Dice

Beech Lodge – Care Home

Flood Risk Assessment

Ref: 101959-DCE-XX-XX-RP-C-5001

+44 (0) 115 952 8752
info@diceconsult.co.uk
diceconsult.co.uk

Beech Lodge– Care Home

Flood Risk Assessment

DATE: October 2025

REPORT REF: 101959-DCE-XX-XX-RP-C-5001

CLIENT: Country Court Care Group

ENGINEER: Dice Consulting Engineers Ltd
The Courtyard
Third Floor
35-37 St. Marys Gate
Nottingham
NG1 1PU

info@diceconsult.co.uk

+ 44 (0) 115 952 8752

Report Prepared By:



Jonathan Burstow
MSc (Hons)
Project Engineer

Report Approved By:



Natalie Pickford
MEng CEng MICE
Associate Director

Dice

+44 (0) 115 952 8752
info@diceconsult.co.uk
diceconsult.co.uk

DOCUMENT CONTROL SHEET

	Name	Position	Date
Prepared by	Jonathan Burstow	Project Engineer	10/10/2025
Reviewed by	Natalie Pickford	Associate Director	10/10/2025
Approved for release by	Natalie Pickford	Associate Director	10/10/2025

Issue	Revision	Status	Date
1	P01	First Issue	10/10/2025
2	P02	Updated Site layout	009/03/2026

COPYRIGHT

The contents of this document must not be copied or reproduced in whole or part without the written consent of Dice Consulting Engineers Ltd.

DISCLAIMER

The opinions and interpretations presented in this report represent our best technical interpretation of the data made available to us. However, due to uncertainty inherent in the estimation of all parameters, we cannot, and do not guarantee the accuracy or correctness of any interpretation and we shall not, except in the case of gross or wilful negligence on our part, be liable or responsible for any loss, cost, damages or expenses incurred or sustained by anyone resulting from any interpretation made by any of our officers, agents or employees. The findings and opinions expressed are relevant to the dates of the works and should not be relied upon to represent conditions at substantially later dates. If additional information becomes available which may affect our comments, conclusions or recommendations, the author reserves the right to review the information, reassess any new potential concerns and modify our opinions accordingly.

Except for the provision of professional services on a fee basis, Dice Consulting Engineers Ltd does not have a commercial arrangement with any person or company involved in the interests that are the subject of this report. Dice Consulting Engineers Ltd cannot accept any liability for the correctness, applicability or validity for the information they have provided, or indeed for any consequential costs or losses in this regard. Our efforts have been made on a “best endeavours” basis, and no responsibility or liability is warranted or accepted by Dice Consulting Engineers Ltd.

+44 (0) 115 952 8752
info@diceconsult.co.uk
diceconsult.co.uk

Contents

Executive Summary 2
1. Introduction 3
2. Site Description 5
3. Policies 8
4. Flood Risk to the Site 13
5. Flood Mitigation Measures 21
6. Flood Risk from the Development 23
7. Sustainable Drainage Features 25
8. Existing Drainage 27
9. Proposed Drainage Strategy 28
10. Conclusions 30
11. References 31

+44 (0) 115 952 8752
info@diceconsult.co.uk
diceconsult.co.uk

Executive Summary

Flood Risk

1.1.1. This Flood Risk Assessment (FRA) has been prepared by **Dice Consulting Engineers** on behalf of **Country Court Care Group** in support of a planning application for a proposed **extension to the existing Beech Lodge Care Home** at Frog's Abbey Gate, Holbeach St Johns. The purpose of this FRA is to assess all potential sources of flooding, evaluate the impact of the proposed development on flood risk, and demonstrate that appropriate mitigation and drainage measures are incorporated in accordance with the **National Planning Policy Framework (NPPF)** & **Planning Practice Guidance (PPG).**

1.1.2. The site is identified within **Flood Zone 3** on the Environment Agency's Flood Map for Planning; however, it benefits from substantial flood defences, which significantly reduce the actual risk of tidal and fluvial flooding. The assessment confirms that the site is at **low risk from all other sources of flooding**, including surface water, groundwater, sewer, and reservoir flooding.

1.1.3. The proposed development comprises a **modest extension to the existing care home facilities** to provide additional accommodation and improved care provision. The design incorporates a range of **flood resilience and drainage measures**, including setting finished floor levels a minimum of 150 mm above surrounding ground levels, maintaining safe access and egress routes, and implementing a **Sustainable Drainage System (SuDS)** to manage surface water on-site. Surface water runoff will be restricted to **8.9 litres per second**, representing a **betterment of more than 50%** compared to existing discharge rates.

1.1.4. The findings of this FRA confirm that the proposed development will remain **safe for its lifetime**, will **not increase flood risk** on-site or elsewhere, and meets all relevant **national and local planning policy requirements** relating to flood risk and sustainable drainage.

+44 (0) 115 952 8752
info@diceconsult.co.uk
diceconsult.co.uk

1. Introduction

1.1.1. Dice Consulting Engineers Ltd (Dice) has been commissioned by Country Court Care Group to undertake a Flood Risk Assessment (FRA) in support of a proposed extension to Beech Lodge Care Home, Frog's Abbey Gate, Holbeach St Johns.

1.1.2. This FRA has been carried out in accordance with the requirements of the National Planning Policy Framework (NPPF) (Ref. 4), Planning Practice Guidance (PPG) (Ref. 15) and the best practices in flood risk management.

1.1.3. The assessment has been prepared using our best engineering judgement. The report is based on the following information:

- National Planning Policy Framework (NPPF);
- Practical Guidance to the NPPF;
- Joint Lincolnshire Flood Risk and Water Management Strategy (2019);
- The South East Lincolnshire SFRA;
- Water Management Alliance Planning and Byelaw Strategy;
- Sewer records received from Anglian Water;
- Topographic and CCTV surveys;
- British Geological Survey Mapping;
- and, Environment Agency Flood Maps (EA) and records provided directly by the EA.

1.1.4. All comments and opinions contained in this report, including any conclusions, are based on the information available to Dice at the time of writing the report. The conclusions drawn by Dice could therefore differ if the information is found to be inaccurate, incomplete or misleading. Dice accepts no liability should this prove to be the case, or, if additional information exists or becomes available with respect to this site.

1.1.5. Dice has completed this report for the benefit of the organisations/individuals referred to in paragraph 1.1; and any relevant Statutory Authority which may require reference in relation to approvals for the proposed redevelopment of the site. Other

+44 (0) 115 952 8752
info@diceconsult.co.uk
diceconsult.co.uk

third parties should not use or rely upon the contents of the report unless written approval has been gained from Dice.

1.1.6. Dice accepts no responsibility or liability for:

a) the consequences of this documentation being used for any purpose or project other than that for which it was commissioned, and

b) this document to any third party with whom approval for use has not been agreed.

+44 (0) 115 952 8752
info@diceconsult.co.uk
diceconsult.co.uk

2. Site Description

2.1. Site Location and Surroundings

2.1.1. The site is located to the east of Frog's Abbey Gate and is bounded to the northeast and south by farmland. The site currently comprises 35 residential bedrooms, accommodating 37 residents (two are double bedrooms).

2.1.2. The site is located within South Holland District Council and Lincolnshire County Council, the latter of which acts as the Lead Local Flood Authority (LLFA) for the area.

2.1.3. The approximate location of the site is illustrated in **Figure 1**, and the proposed site layout can be found in **Appendix A**.



Figure 1: Site Location Plan

+44 (0) 115 952 8752
info@diceconsult.co.uk
diceconsult.co.uk

2.2. Topography

2.2.1. A topographic survey of the site has been conducted. This finds the sites highest point is at its western edge where it meets Frog's Abbey Gate. The road sits at 2.59mAOD, the existing car park at between 2.51mAOD and 2.33mAOD. The site is enclosed by a drainage ditch which bounds it to the north, east and south. To the north of the site this ditch has a cover level of 2.22mAOD, and an invert level of 1.79mAOD. To the east, the cover level sits at 2.29mAOD and the invert level at the lowest point of 1.04mAOD. At its most southern point, the ditch has a cover level of 2.41mAOD and an invert level of 1.22mAOD. A pipe is visible at this point and staff have commented that other outfalls have previously been visible.

2.3. Proposal

2.3.1. The proposed development involves the i expansion of the capacity of the care home which continues to see growing demand for spaces. The proposals would include an extension to the existing building, providing an additional 10 bedrooms, increasing the total on site to 45.

2.3.2. This would increase the existing impermeable area on site from 0.125ha to 0.224ha.

2.4. Geology

2.4.1. The 1:50,000 British Geological Survey (BGS) online mapping was reviewed to give an indication of the underlying ground conditions on site. The online mapping showed that the bedrock geology and superficial deposits were as follows:

2.4.2. Oxford Clay Formation - Mudstone. Sedimentary bedrock formed between 166.1 and 157.3 million years ago during the Jurassic period; and

2.4.3. Tidal Flat Deposits - Clay and silt. Sedimentary superficial deposit formed between 11.8 thousand years ago and the present during the Quaternary period.

2.5. Hydrology and Hydrogeology

2.5.1. The nearest watercourse to the site is located approximately 250m south of the site. This watercourse is a drainage ditch which runs west east, flowing into a watercourse

+44 (0) 115 952 8752
info@diceconsult.co.uk
diceconsult.co.uk

managed by the South Holland Internal Drainage Board (IDB). This watercourse F58 Sawford's Drain – North, runs south into South Holland Little Drain.

2.6. Existing Drainage

2.6.1. A CCTV survey has been conducted to assess the existing arrangements on site. This established that foul water is managed on site in a Treatment Plant, whilst surface water is discharged into a drainage ditch which encircles the site, before discharging out of the site at an uncontrolled rate to a drainage ditch to the south of the site. This ditch links with the South Holland Internal Drainage Board Network.

2.6.2. Anglian Water records have been searched to check that they do not have any Foul Water assets in proximity the site. These records may be seen in **Appendix B**. They demonstrate that there are no assets in proximity to the site.

2.6.3. The existing drainage arrangements are further discussed in Section 8.

2.7. Artificial Water Bodies

2.7.1. The Environment Agency's 'Flood Risk Summary' indicates that there is a risk from flooding from reservoirs in the area. However, it should be noted that this risk is very low and liable to only disrupt the lowest level of the site given that no reservoir is in proximity to the site. Any breach or failure would only raise the water level in proximity to the site, with no overland flow from the east.

+44 (0) 115 952 8752
info@diceconsult.co.uk
diceconsult.co.uk

3. Policies

3.1.1. This FRA has been carried out in accordance with the requirements of the National Planning Policy Framework (NPPF) (Ref. 4), Planning Practice Guidance (PPG) (Ref. 15) and the best practices in flood risk management.

3.2. National Planning Policy Framework (NPPF)

3.2.1. The National Planning Policy Framework (Ref. 4) sets out the Government's objectives for the planning system and how there should be a 'Presumption in Favour of Sustainable Development' and the planning system should facilitate and promote sustainable patterns of development, avoiding flood risk and accommodating the impacts of climate change. The document seeks to ensure that flood risk is considered at all stages in the planning process to avoid inappropriate development in areas at risk of flooding, and to direct development away from areas at highest risk. Reference should also be made to the Planning Practice Guidance (Ref. 15) which provides additional guidance on flood risk.

3.2.2. The NPPF states that when determining planning applications in areas of flood risk Local Planning Authorities must ensure that flood risk is not increased elsewhere and only consider developments appropriate where a site-specific FRA can demonstrate that:

- within the site, the most vulnerable development is located in areas of lowest flood risk unless there are overriding reasons to prefer a different location; and
- development is appropriately flood resilient and resistant, including safe access and egress, where required, and that any residual risk can be safely managed, including by emergency planning; and it gives priority to the use of sustainable drainage features.

3.2.3. For the purposes of applying the National Planning Policy Framework, areas at risk from all sources of flooding are included. For fluvial (river) and sea flooding, this is principally land within Flood Zones 2 and 3. It can also include an area within Flood Zone 1 which the Environment Agency has notified the local planning authority as having critical drainage problems.

+44 (0) 115 952 8752
info@diceconsult.co.uk
diceconsult.co.uk

3.2.4. The Flood and Water Management Act helps improve flood risk management and ensure the security of water supplies in England and Wales. This updates legislation to ensure better protection from flooding, manage water more sustainably, improve public services, and secure water resources during periods of drought.

3.2.5. The Flood and Water Management Act helps to reduce flood risk by:

- Clarifying who is responsible for managing all sources of flood risk;
- Encourage more sustainable forms of drainage in new developments;
- Makes it easier to resolve misconnections to sewers.

3.3. Flood and Water Management Act 2010

3.3.1. The Flood and Water Management Act imparts significant new roles and responsibilities on local authorities. County or unitary authorities are now classed as lead local flood authorities (LLFAs) who have responsibilities for managing local flood risk.

3.3.2. The responsibilities of a LLFA include:

- Prepare and maintain a strategy for local flood risk management in their areas; coordinating views and activity with other local bodies; and communities through public consultation and scrutiny, and delivery planning;
- Maintain a register of assets – these are physical features that have a significant effect on flooding in their area;
- Investigate significant local flooding incidents and publish the results of such investigations;
- Issue consents for altering, removing, or replacing certain structures or features on ordinary watercourses;
- Play a lead role in emergency planning and recovery after a flood event.

3.4. Planning Practice Guidance on Flood Risk & Coastal Change – 2022

3.4.1. The Government's planning policy on sustainable drainage systems came into effect on 22 August 2022. It centres on local planning policies and decisions on planning applications relating to major development (those of 10 or more dwellings; or equivalent non-residential; or mixed developments). It ensures that sustainable

+44 (0) 115 952 8752
info@diceconsult.co.uk
diceconsult.co.uk

drainage systems for the management of run-off are put in place, unless demonstrated to be inappropriate. Lead Local Flood Authorities (LLFAs) have also been made statutory consultees and new non-statutory guidance has been published under the changes.

3.4.2. The changes follow a joint DEFRA/DCLG consultation on delivering SuDS published in September 2014 in which the Government dropped all the key provisions of Schedule 3 of the Flood & Water Management Act 2010 and SuDS Approval Bodies (SABs) in favour of passing oversight of SuDS from county councils (who are also LLFAs) to local planning authorities. According to the new planning policy, the following are expected of local planning authorities when considering planning applications:

- To consult the relevant lead local flood authority on the management of surface water;
- To satisfy themselves that the proposed minimum standards of operation are appropriate;
- To ensure, using planning conditions or planning obligations, that there are clear arrangements in place for ongoing maintenance over the lifetime of the development.

3.4.3. The policy also states that the sustainable drainage systems should be designed to ensure that the maintenance and operation requirements are economically proportionate.

