

# TARGET

Archaeological Geophysics

Geophysical Prospection For Archaeological Assessment

*Consultancy*

*Project Design*

*Scanning & Reconnaissance*

*Recorded Survey*

*Gradiometry*

*Resistivity*

*Ground Penetrating Radar*

*Electromagnetics*

*Motorway Route Selection*

*Pipeline Corridors*

*Area Surveys*

*Research*

**Geophysical Survey Report:**

**RPA Metro West  
Ecclesiastical Remains, Clondalkin  
Co. Dublin**

**Licence Ref. 08R0144**

**TAG Project No. 08/022**

Client:



**Archaeological Consultancy  
Services Ltd**

On Behalf Of



**The Railway Procurement Agency**

**TARGET Archaeological Geophysics**

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### Digital Archive

A complete digital archive for this geophysical survey is provided on the attached CD. The archive includes all the report text, PDF documentation, AutoCAD drawings, and XY trace / greyscale displays relating to this work. Further data relating to this project may be made available upon request.

## **Executive Summary**

### ***Introduction***

Geophysical survey was undertaken over three areas (Areas 1 – 3) situated within the zone of archaeological potential for the ecclesiastical remains situated on Fonthill Road, in Clondalkin, County Dublin (DU021:010-001/003). The survey was conducted as part of the Environmental Impact Assessment (EIA) being prepared for the proposed Metro West Scheme between Dublin Airport and Tallaght, and was commissioned by Archaeological Consultancy Services on behalf of the Railway Procurement Agency.

The ecclesiastical remains on Fonthill Road, Clondalkin, comprise St. Brigid's Well (DU021:01001), an inscribed stone (DU021-01002), and the site of a children's burial ground (DU021-01003).

### ***Survey Objectives***

The survey aims were to establish if possible, the location of the children's burial ground site associated with the well and to identify any further remains, where present, within the areas highlighted for investigation.

### ***Site Location***

Survey Areas 1 – 3 lie immediately to the south and south-east of the Boot Road & Fonthill Road South crossroads (central coordinate NGR 307096 230697), and comprise two narrow sections of grassed land (Areas 1 & 2) traversed by public walkways, and a raised grassed area overlying the site of possible children's burial ground DU021-01003.

A total of 0.3 hectares of ground was investigated by gradiometer and resistance survey during this work.

### ***Soils, Geology & Topography***

The survey areas comprise generally flat and accessible sections of public grassed land, situated within an urban setting. The soils are expected to have a predominantly mixed urban context, to have been subject to high levels of contamination from service installation and maintenance, and are likely to contain a large proportion of relatively modern ferrous material.

### **Archaeological Background**

The site of St. Brigid's Well (DU021:01001), which may also have pre-Christian origins, is located directly to the north-west of Area 3, beyond the investigation area, and to the south of the round tower and structural remains forming Clondalkin's upstanding ecclesiastical remains. The earliest reference to the well at this location derives from Rocque's map of 1760. The precise location of the children's burial ground (DU021-01003) is unknown, although this has been suggested as being within enclosed section of raised grass immediately to the south-east of St. Brigid's Well. No evidence for the inscribed stone referred to as DU021-01002 in the RMP files for County Dublin survives.

### **Summary Of Results**

The results from gradiometer survey in Areas 1, 2 & 3 demonstrate the high levels of interference that can occur when gradiometer survey is undertaken within an urban setting. Where significant remains may be present in survey Areas 1 – 3, these are likely to have been masked in the gradiometer data by the range of magnetic interference which occurs across the majority of the site.

The resistance survey has been successful in identifying a rectangular concentration of probable structural responses, in the form of wall footings and a scatter of structural debris. These responses coincide with the location of a substantial building marked on the Ordnance Survey 6 inch map.

No definitive archaeological responses have been recorded from either the gradiometer or resistance surveys over the possible site of the children's burial ground. The data from this section of survey indicate high levels of interference to instrumentation.

