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FAIRMAN KNIGHT & SONS
SUSTAINABLE FARMING

DESIGN AND ACCESS ASSESSMENT STATEMENT
Planning Application for Waste Facility
Reference: Application Number
Site Address: Holbeach Technology Park, 4 Washway Road, Fleet, Holbeach, PE12 8LT
Applicant: Fairman Knight and Sons UK Limited
Prepared by: Julian Knight, CEO
Date: 24 September 2025

1. Introduction

This Design and Access Assessment Statement (DAS) supports a Waste planning application for a change of use at Holbeach Technology Park from an existing Superflora flower packing warehouse (Class B8 storage/distribution) to a commercial-scale waste upcycling facility using black soldier fly larvae (BSFL) bioconversion (sui generis waste management use under the Town and Country Planning (Use Classes) Order 1987, as amended). The facility will process **54,600 tonnes per annum** of surplus vegetal, fruit, grain (including spent and brewing grains), bread, and Category 1 dairy waste, converting it into high-value products: frass fertilizer (5,000 tonnes/year by 2026, £13M revenue at £2,600/tonne), insect protein (4,160 tonnes/year, £5.616M), bio-oil (1.5 million litres/year, £4.5M), and RSPB-endorsed Calci-worms (1,500 tonnes/year, £7.5M). This establishes the UK's first permitted commercial-scale BSFL bioconversion operation, reducing landfill methane emissions by **30,000 tonnes CO2e annually** (valued at £1.5M–£2.1M at £50–£70/tonne under Gold Standard accreditation voluntary carbon markets).

No external structural alterations are proposed; the change focuses on internal reconfiguration to support advanced TRL 8/9 technology, including automated BSFL rearing modules, waste processing units, and AI-driven monitoring (Bug Mars software and Hexapod system). The application seeks full Waste planning permission, with operational conditions for odour, noise, and traffic management, aligning with Lincolnshire County Council's Minerals and Waste Local Plan (Core Strategy and Development Management Policies, 2016) and NPPF Paragraph 130 (well-designed places). Fairman Knight are an Environment Agency Approved Tier 1 Waste Handling Agent - Permit number CBDU 566855.

2. Site and Surroundings

Location and Context:
The site spans approximately 120,000 sq ft within Holbeach on an existing industrial park, an established industrial estate in South Holland District, part of the South East Lincolnshire Plan area and part of the South Lincolnshire Food Enterprise Zone. It is bounded by Washway Road (A17) to the south, agricultural fields to the east/north, and compatible industrial units (e.g., food processing) to the west. The existing building is a single-storey steel-frame warehouse (built circa 2000 for Superflora), with a ~10,000 m² footprint, 8m eaves height, and roller shutter access doors. Surrounding land use is B2/B8 industrial/agricultural storage, with no residential properties within 500m.

Character and Heritage:
The site is non-designated, outside conservation areas or flood zones (Environment Agency Flood Map confirms low risk). No heritage assets are impacted (nearest listed building: Holbeach St John's Church, 2km away). The proposal preserves the industrial aesthetic, with operations internal and no external visual changes apart from Fairman Knight signage and logo on the Office section of the building.

Existing Access:
Vehicular access is via Washway Road (HGV-friendly), with 20 parking spaces (2 disabled bays). Pedestrian access is via a gated entrance with level paving. Public transport includes a bus stop (Washway Road, 200m) and Holbeach Rail Station (3km).

