southwest of the proposed Kildonan Park & Ride have been removed. A number of the field boundaries have been cleared of trees and vegetation. The

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**Title: Metro West Advance Archaeological Testing TA 1 Kildonan, Co. Dublin**

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ruins of Kildonan House shown in the first edition OS map have been removed and replaced with a larger house and ancillary buildings.

### **3.0 PROJECT BACKGROUND**

Several stages of non-invasive archaeological investigation were carried out on the route of Metro West prior to the current phase of advance archaeological testing. The results of these investigations have had a direct influence on the strategy adopted for the testing program.

#### **3.1 Environmental Impact Statement**

The RPA Archaeology Team undertook the assessment of Material Assets: Archaeology and Cultural Heritage of the proposed Metro West Environmental Impact Statement (EIS). The assessment for archaeology and cultural heritage consisted of a review of the published and unpublished documentary, aerial and cartographic sources, supported by a field inspection of the proposed scheme.

Furthermore as a component of the Metro West Environmental Impact Statement (EIS), RPA undertook a number of archaeological investigations.

A geophysical survey of St. Brigid's Well (AC35-AC38; DU021-010) and its environs was carried out in June 2008 (Nicholls 2008; Licence Ref. 08R0144).

Archaeological testing at the 'House (site of)' in Merryfalls townland (AC125) was undertaken on 9th June 2009 (Hackett 2009; Licence No. 09E0274).

A non-invasive geophysical survey of the Metro West Emerging Preferred Route was also undertaken by RPA in October–December 2009 (Nicholls 2010).

#### **3.2 Geophysical Survey**

A geophysical survey was carried out by Target Archaeological Geophysics during 2009 (Nicholls 2010; Licence Ref.: 09R0195) along the route of the proposed scheme which identified three areas of archaeological potential within Area MW203 (Testing Area 1 [AC114A], Testing Area 2 [AC128] and Testing Area 3 [AC128]).

The geophysical anomalies in these three areas were interpreted as a possible prehistoric enclosure in Kildonan townland (Area MW203 Testing Area 1 SA48, GA's 48A and 48B); a possible ringfort in Merryfalls townland (Area MW203 Testing Area 2 SA62, GA62E); and a potential prehistoric settlement in Silloge townland (Area MW203 Testing Area 3 SA66, GA66).

This report addresses the archaeological investigation of the potential prehistoric enclosure at the site of the proposed Kildonan Park & Ride/ Kildonan Stop. Detailed survey indicated the enclosure to be sub-rectangular in plan measuring 35m by 20–25m. Possible pit type features and external ditch remains were recorded from detailed survey in SA48 (GA48A and GA48B) at the site of the proposed Kildonan Compound/Park & Ride facility. Numerous weak trends also occur throughout GAs 48A and 48B. These trends may represent remains of additional enclosure features; however a natural or possible recent land use origin should not be dismissed (Nicholls 2010, 16).

## **4.0 ARCHAEOLOGICAL TEST TRENCHES**

### **4.1 General**

Test trenching took place on 10th November 2010, using a 13 tonne mechanical excavator with a toothless ditching/grading bucket under strict archaeological supervision. The weather was very favourable being cold, but with bright sunshine. A total of 3 trenches, measuring 70 linear metres, were excavated within the footprint of the Kildonan Park & Ride facility (Figure 2). The test trenches were carefully excavated in spits or layers of approximately 0.1m to the depth of the underlying subsoil or to the surface of archaeological stratigraphy whichever was encountered first. The test trenching was carried out on site by Edmond O'Donovan, assisted by Mark Morahan.

The test trenches were excavated to investigate the anomalies identified at Kildonan and to determine, as far as reasonably possible, the location, extent, date, character, condition, significance and quality of any surviving archaeological remains within these areas. The trenching was also carried out to clarify the nature and extent of existing disturbance and intrusions and to assess the degree of archaeological survival in order to formulate any required further mitigation strategies. All features identified within the test trenches were investigated through the excavation of sections to determine their nature and extent. Each feature was assigned an individual context number and a written, drawn and photographic record of each feature was undertaken.

Samples were taken from suitable archaeological deposits. Primary contexts where the composition of the sediments were likely to provide information on the date and/or use of a particular feature were the main focus of the sampling strategy. See Appendix 2 for details of the samples taken. No artefacts were retrieved from TA 1.

### **4.2 Description of Test Trenches**

TT 1 was located within GA48B and measured 20m in length and orientated north-south. TT 2 was located across GA48A and GA48B and was 30m in length and orientated east-west. TT 3 was located within GA48A and was 20m in length and orientated north-south. TT 2 and TT 3 were interconnected forming a T-shape. These 3 test trenches were positioned in order to investigate the nature of

geophysical responses interpreted as a possible sub-rectangular enclosure. All test trenches were excavated to their full length.

