



North Yorkshire Call for Sites Submission

Aiskew Agritech Park

Land to the West of Junction 51, A1(M)

on behalf of Green 4 Developments Ltd

June 2024

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1.0 Introduction

- 1.1 This submission has been prepared on behalf of Green 4 Developments Ltd, to ensure that land to the West of junction 51 of the A1(M), (north of Aiskew), is given due and proper consideration in any plan making or consideration of sites available for development purposes.
- 1.2 We have enclosed at Appendix 1 a site location plan. All the land within the red line forms part of a promotion agreement between Green 4 Developments Ltd and the landowner. It is all immediately available for development.

2.0 The Site

- 2.1 The site is located around two kilometres to the north-east of the town of Bedale and lies on either side of the eastern end of the new A684 link road between the A1 and Bedale. A plan is attached at Appendix 1.
- 2.2 The site area is circa 158 ha.
- 2.3 The site lies adjacent to the A1(M) junction 51 for Leeming Bar, Northallerton and Bedale, but is separated from the A1(M) by the A6055 single carriageway road which runs along the eastern boundary of the site and provides access into it.
- 2.4 The site has no current Local Plan Allocation but does include the Aiskew Roman villa a Scheduled Monument.
- 2.5 On the Eastern side of Junction 51 opposite the site is the Leeming Bar Industrial Estate and Exelby Service Station.
- 2.6 The “Wensleydale Line” railway line runs east-west, just beyond the southern boundary of the site, with stations nearby in Leeming Bar and Bedale. The Scurf Beck watercourse runs along the western boundary of the site.
- 2.7 The site lies along a ridge, with the wider topography falling away to the west

3.0 The Concept

- 3.1 The intention of the proposal is to provide a comprehensive employment allocation that is specifically targeted to make provision for emerging technologies in agricultural production and food manufacture and create supply chain resilience in the agricultural sector.
- 3.2 The Aiskew Agritech Park will be a key component in tackling food and plant-based production resilience in the future.
- 3.3 The site can combine intensive agritech development with the necessary supporting facilities to provide a complete serviced location for this type of business. In addition to agritech and food / pharma manufacturing buildings, the site would also include education, innovation space, start-up and incubator spaces, energy generation and distribution and technology maintenance facilities.
- 3.4 This site could encompass the best of “next generation” food and plant-based production, along with the research and development that is part and parcel of this sector. It is considered particularly important that the site is set in a traditional farming environment, as part of a homogeneous agricultural landscape
- 3.5 The proposal is intended to respond to the pressing need to increase the resilience of agricultural production in the UK. Nationally, we have to make this shift, as we have to address issues of production, insecurity, global supply fragility and climate change.
- 3.6 Although, in a planning context, the scheme will fall as an employment allocation, we believe that it is an innovative and somewhat unique concept that needs to be considered on its own merits in a spatial planning context. Whilst other employment allocations are likely to be proposed across the Council area, it is unlikely that they will be as targeted and intentionally-specific as the Aiskew scheme.

- 3.7 It must be recognised that traditional farming is becoming more challenging, as a result of climate change, controls on pesticides and necessary wildlife protections and supply-side infrastructure changes, like Brexit. Taken together, alongside global insecurity, the current cost of living crisis has, in no small part, been fuelled by the increasing challenges and costs of food production. As a result, we believe that “on-shoring” more production is critical to challenging the cost-of-living issues in the first place, and then in addressing the uncertainties of global food markets and accessibility.
- 3.8 It is not sustainable or economically sensible for the UK to be relying on imports for example of fruits with a very high water content from countries that are water-stressed. This has to change – and Agritech offers a solution for the UK to become more self-reliant and self-sustaining in this respect.
- 3.9 The UK Governments own “United Kingdom Food Security Report 2021: Theme 2: UK Food Supply Sources” states that the UK only produces 54% of its own food¹. This will necessarily need to change over the coming years.
- 3.10 But the combination of rural labour shortages, Brexit and seasonal worker effects, and lower transport costs offsetting the lower cost of production elsewhere in the world makes this almost impossible for traditional farming methods to achieve. The solution will lie in greater reliance on a hybrid model – where traditional agriculture sits alongside new technologies that can improve yields, improve reliability of production and allow production of plant-based crops that would otherwise be impossible to grow in the UK climatically.

