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DESIGN AND ACCESS STATEMENT



Project

Anaerobic Digester Plant.

The Site

Land Adjacent to Existing Plant Based
Protein Extraction Facility.

Naylor Nutrition, Low End / Rangell
Gate Spalding

Client

Naylor Farms

Job No. 3899b

Revision A

Introduction

This Design and Access statement is submitted in support of a full planning application for the provision of an Anaerobic Digester Plant on the land adjacent to the new Plant Based Protein extraction facility at Rangell Gate together with landscaping, SUD's features, car park and associated infrastructure.

Although Design and Access statements are not required for waste developments under The Town and Country Planning (Development Management Procedure) (England) (Amendment Order 2013) it is helpful to outline the various elements of the proposed and summarize the corresponding consultant reports.

Naylor Farms are a family run business established in 1909 who have grown as a company over the years growing a range of cabbages, potatoes and daffodils in a sustainable and ethical manner over a 1500 hectare estate.

Evolving to stay up to date with modern techniques the Farm is situated in the heart of Lincolnshire's Farmland and has grown to be one of the UK's largest cabbage suppliers and is a major employer in the area.

Innovation has led to the breeding of new products such as the pink cabbage developed in partnership with Syngenta, and links with Lincoln University through training and technology as well as the new Food Enterprise Zone in Holbeach.

As part of the ongoing investment in research and new technologies Naylor farms are seeking to extend their site with the provision of an anaerobic digestate plant adjacent to their current Protein Extraction Facility on the site of an existing farmyard in fields on the corner of Low Road and Rangell Gate

Developed with Naylor Farms Consultant Waste Powers Limited. The proposed Anaerobic Digestate plant will receive 'feedstock' in the form of commercial food waste principally from processing, packaging and retailing food with the possibility of some crop residues from local farms. All feedstock to be collected from within a 50 mile distance from the site.

Renewable energy in the form of Biogas will be produced and fed directly into the grid on site. As a Biproduct electricity will also be produced and may be used to feed the adjacent plant based extraction facility, the remainder fed directly into the grid. CO₂ will be removed from the process and purchased by a third party to be used in food production systems within a 75 mile radius. Digestate will be used as fertilizer on local farms.

The site has been chosen because of its accessibility, being to transport links and proximity to local labour sources with the creation 51 full time equivalent members of staff.

The proposal will create a positive environmental impact on the area reducing waste, transport and carbon footprint in addition to biodiversity enhancements on the site itself which will improve the local area.

The proposals referred to in this application were first submitted to South Holland District Council in December 2023, planning reference H16-1096-23, to which there have been several consultee responses. Where relevant these consultee responses have been addressed and referred to within this revision of the Design and access statement.

Supporting Information

The application is supported by a team of consultants, this Design and Access statement to be read in conjunction with the following Consultation Reports to be provided as part of the planning process.

Portess and Richardson Drawings

3899b LP01 Rev A Location Plan
3899b S01 Rev A Existing Site Plan

3899b P01 Rev C Proposed Site Plan
3899b P02 Rev B Proposed AD site elevations
3899b P03 Rev A Proposed Waste Transfer & Digestate Processing Floor Plans
3899b P04 Rev A Proposed Waste Transfer and Digestate processing elevations
3899b P05 Proposed Site Plan and Visibility Splay
3899b P06 Ad Plant Plan

Grange Geo

Phase 1 Contamination Desk Study (completed as part of Naylor Nutrition application)

Ellingham Consulting Ltd

Flood Risk Assessment

Jackson Consulting Engineers

Drainage Strategy

Nicholsons

Ecological Impact Assessment
Biodiversity Net Gain Assessment .

Northern Transport Planning Ltd
Transport Statement and travel plan

Nova Acoustics
Noise Assessment.

P&R and Centriair

Odour Control Statement Rev A and Technical Description
Dewatering building layout – indicative details

The Anaerobic Digestate Process

Anaerobic Digestion (AD) is a natural process where plant and animal materials (biomass) are broken down by micro-organisms in the absence of air. The AD process begins when biomass is put inside a sealed tank or digester.

Naturally occurring micro-organisms digest the biomass, which releases a methane-rich gas (biogas) that can be used to generate renewable heat and power; this helps cut fossil fuel use and reduce greenhouse gas emissions. The remaining material (digestate) is rich in nutrients, so it can be used as a fertiliser.



Many forms of feedstock are suitable for AD; including food waste, slurry and manure, as well as crops and crop residues however the plants at Surfleet and Rangell Gate are aimed predominantly at processing waste produced in homes, farms and supermarkets and food processing factories making the location in the heart of rural Lincolnshire ideal.