The topsoil (**C1**) comprised brown friable silty clay with occasional stones and was encountered at a depth of 0.0m–0.35m. The topsoil overlay a ploughsoil (**C2**) which comprised yellow-brown sticky silt and was encountered at a depth of 0.35m–0.5m. It was excavated to cleanly expose the underlying subsoil which comprised yellowish-grey clay silt with frequent angular stones.

Evidence for an enclosure, Kildonan 1, in the form of a ditch with associated postholes was recorded in TT 1 and two kilns were recorded in TT 3. A field drain was recorded in TT 2.

#### 4.2.1 Geophysical Survey Areas GA48A and GA48B

The geophysical survey areas GA48A and GA48B are adjacent to each other. TT 3 and a part of TT 2 are located in GA48A while TT 1 and a part of TT 2 are located in GA48B. For the purposes of the report both of the geophysical survey areas will be treated together.

Three test trenches (TT 1–TT 3) were excavated in the geophysical survey areas positioned in order to determine the nature and extent of significant geophysical anomalies comprising a possible enclosure and a number of pit type features.

A part of the enclosure was recorded in TT 1 as a ditch and two postholes (**C15**, **C17**, **C19**). Two kilns (**C7** and **C12**) were identified in the northern half of TT 3 at the locations identified and interpreted as pits by the geophysical survey. The geophysical anomalies representing a potential enclosure that crossed TT 2 at its northern and southern ends were not identified during the testing. Please see Table 4.1 below for further detail.

**Table 4.1** Trenches Excavated in Geophysical Survey Areas GA48A and GA48B

Trench No:	Length	Width	Depth	Description/Archaeological Features
TT-1	20m	2m	0.46m	Enclosure ditch ( <b>C15</b> ) was recorded 10m from the southern end of the trench (Figures 2–3; Plates 1–3). It measured 0.55m wide, 0.25m deep and was

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Trench No:	Length	Width	Depth	Description/Archaeological Features
				<p>orientated east–west. The profile of the enclosure ditch was roughly U-shaped and had two fills. The upper fill (<b>C13</b>) was a compact yellowish-grey silty clay with moderate amounts of small rounded stones (3cm–5cm). The basal fill (<b>C14</b>) was a compact grey silty clay with moderate amounts of small rounded stones. Two postholes (<b>C17</b>, <b>C19</b>) were discovered on either side of the enclosure ditch, located opposite each other. The southern posthole (<b>C17</b>) was sub-circular in plan (0.38 x 0.34 x 0.15m) with a single fill (<b>C16</b>) of grey silty clay with occasional small rounded stones. The northern posthole (<b>C19</b>) was circular in plan (0.36m x 0.36m x 0.14m) with a single fill (<b>C18</b>) of grey silty clay with occasional small rounded stones.</p> <p>No other features were identified in this test trench.</p>
TT-2	30m	2m	0.46m	<p>No archaeological features. A drain (<b>C21</b>) was recorded 5m from the eastern end of the trench (Figure 2; Plate 4). It was orientated northwest–southeast and had a U-shaped profile. It was 0.4m wide and 0.15m deep. It was filled with a friable grey clay silt (<b>C20</b>). A possible ditch was investigated at the western end of the trench but was shown to be natural (Plate 5). The drain (<b>C21</b>) was located on the location where the rectangular enclosure was identified on the geophysical survey. It is likely that the later modern drain overlies and masks the location of the enclosure ditch at this point.</p> <p>A 2m section at the western end of the trench was investigated on the supposed site of the rectangular enclosure as identified on the geophysical survey. The deposits in this location were not at all clear. There was some evidence for layers or deposits in the soil; however the alignment of the western enclosure</p>

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Trench No:	Length	Width	Depth	Description/Archaeological Features
				<p>was not resolved. Given that the geophysics correctly identified the enclosure to the north (as verified in the TT 1), it is highly likely that the enclosure is present to the west as well.</p> <p>No other features were identified in this test trench.</p>
TT-3	20m	2m	0.4–0.5m	<p>Two kilns (<b>C7</b> and <b>C12</b>) were partially identified in the northern half of the trench (Figures 2–3; Plates 6–9). The kiln (<b>C7</b>) was key-hole shaped or comma-shaped and was located 12m from the northern end of the trench. This part of the kiln most likely represented the bowl element. It was orientated east–west and had an irregular profile. It was 2.1m wide and 0.51m deep. It was filled by three fills (<b>C4</b>, <b>C5</b> and <b>C6</b>). The upper fill (<b>C4</b>) was a mottled black, brown-grey silty clay with frequent charcoal and occasional small stones. The largest and middle fill (<b>C5</b>) was a grey-black charcoal-rich silt with occasional angular stones. The basal fill (<b>C6</b>) was an ash and charcoal silt, light grey-orange and black in colour.</p> <p>The second kiln (<b>C12</b>) was located 3.3m from the northern end of the trench and the exposed elements of which probably represent a flue. It was orientated in an east–west alignment and had a U-shaped profile. It was 0.8m wide and 0.26m deep. It had four separate fills (<b>C8</b>, <b>C9</b>, <b>C10</b> and <b>C11</b>). The upper fill (<b>C8</b>) was a yellow silty clay with moderate flecks of charcoal and occasional rounded stones. The fill (<b>C9</b>) was a charcoal-rich, grey black clay silt. The fill (<b>C10</b>) was an oxidised silty clay. The basal fill (<b>C11</b>) was a charcoal-rich, grey yellow black clay silt.</p> <p>No other features were identified in this test trench.</p>

