
Design and Access Statement

Erection of a free range egg
production unit including silos
and all associated works

Prepared for M A Webber

Castle Farm, Bishton, Newport,
NP18 2DZ



land & property
professionals

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Contents

1.0	INTRODUCTION.....	1
2.0	BACKGROUND INFORMATION.....	1
3.0	PROPOSAL.....	1
4.0	ASSESSMENT OF THE SITE AND ITS CONTEXT	3
5.0	OPPORTUNITIES AND ISSUES.....	8
6.0	POLICY CONTEXT.....	8
7.0	ACCESS STATEMENT	9
8.0	COMMUNITY SAFETY.....	10
9.0	ENVIRONMENTAL DESIGN STATEMENT	10
10.0	PHYSICAL CONTEXT OF THE DEVELOPMENT	11
11.0	SOCIAL CONTEXT OF THE DEVELOPMENT.....	11
12.0	ECONOMIC CONTEXT OF THE DEVELOPMENT.....	12
13.0	CONCLUSION.....	12

1.0 Introduction

This report has been commissioned by M A Webber of Castle Farm, Bishton, Newport, NP18 2DZ.

This Statement has been prepared to illustrate the process that has led to the development proposal and to explain and justify the proposal in a structured way.

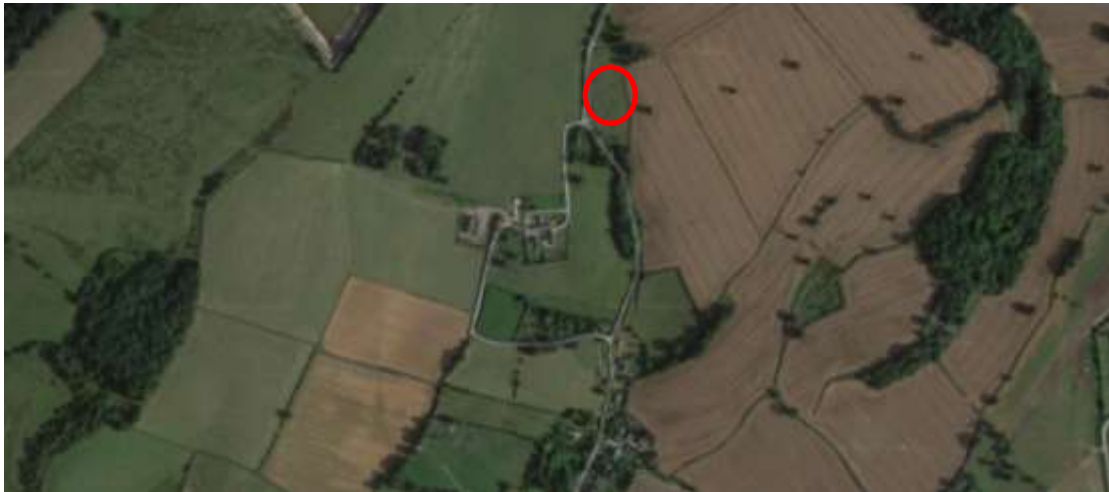
2.0 Background Information

M A Webber currently run successful arable, beef and sheep enterprises at Castle Farm, Bishton and the business farms a total of 200 acres (80.93 hectares) of owner occupied and rented land. The location of the proposed free range egg unit has been identified in Appendix 1.

The site for the proposed free range egg unit is currently intensive pasture land.

The farm business is proposing to diversify into free range egg production to help secure the future of the farm for the next generations. The enterprise has been researched fully and they are confident that the business can be a success and supplement the current marginal farm profits.

The location of the proposed unit (circled red below):



3.0 Proposal

The proposal is for a new free range poultry building to provide a 32,000 free range bird egg laying production unit. The new building would be located to the North of the existing agricultural buildings at Castle Farm on land currently used as agricultural land. An existing building at Castle Farm can not be re-used for the proposed development due to animal welfare, the building needs to be to a set standard. The building will be approximately 149.35m x 20.1m, which will house 32,000 birds,

together with a service area, office and egg store. The eggs would be conveyed into the control room area where they would be packed and stored.

The birds will have direct access from the building to dedicated pasture which will be electric fenced to keep out predators. The birds are brought in as young laying stock and remain in the egg production unit for some 14 months. After this time the flock is removed and the whole building fully cleaned down internally and the new flock introduced to restart the egg production cycle.

