



Geotechnical &
Environmental
Consultants

Church Street
Holbeach

**Remediation Method Statement
For
Seagate Homes Ltd**



GeoDyne Limited
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Project No: D34136		Date: 26th July 2017	
Issue/revision	Prepared by	Checked By	Approved By
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Comments			

1.0 INTRODUCTION

1.1 Introduction

GeoDyne Ltd has been instructed by the Client, Seagate Homes Ltd, to prepare a Remediation Method Statement (RMS) relating to a parcel of land located off Church Street, Holbeach.

This RMS has been prepared taking due consideration of the following previous reports:

- GeoDyne Limited report entitled '*Church Street, Holbeach – Combined Phase I Desk Study & Phase II Exploratory Investigation*' produced for Langwith Construction, Reference D34136, dated 17th February 2015.
- GeoDyne Limited letter report '*Church Street, Holbeach – Post Demolition Investigation Report*', Reference D34136/CB, dated 9th May 2017.

We would note that at the time of the Combined report (2015) it was understood that the site was to be developed with a Medical Centre. On this basis the human health and ground gas risk assessments within the Combined report assumed a commercial end-use. Since the issue of the Combined report, development proposals have been revised for a residential end-use, comprising 19No. dwellings with associated private garden areas, at the site. The post demolition report (May 2017) gave due consideration to the current proposed residential end-use and incorporated a human health risk assessment for both soils and ground gases to reflect the revised end-use.

We would recommend that the previous reports (detailed above) are read in conjunction with this Remediation Method Statement.

1.2 Project Understanding

It is understood that the site is to be developed for a residential end-use comprising 19No. dwellings with associated front and rear garden areas. It should be noted that at the time of our Post Demolition works (April 2017), construction of the dwellings had commenced.

A plan showing the proposed site layout is included in Appendix III (Studio 11 Architecture Ltd drawing entitled '*Proposed residential development at Church Street, Holbeach*', Drawing No. 339.SL.01, dated 05.09.2016).

1.3 Project Overview

We have been forwarded, by the Client, a copy of the Planning Conditions issued by the Local Planning Authority (LPA – South Holland District Council) for the development (Ref H09-0770-16, dated 8th November 2016).

We understand that Planning Condition 5 relates to issues associated with contamination of land and pollution of Controlled Waters. The Condition requires a phased contamination investigation to be undertaken at the site, with a remediation strategy required to address any issues associated with remediation and verification of remediation. It is assumed that the previous reports (detailed in Section 1.1) have been submitted to the LPA, by the Client, as part of the planning consultation process.

We have been requested by the Client to prepare a Remediation Method Statement for the site to assist with the discharge of Condition 5 and to provide the Site Manager with a document for the control of remediation and validation works at the site.

A copy of the Planning Conditions is included in Appendix IV.

1.4 Details of Remediation Method Statement (RMS)

This RMS details the necessary remediation and validation measures required at the site and represents a stand-alone report to act as a working document for use by the Site Manager to control remediation and validation works. It also states the level of inspection and Site Acceptance Criteria considered appropriate by ourselves for assessment of any soils which are proposed to be imported to site for use within the development.

1.5 Limitations

This report has been produced specifically to address remediation and validation issues at the site. For a detailed review of the sites history, geology, geotechnical and environmental setting, and recommendations relating to all other matters, reference should be made to the previous reports detailed in Section 1.1.

This report has been prepared in accordance with our understanding of current good practice. However changes to good practice, guidance or legislation may necessitate revision of this report after the date of issue.

GeoDyne Ltd has prepared this report for the sole use and reliance of the Client, Seagate Homes Ltd, in accordance with our Standard Conditions and Limitations (included in Appendix VI). This report may not be used or relied upon by any unauthorised third party without the explicit written agreement of GeoDyne Ltd.

2.0 SITE SUMMARY

2.1 Site Location

The main body of the site comprises an approximately rectangular shaped parcel of land, with an access route in the east of the site connecting it to Church Street, Holbeach. The site may be located centred around approximate Ordnance Survey National Grid Reference 535760E 324610N, as shown on the Site Location Plan (Figure No. D34136/RMS/01 included in Appendix I. The site covers an approximate area of 0.49 hectares.

2.2 Site Description

At the time of the Phase I & II works, the site comprised a semi-derelict depot (utilised by the Client). Numerous buildings were present at the site. The buildings were generally in a derelict state and included a former office/gatehouse building, a storage shed, offices and welfare facilities, a works building and a larger portal framed warehouse which incorporated a storage bay, storage area (with racking) and a workshop. Potential asbestos containing materials (ACMs) were observed within the construction fabric of some of the buildings.

External areas of the site were surfaced with a combination of macadam, gravel or concrete and were generally used for washing and maintenance of plant or as car parking. A fuel pump dispenser and diesel Underground Storage Tank (UST) were present in the southeastern area of the site. The UST appeared to be in operation at the time of our works. A heavily silted two-phase interceptor was located in the western area of the site.

During our recent works (April 2017), the site comprised an active construction site which included plots at various stages of development. The industrial warehouse, former works and office block present during our earlier works had been demolished. It was also understood from the Client that the former UST had been removed as part of enabling works at the site.

General views of the site during our works in April 2017 are included on the Plates in Appendix II (Plate Nos. RMS/01 to RMS/03).

2.3 Development Proposals

It is understood that the site is currently undergoing redevelopment for a residential end-use comprising 19No. dwellings inclusive of private gardens. We understand that the redevelopment proposals also include the construction of an access road and driveways.

2.4 Contamination Summary

As stated previously, the contamination assessment within the Combined report assumed a commercial end-use at the site. On the basis of current development proposals, the results for the original contamination analysis (undertaken by GeoDyne in 2015) were combined with the results of the post demolition contamination analysis (undertaken by GeoDyne in 2017) and reassessed with respect to the proposed residential end-use for plant uptake at the site. The reassessment of the contamination test results also included laboratory analysis results relating to 5No. samples (obtained and tested by others in January 2017) from the area of the former UST (i.e. tank validation exercise).

Our Post-Demolition letter report concluded the following with respect to contamination at the site:

'Due to the presence of elevated PAHs and lead in addition to localised asbestos identified within the Made Ground soils (as loose fibres), the Made Ground across the site is considered to be undesirable and chemically unsuitable for placement or retention within any proposed gardens/soft landscape.