### 4.3 Conclusions

The test trenching programme revealed archaeological deposits. This consisted of an enclosure that was identified first as an anomaly in the geophysical survey and was confirmed as being archaeological in nature by the testing and for the purposes of this report has been named Kildonan 1 (Figures 2–3; Plates 1–2). A part of the enclosure (Ditch **C15**) was identified in TT 1. Two postholes (**C17** and **C19**) identified either side of the Ditch **C15** indicate that the enclosure ditch may have been associated with a palisade. The other elements of the enclosure identified by the geophysical survey were not identified in TT 2 (Plates 4–5), however these areas appeared to be somewhat disturbed. The sub-rectangular enclosure, based on the geophysical survey, measured 35m x 25m (max.) and the enclosure ditch was on average 0.55m wide and 0.25m deep (established through testing). Two kilns were also identified by the testing in TT 3 at the southern end of the enclosure (Figures 2–3; Plates 6–9).

It is possible that the sub-rectilinear enclosure and corn-drying kilns are contemporary, however due to the lack of secure dating evidence and direct stratigraphical relationships between these features, the possibility that the remains at Kildonan 1 represents multi-phased occupation should also be considered.

Corn-drying kilns, like those discovered at Kildonan 1 may have been used for a variety of purposes, but were mostly related to the drying of cereals and other crops, and in Ireland the two basic purposes for which they were constructed seem to have been to dry grain and to harden it prior to grinding (O’Sullivan and Downey 2005, 32). The Irish ‘corn-drying kilns’ are frequently keyhole or dumb-bell shaped (O’Sullivan and Downey 2005, 33). The basic kiln would comprise four main structural components: a *bowl*; *flue*; *stoke-hole*; and *drying platform* (O’Sullivan and Downey 2005, 33). A fire would have been set at the *stoke hole* (which was either a natural depression or cut) at the mouth of the *flue*. This would be where the fire was burned to effect the drying (O’Sullivan and Downey 2005, 33). The *flue* extends from the *bowl/drying platform*. The *drying platform* overlay the *bowl* and typically consisted of heavy timber supports overlain with wattles, carrying a layer of straw and/or mat on which the grain/cereal was placed. The heat from the bowl was able to pass through the mat to dry the overlying grain/ cereal (O’Sullivan and Downey 2005, 33).

Although only partially exposed it is probable that the section of **C7** investigated represents the bowl of the kiln.

The kilns at Kildonan are possibly of the comma-type or L-shaped types which have been predominately dated to the early medieval period by Monk and Kelleher (2006). Similar examples on similar rural settlement sites such as at Brooklodge in Cork, and other sites in Kildare, Meath and Westmeath exist (Monk and Kelleher 2006). The enclosure and kilns at Kildonan 1 are however undated at present and a definitive interpretation of the phasing and function of this site requires further archaeological investigation.

#### **4.4 Interpretive Assessment of the Geophysical Survey Anomalies**

The anomalies highlighted in the geophysical survey as being potential archaeological features were thoroughly investigated and were deemed to be archaeologically significant and are possibly of medieval date.

The geophysical survey interpreted the anomalies as a possible large sub-rectangular enclosure with several pit-like features. The testing programme showed that two of the pit-type features were kilns. The enclosure was only positively identified in TT 1 where two postholes were also identified either side of a shallow ditch. TT 2 was laid out with the purpose of identifying the northern and southern sides of the enclosure; however, these features were not positively located.

## **5.0 IMPACT ASSESSMENT AND MITIGATION STRATEGY**

Advance archaeological testing was undertaken at one of three targeted locations along the route of the proposed Metro West, Co. Dublin. Metro West will serve approximately a 25km corridor from the junction of Belgard Road/Blessington Road in Tallaght to Dardistown, where it will connect with Metro North just south of Dublin Airport. The purpose of the assessment was to determine the presence or absence of archaeological features, artefacts or ecofacts at three targeted locations along the route of Metro West identified as areas of archaeological potential. This assessment was located at TA 1 in the vicinity of the proposed Kildonan Park & Ride/ Kildonan Stop within an area of archaeological potential identified in the EIS and geophysical survey as a possible enclosure (AC114a). A total of three trenches were mechanically investigated across TA 1 at Kildonan.