3.5. Sustainable Drainage Systems - Non-statutory technical standards for sustainable drainage systems -2022

3.5.1. The non-statutory technical standards for the design, maintenance and operation of sustainable drainage systems to drain surface water have been published by DEFRA. The standards apply to systems that drain surface water from housing, non-residential, or mixed-use developments for the lifetime of the developments. The non-statutory technical standards are to be used in conjunction with the National

+44 (0) 115 952 8752
info@diceconsult.co.uk
diceconsult.co.uk

Planning Policy Framework, and Planning Practice Guidance on Flood Risk & Coastal Change - 2022.

3.5.2. The National Planning Policy Framework (NPPF) requires that Local Plans should be supported by a Strategic Flood Risk Assessment (SFRA). The SFRA identifies areas that may flood, considering all potential sources of flooding. It is used to inform planning policies and assist Local Planning Authorities in directing new development to areas of lower flood risk and ensure that new development helps to manage flood risk.

3.6. Lincolnshire County Council Preliminary Flood Risk Assessment (PFRA)

3.6.1. Lincolnshire County Council created its PFRA in 2011. The PFRA looks at flood risks from surface water, groundwater, smaller rivers and groundwater but not from main rivers or the sea. The report found that 2.5% of properties were at risk of surface water flooding. The PFRA was developed to inform a local flood risk strategy.

3.7. Joint Lincolnshire Flood Risk and Water Management Strategy FRWMS (2019 – 2050)

3.7.1. The FRWMS was developed to tackle flooding and water management challenges across Lincolnshire through a shared approach. It brings together local authorities, the Environment Agency, Internal Drainage Boards, and water companies to work towards long-term resilience. The document sets out a vision to better protect people, places, and infrastructure from flood risks up to the year 2050, reflecting the growing pressures of climate change, urban growth, and aging infrastructure.

3.7.2. The strategy focuses on reducing flood risk, improving how water is managed across the county, and strengthening communities' ability to cope with flooding. It outlines seven key ambitions, including smarter water use, stronger infrastructure, better planning, and increased community involvement. The strategy is intended to be a long-term plan that aims to make Lincolnshire more resilient over time.

3.7.3. The strategy seeks to integrate flood risk management into planning. It highlights the need to account for flood risk and water management at an early stage of planning.

+44 (0) 115 952 8752
info@diceconsult.co.uk
diceconsult.co.uk

3.8. South Holland Internal Drainage Board

3.8.1. The proposed development lies within the South Holland Internal Drainage Board (SHIDB) district, part of the Water Management Alliance, and is therefore subject to the Land Drainage Act 1991 and the Board's Byelaws. In accordance with SHIDB policy, no works are proposed within 9 metres of any adopted watercourse or Board-maintained drain without the Board's prior written consent. The design of the drainage strategy has been developed to ensure that surface water discharge from the site will not increase flood risk to people, property, or infrastructure within the catchment. Surface water will be attenuated at a reduced runoff compared to the existing runoff rate prior to discharge towards their network, ensuring that post-development flows do not exceed pre-development conditions. All drainage proposals comply with SHIDB requirements for sustainable and maintainable systems, and the necessary land drainage consents will be obtained before works commence.

+44 (0) 115 952 8752
info@diceconsult.co.uk
diceconsult.co.uk

4. Flood Risk to the Site

4.1. Flood Data

4.1.1. The Flood Map for Planning shows that Flood Zone 3 extends for kilometres in all directions from and around the site, with only a handful of isolated areas of farmland.

4.1.2. The Long-Term Flood Risk Map, including Flood Risk from Rivers and Sea, Flood Risk from Surface Water and Flood Risk from Reservoirs have also been examined.

4.1.3. The Residual Peak Depth South Holland 2115 1% Fluvial/0.5% Tidal Event Probability map prepared for South Holland District Council and Appendix C guidance from the South Lincolnshire SFRA has been examined.

4.1.4. Following a request for data, the EA have confirmed that there have been no flood events recorded at the site or in the immediate vicinity of the site.

4.1.5. Neither the South Lincolnshire SFRA nor Lincolnshire PFRA make a reference to flood history at the site.

4.2. Fluvial and Tidal Flood Sources

4.2.1. The site has been checked in accordance with the Flood Map for Planning, which provides guidance on fluvial and tidal flood risk. An extract of this is shown in **Figure 2** below. This shows that the site is entirely located within Flood Zone 3. This map does not account for Flood Defences. Given the low-lying nature of the Fens this exclusion means that the site and most surrounding areas are at risk.

+44 (0) 115 952 8752
info@diceconsult.co.uk
diceconsult.co.uk



Figure 2: Environment Agency Flood Map for Planning

4.2.2. The Flood Risk from Rivers and Sea map has also been assessed. This data acknowledges the presence of flood defences and shows the site to be within an area of 'Low' Flood Risk, meaning a risk of flooding between 0.1% and 1% each year. An extract of this data may be seen in **Figure 3**.

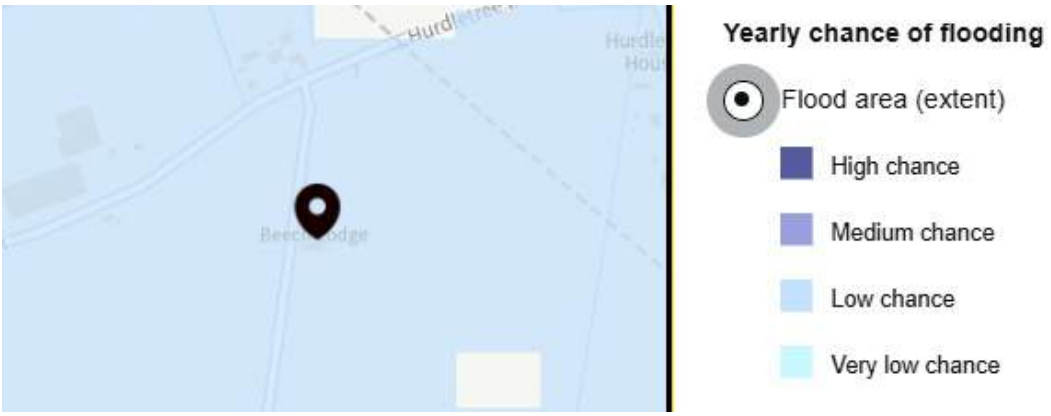


Figure 3: Environment Agency Flood Risk from Rivers and Sea

+44 (0) 115 952 8752
info@diceconsult.co.uk
diceconsult.co.uk

4.2.3. **Figure 4** below shows a wider view of the Flood Zones around the site. it demonstrates that the majority of South Holland is located within Flood Zone 3. If strict adherence to the guidelines was followed, development would become near impossible in much of the region. To prevent this, the South East Lincolnshire SFRA has been framed to ensure that there is sufficient information around which to base design decisions. Maps within the SFRA have been used to further guide understanding of risk to the site. The Residual Peak Depth, South Holland, 2115 1% Fluvial/ 0.5% Tidal Event Probability map has been assessed. This forecasts both the consequences of a defences breach and the effect of climate change over the next 100 years. An extract of this map may be seen in **Figure 5**. A copy of the map may be seen in **Appendix C**.

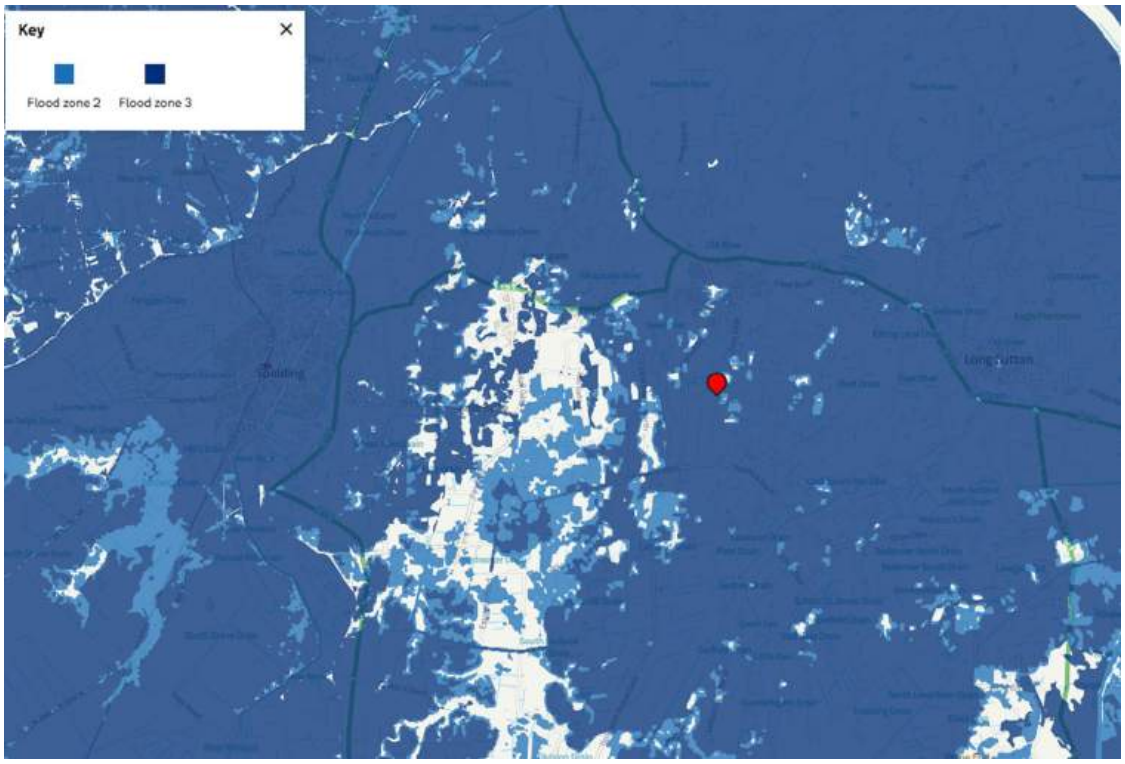


Figure 4: Environment Agency Flood Map for Planning

+44 (0) 115 952 8752
info@diceconsult.co.uk
diceconsult.co.uk

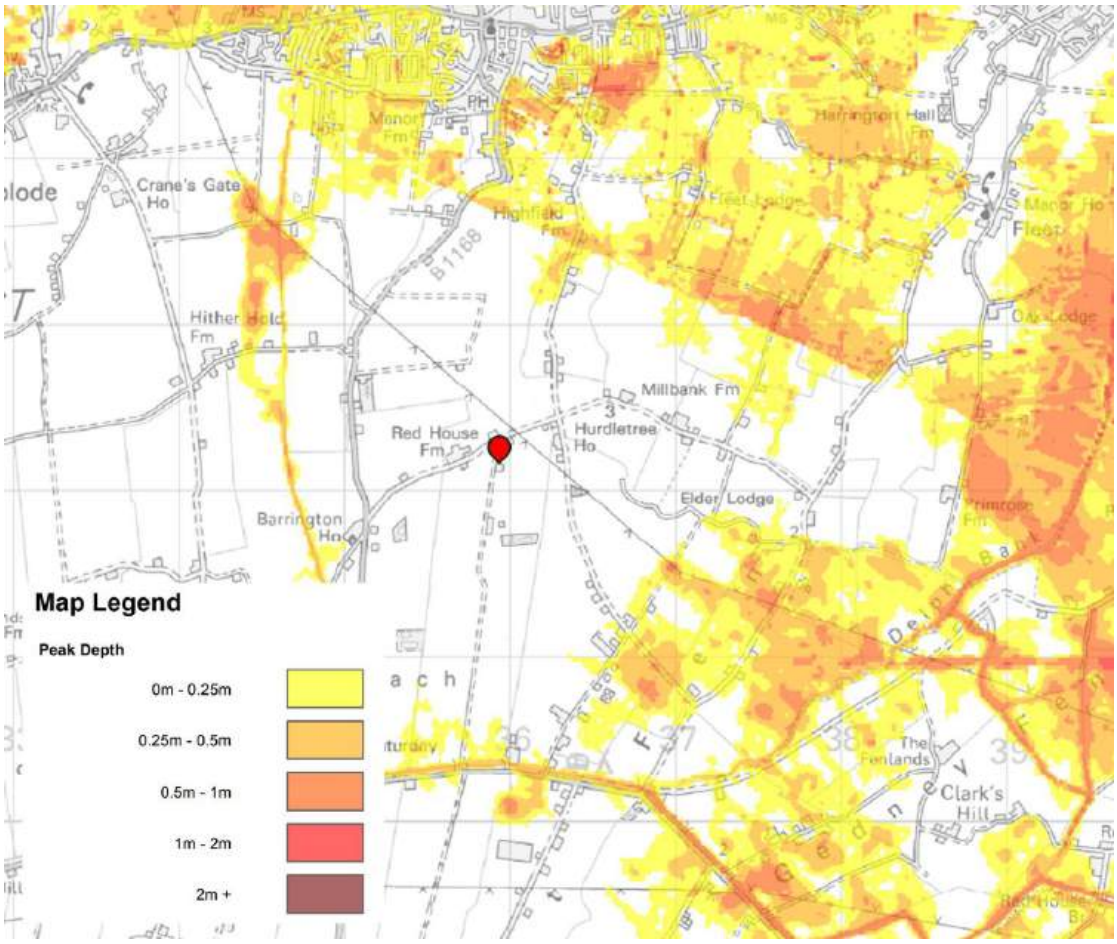


Figure 5: Extract from Residual Peak Depth, South Holland, 2115 1% Fluvial/ 0.5% Tidal Event Probability SFRA map

4.2.4. As demonstrated in Figure 5, no part of the site is at risk of Tidal or Fluvial Flooding. Appendix C of the South East Lincolnshire SFRA provides guidance on Finished Floor Levels based on the different depths of flooding established in **Figure 5**. However given the site is not in an area identified at risk, this application is not required. As such an FFL of 150mm above ground level is proposed.

4.3. Sequential and Exception Test

4.3.1. As the proposed site has a 'more vulnerable' use and is located within Flood Zone 3, both a Sequential Test and an Exception Test are required. This is in accordance with Table 2 of the National Planning Practice Guidance, an extract of which is provided in **Table 1**.

+44 (0) 115 952 8752
info@diceconsult.co.uk
diceconsult.co.uk

Flood Risk Vulnerability classification	Essential Infrastructure	Water compatible	Highly Vulnerable	More Vulnerable	Less Vulnerable
Zone 1	✓	✓	✓	✓	✓
Zone 2	✓	✓	Exception Test Required	✓	✓
Zone 3a	Exception Test Required	✓	x	Exception Test Required	✓
Zone 3b 'Functional Floodplain'	Exception Test Required	✓	x	x	x

Table 1: Copy of Table 2 (Flood Risk Vulnerability and Flood Zone 'compatibility') from the National Planning Practice Guidance (Ref. 15)

Sequential Test

4.3.2. The site is an existing care home. The proposed development is an expansion of an established facility rather than the creation of a new site. As such it is not contrary to the NPPF. Relocation to a site in a lower flood zone would not be practical nor sustainable, being no longer an extension of an existing site but a wholly new facility with different requirements.