The birds have a laying cycle of 56-58 weeks. The birds are farmed to a free range system. The system utilises a series of perches and feeders at different levels. The maximum stocking density is 9 birds per square metre and there must be a least 250cm squared of litter area/bird. Perches for the birds must be installed to allow 15cm of perch per hen. There must be at least 10cm of feeder/bird and at least one drinker/10 birds.

There must be one nest for every 7 birds or 1 square metre of nest space for every 120 birds. Water and feeding troughs are raised so that the food is not scattered. The birds must have continuous daytime access to open runs which are mainly covered with vegetation and with a maximum stocking density of 2,000 birds per hectare over the life of the flock. Within the system the birds must be inspected at least once a day. At the end of each laying period the respective houses are completely cleared and disinfected.

In free range laying systems, good pasture management is essential if the ground is to remain in good condition and the problems of poaching and the build-up of parasitic intestinal worms and coccidian oocysts are to be avoided. The land surrounding the laying house will be divided into a series of paddocks which the birds are allowed to use for periods of up to 6 - 8 weeks each.

The length of time that the birds are allowed to use individual paddocks will vary depending on soil type, drainage, grass cover and weather conditions. The area immediately outside the poultry house tends to suffer the greatest amount of damage, so we propose that the ground adjacent to the pop holes should be covered with stones/pebbles. As well as providing health and welfare benefits, the birds' feet will be cleaned as they enter the building providing cleaner eggs. Free range layers are attractive to predators.

Foxes are the most frequent cause of problems and can cause damage and often kill or maim large numbers of birds – far more than they are able to consume. We propose to use a 1.2 m semi permanent electric fence with netting.

The building proposed operates a multi tier system which allows a smaller shed as opposed to a flat deck system, by having two tier perching decks for the laying hens within the building. These perching areas are floored with plastic slats which allow manure to drop through the flooring system. The manure from each of the tiers then falls onto an internal conveyor belt.

The conveyor belt system is operated every 5-7 days and removes approximately 500 tonnes (over the 14 month period) from the internal conveyor belt systems via an external conveyor belt into a parked trailer outside the building. After 14 months the flock is removed and the whole building fully cleaned down internally and a new flock introduced to restart the egg production cycle.

Feed for the birds is stored in two external juniper green coloured, or a similar dark colour to be agreed with the local planning authority, steel hoppers and conveyed automatically to the building.

Adjoining the building will be a hard stoned roadway with a hard stoned apron for access for delivery and removal of the birds and for cleaning out the manure.

The building has a proposed roof pitch of 12.5° and an eaves height of 3.00m. The building is of a low profile which helps to minimise its visual impact. The proposed building would utilise 8 ridge mounted high velocity mechanical fans which thermostatically control the building. The building roof and sides will be clad with steel box profile sheeting coloured juniper green (or a colour to be approved by the LPA) set about a low concrete base wall. The side elevations of the building will have sheeted steel profile sides with concrete walls with pop holes for the birds to egress from the building. The gable ends will have two sheeted steel doors for vehicle access and will also have two passenger doors.



4.0 Assessment of the Site and its Context

4.1 Physical Situation – The Context

The area is predominately rural with agriculture being the primary industry. The site is situated within the main farmstead at Castle Farm. Please see appendix 1 for location plan.

4.2 Physical Situation – The Site

The location of the building has been carefully considered, with the land at Castle Farm chosen to be the best suitable site due to the following factors:

-  Good highway access
-  Flat land that is well screened not requiring much excavation work during construction

Due to the nature of the existing agricultural buildings within close proximity to the site, long and short distance views towards the building will not be adversely affected by the proposed development.

There are no public footpaths affecting the proposed site.

The feed hoppers would be located adjacent to the building (please see the location plans).

The building will be approximately 149.35m x 20.1m wide, which will house 32,000 birds, together with a service area, office and egg store. The building has a proposed roof pitch of 12.5° and an eaves height of 3.00m.

4.3 Access and Vehicle Movements

The proposed free-range egg production unit will once in use need bulk food delivered to the farm by six or eight wheeler HGVs, the usual sized vehicle for agricultural use in this rural area. The feed will be delivered 3 times a month and stored in the silos on site. The farm business has a provisional contract with a company to supply the free-range eggs, which will collect the eggs in a 7.5 tonne lorry three times a week.