There is considered to be no risk to Controlled Waters based on the absence of mobile organic contaminants across the site or from the findings of the tank validation exercise (completed by others)'.

2.5 Ground Gas

Following consideration of the ground gas regime at the site with respect to the proposed residential end-use, our Post Demolition letter report concluded as follows:

'Based on the programme of ground gas monitoring undertaken, the site may be classified as Characteristic Situation CS1 in accordance with CIRIA C665 and BS 8485:2015 guidance; i.e. no specific precautions in relation to ground gas are required in the proposed development.

The tank validation works have revealed typically low levels of residual hydrocarbons in the soils at this location. The risk of residual hydrocarbon vapours is therefore also considered to be low, and we note that sub-floor ventilation (through the adoption of a suspended floor slab inclusive of periscopic air bricks) appears to have been incorporated as a standard design feature within the dwellings. On the basis of the information supplied, there appears to be no specific requirement for the inclusion of a hydrocarbon resistant membrane within the floor slab construction'.

2.6 Remediation Proposals

Based on the post demolition contamination assessment it was considered necessary to adopt a remediation strategy for the site, to afford an appropriate level of protection to human health (i.e. end-users).

The following recommendations were made within our Post Demolition letter report:

'It will be necessary to provide remedial capping to the Made Ground within all gardens and soft landscaping across the site. The remedial capping should be a minimum total thickness of 1.00m and should incorporate a minimum of 0.15m of suitably clean imported topsoil underlain by suitably clean subsoil. Alternatively, remedial capping of 0.60m total thickness, incorporating a minimum of 0.15m of suitably clean topsoil, underlain by a suitably robust geomembrane could be utilised at the site, if preferred by the Client and subject to approval by the Local Planning Authority.

Any topsoil and subsoil proposed to be imported to site should be chemically tested at source to ensure it is suitably clean (prior to importation) in accordance with CLEA/generic guidance. Imported topsoil should ideally conform to BS3882: 2015 'Specification for topsoil', with respect to nutrient levels etc.

It is recommended that the results of the chemical analysis on the soils proposed for importation are forwarded to the Local Authority (Environmental Health Officer) for approval (prior to importation).

Specific remedial measures are not considered necessary in areas of proposed hard standing (i.e. external hard standing areas and beneath the floor slabs to the proposed dwellings)'.

3.0 REMEDIATION STRATEGY

3.1 Introduction

In accordance with the findings of previous works at the site, together with our understanding of the redevelopment proposals, the following remedial strategy is considered appropriate for the site.

3.2 Watching Brief

Asbestos Containing Materials (ACM)

Post demolition works revealed the presence of chrysotile asbestos (loose fibres) within two samples of the Made Ground. Therefore, it is recommended that a watching brief is maintained at the site (by an appropriately qualified Contractor) during excavation to identify the potential presence of any ACM within the Made Ground.

Any ACM encountered at the site should be removed and disposed off site by appropriately qualified Contractors. Furthermore, Contractors should adopt good practice for working in areas where unrecorded asbestos may locally be present in the ground. Such protocols should be detailed within the contractors risk assessment and method statement documents.

Pumped Well

Historical maps suggest the presence of a pumped well in the early part of the Twentieth Century in the northeastern part of the site, although no evidence of such a feature was readily apparent during our previous works.

However, as no records are available with respect to the status or any treatment works of the well, we would recommend that a general watching brief is maintained by the Contractor during excavations works at the site. Where such a feature is encountered, it is recommended that the well is infilled with cement/grout to prevent future instability issues. Given the proposed layout of the redevelopment (i.e. with dwellings located in the west of the site), the position of the indicated location of the indicated well (in the northeast) is likely to coincide with the area of car parking proposed to the north of the access road.

Interceptor Chamber

At the time of our Phase II works a heavily silted two phase interceptor chamber was observed in the western area of the site. It is likely that the chamber was removed from site as part of the enabling works. Should any excavations be proposed in the area of the former interceptor chamber we would recommend that the Contractor maintains a watching brief during excavation. Should any suspected contamination be encountered within the excavations, GeoDyne should be notified to enable appropriate inspection and sampling of the suspected contamination in accordance with the protocols detailed in Section 3.9 '*Unforeseen Circumstances*' of this RMS report.

3.3 Proposed Gardens/Areas of Soft Landscape

The Made Ground at the site is considered to be chemically unsuitable and undesirable for retention or re-use within proposed gardens and soft landscaped areas due to the presence of elevated concentrations of lead and PAHs and the potential presence of asbestos fibres. On this basis provision of a remedial capping is required within all proposed gardens and soft landscaped areas.

3.3.1 Remedial Capping Thickness

Our post demolition report recommended the provision of 1.00m of remedial capping to all proposed gardens or soft landscaped areas to mitigate the risk of exposure to contamination from the end-users. As an alternative, the report noted that a reduced thickness of remedial capping (0.60m) may be placed over a suitably robust geomembrane, if preferred by the Client and approved by the LPA.

It is understood that the Client is proposing to undertake a reduced level dig and utilise a geomembrane (Geosynthetics Ekotex) beneath a minimum remedial capping thickness of 0.60m within all gardens and proposed soft landscaped areas. A product datasheet relating to the proposed geomembrane is included in Appendix V.

We would recommend that the formation level is visually inspected prior to placement of the geomembrane. Any potentially sharp deleterious material (i.e. glass shards, brick fragments etc.) at formation level which may puncture the underside of the geomembrane should be removed.

The remedial capping should incorporate a minimum thickness of 0.15m of suitably clean imported topsoil overlying suitably clean imported subsoil, which in turn overlies the geomembrane. This remedial capping may comprise entirely of imported topsoil if preferred by the Client.

3.3.2 Remedial Capping Materials

Imported Topsoil/Subsoil

It will be necessary to import suitably clean topsoil and subsoil (as appropriate) to the site for use within the remedial capping in the proposed gardens and areas of soft landscape.

The donor topsoil/subsoil should be tested at source for the determinands listed within Table 1 (as a minimum) and any other determinands, as appropriate for the source site, to ensure that it is suitably clean (prior to importation) in accordance with current guidance. The Site Acceptance Criteria (SAC) for the donor soils are detailed in Table 1 (Section 3.3.3).

Imported topsoil should ideally conform to BS3882:2015 '*Specification for topsoil*', with respect to the presence of foreign objects and ideally nutrient levels etc.