AD is not a new technology, it has been used in the UK since the late 1800s, but now an increasing number of AD plants are being built in the UK and Lincolnshire to generate clean renewable energy. The AD process will this helps divert waste from landfill.

There are several options for diverting wet organic waste from landfill: home composting; large-scale composting, either in-vessel or windrow; thermophilic aerobic digestion; and AD – a comparison of these options is provided below.

Approach	Takes all food waste	Takes garden waste	Reduces emissions	Saleable product	Energy Recovery
Home composting	-	+	+	-	-
Industrial composting	+	+	+	+	-
Thermophilic aerobic digestion	+	-	+	+	-
Anaerobic digestion	+	-	+	+	+

AD is the only one of the four options that produces renewable energy as well as recovering the nutrients in the waste in the form of digestate.

Source <https://www.biogas-info.co.uk/>

In terms of gas yield the AD plant would be expected to generate around 70GWh of biomethane to be produced from the plant and injected into the grid per year.

In addition the plant will generate around 8GWh of power which will feed the adjacent plant based extraction facility and fed into the grid and CO₂ which will be tankered from the site to food production facilities.

Below is a typical digestate installation although the facilities proposed at Rangell Gate and Surfleet there will be no external storage and the facilities will be odour controlled to a high level and EA compliant.

Typical AD Plant - refer to drawings



Site Assessment

The site is located approximately 2.0km east of Spalding, a town in the South Holland District of Lincolnshire.

The site is immediately adjacent to the A16 which bounds the site to the West. Access off of the A16 onto Low Road bounds the North of the site. Low Road then merges into Rangell Gate which abuts the East of the Site.

The Coronation Channel lies approximately 250m to the East of the site and the A16.

The site is essentially rectangular in shape and covers an area of approximately 6 hectares.

Adjacent to the new processing plant there are two large fields currently growing cabbages. The land appears to have been divided in the 1880s and the Bourne and Lynn Joint Railway bisecting the lower part of the site until it was dismantled in the late 1960s.

The site is predominantly flat and like most of the area just above sea level, the land slightly higher to the North adjacent Low Road.

Boundaries are mainly open except for some tree and hedgerow growth adjoining the A16 and there are ditches around both the fields.

The proposed site will retain the Southern Field for Agriculture.





The land has remained largely undeveloped. There was a cottage on the North East end of the field now occupied by the Protein Extraction facility, believed to have been demolished in the 1960s with Naylor's Farm yard in the North West corner of the field where one of two single storey concrete and asbestos sheeting sheds remains enclosed and one open. The field was accessed through the farm yard off of Low Road.

A new access will be subject to a full design and is proposed to be from the B1165 Rangell Gate providing a vehicular, pedestrian and cycle route into the centre of Spalding.

Two of the larger businesses/developments lie immediately to the South of the site, David Bowman and Flamingo Flowers. To the West of the site adjacent the A16 and between the Coronation Chancel are a number of glass houses beyond which is the residential development of Spalding.

Further site assessment is provided within the transport, ecological and other consultant statements, a Landscape Impact Assessment included within this statement.



Consultations and Background

Proposals for the plant based protein extraction facility emerged during 2020 with the first concepts developed the first quarter of 2021. Following approval and construction of the extraction factory discussions turned to the Anaerobic Digester Plants for Rangell Gate and also the Surfleet site.

The location of the site has always been an important consideration. However the Low Road /Rangell Gate site has always been seen as a strategically well placed site in terms of being central to the raw materials that will supply the site, transport links, and accessibility for labour and feedstock

Members of South Holland District Council have been consulted on the proposals and planners have been made aware of the proposals through pre consultation meetings, subsequent discussions having been discussed with Lincolnshire County Council Planning.

Sustainability and biodiversity enhancements have been at the forefront of the proposals from the outset, with additional planting, balancing ponds and flower meadows part of the conceptual proposals.



Naylor Farms own two fields between Rangell Gate and the A16 and to the North of the large units occupied by David Bowman and Flamingo Flowers.

Consideration was given to using the Southern most field which would have placed the new plant next to the larger sheds to the south as indicated by the plan below.



However the presence of the dismantled railway line, proximity to other businesses and lack of pedestrian or cycle access balanced out any benefits in visual amenity over the Northern Site.

The AD plant will be located next to the Protein Extract Facility in the remainder of the field to the South as shown below.



Design Proposals

Use and amount

The proposed use of the site is for an anaerobic digestion plant under the use category of waste processing and as such has been referred to County following an initial District application. The overall site area for the anaerobic digestion process is just over 2.8 ha (28,382 sqm) set within a bunded enclosure, the overall area of the application site, inclusive of landscaping, balancing ponds and biodiversity enhancements extends to 5.6ha (56,534 sqm). The new Digester plan will receive and process 'feed stock'.