The main labour force to be used in conjunction with the proposed development will be the existing farm workers who already work at Castle Farm and therefore traffic movements to and from the holding will remain the same.

The proposed egg enterprise would be accessed off the unclassified road directly to the site.

4.4 Drainage

Clean surface water from the roof of the building will be collected in an underground storage tank and used for washing down purposes. Surplus clean water from the roof will be run by pipe, to existing ditches.

Construction of the floor will incorporate a damp proof membrane preventing any dirty water percolating into the ground below the building. A slump in the floor will drain to a further below ground sealed tank, which will allow collection of any dirty water primarily arising from the washing down process at the end of the production cycle. This dirty water will then be spread by vacuum tanker over the farms 200 acres (or thereabouts) of grassland and arable land as per the farm manure management plan.

We propose that the majority of the surface water is to be stored within a 2000 gallon underground holding tank, the water from which will be used for washing down purposes on a regular basis with surplus clean water being discharged direct through existing drainage systems and into an existing field gutter, the aim is that the continuation flow will be controlled not to exceed the existing Greenfield run off rate.

4.5 Manure Storage and Disposal

The unit will produce an estimated 500 tonnes of poultry manure each 14 month cycle. The manure will be removed via conveyors every 5 -7 days set below the nesting and perching areas. Due to the manure being moved every 5 - 7 days there will be minimal manure stored within the building which will result in reduced pest activity especially

flies. Manure produced will be a relatively dry product of a friable nature which can be readily dumped for storage, however all of the muck will be taken off the farm and utilised on family owned farmland. Dependant on the time of year the manure is removed from the building; it would be spread directly on the arable ground in accordance with good agricultural practice for soil and water and in accordance with the control of pollution, slurry and agricultural fuel regulations in line with the farm's manure management plan.

The manure management plan identifies the land which the manure will be spread, this is grassland and arable land and manure spread at correct rates will be a useful asset for the business. The disposal areas mostly lie well away from other residential properties. Other local close family farmers have also indicated that they would be interested in taking some of the manure.

Please see manure management plan for detailed information.

4.6 Cleaning Out

The building proposed operates a multi tier system having two tiers perching decks for the laying hens within the building, These perching areas are floored with plastic slats which allow manure to drop through the flooring system. The manure from each of the tiers then falls onto an internal conveyor belt. The conveyor belt system is operated every 5 – 7 days from the internal conveyor belt systems via an external conveyor belt into a parked trailer outside the building. The manure will be removed from the site using a sheeted tractor and trailer.

4.7 Emissions

The building design incorporates the use of mechanical ventilator extractor fans, 8 mechanical extractor fans will thermostatically control the building. Therefore they tend to operate more frequently during hot weather. Efficient design of ventilation fans has minimised the number needed for this building. Fans will be maintained and inspected in accordance with the manufacturers or suppliers instructions, this will minimise mechanical noise from the unit and also dust escape. Automated feeding by internal conveyor with augers direct from the sealed external feed hoppers will minimise dust creation. The insulated construction of the walls and roof also reduce sound transmission.

Please see the ammonia screening document for detailed analysis of the Ammonia and Nitrogen Deposition from the proposal.

4.8 Noise/Odour Management

The proposed building would utilise 8 ridge mounted high velocity mechanical fans which will be used during periods of hot weather only. The proposed poultry unit will use natural ventilation from the pop holes of the poultry unit for the majority of the year. It is paramount that mechanical fans are provided within the building as they

are used to control the temperature, it is vitally important to bird welfare during periods of hot weather. The table below details the environmental sound levels dB (A) for HER710/6/1 following numerous manufacturing trials:

Distance from Fan to Receptor - metres	Number of Fans				
	1	3	10	16	20
3	61	66	70	72	74
6	57	61	65	68	70
10	51	55	59	52	64
20	45	49	53	56	58
100	31	35	39	40	43
200	21	27	31	33	35
400	18	23	27	29	31

The above data has been compiled in line with BS848 Part Two (1985) and using the Technical Specification of the Mechanical Fan which confirms the fan selected will operate at a level of 61 dB (A) at 3 metres. When all 8 fans are in operation, the cumulative sound level should be in the range of 23 and 27 dB (A) at 400 metres from the unit.

The nearest receptor to the proposed unit after Castle Farm is The Old Granar at approximately 180 metres from the poultry unit. At this distance, the noise impact on the sensitive receptor based on 8 fans would be between 27 and 39 dB (A).

