



Goldfinch
ENVIRONMENTAL LTD

**PROPOSED RESIDENTIAL
DEVELOPMENT
THE OAKS
251 BROADGATE
SUTTON ST EMDUND
SPALDING**

**PROPOSED RESIDENTIAL
DEVELOPMENT
THE OAKS
215 BROADGATE
SUTTON ST EDMUND
SPALDING**

**GEOENVIRONMENTAL
DESK STUDY**

Report Ref.: 0346/1

Prepared by :

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Date:

February 2016

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PROPOSED RESIDENTIAL DEVELOPMENT

THE OAKS, 251 BROADGATE

SUTTON ST EDMUND, SPALDING

LINCS.

1. INTRODUCTION.

1.1 General.

This report describes the findings of a geoenvironmental desk study undertaken by Goldfinch Environmental Limited on the instruction of Mr S Coates on behalf of Old Hall Farm Company Ltd (the Client), at a site located at The Oaks, 251 Broadgate, Sutton St Edmund, Spalding.

A site location plan has been included as Figure 1 towards the back of this report to assist the reader.

The Desk Study was required to support a planning application for the development of the site to a residential land use by conversion of the three existing buildings to residential use.

2. LIMITATIONS.

This report is for the sole reliance and use of the Client. Any Third Party coming into possession of this report relies on it at their risk, unless written permission is expressly sought from, and provided by, Goldfinch Environmental Limited. The author owes them no duty of care and skill. Goldfinch Environmental Ltd accepts no responsibility or liability for the consequences of this document being used for purposes other than that for which it was commissioned and the assessments provided herein should not be relied on as a legal opinion.

The findings and opinions expressed are relevant to the time of the site visit and information review and should not be relied upon to represent conditions at substantially later dates. The assessments and opinions given in this report are based upon information available at the time of the report. Where additional information comes available which may affect or identify a need to review our conclusions or assessments we request the opportunity (and reserve the right), to review the information and where warranted, modify our assessment / opinion in part or wholly, accordingly.

The purpose of this desk study report was to determine the historical use of the site and adjacent areas from searches of Public Registers and a review of available historical maps and included a site reconnaissance ('walkover') survey together with brief internet searches. The outcome of these activities is described below and this information was used to construct a conceptual model for the site from which a risk assessment was completed in the context of the proposed residential development of the site.

The risk assessment was based on the source-pathway-receptor framework, with respect to the geoenvironmental condition of the site in the context of various sensitive receptors. Goldfinch Environmental Ltd have based this desk study upon the sources given in this report, and believes them to be reliable but cannot and does not guarantee the authenticity or reliability of the data it has relied upon.

This desk study does not include any geotechnical considerations pertaining to the site as these were outside the agreed brief.

The recommendations given in this report are based on guidance and best practice in place at the time of issue of the report, the information available at the time of the investigation, the nature of the indicated proposed development and associated end user behaviour patterns. Should any of the foregoing change at any time, then this report should be reviewed in the context of proposed changes.

The absence of indicators in search data, or from on site observations does not rule out their presence in other parts of the site. This desk study report has been based on information supplied in the 'GroundSure' report and its component parts included at Appendix 1 towards the back of this report, discussions with the Client and in-house searches.

3. LEGISLATIVE & REGULATORY SETTING.

The Environmental Protection Act of 1990 created the framework for the identification and remediation of contaminated land. The Act defines “contaminated land” as any land, which appears by the Local Authority to be “in such a condition, by reason of substances, in, on, or under the land that significant harm is being caused or there is significant possibility of such harm being caused, or, pollution of Controlled Waters is being, or is likely to be, caused”.

Land potentially affected by ‘contamination’ is a material consideration for planning purposes together with its relationship with ‘regulatory intervention’ (Part IIa), and ‘voluntary’ investigation (which includes redevelopment of sites which may be affected by contamination). The Model Procedures (CLR-11, Environment Agency 2004), provide a generic framework indicating key technical activities applicable in each of these contexts.

The management of land contamination broadly comprises three components that are identified as ‘Risk assessment’, ‘Options appraisal’ and ‘Implementation’. These, in turn, determine if any *unacceptable* risks exist, ascertain the most appropriate remediation strategy for the site and, finally, demonstrate that the strategy will be effective.

In accordance with this and other current guidance, where a ‘land quality’ risk assessment is required each ‘Relevant Pollutant Linkage’ (RPL, formerly referred to as “source-pathway-receptor” framework), is separately identified and a level of risk attached. This is documented in the form of a ‘Conceptual Model’.

The outcome of the assessment of established, plausible relevant pollutant linkages is used to determine qualitatively the need for further investigation, or remediation with ensuing mitigation of the determined unacceptable risk. (In accordance with the Model Procedures and Regulatory preference, detailed remedial measures should be provided in a separate phase).

The risk assessment takes account of the local environment, end user behaviour patterns, and the nature of the development in relation to proven ‘unacceptable’ risk. This is the approach advocated by current guidance (CLR-11 and BS10175 etc), and therefore has been adopted in the assessment of this site.

4. SITE LOCATION AND DESCRIPTION.

4.1 Overview

A site visit was carried out during 16 February 2016 the purpose being to:-

- I. Collect additional/relevant information about the site its environs and any site-specific potential contaminants, pathways and receptors.
- II. Record any aspects of the site not revealed by documentary searches. (e.g. the presence of above- or belowground hydrocarbon storage tanks.).
- III. Collect any information that will assist in the planning of any subsequent phases of field investigation where the Desk Study deems this is necessary.

Approximate Grid Reference ⁵36808, ³13110 refers.

The site comprised an irregularly-shaped but 'sensibly-level' plot of land in a rural setting at the southern end of the village of Sutton St Edmunds, Spalding, Lincs..

At the time of the site walkover survey the site was almost entirely capped with 'hard' surfacing which included the footprints of the three buildings present at the site. For the purposes of clarity the buildings have been described as 'Building 1', 'Building 2' and 'Building 3' as shown on Figure 2 (Aerial Plan (2006)) towards the back of this report.

4.2 Building 1.

Long, rectangular, and fronting the public highway this building was of brick and timber construction with a roof of corrugated panelling as shown in Photograph 1 and 2 below.



Photograph 1: View of Building 1 – North Elevation.



Photograph 2: View of Building 1 – South Elevation.

As can be seen from Photograph 1 the building was subdivided internally with separate pedestrian accesses in the northern elevation into the various rooms. This building was empty with the exception of occasional disused work benches. There were no specific features of note within this structure in the context of land quality.

4.3 Building 2.

This building was located towards the approximate site centre, two-storey in height, with a lean-to addition on its northern side, and constructed from brick and timber with a tiled roof over a concrete slab floor, as can be seen in Photograph 3 below.

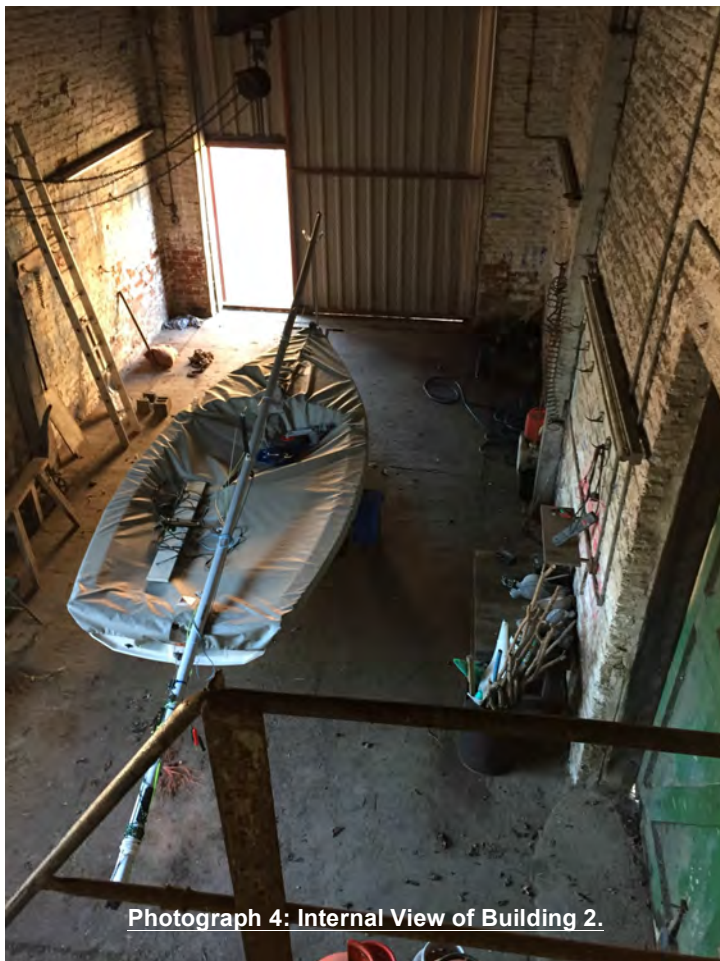


Photograph 3: View of Building 2 – South Elevation.

Internally this building was subdivided towards one end with the smaller area being used as a workshop. The main part of the building was being used to store a small boat and various other items which included propane cylinders, metal chains, plastic piping, chairs, and occasional small hand tools as can be seen in Photograph 4 overleaf.

A small mezzanine area was noted at one end of this structure. Visual inspection showed it only contained sets of empty shelving.

The 'lean-to' area on the northern side of this building was in use as a wood/log store.



There were occasional superficial (and 'weathered') oil stains in the surface of the concrete.

Photograph 4: Internal View of Building 2.

4.4 Building 3.

Building 3 was located in the southern part of the site and is shown in Photograph 5.

Also constructed from brick with a tiled roof and internally divided as can be seen by the doors in Photograph 5.



Photograph 5: View of Building 3 from the South.

The pedestrian door shown in Photograph 5 lead to a small 'rest' area which contained chairs and a microwave cooker and a television set with tea and coffee making facilities. It was understood this room was used by farm workers at break and lunch times.

The next section of the building was being used to store small quantities of firewood and coal and was also over a concrete slab floor.

Other parts of this structure appeared to be empty except however, the northern end which contained a small tractor parked over an inspection pit as shown in Photograph 6.

The reader will also note in the background of Photograph 6 (on the right) a green tank.

This contained 'road diesel' ('DERV'), and a dispensing pump was also installed on the wall on the left hand side of the tank.

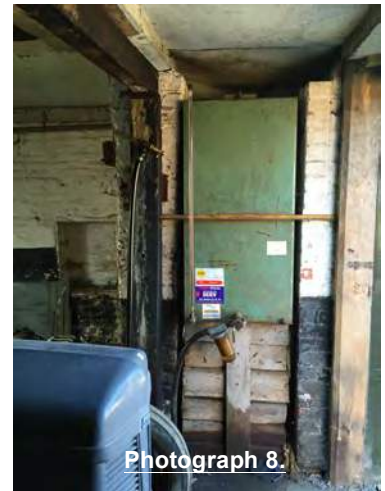
The floor in this part of the building close to the tank was stained with hydrocarbons. This area of staining was very localised to the base of the tank as can be seen in Photograph 7 overleaf.



Photograph 6: Internal View of Building 3 –Tractor, Inspection Pit & Diesel Pump.



Photograph 7: Internal View of Building 3 – Tank Area.



Photograph 8.

Photograph 8 above shows a general view of the tank 'in-situ'.

In the three buildings inspected as part of the walkover survey only the area by this tank showed any evidence of 'contamination'. While some weathering of the concrete surfaces can be seen in Photograph 7 it is reasonably asserted by this author that the underlying soils in this area are unlikely to have been impacted by the hydrocarbon stains seen as the cracking and crazing was not considered 'severe' or 'advanced' enough to open a plausible pathway to the underlying soils.

Following visual inspection of the site there were no other notable features with regard to land contamination. In addition while the site had been subject to previous 'development' there was no apparent evidence of:~

1. The presence of Made Ground other than the inert concrete floorslab.
2. The presence or storage of potentially leachable materials/chemicals (Other than the referred containerised hydrocarbons – the tank.)

3. Demolition or dispersal of contaminated rubble or other materials.
4. Importation of potentially contaminated fill onto the site.
5. Possible cementised asbestos-containing corrugated panelling was employed in the roof structure of the building fronting the public highway – Building 1.

5. SITE HISTORY.

5.1 Historical Maps.

Where the attached maps are compiled from a composite of editions, the year of map upon which the majority of the site may be found is quoted below. These are reproduced at Appendix 1. Annotation, as it appears on the maps, is indicated by italics.

Land use in excess of 250m from the site is considered of potentially negligible to low risk to the application site and on that basis is generally excluded from the summary provided below (unless record review by this author suggests otherwise). However, should the reader require this additional detail, full disclosure records are included in Appendix 1 towards the back of this report.

1887 Edition {County Series - Scale 1:10 560}

The site was shown as a developed plot of land on the western side of an unnamed public highway at the southern end of the village of Sutton St Edmund.

Surrounding land was sparsely developed.

There were no other notable features associated with the site in the context of land quality.

1889 Edition {County Series - Scale 1:2 500}

There were no apparent changes to the site or its immediate environs at this scale of mapping. However, the layout of the site could be clearly seen. A long rectangular building fronted the public highway with two adjoining buildings being located towards the approximate site centre. The western part of the site was encroached by buildings on adjacent land.

A Grave Yard was established on land to the north west of the site.

A Smithy was established on land approximately 250m to the north of the site.

There were no other notable features associated with the site in the context of land quality.

1900 Edition {County Series - Scale 1:10 560}

There were no further apparent changes to the site or its immediate environs at this scale of mapping.

1904 Edition {County Series - Scale 1:2 500}

There were no apparent further changes to the site or the surrounding environs at this scale of mapping.

1905 Edition {County Series - Scale 1:10 560}

There were no further pertinent land use changes to the immediate environs of the site.

1950 Edition {County Series - Scale 1:10 560}

There were no apparent changes to the site or its immediate environs at this scale of mapping.

1959 Edition {Provisional - Scale 1:10 560}

There were no apparent changes to the site or its immediate environs at this scale of mapping.

1976 Edition {National Grid - Scale 1:2 500}

There were no further pertinent land use changes to the site except that there was possibly a further structure shown in dotted outline towards the centre-east of the site.

There were no apparent changes to surrounding land use at this scale of mapping.

1980 Edition {National Grid - Scale 1:10 000}

There were no further pertinent land use changes at the site.

There were no apparent changes to nearby land at this scale of mapping.

1992 Edition {National Grid - Scale 1:2 500}

There were no apparent changes of the site at this scale of mapping.

Land to the east of the site had now been developed.

Land further to the east and south of the site was not shown on this map edition.

1994 Edition {National Grid - Scale 1:2 500}

There were no apparent changes to the site at this scale of mapping.

2002 Edition {Raster - Scale 1:10 000}

There were no apparent changes to the site or the immediate environs.

2010 Edition {National Grid - Scale 1:10 000}

There were no further changes to the site.

There were no apparent changes to the surrounding environs with respect to land contamination.

2014 Edition {National Grid - Scale 1:10 000}

There were no apparent changes to the site or surrounding environs with respect to land contamination.

5.2 Public Registers.

A search of public register information has been made using an Internet-based system. A disclosure report is reproduced at Appendix 1. The following commentary is restricted to entries within a 250m search radius of the site. Appendix 1 should be referred to for details on entries beyond of this range.

5.2.1 Historical Industrial Sites

There were nine records for the category 'Potentially Contaminative Uses identified from 1:10 000 scale mapping' within this dataset for the referred search radius. Supplied information indicated none of these were 'on-site', none were within 50m of the site and the remaining nine were located between approximately 51 and 250m distant from the site. These were listed as 'Grave Yard'; 'Smithy' (x7) and 'Sewage Works'. Supplied information indicated they were located between approximately 70 and 217m distant from the site.

There was one entry for the category 'Additional Information – Historical Energy Features Database' within this dataset. Supplied information indicated this was for a 'Electricity Substation', which was located approximately 133m distant from the site.

There were four entries for the category 'Potentially Infilled Land' within this dataset for the referred search radius. Supplied information indicated these were given as 'Grave Yard'; 'Sewage Works' and 'Pond' (x2) and were located between approximately 70 and 197m distant from the site.

5.2.2 Environmental Permits, Incidents and Registers.

There were twelve records for the category 'Records of Licensed Discharge Consents' within this dataset for the referred search radius. Supplied information indicated that none of these were for the site, four of these were located within 50m of the site and the remaining eight were located between approximately distant from the site and records showed these were for 'Final/Treated Effluent'. The remaining five were located between approximately 34 and 242m distant from the site and were also for 'Final/Treated Effluent'.