In order to comply with incentives available to support the development of new renewable gas projects such as this application, at least 50% of the biomethane, by energy content needs to come from waste or residue feedstock. This project goes further in that the majority of the feedstock will come from waste streams, maximising the amount of local waste that can be processed into useful co-products and minimising competition for land with food crops whilst also reducing the need for waste streams to be directed to landfill.

The major waste streams are all non-hazardous commercial food waste from processing, packaging and retailing of food with the possibility of some crop residues from local farms to produce renewable energy and also digestate to be used locally as natural fertiliser.

Feedstock will vary throughout the year and which can be seasonally sensitive, below are a further details of currently available feedstock:

- Food waste to be depackaged
- Residue from food manufacturing processes
- Food processing Effluents and fat traps
- Commercial fruit and Vegetable – spoiled, offcuts, remnants and past sell by date

The process is estimated to produce 70 Gwh of biomethane gas injected into the grid, 8 Gwh of Electrical power to be used by the adjacent factory, and/or injected into the grid.

Digestate volumes will vary with the quality of feedstock with c.10-15% of the digestate recirculated. The following estimates describe co-product materials which will be taken off site either for further processing or use locally:

- | | |
|-------------------|----------|
| • Wet Digestate | 61000 te |
| • Dry Digestate | 16600 te |
| • CO ₂ | 11300 te |
| • Packaging | 3000 te |

Digestate

Digestate is produced at the end of the digestion process, a liquid digestate is formed, which consists of a liquid (wet) and solid (dry) fraction. The solid fraction is a fibrous material held in partial suspension that is separated from the liquid fraction via a screw press. The solid fraction is compost-like in appearance and this can be put back on the land as an organic fertiliser and soil improver. The liquid fraction, which provides useful quantities of nitrogen, potassium, and phosphorus, can also be put back on the land as a fertiliser. The use of the digestate enables a significant reduction in the reliance of fossil fuel dependant nitrogen on the land, much of which is now imported into the UK.

Carbon dioxide

The process also produces CO₂, which is a valuable commodity. Historically, CO₂ has been produced in the UK as part of the production of nitrogen fertiliser. With increased energy costs, the production of fertiliser in the UK dropped significantly, as did the associated production of CO₂ for the food and drinks industry meaning that volumes of CO₂ now need to be imported. Capturing and upgrading and guaranteeing the quality of CO₂ to food grade levels is within the scope of the project and outlined in the plans. Producing CO₂ locally from renewable sources supports local food companies, improves the UK food security, reduces imports and reduces the carbon footprint of food production systems.

Packaging

Packaging types and volumes will depend on what is processed once the plant is operational, the ethos of the applicant is to ensure that there is zero waste to landfill from our processes, and it is intended that downstream uses will be found for all materials

Scale and Appearance

The proposal seeks to maximize the operational synergies of the site, the equipment and buildings will comprise of the following main elements and infrastructure,

Reception Building, Waste transfer/sorting 60 m x 40 m with an overall height of 11.3 metres, feedstock is delivered to the building which is designed to allow tipping trailers to tip inside the building.

The digestate processing building measures 80 m x 62 m with a height of 12.45 metres.

Externally the buildings will be clad in plastisol coated profiled steel sheeting/cladding panels, colours to be agreed light grey or green with the low profile roof and hidden gutters.

Negative pressure is applied to the buildings and vehicle entrances operated with high speed shutters for the control of odours and flies, with an odour control system described further within the application package.

The main AD tanks consist of 2 primary digestors, a secondary digester and thin fraction storage tank, 32 m in diameter, 8 metre wall with gas domes in light grey.

The AD plant area will be surrounded by a impermeable pre cast concrete wall to provide secondary containment, the height of the wall and watertight access gates calculated to provide at least 110% of the largest tank or 25% of the total tankage volume (whichever is greatest) in accordance with Environment Agency requirements..



2 No pre storage tanks , 15 metre diameter with 6 m walls, buffer tanks and pasteurization Tanks are included within the bunded area and 9 metre flare is located in the corner of the bunded area.

Outside of the main bunded areas are 3 further 15 metre diameter storage tanks (in a smaller bund) in addition to the plant for the AD process, decanter, biogas upgrading.

CO₂ liquefaction unit, central heating plant, generator, heating and control units, a table of lengths below.