In considering an operational farm unit, it is recognised that a working farm unit would have a background noise level of 42 dB (A), the development proposed therefore is not excessive and would not result in complaints or disturbance to sensitive receptors.

Mitigation:

The applicant is proposing the following mitigation as part of the proposal:

- 1) Movement of feed, birds and eggs to the site will be done so with full care and attention to all neighbours. All movements shall be restricted to daytime hours to respect neighbours thus meaning that movements shall only occur between 07:00 and 18:00.
- 2) Feed when transmitted to the feed bins is a normal occurrence on farm, however the applicant shall ensure that delivery is between 07:00 and 18:00.
- 3) All fans will be maintained by local electricians to ensure they are working properly and reducing any unplanned excessive noise.
- 4) All electrics within the poultry unit will be maintained so that they are fully operational and at no risk of failure within the unit – this is vital for Animal Welfare reasons and by law.
- 5) The birds within the unit are all female and therefore very quiet resulting in no noise impact upon local neighbours especially during the egg production period. Whilst the birds are placed in the unit and taken, we will ensure the operation is smoothly undertaken to prevent stress to the birds and no noise to the neighbours.

The fans shall be in a treated chamber which will have an insulated roof and walls which will exhaust into an insulated baffle area thus limiting the noise emanating from the poultry unit proposed. The cumulative impact of the poultry unit at Castle Farm will not exceed World Health Organisation Guidelines.

The design of the unit incorporates a slatted floor and conveyor belt mechanism for waste removal. The waste is removed every 5 - 7 days, so there will be minimal manure stored within the building which will result in reduced pest activity especially flies. Manure produced will be a relatively dry product of a friable nature which can be readily dumped for storage either on external ground or within covered storage. The potential build up of manure is mitigated by the free range hen's freedom to access the adjoining fields. The surrounding paddocks are rotated and only occupied by birds for a short period of time.

4.9 Quality Standards





The eggs are produced and the chickens are managed to comply with the stringent conditions that are imposed by the RSPCA Freedom Food specification, which sets out the standards of welfare at all stages of the chickens life.

The unit will produce in line with Defra 'Code of Good Agricultural Practice' for the protection of water Appendix V approximately 500 tonnes of bedding/manure per batch (each 14 months). This can then be spread onto the farm land both grassland and arable land in accordance with the Control of Pollution of Slurry and Agricultural Fuel Regulations and the farms manure management plan. If the time of year is not appropriate for the spreading of the manure, an agreement has been reached with local family member farmers to take the manure and they have the hard standing areas and existing buildings to store the manure until required.

Again guidance is found within Defra 'Code of Good Agricultural Practice' for the prevention of water Appendix III, which provides information on the land area required for spreading manure, which is 2.6 ha per 1000 laying hens. The majority of the manure will be spread on the remaining land on the farm especially the arable fields, agreements are in place for a local farmer to take the remainder of the manure.

4.11 Dead Bird and Pest Control

There are several reasons why the careful disposal of dead birds is an important part of the health management of systems :

-  Reduces the risk of disease spread back to the flock and other species.
-  Reduces the likelihood of carcasses being removed by scavengers, which can transmit disease.
-  Reduces the risk of blow flies (*Caliphora sp.*), which can also transmit disease.
-  NFS company registered firm Pointins are utilised

The dead birds will be collected by an approved contractor of the National Fallen Stock Disposal Scheme prior to this they will be stored in a secure container in line with the

animal by-products Regulations 2003. Pest control for rats will be carried out by an approved agency. Preventative measures will be used to control flies to include fly screens and flies controls replaced periodically to prevent the flies entering the building from the outside.

5.0 Opportunities and Issues

The Government policies and statistics below show support and enhance the businesses determination to invest and succeed.

A) Welfare of Animals

The Welfare of Farmed Animals Regulations 2000 (S.I. 2000 No. 1870) Schedule 1 Paragraph 9 states that:

- The freedom of movement of animals, having regard to their species and in accordance with established experience and scientific knowledge, shall not be restricted in such a way as to cause them unnecessary suffering or injury.