**\* The summary of results from survey should be read in conjunction with the main report.**

## **1 Areas of Investigation (Figure 1)**

- 1.1 A total of 0.3 hectares of gradiometer and resistance survey were undertaken in Areas 1 – 3 throughout the available sections of the investigation area. The survey grids were set out using tapes, ranging rods and an optical square and tied in to the National Grid using differential GPS. Details of survey tie-ins are available upon request.
- 1.2 Fieldwork was undertaken from the 16<sup>th</sup> – 18<sup>th</sup> June 2008 under license from the Department of Environment, Heritage & Local Government (License Ref. 08R144).
- 1.3 Figure 1 presents the locations of gradiometer and resistance survey in Areas 1 – 3 at a scale of 1:1500.

## **2 Data Display**

- 2.1 The results from the gradiometer and resistance surveys carried out in Areas 1 - 3 are presented as greyscale images in Figures 2 & 3 at a scale of 1:750. Interpretations of each data set are presented as Figures 4 & 5 at the same scale.
- 2.2 The archive attached to this report contains both the .TIF XY trace and .BMP greyscale displays for the gradiometer and resistance data, the AutoCAD .DWG files for Figures 1 – 5, and the individual .DWG interpretations made from analysis of the results.

## **3 Ground Conditions & General Considerations**

- 3.1 Survey Areas 1 & 2 occupy small sections of urban grass land, traversed by public footpaths and buried services, and face the Boot Road and Fonthill Road South, which are in turn bound by perimeter fencing, road sign posts and parked cars. Survey Area 3 also faces Fonthill Road South, lies adjacent to the recently reconstructed site of St. Brigid's Well, and contains a large white metal cross and several further objects of modern ferrous origin. All these sources of interference have caused large-scale disturbance to the gradiometer survey, and have rendered the data set largely uninterpretable.
- 3.2 Areas of disturbance from recent landscaping, maintenance work and made ground also occur in the results from resistance survey, notably at the perimeters of Areas 1 & 2.
- 3.3 Instrument specifications and survey methodology are discussed in the *Summary Technical Information* document attached to this report.

## 4 Survey Results (Figures 2 - 5)

### *Gradiometry Areas 1 - 3*

- 4.1 The results from gradiometer survey in Areas 1 – 3 demonstrate high levels of magnetic disturbance from modern ferrous materials contained within the topsoil, large scale disturbance from public access and buried services, and further sources of interference extending from the perimeters of survey. Where buried archaeological features may be present in Areas 1 – 3, they are most likely to remain beyond detection using conventional magnetic survey techniques, and this is due to the levels of interference encountered.

### *Resistance Areas 1 - 3*

- 4.2 The results from resistance survey in Areas 1 – 3 also show evidence for modern sources of interference extending from the edges of each survey block. The locations of two probable buried services aligned north-east to south-west have been recorded in the southern portion of Area 1 adjacent to the public footpath, and an ovoid low resistance response to the north corresponds to a group of trees. The possible structural type response highlighted in Area 3 is likely to derive from the recent reconstruction of St. Brigid's Well.
- 4.3 The remains of one probable building roughly 25m x 25m north-south by east-west are indicated by a rectangular arrangement of high resistance responses and trends. These extend from the northern corners of Area 1, either side of the public access heading toward the crossroads, and overlie a raised background in resistance, which suggests a possible rubble spread. The position of these responses coincides with that of a large building marked in this location on the ordnance survey 6 inch map. Further cartographic information can be found at <http://www.archaeology.ie/smrmappviewer/mapviewer.aspx>.

## 5 Conclusions

- 5.1 The site of a probable rectangular building has been detected extending across the northern section of Area 1, shortly to the south of the Fonthill Road South and Boot Road crossroads.
- 5.2 Elsewhere the resistance and gradiometer data from survey in Areas 1 – 3 demonstrate high levels of interference from more recent ground works, maintenance and disturbance. Many of these sources of interference are visible at surface level in the form of infilled service trenches, trees, drain covers, road signs, and metal fencing.
- 5.3 No evidence to support the location of a children's burial ground within Areas 1 – 3 has been recorded. However, burial locations are likely to exhibit only subtle variations in response, and in view of the interference recorded such features may remain beyond detection.