Ø32x8m Tanks	15.71 m
Ø15x6m Tank	9.63 m
Heating Header Container - 40 feet	2.60 m
Control and utility container - 20 feet	2.60 m
External Heat Exchanger	2.60 m
100 m3 Polyester Silo	11.20 m
50m3 Pasteurization tank	4.50 m
O2 Generator	1.75 m
Biogas Upgrading Unit	7.20 m
CO ₂ Liquefaction Unit	6.75 m
CO ₂ Storage Tank - 50 m3	10.9 m
Flare	9.00 m
Natural Gas CHP - 1000 kW (incl. chimney)	10.00 m

At the entrance to the site will be a weighbridge and the gas grid connection unit.

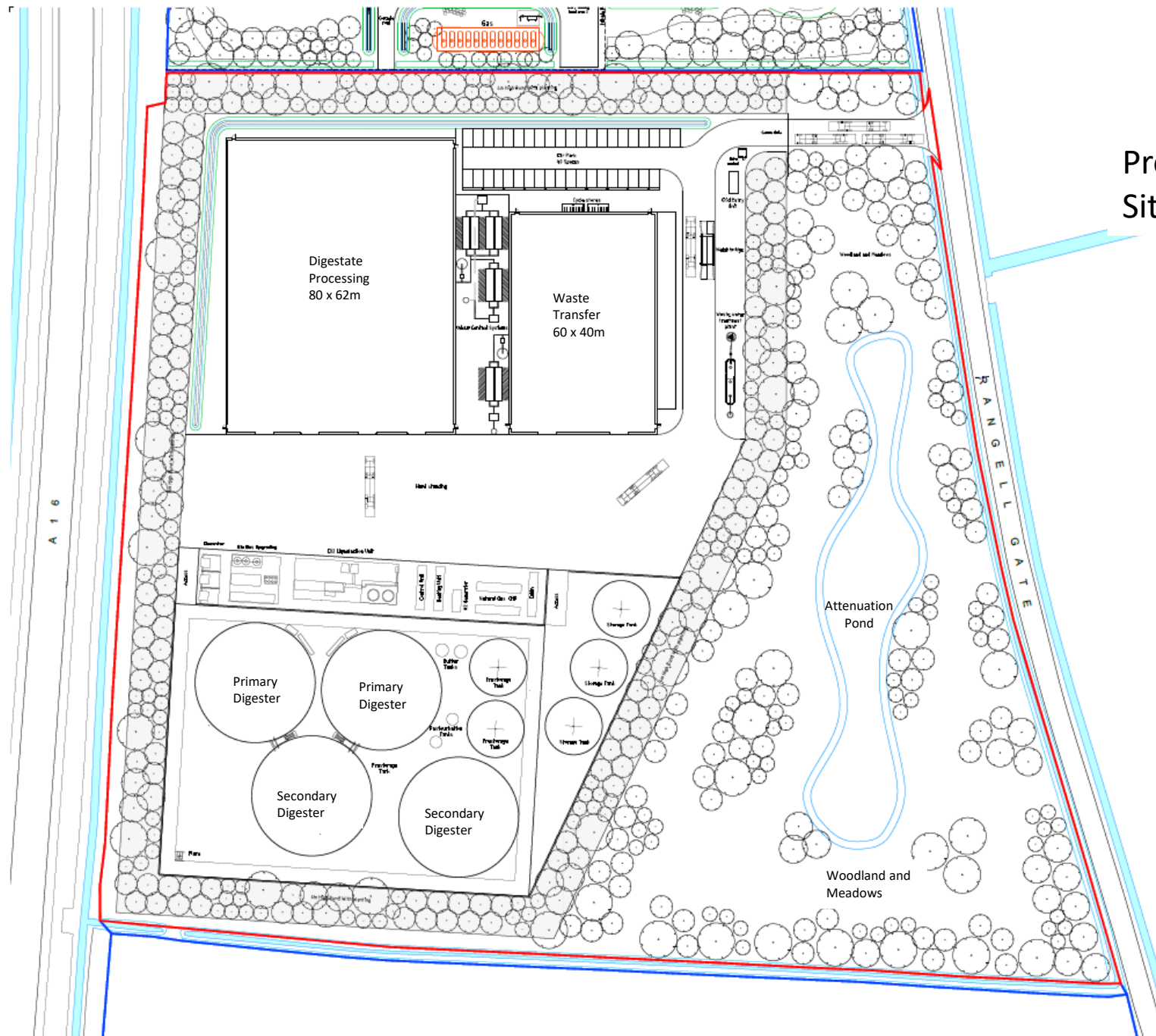
Floor levels of the main buildings and yard are determined by the flood risk assessment and drainage scheme for the site and finalised floor level of 3.400 proposed, approximately 700mm above the existing field levels.