5.2.3 Landfill and Other Wastes.

There was one entry for the category 'Environment Agency Historic Landfill Sites' within this dataset for the referred search radius. Supplied information indicated this was located approximately 117m from the site. The licence was given as 'Surrendered'.

5.2.4 Current Land Uses.

There was one record for the category 'Current Industrial Sites Data' within this dataset for the referred search radius. Supplied information indicated this was located approximately 109m distant from the site and was for 'Electrical Features'.

5.2.4.i Petrol & Fuel Sites.

There were no records within this dataset for the referred search radius.

5.2.5 Geology.

There were no records for the site within the category 'Artificial Ground and Made Ground'.

There were records listed within the category 'Superficial Ground and Drift Geology present beneath the site'. Supplied information indicated Tidal Flat Deposits (Sand and Silt).

The Bedrock & Solid Geology was given as West Walton Formation and Ampthill Clay Formation.

5.2.6 Hydrogeology and Hydrology.

For the category 'Are there any records of Strata Classification in the Superficial Geology within 500m of the site' a 'Yes' response was provided. Supplied information indicated the site was underlain by a 'Secondary' aquifer.

For the category 'Are there any records of Strata Classification in the Bedrock geology within 500m of the site' a 'Yes' response was provided. Supplied records showed that the site was underlain by a 'Unproductive' Aquifer.

There were no records for the category 'Groundwater Abstraction Licences' within the referred search radius for the site.

There were no records for the category 'Surface Water Abstraction Licences' within the referred search radius for the site.

There were no records for the category 'Potable Water Abstraction Licences' within the referred search radius for the site.

There were no records for the category 'Source Protection Zones' within the search radius for the site.

There were no records for the category 'Groundwater Vulnerability and Soil Leaching Potential' for the site.

There were no records of Environment Agency information on River Quality available within 1500m of the site.

There were no records for the category 'Detailed River Networks' within the search radius for the site.

There were twelve 'Surface Water Features' reportedly within 250m of the study site that were not represented on mapping. The reader is referred to Section 6.11 of the 'Enviroinsight' report for further details.

5.2.7 Flooding.

There were Environment Agency Flood Zone 2 floodplains within 250m of the site.

There were Environment Agency Flood Zone 3 floodplains within 250m of the site.

There was a 'Medium' risk of flooding from Rivers and Sea for the site.

There were no Flood Defence areas within the search radius of 250m for the site.

There were no areas benefitting from Flood Defences within 250m of the site.

There were no areas used for Flood Storage within 250m of the site.

For the category 'What is the maximum BGS Groundwater Flooding Susceptibility within 50m of the study site'. The response 'Potential at Surface' was given in the supplied information.

For the category 'What is the BGS confidence rating for the Groundwater Flooding susceptibility areas' the provided response was 'Moderate'.

5.2.8 Designated Environmentally Sensitive Sites.

There were no records for the site within this dataset.

5.2.9 Natural Hazards.

Search records indicated there was a 'High' maximum risk of natural ground subsidence.

5.2.10 Mining.

Searches indicated there were no coal mining areas within 75m of the site.

There were no 'Non-Coal Mining areas' within 50m of the study site.

There are no brine affected areas within 75m of the site.

5.2.11 Radon.

Searches indicated that the site is not in a 'Radon Affected Area' and less than 1% of properties are above the 'Action Level' therefore radon protection measures are not necessary in new buildings.

6. PRELIMINARY QUALITATIVE RISK ASSESSMENT.

6.1 Introduction.

There are three factors that are taken into account whilst undertaking a qualitative risk assessment. These have been described in Section 3 of this document. At the time of this report, the site had been proposed for redevelopment to a residential end use by conversion of the existing three buildings.

6.2 Conceptual Model.

Source (s) (Potential)	Pathway	Target	Risk
Soil: The site had had a history of documented development, which comprised its establishment by the time of issue of the 1887 map edition with amendment between issue of the 1959 and 1976 Editions.. There were no further documented changes between this time and the present day. There were no site-specific indicators of potential contamination other than the referred oil stains in concrete surfaces and the (localised) diesel tank, and the small tractor and inspection pit. Visual and olfactory indicators of potential contamination immediately nearby off site were not noted.	❖ Dermal contact, ingestion and inhalation	• Present users • End users • Construction workers • General public	• Low • Low • Low • Low
	❖ Wind erosion and atmospheric dispersion	• Adjacent properties • General public • Ecological Systems • Archaeological Sites & Monuments	• Low • Low • Low • n/a
	❖ Leaching	• Adjacent properties • Shallow groundwater • Services/construction materials • Plant life • Surface water • Ecological Systems • Arch. & Monuments	• Low • Low • Low • Low • Low • Low • Low
Shallow groundwater: The site overlies 'Secondary' and 'Unproductive' aquifers, which were not considered to be pollution sources.	❖ Groundwater migration	• Adjacent properties • Deep groundwater • Services/construction materials • Plant life • Ecological Systems • Archaeological Sites & Monuments	• Low • Low • Low • n/a • Low • Low
	❖ Dermal contact, ingestion and inhalation	• Present users • End users • Construction workers • General public	• Low • Low • Low • Neg-Low
Gas: Measurable (background) concentrations of ground gas would not (reasonably) be anticipated to be present as a result of historical site use or the underlying natural geology.	❖ Direct inhalation ❖ Soil migration ❖ Services migration	• End users • Construction workers • Buildings • Ecological Systems • Arch. Sites & Monuments	• Low • Low • Low • Low • Neg
Negligible Risk Defined as the site should be considered suitable for present or future use and environmental setting. Contaminants unlikely to be present, which might have unacceptable impact on key targets. Low Risk Defined as the site should be considered suitable for present or future use and environmental setting. Contaminants may be present but unlikely to have unacceptable impact on key targets. Medium Risk Defined as the site may not be suitable for present or future use and environmental setting. Contaminants are probably present and might have unacceptable impact on key targets. High Risk Defined as the site is probably or certainly not suitable for present or future use and environmental setting. Contaminants probably or certainly present and likely to have an unacceptable impact on key targets. Notes: n/a = not applicable			

The risk assessment follows below:-

6.3 Targets.

Potential targets, in the context of the risk assessment (based on the relevant pollutant linkage), where a plausible pathway can be proven, are discussed as follows.

At the time of this report, the proposed scheme comprised change of use to residential development.

6.3.1 Human Health (Site Users & Construction Workers)

The site had a limited documented development history as shown by two phases of development, which included its establishment. The site was within the curtilage of a farm, which had been established since at least 1887.

There is the potential for the presence of limited thicknesses of Made Ground in the form of concrete hardstanding and the footprint of buildings and possible 'sub-base' over which the buildings had been constructed. Where present, this would have provided a physical barrier between any potential sources of contamination resulting from on site activities thus protecting the underlying soils.

It is further reasonably considered that the Made Ground would be 'inert' and therefore not a source of contamination itself.

A small diesel tank and dispensing pump was noted in Building 3. It is assumed by this Author that this feature will be removed off site in the early stages or prior to commencement of the development. It is considered unlikely that the staining has penetrated the concrete slab and impacted the underlying soils.

It is anticipated that the small tractor will also be removed off site and the inspection pit infilled with clean aggregate and then sealed with concrete as part of the the floor construction in the redevelopment. The latter would form a physical barrier between the underlying soils and the internal parts of the building.

Based upon the foregoing and the final paragraph of this report, regarding 'unanticipated contamination:-

A Low risk has been identified until proven otherwise.

6.3.2 Services and Construction Materials

6.3.2.1 Concrete & Potable water supplies.

Adverse effects on services and construction materials may be anticipated where soils are impacted by localised raised/lowered pH values, PAH's, TPHs and metals contamination and where these are present in Made Ground materials. However, in this

instance and based on the absence of Made Ground and the foregoing:-

A Low risk has been identified.

6.4 Landscaping & Planting

Based on the foregoing a 'Low' risk is presented to this receptor from the Made Ground present at the site.

6.5 Groundwater (Controlled Waters)

The site is underlain by 'Secondary' and 'Unproductive' Aquifers. However, there remains the potential for small quantities of perched groundwater in any superficial fills (or Made Ground), where these are present. However, searches indicated in this instance that the presence of significant thicknesses of Made Ground would not be reasonably anticipated given the documented history of the site.

A Low risk to deeper groundwater has been identified.

6.6 Ground Gas

Measurable concentrations of soil gases (predominantly carbon dioxide) would not be reasonably anticipated to be present as a function of any made ground present. However, where present, any granular overburden would mitigate the risk of ground gas buildup via natural ventilation of ground gas to atmosphere.

On the basis of the foregoing:~

A Low risk has been identified.

7. RECOMMENDATIONS FOLLOWING PRELIMINARY RISK ASSESSMENT.

7.1 Overview.

The desk study information (including the outcome of the walkover survey), showed the site had had a limited documented developmental history, and had accommodated or been closely associated with, a Farm.

The site walkover survey and the searches carried out as part of this Desk Study indicated that there were no readily identifiable sources of contamination other than an internal aboveground hydrocarbon storage tank (diesel). It is anticipated that the small tractor will also be removed off site and the inspection pit infilled with clean aggregate and then sealed with concrete as part of the floor construction in the redevelopment. The latter would form a physical barrier between the underlying soils and the internal parts of the building.

Made Ground was present in the form of concrete hard cover inside the buildings which was considered to be 'inert' and therefore not considered to pose an 'unacceptable' risk to the End User of the completed development.

On that basis, and subject to the final paragraph in this report (in blue text), the need for a Phase 2 intrusive investigation is considered to be *unwarranted*.

The opinions and recommendations in this report are subject to the agreement of the Regulators.

8. CONCLUSIONS.

This geoenvironmental desk study prepared by Goldfinch Environmental Limited was undertaken on the instruction of Mr S Coates acting for Old Hall Farm Company Ltd (the Client), for a site located at The Oaks, 251 Broadgate, Sutton St Edmunds, Spalding.

The site had been in use by association with a Farm.

There were no notable features present in the context of land contamination other than the referred diesel tank, small tractor and inspection pit as described above.

Desk Study searches have shown that the site rests on Tidal Flat Deposits underlain by West Walton and Amphill Formation Clays.

Subject to early removal of the tank and tractor an overall Low risk is associated with the site *subject to the final paragraph in this report.*

Recommendations for the need for further work (or otherwise) have been discussed in Section 7 of this report.

Also, at all times especially once any necessary groundworks have commenced, the final paragraph below applies regarding 'unanticipated' contamination.

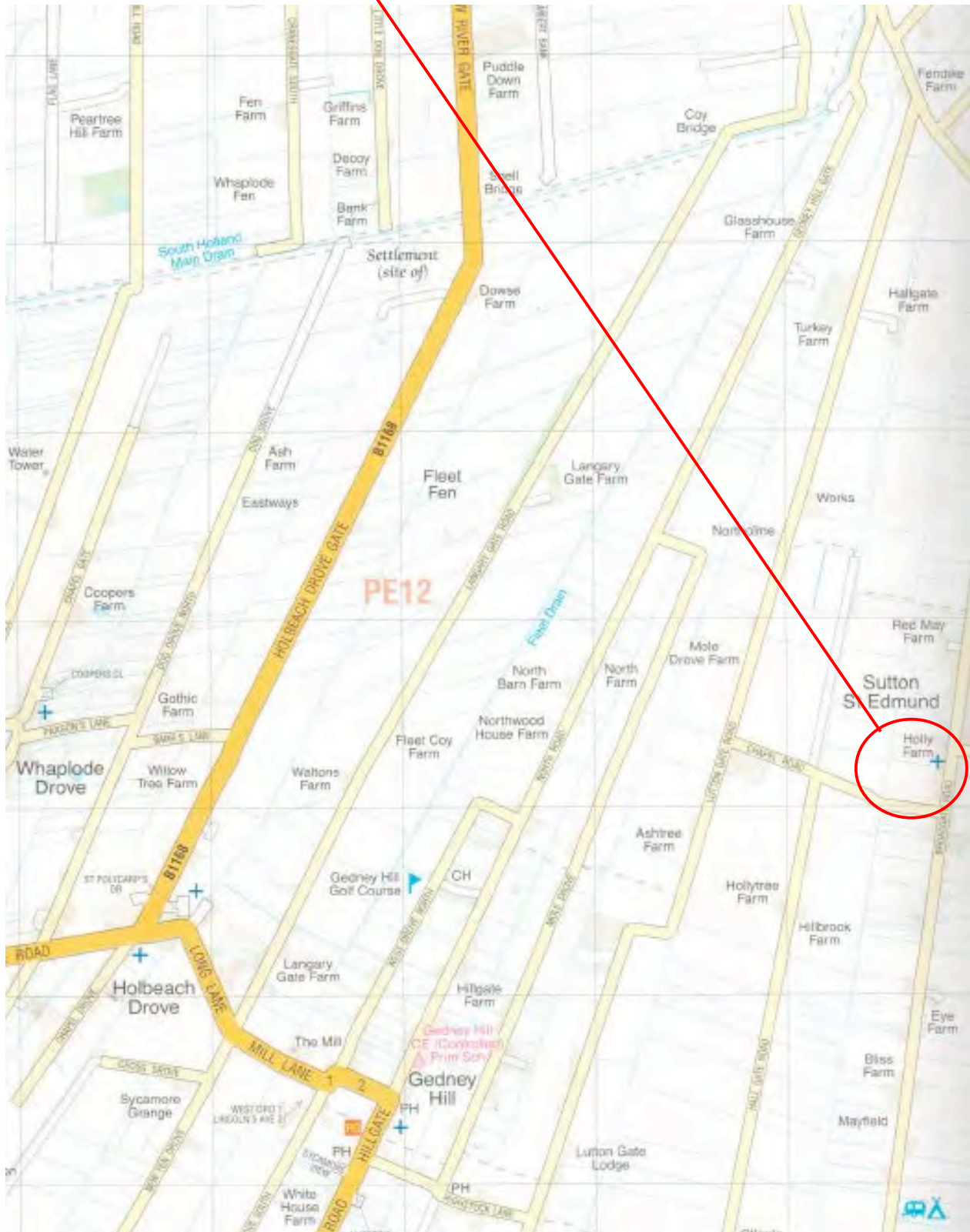
The reader should note that the opinions, recommendations and conclusions in this report are subject to the agreement of the Local Authority who are the final arbiters in these matters.

Based on the foregoing, a Low risk to construction workers and services installations has been associated with the site until proven otherwise. Site personnel, particularly groundworkers, should follow sound health and safety welfare practices that will further mitigate this level of risk.

Should unanticipated contamination be suspected, or revealed during any groundworks, then the area should be temporarily isolated and further advice sought by a suitably independent qualified person and a management strategy for these occurrences should be submitted to the Local Authority for their approval prior to proceeding, as required by Regulatory Offices.