**Report Author:** John Nicholls MSc.

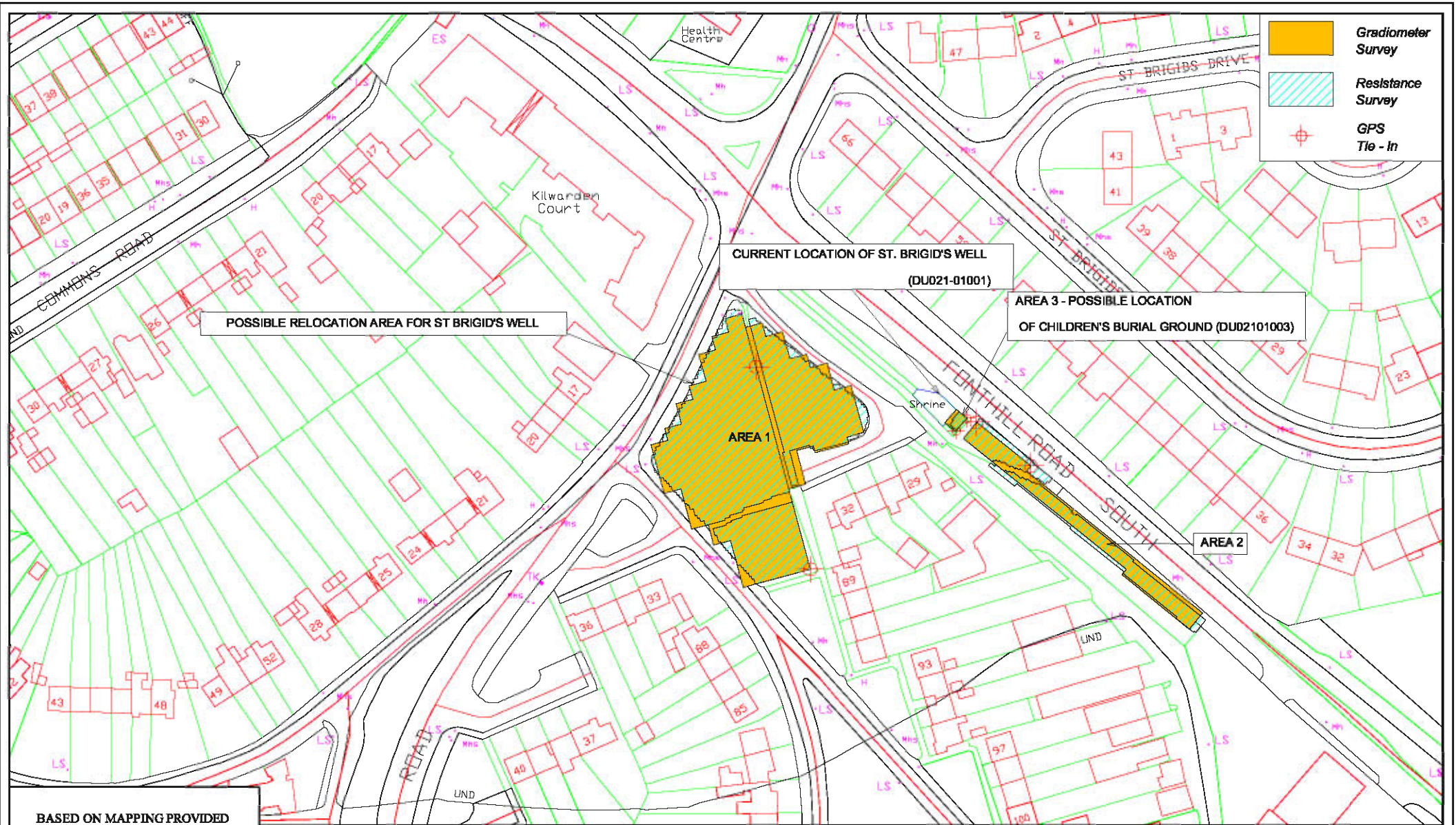
**Personnel:** Richard Morkan MA, John Nicholls MSc, & Dan Shiel BSc