Local Authority Consultation

We would recommend that the results of the chemical analysis on the topsoil/subsoil proposed for importation should be forwarded to the Contaminated Land Officer at South Holland District Council for approval (prior to importation).

3.3.3 Site Acceptance Criteria for Imported Soils

It will be necessary for the Contaminated Land Officer at South Holland District Council to review the suggested Site Acceptance Criteria (SAC) detailed in Table 1, which would be used when assessing the suitability of any materials proposed for importation (i.e. topsoil and subsoil).

TABLE 1- PROPOSED SITE ACCEPTANCE CRITERIA (RESIDENTIAL END-USE WITH HOMEGROWN PRODUCE)	
Determinand	Tier 1 SAC (mg/kg)
Metals	
Arsenic	37 S4UL
Cadmium	11 S4UL
Chromium III	910 S4UL
Chromium VI	6 S4UL
Lead	200 C4SL
Inorganic Mercury	40 S4UL
Selenium	250 S4UL
Nickel	130 S4UL
Copper	2400 S4UL
Zinc	3700 S4UL
PAHs	
Acenaphthene	210 S4UL
Acenaphthylene	170 S4UL
Anthracene	2400 S4UL
Benz(a)anthracene	7.2 S4UL
Benzo(a)pyrene	2.2 S4UL
Benzo(b)fluoranthene	2.6 S4UL
Benzo(ghi)perylene	320 S4UL
Benzo(k)fluoranthene	77 S4UL
Chrysene	15 S4UL
Dibenzo(ah)anthracene	0.24 S4UL
Fluoranthene	280 S4UL
Fluorene	170 S4UL
Indeno(123-cd)pyrene	27 S4UL
Naphthalene	2.3 S4UL
Phenanthrene	95 S4UL
Pyrene	620 S4UL
Key S4UL – CIEH/LQM Suitable 4 Use Levels (2015). Copyright Land Quality Management Limited. All rights reserved. C4SL - value for Lead taken from DEFRA publication SP1010.	
Note SAC values for metals derived from S4UL values assume 6% Soil Organic Matter. SAC values for PAHs derived from S4UL values assume 1% SOM in the first instance (where appropriate, S4UL values for 2.5% or 6% SOM may be considered for the assessment of donor soils).	

Topsoil and subsoil samples should be tested at the donor site for the metals and the PAHs detailed in the above table (this may be undertaken by a Consultant under instruction from the Client or directly by the Supplier). Please note that where donor materials are sourced from an unknown or potentially contaminated source (i.e. 'brownfield' sites) it may also be necessary to test the materials for additional determinands (i.e. asbestos, speciated Total Petroleum Hydrocarbons, pesticides etc.), as well having the appropriate permits in place to allow transport of the material.

3.3.4 Pre-Importation Testing Methodology

It is recommended that the donor topsoil/subsoil should be sampled and analysed at a minimum density of 1No. sample per 250m³ or 3No. samples per source site/stockpile (whichever is the greater) to ensure that the results are representative and provide sufficient confidence that the soils will be acceptable in the proposed residential context.

In the first instance, the results of the testing will be compared directly to the SAC (Table 1). If the individual values are less than the SAC the source shall be considered suitable for use at the site.

If the individual values are greater than the SAC, the supervising Engineer may elect to calculate the 95th percentile Upper Confidence Level (UCL) Mean Value of the topsoil samples, which would then be compared to the appropriate SAC to determine whether the soil is 'clean' and suitable for use at the site.

Should the UCL Mean Value of the topsoil/subsoil samples be in excess of the SAC, further samples may be obtained to enlarge the dataset prior to reassessment and a final decision being reached. Alternatively, the Client may elect to reject the donor site and select an alternative donor site.

3.4 Remedial Capping Validation Protocol

GeoDyne will undertake periodic inspection of the remediation works on a rolling basis as necessary. Validation works will include:

- Obtaining photographic records to demonstrate compliance with the RMS.
- Inspection of formation layer (including photographic records) to confirm the presence of the geomembrane throughout the entire garden/soft landscaped area.
- Review of laboratory test certificates for donor topsoil/subsoil prior to importation to site and undertake potential additional chemical analysis (as appropriate). Laboratory test certificates are to be supplied to South Holland District Council and warranty provider (where appropriate) for comment/approval prior to the importation of materials to site.
- Inspection of validation holes within garden areas. Validation holes are typically advanced using a spade/auger, however, given the proposals to utilise a geomembrane at formation level it is recommended that validation of the remedial capping thickness is undertaken using a preformed hole, created during placement of the capping materials, to minimise the risk of punctures/tears to the membrane during validation. On this basis, a validation hole should be formed by the Groundworkers using a section of 150mm diameter drainpipe (or similar) of a minimum length of 0.60m, stood vertically at formation level on the geomembrane. The drainpipe should be centrally located within the garden area. An appropriate thickness of remedial capping (i.e. 0.60m) should be placed around the drainpipe and across the garden/soft landscaped area. The drainpipe will be removed during validation works, to enable the depth of the validation hole to be measured and the hole sides and base (with geomembrane evident) to be inspected/photographed. Following validation, the hole should be backfilled with suitably clean topsoil.
- Validation holes should be formed by the Groundworkers at the following rates:
 - Rear Gardens – 1No. hole per plot.
 - Front Gardens – 1No. Hole per every two plots.
 - Other soft landscaping – 1 No. hole per area.
- Preparation of a validation report.

It is understood that garden areas will be available for inspection in three blocks, (i.e. Plots 1 to 6, Plots 7 to 12 and Plots 13 to 19). On this basis, it is anticipated that it will be necessary to undertake a minimum of 6No. inspection visits as part of the validation works (3No. to inspect the formation level and 3No. to prove the thickness of the placed materials). Further visits may be required, as necessary (for example where we are requested to inspect individual gardens).

We would note that based on the proposed site layout shown on the drawing in Appendix III, the front gardens to some plots may be limited in size; furthermore, these gardens may incorporate shallow buried services. It is considered that any gravel surround to the buried services and concrete haunching to edging stones would act as a hard to dig layer within the completed gardens. However, it will still be necessary to provide remedial capping overlying a geomembrane within the remaining parts of these gardens. Whilst it may not be possible to achieve the full 0.60m depth of remedial capping, the capping layer provided should be as thick as practicable for the garden areas. Our proposed validation works will confirm the thickness of capping placed and the presence of the geomembrane.