The overall site is rectangular, running alongside the A16 with a landscaped bund around the whole of the site. Outside of the site and to the East between the AD Plant and Rangell Gate is the main SUDs drainage feature which will also be landscaped to provide further screening to the site and biodiversity enhancement.

The entrance to the site is located at the North East corner of the site adjacent to the boundary of factory 1 but 120 metres from the bend in Rangell Gate to allow for the required visibility splays.



4-4.5 m High landscaped banks will be provided around the site similar to the banks around Flamingo Flowers



Proposed
Site Layout

Economic Benefits

The proposed development of the AD plant will add to the economic benefits of the adjacent protein extraction facility already documented under SHDC application reference H16-0959-21. A copy of the economic benefit statement enclosed for reference

The proposals are strongly aligned with local and sub regional priorities to support the areas agricultural and food production sectors and the need to generate new employment and business opportunities.

The Agri-food sector employs 75,000 people across greater Lincolnshire and processes 12% of the UK's food supply.

Delivery of a new anaerobic digestion facility will enable renewable energy to be generated from waste produce from the surrounding area. It would also directly contribute to reducing the CO₂ emissions of South Holland and the UK by contributing to their renewable energy mix and it would be expected to support the areas farming and food production industries by ensuring that there is an appropriate local facility to receive food waste.

The proposed development will create 51 full-time equivalent permanent jobs across the following shift patterns

- AD Plant - 4 people across two shifts.
- Waste Transfer – 2 Shifts of 10 people 5 days a week
- Digestate processing – 10 people in 2 shifts of 8 hours
- Plus overnight, weekend cover/monitoring during digestate process.
- Weighbridge 2 people 8 hours

In addition to direct site staff, employment will also be created in the delivery of feedstock to the site and distribution of digestate out the site.

The benefits of construction activity will be made up of direct jobs involved in the construction of the plant, indirect jobs in businesses providing materials, goods and services to support the construction process (supply chain) and indirect jobs supported in business which benefit from the expenditure of salaries by workers paid from the construction process.

There will be an element of training and skills development in both the proposed development and construction activity

Wider benefits will include the generation of business rate revenue, reduction in greenhouse gas emissions in providing a localised facility.

The project aligns with the national planning policy framework in promoting sustainable development, Regional Economic Strategy such as the greater Lincolnshire LEP Local Industrial Strategy (January 2021 and Protecting, Progressing Prospering: Greater Lincolnshire's Economic plan for growth (March 2021).

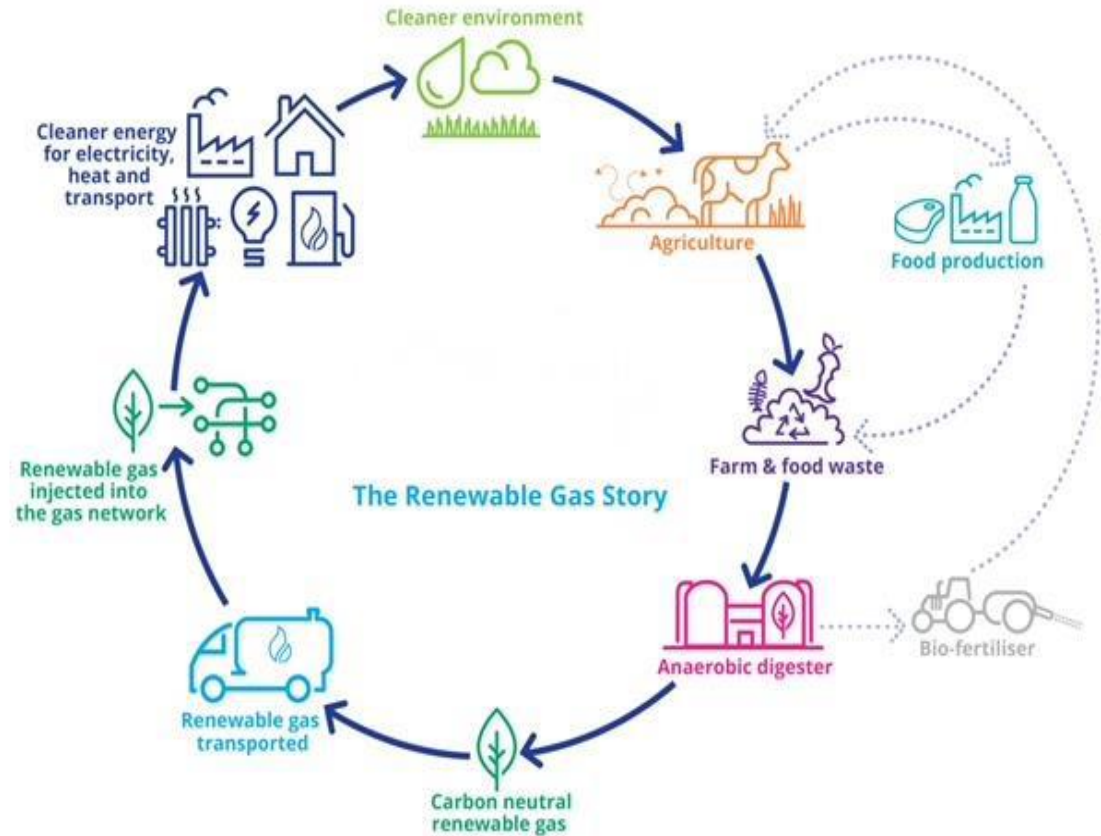
Local Policy context Includes the South East Lincolnshire Local Plan (March 2019) and boosting South Holland Local Economy.