FIGURES

N ↑



Site Location Plan

Goldfinch
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Figure 2

Aerial Plan (2006)

Ref. 0346/1

Goldfinch
Environmental
Limited

APPENDICES

Appendix 1

‘Groundsure’ Report

Site Details:

251, BROADGATE, SPALDING,
PE12 0LT

Client Ref: 0346-ds
Report Ref: GS-2391-2688271
Grid Ref: 536808, 313110

Map Name: County Series

Map date: 1887

Scale: 1:10,560

Printed at: 1:10,560



Surveyed 1887
Revised 1887
Edition N/A
Copyright N/A
Levelled N/A

Surveyed 1887
Revised 1887
Edition N/A
Copyright N/A
Levelled N/A

Surveyed 1887
Revised 1887
Edition N/A
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Levelled N/A

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Levelled N/A

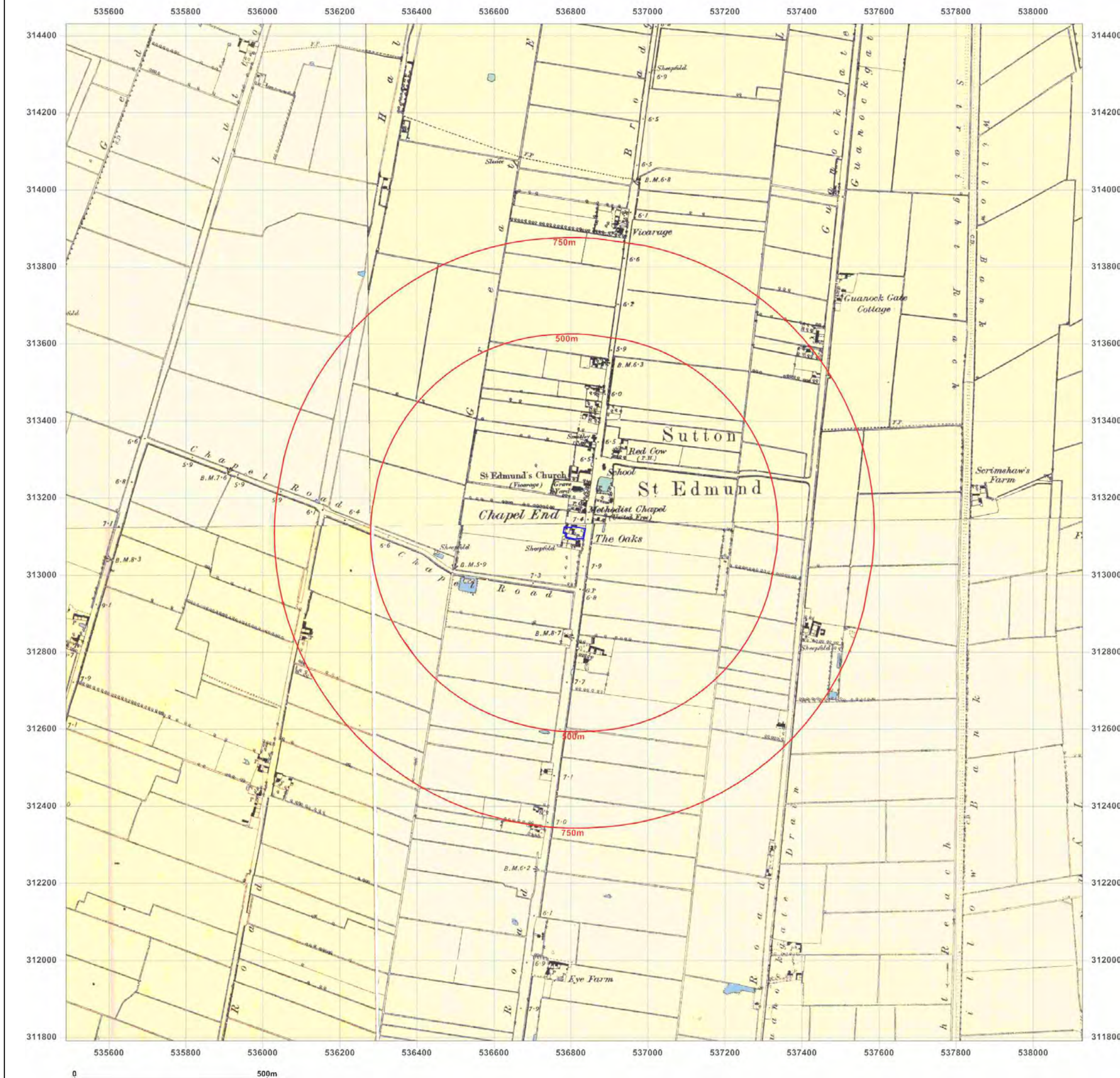


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Production date: 18 January 2016

To view map legend click here [Legend](#)



Site Details:

251, BROADGATE, SPALDING,
PE12 0LT

Client Ref: 0346-ds
Report Ref: GS-2391-2688271
Grid Ref: 536808, 313110

Map Name: County Series

Map date: 1900

Scale: 1:10,560

Printed at: 1:10,560



Surveyed 1886
Revised 1900
Edition N/A
Copyright N/A
Levelled N/A

Surveyed 1886
Revised 1900
Edition N/A
Copyright N/A
Levelled N/A

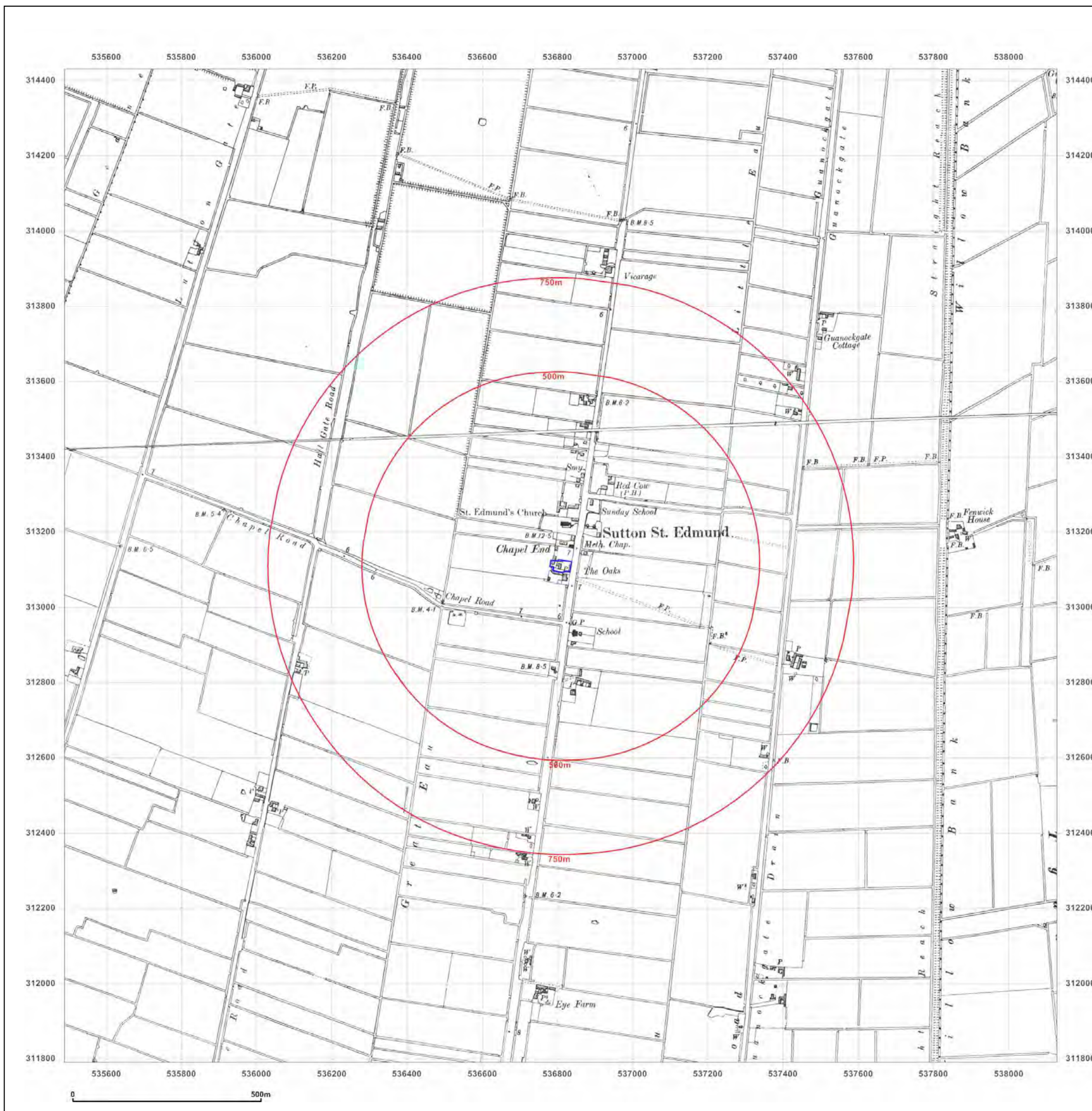


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Production date: 18 January 2016

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Site Details:

251, BROADGATE, SPALDING,
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Client Ref: 0346-ds
Report Ref: GS-2391-2688271
Grid Ref: 536808, 313110

Map Name: County Series

Map date: 1905

Scale: 1:10,560

Printed at: 1:10,560



Surveyed 1886
Revised 1905
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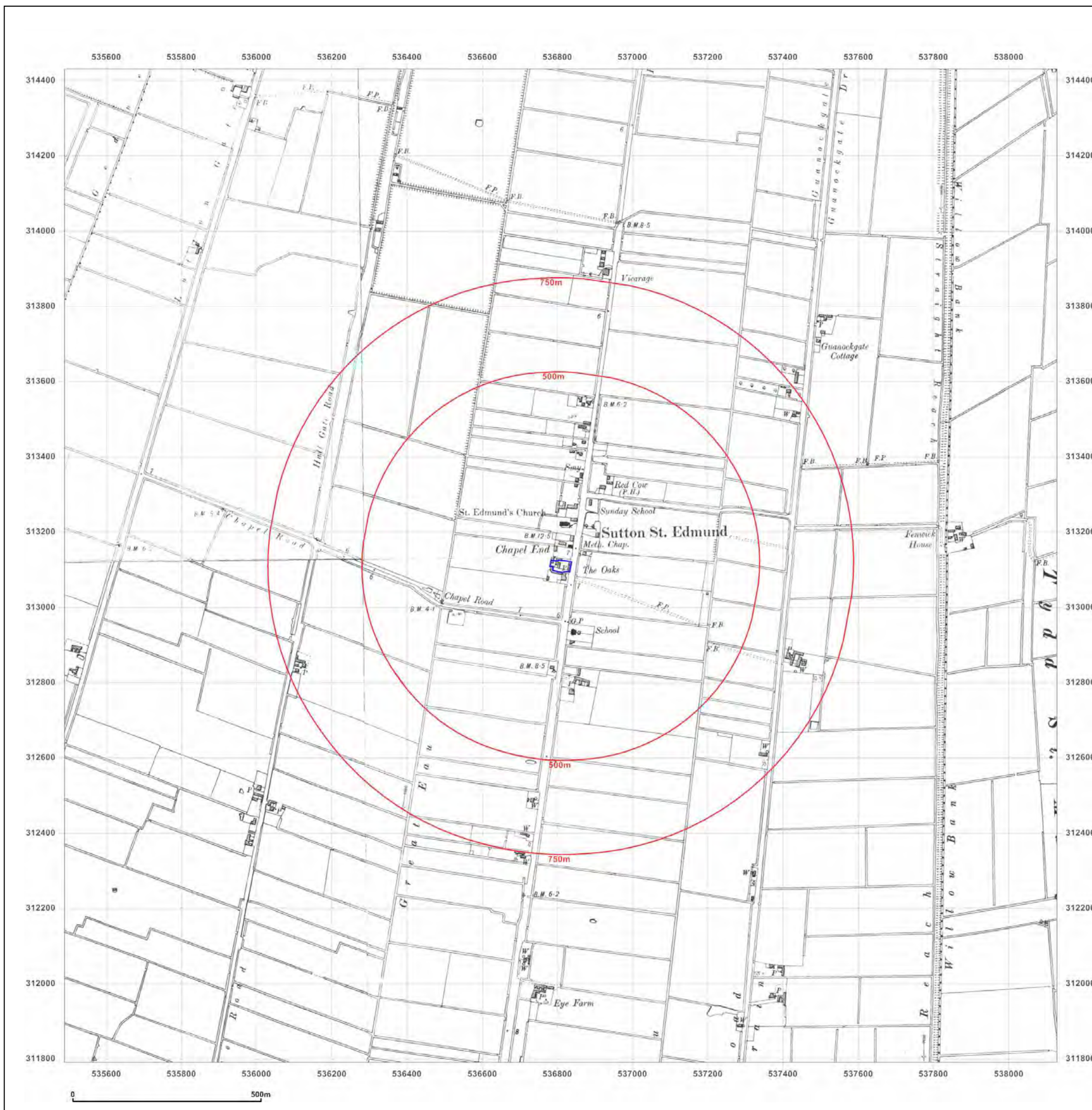


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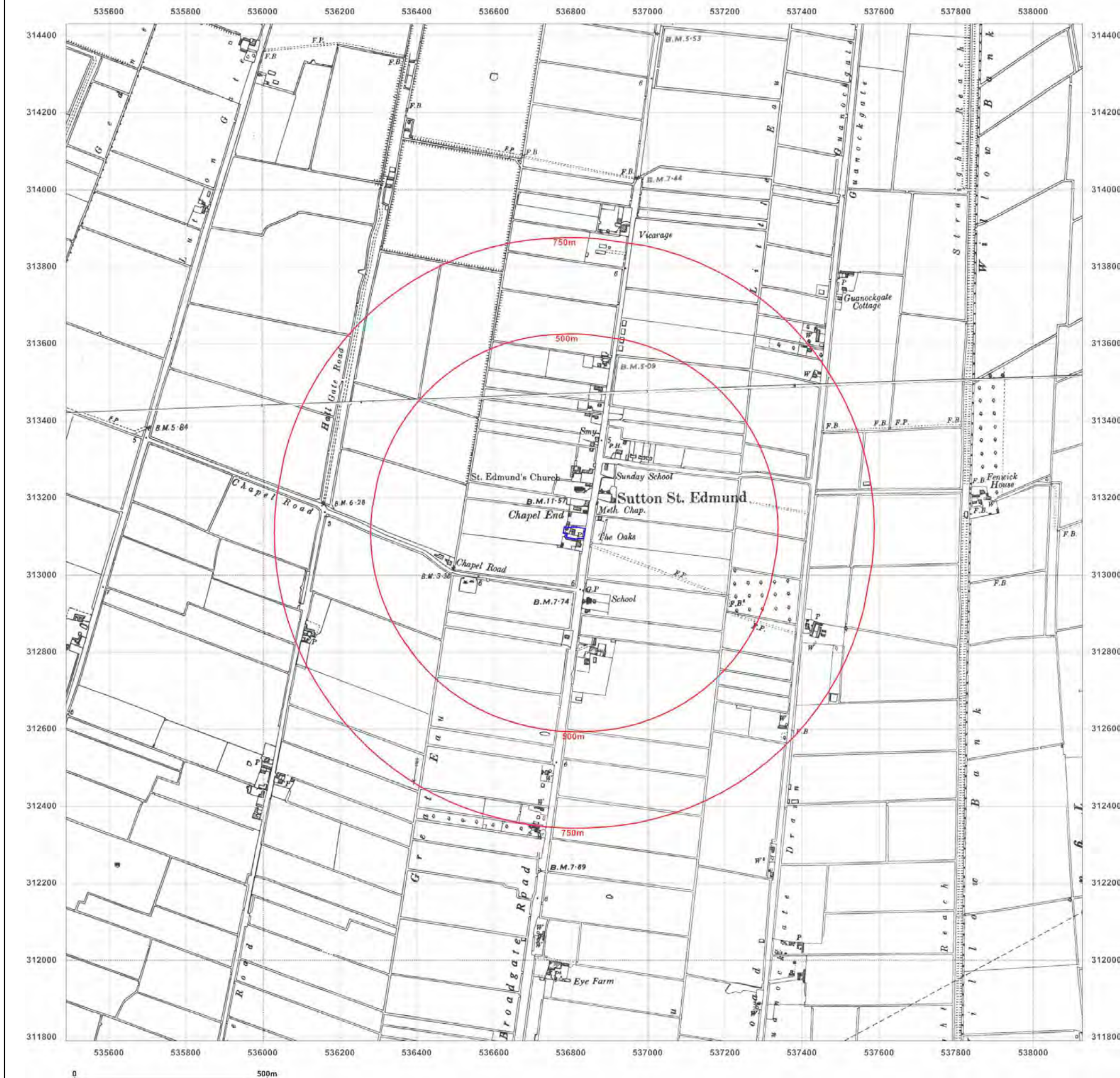