**Date of Survey:** 16<sup>th</sup> – 18<sup>th</sup> June 2008

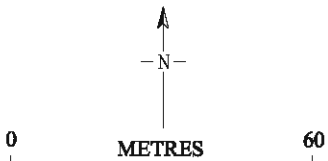
**Date of Report:** 25<sup>th</sup> June 2008

### References:

National Soil Survey of Ireland (1980), *General Soil Map 2<sup>nd</sup> Edition (1:575,000*. An Foras Taluntais).



BASED ON MAPPING PROVIDED BY THE CLIENT



PROJECT: RPA METRO WEST:  
ECCLESIASTICAL REMAINS,  
CLONDALKIN, CO. DUBLIN

TITLE: SURVEY LOCATION: GRADIOMETRY  
& RESISTIVITY AREAS 1-3

JOB NUMBER:  
08/022

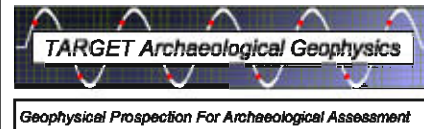
CLIENT: A.C.S. LTD. ON BEHALF OF  
THE RAILWAY PROCUREMENT AGENCY

FIGURE:  
FIG. 1

DATE:  
25/06/08

SCALE:  
1/1500

LICENCE:  
08R144



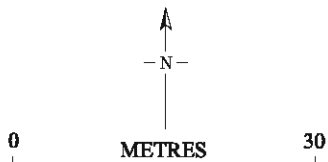
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TITLE: GRADIOMETRY GREYSCALE  
AREAS 1 - 3

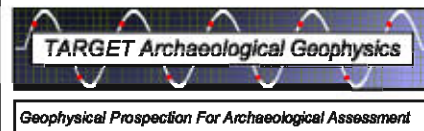
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DATE: 25/06/08

SCALE: 1/750

JOB NUMBER:  
08/022

LICENCE:  
08R144

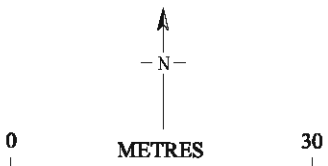


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TITLE:  
RESISTANCE GREYSCALE  
AREAS 1 - 3

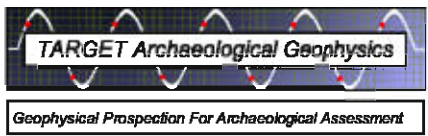
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SCALE: 1/750