Sustainability and Energy Efficiency

The proposed development of an Anaerobic digester plant on the site adjacent to the soon to be completed state of the art plant based protein extraction facility at Rangell Gate supports a wide range of local and national sustainable development objections.

The development will import feedstock, waste food and agricultural waste to produce biomethane gas which will be exported to the National grid together with electricity for use in the adjacent extraction facility, run the Anaerobic digester process and export the remainder to the national grid. Some of the digestate outputs will be put back through the digestate process, CO_2 used in food production and the remaining digestate used as natural agricultural fertilisers, limiting waste to a minimum.

The sustainability and circulatory of biomethane production is highlighted in the illustration opposite.



Providing such a facility locally will also reduce Transport facilities further away which in turn will help improve local air quality

The proposed construction work will be appropriately managed in terms of waste, pollution prevention and ecology, and the facility will be designed to mitigate flood risk through the use of Sustainable Drainage Systems (SUDs) in accordance with Environmental Agency requirements.

The retention of existing features of nature conservation interest including the hedgerow and ditches and provision of native and biodiverse planting including enhancement of the proposed surface water feature and wetland habitat will deliver a net gain in biodiversity relative to the site's current generally low ecological value.

This site is accessible by sustainable transport modes in various measures or proposed to reduce reliance on single occupant combustion engine cars.

The orientation of the buildings and their roof design would enable the installation of solar photovoltaic (PV) arrays on the South facing roofs, thereby promoting future proofing and putting further electricity into the grid.

Any noise associated with the facility is addressed separately as part of the noise assessment but will not materially harm the surroundings and measures will be put in place to control odours.

Risk from historic contaminated land on the site is low due to the absence of any viable contaminant source on the site.

In view of sustainability, the proposals are considered to fully support relevant UN sustainable development goals to which the NPPF aligns. These global imperatives include innovation, responsible production and consumption, zero hunger, climate action, economic growth and decent jobs.

The proposals also demonstrably meet the strategic priorities of the southeast Lincolnshire local plan to:

- Deliver sustainable development that meets social and economic needs whilst protecting and enhancing its environment for future in generations.
- Conserve and enhance the natural environment
- Minimise the impact of and adapt to climate change through more sustainable use of land and resources reducing exposure to flood risk and promoting sustainable development and
- Promote the efficient use of land.

Landscape and Visual Impact Assessment

A landscape and visual impact assessment was provided by Liz Lake Associates as part of the Protein Extraction Facility proposals for the adjacent site and it is the principles of this assessment that have been applied to the proposals for the AD plant.

At a National, Regional and District level the Character of the site is acknowledged as a low lying flat landscape with drainage ditches, dykes, medium to large fields given over to agricultural use with locally strong hedgerow elements, views fore shortened and restricted by these hedgerows, shelterbelts and woodlands. There is a proliferation of long established agricultural related large scale buildings to the South and East of the site with the new protein extraction facility immediately to the North of the site.

Public viewpoints of the site are limited, landscaping around the new facility further limiting views of the site particularly from the residential properties along Low Road, and Fulney Lane South.

The approach to landscaping and mitigation strategy will build upon the proposals for the Protein Extraction facility and aim to mitigate potential adverse landscape and visual effects and help to integrate the proposed development into the surrounding landscape.

The principle of the landscape strategy include

- Retention and enhancement of existing native hedgerow vegetation (including hedgerow and mature tree lines) and mature vegetation along existing boundaries.
- Strengthening the character of road frontage along Rangell Gate to maintain rural character by introducing appropriate tree planting.