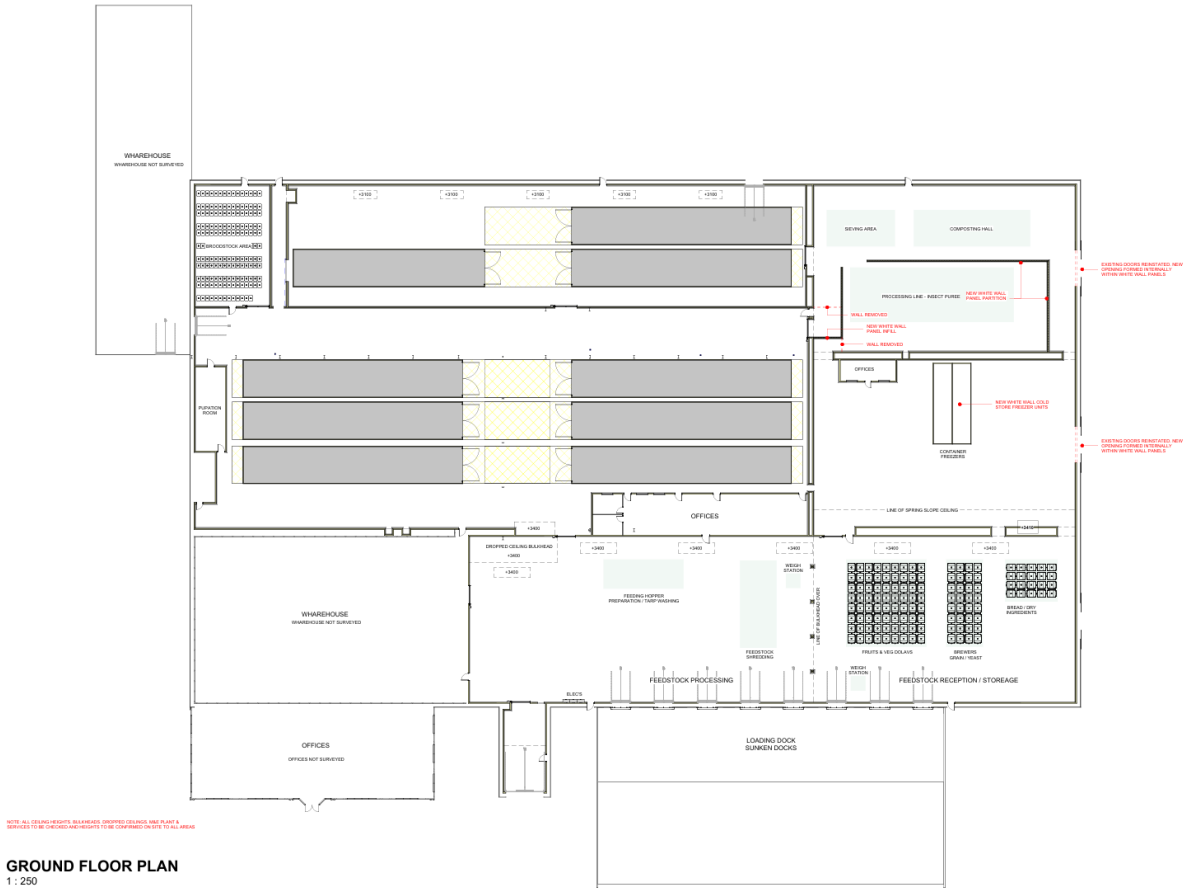
3. The Proposal

Design Principles:
The design repurposes the existing warehouse without structural changes, minimizing embodied carbon (NPPF sustainability goals). Internal layout includes:

- **Bioconversion Zone (60% of floorspace):** 9 climate-controlled rooms with ZOEM vertical racking for BSFL rearing (20:1 waste-to-larvae ratio), integrated HVAC (28-32°C/60-70% humidity).
- **Processing Area (20%):** Waste intake bays, drying kilns for frass/protein, bio-oil distillation units.
- **Support Spaces (20%):** Offices, staff welfare (canteen for 100+ employees), co-product storage.

Scale and appearance are unchanged: No height increases; corrugated metal cladding retained. Odor mitigation uses biofilters and negative pressure systems (EA permitting compliant). Lighting: LED low-glare to minimize pollution.

Amount and Layout:
The facility utilizes the existing floorspace as shown on the proposed darwings, with modular equipment for scalability. Workflow optimizes efficiency: Waste entry at the south (HGV dock), central processing, and the south dispatch. This supports processing **54,600 tonnes of waste annually** without boundary expansion, internally and environmentally controlled by HVAC systems in a white walled area. The activity on this site is approved by APHA (Animal Plant and Health Authority) Animal By Product (ABP) 01/03 and 07 permits and also by Lincolnshire Trading Standards R 07/08 and 13 permits.



GROUND FLOOR PLAN
1 : 250

4. Access

Vehicular Access:
Up to 10 HGV movements/day (5 in/out, reduced from 50 due to lower waste volume vs flower packaging), routed via A17 to avoid local roads. Reinforced concrete surfacing supports 44-tonne loads. Swept path analysis (attached) confirms safe 16.5m vehicle turning.

Pedestrian and Cycle Access:
Dedicated footpath from entrance to welfare areas; secure cycle parking for 20 bikes and car pool share specific spaces. Inclusive design: Ramped thresholds (1:20 gradient), 1.2m-wide paths, braille signage (Building Regulations Part M).

Inclusive Access:
Disabled parking (blue badge compliant), level access, and induction loops in meeting rooms. Staff training on DDA ensures support for diverse needs, including neurodiversity.

Public Access:
Limited to scheduled tours (post-October 2025 launch); no public footfall increase.