¹ <https://www.gov.uk/government/statistics/united-kingdom-food-security-report-2021/united-kingdom-food-security-report-2021-theme-2-uk-food-supply-sources#:~:text=The%20UK%20currently%20produces%20the,meat%2C%20dairy%2C%20and%20eggs.>

The Masterplan

- 3.11 A concept Masterplan is attached at Appendix 2. The masterplan can also be seen at the Aiskew Agritech Park website: <https://www.aiskew-agritech-park.co.uk>
- 3.12 The masterplan for the scheme has already gone through two iterations, as the scheme is refined and responds to feedback from a wide range of local, academic and industry stakeholders. It will continue to be refined as we move through the Local Plan process. The intention, is that the masterplan should, to some degree, be a “living document”, that is able to change and adapt to the requirements and needs of the Agritech industry over time.
- 3.13 Certain elements are fixed and will need to be provided – the Agritech buildings themselves, comprising a range of vertical farms, production and manufacturing spaces, the distribution and vehicle fuelling and charging spaces, the innovation and R&D spaces and so on. However, these can be flexible in terms of precise location and configuration to respond to design parameters and occupiers as these emerge.
- 3.14 However it is configured, the site will necessarily comprise the following land uses:
- **Production facilities** – efficient, low carbon, high-tech vertical farms or similar, that produce at many orders of magnitude higher than the footprint they sit upon could achieve traditionally
 - **Service & Maintenance facilities** – complementing the production facilities, and allowing their suppliers and technology providers to be co-located on the same site, to maximise efficiency and minimise downtimes
 - **Energy generation** – such as AD, micro-wind turbines, on-building solar, hydrogen infrastructure, batteries

- **Waste handling and water capture and storage facilities** – building a circular economy – bringing together energy, water and waste as valuable resources that are captured and re-purposed, from within the site and potentially beyond
- **R&D and Experimentation facilities** – for start-ups and innovative ventures that are developing new and emerging technologies
- **Training and education** – college and University facilities for R&D, learning and discovery – probably working in tandem with production and Experimentation activities on site
- **Managed, productive properly purposed Open Space** – working open spaces that provide for water capture and management, biodiversity net gain, production and traditional growing, education and learning about agriculture

3.15 Further work on the masterplan, will feature some key refinements and further developments, based on increasing knowledge of the sector and the way that it is seeking occupiable space. We envisage the following changes;

- The EV charging facility can be broadened to include hydrogen and the potential for other alternative fuels that may emerge for trucks.
- The education campus could be linked to the innovation space, with a more flexible approach to its occupation, with students spending time there during the week, rather than being based their full time. This responds to comments that establishing wholly new campuses can be unviable for colleges – but access to teaching spaces throughout the week would be beneficial.
- The energy provision on site is unlikely to include an SMR provision, as these are seemingly Govt supported schemes, and are being placed on particular sites, often where there is a history of nuclear power. There is a need to

work with the grid operator and other energy stakeholders to develop an over-arching energy strategy for the site, and this work is starting now.

- The opportunities for geothermal and heat storage and re-use, especially on the land that buildings physically occupy, needs to be developed, with a clearer picture of how this could be used on the site, and what infrastructure would be needed to manage it most effectively.
- Space for carbon capture facilities may be worthwhile on the site. The possibilities around technologies such as CO₂ capture by rock weathering may be especially appropriate on parts of the site.

4 Suitability and Importance of Aiskew Location

4.1 There are limited locations where an Agritech Park could be located. It needs to be in a place where there is good accessibility to a number of conurbations nearby (Leeds / Bradford, Manchester and Newcastle upon Tyne are all easily accessible from Aiskew), and it also needs to be able to dovetail into the existing agricultural landscape.

4.0 This integration is important for three reasons:

- Traditional skills
- Education and new skills
- Integrated food production

4.1 The traditional farming skills and lifestyle that exists in this part of Yorkshire means that it is already a core location for food, plant-based and livestock production in the UK. Many of these skills and lifestyles are being lost, or at least threatened, as upcoming generations choose not to stay within the sector, and the average age of farmers is increasing dramatically. The Governments Agriculture UK Evidence Pack shows that almost 40% of farmers are OVER 65².

4.2 Meanwhile, there is a dearth of high value job opportunities in many rural areas, including in North Yorkshire, as young graduates seek higher earning jobs in cities. Embedding Agritech facilities into the traditional agricultural landscape therefore begins to knit a range of higher value, skilled and vocational jobs into the rural landscape, and provides a broader economic future for communities in these areas. North Yorkshire is especially suitable for this type of investment, with agriculture featuring heavily on the education spectrum at both University of York and Askham Bryan College.