Views from the A16 are largely screened and banking and additional planting will further screen views of the site from the A16

- Reinstating historic field boundaries with native hedgerow planting and key trees (southern Site boundary) to reflect historic character.
- High banks around the AD plant site that replicate the high banks along rivers and drains, a strong Fenland feature, that will provide additional visual screening. The banks will also be planted with trees and shrubs
- New planting, using native trees will continue to help support integration associated with the adjacent A16.
- Maintaining the rural character of the Rangell Gate, by ensuring there is an enhanced landscape fringe beyond the new built form that incorporates new planting to maintain the green and blue infrastructure resource of the drain, also helping to integrate the buildings, which are set back within new native tree groups.
- Provision of local wildlife resource (as part of SUDs by creating new linear ditches with diverse planting mixes), open space and species rich planting and longer grass, including meadow grass and/or pasture to enhance the biodiversity and the open landscape characteristics of the area.
- Provision of orchard trees and other flowering trees on the northeast side of the site to help support the diversity of species.
- The building finishes will be developed with an appropriate RAL colour(s), comprising muted light grey and green to grey in graduated tones to reflect the colouring in the local landscape.



Approach from Rangell Gate, the AD plant will be set back and further landscaping will screen the AD plant and Naylor Nutrition as it becomes established

The change in use of the land will lead to alterations in the landscape and visual appearance of the site but these will be relatively localised and reduced in impact by the already constructed Protein Extraction facility. The local landscape is less typical of the more open characteristic of the Fens that lie beyond much of the local area dominated by localised planting and screening around the Low Fulney Industrial / commercial area and to some degree the A16 and Coronation Channel which cut through the site.

The proposals are considered to have a limited effect on the landscape resource and local landscape character, the change of agricultural land to commercial off set by the new planting which over time will reduce the impact of the development on the area. A significant number of enhancements to the landscape will enhance the biodiversity and appearance of the site.

A more formal Landscape and Visual Impact Assessment could be provided if the County landscape officer deemed this necessary, however we believe the proposals and enhancements together with the previous assessment of the plant Protein Extraction facility are sufficient evidence to allow the development to proceed.



Ecology

Nicholson's provided an Ecological Impact Assessment of the site comprising agricultural land enclosed by grassland margins, wet ditches and scattered trees providing limited opportunities for a wide range of species to forage, commute and shelter.

A number of common bird species were found around the site and several small mammal hole were identified along the banks of wet ditches and although not evidenced the presence of water vole could not be ruled out without further scoping surveys which has been recommended by the ecologist.

It is anticipated that such surveys could be conditioned as part of any decision unless deemed otherwise by the County Ecologist.

A Biodiversity Net Gain Assessment has been carried out in relation to a proposed development of an anaerobic digester factory, with associated infrastructure and greenspace, of land at Rangell Gate, Factory 1.

The proposed development will result in a net gain in habitat biodiversity of +40.95% (+5.09 habitat units), and a net gain in watercourse biodiversity of +15.29% (+0.54 watercourse units).

The Proposed Development does not violate any trading rules within the Metric.

The change in biodiversity value, is dependent upon the implementation of an appropriate habitat management plan within the Site upon completion of the proposed development which we would anticipate to be conditioned as part of any decision.



Flood Risk and Drainage

A flood risk assessment is provided by Ellingham Associates which identified the site within defended Flood Zone 3, an area like most of Spalding, at risk of fluvial flooding but benefitting from protection by flood defences.

Jackson Consulting Engineers have provided a drainage strategy, both foul and surface water for the site. In general accordance with Lincolnshire County Councils 'Sustainable Drainage Design and Evaluation guide' and 'CIRAs C753- The SUDS Manual'

The proposed surface water drainage strategy makes use of the site landscaping with swales leading to an attenuation pond for hard surface run off. Water collection from the building is collected into rainwater harvesting tanks prior to surplus discharge into the Swales, a significant amount of the water being used as part of the digestate process.

Foul water connections to a public sewer have been deemed unsuitable due to the length of connections and disruption this would cause. Subject to a successful Environment Agency application it is likely that a sewerage treatment plant will be provided on site discharging to a water course.

Fire Fighting

2 No Fire Hydrants are to be provided for the adjacent factory prior to occupation it is understood that the main for the Hydrants running along Rangell Gate could be extended to the AD plant site.



SUD's drainage features used at Naylor Nutrition, similar to those proposed for the new AD plant.

Parking, Access and Highways

A transport assessment has been provided by Northern Transport Planning which should be read in conjunction with this Design and Access statement.

Based on the proposed staff numbers and shift patterns, 40 Car Parking spaces are provided to the South East of the site, together with 28 covered cycle spaces located next to the entrance plus designated motorcycle parking.