4.3.3. Furthermore, as demonstrated in Section 4.2, the South East Lincolnshire Strategic Flood Risk Assessment (SFRA) indicates that the site itself is not at risk of flooding despite its Flood Zone 3 designation, which demonstrates that development here does not conflict with the overall objectives of directing vulnerable uses away from areas of greatest flood hazard. On this basis, it is considered that there are no reasonably available alternative sites in lower flood zones, and the Sequential Test is satisfied.

Exception Test

4.3.4. The Exception Test requires evidence that the proposed development provides wider sustainability benefits that outweigh flood risk, and that it can be made safe for its lifetime without increasing flood risk elsewhere.

+44 (0) 115 952 8752
info@diceconsult.co.uk
diceconsult.co.uk

4.3.5. The proposed expansion provides significant community benefits, including increased capacity for elderly and vulnerable residents in the area, supporting local employment and enhancing local social infrastructure. Furthermore, providing one enlarged site rather than establishing a new site requires less development of infrastructure, and allows for skills, staff and resources to be concentrated. Greater staff numbers at one site also increases opportunities for car sharing.

4.3.6. Further to this, and as highlighted in the sequential test, the South East Lincolnshire SFRA confirms that the site itself is not at risk of flooding, and the design will incorporate appropriate resilience measures, floor level management, and sustainable drainage features to ensure the development remains safe and does not increase flood risk elsewhere. On this basis, the proposal clearly delivers sustainability benefits and can be made safe from flood risk, and therefore passes the Exception Test.

4.4. Pluvial Sources/ Surface Water Flooding

4.4.1. Pluvial flooding occurs when natural and engineered systems have insufficient capacity to deal with the volume of rainfall. Pluvial flooding can sometimes occur in urban areas during an extreme, high intensity, low duration summer rainfall event which overwhelms the local surface water drainage systems, or in rural areas during medium intensity, long duration events where saturated ground conditions prevent infiltration into the subsoil. This flood water would then be conveyed via overland flow routes dictated by the local topography.

4.4.2. The Environment Agency (EA) “Flood Map for Planning” map indicates that the site is at some risk of flooding in both the 1 in 30-year scenario or the 1 in 100-year scenario. Extracts of these flood maps may be seen in **Figure 6**.

+44 (0) 115 952 8752
info@diceconsult.co.uk
diceconsult.co.uk



Figure 6: EA Flood Map for Planning (Surface water). 1 in 30 Left, 1 in 100 Right.

4.4.3. Reviewing the data the area around the site indicated at risk of surface water flooding are those low-lying areas where water would naturally accumulate in extreme rainfall events. Given this, the flooding of the ditch around the site should not be seen in a negative light, rather as a feature of the existing sites water management.

4.5. Sewer Sources

4.5.1. As established in the sewer record searches conducted for the site, there are no sewers in proximity to the site. Given this there is no risk from public infrastructure. As long as the existing and proposed foul water management systems are properly maintained no increased risk should be anticipated.

4.6. Tidal/Coastal

4.6.1. The site is not coastal and is not affected by coastal or tidal flooding.

4.7. Groundwater Sources

4.7.1. Groundwater flooding occurs as a result of water rising from the underlying aquifer or from water flowing from abnormal springs. This can occur after long periods of sustained high rainfall, and the areas at most risk are often low-lying where the water table is more likely to be at shallow depth. Groundwater flooding is known to occur in areas underlain by major aquifers, although increasingly it is also being associated with more localised floodplain soils. The site is not located above any form of aquifer

+44 (0) 115 952 8752
info@diceconsult.co.uk
diceconsult.co.uk

4.7.2. The EA currently does not provide a groundwater flood risk map. However, they do provide a Flood Risk Summary which specifies that flooding from groundwater is unlikely in the site area.

+44 (0) 115 952 8752
info@diceconsult.co.uk
diceconsult.co.uk

5. Flood Mitigation Measures

5.1.1. As established in Section 4.2, although the site is identified in the Flood Map for Planning as being in Flood Zone 3, this map does not take into account the defences that protect the Fens. As such the Southeast Lincolnshire SFRA and its guidance have been used to assess appropriate and proportionate mitigation measures.

5.1.2. As highlighted in Section 4.2 the site is not at risk of flooding from fluvial or tidal sources. As such the mitigation requirements for the site are limited. Appendix C of the SFRA indicates that for developments not at risk, a finished floor level of 150mm is sufficient.

5.1.3. All new developments are required to provide safe access and egress during a flood event, as indicated in Chapter 13 of the DEFRA Flood Risk Assessment Guidance for New Development- Technical report (FD2320/TR2). The requirements for new developments in areas in flood risk are as follows, listed in order of preference:

- **Safe dry route for people and vehicles;**
- **If a dry route for people is not possible, a route for people, where the flood hazard is low (in terms of depth and velocity) and should not cause a risk to people;**
- **If a dry route for vehicles is not possible, a route for vehicles where the flood hazard is low (in terms of depth and velocity) to permit access for emergency vehicles. However, the public should not drive vehicles in floodwater.**

5.1.1. Following the above, the proposed site is not at risk of flooding as established in the South East Lincolnshire SFRA. As such all routes west out of the building are safe and dry.

5.1.2. Limited flood mitigation measures are proposed, given that the site is not at risk from flooding. As such some of the following are achieved with no specific arrangements required:

- All critical plant will be being located in areas where flood waters are unable to reach or where the plant can be protected;
- The proposed building will have appropriate finished floor levels;

+44 (0) 115 952 8752
info@diceconsult.co.uk
diceconsult.co.uk

- The development operators should be signed up for flood warnings such that they may inform residents of the hazards and the potential impact on their travel. A Flood Warning and a Management Plan will be prepared to document the actions to take in the event of a flood to ensure access to key facilities is maintained.
- The introduction of SuDS into the site as a feature of the Drainage Strategy.

+44 (0) 115 952 8752
info@diceconsult.co.uk
diceconsult.co.uk

6. Flood Risk from the Development

6.1.1. The requirements of a Site-Specific Flood Risk Assessment, as outlined in the National Planning Practice Guidance (Ref. 15), should assess the following off-site impacts.

- How will it be ensured that the proposed development and the measures to protect the site from flooding will not increase flood risk elsewhere?
- How will run-off from the completed development be prevented from causing an impact elsewhere?

6.1.2. The information provided by the EA contains tables showing anticipated climate change allowances for peak rainfall in the site location by type of development. For the 100 year+ design life of a residential development, for the Welland Management Catchment the 40% climate change factor should be applied to the 1 in 100-year storm (1%) and 35% applied to the 1 in 30-year storm (3.3%). A copy of the climate change table can be seen in **Figure 4**.

+44 (0) 115 952 8752
info@diceconsult.co.uk
diceconsult.co.uk

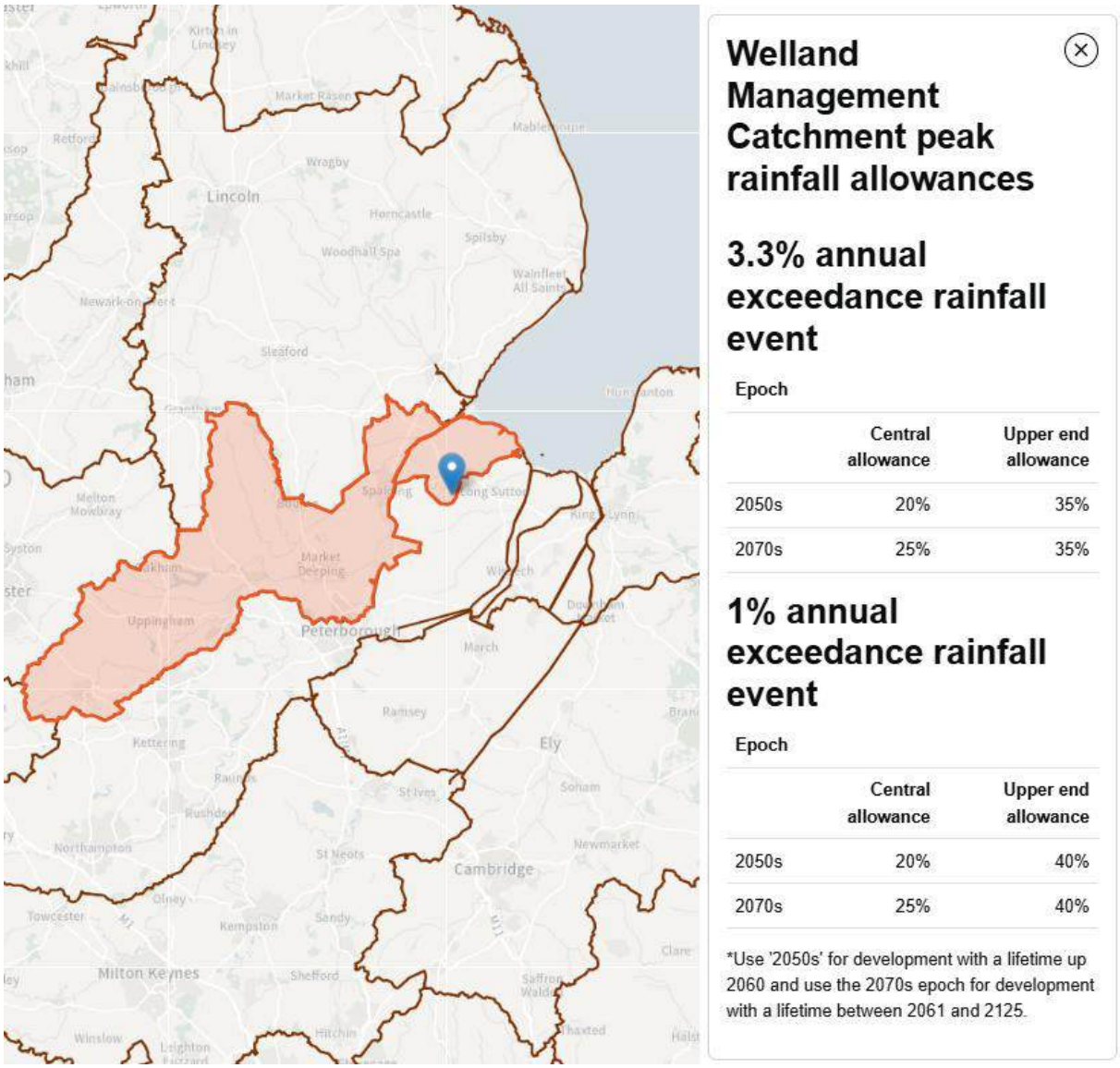


Figure 4: Environment Agency Surface Water Flood Map

6.1.3. Following the above, if new drainage infrastructure is required as part of any new developments on site, the drainage calculations will need to include 35% and 40% allowance for climate change for the 1 in 30 years and the 1 in 100 years events, respectively.

+44 (0) 115 952 8752
info@diceconsult.co.uk
diceconsult.co.uk

7. Sustainable Drainage Features

7.1.1. Surface water arising from a developed site should, as far as practical, be managed in a sustainable manner to mimic the surface water flows arising from the undeveloped site.

7.1.2. Part H of the Building Regulations 2015 recommends that surface water run-off shall discharge to one of the following, listed in order of priority:

- an adequate soakaway or some other adequate infiltration system, or where that is not reasonably practicable,
- a watercourse, or, where that is not reasonably practicable,
- a sewer.

7.1.3. Disposal of surface water run-off by the preferred method of infiltration is subject to appropriate soil conditions. The site is located above clay which is not compatible with infiltration. Furthermore, the low-lying nature of the site means a higher water table. As such this infiltration has been discounted.

7.1.4. The nearest watercourse is an unnamed drainage ditch to the south of the site. This runs east towards a drainage ditch operated by South Holland IDB.

7.1.5. The National Standards Sustainable Drainage Systems - Non-statutory technical standards for sustainable drainage systems – March 2015 that deals with SuDS covers the whole range of sustainable approaches to surface water drainage management including:

- Source control measures including rainwater recycling;
- Infiltration devices to allow water to soak into the ground, that can include individual soakaways and communal facilities;
- Filter strips and swales, which are vegetated features that hold and drain water downhill mimicking natural drainage patterns;
- Filter drains and porous pavements to allow rainwater and run-off to infiltrate into permeable material below ground and provide storage if needed; and
- Basins and ponds to hold excess water after rain and allow controlled discharge that avoids flooding.

+44 (0) 115 952 8752
info@diceconsult.co.uk
diceconsult.co.uk

7.1.6. Each of the SuDS considerations listed above are discussed below with reference to their potential suitability for the proposed development, once proposals are clear.

SuDS Measures	Component	Feasibility for the site	Issues/ Description
Source Control	Rainwater Harvesting	Yes	This may be applied in the form of water butts which may be used in gardening.
Infiltration Devices	Permeable paving	Yes	Permeable paving is considered feasible to be utilised as a filtration and storage feature but not for infiltration purposes.
	Private soakaways	No	Inappropriate geology precludes this option.
Filtration	Open Swales	Yes	To be employed to south and east of the site.
	Filter Drains	No	Sufficient filtration provided to the south of the site
Retention/ Detention	Detention Basins	No	Insufficient space, swales to provide this function.
	Attenuation Ponds	No	Insufficient space, swales to provide this function.

+44 (0) 115 952 8752
info@diceconsult.co.uk
diceconsult.co.uk

8. Existing Drainage

8.1.1. The existing site has had both Topographic and CCTV surveys conducted to understand the existing arrangement of drainage systems on site. The results of both of these surveys may be seen in **Appendix D** and E. Further to this, Anglian Water sewer records have been acquired. These are attached in **Appendix B** and demonstrate that no existing Foul or Surface Water sewers are in operation in proximity to the site.

Foul Water Management

8.1.2. Currently the foul water arrangements serve 37 residents, 8 full time staff with 1 forty litre wash each day.

8.1.3. The CCTV records demonstrate that foul water is all channelled to a sewage treatment plant in the northwest of the site. This Treatment Plant was installed in 2014 and is designed for 50 people. Given this, it does not have capacity for the increase in residents and staff.

Surface Water Management

8.1.4. Surface water for both the building and parking areas is channelled, at different points around the existing, into a swale, which bounds the existing site to the north, east and south. From a point at the south west of the site (linking with the Swale), a 150mm pipe has been identified running southwards, acting as a flow limiter on the outfall. There does not appear to be any other form of flow control, i.e. orifice plate or hydrobrake.

8.1.5. This run links the site with a drainage ditch approximately 250m south of the site. This ditch in turn links with a South Holland Internal Drainage Board drain. This drain, which runs southbound, is identified on the South Holland Internal Drainage Board website as 'F58 Sawford's Drain – North'.

8.1.6. The existing site has an impermeable area of 0.125ha. It has been modelled in causeway flow to identify the existing runoff rate from the site. This found that in the 1 in 2-year scenario the site has a runoff rate of 19.3l/s.

+44 (0) 115 952 8752
info@diceconsult.co.uk
diceconsult.co.uk

9. Proposed Drainage Strategy

9.1. Introduction

9.1.1. The proposed development will increase the impermeable area of the site from 0.125ha to 0.225ha, approximately a 0.010ha increase. The number of staff and residents will grow from 8 and 37 respectively to 12 and 47.