Impacts can be identified from detailed information about a project, the nature of the area affected and the range of archaeological resources potentially affected. Archaeological sites can be affected adversely in a number of ways: disturbance by excavation, topsoil stripping; disturbance by vehicles working in unsuitable conditions; and burial of sites, limiting access for future archaeological investigation.

### **5.1 Impact Assessment**

One site of archaeological significance, Kildonan 1, an enclosure and kilns were recorded during the testing programme. The current design of the proposed Stop and Park & Ride facility will have a direct permanent negative impact on Kildonan 1 resulting in its complete removal. It is located at the south-western area of the proposed Park & Ride facility.

### **5.2 Mitigation**

The proposed scheme will have a direct permanent negative impact on Kildonan 1 requiring its complete removal, in order to mitigate this impact the following is recommended:

- In order to mitigate the direct impact on Kildonan 1 it is recommended that the wider area be further tested during the second phase of centre-line testing to ensure that the full extent of the site and any associated features are identified.

- Following on from Phase 2 testing archaeological preservation by excavation will be required at Kildonan 1. In this event, it is recommended that a minimum buffer zone of 20m is established around the limits of Kildonan 1 for archaeological excavation to ensure that all the features and anomalies are archaeologically investigated. It should be noted that during excavation previously unknown archaeological features may be identified which will require expansion of the excavation areas to ensure this 20m buffer zone is maintained.
- Recording methods: in accordance with best practice and the DoEHLG Policy and Guidelines on Archaeological Excavation.
- Sampling strategy: Sample fills from the deposits within the enclosure ditch for environmental analysis, osteo-archaeological analysis, metallurgical analysis and C14 dating. Sample all fills from the kilns for environmental analysis and C14 dating.
- Proposed resources: 1 IAC director – management; 1 supervisor; 10 site assistants; 1 surveyor; relevant plant (as required); relevant specialists (as required).
- Time-scale for completion: 6–8 weeks.

**Please note that all recommendations are subject to approval by the National Monument Section of the Heritage and Planning Division, Department of Environment, Heritage and Local Government.**

## **6.0 PROPOSED POST-EXCAVATION ANALYSIS**

Due to the forecast construction timeframe for Metro West (c. 2013–2019) it is suggested that limited post-excavation analysis of samples from the test excavations should now be undertaken. Further post-excavation study of the site could include the analysis of samples retrieved from the kilns. These samples are highly likely to contain archaeo-botanic material; carbonised cereals grain, other macro fossil plant remains and wood charcoal. The analysis of such material would potentially shed light on aspect of the local economy and land use in ancient times. The dating (AMS) of a selected sample of charred seed (if present) or carbonised wood (charcoal) from one of the kilns would provide an independent dating framework for the kilns. No datable material was retrieved from the enclosure ditch during testing.

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## APPENDIX 1.0 CONTEXT REGISTER

Context No.	Trench No.	Description
<b>C1</b>	All	Topsoil: brown friable silty clay with occasional stones.
<b>C2</b>	All	Ploughsoil: yellow-brown sticky silt.
<b>C3</b>	All	Natural Subsoil: yellowish-grey clay silt with frequent angular stones (size:5cm–7cm).
<b>C4</b>	TT 3	Fill of Kiln <b>C7</b> : a mottled black, brown-grey silty clay with frequent charcoal and occasional small stones
<b>C5</b>	TT 3	Fill of Kiln <b>C7</b> : a grey-black charcoal-rich silt with occasional angular stones.
<b>C6</b>	TT 3	Fill of Kiln <b>C7</b> : an ash and charcoal silt, light grey-orange and black in colour.
<b>C7</b>	TT 3	Cut of Kiln: key-hole shaped or comma shaped kiln, gradual break of slope
<b>C8</b>	TT 3	Fill of Kiln <b>C12</b> : a yellow silty clay with moderate flecks of charcoal and occasional rounded stones.
<b>C9</b>	TT 3	Fill of Kiln <b>C12</b> : charcoal-rich, grey black clay silt.
<b>C10</b>	TT 3	Fill of Kiln <b>C12</b> : oxidised silty clay.
<b>C11</b>	TT 3	Fill of Kiln <b>C12</b> : charcoal-rich, grey yellow black clay silt.
<b>C12</b>	TT 3	Cut of Kiln: orientated approximately east–west, sharp break of slope at top, sloping sides, gradual break of slope at base and flat base.
<b>C13</b>	TT 1	Compact yellowish-grey silty clay with moderate amounts of small rounded stones (3cm–5cm).
<b>C14</b>	TT 1	Compact grey silty clay with moderate amounts of small rounded stones
<b>C15</b>	TT 1	Sub-rectangular enclosure ditch.
<b>C16</b>	TT 1	Fill of Posthole <b>C17</b> : grey silty clay with occasional small rounded stones.
<b>C17</b>	TT 1	Posthole: Subcircular (0.38 x 0.34 x 0.15m), sharp break of slope at top, straight sides, sharp break of slope at base, rounded base.
<b>C18</b>	TT 1	Fill of Posthole <b>C19</b> : grey silty clay with occasional small rounded stones.
<b>C19</b>	TT 1	Posthole: Subcircular (0.36 x 0.36 x 0.14m), sharp break of slope at top, straight sides, sharp break of slope at base, rounded base.