²

https://assets.publishing.service.gov.uk/media/6331b071e90e0711d5d595df/AUK_Evidence_Pack_2021_Sept22.pdf

4.3 Finally, we consider that it will be important to have traditional and Agritech production side-by-side as that will allow efficiency production of food products which could constitute both traditionally produced elements and Agritech outputs. We believe that the requirements of cost-effective food production will mean that having Agritech embedded within the landscape of traditional agriculture will allow the benefits and efficiencies of both to be maximised.

5.0 Planning Context

- 5.1 Although it does not provide a strategic allocation for an Agritech park, the extant Local Plan for Hambleton does recognise that there is a need for agricultural development and diversification and supports this approach within the District.
- 5.2 We consider that the provision of the Aiskew Agritech Park within the North Yorkshire Council area as a strategic allocation in the next iteration of the Local Plan will bring about a wide range of economic and social benefits, we summarise these below;
- 5.3 **Production Hub** – the site would work together with other emerging agriculture trends – pharma, regenerative farming, and other technologies to increase resilience in UK based productivity. The inclusion of educational spaces, R&D facilities and an innovation incubator will mean that overall productivity is assured.
- 5.4 **Partnership with Traditional Agriculture** – the scheme will include areas of experimental and community farmland that creates a strong link with traditional farming. This land will link to the education and R&D activities on the site to open up access to the sector, across both school pupils and adults to improve learning and allow people from North Yorkshire to genuinely engage with agriculture. In turn, this should open the way for more holistic land management, as a symbiotic relationship with long-established farming culture.
- 5.5 **Skill Creation** – the Park will feature intelligent buildings, where reliance on software engineering and automated production will be fundamental to their operation. This will require a range of jobs – from the highest research based, technology and IT skills which would require graduate level qualification and beyond through more vocational skillsets based on engineering and maintenance of the technologies employed. These would range across IT, horticulture, biology and engineering disciplines – all part of the “STEM” sectors that are increasingly economically valuable.
- 5.6 **Growing the Rural Economy** – Although the UK population growth of 9.7m is forecast in

the next 25 years, this doesn't tell the full story – the growth is disproportionate, with more growth in cities, and continuing loss of population in rural, post-industrial and coastal towns. Creating aspirational businesses and technology jobs in the countryside is valuable, and secures the rural economy for the future.

- 5.7 **Biodiversity creation** – the achievement of net gain is going to challenge the development industry to maintain productivity and cost-effective construction whilst meeting the need to boost biodiversity. The leading-edge technologies and research that would be implemented at the Agritech Park would make it an exemplar in this emerging requirement.
- 5.8 **Flooding and water management** – the site will capture and re-use any rainwater run-off as a useable resource. This means that there is planned to be a net reduction in run-off during storm events, despite the increase in impermeable roofs and surfaces over some of the site. Similarly, waste water will be treated on site, on the principle that the site should be self-sufficient, and not rely on spaces elsewhere to do so.
- 5.9 **Food security and malnutrition are increasingly urban issues** – having high-capacity productivity centres that are Regional – like Aiskew, is important in maintaining healthy diets in urban areas. Access to large conurbations in a way that can be achieved sustainably, is vital to the achievement of net zero and of our response to the climate change agenda.
- 5.10 **Climate activism positive** – the scheme can be delivered using the latest and best environmental credentials, to ensure that the scheme is positive about the climate emergency and the part it plays.

Planning Approach

- 5.11 Whilst promoting the site through the Local Plan we also see the benefits of a Local Development Order, prepared alongside the Council. This would allow certainty for potential occupiers that they could take up space on the site, but with sufficient planning controls, with a defined “envelope” for the planning authority to be comfortable that the scheme would deliver what as

expected.