9.1.2. The proposals for the site are to retain the existing arrangements where possible, utilising the existing surface water storage available in drainage ditches, and providing further storage in new swales, permeable paving and rain gardens. The existing foul water Treatment Plant will be retained, with a new Treatment Plan installed to the south to meet the needs of the new occupants.

9.1.3. The proposed Drainage Strategy may be seen in **Appendix F**. The following sections expand upon the reasoning and justification for proposals

9.2. Foul Water Management

9.2.1. As established in Section 8, no foul water sewers are available in proximity to the site, and there is an existing Treatment Plant in operation on the site. This existing tank does not have capacity for further flows and is too shallow to connect with. As such a new Treatment Plant is to be installed.

9.2.2. The proposed site will increase staff and resident numbers by 4 and 10 respectively. A Klargester Foul Treatment Plant is proposed to manage this waste. The proposed unit may be seen in **Appendix G.**

9.3. Surface Water Management

9.3.1. As identified in Section 8, existing surface water is directed to the south of the site, from which it is conveyed south to a drainage ditch.

9.3.2. The proposed site will continue to use SUDS techniques for the disposal of surface water run-off. The SUDS hierarchy requires a review of infiltration as an option for surface water drainage. As identified in Section 3, the site is located above a bedrock of clay, with superficial tidal deposits of clay and silt. Furthermore, its level,

+44 (0) 115 952 8752
info@diceconsult.co.uk
diceconsult.co.uk

only 2.6m AOD at its highest point, mean that the water table is likely to be high, further precluding infiltration.

9.3.3. Second in the SUDS drainage hierarchy is discharge to a watercourse. This is the existing arrangement and will be utilised in the proposed Drainage Strategy.

9.3.4. The site will continue to be enclosed to the north, east and south by a swale/ drainage ditch. Rainwater pipes on the northern, eastern and southern side of the building will drain directly into this swale. Where a section of the existing swale is to be lost, a new rain garden will be installed to provide attenuation. This and permeable paving in the car park will provide additional attenuation.

9.3.5. Water will discharge from the site at 8.9l/s. This is greater than a 50% betterment on the existing discharge rate from the site.

+44 (0) 115 952 8752
info@diceconsult.co.uk
diceconsult.co.uk

10. Conclusions

10.1. Conclusions

10.1.1. Dice Consulting Engineers Ltd (Dice) has been commissioned by Country Court to undertake a Flood Risk Assessment (FRA) for an extension to an existing care home.

10.1.2. This FRA has reviewed all potential sources of flooding to the proposed extension of Beech Lodge Care Home, Frog's Abbey Gate, Holbeach St Johns. The site lies within Flood Zone 3 according to the Environment Agency's Flood Map for Planning; however, the South East Lincolnshire Strategic Flood Risk Assessment confirms that the site itself is not at risk of tidal or fluvial flooding due to the presence of extensive flood defences protecting the South Holland District. The site is also at low risk from surface water, groundwater, sewer, and reservoir flooding.

10.1.3. The Sequential and Exception Tests have been applied and passed. The development constitutes an intensification of an existing use rather than new development in an undeveloped area, and relocation to a site of lower flood risk would not be feasible or sustainable. The proposal delivers significant social and community benefits, providing additional capacity for residents and employment opportunities, while remaining safe and resilient to flooding for its lifetime.

10.1.4. Limited flood mitigations are proposed, given that the site is not at risk from flooding. As such some of the following are achieved with no specific arrangements required:

- All critical plant will be being located in areas where flood waters are unable to reach or where the plant can be protected;
- The proposed building will have appropriate finished floor levels;
- The development operators should be signed up for flood warnings such that they may inform staff of the hazards in the event of the failure of flood defences.
- The introduction of SuDS into the site as a feature of the Drainage Strategy.

+44 (0) 115 952 8752
info@diceconsult.co.uk
diceconsult.co.uk

11. References

1. The following documents have been referred to in this report: The Building Regulations 2015 Approved Document H
2. Design and Construction Guidance – Version 2.2 June 2022
3. Civil Engineering Specification for the Water Industry, 7th Edition
4. National Planning Policy Framework (NPPF) – March 2021
5. Environment Agency Flood Risk Standing Advice
6. Environment Agency 'Flood Risk Assessments – Climate Change Allowances' – May 2022
7. The SuDS Manual – CIRIA C753
8. Interim Code of Practice for Sustainable Drainage Systems – National SuDS Working Group, July 2004
9. British Geological Survey – Geology of Britain viewer http://mapapps.bgs.ac.uk /geologyofbritain/home.html
10. Design and analysis of urban storm drainage. The Wallingford Procedure Vol.1
11. Institute of Hydrology Report No. 124 – Flood Estimation for small catchments
12. Flood and Water Management Act 2010
13. Water Industry Act 1999
14. Sustainable Drainage Systems - Non-statutory technical standards for sustainable drainage systems – March 2015
15. Planning Practice Guidance – Flood Risk and Coastal Change, updated August 2022.
16. Environment Agency web based interactive maps, http://maps.environemt-agency.gov.uk
17. Lincolnshire County Council Preliminary Flood Risk Assessment – 2011 (PFRA);
18. Joint Lincolnshire Flood Risk and Water Management Strategy – 2019 (FRWMS)
19. Environment Agency Risk of Surface Water Flooding data

+44 (0) 115 952 8752
info@diceconsult.co.uk
diceconsult.co.uk

Appendix A

N

0 30m 50m

FOR PLANNING PURPOSES ONLY



(10) 002

Proposed Site Plan

1 : 500

Date	Rev	Comment
20.02.2026	3E	Amended to clients comments
08.12.2025	3D	Swale added. Sprinkler store/ Oil tank/ Red line boundary amended
26.08.2025	3C	Red line boundary amended
11.08.2025	3B	Visibility splays added
30.10.2024	3A	Planning Issue

Client: Country Court Care

Project Title: Proposed two storey extension to Beech Lodge Care Home, Frog's Abbeygate, Holbech, PE12 8QJ

Drawing Title: Proposed Site Plan

Size: A3

Status: Stage 3

Scale: 1 : 500

Date: 20.02.2026

Project No. 0451

Drawing No. 002

Rev: 3E

Series: 10

LINESTYLE STUDIO
4 Pelham Court
Pelham Road
Nottingham NG5 1AP
+44 (0)115 727 0559
design@linestyle.co.uk
www.linestyle.co.uk

Dimensions and levels to be checked on site. The title, copyright and confidential information in this document belongs to LineStyle Studio. All rights reserved. You may not reproduce this document or disclose it to others without the written consent of LineStyle Studio

+44 (0) 115 952 8752
info@diceconsult.co.uk
diceconsult.co.uk

Appendix B



digdat
Ordnance Survey © Crown Copyright, AC0000806827
There are no assets within this map area

(c) Crown copyright and database rights 2025 Ordnance Survey AC0000813445 | Date: 05/08/25 | Scale: 1:1250 | Map Centre: 535902,322154 | Data updated: 01/07/25 | Our Ref: 1843256 - 1 | Wastewater Plan A2 Powered by digdat

This plan is provided by Anglian Water pursuant its obligations under the Water Industry Act 1991 sections 198 or 199. It must be used in conjunction with any search results attached. The information on this plan is based on data currently recorded but position must be regarded as approximate. Service pipes, private sewers and drains are generally not shown. Users of this map are strongly advised to commission their own survey of the area shown on the plan before carrying out any works. The actual position of all apparatus MUST be established by trial holes. No liability whatsoever, including liability for negligence, is accepted by Anglian Water for any error or inaccuracy or omission, including the failure to accurately record, or record at all, the location of any water main, discharge pipe, sewer or disposal main or any item of apparatus. This information is valid for the date printed. This plan is produced by Anglian Water Services Limited (c) Crown copyright and database rights 2025 Ordnance Survey AC0000813445.This map is to be used for the purposes of viewing the location of Anglian Water plant only. Any other uses of the map data or further copies is not permitted. This notice is not intended to exclude or restrict liability for death or personal injury resulting from negligence.

Foul Sewer
Surface Sewer
Combined Sewer
Final Effluent
Rising Main*
Private Sewer*
Decommissioned Sewer*
Outfall*
Inlet*
Manhole*
Sewage Treatment Works
Public Pumping Station
Decommissioned Pumping Station
*(Colour denotes effluent type)

jonathan.burstow@diceconsult.co.uk
101957

love every drop anglianwater

Manhole Reference	Liquid Type	Cover Level	Invert Level	Depth to Invert

Manhole Reference	Liquid Type	Cover Level	Invert Level	Depth to Invert

Manhole Reference	Liquid Type	Cover Level	Invert Level	Depth to Invert

Manhole Reference	Liquid Type	Cover Level	Invert Level	Depth to Invert

+44 (0) 115 952 8752
info@diceconsult.co.uk
diceconsult.co.uk

Appendix C

N

NOTES

1. The potential flooding consequences shown on this map primarily relate to flooding from the sea and main rivers taking into account the presence of current flood risk management measures such as flood defences.

2. This update only included new flood risk information from River Welland (Fluvial), River Glen (Fluvial) and Tidal hazard mapping (River Welland, River Nene and the Wash sea defences). No new information from the Internal Drainage Boards and associated systems was used for this update.

3. In addition to the potential flood extents shown on this map, there may be shallow flooding in low-lying rural areas

4. The consequences designated as being a Residual Risk arise from direct overtopping of defences, where this would occur, together with breach failure which is assumed could occur at any point along the defences.

5. Functional Floodplain encompasses areas where water is intended to flow or be stored in times of flood.

6. Land outside South Holland District is not considered.

7. This map shows the extents only of the flooding probability bands relevant to the map Title

Map Legend

Peak Depth

- 0m - 0.25m
- 0.25m - 0.5m
- 0.5m - 1m
- 1m - 2m
- 2m +
- Functional Floodplain
- South Holland District Boundary

REV	DATE	REMARKS
2	Feb 17	Modelling and Mapping Update
1	Dec 16	Modelling and Mapping Update

This map is reproduced from the Ordnance Survey map with the permission of the Controller of HM Stationery Office, © Crown Copyright . Unathorised reproduction infringes Crown Copyright and may lead to prosecution or civil proceddings
Licence No: 100018215, 2009

Royal HaskoningDHV
Enhancing Society Together

ROYAL HASKONINGDHV
RIGHTWELL HOUSE
BRETTON
PETERBOROUGH
PE3 8DW
TEL +44 (0)1733 334455
FAX +44 (0)1733 262243

SOUTH HOLLAND DISTRICT COUNCIL
COUNCIL OFFICES
PRIORY ROAD
SPALDING
LINCOLNSHIRE
PE11 2XE

UPDATE OF STRATEGIC FLOOD RISK ASSESSMENT

Residual Peak Depth
District - Year 2115
1% Fluvial / 0.5% Tidal Event Probability

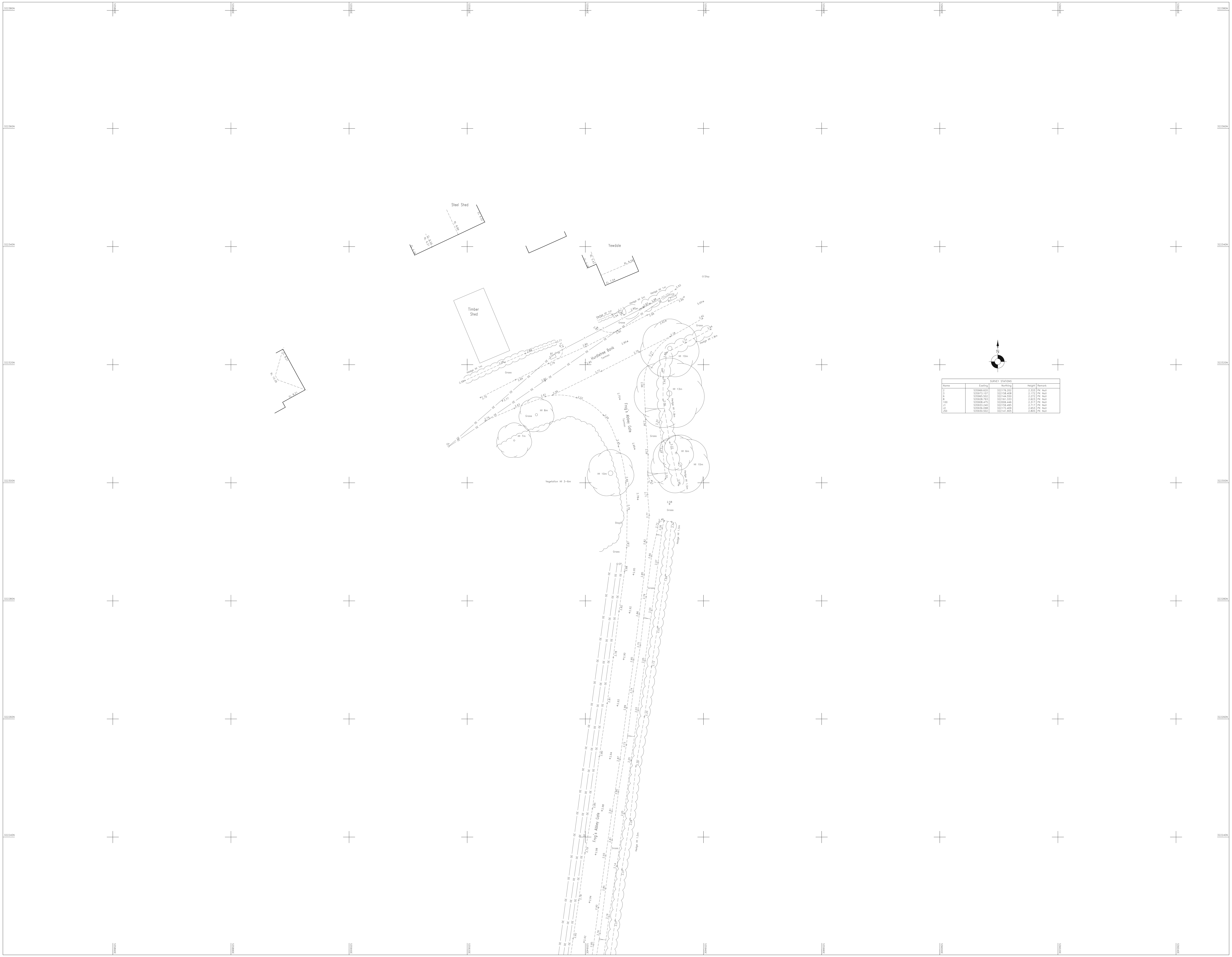
DATE OF ISSUE: Feb 2017 **REV NO:** 2

SCALE: 1 : 60,000 @ A1

MAP NO:

