



Drainage Statement



Middlewood Farm, Threapwood
(Reference: 2207015)

August 2022

Revision /

1.0 INTRODUCTION

Foreword

This Drainage Statement has been produced in support of a planning application (P/2022/0286) for the proposed conversion of a commercial building to 4no. residential dwellings.

2.0 SITE LOCATION & DESCRIPTION

Existing Site

The development site is located off Sarn Road at Middlewood Farm, Threapwood, Malpas SY14 7AW.

The site is located at OS X (Easting) 343844, Y (Northings) 345522 with the approximate grid reference of SJ4384445522.

An extract of the site location is shown below:-



Existing Structures

The wider Middlewood Farm consists of various buildings forming commercial and equine interests along with SME businesses on land within a 16-acre holding.

English / Welsh Border

The site is situated on the English and Welsh border with an English post code however, a predominant site area is located on the Welsh side.

3.0 DEVELOPMENT PROPOSALS

Planning permission is being sought for the change of use of 1no. commercial building for redevelopment into 4no. residential dwellings with associated car parking and bin store / soft landscaped amenities.

The site will utilise the existing access arrangements from the east off of Sarn Road.

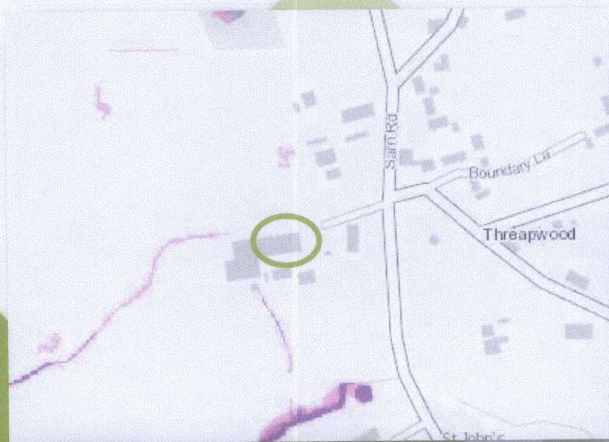
The development is categorised as Brownfield.

3.0 FLOOD RISK

Natural Resource Wales (NRW)

Natural Resource Wales flood mapping indicates that the site is not located within an area at high risk from flooding from fluvial rivers (up to 1in100 year annual probability – Flood Zone 3) nor at risk from an extreme flood event (up to 1in1000 year annual probability – Flood Zone 2).

An extract of the NRW flood mapping is shown below:-



Flood Risk Assessment (FRA)

The development is less than 1.0 hectare in size and located within Flood Zone 1 therefore, an FRA is not required.

Surface Water Flooding

The NRW flood mapping also confirms that the site is not affected by surface water flooding.

Environment Agency (EA)

Due to the border location of the site, the Environment Agency mapping has also been reviewed and reaffirms that the site lies within Flood Zone 1.

4.0 EXISTING DRAINAGE ASSESSMENT

Sewer Records

No public surface water or foul water sewers are recorded in the local vicinity of the development site and has been investigated via discussions with both United Utilities and Dŵr Cymru Welsh Water; it is considered feasible that the local area of Threapwood is served by an abundance of non-mains drainage

discharging to the local river catchment via a plethora of varying tributaries and also, where suitable, via discharges to the ground in the form of soakaways and foul drainage fields.

Private Drainage

The existing commercial building is served by a network of private foul gravity drainage with a Tricel Novo UK18 treatment plant which discharges treated effluent to a watercourse / ditch some 400m to the west.

The existing impermeable areas are served by a network of private surface water drains which follows the local topography in a western direction and discharges to an existing watercourse / ditch.

The Water Industry Regulations 2011

From 1st October 2011, the Water Industry (Schemes for Adoption of Private Sewers) Regulations 2011 transferred the ownership of private sewers to the responsibility of the local drainage authority. These former private sewers may be located within the site boundary and often not illustrated on statutory sewer records. A protective strip / easement is applied to the sewer(s) and is not typically permitted to be built over.

No drainage serving third parties appears to be present within the site boundary and can be further substantiated by the typical distances to surrounding properties.

Special Areas of Conservation (SAC)

The development site falls within the wider catchment area of Wrexham and the River Dee which is currently subject to NRW targets for the reduction of phosphate levels.

Refer to Section 6.0 for further objective information.

5.0 EXISTING GROUND CONDITIONS

Geotechnical Review

An assessment of the ground conditions by the Client confirms that the site is located on clay.

Soakaways / Foul Drainage Fields

Due to the presence of clay within the underlying strata, soakaways and foul drainage fields are not considered suitable due to the suboptimal permeability of clay bearing material and therefore, have been discounted.

6.0 PROPOSED DRAINAGE STRATEGY

Pre-Development Enquiry

Due to the lack of public sewers within the local area, a discharge to a public sewer network has been discounted and a Pre-Development Enquiry is not justified.

Foul Water Drainage

The proposed foul drainage shall continue to utilise the existing foul drainage network and Tricel Novo UK18 treatment plant as it is suitably sized to accommodate the 4no. dwellings.

The River Dee Catchment

Due to the River Dee catchment, additional consideration and information is required to establish any damaging effect on the River Dee SAC either during construction or operation.