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<b>Context No.</b>	<b>Trench No.</b>	<b>Description</b>
<b>C20</b>	TT 2	Fill of Drain <b>C21</b> : friable grey clay silt.
<b>C21</b>	TT 2	Cut of Drain: 0.4m wide and 0.15m deep. Orientated northeast-southwest, gradual break of slope at top, sloping sides and gradual break of slope at base, U-shaped base.

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## APPENDIX 2.0      SAMPLE REGISTER

Sample No.	Context No.	Test Trench No.	Description
001	C5	3	Charcoal-rich silt from Kiln C7
002	C9	3	Charcoal-rich silt from Kiln C12

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### APPENDIX 3.0 PHOTO REGISTER

Photo No.	Test Trench No.	Direction Facing	Description
001	TT 3	Southeast	Kiln C7 showing section.
002	TT 3	Northeast	Kilns C7 and C12.
003	TT 3	Northeast	Kilns C7 and C12.
004	TT 3	Northeast	Kilns C7 and C12.
005	TT 3	Northeast	Kilns C7 and C12.
006	TT 3	Northwest	Kiln C12, southeast-facing section
007	TT 3	Southeast	Kiln C12, northwest-facing section
008	TT 3	Southeast	Kiln C12, northwest-facing section
009	TT 3	Northeast	Kiln C7, northwest-facing section.
010	TT 3	Northeast	Kiln C7, northwest-facing section.
011	TT 3	Northeast	Kiln C7, northwest-facing section.
012	TT 3	South	General shot of TT 3
013	TT 3	North	General working shot of TT 3
014	TT 3	North	General working shot of TT 3
015	TT 3	Northwest	Kiln C12, southeast-facing section
016	TT 3	Northwest	Kiln C12, southeast-facing section
017	TT 1	East	Ditch C15, postholes C17, C19.
018	TT 1	East	Ditch C15, postholes C17, C19.
019	TT 1	East	Ditch C15, postholes C17, C19.
020	TT 1	East	Ditch C15, postholes C17, C19.
021	TT 1	East	Ditch C15, postholes C17, C19.
022	TT 1	East	Ditch C15, postholes C17, C19.
023	TT 1	Northeast	Ditch C15, postholes C17, C19.
024	TT 1	East	General shot of Ditch C15, postholes C17, C19.
025	TT 2, TT3, TT1	South	General shot.
026	TT 1	East	General shot of Ditch C15, postholes C17, C19.
027	TT 2	Northwest	Drain C21.
028	TT 2	Northwest	Drain C21.
029	TT 2	North	Possible ditch enclosure.
030	TT 2	Northeast	Possible ditch enclosure.
031	TT 2	Northeast	Possible ditch enclosure.

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<b>Photo No.</b>	<b>Test Trench No.</b>	<b>Direction Facing</b>	<b>Description</b>
032	TT 2	East	General shot of TT 2.
033	TT 1	North	TT 1 back-filled.