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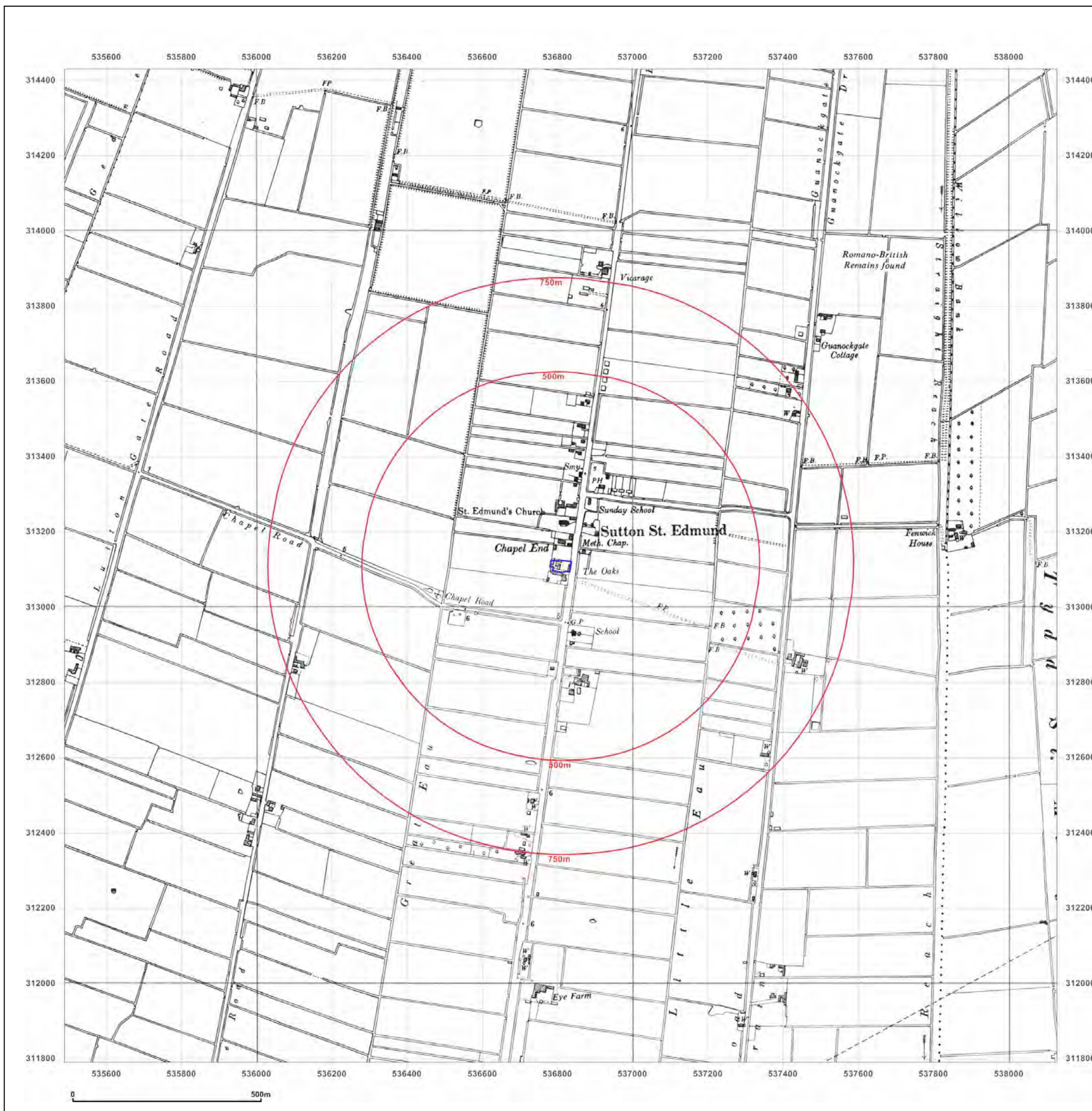


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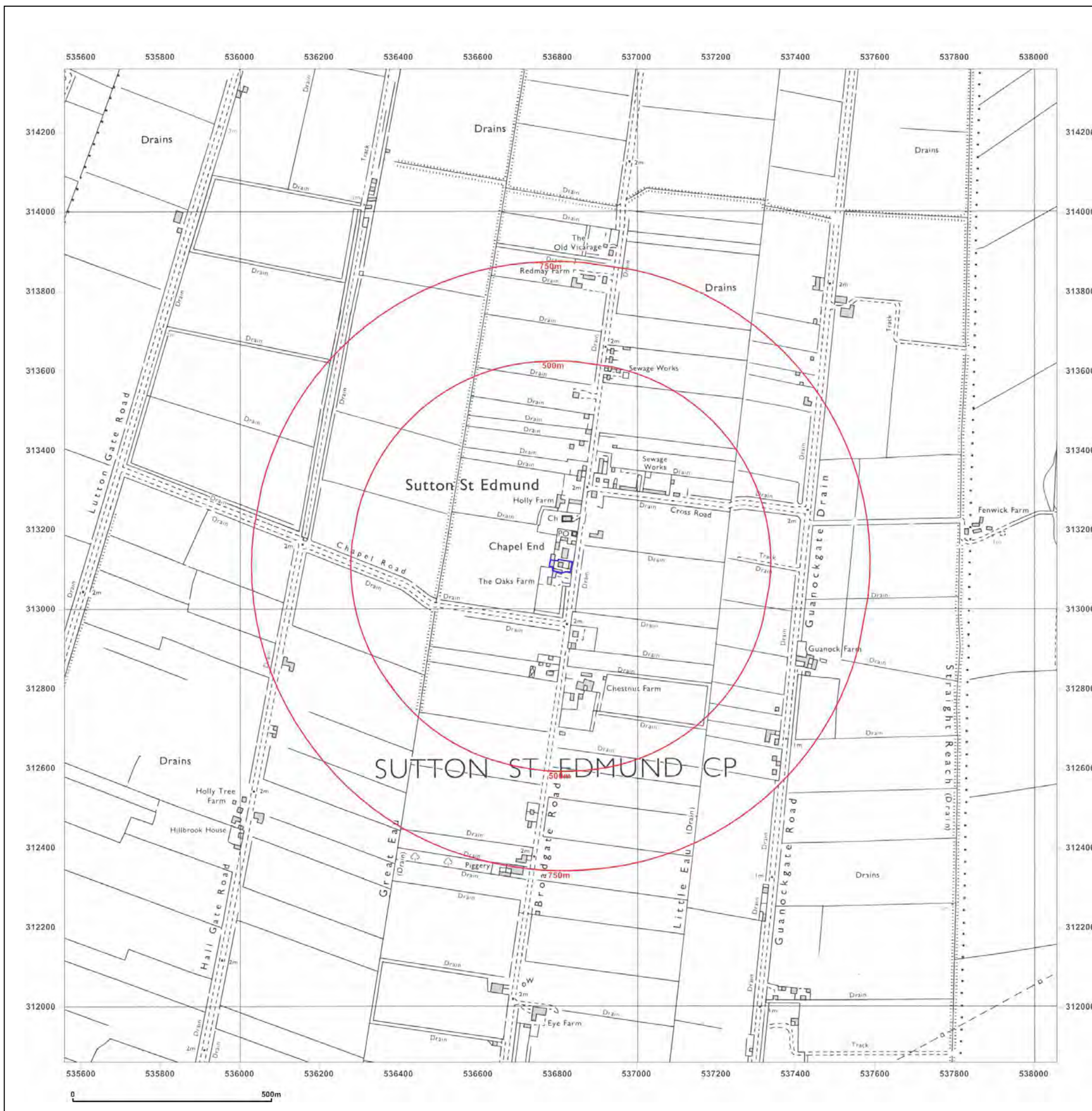


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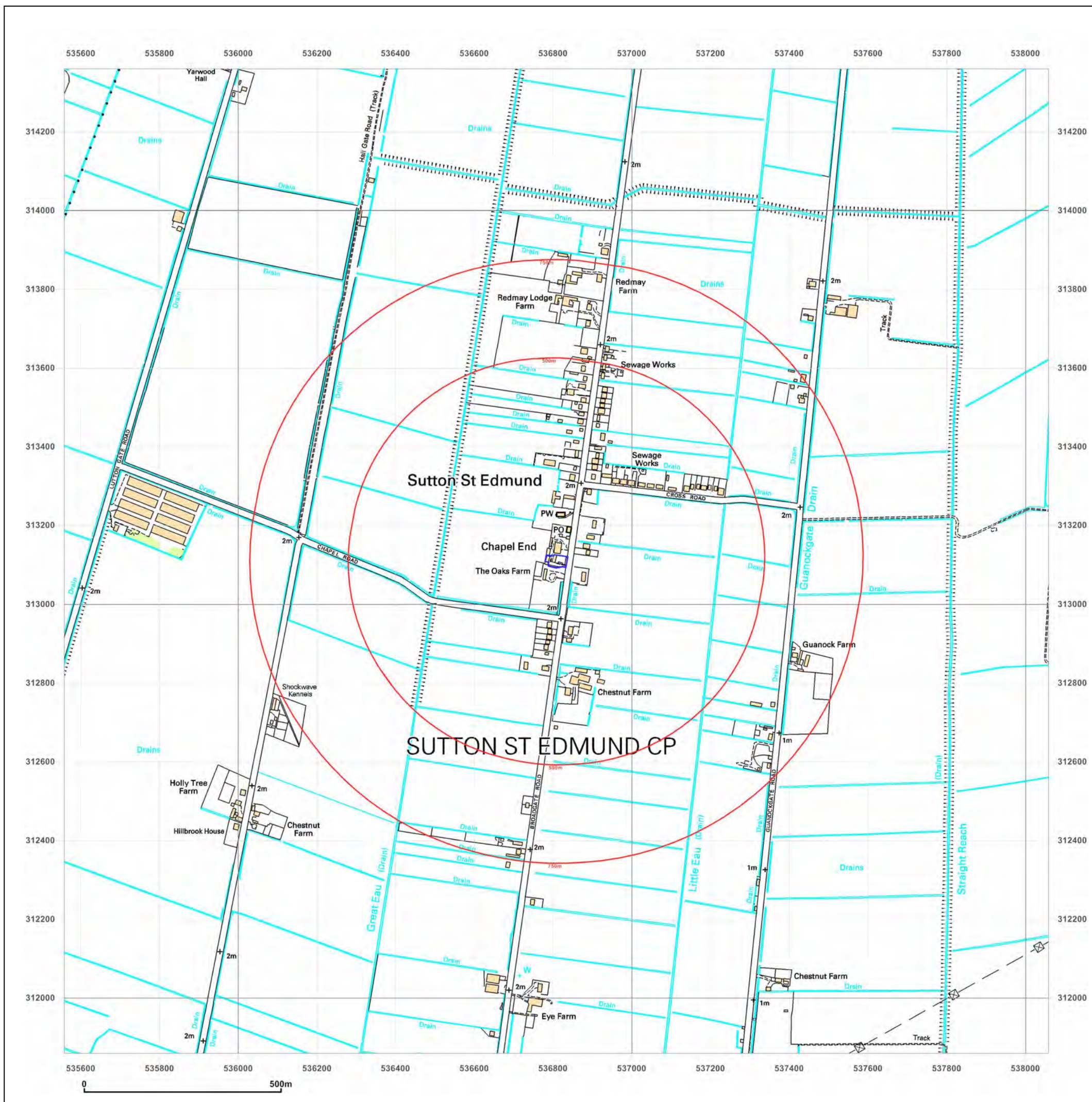


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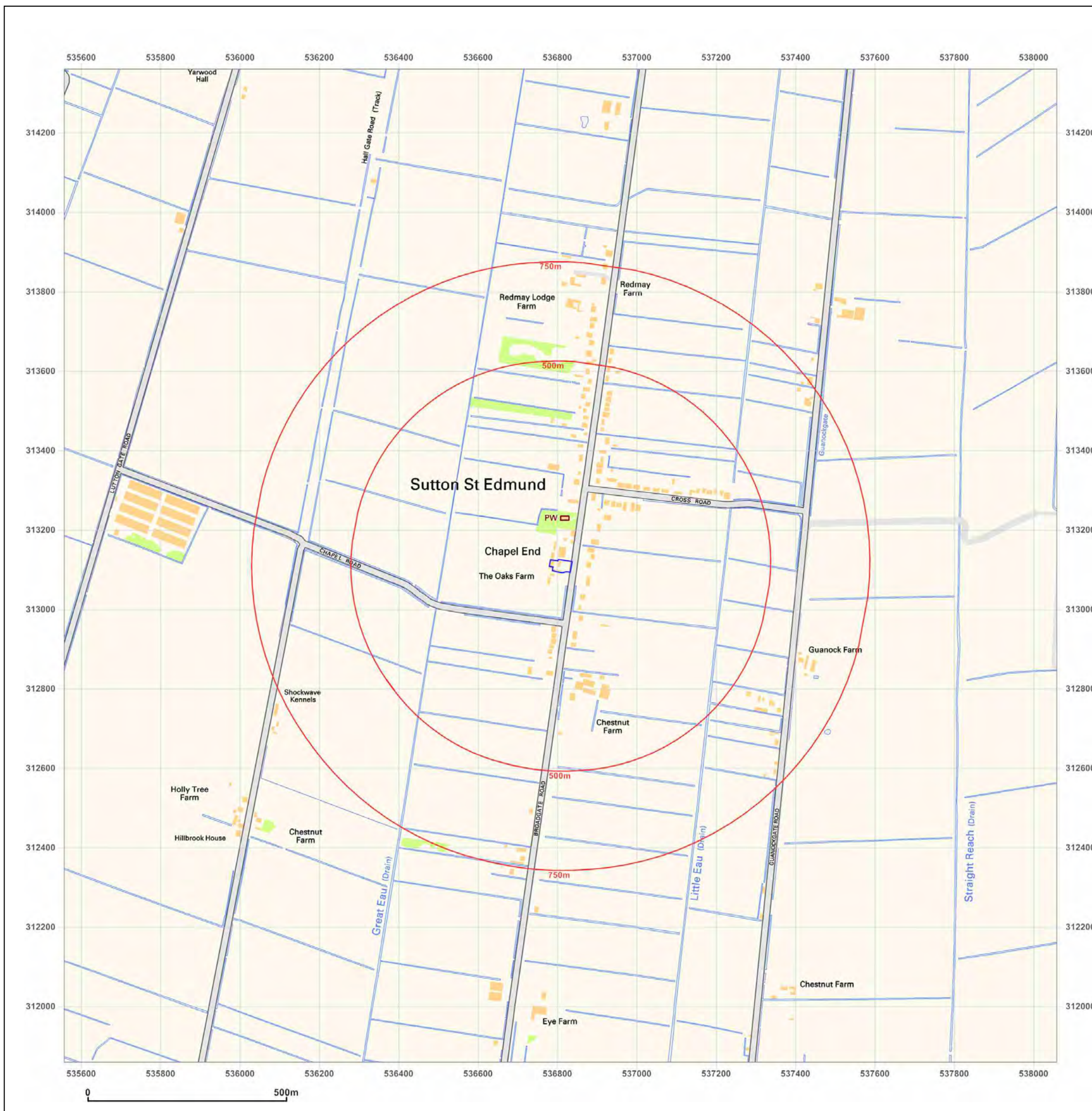


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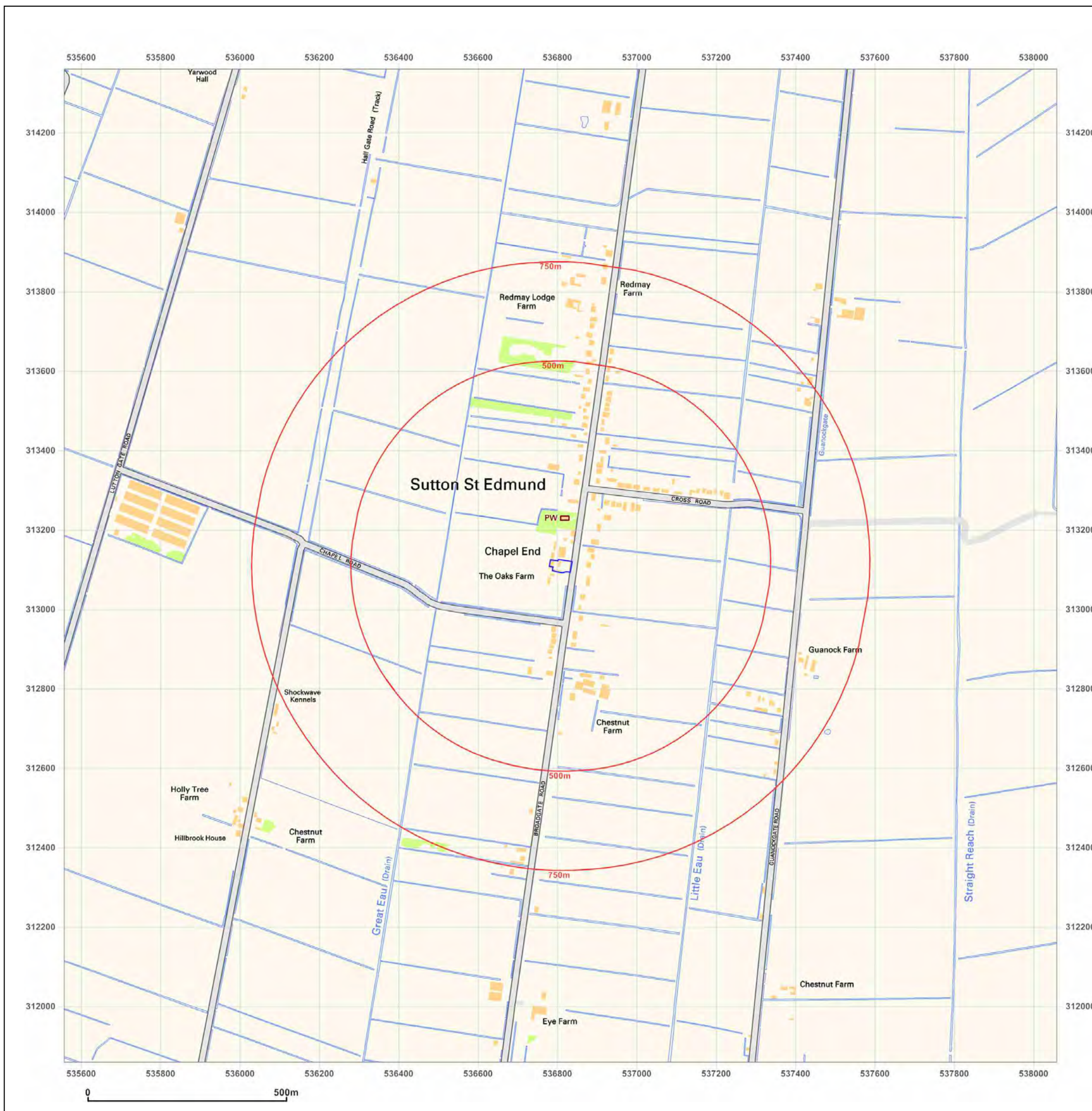