+44 (0) 115 952 8752
info@diceconsult.co.uk
diceconsult.co.uk

Appendix D



SURVEY STATIONS				
Name	Easting	Northing	Height	Remark
2	535969.620	322176.202	2.333	PK Nail
3	535973.107	322158.408	2.172	PK Nail
6	535965.502	322144.550	2.272	PK Nail
8	535928.793	322161.333	2.623	PK Nail
100	535908.475	322006.446	2.317	PK Nail
J1	535933.240	322159.495	2.717	PK Nail
J2	535936.098	322172.409	2.653	PK Nail
J50	535930.502	322141.905	2.805	PK Nail

Legend:

Abbreviated Features:

AV	Air Valve
Av.	Average
B	Bollard
BB	Belisha Beacon
BH	Borehole
BL	Bed Level
BS	Bus Stop
BT	British Telecom Cover
B/RW	Brick Retaining Wall
Br/W	Brick Wall
CATV	Cable TV Cover
CCTV	Close Circuit TV
CL	Cover Level
Col.	Column
C/RW	Concrete Retaining Wall
C/Pit	Catch Pit
D/C	Drainage Channel
DPC	Damp Proof Course
DK	Drop Kerb
Dr	Drain
EL	Eaves Level
ER	Earth Rod
EP	Electricity Pole
ET	Electric Terminal
FH	Fire Hydrant
FL	Floor Level
F/Light	Flood Light
FW	Foul Water
FP	Foot Path
G	Gully
GV	Gas Valve
GP	Gate Post
Ht.	Height
IC	Inspection Chamber
IL	Invert Level
KO	Kerb Outlet
LB	Letter Box
LP	Lamp Post
MH	Manhole
Mkr	Marker Post
MS	Mile Stone
OSBM	Ordnance Survey Bench Mark
OH	Overhead
P	Post
PB	Post Box
PE	Pipe
PM	Parking Meter
RE	Rodding Eye
RL	Ridge Level
RP	Reflector Post
RS	Road Sign
RW	Retaining Wall
RWP	Rain Water Pipe
S	Stump
SL	Soffit Level
SN	Sign
SNP	Street Name Plate
SV	Stop Valve
SVP	Soil & Vent Pipe
SW	Surface Water
S/RW	Stone Retaining Wall
St/W	Stone Wall
TCB	Telephone Call Box
TL	Traffic Light
TP	Telegraph Pole
UG	Underground
US	Underside
UTL	Unable To Lift
DUTL	Damaged UTL
OUTL	Obstructed UTL
SUTL	Sealed UTL
VP	Vent Pipe
WL	Water Level
WM	Water Meter
WO	Wash Out
WT	Water Tap
Ø	Diameter

Fence Abbreviations:

B/W	Barbed Wire
C/B	Close Boarded
C/I	Corrugated Iron
C/L	Chain Link
C/P	Chestnut Paling
I/R	Iron Railing
P/R	Post & Rail
P/W	Post & Wire

Symbols:

Control Station :
Manhole/Inspection Chamber :
Inlet Pipe, Out Flow Pipe
Bush :
Tree : Spread & Girth Shown to Scale
Gate :
Spot Level : 52.65
Bore Hole :
Trial Hole :

Lines:

Wall :
Verge :
Fence :
Boundary :
Edge of Spread :
Hedge :
Embankment : Top of Bank, Bottom of Bank
OH Electric :
OH Telecom :
Drainage Flow :
Contours :

Hatching:

Building :
Open Sided Building :

General Notes:

1. Man entry to sewers has not been undertaken. Depths, pipe sizes and quantity of pipes are measured from the surface. We therefore cannot guarantee the completeness or accuracy of the sewer data which should be checked with the local authority and/or on site.

2. All tree heights and spreads are approximate. The plan position of trunks are taken at ground level. Girth measurements are taken at a 1.5m height. We have attempted to identify tree species, however if tree species are critical specialist advice should be sought.

3. Survey information is as result of measurement to existing features and does not imply legal ownership of boundaries or land divisions. Where boundary alignment lines are added to the survey drawing and are taken from legal documents or other information supplied they are done so within the constraints of drawing quality and scale. They are provided on the basis of opinion and do not imply legal contract.

Plan Coordinate Control:–
Plan Coordinates relate to OS National Grid OSGB36 using GPS
LSF 1.000 at Stn 100

Level Datum:–
All Levels relate to OSGB36 using GPS

Sheet Location Diagram:
1 2 3 4

Notes:

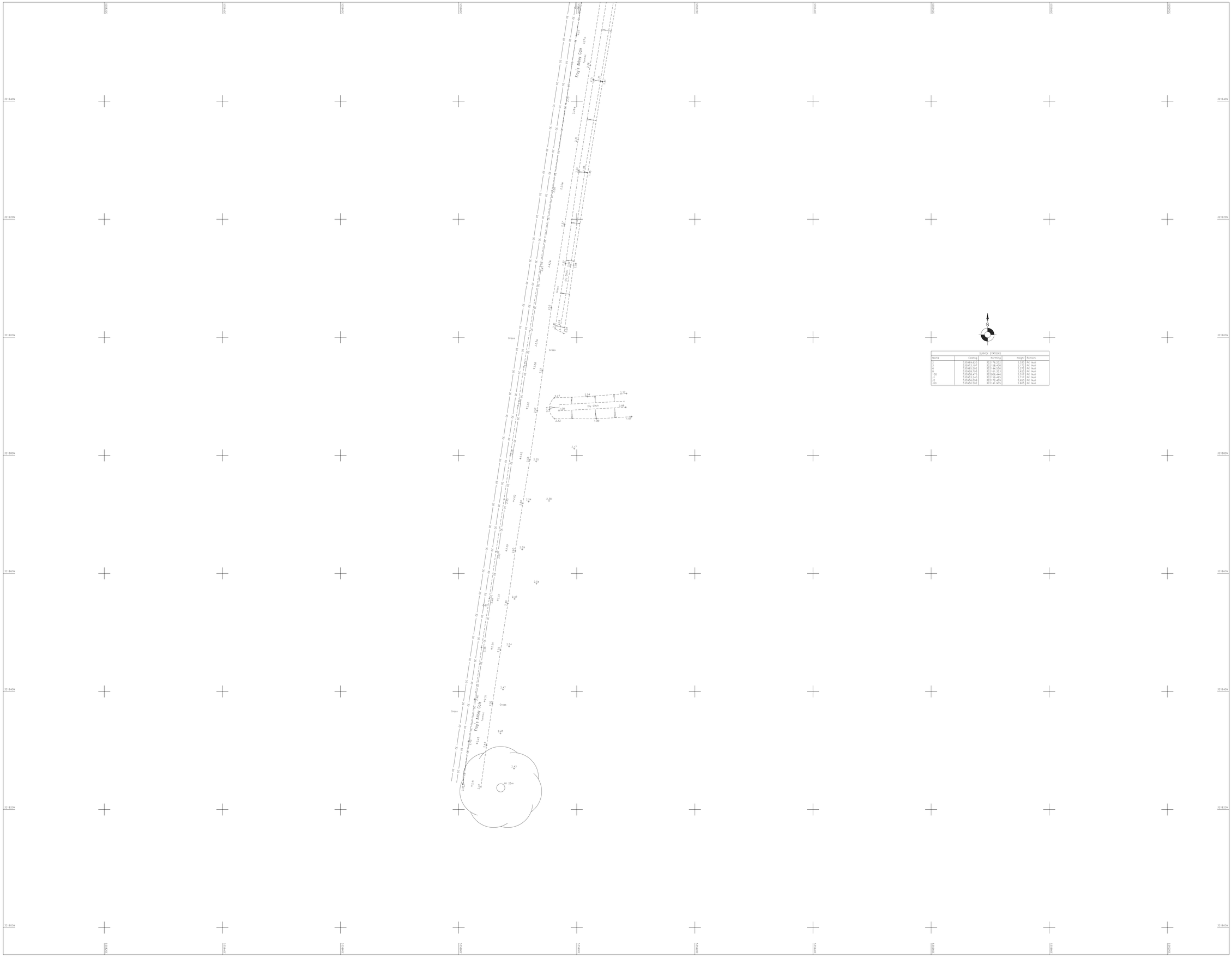
REV NO	REV NOTE	DATE	SIGNED
B	Additional Area Surveyed	22/04/25	JJC
A	Building Footprint Amended	07/06/24	GD

THE SURVEY ASSOCIATION

GLOBAL SURVEYS
3 Brookfield, Duncan Close,
Moulton Park, Northampton, NN3 6WL
Tel: 01604 491543
Email: info@globalsurveys.co.uk

Site: Beech Lodge Care Home, Holbeach, PE12 8QJ
Client: Country Court Care Homes 2 Ltd
Survey Description: Topographical Survey

Date	July 2023	Scale	1/200 @ A0
Dwg No.	23205–Topo	Surveyor	SPH
Sheet	1 of 4	Checked	GD



Legend:

Abbreviated Features:

AV	Air Valve	PB	Post Box
Av.	Average	PE	Pipe
BB	Bollard	PM	Parking Meter
BB	Belisha Beacon	RE	Rodding Eye
BH	Borehole	RL	Ridge Level
BL	Bed Level	RP	Reflector Post
BS	Bus Stop	RS	Road Sign
BT	British Telecom Cover	RW	Retaining Wall
B/RW	Brick Retaining Wall	RWP	Rain Water Pipe
Br/W	Brick Wall	S	Spot Level
CATV	Cable TV Cover	SL	Soffit Level
CCTV	Close Circuit TV	SN	Sign
CL	Cover Level	SNP	Street Name Plate
Col.	Column	SV	Stop Valve
C/RW	Concrete Retaining Wall	SVP	Soil & Vent Pipe
C/PO	Catch Pit	SW	Surface Water
D/C	Drainage Channel	S/RW	Stone Retaining Wall
DPC	Damp Proof Course	St/W	Stone Wall
DK	Drop Kerb	TCB	Telephone Call Box
EA	Edge Of	TL	Traffic Light
EL	Eaves Level	TP	Telegraph Pole
ER	Earth Rod	UG	Underground
EP	Electricity Pole	US	Undertake
ET	Electric Terminal	UTL	Unable To Lift
FH	Fire Hydrant	DUTL	Damaged UTL
FL	Floor Level	OUTL	Obstructed UTL
F/Light	Flood Light	SUTL	Sealed UTL
FW	Foul Water	VP	Vent Pipe
FP	Foot Path	WL	Water Level
G	Gully	WM	Water Meter
GV	Gas Valve	WO	Wash Out
GP	Gate Post	WT	Water Tap
HL	Height	D	Diameter
IC	Inspection Chamber		
IL	Invert Level		
KO	Kerb Outlet		
LB	Letter Box		
LP	Lamp Post		
MH	Manhole		
Mkr	Marker Post		
MS	Mile Stone		
OSBM	Ordnance Survey Bench Mark		
OH	Overhead		
P	Post		

Fence Abbreviations:

B/W	Barbed Wire
C/B	Close Boarded
C/I	Corrugated Iron
C/L	Chain Link
C/P	Chestnut Palling
I/R	Iron Railing
P/R	Post & Rail
P/W	Post & Wire

Symbols:

Control Station :

Manhole/Inspection Chamber :

Inlet Pipe / Out Flow Pipe

Bush :

Tree : Spread of Tree Shown to Scale

Gate :

Spot Level : 52.65

Bore Hole :

Trial Hole :

Lines:

Wall :

Verge :

Fence :

Boundary : - - - - - -

Edge of Spread :

Hedge :

Embankment : Top of Bank / Bottom of Bank

OH Electric :

OH Telecom :

Drainage Flow :

Contours : 0.5

Hatching:

Building :

Open Sided Building :

General Notes:

1. Mon entry to sewers has not been undertaken. Depths, pipe sizes and quantity of pipes are measured from the surface. We therefore cannot guarantee the completeness or accuracy of the sewer data which should be checked with the local authority and/or on site.

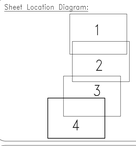
2. All tree heights and spreads are approximate. The plan position of trunks are taken at ground level. Girth measurements are taken at a 1.5m height. We have attempted to identify tree species, however if tree species are critical specialist advice should be sought.

3. Survey information is as result of measurement to existing features and does not imply legal ownership of boundaries or land divisions. Where boundary alignment lines are added to the survey drawing and are taken from legal documents or other information supplied they are done so within the constraints of drawing quality and scale. They are provided on the basis of opinion and do not imply legal contract.

Plan Coordinate Control:-
Plan Coordinates relate to OS National Grid OSGB36 using GPS
LSF 1.000 at Stn 100

Level Datum:-
All Levels relate to OSGB36 using GPS

Sheet Location Diagram:



Notes:

REV NO	REV NOTE	DATE	SIGNED
B	Additional Area Surveyed	22/04/25	JJC
A	Building Footprint Amended	07/06/24	GD

RICS · THE SURVEY ASSOCIATION · ices · CHAS · smas

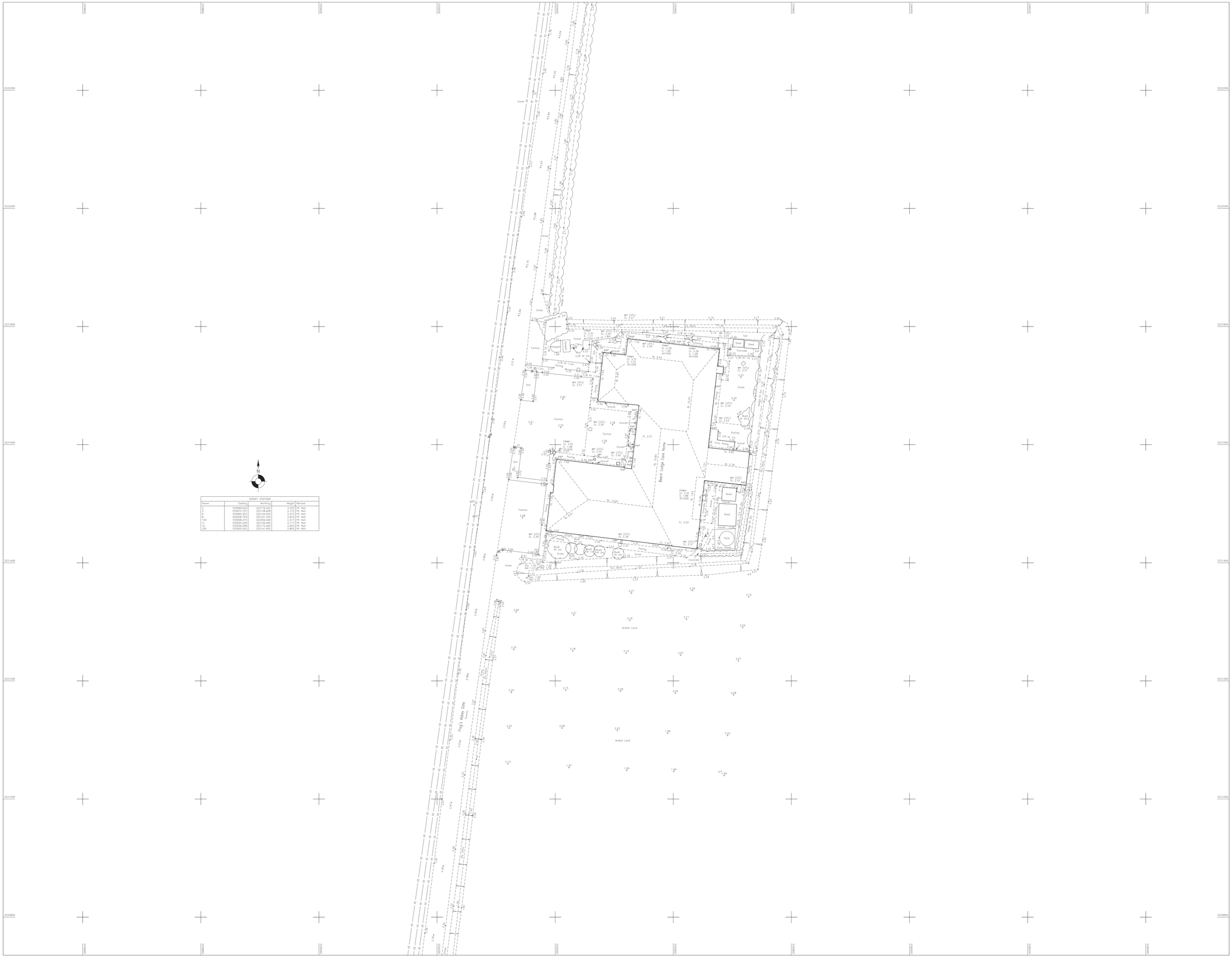
GLOBAL SURVEYS
3 Brookfield, Duncan Close,
Moulton Park, Northampton, NN3 6WL
Tel: 01604 491543
Email: info@globalsurveys.co.uk