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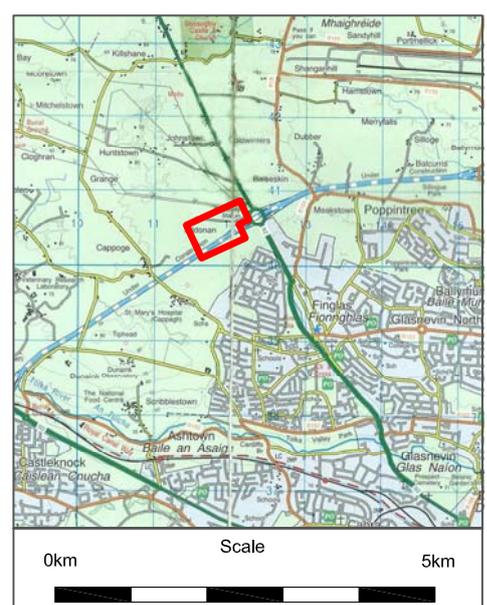
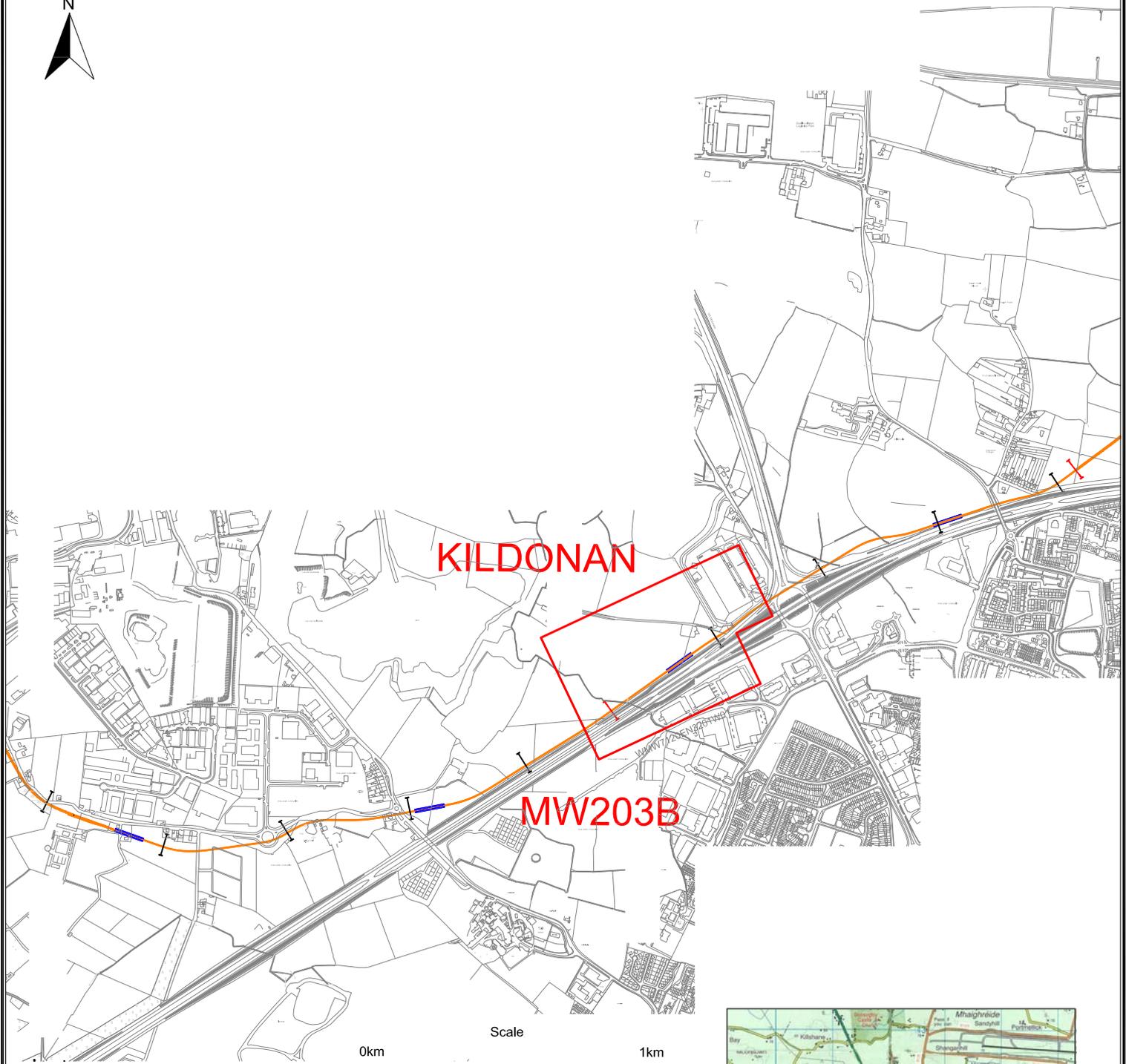
#### **APPENDIX 4.0      DRAWING REGISTER**

<b>Drawing No.</b>	<b>Type</b>	<b>Scale</b>	<b>Trench No.</b>	<b>Description</b>
001	Plan	1:50	1	Ditch C15 and postholes C17, C19
002	Plan	1:50	2	Kilns C7 and C12
003	Plan	1:50	3	Drain C21
004	Section	1:10	3	Kiln C7, northwest-facing
005	Section	1:10	3	Kiln C12, west-facing
006	Section	1:10	1	Ditch C15, southeast-facing