- 5.12 This is especially important as the Agritech sector typically moves faster than the UK planning system, and so it will be vital for potential occupiers with relatively immediate requirements to be able to have certainty that the site can meet their needs.
- 5.13 As part of this we set out below a series of Principles which will be the benchmark against which the scheme should be tested and evaluated as it moves through the planning process.
- 5.14 As the scheme is focussed around resolving issues of food production and food security the eight principles target these issues most directly. They are not intended to be planning obligations, for example, dictating physical parameters of the site such as building heights and so on, but rather are objectives against which the scheme can be evaluated against the specific reasons for the approval of an Agritech Park, as opposed to general employment or other development.
- 5.15 We believe that the Aiskew Agritech Park concept is “ahead of the curve”, and that there are a series of core challenges that will need to be addressed in order for them to be brought to fruition. Not least among these is a reticence by both Government and industry to fully embrace the consequences of the food security issue. We are hopeful that the incoming Government, after the election on 4th July 2024, will be keen to change the dial on this issue, and be positive about the potential of Agritech. We published a News item about the party manifestos on the scheme webpage: <https://www.aiskew-agritech-park.co.uk/news/>
- 5.16 Each principle sets out a clear objective, with the reason for it (as a question that it responds to) and is explained with a narrative:
- 5.17 ***Principle 1: to deliver an agritech focussed development proposal delivering a greater volume of more reliable productivity that the existing “benign” open fields, demonstrating how resilience can be delivered in terms of agricultural supply (food, pharma etc).***
- 5.18 ***Responds to the Question:*** *how does the UK tackle issues around a volatile and changing world (conflict, climate emergency etc) to secure its food supply in the future?*
- 5.19 ***Narrative:*** A development of high-tech buildings, of different types and configurations, with controlled environments, using hydroponics and other emerging techniques to provide a higher

level of output compared to the current passive arable agricultural land use.

5.20 **Principle 2: to deliver a secure, reliable, cost-effective and sustainable energy solution.**

5.21 **Responds to the Question:** *recognising that around two thirds of the capital and operational costs for intensive agritech is related to energy infrastructure and supply costs, and that energy security and self-sufficiency is a topical and current UK issue (along with food security), can the site deliver a market-leading advantage in energy provision, and, especially, outwith the wider electricity market through a long-term contractual arrangement and associated use of self-generation and storage technology?*

5.22 **Narrative:** intensive agritech will require high energy usage, especially in light generation, and so this is an unavoidable side effect of this type of development. On-site generation can go some way to addressing this issue but won't be likely to meet the full / peak demands. Finding a solution to this is likely to be an unrivalled USP for the site. Linkage to an energy supplier, and use of on-site generation and off-peak battery storage may well be an option. The potential to link to or even provide large-scale wind turbines could open the way to long-term, fixed cost agreements with generators, especially if on-site storage can accept generation at low-demand periods. Likewise larger capacity options may exist and the exploration of solar and geothermal technologies, as well as established energy-from-waste technologies like AD may all play a part. It is unlikely that there will be a single option solution, and the scheme is likely to have a range of technologies all working in concert.

5.23 **Principle 3: ensure that every single square metre of the site has a beneficial, value creating and productive purpose.**

5.24 **Responds to the Question:** *land is finite, and coming under a range of pressures for homes, economic activity and environmental controls, as well as for agricultural production – is there a land use model for development that works land as hard as it is possible to work it, with the primary objectives of the scheme around agricultural and energy security in mind?*

5.25 **Narrative:** Traditional distribution parks and similar types of large volume building developments have large areas given over to managed "open space", unnecessary and wasteful verge areas, and "turfed and tree'd" interstitial spaces between them that are highly managed, unproductive and have a marginal aesthetic value. Can these spaces retain their green purpose, whilst at the

same time being productive rather than merely aesthetic? This is likely to involve engagement with educators, local communities and the CSR aspects of business and industry to make the land available for micro-production and learning, rather than as unused open space.

5.26 **Principle 4: to develop a landscape-led approach to masterplanning the site to ensure that the development knits into its setting as a legitimate part of the agricultural landscape.**

5.27 **Responds to the Question:** *recognising that humans have shaped the landscape for thousands of years, but we still construct buildings and developments which are incongruous, can a scheme be harmonious in its landscape, whilst being transparent in its objectives?*

5.28 **Narrative:** to support an ambition to achieve an exemplar of sustainable development that puts quality of life and quality of the environment at the top level of the development agenda. The basis of this approach will be founded in researching and mapping contextual landscape issues including topography, hydrology, geology, microclimate, climate, social profile, economic, transport, educational, energy and industrial strategies, biodiversity, vegetation, history and cultural issues. Architecture should recognise that the site is a legitimate part of the agricultural landscape, and so should celebrate this and not be “apologetic” in nature and trying to hide.

5.29 **Principle 5: to make provision for education and development of agriculture and food-tech sectors by providing space and facilities for training and development.**

5.30 **Responds to the Question:** *choosing to work in the food and agriculture sector is not seen as high value or aspirational, and so there is a decline in people wanting to engage in and develop careers in the sector. Can a flagship agritech scheme be the catalyst for changing this decline?*

5.31 **Narrative:** High-tech agriculture and intensive, environment-controlled farming requires considerable robotic and computer technology – opening the way for high value technical jobs in a sector where these have not traditionally existed. The schemes need to contribute positively to the concepts of the “levelling up” agenda wherever they are located, and foster connections with relevant educational bodies – both colleges and universities. Apprenticeships and training schemes can encourage young people into the sector, arresting the decline in interest in farming and agriculture. The much higher productivity rates from intensive farming lead to a higher potential to earn a good living from agriculture. Creative initiatives can use the facility to make

connections between education and agritech – for example, in Sweden there is an initiative to encourage people into farming, by providing training and land access for them to gain experience and develop skills in agriculture. This could be an initiative that could make use of the land around any buildings, to keep it productive and add value to the agricultural and food-tech credentials of the site.

