

DESIGN & ACCESS STATEMENT

PROPOSALS FOR

- A NEW SLURRY TOWER
- B CUBICLE BUILDING EXTENSION FOR CATTLE FEED AREA
- C LOOSE YARD EXTENSION FOR YOUNG CATTLE & CALVES

Applicant

Mr L Jones
Messrs JR & SL Jones
Moreton Farm
Gyfelia
Wrexham
LL13 0YH

Location

Highfield Farm
Green Lane
Halton
Wrexham
LL14 5NR

Prepared by

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1. Application

This application is prepared on behalf of Mr Lewis Jones for the construction of

- A. A new slurry tower for storage of slurry from the existing youngstock cubicle building.
- B. A Roof Extension to the cubicle building to provide a partly covered feed area.
- C. An extension to the existing loose yard building which houses younger cattle and calves.

Highfield Farm is a heifer rearing unit for the dairy herd located at Moreton Farm.

A Slurry Store

It is proposed to construct a circular slurry store to take manure from the cattle housed in the cubicle building. The size of the store is based on the capacity of the cubicle building which can house around 76 cattle. The current manure system is based on a ramp with slurry spreaders removing material on a daily basis. This system is outdated and will not meet the requirements under the following regulations -

- The Water Resources (Control of Agricultural Pollution) (Wales) Regulations 2021
- The Code of Good Agricultural Practice (COGAP) or the protection of Water also known as The Water Code.
- The SSAFO Regulations - The Control of Pollution (Silage, Slurry and Agricultural Fuel Oil Regulations)

Reasons for the Store

Current storage capacity is insufficient to meet the required regulations of at least five months storage and preferably six months storage (as advised by NRW.)

The store will -

- Provide the required amount of storage, at least 5 months. (See table 1)
- Reduce the requirement to move slurry along the road to storage further away on a daily basis therefore reducing traffic movements.
- Improve timing of spreading of slurry as and when the crop requires the nutrients.

Store Design and Scale (see accompanying plans with application - plans 1-5)

1. The slurystore is believed to be sited in the most advantageous location.
2. The structure will be above ground.
3. The store will be 4.57m high and 15m in diameter.

4. The store will be dark green.
5. An underground reception pit will be constructed and slurry will be scraped into the pit which will allow for at least 48 hours slurry and rainfall on dirty yard areas. (As required by the SSAFO regulations)

Operation

Slurry will be scraped from the cubicle, loafing area and the feed areas to the reception pit. From the reception pit, slurry will be pumped into the tower.

The tower will be emptied by vacuum tanker and the contents spread on land as per the relevant codes of good agricultural practice.

Siting

The location is on a previously used area for manure storage and is already concreted. The ramp will be removed.

Photo 1 below show the existing site from the north / north west.

Photo 1



Store Capacity Calculation

Table 1 below shows the calculations used to arrive at the store dimensions.

The capacity required is for a minimum of 5 months storage of slurry from cattle - these are from 12–24 months of age and produce on average 1.2m³ of slurry per month or 547m³ over 6 months. With rainfall added a total of 806 m³ is required for 6 months storage.

The proposed store will have a capacity of 832m³

Table 1 Slurry and Dirty Water Production

A. Slurry		Source						Destination
		1 Month	48 Hrs	Months	Months	Months	Months	Slurry
	Nos	Per hd		1	4	5	6	Store
Youngstock (Av 20 L/day)	76	1.20	6.1	91.2	365	456	547	547
B. Rainfall on Fouled Yards			M5	Months	Months	Months	Months	
	Plan	Area	48 Hours	1.0	4.0	5.0	6.0	Destination
Average rainfall (mm's)	Ref	est	65.0	110.0	440.0	550.0	660.0	Slurry
		m2	m3	m3	m3	m3	m3	m3
Feed and open yard area (not tower)		216	14	24	95	119	143	143
Slurry Tower		177	11	19	78	97	117	117
Reception Pit		15	1	2	7	8	10	10
Total Fouled Rainfall		393	26	43	173	216	259	259
Total Slurry & Dirty Water			32	134	538	672	806	806
C. Storage Available/Proposed		Rainfall	D	W	Depth	Capacity	freeboard	Average per month
		m2	m	m	m	m3	add	Slurry
Slurry Tower		177	15.0		4.50	795	300mm	m3
Reception Pit		15	6.0	2.5	2.50	38	to tanks etc	134
Capacity - effective capacity after allowing freeboard - 750mm for lagoons 300mm solids structures & towers								Storage Available
Lagoon capacity is calculated from AHDB 'Slurry Wizard'								Mths
Total Storage Available m3						832		6.19