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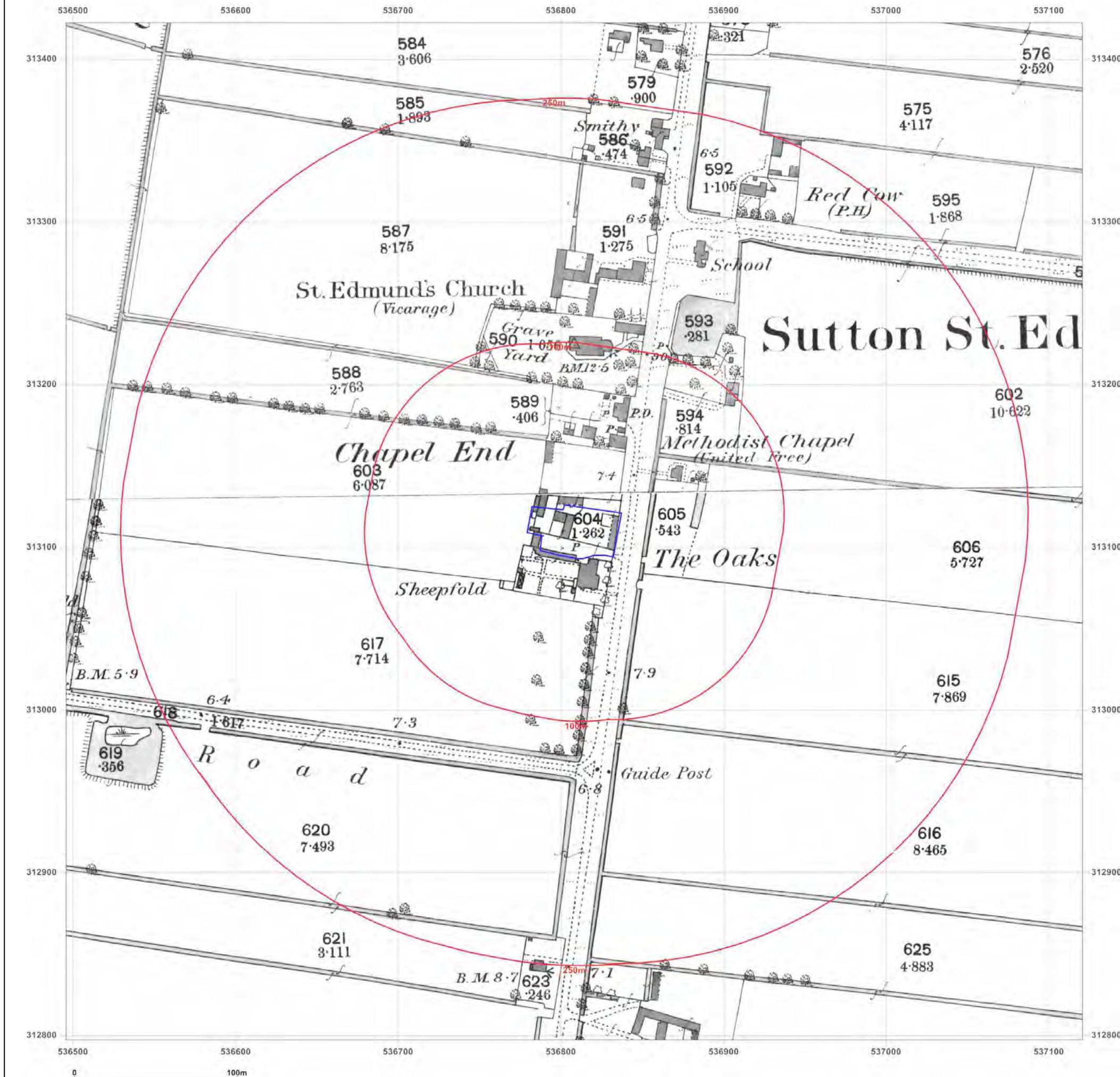


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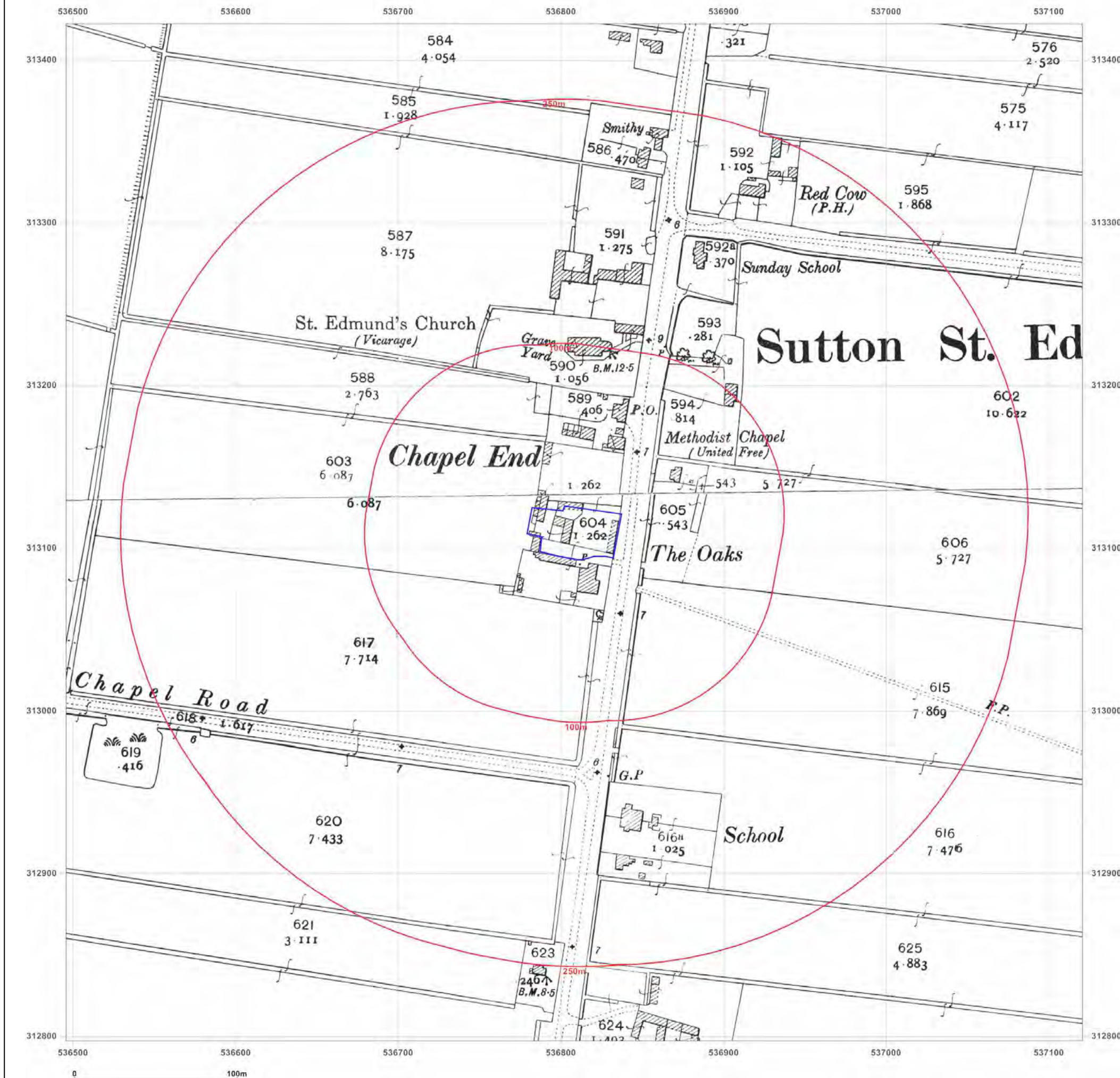


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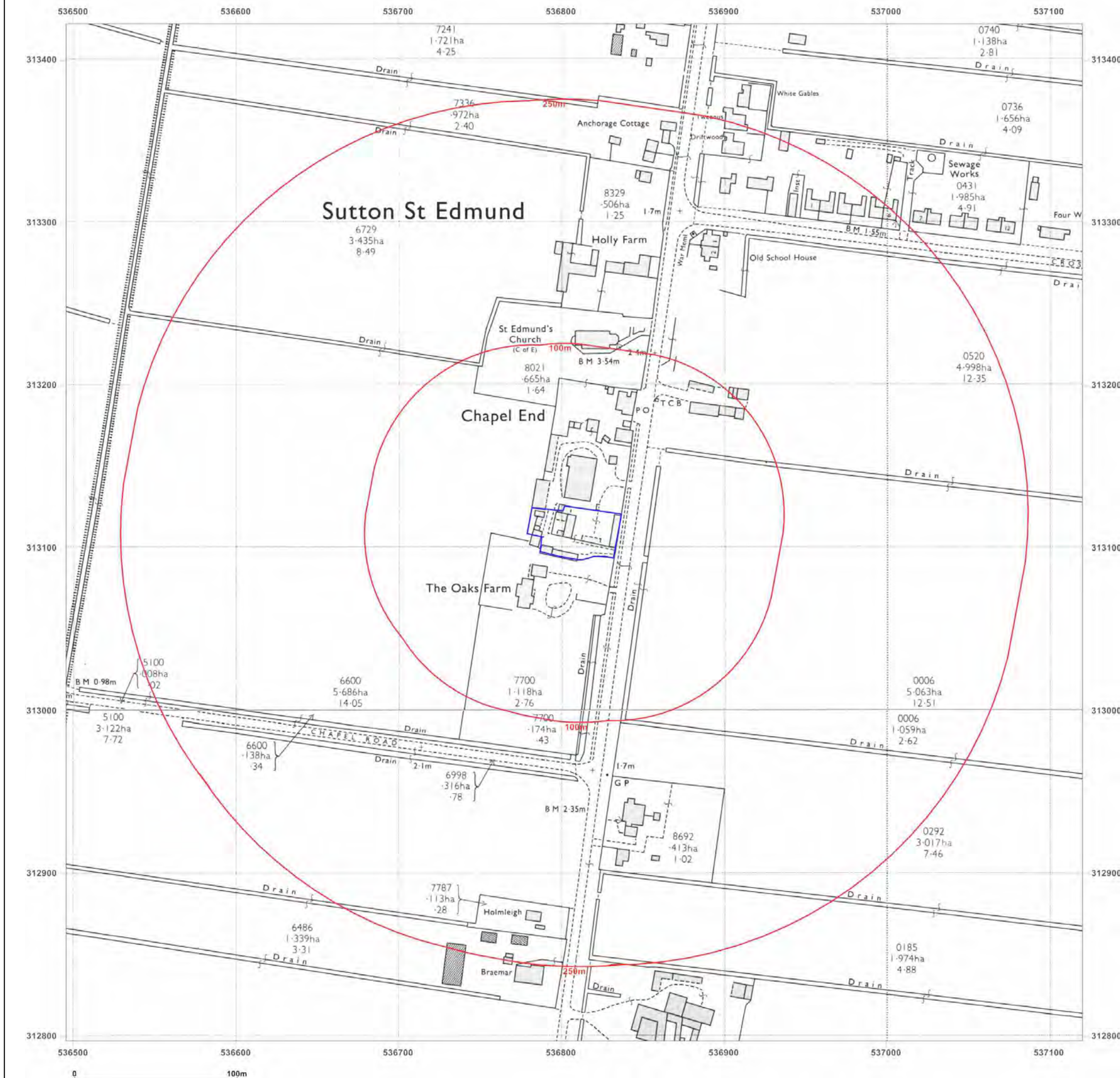


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Map Name: National Grid

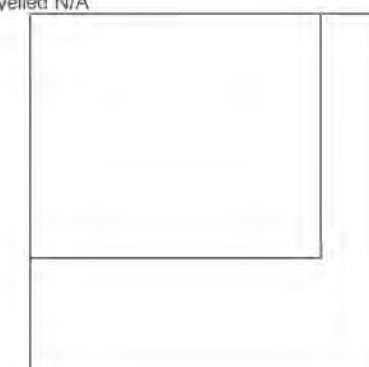
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Goldfinch Environmental Limited
2, Wrenshall Cottages,
Bury St Edmunds,
Suffolk, IP31 3AS

Groundsure Reference: GS-2391-2688269

Your Reference: 0346-ds

Report Date 16 Jan 2016

Report Delivery Method: Email - pdf

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Address: 251, BROADGATE, SPALDING, PE12 0LT
Date: 16 Jan 2016
Reference: GS-2391-2688269
Client: Goldfinch Environmental Limited



Aerial Photograph Capture date: 27-May-2013
Grid Reference: 536808,313110
Site Size: 0.15ha

Report Reference: GS-2391-2688269
Client Reference: 0346-ds

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Overview of Findings

For further details on each dataset, please refer to each individual section in the main report as listed. Where the database has been searched a numerical result will be recorded. Where the database has not been searched '-' will be recorded.

Section 1: Historical Industrial Sites	On-site	0-50	51-250	251-500
1.1 Potentially Contaminative Uses identified from 1:10,000 scale mapping	0	0	9	1
1.2 Additional Information – Historical Tank Database	0	0	0	3
1.3 Additional Information – Historical Energy Features Database	0	0	1	0
1.4 Additional Information – Historical Petrol and Fuel Site Database	0	0	0	0
1.5 Additional Information – Historical Garage and Motor Vehicle Repair Database	0	0	0	0
1.6 Potentially Infilled Land	0	0	4	9
Section 2: Environmental Permits, Incidents and Registers	On-site	0-50m	51-250	251-500
2.1 Industrial Sites Holding Environmental Permits and/or Authorisations				
2.1.1 Records of historic IPC Authorisations	0	0	0	0
2.1.2 Records of Part A(1) and IPPC Authorised Activities	0	0	0	0
2.1.3 Records of Red List Discharge Consents	0	0	0	0
2.1.4 Records of List 1 Dangerous Substances Inventory sites	0	0	0	0
2.1.5 Records of List 2 Dangerous Substances Inventory sites	0	0	0	0
2.1.6 Records of Part A(2) and Part B Activities and Enforcements	0	0	0	0
2.1.7 Records of Category 3 or 4 Radioactive Substances Authorisations	0	0	0	0
2.1.8 Records of Licensed Discharge Consents	0	4	8	10
2.1.9 Records of Water Industry Referrals	0	0	0	0
2.1.10 Records of Planning Hazardous Substance Consents and Enforcements within 500m of the study site	0	0	0	0
2.2 Records of COMAH and NIHHS sites	0	0	0	0
2.3 Environment Agency Recorded Pollution Incidents				
2.3.1 National Incidents Recording System, List 2	0	0	0	0
2.3.2 National Incidents Recording System, List 1	0	0	0	0
2.4 Sites Determined as Contaminated Land under Part 2A EPA 1990	0	0	0	0

Section 3: Landfill and Other Waste Sites	On-site	0-50m	51-250	251-500	501-1000	1000-1500
3.1 Landfill Sites						
3.1.1 Environment Agency Registered Landfill Sites	0	0	0	0	0	Not searched
3.1.2 Environment Agency Historic Landfill Sites	0	0	1	0	0	0
3.1.3 BGS/DoE Landfill Site Survey	0	0	0	0	0	0
3.1.4 Records of Landfills in Local Authority and Historical Mapping Records	0	0	0	0	0	0
3.2 Landfill and Other Waste Sites Findings						
3.2.1 Operational and Non-Operational Waste Treatment, Transfer and Disposal Sites	0	0	0	0	Not searched	Not searched
3.2.2 Environment Agency Licensed Waste Sites	0	0	0	0	0	0

Section 4: Current Land Use	On-site	0-50m	51-250	251-500
4.1 Current Industrial Sites Data	0	0	1	Not searched
4.2 Records of Petrol and Fuel Sites	0	0	0	0
4.3 National Grid Underground Electricity Cables	0	0	0	0
4.4 National Grid Gas Transmission Pipelines	0	0	0	0

Section 5: Geology	
5.1 Are there any records of Artificial Ground and Made Ground present beneath the study site?	No
5.2 Are there any records of Superficial Ground and Drift Geology present beneath the study site?	Yes
5.3 For records of Bedrock and Solid Geology beneath the study site see the detailed findings section.	