3.5 Proposed Areas of Hard Standing

Specific remedial measures are considered not necessary within areas of proposed hard standing at the site (i.e. external hard standing areas and beneath the floor slab to the proposed dwellings).

3.6 Segregation of Materials

It is imperative that 'clean' material is kept separate from 'contaminated' arisings generated at the site. Any cross contamination may result in the necessity to remove all affected materials from the site.

3.7 Off-Site Disposal & Waste Classification

The chemical testing regime for off-site disposal is different to the chemical testing required to assess the suitability of the soils for retention on site and the risks to human health.

Therefore, a new contamination assessment may be required to classify the soils for off-site disposal with testing criteria to assess whether the soil is hazardous, non-hazardous or inert waste.

The receiving landfill may require additional specialist laboratory testing to further characterise the material proposed for disposal against Waste Acceptance Criteria (WAC). We would recommend early consultation between the Contractor and the receiving landfill to determine any specific laboratory testing requirements. These may potentially include bespoke WAC leachate testing.

Individuals/companies removing soils from the site are bound by a **duty of care**; as such this should only be undertaken by an **authorised person**. All waste movements should be accompanied by a **waste transfer note**.

3.8 Licences, Permits, Registrations, Plans & Approvals

The Contractor/Developer is responsible for, and must ensure that, all necessary licenses, permits, plans, registrations and approvals are in place prior to commencing with the earthworks at the site. These will include any Materials Management Plans (MMPs), Site Waste Management Plans (SWMPs) and/or Environmental Permits/Exemptions as necessary to enable the completion of the proposed works.

3.9 Unforeseen Circumstances

Any areas of potentially contaminated soils encountered during site construction works must be brought to the attention of GeoDyne, to ensure that our recommendations continue to apply. Any potentially contaminated soils should be left in-situ and subjected to further assessment, to potentially include further chemical testing and risk assessment.

The following procedure should be adhered to if any areas of previously unidentified suspected contamination are encountered during the redevelopment of the site:

- i. Suspected contaminated material will remain in-situ.
- ii. GeoDyne Ltd to be notified, and will inform the Local Authority in writing.
- iii. GeoDyne Ltd will undertake a visual assessment of the possible contamination, followed by appropriate sampling/testing.
- iv. If necessary, contamination will then be treated or removed from site and the Contaminated Land Officer informed accordingly. All necessary remediation works should be validated by testing in accordance with an approved strategy.

3.10 Construction Workers

The Contractor should be made aware of the potential presence of asbestos in the Made Ground. Site workers should adopt suitable good practice for example PPE (i.e. boots, gloves, overalls etc.) and RPE (where appropriate) together with dust suppression (as necessary). Furthermore hygiene facilities should be provided in accordance with general health and safety guidelines.

The Contractor should undertake a suitable Risk Assessment to confirm the appropriate level of PPE.

A copy of all reports relating to the site (by GeoDyne Ltd) should be included within the site health and safety file and site workers should be made fully aware of the sites setting.

3.11 Radon & Ground Gas Precautions

No specific precautions for radon or ground gas (i.e. methane and carbon dioxide) are required at the site.

3.12 Utilities

We would recommend that a copy of this report, together with previous reports, is supplied to utility companies, and that their recommendations relating to appropriate supply pipes are adhered to.

3.13 Site Managers Site Diary

It is the responsibility of the Site Manager to keep a site diary to record the progress of remediation works. This should include, but not be limited to:

- Photographic and written records of remediation works, with specific attention paid to unforeseen circumstances.
- Records of any remedial measures that cannot be dug up/sampled and validated at a later date.
- Records of all movements of waste materials, including consignment notes etc.

3.14 Communication

We would recommend that regular communication is maintained between GeoDyne Ltd and the Site Manager throughout the development/remediation works. It will be the responsibility of the Site Manager to inform GeoDyne when the formation level and remedial capping is ready for inspection and validation.

3.15 Statutory Consultation

We would recommend that a copy of our Remediation Method Statement is issued to the Contaminated Land Officer at South Holland District Council for review/comment and approval, at the earliest opportunity, prior to commencing with any remedial activity.

Where the proposed dwellings are to benefit from a buildmark warranty (i.e. NHBC, or similar) the warranty provider will require written approval of the Remediation Method Statement from the Contaminated Land Officer in order to satisfy their Land Quality Conditions.

3.16 Pre-Start Meeting

We would recommend that a meeting is held between the following parties on site, prior to commencement of remediation and validation works:

- Site Manager.
- GeoDyne Ltd.
- Contaminated Land Officer at South Holland District Council (at their discretion).