The calculations show that the storage is needed to achieve 6 months capacity and will meet the relevant regulations for slurry at the farm

B. Extension to Cubicles for Covered Feed Area see plans 4 & 5

The proposal is to extend the cubicle building along the length to provide improved feed fence area required for the cattle

This will be 5m wide x 22.86 (see plans 4 & 5 Floorplan & Elevations)

There will be no side cladding to allow for adequate ventilation and the east side will be a cattle fed fence. An additional strip of concrete will be used to allow for tractor and feeder access.

The roof will be a monopitch design extending from the eaves at 3.65m reducing to 2.438m. The roof will be pro6 fibre cement to match the existing roof.

The feed fence will be extended a further 26m to allow a total of 49.2m of feed face for the animals – this provides 373mm per animal allowing all to feed at the same time.

This is a significant improvement on the current system which allows only 200mm per head.

C Extension to Loose -Yard (See plan 6)

The Loose Yard to the south of the farm building is used for younger cattle and calves. An extension of 9.14m is proposed to allow for improved space for the animals. Currently there are around 50 head with 230m² of feed and bedding space. The extension will allow an additional 126m² - a total of 356m² or 7.1m² per head compared with 4.6m².

This will have significant animal welfare benefits due to extra space and also reduce straw usage at the farm.

Design

This will be as per the existing building

The sides will be clad with concrete panels and timber space boarding (South and East and the north will have an open feed fence.)

2. Access Considerations including movement to, from and within the development.

- The farm will be accessed from the existing road and farm entrance. The proposals will have no effect on access or volumes of traffic.
- As a working farm, access by the general public is not encouraged for both their own personal safety and biosecurity reasons.
- It is not advisable for any non-trained or unqualified person to be accessing the site unless supervised.
- The design of the proposed development will allow access for all regardless of any disability or impairment that they may have. Wheelchair access is available through level thresholds and all doors and gates are in excess of 3m wide. The design is primarily as a working farm and an operational facility for milking cows.
- Crime prevention - single access (for vehicles) will help prevent theft from the property and the site allows for natural surveillance
- Biosecurity – The proposals will maintain the farm biosecurity measures retaining stock in a centralised location within the farm buildings.

3. Public Access & Community Safety

As a working farm, access by the general public is not encouraged for both their own personal safety and biosecurity reasons. It is not advisable for any non-trained or unqualified person to be accessing the site unless supervised. The design of the proposed development will however allow access for all regardless of any disability or impairment that they may have. Wheelchair access is available through level thresholds and all gates are in excess of 3m wide.

4. Social

There is limited impact in a social context.

5. Economic

The development will allow the farm business to progress which creates employment for the principals and their staff.

6. Planning Policy

The proposals are in line with W Technical Advice Note 6 (TAN 6) – Planning for Sustainable Rural Communities (2010) with the proposals being reasonable for the purposes of carrying out agriculture and specifically dairy farming. The proposal meets planning policies relating to agriculture as follows -

- The proposed development would not cause any unacceptable adverse effects on the local landscape.
- The structure is sited and designed to minimize the impact on the landscape and is grouped as close as practically possible to existing buildings.
- The proposed building is designed and constructed of materials to take account of their surroundings. Reflective external surfaces have been avoided wherever possible.
- The proposals have taken account of existing landscape features, such as hedgerows and trees.
- The proposals also help the farm business to develop and provide sustainable employment for the farmer, his family, and employees.

10. Involvement

We are currently not aware of any objections public or private to the development.