Section 6: Hydrogeology and Hydrology	0-500m					
6.1 Are there any records of Strata Classification in the Superficial Geology within 500m of the study site?	Yes					
6.2 Are there any records of Strata Classification in the Bedrock Geology within 500m of the study site?	Yes					
	On-site	0-50m	51-250	251-500	501-1000	1000-2000
6.3 Groundwater Abstraction Licences (within 2000m of the study site)	0	0	0	0	0	0
6.4 Surface Water Abstraction Licences (within 2000m of the study site)	0	0	0	0	0	0
6.5 Potable Water Abstraction Licences (within 2000m of the study site)	0	0	0	0	0	0
6.6 Source Protection Zones (within 500m of the study site)	0	0	0	0	Not searched	Not searched
6.7 Source Protection Zones within Confined Aquifer	0	0	0	0	Not searched	Not searched
6.8 Groundwater Vulnerability and Soil Leaching Potential (within 500m of the study site)	0	0	0	0	Not searched	Not searched
	On-site	0-50m	51-250	251-500	501-1000	1000-1500

Section 6: Hydrogeology and Hydrology		0-500m				
6.9 Is there any Environment Agency information on river quality within 1500m of the study site?	No	No	No	No	No	No
6.10 Detailed River Network entries within 500m of the site	0	0	0	0	Not searched	Not searched
6.11 Surface water features within 250m of the study site	No	Yes	Yes	Not searched	Not searched	Not searched

Section 7: Flooding	
7.1 Are there any Environment Agency Zone 2 floodplains within 250m of the study site?	Yes
7.2 Are there any Environment Agency Zone 3 floodplains within 250m of the study site	Yes
7.3 What is the Risk of flooding from Rivers and the Sea (RoFRaS) rating for the study site?	Medium
7.4 Are there any Flood Defences within 250m of the study site?	No
7.5 Are there any areas benefiting from Flood Defences within 250m of the study site?	No
7.6 Are there any areas used for Flood Storage within 250m of the study site?	No
7.7 What is the maximum BGS Groundwater Flooding susceptibility within 50m of the study site?	Potential at Surface
7.8 What is the BGS confidence rating for the Groundwater Flooding susceptibility areas?	Moderate

Section 8: Designated Environmentally Sensitive Sites	On-site	0-50m	51-250	251-500	501-1000	1000-2000
8.1 Records of Sites of Special Scientific Interest (SSSI)	0	0	0	0	0	0
8.2 Records of National Nature Reserves (NNR)	0	0	0	0	0	0
8.3 Records of Special Areas of Conservation (SAC)	0	0	0	0	0	0
8.4 Records of Special Protection Areas (SPA)	0	0	0	0	0	0
8.5 Records of Ramsar sites	0	0	0	0	0	0
8.6 Records of Ancient Woodlands	0	0	0	0	0	0
8.7 Records of Local Nature Reserves (LNR)	0	0	0	0	0	0
8.8 Records of World Heritage Sites	0	0	0	0	0	0
8.9 Records of Environmentally Sensitive Areas	0	0	0	0	0	0
8.10 Records of Areas of Outstanding Natural Beauty (AONB)	0	0	0	0	0	0

Section 8: Designated Environmentally Sensitive Sites	On-site	0-50m	51-250	251-500	501-1000	1000-2000
8.11 Records of National Parks	0	0	0	0	0	0
8.12 Records of Nitrate Sensitive Areas	0	0	0	0	0	0
8.13 Records of Nitrate Vulnerable Zones	0	0	0	0	0	0
8.14 Records of Green Belt land	0	0	0	0	0	0

Section 9: Natural Hazards	
9.1 What is the maximum risk of natural ground subsidence?	High
9.1.1 What is the maximum Shrink-Swell hazard rating identified on the study site?	Low
9.1.2 What is the maximum Landslides hazard rating identified on the study site?	Very Low
9.1.3 What is the maximum Soluble Rocks hazard rating identified on the study site?	Negligible
9.1.4 What is the maximum Compressible Ground hazard rating identified on the study site?	Moderate
9.1.5 What is the maximum Collapsible Rocks hazard rating identified on the study site?	Negligible
9.1.6 What is the maximum Running Sand hazard rating identified on the study site?	High
9.2 Radon	
9.2.1 Is the property in a Radon Affected Area as defined by the Health Protection Agency (HPA) and if so what percentage of homes are above the Action Level?	The property is not in a Radon Affected Area, as less than 1% of properties are above the Action Level.
9.2.2 Is the property in an area where Radon Protection are required for new properties or extensions to existing ones as described in publication BR211 by the Building Research Establishment?	No radon protective measures are necessary.

Section 10: Mining	
10.1 Are there any coal mining areas within 75m of the study site?	No
10.2 Are there any Non-Coal Mining areas within 50m of the study site boundary?	No
10.3 Are there any brine affected areas within 75m of the study site?	No

Using this report

The following report is designed by Environmental Consultants for Environmental Professionals bringing together the most up-to-date market leading environmental data. This report is provided under and subject to the Terms & Conditions agreed between Groundsure and the Client. The document contains the following sections:

1. Historical Industrial Sites

Provides information on past land uses that may pose a risk to the study site in terms of potential contamination from activities or processes. Potentially Infilled Land features are also included. This search is conducted using radii of up to 500m.

2. Environmental Permits, Incidents and Registers

Provides information on Regulated Industrial Activities and Pollution Incidents as recorded by Regulatory Authorities, and sites determined as Contaminated Land. This search is conducted using radii up to 500m.

3. Landfills and Other Waste Sites

Provides information on landfills and other waste sites that may pose a risk to the study site. This search is conducted using radii up to 1500m.

4. Current Land Uses

Provides information on current land uses that may pose a risk to the study site in terms of potential contamination from activities or processes. These searches are conducted using radii of up to 500m. This includes information on potentially contaminative industrial sites, petrol stations and fuel sites as well as high pressure gas pipelines and underground electricity transmission lines.

5. Geology

Provides information on artificial and superficial deposits and bedrock beneath the study site.

6. Hydrogeology and Hydrology

Provides information on productive strata within the bedrock and superficial geological layers, abstraction licenses, Source Protection Zones (SPZs) and river quality. These searches are conducted using radii of up to 2000m.

7. Flooding

Provides information on river and coastal flooding, flood defences, flood storage areas and groundwater flood areas. This search is conducted using radii of up to 250m.

8. Designated Environmentally Sensitive Sites

Provides information on the Sites of Special Scientific Interest (SSSI), National Nature Reserves (NNR), Special Areas of Conservation (SAC), Special Protection Areas (SPA), Ramsar sites, Local Nature Reserves (LNR), Areas of Outstanding Natural Beauty (AONB), National Parks (NP), Environmentally Sensitive Areas, Nitrate Sensitive Areas, Nitrate Vulnerable Zones and World Heritage Sites and Scheduled Ancient Woodland. These searches are conducted using radii of up to 2000m.

9. Natural Hazards

Provides information on a range of natural hazards that may pose a risk to the study site. These factors include natural ground subsidence and radon..

10. Mining

Provides information on areas of coal and non-coal mining and brine affected areas.

11. Contacts

This section of the report provides contact points for statutory bodies and data providers that may be able to provide further information on issues raised within this report. Alternatively, Groundsure provide a free Technical Helpline (08444 159000) for further information and guidance.

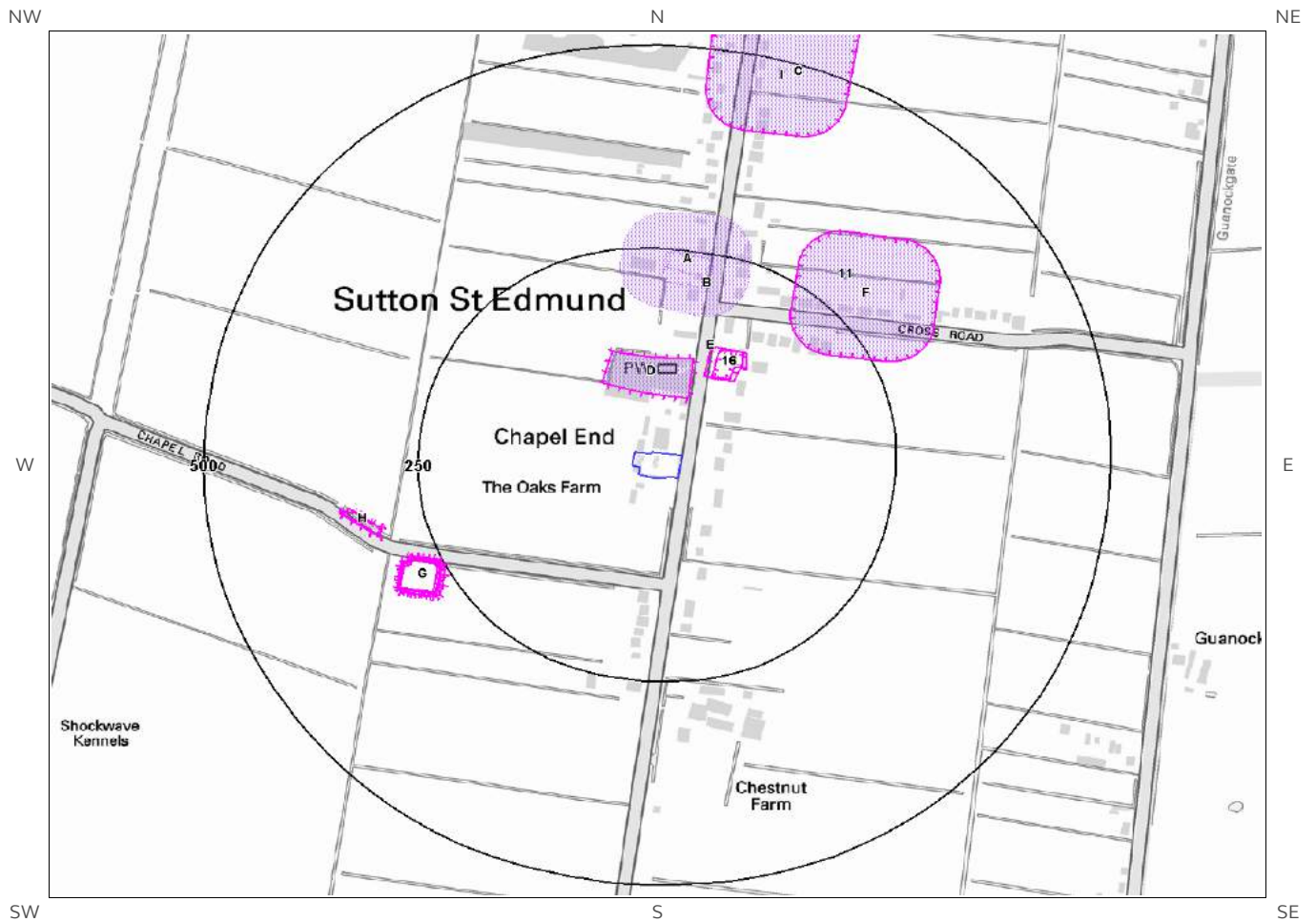
Note: Maps

Only certain features are placed on the maps within the report. All features represented on maps found within this search are given an identification number. This number identifies the feature on the mapping and correlates it to the additional information provided below. This identification number precedes all other information and takes the following format -Id: 1, Id: 2, etc. Where numerous features on the same map are in such close proximity that the numbers would obscure each other a letter identifier is used instead to represent the features. (e.g. Three features which overlap may be given the identifier "A" on the map and would be identified separately as features 1A, 3A, 10A on the data tables provided).

Where a feature is reported in the data tables to a distance greater than the map area, it is noted in the data table as "Not Shown".

All distances given in this report are in Metres (m). Directions are given as compass headings such as N: North, E: East, NE: North East from the nearest point of the study site boundary.

1. Historical Land Use



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1. Historical Industrial Sites

1.1 Potentially Contaminative Uses identified from 1:10,000 scale Mapping

The systematic analysis of data extracted from standard 1:10,560 and 1:10,000 scale historical maps provides the following information:

Records of sites with a potentially contaminative past land use within 500m of the search boundary: 10

ID	Distance [m]	Direction	Use	Date
1D	70	N	Grave Yard	1887
2A	173	N	Smithy	1958
3F	197	NE	Sewage Works	1980
4B	203	N	Smithy	1946
5A	207	N	Smithy	1905
6B	208	N	Smithy	1887
7A	209	N	Smithy	1950
8A	215	N	Smithy	1900
9A	217	N	Smithy	1950
10I	407	N	Sewage Works	1980

1.2 Additional Information – Historical Tank Database

The systematic analysis of data extracted from High Detailed 1:1,250 and 1:2,500 scale historical maps provides the following information.

Records of historical tanks within 500m of the search boundary: 3

ID	Distance (m)	Direction	Use	Date
11	288	NE	Unspecified Tank	1976
12C	485	N	Unspecified Tank	1992
13C	487	N	Unspecified Tank	1976

1.3 Additional Information – Historical Energy Features Database

The systematic analysis of data extracted from High Detailed 1:1,250 and 1:2,500 scale historical maps provides the following information.

Records of historical energy features within 500m of the search boundary: 1

ID	Distance (m)	Direction	Use	Date
----	--------------	-----------	-----	------

14E	133	N	Electricity Substation	1992
-----	-----	---	------------------------	------

1.4 Additional Information – Historical Petrol and Fuel Site Database

The systematic analysis of data extracted from High Detailed 1:1,250 and 1:2,500 scale historical maps provides the following information.

Records of historical petrol stations and fuel sites within 500m of the search boundary: 0

Database searched and no data found.

1.5 Additional Information – Historical Garage and Motor Vehicle Repair Database

The systematic analysis of data extracted from High Detailed 1:1,250 and 1:2,500 scale historical maps provides the following information.

Records of historical garage and motor vehicle repair sites within 500m of the search boundary: 0

Database searched and no data found.