4.0 CONCLUSIONS

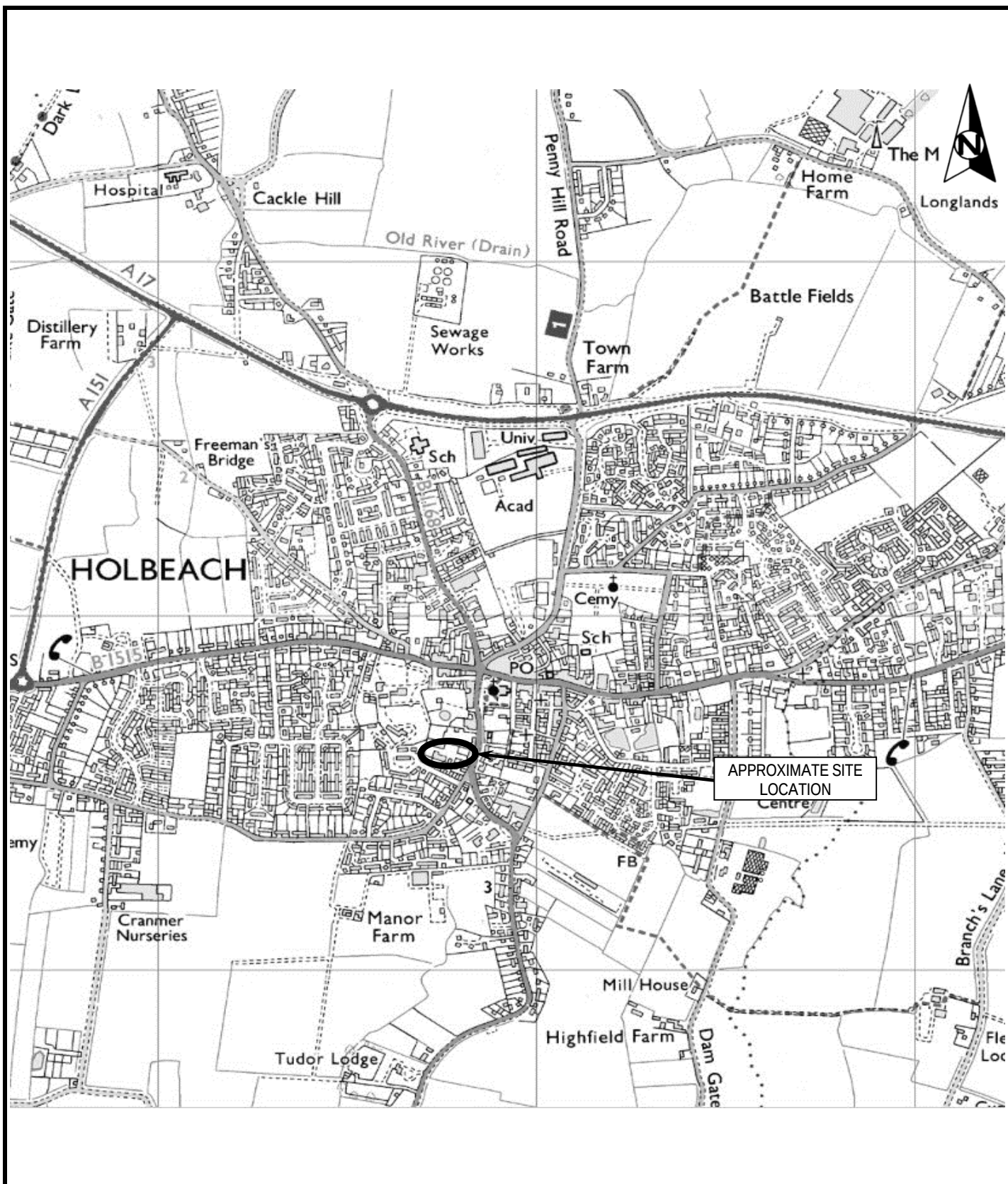
To the best of our knowledge, this RMS has been prepared to be compliant with the requirements of the Planning Department at South Holland District Council.

Written approval of this report should be obtained from the Contaminated Land Officer prior to implementation of the recommendations.

This RMS presents methodologies and procedures which, when implemented, are considered to be appropriate to enable the future development of the site without creating unacceptable risk to end-users.

APPENDIX I

**Site Location Plan
(Figure No. D34136/RMS/01)**



REPRODUCED FROM THE ORDNANCE SURVEY MAP WITH THE PERMISSION OF THE CONTROLLER OF HER MAJESTY'S STATIONERY OFFICE.
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Project No.	D34136	Drawn	CEH
Client	Seagate Homes Ltd	Checked	DJH
Project	Church Street Holbeach	Approved	DJH
		Scale	NTS
		Date Drawn	26/07/2017
Title	Site Location Plan	Rev.	
		Figure No.	D34136/RMS/01



APPENDIX II

**Plates Showing General Site Views
(Plate Nos. RMS/01 to RMS/03)**



Photograph of the site entrance



Photograph showing the level of development at the time of our Post Demolition Works

Project No.	D34136	Drawn	CB
Client	Seagate Homes	Checked	DJH
		Approved	DJH
Project	Church Street Holbeach	Scale	NTS
		Date Drawn	26/07/2017
Title	General Site Views (I) (During Post Demolition Works April 2017)	Rev.	
		Plate No.	RMS/01





Photograph showing the level of development at the time of our Post Demolition Works



Photograph showing the level of development at the time of our Post Demolition Works

Project No.	D34136	Drawn	CB
Client	Seagate Homes	Checked	DJH
		Approved	DJH
		Scale	NTS
Project	Church Street Holbeach	Date Drawn	26/07/2017
		Rev.	
Title	General Site Views (II) (During Post Demolition Works April 2017)	Plate No.	RMS/02



Project No.	D34136	Drawn	CEH
Client	Seagate Homes	Checked	DJH
		Approved	DJH
Project	Church Street Holbeach	Scale	NTS
		Date Drawn	26/07/2017
Title	Photographs around area of former UST (During Post Demolition Works April 2017)	Rev.	
		Plate No.	RMS/03



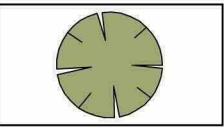
APPENDIX III

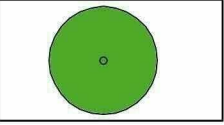
Proposed Site Layout

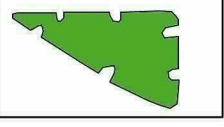


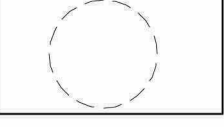
Site Layout 1:500

KEY

 Existing tree to be retained

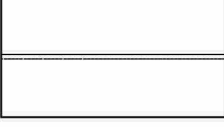
 Proposed Tree

 Proposed shrub planting

 Existing tree to be removed

 1.8m close board fence

 1.8m panel fence between plots

 1.8m garden wall

Housetype Schedule

3 Bedroom House		
Huntingdon	Plots 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19	19
		19
	Total	19

Site Area: 0.48 Hectares (1.19 Acres)



Location Plan 1:1250

APPENDIX IV

Local Authority Planning Conditions

Studio 11 Architecture
The Boathouse
Harbour Square
Nene Parade
Wisbech Cambs
PE13 3BH

Council Offices
Priory Road
Spalding
Lincolnshire
PE11 2XE
Admin 01775 764723
DC Officers 01775 764703
facsimile 01775 762937
planningadvice@sholland.gov.uk
www.sholland.gov.uk

TOWN AND COUNTRY PLANNING ACT 1990

FULL

Reference: H09-0770-16 **Date of Decision:** 8th November 2016
Applicant: Seagate Homes Ltd
C/O Studio 11 Architecture
The Boathouse
Harbour Square
Nene Parade Wisbech Cambs
PE13 3BH
Location: Land: Church Street Holbeach Spalding
Description: Residential development - 19 dwellings

South Holland District Council hereby give notice that this application has been GRANTED (or equivalent) subject to the following condition(s):

- 1 The development must be begun not later than the expiration of three years beginning with the date of this permission.