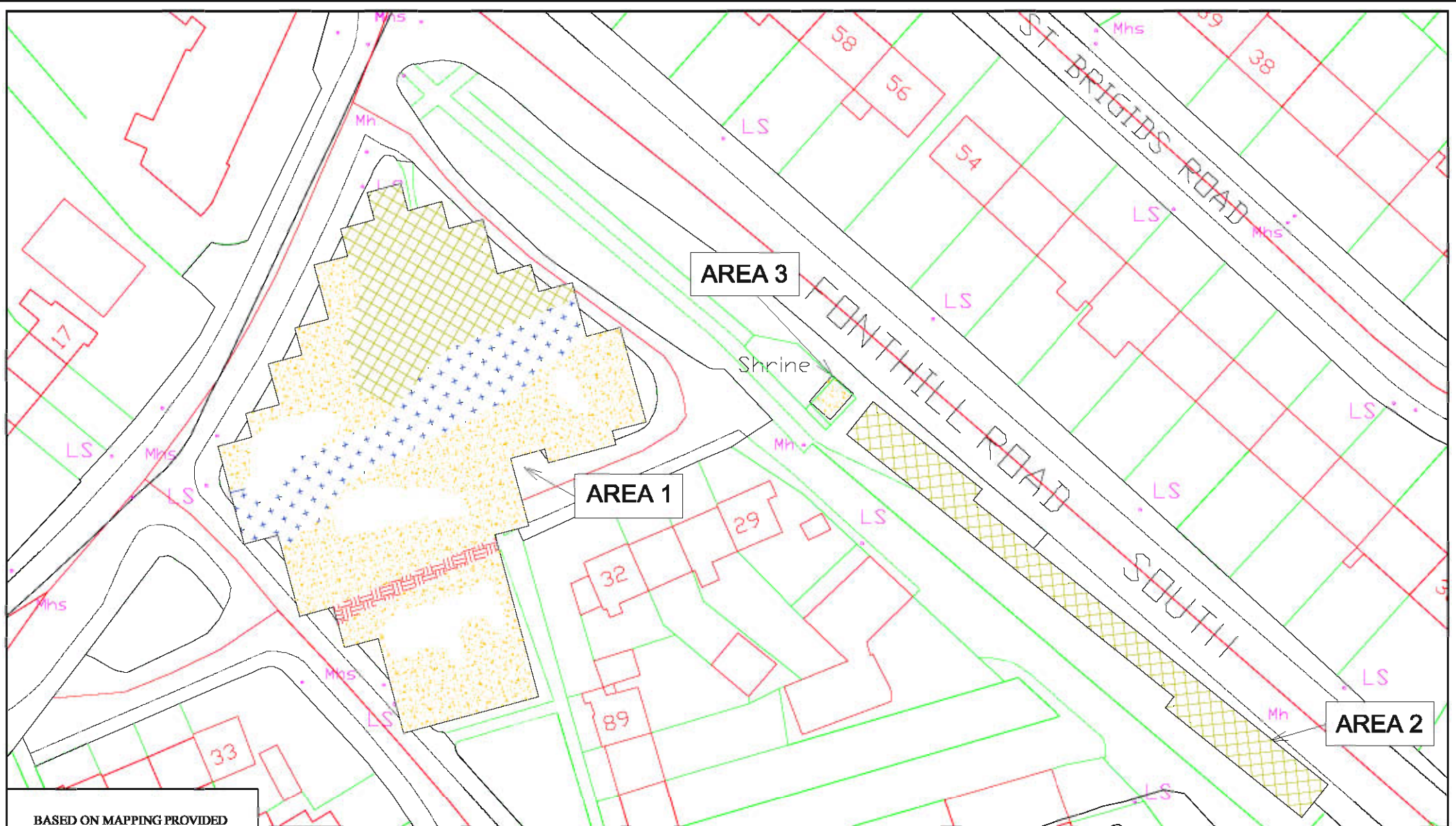
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08/022

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08R144

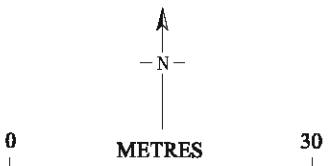


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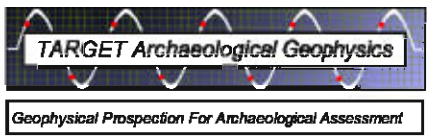