Site: Beech Lodge Care Home, Holbeach, PE12 8QJ

Client: Country Court Care Homes 2 Ltd

Survey Description: Topographical Survey

Date	July 2023	Scale	1/200 @ A0
Dwg No.	23205-Topo	Surveyor	SPH
Sheet	4 of 4	Checked	GD



SURVEY STATIONS				
Name	Easting	Northing	Height	Remark
2	535989.820	322176.202	2.333	PK Nail
3	535973.107	322158.408	2.172	PK Nail
7	535951.787	322141.332	2.317	PK Nail
8	535928.793	322161.332	2.823	PK Nail
100	535908.475	322006.448	2.317	PK Nail
J1	535933.240	322159.493	2.717	PK Nail
J2	535938.098	322172.608	2.605	PK Nail
J50	535930.502	322141.809	2.805	PK Nail

Legend:

Abbreviated Features:

AV	Air Valve	PB	Post Box
Av.	Average	PE	Pipe
BH	Borehole	PM	Parking Meter
BB	Batsford Beacon	RE	Rodding Eye
BH	Borehole	RL	Ridge Level
BL	Bed Level	RP	Reflector Post
BS	Bus Stop	RS	Road Sign
BT	British Telecom Cover	RW	Retaining Wall
B/RW	Brick Retaining Wall	RWP	Rain Water Pipe
Br/W	Brick Wall	S	Stump
CATV	Cable TV Cover	SL	Soffit Level
CCTV	Close Circuit TV	SN	Sign
CL	Cover Level	SNP	Street Name Plate
Col.	Column	SV	Stop Valve
C/RW	Concrete Retaining Wall	SVP	Soil & Vent Pipe
C/Pit	Catch Pit	SW	Surface Water
D/C	Drainage Channel	S/RW	Stone Retaining Wall
DPC	Damp Proof Course	St/W	Stone Wall
DK	Drop Kerb	TCB	Telephone Call Box
EL	Elevation	TL	Traffic Light
EL	Eaves Level	TP	Telegraph Pole
ER	Earth Rod	UG	Underground
EP	Electricity Pole	US	Undersill
ET	Electric Terminal	UTL	Unable To Lift
FH	Fire Hydrant	DUTL	Damaged UTL
FL	Floor Level	OUTL	Obstructed UTL
F/Light	Flood Light	SUTL	Sealed UTL
FW	Foul Water	VP	Vent Pipe
FP	Foot Path	WL	Water Level
G	Gully	WM	Water Meter
GV	Gas Valve	WO	Wash Out
GP	Gate Post	WT	Water Tap
Ht.	Height	D	Diameter
IC	Inspection Chamber		
IL	Invert Level		
KO	Kerb Outlet		
LB	Letter Box		
LP	Lamp Post		
MH	Manhole		
Mkr	Marker Post		
MS	Mile Stone		
OSBM	Ordnance Survey Bench Mark		
OH	Overhead		
P	Post		

Fence Abbreviations:

B/W	Barbed Wire
C/B	Close Boarded
C/I	Corrugated Iron
C/L	Chain Link
C/P	Chestnut Paling
I/R	Iron Railing
P/R	Post & Rail
P/W	Post & Wire

Symbols:

Control Station :

Manhole/Inspection Chamber :

Inlet Pipe / Out Flow Pipe

Bush :

Tree : Spread to Scale Shown

Gate :

Spot Level : 52.65

Bore Hole :

Trial Hole :

Lines:

Wall :

Verge :

Fence :

Boundary :

Edge of Spread :

Hedge :

Embankment : Top of Bank / Bottom of Bank

OH Electric :

OH Telecom :

Drainage Flow :

Contours : 0.5

Hatching:

Building :

Open Sided Building :

General Notes:

1. Non entry to sewers has not been undertaken. Depths, pipe sizes and quantity of pipes are measured from the surface. We therefore cannot guarantee the completeness or accuracy of the sewer data which should be checked with the local authority and/or on site.

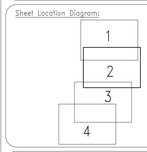
2. All tree heights and spreads are approximate. The plan position of trunks are taken at ground level. Girth measurements are taken at a 1.5m height. We have attempted to identify tree species, however if tree species are critical specialist advice should be sought.

3. Survey information is as result of measurement to existing features and does not imply legal ownership of boundaries or land divisions. Where boundary alignment lines are added to the survey drawing and are taken from legal documents or other information supplied they are done so within the constraints of drawing quality and scale. They are provided on the basis of opinion and do not imply legal contract.

Plan Coordinate Control:-
Plan Coordinates relate to OS National Grid OSGB36 using GPS
LSF 1.000 at Stn 100

Level Datum:-
All Levels relate to OSGB36 using GPS

Sheet Location Diagram:



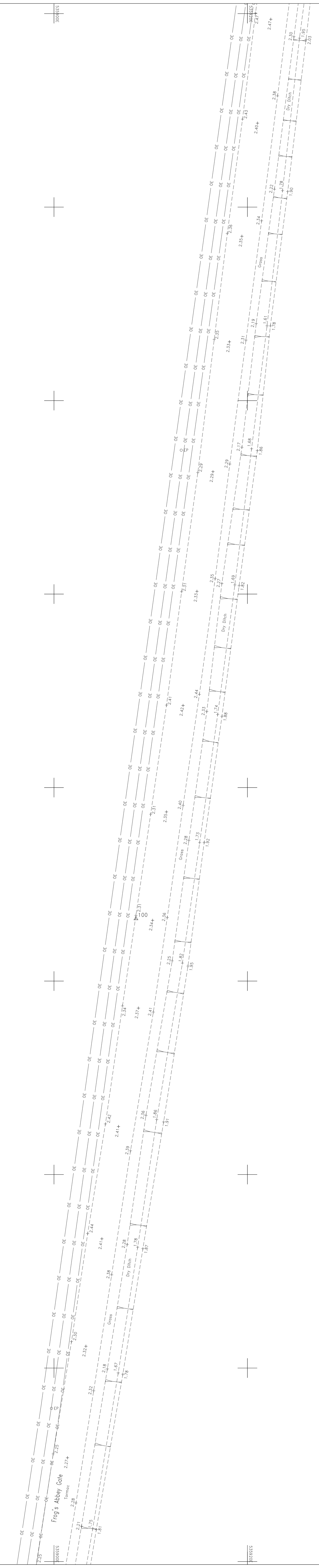
Notes:

REV NO	REV NOTE	DATE	SIGNED
B	Additional Area Surveyed	22/04/25	JJC
A	Building Footprint Amended	07/06/24	GD

GLOBAL SURVEYS
3 Brookfield, Duncan Close,
Moulton Park, Northampton, NN3 6WL
Tel: 01604 491543
Email: info@globalsurveys.co.uk

Site:	Beech Lodge Care Home Holbeach PE12 8QJ
Client:	Country Court Care Homes 2 Ltd
Survey Description:	Topographical Survey

Date	July 2023	Scale	1/200 @ A0
Dwg No.	23205-Topo	Surveyor	SPH
Sheet	2 of 4	Checked	GD



N

SURVEY STATIONS				
Name	Easting	Northing	Height	Remark
2	535969.620	322176.202	2.333	PK Nail
3	535973.107	322158.408	2.172	PK Nail
6	535965.502	322144.550	2.272	PK Nail
8	535928.793	322161.333	2.623	PK Nail
100	535908.475	322006.446	2.317	PK Nail
J1	535933.240	322159.495	2.717	PK Nail
J2	535936.098	322172.409	2.653	PK Nail
J50	535930.502	322141.905	2.805	PK Nail

Legend:

Abbreviated Features:

AV	Air Valve
Av.	Average
B	Bollard
BB	Belisha Beacon
BH	Borehole
BL	Bed Level
BS	Bus Stop
BT	British Telecom Cover
B/RW	Brick Retaining Wall
Br/W	Brick Wall
CATV	Cable TV Cover
CCTV	Close Circuit TV
CL	Cover Level
Col.	Column
C/RW	Concrete Retaining Wall
C/Pit	Catch Pit
D/C	Drainage Channel
DPC	Damp Proof Course
DK	Drop Kerb
Dr	Drain
EL	Eaves Level
ER	Earth Rod
EP	Electricity Pole
ET	Electric Terminal
FH	Fire Hydrant
FL	Floor Level
F/Light	Flood Light
FW	Foul Water
FP	Foot Path
G	Gully
GV	Gas Valve
GP	Gate Post
Ht.	Height
IC	Inspection Chamber
IL	Invert Level
KO	Kerb Outlet
LB	Letter Box
LP	Lamp Post
MH	Manhole
Mkr	Marker Post
MS	Mile Stone
OSBM	Ordnance Survey Bench Mark
OH	Overhead
P	Post
PB	Post Box
PE	Pipe
PM	Parking Meter
RE	Rodding Eye
RL	Ridge Level
RP	Reflector Post
RS	Road Sign
RW	Retaining Wall
RWP	Rain Water Pipe
S	Stump
SL	Soffit Level
SN	Sign
SNP	Street Name Plate
SV	Stop Valve
SVP	Soil & Vent Pipe
SW	Surface Water
S/RW	Stone Retaining Wall
St/W	Stone Wall
TCB	Telephone Call Box
TL	Traffic Light
TP	Telegraph Pole
UG	Underground
US	Underside
UTL	Unable To Lift
DUTL	Damaged UTL
OUTL	Obstructed UTL
SUTL	Sealed UTL
VP	Vent Pipe
WL	Water Level
WM	Water Meter
WO	Wash Out
WT	Water Tap
Ø	Diameter

Fence Abbreviations:

B/W	Barbed Wire
C/B	Close Boarded
C/I	Corrugated Iron
C/L	Chain Link
C/P	Chestnut Paling
I/R	Iron Railing
P/R	Post & Rail
P/W	Post & Wire

Symbols:

Control Station :
Manhole/Inspection Chamber :
Inlet Pipe, Out Flow Pipe, Inlet Pipe
Bush :
Tree : Spread & Girth Shown to Scale
Gate :
Spot Level : 52.65
Bore Hole :
Trial Hole :

Lines:

Wall :
Verge :
Fence :
Boundary :
Edge of Spread :
Hedge :
Embankment : Top of Bank, Bottom of Bank
OH Electric :
OH Telecom :
Drainage Flow :
Contours : 85.00, 84.75

Hatching:

Building :
Open Sided Building :

General Notes:

1. Man entry to sewers has not been undertaken. Depths, pipe sizes and quantity of pipes are measured from the surface. We therefore cannot guarantee the completeness or accuracy of the sewer data which should be checked with the local authority and/or on site.

2. All tree heights and spreads are approximate. The plan position of trunks are taken at ground level. Girth measurements are taken at a 1.5m height. We have attempted to identify tree species, however if tree species are critical specialist advice should be sought.

3. Survey information is as result of measurement to existing features and does not imply legal ownership of boundaries or land divisions. Where boundary alignment lines are added to the survey drawing and are taken from legal documents or other information supplied they are done so within the constraints of drawing quality and scale. They are provided on the basis of opinion and do not imply legal contract.