5. Sustainability and Environmental Impact

The proposal drives circular economy principles, upcycling **54,600 tonnes/year** of food waste (from partners like Greencore, Worldwide Fruit, TH Clements) into sustainable products, supporting SDG 12 (Responsible Consumption). Key benefits:

- **Carbon Reduction:** Avoids 30,000 tonnes CO2e/year via methane diversion; pursuing Gold Standard accreditation.
- **Biodiversity:** Frass enhances soil health (+20% microbial activity); RSPB-endorsed Calci worms for wildlife.
- **Energy/Water:** Solar PV (50kW); rainwater harvesting (95% reuse).
- **Waste Hierarchy:** Prioritises prevention/reuse; zero landfill output.

Environmental assessments (Flood Risk/Sequential Test, EIA Screening Opinion requested) confirm minimal impact. Noise/odors below EA thresholds; traffic increase <3% on A17 (TA attached).

Holbeach Black Soldier Fly (BSF) Plant – ESG & Community Impact Statement

1. Awards & Recognition

• Green Business of the Year 2025 (Lincolnshire County Council).
• Blue Earth BE100 Global Competition Growth Finalist 2025 – Top 8 nationwide, Scale Category.
• Innovation Zero Awards 2026 – Submitted in multiple climate solution categories.
• South Holland Business Awards 2025 – Nominated for Best Business

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Innovation and Business Doing Most Good.

• Innovate UK Launchpad Competition Winner (Agri-Tech).
• Future of Food Competition (Nationwide) – Highly Commended.
• UK's first fully permitted commercial-scale BSF farming operation – setting a benchmark for UK insect farming.

2. Funding & Grants

• NAPIC Research Grants – with University of Nottingham on advanced BSF bioconversion.
• UK Shared Prosperity Fund (UKSPF) – supporting regional innovation.
• Grants4Growth (South Holland District Council) – recognising environmental innovation.
• Made Smarter East Midlands Grant – scaling digital and operational capacity.
• Innovate UK Launchpad Grant
• UK ADOPT Project Facilitator

3. Environmental Impact

• Surplus Food Waste Upcycling: Diverts thousands of tonnes of food waste annually from landfill/incineration into sustainable protein and organic fertiliser.

• Carbon Savings: 30,000+ tCO_2e avoided emissions annually. These are accredited by the Gold Standard Carbon Accreditation and are for avoidance of methane emissions by diversion of surplus food waste from landfill using a decentralised waste processing plant

• Circular Economy Leadership: Proven model of "waste to wealth" – transforming food waste into protein and soil health.

4. Community & Social Impact

• DWP SWAP Scheme Partner – reskilling and employing local people in green industries.
• Armed Forces Covenant Signatory – employing and supporting veterans.
• University Collaborations – with Lincoln, Nottingham, and others on entomology, bioconversion, and agri-tech research.
• Education & Outreach – guest lectures, site tours, student placements, inspiring next-gen scientists and farmers.
• Earth Kind Foundation - set up to retire GS Carbon Credits and divert them to national ESG Innovation Projects

5. Economic Impact in Lincolnshire

• Local Jobs: Skilled roles in entomology, insect operations, and agri-tech engineering.
• Supply Chains: Strengthening regional food resilience and waste management.
• Innovation Hub: Holbeach plant anchors Lincolnshire as a national centre for insect protein.

6. Leadership & Governance

• Julian Knight – RAF veteran, 35+ years in environmental finance, originator of Eco Man at Man Group PLC, pioneer of the first Gold Standard Carbon Credit, and CEO of Fairman Knight.

• Public Roles:

- o Economic Advisory Panel Member to the GLCCA Mayor
- o Lincoln Climate Commissioner
- o UK Food Valley Programme Panel member
- o LINCAM Ceres Agri-Tech EDI Panel (University of Lincoln) member

• Board: Mark Aitchison, Geoff Meacock, Ed Hauck, Daniel Alter.

• Compliance: CPH 24/302/8102 | APHA AB117 U1610367/TRANS | Trading Standards R07/08/13 GB 218 E 3056 and Tier Waste Handlers Permit.

7. Work with Higher and Further Education in the region

• University of Lincoln NAFM – Co Founders attended specialist courses via UKSPF at Holbeach Campus
• University of Leeds PhD Sponsorship
• University of Nottingham Food Sciences NAPIC Funded Partnership
• Harper Adams Frass Trials via Innovate ADOPT Partnership
• Boston College DWP SWAP and bespoke Insect Operator Mature Student Courses

8. Why It Matters for Lincolnshire

Fairman Knight's Holbeach facility is more than a plant: it is a flagship project for Lincolnshire, combining:

• Environmental leadership (UK's first commercial BSF site).

• Economic growth (jobs, skills, supply chains).

• Community impact (education, DWP partnerships, veterans).

• National visibility (awards, media, government interest).

Contribution to Lincolnshire County Council's Net Zero & Growth Agenda:

Net Zero 2050 Alignment: Direct contribution to the county's climate strategy through measurable carbon reductions.