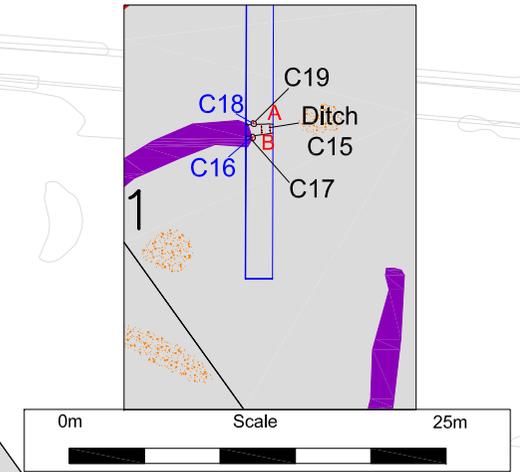
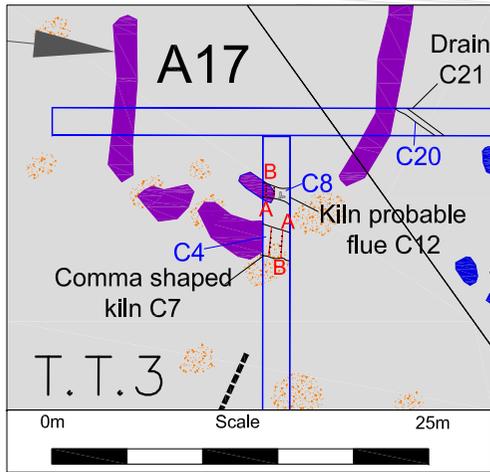
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## APPENDIX 5.0 ARCHIVE REGISTER

<b>Project: Metro West</b>		
<b>Site Name: TA 1 Kildonan</b>		
<b>Excavation Licence: 10E0462</b>		
<b>Site director: Edmond O'Donovan</b>		
<b>Date: 6.12.10</b>		
<b>Field Records</b>	<b>Items (quantity)</b>	<b>Comments</b>
Site drawings (plans)	3	All drawings and sections are on 1 A3 sheet
Site sections, profiles, elevations	3 sections	
Site diary/note books	0	All context information on drawing sheet
Site registers (folders)	0	
Survey/levels data (origin information)	Digital information	IAC Server
Context sheets	0	All context information on drawing sheet
Digital photographs	33	IAC Server

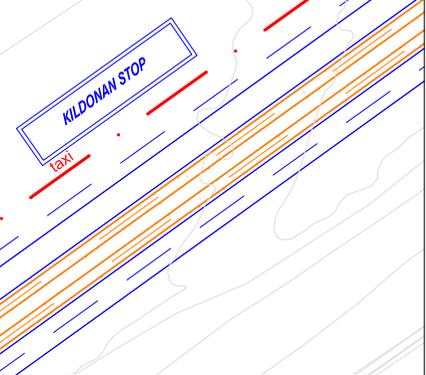
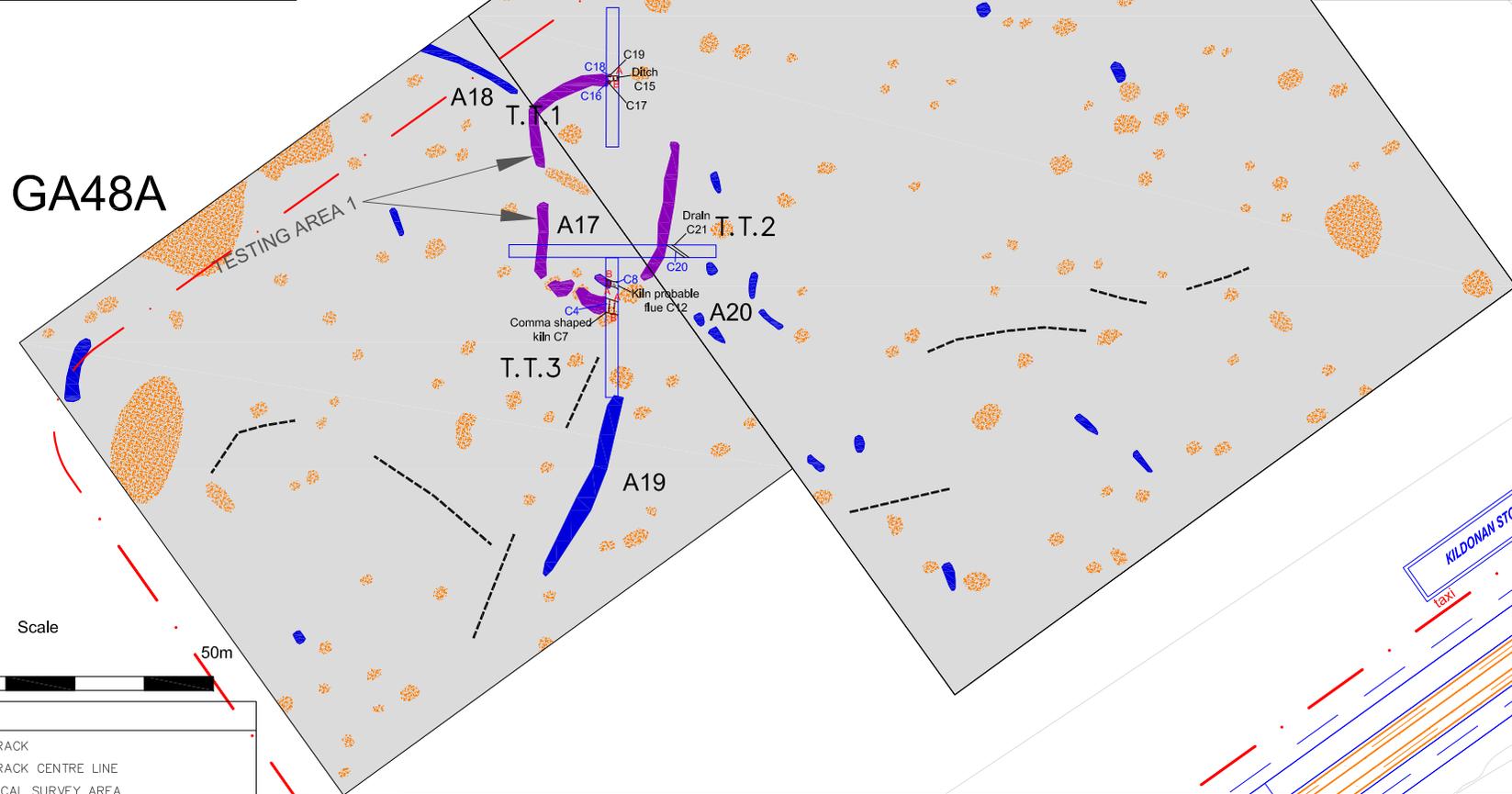