5.32 **Principle 6: to make the scheme a centre for and agritech R&D opportunities by establishing an agriculture project hub and innovation space.**

5.33 **Responds to the Question:** *how does the UK up its game in economic benefits from the food and agri sectors, and can it develop and sell world-leading support and expertise into this arena from facilities that are closely associated with high productivity, sustainable food projects like this?*

5.34 **Narrative:** Providing space for IT / R&D related to agri support and food tech across the breadth of the sector, but especially around increasing productivity and resilience. Innovation and start-up space could be provided especially for horticultural tech, soil management, crop monitoring, automation etc.

5.35 **Principle 7: to be a model for other agri-tech hubs and initiatives in the UK, sharing knowledge and experience on an “open source” basis to ensure agriculture resilience, address energy challenges and security of supply.**

5.36 **Responds to the Question:** *if there is a need to increase food and agriculture security, and develop more reliable, resilient and productive facilities to do so, then who is taking the lead in developing such facilities, and how will the learning be shared to ensure that the knowledge is shared as effectively as possible, knowing that time is of the essence in respect of climate issues, amongst others?*

5.37 **Narrative:** Done well, as a series of flagship, “first in class” projects, there should be “first-mover” advantage in being able to locate and promote similar schemes on a regional basis.

5.38 **Principle 8: to ensure the viability of the proposition in land value terms.**

5.39 **Question:** *if food production and agriculture have always been low value, low margin businesses, how do we develop a model that recognises that intensive agriculture represents a paradigm shift*

in the sector, with multi-fold factors of improvement in productivity being a driver for higher earnings, and hence higher land values?

- 5.40 **Narrative:** The agritech sector represents an emerging market, and so is difficult to evaluate against traditional land development models – the extent of possible risks and unknowns in the land development model (even where these don't exist in the agritech model) mean that some incentivisation may be necessary – tax breaks, investment zones and the like may be required to underpin the development model. We expect to work with politicians – locally to our sites and nationally, to lobby for greater recognition of the value of food security and recognition of the part that agritech can, and, in our view, must play embedded within and alongside traditional agriculture.

TECHNICAL OVERVIEW

- 5.41 Technical support work for the site is underway and will be provided to the planning authority as work progresses. It focuses on several key technical areas including ecology, landscape and visual, heritage and transport.
- 5.42 Ahead of the work being finalised we have undertaken an appraisal of the various risks and highlighted the matters we need further understanding of. Attached at Appendix 3 is a summary of this assessment and this clearly demonstrate how we are considering all the relevant matters and at this stage we can see no barriers to development further to the work being completed.

6 Conclusion

- 6.1 The significance of the “Agri-Tech” sector is important to North Yorkshire because it addresses supply chain and availability challenges across every type of plant-based production. This includes food but isn’t limited to it, it is also a staple of pharma, plastics, hemp, natural fabrics and many other products, many of which may currently be reliant on fossil fuels to produce, and where alternatives are going to be necessary.
- 6.2 The aim of the proposal is therefore to “provide an ecosystem for innovation in agri-tech”. We consider that the need for facilities for Agritech is becoming so pressing that it needs to be specifically provided for in Local Plans as part of the planning process. It should not be placed alongside other, general employment sites or commercial floorspace that is not specific to a particular land-use. Such an approach is likely to mean that sites may be swallowed up by more general employment activities, which are less sustainable, and which will not contribute to the food security and supply resilience that the UK requires.
- 6.3 The Regional context of the proposal is intended to reduce food miles and helps to restore resilience to the supply chain for Leeds, Harrogate and the North-East.
- 6.4 The site will be a hub for CEA development - Controlled Environment Agriculture aka “Vertical Farming”, and research into this sector. It will feature a range of facilities specifically for these purposes, and a series of support and core uses that are related to and which will be necessary to achieve the success of Agritech in the UK.
- 6.5 The Aiskew Agritech Park will provide four headline benefits:
- **Security & resilience** – whether its food or pharma, or anything else plant-based, produce from Aiskew shortens and secures supply chains for the UK
 - **Revitalise farming** – create a new profession and career path in North Yorkshire that brings together agriculture and technology – software and tech geeks