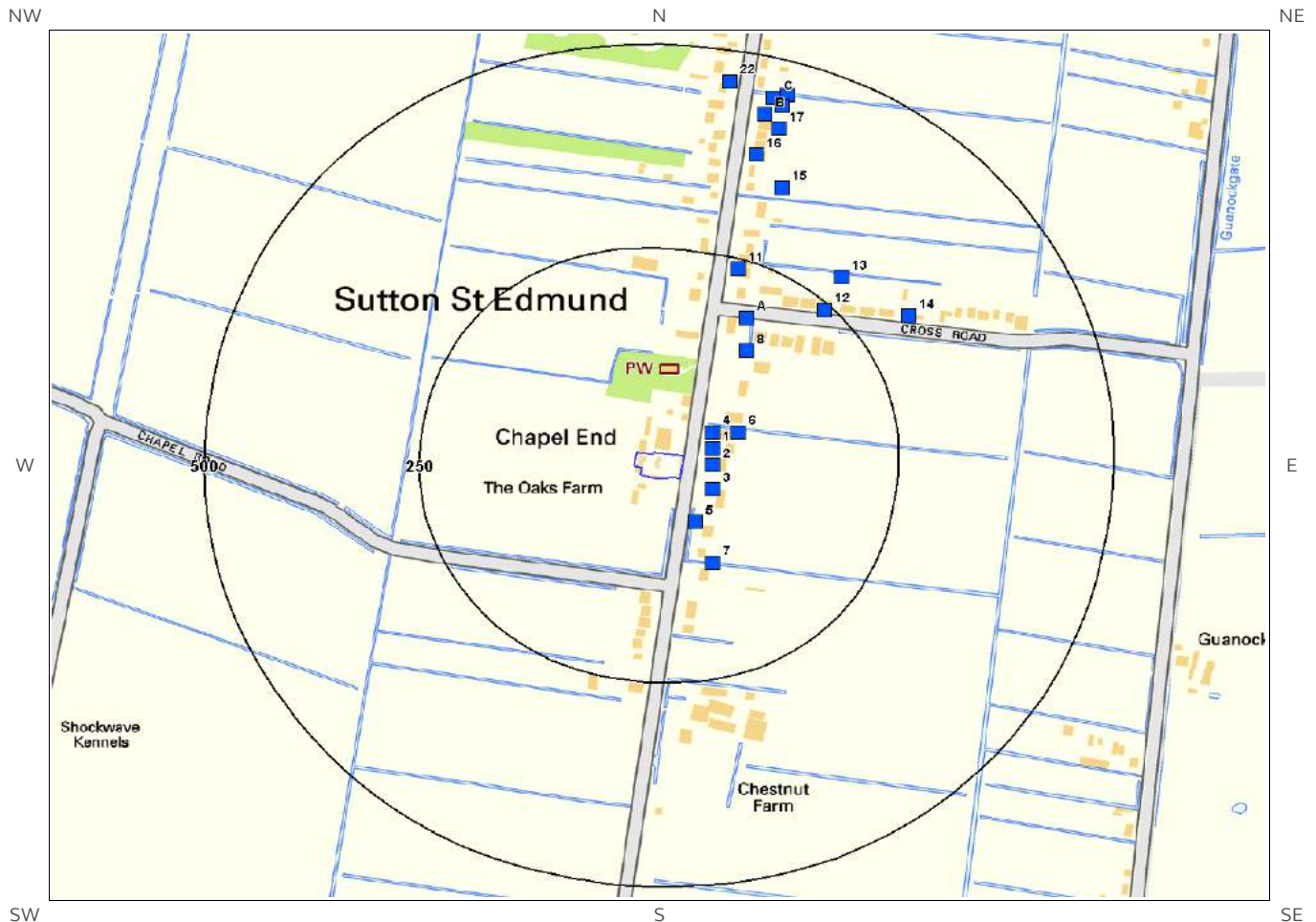
1.6 Potentially Infilled Land

Records of Potentially Infilled Features from 1:10,000 scale mapping within 500m of the study site: 13

The following Historical Potentially Infilled Features derived from the Historical Mapping information is provided by Groundsure:

ID	Distance(m)	Direction	Use	Date
15D	70	N	Grave Yard	1887
16	101	N	Pond	1900
17E	101	N	Pond	1887
18F	197	NE	Sewage Works	1980
19G	251	SW	Pond	1887
20G	255	SW	Pond	1950
21G	255	SW	Pond	1950
22G	256	SW	Pond	1900
23G	257	SW	Pond	1958
24G	259	SW	Pond	1905
25H	303	W	Ponds	1905
26H	303	W	Ponds	1958
27I	407	N	Sewage Works	1980

2. Environmental Permits, Incidents and Registers Map



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2. Environmental Permits, Incidents and Registers

2.1 Industrial Sites Holding Licences and/or Authorisations

Searches of information provided by the Environment Agency and Local Authorities reveal the following information:

2.1.1 Records of historic IPC Authorisations within 500m of the study site:

0

Database searched and no data found.

2.1.2 Records of Part A(1) and IPPC Authorised Activities within 500m of the study site:

0

Database searched and no data found.

2.1.3 Records of Red List Discharge Consents (potentially harmful discharges to controlled waters) within 500m of the study site:

0

Database searched and no data found.

2.1.4 Records of List 1 Dangerous Substances Inventory Sites within 500m of the study site:

0

Database searched and no data found.

2.1.5 Records of List 2 Dangerous Substance Inventory Sites within 500m of the study site:

0

Database searched and no data found.

2.1.6 Records of Part A(2) and Part B Activities and Enforcements within 500m of the study site:

0

Database searched and no data found.

2.1.7 Records of Category 3 or 4 Radioactive Substances Authorisations:

0

Database searched and no data found.

2.1.8 Records of Licensed Discharge Consents within 500m of the study site:

22

The following Licensed Discharge Consents records are represented as points on the Environmental Permits, Incidents and Registers Map:

ID	Distance (m)	Direction	NGR	Details
1	34	E	536870 313130	Address: CHAPEL END PLOT 2, CHAPEL END, BROADGATE, SUTTON-ST-EDMUNDS, SPALDING, PE12 0LS Effluent Type: SEWAGE DISCHARGES - FINAL/TREATED EFFLUENT - NOT WATER COMPANY Permit Number: PRNLF02123 Permit Version: 1 Receiving Water: Status: POST NRA LEGISLATION WHERE ISSUE DATE > 31-AUG-89 (HISTORIC ONLY) Issue date: 04/01/1990 Effective Date: 04-Jan-1990 Revocation Date: 01/10/1996
2	34	E	536870 313110	Address: PLOT 3, CHAPEL END, BROADGATE, SUTTON ST EDMUNDS Effluent Type: UNSPECIFIED Permit Number: PRNLF02124 Permit Version: 1 Receiving Water: Status: POST NRA LEGISLATION WHERE ISSUE DATE > 31-AUG-89 (HISTORIC ONLY) Issue date: 19/01/1990 Effective Date: 19-Jan-1990 Revocation Date: 01/10/1996
3	40	E	536870 313080	Address: CHAPEL END PLOT 4, CHAPEL END, BROADGATE, SUTTON ST EDMUNDS, SPALDING, PE12 0LS Effluent Type: UNSPECIFIED Permit Number: PRNLF02125 Permit Version: 1 Receiving Water: Status: POST NRA LEGISLATION WHERE ISSUE DATE > 31-AUG-89 (HISTORIC ONLY) Issue date: 19/01/1990 Effective Date: 19-Jan-1990 Revocation Date: 01/10/1996
4	44	NE	536870 313150	Address: CHAPEL END PLOT 1, CHAPEL END, BROADGATE, SUTTON ST EDMUNDS, PE12 0LS Effluent Type: UNSPECIFIED Permit Number: PRNLF02122 Permit Version: 1 Receiving Water: Status: POST NRA LEGISLATION WHERE ISSUE DATE > 31-AUG-89 (HISTORIC ONLY) Issue date: 19/01/1990 Effective Date: 19-Jan-1990 Revocation Date: 01/10/1996
5	57	S	536850 313040	Address: THE SPINNEY, 244 BROADGATE, SUTTON ST EDMUND, SPALDING, LINCOLNSHIRE, PE12 0LT Effluent Type: SEWAGE DISCHARGES - FINAL/TREATED EFFLUENT - NOT WATER COMPANY Permit Number: PRNNF12649 Permit Version: 1 Receiving Water: Status: NEW CONSENT (WRA 91, S88 & SCHED 10 AS AMENDED BY ENV ACT 1995) Issue date: 12/06/2001 Effective Date: 24-Jul-2001 Revocation Date: -

ID	Distance (m)	Direction	NGR	Details
6	69	NE	536900 313150	Address: DWELLINGHOUSE AT SUTTON ST EDMUND, SPALDING Effluent Type: UNSPECIFIED Permit Number: PR5LF3636 Permit Version: 1 Receiving Water: Status: PRE NRA LEGISLATION WHERE ISSUE DATE < 01-SEP-89 (HISTORIC ONLY) Issue date: 11/09/1979 Effective Date: 11-Sep-1979 Revocation Date: 03/09/1997
7	111	S	536870 312990	Address: BROADGATE RESIDENTIAL, CHAPEL END, SUTTON ST EDMUND, LINCOLNSHIRE, ., PE12 0LS Effluent Type: SEWAGE DISCHARGES - FINAL/TREATED EFFLUENT - NOT WATER COMPANY Permit Number: PRNNF12650 Permit Version: 1 Receiving Water: Status: NEW CONSENT (WRA 91, S88 & SCHED 10 AS AMENDED BY ENV ACT 1995) Issue date: 18/06/2001 Effective Date: 24-Jul-2001 Revocation Date: -
8	148	NE	536910 313250	Address: SPRINGFIELD, BROADGATE, SUTTON ST EDMUND, LINCOLNSHIRE, ., PE12 0LT Effluent Type: SEWAGE DISCHARGES - FINAL/TREATED EFFLUENT - NOT WATER COMPANY Permit Number: PRNNF12563 Permit Version: 1 Receiving Water: Status: NEW CONSENT (WRA 91, S88 & SCHED 10 AS AMENDED BY ENV ACT 1995) Issue date: 07/01/2001 Effective Date: 28-Feb-2001 Revocation Date: -
9A	184	NE	536910 313290	Address: THE OLD SCHOOL HOUSE, SUTTON ST EDMUNDS, SPALDING, LINC, PE12 0LS Effluent Type: SEWAGE DISCHARGES - FINAL/TREATED EFFLUENT - NOT WATER COMPANY Permit Number: PRNNF04321 Permit Version: 2 Receiving Water: Status: POST NRA LEGISLATION WHERE ISSUE DATE > 31-AUG-89 (HISTORIC ONLY) Issue date: 27/03/1992 Effective Date: 27-Mar-1992 Revocation Date: -
10A	184	NE	536910 313290	Address: THE OLD SCHOOL HOUSE, SUTTON ST EDMUNDS, SPALDING, LINC, PE12 0LS Effluent Type: SEWAGE DISCHARGES - FINAL/TREATED EFFLUENT - NOT WATER COMPANY Permit Number: PRNNF04321 Permit Version: 1 Receiving Water: Status: POST NRA LEGISLATION WHERE ISSUE DATE > 31-AUG-89 (HISTORIC ONLY) Issue date: 14/05/1991 Effective Date: 14-May-1991 Revocation Date: 26/03/1992
11	238	N	536900 313350	Address: CROSS ROAD BUNGALOW, SUTTON ST EDMUND, SPALDING, LINC, PE12 0LS Effluent Type: UNSPECIFIED Permit Number: PR5LF3570 Permit Version: 1 Receiving Water: Status: PRE NRA LEGISLATION WHERE ISSUE DATE < 01-SEP-89 (HISTORIC ONLY) Issue date: 18/01/1979 Effective Date: 18-Jan-1979 Revocation Date: 01/10/1996
12	242	NE	537000 313300	Address: CROSS ROAD PTP, SUTTON ST EDMUND, SPALDING, LINC, ., PE12 0LS Effluent Type: SEWAGE DISCHARGES - FINAL/TREATED EFFLUENT - NOT WATER COMPANY Permit Number: PR5NF86 Permit Version: 1 Receiving Water: Status: PRE NRA LEGISLATION WHERE ISSUE DATE < 01-SEP-89 (HISTORIC ONLY) Issue date: 19/12/1957 Effective Date: 19-Dec-1957 Revocation Date: 20/12/2000
13	285	NE	537020 313340	Address: CROSS ROAD PTP, SUTTON ST EDMUND, SPALDING, LINC, ., PE12 0LS Effluent Type: SEWAGE DISCHARGES - FINAL/TREATED EFFLUENT - NOT WATER COMPANY Permit Number: PR5NF86 Permit Version: 2 Receiving Water: Status: MODIFIED - (WRA 91 SCHED 10 - AS AMENDED BY ENV ACT 1995) Issue date: 14/02/2002 Effective Date: 21-Dec-2001 Revocation Date: -

ID	Distance (m)	Direction	NGR	Details
14	313	NE	537098 313293	Address: CROSS ROAD NO.33, SUTTON ST EDMUND, SHEPEAU STOW, SPALDING, Lincs, PE12 0LS Effluent Type: SEWAGE DISCHARGES - FINAL/TREATED EFFLUENT - NOT WATER COMPANY Permit Number: PRNNF18313 Permit Version: 1 Receiving Water: Status: NEW CONSENT (WRA 91, S88 & SCHED 10 AS AMENDED BY ENV ACT 1995) Issue date: 21/02/2005 Effective Date: 02-Feb-2005 Revocation Date: -
15	348	N	536950 313450	Address: BROADGATE ROAD NO.5, SUTTON ST EDMUND, SPALDING, Lincs, PE12 0LT Effluent Type: UNSPECIFIED Permit Number: PR5LF3664 Permit Version: 1 Receiving Water: Status: PRE NRA LEGISLATION WHERE ISSUE DATE < 01-SEP-89 (HISTORIC ONLY) Issue date: 05/12/1979 Effective Date: 05-Dec-1979 Revocation Date: 01/10/1996
16	378	N	536920 313490	Address: PHILANDA, BROADGATE, SUTTON ST. EDMUND, SPALDING, PE12 0LR Effluent Type: UNSPECIFIED Permit Number: PRNLF00463 Permit Version: 1 Receiving Water: Status: POST NRA LEGISLATION WHERE ISSUE DATE > 31-AUG-89 (HISTORIC ONLY) Issue date: 18/01/1989 Effective Date: 18-Jan-1989 Revocation Date: 01/10/1996
17	416	N	536947 313522	Address: BROADGATE NO.288, SUTTON ST. EDMUND, SPALDING, Lincs, PE12 0LR Effluent Type: SEWAGE DISCHARGES - FINAL/TREATED EFFLUENT - NOT WATER COMPANY Permit Number: PRNNF12209 Permit Version: 1 Receiving Water: Status: REVOKED (WRA 91, S88 & SCHED 10 AS AMENDED BY ENV ACT 1995) Issue date: 21/08/1998 Effective Date: 21-Aug-1998 Revocation Date: 01/10/2008
18B	429	N	536930 313540	Address: 286 BROADGATE, SUTTON ST EDMUND, SPALDING, LINCOLNSHIRE, ., PE12 0LR Effluent Type: SEWAGE DISCHARGES - FINAL/TREATED EFFLUENT - NOT WATER COMPANY Permit Number: PRNNF12366 Permit Version: 1 Receiving Water: Status: NEW CONSENT (WRA 91, S88 & SCHED 10 AS AMENDED BY ENV ACT 1995) Issue date: 25/01/2000 Effective Date: 08-Nov-1999 Revocation Date: -
19B	444	N	536950 313550	Address: BROADGATE NO.288, SUTTON ST. EDMUND, SPALDING, Lincs, PE12 0LR Effluent Type: SEWAGE DISCHARGES - FINAL/TREATED EFFLUENT - NOT WATER COMPANY Permit Number: PR5NF495 Permit Version: 1 Receiving Water: Status: PRE NRA LEGISLATION WHERE ISSUE DATE < 01-SEP-89 (HISTORIC ONLY) Issue date: 19/09/1969 Effective Date: 19-Sep-1969 Revocation Date: -
20C	451	N	536940 313560	Address: BROADGATE NO.290, SUTTON ST EDMUNDS, SPALDING, LINCOLNSHIRE, ., PE12 0LR Effluent Type: SEWAGE DISCHARGES - FINAL/TREATED EFFLUENT - NOT WATER COMPANY Permit Number: PRNNF12851 Permit Version: 1 Receiving Water: Status: NEW CONSENT (WRA 91, S88 & SCHED 10 AS AMENDED BY ENV ACT 1995) Issue date: 29/10/2002 Effective Date: 07-Oct-2002 Revocation Date: -
21C	458	N	536957 313563	Address: 288 BROADGATE, SUTTON ST. EDMUNDS, SPALDING, LINCOLNSHIRE, LINCOLNSHIRE, PE12 0LR Effluent Type: SEWAGE DISCHARGES - FINAL/TREATED EFFLUENT - NOT WATER COMPANY Permit Number: NPSWQD004946 Permit Version: 1 Receiving Water: Status: NEW CONSENT (WRA 91, S88 & SCHED 10 AS AMENDED BY ENV ACT 1995) Issue date: 03/10/2008 Effective Date: 03-Oct-2008 Revocation Date: -

ID	Distance (m)	Direction	NGR	Details
22	462	N	536890 313580	Address: BROADGATE NO.293, SUTTON-ST EDMONDS, SPALDING, LINCS, PE12 0LR Effluent Type: SEWAGE DISCHARGES - FINAL/TREATED EFFLUENT - NOT WATER COMPANY Permit Number: PRNLF01636 Permit Version: 1 Receiving Water: Status: POST NRA LEGISLATION WHERE ISSUE DATE > 31-AUG-89 (HISTORIC ONLY) Issue date: 30/08/1989 Effective Date: 30-Aug-1989 Revocation Date: -

2.1.9 Records of Water Industry Referrals (potentially harmful discharges to the public sewer) within 500m of the study site:

0

Database searched and no data found.

2.1.10 Records of Planning Hazardous Substance Consents and Enforcements within 500m of the study site:

0

Database searched and no data found.

2.2 Dangerous or Hazardous Sites

Records of COMAH & NIHHS sites within 500m of the study site:

0

Database searched and no data found.