Reason: As required by Section 91 of the Town and Country Planning Act 1990 as amended by the Planning and Compulsory Purchase Act 2004.

- 2 The development hereby permitted shall be carried out in accordance with the following approved plans:
Dwg. nos. 339.SL.01 Revision A, 339.Hunt.15.P.01 and 339.Hunt.P.01;
Flood Risk Assessment & Drainage Strategy by Inspire Design & Development Ltd dated August 2016.

Reason: For the avoidance of doubt and in the interests of proper planning.

- 3 Before the commencement of the development hereby permitted beyond oversight, the approval of the Local Planning Authority is required to a detailed scheme of landscaping

and tree planting for the site indicating which trees are to be retained/removed and details of the number, species, heights on planting and positions of all new trees, together with details of post planting maintenance.

Such scheme as is approved by the Local Planning Authority shall be carried out, in its entirety, within a period of twelve months, beginning with the date on which development is commenced. All trees, shrubs and bushes shall be maintained by the owner or owners of the land on which they are situated for the period of five years, beginning with the date of completion of the scheme, and during that period all losses shall be made good, as and when necessary.

Note: The applicant is recommended to employ a qualified and experienced landscape designer to produce a landscaping scheme for the development.

Reason: To ensure that the development is adequately landscaped, in the interests of its visual amenity and that of the area in which it is set. This issue is integral to the development and therefore full details need to be finalised prior to the commencement of works.

This Condition is imposed in accordance with Policy SG18 of the South Holland Local Plan, 2006.

- 4 Notwithstanding the submitted information details of the proposed boundary screening, including a schedule of materials and details, shall be submitted to and approved in writing by the Local Planning Authority. The approved scheme of screening shall be implemented in full before the development is first brought into use.

Note: The scheme of screening shall include acoustic fencing along the common boundary with No 74 where it adjoins the access road and also along the rear boundary of plots 14 to 19.

Reason: In the interest of the amenities of the locality.

This Condition is imposed in accordance with Policies SG14 and SG17 of the South Holland Local Plan, 2006.

- 5 The development hereby permitted shall not be commenced until a scheme to deal with any contamination of land or pollution of controlled waters has been submitted to, and approved in writing, by the Local Planning Authority (LPA), and until the measures approved in that scheme have been implemented. The scheme shall include all of the following measures:
 - i) a desk-top study carried out to identify and evaluate all potential sources of contamination and the impacts on land and/or controlled waters, relevant to the site. The desk-top study shall establish a 'conceptual site model' and identify all plausible pollutant linkages. Furthermore, the assessment shall set objectives for intrusive site investigation works/Quantitative Risk Assessment, (or state if none required). Two full copies of the desk-top study and a non-technical summary shall be submitted to the LPA, without delay, upon completion.
 - ii) if identified as being required, following the completion of the desk-top study, a site investigation shall be carried out to fully and effectively characterise the nature and extent of any land contamination and/or pollution of controlled waters. It shall specifically include a risk assessment that adopts the Source-Pathway-Receptor principle, in order that any potential risks are adequately assessed, taking into account the sites existing status and

proposed new use. Two full copies of the site investigation and findings shall be forwarded to the LPA, without delay, upon completion.

iii) thereafter, a written method statement detailing the remediation requirements for land contamination and/or pollution of controlled waters affecting the site shall be submitted to and approved, in writing, by the LPA, and all requirements shall be implemented and completed to the satisfaction of the LPA. No deviation shall be made from this scheme. If during redevelopment, contamination not previously considered is identified, then the LPA shall be notified immediately, and no further work shall be carried out until a method statement detailing a scheme for dealing with the suspect contamination has been submitted to, and agreed in writing, by the LPA.

iv) two full copies of a full closure report shall be submitted to, and approved, in writing by the LPA. The report shall provide verification that the required works regarding contamination have been carried out, in accordance with the approved Method Statement(s). Post-remediation sampling and monitoring results shall be included in the closure report, to demonstrate that the required remediation has been fully met.

Note: The applicant is advised that the phased risk assessment required by the Contaminated Land Scheme Condition should be carried out, in accordance with the procedural guidance of the Environmental Protection Act 1990 Part 11A.

The applicant's attention is also drawn to the document entitled "Developing Land Within Lincolnshire - A guide to submitting planning applications to develop land that may be contaminated", which can be obtained through the Local Environmental Health Department.

Reason: To assess whether the site is polluted, and to address any pollution to ensure a satisfactory development. This issue is integral to the development and therefore full details need to be finalised prior to the commencement of works.

This Condition is imposed in accordance with Policy SG13 of the South Holland Local Plan, 2006.

- 6 Before the commencement of the development hereby permitted beyond oversite a schedule of external materials of construction of buildings and hard surfaced areas shall be submitted to and approved in writing by the Local Planning Authority. The development shall be constructed in accordance with the materials so approved.

Reason: To ensure that the Local Planning Authority retains control over the external materials of construction of the development in the interests of the character and appearance of the development and the visual amenity of the area in which it is set.

This Condition is imposed in accordance with Policy SG14 of the South Holland Local Plan, 2006.

- 7 The development hereby permitted shall be carried out in accordance with the approved Flood Risk Assessment (FRA) and in particular the following mitigation measures:
i) Finished floor levels shall be set at 300mm above ground level;
ii) Flood resilient and resistant measures shall be incorporated throughout the development as stated within the Flood Risk Assessment.

The mitigation measures shall be fully implemented prior to occupation of the dwelling to which they relate.

Reason: To reduce the risk of flooding to the proposed development and future

occupants.

This Condition is imposed in accordance with Section 10 of the National Planning Policy Framework, March 2012.

- 8 Before each dwelling (or other development as specified) is occupied the roads and/or footways providing access to that dwelling, for the whole of its frontage, from an existing public highway, shall be constructed to a specification to enable them to be adopted as Highways Maintainable at the Public Expense, less the carriageway and footway surface courses. The carriageway and footway surface courses shall be completed within three months from the date upon which the erection is commenced of the penultimate dwelling (or other development as specified).

Reason: To ensure safe access to the site and each dwelling/building in the interests of residential amenity, convenience and safety.

This Condition is imposed in accordance with Policies SG14 and SG15 of the South Holland Local Plan, 2006.