- **Climate activist friendly** – produce grown at Aiskew will be climate activist friendly, because it will be carbon net zero
- **Value driven** – growing the right crops, for the right market, to create value through higher, more reliable productivity, and to dovetail with traditional farming techniques in the production of better, higher value food products

Appendix 1



Appendix 2





Bio-diversity Net Gain
No public access, planted green space to ensure bio-diversity targets achieved

Bio-diversity Net Gain
No public access, planted green space to ensure bio-diversity targets achieved

Experimental Farm
Teaching and educational space for open crop experimentation - linked to local educators (schools, colleges), through on-site FE campus

Sustainable Urban Drainage
SUDS features embedded into landscape and incorporated as part of hydrological management scheme to reduce water exploitation

Water Treatment & Capture
Stand-alone treatment and recovery centre to process and recycle water, catch escaping nutrients and pollution and include heat recovery and energy capture

Open Agritech
Managed, productive "community gardens" landscape available to site occupiers to provide supplementary indigenous plant material on-site. Could be glasshouses, tunnels or open arable space

EV Truck Charge
Dedicated charging facility for EV trucks - including for tractor units only (serving vehicles serving the Agritech Park while they are between trips) and facilities for all types and configuration of lorries from the adjacent A1

EV Hub
Light EV vehicle rapid charging hub for local traffic and to serve the A1

Energy Centre
Coordination point for all on-site generation activities, based around a bespoke strategy for:
- ground source heat pumps under the buildings, and across the site
- Anaerobic Digestion - picking up on possible plant waste streams from production buildings on site and nearby
- thermal-to-electricity technologies - perhaps using "changing material state" storage
- battery and power storage technologies
- wind turbines - both large rotors and smaller, column turbines
- energy recovery from waste water
- SMR solutions

Agritech Academy
Formal FE facility on site - University or Agricultural College, with adjacent experimental farming strips

Agritech Academy Glasshouses
Facilities linked to Agritech Academy on site, and available for the on-site community

Local Supplier Campus
Coordinated space for suppliers to the main Agritech buildings on the park - systems maintenance engineers, materials suppliers and equipment servicing of all types

Agritech Innovation & Start-up Centre
Co-located incubator and small scale production units to allow development of new companies. Located on main entrance to Agritech Pak to highlight innovation, R&D and "future growth" commitment

R&D Campus
Hi-tech based campus of flexible spaces available for food, pharma and plant based technology business to grow and develop

Roadside Services
Local produce based roadside services - cafe, farm shop, local crafts, etc.

Bedale Coach Park
Parking for tourist coaches visiting Bedale and the surrounding areas - drop off in the town, and then park here

Roman Villa Interpretation Centre
A dedicated building providing exhibition and interpretation materials, models and information to aid understanding, and with its own facilities and car park area

Roman Villa SAM
Semi-formal open park designed to permit appreciation and understanding of the Roman Villa SAM underneath, and including a "Villa Trail" with interpretation boards and activities

Country Park
Publicly available open space, with walking trails and open access from the nearby car park. This space could also provide "SANG" space for residential developments in the District

REVISION NOTES		
Rev	Date	Description

The Barn
Hopwell Hall
Ockbrook
Derbyshire
DE72 3RW



PROJECT NAME
Aiskew Agritech Park

TYPOLOGY

PROJECT ADDRESS

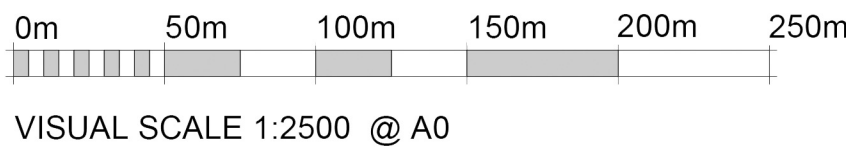
CLIENT / USER NAME

DRAWING NAME
CONCEPT MASTERPLAN

FULL DOCUMENT REFERENCE			
Document Number	Date	Drawn By	Sheet Name / Date
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CALL FOR SITES