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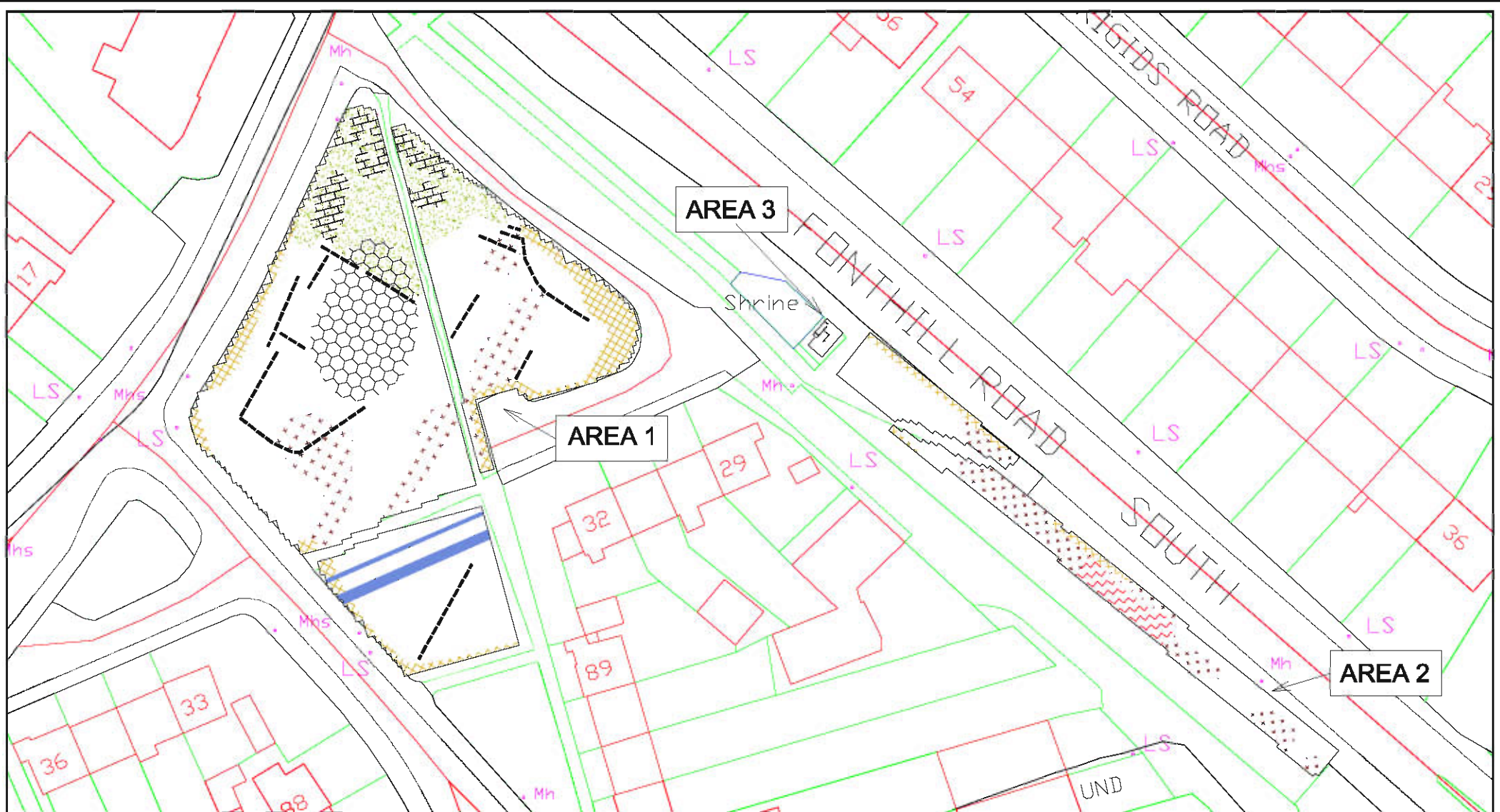
-  FOOTPATH
-  PIPE / BURIED SERVICE
-  MAGNETIC DISTURBANCE
-  FERROUS

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<b>CLIENT:</b> A.C.S. LTD. ON BEHALF OF THE RAILWAY PROCUREMENT AGENCY	<b>FIGURE:</b> FIG. 4	<b>DATE:</b> 25/06/08
	<b>SCALE:</b> 1/750	<b>LICENCE:</b> 08R144



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0 METRES 30



? Structural



? Rubble Spread



? Natural



Made Ground



Disturbed



Trees



? Service Trench



Trend

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CLONDALKIN, CO. DUBLIN

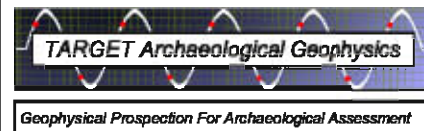
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AREAS 1 - 3

JOB NUMBER:  
08/022

CLIENT: A.C.S. LTD. ON BEHALF OF  
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FIGURE: DATE: SCALE:  
FIG. 5 25/06/08 1/750

LICENCE:  
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