- 9 No development shall be commenced until details of the proposed arrangements for future management and maintenance of the proposed streets within the development have been submitted to and approved by the local planning authority. (The streets shall thereafter be maintained in accordance with the approved management and maintenance details until such time as an agreement has been entered into under Section 38 of the Highways Act 1980 or a private management and maintenance company has been established).

Reason: To ensure that the estate streets serving the development are completed and thereafter maintained to an acceptable standard in the interest of residential/highway safety; to ensure a satisfactory appearance to the highways infrastructure serving the development; and to safeguard the visual amenities of the locality and users of the highway. This issue is integral to the development and therefore full details need to be finalised prior to the commencement of works.

This Condition is imposed in accordance with Policies SG14 and SG15 of the South Holland Local Plan, 2006.

- 10 No development shall take place until a detailed surface water drainage scheme for the site, based on sustainable urban drainage principles, and an assessment of the hydrological and hydrogeological context of the development has been submitted to, and approved in writing, by the Local Planning Authority.

The scheme shall:

- a) Provide details of how run-off will be safely conveyed and attenuated during storms, up to and including the 1 in 100 year critical storm event, with an allowance for climate change, from all hard surfaced areas within the development into the existing local drainage infrastructure and watercourse system, without exceeding the run-off rate for the undeveloped site;
- b) Provide attenuation details and discharge rates;
- c) Provide details of the timetable for and any phasing of implementation for the drainage scheme; and
- d) Provide details of how the scheme shall be maintained and managed over the lifetime of the development, including any arrangements for adoption by any public body or Statutory Undertaker, and any other arrangements required to secure the operation of the

drainage system throughout its lifetime.

The development shall be carried out in accordance with the approved drainage scheme, and no dwelling shall be occupied until the approved scheme has been completed or provided on the site, in accordance with the approved phasing. The approved scheme shall be retained and maintained in full in accordance with the approved details.

Reason: To ensure that the site is adequately drained, to avoid pollution, and to prevent increased risk of flooding. This issue is integral to the development and therefore full details need to be finalised prior to the commencement of works.

This Condition is imposed in accordance with Policies SG11 and SG12 of the South Holland Local Plan, 2006 and national guidance contained in Section 10 of the National Planning Policy Framework, 2012.

- 11 A detailed scheme of construction management to minimise disturbance during the construction process through noise, dust, vibration and smoke shall be submitted to, and approved in writing by the Local Planning Authority, before the development commences, and the construction process shall be carried out in accordance with the scheme so approved.

Reason: In the interests of the amenity of local residents. This issue is integral to the development and therefore full details need to be finalised prior to the commencement of works.

This Condition is imposed in accordance with Policy SG17 of the South Holland Local Plan, 2006.

- 12 Before any dwelling is occupied the visibility splay shall be provided at the site's entrance in accordance with details shown on dwg. no. 339.SL.01. The visibility splay shall be kept free of permanent obstacles exceeding 0.6 metres in height.

Reason: In the interests of safety of the users of the public highway and the safety of the users of the site.

This Condition is imposed in accordance with Policies SG14 and SG15 of the South Holland Local Plan, 2006.

- 13 Details of the precautions to be taken to prevent the deposit of mud on public highways by vehicles travelling from the site during construction of the development, shall be submitted to, and approved in writing by the Local Planning Authority, before the development commences. These facilities shall include the provision of wheel washing facilities, where considered necessary by the Local Planning Authority. These precautions shall be made available before commencement of the construction of the development, and be kept available and in full working order, until such time as the Local Planning Authority agrees, in writing to their withdrawal, or the completion of the development.

Reason: In the interests of highway safety during the construction process. This issue is integral to the development and therefore full details need to be finalised prior to the commencement of works.

This Condition is imposed in accordance with Policies SG15 and SG17 of the South Holland Local Plan, 2006.

- 14 No development shall commence until a detailed foul water drainage strategy has been

submitted to and approved in writing by the Local Planning Authority. No dwellings shall be occupied until the works have been carried out in accordance with the foul water strategy so approved unless otherwise approved in writing by the Local Planning Authority.

Reason: To prevent environmental and amenity problems arising from flooding.
This condition is imposed in accordance with Policies SG12 and SG14 of the South Holland Local Plan, 2006.

Notes:

The Local Planning Authority has acted positively and proactively in determining this application by assessing it against all material considerations, including national guidance, planning policies and representations that have been received during the public consultation exercise, and by identifying matters of concern within the application and negotiating, with the Applicant, acceptable amendments to the proposal to address those concerns. As a result, the Local Planning Authority has been able to grant planning permission for an acceptable proposal.

This decision notice, the relevant accompanying report and the determined plans can be viewed online at <http://planning.sholland.gov.uk/OcellaWeb/planningSearch>

The development hereby permitted will require the provision of a new vehicular access crossing. Applicants are requested to contact the Local Highway Authority's Divisional Office at Pode Hole - (via call centre Tel: 01522 782070) prior to the commencement of any works within the public highway.



Paul Jackson
Place Manager
South Holland District Council

BUILDING REGULATIONS:

This decision refers only to planning permission as granted under the Town and Country Planning Act 1990. The works that you are proposing may also require Building Regulations and this planning permission does not give authority under Building Regulations to commence work. Please contact the Building Control section for further information on 01775 764557 or bcadmin@sholland.gov.uk

RIGHTS OF APPEAL

Appeals to the Secretary of State

If you are aggrieved by the decision of your Local Planning Authority to refuse permission for the proposed development or grant consent subject to conditions, then you can appeal to the Secretary of State under Section 78 of the Town and Country Planning Act 1990 or Section 20 of the Planning (Listed Building and Conservation Areas) Act 1990.

Timescales for appealing

The deadlines for appeals are calculated from the **date of decision** and are as follows for the types of applications below:

12 Weeks	6 Months	8 Weeks
Householder Applications	Planning Permission	Consent to Display Adverts
Minor Commercial Development	Listed Building Consent	
Agricultural Determinations	Other Prior Approval Applications	
Householder Prior Approval Applications		

Enforcement Notices

If an enforcement notice was served prior to the planning application being determined then the deadline for appealing is 28 days from the date of the **planning refusal**

If an enforcement notice is served after the planning application is determined then the deadline for appealing is 28 days from the date of the **enforcement notice** OR **the timescales stated above for each application type** from the date of the planning refusal - whichever is sooner.