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Appendix 3



Topic	Risk	Appraisal
Topology:		OS 1:25,000 scale map shows the site to the north-east of Bedale. The site is at circa 50m AOD and on relatively flat, gently undulating land, falling generally from north-east to south-west. Currently, there are TWO accesses to the site from the A6055 in the south-east corner of the site, but frontage is available along the A6055 to the east and new A684 from the south. The OS mapping doesn't show any PROW across the site, or in the proximity of it. Overhead photography shows that the site is generally devoid of any development, although there is a single barn / agricultural building in the south-east corner of the site. The site is used as agricultural land and is predominantly a small number of very large fields, with some hedgerows around the edges and across the site in places.
Planning:		Current Land Use: Agricultural – the landowner has confirmed that it is good, but not outstanding, although this needs to be properly assessed across the site. Local Plan status: Recently adopted, but the formation of the unitary authority in the area means that a Review is underway, at least in terms of strategic opportunities. Hambleton Local Plan policy EG1 allocates land at Leeming Bar / Aiskew Moor – so the Aiskew site could be considered as a logical extension of development land that has been opened up by the relief road. Under “Economy” (p.22) the LP states the Council will make the most of the A1(M) as a transport asset, and that there are a shortage of sites for business expansion. There is also “Northern Powerhouse” potential for commercial development – further work needed. The LP Vision states that economic growth will be focused on strategic locations along the A1(M) corridor – presumably the new Bedale link road is a strategic location. (There is employment growth at Leeming Bar). Para 3.31 identifies food manufacturing as a key target for Leeming Bar space. Policy S5 tackles protection of the countryside. This relates to land outside of urban areas – and so would bite on the site at present, as an unallocated site. This policy will need to be balanced against the economic growth aspirations as part of the Local Plan process. Para 4.10 specifically identifies the opportunity for the release of land for development – it is unclear if that is along the road or related to the strategic allocations already identified in the plan. Para 4.12 references a masterplan for the land to the south of the link road at Leeming Bar – and the need for visual protection for that site. LP has 77.8 ha of employment land to 2036, but these are not specifically targeted towards Agritech or plant-based / agriculture related opportunities. The proposal will make a positive response to the need for employment and economic growth opportunities. Jobs growth – especially for young people, who are leaving the area, is likely to be a key benefit. The suitability of the site in terms of its accessibility and location is considered to be overall positive, as it can be managed through careful design, and would be, in any event, agricultural development in the countryside, albeit it is a development of reasonable scale.

Topic	Risk	Appraisal
Transport:		Site has very good highway accessibility – it would be easy to provide multiple highway access onto two high quality corridors, with lots of available frontage. The Masterplan suggests that a single new roundabout on the relief road would be sufficient to serve the majority of the development, with a more local connection from the A6055 into the vehicle refueling / charging location. Active modes and PT connections are less good – but connections to local railway stations are possible for employees and visitors, and there is opportunity to enhance walking and cycling connections. There would be scope to run local bus services to and from the site. Strategic Road network is adjacent – and J51 is not considered to be especially busy, so scope to develop with little risk of extensive third-party land required for mitigation. From a beneficial perspective, the site is located close to 12% of UK population – 10.8m people. This would result in reduced transport costs and impacts by serving the regional marketplace (like farms and agriculture did for hundreds of years). National Distribution is also possible as the site is close to centres of food distribution. (e.g. Fowler Welch – within 50 miles, Reed Boardall – big fridge distribution – 21 miles away) The site is near enough to a series of supermarket RDC's and other distribution centres to achieve effective regional distribution potentially using EV trucks. Transport connections are key to the land use mix on the site – potential for distribution / commercial uses and associated employment close to the A1(M) will provide limited wider impacts to the area. The site will make provision for EV charging infrastructure and for hydrogen and alternative fuels as they become more mainstream. Overall, as the relief road has available capacity, and the A1(M) Junction 51 is also relatively unstressed, the scheme would make use of otherwise relatively underused public assets.
Hydrology:		EA Flood Map status: The site is almost entirely within Flood Zone 1 (no risk of flooding). There are some localized areas that fall within Zone 2 and 3 along the Scurf Beck on western boundary, although this would not impact on the planned development area at all. The adjacent Wassick Beck meets Scurf Beck at the southern side of the site and has a larger flood zone associated with it. Surface Water Flood Risk: The site is well served by close proximity watercourses and ditches, and the landowner had suggested that there are not surface water flooding issues on the site, but further work is needed to assess this specifically. In any event, the site will feature a comprehensive SUDS and water treatment provision within the site boundary. The adjacent site has a small pond shown on mapping, and it is unclear how this is served by a watercourse. This needs to be confirmed but is not considered to represent a significant flooding risk. Overall, flooding and water management is not thought to be a risk for the site, and the overall topography has the site as high ground in the main. Surface water management will be positively managed, with SUDS and suitably biodiversity sensitive and supporting solutions.