11. Landscaping and Tree Planting

No additional landscaping is proposed.

12. Sustainable Construction & Renewable Energy Requirements

No additional power and light will be required.

Materials sustainability

Steel can be used for re-cycling when end of life is reached.

13. Flood Risk

There is minimal flood risk – (see report and map page 9)

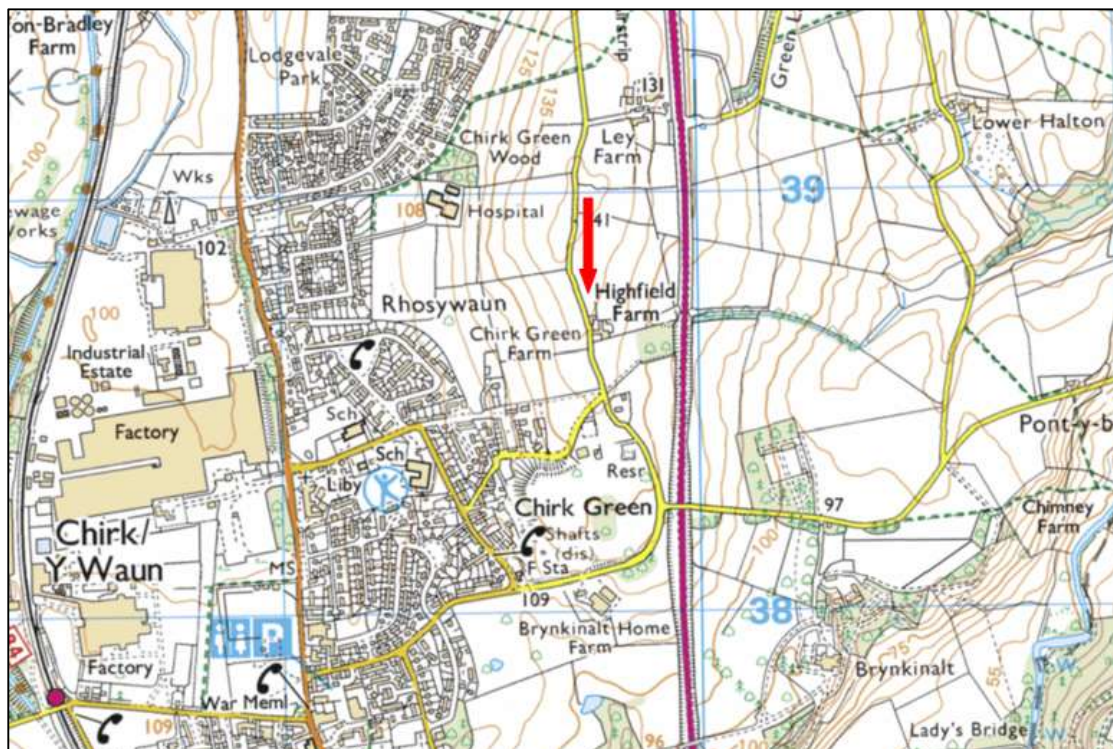
14. Overview

The design objective is to develop slurry storage and improved animal conditions so that there is as little impact as possible. The prime consideration is the safety of the structure, minimizing pollutant risk and meeting current legislation and best practice.

The proposals will help the farm to maintain its productivity and therefore secure jobs.

William Phillips
P&L AgriConsulting Ltd
May 2022

Location



Flood Risk Report

<https://check-your-flood-risk.naturalresources.wales>

12/05/2022 09:52

Flood risk report for the area within 10 metres of:

**HIGHFIELD FARM, GREEN LANE, CHIRK GREEN, CHIRK, WREXHAM,
LL14 5NR**

Very low risk

Flooding from rivers

Risk less than 0.1% chance each year

Very low risk

Flooding from the sea

Risk less than 0.1% chance each year

Low risk

Flooding from surface water and small watercourses

Risk between 0.1% and 1% chance each year

The risk levels are: High, Medium, Low and Very low.

This area:

- Does not benefit from flood defences
- Has no recorded flooding

Flood Risk Map