Plan Coordinate Control:–
Plan Coordinates relate to OS National Grid OSGB36 using GPS
LSF 1.000 at Stn 100

Level Datum:–
All Levels relate to OSGB36 using GPS

Sheet Location Diagram:

1
2
3
4

Notes:

REV NO	REV NOTE	DATE	SIGNED
B	Additional Area Surveyed	22/04/25	JJC
A	Building Footprint Amended	07/06/24	GD

RICS
THE SURVEY ASSOCIATION
chartered ices
CHAS
smas

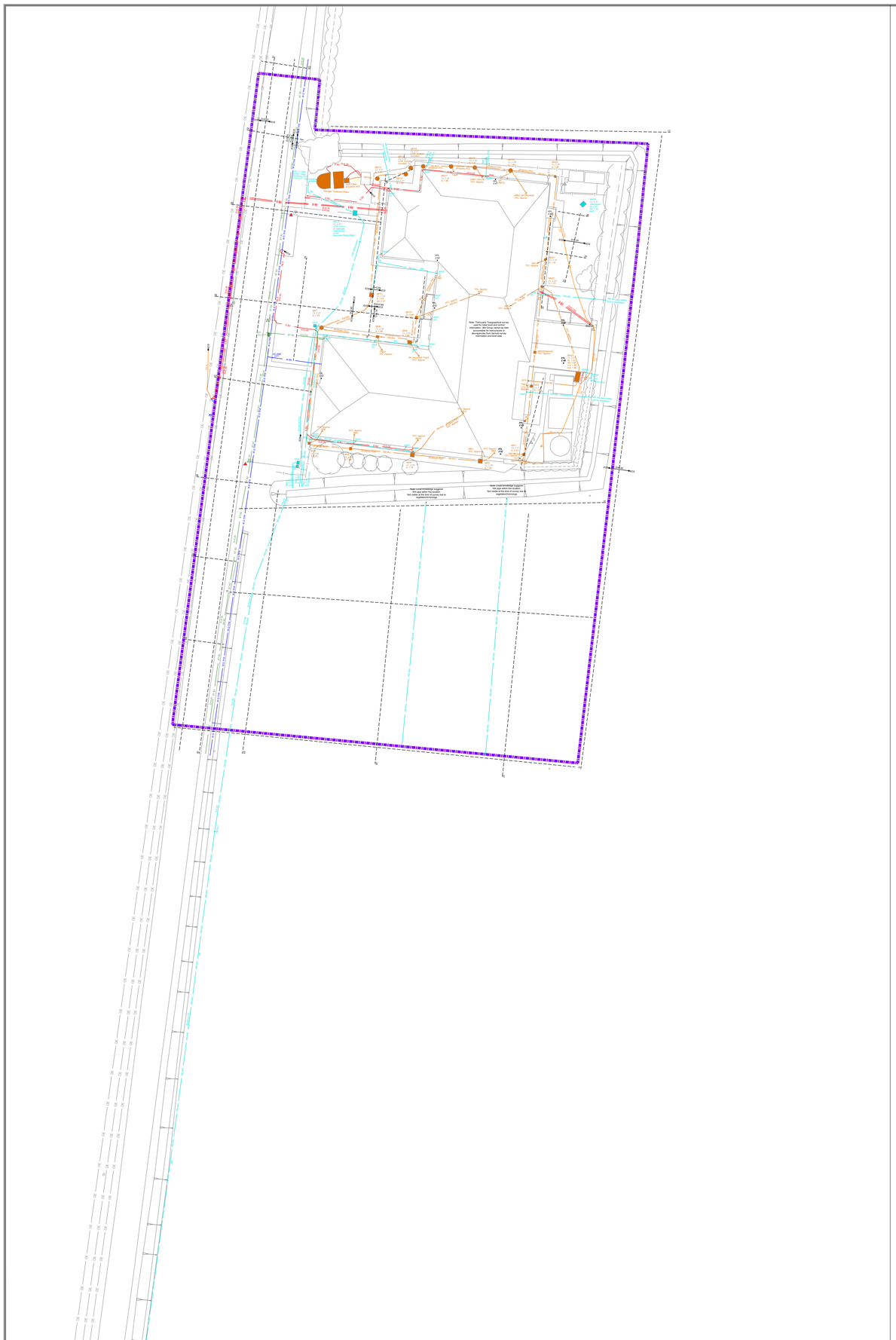
GLOBAL SURVEYS
3 Brookfield, Duncan Close,
Moulton Park, Northampton, NN3 6WL
Tel: 01604 491543
Email: info@globalsurveys.co.uk

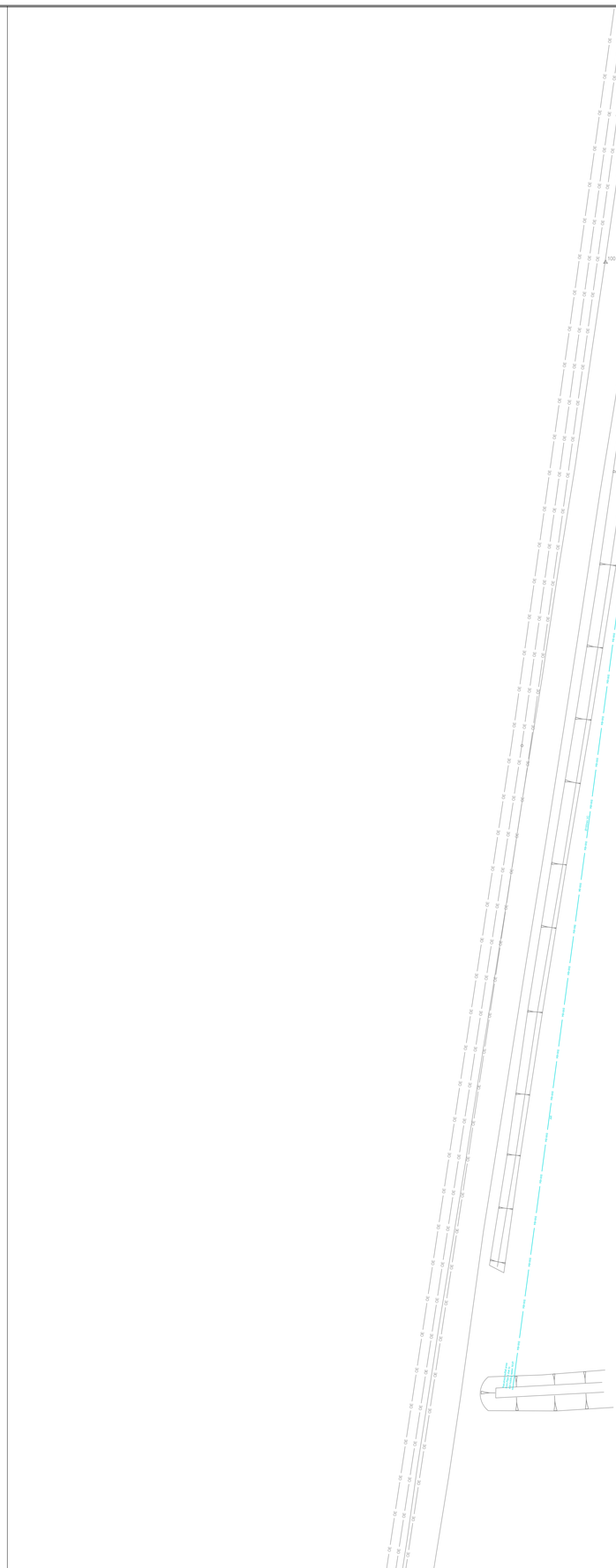
Site: Beech Lodge Care Home, Holbeach, PE12 8QJ
Client: Country Court Care Homes 2 Ltd
Survey Description: Topographical Survey

Date	July 2023	Scale	1/200 @ A0
Dwg No.	23205-Topo	Surveyor	SPH
Sheet	3 of 4	Checked	GD

+44 (0) 115 952 8752
info@diceconsult.co.uk
diceconsult.co.uk

Appendix E





360 Mapping Drawing Legend:

Underground Utility & CCTV Drainage Linetypes:

E	Electric
GAS	Gas
W	Water
CATV	Cable TV
CATVTFR	Cable TV Taken From Records
CCTV	Closed Circuit TV
BT	British Telecom
BTTFR	British Telecom Taken From Records
EMPTY	Empty Ducting
UNK	Unknown Metallic Utility
GPR	GPR Anomaly Possible Utility
COM	Communications
	Foul Water Drainage Route
	Surface Water Drainage Route
	Combined Service Drainage Route
	Unknown Drainage Route
Field Drain	Field Drain
Aco Drain	Aco Drain
E-TFR	Electric Taken from Records
E AR	Assumed Electric
O/H E	Electric Overhead
O/H BT	BT Overhead
MSR	Multi Service Route
MULTISERVICE TRENCH	Multi Service Trench
W-TFR (D)	Water Taken from Records
W AR (B4)	Assumed Water
GAS AR (B4)	Assumed Gas
GAS-TFR (D)	Gas Taken from Records
	Survey Extents

CAD LAYERING MAY CONTAIN FURTHER INFORMATION

LEGEND:
UTILITIES & CCTV ABBREVIATIONS

GENERAL

EOT	End of Trace
I-TRAP	Interceptor Trap
OG	Outfalls to Ground
RA	Restricted access with equipment due to offset chambers and manhole covers.
NVO	No Visible Outlet
NVP	No Visible Pipes
UTR	Unable to Raise
UTS	Unable to Survey
UTT	Unable to Trace
UTMOCA	Unable to Make Out Chamber Attributes
UTGPR	Unable to GPR

CHAMBER TYPES

CBC	Circular Brick
CCC	Circular Concrete
CPC	Circular Plastic
RBC	Rectangular Brick
RCC	Rectangular Concrete
RPC	Rectangular Plastic

LEVELS

BD	Backdrop Level
BL	Base Level
CL	Cover Level
CrL	Crown Level
I-TL	Interceptor Trap Level
IL	Invert Level
SL	Silt Level
Sof.	Soffit Level
SuL	Surcharge Level
WL	Water Level

CCTV DRAINAGE SPECIFIC

CN	Connection
H	Hole
JD	Joint Displacement
JN	Junction
PS	Public Sewer
RB	Rest Bend
RL	Restricted Leverage
SA	Survey Abandoned
Unk.	Unknown
UTC	Unable to Camera
TFC	Taken From CCTV
Chainage (approx. position)	

DEPTHS

D	Depth (meters)
DB	Depth to Base
DCr	Depth to Crown
DI	Depth to Invert
DS	Depth to Silt
DSof.	Depth to Soffit
DSu.	Depth to Surcharge

PIPE MATERIALS

AC	Asbestos Cement
ALK	Alkathene
BK	Brick
CI	Cast Iron
CO	Concrete
DI	Ductile Iron
HDPE	High Density PE
MDPE	Medium Density PE
PE	Polyethylene
PF	Pitch Fibre
PP	Polypropylene
PVC	Polyvinyl Chloride
SI	Spun Iron
ST	Steel
SN	Stone
uPVC	Ultra Rib (PVC)
VC	Vitrified Clay



PLEASE USE THE ABOVE TABLE IN CONJUNCTION WITH LINETYPE LEGEND

PAS128 & CCTV DRAINAGE SURVEYS DISCLAIMER

This PAS128 Underground Utility & CCTV Drainage Surveys conducted by 360 is subject to the followina terms and limitations:

Accuracy: While we strive for high accuracy, not all underground utilities may be detected or precisely located due to limitations in detection technologies and site conditions. CCTV chainage has been used to determine pipe positioning not identifiable during the Underground Utility Survey process, this information should be used as reference only as per product manufacturer guidance. We recommend verification survey type A within critical areas to confirm results.

Scope: This service plan reflects conditions at the time of the survey. Abandoned, non-metallic, or deeply buried utilities may not be detected. Certain areas may be inaccessible and thus not surveyed comprehensively.

Third-Party Data: Information from third parties, such as utility records and the supplied Topographical survey has been used for level information, control information and positioning. We are not responsible for any inaccuracies or discrepancies arising from third party information or its derived survey data.

Usage: The Survey data is intended for planning and design purposes by the client listed below. We are not liable for its use by third parties or for purposes other than those intended.

Liability: The Company (360 Group) accepts no liability for damages arising from the use of the survey data.

Updates: Conditions may change over time; we recommend periodic updates to the Survey.

Due diligence must be carried out by any party prior to attempting any excavation work. This survey is to be used as a 'guide' only and should form only part of a wider safe breaking ground policy in line with HSG47.

By using the Survey data, you acknowledge and accept these terms.

Do not scale from this drawing.

Approximate National Grid North
and shall remain upto the Tbelow ESTACHMENT survey data (Leaf Hyon 1
All dimensions to be checked onsite prior to works.
Any discrepancies shall immediately be reported to 360.

THREE SIXTY GROUP
UNIT 3, MANDALE PARK, NORTH SHIELDS, TYNE & WEAR, NE29 7TN
0191 594 7672
ADMIN@360HQ.CO.UK
WWW.360HQ.CO.UK

CLIENT

Beech Lodge Care Home
Frog's Abbey Gate, Holbeach St Johns,
Spalding, PE12 8QJ
PROJECT TITLE

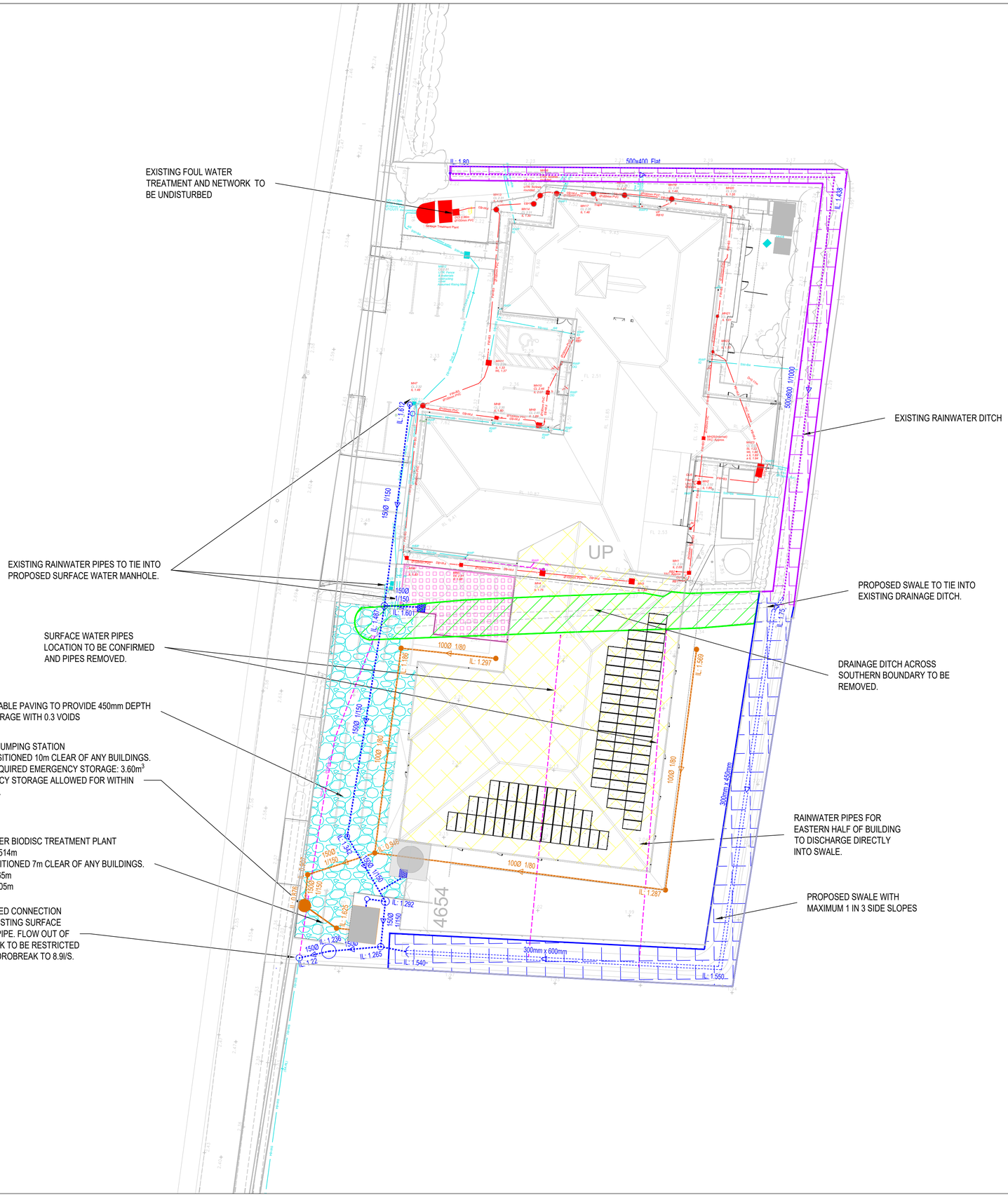
Underground Utility & CCTV Drainage Survey
DRAWING TITLE