Schedule 3A, paragraphs 3 (c), (d) and (e), 4 and 5 (a), provisions applicable to laying hens kept in non-cage systems, of the Welfare of Farmed Animals (England) (Amendment) Regulations 2002 (S.I. 2002 No. 1646) state that:

- All systems must be equipped in such a way that all laying hens have: at least one nest for every seven hens. If group nests are used, there must be at least 1m² of nest space for a maximum of 120 hens; perches, without sharp edges and providing at least 15cm per hen. Perches must not be mounted above the litter and the horizontal distance between perches must be at least 30cm and the horizontal distance between the perch and the wall must be at least 20cm; and at least 250cm² of littered area per hen, the litter occupying at least one third of the ground surface. The floors of installations must be constructed so as to support each of the forward facing claws of each bird's foot.

6.0 Policy Context

Newport City Council Local Development Plan

SP1 Sustainability

PROPOSALS WILL BE REQUIRED TO MAKE A POSITIVE CONTRIBUTION TO SUSTAINABLE DEVELOPMENT BY CONCENTRATING DEVELOPMENT IN SUSTAINABLE LOCATIONS ON BROWNFIELD LAND WITHIN THE SETTLEMENT BOUNDARY. THEY WILL BE ASSESSED AS TO THEIR POTENTIAL CONTRIBUTION TO:

- i) THE EFFICIENT USE OF LAND;
- ii) THE REUSE OF PREVIOUSLY DEVELOPED LAND AND EMPTY PROPERTIES IN PREFERENCE TO GREENFIELD SITES;
- iii) PROVIDING INTEGRATED TRANSPORTATION SYSTEMS, AS WELL AS ENCOURAGING THE CO-LOCATION OF HOUSING AND OTHER USES, INCLUDING EMPLOYMENT, WHICH TOGETHER WILL MINIMISE THE OVERALL NEED TO TRAVEL, REDUCE CAR USAGE AND ENCOURAGE A MODAL SHIFT TO MORE SUSTAINABLE MODES OF TRANSPORT;

- iv) REDUCING ENERGY CONSUMPTION, INCREASING ENERGY EFFICIENCY AND THE USE OF LOW AND ZERO CARBON ENERGY SOURCES;
- v) THE MINIMISATION, RE-USE AND RECYCLING OF WASTE;
- vi) MINIMISING THE RISK OF AND FROM FLOOD RISK, SEA LEVEL RISE AND THE IMPACT OF CLIMATE CHANGE;
- vii) IMPROVING FACILITIES, SERVICES AND OVERALL SOCIAL AND ENVIRONMENTAL EQUALITY OF EXISTING AND FUTURE COMMUNITIES;
- viii) ENCOURAGING ECONOMIC DIVERSIFICATION AND IN PARTICULAR IMPROVING THE VITALITY AND VIABILITY OF THE CITY CENTRE AND DISTRICT CENTRES;
- ix) CONSERVING, ENHANCING AND LINKING GREEN INFRASTRUCTURE, PROTECTING AND ENHANCING THE BUILT AND NATURAL ENVIRONMENT;
- x) CONSERVING AND ENSURING THE EFFICIENT USE OF RESOURCES SUCH AS WATER AND MINERALS.

SP5 Countryside

DEVELOPMENT IN THE COUNTRYSIDE (THAT IS, THAT AREA OF LAND LYING BEYOND THE SETTLEMENT BOUNDARIES SHOWN ON THE PROPOSAL AND INSET MAPS) WILL ONLY BE PERMITTED WHERE THE USE IS APPROPRIATE IN THE COUNTRYSIDE, RESPECTS THE LANDSCAPE CHARACTER AND BIODIVERSITY OF THE IMMEDIATE AND SURROUNDING AREA AND IS APPROPRIATE IN SCALE AND DESIGN. HOUSING DEVELOPMENT, RURAL DIVERSIFICATION AND RURAL ENTERPRISE USES, BEYOND SETTLEMENT BOUNDARIES, WILL ONLY BE APPROPRIATE WHERE THEY COMPLY WITH NATIONAL PLANNING POLICY.

7.0 Access Statement

Explain the adopted policy or approach to inclusive design and how policies relating to inclusive design in development plans and relevant local design guidance have been taken into account?

Access by Disabled Persons

Applications will be permitted for the development of new buildings, public amenities, recreational spaces and, where practicable and reasonable, the changes of use or alterations to existing buildings, where suitable access is made to and within the building or amenity and adequate facilities are provided for people with disabilities.

The Disability Discrimination Act 1995 (DDA) seeks to avoid discrimination against people with impairments and disabilities and for instance ensures that work premises do not disadvantage someone with a disability.