The site is highly accessible by foot and bicycle, large parts of Spalding and the surrounding area accessible within 2km walking distance (25 minute walk) or 5km cycle ride (15 minute ride) with a shared footway and cycle path along the Northern boundary of the site. A 2m wide footway will be extended into the site.

There are also good public transport links to the area, bus and rail.

As part of the environmental credentials of the scheme 8-10 spaces will have electric vehicle charging points with further spaces ready for future installation of charging points.

Staff will be encouraged to travel on foot, cycle, public transport or car share.

It is proposed that a new vehicular access will be provided off of Rangell Gate, with adequate visibility splays, turning circles etc

Although significant, the anticipated vehicle movements from the site will not have a material impact on the highway network.

Accessibility

Disabled parking bays will be formally provided in front of the building.

Level access to ground floor accommodation will be provided throughout the development.

Disabled facilities will be provided within office and staff welfare area within each of the main two buildings.

Noise

A Noise Impact Assessment has been provided by Nova Acoustics.

The proposed development has been assessed against the requirements of BS4142 and the LPA's policies and guidance.

In order to achieve a low likelihood of adverse impact, the following mitigation will be implemented:

- All buildings must provide a minimum sound reduction of 40 dB RW.
- The CHP units must be housed in enclosures capable of reducing noise emissions by a minimum of 45 dB. It is thought that this can be achieved with a 100mm enclosure such as the 'WA-ACPA100S' from Wakefield Acoustics or a bespoke product from the manufacturer of the CHP.
- Noise from the flare must be reduced to a maximum of 80 dBA at 1m.

The site will operate with best practicable means in mind. In line with good acoustic practices, the following procedures will be adopted:

- All HGVs will be courteous to the surrounding neighbours and abide to on-site speed restrictions. Use of horns will be prohibited unless required for safety purposes.
- All mobile plant and fixed plant will be turned off when not in use. HGVs will be discouraged from waiting outside nearby residential properties and not left in idle during loading or unloading.

- The use of mobile plant will be strictly prohibited during the night-time period (between 23:00 and 07:00 hours).
- All plant will be routinely serviced and maintained to ensure it is operating at optimal efficiency.
- Plant will be placed sympathetically to the surrounding NSRs with a direct line of sight to fixed plant and ductwork terminations avoided wherever possible.
- Shouting and external radios will be discouraged given the proximity to the nearby farms.
- All façade openings to internally noisy areas will remain closed when in use whenever possible, including roller shutter doors or other façade openings.
- Any heavy or mobile plant required for the proposed recycling centre will be assessed separately to ensure that no adverse impact is anticipated at the surrounding NSRs.

Refer to Nova Acoustics full Noise Impact Assessment

Air Quality / Odour Control

A statement of Odour Control has been provided by Naylor Farms Consultant, Waste Powers Limited, Odour Control a key requirements in obtaining and keeping an Environment Agency (EA) permit to operate the plant.

The AD plants will operate in a closed system – waste will be received in a well-designed reception handling area designed to minimise odour release. The waste will then be pumped through to the digesters and after-digesters in a closed system. Methane generated through the process will be injected into the local gas network, CO₂ will be liquified and transported to local food production companies, other gasses will be scrubbed using appropriate techniques. Digestate will be processed on site in a closed system with the product being a stable material.

With regards to the buildings, these will be operated under a negative pressure system for odour and fly control developed by Centriair whom have provided a Technical Description contained within this submission.

Ground Conditions and Contamination

A Phase 1 desk study was carried out by Grange Geo for the adjacent factory but included the current application site, and included within the application package, most of the site comprised of undeveloped land.

The report concludes based on historic use, current use and proposed development the overall risk from land contamination is considered highly unlikely that the site would be considered contaminate land, measures in place for the digestate plant to control any spillages, filtration of any waste water so that only clean water is discharged to the water courses.

Should any evidence of contamination be found during ground works then a ground investigation survey would be carried out.

Under the original district application, South Holland District Council Environmental Protection officer has requested a standard land contamination condition be applied to any decision.

Archeology

Noting that the adjacent site consented in 2021 did not require any Archaeological investigation and nothing of significance was found during the excavations of the works.

As part of the district application the Lincolnshire County Archaeologist has noted that the site lies within an area of Archaeological potential associated with prehistoric and roman settlement activity evidence of Roman occupation having been found in 191 during the excavation of the Coronation Channel 300 metres to the North West of the proposed site.

As such it is recommended that a trial trench investigation is carried out, we would ask that any such requirements are conditioned as part of any decision for the site.