1:200 @ A0 (SCALE AT A1)	14/08/2025 (SURVEY DATE)	(01/01) (SHEET No.)
SF / JB (SURVEYED BY)	SF (DRAWN BY)	SF (APPROVED)
5077-[32]01 (PROJECT DRAWING No.)		TOPO (GRID/DATUM)

REV	AMENDMENT	DELIVERY DATE 22/08/2025	DRAWN	CHECKED
P01	INITIAL RELEASE			

+44 (0) 115 952 8752
info@diceconsult.co.uk
diceconsult.co.uk

Appendix F



NOTES:

1. DO NOT SCALE FROM THIS DRAWING.
2. IF THIS DRAWING HAS BEEN RECEIVED ELECTRONICALLY, IT IS THE RECIPIENTS RESPONSIBILITY TO PRINT THE DOCUMENT TO THE CORRECT SCALE.
3. ALL DIMENSIONS ARE IN METRES UNLESS OTHERWISE STATED.
4. THIS DRAWING SHOULD BE READ IN CONJUNCTION WITH ALL RELEVANT ENGINEER AND SPECIALIST DRAWINGS AND SPECIFICATIONS.
5. THE SURFACE WATER NETWORK HAS BEEN DESIGNED TO ACCOMMODATE STORM EVENTS UP TO AND INCLUDING THE 100 YEAR PLUS 40% CLIMATE CHANGE.
6. THE LOCATIONS AND INVERT LEVELS OF PRIVATE SEWERS HAVE BEEN ESTABLISHED BY A CCTV SURVEY CONDUCTED BY THE 360 GROUP, UNDER THE DRAWING REFERENCE 5077-[32]01.
7. FOLLOWING THE DRAINAGE HIERARCHY:
   - 7.1. INFILTRATION HAS BEEN IDENTIFIED AS UNFEASIBLE GIVEN THE UNDERLYING GEOLOGY OF MUDSTONE, SLIT AND CLAY. FURTHERMORE ITS LOW LAYING NATURE MEANS A HIGH WATER TABLE. GIVEN THIS, INFILTRATION HAS BEEN DEEMED UNSUITABLE.
   - 7.2. THE SITE HAS AN EXISTING DISCHARGE CONNECTION WITH A DRAINAGE DITCH TO THE SOUTH OF THE SITE. AS SUCH IT IS PROPOSED TO RETAIN THIS CONNECTION.
8. SURFACE WATER MODELING HAS BEEN UNDERTAKEN USING LATEST CLIMATE CHANGE ALLOWANCE AND SIMULATION SETTINGS RECOMMENDED WITHIN THE LATEST GUIDANCE DOCUMENTS.
9. THIS MODELING HAS INDICATED THAT THE SITE DISCHARGES AT 19.3l/s IN THE 1 IN 2 YEAR SCENARIO. IT IS PROPOSED TO RESTRICT THIS TO 8.9l/s. THE SITE HAS SUFFICIENT CAPACITY TO STORE SURFACE WATER FOR THE 1 IN 100YEAR SCENARIO + 40% CLIMATE CHANGE.
10. THE RECEIVING WATERCOURSE IS NOT ONE MANAGED BY THE SOUTH HOLLAND INTERNAL DRAINAGE BOARD, HOWEVER IT DOES DISCHARGE INTO THEIR NETWORK. PROPOSALS ARE SUBJECT TO THEIR AGREEMENT.
11. EXTENTS OF EXISTING DRAINAGE NOW REDUNDANT TO BE CONFIRMED AT DETAILED DESIGN STAGE.
12. DRAINAGE PROPOSALS ARE SUBJECT TO LLFA APPROVAL AND THIRD PARTY DESIGN INFORMATION.
13. ALL SUDS FEATURES HAVE BEEN DESIGNED IN ACCORDANCE WITH THE CIRIA SUDS MANUAL (C753). PROPOSALS TO BE DESIGNED IN DETAIL AT LATER STAGE AND MAY BE SUBJECT TO CHANGE.
14. DRAWING UPDATED BASE ON LINESTYLE STUDIO DRAWING: 0451-002-REV 3E

KEY

- 150Ø PROPOSED SURFACE WATER SEWER
- 150Ø PROPOSED FOUL WATER SEWER
- EXISTING SURFACE WATER SEWER
- EXISTING FOUL WATER SEWER
- PROPOSED PERMEABLE PAVING
- PROPOSED RAIN GARDEN
- PROPOSED SWALE
- EXISTING DRAINAGE DITCH
- EXISTING DRAINAGE DITCH TO BE REMOVED
- PROPOSED BUILDING EXTENSION
- DIFFUSER UNIT (710mm x 710mm, min cover 260mm, 100mm Outlet)
- SURFACE WATER PIPES TO BE REMOVED

REV:	AMENDMENTS:	DRN:	CHK:	DATE:
P04	REVISED LAYOUT INCORPORATED	JB	WN	09.03.2026
P03	REVISED BASED ON RED LINE BOUNDARY	JB	AM	23.01.2026
P02	REVISED FOLLOWING CLIENT COMMENTS	JB	NP	24.10.2025
P01	FIRST ISSUE	JB	ID	09.10.2025

Project:
BEECH LODGE, CARE HOME
FROG'S ABBEY GATE, HOLBEACH ST JOHNS

Drawing title:
DRAINAGE STRATEGY

Client:
COUNTRY COURT CARE

Drawing number:
101959-DCE-XX-XX-DR-C-5000

Revision:	Project Reference:	Scale:
P04	101959	1:200 @ A1
Drawn by: JB	Checked by: ID	Date: 09.10.2025

Status:
PRELIMINARY

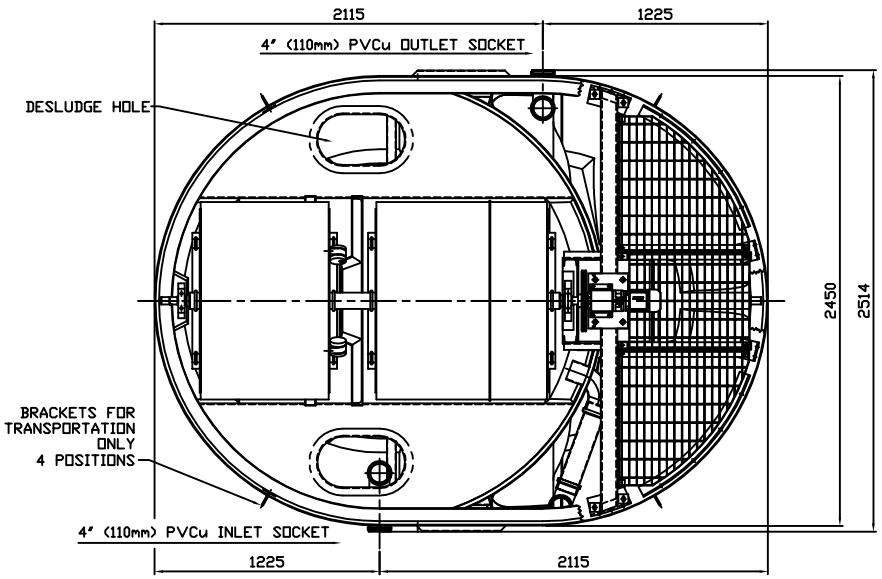
Dice
+44 (0) 1159 528 752
info@diceconsult.co.uk
diceconsult.co.uk
Design
Infrastructure
Consulting
Engineering

ORDNANCE SURVEY © CROWN COPYRIGHT 2015. ALL RIGHTS RESERVED.

File Location: C:\Shared drives\Dice - Jobs (101900-101999)\101959 Beech Lodge, Care Home, Holbeach\Delivery\Civil Engineer - DI\CE3D Drawings\Current\DWG\Strategy (5000-5999)\101959-DCE-XX-XX-DR-C-5000 P04 DRAINAGE STRATEGY.dwg
Printed:09.03.2026

+44 (0) 115 952 8752
info@diceconsult.co.uk
diceconsult.co.uk

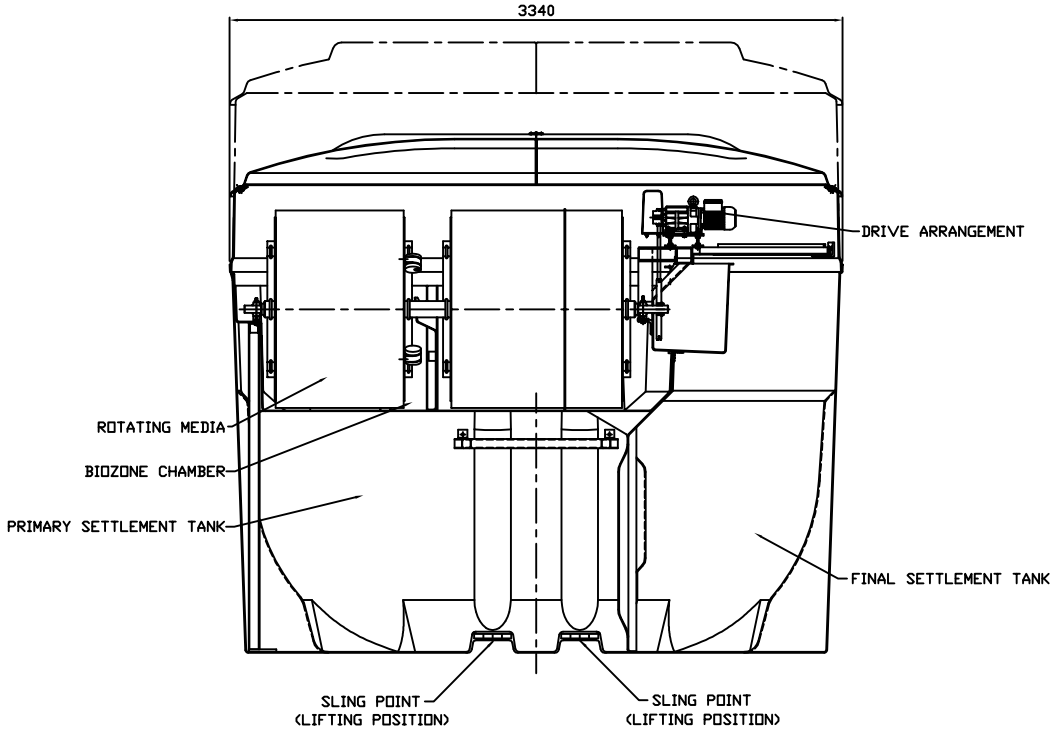
Appendix G



PLAN VIEW WITH TOP COVER REMOVED

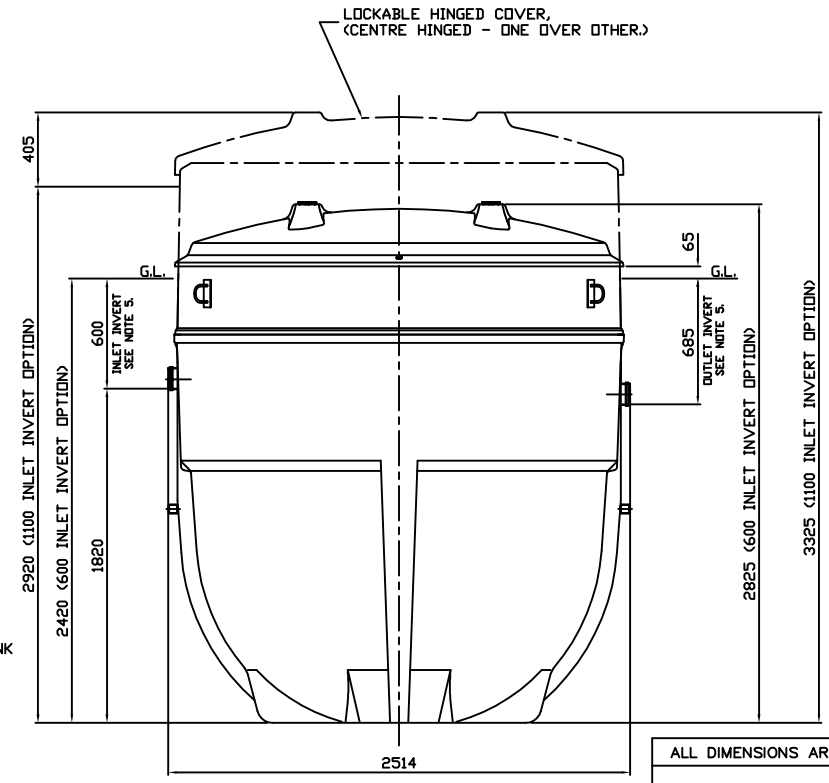
NOTES:-

1. BIODISC TANK & COVER ARE MANUFACTURED IN GLASS REINFORCED PLASTIC (G.R.P.), COVER IS FINISHED IN GREEN TO BS 4800 TINT 12:B:25
2. ELECTRICAL SUPPLY:- 240 VOLTS, 2 AMPS, SINGLE PHASE (THREE PHASE OPTIONAL), CONTROL PANEL SUPPLIED.
3. MOTOR POWER (SINGLE PHASE = 75 WATTS / FLC = 1.1 AMPS) (THREE PHASE = 60 WATTS / FLC = 0.35 AMPS)
4. BIODISC MUST ONLY BE LIFTED USING WEBBING SLINGS OF A SUITABLE SPECIFICATION, AT THE LIFTING POINTS PROVIDED.
5. FOR INSTALLATION, OPERATION, MAINTENANCE & DESLUDGE DETAILS REFER TO PROCEDURE DOCUMENTS SUPPLIED WITH UNIT.
6. 600 INLET INVERT UNIT OPTION SHOWN. 1100 INLET INVERT / 1185 OUTLET INVERT OPTION AVAILABLE.
7. THIS DRAWING IS ALSO AVAILABLE ON OUR WEBSITE www.klargester.com



COVER, TOP SECTION, BASE & BIOZONE TANK SECTIONED ON CENTRE LINE FOR CLARITY.

END ELEVATION



APPROX. DRY WEIGHTS (Kg)	BD	BE
600mm INVERT	1100	1200
1100mm INVERT	1200	1300

ISSUE	DATE	DRAWN	MODIFICATION
03	24/04/15	L.S	CC1235 – INLET/ OUTLET DIM'S FOR BD–BL BIODISC'S
02	19/11/12	L.S	CC1104
01	16.10.09	M.H.	INITIAL ISSUE

This drawing is copyright and may not be reproduced or used without the written permission of Kingspan Environmental. KINGSPAN ENVIRONMENTAL RESERVE THE RIGHT TO CHANGE SPECIFICATIONS WITHOUT NOTICE

THIRD ANGLE PROJECTION

ALL DIMENSIONS ARE IN MILLIMETRES – DO NOT SCALE

Kingspan Environmental

TITLE: BD/BE BIODISC GENERAL DIMENSIONS CUSTOMER DRG

SCALE 1:15 | SHEET SIZE A1

DRAWING No. DS0468P | ISSUE 3

Dice

Design
Infrastructure
Consulting
Engineers

+44 (0) 115 952 8752
info@diceconsult.co.uk
diceconsult.co.uk