The access arrangements have adopted an inclusive approach and aims to ensure that all users will have equal and convenient access to the site and buildings.

Explain how any specific issues, which might affect people's access to the development have been addressed?

The design of the application will have full consideration for ease of access for disabled pedestrian use. Our full application submitted incorporates the following points:-

1. All construction work to comply (where relevant) to Part M of the Building Regulations Act 2000, and also subsequent amendments.
2. All doors to be of disabled criteria.
3. All external doors to be 930mm minimum width.

The farmstead is flat and even and unobstructed allowing the building to be accessed by all people including disabled people or people with impairments.

Detail how features, which ensure people's access to the development, will be maintained?

The farmstead and buildings will be maintained in such a way as to allow all people access to the buildings.

All of the measures detailed above will be maintained in such a way that will allow all people access to / from and around the building. Also the facilities within the building will also be constructed and maintained in such a way to ensure people's access within the development.

8.0 Community Safety

Site Security

Site security is critical throughout day and night to prevent the theft of equipment and livestock, which may injure or adversely affect the welfare of animals. This is critical in this case given the secluded location and its proximity to the public highway.

9.0 Environmental Design Statement

A design statement shall accompany all detailed applications and will describe the actions taken to design and adapt the development to fit its location. Wherever practicable, developments shall be designed to reduce energy consumption and maximise energy conservation and maximise energy conservation through the use of appropriate materials, design, layout and orientation.

This planning application has taken into consideration the following energy efficiency measures and technologies that can be incorporated alongside wider energy efficient design principles to ensure high energy performance.

The proposed building has been positioned and orientated (as far as possible) in order to maximise the use of natural daylight and solar energy. This is achieved where possible by orientating the building in such a way to maximise the potential for solar gain by reducing the need for energy consumption.

Wherever possible materials will be sourced and produced locally and will come from a source that can be renewed without harm to the environment. High quality reclaimed materials can save resources and may also provide a better match with the surrounding development.

The above points will ensure that the buildings are 'sustainable' in terms of the buildings design and the supply and use of energy in accordance with the Council's recommendations.

The proposed use is for livestock housing making the development an agricultural development which is already designed to meet significant standards. As a result of the aforementioned this will not be applicable.

Other complimentary measures:-

We have considered that energy efficient design principles are also key to the success of schemes including if electricity is required to be supplied to the building that energy efficient light bulbs are used.

We also aim to:-

- Design out waste from the outset
- Minimise the energy used during the construction phase of the development through careful project planning
- Use reusable and recycled materials

10.0 Physical context of the development

The proposed site for the free range egg production unit is on land adjacent to the existing farm buildings as per planning policy guidance.

The proposed site is surrounded by agricultural land within the control of the Applicant. No properties have views over the proposed development sites.

11.0 Social context of the development

The scale and type of the proposed building will be in keeping with the existing range of farm buildings within the local area.

We believe the most suitable sites have been chosen to reflect both ease of access to the site, landscaping and adherence with the planning policies of the Council, particularly with regard to their position adjacent to existing farm buildings.

12.0 Economic context of the development

The Council wishes to sustain an efficient and viable farming economy and is aware of the need for continuing investment in modern farm buildings. Farm businesses need to change and grow in response to market forces and legislation if they are to survive.

This building design has been researched by the farm business and they are confident that the building will be an asset to the farm business.

13.0 Conclusion

- The proposal is an economic development that is supported by both local and national policy; it amounts to sustainable development that will improve the agricultural business located on site.
- The building is sited within a natural hollow of the landscape and does not affect long distance views from amenity areas therefore minimising the impact of the building on the landscape, in addition to this there is a proposed landscaping planting scheme.
- The building is intelligently and sympathetically designed and strikes a balance between practical and economic efficiency and minimal landscape impact.
- Adequate provision is made for the disposal of foul and surface water drainage and animal wastes without risk to watercourses through a sustainable drainage technique.
- Adequate provision is made for access and movement of machinery to avert the perpetuation, intensification or creation of traffic hazard.
- The proposal is of an appropriate location, scale and type so as not to be detrimental to the amenities of any nearby existing residential properties.
- Please be aware that this is a free range poultry unit and not an intensive livestock unit (battery unit).
- This proposal has significant merit, fits within the policies of the development plan and national planning guidance, and it is respectfully requested that the submitted planning application be approved.