All appeals must be made using an Appeal Form which you can get from The Planning Inspectorate at Temple Quay House, 2 The Square, Bristol, BS1 6PN (tel: 0303 444 5000) or you can submit your appeal online at:

<http://www.planningportal.gov.uk/planning/appeals/online/makeanappeal>

The Secretary of State can allow a longer period for giving notice of an appeal but he will not normally be prepared to use this power unless there are special circumstances which excuse the delay in giving notice of appeal.

The Secretary of State need not consider an appeal if it seems to him that the Local Planning Authority could not have granted planning permission for the proposed development or could not have granted it without the conditions it imposed, having regard to the statutory requirements, to the

provisions of the development order and to any directions given under the order. In practice the Secretary of State does not refuse to consider appeals solely because the Local Planning Authority based its decision on a direction given by him.

For detailed information on appeals, appeal types and guidance on the appeals process please visit:

<http://www.planningportal.gov.uk/planning/appeals/planningappeals>

Purchase Notices

If either the Local Planning Authority or the Secretary of State refuses permission to develop land or grant it subject to conditions the owner may claim that he can neither put the land to a reasonably beneficial use in its existing state nor can he render the land capable of a reasonably beneficial use by the carrying out of any development which has been or would be permitted.

In these circumstances the owner may serve a purchase notice on the Council in whose area the land is situated. This notice will require the Council to purchase his interest in the land in accordance with the provisions of the Part VI of the Town and Country Planning Act 1990 or Section 32 of the Planning (Listed Building and Conservation Areas) Act 1990.

Compensation

In certain circumstances compensation may be claimed from the Local Planning Authority if permission is refused or granted subject to conditions by the Secretary of State on appeal or on reference of the application to him.

These circumstances are set out in Section 114 and related provisions of the Town and Country Planning Act 1990 and Section 27 of the Planning (Listed Building and Conservation Areas) Act 1990.

APPENDIX V
Geomembrane Datasheet



Ekotex® geotextiles form part of the core geotextile range supplied by Geosynthetics Limited. The non woven range is thermally bonded and needle punched to give the fabrics increased performance characteristics.

The Ekotex® ranges are commonly specified as separation, protection, filtration and drainage geotextiles and regularly feature within our Engineering department's technical recommendations. Ekotex® is the non woven of choice throughout our reinforced working platforms, piling mats and gabion walls.

Due to the high demand within the market the white geotextile is currently stocked in a range of grades from 100g/m² up to 300g/m² and can be supplied in various widths. Heavier grades are available upon request. Technical support is available for anyone seeking assistance or guidance on suitability for a particular project or application.

Function

- Reinforcement
- Stabilisation
- Separation
- Filtration
- Drainage
- Protection

Application

- Roadways
- Car parks
- Haulage yard
- Working platforms
- Drainage systems
- Sports grounds

Ekotex® Range

Grade	Roll size
Ekotex® 06	4.5m x 10m (Pack) 2.25m x 50m 4.5m x 100m
Ekotex® 07	4.5m x 100m
Ekotex® 10	2.2m x 100m 4.5m x 100m
Ekotex® 12	2.2m x 100m 4.5m x 100m
Ekotex® 14	5m x 100m
Ekotex® 20	2.2m x 50m 5.5m x 80

APPENDIX VI

Conditions & Limitations

Conditions & Limitations

Phase I Desk Studies

1. Works undertaken to provide the basis of the Phase I Desk Study report comprise a review of information available from a number of sources/parties (potentially also including the Client) together with a walk over of the site (where applicable and included within the quotation). The opinions given in the Phase I Desk Study are based on the information available from third parties/sources that has been obtained within the available timeframe. GeoDyne Limited assumes all third party information to be true and correct and therefore cannot accept liability for the accuracy of such information supplied.
2. Should additional information become available that may affect the comments and opinions made within the Phase I Desk Study, GeoDyne Limited reserves the right to review such information and make modifications to comments/opinions as appropriate.
3. It should be borne in mind that a Phase I Desk Study collates available information to generate a conceptual model of the site. The actual geotechnical and environmental considerations can only be fully quantified by intrusive investigation works to confirm the accuracy of the conceptual site model.

Phase II Intrusive Investigations

1. Our quotation assumes that access to the site will be arranged by others at no cost to ourselves.
2. We have assumed that free access is available throughout to the entire site and that works can be undertaken during a single mobilisation. Where restricted access is encountered, or where additional unscheduled mobilisations are required, additional costs may be incurred to the client.
3. We have assumed that all available information relating to buried services will be supplied by the Client at no cost to ourselves. No responsibility will be accepted for damage to underground services that have not been brought to our prior attention by the Client.
4. All excavations/boreholes will be backfilled with compacted arisings upon completion, with any excess arisings left proud of ground levels. Excess arisings will not be removed from the site unless specifically requested by the Client. Where we are requested to remove excess arisings, all associated costs will be passed to the Client.
5. We will attempt to leave the site in a clean and tidy state, however, it must be understood that some disturbance of the site is unavoidable during intrusive works.
6. Exploratory holes are positioned approximately on site by GeoDyne Limited. Should the client require precise locations of all exploratory points, additional fees will be incurred. It must be borne in mind that backfilled trial pits can create 'soft spots', therefore, should the Client wish to designate 'no dig' zones, for example under the footprint of proposed structures, these must be brought to our attention prior to commencement of works.
7. Groundwater observations relate to conditions encountered at the time of investigation. It must be understood that groundwater levels may vary as a result of recent climatic conditions or seasonal variation.
8. Trial pits and boreholes examine only a small proportion of the total site area. No liability can be accepted for conditions not revealed in exploratory holes, particularly between positions. All extrapolations of available data are given in good faith.

Payment

1. Payment terms are strictly 28 days from the invoice date.
2. Prior to commencement of works, we require receipt of formal written instruction from the party accepting full financial responsibility for the work. In the absence of such an instruction, we would expect the instructing Consulting Engineers/Architects to accept full financial responsibility for the works.
3. Receipt of instruction to commence work shall be taken as acceptance and compliance of the foregoing conditions.

Liability

1. GeoDyne Limited offer £5,000,000.00 Professional Indemnity Insurance (in aggregate over the year). This shall be the limit of our liability for works undertaken. No individual liability shall be implied to, or accepted by, any employee for works undertaken for and on the behalf of GeoDyne Limited.