	Title: Site location	Scale: 1:20,000 @ A4
	Project: Metro West 712	Date: 21/12/10
	Client: Railway Procurement Agency	Produced by: G Kearney
		Job No: J2604
	Figure No: 1	



**GA48A**

**GA48B**



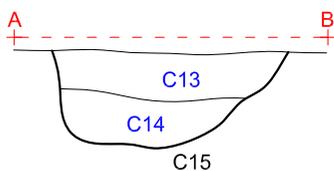
**LEGEND**

	METRO TRACK
	METRO TRACK CENTRE LINE
	GEOPHYSICAL SURVEY AREA
	EXTENT OF 1:500 SURVEY
	BOUNDARY OF DEPOT
	TEST TRENCH
	METRO STOP
	FUTURE METRO STOP

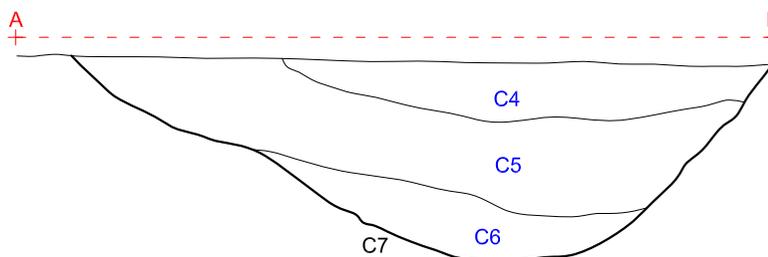
**IAC** Irish Archaeological Consultancy

Title:	Kildonan 1 with trench locations, geophysical results and identified features	Scale:	1:1000 @ A4
Project:	Metro West 712	Date:	21/12/10
Client:	Railway Procurement Agency	Produced by:	G Kearney
		Job No:	J2604
		Figure No:	2

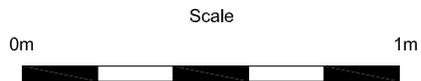
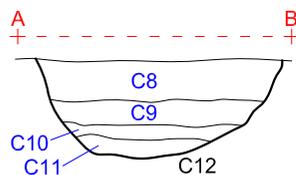
West facing section of C15 (ditch)



West facing section of C7 (Comma shaped kiln)



East facing section of C12 (kiln, probable flue)



Legend	
Cxx	Cut numbers
Cxx	Fill numbers
	Stone
	Charcoal
xx.xx	Levels - metres OD

**IAC** Irish Archaeological Consultancy

Title:	Kildonan 1 section drawings	Scale:	1:20 @ A4
Project:	Metro West 712	Date:	21/12/10
Client:	Railway Procurement Agency	Produced by:	G Kearney
		Job No:	J2604
		Figure No:	3

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Title: Metro West Advance Archaeological Testing TA1 Kildonan, Co. Dublin

## PLATES



Plate 1: TT 1, Ditch **C15** and Postholes **C17** and **C19**, facing east



Plate 2: TT 1, Ditch **C15**, facing east

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Plate 3: TT 1, back-filled trench, facing north



Plate 4: TT 2, Drain C21, facing northwest



Plate 5: TT 2, possible ditch, facing northeast



Plate 6: TT 3, showing Kilns C7 and C12, facing northeast

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Plate 7: TT 3, Kiln **C12**, facing northwest



Plate 8: TT 3, Kiln **C12**, facing southeast

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Plate 9: TT 3, Kiln C7, facing southeast



Plate 10: General working shot, facing south