Table 1: Development review of effect on the River Dee SAC;

POTENTIAL DAMAGE	GENERAL COMMENT	CONSTRUCTION PHASE	OPERATION PHASE
Releasing sediment to a watercourse (ditch, drain or stream) either during construction or after (operation / occupation).	There are no watercourses or ditches in close proximity to the site. The existing site currently discharges via separate surface water and foul water drainage networks to a watercourse some 400m away.	Suitable methods will be implemented where applicable during the construction phase to prevent any run-off into the existing private drainage networks.	The existing private surface water drainage is to be unchanged.
Releasing reactive nitrogen (Nitrogen oxides, nitrates NO _x , ammonia NH ₃) to water or air (e.g. developments involving combustion such as biomass boilers, livestock buildings/units, slurry lagoons, changes in fertilizer / manure spreading).	The development site does not encompass any combustion, livestock, slurry lagoons or fertilizer / manure spreading.	No applicable contaminants are expected during the construction works.	No applicable contaminants as the proposed development is to convert the existing commercial building to 4no. residential dwellings.
Releasing phosphates to a water course (e.g. by connecting to the public Wastewater Treatment Works (WwTWs), connecting to a private WwTW, discharging to ground with insufficient capacity to protect the water course, changes in fertilizer / manure spreading as a result of development).	The development proposal is for the replacement of the existing commercial building with 4no. residential dwellings therefore, not resulting in additional structures.	The existing on site facilities shall be utilised by the construction operatives.	The development site replaces the existing foul flows generated by the commercial building.
Any developments which may discharge other pollutants to the river catchment (e.g. through disturbance of contaminated land or spillage of chemicals without secure containment measures).	No other pollutants are envisaged.	Suitable methods will be implemented where applicable during the construction phase to prevent any run-off into the existing ground.	The existing private surface water drainage is to be unchanged.

The assessment within Table 1 along with an engineering review of the site and proposal identifies that the development does not increase the concentration of waste water due to the presence of the existing foul treatment plant and that it would not result in direct or indirect damage to the integrity of the SAC.

Surface Water Drainage

The development proposals do not include alterations to impermeable areas therefore, no surface water drainage alterations are proposed.

Risk of Flooding from Sewers

There is no increase in flow rates envisaged due to the impermeable area not being altered.

7.0 OWNERSHIP AND MAINTENANCE

The finished development shall continue to manage and maintain shared areas along with the on-site private drainage infrastructure.

A Drainage Operation and Maintenance Plan could be put in place to establish the regular maintenance of the drainage systems to ensure it functions effectively. The Drainage Operation and Maintenance Plan would also put in place measures for actions after significant storm events.

8.0 POTABLE WATER

It is envisaged that the 4no. residential dwellings shall incorporate design measures to minimise water consumption typically through efficient showerheads and taps along with dual flush toilets.

A water usage of 110 litres per person per day or less is considered feasible and could be established via the undertaking of a Water Efficiency Calculator in accordance with Building Regulations Part G.

9.0 CONCLUSION

The proposed redevelopment of this Brownfield site does not increase the concentration of waste water due to the presence of the existing foul treatment plant which is approved to EN 12566-3.

The redevelopment will not result in direct or indirect damage to the integrity of the SAC.

The construction phase of the development shall put in place appropriate measures to prevent water pollution during construction.

Flying Changes Equine Ltd

Registered Office: 183 Allport Road, Wirral CH62 6AD

29/7/2022

I am the director of Flying Changes Equine Ltd.

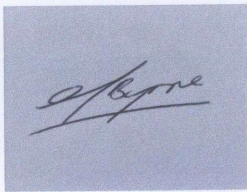
In 2019 I became aware via word of mouth that the stables at Middlewood farm in Threapwood were available to rent from February 2020. At the time, I was looking for premises for my own horses and those of a private client.

The business has exclusively rented the 15 stables, paddocks and facilities for use by myself and my livery clients, since 01 March 2020.

The stables, tack room and feed store are all self-contained within the one farm shed. Further storage space may be available within the brick barn however it would be of very limited use due to it being separate from the stables (hence would require lifting and carrying between the two).

Any usable space within the brick barn itself is very limited by virtue of the small rooms available and the small doorways to access them. The doorways would not permit access by a tractor, nor could I fit large bale hay, straw or haylage through the doorways. In addition, it would be financially unviable for the business to take on any further space as it would increase our business rates beyond a limit that is sustainable for such a small rural business.

In my opinion the brick barn isn't suitable for equestrian use and I wouldn't be happy to share any facilities with other equestrian businesses.

A square box containing a handwritten signature in dark ink. The signature appears to be 'M Byrne' written in a cursive, flowing style.

Signed: Melanie Byrne
(Director)

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Post Britannia
Royal Mail®

Post Cyfrif PF
Account Postage GB
AC04560820005

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Returned by Royal
mail

planning

THE OWNER/OCCUPIER
THE STABLES
REGENT STREET
WREXHAM
LL11 1RR



FyWrecsam
FyNghyfrif
Ddim cost. Ar lin ar ynnw.

MyWrexham
MyAccount
Save time. Do it online.