Food Security & Sovereignty: Reducing reliance on imported soy and fishmeal, strengthening the UK food chain.

Innovation Cluster: Positioning Lincolnshire as the UK leader in insect farming and circular agri-tech.

Local Prosperity: Creating green jobs, attracting inward investment, and upskilling local communities.

It demonstrates that Lincolnshire leads the UK in sustainable agri-tech, positioning the county as the home of the next major green industry.

Fairman Knight's Holbeach plant is not just a farm – it is a cornerstone of Lincolnshire's Net Zero delivery plan, a flagship for circular economy innovation, and a catalyst for regional prosperity.

6. Planning Policy Compliance

- **National:** NPPF Chapters 8 (sustainable places), 9 (biodiversity), 15 (resource conservation). Complies with National Planning Policy for Waste (2011).
- **Local:** Lincolnshire Minerals and Waste Local Plan Policy WM1 (sustainable waste management); South East Lincolnshire Plan Policy EC1 (employment sites). Supports Central Lincolnshire Joint Strategy for Food Valley innovation.
- **Material Considerations:** Economic impact (100+ jobs, £31.616M revenue by 2026); no Green Belt/AONB conflict.

The National Planning Policy Framework (December 2024) (NPPW) sets out the Government's planning policies for England. It is a material consideration in the determination of planning applications and adopts a presumption in favour of sustainable development.

A number of paragraphs are of particular relevance to this application as summarised:

Paragraphs 7 to 12 - Sustainable Development
Paragraph 39 - Positive Decision-Making
Paragraph 85 - Building a Strong, Competitive Economy
Paragraphs 88 and 89 - Supporting a Prosperous Rural Economy
Paragraph 124 - Making Effective Use of Land
Paragraph 181 - Flood Risk
Paragraph 187 - Conserving and Enhancing the Natural and Local Environment Paragraph 193 - Habitats and Biodiversity
Paragraph 198 - Acceptability of New Development
Paragraph 232 - Status of Local Plan Policies and their Consistency with the NPPF

National Planning Policy for Waste (October 2014) (NPPW) is a material consideration in the determination of planning applications and should be read in conjunction with the NPPF. Appendix B sets out specific locational, environmental and amenity criteria to consider when assessing waste management proposals. Of main relevance to this proposal are those relating to protection of water quality and resources and flood risk management; landscape and visual impacts; nature conservation; air emissions, including dust; and noise, light and vibration.

Lincolnshire Minerals and Waste Local Plan: Core Strategy and Development Management Policies (adopted June 2016) (CSDMP) - as an adopted document, the policies contained therein should be given great weight in the determination of planning applications. The key policies of relevance in this case are as follows:

Policy M1 - Recycled and Secondary Aggregates
Policy M11 - Safeguarding of Mineral Resources
Policy M12 - Safeguarding of Existing Mineral Sites and Associated Minerals Infrastructure
Policy W3 - Spatial Strategy for New Waste Facilities
Policy W4 - Locational Criteria for New Waste Facilities in and around main urban areas Policy DM1 - Presumption in favour of sustainable development
Policy DM2 - Climate Change
Policy DM3 - Quality of Life and Amenity
Policy DM6 - Impact on Landscape and Townscape
Policy DM8 - Nationally Designated Sites of Biodiversity and Geological Conservation Value
Policy DM9 - Local Sites of Biodiversity Conservation Value
Policy DM15 - Flooding and Flood Risk
Policy DM16 - Water Resources

East Lindsey Local Plan (adopted July 2018) (ELLP) - as an adopted document, the policies contained therein should be given great weight in the determination of planning applications. The key policies of relevance in this case are as follows:

Policy SP1 - A Sustainable Pattern of Places
Policy SP2 - Sustainable Design Policy SP10 - Design
Policy SP13 - Inland Employment
Policy SP16 - Inland Flood Risk
Policy SP23 - Landscape
Policy SP24 - Biodiversity and Geodiversity

7. Conclusion

This change of use transforms a redundant warehouse into the UK's first commercial-scale BSFL bioconversion facility, delivering net-zero innovation with minimal environmental or access impacts and a never before seen yield of carbon credits due to the Gold Standard recognised methodology of reduction in methane emissions from landfill due to decentralised organic waste processing. The design is functional, inclusive, and sustainable, enhancing Holbeach Technology Park's role in circular economy and regenerative agriculture. We invite officer feedback and pre-application discussions.

Appendices:

- Site Location Plan (1:1250).
- Existing/Proposed Floor Plans.
- Swept Path Analysis.
- Sustainability Statement.
- Flood Risk Assessment.

Prepared By:
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CEO, Fairman Knight and Sons UK Limited
Date: 24 September 2025

Authorized Signature:



Julian Knight
Director
Fairman Knight and Sons UK Limited