2.3 Environment Agency Recorded Pollution Incidents

2.3.1 Records of National Incidents Recording System, List 2 within 500m of the study site:

0

Database searched and no data found.

2.3.2 Records of National Incidents Recording System, List 1 within 500m of the study site:

0

Database searched and no data found.

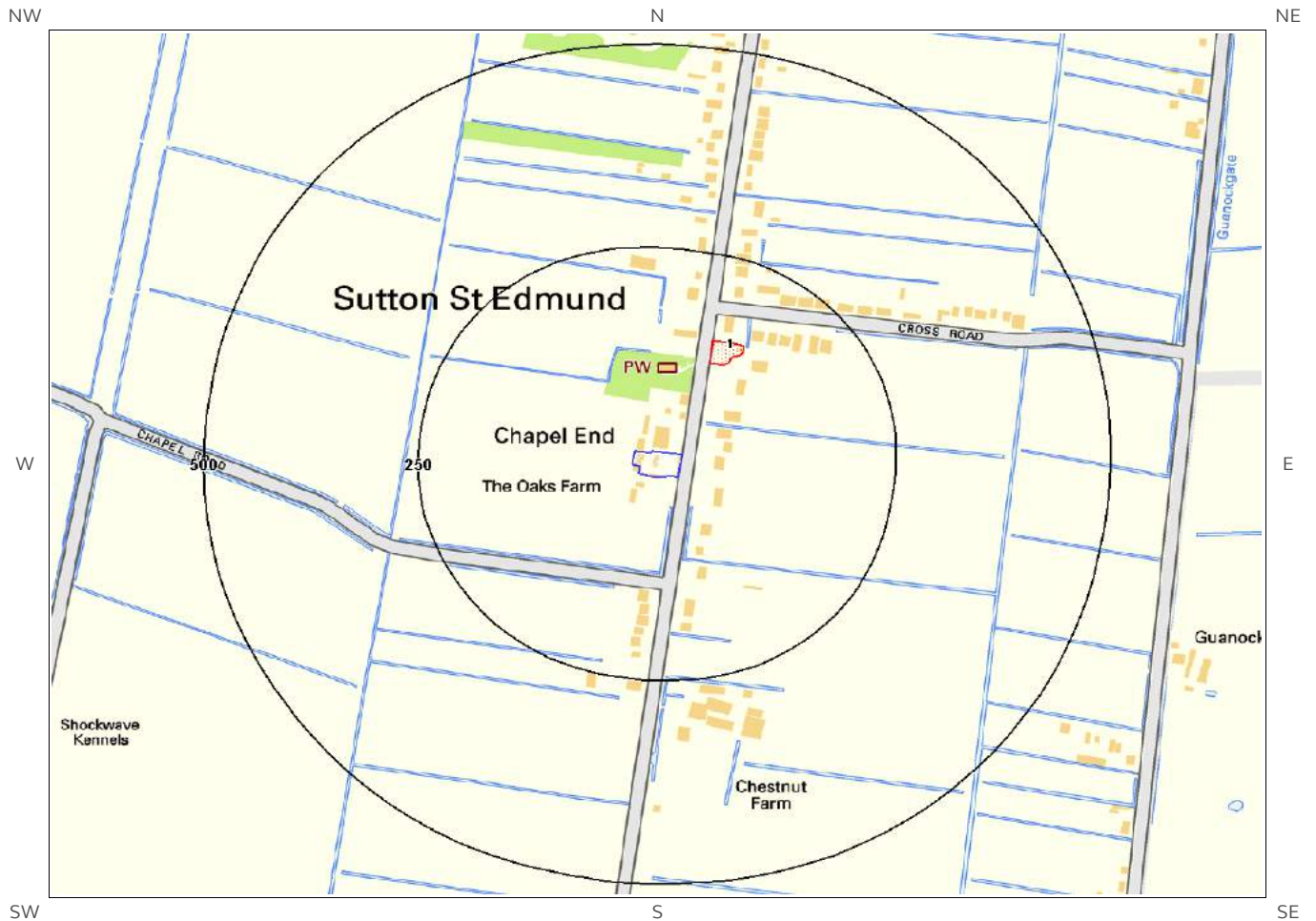
2.4 Sites Determined as Contaminated Land under Part 2A EPA 1990

How many records of sites determined as contaminated land under Section 78R of the Environmental Protection Act 1990 are there within 500m of the study site?

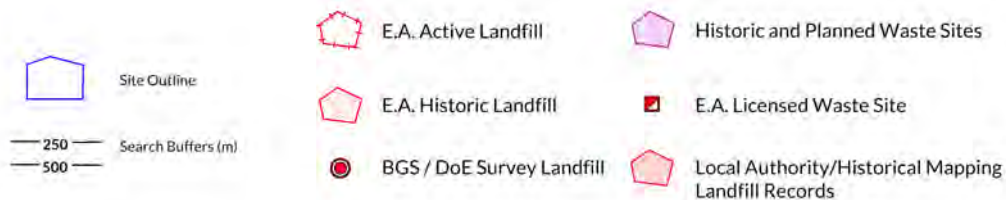
0

Database searched and no data found.

3. Landfill and Other Waste Sites Map



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3. Landfill and Other Waste Sites

3.1 Landfill Sites

3.1.1 Records from Environment Agency landfill data within 1000m of the study site:

0

Database searched and no data found.

3.1.2 Records of Environment Agency historic landfill sites within 1500m of the study site:

1

The following landfill records are represented as either points or polygons on the Landfill and Other Waste Sites map:

ID	Distance (m)	Direction	NGR	Details
1	117	N	536800 313200	Site Address: Oaks Farm, Sutton St. Edmund Waste Licence: - Site Reference: RD7-39-01/89, SH-39-01/89, 2500/5055 Waste Type: Household Environmental Permitting Regulations (Waste) Reference: - Licence Issue: Licence Surrendered: Licence Hold Address: - Operator: - First Recorded: - Last Recorded: -

3.1.3 Records of BGS/DoE non-operational landfill sites within 1500m of the study site:

0

Database searched and no data found.

3.1.4 Records of Landfills from Local Authority and Historical Mapping Records within 1500m of the study site:

0

Database searched and no data found.

3.2 Other Waste Sites

3.2.1 Records of waste treatment, transfer or disposal sites within 500m of the study site:

0

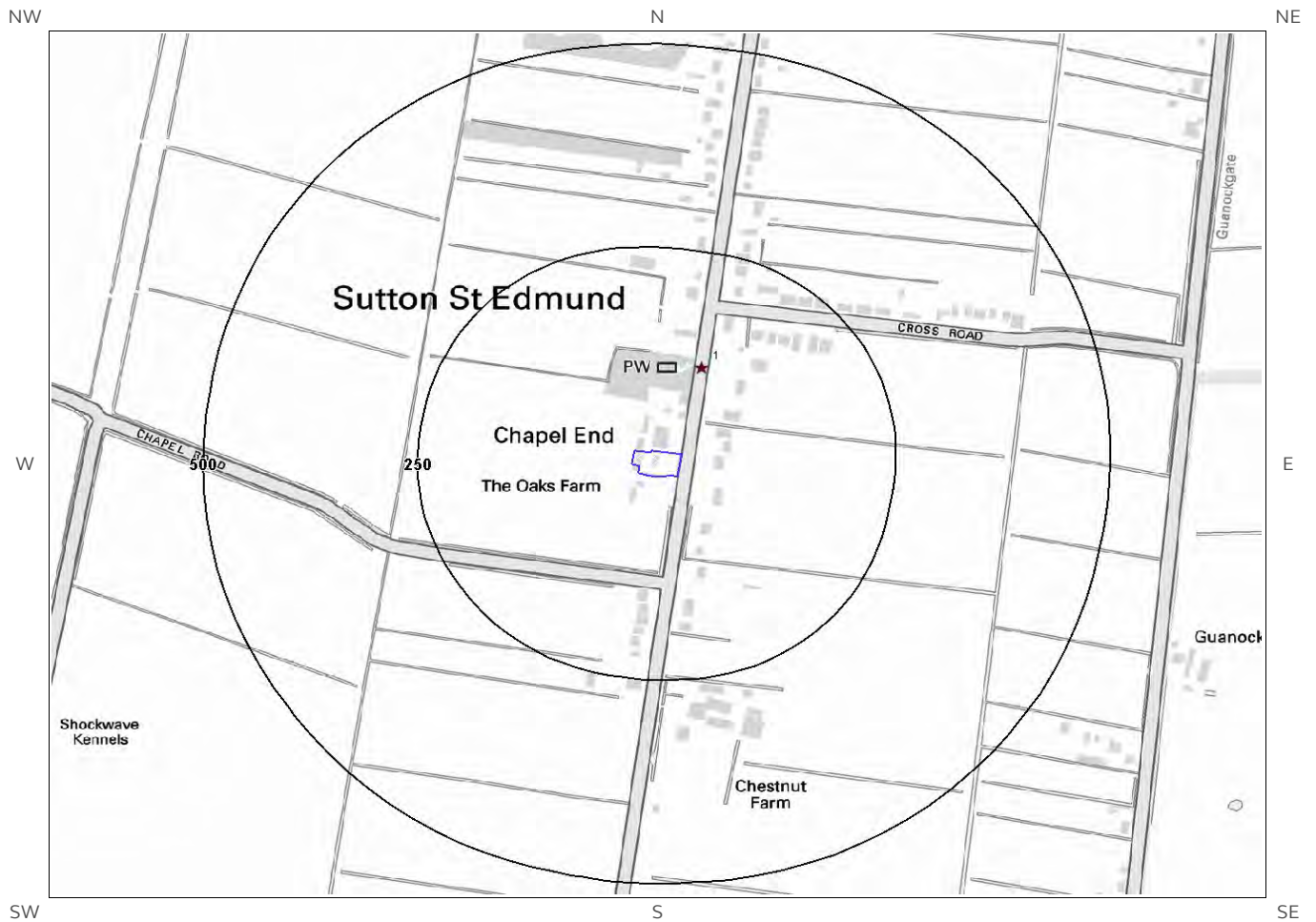
Database searched and no data found.

3.2.2 Records of Environment Agency licensed waste sites within 1500m of the study site:

0

Database searched and no data found.

4. Current Land Use Map



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4. Current Land Uses

4.1 Current Industrial Data

Records of potentially contaminative industrial sites within 250m of the study site: 1

The following records are represented as points on the Current Land Uses map.

ID	Distance (m)	Direction	Company	NGR	Address	Activity	Category
1	109	N	Electricity Sub Station	536860 313228	PE12	Electrical Features	Infrastructure and Facilities

4.2 Petrol and Fuel Sites

Records of petrol or fuel sites within 500m of the study site: 0

Database searched and no data found.

4.3 National Grid High Voltage Underground Electricity Transmission Cables

This dataset identifies the high voltage electricity transmission lines running between generating power plants and electricity substations. The dataset does not include the electricity distribution network (smaller, lower voltage cables distributing power from substations to the local user network). This information has been extracted from databases held by National Grid and is provided for information only with no guarantee as to its completeness or accuracy. National Grid do not offer any warranty as to the accuracy of the available data and are excluded from any liability for any such inaccuracies or errors.

Records of National Grid high voltage underground electricity transmission cables within 500m of the study site: 0

Database searched and no data found.

4.4 National Grid High Pressure Gas Transmission Pipelines

This dataset identifies high-pressure, large diameter pipelines which carry gas between gas terminals, power stations, compressors and storage facilities. The dataset does not include the Local Transmission System (LTS) which supplies gas directly into homes and businesses. This information has been extracted from databases held by National Grid and is provided for information only with no guarantee as to its completeness or accuracy. National Grid do not offer any warranty as to the accuracy of the available data and are excluded from any liability for any such inaccuracies or errors.

Records of National Grid high pressure gas transmission pipelines within 500m of the study site: 0

Database searched and no data found.

5. Geology

5.1 Artificial Ground and Made Ground

Database searched and no data found.

The database has been searched on site, including a 50m buffer.

5.2 Superficial Ground and Drift Geology

The database has been searched on site, including a 50m buffer.

Lex Code	Description	Rock Type
TFD1	TIDAL FLAT DEPOSITS, 1	SAND AND SILT [UNLITHIFIED DEPOSITS CODING SCHEME]
TFD1	TIDAL FLAT DEPOSITS, 1	CLAY AND SILT [UNLITHIFIED DEPOSITS CODING SCHEME]

5.3 Bedrock and Solid Geology

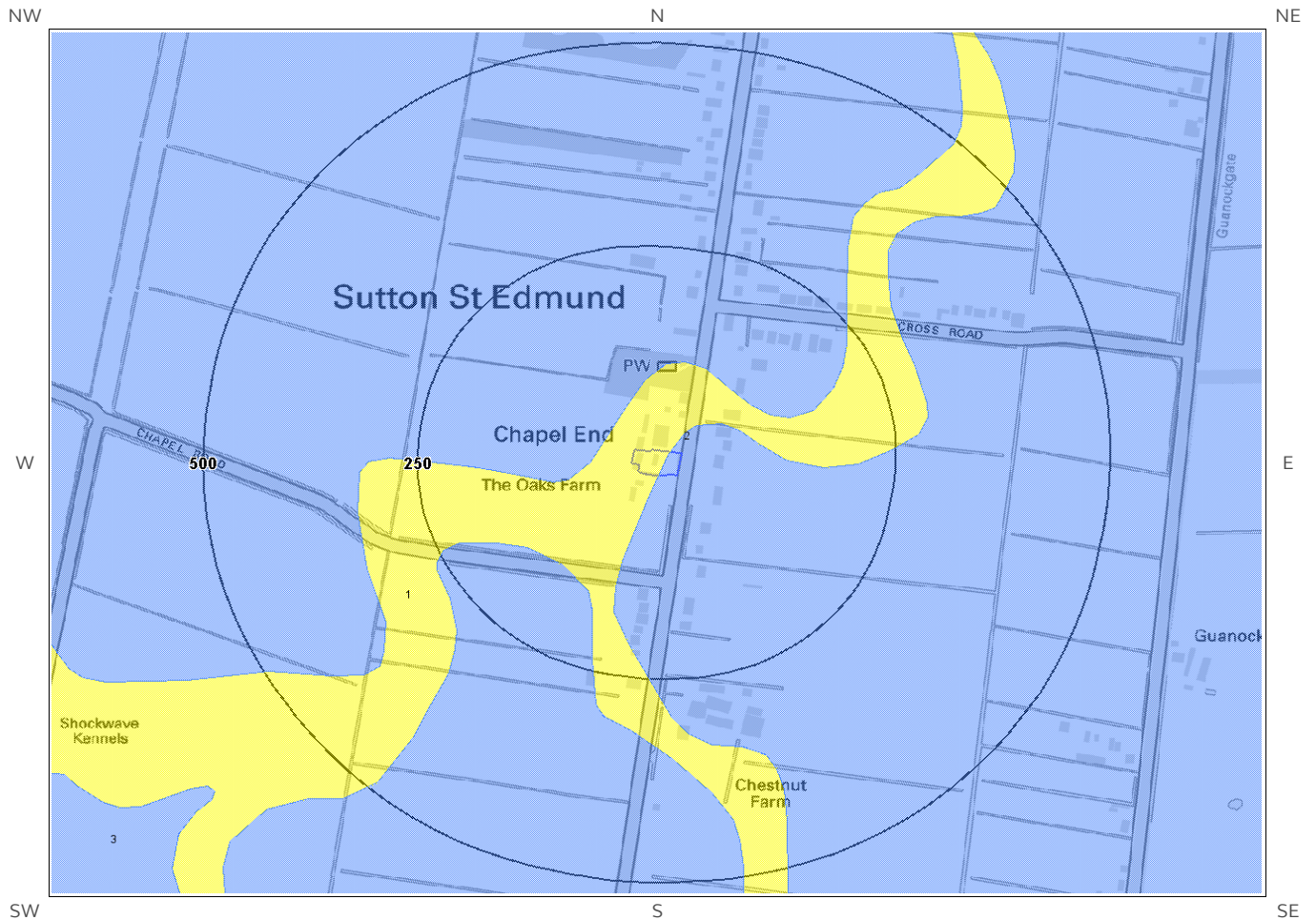
The database has been searched on site, including a 50m buffer.

Lex Code	Description	Rock Type
WWAC-MDST	WEST WALTON FORMATION AND AMPTHILL CLAY FORMATION (UNDIFFERENTIATED)	MUDSTONE

(Derived from the BGS 1:50,000 Digital Geological Map of Great Britain)

6 Hydrogeology and Hydrology

6a. Aquifer Within Superficial Geology



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