Topic	Risk	Appraisal
Ecology:		The open agricultural and hedgerows suggest a risk of established ecology at least along the hedgerows. The open farmland itself has been relatively intensively farmed, and so is not considered likely to be especially ecological valuable or diverse. DeFRA maps show Network Enhancement Zones and some ancient woodland to the south of the site, but no designation within it. Priority areas for Farmland Birds with protection – i.e. Corn Bunting, Curlew, Lapwing, Redshank. The site has no abnormal risks identified on the basis of the initial desktop appraisal, although more detailed and site-specific work is recognised to be required. However, the masterplan includes large areas of undeveloped land, and so the potential to achieve a high degree of biodiversity net gain has been planned into the scheme from the outset.
Landscape & Visual:		DeFRA's Higher Level Stewardship Themes apply to the area, and there is an area where a Stewardship Scheme applies to the south of the railway line (but not within the site). The site itself is generally flat with local views from the surrounding highways being relatively limited. However, the location on higher ground, along the ridge that the adjacent motorway runs along, does mean that there is visibility from further afield – especially towards the site from the west. These would need to be dealt with at the planning stage, and in particular with careful and sympathetic design and planting. The Agritech park can be considered as the “next generation” of farm and agricultural buildings – which have typically been allowed under permitted development and have been an accepted part of the rural landscape. Whilst it would not be appropriate to suggest that the Agritech park could be achieved under PD rights, nevertheless, it will be a key part of the rural and agricultural economy. Therefore, it may be appropriate to celebrate the facility, with good design responses, rather than seeking to hide it. This will need to be discussed and agreed with the planning authority.

Topic	Risk	Appraisal
Ground Conditions:		OS 1:25,000 shows historic quarry working potentially on the site. DeFRA maps show Medium Vulnerability to ground water vulnerability. Local Plan policy to quite strongly resist the loss of best and most versatile agricultural land.
Air Quality:		No local AQMA's that affect the site. However, Hambleton DC declared an AQMA (Nov 2017) at the junction of Bridge Street and Market Place in Bedale (at the southern end of the village). It is possible that the recent A684 relief road will have alleviated this.
Noise & Vibration:		No sensitive receptors near to the site, and proposed uses are likely to be either insensitive to noise (commercial) or can be suitably screened (residential).
Heritage:		The southern section of the site is partially taken up by the Bedale Enclosure and Aiskew Villa. This historic Roman site was discovered and comprehensively investigated as part of the construction of the Relief Road in 2015, and, as a result this asset is well documented. Archaeologists suspected when the road was planned that a pre-Roman site lay on or close to the route, but the Roman villa was unknown. Both artefacts were located alongside a trackway running along the ridge. The site included Iron Age enclosure formed from a ditch, with the later infill material including Roman finds from the second century. The Aiskew Roman villa was only partially examined; geophysics demonstrated that the complex covered a much larger area and included many other structures. However, it is understood that these were contained within a perimeter ditch, the boundary of the villa complex itself, and field systems. There are no Listed Buildings on the site. The nearest Listed Buildings are Leases Hall, on the other side of the A1(M) corridor, and most of the buildings along the High Street in Bedale, along with some other properties on the edges of the town, south of the site. There will need to be a check on the visual effects of any development on these assets, but this is not thought to be a high risk.
Utilities:		Low Voltage electricity cables running north-south across the site need to be under-grounded at a cost. Energy supply will be important for the site, and a comprehensive energy delivery strategy is being developed, using a panoply of on-site technologies complemented by grid connection. The scheme is planned to have a range of sources – every viable available source will be employed as part of a coordinated system, with storage on site. At present, the following on-site sources are being considered:

Topic	Risk	Appraisal
		- Rooftop solar - Battery storage - Smart Grid across site to maximise efficiency of usage - Anaerobic Digestion on site – uses waste material generated, from on-site AND from surrounding agri landscape - Small-scale Wind Turbines – Aerodrome Safeguarded Area may limit opportunities – but to be explored - Heat Sources – GSHP likely to be most suitable based on preliminary examinations to date. ASHP is a possible fallback but is less efficient. - Biogas / Biomethane may be suitable, if linked to AD as a source. - Wild Cards – Hydrogen boilers – as BP has plans for IGW Blue hydrogen plant at Teeside.
Socio-economic:		Employment opportunities, provision of facilities for EV charging and carbon offsetting. Options for residential development - affordable housing?